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NTC ORLANDO
5090.3a

TREATMENT EFFICIENCY MONITORING FOR STUDY AREA 36 ROUND 3 WITH TRANSMITTAL LETTER NTC ORLANDO FL

1/31/2002

CH2M HILL

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January 31, 2002

Ms. Barbara Nwokike
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Subject: Contract No. N62467-98-D-0995
Contract Task Order No. 0017
Naval Training Center (NTC) Orlando – Orlando, Florida
Treatment Efficiency Report for the Round 3 Groundwater Sampling Event at Study Area 36

Dear Ms. Nwokike:

Enclosed please find 2 copies of the Treatment Efficiency Report for the Round 3 Groundwater Sampling Event at Study Area 36, at NTC Orlando. The report describes the results of the third round of treatment efficiency sampling completed at the site in October 2001. Copies are also being distributed to members of the Orlando Partnering Team.

If you have any questions regarding this document, please call.

Sincerely,

CH2M HILL CONSTRUCTORS, Inc.

Steven N. Tsangaris, P.E.
Project Manager

cc: Gregory Fraley, USEPA Region IV Atlanta (2 copies)
David Grabka, FDEP (2 copies)
Steve McCoy, Tetra Tech NUS
Craig Haas, CH2M HILL (3 copies)
Jennifer Ottoson, CH2M HILL
Mark Salvetti, Harding ESE

Round 3 Groundwater Sampling Event
Treatment Efficiency Report
Study Area 36, Main Base

Naval Training Center Orlando
Orlando, Florida

Contract No. N62467-98-D-0995
Contract Task Order No. 0017

Submitted to:

U.S. Naval Facilities
Engineering Command
Southern Division

Prepared by:

115 Perimeter Center Place, N.E.
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January 2002

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Acronyms

ABB ES	ABB Environmental Services
bls	below land surface
CCI	CH2M HILL Constructors, Inc.
CompQAP	Comprehensive Quality Assurance Plan
CTO	Contract Task Order
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
ESSR	Environmental Site Screening Report
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organic
GCTL	groundwater cleanup target level
HLA	Harding Lawson Associates
IRA	interim remedial action
µg/L	micrograms per liter
mg/L	milligrams per liter
MEE	methane, ethane, and ethene
mV	millivolts
nm/L	nanomoles per liter
NTC	Naval Training Center
OPT	Orlando Partnering Team
ORP	oxidation-reduction potential
PCE	tetrachloroethene
POP	Project Operations Plan
SA	Study Area
SI	Site Investigation
TOC	total organic compound
TPH	total petroleum hydrocarbon
TtNUS	Tetra Tech NUS
VOC	volatile organic compound

1.0 Introduction

This report presents the results of the third round groundwater sampling performed by CH2M HILL Constructors, Inc. (CCI) at Study Area 36 (SA-36) at Naval Training Center (NTC) Orlando, Orlando, Florida, completed in October 2001. The October 2001 sampling represents the third round (Round 3) of groundwater data collected 10 months after vegetable oil injection.

This work was performed under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0017. Field activities were performed in accordance with the *Work Plan Addendum 1-C, Study Areas 17, 36, and 36* (CCI, August 2000), the *Work Plan for Enhanced In-Situ Bioremediation of Chlorinated Solvents Via Vegetable Oil Injection at SA-36,* (CCI, November 2000), the *Basewide Work Plan* (CCI, 1999), and the *Project Operations Plan (POP) for Site Investigations and Remedial Investigations* (ABB ES, 1997).

1.1 Site Location and Description

Study Area 36 is located in the southwest corner of the Main Base at NTC Orlando as shown on Figure 1-1. The Main Base has been modified by Orlando NTC Partners to develop the land for residential use. The site previously contained Buildings 2121, 2122, and the western half of the Public Works Yard. The areas to the east and south of Building 2121 were used to store a variety of items including pipes, fire hydrants, bricks, and hazardous materials such as waste oil drums, transformers and batteries. Building 2122 was the Paint Shop. Paints and paint thinner were stored inside the building. A flammable materials storage cabinet was located at the north end of the building. Since the land development activities at the Main Base, the site area has been cleared of any buildings or roadways.

1.2 Site Background and History

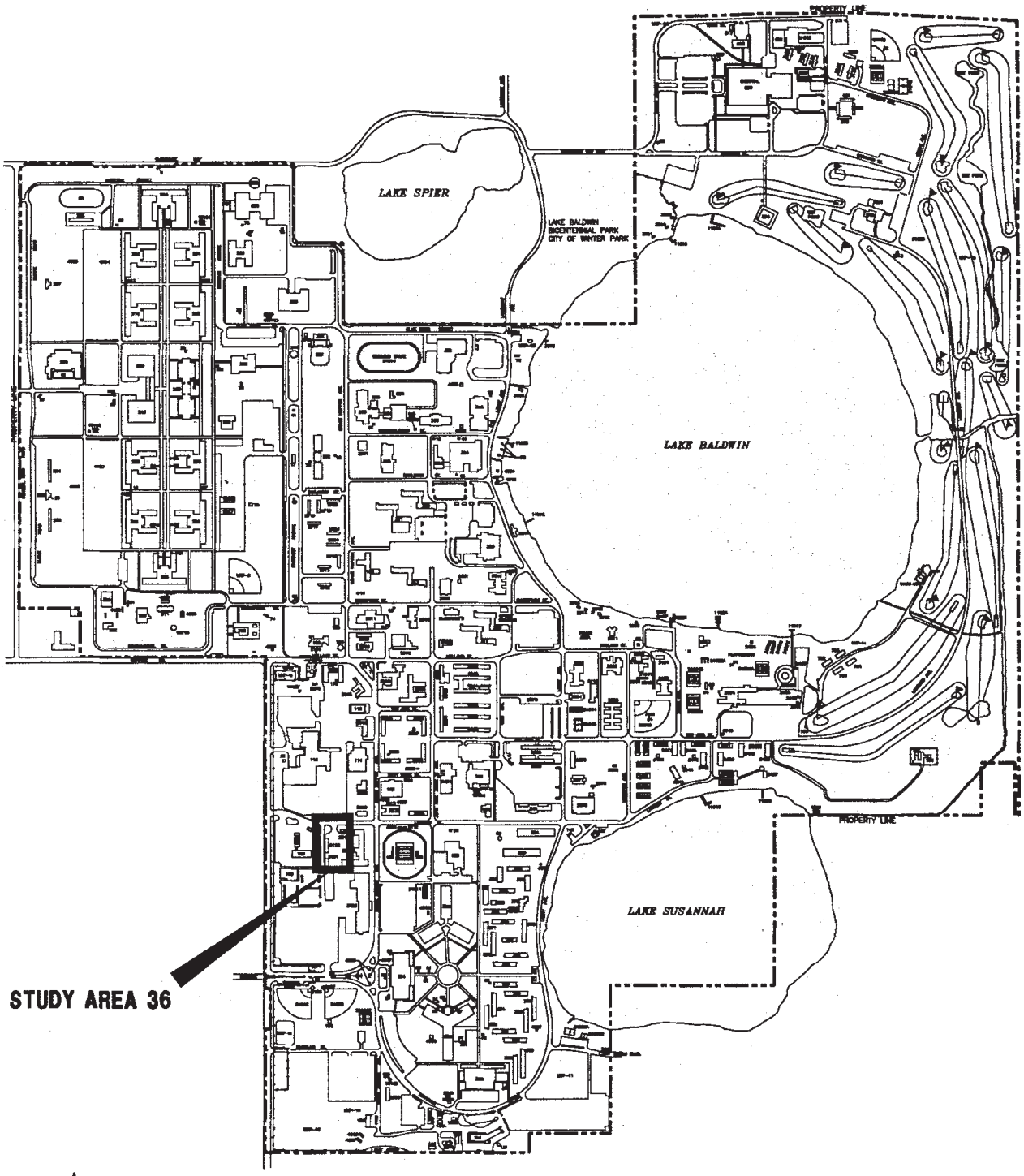
An initial site screening investigation was conducted by Harding Lawson Associates (HLA) in 1997. The results of the initial screening investigation detected concentrations of metals, total recoverable petroleum hydrocarbons (TRPH), and polynuclear aromatic hydrocarbons (PAHs) in soil samples exceeding screening criteria. The investigation also detected volatile organic compound (VOC) concentrations in groundwater samples above screening criteria.

Subsequently, the Orlando Partnering Team (OPT) requested that HLA perform supplemental screening investigations in 1998 to evaluate and characterize the VOC contamination at the site. Concentrations of trichloroethene (TCE) and tetrachloroethene (PCE) were detected exceeding the Groundwater Cleanup Target Levels (GCTLs), as shown on Figure 1-2.

The investigation results indicated that surface soils contain arsenic, barium, mercury, TRPH, and benzo(a)pyrene at concentrations exceeding the regulatory screening criteria (HLA, 1999). In addition, groundwater has exceedances of aluminum, antimony, TCE and PCE. The maximum TCE concentration detected in a monitoring well at the site was

300 µg/L. The results of the groundwater investigation at the site indicate that TCE and PCE concentrations in groundwater exceed the GCTL in an area of approximately 5,000 square feet in the North Storage Area (HLA, 1999). Chlorinated solvent detections exceeded screening criteria to a depth of 35 feet below land surface (bls).

As a result of the TCE/PCE contamination detected at the site, the OPT requested that Tetra Tech NUS (TT NUS) conduct an additional Site Investigation (SI). Their SI is currently ongoing. The OPT also requested CCI implement an IRA at the site consisting of enhanced biodegradation using vegetable oil.



N

0 1000 2000

SCALE: 1 INCH = 2000 FEET

FIGURE 1-1
SITE LOCATION MAP
STUDY AREA 36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

CH2MHILL

SOURCE:
BUILDINGS, CURBS, SIDEWALKS, EDGE OF PAVEMENT, AND WELLS 36-MW-16A THROUGH 36-MW-25C ARE TAKEN FROM DRAWING NO. 2267-00-B.dwg, DATED 8-31-00, BY DONALDSON, GARRETT & ASSC. OF MACON, GEORGIA. OTHER WELLS AND SITE FEATURES TAKEN FROM HLA DRAWING DATED 1999.

OLD-36-23C		
29 TO 34	8/00	
PCE	**13**	

OLD-36-23C ◉ ◉ OLD-36-22B

OLD-36-11C			
30 TO 35	7/98	12/98	4/00
PCE	**3.3**	**5.4**	**5.1**

OLD-36-10B			
20 TO 25	7/98	12/98	4/00
TCE	**7.2**	**8.9**	**10**

OLD-36-12C		
30 TO 35	12/98	4/00
TCE	2.9-J	**8.1**

OLD-36-11C ◉ OLD-36-12C ◉ OLD-36-10B ◉

GATE

2017

DRUM RACK

OLD-36-01A				
7 TO 17	11/97	6/98	12/98	4/00
Sb	**6.4-B**	NA	NA	<1.6

OLD-36-01A ◉

OLD-36-02A					
7 TO 17	11/97	6/98	12/98	4/00
Al	**6660**	NA	NA	NA

OLD-36-02A ◉

OLD-36-09C			
30 TO 35	7/98	12/98	4/00
TCE	**260**	**300**	**130**

OLD-36-09C ◉

OLD-36-13D ◉ OLD-36-08B ◉

OLD-36-07A			
15 TO 20	6/98	12/98	4/00
TCE	**73**	**120**	**34**

OLD-36-07A ◉

OLD-36-08B			
22.5 TO 27.5	6/98	12/98	4/00
TCE	**270**	**40**	**46**

OLD-36-14D ◉

OLD-36-06A ◉

OLD-36-06A				
7 TO 17	11/97	6/98	12/98	4/00
TCE	**18**	**13**	**6.6**	**14**

OLD-36-25C	
30 TO 35	8/00
TCE	**7.7/6.9**

OLD-36-24B ◉ OLD-36-25C ◉

NORTH STORAGE AREA

OLD-36-21C ◉ OLD-36-20B ◉ OLD-36-19A ◉

FLAME CABINET

CATCH BASIN

SWALE

DRAINAGE

BUILDING 2122

OLD-36-16A ◉ OLD-36-17B ◉ OLD-36-18C ◉

ABOVEGROUND STORAGE TANK

FENCE (TYP.)

PAVED

OLD-36-04A	PAVED	
6 TO 16	11/97	6/98
Sb	**8.9-B**	NA

NOTE:
WELL OLD-36-15A REPLACES OLD-36-04A.

OLD-36-15A	
6 TO 16	4/00
Sb	**45**

FROM WELL OLD-36-15A AND FORMER WELL OLD-36-04A APPROXIMATELY 280 FEET SOUTH

LEGEND

MONITORING WELL ◉

TCE PLUME EXCEEDING CRITERIA

WELL I.D. → OLD-36-10B		SAMPLE COLLECTION DATE →
20 TO 25	7/98	12/98
TCE	**7.2**	**8.9**

ANALYTE → TCE
SCREENED INTERVAL TO NEAREST FOOT → 20 TO 25
ANALYTE CONCENTRATION 1,2 → 7.2 / 8.9

INDICATES CONCENTRATION IS BETWEEN THE INSTRUMENT DETECTION LIMIT AND THE CONTRACT-REQUIRED DETECTION LIMIT — B

ESTIMATED VALUE — J

NOT ANALYZED — NA

1-CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
2-BOLD CONCENTRATION INDICATES EXCEEDANCE

SCREENING CRITERIA

ABBREVIATION	ANALYTE	GCTL[1]	BGSV[1]
Al	Aluminum	200	4067
PCE	Tetrachloroethene	3	-
Sb	Antimony	6	4.1
TCE	Trichloroethene	3	-

GCTL-GROUNDWATER CLEANUP TARGET LEVEL
BGSV-BACJGROUND SCREENING VALUE

NOTE:
ONLY ANALYTES EXCEEDING SCREENING CRITERIA IN AT LEAST ONE SAMPLE ARE PRESENTED.

N

20 0 20
SCALE IN FEET

Source: TETRATECH NUS

FIGURE 1-2
PREVIOUS GROUNDWATER EXCEEDANCES
STUDY AREA 36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

n11x17b.dgn

CAD FILE NO./DATE: 74570091.dgn/9-30-00

2.0 Summary of Field Activities and Results

Four different sampling events for laboratory analysis will be conducted as part of this IRA. The first sampling event (December 2000) was performed prior to injection activities, and will be used as the IRA baseline data. Three subsequent sampling events will be conducted within a year after injection (approximately quarterly) to monitor performance of the treatment activities. Round 1 of the performance monitoring was conducted in March 2001. Round 2 of the performance monitoring was conducted in July 2001 and represents 7 months after injection. Round 3 of the performance monitoring was conducted in October 2001 and represents 10 months after injection. On November 15, 2001, a second round of vegetable oil was injected into nine injection points (B and C zones) to further enhance the biodegradation of chlorinated solvents in site groundwater.

Groundwater level measurements were collected from each of the monitoring wells in October 2001 (Table 2-1). Figures 2-1, 2-2, and 2-3 illustrate the recent groundwater flow directions in the shallow (A zone), intermediate (B zone), and deep (C zone) surficial aquifer zones, respectively. The groundwater flow in the A and B zones is to the north-northwest. The groundwater flow in the C zone is to the southeast. The groundwater flow directions are consistent with previous data collected at the site.

The groundwater sampling was conducted in accordance with the Orlando POP and CH2M HILL's FDEP-approved Comprehensive Quality Assurance Plan (CompQAP). Field testing equipment was calibrated according to the manufacturer instructions and recorded in the site logbook.

Groundwater samples were collected from the following monitoring wells as part of the baseline, Round 1, 2 and 3 sampling events:

- **Baseline**: OLD-36-06A , OLD-36-07A, OLD-36-26A, OLD-36-27A, OLD-36-08B, OLD-36-10B, OLD-36-28B, OLD-36-29B, OLD-36-09C, OLD-36-11C, OLD-36-12C, OLD-36-23C, OLD-36-30C, OLD-36-31C and OLD-36-32C.
- **Round 1**: OLD-36-06A, OLD-36-07A, OLD-36-26A, OLD-36-27A, OLD-36-08B, OLD-36-10B, OLD-36-28B, OLD-36-29B , OLD-36-09C, OLD-36-11C, OLD-36-30C, OLD-36-31C and OLD-36-32C.
- **Round 2**: OLD-36-06A, OLD-36-07A, OLD-36-26A, OLD-36-27A, OLD-36-08B, OLD-36-10B, OLD-36-28B, OLD-36-29B , OLD-36-09C, OLD-36-11C, OLD-36-30C, OLD-36-31C, OLD-36-32C, OLD-36-19A and OLD-36-24B.
- **Round 3:** OLD-36-06A, OLD-36-07A, OLD-36-19A, OLD-36-26A, OLD-36-27A, OLD-36-08B, OLD-36-10B, OLD-36-24B, OLD-36-28B, OLD-36-29B , OLD-36-09C, OLD-36-11C, OLD-36-30C, OLD-36-31C, OLD-36-32C, OLD-36-25C.

TABLE 2-1
SA-36 Groundwater Level Elevations, October 20, 2001

Monitoring Well	Northing	Easting	TOC Height (feet msl)	Depth to Water (feet)	Water Level Elevation (feet msl)
OLD-36-01A	1,537,920.52	549,523.96	114.91	6.19	108.72
OLD-36-02A	1,537,894.04	549,557.01	115.18	9.09	106.09
OLD-36-06A	1,537,871.85	549,519.96	115.08	6.12	108.96
OLD-36-07A	1,537,886.80	549,517.90	114.87	6.09	108.78
OLD-36-08B	1,537,892.30	549,517.20	114.73	8.07	106.66
OLD-36-09C	1,537,897.30	549,516.10	114.78	10.26	104.52
OLD-36-10B	1,537,938.10	549,513.60	114.93	6.64	108.29
OLD-36-11C	1,537,945.00	549,511.10	114.77	10.09	104.68
OLD-36-12C	1,537,941.40	549,494.90	115.50	9.80	105.70
OLD-36-13D	1,537,893.90	549,512.30	114.75	13.09	101.66
OLD-36-14D	1,537,874.50	549,554.00	115.23	10.62	104.61
OLD-36-15A	1,537,525.14	549,510.97	119.46	9.93	109.53
OLD-36-16A	1,537,817.00	549,520.79	115.19	6.05	109.14
OLD-36-17B	1,537,813.36	549,521.35	115.28	6.15	109.13
OLD-36-18C	1,537,810.10	549,521.82	115.33	10.72	104.61
OLD-36-19A	1,537,910.66	549,442.41	117.75	9.36	108.39
OLD-36-20B	1,537,914.62	549,442.94	117.83	9.56	108.27
OLD-36-21C	1,537,918.28	549,443.26	117.84	12.98	104.86
OLD-36-22B	1,537,980.29	549,519.59	118.13	10.32	107.81
OLD-36-23C	1,537,979.72	549,515.19	118.05	13.28	104.77
OLD-36-24B	1,537,838.87	549,600.88	115.85	6.53	109.32
OLD-36-25C	1,537,834.51	549,600.26	115.76	11.29	104.47
OLD-36-26A	1,537,878.13	549,510.67	117.89	9.06	108.83
OLD-36-27A	1,537,896.05	549,508.93	118.01	6.30	111.71
OLD-36-28B	1,537,899.26	549,507.42	117.97	9.96	108.01
OLD-36-29B	1,537,906.11	549,502.66	117.63	9.35	108.28
OLD-36-30C	1,537,889.96	549,525.96	117.94	13.36	104.58
OLD-36-31C	1,537,893.95	549,520.86	117.80	13.21	104.59
OLD-36-32C	1,537,917.64	549,492.02	117.97	13.30	104.67
OLD-36-33A	1,537,830.60	549,600.01	118.47	6.20	112.27
OLD-36-34B	1,537,958.50	549,606.22	118.42	6.23	112.19
OLD-36-35C	1,537,958.94	549,610.39	118.24	13.51	104.73
OLD-36-36C	1,537,802.71	549,637.94	118.80	14.40	104.40
OLD-36-37C	1,538,001.90	549,473.52	115.02	12.18	102.84

NC Not Collected
feet TOC – feet below top of casing
feet msl – feet above 1988 North American Vertical Datum
Easting and Northing are Florida State Plane Coordinates

OLD-36-37C

FORMER LANGLEY STREET

LEGEND

EXISTING MONITORING WELL

NEW MONITORING WELL

GROUNDWATER ELEVATION (10-20-01) (FT.) (112.27)

GROUNDWATER CONTOUR ELEVATION (FT.) 108.50

GROUNDWATER FLOW DIRECTION

OLD-36-23C

OLD-36-22B

OLD-36-34B

OLD-36-35C

OLD-36-11C

OLD-36-12C

OLD-36-10B

FORMER DRUM RACK

FORMER BUILDING 2017

OLD-36-19A (108.39)

108.50

108.50

OLD-36-01A (108.72)

109.00

OLD-36-32C

OLD-36-29B

OLD-36-27A (111.71)

109.50

OLD-36-28B

OLD-36-31C

OLD-36-30C

OLD-36-02A (106.69)

FORMER PAVED AREA

FORMER FLAME CABINET

OLD-36-07A (108.78)

OLD-36-06A (108.96)

OLD-36-26A (108.83)

-N-

20 0 20

SCALE IN FEET

109.00

FORMER BUILDING 2122

OLD-36-33A (112.27)

OLD-36-36C

109.50

OLD-36-16A (109.14)

FORMER NORTH STORAGE AREA

FORMER PAVED AREA

SOURCE:
BUILDINGS AND STREETS TAKEN FROM HLA, 1999 AND ARE SHOWN IN THEIR APPROXIMATE LOCATIONS.

n11x17b.dgn

FIGURE 2-1

SHALLOW (A) ZONE GROUNDWATER CONTOUR MAP SA-36

NAVAL TRAINING CENTER ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/Shallow (A) 2-1_1-10-02.dgn

OLD-36-37C

FORMER LANGLEY STREET

LEGEND

EXISTING MONITORING WELL

NEW MONITORING WELL

GROUNDWATER ELEVATION (10-20-01) (FT.) (112.19)

GROUNDWATER CONTOUR ELEVATION (FT.) 108.00

GROUNDWATER FLOW DIRECTION

108.00 108.50 109.00

OLD-36-23C

OLD-36-22B (107.81)

OLD-36-34B (112.19)

OLD-36-35C

108.00

OLD-36-11C

OLD-36-12C

109.00

FORMER BUILDING 2017

OLD-36-20B (108.27)

OLD-36-10B (108.29)

FORMER DRUM RACK

OLD-36-01A

OLD036-32C

OLD-36-29B (108.28)

OLD-36-27A

OLD-36-08B (106.69)

OLD-36-28B (108.01)

OLD-36-31C

OLD-36-30C

FORMER FLAME CABINET

OLD-36-26A

108.50

FORMER PAVED AREA

-N-

20 0 20

SCALE IN FEET

OLD-36-24B (109.32)

OLD-36-33A

FORMER BUILDING 2122

109.00

FORMER NORTH STORAGE AREA

109.00

OLD-36-36C

OLD-36-17B (109.13)

FORMER PAVED AREA

SOURCE:
BUILDINGS AND STREETS TAKEN FROM HLA, 1999 AND ARE SHOWN IN THEIR APPROXIMATE LOCATIONS.

n11x17b.dgn

FIGURE 2-2

INTERMEDIATE (B) ZONE GROUNDWATER CONTOUR MAP SA-36

NAVAL TRAINING CENTER ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/Inter (B) 2-2_1-10-01

OLD-36-37C
(102.84)

FORMER LANGLEY STREET

LEGEND

EXISTING MONITORING WELL

NEW MONITORING WELL

GROUNDWATER ELEVATION (10-20-01) (FT.) (104.73)

GROUNDWATER CONTOUR ELEVATION (FT.) 104.70

GROUNDWATER FLOW DIRECTION

OLD-36-23C
(104.77)

OLD-36-22B

OLD-36-34B

OLD-36-35C
(104.73)

OLD-36-21C
(104.86)

OLD-36-11C
(104.68)

OLD-36-12C
(105.70)

104.70

FORMER BUILDING 2017

OLD-36-10B

FORMER DRUM RACK

OLD-36-01A

OLD-36-32C
(104.67)

OLD-36-29B

OLD-36-27A

OLD-36-28B

OLD-36-09C
(104.52)

OLD-36-31C
(104.59)

FORMER PAVED AREA

FORMER FLAME CABINET

OLD-36-30C
(104.58)

OLD-36-26A

-N-

20 0 20

SCALE IN FEET

104.70

104.50

OLD-36-25C
(104.47)

OLD-36-33A

FORMER BUILDING 2122

FORMER NORTH STORAGE AREA

104.50

OLD-36-36C
(104.40)

OLD-36-18C
(104.61)

FORMER PAVED AREA

SOURCE:
BUILDINGS AND STREETS TAKEN FROM HLA, 1999 AND ARE SHOWN IN THEIR APPROXIMATE LOCATIONS.

FIGURE 2-3

DEEP (C) ZONE
GROUNDWATER CONTOUR MAP
SA-36

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

n11x17b.dgn

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/Deep (C) 2-3_1-10-02.dgn

The locations of these monitoring wells are shown on Figure 2-4. Groundwater samples from the monitoring wells were laboratory analyzed for the following analyte suite:

- VOCs by U.S. Environmental Protection Agency (EPA) Method 8260B
- Nitrate, nitrite, and chloride by EPA Methods 300.1/353, 354, and 325, respectively
- Alkalinity by EPA Method 310.1
- Sulfide by EPA Method 376
- Dissolved Iron by EPA Method 6010B
- Total Dissolved Solids by EPA Method 160.1
- Total organic compounds (TOC) by EPA Method 9060 Modified
- Total petroleum hydrocarbons (TPH) by Florida Petroleum Residual Organic (FL-PRO)
- Dissolved Hydrogen
- Volatile fatty acids
- Methane, ethane, and ethene (MEE) by AM19GA

In addition, the field team measured natural attenuation parameters of ferrous iron, manganese, hydrogen sulfide, carbon dioxide and sulfate using Colorimetric HACH test kits. Oxidation-reduction potential (ORP), dissolved oxygen (DO), pH, specific conductivity, temperature, and turbidity were also measured. This information is summarized in Tables 2-2 and 2-3, respectively, and the monitoring well purging and sampling logs are included as Appendix A.

It should be noted that the updated laboratory data for July 2001 (Round 2) has been included with this report to address the surrogate recovery issues for the FL-PRO analysis found during data review. This Round 2 data is included as Appendix B. The complete analytical laboratory data for Round 3 (October 2001) are included in Appendix C.

2.1 Analytical Results and Contaminant Trends

Table 2-4 presents a summary of the analytical concentrations from the SA-36 baseline, Round 1, Round 2 and Round 3 sampling events.

For organic analytes, the screening criterion is the GCTL; for inorganic analytes with an established GCTL and background screening value, the screening criterion is the greater of the GCTL or the background screening value. Groundwater analyte concentrations detected above respective background screening values or GCTLs during the baseline, Round 1, Round 2, and Round 3 sampling event are shown on Table 2-5 and on Figure 2-4. Shaded cells within the table indicate analyte concentrations above FDEP GCTLs or background screening concentrations.

TCE was detected above the screening value (3 µg/L) in 12 of the onsite monitoring wells during the last sampling event. This is consistent with historical data for TCE at these monitoring points. The shallow (A zone) and intermediate (B zone) TCE concentrations are decreasing. Some of the TCE concentrations in the deep (C zone) have increased while others have decreased since the vegetable oil injection. No trend in TCE concentrations for the C zone is evident at this stage in the enhanced biodegradation treatment.

FORMER LANGLEY STREET

OLD-36-37C	
30 TO 35	3/16/01
BENZENE	24

OLD-36-11C				
30 TO 35	12/6/00	3/15/01	8/1/01	10/22/01
TCE	6.4	10	7.9	7

OLD-36-10B				
20 TO 25	12/4/00	3/15/01	8/1/01	10/22/01
TCE	4.5 J	12	8.2	7

OLD-36-23C	
	12/6/00
PCE	14
TCE	3.2 J
TDS	600

OLD-36-12C	
30 TO 35	12/5/00
TCE	9

OLD-36-32C				
30 TO 35	12/6/00	3/13/01	8/1/01	10/22/01
TCE	17	13	20	12
TDS	620			

OLD-36-19A		
	8/2/01	10/26/01
NITRATE	78.7	15
TDS	700 J	

OLD-36-29B				
22 TO 27	12/4/00	3/14/01	7/30/01	10/22/01
TCE	190	150	130	110
METHYLENE CHLORIDE		14 J		
IRON		1500		

OLD-36-28B				
22 TO 27	12/1/00	3/14/01	7/30/01	10/24/01
TCE	85	66	30	6.8
METHYLENE CHLORIDE		5.6 J		
IRON		1400		
TDS	920			

OLD-36-22B
OLD-36-34B
OLD-36-35C
OLD-36-21C
OLD-36-20B
OLD-36-10B
FORMER DRUM RACK
OLD-36-01A
OLD-36-13D
FORMER FLAME CABINET
OLD-36-14D
OLD-36-02A
FORMER BUILDING 2017
FORMER PAVED AREA
FORMER BUILDING 2122
FORMER NORTH STORAGE AREA
OLD-36-16A
OLD-36-17B
OLD-36-18C
FORMER PAVED AREA
OLD-36-24B
OLD-36-33A
OLD-36-36C

OLD-36-27A			
10 TO 20	12/1/00	3/13/01	7/31/01
TCE	79	97	14
METHYLENE CHLORIDE		8.7	

OLD-36-09C				
30 TO 35	12/5/00	3/15/01	7/31/01	10/24/01
TCE	300	180	140	150
METHYLENE CHLORIDE	9.1			

OLD-36-31C				
30 TO 35	12/5/00	3/14/01	7/31/01	10/23/01
TCE	14	13	34	13

OLD-36-08B				
22 TO 27	12/4/00	3/15/01	8/1/01	10/26/01
TCE	97	35	44	25

OLD-36-30C				
30 TO 35	11/29/00	3/14/01	7/31/01	10/23/01
TCE	37	57	18	12

OLD-36-07A				
15 TO 20	12/1/00	3/14/01	7/31/01	10/25/01
TCE	59	35	11	12
METHYLENE CHLORIDE		5.2 J		
TDS				510

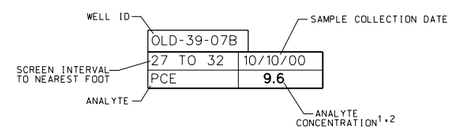
OLD-36-06A		
7 TO 17	12/4/00	3/14/01
TCE	14	9.5

OLD-36-26A				
10 TO 20	12/1/00	3/14/01	8/1/01	10/23/01
TCE	15	10	6.3	4.8

OLD-36-25C	
	10/29/01
TCE	11

LEGEND

- INJECTION POINT
- NEW MONITORING WELL
- EXISTING MONITORING WELL
- WELL SAMPLED DURING OCTOBER 2001 SAMPLING EVENT *



J - ESTIMATED CONCENTRATION

1-CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
2-BOLD CONCENTRATION INDICATES EXCEEDANCE

SCREENING CRITERIA

ABBREVIATION	ANALYTE	GCTL[1]
PCE	Tetrachloroethene	3.0
TCE	Trichloroethene	3.0
	Methylene Chloride	5.0
	Iron	1227
NITRATE	Nitrate Nitrogen	10 mg/L
TDS	Total Dissolved Solids	500 mg/L

GCTL=GROUNDWATER CLEANUP TARGET LEVEL

-N-

20 0 20
SCALE IN FEET

SOURCE:
BUILDINGS AND STREETS TAKEN FROM HLA, 1999 AND ARE SHOWN IN THEIR APPROXIMATE LOCATIONS.

n11x17b.dgn

FIGURE 2-4

BASELINE, ROUND 1, ROUND 2 AND ROUND 3 GROUNDWATER DATA

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

CAD FILE NO./DATE:
:/Environmental/152044-NTC/152044 02-06-01/74570066.dgn/03-12-01

TABLE 2-2
Water Quality Data

Natural Attenuation Field Parameters
December 2000, March, July and October 2001 Sampling Events

Station ID	Date	Ferrous Iron (mg/L)	Manganese (mg/L)	Hydrogen Sulfide (mg/L)	Sulfate (mg/L)	Carbon Dioxide (mg/L)	Dissolved Oxygen (mg/L)
OLD-36-06A	12/04/2000	0.5	0	0.0	90	NM	0.79
OLD-36-06A	03/14/2001	0.4	0	0.0	125	NM	2.35
OLD-36-06A	08/01/2001	0	0	0.1	20	30	1.81*
OLD-36-06A	10/25/2001	0.2*	<0.1*	0.2	<1.0	50	0.61
OLD-36-07A	12/01/2000	0.2	0	0.1	<50	NM	0.54
OLD-36-07A	03/14/2001	0.2	0	0.0	>200	NM	1.06
OLD-36-07A	07/31/2001	0	0	0	26	35	0.32
OLD-36-07A	10/25/2001	<1.0*	<1.0*	0.2	<1.0	110	0.00
OLD-36-19A	08/02/2001	0.2	0	0	68	25	7.87*
OLD-36-19A	10/26/2001	<0.1	<0.1	<0.1	47	20	4.49 *
OLD-36-26A	12/01/2000	1	0.2	0.3	>200	NM	0.96
OLD-36-26A	03/14/2001	0.4	0	0.0	>200	NM	0.43
OLD-36-26A	08/01/2001	0.8	0	4.0	0	105	0.41
OLD-36-26A	10/23/2001	1	<0.1	10	<1.0	85	0.03
OLD-36-27A	12/01/2000	0.1	0	0.0	<50	NM	0.98
OLD-36-27A	03/13/2001	0.1	0	0.0	<50	NM	0.27
OLD-36-27A	07/31/2001	0.6	0	10	44	80	0.79
OLD-36-27A	10/24/2001	<0.10	<0.10	4.0	21	55	0.06
OLD-36-08B	12/04/2000	0.5	0.1	1.0	80	NM	0.98
OLD-36-08B	03/15/2001	6	0	0.5	<50	NM	0.44
OLD-36-08B	08/01/2001	0.9	0	>10	0	120	3.69*
OLD-36-08B	10/25/2001	1.0*	<0.1*	5.0	<1.0*	130	0.01
OLD-36-10B	12/04/2000	0.2	0	0.3	>200	NM	1.08
OLD-36-10B	03/15/2001	0.8	0.3	0.1	>200	NM	0.45
OLD-36-10B	08/01/2001	0	0	1.5	0	40	0.11
OLD-36-10B	10/22/2001	<0.1*	<0.1	5.0	10*	90*	0.02
OLD-36-24B	08/02/2001	0.1	0	0.7	12	50	1.68*
OLD-36-24B	10/26/2001	1.1	<0.1	<0.1	62	45	0.42
OLD-36-28B	12/01/2000	2.5	0	0.3	>200	NM	0.59
OLD-36-28B	03/14/2001	1.1	0	0.7	150	NM	0.38
OLD-36-28B	07/30/2001	1	0	4.0	6	70	1.65*
OLD-36-28B	10/24/2001	<0.1*	<0.1*	4.0	<1.0*	80	0.00
OLD-36-29B	12/04/2000	2	0.1	0.0	70.5	NM	0.65
OLD-36-29B	03/13/2001	1	0	0.1	70	NM	0.11
OLD-36-29B	07/30/2001	1	0	0.5	20	35	0.18
OLD-36-29B	10/22/2001	1.6*	<0.1*	0.5	10*	80	0.21
OLD-36-09C	12/05/2000	0.3	0.3	5.0	<50	NM	0.71
OLD-36-09C	03/15/2001	0.2	0	0.5	>200	NM	0.41
OLD-36-09C	07/31/2001	0	0	>10	0	NM	0.19
OLD-36-09C	10/24/2001	<0.1	<0.1	>10	<1.0	NM	0.05
OLD-36-11C	12/06/2000	0.1	0	0.7	100	NM	0.79
OLD-36-11C	03/15/2001	0.1	0.3	0.1	75	NM	0.28
OLD-36-11C	08/01/2001	0	0	0.3	10	75	1.18*
OLD-36-11C	10/22/2001	0.1	<0.1	0.7	10	55	0.10
OLD-36-12C	12/05/2000	0.2	0	0.0	>200	NM	1.11
OLD-36-23C	12/06/2000	1.2	0.1	0.5	>200	NM	0.75

TABLE 2-2
Water Quality Data

Natural Attenuation Field Parameters
December 2000, March, July and October 2001 Sampling Events

Station ID	Date	Ferrous Iron (mg/L)	Manganese (mg/L)	Hydrogen Sulfide (mg/L)	Sulfate (mg/L)	Carbon Dioxide (mg/L)	Dissolved Oxygen (mg/L)
OLD-36-30C	11/29/2000	0.6	0	1.0	70	NM	0.90
OLD-36-30C	03/14/2001	0.4	0.1	0.1	<50	NM	0.27
OLD-36-30C	07/31/2001	0.4	0	10	<1	80	1.20*
OLD-36-30C	10/23/2001	1.1	<0.1	5.0	<1.0	80	0.00
OLD-36-31C	12/05/2000	1.2	0.3	0.0	60	NM	0.79
OLD-36-31C	03/14/2001	0	0.15	5.0	<50	NM	0.31
OLD-36-31C	07/31/2001	0.4	0	8.0	<1	90	0.50
OLD-36-31C	10/23/2001	0.9	<0.1	8.0	<1.0	70	0.01
OLD-36-32C	12/06/2000	0.1	0.1	0.2	>200	NM	0.78
OLD-36-32C	03/13/2001	0.1	0	0.0	80	NM	0.18
OLD-36-32C	08/01/2001	0.1	0	0.1	14	70	0.64
OLD-36-32C	10/22/2001	0.9	<0.1	0.1	14	75	0.25
OLD-36-25C	10/29/2001	1.1	<0.1	3.0	13	90	0.24

* suspect high H_2S interference
NM not measured

TABLE 2-3
Water Quality Data

December 2000, March, July and October 2001 Sampling Events

Station ID	Date	pH (SU)	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
OLD-36-06A	12/04/2000	5.41	70	26.88	0.79	151.6	190
OLD-36-06A	03/14/2001	4.81	75	24.40	2.35	-6.6	239
OLD-36-06A	08/01/2001	5.48	120	27.90	1.81	157	270
OLD-36-06A	10/25/2001	5.51	58.5	28.20	0.61	120	330
OLD-36-07A	12/01/2000	5.50	110	25.86	0.54	63.0	138
OLD-36-07A	03/14/2001	5.27	101	24.85	1.06	-83.4	226
OLD-36-07A	07/31/2001	5.70	114	27.20	0.32	130	81
OLD-36-07A	10/25/2001	5.52	158	28.50	0.00	81	492
OLD-36-19A	08/02/2001	6.12	790	26.27	7.87	231.2	1.79
OLD-36-19A	10/26/2001	6.23	280	26.10	4.49	169	5.84
OLD-36-26A	12/01/2000	5.86	90	23.97	0.96	207.1	>1000
OLD-36-26A	03/14/2001	4.95	93	24.72	0.43	-125.0	194
OLD-36-26A	08/01/2001	4.80	127	27.00	0.41	24	5.7
OLD-36-26A	10/23/2001	5.07	53	27.60	0.03	65.7	8.4
OLD-36-27A	12/01/2000	6.83	368	25.75	0.98	136.1	0.9
OLD-36-27A	03/13/2001	6.17	181	25.13	0.27	-13.2	18.2
OLD-37-27A	07/31/2001	6.40	430	26.70	0.79	-153	36.4
OLD-37-27A	10/24/2001	6.63	370	28.50	0.06	-65	19.4
OLD-36-08B	12/04/2000	5.68	133	27.52	0.98	-81.8	143
OLD-36-08B	03/15/2001	5.92	102	26.59	0.44	-134.1	19.7
OLD-36-08B	08/01/2001	5.49	237	26.40	3.69	-152	192
OLD-36-08B	10/25/2001	5.47	205	27.20	0.01	25.9	129
OLD-36-10B	12/04/2000	5.60	102	27.36	1.08	16.9	508

TABLE 2-3
Water Quality Data

December 2000, March, July and October 2001 Sampling Events

Station ID	Date	pH (SU)	Conductivity (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
OLD-36-10B	03/15/2001	6.03	82	25.91	0.45	-105.7	729
OLD-36-10B	08/01/2001	5.66	99	26.90	0.11	50	380
OLD-36-10B	10/222001	5.97	107	28.20	0.02	22.8	201
OLD-36-24B	08/02/2001	4.69	340	25.96	1.68	-12.4	1.57
OLD-36-24B	10/26/2001	4.19	183	26.30	0.42	240	0.42
OLD-36-28B	12/01/2000	6.13	333	25.94	0.59	-51.6	>1000
OLD-36-28B	03/14/2001	5.76	140	25.81	0.38	-40.7	358
OLD-36-28B	07/30/2001	5.68	133	26.90	1.65	-101	312
OLD-36-28B	10/24/2001	5.76	146	27.20	0.00	9.6	410
OLD-36-29B	12/04/2000	5.70	170	26.41	0.65	40.9	42
OLD-36-29B	03/13/2001	5.00	108	25.42	0.11	10.9	47
OLD-36-29B	07/30/2001	5.21	83	26.75	0.18	85.2	114
OLD-36-29B	10/22/2001	5.39	91	27.50	0.21	80.0	84
OLD-36-09C	12/05/2000	5.71	909	25.55	0.71	-178.1	95
OLD-36-09C	03/15/2001	5.49	865	27.01	0.41	-283.7	865
OLD-36-09C	07/31/2001	10.92	440	26.40	0.19	-186	1.21
OLD-36-09C	10/24/2001	10.95	492	26.80	0.05	-235	1.27
OLD-36-11C	12/06/2000	5.33	90	26.61	0.79	18.1	189
OLD-36-11C	03/15/2001	5.30	70	26.71	0.28	-63.1	71.8
OLD-36-11C	08/01/2001	5.22	72	26.57	1.18	-27.9	80.9
OLD-36-11C	10/22/2001	5.32	72	27.00	0.10	89.0	36.9
OLD-36-12C	12/05/2000	5.36	87	26.22	1.11	78.9	808
OLD-36-23C	12/06/2000	5.61	78	25.60	0.75	-40.8	>1000
OLD-36-30C	11/29/2000	5.71	169	26.14	0.90	-32.0	82
OLD-36-30C	03/14/2001	5.50	107	26.55	0.27	-48.6	50.1
OLD-36-30C	07/31/2001	5.32	75	26.30	1.20	-96	50.0
OLD-36-30C	10/23/2001	5.33	75	27.30	0.00	30.5	16.8
OLD-36-31C	12/05/2000	5.41	106	25.95	0.79	48.0	80
OLD-36-31C	03/14/2001	4.68	119	26.48	0.31	-112.9	34.5
OLD-36-31C	07/31/2001	4.36	69	26.30	0.50	29.8	22.2
OLD-36-31C	10/23/2001	4.96	51	26.40	0.01	77.4	15.6
OLD-36-32C	12/06/2000	6.51	248	26.63	0.78	-26.1	188
OLD-36-32C	03/13/2001	5.61	113	26.32	0.18	-5.8	194
OLD-36-32C	08/01/2001	5.47	90	26.50	0.64	34.8	98.8
OLD-36-32C	10/22/2001	5.41	87	26.90	0.25	120	64
OLD-36-25C	10/29/2001	4.67	73	26.00	0.24	98.3	9.6

SU – standard unit

°C – degrees Celsius
mS/cm – milliSiemens per centimeter
mg/L – milligrams per liter
mV – millivolts
NTU – nephelometric turbidity units

Table 2-4
Summary of Analytical Results
SA - 36, NTC Orlando
December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

StationID:	OLD-36-06A	OLD-36-06A	OLD-36-06A	OLD-36-06A	OLD-36-07A	OLD-36-07A	OLD-36-07A	OLD-36-07A	OLD-36-08B	OLD-36-08B	OLD-36-08B	OLD-36-08B	OLD-36-09C	OLD-36-09C	OLD-36-09C	OLD-36-09C	OLD-36-10B	OLD-36-10B	OLD-36-10B	OLD-36-10B	OLD-36-11C	OLD-36-11C
Client Sample ID:	17-OLD-36-06A-Q4-01	017-OLD-36-06A-Q3-01	017-OLD-36-06A-Q1-01	017-OLD-36-06A-Q4-00	17-OLD-36-07A-Q4-01	017-OLD-36-07A-Q3-01	017-OLD-36-07A-Q1-01	017-OLD-36-07A-Q4-00	17-OLD-36-08B-Q4-01	017-OLD-36-08B-Q3-01	017-OLD-36-08B-Q1-01	017-OLD-36-08B-Q4-00	17-OLD-36-09C-Q4-01	017-OLD-36-09C-Q3-01	017-OLD-36-09C-Q1-01	017-OLD-36-09C-Q4-00	017-OLD-36-10B-Q4-01	017-OLD-36-10B-Q3-01	017-OLD-36-10B-Q1-01	017-OLD-36-10B-Q4-00	017-OLD-36-11C-Q4-01	017-OLD-36-11C-Q3-01
Lab Sample ID:	C110655*3	AC17919	AC09821	AC04412	C110655*2	AC17890	AC09822	AC04279	C110655*1	AC17920	AC09841	AC04413	C110611*1	AC17891	AC09845	AC04474	C110557*1	AC09839	AC04417	C110557*2	AC17923
Lab Sample ID:	P0110472-03	C108048*1	C103383*4	P0012036-01	P0110472-02	C108004*5	C103383*5	P0012030-04	P0110472-01	C108048*2	C103409*4	P0012036-02	P0110454-08	C108004*6	C103409*3	P0012055-01	P0110454-01	C103409*1	P0012036-06	P0110454-02	C108048*5
Lab Sample ID:			P0103235-04				P0103235-05				P0103256-04				P0103256-03			P0103256-01			
Date Collected:	10/25/2001	08/01/2001	03/14/2001	12/04/2000	10/25/2001	07/31/2001	03/14/2001	12/01/2000	10/25/2001	08/01/2001	03/15/2001	12/04/2000	10/24/2001	07/31/2001	03/15/2001	12/05/2000	10/22/2001	03/15/2001	12/04/2000	10/22/2001	08/01/2001
Parameter	**Units**																					
Miscellaneous Parameters																						
Acetic Acid	mg/l		1 U	1 U	1 U		1 U	1 U	1 U		**24 =**	1 U	1 U		**4.3 =**	1 U	1 U		1 U	1 U	1 U	1 U
Butyric acid	mg/l		1 U	1 U	1 U		1 U	1 U	1 U		**1.9 =**	1 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U	1 U
Lactic Acid	mg/l		25 U	25 U	25 U		25 U	25 U	25 U		25 U	25 U	25 U		25 U	25 U	25 U		25 U	25 U	25 U	25 U
Propionic acid	mg/l	**1.6 =**	1 U	1 U	1 U	**24 =**	**4.7 =**	1 U	1 U	**47 =**	**74 =**	1 U	**17 =**	**8.7 =**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pyruvic acid	mg/l		10 U	10 U	10 U		10 U	10 U	10 U		10 U	10 U		10 U	10 U	10 U		10 U	10 U		10 U	10 U
Ethane	ng/l	**330 =**	**430 =**	**17 =**		**3100 =**	**110 =**	**24 =**		**820 =**	**900 =**	**18 =**	**75 =**	**160 =**	**210 =**		**120 =**	**62 =**	**35 =**		**48 =**	**28 =**
Ethane	ug/ml			0.01 U				0.01 U				0.01 U				0.01 U				0.01 U		
Ethene	ng/l	**77 =**	**360 =**	**13 =**		**2500 =**	**77 =**	**21 =**		**3200 =**	**5600 =**	**110 =**	**500 =**	**430 =**	**670 =**		**940 =**	**76 =**	**63 =**		**110 =**	**45 =**
Ethene	ug/ml				0.01 U				0.01 U							0.01 U				0.01 U		
Methane	ug/l	**2200 =**	**69 =**	**1.7 =**		**10000 =**	**1700 =**	**4.7 =**		**9300 =**	**8900 =**	**80 =**	**4000 =**	**1700 =**	**51 =**		**620 =**	**490 =**	**9.9 =**		**44 =**	**18 =**
Methane	ug/ml				0.01 U				0.01 U				**0.09 =**			**0.036 =**				0.01 U		
Alkalinity	mg/l	**71 =**	**10 =**	**6 =**	**1.5 =**	**74 =**	**13 =**	**16 =**	**16 =**	**67 =**	**83 =**	**22 =**	**24 =**	**210 =**	**180 =**	**330 =**	**280 =**	**29 =**	**21 =**	**32 =**	**25 =**	**7.8 =**	**12 =**
Bromide	mg/l				1 U				1 U				1 U				1 U				1 U		
Chloride	mg/l	**73 =**	**1.9 =**	**8.4 =**	**4.2 =**	**120 =**	**3.2 =**	**7.7 =**	**6.2 =**	**23 =**	**7 =**	**6.1 =**	**7 =**	**17 =**	**8.3 =**	**9.5 =**	**8.9 =**	**30 =**	**8.1 =**	**3.3 =**	**6.4 =**	**8.6 =**	**4.3 =**
Dissolved Hydrogen	nM	**2 =**				**18 =**				**13 =**			**150 =**					**6.8 =**				**1.3 =**	
Iron	ug/l			**440 =**				**450 =**				**400 =**			**180 =**				**210 =**				
Iron, Dissolved	ug/l	**120 =**	**32 J**			**720 =**	**60 J**			**400 =**	**450 =**		**27 J**	**11 J**			**54 J**	**81 J**			**77 J**	**95 J**
Sodium	mg/l			**4.1 =**					**5.4 =**				**7.8 =**			**11 =**				**6.6 =**		
Sulfide	mg/l	1 U	1 U	1 U		1 U	1 U	1 U		**2.9 =**	**2.9 =**	1 U		**4.2 =**	**3.4 =**	**2.7 =**		**1.5 =**	**0.97 J**	1 U		1 U	1 U
Nitrite Nitrogen	mg/l	2.5 U	0.01 U	0.01 U		2.5 U	0.01 U	0.01 U	0.1 U	0.1 U	0.01 U	0.01 U		0.1 U	0.01 U	0.01 U		0.1 U	0.01 U	0.01 U		0.1 U	0.01 U
Nitrate Nitrogen	mg/l	**0.5 =**	**2.98 =**	**0.09 =**		**0.21 =**	**0.5 =**	**0.09 =**	**0.2 =**	**0.18 =**	0.01 U	1 U		**0.23 =**	0.01 U	1 U		0.1 U	0.01 U	1 U		**0.1 =**	0.01 U
Nitrate-Nitrite Nitrogen	mg/l	**0.5 =**			**0.33 =**	**0.21 =**				**0.18 =**		0.1 U		**0.23 =**			0.1 U	0.1 U			0.1 U	**0.1 =**	
Petroleum Range Organics (PRO)	mg/l	0.1 U	1 U	**0.42 JB**	1 U	**6.5 =**	1 U	**0.4 JB**	**0.44 JB**	**4.4 =**	**8.1 =**	**0.66 JB**	1 U	0.1 U	1.1 U	**2 JB**	**0.35 JB**	0.1 U	1 U	**1.3 JB**	1 U	0.1 U	1.1 U
Total Dissolved Solids	mg/l	**180 =**	**190 J**	**150 =**	**110 =**	**510 =**	**120 J**	**170 =**	**110 =**	**210 =**	**110 J**	**270 =**	**100 =**	**300 =**	**290 J**	**120 =**	**390 =**	**110 =**	**98 J**	**210 =**	**130 =**	**50 =**	**57 J**
Total Organic Carbon	mg/l	**21 =**	**14 =**	**12 =**	**10.7 =**	**78 =**	**10 =**	**11 =**	**12.5 =**	**83 =**	**94 =**	**3 =**	**3.55 =**	**35 =**	**29 =**	**14 =**	**19.8 =**	**11 =**	**13 =**	**17 =**	**15.7 =**	**9.7 =**	**10 =**
Volatile Organic Constituents																							
1,1,1,2-Tetrachloroethane	ug/l	0.3 U	2.5 U	2.5 U	2.5 U	0.3 U	2.5 U	12 U	2.5 U	0.3 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U
1,1,1-Trichloroethane	ug/l	0.3 U	4 U	4 U	4 U	0.3 U	4 U	20 U	4 U	0.3 U	4 U	4 U	4 U	5 U	4 U	40 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U
1,1,2,2-Tetrachloroethane	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
1,1,2-Trichloroethane	ug/l	0.3 U	5 U	5 U	5 U	0.3 U	5 U	25 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
1,1-Dichloroethene	ug/l	0.3 U	6 U	6 U	6 U	0.3 U	6 U	30 U	6 U	0.3 U	6 U	6 U	6 U	**0.29 J**	6 U	60 U	**0.5 J**	5 U	6 U	6 U	6 U	5 U	6 U
1,2,3-Trichlorobenzene	ug/l	0.3 U	1.5 U	1.5 U	1.5 U	0.3 U	1.5 U	7.5 U	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
1,2,3-Trichloropropane	ug/l	1.6 U	16 U	16 U	16 U	1.6 U	16 U	80 U	16 U	1.6 U	16 U	16 U	16 U	5 U	16 U	160 U	16 U	5 U	16 U	16 U	16 U	5 U	16 U
1,2,4-Trichlorobenzene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
1,2,4-Trimethylbenzene	ug/l	0.3 U	6.5 U	6.5 U	6.5 U	0.3 U	6.5 U	32 U	6.5 U	0.3 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	65 U	6.5 U	**0.24 J**	6.5 U	6.5 U	6.5 U	**0.23 J**	6.5 U
1,2-Dibromo-3-chloropropane	ug/l	1.9 U	13 U	13 U	13 U	1.9 U	13 U	65 U	13 U	1.9 U	13 U	13 U	13 U	5 U	13 U	130 U	13 U	5 U	13 U	13 U	13 U	5 U	13 U
1,2-Dichlorobenzene	ug/l	1.5 U	1.5 U	1.5 U	1.5 U	0.3 U	1.5 U	7.5 U	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	**0.68 =**	1.5 U
1,2-Dichloroethane	ug/l	0.3 U	3 U	3 U	3 U	0.3 U	3 U	15 U	3 U	0.3 U	3 U	3 U	3 U	5 U	3 U	30 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U
1,2-Dichloropropane	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
1,2-Ethylene Dibromide	ug/l	0.3 U	3 U	3 U	3 U	0.3 U	3 U	15 U	3 U	0.3 U	3 U	3 U	3 U	5 U	3 U	30 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U
1,3,5-Trimethylbenzene	ug/l	0.3 U	2.5 U	2.5 U	2.5 U	0.3 U	2.5 U	12 U	2.5 U	0.3 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U
1,3-Dichlorobenzene	ug/l	0.3 U	6 U	6 U	6 U	0.3 U	6 U	30 U	6 U	0.3 U	6 U	6 U	6 U	5 U	6 U	60 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U
1,3-Dichloropropane	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
1,4-Dichlorobenzene	ug/l	0.3 U	1.5 U	1.5 U	1.5 U	0.3 U	1.5 U	7.5 U	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
2,2-Dichloropropane	ug/l	0.3 U	17.5 U	17.5 U	17.5 U	0.3 U	17.5 U	88 U	17.5 U	0.3 U	17.5 U	17.5 U	17.5 U	5 U	17.5 U	180 U	17.5 U	5 U	17.5 U	17.5 U	17.5 U	5 U	17.5 U
2-Chlorotoluene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
4-Chlorotoluene	ug/l	0.3 U	3 U	3 U	3 U	0.3 U	3 U	15 U	3 U	0.3 U	3 U	3 U	3 U	5 U	3 U	30 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U
Benzene	ug/l	0.3 U	1 U	1 U	2 U	**0.78 =**	1 U	5 U	2 U	0.3 U	1 U	1 U	2 U	5 U	1 U	10 U	2 U	**0.35 =**	1 U	1 U	2 U	5 U	1 U
Bromobenzene	ug/l	0.3 U	1.5 U	1.5 U	1.5 U	0.3 U	1.5 U	7.5 U	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
Bromochloromethane	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
Bromodichloromethane	ug/l	0.3 U	4 U	4 U	4 U	0.3 U	4 U	20 U	4 U	0.3 U	4 U	4 U	4 U	5 U	4 U	40 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U
Bromoform	ug/l	0.3 U	6 U	6 U	6 U	0.3 U	6 U	30 U	6 U	0.3 U	6 U	6 U	6 U	5 U	6 U	60 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U
Bromomethane	ug/l	0.53 U	5.5 U	5.5 U	5.5 U	0.53 U	5.5 U	28 U	5.5 U	0.53 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U
Carbon tetrachloride	ug/l	0.3 U	10.5 U	10.5 U	10.5 U	0.3 U	10.5 U	52 U	10.5 U	0.3 U	10.5 U	10.5 U	10.5 U	5 U	10.5 U	110 U	10.5 U	5 U	10.5 U	10.5 U	10.5 U	5 U	10.5 U
Chlorobenzene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
Chloroethane	ug/l	0.3 U	5 U	5 U	5 U	0.3 U	5 U	25 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/l	0.3 U	1.5 U	1.5 U	1.5 U	0.3 U	1.5 U	7.5 U	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
Chloromethane	ug/l	0.3 U	6.5 U	6.5 U	6.5 U	0.3 U	6.5 U	32 U	6.5 U	0.3 U	**0.6 J**	6.5 U	6.5 U	5 U	6.5 U	65 U	6.5 U	5 U	**0.52 J**	6.5 U	6.5 U	5 U	**0.61 J**
cis-1,2-Dichloroethene	ug/l	**0.18 J**	6 U	6 U	6 U	**37 =**	**0.78 J**	30 U	6 U	**26 =**	**17 =**	6 U	6 U	**57 =**	**27 =**	**20 J**	**24 =**	**16 =**	**8.5 =**	**11 =**	**2.3 J**	**3.3 =**	**5 J**
cis-1,3-Dichloropropene	ug/l	0.3 U	5 U	5 U	5 U	0.3 U	5 U	25 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/l	0.3 U	2.5 U	2.5 U	2.5 U	0.3 U	2.5 U	12 U	2.5 U	0.3 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U
Dibromomethane	ug/l	0.3 U	12 U	12 U	12 U	0.3 U	12 U	60 U	12 U	0.3 U	12 U	12 U	12 U	5 U	12 U	120 U	12 U	5 U	12 U	12 U	12 U	5 U	12 U
Dichlorodifluoromethane	ug/l	0.3 U	5 U	5 U	5 U	0.3 U	5 U	25 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/l	0.3 U	3 U	3 U	3 U	0.3 U	3 U	15 U	3 U	0.3 U	3 U	3 U	3 U	5 U	3 U	30 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U
Hexachlorobutadiene	ug/l	0.3 U	5.5 U	5.5 U	5.5 U	0.3 U	5.5 U	28 U	5.5 U	0.3 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U
Isopropylbenzene	ug/l	0.3 U	2.5 U	2.5 U	2.5 U	0.3 U	2.5 U	12 U	2.5 U	0.3 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U
Methyl t-butyl ether (MTBE)	ug/l																						
Methylene chloride	ug/l	0.3 U	1.5 U	**0.64 J**	1.5 U	0.3 U	1.5 U	**5.2 J**	1.5 U	0.3 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	15 U	**9.1 =**	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
n-Butylbenzene	ug/l	0.3 U	5.5 U	5.5 U	5.5 U	0.3 U	5.5 U	28 U	5.5 U	0.3 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U
n-Propylbenzene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
Naphthalene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
p-Isopropyltoluene	ug/l	0.3 U	6 U	6 U	6 U	0.3 U	6 U	30 U	6 U	**0.35 =**	**0.88 J**	6 U	**0.8 J**	5 U	6 U	60 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U
Sec-Butylbenzene	ug/l	0.3 U	6.5 U	6.5 U	6.5 U	0.3 U	6.5 U	32 U	6.5 U	0.3 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	65 U	6.5 U	5 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U
Styrene	ug/l	0.3 U	2 U	2 U	2 U	0.3 U	2 U	10 U	2 U	0.3 U	2 U	2 U	2 U	5 U	2 U	20 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U
Tert-Butylbenzene	ug/l	0.3 U	7 U	7 U	7 U	0.3 U	7 U	35 U	7 U	0.3 U	7 U	7 U	7 U	5 U	7 U	70 U	7 U	5 U	7 U	7 U	7 U	5 U	7 U
Tetrachloroethylene	ug/l	0.3 U	7 U	7 U	7 U	0.3 U	7 U	35 U	7 U	0.3 U	7 U	7 U	7 U	5 U	7 U	70 U	7 U	5 U	7 U	**1.6 J**	**1.7 J**	**1.6 =**	**1.9 J**
Toluene	ug/l	0.3 U	**1.2 J**	5.5 U	5.5 U	0.3 U	**1.1 J**	28 U	5.5 U	0.3 U	**1 J**	5.5 U	5.5 U	5 U	**1.2 J**	55 U	5.5 U	5 U	**1 J**	5.5 U	5.5 U	5 U	**1.3 J**
Total Xylenes	ug/l		5 U	5 U	5 U		5 U	25 U	5 U		5 U	5 U	5 U		5 U	50 U	5 U		5 U	5 U	5 U		5 U
m&p-Xylene	ug/l	0.6 U				0.6 U				0.6 U				10 U				10 U				10 U	
o-Xylene	ug/l	0.3 U				0.3 U				0.3 U				5 U				5 U				5 U	
trans-1,2-Dichloroethene	ug/l	0.3 U	3 U	3 U	3 U	**0.52 =**	3 U	15 U	3 U	**0.32 =**	3 U	3 U	3 U	**0.96 =**	3 U	30 U	3 U	**0.28 J**	3 U	3 U	3 U	5 U	3 U
trans-1,3-Dichloropropene	ug/l	0.3 U	5 U	5 U	5 U	0.3 U	5 U	25 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethylene	ug/l	**0.66 =**	5 U	**9.5 =**	**14 =**	**12 =**	**11 =**	**35 =**	**59 =**	**25 =**	**44 =**	**35 =**	**97 =**	**150 =**	**140 =**	**180 =**	**300 =**	**7 =**	**8.2 =**	**12 =**	**4.5 J**	**7 =**	**7.9 =**
Trichlorofluoromethane	ug/l	0.3 U	4 U	4 U	4 U	0.3 U	4 U	20 U	4 U	0.3 U	4 U	4 U	4 U	5 U	4 U	40 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U
Vinyl chloride	ug/l	0.3 U	5.5 U	5.5 U	5.5 U	0.3 U	5.5 U	28 U	5.5 U	0.3 U	5.5 U	5.5 U	5.5 U	**0.18 J**	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U

NOTES:
Values in shaded cells indicate detections
"J" qualifier indicates an estimated value
"=" qualifier indicates parameter detected at indicated concentration
"U" qualifier indicates a non-detection
"B" qualifier indicates blank contamination

Table 2-4
Summary of Analytical Results
SA - 36, NTC Orlando
December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

StationID:		OLD-36-11C	OLD-36-11C	OLD-36-12C	OLD-36-19A	OLD-36-19A	OLD-36-23C	OLD-36-24B	OLD-36-24B	OLD-36-25C	OLD-36-26A	OLD-36-26A	OLD-36-26A	OLD-36-26A	OLD-36-27A	OLD-36-27A	OLD-36-27A	OLD-36-27A	OLD-36-28B	OLD-36-28B	OLD-36-28B	OLD-36-28B	OLD-36-28B	OLD-36-29B
Client Sample ID:		017-OLD-36-11C-Q1-01	017-OLD-36-11C-Q4-00	017-OLD-36-12C-Q4-00	017-OLD-36-19A-Q4-01	017-OLD-36-19A-Q3-01	017-OLD-36-23C-Q4-00	017-OLD-36-24B-Q4-01	017-OLD-36-24B-Q3-01	017-OLD-36-25C-Q4-01	017-OLD-36-26A-Q4-01	017-OLD-36-26A-Q3-01	017-OLD-36-26A-Q1-01	017-OLD-36-26A-Q4-00	017-OLD-36-27A-Q4-01	017-OLD-36-27A-Q3-01	017-OLD-36-27A-Q1-01	017-OLD-36-27A-Q4-00	017-OLD-36-28B-Q4-01	017-OLD-36-28B-Q3-01	017-OLD-36-28B-Q1-01	017-OLD-36-28B-Q4-00	017-OLD-36-28B-Q4-01
Lab Sample ID:		C09840	AC04568	AC04476	C1106811*1	AC17978	AC04569	C1106811*2	AC17979	C110728*1	C1105990*2	C17925	C09825	AC04276	C1106111*2	AC17883	C09719	AC04277	C1106113*3	AC17842	C09818	AC04278	C1105573*3
Lab Sample ID:		C103409*2	P0012061-03	P0012055-03	P0110472-04	C108110*1	P0012061-04	P0110472-05	C108110*2	P0110486-01	P0110454-06	C10804B*7	C103383*6	P0012030-01	P0110454-09	C108004*1	C103316*3	P0012030-02	C103383*1	C107684*4	C103235-01	P0012030-03	P0110454-03
Lab Sample ID:		P0103256-02											P0103235-08				P0103206-03		P0103235-01				
Date Collected:		03/15/2001	12/06/2000	12/05/2000	10/26/2001	08/02/2001	12/06/2000	10/26/2001	08/02/2001	10/29/2001	10/23/2001	08/01/2001	03/14/2001	12/01/2000	10/24/2001	07/31/2001	03/13/2001	12/01/2000	10/24/2001	07/30/2001	03/14/2001	12/01/2000	10/22/2001
Parameter	**Units**																						
Miscellaneous Parameters																							
Acetic Acid	mg/l	1 U	1 U	1 U		1 U	1 U		1 U			**16 =**	1 U	1 U		**3.4 =**	1 U	1 U		**3.6 =**	1 U	1 U	
Butyric acid	mg/l	1 U	1 U	1 U		1 U	1 U		1 U			**4.6 =**	1 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U	
Lactic Acid	mg/l	25 U	25 U	25 U		25 U	25 U		25 U			25 U	25 U	25 U		25 U	25 U	25 U		25 U	25 U	25 U	
Propionic acid	mg/l	1 U	1 U	1 U	**2.6 =**	1 U	1 U	1 U	1 U	1 U	**7.8 =**	**24 =**	1 U	1 U	**3.8 =**	**6.4 =**	1 U	1 U	**12 =**	**8.2 =**	1 U	1 U	1 U
Pyruvic acid	mg/l	10 U	10 U	10 U		10 U	10 U		10 U			10 U	10 U	10 U		10 U	10 U	10 U		10 U	10 U	10 U	
Ethane	ng/l	**18 =**			5 U	**150 =**		**7.2 =**	**360 =**	5 U	**1000 =**	**5200 =**	**64 =**		**53 =**	**32 =**	**14 =**		**36 =**	**110 =**	**50 =**		**67 =**
Ethane	ug/ml		0.01 U	0.01 U			0.01 U							0.01 U				0.01 U				0.01 U	
Ethene	ng/l	**57 =**			5 U	**5600 =**		**37 =**	**410 =**	**100 =**	**890 =**	**23000 =**	**120 =**		**130 =**	**95 =**	**57 =**		**230 =**	**210 =**	**110 =**		**730 =**
Ethene	ug/ml		0.01 U	0.01 U			0.01 U							0.01 U				0.01 U				0.01 U	
Methane	ug/l	**4.8 =**				**7.8 =**			**49 =**			**2700 =**	**8.5 =**		**2200 =**	**650 =**	**1.7 =**		**4300 =**	**1500 =**	**3.6 =**		**1000 =**
Methane	ug/ml		0.01 U	0.01 U	**0.093 =**		**0.037 =**			**27 =**	**7700 =**			0.01 U				0.01 U				**0.012 =**	
Alkalinity	mg/l	**16 =**	**14 =**	**17 =**	**29 =**	**14 =**	**25 =**	1 U	**8.6 =**	1 U	**3 =**	**16 =**	**18 =**	**26 =**	**350 =**	**140 =**	**62 =**	**160 =**	**57 =**	**49 =**	**37 =**	**300 =**	**8.5 =**
Bromide	mg/l		1 U	1 U			1 U							**0.5 =**				1 U				1 U	
Chloride	mg/l	**5.7 =**	**6.3 =**	**5.7 =**	**8.9 =**	**11.4 =**	**3.7 =**	**7.1 =**	**3.6 =**	**5.7 =**	**9.8 =**	**4.1 =**	**9.9 =**	**6.5 =**	**8.9 =**	**13 =**	**7.7 =**	**6.7 =**	**48 =**	**8.5 =**	**7 =**	**8.7 =**	**30 =**
Dissolved Hydrogen	nM				**0.6 =**			**0.75 =**		**0.86 =**	**10 =**				**2.2 =**				**14 =**				**3.4 =**
Iron	ug/l	**220 =**											**540 =**				**360 =**				**1400 =**		
Iron, Dissolved	ug/l				100 U	100 U		**760 =**	**100 =**	**670 =**	**280 =**	**470 =**			**77 J**	**490 =**			**330 =**	**410 =**			**600 =**
Sodium	mg/l		**4.7 =**	**8.8 =**			**8.8 =**							**8.5 =**				**7.3 =**				**55 =**	
Sulfide	mg/l	1 U			1 U	1 U		1 U	**1.2 =**	1 U	**2.6 =**	**1.3 =**	**1.8 =**		**2.2 =**	**3.2 =**	1 U		**3.3 =**	**2.6 =**	1 U		1 U
Nitrite Nitrogen	mg/l	0.01 U			0.1 U	0.01 U		0.1 U	0.01 U	0.012 U	0.1 U	0.01 U	0.01 U	0.1 U	0.1 U	0.01 U	0.01 U	0.1 U	0.5 U	0.01 U	0.01 U	0.1 U	0.1 U
Nitrate Nitrogen	mg/l	1 U			**15 =**	**78.7 =**		**0.87 =**	0.01 U	**0.08 =**	**0.16 =**	0.01 U	**0.02 =**	**1.2 =**	**2.8 =**	**1.26 =**	0.01 U	0.1 U	**0.19 =**	0.01 U	**0.01 =**	0.1 U	0.1 U
Nitrate-Nitrite Nitrogen	mg/l				**15 =**		0.1 U	**0.87 =**		**0.08 =**	**0.16 =**				**2.8 =**				**0.19 =**				0.1 U
Petroleum Range Organics (PRO)	mg/l	**0.75 JB**	**0.34 J**	**0.4 JB**	0.1 U	**0.27 J**	**0.28 J**	0.1 U	**0.24 J**	0.1 U	**0.19 =**	**22 =**	**2.7 B**	**0.57 JB**	0.1 U	1.1 U	**0.31 JB**	**0.49 JB**	0.1 U	1 U	**0.35 JB**	**0.4 JB**	0.1 U
Total Dissolved Solids	mg/l	**51 =**	**85 =**	**300 =**	**230 =**	**700 J**	**600 =**	**160 =**	**37 J**	**64 =**	**42 =**	**94 J**	**61 =**	**260 =**	**230 =**	**310 J**	**91 =**	**230 =**	**340 =**	**180 J**	**270 =**	**920 =**	**140 =**
Total Organic Carbon	mg/l	**11 =**	**8.77 =**	**22.7 =**	**4.1 =**	**3 =**	**15 =**	4 =	**11 =**	**3.5 =**	**19 =**	**76 =**	**25 =**	**46.6 =**	**18 =**	**31 =**	**3 =**	**8.36 =**	**48 =**	**21 =**	**6 =**	**90.5 =**	**9 =**
Volatile Organic Constituents																							
1,1,1,2-Tetrachloroethane	ug/l	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	0.3 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U
1,1,1-Trichloroethane	ug/l	4 U	4 U	4 U	5 U	4 U	4 U	5 U	4 U	0.3 U	5 U	4 U	4 U	4 U	5 U	4 U	20 U	4 U	5 U	4 U	20 U	4 U	5 U
1,1,2,2-Tetrachloroethane	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
1,1,2-Trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U	5 U	25 U	5 U	5 U
1,1-Dichloroethane	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
1,1-Dichloroethene	ug/l	6 U	6 U	6 U	5 U	6 U	6 U	5 U	6 U	0.3 U	5 U	6 U	6 U	6 U	5 U	6 U	30 U	6 U	5 U	6 U	30 U	6 U	**0.18 J**
1,2,3-Trichlorobenzene	ug/l	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U
1,2,3-Trichloropropane	ug/l	16 U	16 U	16 U	5 U	16 U	16 U	5 U	16 U	1.6 U	5 U	16 U	16 U	16 U	5 U	16 U	80 U	16 U	5 U	16 U	80 U	16 U	5 U
1,2,4-Trichlorobenzene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/l	6.5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	5 U	6.5 U	0.3 U	5 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U
1,2-Dibromo-3-chloropropane	ug/l	13 U	13 U	13 U		13 U	13 U		13 U	1.9 U	5 U	13 U	13 U	13 U	5 U	13 U	65 U	13 U	5 U	13 U	65 U	13 U	5 U
1,2-Dichlorobenzene	ug/l	1.5 U	**0.7 J**	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U
1,2-Dichloroethane	ug/l	3 U	3 U	3 U	5 U	3 U	3 U	5 U	3 U	0.3 U	5 U	3 U	3 U	3 U	5 U	3 U	15 U	3 U	5 U	3 U	15 U	3 U	5 U
1,2-Dichloropropane	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
1,2-Ethylene Dibromide	ug/l	3 U	3 U	3 U	5 U	3 U	3 U	5 U	3 U	0.3 U	5 U	3 U	3 U	3 U	5 U	3 U	15 U	3 U	5 U	3 U	15 U	3 U	5 U
1,3,5-Trimethylbenzene	ug/l	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	0.3 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U
1,3-Dichlorobenzene	ug/l	6 U	6 U	6 U	5 U	6 U	6 U	5 U	6 U	0.3 U	5 U	6 U	6 U	6 U	5 U	6 U	30 U	6 U	5 U	6 U	30 U	6 U	5 U
1,3-Dichloropropane	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
1,4-Dichlorobenzene	ug/l	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U
2,2-Dichloropropane	ug/l	17.5 U	17.5 U	17.5 U	5 U	17.5 U	17.5 U	5 U	17.5 U	0.3 U	5 U	17.5 U	17.5 U	17.5 U	5 U	17.5 U	88 U	17.5 U	5 U	17.5 U	88 U	17.5 U	5 U
2-Chlorotoluene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
4-Chlorotoluene	ug/l	3 U	3 U	3 U	5 U	3 U	3 U	5 U	3 U	0.3 U	5 U	3 U	3 U	3 U	5 U	3 U	15 U	3 U	5 U	3 U	15 U	3 U	5 U
Benzene	ug/l	1 U	2 U	**0.54 J**	5 U	1 U	2 U	5 U	1 U	0.3 U	5 U	1 U	1 U	2 U	5 U	1 U	5 U	2 U	5 U	1 U	5.0 U	2 U	**0.19 J**
Bromobenzene	ug/l	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U
Bromochloromethane	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
Bromodichloromethane	ug/l	4 U	4 U	4 U	5 U	4 U	4 U	5 U	4 U	0.3 U	5 U	4 U	4 U	4 U	5 U	4 U	20 U	4 U	5 U	4 U	20 U	4 U	5 U
Bromoform	ug/l	6 U	6 U	6 U	5 U	6 U	6 U	5 U	6 U	0.3 U	5 U	6 U	6 U	6 U	5 U	6 U	30 U	6 U	5 U	6 U	30 U	6 U	5 U
Bromomethane	ug/l	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	0.53 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U
Carbon tetrachloride	ug/l	10.5 U	10.5 U	10.5 U	5 U	10.5 U	10.5 U	5 U	10.5 U	0.3 U	5 U	10.5 U	10.5 U	10.5 U	5 U	10.5 U	52 U	10.5 U	5 U	10.5 U	52 U	10.5 U	5 U
Chlorobenzene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
Chloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U	5 U	25 U	5 U	5 U
Chloroform	ug/l	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	7.5 U	1.5 U	5 U	1.5 U	7.5 U	**1.4 J**	5 U
Chloromethane	ug/l	6.5 U	6.5 U	6.5 U	5 U	**0.85 J**	6.5 U	5 U	6.5 U	0.3 U	5 U	6.5 U	**0.65 J**	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U
cis-1,2-Dichloroethene	ug/l	**5.3 J**	**3.5 J**	**3.2 J**	5 U	6 U	**0.81 J**	5 U	6 U	0.3 U	**0.86 =**	6 U	6 U	6 U	**7.1 =**	**23 =**	30 U	**1.1 J**	**33 =**	**24 =**	30 U	**0.54 J**	**1.2 =**
cis-1,3-Dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U	5 U	25 U	5 U	5 U
Dibromochloromethane	ug/l	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	0.3 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U
Dibromomethane	ug/l	12 U	12 U	12 U	5 U	12 U	12 U	5 U	12 U	0.3 U	5 U	12 U	12 U	12 U	5 U	12 U	60 U	12 U	5 U	12 U	60 U	12 U	5 U
Dichlorodifluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U	5 U	25 U	5 U	5 U
Ethylbenzene	ug/l	3 U	3 U	3 U	5 U	3 U	3 U	5 U	3 U	0.3 U	5 U	3 U	3 U	3 U	5 U	3 U	15 U	3 U	5 U	3 U	15 U	3 U	5 U
Hexachlorobutadiene	ug/l	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	0.3 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U
Isopropylbenzene	ug/l	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	0.3 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U	2.5 U	12 U	2.5 U	5 U
Methyl t-butyl ether (MTBE)	ug/l										5 U												
Methylene chloride	ug/l	1.5 U	**0.82 J**	**0.85 J**	5 U	1.5 U	1.5 U	5 U	1.5 U	0.3 U	5 U	1.5 U	**0.53 J**	1.5 U	5 U	1.5 U	**8.7 =**	1.5 U	5 U	1.5 U	**5.6 J**	1.5 U	5 U
n-Butylbenzene	ug/l	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	0.3 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U
n-Propylbenzene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
Naphthalene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
p-Isopropyltoluene	ug/l	6 U	6 U	6 U	5 U	6 U	6 U	5 U	6 U	0.3 U	5 U	6 U	6 U	6 U	5 U	6 U	30 U	6 U	5 U	6 U	30 U	6 U	5 U
Sec-Butylbenzene	ug/l	6.5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	5 U	6.5 U	0.3 U	5 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U	6.5 U	32 U	6.5 U	5 U
Styrene	ug/l	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	0.3 U	5 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	5 U	2 U	10 U	2 U	5 U
Tert-Butylbenzene	ug/l	7 U	7 U	7 U	5 U	7 U	7 U	5 U	7 U	0.3 U	5 U	7 U	7 U	7 U	5 U	7 U	35 U	7 U	5 U	7 U	35 U	7 U	5 U
Tetrachloroethylene	ug/l	**2.5 J**	**1.3 J**	7 U	**0.17 J**	7 U	**14 =**	5 U	7 U	0.3 U	5 U	7 U	7 U	7 U	**0.4 =**	**0.55 J**	35 U	7 U	5 U	7 U	35 U	7 U	5 U
Toluene	ug/l	5.5 U	5.5 U	5.5 U	5 U	**1.2 J**	5.5 U	5 U	**0.86 J**	0.3 U	5 U	**0.66 J**	5.5 U	5.5 U	5 U	**1 J**	28 U	5.5 U	5 U	**2 J**	28 U	5.5 U	5 U
Total Xylenes	ug/l	5 U	5 U	5 U		5 U	**1.8 J**		5 U			5 U	5 U	5 U		5 U	25 U	5 U		5 U	25 U	5 U	
m&p-Xylene	ug/l				10 U			10 U		0.6 U	10 U				10 U				10 U				10 U
o-Xylene	ug/l				5 U			5 U		0.3 U	5 U				5 U				5 U				5 U
trans-1,2-Dichloroethene	ug/l	3 U	3 U	3 U	5 U	3 U	3 U	5 U	3 U	0.3 U	5 U	3 U	3 U	3 U	5 U	3 U	15 U	3 U	**0.53 =**	3 U	15 U	3 U	5 U
trans-1,3-Dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U	5 U	25 U	5 U	5 U
Trichloroethylene	ug/l	**10 =**	**6.4 =**	**9 =**	**0.21 J**	5 U	**3.2 J**	5 U	5 U	**11 =**	**4.8 =**	**6.3 =**	**10 =**	**15 =**	**1.5 =**	**14 =**	**97 =**	**79 =**	**6.8 =**	**30 =**	**66 =**	**85 =**	**110 =**
Trichlorofluoromethane	ug/l	4 U	4 U	4 U	5 U	4 U	4 U	5 U	4 U	0.3 U	5 U	4 U	4 U	4 U	5 U	4 U	20 U	4 U	5 U	4 U	20 U	4 U	5 U
Vinyl chloride	ug/l	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	0.3 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U	5.5 U	28 U	5.5 U	5 U

NOTES:
Values in shaded cells indicate detections
"J" qualifier indicates an estimated value
"=" qualifier indicates parameter detected at indicated concentration
"U" qualifier indicates a non-detection
"B" qualifier indicates blank contamination

Table 2-4
Summary of Analytical Results
SA - 36, NTC Orlando
December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

StationID:		OLD-36-29B	OLD-36-29B	OLD-36-29B	OLD-36-30C	OLD-36-30C	OLD-36-30C	OLD-36-31C	OLD-36-31C	OLD-36-31C	OLD-36-31C	OLD-36-32C	OLD-36-32C	OLD-36-32C	OLD-36-32C	OLD-36-33A	OLD-36-34B	OLD-36-35C	OLD-36-36C	OLD-36-37C
Client Sample ID:		017-OLD-36-29B-Q3-01	017-OLD-36-29B-Q1-01	017-OLD-36-29B-Q4-00	017-OLD-36-30C-Q4-01	017-OLD-36-30C-Q3-01	017-OLD-36-30C-Q1-01	017-OLD-36-31C-Q4-01	017-OLD-36-31C-Q3-01	017-OLD-36-31C-Q1-01	017-OLD-36-31C-Q4-00	017-OLD-36-32C-Q4-01	017-OLD-36-32C-Q3-01	017-OLD-36-32C-Q1-01	017-OLD-36-32C-Q4-00	017-OLD-36-33A-Q1-01	017-OLD-36-34B-Q1-01	017-OLD-36-35C-Q1-01	017-OLD-36-36C-Q1-01	017-OLD-36-37C-Q1-01
Lab Sample ID:		AC17841	AC09718	AC04414	C110599*3	AC17888	AC09819	C110599*1	AC17885	AC09820	AC04475	C110557*4	AC17924	AC09717	AC04566	AC09959	AC09957	AC09956	AC09960	AC09958
Lab Sample ID:		C107684*3	C103316*2	P0012036-05	P0110454-07	C108004*4	C103383*2	P0110454-05	C108004*3	C103383*3	P0012055-02	P0110454-04	C108048*6	C103316*1	P0012061-01					
Lab Sample ID:			P0103206-02				P0103235-02			P0103235-03				P0103206-01						
Date Collected:		07/30/2001	03/13/2001	12/04/2000	10/23/2001	07/31/2001	03/14/2001	10/23/2001	07/31/2001	03/14/2001	12/05/2000	10/22/2001	08/01/2001	03/13/2001	12/06/2000	03/16/2001	03/16/2001	03/16/2001	03/16/2001	03/16/2001
Parameter	**Units**																			
Miscellaneous Parameters																				
Acetic Acid	mg/l	1 U	1 U	1 U		1 U	1 U		**15 =**	1 U	1 U		1 U	1 U	1 U					
Butyric acid	mg/l	1 U	1 U	1 U		1 U	1 U		**4.6 =**	1 U	1 U		1 U	1 U	1 U					
Lactic Acid	mg/l	25 U	25 U	25 U		25 U	25 U		25 U	25 U	25 U		25 U	25 U	25 U					
Propionic acid	mg/l	1 U	1 U	1 U	**9.9 =**	**3.8 =**	1 U	**2.8 =**	**31 =**	1 U	1 U	1 U	1 U	1 U	1 U					
Pyruvic acid	mg/l	10 U	10 U	10 U		10 U	10 U		10 U	10 U	10 U		10 U	10 U	10 U					
Ethane	ng/l	**86 =**	**70 =**		**180 =**	**92 =**	**37 =**	**58 =**	**44 =**	**84 =**		**260 =**	**39 =**	**19 =**						
Ethane	ug/ml			0.01 U							0.01 U				0.01 U					
Ethene	ng/l	**120 =**	**70 =**		**1000 =**	**300 =**	**78 =**	**410 =**	**260 =**	**270 =**		**250 =**	**42 =**	**31 =**						
Ethene	ug/ml			0.01 U							0.01 U				0.01 U					
Methane	ug/l	**130 =**	**5 =**		**1300 =**	**90 =**	**5.1 =**	**1400 =**	**2300 =**	**400 =**		**7.5 =**	**5.7 =**	**1.8 =**						
Methane	ug/ml			0.01 U							0.01 U				0.01 U					
Alkalinity	mg/l	**12 =**	**11 =**	**27 =**	**9 =**	**20 =**	**25 =**	1 U	**1 =**	**26 =**	**18 =**	**9 =**	**11 =**	**26 =**	**83 =**					
Bromide	mg/l			5 U							1 U				1 U					
Chloride	mg/l	**7.1 =**	**9.6 =**	**14 =**	**11 =**	**7.4 =**	**8 =**	**9.9 =**	**5.4 =**	**6.9 =**	**8.9 =**	**11 =**	**6 =**	**7.8 =**	**7.9 =**					
Dissolved Hydrogen	nM				**14 =**			**8.7 =**				**1.5 =**								
Iron	ug/l		**1500 =**				**560 =**			**1100 =**				**330 =**						
Iron, Dissolved	ug/l	**450 =**			**500 =**	**350 =**		**250 =**	**570 =**			**190 =**	**210 =**							
Sodium	mg/l			**12 =**							**9.2 =**				**16 =**					
Sulfide	mg/l	**0.63 J**	1 U		**1.6 =**	**3.1 =**	1 U	**2.7 =**	**2.8 =**	**1.4 =**		1 U	1 U	1 U						
Nitrite Nitrogen	mg/l	0.01 U	0.01 U		0.1 U	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U		0.1 U	0.01 U	0.01 U						
Nitrate Nitrogen	mg/l	0.01 U	0.01 U		**0.16 =**	0.01 U	**0.02 =**	**0.15 =**	0.01 U	0.01 U		**0.11 =**	0.01 U	0.01 U						
Nitrate-Nitrite Nitrogen	mg/l			0.1 U	**0.16 =**			**0.15 =**			0.1 U	**0.11 =**			0.1 U					
Petroleum Range Organics (PRO)	mg/l	1 U	**0.34 JB**	1 U	0.1 U	1 U	**0.38 JB**	0.1 U	**3.2 =**	**5.9 =**	**0.4 =**	0.1 U	1.1 U	**0.26 JB**	1 U					
Total Dissolved Solids	mg/l	**10 J**	**68 =**	**180 =**	**52 =**	**92 J**	**110 =**	**30 =**	**120 J**	**140 =**	**130 =**	**64 =**	**59 J**	**200 =**	**620 =**					
Total Organic Carbon	mg/l	**6 =**	**12 =**	**5.18 =**	**12 =**	**8 =**	**1 =**	**7.1 =**	**31 =**	**49 =**	**6.41 =**	**6.4 =**	**6 =**	**7 =**	**18.5 =**					
Volatile Organic Constituents																				
1,1,1,2-Tetrachloroethane	ug/l	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	ug/l	4 U	40 U	4 U	5 U	4 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,1,2,2-Tetrachloroethane	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	ug/l	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	ug/l	6 U	60 U	6 U	5 U	6 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,2,3-Trichlorobenzene	ug/l	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2,3-Trichloropropane	ug/l	16 U	160 U	16 U	5 U	16 U	16 U	5 U	16 U	16 U	16 U	5 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U	16 U
1,2,4-Trichlorobenzene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/l	6.5 U	65 U	6.5 U	5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
1,2-Dibromo-3-chloropropane	ug/l	13 U	130 U	13 U	5 U	13 U	13 U	5 U	13 U	13 U	13 U	5 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U
1,2-Dichlorobenzene	ug/l	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloroethane	ug/l	3 U	30 U	3 U	5 U	3 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,2-Dichloropropane	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Ethylene Dibromide	ug/l	3 U	30 U	3 U	5 U	3 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,3,5-Trimethylbenzene	ug/l	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**0.65 J**
1,3-Dichlorobenzene	ug/l	6 U	60 U	6 U	5 U	6 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
1,3-Dichloropropane	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	ug/l	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
2,2-Dichloropropane	ug/l	17.5 U	180 U	17.5 U	5 U	17.5 U	17.5 U	5 U	17.5 U	17.5 U	17.5 U	5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U	17.5 U
2-Chlorotoluene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Chlorotoluene	ug/l	3 U	30 U	3 U	5 U	3 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Benzene	ug/l	1 U	10 U	2 U	5 U	1 U	1 U	5 U	1 U	1 U	2 U	5 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	**24 =**
Bromobenzene	ug/l	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Bromochloromethane	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	ug/l	4 U	40 U	4 U	5 U	4 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Bromoform	ug/l	6 U	60 U	6 U	5 U	6 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Bromomethane	ug/l	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Carbon tetrachloride	ug/l	10.5 U	110 U	10.5 U	5 U	10.5 U	10.5 U	5 U	10.5 U	10.5 U	10.5 U	5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U
Chlorobenzene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloroethane	ug/l	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/l	1.5 U	15 U	1.5 U	5 U	1.5 U	1.5 U	5 U	1.5 U	1.5 U	**0.97 J**	5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Chloromethane	ug/l	6.5 U	65 U	6.5 U	5 U	6.5 U	6.5 U	5 U	**0.59 J**	6.5 U	6.5 U	5 U	**0.68 J**	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
cis-1,2-Dichloroethene	ug/l	**0.87 J**	60 U	**1.9 J**	**27 =**	**14 =**	**1.3 J**	**2.8 =**	**17 =**	6 U	6 U	**0.25 J**	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
cis-1,3-Dichloropropene	ug/l	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/l	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromomethane	ug/l	12 U	120 U	12 U	5 U	12 U	12 U	5 U	12 U	12 U	12 U	5 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
Dichlorodifluoromethane	ug/l	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/l	3 U	30 U	3 U	5 U	3 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Hexachlorobutadiene	ug/l	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Isopropylbenzene	ug/l	2.5 U	25 U	2.5 U	5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl t-butyl ether (MTBE)	ug/l				5 U			5 U												
Methylene chloride	ug/l	1.5 U	**14 J**	1.5 U	5 U	1.5 U	**0.6 J**	5 U	1.5 U	**0.57 J**	**1.8 =**	5 U	1.5 U	1.5 U	**0.85 J**	**0.65 J**	**0.52 J**	**0.53 J**	1.5 U	1.5 U
n-Butylbenzene	ug/l	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
n-Propylbenzene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Naphthalene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	ug/l	6 U	60 U	6 U	5 U	6 U	6 U	5 U	6 U	6 U	6 U	5 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Sec-Butylbenzene	ug/l	6.5 U	65 U	6.5 U	5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	6.5 U	5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
Styrene	ug/l	2 U	20 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Tert-Butylbenzene	ug/l	7 U	70 U	7 U	5 U	7 U	7 U	5 U	7 U	7 U	7 U	5 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
Tetrachloroethylene	ug/l	7 U	70 U	**190 =**	5 U	7 U	7 U	5 U	7 U	7 U	7 U	**0.22 J**	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
Toluene	ug/l	**1.6 J**	55 U	5.5 U	5 U	**1.1 J**	5.5 U	5 U	**2.5 J**	5.5 U	5.5 U	5 U	**0.69 J**	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Total Xylenes	ug/l	5 U	50 U	5 U		5 U	5 U		5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/l				10 U			10 U				10 U								
o-Xylene	ug/l				5 U			5 U				5 U								
trans-1,2-Dichloroethene	ug/l	3 U	30 U	3 U	**0.37 =**	3 U	3 U	5 U	3 U	3 U	3 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
trans-1,3-Dichloropropene	ug/l	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethylene	ug/l	**130 =**	**150 =**	5 U	**12 =**	**18 =**	**57 =**	**13 =**	**34 =**	**13 =**	**14 =**	**12 =**	**20 =**	**13 =**	**17 =**	5 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane	ug/l	4 U	40 U	4 U	5 U	4 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Vinyl chloride	ug/l	5.5 U	55 U	5.5 U	5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U

NOTES:
Values in shaded cells indicate detections
"J" qualifier indicates an estimated value
"=" qualifier indicates parameter detected at indicated concentration
"U" qualifier indicates a non-detection
"B" qualifier indicates blank contamination

Table 2-5
Summary of Detected Constituents
SA-36. NTC Orlando December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

		Station ID:	OLD-36-06A	OLD-36-06A	OLD-36-06A	OLD-36-06A	OLD-36-07A	OLD-36-07A	OLD-36-07A	OLD-36-07A	OLD-36-08B	OLD-36-08B	OLD-36-08B	OLD-36-08B	OLD-36-09C	OLD-36-09C	OLD-36-09C	OLD-36-09C	OLD-36-10B	OLD-36-10B	OLD-36-10B	OLD-36-10B	OLD-36-11C	OLD-36-11C
		Client Sample ID:	17-OLD-36-06A-Q4-01	017-OLD-36-06A-Q3-01	017-OLD-36-06A-Q1-01	017-OLD-36-06A-Q4-00	17-OLD-36-07A-Q4-01	017-OLD-36-07A-Q3-01	017-OLD-36-07A-Q1-01	017-OLD-36-07A-Q4-00	17-OLD-36-08B-Q4-01	017-OLD-36-08B-Q3-01	017-OLD-36-08B-Q1-01	017-OLD-36-08B-Q4-00	17-OLD-36-09C-Q4-01	017-OLD-36-09C-Q3-01	017-OLD-36-09C-Q1-01	017-OLD-36-09C-Q4-00	17-OLD-36-10B-Q4-01	017-OLD-36-10B-Q3-01	017-OLD-36-10B-Q1-01	017-OLD-36-10B-Q4-00	17-OLD-36-11C-Q4-01	017-OLD-36-11C-Q3-01
		Lab Sample ID	C110655*3	AC17919	AC09821	AC04412	C110655*2	AC17890	AC09822	AC04279	C110655*1	AC17920	AC09841	AC04413	C110611*1	AC17891	AC09845	AC04474	C110557*1	AC17922	AC09839	AC04417	C110557*2	AC17923
		Lab Sample ID	P0110472-03	C108048*1	C103383*4		P0110472-02	C108004*5	C103383*5		P0110472-01	C108048*2	C103409*4		P0110454-08	C108004*6	C103409*3		P0110454-01	C108048*4	C103409*1		P0110454-02	C108048*5
		Lab Sample ID			P0103235-04				P0103235-05				P0103256-04				P0103256-03				P0103256-01			
		Date Collected:	10/25/2001	08/01/2001	03/14/2001	12/04/2000	10/25/2001	07/31/2001	03/14/2001	12/01/2000	10/25/2001	08/01/2001	03/15/2001	12/04/2000	10/24/2001	07/31/2001	03/15/2001	12/05/2000	10/22/2001	08/01/2001	03/15/2001	12/04/2000	10/22/2001	08/01/2001
Parameter	**Units**																							
Miscellaneous Parameters		**Screening Criteria [1]**																						
Acetic Acid	mg/l	NA										24 =				4.3 =								
Butyric Acid	mg/l	NA										1.9 =												
Propionic Acid	mg/l	NA	1.6 =				24 =	4.7 =			47 =	74 =			17=	8.7 =								
Ethane	ng/l	NA	330 =	430 =	17 =		3100 =	110 =	24 =		820 =	900 =	18 =		75 =	160 =	210 =		120 =	62 =	35 =		48 =	28 =
Ethene	ng/l	NA	77 =	360 =	13 =		2500 =	77 =	21 =		3200 =	5600 =	110 =		500 =	430 =	670 =		940 =	76 =	63 =		110 =	45 =
Methane	ug/l	NA	2000 =	69 =	1.7 =		10000 =	1700 =	4.7 =		9300 =	8900 =	80 =		4000 =	1700 =	51 =		620 =	490 =	9.9 =		44 =	18 =
Methane	ug/ml	NA												0.09 =				0.036 =						
Alkalinity	mg/l	NA	71 =	10 =	6 =	1.5 =	74 =	13 =	16 =	16 =	67 =	83 =	22 =	24 =	210 =	180 =	330 =	280 =	29 =	21 =	32 =	25 =	7.8 =	12 =
Bromide	mg/l	NA																						
Chloride	mg/l	250	73 =	1.9 =	8.4 =	4.2 =	120 =	3.2 =	7.7 =	6.2 =	23 =	7 =	6.1 =	7 =	17 =	8.3 =	9.5 =	8.9 =	30 =	8.1 =	3.3 =	6.4 =	8.6 =	4.3 =
Dissolved Hydrogen	nM	NA	2 =				18 =				13 =				150 =				6.8 =				1.3 =	
Iron	ug/l	1,227		440 =					450 =				400 =				180 =				210 =			
Iron, Dissolved	ug/l	1,227	120 =	32 J			720 =	60 J			400 =	450 =			27 J	11 J			54 J	81 J			77 J	95 J
Sodium	mg/l	160			4.1 =					5.4 =				7.8 =				11 =				6.6 =		
Sulfide	mg/l	NA									2.9 =	2.9 =			4.2 =	3.4 =	2.7 =		1.5 =	0.97 J				
Nitrate Nitrogen	mg/l	10	0.5 =	2.98 =	0.09 =		0.21 =	0.5 =	0.09 =	0.2 =	0.18 =				0.23 =								0.1 =	
Nitrate-Nitrite Nitrogen	mg/l	10	0.5 =			0.33 =	0.21 =				0.18 =				0.23 =								0.1 =	
Petroleum Range Organics (PRO)	mg/l	NA			0.42 JB		6.5 =		0.4 JB	0.44 JB	4.4 =	8.1 =	0.66 JB				2 JB	0.35 JB			1.3 JB			
Total Dissolved Solids	mg/l	500	180 =	190 J	150 =	110 =	510 =	120 J	170 =	110 =	210 =	110 J	270 =	100 =	300 =	290 J	120 =	390 =	110 =	98 J	210 =	130 =	50 =	57 J
Total Organic Carbon	mg/l	NA	21 =	14 =	12 =	10.7 =	78 =	10 =	11 =	12.5 =	83 =	94 =	3 =	3.55 =	35 =	29 =	14 =	19.8 =	11 =	13 =	17 =	15.7 =	9.7 =	10 =
Volatile Organic Constituents																								
1,1-Dichloroethene	ug/l	7													0.29 J			0.5 J						
1,2,4-Trimethylbenzene	ug/l	10																	0.24 J				0.23 J	
1,2-Dichlorobenzene	ug/l	60																					0.68 =	
1,3,5-Trimethylbenzene	ug/l	10																						
Benzene	ug/l	1					0.78 =												0.35 =					
Chloroform	ug/l	5.7																						
Chloromethane	ug/l	2.7										0.6 J								0.52 J				0.61 J
cis-1,2-Dichloroethene	ug/l	70	0.18 J				37 =	0.78 J			26 =	17 =			57 =	27 =	20 J	24 =	16 =	8.5 =	11 =	2.3 J	3.3 =	5 J
Methylene chloride	ug/l	5			0.64 J				5.2 J									9.1 =						
p-Isopropyltoluene	ug/l	NA									0.35 =	0.88 J		0.8 J										
Tetrachloroethylene	ug/l	3																			1.6 J	1.7 J	1.6 =	1.9 J
trans-1,2-Dichloroethene	ug/l	100					0.52 =				0.32 =				0.96 =				0.28 J					
Toluene	ug/l	1000		1.2 J				1.1 J				1 J				1.2 J				1 J				1.3 J
Total Xylenes	ug/l	10,000																						
Trichloroethylene	ug/l	3	0.66 =		9.5 =	14 =	12 =	11 =	35 =	59 =	25 =	44 =	35 =	97 =	150 =	140 =	180 =	300 =	7 =	8.2 =	12 =	4.5 J	7 =	7.9 =
Vinyl chloride	ug/l	1													0.18 J									

NOTES
[1] for an organic analyte. The screening criterion is the GCTL for an inorganic analyte with an established
GCTL and background screening value. The screening criterion is the greater of the GCTL or background screening value.
Values in shaded cells meet or exceed the screening criterion
"=" qualifier indicates parameter detected at indicated concentration.
"J" qualifier indicates an estimated value.
Empty cells indicate non-detects
NA indicates no screening criterion available
B=qualifier indicated parameter detected in blank

Table 2-5
Summary of Detected Constituents
SA-36. NTC Orlando December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

		OLD-36-11C 017-OLD-36-11C-Q1-01 AC09840 C103409*2 P0103256-02 03/15/2001	OLD-36-11C 017-OLD-36-11C-Q4-00 AC04568 12/06/2000	OLD-36-12C 017-OLD-36-12C-Q4-00 AC04476 12/05/2000	OLD-36-19A 17-OLD-36-19A-Q4-01 C110681*1 P0110472-04 10/26/2001	OLD-36-19A 017-OLD-36-19A-Q3-01 AC17978 08/02/2001	OLD-36-23C 017-OLD-36-23C-Q4-00 AC04569 12/06/2000	OLD-36-24B 17-OLD-36-24B-Q4-01 C110681*2 P0110472-05 10/26/2001	OLD-36-24B 017-OLD-36-24B-Q3-01 AC17979 C108110*2 08/02/2001	OLD-36-25C 017-OLD-36-25C-Q4-01 C110728*1 P0110486-01 10/29/2001	OLD-36-26A 17-OLD-36-26A-Q4-01 C110599*2 P0110454-06 10/23/2001	OLD-36-26A 017-OLD-36-26A-Q3-01 AC17925 C108048*7 08/01/2001	OLD-36-26A 017-OLD-36-26A-Q1-01 AC09825 C103383*6 P0103235-08 03/14/2001	OLD-36-26A 017-OLD-36-26A-Q4-00 AC04276 12/01/2000	OLD-36-27A 17-OLD-36-27A-Q4-01 C110611*2 P0110454-09 10/24/2001	OLD-36-27A 017-OLD-36-27A-Q3-01 AC17883 C108004*1 07/31/2001	OLD-36-27A 017-OLD-36-27A-Q1-01 AC09719 C103316*3 P0103206-03 03/13/2001	OLD-36-27A 017-OLD-36-27A-Q4-00 AC04277 12/01/2000	OLD-36-28B 17-OLD-36-28B-Q4-01 C110611*3 P0110454-10 10/24/2001	OLD-36-28B 017-OLD-36-28B-Q3-01 AC17842 C107684*4 07/30/2001	OLD-36-28B 017-OLD-36-28B-Q1-01 AC09818 C103383*1 P0103235-01 03/14/2001	OLD-36-28B 017-OLD-36-28B-Q4-00 AC04278 12/01/2000	OLD-36-29B 17-OLD-36-29B-Q4-01 C110557*3 P0110454-03 10/22/2001	OLD-36-29B 017-OLD-36-29B-Q3-01 AC17841 C107684*3 07/30/2001
Parameter	**Units**																									
Miscellaneous Parameters																										
Acetic Acid	mg/l											16 =				3.4 =				3.6 =						
Butyric Acid	mg/l											4.6 =														
Propionic Acid	mg/l				2.6 =						7.8 =	24 =			3.8 =	8.4 =				8.2 =						
Ethane	ng/l	18 =				150 =		7.2 =	360 =		1000 =	5200 =	64 =		53 =	32 =	14 =		36 =	110 =	50 =		67 =	86 =		
Ethene	ng/l	57 =				5600 =		37 =	410 =	100 =	890 =	23000 =	120 =		130 =	95 =	57 =		230 =	210 =	110 =		730 =	120 =		
Methane	ug/l	4.8 =			0.093 =	7.8 =		0.32 =	49 =	27 =	7700 =	2700 =	8.5 =		2200 =	650 =	1.7 =		4300 =	1500 =	3.6 =		1000 =	130 =		
Methane	ug/ml						0.037 =																0.012 =			
Alkalinity	mg/l	16 =	14 =	17 =	29 =	14 =	25 =		8.6 =		3 =	16 =	18 =	26 =	350 =	140 =	62 =	160 =	57 =	49 =	37 =		300 =	8.5 =	12 =	
Bromide	mg/l													0.5 =												
Chloride	mg/l	5.7 =	6.3 =	5.7 =	8.9 =	11.4 =	3.7 =	7.1 =	3.6 =	5.7 =	9.8 =	4.1 =	9.9 =	6.5 =	8.9 =	13 =	7.7 =	6.7 =	48 =	8.5 =	7 =		8.7 =	30 =	7.1 =	
Dissolved Hydrogen	nM				0.6 =			0.75 =		0.86 =	10 =				2.2 =				14 =					3.4 =		
Iron	ug/l	220 =											540 =				360 =				1400 =					
Iron, Dissolved	ug/l							760 =	100 =	670 =	280 =	470 =			77 J	490 =			330 =	410 =			600 =	450 =		
Sodium	mg/l		4.7 =	8.8 =			8.8 =							8.5 =				7.3 =					55 =			
Sulfide	mg/l								1.2 =		2.6 =	1.3 =	1.8 =		2.2 =	3.2 =			3.3 =	2.6 =					0.63 J	
Nitrate Nitrogen	mg/l				15 =	78.7 =		0.87 =		0.08 =	0.16 =		0.02 =	1.2 =	2.8 =	1.26 =			0.19 =		0.01 =					
Nitrate-Nitrite Nitrogen	mg/l				15 =			0.87 =		0.08 =	0.16 =				2.8 =				0.19 =							
Petroleum Range Organics (PRO)	mg/l	0.75 JB	0.34 J	0.4 JB		0.27 J	0.28 J		0.24 J		0.19 =	22 =	2.7 B	0.57 JB			0.31 JB	0.49 JB			0.35 JB	0.4 JB				
Total Dissolved Solids	mg/l	51 =	85 =	300 =	230 =	700 J	600 =	160 =	37 J	64 =	42 =	94 J	61 =	260 =	230 =	310 J	91 =	230 =	340 =	180 J	270 =	920 =	140 =	10 J		
Total Organic Carbon	mg/l	11 =	8.77 =	22.7 =	4.1 =	3 =	15 =	4 =	11 =	3.5 =	19 =	76 =	25 =	46.6 =	18 =	31 =	3 =	8.36 =	48 =	21 =	6 =	90.5 =	9 =	6 =		
Volatile Organic Constituents																										
1,1-Dichloroethene	ug/l																						0.18 J			
1,2,4-Trimethylbenzene	ug/l																									
1,2-Dichlorobenzene	ug/l		0.7 J																							
1,3,5-Trimethylbenzene	ug/l																									
Benzene	ug/l			0.54 J																			0.19 J			
Chloroform	ug/l																						1.4 J			
Chloromethane	ug/l					0.85 J							0.65 J													
cis-1,2-Dichloroethene	ug/l	5.3 J	3.5 J	3.2 J			0.81 J				0.86 =				7.1 =	23 =		1.1 J	33 =	24 =			0.54 J	1.2 =	0.87 J	
Methylene chloride	ug/l		0.82 J	0.85 J									0.53 J				8.7 =				5.6 J					
p-Isopropyltoluene	ug/l																									
Tetrachloroethylene	ug/l	2.5 J	1.3 J		0.17 J		14 =								0.4 =	0.55 J										
trans-1,2-Dichloroethene	ug/l																		0.53 =							
Toluene	ug/l					1.2 J			0.86 J						0.66 J	1 J				2 J						
Total Xylenes	ug/l						1.8 J																			
Trichloroethylene	ug/l	10 =	6.4 =	9 =	0.21 J		3.2 J			11 =	4.8 =	6.3 =	10 =	15 =	1.5 =	14 =	97 =	79 =	6.8 =	30 =	66 =		85 =	110 =	130 =	
Vinyl chloride	ug/l																									

NOTES
[1] for an organic analyte. The screening criterion is the G
GCTL and background screening value. The screening
Values in shaded cells meet or exceed the screening c
"=" qualifier indicates parameter detected at indicated c
"J" qualifier indicates an estimated value.
Empty cells indicate non-detects
NA indicates no screening criterion available
B=qualifier indicated parameter detected in blank

Table 2-5
Summary of Detected Constituents
SA-36. NTC Orlando December 2000, March 2001, July 2001 and October 2001 Groundwater Sampling Results

		OLD-36-29B 017-OLD-36-29B-Q1-01 AC09718 C103316*2 P0103206-02 03/13/2001	OLD-36-29B 017-OLD-36-29B-Q4-00 AC04414 12/04/2000	OLD-36-30C 17-OLD-36-30C-Q4-01 C110599*3 P0110454-07 10/23/2001	OLD-36-30C 017-OLD-36-30C-Q3-01 AC17888 C108004*4 07/31/2001	OLD-36-30C 017-OLD-36-30C-Q1-01 AC09819 C103383*2 P0103235-02 03/14/2001	OLD-36-31C 17-OLD-36-31C-Q4-01 C110599*1 P0110454-05 10/23/2001	OLD-36-31C 017-OLD-36-31C-Q3-01 AC17885 C108004*3 07/31/2001	OLD-36-31C 017-OLD-36-31C-Q1-01 AC09820 C103383*3 P0103235-03 03/14/2001	OLD-36-31C 017-OLD-36-31C-Q4-00 AC04475 12/05/2000	OLD-36-32C 17-OLD-36-32C-Q4-01 C110557*4 P0110454-04 10/22/2001	OLD-36-32C 017-OLD-36-32C-Q3-01 AC17924 C108048*6 08/01/2001	OLD-36-32C 017-OLD-36-32C-Q1-01 AC09717 C103316*1 P0103206-01 03/13/2001	OLD-36-32C 017-OLD-36-32C-Q4-00 AC04566 12/06/2000	OLD-36-33A 017-OLD-36-33A-Q1-01 AC09959 03/16/2001	OLD-36-34B 017-OLD-36-34B-Q1-01 AC09957 03/16/2001	OLD-36-35C 017-OLD-36-35C-Q1-01 AC09956 03/16/2001	OLD-36-37C 017-OLD-36-37C-Q1-01 AC09958 03/16/2001
Parameter	**Units**																
Miscellaneous Parameters																	
Acetic Acid	mg/l							15 =									
Butyric Acid	mg/l							4.6 =									
Propionic Acid	mg/l			9.9 =	3.8 =		2.8 =	31 =									
Ethane	ng/l	70 =		180 =	92 =	37 =	58 =	44 =	84 =		260 =	39 =	19 =				
Ethene	ng/l	70 =		1000 =	300 =	78 =	410 =	260 =	270 =		250 =	42 =	31 =				
Methane	ug/l	5 =		1300 =	90 =	5.1 =	1400 =	2300 =	400 =		7.5 =	5.7 =	1.8 =				
Methane	ug/ml																
Alkalinity	mg/l	11 =	27 =	9 =	20 =	25 =		1 =	26 =	18 =	9 =	11 =	26 =	83 =			
Bromide	mg/l																
Chloride	mg/l	9.6 =	14 =	11 =	7.4 =	8 =	9.9 =	5.4 =	6.9 =	8.9 =	11 =	6 =	7.8 =	7.9 =			
Dissolved Hydrogen	nM			14 =			8.7 =				1.5 =						
Iron	ug/l	1500 =				560 =			1100 =				330 =				
Iron, Dissolved	ug/l			500 =	350 =		250 =	570 =			190 =	210 =					
Sodium	mg/l		12 =							9.2 =				16 =			
Sulfide	mg/l			1.6 =	3.1 =		2.7 =	2.8 =	1.4 =								
Nitrate Nitrogen	mg/l			0.16 =		0.02 =	0.15 =				0.11 =						
Nitrate-Nitrite Nitrogen	mg/l			0.16 =			0.15 =				0.11 =						
Petroleum Range Organics (PRO)	mg/l	0.34 JB				0.38 JB		3.2 =	5.9 =	0.4 =			0.26 JB				
Total Dissolved Solids	mg/l	68 =	180 =	52 =	92 J	110 =	30 =	120 J	140 =	130 =	64 =	59 J	200 =	620 =			
Total Organic Carbon	mg/l	12 =	5.18 =	12 =	8 =	1 =	7.1 =	31 =	49 =	6.41 =	6.4 =	6 =	7 =	18.5 =			
Volatile Organic Constituents																	
1,1-Dichloroethene	ug/l																
1,2,4-Trimethylbenzene	ug/l																
1,2-Dichlorobenzene	ug/l																
1,3,5-Trimethylbenzene	ug/l																0.65 J
Benzene	ug/l																24 =
Chloroform	ug/l									0.97 J							
Chloromethane	ug/l							0.59 J				0.68 J					
cis-1,2-Dichloroethene	ug/l		1.9 J	27 =	14 =	1.3 J	2.8 =	17 =			0.25 J						
Methylene chloride	ug/l	14 J				0.6 J			0.57 J	1.8 =				0.85 J	0.65 J	0.52 J	0.53 J
p-Isopropyltoluene	ug/l																
Tetrachloroethylene	ug/l		190 =								0.22 J						
trans-1,2-Dichloroethene	ug/l			0.37 =													
Toluene	ug/l				1.1 J			2.5 J				0.69 J					
Total Xylenes	ug/l																
Trichloroethylene	ug/l	150 =		12 =	18 =	57 =	13 =	34 =	13 =	14 =	12 =	20 =	13 =	17 =			
Vinyl chloride	ug/l																

NOTES
[1] for an organic analyte. The screening criterion is the G
GCTL and background screening value. The screening
Values in shaded cells meet or exceed the screening c
"=" qualifier indicates parameter detected at indicated c
"J" qualifier indicates an estimated value.
Empty cells indicate non-detects
NA indicates no screening criterion available
B=qualifier indicated parameter detected in blank

3.0 Natural Attenuation Evaluation

An evaluation of the monitored natural attenuation process at SA-36 was completed in January 2002 by CCI. This technical memorandum is included in Appendix D. A summary of this monitored natural attenuation evaluation is presented below.

3.1 SA-36 Zone A Groundwater Results

The groundwater data for Zone A at SA-36 shows a change in a few parameters between the baseline and October 2001 results. The significant findings indicating that natural attenuation may be occurring are as follows:

- The dissolved oxygen concentration in every well, except the downgradient well (OLD-36-19A), is below 1 milligram per liter (mg/L), which is an indication that natural attenuation is occurring.
- The dissolved hydrogen concentration in every well, except the downgradient well (OLD-36-19A), is above 1 nonomole per liter (nm/L), which is an indication that natural attenuation is occurring and the Zone A aquifer terminal electron accepting process is sulfate reduction or methanogenesis.
- The sulfate concentrations are decreasing one or two orders of magnitude in every well, indicating microbial activity is occurring in Zone A.
- The ORP has decreased in four out of five wells sampled at the site and is negative in OLD-36-27A, which indicates that conditions are becoming reducing in the aquifer and are favorable for natural attenuation processes.
- The chloride concentrations have increased in every well at the site, except the downgradient well OLD-36-19A, and an order of magnitude in some wells. This is an indication that chlorinated solvents are being reduced.
- The methane, ethane, and ethene concentrations increased in all wells by at least four orders of magnitude, which indicates reductive dechlorination process may be occurring.
- The TOC concentrations, in every well except OLD-36-26A, have increased. This is an indication the vegetable oil is migrating within the aquifer.
- The TCE concentrations decreased in every well (in most cases by an order of magnitude) and the formation of *cis*-1,2-DCE was detected in four wells, which indicates reductive dechlorination is occurring.

On the basis of the groundwater parameters measured for Zone A at SA-36, the associated score for the reductive zone is 19, which is indicative of adequate evidence for the reductive dechlorination of chlorinated solvents. The score from the previous sampling event was 18.

3.2 SA-36 Zone B Groundwater Results

The groundwater data for Zone B at SA-36 shows a change in a few parameters between the baseline and October 2001 results. The parameter changes that are indicative of reductive dechlorination are listed below:

- The dissolved oxygen concentrations are below 1 mg/L in all wells in the Zone B aquifer.
- The dissolved gas (MEE) concentrations have increased in each of the monitoring wells from the baseline levels.
- The dissolved hydrogen concentrations are 3.4 nm/L or above, except in the upgradient well (OLD-36-24B). This is indicative of reductive dechlorination processes occurring in Zone B and the final electron accepting process is sulfate reduction or methanogenesis.
- The ORP values are 50 millivolts (mV) or below, except in OLD-36-29B and the upgradient well (OLD-36-24B). This is indicative of reducing conditions in Zone B.
- Sulfate concentrations have reduced and hydrogen sulfide concentrations have increased in every well, which is indicative of sulfate reducing conditions in the aquifer.
- The TOC concentrations have either remained relatively constant or decreased in Zone B after the addition of vegetable oil which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased in every well except OLD-36-10B, and the 1,2-DCE concentration has increased in all of the monitoring wells in Zone B. This is indicative of the reductive dechlorination of TCE.

On the basis of the groundwater parameters measured for Zone B at SA-36, the associated score for the reductive zone is 27, which is indicative of strong evidence for the reductive dechlorination of chlorinated solvents. The score from the last sampling event was 19.

3.3 SA-36 Zone C Groundwater Results

The groundwater data for Zone C at SA-36 shows a change in a few parameters between the baseline and October 2001 results. The parameter changes indicative of reductive dechlorination are listed below:

- The dissolved oxygen concentrations are below 1 mg/L in each monitoring well.
- The dissolved gas (MEE) concentrations have increased in each of the monitoring wells from the baseline levels by orders of magnitude.
- The dissolved hydrogen concentrations are above 1 nm/L, except in the downgradient well OLD-36-25C. This indicates reductive dechlorination is occurring and the terminal electron accepting process in the core of the plume is sulfate reduction or methanogenesis.
- The ORP values in the core of the plume are negative, which is indicative of reducing conditions in Zone C.

- Ferrous iron and hydrogen sulfide are reported in the groundwater; these compounds are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well, which is indicative of sulfate reducing conditions.
- The TOC concentrations have increased Zone C, except for well OLD-36-32C, after the addition of vegetable oil. This indicates TOC is migrating in the subsurface.
- TCE concentrations have decreased or remained relatively constant in Zone C, *cis*-1,2-DCE is present in four monitoring wells, and vinyl chloride is present in OLD-36-09C.

On the basis of the groundwater parameters measured for Zone C at SA-36, the associated score for the reductive zone is 25, which is indicative of strong evidence for the reductive dechlorination of chlorinated solvents. The score from the last sampling event was 21.

3.4 Natural Attenuation Evaluation Conclusions

The groundwater sampling results for SA-36 shows the potential for the enhanced biodegradation to be feasible as a remedial alternative for the TCE due to the following observations:

- Dissolved oxygen concentrations have reduced to around 1.5 mg/L or less in almost every well at SA-36.
- ORP values have decreased to negative values in almost every well at SA-36, and the ORP is very negative at OLD-36-09C (-235. mV).
- The dissolved hydrogen concentrations are above 1 nm/L in most wells at SA-36 and the terminal electron accepting process in each aquifer is either sulfate reduction or methanogenesis.
- The nitrate concentrations are below 1 mg/l in the groundwater zones beneath SA-36; therefore, nitrate reduction should not interfere with the reductive dechlorination process.
- The sulfate concentrations in all groundwater zones beneath the SA have reduced to below 20 mg/L in most wells, indicating it is being utilized by the microorganisms and should not interfere with the reductive dechlorination process.
- The overall TCE concentrations in the groundwater in all zones beneath SA-36 have reduced from the baseline levels. The TCE concentrations in some wells has reduced more than 50 percent of the baseline levels.
- The *cis*-1,2-DCE and chloride concentrations have increased in each zone at SA-36 and vinyl chloride is detected in Zone C, all of which is indicative of the reductive dechlorination process.
- The dissolve gasses (MEE), which are degradation products of TCE, have increased orders of magnitude in all groundwater zones beneath SA-36.

- The TOC concentrations have remained about the same or increased in the wells in all of the wells, which indicates the vegetable oil is migrating in the subsurface.

These items, along with the results of the scoring results previously tabulated for each groundwater zone, suggest that the vegetable oil injections have created a reducing environment beneath SA-36. As a result, the TCE concentrations have reduced and the concentrations of the by-products of the reductive dechlorination of TCE have increased such as MEE, carbon dioxide, dissolved hydrogen, *cis*-1,2-DCE, vinyl chloride, and chloride.

4.0 Conclusions and Recommendations

To further enhance the biodegradation of chlorinated solvents at the site, a second round of vegetable oil was injected into nine injection points (B and C zones) on November 15, 2001. Due to the current property development, the existing monitoring wells and injection points were properly abandoned by the current property developer's environmental consulting firm in December 2001. The site and surrounding areas will continue to be under development for the next few months. The monitoring wells are tentatively scheduled to be re-installed in March 2002. The groundwater monitoring activities will resume after the well re-installation in the second quarter of 2002.

The following recommendations, if implemented, should provide additional data for evaluating the enhanced biodegradation process and enhance the TCE reduction in the groundwater beneath SA-36:

- Groundwater monitoring should continue to be conducted on a quarterly basis.

Since the IRA began in December 2000, some of the TCE concentrations in the B and C zones have increased, some have remained stable, while others have decreased. An increasing or decreasing trend of TCE is not clearly evident at this stage in the remediation process because the sulfate and iron must be reduced first before TCE dechlorination occurs. The second round of vegetable oil injection completed in November 2001 will enhance the biodegradation process by ensuring a continued source of TOC. Although the TCE concentration trends are not clearly defined, the natural attenuation scoring has a definite increasing trend. The scoring has increased in all three aquifer zones since the vegetable oil injection, which indicates strong evidence of biodegradation of chlorinated solvents.

5.0 References

ABB Environmental Services, Inc. 1997. *Project Operations Plan for Site Investigations and Remedial Investigations, Naval Training Center, Orlando, Florida.*

CH2M HILL Constructors, Inc. November 2000. *Work Plan for Enhanced In-Situ Bioremediation of Chlorinated Solvents Via Vegetable Oil Injection at SA-36.*

CH2M HILL Constructors, Inc. August 2000. *Work Plan Addendum 1-C, Study Areas 17, 36 and 36.*

CH2M HILL Constructors, Inc. June 1999. *Basewide Work Plan, Naval Training Center, Orlando, Florida.*

Harding Lawson Associates. 1999. *Environmental Site Screening Report, NTC Orlando, Orlando, Florida.*

Appendix A

Monitoring Well Purging and Sampling Logs

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-29B	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	9.35	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	27.00	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	17.65	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	2.9	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	8.6	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1400		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.12	(300 mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	12		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9	12		
pH (s.units)	5.47	5.43	5.39	5.39		
SpCond (umhos/cm)	94	92	92	91		
TEMP.(C)	27.9	27.6	27.5	27.5		
ORP (mV)	85.4	94.9	84.0	80.0		
DO (mg/L)	0.21	0.23	0.21	0.21		
Turbidity (NTU)	184	94	89	*84		
Ferrous Iron (mg/L)				*1.6		
Manganese (mg/L)				*<0.1		
Hydrogen Sulfide (mg/L)				0.5		
Carbon Dioxide (mg/L)				80		
Sulfate (mg/L)				*10		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , (**BROWN**) , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , (**MEDIUM**) , HIGH , VERY STRONG , (**H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , (**MEDIUM**) , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: Low silts high color, * Turned flow rate down to ~300 m/ls/min for last volume but did not appear to help turbidity. Ferr. Fe, Mn and SO4 were filtered before field analysis.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/22/01 @ 1650

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-28B	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch; B.Rhodes				(leave blank if on previous page)	
DEPTH TO WATER (FT):	9.96	CASING DIA.			GAL/FT OF CASING	
WELL DEPTH (FT): -	29.91	**2 IN.**	←		**0.1632**	←
WATER COLUMN (FT): =	19.95	**4 IN.**			**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**			**1.4688**	
CASING VOLUME (GAL) =	3.3	**8 IN.**			**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**			**4.0797**	
PURGE VOLUME (GAL) =	9.0	**12 IN.**			**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1335		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.13	(500 ml/min)	REQUIRED PULLS:
VOL. PURGED (gals):	15		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.25	7	11	15		
pH (s.units)	5.79	5.77	5.76	5.76		
SpCond (umhos/cm)	156	150	147	146		
TEMP.(C)	28.3	28.0	27.5	27.2		
ORP (mV)	-6.1	-2.4	7.8	9.6		
DO (mg/L)	0.14	0.08	0.01	0.00		
Turbidity (NTU)	82.3	212	*360	*410		
Ferrous Iron (mg/L)				<0.1*		
Manganese (mg/L)				<0.1*		
Hydrogen Sulfide (mg/L)				4		
Carbon Dioxide (mg/L)				80		
Sulfate (mg/L)				<1.0*		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , (**DARK *BROWN***) , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , HIGH (**STRONG , H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , MEDIUM , (**HIGH**) , VERY TURBID. HEAVY SILTS

COMMENTS: * Indicates filtered in the field due to dark color of the sample.
The turbidity value increased as the well was purged. Flow rate did not appear to make a difference.
Purged 5 volumes.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/24/01 @ 1600

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-27A	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	6.3	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	23.13	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	16.83	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	2.7	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	6.3	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1345		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.105	(400 mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	9		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9			
pH (s.units)	6.80	6.63	6.63			
SpCond (umhos/cm)	321	362	370			
TEMP.(C)	28	28.40	28.50			
ORP (mV)	-51.2	-53	-65			
DO (mg/L)	0.3	0.07	0.06			
Turbidity (NTU)	162	*40.9	*19.4			
Ferrous Iron (mg/L)			<0.10			
Manganese (mg/L)			<0.10			
Hydrogen Sulfide (mg/L)			4			
Carbon Dioxide (mg/L)			55			
Sulfate (mg/L)			21			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , (**Lt. BROWN**) , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , (**MEDIUM**) , HIGH , VERY STRONG , (**H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , (**LOW**) , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: * turned flow down to ~300mls/min after one volume to try and lower turbidity.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/24/01 @ 1515

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-31C	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.21	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	37.99	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	24.78	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	4.0	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	12.1	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	8:50		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.06	(250mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	13		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4.5	9	13			
pH (s.units)	4.99	4.96	4.96			
SpCond (umhos/cm)	50	51	51			
TEMP.(C)	26.2	26.4	26.4			
ORP (mV)	74.1	70.4	77.4			
DO (mg/L)	0.08	0.01	0.01			
Turbidity (NTU)	86.5	*21.9	*15.6			
Ferrous Iron (mg/L)			0.9			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			8			
Carbon Dioxide (mg/L)			70			
Sulfate (mg/L)			<1.0			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: **CLEAR** , AMBER , TAN , **Lt. BROWN** , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , HIGH , **STRONG , H2S** , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , **LOW** , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS Low silt * Pumped first volume at 500mls/min, then lowered the flow to 250mls/min to try to clear up turbidity.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: NA

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 10/23/01 @ 1115

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-30C	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch; B. Rhodes				(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.36	CASING DIA.			GAL/FT OF CASING	
WELL DEPTH (FT): -	38.05	**2 IN.**	←		**0.1632**	←
WATER COLUMN (FT): =	24.69	**4 IN.**			**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**			**1.4688**	
CASING VOLUME (GAL) =	4.0	**8 IN.**			**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**			**4.0797**	
PURGE VOLUME (GAL) =	12.1	**12 IN.**			**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1330		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.1	(400 mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	15		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4	8.5	13	15		
pH (s.units)	5.55	5.50	5.33	5.33		
Cond/SpCond (umhos/cm)	100	85	76	75		
TEMP.(C)	27.6	27.3	27.3	27.3		
ORP (mV)	1.7	29.0	27.5	30.5		
DO (mg/L)	0.01	0.01	0.00	0.00		
Turbidity (NTU)	122	*37.8	*18.9	*16.8		
Ferrous Iron (mg/L)				1.1		
Manganese (mg/L)				<0.1		
Hydrogen Sulfide (mg/L)				5		
Carbon Dioxide (mg/L)				80		
Sulfate (mg/L)				<1.0		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , **BROWN** , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , HIGH , **STRONG , H2S** , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , **LOW** , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: Low silt, * Purge first volume at 600 mls/min then turn down to 400mls/min to ry and c lear up turbidity. Purge until turbidity seem to stabalize.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE:

Q.C. PARAMETERS:

SAMPLE DATE/ TIME: 10/23/01 @ 1540

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-09C	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch; B. Rhodes				(leave blank if on previous page)	
DEPTH TO WATER (FT):	10.26	CASING DIA.			GAL/FT OF CASING	
WELL DEPTH (FT): -	34.80	**2 IN.**	←		**0.1632**	←
WATER COLUMN (FT): =	24.54	**4 IN.**			**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**			**1.4688**	
CASING VOLUME (GAL) =	4.0	**8 IN.**			**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**			**4.0797**	
PURGE VOLUME (GAL) =	12.0	**12 IN.**			**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	850		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.09	(350 mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	16		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4.5	9	12.5	16		
pH (s.units)	11.61	11.28	11.00	10.95		
SpCond (umhos/cm)	1203	721	503	492		
TEMP.(C)	26.6	26.7	26.8	26.8		
ORP (mV)	-250.0	-290	-255	-235		
DO (mg/L)	0.08	0.08	0.08	0.05		
Turbidity (NTU)	8.7	1.72	1.21	1.27		
Ferrous Iron (mg/L)				<0.1		
Manganese (mg/L)				<0.1		
Hydrogen Sulfide (mg/L)				>10		
Carbon Dioxide (mg/L)				*SEE COMMENTS		
Sulfate (mg/L)				<1.0		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: (**CLEAR / AMBER**) , TAN , BROWN , GREY , MILKY WHITE , OTHER:

ODOR: NONE , (**LOW**) , MEDIUM , HIGH , VERY STRONG , (**H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: (**NONE**) , LOW , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: *pH too high for CO_2 readings. Low H2S odor also due to high pH.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: Extra sample volume collected for (MATRIX SPIKE MATRIX SPIKE DUPLICATE:(MS/MSD))

Q.C. PARAMETERS: VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

SAMPLE DATE/ TIME: 10/24/01 @ 1100

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-07A	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B.Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	6.10	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	20.88	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	14.78	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	2.4	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	7.2	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **(PERIST.)**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1215		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.06	(300 mls/min)	REQUIRED PULLS:
VOL. PURGED (gals):	12		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	5	7.5	10	12	
pH (s.units)	5.50	5.52	5.50	5.51	5.52	
SpCond (umhos/cm)	174	182	170	161	158	
TEMP.(C)	29.2	28.6	28.6	28.5	28.5	
ORP (mV)	49	63	75	77	81	
DO (mg/L)	0.16	0.01	0.01	0.00	0.00	
Turbidity (NTU)	480	*512	526	505	492	
Ferrous Iron (mg/L)					*<1.0	
Manganese (mg/L)					*<1.0	
Hydrogen Sulfide (mg/L)					0.2	
Carbon Dioxide (mg/L)					110	
Sulfate (mg/L)					<1.0	

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , **(BROWN)** , GREY , MILKY WHITE , OTHER:

ODOR: NONE , **(LOW)** , MEDIUM , HIGH , VERY STRONG , H2S , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , MEDIUM , **(HIGH)** , VERY TURBID. HEAVY SILTS

COMMENTS: *The sample had to be filtered then diluted (10X) to analyze with field kits.
This well has a history of increased color and turbidity with volume. Turned flow down to 150mls/min to try and clear.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/25/01 @ 1515

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-08B	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	8.07	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	27.09	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	19.02	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	3.1	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	9.3	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	830		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.1	(400 ml/min)	REQUIRED PULLS:
VOL. PURGED (gals):	12.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6.25	9.5	12.5		
pH (s.units)	4.90	5.05	5.40	5.47		
SpCond (umhos/cm)	83	115	195	205		
TEMP.(C)	27.2	27.0	27.5	27.2		
ORP (mV)	116	80.5	30.0	25.9		
DO (mg/L)	0.04	0.15	0.01	0.01		
Turbidity (NTU)	29.9	*180	157	129		
Ferrous Iron (mg/L)				1.0*		
Manganese (mg/L)				<0.1*		
Hydrogen Sulfide (mg/L)				5		
Carbon Dioxide (mg/L)				130		
Sulfate (mg/L)				<1.0*		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , **DK.BROWN** , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , **HIGH** , VERY STRONG , **H2S** , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , **MEDIUM** , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: * Indicates filtered in the field due to dark color of the sample.
This well has a history of increased color and turbidity with volume. Turned flow down to 150mls/min to try and clear.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: NA

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/25/01 @ 1100

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-06A	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	6.12	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	16.50	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	10.38	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	1.7	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	5.1	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1332		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.06	(300mL/min)	REQUIRED PULLS:
VOL. PURGED (gals):	6.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2	3	5	6.5		
pH (s.units)	5.53	5.52	5.50	5.51		
SpCond (umhos/cm)	43	44	51	58.5		
TEMP.(C)	28.2	28.2	28.2	28.2		
ORP (mV)	120	114	116	120		
DO (mg/L)	0.68	0.65	0.60	0.61		
Turbidity (NTU)	>1000	440	345	330		
Ferrous Iron (mg/L)				*0.2		
Manganese (mg/L)				*<0.1		
Hydrogen Sulfide (mg/L)				0.2		
Carbon Dioxide (mg/L)				50		
Sulfate (mg/L)				*<1.0		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um filter OTHER: diss.H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , **DK. BROWN** , GREY , MILKY WHITE , OTHER: **CLOUDY**

ODOR: NONE , **LOW** , MEDIUM , HIGH , VERY STRONG , H2S , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , MEDIUM , **HIGH** , VERY TURBID. HEAVY SILTS

COMMENTS: * indicates the sample had to be field filtered to be analyzed.
Turned flow down on the last volume to try and lower turbidity.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/25/01 @ 1545

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-11C	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)		
DEPTH TO WATER (FT):	10.09	CASING DIA.		GAL/FT OF CASING		
WELL DEPTH (FT): -	33.78	**2 IN.**	←	**0.1632**	←	
WATER COLUMN (FT): =	23.69	**4 IN.**		**0.6528**		
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**		
CASING VOLUME (GAL) =	3.9	**8 IN.**		**2.611**		
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**		
PURGE VOLUME (GAL) =	11.6	**12 IN.**		**5.8748**		

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1120		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	*0.157	(600mL/min)	REQUIRED PULLS:
VOL. PURGED (gals):	12		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4	8	12			
pH (s.units)	5.61	5.35	5.32			
SpCond (umhos/cm)	73	72	72			
TEMP.(C)	27.1	27.0	27.0			
ORP (mV)	45.3	73.1	89.0			
DO (mg/L)	1.60	0.07	0.10			
Turbidity (NTU)	306	126	*36.9			
Ferrous Iron (mg/L)			0.1			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			0.7			
Carbon Dioxide (mg/L)			55			
Sulfate (mg/L)			10			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , **LT. BROWN** , GREY , MILKY WHITE , OTHER:

ODOR: NONE , **LOW** , MEDIUM , HIGH , VERY STRONG , H2S , FUEL LIKE , CHEMICAL ?, UNKNOWN

Turbidity: NONE , **LOW** , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: * After 2 volumes turn flow down to 400 mls/min (0.1gpm) to try and clear up turbidity.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: **FIELD DUPLICATE** OTHER :

Sample ID: 17-36FD1-Q401

Q.C. PARAMETERS: VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS, No Diss Hydrogen collected for FD1

SAMPLE DATE/ TIME: 10/22/01 @ 1300

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-10B	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch;				(leave blank if on previous page)	
DEPTH TO WATER (FT):	6.64	CASING DIA.		GAL/FT OF CASING		
WELL DEPTH (FT): -	24.62	**2 IN.**	←	**0.1632**	←	
WATER COLUMN (FT): =	17.98	**4 IN.**		**0.6528**		
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**		
CASING VOLUME (GAL) =	2.9	**8 IN.**		**2.611**		
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**		
PURGE VOLUME (GAL) =	8.8	**12 IN.**		**5.8748**		

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1128		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	*0.08	(300mL/min)	REQUIRED PULLS:
VOL. PURGED (gals):	9		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3	6	9			
pH (s.units)	5.98	5.92	5.97			
SpCond (umhos/cm)	101	104	107			
TEMP.(C)	27.9	27.9	28.2			
ORP (mV)	22.1	24.0	22.8			
DO (mg/L)	0.01	0.05	0.02			
Turbidity (NTU)	198	*200	*201			
Ferrous Iron (mg/L)			*<0.1			
Manganese (mg/L)			*<0.1			
Hydrogen Sulfide (mg/L)			5			
Carbon Dioxide (mg/L)			*90			
Sulfate (mg/L)			*10			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: CLEAR , AMBER , TAN , (**DK. BROWN**) , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , HIGH , (**STRONG , H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , (**MEDIUM**) , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: .Silty , * Started flow at 500 mls/min (0.13gpm) turn flow down to 300 mls/min after one volume to try and lower turbidity. Did not change after 2 more volumes decided not go 5 volumes. * Due to high color ,Ferrous Fe and Mn were filtered before analysis. C02 and SO4 were diluted before analysis.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/22/01 @ 1245

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-32C	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	13.30	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	37.86	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	24.56	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	4.0	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	12.0	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1540		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.13	(500mL/min)	REQUIRED PULLS:
VOL. PURGED (gals):	14		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.8	7.5	14			
pH (s.units)	5.51	5.44	5.41			
SpCond (umhos/cm)	89	83	87			
TEMP.(C)	27.3	27.3	26.9			
ORP (mV)	114	116	120			
DO (mg/L)	0.24	0.23	0.25			
Turbidity (NTU)	170	83	*64			
Ferrous Iron (mg/L)			0.9			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			0.1			
Carbon Dioxide (mg/L)			75			
Sulfate (mg/L)			14			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: CLEAR , (**AMBER**) , TAN , DK. BROWN , GREY , MILKY WHITE , OTHER:

ODOR: NONE , (**LOW**) , MEDIUM , HIGH , VERY STRONG **, H2S** , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , LOW , (**MEDIUM**) , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: Med. .Silty * Turn flow down to 300 mls/min for the last volume, did not make much difference in Turbidity.

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/22/01 @ 1715

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-26A	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)	
DEPTH TO WATER (FT):	9.06	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	22.90	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	13.84	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	2.3	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	6.8	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. **PERIST.**		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	1335		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.07	(250mL/min)	REQUIRED PULLS:
VOL. PURGED (gals):	7.5		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.5	5.0	7.5			
pH (s.units)	5.05	5.05	5.07			
SpCond (umhos/cm)	54	53	53			
TEMP.(C)	27.8	27.6	27.6			
ORP (mV)	92.4	74.7	65.7			
DO (mg/L)	0.04	0.03	0.03			
Turbidity (NTU)	52.4	39	8.4			
Ferrous Iron (mg/L)			1			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			10			
Carbon Dioxide (mg/L)			85			
Sulfate (mg/L)			<1.0			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: **CLEAR** , AMBER , TAN , DK. BROWN , GREY , MILKY WHITE , OTHER:

ODOR: NONE , LOW , MEDIUM , HIGH , **STRONG , H2S** , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: **NONE** , LOW , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS:

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/23/01 @ 1500

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-19A	**SITE: CTO-17/SA-36**			
FIELD CREW:	I. Lynch; C. Ivery			(leave blank if on previous page)	
DEPTH TO WATER (FT):	9.36	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	19.75	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	10.39	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	1.7	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	5.1	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)		**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:
PUMP ON (time):	8:40		BAILER VOL.. (gal) .25 / .33
FLOW RATE (gpm) :	0.10	(400 ml/min)	REQUIRED PULLS:
VOL. PURGED (gals):	8		VOL. PURGED (gals):
			OTHER:

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	2.0	4.0	6.0	8.0		
pH (s.units)	6.22	6.23	6.23	6.23		
SpCond (umhos/cm)	278	279	279	280		
TEMP.(C)	26.0	26.0	26.1	26.1		
ORP (mV)	133.0	151	166.0	169		
DO (mg/L)	4.61	4.50	4.49	4.49		
Turbidity (NTU)	112	57.7	15.2	5.84		
Ferrous Iron (mg/L)				<0.1		
Manganese (mg/L)				<0.1		
Hydrogen Sulfide (mg/L)				<0.1		
Carbon Dioxide (mg/L)				20		
Sulfate (mg/L)				47		

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: (**CLEAR**) , AMBER , TAN , DK. BROWN , GREY , MILKY WHITE , OTHER:

ODOR: (**NONE**) , LOW , MEDIUM , HIGH , VERY STRONG , H2S , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , (**LOW**) , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS:

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/26/01 @1000

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___152044.32.21.06.05

WELL NUMBER:	017-Old-36-25C	**SITE: CTO-17/SA-36**				
FIELD CREW:	I. Lynch; B. Rhodes			(leave blank if on previous page)		
DEPTH TO WATER (FT):	11.29	CASING DIA.		GAL/FT OF CASING		
WELL DEPTH (FT): -	35.00	**2 IN.**	←	**0.1632**	←	
WATER COLUMN (FT): =	23.71	**4 IN.**		**0.6528**		
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**		
CASING VOLUME (GAL) =	3.9	**8 IN.**		**2.611**		
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**		
PURGE VOLUME (GAL) =	11.6	**12 IN.**		**5.8748**		

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:	
PUMP ON (time):	1115	BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm) :	0.14 (550mL/min)	REQUIRED PULLS:	
VOL. PURGED (gals):	12	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	4	8	12			
pH (s.units)	4.71	4.68	4.67			
Cond (umhos/cm)	74	71	73			
TEMP.(C)	26.1	26.0	26.0			
ORP (mV)	94.0	97.5	98.3			
DO (mg/L)	0.30	0.28	0.24			
Turbidity (NTU)	186	83	*9.6			
Ferrous Iron (mg/L)			1.1			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			3			
Carbon Dioxide (mg/L)			90			
Sulfate (mg/L)			13			

SAMPLE PARAMETERS (***GRAB***) OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: (**CLEAR**) , AMBER , TAN , (**Lt. BROWN**) , GREY , MILKY WHITE , OTHER:

ODOR: NONE , (**LOW**) , MEDIUM , HIGH , VERY STRONG , (**H2S**) , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: NONE , (**LOW**) , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS: * Turn flow down to 300 mls/min for the last volume, to try and clear up Turbidity

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/29/01 @ 1300

CH2M HILL Constructors, Inc.
WELL SAMPLING FIELD SHEET

PROJECT#___161919.35.02.05.02

WELL NUMBER:	017-Old-36-24B	**SITE:CTO-49/OU-1**			
FIELD CREW:	I. Lynch; C. Ivery			(leave blank if on previous page)	
DEPTH TO WATER (FT):	6.53	CASING DIA.		GAL/FT OF CASING	
WELL DEPTH (FT): -	24.15	**2 IN.**	←	**0.1632**	←
WATER COLUMN (FT): =	17.62	**4 IN.**		**0.6528**	
GAL/FT OF CASING x	0.1632	**6 IN.**		**1.4688**	
CASING VOLUME (GAL) =	2.9	**8 IN.**		**2.611**	
NO. OF VOLUMES min.(3) x	3.0	**10 IN.**		**4.0797**	
PURGE VOLUME (GAL) =	9.0	**12 IN.**		**5.8748**	

METHOD OF PURGING (circle one)

PUMP: SUB. CENT. (**PERIST.**)	**OTHER:**	**BAILER** : TEFLON, SS ,OTHER:	
PUMP ON (time):	1155	BAILER VOL.. (gal)	.25 / .33
FLOW RATE (gpm) :	0.12 (400 ml/min)	REQUIRED PULLS:	
VOL. PURGED (gals):	9	VOL. PURGED (gals):	
		OTHER:	

FIELD PARAMETERS	**FIELD MEASUREMENTS**					WITHIN10% Y / N
	1st	2nd	3rd	4th	5th	6th
VOL. (gal)	3.0	6.0	9.0			
pH (s.units)	4.24	4.19	4.19			
SP Cond (umhos/cm)	183	182	183			
TEMP.(C)	26.3	26.3	26.3			
ORP (mV)	245	245	240			
DO (mg/L)	0.44	0.38	0.42			
Turbidity (NTU)	36.6	4.6	0.42			
Ferrous Iron (mg/L)			1.1			
Manganese (mg/L)			<0.1			
Hydrogen Sulfide (mg/L)			<0.1			
Carbon Dioxide (mg/L)			45			
Sulfate (mg/L)			62			

SAMPLE PARAMETERS (***GRAB*** OR COMPOSITE) : VOC,NO3,NO2,Cl,Alk,TOC,Fl-Pro,VFA,MEE,sulfide,diss.Fe,TDS

FILTERED METALS COLLECTED: Y / N 1.0um OTHER:Diss. H2 gas collected

OBSERVATIONS

COLOR: (**CLEAR** , AMBER , TAN , DK. BROWN , GREY , MILKY WHITE , OTHER:

ODOR: NONE , (**LOW** , MEDIUM , HIGH , VERY STRONG , H2S , FUEL LIKE , CHEMICAL ?, UNKNOWN

TURBIDITY: (**NONE** , LOW , MEDIUM , HIGH , VERY TURBID. HEAVY SILTS

COMMENTS:

OTHER: PLEASE USE BACK OF SHT.FOR SKETCHING MAPS ,WELL LOCATION NOTES ECT. SEE BACK OF SHT Y / **N.**

Q.C. SAMPLE TYPE: DUPLICATE , EQUIPMENT BLANK , OTHER :

Q.C. PARAMETERS: NA

SAMPLE DATE/ TIME: 10/26/01 @ 1330

Appendix B

Analytical Laboratory Reports
July 2001

CH2MHILL DATA DELIVERABLE EVALUATION

Project Name: _____

CTO 17 **Project Number** 152044

Project Manager Steve Tsangaris ***Scientist*** Lisa Schwan
Laboratory Accura

Preliminary Data

Date Due n/a **Date Received** n/a

Final Data

Date Due 7/13/01 **Date Received** 9/18/01

Evaluation

- CCI Level (circle one) **A** **B** (**C**)
- Electronic Data Deliverables (circle one) **yes** **no**
- Review Level **E** = Evaluation E **V** = Validation _____
  Vendor _____
  Validated Data
  Date Due _____ **Date**
  Received _____
- Sample Delivery Group Number 28368

Archiving

- SDG Measurement (in inches) ~ 300 pages
- Scanning Cost = inches x 0.10 _____
- Additional Cost _____
- Out-sourced **Y or N**

  Vendor _____

  Date of Archive _____

Comments

_____

_____

_____

_____

_____

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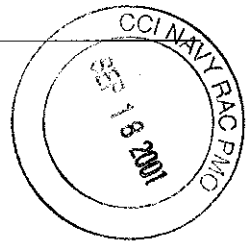
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative



AAL Project #: 28368

Client Project: CTO 17-NTC Orlando-Study Area 39 / 152044.33.03.03.30

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following sample was received by Accura Analytical Laboratory on 07/14/01 at 1040:

Client I.D.	Laboratory I.D.
017-OLD-39-IDW-Q2-01	AC16854

2. The sample cooler temperature was noted to be 4^0C upon receipt.

3. The Thallium by method 7841 analysis was performed by a subcontract laboratory.

4. The "J" values noted for the Pesticides, Metals-TAL, and VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "B" values noted for the Pesticides and Metals-TAL results indicate that the compounds were detected in the samples and in the blank, and the results for those analytes should be considered estimated due to blank contamination.

6. The "Y" value noted for the pH analysis indicates that the sample was analyzed outside the EPA recommended holding and the result for the sample should be considered estimated.

7. The pH of the sample was 1.0 for the VOC analysis.

8. The detection limits were elevated for the sample due to limited sample volume:

Pesticides-SW-846-8081A PCB-SW-846-8082

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Potable & Non-potable Water-Solid/Hazardous Waste

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Case Narrative

9. The sample was analyzed 1 month after sampling for the Reactive Sulfide analysis, and 13 days after sampling for the Reactive Cyanide analysis. The EPA recommends that samples for the Reactive Sulfide and Reactive Cyanide analyses should be analyzed as soon as possible after sampling.

10. Batch QC for the Herbicides, SVOC, Pesticides, and PCB analyses consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as matrix spike and matrix spike duplicate recoveries on the QC spreadsheet.

11. The laboratory control sample and laboratory control sample duplicate recoveries (LCS/LCSD) were outside the project specified limit for the following analytes:

    SVOC-SW-846-8270C
    LCS/LCSD - N-Nitroso-di-n-propylamine Hexachlorocyclopentadiene

    No additional sample was available in order to re-extract. The recoveries were bias low and there were no hits of those compounds in the sample; however, the results for those compounds should be considered estimated.

12. The following spike recoveries were outside the project specified limits due to matrix interference:

    Reactive Cyanide-SW-846-7.332
    Matrix Spike Duplicate - Reactive Cyanide.

    VOC-SW-846-8260B
    Matrix Spike/Matrix Spike Duplicate - Acetone

    Note that Acetone was not a target analyte for the VOC analysis.

13. Tentatively Identified Compounds were reported as quantitative estimates.

Approved for Quality Assurance Release By:

Camden Robinson 9/5/01
Date
Quality Assurance Officer

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LABORATORY REPORT

Accura Sample ID #: AC16854 **Accura Project #:** 28368

Client: CH2M HILL - CCI Date Sampled: 7/13/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 8/31/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: 017-060-39-IDW-Q2-01

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/17/01 Result Units: °F

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ignitability/Flash Point	>140		80

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.38	JB	1.0
Antimony	0.0031	J	0.0060
Arsenic	<RL		0.050
Barium	0.26	J	0.50
Beryllium	<RL		0.0030
Cadmium	0.00070	J	0.0050
Calcium	22		1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	0.0054	J	0.050
Iron	27		0.10
Lead	<RL		0.010
Magnesium	0.72		0.050
Manganese	0.094		0.050
Nickel	<RL		0.010
Potassium	4.8		1.0
Selenium	<RL		0.050
Silver	<RL		0.050

Sodium	31		1.0
Vanadium	0.0022	J	0.010
Zinc	0.029	JB	1.0

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.53
Aroclor-1221	<RL		0.53
Aroclor-1232	<RL		0.53
Aroclor-1242	<RL		0.53
Aroclor-1248	<RL		0.53
Aroclor-1254	<RL		0.53
Aroclor-1260	<RL		0.53

ANALYSIS: Pesticides Navy Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.11
4,4'-DDE	<RL		0.11
4,4'-DDT	<RL		0.11
Aldrin	<RL		0.053
alpha- Chlordane	<RL		0.053
alpha-BHC	<RL		0.053
alpha-Endosulfan	0.035	JB	0.053
beta-BHC	<RL		0.053
beta-Endosulfan	<RL		0.11
delta-BHC	<RL		0.053
Dieldrin	<RL		0.11
Endosulfan sulfate	<RL		0.11
Endrin	<RL		0.11
Endrin aldehyde	<RL		0.11
Endrin Ketone	<RL		0.11
gamma-BHC	<RL		0.053
gamma-Chlordane	<RL		0.053
Heptachlor	<RL		0.053
Heptachlor epoxide	<RL		0.053
Methoxychlor	<RL		0.53
Toxaphene	<RL		5.3

ANALYSIS: pH (Water) Method Ref: 9040B

Date Ext/Dig/Prep: 7/16/01 Date Analyzed: 7/16/01 Result Units: pH units

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
pH	6.9	Y	

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

Reactive Cyanide	<RL		0.10

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	42		5.0

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10

Dibenzofuran	<RL	10
Diethylphthalate	<RL	10
Dimethylphthalate	<RL	10
Di-n-butylphthalate	<RL	10
Di-n-octylphthalate	<RL	10
Fluoranthene	<RL	10
Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	50
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	3.3	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X Herbicide Sample Surrogates-W Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range D-164)	79		

ANALYSIS: X PCB Sample Surrogates (Waters Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-128)	58		

ANALYSIS: X Pest Sample Surrogates (Water Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	53		
Tetrachloro-m-xylene (Range 30-150)	54		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	99		
4-Bromofluorobenzene (80-120)	114		
Toluene-d8 (80-119)	99		

ANALYSIS: X SVOC Sample Surrogates (Waters Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

2,4,6-Tribromophenol	(Range 28-142)	103
2-Fluorobiphenyl	(Range 21-122)	82
2-Fluorophenol	(Range 11-114)	53
Nitrobenzene-d5	(Range 16-125)	92
Phenol-d6	(Range 9-109)	84
p-Terphenyl-d14	(Range 5-157)	88

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LABORATORY REPORT

Accura Sample ID #: AC16855 **Accura Project #:** 28368

Client: CH2M HILL - CCI Date Sampled: 7/14/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 8/31/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.18	J	1.0
Antimony	<RL		0.0060
Arsenic	<RL		0.050
Barium	0.00070	J	0.50
Beryllium	<RL		0.0030
Cadmium	<RL		0.0050
Calcium	0.097	J	1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	<RL		0.050
Iron	<RL		0.10
Lead	<RL		0.010
Magnesium	<RL		0.050
Manganese	0.00070	J	0.050
Nickel	<RL		0.010
Potassium	0.061	J	1.0
Selenium	<RL		0.050
Silver	<RL		0.050
Sodium	0.47	J	1.0
Thallium	<RL		0.0050
Vanadium	<RL		0.010
Zinc	0.017	J	1.0

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		0.50
Aroclor-1232	<RL		0.50
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Navy Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.10
4,4'-DDE	<RL		0.10
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha- Chlordane	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	0.018	J	0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.10
delta-BHC	<RL		0.050
Dieldrin	<RL		0.10
Endosulfan sulfate	<RL		0.10
Endrin	<RL		0.10
Endrin aldehyde	<RL		0.10
Endrin Ketone	<RL		0.10
gamma-BHC	<RL		0.050
gamma-Chlordane	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.50
Toxaphene	<RL		5.0

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.10

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	<RL		5.0

ANALYSIS: SVOC's Navy | Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 | Date Analyzed: 7/26/01 | Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10
Dibenzofuran	<RL		10
Diethylphthalate	<RL		10
Dimethylphthalate	<RL		10
Di-n-butylphthalate	<RL		10
Di-n-octylphthalate	<RL		10
Fluoranthene	<RL		10

Client Sample ID: METHOD BLANK | AALSample ID #: AC16855 | Accura Project #: 28368

Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	50
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12

Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X Herbicide QC Surrogates-Water Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range 58-110)	93		

ANALYSIS: X PCB QC Surrogates (Waters) Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 46-138)	79		

ANALYSIS: X Pest QC Surrogates (Waters) Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	85		
Tetrachloro-m-xylene (Range 30-150)	38		

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	97		

ANALYSIS: X SVOC QC Surrogates (Waters) Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/26/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 25-127)	101		
2-Fluorobiphenyl (Range 27-121)	90		
2-Fluorophenol (Range 24-101)	61		
Nitrobenzene-d5 (Range 24-114)	95		
Phenol-d6 (Range 26-104)	94		
p-Terphenyl-d14 (Range 28-139)	120		

Client Sample ID: METHOD BLANK AALSample ID #: AC16855 Accura Project #: 28368

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%
8260B	Chloromethane	106	102			60-140	20-150	4%	#VALUE!	<30	<50	108		38-116	38-116		
8260B	Bromomethane	115	106			60-140	20-150	9%	#VALUE!	<30	<50	111		49-117	49-117		
8260B	Vinyl Chloride	100	103			60-140	20-150	3%	#VALUE!	<30	<50	110		31-121	31-121		
8260B	Chloroethane	106	101			60-140	20-150	5%	#VALUE!	<30	<50	111		62-116	62-116		
8260B	Methylene Chloride	109	104			60-140	20-150	5%	#VALUE!	<30	<50	108		55-126	55-126		
8260B	Acetone	563	494			60-140	20-150	13%	#VALUE!	<30	<50	133		43-165	43-165		
8260B	Carbon Disulfide	112	104			60-140	20-150	7%	#VALUE!	<30	<50	107		76-119	76-119		
8260B	1,1-Dichloroethene	100	99			60-140	20-150	1%	#VALUE!	<30	<50	110		54-128	54-128		
8260B	1,1-Dichloroethane	106	105			60-140	20-150	1%	#VALUE!	<30	<50	109		62-141	62-141		
8260B	cis-1,2-Dichloroethene	109	104			60-140	20-150	5%	#VALUE!	<30	<50	109		70-131	60-141		
8260B	trans-1,2-Dichloroethene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	109		61-138	51-148		
8260B	Chloroform	104	100			60-140	20-150	4%	#VALUE!	<30	<50	104		65-129	65-129		
8260B	1,2-Dichloroethane	115	111			60-140	20-150	4%	#VALUE!	<30	<50	110		68-135	68-135		
8260B	2-Butanone	107	103			60-140	20-150	3%	#VALUE!	<30	<50	107		50-163	50-163		
8260B	1,1,1-Trichloroethane	110	106			60-140	20-150	4%	#VALUE!	<30	<50	108		68-135	68-135		
8260B	Carbon Tetrachloride	109	103			60-140	20-150	5%	#VALUE!	<30	<50	109		67-125	67-125		
8260B	Bromodichloromethane	95	99			60-140	20-150	3%	#VALUE!	<30	<50	89		68-135	58-145		
8260B	1,2-Dichloropropane	115	108			60-140	20-150	6%	#VALUE!	<30	<50	110		76-132	76-132		
8260B	Cis-1,3-Dichloropropene	108	105			60-140	20-150	3%	#VALUE!	<30	<50	110		70-122	70-122		
8260B	Trichloroethylene	115	111			60-140	20-150	4%	#VALUE!	<30	<50	110		67-137	67-137		
8260B	Dibromochloromethane	99	100			60-140	20-150	1%	#VALUE!	<30	<50	106		64-120	64-120		
8260B	1,1,2-Trichloroethane	107	104			60-140	20-150	3%	#VALUE!	<30	<50	108		70-141	70-141		
8260B	Benzene	111	106			60-140	20-150	5%	#VALUE!	<30	<50	112		51-139	51-139		
8260B	trans-1,3-Dichloropropene	103	101			60-140	20-150	2%	#VALUE!	<30	<50	112		42-154	42-154		
8260B	Bromoform	98	96			60-140	20-150	3%	#VALUE!	<30	<50	111		67-129	67-129		
8260B	4-Methyl-2-Pentanone	93	95			60-140	20-150	2%	#VALUE!	<30	<50	86		77-119	77-119		
8260B	2-Hexanone	95	94			60-140	20-150	1%	#VALUE!	<30	<50	90		47-165	47-165		
8260B	Tetrachloroethylene	95	94			60-140	20-150	1%	#VALUE!	<30	<50	103		67-131	67-131		
8260B	Toluene	101	98			60-140	20-150	3%	#VALUE!	<30	<50	108		31-137	31-137		
8260B	1,1,2,2-Tetrachloroethane	110	107			60-140	20-150	3%	#VALUE!	<30	<50	109		55-138	55-138		
8260B	Chlorobenzene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		69-140	69-140		
8260B	Ethylbenzene	105	101			60-140	20-150	4%	#VALUE!	<30	<50	108		59-140	59-140		
8260B	Styrene	104	102			60-140	20-150	2%	#VALUE!	<30	<50	106		71-133	71-133		
8260B	Xylenes, Total	104	100			60-140	20-150	4%	#VALUE!	<30	<50	106		68-133	68-133		
8260B	4-Bromofluorobenzene (Surr)	102	97			75-125	65-135	5%	#VALUE!			102					
8260B	1,2-Dichloroethane-d4 (Surr)	104	102			62-139	52-149	1%	#VALUE!			109					
8260B	Toluene-d8 (Surr)	101	97			75-125	65-135	4%	#VALUE!			106					

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL SEMI-VOLATILES BY GC/MS						ug/L	ug/kg			%	%			%	%		
8270C	Phenol	94	94			25-125	20-150	0%	#VALUE!	<30	<50			25-125	25-135		
8270C	Bis (2-chloroethyl) ether	92	91			44-125	20-150	1%	#VALUE!	<30	<50			44-125	34-135		
8270C	2-Chlorophenol	79	80			41-125	20-150	1%	#VALUE!	<30	<50			41-125	31-135		
8270C	1,3-Dichlorobenzene	52	47			36-125	20-150	10%	#VALUE!	<30	<50			36-125	26-135		
8270C	1,4-Dichlorobenzene	51	50			30-125	20-150	2%	#VALUE!	<30	<50			30-125	25-135		
8270C	1,2-Dichlorobenzene	56	54			42-155	20-150	4%	#VALUE!	<30	<50			42-155	32-135		
8270C	2-Methylphenol	94	95			25-125	20-150	1%	#VALUE!	<30	<50			25-125	25-135		
8270C	2,2'-Oxybis (1-Chloropropane) [bis (2-Chloroisopropyl) ether]	46	45			36-166	20-150	2%	#VALUE!	<30	<50			36-166	26-175		
8270C	4-Methylphenol	101	100			33-125	20-150	1%	#VALUE!	<30	<50			33-125	25-135		
8270C	N-Nitroso-di-n-propylamine	26	26			37-125	20-150	0%	#VALUE!	<30	<50			37-125	27-135		
8270C	Hexachloroethane	47	47			25-153	20-150	0%	#VALUE!	<30	<50			25-153	25-163		
8270C	Nitrobenzene	95	91			46-133	20-150	4%	#VALUE!	<30	<50			46-133	36-143		
8270C	Isophorone	105	109			26-175	20-150	4%	#VALUE!	<30	<50			26-175	25-175		
8270C	2-Nitrophenol	92	92			44-125	20-150	0%	#VALUE!	<30	<50			44-125	34-135		
8270C	2,4-Dimethylphenol	75	78			45-139	20-150	4%	#VALUE!	<30	<50			45-139	35-149		
8270C	Bis (2-chloroethoxy) methane	96	102			49-125	20-150	6%	#VALUE!	<30	<50			49-125	39-135		
8270C	2,4-Dichlorophenol	96	97			46-125	20-150	1%	#VALUE!	<30	<50			46-125	36-135		
8270C	1,2,4-Trichlorobenzene	59	56			44-142	20-150	5%	#VALUE!	<30	<50			44-142	34-152		
8270C	Naphthalene	74	76			50-125	20-150	3%	#VALUE!	<30	<50			50-125	40-135		
8270C	4-Chloroaniline	97	101			45-136	20-150	4%	#VALUE!	<30	<50			45-136	35-146		
8270C	Hexachlorobutadiene	51	49			25-125	20-150	4%	#VALUE!	<30	<50			25-125	25-135		
8270C	4-Chloro-3-methylphenol	102	107			44-125	20-150	5%	#VALUE!	<30	<50			44-125	34-135		
8270C	2-Methylnaphthalene	75	77			41-125	20-150	3%	#VALUE!	<30	<50			41-125	31-135		
8270C	Hexachlorocyclopentadiene	2	2			41-125	20-150	0%	#VALUE!	<30	<50			41-125	31-135		
8270C	2,4,6-Trichlorophenol	96	93			39-128	20-150	3%	#VALUE!	<30	<50			39-128	29-138		
8270C	2,4,5-Trichlorophenol	97	99			25-175	20-150	2%	#VALUE!	<30	<50			25-175	25-175		
8270C	2-Chloronaphthalene	78	79			60-125	20-150	1%	#VALUE!	<30	<50			60-125	50-135		
8270C	2-Nitroaniline	102	103			50-125	20-150	1%	#VALUE!	<30	<50			50-125	40-135		
8270C	Dimethyl phthalate	104	109			25-175	20-150	5%	#VALUE!	<30	<50			25-175	25-175		
8270C	Acenaphthylene	90	88			47-125	20-150	2%	#VALUE!	<30	<50			47-125	37-135		
8270C	2,6-Dinitrotoluene	101	105			51-125	20-150	4%	#VALUE!	<30	<50			51-125	41-135		
8270C	3-Nitroaniline	99	102			51-125	20-150	3%	#VALUE!	<30	<50			51-125	41-135		
8270C	Acenaphthene	91	88			49-124	20-150	3%	#VALUE!	<30	<50			49-124	39-135		
8270C	2,4-Dinitrophenol	93	93			30-151	20-150	0%	#VALUE!	<30	<50			30-151	25-161		
8270C	4-Nitrophenol	103	104			25-131	20-150	1%	#VALUE!	<30	<50			25-131	25-141		
8270C	Dibenzofuran	95	92			52-125	20-150	3%	#VALUE!	<30	<50			52-125	42-135		
8270C	2,4-Dinitrotoluene	105	108			39-139	20-150	3%	#VALUE!	<30	<50			39-139	29-149		
8270C	Diethyl phthalate	109	116			37-125	20-150	6%	#VALUE!	<30	<50			37-125	27-135		
8270C	4-Chlorophenyl-phenyl ether	98	98			51-132	20-150	0%	#VALUE!	<30	<50			51-132	41-142		

Notes:
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TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8270C	Fluorene	97	100			48-139	20-150	3%	#VALUE!	<30	<50			48-139	38-149		
8270C	4-Nitroaniline	98	104			40-143	20-150	6%	#VALUE!	<30	<50			40-143	30-153		
8270C	4,6-Dinitro-2-methylphenol	97	94			26-134	20-150	3%	#VALUE!	<30	<50			26-134	25-144		
8270C	N-Nitrosodiphenylamine	83	79			27-125	20-150	5%	#VALUE!	<30	<50			27-125	25-135		
8270C	4-Bromophenyl-phenyl ether	105	101			53-127	20-150	4%	#VALUE!	<30	<50			53-127	43-137		
8270C	Hexachlorobenzene	105	104			46-133	20-150	1%	#VALUE!	<30	<50			46-133	36-143		
8270C	Pentachlorophenol	98	99			28-136	20-150	1%	#VALUE!	<30	<50			28-136	38-146		
8270C	Phenanthrene	107	105			54-125	20-150	2%	#VALUE!	<30	<50			54-125	44-135		
8270C	Anthracene	105	101			45-165	20-150	4%	#VALUE!	<30	<50			45-165	35-175		
8270C	Carbazole	103	105			34-132	20-150	2%	#VALUE!	<30	<50			34-132	34-132		
8270C	Di-n-butylphthalate	108	110			34-126	20-150	2%	#VALUE!	<30	<50			34-126	25-136		
8270C	Fluoranthene	103	106			47-125	20-150	3%	#VALUE!	<30	<50			47-125	37-135		
8270C	Pyrene	121	109			47-136	20-150	10%	#VALUE!	<30	<50			47-136	37-146		
8270C	Butylbenzylphthalate	115	121			26-125	20-150	5%	#VALUE!	<30	<50			26-125	25-135		
8270C	3,3'-Dichlorobenzidine	59	58			29-175	20-150	2%	#VALUE!	<30	<50			29-175	25-175		
8270C	Benzo (a) anthracene	110	112			51-133	20-150	2%	#VALUE!	<30	<50			51-133	41-143		
8270C	Chrysene	111	110			55-133	20-150	1%	#VALUE!	<30	<50			55-133	45-143		
8270C	bis (2-Ethylhexyl) phthalate	118	122			33-129	20-150	3%	#VALUE!	<30	<50			33-129	25-139		
8270C	Di-n-octylphthalate	116	114			38-127	20-150	2%	#VALUE!	<30	<50			38-127	28-137		
8270C	Benzo (b) fluoranthene	114	107			37-125	20-150	6%	#VALUE!	<30	<50			37-125	27-135		
8270C	Benzo (k) fluoranthene	117	116			37-123	20-150	1%	#VALUE!	<30	<50			37-123	37-123		
8270C	Benzo (a) pyrene	107	105			41-125	20-150	2%	#VALUE!	<30	<50			41-125	31-135		
8270C	Indeno (1,2,3-cd) pyrene	109	116			27-160	20-150	6%	#VALUE!	<30	<50			27-160	25-170		
8270C	Dibenzo (a,h) anthracene	116	112			50-125	20-150	4%	#VALUE!	<30	<50			50-125	40-135		
8270C	Benzo (g,h,i) perylene	111	101			34-149	20-150	9%	#VALUE!	<30	<50			34-149	25-159		
8270C	Nitrobenzene-d5	91	88			35-114	23-120	3%	#VALUE!								
8270C	2-Fluorobiphenyl	83	80			43-116	30-115	4%	#VALUE!								
8270C	Terphenyl-d14	119	112			33-141	18-137	6%	#VALUE!								
8270C	Phenol-d5	85	84			10-110	24-113	1%	#VALUE!								
8270C	2-Fluorophenol	60	57			21-110	25-121	5%	#VALUE!								
8270C	2,4,6-Tribromophenol	104	101			10-123	19-122	3%	#VALUE!								

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL PESTICIDES/AROCHLORS						%	%			%	%			%	%		
8081A	alpha-BHC	108	104			75-125	20-150	4%	#VALUE!	<30	<50	89		75-125	65-135		
8081A	beta-BHC	101	104			51-125	20-150	3%	#VALUE!	<30	<50	80		51-125	41-133		
8081A	delta-BHC	98	103			75-126	20-150	5%	#VALUE!	<30	<50	93		75-126	65-136		
8081A	gamma-BHC (Lindane)	103	102			73-125	20-150	1%	#VALUE!	<30	<50	87		73-125	63-130		
8081A	Heptachlor	86	84			45-128	20-150	2%	#VALUE!	<30	<50	69		45-128	35-138		
8081A	Aldrin	90	89			47-125	20-150	1%	#VALUE!	<30	<50	66		47-125	37-126		
8081A	Heptachlor epoxide	103	106			53-134	20-150	3%	#VALUE!	<30	<50	91		53-134	43-144		
8081A	Endosulfan I	101	99			49-143	20-150	2%	#VALUE!	<30	<50	95		49-143	39-153		
8081A	Dieldrin	108	112			42-132	20-150	4%	#VALUE!	<30	<50	95		42-132	32-142		
8081A	4,4'-DDE	101	110			45-139	20-150	9%	#VALUE!	<30	<50	86		45-139	35-149		
8081A	Endrin	111	115			43-134	20-150	4%	#VALUE!	<30	<50	108		43-134	33-144		
8081A	Endosulfan II	93	98			75-159	20-150	5%	#VALUE!	<30	<50	82		75-159	65-169		
8081A	4,4'-DDD	103	110			48-136	20-150	7%	#VALUE!	<30	<50	94		48-136	38-146		
8081A	Endosulfan sulfate	103	110			46-141	20-150	7%	#VALUE!	<30	<50	101		46-141	36-151		
8081A	4,4'-DDT	107	115			34-143	20-150	7%	#VALUE!	<30	<50	114		34-143	25-153		
8081A	Methoxychlor	107	109			73-142	20-150	2%	#VALUE!	<30	<50	114		73-142	63-152		
8081A	Endrin ketone	97	103			43-134	20-150	6%	#VALUE!	<30	<50	92		43-134	33-144		
8081A	Endrin aldehyde	100	104			75-150	20-150	4%	#VALUE!	<30	<50	93		75-150	35-160		
8081A	alpha-Chlordane	106	109			41-125	20-150	3%	#VALUE!	<30	<50	87		41-125	31-135		
8081A	gamma-Chlordane	99	103			41-125	20-150	4%	#VALUE!	<30	<50	86		41-125	31-133		
8082A	Arochlor-1016	85	81			54-125	20-150	5%	#VALUE!	<30	<50			54-125	44-127		
8082A	Arochlor-1260	89	83			41-126	20-150	7%	#VALUE!	<30	<50			41-126	31-136		
8081A	Decachlorobiphenyl (DCBP) (Surr)	83	75			34-133	25-143	10%	#VALUE!			76					
8081A	Tetrachloro-m-xylene (TCMX) (Surr)	81	74			45-125	35-135	9%	#VALUE!			58					
HERBICIDES						mg/L	mg/kg			%	%			%	%		
8151A	2,4,5-T	76	80			30-150	30-150	5%	#DIV/0!	<30	<50			30-150	30-150		
8151A	2,4,5-TP	79	81			30-150	30-150	3%	#DIV/0!	<30	<50			30-150	30-150		
8151A	2,4-D	100	88			30-150	30-150	13%	#DIV/0!	<30	<50			30-150	30-150		
8151A	DCAA (Surr)	88	90			42-166	42-166	2%	#DIV/0!	<30	<50			42-166	42-166		

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TAL METALS BY ICP						mg/L	mg/kg			%	%			%	%		
6010B	Aluminum	115	113			50-150	30-170	2%	#VALUE!	<30	<50	113		80-120	80-120		
6010B	Antimony	97	95			50-150	30-170	2%	#VALUE!	<30	<50	95		80-120	80-120		
6010B	Arsenic	104	102			50-150	30-170	2%	#VALUE!	<30	<50	103		80-120	80-120		
6010B	Barium	102	99			50-150	30-170	3%	#VALUE!	<30	<50	100		80-120	80-120		
6010B	Beryllium	101	99			50-150	30-170	2%	#VALUE!	<30	<50	100		80-120	80-120		
6010B	Cadmium	99	96			50-150	30-170	3%	#VALUE!	<30	<50	97		80-120	80-120		
6010B	Calcium	114	111			50-150	30-170	3%	#VALUE!	<30	<50	113		80-120	80-120		
6010B	Chromium	103	100			50-150	30-170	3%	#VALUE!	<30	<50	101		80-120	80-120		
6010B	Cobalt	104	101			50-150	30-170	3%	#VALUE!	<30	<50	102		80-120	80-120		
6010B	Copper	107	104			50-150	30-170	3%	#VALUE!	<30	<50	106		80-120	80-120		
6010B	Iron	110	107			50-150	30-170	3%	#VALUE!	<30	<50	109		80-120	80-120		
6010B	Lead	104	101			50-150	30-170	3%	#VALUE!	<30	<50	102		80-120	80-120		
6010B	Magnesium	110	107			50-150	30-170	3%	#VALUE!	<30	<50	109		80-120	80-120		
6010B	Manganese	105	102			50-150	30-170	3%	#VALUE!	<30	<50	103		80-120	80-120		
6010B	Nickel	98	95			50-150	30-170	3%	#VALUE!	<30	<50	96		80-120	80-120		
6010B	Potassium	113	110			50-150	30-170	3%	#VALUE!	<30	<50	110		80-120	80-120		
6010B	Selenium	95	93			50-150	30-170	2%	#VALUE!	<30	<50	95		80-120	80-120		
6010B	Silver	100	99			50-150	30-170	1%	#VALUE!	<30	<50	100		80-120	80-120		
6010B	Sodium	121	120			50-150	30-170	1%	#VALUE!	<30	<50	120		80-120	80-120		
6010B	Thallium	104	103			50-150	30-170	1%	#VALUE!	<30	<50	104		80-120	80-120		
6010B	Vanadium	104	101			50-150	30-170	3%	#VALUE!	<30	<50	102		80-120	80-120		
6010B	Zinc	99	96			50-150	30-170	3%	#VALUE!	<30	<50	97		80-120	80-120		
MERCURY BY COLD VAPOR						%	%			%	%			%	%		
7470	Mercury	88	82			50-150	NA	7%	#VALUE!	<30	NA	99		70-130	NA		
SW846-7.332	Reactive Cyanide	52	26			50-150	30-170	67%	#DIV/0!	<30	NA		85	75-125	75-125		
SW846-7.342	Reactive Sulfide	116	105			50-150	30-170	10%	#DIV/0!	<30	<50		88	75-125	75-125		

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 283168 Test Performed: Flash pt Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? — If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? — If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____
   Reason for dilution. _____
4. Duplicate AAL sample number — _____
   Is the RPD acceptable? _____ If not, what is the reason? _____
5. MS/MSD AAL sample number — _____
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? yes
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. yes

Analyst entering results in Labworks. KC Date: 8/23/01

Peer Reviewer. [illegible] Date: 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

Flash Point Log Book
EPA SW-846 1010

Lot#'s: **p-Xylene:** 1 - C1033

Date	Analyst	AAL#	Result (°F)	QC	Comments
7/14/01	BP	P-xylene	82		14:35 – 15:05
↓	↓	15162	135		Solid Portion } As per DCF report
↓	↓	15762	136		Liquid Portion } Solid Portion ← LIMS
7/17/01	KC	pxylene	82		1415 – 1700
↓	↓	16877	>140		↓
↓	↓	16878	>140		↓
↓	↓	16854	>140		↓
7/18/01	ZH	P-Xylene	83°F		11:40 – 12:35
↓	↓	16780	~~+29°F~~ >140°F		↓
↓	↓	16781	>140°F		17:00 – 17:45
7/25/01	ZH	P-Xylene	82°F		
↓	↓	16950	>140°F		14:25-15:00
7/31/01	ZH	P-Xylene	82°F		
↓	↓	16951	>140°F		1510 – 1720
8/09/01	ZH	P-Xylene	83°F		
↓	↓	17090	131°F		
↓	↓	17092	<80°F		8:30 –
8/14/01	AS	p-Xylene	81°F		solid 10:00
↓	↓	16944	>140°F		liquid 11:07
↓	↓	17503	>140°F		solid 1:23
↓	↓	17504	>140°F		liquid 3:13
↓	↓	18320	>140°F		end 15:13
8/17/01	AS	~~17481~~			11:20
↓	↓	p-xylene	81°F		liquid / water
↓	↓	17981	>140°F		soil
↓	↓	18028	>140°F		lacquer paint
↓	↓	17820	136°F		" re-run duplicate
↓	↓	17820D	135°F		soil
↓	↓	18588	>140°F		soil
↓	↓	18591	>140°F		greasy-like liquid
↓	↓	18009	>140°F		liquid / water
↓	↓	18345	>140°F		end 5:40 PM / 17:40
8-22-01	PS	18139	>140°F		
↓	↓	18140	>140°F		
↓	↓	P-Xylene	82°F		*Standard tested before run
↓	↓	18835	>140°F		Stand-
↓	↓	18836	>140°F		~~1800~~ 1400 – 1620

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28368 Test Performed: pH Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? — If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? — If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____
   Reason for dilution. _____
4. Duplicate AAL sample number —
   Is the RPD acceptable? _____ If not, what is the reason? _____
5. MS/MSD AAL sample number —
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? YES
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. YES

Analyst entering results in Labworks. JZ Date: 08/23/01

Peer Reviewer. LC Date: 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD 28368

COC NUMBER: 14C28
152044-7301 1 of 1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.33.03.30	Accutest/Bonnie Hogue	Steve Swanepoel PM/CCI/CH2M	4350 W. Cypress St Suite 600 Tampa
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-39	17		Jeff Wilmoth/CCI	115 Perimeter Center Place NE Ste 700 Atlanta, GA.
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Jeff Wilmoth	770-604-9182 x265 770-604-9282 fax	770-449-8800 x233	Jennifer Ottoson/CH2M	205 Indian River Dr. Cocoa, FL

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	TCL Volatiles	TCL Semivolatiles	Pesticides	TCL Pesticides	PCB's	TAL metals	Mercury	Reactivity	Corrosivity	Ignitability	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
								624/8260B	625/8270C	8151A	608/8081A	608/8082	200.7/6010B	7471A	CH 7.3	9045	1010			
1	017-OLO-39-IDW-02-01	IDW	W	7/13/01	1200	III	14	3	1	1	1	1	1	1	1	1	1		Questions call 407-709-2362	16854
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
F. Lynch/CH2M, B. Rhodes/CH2M, G. Bonds/CCI, C. Haas/CCI

[30] COURIER AND SHIPPING NUMBER:
FedEx/828041481374

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
G. Bonds/Donald Bonds	7/13/01	1345	FedEx/Donald Bonds	7/13/01	1345
Printed Name and Signature:			Printed Name and Signature:		
Fedex	7/14/01	10:40	JIMAR PATEL	7/14/01	10:40
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CC1001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

pH, Oxidation-Reduction Potential, and Conductivity Log

EPA 150.1, 9040A, 9045C for pH

EPA 120.1, 9050 for Conductivity

ASTM D1498-93 for Oxidation-Reduction Potential

Date	Analyst	AAL #	pH			Temp °C	Time	Conductivity (uMHOS/cm)				ORP (mV)	Comments
			Sample	Dup	% RPD			ICV	Sample	Dup	% RPD		
7-10-01	ZH	16670	4.8	4.8	0	24	17:15						Proj 28324/EH
7-10-01	DB	16708	4.39=4	H H	0		14:20						
		16707	H.H7=	H5 4.5	0								
7-11-01	PS	16489	7.17=7.2	7.20	0.4	25.2	17:14						
		16605	6.64=6.6	6.65	0.2								
		16646	7.32=7.3	7.33	0.1								
		16660	8.77=8.8	8.81	0.5		4 PS- 7-12-01						
7-12-01	PS	16780	6.57=6.6	6:56	0.2	26.7	12:20						
		16781	6.55=6.6	6.55	0								
7-12-01	PS.	16794	6.4	6.4	0	26.1	17:00						
		16797	6.3	6.3	0								
		16800	6.3	6.3	0								
		16803	6.4	6.4	0								
		16805	6.3	6.4	1.6								
7/14/01	RP	16825	7.5	7.5	0	26	08:55						
~~7/17/01~~	~~PS~~	~~16854~~	~~6.6~~	~~6.7~~	~~1.5~~	~~25.1°~~	~~09:01~~						
7/16/01	ZH	16854	6.9	6.9	0	24	18:05						
7/19/01	ZH	17086	6.4	6.5	1.6	27	13:45						
		17095	5.7	5.7	0	27	15:40						
		17129	6.1	6.2	1.6	26	17:50						Proj 28419
		17134	8.5 ps	8.5	0		18:00						284.9
7-25-01	PS	17306	4.7	4.8	2.1	28°	16:45						
		17304	5.7	5.8	1.7								
		17307	5.5	5.6	1.8								
		17305	5.8	5.8	0								

Note: see pH and Conductivity Calibration Log Book for calibration and lot #'s

ORP = Oxidation-Reduction Potential

Reviewed By:_____

Page No.: 81

Phconlog

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28368 Test Performed: Reac. S^{-2}

Project Manager: BJN

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____
   Reason for dilution. _____
4. Duplicate AAL sample number 17503
   Is the RPD acceptable? No If not, what is the reason? _____
5. MS/MSD AAL sample number 18140
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? ✓ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r>0.995; standards & ICV within ± 10% recovery)? _____
9. For titration tests, are the titration ratios acceptable? _____
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? _____
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. _____

Analyst entering results in Labworks. NT Date: 8.26.01

Peer Reviewer. JMC Date: 8/28/01

Peer Reviewer is responsible for reviewing all above questions.

Environmental Analytical Services

Total Sulfides

EPA 376.1

Analyst: AS/UF
Date: 08-24-01 - 8/25/01
Time Started: 11:30 / 19:30

Lot #'s:
Working Sulfide Standard: 66Q / 67A
Zinc Acetate Solution: ——
$Na_2S_2O_3$ 0.0250N: I-01057
$Na_2S_2O_3$ 0.0100N: 1134

Starch Solution: I-01048-2
I_2 0.02500N: I-00127
6N NaOH: ——
1:1 HCl: 66I

Standardization Titrations:

mL of 0.0100N $Na_2S_2O_3$ used for 200ml working standard: 12.30
mL of 0.0250N $Na_2S_2O_3$ used for 200mL working standard: 5.05

Ratio of 0.0100/0.0250=0.400
Ratio of Titrations: 0.411
} see PJ 31 same date

RPD between the two ratios = 5.4%

If RPD is less than 15%, then continue with the samples, otherwise retitrate.

= Reactives =

AAL#	mL I_2	Sample volume	Dilution	mL 0.0250N $Na_2S_2O_3$	Calc. Value (mg/L)	8.25.01 QC
Blank	10	~~50 10g→50mL~~	200	~~*0.30~~ 9.85	0.3 ~~to <DL~~ kg	5.0
LCS	10	10mL of 200ppm		5.60	176	%R = 88
18028	10	10g → 50mL		~~*9.02~~ 7.16	96	50 = RDL
~~16854~~	10			8.95	8.25.01 ~~<DL~~ 42	
17981	12			3.57	260	
17503	10			4.27	230	
17503D	10			2.35	306 = 310	%RPD = 29
17504	12			4.90	204 = 200	
18139	10			~~*14.15~~ 9.95	<DL	
18140	13			9.83	<DL	
18141	10			11.55	<DL	
18142	10			9.40	8.25.01 ~~<DL~~ 24	
18320	10			10.90	<DL	

* samples reanalyzed 8.25.01

Calculation: mg S^{-2}/L = $\frac{400(A-B)}{mL\ sample}$, where; A=mL 0.02500N I_2
B=mL 0.02500N $Na_2S_2O_3$

Reviewed By: ——

Environmental Analytical Services

Total Sulfides
EPA 376.1

Analyst: _____
Date: _____
Time Started: _____

Lot #'s:
Working Sulfide Standard: _____
Zinc Acetate Solution: _____
$Na_2S_2O_3$ 0.0250N: Previous
$Na_2S_2O_3$ 0.0100N: Previous

Starch Solution: _____
I_2 0.02500N: _____
6N NaOH: Daigl
1:1 HCl: _____

Standardization Titrations:

mL of 0.0100N $Na_2S_2O_3$ used for 200ml working standard: _____
mL of 0.0250N $Na_2S_2O_3$ used for 200mL working standard: _____

Ratio of 0.0100/0.0250=0.400
Ratio of Titrations: _____

RPD between the two ratios = _____
If RPD is less than 15%, then continue with the samples, otherwise retitrate.

Kg 8.25.01

AAL#	mL I_2	Sample volume	Dilution	mL 0.0250N $Na_2S_2O_3$	Calc. Value (mg/L)	QC
18320d	10	10g→50ml		10.80	<DL	RDL=5.0
18345	↓	↓		8.95	8.25 42	↓
18588				10.85	<DL	RDL=6.8
18591				10.90	<DL	RDL=6.2
18893				2.75	290 %solid=	Dry Wt Basis
18894		↓		9.75	10	↓
18140 MS		10g+10ml spike		4.20	232	%R=116 %RPD=10
18140 MSD	↓	↓		4.75	210	%R=105
		Reactive S = [400(10-B)/50 x (0.05L)] / [0.01kg · 1800s] x 1800s				

Calculation: mg S^{-2}/L = $\frac{400(A-B)}{mL\ sample}$, where; A=mL 0.02500N I_2
B=mL 0.02500N $Na_2S_2O_3$

Reviewed By: _____

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28368 Test Performed: Reac Cyanide Project Manager: BSH

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____
   Reason for dilution. _____
4. Duplicate AAL sample number 116854
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number 116854
   Are the recoveries acceptable? No If not, what is the reason? matrix interference
6. Are all special requirements on project sheet completed? ✓ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? yes
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? yes
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. yes

Analyst entering results in Labworks. ZF Date: 8/23/01

Peer Reviewer. [signature] Date: 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

Environmental Analytical Services

Cyanide (soils and reactives)

EPA SW-846 9013/9010B/9014 and sect 7.3/9010b/9014

Analyst: 217

Analysis Date: 7/26/01 – 7/27/01
16:30 – 18:00

Lot #s:

Cyanide Working Std: 64I
Cyanide ICV Working Std: 64J
NaOH 0.25N: 63M
H_2SO_4 ~~18N (1:1)~~ 0.01N: 63P

$Na_2H_2PO_4$ Solution: 63N
Chloramine-T Solution: Daily
Pyridine/Barbituric Acid: 2-01054

= Reactives =

Date 7-point curve generated: 7-27-01

Conc. (mg/L CN⁻)	Blank	0.005	0.010	0.025	0.040	0.050	0.075	ICV 0.025
Absorbance	0	0.051	0.100	0.247	0.392	0.491	0.753	0.233
Conc (mg/L CN-)	0	0.0053	0.0102	0.0249	0.0394	0.0494	0.0757	0.0235
Standard %R (+/- 10%)		105	102	100	99	99	101	94
Correlation Coefficient	0.999							

3-Point Curve:

Blank	0.005	0.025	0.[illegible]

7-27-01

#	AAL #	Spiked vol (ml) and conc.	Sample weight (gm.)	Extraction volume (ml)	Dilution factor (DF)	Sample vol. (ml) (V^1_I)	Vol. (ml) after distillation (V^1_F)	Vol. (ml) for colorimetry (V^2_I)	Vol. (ml) after colorimetry (V^2_F)	Abs.	Conc. From curve (mg/L)	Result (mg/kg)	RDL (mg/kg)
1	BL	—	—	50	~~1:5~~ 1	50	100	~~10~~ 50	100	0	0		[illegible]
2	LCS	10ml of 1ppm	—		—					0.210	%R=85		
3	116950	—	10g		1:5					neg	<DL	<DL	[illegible]
4	116854	↓	↓		↓					0.010	0.00	↓	↓
5	116854d	↓								0.009	0.00		
6	116854MS	10ml of 1ppm								0.128	0.0130	%R=52	
7	116854MSD	↓	↓	↓	↓	↓	↓	↓	↓	0.054	0.0056	%R=20	↓
8													
9													
10													
11													
12													
13													
14													

MS 20

Comments:

Result (mg/kg) = $\frac{\text{Conc. from curve (mg/L)} \times V^2_F \times V^1_F \times DF}{V^1_I \times V^2_I}$

$\frac{10\text{ug}}{1\text{ml}} \left(\frac{10\text{ml}}{}\right)$ 100 ug

Reviewed By: _____
Page No. _____

HYGEIA LABORATORIES, INC.
1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No. **M0108097** Report Date: 8/16/01

Client Name: **Accura Analytical**
Contact: **Bonnie Hogue**
Address: 6071 Financial Drive
Norcross, GA 30071
Project Name: **Thallium Testing**
Project ID: 28368/28380
Receipt Date: 8/9/2001

Flag Code

Case Narrative

1. The holding time for all samples were met.
2. Where applicable, results & reporting limits are based on wet weight; dry weight calculations available.
3. The temperature of the sample cooler was received by the laboratory at 4 degree C.

Respectively Submittted:

Reviewed By: ME

Hygeia Laboratories, Inc.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Collected
M0108097-01	16854	Water	7/13/01
M0108097-02	16912	Water	7/13/01
M0108097-03	16913	Water	7/13/01

Lab Project No. M0108097 Report Date: 8/16/01

Thallium by GFAA Units: ug/L(ppb) Method #: EPA7841
Matrix: Water Analysis Date: 8/13/2001 Prep Date: 8/13/2001 Analyst: VJ
Lab Sample #: **M0108097-01** Client ID: **16854**

Analyte(s)	CAS #	Result	Report Limit	Flag Code
Thallium by GFAA	N/A	BRL	2	

Thallium by GFAA Units: ug/L(ppb) Method #: EPA7841
Matrix: Water Analysis Date: 8/13/2001 Prep Date: 8/13/2001 Analyst: VJ
Lab Sample #: **M0108097-02** Client ID: **16912**

Analyte(s)	CAS #	Result	Report Limit	Flag Code
Thallium by GFAA	N/A	BRL	2	

Thallium by GFAA Units: ug/L(ppb) Method #: EPA7841
Matrix: Water Analysis Date: 8/13/2001 Prep Date: 8/13/2001 Analyst: VJ
Lab Sample #: **M0108097-03** Client ID: **16913**

Analyte(s)	CAS #	Result	Report Limit	Flag Code
Thallium by GFAA	N/A	BRL	2	

Lab Project No. M0108097 Report Date: 8/16/01

BatchID: H010816001
Department: Metals
Prep Method: Thallium by GFAA
Analysis Method: Thallium by GFAA

Prep Analyst: VJ
Prep Date: 8/13/01 0:00
Analyst: VJ
Analysis Date: 8/13/01 10:15

Quality Control Summary

H010816001-MB

AnalyteName	Result	RL
Thallium by GFAA	BRL	2.00

H010816001-LCS

AnalyteName	Result	Parent Result	%Recovery	Ctl Limits
Thallium by GFAA	10.8		108	70 - 130

H010816001-LCSD

AnalyteName	Result	Parent Result	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Thallium by GFAA	9.6		96	70 - 130	12	0 - 30

M0108084-04A-DUP

AnalyteName	Result	Parent Result	RPD	RPD Ctl Limits
Thallium by GFAA	BRL	0	0	0 - 30

M0108084-04A-MS

AnalyteName	Result	Parent Result	%Recovery	Ctl Limits
Thallium by GFAA	9.6	0	96	70 - 130

M0108084-04A-MSD

AnalyteName	Result	Parent Result	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Thallium by GFAA	10.0	0	100	70 - 130	4	0 - 30

Lab Project No. M0108097 Report Date: 8/16/01

NOTES:

- Results relate only to the samples tested as received (See Chain-of-Custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- E = "Estimated Result"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - LabID 40970; Arkansas: Connecticut - No. PH 0208Delaware; Florida - No. 97056 (EW), No. 97268 (DW); Georgia - No. 804; Indiana - Lab ID C-GA-01; Kentucky - Lab ID 90053; Maryland - No. 293; North Carolina - No 409 South Carolina - No. 98012; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 0024

Accreditations

American Association for Laboratory Accreditation (A2LA) - No. 0330-01; American Industrial Hygiene Association (AIHA) - Lab ID 100649

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: Hogue

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: **Bonnie J. Hogue**

Contact Phone # (770) 449 - 8800, **ext. 216**

Fax Number: (770) 449 - 5477

AAL PROJECT #

For Laboratory Use Only

Custody Seal: Y N

QC Level: N 1 2 3 4

Entered into LIMS:

Page OF

Init/Temp: 4°C

LAB Project # M010507

Sample Condition: 210

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	Thallium 7841 3.0 gb Dis	Remarks	LAB #
AC 16854	7/13/01			W		1A	1	✓	Project 28368	
AC								✓	✓	
AC 16912	7/15/01			W		2A	1	✓	28380	
AC 16913	7/15/01			W		3A	1	✓	11	
AC										
AC										
AC										
AC										
AC										
AC										

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
	7-17-01 1410		/	**PLEASE FAX RESULTS!!**
Relinquished By:	Date / Time	Received By:	Date / Time	Turnaround Time Requested:
			8/9/01 1440	8/15/01

AUG-16-01 THU 01:59 PM FAX NO. P. 06

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Checklist

Project #: 283268 **Instrument Used: Trace ICAP/ICAP/GFAA/TIMS Hg**

Analyst Questions

1. **Is the Blank <1/2 RDL?** Yes **If not, has the RDL been raised or the samples reanalyzed?** _____
2. **Are the LCS/LCSD within limits?** Not Ag **If not, why, or are the samples being reanalyzed?** Redig See DNF Redig Batch 073101C
3. **Duplicate AAL sample number** 166603
   Is the RPD acceptable? Yes **If not, what is the reason?** _____
4. **MS/MSD AAL sample number** 166603
   Are the recoveries acceptable? Yes **If not, what is the reason?** _____
5. **Sample numbers requiring dilution?** _____
   Reason for dilution. _____
6. **Are all special requirements on project sheet completed?** _____ **If unable to complete, has the project manager been notified?** _____
7. **Any additional comments.** Blk 166554 Scan for Hg. To Send out for Hg Check with PM (BJH) MS/MSD: LCS SO Rec. enter on Many QC Tab6

Reviewer Questions

8. **Is the ICV within ± 10% for 6010B, or 5% for 200.7?** ✓
9. **For Hg and GFAA, is the curve acceptable, (>0.995 correlation coefficient)?** —
10. **Verified the correct date & time; sample results with sigfigs in LIMS** ✓
11. **Verified the RDL and its sigfigs according to dilution** ✓

Analyst entering results in Labworks. [signature] **Date:** 8/7/01

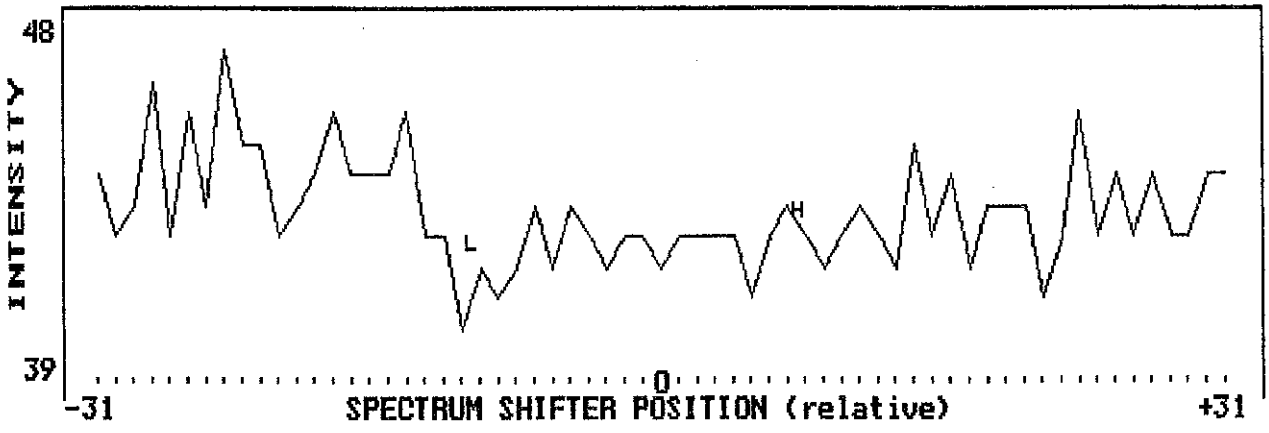
Peer Reviewer: [signature] **Date:** 8/7/01

Peer Reviewer is responsible for reviewing all above questions.

WATERS2 INT SN: BLK 0718A TL 08/07/01 04:05:09

Ag Al As Ba Be Ca Cd Co Cr Cu Fe K Mg Mn Ni Sm Pb Se Sb Sn
V Zn Y

190.864/2



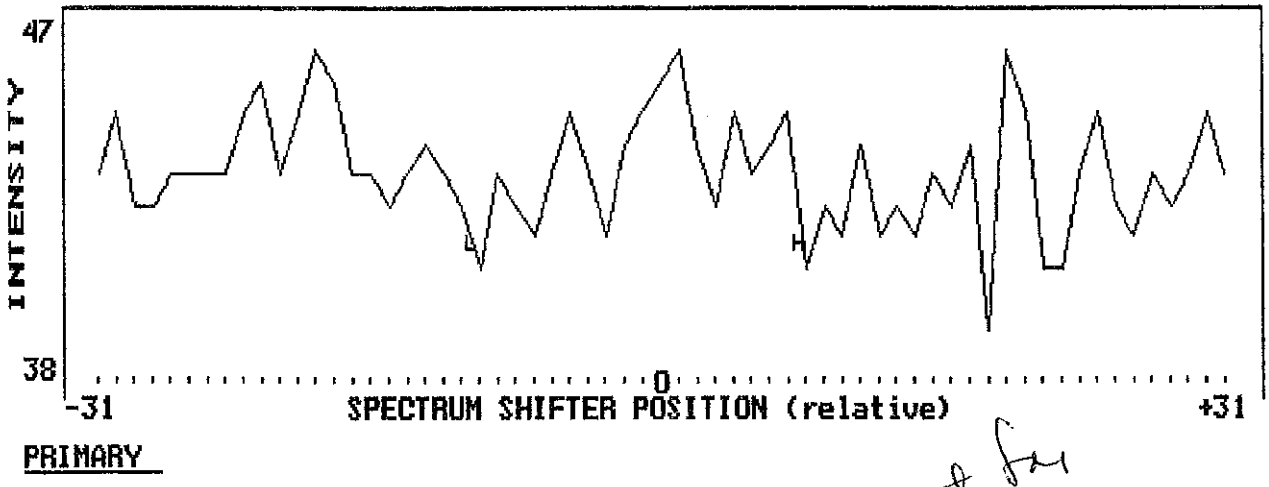
PRIMARY

In-a 8/7/01

WATERS2 INT SN: AC16854 TL 08/07/01 04:07:43

Ag Al As Ba Be Ca Cd Co Cr Cu Fe K Mg Mn Ni Sm Pb Se Sb Sn
V Zn Y

190.864/2



PRIMARY

To send out for
4 hr a 8/7/01

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	JUL1901	WATERS2	07/20/01	10:46		X	IR
2	STD8	JUL1901	WATERS2	07/20/01	10:54		X	IR
3	STD3	JUL1901	WATERS2	07/20/01	11:01		X	IR
4	STD4	JUL1901	WATERS2	07/20/01	11:06		X	IR
5	STD2	JUL1901	WATERS2	07/20/01	11:10		X	IR
6	ICV 2	JUL1901	WATERS2	07/20/01	11:15	AOP	Q	CONC
7	ICB	JUL1901	WATERS2	07/20/01	11:21	AOP	B	CONC
8	ICS A	JUL1901	WATERS2	07/20/01	11:27	AOP	Q	CONC
9	ICS AB	JUL1901	WATERS2	07/20/01	11:35	AOP	Q	CONC
10	SS I	JUL1901	WATERS2	07/20/01	11:42	AOP	Q	CONC
11	SS I LOW	JUL1901	WATERS2	07/20/01	11:48	AOP	Q	CONC
12	15130 C	JUL1901	WATERS2	07/20/01	12:02	AOP	S	CONC
13	15130 CD	JUL1901	WATERS2	07/20/01	12:08	AOP	S	CONC
14	15130 CT	JUL1901	WATERS2	07/20/01	12:15	AOP	S	CONC
15	15130 C10X	JUL1901	WATERS2	07/20/01	12:21	AOP	S	CONC
16	15130 C10XD	JUL1901	WATERS2	07/20/01	12:27	AOP	S	CONC
17	15130 C10XT	JUL1901	WATERS2	07/20/01	12:33	AOP	S	CONC
18	QMW0712014 1000	JUL1901	WATERS2	07/20/01	12:39	AOP	S	CONC
19	QMW0712015 LCS	JUL1901	WATERS2	07/20/01	12:45	AOP	S	CONC
20	QMW0712016 LCSD	JUL1901	WATERS2	07/20/01	12:52	AOP	S	CONC
21	ICV 2	JUL1901	WATERS2	07/20/01	13:00	AOP	Q	CONC
22	ICB	JUL1901	WATERS2	07/20/01	13:13	AOP	B	CONC
23	15971	JUL1901	WATERS2	07/20/01	13:19	AOP	S	CONC
24	15972	JUL1901	WATERS2	07/20/01	13:25	AOP	S	CONC
25	15973	JUL1901	WATERS2	07/20/01	13:31	AOP	S	CONC
26	15974	JUL1901	WATERS2	07/20/01	13:38	AOP	S	CONC
27	15976	JUL1901	WATERS2	07/20/01	13:44	AOP	S	CONC
28	15980	JUL1901	WATERS2	07/20/01	13:50	AOP	S	CONC
29	15982	JUL1901	WATERS2	07/20/01	13:56	AOP	S	CONC
30	15983	JUL1901	WATERS2	07/20/01	14:02	AOP	S	CONC
31	15986	JUL1901	WATERS2	07/20/01	14:08	AOP	S	CONC
32	15986-D	JUL1901	WATERS2	07/20/01	14:15	AOP	S	CONC
33	15986-MS	JUL1901	WATERS2	07/20/01	14:21	AOP	S	CONC
34	ICV 2	JUL1901	WATERS2	07/20/01	14:30	AOP	Q	CONC
35	ICB	JUL1901	WATERS2	07/20/01	14:37	AOP	B	CONC
36	15986-MSD	JUL1901	WATERS2	07/20/01	14:43	AOP	S	CONC
37	QMW0718011 1100	JUL1901	WATERS2	07/20/01	14:49	AOP	S	CONC
38	QMW0718012 LCS	JUL1901	WATERS2	07/20/01	14:56	AOP	S	CONC
39	QMW0718013 LCSD	JUL1901	WATERS2	07/20/01	15:02	AOP	S	CONC
40	16582	JUL1901	WATERS2	07/20/01	15:08	AOP	S	CONC
41	16584	JUL1901	WATERS2	07/20/01	15:14	AOP	S	CONC
42	16586	JUL1901	WATERS2	07/20/01	15:20	AOP	S	CONC
43	16588	JUL1901	WATERS2	07/20/01	15:26	AOP	S	CONC
44	16590	JUL1901	WATERS2	07/20/01	15:33	AOP	S	CONC
45	16592	JUL1901	WATERS2	07/20/01	15:39	AOP	S	CONC
46	ICV 2	JUL1901	WATERS2	07/20/01	15:48	AOP	Q	CONC
47	ICB	JUL1901	WATERS2	07/20/01	15:54	AOP	B	CONC
48	16594	JUL1901	WATERS2	07/20/01	16:00	AOP	S	CONC
49	16596	JUL1901	WATERS2	07/20/01	16:06	AOP	S	CONC
50	16598	JUL1901	WATERS2	07/20/01	16:12	AOP	S	CONC
51	16600	JUL1901	WATERS2	07/20/01	16:19	AOP	S	CONC
52	16601	JUL1901	WATERS2	07/20/01	16:[illegible]	AOP	S	CONC
53	16602	JUL1901	WATERS2	07/20/01	16:[illegible]	AOP	S	CONC

prep 28368 TAL

071801-A

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	16824	JUL1901	WATERS2	07/20/01	16:37	AOP	S	CONC
55	16854	JUL1901	WATERS2	07/20/01	16:43	AOP	S	CONC
56	16488	JUL1901	WATERS2	07/20/01	16:49	AOP	S	CONC
57	16603	JUL1901	WATERS2	07/20/01	16:56	AOP	S	CONC
58	ICV 2	JUL1901	WATERS2	07/20/01	17:04	AOP	Q	CONC
59	ICB	JUL1901	WATERS2	07/20/01	17:11	AOP	B	CONC
60	16603-D	JUL1901	WATERS2	07/20/01	17:18	AOP	S	CONC
61	16603-MS	JUL1901	WATERS2	07/20/01	17:24	AOP	S	CONC
62	16603-MSD	JUL1901	WATERS2	07/20/01	17:30	AOP	S	CONC
63	QMW07170017 1115	JUL1901	WATERS2	07/20/01	17:49	AOP	S	CONC
64	QMW07170018 LCS	JUL1901	WATERS2	07/20/01	17:53	AOP	S	CONC
65	QMW07170019 LCSD	JUL1901	WATERS2	07/20/01	17:58	AOP	S	CONC
66	15544	JUL1901	WATERS2	07/20/01	18:02	AOP	S	CONC
67	ICV 2	JUL1901	WATERS2	07/20/01	18:10	AOP	Q	CONC
68	ICB	JUL1901	WATERS2	07/20/01	18:16	AOP	B	CONC
69	SS I	JUL1901	WATERS2	07/20/01	18:23	AOP	Q	CONC
70	SS I LOW	JUL1901	WATERS2	07/20/01	18:29	AOP	Q	CONC
71	SS Ag	JUL1901	WATERS2	07/20/01	18:35	AOP	Q	CONC
72	ICS A	JUL1901	WATERS2	07/20/01	18:41	AOP	Q	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	-.00128	.75169				Q1.068
2	Al3082	.00936		.08613			.9526
3	As1890	-.00178			.326		.9879
4	Ba4934	.00014				2.13258	1.002
5	Be3130	-.00141		2.01231			1.010
6	Ca3179	.00109				.08585	1.004
7	Cd2265	-.00018				1.37921	.9906
8	Co2286	-.0002				.96407	.9966
9	Cr2677	.00013			.73779		1.006
10	Cu3247	.00431				.53721	.9967
11	Fe2714	.00018		.03839			Q1.070
12	K_7664	.01415				1.41452	9.608
13	Mg2790	-.00001				.05101	.9600
14	Mn2576	.00018				.82993	1.005
15	Ni2316	-.00064		.64021			.9988
16	2203/1	.00046				2.74916	.9885
17	2203/2	-.00093				2.58645	.9857
18	1960/1	-.00388			1.24764		.9336
19	1960/2	.00225			.54171		.9420
20	Sb2068	.00073		.36968			Q.9445
21	Sn1899	.0004		.28249			.9925
22	Tl1908	-.00028		.11619			.9920
23	V_2924	-.00001			.01489		1.002
24	Zn2062	.00009				.25718	.9941
25	Pb2203						.9877
26	Se1960						Q.9365

#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	15130 C
1	Ag3280	.0000	-.0003	.2971	.0011	.0001	.8284
2	Al3082	-.0264	49.49	49.15	Q.0185	-.0084	1.186
3	As1890	.0063	.0007	1.005	.0399	Q.0129	.1365
4	Ba4934	.0000	.0002	.2948	.0384	.0104	1.281
5	Be3130	.0001	.0000	.1011	.0010	.0003	.0164
6	Ca3179	-.0038	48.77	48.18	.0684	.0529	.0877
7	Cd2265	.0003	.0025	.2918	Q.0008	.0002	.0739
8	Co2286	.0000	.0005	.2871	.0090	.0021	.0003
9	Cr2677	-.0001	.0004	.2929	.0039	.0012	.3021
10	Cu3247	-.0002	Q.0307	.3275	.0041	.0003	.9743
11	Fe2714	-.0066	48.38	47.82	Q.1095	.0903	.6203
12	K_7664	-.0125	Q.2497	Q32.40	.0220	-.0039	.1662
13	Mg2790	-.0007	49.91	49.03	.0047	.0009	.0049
14	Mn2576	.0001	.0019	.1971	.0108	Q.0033	.3197
15	Ni2316	-.0002	-.0001	.2847	.0097	Q.0019	.1885
16	2203/1	-.0006	.0213	.9961	.0105	.0035	.1278
17	2203/2	.0019	-.0036	.9705	.0100	.0025	.1287
18	1960/1	-.0027	-.0014	.4775	.0280	.0043	.0870
19	1960/2	-.0032	.0066	.4860	.0371	.0107	.0788
20	Sb2068	.0007	.0095	.9811	.0107	.0032	.0205
21	Sn1899	-.0010	-.0030	1.011	-.0027	-.0040	-.0047
22	Tl1908	.0009	Q.0466	1.061	.0397	.0097	.0005
23	V_2924	.0007	.0014	.2996	.0116	Q.0044	.9475

#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	15130 C
24	Zn2062	-.0004	.0019	.2910	Q.0131	.0022	1.820
25	Pb2203	.0004	.0131	.9878	.0105	Q.0033	.1282
26	Se1960	-.0027	.0011	.4802	Q.0312	Q.0066	.0844

#	Element	15130 CD	15130 CT	151'C10X	151'10XD	151'10XT	QMW'1000
1	Ag3280	.7792	.7928	3.327	3.038	3.011	1.192
2	Al3082	1.184	1.212	5.725	5.714	5.745	.0581
3	As1890	.1318	.1372	.6620	.6612	.6707	.0012
4	Ba4934	1.237	1.278	6.317	6.289	6.306	.0017
5	Be3130	.0160	.0167	.0836	.0838	.0848	.0000
6	Ca3179	.0423	.0284	.0307	.0357	.0340	.1582
7	Cd2265	.0729	.0755	.3800	.3794	.3832	.0002
8	Co2286	.0003	.0001	.0005	.0000	.0001	-.0000
9	Cr2677	.2953	.3064	1.549	1.548	1.567	.0008
10	Cu3247	.9354	.9691	4.939	4.903	4.928	.0008
11	Fe2714	.6155	.6352	3.247	3.244	3.280	.0238
12	K_7664	.1229	.0851	.2189	.2091	.2322	.0183
13	Mg2790	.0028	-.0024	-.0258	-.0271	-.0250	.0038
14	Mn2576	.3112	.3233	1.619	1.618	1.635	.0016
15	Ni2316	.1854	.1911	.9644	.9626	.9733	.0005
16	2203/1	.1247	.1294	.6536	.6556	.6629	-.0023
17	2203/2	.1241	.1301	.6485	.6525	.6582	.0021
18	1960/1	.0796	.0830	.3957	.3933	.3978	-.0046
19	1960/2	.0769	.0804	.3937	.3918	.3940	.0051
20	Sb2068	.0198	.0197	.1099	.1108	.1115	.0012
21	Sn1899	-.0020	-.0038	-.0038	-.0041	-.0043	-.0032
22	Tl1908	.0006	-.0013	-.0032	-.0052	-.0056	.0022
23	V_2924	.9205	.9554	4.847	4.843	4.887	.0029
24	Zn2062	1.799	1.869	9.220	9.248	9.403	.0127
25	Pb2203	.1247	.1298	.6520	.6548	.6615	-.0007
26	Se1960	.0789	.0823	.3951	.3928	.3966	-.0012

#	Element	QMW' LCS	QMW'LCSD	ICV 2	ICB	15971	15972
1	Ag3280	1.565	1.400	Q1.592	.0612	.1960	.0866
2	Al3082	4.864	5.239	.9805	.0100	.7049	.1801
3	As1890	.9967	1.033	1.004	.0056	.0039	.0017
4	Ba4934	.9643	1.002	.9880	-.0000	.1629	.0931
5	Be3130	.9797	1.027	1.019	.0000	.0004	.0002
6	Ca3179	5.027	5.200	1.005	-.0068	13.21	11.78
7	Cd2265	.9712	1.000	.9823	.0001	.0001	.0002
8	Co2286	.9749	1.021	1.003	.0003	.0021	.0004
9	Cr2677	.9699	1.019	1.001	-.0000	.0024	.0017
10	Cu3247	.9779	1.025	1.012	-.0007	.0057	.0044
11	Fe2714	4.890	5.164	Q1.081	-.0066	.7258	.1662
12	K_7664	14.35	14.95	Q9.197	.0001	3.044	2.351
13	Mg2790	4.798	5.016	.9540	-.0002	5.106	4.611
14	Mn2576	.9781	1.023	1.009	.0001	.5072	.3150
15	Ni2316	.9562	.9944	.9825	.0009	.0009	.0009
16	2203/1	.9860	1.017	1.002	.0002	.0050	.0015
17	2203/2	.9824	1.013	.9911	.0009	.0043	.0017

#	Element	QMW' LCS	QMW'LCSD	ICV 2	ICB	15971	15972
18	1960/1	.9362	.9661	.9313	-.0023	-.0051	-.0077
19	1960/2	.9455	.9775	.9467	-.0003	.0003	.0025
20	Sb2068	.9221	.9635	Q.9347	-.0001	.0006	.0007
21	Sn1899	2.160	2.251	1.004	-.0009	-.0031	-.0019
22	Tl1908	1.002	1.028	1.004	.0008	.0010	-.0010
23	V_2924	.9765	1.015	.9956	.0022	.0073	.0022
24	Zn2062	.9650	1.002	.9791	-.0004	.0768	.0371
25	Pb2203	.9850	1.016	.9994	.0006	.0049	.0017
26	Se1960	.9394	.9700	Q.9366	-.0015	-.0031	-.0042

#	Element	15973	15974	15976	15980	15982	15983
1	Ag3280	.0214	.0035	.0037	.0010	-.0005	.0010
2	Al3082	72.24	.1166	.1309	.1003	-.2002	-.0569
3	As1890	.0051	.0033	.0014	.0018	.0238	.0012
4	Ba4934	.9892	.1828	.0472	.0801	.1800	.0204
5	Be3130	.0055	.0001	.0001	.0001	.0000	.0000
6	Ca3179	83.49	65.58	15.81	18.26	50.35	58.80
7	Cd2265	.0045	.0026	-.0001	.0008	.0025	-.0003
8	Co2286	.0798	.0234	.0002	.0464	.0859	-.0005
9	Cr2677	.9507	.0065	.0009	.0012	.0017	.0015
10	Cu3247	.0762	.0124	.0012	.0027	.0153	.0065
11	Fe2714	57.61	.8671	.0707	.3477	37.93	.0950
12	K_7664	16.01	5.240	2.327	4.802	7.379	11.81
13	Mg2790	92.62	30.00	4.750	7.123	20.07	7.382
14	Mn2576	17.73	19.02	.4728	6.205	12.84	.0114
15	Ni2316	.2897	.0035	.0010	.0031	.0071	.0019
16	2203/1	.0454	.0034	.0012	-.0001	.0101	-.0005
17	2203/2	.0130	.0007	.0007	-.0007	.0050	-.0009
18	1960/1	.0038	-.0036	-.0072	-.0066	-.0064	-.0027
19	1960/2	.0085	.0024	-.0016	.0014	.0020	-.0001
20	Sb2068	.0119	.0010	.0014	.0012	.0022	.0005
21	Sn1899	.0012	-.0033	-.0031	-.0012	.0030	.0009
22	Tl1908	.0540	.0038	.0001	.0011	.0373	-.0017
23	V_2924	.2433	.0002	.0022	.0001	.0009	.0022
24	Zn2062	.2244	.0322	.0185	.0527	.0587	.0337
25	Pb2203	.0348	.0026	.0012	-.0002	.0086	-.0005
26	Se1960	.0050	-.0015	-.0052	-.0038	-.0035	-.0017

#	Element	15986	15986-D	15986-MS	ICV 2	ICB	159'-MSD
1	Ag3280	.0006	.0008	.9857	Q1.067	.0006	.9717
2	Al3082	.6710	.2656	5.927	.9823 ✓	.0359	5.974
3	As1890	.0010	.0023	1.021	.9942 ✓	.0084	.9868
4	Ba4934	.0395	.0412	1.017	.9629 ✓	.0000	1.004
5	Be3130	.0000	.0000	1.022	1.014 ✓	.0001	.9853
6	Ca3179	3.300	3.405	8.567	.9929	-.0092	8.466
7	Cd2265	-.0003	-.0002	.9694	.9550 ✓	.0001	.9195
8	Co2286	.0002	-.0002	1.008	.9924 ✓	.0001	.9735
9	Cr2677	.0032	.0015	1.004	.9857 ✓	-.0001	.9657
10	Cu3247	.0008	-.0001	1.022	1.009 ✓	-.0020	1.023
11	Fe2714	.9207	.2997	6.106	Q1.061	-.0112	6.078

#	Element	15986	15986-D	15986-MS	ICV 2	ICB	159'-MSD
12	K_7664	1.774	1.778	17.80	Q9.311	-.0369	18.43
13	Mg2790	2.135	2.103	7.219	Q.9276	-.0017	7.169
14	Mn2576	.0173	.0140	1.026	.9967	.0001	.9967
15	Ni2316	.0187	.0007	.9627	.9503	.0009	.9161
16	2203/1	.0002	-.0001	1.010	.9942	-.0002	.9715
17	2203/2	.0011	.0013	1.002	.9874	.0005	.9655
18	1960/1	-.0065	-.0044	.9420	.9182	-.0014	.9198
19	1960/2	.0011	.0020	.9600	.9369	-.0016	.9291
20	Sb2068	.0013	.0024	.9334	Q.9107	-.0001	.9082
21	Sn1899	.0002	.0004	2.313	.9985	-.0014	2.220
22	Tl1908	-.0003	-.0018	1.025	.9938	.0044	.9937
23	V_2924	.0066	.0029	.9997	.9803	.0022	.9736
24	Zn2062	.0368	.0199	.9952	.9590	-.0002	.9342
25	Pb2203	.0007	.0005	1.007	.9921	.0002	.9697
26	Se1960	-.0038	-.0021	.9481	Q.9245	-.0014	.9230

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#	Element	QMW'1100	QMW' LCS	QMW'LCSD	16582	16584	16586
		14:49					
1	Ag3280	~~.0005~~	~~.0571~~	~~.0448~~	.0022	.0004	.0008
2	Al3082	~~.1916~~	5.253	5.200	3.753	1.031	.2318
3	As1890	.0016	1.030	1.025	.0053	.0041	.0006
4	Ba4934	.0007	.9968	.9922	.0775	.3159	.1104
5	Be3130	.0001	1.003	.9974	.0020	.0003	.0001
6	Ca3179	~~.0968~~	5.100	5.264	7.946	3.721	2.945
7	Cd2265	.0002	.9681	.9631	.0023	.0000	-.0001
8	Co2286	-.0002	1.023	1.016	.0028	.0055	.0010
9	Cr2677	.0006	1.012	1.005	.0108	.0019	.0011
10	Cu3247	-.0017	1.056	1.049	.0102	.0100	-.0013
11	Fe2714	~~.0179~~	5.191	5.124	27.38	1.522	.0525
12	K_7664	~~.0742~~	16.79	16.61	6.519	2.206	2.767
13	Mg2790	~~.0081~~	4.950	4.887	3.045	5.564	1.227
14	Mn2576	.0007	1.028	1.022	.2339	.1328	.0159
15	Ni2316	.0001	.9570	.9530	.0042	.0016	.0016
16	2203/1	.0018	1.023	1.021	.0083	.1870	-.0012
17	2203/2	.0002	1.022	1.014	.0059	.1843	.0016
18	1960/1	-.0082	.9390	.9353	-.0078	-.0089	-.0123
19	1960/2	.0017	.9637	.9620	.0063	.0029	.0036
20	Sb2068	.0017	.9488	.9401	.0057	.0048	.0028
21	Sn1899	-.0015	2.111	2.077	.0056	.0016	-.0023
22	Tl1908	.0036	1.041	1.032	.0258	.0050	-.0026
23	V_2924	-.0000	1.015	1.009	.0089	.0015	.0022
24	Zn2062	.0167	.9658	.9688	.0406	2.163	.0175
25	Pb2203	.0014	1.023	1.019	.0077	.1863	-.0001
26	Se1960	-.0048	.9473	.9443	-.0030	-.0048	-.0069

Ba
0.00015 B .007
Mn
0.00045 B .007
Zn
.00401 B 0.167
Jm G 8/7/01

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#	Element	16588	16590	16592	ICV 2	ICB	16594
1	Ag3280	.0007	.0008	.0005	Q1.063	.0008	.0002
2	Al3082	1.176	.2236	1.329	.9924	.0391	.8552
3	As1890	-.0012	.0002	-.0003	.9799	.0072	-.0005
4	Ba4934	.0363	.0157	.0084	.9584	.0001	.3226
5	Be3130	.0003	.0001	.0001	.9958	.0002	.0003

#	Element	16588	16590	16592	ICV 2	ICB	16594
6	Ca3179	1.441	.8650	.7073	.9689	-.0089	3.013
7	Cd2265	.0000	-.0002	-.0001	Q.9267	.0003	-.0006
8	Co2286	-.0002	-.0005	-.0000	.9759	.0004	.0014
9	Cr2677	.0066	.0015	.0065	.9678	.0001	-.0002
10	Cu3247	.0003	-.0008	-.0010	1.015	-.0022	.0004
11	Fe2714	1.011	.0853	.4118	1.050	-.0109	.2707
12	K_7664	1.234	1.094	.5352	9.719	-.0239	3.673
13	Mg2790	.8834	.3127	.6892	Q.9184	-.0011	4.525
14	Mn2576	.0168	.0048	.0033	.9845	.0002	.0146
15	Ni2316	.0029	.0010	.0014	Q.9224	.0009	.0004
16	2203/1	.0019	-.0014	.0019	.9812	-.0020	.0028
17	2203/2	.0010	.0009	.0013	.9701	.0012	.0019
18	1960/1	-.0084	-.0128	-.0084	.9067	-.0021	-.0103
19	1960/2	.0008	.0028	.0036	.9240	-.0006	.0026
20	Sb2068	-.0006	.0002	.0007	Q.9014	.0001	-.0040
21	Sn1899	.0727	-.0015	-.0013	.9818	-.0011	-.0042
22	Tl1908	.0013	-.0008	.0012	.9854	.0014	.0014
23	V_2924	.0029	.0022	.0044	.9699	.0015	-.0001
24	Zn2062	.0216	.0256	.0225	Q.9204	-.0003	.0360
25	Pb2203	.0018	-.0005	.0019	.9776	-.0008	.0027
26	Se1960	-.0052	-.0075	-.0043	Q.9126	-.0015	-.0059

#	Element	16596	16598	16600	16601	16602	16824
1	Ag3280	.0004	.0001	.0003	.0001	.0001	.0001
2	Al3082	.8236	.4723	.4801	1.233	.5369	9.576
3	As1890	.0010	.0012	.0031	.0010	.0021	.0015
4	Ba4934	.0434	.2115	.1996	.0559	.0676	.0740
5	Be3130	.0002	.0003	.0003	.0001	.0000	.0004
6	Ca3179	.5397	4.036	7.849	5.237	23.66	.8763
7	Cd2265	.0001	-.0000	.0012	-.0002	-.0000	-.0001
8	Co2286	.0009	.0074	.0087	.0003	.0008	.0014
9	Cr2677	.0024	.0017	.0018	.0031	.0028	.0021
10	Cu3247	.0600	-.0001	.0025	.0012	.0056	.0010
11	Fe2714	1.345	5.595	4.068	3.284	7.488	4.714
12	K_7664	.5449	2.342	3.037	1.955	5.290	1.375
13	Mg2790	1.273	3.468	3.324	2.288	3.300	.5366
14	Mn2576	.0218	.1650	.2066	.0423	.1967	.0339
15	Ni2316	.0007	.0019	.0070	.0011	.0040	.0006
16	2203/1	.2895	.0014	.0103	.0040	.0061	.0060
17	2203/2	.2884	.0009	.0082	.0020	.0039	.0014
18	1960/1	-.0061	-.0094	-.0071	-.0079	-.0099	-.0108
19	1960/2	.0011	.0013	.0040	.0040	.0003	.0038
20	Sb2068	.0046	.0021	.0037	.0013	.0004	.0042
21	Sn1899	.0012	-.0033	.0001	-.0045	-.0034	-.0037
22	Tl1908	.0009	.0036	.0020	.0019	.0031	.0025
23	V_2924	.0015	.0014	.0014	.0052	.0022	.0059
24	Zn2062	.3932	.0227	.6247	.0581	.0592	.0157
25	Pb2203	.2893	.0014	.0098	.0035	.0055	.0046
26	Se1960	-.0036	-.0057	-.0033	-.0038	-.0063	-.0058

#	Element	16854	16488	16603	ICV 2	ICB	16603-D
1	Ag3280	.0007	.0005	.0004	Q1.070	.0004	.0004
2	Al3082	.1014	.1283	.1230	.9828	.0358	.1233
3	As1890	-.0021	.0012	-.0002	.9794	.0060	.0046
4	Ba4934	.2575	.0045	.0004	.9530	-.0000	.0004
5	Be3130	.0000	.0001	.0001	1.002	.0001	.0000
6	Ca3179	20.04	.2920	.0793	.9720	-.0105	.0678
7	Cd2265	.0007	-.0001	-.0004	Q.9309	.0002	-.0001
8	Co2286	-.0002	.0001	-.0003	.9821	.0001	-.0004
9	Cr2677	.0010	.0009	.0023	.9752	-.0002	.0026
10	Cu3247	.0054	.0525	-.0022	1.020	-.0027	-.0001
11	Fe2714	26.02	.1815	.0281	Q1.057	-.0069	.0130
12	K_7664	6.392	1.010	.0787	10.32	-.0473	.0939
13	Mg2790	.6684	.1270	.0098	Q.9206	-.0019	.0093
14	Mn2576	.0935	.1185	.0005	.9921	-.0000	.0004
15	Ni2316	.0013	.0043	-.0000	Q.9229	.0007	-.0005
16	2203/1	.0042	.0036	.0019	.9909	-.0011	.0004
17	2203/2	.0016	.0022	.0002	.9706	.0007	-.0007
18	1960/1	-.0114	-.0064	-.0121	.9124	.0011	-.0097
19	1960/2	.0013	.0020	.0011	.9259	.0005	.0038
20	Sb2068	.0031	.0018	.0002	Q.9036	-.0006	.0023
21	Sn1899	-.0025	.0045	-.0032	.9850	-.0018	-.0035
22	Tl1908	.0242	-.0001	.0009	.9938	.0043	.0003
23	V_2924	.0022	.0022	.0022	.9716	.0007	.0015
24	Zn2062	.0288	.8746	.0151	Q.9216	-.0003	.0144
25	Pb2203	.0035	.0033	.0015	.9843	-.0004	.0002
26	Se1960	-.0071	-.0035	-.0076	Q.9170	.0010	-.0051

#	Element	16603-MS	166'-MSD	QMW'1115	QMW' LCS	QMW'LCSD	15544
1	Ag3280	.2208	.0607	.0033	.0367	.0379	.0004
2	Al3082	5.322	5.172	.1545	5.186	4.939	-.0532
3	As1890	1.040	1.017				
4	Ba4934	1.019	.9914				
5	Be3130	1.013	.9867				
6	Ca3179	5.209	5.037	.1516	5.086	4.797	71.16
7	Cd2265	.9851	.9609				
8	Co2286	1.038	1.010				
9	Cr2677	1.032	1.004				
10	Cu3247	1.072	1.044				
11	Fe2714	5.248	5.090	.0390	5.050	4.837	.3960
12	K_7664	18.09	17.04				
13	Mg2790	5.033	4.889	.0099	4.860	4.660	4.675
14	Mn2576	1.045	1.017				
15	Ni2316	.9781	.9509				
16	2203/1	1.039	1.013				
17	2203/2	1.028	1.006				
18	1960/1	.9434	.9197				
19	1960/2	.9668	.9489				
20	Sb2068	.9694	.9469				
21	Sn1899	2.146	2.107				
22	Tl1908	1.043	1.030				
23	V_2924	1.035	1.006				

#	Element	16603-MS	166'-MSD	QMW'1115	QMW' LCS	QMW'LCSD	15544
24	Zn2062	.9877	.9594				
25	Pb2203	1.035	1.011				
26	Se1960	.9513	.9295				

#	Element	ICV 2	ICB	SS I	SS I LOW	SS Ag	ICS A
1	Ag3280	1.052	.0004	Q.0012	.0004	Q-.0001	.0003
2	Al3082	.9554	.0201	Q.0564	.0282	-.1968	49.91
3	As1890	.9648	.0071	.0415	Q.0134	-.0025	.0010
4	Ba4934	.9537	.0001	.0383	.0102	-.0003	.0001
5	Be3130	.9781	.0002	.0010	.0003	.0011	.0000
6	Ca3179	.9535	-.0077	.0598	.0475	-.0141	48.38
7	Cd2265	Q.9213	.0003	.0008	.0000	-.0011	.0018
8	Co2286	.9635	.0003	.0094	.0023	-.0027	.0004
9	Cr2677	.9581	-.0001	.0040	Q.0012	.0000	.0000
10	Cu3247	1.002	-.0022	Q.0026	-.0010	-.0151	Q.0283
11	Fe2714	1.037	-.0023	Q.1021	.0897	-.0234	48.29
12	K_7664	10.35	-.0471	.0315	.0059	-.0759	.1604
13	Mg2790	Q.9070	-.0028	.0017	.0004	-.0018	49.59
14	Mn2576	.9728	.0001	.0109	Q.0033	-.0003	.0013
15	Ni2316	Q.9218	.0001	.0089	.0020	-.0035	.0007
16	2203/1	.9678	-.0017	.0113	.0028	.0076	.0188
17	2203/2	.9582	.0016	.0092	.0023	.0044	-.0012
18	1960/1	.9014	-.0002	.0316	.0051	-.0264	-.0006
19	1960/2	.9164	-.0015	.0402	.0133	.0088	.0006
20	Sb2068	Q.9007	-.0006	.0113	.0042	.0056	.0069
21	Sn1899	.9673	-.0007	-.0023	-.0020	-.0043	-.0023
22	Tl1908	.9724	.0021	.0377	.0113	-.0039	Q.0499
23	V_2924	.9588	.0022	.0112	Q.0044	-.0006	.0014
24	Zn2062	Q.9070	-.0001	Q.0123	.0021	-.0028	.0022
25	Pb2203	.9648	-.0004	.0107	.0028	.0066	.0123
26	Se1960	Q.9065	-.0005	.0346	Q.0080	-.0146	-.0004

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	JUL2601	WATERS	07/26/01	10:19		X	IR
2	STD8	JUL2601	WATERS	07/26/01	10:25		X	IR
3	STD3	JUL2601	WATERS	07/26/01	10:30		X	IR
4	STD4	JUL2601	WATERS	07/26/01	10:35		X	IR
5	STD2	JUL2601	WATERS	07/26/01	10:39		X	IR
6	ICV 2	JUL2601	WATERS	07/26/01	10:42	MA	Q	CONC
7	ICV 1	JUL2601	WATERS	07/26/01	10:48	MA	Q	CONC
8	ICB	JUL2601	WATERS	07/26/01	10:57	MA	B	CONC
9	ICS A	JUL2601	WATERS	07/26/01	11:03	MA	Q	CONC
10	ICS AB	JUL2601	WATERS	07/26/01	11:11	MA	Q	CONC
11	SS I	JUL2601	WATERS	07/26/01	11:17	MA	Q	CONC
12	SS I LOW	JUL2601	WATERS	07/26/01	11:22	MA	Q	CONC
13	SS Ag	JUL2601	WATERS	07/26/01	11:27	MA	Q	CONC
14	17103 5DF	JUL2601	WATERS	07/26/01	11:33	MA	S	CONC
15	17105 5DF	JUL2601	WATERS	07/26/01	11:38	MA	S	CONC
16	17116 5DF	JUL2601	WATERS	07/26/01	11:44	MA	S	CONC
17	17122 5DF	JUL2601	WATERS	07/26/01	11:49	MA	S	CONC
18	ICV 2	JUL2601	WATERS	07/26/01	11:58	MA	Q	CONC
19	ICV 1	JUL2601	WATERS	07/26/01	12:03	MA	Q	CONC
20	ICB	JUL2601	WATERS	07/26/01	12:09	MA	B	CONC
21	QMW0718011 1100	JUL2601	WATERS	07/26/01	12:14	MA	S	CONC
22	QMW0718012 LCS	JUL2601	WATERS	07/26/01	12:20	MA	S	CONC
23	QMW0718013 LCSD	JUL2601	WATERS	07/26/01	12:25	MA	S	CONC
24	16824	JUL2601	WATERS	07/26/01	12:30	MA	S	CONC
25	16854	JUL2601	WATERS	07/26/01	12:37	MA	S	CONC
26	16603	JUL2601	WATERS	07/26/01	12:40	MA	S	CONC
27	16603 D	JUL2601	WATERS	07/26/01	12:43	MA	S	CONC
28	16603 MS	JUL2601	WATERS	07/26/01	12:47	MA	S	CONC
29	16603 MSD	JUL2601	WATERS	07/26/01	12:50	MA	S	CONC
30	ICV 1	JUL2601	WATERS	07/26/01	12:56	MA	Q	CONC
31	ICB	JUL2601	WATERS	07/26/01	12:59	MA	B	CONC
32	QMW07190113 1300	JUL2601	WATERS	07/26/01	13:02	MA	S	CONC
33	QMW07190114 LCS	JUL2601	WATERS	07/26/01	13:06	MA	S	CONC
34	QMW07190115 LCSD	JUL2601	WATERS	07/26/01	13:09	MA	S	CONC
35	16981	JUL2601	WATERS	07/26/01	13:13	MA	S	CONC
36	16982	JUL2601	WATERS	07/26/01	13:16	MA	S	CONC
37	16864	JUL2601	WATERS	07/26/01	13:19	MA	S	CONC
38	16869	JUL2601	WATERS	07/26/01	13:23	MA	S	CONC
39	16866	JUL2601	WATERS	07/26/01	13:26	MA	S	CONC
40	16867	JUL2601	WATERS	07/26/01	13:30	MA	S	CONC
41	16981 D	JUL2601	WATERS	07/26/01	13:33	MA	S	CONC
42	ICV 1	JUL2601	WATERS	07/26/01	13:39	MA	Q	CONC
43	ICB	JUL2601	WATERS	07/26/01	13:43	MA	B	CONC
44	16981 MS	JUL2601	WATERS	07/26/01	13:46	MA	S	CONC
45	16981 MSD	JUL2601	WATERS	07/26/01	13:49	MA	S	CONC
46	QMW0720011 1015	JUL2601	WATERS	07/26/01	13:53	MA	S	CONC
47	QMW0720012 LCS	JUL2601	WATERS	07/26/01	13:56	MA	S	CONC
48	QMW0720013 LCSD	JUL2601	WATERS	07/26/01	13:59	MA	S	CONC
49	16996	JUL2601	WATERS	07/26/01	14:03	MA	S	CONC
50	16997	JUL2601	WATERS	07/26/01	14:06	MA	S	CONC
51	16998	JUL2601	WATERS	07/26/01	14:10	MA	S	CONC
52	17067	JUL2601	WATERS	07/26/01	14:13	MA	S	CONC
53	17063	JUL2601	WATERS	07/26/01	14:17	MA	S	CONC

proj 283681 Al, Ca, Na, K, Mg, F-

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	ICV 1	JUL2601	WATERS	07/26/01	14:23	MA	Q	CONC
55	ICB	JUL2601	WATERS	07/26/01	14:27	MA	B	CONC
56	17069	JUL2601	WATERS	07/26/01	14:30	MA	S	CONC
57	17070	JUL2601	WATERS	07/26/01	14:34	MA	S	CONC
58	17131	JUL2601	WATERS	07/26/01	14:37	MA	S	CONC
59	17131 D	JUL2601	WATERS	07/26/01	14:40	MA	S	CONC
60	17131 MS	JUL2601	WATERS	07/26/01	14:44	MA	S	CONC
61	17131 MSD	JUL2601	WATERS	07/26/01	14:47	MA	S	CONC
62	QMW0725017 0905	JUL2601	WATERS	07/26/01	14:50	MA	S	CONC
63	QMW0725018 LCS	JUL2601	WATERS	07/26/01	14:54	MA	S	CONC
64	QMW0725019 LCSD	JUL2601	WATERS	07/26/01	14:57	MA	S	CONC
65	17156	JUL2601	WATERS	07/26/01	15:00	MA	S	CONC
66	ICV 1	JUL2601	WATERS	07/26/01	15:06	MA	Q	CONC
67	ICB	JUL2601	WATERS	07/26/01	15:13	MA	B	CONC
68	17157	JUL2601	WATERS	07/26/01	15:17	MA	S	CONC
69	17158	JUL2601	WATERS	07/26/01	15:20	MA	S	CONC
70	17159	JUL2601	WATERS	07/26/01	15:23	MA	S	CONC
71	17160	JUL2601	WATERS	07/26/01	15:27	MA	S	CONC
72	17181	JUL2601	WATERS	07/26/01	15:30	MA	S	CONC
73	17182	JUL2601	WATERS	07/26/01	15:33	MA	S	CONC
74	17182 D	JUL2601	WATERS	07/26/01	15:37	MA	S	CONC
75	17182 MS	JUL2601	WATERS	07/26/01	15:40	MA	S	CONC
76	17182 MSD	JUL2601	WATERS	07/26/01	15:43	MA	S	CONC
77	ICV 2	JUL2601	WATERS	07/26/01	15:49	MA	Q	CONC
78	ICV 1	JUL2601	WATERS	07/26/01	15:53	MA	Q	CONC
79	ICB	JUL2601	WATERS	07/26/01	15:56	MA	B	CONC
80	SS I	JUL2601	WATERS	07/26/01	15:59	MA	Q	CONC
81	SS I LOW	JUL2601	WATERS	07/26/01	16:02	MA	Q	CONC
82	SS Ag	JUL2601	WATERS	07/26/01	16:06	MA	Q	CONC
83	ICS A	JUL2601	WATERS	07/26/01	16:09	MA	Q	CONC
84	ICS AB	JUL2601	WATERS	07/26/01	16:12	MA	Q	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	.03016	2.43853				1.030
2	Al3082	.00676		2.60433			1.033
3	As1936	-.00552			8.15378		.0082
4	Ba4934	-.00079				14.1876	.9975
5	Be3130	.0008		19.2259			.0001
6	Ca3179	.0013				2.97609	.0032
7	Cd2265	-.00133				17.3818	-.0002
8	Co2286	-.00066				9.25949	.0011
9	Cr2677	-.00013			7.73776		.0003
10	Cu3247	.00039				2.87146	.0014
11	Fe2599	.00773		11.3067			-.0055
12	K_7664	.01316				.3693	10.50
13	Mg2790	.00033				1.4591	-.0059
14	Mn2576	.00009				.4106	-.0024
15	Na5889	.04796		1.00676			1.071
16	Ni2316	-.00123		9.38366			-.0005
17	Pb2203	-.00123				7.79326	-.0080
18	Sb2068	.00363		9.66963			-.0049
19	Se1960	-.00029			3.89363		-.0105
20	Sn2839	-.02816		.63293			-.0179
21	Tl1908	-.00669		6.49046			.0110
22	V_2924	-.0006			7.71386		.0002
23	Zn2138	.00146				10.5457	.0011

#	Element	ICV 1	ICB	ICS A	ICS AB	SS I	SS I LOW
1	Ag3280	2.043	.0016	.0038	.6033	.0074	.0032
2	Al3082	1.967	-.0094	51.39	50.49	.2278	.0455
3	As1936	2.053	.0011	Q.3119	2.306	.2160	.0561
4	Ba4934	1.977	-.0004	.0001	.5773	.2037	Q.0496
5	Be3130	1.969	.0005	.0002	.1942	.0051	.0014
6	Ca3179	2.079	.0014	51.04	50.05	.0181	-.0010
7	Cd2265	2.040	.0005	Q-.0088	.5889	.0059	.0015
8	Co2286	2.050	.0024	.0023	.5956	Q.0563	.0137
9	Cr2677	1.992	.0026	.0008	.5809	.0216	.0070
10	Cu3247	2.031	.0028	.0043	.5943	.0283	.0072
11	Fe2599	2.026	-.0003	49.98	48.94	.1215	.0246
12	K_7664	20.95	.0066	.0619	50.54	.0019	.0290
13	Mg2790	1.973	.0101	51.19	50.20	.0183	.0039
14	Mn2576	2.041	.0008	-.0042	.3960	.0544	.0106
15	Na5889	Q2.119	-.0090	.0919	10.25	.0380	.0195
16	Ni2316	2.052	-.0000	.0016	.5936	.0558	.0128
17	Pb2203	2.020	-.0074	Q-.1046	1.878	.0418	.0031
18	Sb2068	Q2.114	-.0000	Q-.0774	2.013	.0505	.0148
19	Se1960	2.015	-.0120	Q.1213	1.114	.2192	.0337
20	Sn2839	Q2.334	.0315	.0983	2.222	.0279	.0059
21	Tl1908	2.027	.0204	.0433	2.040	.2257	.0577
22	V_2924	1.990	.0013	.0011	.5901	.0536	.0128
23	Zn2138	2.036	.0002	-.0046	.5980	.0558	.0124

8/7/01

#	Element	SS Ag	171' 5DF	171' 5DF	171' 5DF	171' 5DF	ICV 2
1	Ag3280	.0529	2.326	1.593	2.169	4.421	1.024
2	Al3082	2.081	28900.	13290.	19090.	5533.	1.025
3	As1936	2.034	158.4	93.25	117.7	87.31	.0031
4	Ba4934	1.998	91.82	71.06	51.32	50.52	.9893
5	Be3130	.0488	.4181	.7470	.4688	.3544	.0002
6	Ca3179	.0190	854.6	822.9	1455.	1183.	.0036
7	Cd2265	.0515	-5.856	-4.288	-4.372	-3.805	.0003
8	Co2286	.5199	5.409	3.797	1.473	6.524	.0008
9	Cr2677	.2039	39.31	24.84	25.36	24.42	-.0005
10	Cu3247	.2568	13.67	15.53	37.59	162.0	.0009
11	Fe2599	1.034	36670.	35830.	36700.	55480.	.0221
12	K_7664	.0072	2108.	1376.	504.7	1443.	10.33
13	Mg2790	-.0087	1775.	945.6	466.2	797.0	-.0050
14	Mn2576	.5263	116.4	208.4	106.2	322.9	-.0049
15	Na5889	.0761	261.9	397.7	374.8	346.7	1.058
16	Ni2316	.5260	8.838	9.053	4.489	37.52	-.0010
17	Pb2203	.5196	88.52	16.35	11.84	91.60	-.0072
18	Sb2068	.4919	-53.60	-43.45	-44.47	-91.03	-.0084
19	Se1960	2.027	16.81	14.16	10.21	21.02	.0033
20	Sn2839	.0180	243.9	158.5	186.7	1615.	-.0159
21	Tl1908	2.109	20.03	19.32	32.99	59.18	.0031
22	V_2924	.5090	60.99	56.81	57.21	13.80	-.0001
23	Zn2138	.5224	72.15	190.5	82.36	126.5	.0008

#	Element	ICV 1	ICB	QMW'1100	QMW' LCS	QMW'LCSD	16824
1	Ag3280	2.039	.0035	.0022	.0444	.0407	.0026
2	Al3082	1.954	.0039	.1799	5.667	5.656	10.92
3	As1936	2.080	.0089	.0033	1.132	1.131	.0512
4	Ba4934	1.959	.0007	.0010	1.037	1.047	.0797
5	Be3130	1.998	.0007	.0001	1.019	1.023	.0017
6	Ca3179	Q2.117	.0041	.0967	5.635	5.827	1.002
7	Cd2265	2.089	.0005	-.0009	1.111	1.109	.0005
8	Co2286	2.083	.0026	.0013	1.108	1.110	.0034
9	Cr2677	2.022	.0032	.0007	1.074	1.076	.0026
10	Cu3247	2.018	.0049	.0019	1.072	1.080	.0026
11	Fe2599	2.023	.0026	.0070	5.426	5.406	5.007
12	K_7664	20.23	.0702	.0608	15.45	15.92	1.451
13	Mg2790	1.980	.0137	.0091	5.439	5.415	.5978
14	Mn2576	2.060	.0000	-.0041	1.093	1.103	.0388
15	Na5889	2.076	.0359	.4677	6.011	6.065	1.706
16	Ni2316	2.087	.0012	.0025	1.107	1.105	.0050
17	Pb2203	2.060	-.0033	.0037	1.088	1.094	-.0079
18	Sb2068	Q2.119	.0066	-.0017	1.108	1.108	-.0145
19	Se1960	2.044	.0036	.0028	1.099	1.075	-.0077
20	Sn2839	Q2.330	.0431	.0029	2.353	2.315	.0196
21	Tl1908	2.053	.0249	.0135	1.109	1.107	.0237
22	V_2924	2.005	.0023	.0003	1.065	1.069	.0060
23	Zn2138	2.064	.0007	.0126	1.111	1.119	.0160

12:14

Al
0.014 B 1.799

Ca
.011 B 0.967

K
0.043 B 0.608

Mg
0.033 B 4.677

07/26/01

#	Element	16854	16603	16603 D	16603 MS	166' MSD	ICV 1
1	Ag3280						
2	Al3082	.3822	.1234	.1142	5.742	5.629	2.031
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	21.81	.2566	.0797	5.716	5.558	2.101
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	27.26	.0716	.0230	5.486	5.368	2.056
12	K_7664	4.794	.0665	.1647	15.76	15.46	20.66
13	Mg2790	.7221	.0009	.0213	5.490	5.342	1.981
14	Mn2576						
15	Na5889	30.80	.4743	.5000	6.054	5.994	2.105
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	ICB	QMW'1300	QMW' LCS	QMW'LCSD	16981	16982
1	Ag3280						
2	Al3082	.0013	.2257	5.361	5.506	1.159	15.14
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.0021	.0972	5.489	5.633	397.2	626.5
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.0093	.0214	5.190	5.363	.2444	18.11
12	K_7664	.0019	.1507	15.14	15.05	5.052	9.346
13	Mg2790	.0016	.0080	5.197	5.324	129.3	215.6
14	Mn2576						
15	Na5889	.0275	.5115	5.854	5.872	213.2	242.5
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	16864	16869	16866	16867	16981 D	ICV 1
1	Ag3280						
2	Al3082	.3038	.3913	6.760	2.592	1.159	1.981
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.3819	150.4	889.6	52.75	360.6	Q2.111
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.5923	2.642	89.65	105.6	.3256	2.021
12	K_7664	.1039	.7815	585.8	137.8	4.772	19.96
13	Mg2790	.0683	3.370	137.7	12.73	118.2	1.939
14	Mn2576						
15	Na5889	.5964	10.30	1599.	310.4	196.2	2.063
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	ICB	16981 MS	169' MSD	QMW'1015	QMW' LCS	QMW'LCSD
1	Ag3280						
2	Al3082	.0053	6.634	6.639	.1406	5.486	5.524
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.0086	409.1	425.7	.4337	5.877	5.748
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.0097	5.263	5.276	.0749	5.464	5.411
12	K_7664	-.0047	20.06	20.41	-.2452	14.64	15.42
13	Mg2790	-.0069	137.6	142.4	.0523	5.303	5.418
14	Mn2576						
15	Na5889	.0345	222.1	229.5	.7998	6.401	5.896
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	16996	16997	16998	17067	17068	ICV 1
1	Ag3280						
2	Al3082	1.373	1.019	.5376	.9178	1.238	2.006
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	19.88	112.0	155.7	124.8	15.08	Q2.117
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	7.278	17.51	1.554	17.51	1.127	2.057
12	K_7664	1.584	3.634	6.951	3.771	2.552	20.19
13	Mg2790	5.516	34.56	57.96	60.58	10.99	1.970
14	Mn2576						
15	Na5889	2.387	8.272	7.679	12.72	209.8	2.084
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	ICB	17069	17070	17131	17131 D	17131 MS
1	Ag3280						
2	Al3082	-.0058	.5296	4.330	.1697	.1600	5.646
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.0076	21.24	215.3	6.956	6.180	11.42
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.0116	23.30	32.39	.0626	.0244	5.467
12	K_7664	.0271	3.516	8.681	1.248	.9921	16.56
13	Mg2790	.0046	7.269	89.56	7.422	6.633	11.74
14	Mn2576						
15	Na5889	.0543	75.72	195.5	14.58	13.30	17.94
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	171' MSD	QMW'0905	QMW' LCS	QMW'LCSD	17156	ICV 1
1	Ag3280						
2	Al3082	5.741	.1305	5.296	5.281	6.869	2.022
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	12.35	.2079	5.392	5.294	10.13	2.058
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	5.590	.0843	5.125	5.040	7.388	2.038
12	K_7664	16.59	.0281	14.87	14.66	3.275	20.62
13	Mg2790	12.69	.0130	5.127	5.054	7.964	1.951
14	Mn2576						
15	Na5889	19.45	.4717	5.798	5.668	4.030	2.102
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	ICB	17157	17158	17159	17160	17181
1	Ag3280						
2	Al3082	.0093	11.22	1.756	.9165	5.432	20.26
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.0050	52.80	44.88	51.67	26.42	10.51
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.0201	10.74	1.643	.8441	39.57	41.18
12	K_7664	.0721	7.122	3.882	4.179	4.329	11.37
13	Mg2790	.0091	22.61	19.70	20.25	6.061	12.99
14	Mn2576						
15	Na5889	.0202	10.60	10.34	13.18	1.678	7.439
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	17182	17182 D	17182 MS	171' MSD	ICV 2	ICV 1
1	Ag3280						
2	Al3082	.3781	.7926	6.325	6.489	1.025	2.007
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	16.81	15.50	21.06	20.81	.0098	2.086
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.2178	.5184	5.555	5.720	.0305	2.021
12	K_7664	1.277	1.167	16.27	16.43	10.18	20.12
13	Mg2790	6.805	6.438	11.82	11.74	.0142	1.965
14	Mn2576						
15	Na5889	6.798	6.344	12.08	12.00	1.046	2.071
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Element	ICB	SS I	SS I LOW	SS Ag	ICS A	ICS AB
1	Ag3280						
2	Al3082	.0144	.2222	.0550	2.095	50.83	50.45
3	As1936						
4	Ba4934						
5	Be3130						
6	Ca3179	.0045	.0103	-.0005	.0211	51.24	51.00
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2599	.0069	.1124	.0304	1.041	49.70	49.34
12	K_7664	.0365	.0365	.0112	.0664	.0666	50.83
13	Mg2790	.0050	.0155	.0030	.0062	51.20	50.73
14	Mn2576						
15	Na5889	.0331	.0469	.0403	.1069	.1101	10.33
16	Ni2316						
17	Pb2203						
18	Sb2068						
19	Se1960						
20	Sn2839						
21	Tl1908						
22	V_2924						
23	Zn2138						

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	JUL2601	WATERS2	07/26/01	10:34		X	IR
2	STD8	JUL2601	WATERS2	07/26/01	10:42		X	IR
3	STD3	JUL2601	WATERS2	07/26/01	10:45		X	IR
4	STD4	JUL2601	WATERS2	07/26/01	10:50		X	IR
5	STD2	JUL2601	WATERS2	07/26/01	10:55		X	IR
6	ICV 2	JUL2601	WATERS2	07/26/01	10:59	MA	Q	CONC
7	ICB	JUL2601	WATERS2	07/26/01	11:12	MA	B	CONC
8	ICS A	JUL2601	WATERS2	07/26/01	11:19	MA	Q	CONC
9	ICS AB — ## for Al, Ca, Fe & JUL2601	WATERS2	07/26/01	11:25	MA	Q	CONC
10	SS I — IS Std 5 App prepared in 7/23/01 JUL2601	WATERS2	07/26/01	11:32	MA	Q	CONC
11	SS I LOW JUL2601	WATERS2	07/26/01	11:38	MA	Q	CONC
12	QMW0725017 0905 use 1mL JUL2601	WATERS2	07/26/01	11:44	MA	S	CONC
13	QMW0725018 LCS instead JUL2601	WATERS2	07/26/01	11:50	MA	S	CONC
14	QMW0725019 LCSD of 5mL JUL2601	WATERS2	07/26/01	11:57	MA	S	CONC
15	17212 of ICS 4 JUL2601	WATERS2	07/26/01	12:03	MA	S	CONC
16	17217 JUL2601	WATERS2	07/26/01	12:09	MA	S	CONC
17	17182 JUL2601	WATERS2	07/26/01	12:15	MA	S	CONC
18	17182 D — Chg'd 7/27/01 JUL2601	WATERS2	07/26/01	12:21	MA	S	CONC
19	17182 MS JUL2601	WATERS2	07/26/01	12:27	MA	S	CONC
20	ICV 2 JUL2601	WATERS2	07/26/01	13:21	MA	Q	CONC
21	STD1-Blank JUL2601	WATERS2	07/26/01	13:28		X	IR
22	STD8 JUL2601	WATERS2	07/26/01	13:34		X	IR
23	STD3 JUL2601	WATERS2	07/26/01	13:38		X	IR
24	STD4 JUL2601	WATERS2	07/26/01	13:42		X	IR
25	STD2 JUL2601	WATERS2	07/26/01	13:47		X	IR
26	ICV 2 JUL2601	WATERS2	07/26/01	13:52	MA	Q	CONC
27	ICB JUL2601	WATERS2	07/26/01	13:58	MA	B	CONC
28	QMW0725017 0905 JUL2601	WATERS2	07/26/01	14:11	MA	S	CONC
29	QMW0725018 LCS JUL2601	WATERS2	07/26/01	14:18	MA	S	CONC
30	QMW0725019 LCSD JUL2601	WATERS2	07/26/01	14:24	MA	S	CONC
31	17212 JUL2601	WATERS2	07/26/01	14:30	MA	S	CONC
32	17217 JUL2601	WATERS2	07/26/01	14:36	MA	S	CONC
33	17182 JUL2601	WATERS2	07/26/01	14:42	MA	S	CONC
34	17182 D JUL2601	WATERS2	07/26/01	14:49	MA	S	CONC
35	17182 MS JUL2601	WATERS2	07/26/01	14:55	MA	S	CONC
36	17182 MSD — Redis Batch Fair LCS/LCSD JUL2601	WATERS2	07/26/01	15:01	MA	S	CONC
37	ICV 2 — not used for Ag JUL2601	WATERS2	07/26/01	15:10	MA	Q	CONC
38	ICB JUL2601	WATERS2	07/26/01	15:22	MA	B	CONC
39	QMW0725011 1025 JUL2601	WATERS2	07/26/01	15:28	MA	S	CONC
40	QMW0725012 LCS JUL2601	WATERS2	07/26/01	15:35	MA	S	CONC
41	QMW0725013 LCSD JUL2601	WATERS2	07/26/01	15:40	MA	S	CONC
42	16582 JUL2601	WATERS2	07/26/01	15:44	MA	S	CONC
43	16584 JUL2601	WATERS2	07/26/01	15:49	MA	S	CONC
44	16586 JUL2601	WATERS2	07/26/01	15:54	MA	S	CONC
45	16588 JUL2601	WATERS2	07/26/01	15:58	MA	S	CONC
46	16590 JUL2601	WATERS2	07/26/01	16:03	MA	S	CONC
47	16592 JUL2601	WATERS2	07/26/01	16:07	MA	S	CONC
48	16594 JUL2601	WATERS2	07/26/01	16:12	MA	S	CONC
49	ICV 2 JUL2601	WATERS2	07/26/01	16:20	MA	Q	CONC
50	ICV 2 JUL2601	WATERS2	07/26/01	16:25	MA	Q	CONC
51	ICB JUL2601	WATERS2	07/26/01	16:30	MA	B	CONC
52	BLKRER ZN JUL2601	WATERS2	07/26/01	16:37	MA	S	CONC
53	16596 JUL2601	WATERS2	07/26/01	16:40	MA	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	16598	JUL2601	WATERS2	07/26/01	16:45	MA	S	CONC
55	16600	JUL2601	WATERS2	07/26/01	16:50	MA	S	CONC
56	16601	JUL2601	WATERS2	07/26/01	16:54	MA	S	CONC
57	16602	JUL2601	WATERS2	07/26/01	16:59	MA	S	CONC
58	16603	JUL2601	WATERS2	07/26/01	17:04	MA	S	CONC
59	16824	JUL2601	WATERS2	07/26/01	17:08	MA	S	CONC
60	16854	JUL2601	WATERS2	07/26/01	17:13	MA	S	CONC
61	16603 D	JUL2601	WATERS2	07/26/01	17:17	MA	S	CONC
62	ICV 2	JUL2601	WATERS2	07/26/01	17:25	MA	Q	CONC
63	ICB	JUL2601	WATERS2	07/26/01	17:29	MA	B	CONC
64	16603 MS	JUL2601	WATERS2	07/26/01	17:34	MA	S	CONC
65	16603 MSD	JUL2601	WATERS2	07/26/01	17:39	MA	S	CONC
66	ICV 2	JUL2601	WATERS2	07/26/01	17:46	MA	Q	CONC
67	ICB	JUL2601	WATERS2	07/26/01	17:51	MA	B	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	-.00145	.75172				1.014
2	Al3082	.00892		.08752			.9512
3	As1890	-.00096			.33695		.9970
4	Ba4934	.00016				2.1366	1.008
5	Be3130	-.00129		2.08339			1.020
6	Ca3179	.0012				.09277	1.015
7	Cd2265	-.00012				1.49801	.9972
8	Co2286	-.00027				1.02012	1.001
9	Cr2677	-.00004			.78472		1.009
10	Cu3247	.00439				.52217	.9953
11	Fe2714	.00007		.04035			Q1.084
12	K_7664	.00846				1.91435	9.474
13	Mg2790	-.0001				.05475	.9710
14	Mn2576	.00014				.86884	1.007
15	Ni2316	-.00027		.68696			1.010
16	2203/1	.00136				2.84839	.9957
17	2203/2	.00011				2.71588	.9833
18	1960/1	-.00492			1.31658		.9386
19	1960/2	.00111			.55181		.9421
20	Sb2068	.00009		.37687			.9660
21	Sn1899	.00026		.28822			1.005
22	Tl1908	-.0002		.1156			1.019
23	V_2924	0			.01552		1.004
24	Zn2062	.00004				.29948	.9992
25	Pb2203						.9917
26	Se1960						Q.9399

#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	QMW'0905
1	Ag3280	-.0001	.0001	.3144	.0011	.0002	-.0001
2	Al3082	-.0540	50.95	Q4.971	Q-.0180	-.0426	.0727
3	As1890	.0000	.0032	1.063	.0468	.0106	-.0028
4	Ba4934	.0002	.0001	.3024	.0404	.0103	.0013
5	Be3130	.0001	.0000	.1048	.0010	.0002	-.0000
6	Ca3179	-.0001	50.03	Q5.098	.0074	.0100	.2790
7	Cd2265	.0001	.0028	.3086	.0010	.0002	-.0001
8	Co2286	-.0001	.0008	.3028	.0100	.0026	-.0006
9	Cr2677	-.0000	.0013	.3043	.0040	Q.0006	.0002
10	Cu3247	-.0002	Q.0338	.3017	.0045	.0010	.0168
11	Fe2714	.0005	49.44	Q5.069	Q.0348	.0239	.1032
12	K_7664	-.0085	Q.2227	22.00	-.0036	-.0653	.0816
13	Mg2790	-.0023	51.59	Q5.100	.0017	-.0031	.0095
14	Mn2576	.0001	.0014	.2032	.0106	Q.0031	.0013
15	Ni2316	-.0001	.0001	.2992	.0096	Q.0016	-.0006
16	2203/1	-.0013	.0220	1.016	.0102	.0013	.0007
17	2203/2	.0006	-.0038	1.012	.0104	.0029	.0001
18	1960/1	.0055	.0077	.5550	.0456	.0141	-.0058
19	1960/2	.0021	.0071	.5496	.0456	.0129	.0059
20	Sb2068	.0017	.0149	Q10.31	Q.0234	.0054	.0030
21	Sn1899	.0006	.0044	Q10.18	.0164	.0012	.0001
22	Tl1908	.0032	Q.0503	1.054	415	Q.0131	-.0028
23	V_2924	.0000	-.0014	.3062	39	Q.0000	.0003

#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	QMW'0905
24	Zn2062	.0003	.0034	.3109	.0112	.0031	.0220
25	Pb2203	-.0005	.0135	1.015	.0104	Q.0020	.0007
26	Se1960	.0045	.0073	.5533	.0457	Q.0138	-.0017

#	Element	QMW' LCS	QMW'LCSD	17212	17217	17182	17182 D
1	Ag3280	.0339	.0271	.0020	.0002	.0004	.0001
2	Al3082	5.085	5.305	21.88	6.315	.3275	1.151
3	As1890	.9851	1.027	.0061	-.0015	-.0052	-.0079
4	Ba4934	.9862	1.030	.1528	.0638	.0804	.0914
5	Be3130	.9586	1.003	.0008	-.0000	-.0002	-.0005
6	Ca3179	5.104	5.180	15.36	7.027	20.72	22.69
7	Cd2265	.9705	1.018	.0017	.0007	-.0002	-.0002
8	Co2286	.9753	1.021	.0128	.0024	-.0012	-.0008
9	Cr2677	.9840	1.027	.0286	.0084	.0033	.0038
10	Cu3247	.9874	1.031	.0825	.0449	.0087	.0187
11	Fe2714	4.973	5.113	24.71	6.988	.2411	.7875
12	K_7664	15.39	16.09	12.58	6.211	1.653	1.965
13	Mg2790	4.875	5.041	5.231	1.275	8.509	9.580
14	Mn2576	.9807	1.026	.4661	.1308	.0080	.0129
15	Ni2316	.9691	1.015	.0127	.0044	-.0007	.0000
16	2203/1	.9731	1.021	.0995	.0463	-.0007	.0038
17	2203/2	.9623	1.010	.0895	.0424	-.0007	.0005
18	1960/1	.9141	.9545	-.0012	-.0031	-.0078	-.0100
19	1960/2	.9223	.9639	.0099	.0111	.0080	.0120
20	Sb2068	.9458	1.006	.0134	.0070	.0033	.0023
21	Sn1899	2.071	2.176	.0104	.0018	-.0001	.0001
22	Tl1908	1.001	1.051	.0207	.0012	-.0031	-.0014
23	V_2924	.9827	1.029	.0632	.0188	.0000	.0011
24	Zn2062	.9751	1.007	.2988	.2134	.1029	.0774
25	Pb2203	.9696	1.017	.0964	.0452	-.0005	.0029
26	Se1960	.9169	.9578	.0025	.0017	-.0024	-.0025

#	Element	17182 MS	ICV 2	STD'lank	STD8	STD3	STD4
1	Ag3280	.0734	.9493	-.0014	.72508		
2	Al3082	10.19	Q.9043	.00824		.08577	
3	As1890	1.684	Q.9339	-.00069			.31771
4	Ba4934	1.787	Q.9435	.00041			
5	Be3130	1.662	.9610	-.00116		2.00434	
6	Ca3179	33.39	.9518	.00115			
7	Cd2265	1.652	Q.9295	-.00012			
8	Co2286	1.665	Q.9407	-.00032			
9	Cr2677	1.692	Q.9439	-.00015			.7337
10	Cu3247	1.719	Q.9433	.004			
11	Fe2714	9.173	1.027	.00014		.03857	
12	K_7664	32.82	Q7.828	.00059			
13	Mg2790	19.04	Q.8998	-.00024			
14	Mn2576	1.689	.9460	.00016			
15	Ni2316	1.647	Q.9365	-.00054		.64464	
16	2203/1	1.673	.9438	-.00003			
17	2203/2	1.643	.9268	.00132			

#	Element	17182 MS	ICV 2	STD'lank	STD8	STD3	STD4
18	1960/1	1.545	.8716	-.00253			1.24952
19	1960/2	1.563	.8811	.00099			.52727
20	Sb2068	1.622	Q.8956	.00013		.35253	
21	Sn1899	3.565	.9635	.00014		.27962	
22	T11908	1.736	.9663	0		.11129	
23	V_2924	1.698	Q.9381	0			.01452
24	Zn2062	1.701	Q.9219	.00008			
25	Pb2203	1.663	Q.9383				
26	Se1960	1.551	Q.8749				

#	Element	STD2	ICV 2	ICB	QMW'0905	QMW' LCS	QMW'LCSD
1	Ag3280		.9870	.0001	.0002	.0353	.0285
2	Al3082		Q.9413	-.0274	.0410	4.742	4.715
3	As1890		.9975	.0037	-.0045	1.006	1.002
4	Ba4934	1.98466	1.003	-.0001	.0005	1.005	.9966
5	Be3130		1.008	.0001	-.0001	.9676	.9609
6	Ca3179	.08826	1.012	-.0021	.2253	5.117	5.024
7	Cd2265	1.40989	.9910	.0002	-.0003	.9894	.9818
8	Co2286	.96546	.9985	.0003	-.0004	.9953	.9881
9	Cr2677		1.013	.0003	-.0001	1.011	1.002
10	Cu3247	.49455	.9956	-.0004	.0107	.9989	.9901
11	Fe2714		Q1.076	-.0042	.1074	5.036	4.912
12	K_7664	1.55622	9.481	.0121	.0141	15.55	15.32
13	Mg2790	.05137	.9714	.0000	.0056	4.957	4.860
14	Mn2576	.82115	1.004	.0001	.0010	.9990	.9917
15	Ni2316		.9955	.0002	-.0007	.9825	.9745
16	2203/1	2.75346	.9863	-.0003	.0011	.9852	.9813
17	2203/2	2.59256	.9839	.0006	-.0008	.9804	.9790
18	1960/1		.9307	.0009	-.0081	.9151	.9099
19	1960/2		.9401	-.0000	.0040	.9298	.9307
20	Sb2068		.9551	.0012	-.0009	.9550	.9610
21	Sn1899		.9954	-.0004	-.0034	2.089	2.078
22	T11908		1.001	-.0011	-.0048	1.012	1.007
23	V_2924		1.000	-.0007	-.0021	1.006	.9978
24	Zn2062	.28016	.9969	.0003	.0185	.9983	.9906
25	Pb2203		.9857	.0001	.0006	.9837	.9807
26	Se1960		Q.9339	.0007	-.0039	.9201	.9169

#	Element	17212	17217	17182	17182 D	17182 MS	171' MSD
1	Ag3280	.0018	.0006	.0001	.0000	.0404	.0395
2	Al3082	19.01	4.976	.1497	.5498	5.534	5.608
3	As1890	.0042	-.0021	-.0034	-.0029	1.007	1.024
4	Ba4934	.1421	.0546	.0649	.0582	1.066	1.072
5	Be3130	.0009	.0001	.0000	.0000	.9788	.9950
6	Ca3179	14.36	5.987	15.76	14.66	19.77	19.57
7	Cd2265	.0015	.0008	-.0003	-.0001	.9804	.9995
8	Co2286	.0126	.0022	-.0004	-.0002	.9906	1.007
9	Cr2677	.0273	.0075	.0022	.0027	1.013	1.030
10	Cu3247	.0754	.0362	.0029	.0062	1.018	.024
11	[illegible]	22.93	5.901	.1750	.4873	5.408	.543

#	Element	17212	17217	17182	17182 D	17182 MS	171' MSD
12	K_7664	11.76	5.369	1.177	1.192	18.32	18.26
13	Mg2790	4.891	1.086	6.506	6.208	11.30	11.19
14	Mn2576	.4358	.1114	.0052	.0075	1.005	1.020
15	Ni2316	.0131	.0048	.0001	.0004	.9719	.9900
16	2203/1	.0928	.0445	-.0017	.0018	.9848	1.009
17	2203/2	.0809	.0331	.0006	-.0001	.9822	.9964
18	1960/1	-.0040	-.0029	-.0093	-.0069	.9111	.9267
19	1960/2	.0104	.0050	.0064	.0056	.9361	.9435
20	Sb2068	.0103	.0039	.0012	.0023	.9600	.9714
21	Sn1899	.0106	.0014	-.0005	-.0019	2.088	2.140
22	Tl1908	.0160	-.0004	-.0018	-.0055	1.020	1.038
23	V_2924	.0588	.0163	.0007	.0014	1.013	1.024
24	Zn2062	.2803	.1850	.0666	.0398	1.007	1.039
25	Pb2203	.0890	.0408	-.0008	.0013	.9841	1.005
26	Se1960	.0008	-.0002	-.0039	-.0026	.9195	.9324

#	Element	ICV 2	ICB	QMW'1025	QMW' LCS	QMW'LCSD	16582
1	Ag3280	.9919	.0006	.0005	.0407	.0376	.0003
2	Al3082	Q.9148	-.0101	.1470	5.074	5.052	3.870
3	As1890	1.003	.0017	-.0024			
4	Ba4934	.9997	-.0001	.0005			
5	Be3130	1.008	-.0000	-.0000			
6	Ca3179	1.005	-.0039	.0956	5.251	5.372	7.330
7	Cd2265	.9784	.0001	-.0001			
8	Co2286	.9949	.0003	-.0001			
9	Cr2677	1.007	.0002	.0007			
10	Cu3247	1.006	-.0008	-.0005			
11	Fe2714	Q1.078	-.0067	.0107	5.241	5.174	26.11
12	K_7664	9.494	.0337	.1830			
13	Mg2790	.9655	-.0011	.0129	5.137	5.061	2.990
14	Mn2576	1.001	.0000	.0006			
15	Ni2316	.9807	.0003	.0000			
16	2203/1	.9911	.0006	-.0007			
17	2203/2	.9728	.0000	-.0011			
18	1960/1	.9299	.0000	-.0079			
19	1960/2	.9337	-.0006	.0030			
20	Sb2068	.9501	.0002	.0027			
21	Sn1899	1.003	.0007	-.0011			
22	Tl1908	1.006	-.0012	-.0019			
23	V_2924	1.000	.0000	.0000			
24	Zn2062	.9788	-.0003	.0141			
25	Pb2203	.9851	.0006	-.0007			
26	Se1960	Q.9313	-.0000	-.0042			

#	Element	16584	16586	16588	16590	16592	16594
1	Ag3280	.0001	.0006	.0002	-.0000	.0003	.0004
2	Al3082	.7663	.1757	1.037	.2219	1.475	.5618
3	As1890						
4	Ba4934						
5	Be3130						

#	Element	16584	16586	16588	16590	16592	16594
6	Ca3179	3.260	3.062	1.457	.8993	.8415	3.035
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.3595	.0442	.9023	.0872	.4410	.2259
12	K_7664						
13	Mg2790	4.823	1.284	.9022	.3213	.6654	4.326
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICV 2	ICV 2	ICB	BLK'R ZN	16596	16598
1	Ag3280	.9884	.9897	.0005		.0002	.0003
2	Al3082	Q.9193	Q.9099	-.0081		.7663	.5304
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	.9974	1.013	-.0042		.5849	4.420
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	Q1.068	Q1.079	-.0073		1.194	5.981
12	K_7664						
13	Mg2790	.9543	.9633	-.0011		1.112	3.805
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062		.9873	-.0000	.0116	.3529	.0306
25	Pb2203						
26	Se1960						

#	Element	16600	16601	16602	16603	16824	16854
1	Ag3280	.0001	.0002	-.0001	.0002	.0002	.0003
2	Al3082	.6189	1.709	.4033	.1417	2.012	.0654
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	8.061	4.636	20.07	.5720	.9752	18.05
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	4.416	3.105	6.516	.0356	.9342	20.68
12	K_7664						
13	Mg2790	3.466	2.076	2.813	.0190	.4291	.6174
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062	.6762	.0567	.0497	.0340	.0213	.0252
25	Pb2203						
26	Se1960						

#	Element	16603 D	ICV 2	ICB	16603 MS	166' MSD	ICV 2
1	Ag3280	.0003	.9880	.0003	.0398	.0374	.9824
2	Al3082	.1269	Q.9093	-.0181	4.808	4.755	Q.8975
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	.1365	.9851	-.0046	4.988	5.075	.9731
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.0542	Q1.061	-.0054	5.016	4.975	Q1.060
12	K_7664						
13	Mg2790	.0132	Q.9438	.0022	4.861	4.886	Q.9393
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2						

#	Element	16603 D	ICV 2	ICB	16603 MS	166' MSD	ICV 2
24	Zn2062	.0165	.9503	-.0002	.9621	.9841	Q.9320
25	Pb2203						
26	Se1960						

#	Element	ICB
1	Ag3280	.0007
2	Al3082	-.0163
3	As1890	
4	Ba4934	
5	Be3130	
6	Ca3179	-.0046
7	Cd2265	
8	Co2286	
9	Cr2677	
10	Cu3247	
11	Fe2714	-.0083
12	K_7664	
13	Mg2790	.0043
14	Mn2576	
15	Ni2316	
16	2203/1	
17	2203/2	
18	1960/1	
19	1960/2	
20	Sb2068	
21	Sn1899	
22	Tl1908	
23	V_2924	
24	Zn2062	-.0002
25	Pb2203	
26	Se1960	

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Checklist

Project #: 283068 Redey Aq. Batch 073101C

Instrument Used: Trace ICAP/ICAP/GFAA/FIMS Hg

Analyst Questions

1. Is the Blank <1/2 RDL? N/A If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? N/A If not, why, or are the samples being reanalyzed? _____
3. Duplicate AAL sample number 1C6601
   Is the RPD acceptable? N/A If not, what is the reason? _____
4. MS/MSD AAL sample number 1C66A
   Are the recoveries acceptable? N/A If not, what is the reason? _____
5. Sample numbers requiring dilution? _____
   Reason for dilution. _____
6. Are all special requirements on project sheet completed? — If unable to complete, has the project manager been notified? _____
7. Any additional comments. _____

Reviewer Questions

8. Is the ICV within ± 10% for 6010B, or 5% for 200.7? Yes
9. For Hg and GFAA, is the curve acceptable, (>0.995 correlation coefficient)? —
10. Verified the correct date & time; sample results with sigfigs in LIMS ✓
11. Verified the RDL and its sigfigs according to dilution ✓

Analyst entering results in Labworks. Lna Date: 8/2/01

Peer Reviewer: AMP Date: 8/7/01

Peer Reviewer is responsible for reviewing all above questions.

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	AUG0201	WATERS2	08/02/01	09:48		X	IR
2	STD8	AUG0201	WATERS2	08/02/01	09:57		X	IR
3	STD3	AUG0201	WATERS2	08/02/01	10:00		X	IR
4	STD4	AUG0201	WATERS2	08/02/01	10:05		X	IR
5	STD2	AUG0201	WATERS2	08/02/01	10:10		X	IR
6	ICV 2	AUG0201	WATERS2	08/02/01	10:14	MA	Q	CONC
7	ICB	AUG0201	WATERS2	08/02/01	10:21	MA	B	CONC
8	ICS A	AUG0201	WATERS2	08/02/01	10:27	MA	Q	CONC
9	ICS AB	AUG0201	WATERS2	08/02/01	10:34	MA	Q	CONC
10	SS I	AUG0201	WATERS2	08/02/01	10:40	MA	Q	CONC
11	STD3	AUG0201	WATERS2	08/02/01	10:48		X	IR
12	STD4	AUG0201	WATERS2	08/02/01	10:52		X	IR
13	STD2	AUG0201	WATERS2	08/02/01	10:57		X	IR
14	ICV 2	AUG0201	WATERS2	08/02/01	11:01	MA	Q	CONC
15	ICB	AUG0201	WATERS2	08/02/01	11:08	MA	B	CONC
16	SS I LOW	AUG0201	WATERS2	08/02/01	11:18	MA	Q	CONC
17	QMS0731014 1025	AUG0201	WATERS2	08/02/01	11:25	MA	S	CONC
18	QMS0731015 LCS	AUG0201	WATERS2	08/02/01	11:28	MA	S	CONC
19	QMS0731016 LCSD	AUG0201	WATERS2	08/02/01	11:32	MA	S	CONC
20	16455	AUG0201	WATERS2	08/02/01	11:35	MA	S	CONC
21	17236	AUG0201	WATERS2	08/02/01	11:39	MA	S	CONC
22	17236 D	AUG0201	WATERS2	08/02/01	11:43	MA	S	CONC
23	17236 MS	AUG0201	WATERS2	08/02/01	11:46	MA	S	CONC
24	17236 MSD	AUG0201	WATERS2	08/02/01	11:50	MA	S	CONC
25	17239	AUG0201	WATERS2	08/02/01	11:53	MA	S	CONC
26	17240	AUG0201	WATERS2	08/02/01	11:57	MA	S	CONC
27	ICV 2	AUG0201	WATERS2	08/02/01	12:04	MA	Q	CONC
28	ICB	AUG0201	WATERS2	08/02/01	12:08	MA	B	CONC
29	17241	AUG0201	WATERS2	08/02/01	12:11	MA	S	CONC
30	17242	AUG0201	WATERS2	08/02/01	12:15	MA	S	CONC
31	17243	AUG0201	WATERS2	08/02/01	12:18	MA	S	CONC
32	17791	AUG0201	WATERS2	08/02/01	12:23	MA	S	CONC
33	ICV 2	AUG0201	WATERS2	08/02/01	12:32	MA	Q	CONC
34	ICB	AUG0201	WATERS2	08/02/01	13:03	MA	B	CONC
35	16931	AUG0201	WATERS2	08/02/01	13:09	MA	S	CONC
36	16932	AUG0201	WATERS2	08/02/01	13:15	MA	S	CONC
37	16933	AUG0201	WATERS2	08/02/01	13:21	MA	S	CONC
38	16933 D	AUG0201	WATERS2	08/02/01	13:27	MA	S	CONC
39	16933 MS	AUG0201	WATERS2	08/02/01	13:33	MA	S	CONC
40	16933 MSD	AUG0201	WATERS2	08/02/01	13:40	MA	S	CONC
41	16934	AUG0201	WATERS2	08/02/01	13:46	MA	S	CONC
42	16935	AUG0201	WATERS2	08/02/01	13:52	MA	S	CONC
43	16936	AUG0201	WATERS2	08/02/01	13:58	MA	S	CONC
44	16937	AUG0201	WATERS2	08/02/01	14:04	MA	S	CONC
45	ICV 2	AUG0201	WATERS2	08/02/01	14:13	MA	Q	CONC
46	ICB	AUG0201	WATERS2	08/02/01	14:20	MA	B	CONC
47	16938	AUG0201	WATERS2	08/02/01	14:26	MA	S	CONC
48	16924 1:1MSA	AUG0201	WATERS2	08/02/01	14:32	MA	S	CONC
49	ICV 2	AUG0201	WATERS2	08/02/01	14:41	MA	Q	CONC
50	ICB	AUG0201	WATERS2	08/02/01	14:48	MA	B	CONC
51	ICV 2	AUG0201	WATERS2	08/02/01	16:09	M	Q	CONC
52	ICB	AUG0201	WATERS2	08/02/01	16:15	M	B	CONC
53	QMW07[illegible]017 1730	AUG0201	WATERS2	08/02/01	16:19	MA		CONC

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	QMW0713018 LCS	AUG0201	WATERS2	08/02/01	16:24	MA	S	CONC
55	QMW0713019 LCSD	AUG0201	WATERS2	08/02/01	16:28	MA	S	CONC
56	LCS AG 100PPB	AUG0201	WATERS2	08/02/01	16:33	MA	S	CONC
57	LCSD AG 100PPB	AUG0201	WATERS2	08/02/01	16:38	MA	S	CONC
58	16582	AUG0201	WATERS2	08/02/01	16:42	MA	S	CONC
59	16584	AUG0201	WATERS2	08/02/01	16:47	MA	S	CONC
60	16586	AUG0201	WATERS2	08/02/01	16:51	MA	S	CONC
61	16588	AUG0201	WATERS2	08/02/01	16:56	MA	S	CONC
62	16590	AUG0201	WATERS2	08/02/01	17:01	MA	S	CONC
63	ICV 2	AUG0201	WATERS2	08/02/01	17:08	MA	Q	CONC
64	ICB	AUG0201	WATERS2	08/02/01	17:13	MA	B	CONC
65	16592	AUG0201	WATERS2	08/02/01	17:17	MA	S	CONC
66	16594	AUG0201	WATERS2	08/02/01	17:22	MA	S	CONC
67	16596	AUG0201	WATERS2	08/02/01	17:26	MA	S	CONC
68	16598	AUG0201	WATERS2	08/02/01	17:31	MA	S	CONC
69	16600	AUG0201	WATERS2	08/02/01	17:36	MA	S	CONC
70	16601	AUG0201	WATERS2	08/02/01	17:40	MA	S	CONC
71	16602	AUG0201	WATERS2	08/02/01	17:45	MA	S	CONC
72	16603	AUG0201	WATERS2	08/02/01	17:49	MA	S	CONC
73	16824	AUG0201	WATERS2	08/02/01	17:54	MA	S	CONC
74	16854	AUG0201	WATERS2	08/02/01	17:59	MA	S	CONC
75	ICV 2	AUG0201	WATERS2	08/02/01	18:03	MA	Q	CONC
76	ICB	AUG0201	WATERS2	08/02/01	18:09	MA	B	CONC
77	16488	AUG0201	WATERS2	08/02/01	18:13	MA	S	CONC
78	16601 D	AUG0201	WATERS2	08/02/01	18:18	MA	S	CONC
79	16601 MS	AUG0201	WATERS2	08/02/01	18:22	MA	S	CONC
80	16601 MSD	AUG0201	WATERS2	08/02/01	18:27	MA	S	CONC
81	16601 MS AG 100PPB	AUG0201	WATERS2	08/02/01	18:32	MA	S	CONC
82	16601MSD AG 100PPB	AUG0201	WATERS2	08/02/01	18:36	MA	S	CONC
83	QMW07310110 1730	AUG0201	WATERS2	08/02/01	18:41	MA	S	CONC
84	QMW07310111 LCS	AUG0201	WATERS2	08/02/01	18:45	MA	S	CONC
85	QMW07310112 LCSD	AUG0201	WATERS2	08/02/01	18:50	MA	S	CONC
86	LCS AG	AUG0201	WATERS2	08/02/01	18:55	MA	S	CONC
87	ICV 2	AUG0201	WATERS2	08/02/01	19:02	MA	Q	CONC
88	ICB	AUG0201	WATERS2	08/02/01	19:07	MA	B	CONC
89	LCSD AG	AUG0201	WATERS2	08/02/01	19:12	MA	S	CONC
90	17444	AUG0201	WATERS2	08/02/01	19:16	MA	S	CONC
91	17445	AUG0201	WATERS2	08/02/01	19:21	MA	S	CONC
92	17446	AUG0201	WATERS2	08/02/01	19:25	MA	S	CONC
93	17447	AUG0201	WATERS2	08/02/01	19:30	MA	S	CONC
94	17448	AUG0201	WATERS2	08/02/01	19:35	MA	S	CONC
95	17114	AUG0201	WATERS2	08/02/01	19:39	MA	S	CONC
96	17120	AUG0201	WATERS2	08/02/01	19:44	MA	S	CONC
97	16981	AUG0201	WATERS2	08/02/01	19:48	MA	S	CONC
98	16982	AUG0201	WATERS2	08/02/01	19:53	MA	S	CONC
99	ICV 2	AUG0201	WATERS2	08/02/01	20:00	MA	Q	CONC
100	ICB	AUG0201	WATERS2	08/02/01	20:07	MA	B	CONC
101	16864	AUG0201	WATERS2	08/02/01	20:12	MA	S	CONC
102	16869	AUG0201	WATERS2	08/02/01	20:16	MA	S	CONC
103	16866	AUG0201	WATERS2	08/02/01	20:21	MA	S	CONC
104	16867	AUG0201	WATERS2	08/02/01	20:26	MA	S	CONC
105	16906	AUG0201	WATERS2	08/02/01	20:30	MA	S	CONC
106	16907	AUG0201	WATERS2	08/02/01	20:35	MA	S	CONC
107	16869 D	AUG0201	WATERS2	08/02/01	20:39	MA	S	CONC

pro: 28368
AgRedox

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
108	16869 MS	AUG0201	WATERS2	08/02/01	20:44	MA	S	CONC
109	16869 MSD	AUG0201	WATERS2	08/02/01	20:49	MA	S	CONC
110	16869 MS AG	AUG0201	WATERS2	08/02/01	20:53	MA	S	CONC
111	ICV 2	AUG0201	WATERS2	08/02/01	21:00	MA	Q	CONC
112	ICB	AUG0201	WATERS2	08/02/01	21:05	MA	B	CONC
113	16869 MSD AG	AUG0201	WATERS2	08/02/01	21:10	MA	S	CONC
114	ICV 2	AUG0201	WATERS2	08/02/01	21:17	MA	Q	CONC
115	ICB	AUG0201	WATERS2	08/02/01	21:22	MA	B	CONC
116	SS I	AUG0201	WATERS2	08/02/01	21:27	MA	Q	CONC
117	SS I LOW	AUG0201	WATERS2	08/02/01	21:31	MA	Q	CONC
118	ICS A	AUG0201	WATERS2	08/02/01	21:36	MA	Q	CONC
119	ICS AB	AUG0201	WATERS2	08/02/01	21:41	MA	Q	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	-.0014	.7229				1.025
2	Al3082	.00708		.08875			Q.8866
3	As1890	-.00001			.31434		.9651
4	Ba4934	.00005				2.04552	1.004
5	Be3130	-.00123		2.03125			.9668
6	Ca3179	.00117				.09081	.9456
7	Cd2265	-.00001				1.46229	Q.9333
8	Co2286	-.00011				.97911	.9581
9	Cr2677	.00012			.74841		.9686
10	Cu3247	.00387				.48764	1.018
11	Fe2714	.0001		.039			Q1.061
12	K_7664	.01377				.02183	Q1235.
13	Mg2790	-.00003				.05296	Q.9072
14	Mn2576	.00034				.83632	.9683
15	Ni2316	-.00049		.66877			.9536
16	2203/1	-.00004				2.76125	.9457
17	2203/2	-.0004				2.60579	.9434
18	1960/1	-.00424			1.19074		.9254
19	1960/2	.00116			.515		.9384
20	Sb2068	.0004		.3601			Q.9283
21	Sn1899	.00001		.27834			.9476
22	Tl1908	-.00002		.11068			.9620
23	V_2924	-.00001			.01473		.9782
24	Zn2062	.00005				.28269	Q.8962
25	Pb2203						.9451
26	Se1960						Q.9299

#	Element	ICB	ICS A	ICS AB	SS I	STD3	STD4
1	Ag3280	.0002	.0001	.3058	.0011		
2	Al3082	-.0097	45.82	46.09	.0438	.0791	
3	As1890	-.0030	Q-.0108	1.059	.0379		.30111
4	Ba4934	.0002	.0002	.3001	.0402		
5	Be3130	.0002	.0000	.1021	.0010	1.96855	
6	Ca3179	-.0008	48.01	48.12	.0645		
7	Cd2265	.0001	.0025	.2969	.0010		
8	Co2286	.0004	.0005	.2928	.0099		
9	Cr2677	-.0001	.0001	.2979	.0040		.73166
10	Cu3247	-.0003	Q.0299	.3354	.0049		
11	Fe2714	.0020	48.28	48.39	Q.2170	.03735	
12	K_7664	-3.496	Q-3.902	Q3518.	.2468		
13	Mg2790	-.0003	49.63	49.52	.0175		
14	Mn2576	.0002	.0010	.1992	.0106		
15	Ni2316	.0006	.0006	.2915	.0099	.64301	
16	2203/1	.0009	.0204	1.017	.0110		
17	2203/2	.0012	-.0030	.9887	.0115		
18	1960/1	.0002	-.0012	.5471	.0460		1.10182
19	1960/2	.0002	.0052	.5492	.0443		.48066
20	Sb2068	.0006	.0082	.1110	.0090	.34534	
21	Sn1899	.0001	.0015	.1051	-.0013	.26883	
22	Tl1908	-.0007	Q.0425	1.083	.0372	.10714	
23	V_2924	.0020	-.0000	.3048	.0100		.01466

#	Element	ICB	ICS A	ICS AB	SS I	STD3	STD4
24	Zn2062	.0003	.0032	.2886	.0118		
25	Pb2203	.0011	.0128	1.008	.0113		
26	Se1960	.0003	.0008	.5477	.0455		

#	Element	STD2	ICV 2	ICB	SS I LOW	QMS'1025	QMS' LCS
1	Ag3280		1.035	.0003	.0003		
2	Al3082		1.035	.0092	.0086	.0698	499.4
3	As1890		1.021	-.0036	Q.0049	-.6194	96.49
4	Ba4934	2.04195	1.007	.0003	.0102		
5	Be3130		1.009	.0003	.0003		
6	Ca3179	.08661	1.001	-.0013	.0173	2.149	520.9
7	Cd2265	1.39888	.9858	.0003	.0001		
8	Co2286	.9509	.9973	-.0000	.0027		
9	Cr2677		.9983	.0001	.0009		
10	Cu3247	.49363	1.015	-.0003	.0009		
11	Fe2714		Q1.117	-.0008	.0628	-.6414	486.2
12	K_7664	.10779	Q107.2	-.3766	.0591		
13	Mg2790	.05047	.9531	-.0004	.0032	.3307	467.2
14	Mn2576	.82208	.9940	.0002	.0028		
15	Ni2316		1.003	.0006	Q.0032		
16	2203/1	2.67235	.9882	.0001	.0014		
17	2203/2	2.51596	.9852	.0017	.0021		
18	1960/1		1.011	.0001	.0130		
19	1960/2		1.011	.0031	.0131		
20	Sb2068		.9764	-.0001	.0031		
21	Sn1899		.9886	.0012	-.0001		
22	T11908		1.006	.0000	Q.0067		
23	V_2924		.9877	.0000	.0020		
24	Zn2062	.26034	.9827	.0003	.0028		
25	Pb2203		.9873	.0008	Q.0018		
26	Se1960		1.011	.0013	Q.0132		

#	Element	QMS'LCSD	16455	17236	17236 D	17236 MS	172' MSD
1	Ag3280						
2	Al3082	512.8	9058.	5080.	3147.	13680.	10310.
3	As1890	102.7	-1.061	-.1894	-.3683	95.93	95.25
4	Ba4934						
5	Be3130						
6	Ca3179	549.1	157.1	49.02	79.93	551.7	578.5
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	510.1	18240.	1229.	745.2	2340.	1808.
12	K_7664						
13	Mg2790	493.3	59.08	49.00	29.36	585.3	547.8
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						

#	Element	QMS'LCSD	16455	17236	17236 D	17236 MS	172' MSD
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17239	17240	ICV 2	ICB	17241	17242
1	Ag3280						
2	Al3082	1280.	575.1	1.053	.0260	7815.	1472.
3	As1890	.9206	-.1418	1.012	-.0024	1.024	-1.249
4	Ba4934						
5	Be3130						
6	Ca3179	58.34	92.07	.9880	-.0032	206.9	83.74
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	24680.	10510.	Q1.136	.0054	17540.	18320.
12	K_7664						
13	Mg2790	22.69	5.840	Q.9420	.0002	198.4	10.63
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17243	17791	ICV 2	ICB	16931	16932
1	Ag3280		.1995	1.038	.0002	-.0001	.0001
2	Al3082	1205.	1918.	1.012	.0234	.3208	.3564
3	As1890	-1.040	.7897	1.032	-.0061	-.0066	-.0082
4	Ba4934		13.84	.9927	.0000	.0312	.0247
5	Be3130		.1040	1.028	.0000	.0001	.0001
6	Ca3179	59.31	16930.	1.032	-.0047	.4926	2.080
7	Cd2265		.5170	1.002	.0001	-.0002	-.0002
8	Co2286		.7566	1.009	.0001	-.0004	-.0004
9	Cr2677		7.176	1.005	.0001	.0009	.0009
10	Cu3247		31.59	1.011	.0006	.0003	.0008
11	Fe2714	16060.	1985.	Q1.128	.0003	2.867	.9815

#	Element	17243	17791	ICV 2	ICB	16931	16932
12	K_7664		1776.	Q104.4	.0052	4.966	4.600
13	Mg2790	8.612	215.2	.9582	.0020	.6863	.7790
14	Mn2576		19.46	1.003	-.0000	.0138	.0076
15	Ni2316		5.012	1.009	.0005	.0004	.0001
16	2203/1		14.24	1.011	.0006	.0023	.0026
17	2203/2		13.42	1.003	.0002	.0012	.0009
18	1960/1		.5589	.9955	-.0000	-.0088	-.0108
19	1960/2		.1443	1.018	.0016	.0065	.0074
20	Sb2068		.8482	.9702	.0004	.0024	.0010
21	Sn1899		2.280	1.012	-.0009	-.0007	-.0009
22	Tl1908		1.791	1.019	-.0008	-.0044	-.0060
23	V_2924		12.56	.9888	.0000	.0020	.0013
24	Zn2062		100.8	1.002	-.0001	.0116	.0136
25	Pb2203		13.98	1.008	.0006	.0021	.0022
26	Se1960		.4224	1.003	.0007	-.0036	-.0046

#	Element	16933	16933 D	16933 MS	169' MSD	16934	16935
1	Ag3280	.0002	.0002	.0321	.0325	.0004	.0001
2	Al3082	.4863	1.211	5.428	5.620	.3475	.5387
3	As1890	-.0083	-.0098	1.061	1.060	-.0067	-.0074
4	Ba4934	.0296	.0290	1.041	1.059	.0447	.0243
5	Be3130	.0000	.0000	1.017	1.010	.0004	.0001
6	Ca3179	2.818	2.512	5.421	5.558	2.655	8.800
7	Cd2265	-.0004	-.0004	1.017	1.007	.0001	.0002
8	Co2286	-.0003	-.0001	1.032	1.027	.0001	-.0006
9	Cr2677	.0014	.0017	1.032	1.030	.0009	.0020
10	Cu3247	.0015	.0008	1.036	1.053	.0001	.0024
11	Fe2714	.3128	.2689	3.588	3.613	.0252	7.969
12	K_7664	6.497	6.626	152.8	155.7	20.81	23.07
13	Mg2790	.8975	.8129	3.787	3.850	.9038	2.831
14	Mn2576	.0247	.0155	1.041	1.040	.0196	.0354
15	Ni2316	-.0006	-.0002	1.020	1.016	.0003	.0001
16	2203/1	.0017	.0038	1.035	1.024	.0042	.0015
17	2203/2	-.0005	.0021	1.021	1.014	.0007	.0006
18	1960/1	-.0043	-.0068	1.006	1.002	-.0066	-.0085
19	1960/2	.0084	.0055	1.023	1.028	.0064	.0063
20	Sb2068	.0020	.0021	.9964	.9997	.0021	.0028
21	Sn1899	-.0010	.0006	2.172	2.157	.0014	.0056
22	Tl1908	-.0023	-.0032	1.048	1.051	-.0032	.0041
23	V_2924	.0034	.0034	1.015	1.019	.0014	.0041
24	Zn2062	.0227	.0106	1.023	1.003	.0129	.0128
25	Pb2203	.0011	.0034	1.031	1.021	.0032	.0013
26	Se1960	.0000	-.0026	1.011	1.011	-.0022	-.0034

#	Element	16936	16937	ICV 2	ICB	16938	169'1MSA
1	Ag3280	-.0003	.0003	1.039	.0003	.0002	.2038
2	Al3082	3.030	.1604	1.020	.0323	.2024	.5953
3	As1890	-.0095	-.0078	1.039	-.0024	-.00	.2015
4	Ba4934	.0479	.0014	.9870	.0003	.99	.4
5	Be3130	.00 3	.0000	1.035	.0003	01	130

#	Element	16936	16937	ICV 2	ICB	16938	169'1MSA
6	Ca3179	41.86	.1931	1.020	-.0035	25.70	33.14
7	Cd2265	.0005	-.0003	1.001	.0004	-.0001	.2038
8	Co2286	.0039	-.0004	1.012	.0001	.0017	.2051
9	Cr2677	.0012	.0007	1.007	.0003	.0011	.2099
10	Cu3247	.0083	-.0005	1.016	-.0009	.0041	.2108
11	Fe2714	14.66	.0291	Q1.121	.0020	3.277	1.725
12	K_7664	49.79	1.285	Q100.7	-.3652	19.15	39.20
13	Mg2790	11.56	.0100	.9603	-.0004	6.538	11.28
14	Mn2576	.3569	.0009	1.005	.0002	.1238	.3008
15	Ni2316	.0033	-.0002	1.004	.0006	.0027	.2047
16	2203/1	.0044	.0026	1.021	.0003	.0027	.2091
17	2203/2	.0007	.0022	1.010	-.0004	.0012	.2099
18	1960/1	-.0090	-.0094	1.005	.0021	-.0093	.2016
19	1960/2	.0042	.0064	1.021	.0008	.0057	.2219
20	Sb2068	.0022	.0019	.9650	.0015	.0023	.2073
21	Sn1899	.0035	.0007	1.023	.0005	-.0011	.2162
22	T11908	.0100	-.0041	1.031	-.0038	-.0032	.2015
23	V_2924	.0033	.0007	.9886	.0020	.0020	.2072
24	Zn2062	.0507	.0114	1.004	.0003	.0104	.2133
25	Pb2203	.0033	.0026	1.018	.0002	.0023	.2097
26	Se1960	-.0045	-.0041	1.011	.0018	-.0042	.2086

#	Element	ICV 2	ICB	ICV 2	ICB	QMW'1730	QMW' LCS
						16:19	
1	Ag3280	1.036	.0002	Q1.067	.0004	.0004 ✓	1.003
2	Al3082	1.020	.0403	Q1.088	.0526	.1048	5.267
3	As1890	1.038	-.0025				
4	Ba4934	.9848	.0002				
5	Be3130	1.033	.0002				
6	Ca3179	1.023	-.0045	1.029	-.0055	.0410	5.254
7	Cd2265	.9958	.0002				
8	Co2286	1.009	.0001				
9	Cr2677	1.002	.0001				
10	Cu3247	1.013	-.0010				
11	Fe2714	Q1.118	-.0027	Q1.126	-.0054	.0107	5.278
12	K_7664	Q100.6	-.1870				
13	Mg2790	.9560	.0008	.9691	.0027	.0032	5.080
14	Mn2576	1.002	.0002				
15	Ni2316	.9998	.0007				
16	2203/1	1.016	.0003				
17	2203/2	1.010	.0010				
18	1960/1	.9972	.0012				
19	1960/2	1.019	-.0031				
20	Sb2068	.9601	.0017				
21	Sn1899	1.019	-.0009				
22	T11908	1.034	-.0061				
23	V_2924	.9848	.0020				
24	Zn2062	.9975	.0002				
25	Pb2203	1.014	.0007				
26	Se1960	1.004	-.0001				

#	Element	QMW'LCSD	LCS'0PPB	LCS'0PPB	16582	16584	16586
1	Ag3280	.9976	.1029	.1020	.0005	.0002	.0003
2	Al3082	5.484	.1624	.1405	3.505	.7987	.2300
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	5.122	.0750	.0770	7.216	3.077	2.943
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	5.195	.0257	.0113	25.93	.4553	.0687
12	K_7664						
13	Mg2790	4.993	.0071	.0069	2.886	4.615	1.227
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	T11908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16588	16590	ICV 2	ICB	16592	16594
1	Ag3280	.0003	.0002	1.034	.0004	.0004	.0002
2	Al3082	1.334	.2796	Q1.112	.0621	1.504	.8601
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	1.563	.8665	.9758	-.0040	.6077	3.298
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	1.263	.1005	Q1.071	-.0033	.4239	.4897
12	K_7664						
13	Mg2790	.9666	.3095	Q.9308	-.0004	.6155	4.866
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	T11908						
23	V_2924						

#	Element	16588	16590	ICV 2	ICB	16592	16594
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16596	16598	16600	16601	16602	16603
1	Ag3280	.0001	.0003	.0005	.0002	.0003	.0004
2	Al3082	.7421	.6030	.6490	1.895	.5785	.1218
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	.4803	5.276	7.625	5.700	22.26	.1311
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	1.276	7.329	4.334	3.973	7.537	.0236
12	K_7664						
13	Mg2790	1.177	4.557	3.267	2.562	3.109	.0090
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	T11908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16824	16854	ICV 2	ICB	16488	16601 D
			17:59				
1	Ag3280	.0002	.0005	1.040	.0006	-.0004	.0003
2	Al3082	10.91	.0704	Q1.114	.0603	.1346	1.703
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	.9999	19.06	.9912	-.0034	.3928	5.156
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	6.461	26.74	Q1.098	-.0012	.3594	3.592
12	K_7664						
13	Mg2790	.6004	.6495	Q.9323	-.0005	.1953	2.298
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						

#	Element	16824	16854	ICV 2	ICB	16488	16601 D
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	T11908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16601 MS	166' MSD	166'0PPB	166'0PPB	QMW'1730	QMW' LCS
1	Ag3280	1.000	.9856	.1009	.1020	.0000	.9840
2	Al3082	9.223	9.338	1.866	1.868	.1401	5.147
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	10.65	10.76	5.362	5.341	.0801	5.211
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	9.317	9.391	3.813	3.742	.0205	5.147
12	K_7664						
13	Mg2790	7.566	7.595	2.401	2.380	.0065	4.930
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	T11908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	QMW'LCSD	LCS AG	ICV 2	ICB	LCSD AG	17444
1	Ag3280	.9971	.1011	1.032	.0005	.1008	.0003
2	Al3082	3.949	.2188	Q1.064	.0519	.1430	.3585
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	3.948	.0731	.9978	-.0059	.0619	2.591
7	Cd2265						
8	Co2286						
9	Cr2677						
10	13247						
11	Fe271'	3.965	.0244	Q1.096	-.0070	.0214	3.437

#	Element	QMW'LCSD	LCS AG	ICV 2	ICB	LCSD AG	17444
12	K_7664						
13	Mg2790	3.761	.0071	Q.9401	.0012	.0046	1.340
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17445	17446	17447	17448	17114	17120
1	Ag3280	.0002	.0004	.0001	.0002	.0000	.0004
2	Al3082	1.362	.1257	3.944	10.29	.1442	.1886
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	3.108	25.94	7.505	3.431	.1096	.0773
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	5.333	9.627	3.569	8.186	.0273	.0299
12	K_7664						
13	Mg2790	1.597	8.448	2.616	2.626	.0062	.0096
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16981	16982	ICV 2	ICB	16864	16869
1	Ag3280	.0005	.0018	1.028	.0003	.0003	-.0000
2	Al3082	-1.483	12.35	1.050	.0464	.0786	-.3631
3	As1890						
4	Ba4934						
5	Be3130						

#	Element	16981	16982	ICV 2	ICB	16864	16869
6	Ca3179	380.4	531.2	Q1.085	.0038	.1742	127.7
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.6736	20.37	Q1.093	-.0016	6.778	2.452
12	K_7664						
13	Mg2790	142.7	220.9	.9589	-.0020	.0295	2.930
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	16866	16867	16996	16997	16869 D	16869 MS
1	Ag3280	.0018	.0026	.0003	.0007	.0004	.9967
2	Al3082	1.953	2.342	1.497	.3436	-.2330	1.642
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	969.7	65.91	19.67	95.41	125.6	133.5
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	140.5	153.1	7.591	16.13	2.408	4.593
12	K_7664						
13	Mg2790	190.2	14.82	5.638	30.52	2.894	4.946
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	168' MSD	168'S AG	ICV 2	ICB	168'D AG	ICV 2
1	Ag3280	1.002	.1033	1.028	.0007	.1053	1.033
2	Al3082	4.800	-.3606	1.043	.0297	-.3690	1.014
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	136.2	122.8	1.044	.0021	123.0	.9979
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	7.610	2.352	Q1.097	-.0025	2.343	Q1.079
12	K_7664						
13	Mg2790	7.998	2.838	Q.9411	.0010	2.821	Q.9279
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICB	SS I	SS I LOW	ICS A	ICS AB	
1	Ag3280	.0004	Q.0012	.0005	.0002	.3035	
2	Al3082	.0185	Q.0656	.0396	51.21	50.88	
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	-.0004	.0503	.0163	50.29	49.94	
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	.0028	Q.2059	.0571	49.94	49.65	
12	K_7664						
13	Mg2790	.0008	.0039	.0020	50.95	50.41	
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb206[illegible]						
21	Sn189[illegible]						
22	Tl190[illegible]						
23	V_2924						

#	Element	ICB	SS I	SS I LOW	ICS A	ICS AB	
24	Zn2062						
25	Pb2203						
26	Se1960						

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Mercury Waters and Leachates Digestion Log

Date: 2/24/01 - 7/25/01 KC 7/26/01 Batch #: 072401 hg
Start Time: 830
End Time: KC 7/26/01 1024 823
Analyst(s): KC
Matrix: Water/TCLP
Method: 7470A

Lot #'s:
$SnCl_2$: MRP087Q/MRP088C
HNO_3: 99292
H_2SO_4: 99285
$K_2S_2O_8$: MRP085S

Water Bath Temp.: 95°C
NaCl-Hydroxylamine Sulfate: MRP087G
Mercury Std.: MSS002W
Mercury ICV Std.: MSS002V
Potassium Permanganate: MRP087F/MRP087Q

AAL #	Bottle #	Sample Vol. (mL)	HNO_3 (mL)	H_2SO_4 (mL)	K2S2O8 (mL)	KMnO4 (mL)	NaCl-Hydroxyl-amine Sulfate	Final Vol (mL)	Dilution Factor	Spike Amt. Added	Results (ppb)	Comments
Blank	12	50	2.5	5	8	15	6	100	1:2	—		
0.5	27									0.5		
1.0	47									1.0		
3.0	16									3.0		
5.0	64									5.0		
10.0	37									10.0		
ICV	56									3.0	2.909	97%
CCV	52									3.0		
Water Blank	30									—	<DL	
Water LCS	58									3.0	2.976	99%
14424	23									—	<DL	
14428	41											
14431	304											
16824	28											
16854	4											
16869	1000											
16911	33											
16912	41											
16913	12											
16914	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

Reviewed By: _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Mercury Waters and Leachates Digestion Log

Date:_____
Start Time:_____
End Time:_____
Analyst(s):_____
Matrix: Water/TCLP
Method: 7470A

Batch #:_____
Lot #'s:
$SnCl_2$:_____
HNO_3:_____ See 96
H_2SO_4:_____
$K_2S_2O_8$:_____

Water Bath Temp.:_____

NaCl-Hydroxylamine Sulfate:_____
Mercury Std.:_____
Mercury ICV Std.:_____
Potassium Permanganate:_____

AAL #	Bottle #	Sample Vol. (mL)	HNO_3 (mL)	H_2SO_4 (mL)	K2S2O8 (mL)	KMnO4 (mL)	NaCl-Hydroxyl-amine Sulfate	Final Vol (mL)	Dilution Factor	Spike Amt. Added	Results (ppb)	Comments
16915	303	50	2.5	5	6	15	8	100	1:2	—	<DL	
16981	1003	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16982	2002											0.105
16982D	21											0.095
16982MS	1									3.0	2.720	88.9% KC 7/10/01
16982MSD	1002									3.0	2.524	82.4% KC 7/10/01
TCLP Blank	BL	10							1:10 KC 7/10/01	—	<DL	
TCLP LCS	38								1:10	3.0	2.922	97%
16950	26									—	<DL	
16994	51									↓	↓	-0.120
16994D	30											-0.832
16994MS	22									3.0	2.814	2.814
16994MSD	39	↓							↓	3.0	2.786	2.786
CCB	—	—							—	— KC 7/10/01	<DL	
CCV	↓	↓								3.0	2.685	90%
CCB										—	<DL	
CCV										3.0	2.695	90%
CCB										—	<DL	
CCV	↓	↓	↓	↓	↓	↓	↓	↓	↓	3.0	2.938	98%

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Checklist

Project #: 28368 **Instrument Used: Trace ICAP/ICAP/GFAA/FIMS Hg**

Analyst Questions

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why, or are the samples being reanalyzed? _____
3. Duplicate AAL sample number 16982
   Is the RPD acceptable? ✓ If not, what is the reason? _____
4. MS/MSD AAL sample number 16982
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
5. Sample numbers requiring dilution? — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
6. Are all special requirements on project sheet completed? — If unable to complete, has the project manager been notified? _____
7. Any additional comments. ✓ _____

Reviewer Questions

8. Is the ICV within ± 10% for 6010B, or 5% for 200.7? — _____
9. For Hg and GFAA, is the curve acceptable, (>0.995 correlation coefficient)? ✓
10. Verified the correct date & time; sample results with sigfigs in LIMS ✓
11. Verified the RDL and its sigfigs according to dilution ✓

Analyst entering results in Labworks. KC Date: 7/26/01

Peer Reviewer: LD Date: 7/30/01

Peer Reviewer is responsible for reviewing all above questions.

Sample Information File C:\AAUSER\SAMPINFO\072401HG.SIF

Description :
Batch ID : 072401HG
Volume Units :
Weight Units :
Analyst : KC
Sample Volume : 0.00

AS Loc	Sample ID	Sample Weight	Sample Units	User Dilution	Remarks
9	WATER BLANK			2.0000	
10	WATER LCS			2.0000	
11	14424			2.0000	
12	14428			2.0000	
13	14431			2.0000	
14	16824			2.0000	
15	16854			2.0000	
16	16869			2.0000	
17	16911			2.0000	
18	16912			2.0000	
19	16913			2.0000	
20	16914			2.0000	
21	16915			2.0000	
22	16981			2.0000	
23	16982			2.0000	
24	16982D			2.0000	
25	16982MS			2.0000	
26	16982MSD			2.0000	
27	TCLP BLANK			10.0000	
28	TCLP LCS			10.0000	
29	16950			10.0000	
30	16994			10.0000	
31	16994D			10.0000	
32	16994MS			10.0000	
33	16994MSD			10.0000	

072401 Hg Water

QC failed, value less than lower limit for Hg.
Recalibration and continue with sample sequence being performed.

Element: Hg Seq. No.: 12 AS Loc.: 1 Date: 07/25/2001
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0000	-0.0023	0.0000	02:43:05	No
2			0.0000	-0.0026	0.0000	02:43:44	No
3			0.0001	-0.0002	0.0001	02:44:24	No
Mean:			0.0000				
SD :			0.0001				
%RSD:			1078.9681				

Auto-zero performed.

Element: Hg Seq. No.: 13 AS Loc.: 2 Date: 07/25/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0001	-0.0014	0.0001	02:45:25	No
2			0.0002	0.0024	0.0002	02:46:05	No
3			0.0000	-0.0024	0.0000	02:46:46	No
Mean:			0.0001				
SD :			0.0001				
%RSD:			108.7869				

[Hg] Standard number 1 applied. [0.500]
Correlation Coefficient: 1.00000 Slope: 0.00020

Element: Hg Seq. No.: 14 AS Loc.: 3 Date: 07/25/2001
Sample ID: 1.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0000	-0.0005	0.0000	02:47:47	No
2			0.0001	0.0015	0.0001	02:48:27	No

Method Name: Hg
Method Description: Hg
Element: Hg

Date: 07/25/2001
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 072401HG.SIF Results Data Set Name: 072401HG

Method Name: Hg
Method Description: Hg
Element: Hg

Date: 07/25/2001
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 072401HG.SIF Results Data Set Name: 072401HG

Element: Hg Seq. No.: 15 AS Loc.: 1 Date: 07/25/2001
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0006	0.0049	0.0006	03:01:18	No
2			0.0005	0.0037	0.0005	03:01:57	No
3			0.0005	0.0029	0.0005	03:02:37	No
Mean:			0.0005				
SD :			0.0001				
%RSD:			13.1872				

Auto-zero performed.

Element: Hg Seq. No.: 16 AS Loc.: 2 Date: 07/25/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0015	0.0168	0.0020	03:03:38	No
2			0.0014	0.0143	0.0020	03:04:18	No
3			0.0015	0.0156	0.0021	03:04:58	No
Mean:			0.0015				
SD :			0.0000				
%RSD:			2.4814				

[Hg] Standard number 1 applied. [0.500]
Correlation Coefficient: 1.00000 Slope: 0.00297

Element: Hg Seq. No.: 17 AS Loc.: 3 Date: 07/25/2001
Sample ID: 1.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0025	0.0221	0.0030	03:05:59	No
2			0.0025	0.0240	0.0031	03:06:39	No
3			0.0027	0.0266	0.0033	03:07:19	No
Mean:			0.0026				
SD :			0.0001				
%RSD:			5.6274				

[Hg] Standard number 2 applied. [1.000]
Correlation Coefficient: 0.98269 Slope: 0.00267

Element: Hg Seq. No.: 18 AS Loc.: 4 Date: 07/25/2001
Sample ID: 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0097	0.0796	0.0102	03:08:20	No
2			0.0099	0.0831	0.0105	03:08:59	No
3			0.0098	0.0794	0.0103	03:09:39	No
Mean:			0.0098				
SD :			0.0001				
%RSD:			1.3250				

[Hg] Standard number 3 applied. [3.000]
Correlation Coefficient: 0.99394 Slope: 0.00320

Element: Hg Seq. No.: 19 AS Loc.: 5 Date: 07/25/2001
Sample ID: 5.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0161	0.1330	0.0167	03:10:40	No
2			0.0162	0.1322	0.0167	03:11:20	No
3			0.0163	0.1321	0.0168	03:11:59	No
Mean:			0.0162				
SD :			0.0001				
%RSD:			0.3876				

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99829 Slope: 0.00323

Element: Hg Seq. No.: 20 AS Loc.: 6 Date: 07/25/2001
Sample ID: 10.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0318	0.2610	0.0324	03:13:00	No
2			0.0326	0.2625	0.0331	03:13:39	No
3			0.0327	0.2618	0.0332	03:14:19	No
Mean:			0.0324				
SD :			0.0005				
%RSD:			1.4236				

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99963 Slope: 0.00323

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0005	---	-----	-----	-----
0.50 ppb	0.0015	0.500	0.459	0.0000	2.5
1.0 ppb	0.0026	1.000	0.798	0.0001	5.6
3.0 ppb	0.0098	3.000	3.026	0.0001	1.3
5.0 ppb	0.0162	5.000	5.010	0.0001	0.4
10.0 ppb	0.0324	10.000	10.01	0.0005	1.4
Correlation Coefficient: 0.99963		Slope:	0.00323	----	

Element: Hg Seq. No.: 21 AS Loc.: 1 Date: 07/25/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.099	0.099	0.0003	0.0055	0.0009	03:15:21	No
2	-0.053	-0.053	-0.0002	0.0009	0.0004	03:16:01	No
3	0.003	0.003	0.0000	0.0033	0.0005	03:16:40	No
Mean:	0.016	0.016	0.0001				
SD :	0.0766	0.0766	0.0002				
%RSD:	471.0	471.0	470.9662				

Reagent Blank Performed

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 07/25/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.799	2.799	0.0091	0.0754	0.0096	03:17:43	No
2	2.744	2.744	0.0089	0.0748	0.0094	03:18:22	No
3	2.859	2.859	0.0092	0.0777	0.0098	03:19:02	No

Mean:	2.801	2.801	0.0091
SD :	0.0578	0.0578	0.0002
%RSD:	2.1	2.1	2.0645

QC value within specified limits.

Element: Hg Seq. No.: 23 AS Loc.: 1 Date: 07/25/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0023	0.0006	03:20:06	No
2	0.009	0.009	0.0000	0.0043	0.0006	03:20:45	No
3	0.010	0.010	0.0000	0.0040	0.0006	03:21:25	No
Mean:	0.008	0.008	0.0000				
SD :	0.0022	0.0022	0.0000				
%RSD:	25.5	25.5	25.5202				

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 9 Date: 07/25/2001
Sample ID: WATER BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.330	-0.165	-0.0005	0.0001	0.0001	03:22:26	No
2	-0.390	-0.195	-0.0006	-0.0046	0.0000	03:23:06	No
3	-0.326	-0.163	-0.0005	-0.0009	0.0001	03:23:45	No
Mean:	-0.349	-0.174	-0.0006				
SD :	0.0355	0.0177	0.0001				
%RSD:	10.2	10.2	10.1823				

Did not load samples yet

Element: Hg Seq. No.: 25 AS Loc.: 10 Date: 07/25/2001
Sample ID: WATER LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

---

Element: Hg Seq. No.: 25 AS Loc.: 1 Date: 07/25/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.146	-0.146	-0.0005	0.0012	0.0001	03:26:56	No
2	-0.178	-0.178	-0.0006	-0.0012	0.0000	03:27:35	No
3	-0.137	-0.137	-0.0004	-0.0006	0.0001	03:28:15	No
Mean:	-0.154	-0.154	-0.0005				
SD :	0.0217	0.0217	0.0001				
%RSD:	14.1	14.1	14.0707				

Reagent Blank Performed

Element: Hg Seq. No.: 26 AS Loc.: 7 Date: 07/25/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.004	3.004	0.0097	0.0849	0.0102	03:29:18	No
2	2.892	2.892	0.0094	0.0776	0.0099	03:29:57	No
3	2.832	2.832	0.0092	0.0765	0.0097	03:30:37	No
Mean:	2.909	2.909	0.0094				

SD :	0.0874	0.0874	0.0003
%RSD:	3.0	3.0	3.0029

QC value within specified limits.

Element: Hg Seq. No.: 27 AS Loc.: 1 Date: 07/25/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0001	0.0040	0.0006	03:31:41	No
2	0.007	0.007	0.0000	0.0036	0.0006	03:32:21	No
3	0.058	0.058	0.0002	0.0075	0.0007	03:33:00	No
Mean:	0.029	0.029	0.0001				
SD :	0.0263	0.0263	0.0001				
%RSD:	91.5	91.5	91.5275				

QC value within specified limits.

Element: Hg Seq. No.: 28 AS Loc.: 9 Date: 07/25/2001
Sample ID: WATER BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.005	0.0000	-0.0002	0.0001	03:34:01	No
2	-0.046	-0.023	-0.0001	-0.0031	0.0000	03:34:41	No
3	0.003	0.002	0.0000	-0.0003	0.0001	03:35:20	No
Mean:	-0.011	-0.006	0.0000				
SD :	0.0308	0.0154	0.0000				
%RSD:	278.1	278.1	278.1189				

Element: Hg Seq. No.: 29 AS Loc.: 10 Date: 07/25/2001
Sample ID: WATER LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.804	2.902	0.0094	0.0779	0.0095	03:36:20	No
2	6.073	3.036	0.0098	0.0789	0.0099	03:36:59	No
3	5.977	2.988	0.0097	0.0760	0.0098	03:37:38	No
Mean:	5.951	2.976	0.0096				
SD :	0.1361	0.0680	0.0002				
%RSD:	2.3	2.3	2.2864				

Element: Hg Seq. No.: 30 AS Loc.: 11 Date: 07/25/2001
Sample ID: 14424

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.149	0.074	0.0002	0.0036	0.0003	03:38:38	No
2	-0.005	-0.003	0.0000	0.0003	0.0001	03:39:18	No
3	0.042	0.021	0.0001	0.0011	0.0002	03:39:58	No
Mean:	0.062	0.031	0.0001				
SD :	0.0791	0.0395	0.0001				
%RSD:	128.1	128.1	128.0579				

Element: Hg Seq. No.: 31 AS Loc.: 12 Date: 07/25/2001
Sample ID: 14428

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.328	0.164	0.0005	0.0045	0.0006	03:40:58	No
2	0.382	0.191	0.0006	0.0051	0.0007	03:41:38	No
3	0.288	0.144	0.0005	0.0032	0.0006	03:42:18	No
Mean:	0.333	0.166	0.0005				
SD :	0.0474	0.0237	0.0001				
%RSD:	14.3	14.3	14.2560				

Element: Hg Seq. No.: 32 AS Loc.: 13 Date: 07/25/2001
Sample ID: 14431

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.030	-0.015	0.0000	-0.0009	0.0000	03:43:19	No
2	0.005	0.003	0.0000	0.0010	0.0001	03:43:58	No
3	-0.018	-0.009	0.0000	-0.0010	0.0001	03:44:38	No
Mean:	-0.014	-0.007	0.0000				
SD :	0.0178	0.0089	0.0000				
%RSD:	127.7	127.7	127.7464				

Element: Hg Seq. No.: 33 AS Loc.: 14 Date: 07/25/2001
Sample ID: 16824

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.057	0.028	0.0001	-0.0001	0.0002	03:45:38	No
2	-0.014	-0.007	0.0000	-0.0010	0.0001	03:46:18	No
3	-0.005	-0.003	0.0000	-0.0005	0.0001	03:46:58	No
Mean:	0.013	0.006	0.0000				
SD :	0.0383	0.0192	0.0001				
%RSD:	305.5	305.5	305.5421				

Element: Hg Seq. No.: 34 AS Loc.: 15 Date: 07/25/2001
Sample ID: 16854

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.016	0.0001	0.0021	0.0001	03:47:58	No
2	0.007	0.003	0.0000	0.0010	0.0001	03:48:38	No
3	-0.036	-0.018	-0.0001	-0.0014	0.0000	03:49:17	No
Mean:	0.001	0.000	0.0000				
SD :	0.0345	0.0172	0.0001				
%RSD:	4638	4638	4637.8944				

Element: Hg Seq. No.: 35 AS Loc.: 16 Date: 07/25/2001
Sample ID: 16869

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.024	0.0001	0.0018	0.0002	03:50:17	No
2	-0.015	-0.007	0.0000	0.0002	0.0001	03:50:56	No
3	-0.069	-0.034	-0.0001	-0.0023	0.0000	03:51:36	No
Mean:	-0.012	-0.006	0.0000				
SD :	0.0580	0.0290	0.0001				
%RSD:	478.6	478.6	478.5704				

Element: Hg Seq. No.: 36 AS Loc.: 1 Date: 07/25/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.183	-0.183	-0.0006	-0.0022	-0.0001	03:52:38	No
2	-0.175	-0.175	-0.0006	-0.0043	0.0000	03:53:17	No
3	-0.137	-0.137	-0.0004	0.0004	0.0001	03:53:58	No
Mean:	-0.165	-0.165	-0.0005				
SD :	0.0250	0.0250	0.0001				
%RSD:	15.1	15.1	15.1223				

QC value within specified limits.

Element: Hg Seq. No.: 37 AS Loc.: 8 Date: 07/25/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.708	2.708	0.0088	0.0785	0.0093	03:55:01	No
2	2.673	2.673	0.0086	0.0747	0.0092	03:55:41	No
3	2.673	2.673	0.0086	0.0731	0.0092	03:56:20	No
Mean:	2.685	2.685	0.0087				
SD :	0.0201	0.0201	0.0001				
%RSD:	0.7	0.7	0.7479				

QC value within specified limits.

Element: Hg Seq. No.: 38 AS Loc.: 17 Date: 07/25/2001
Sample ID: 16911

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.442	0.221	0.0007	0.0073	0.0008	03:57:22	No
2	0.124	0.062	0.0002	0.0009	0.0003	03:58:02	No
3	0.181	0.090	0.0003	0.0034	0.0004	03:58:42	No
Mean:	0.249	0.124	0.0004				
SD :	0.1695	0.0848	0.0003				
%RSD:	68.1	68.1	68.1423				

Element: Hg Seq. No.: 39 AS Loc.: 18 Date: 07/25/2001
Sample ID: 16912

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.172	-0.086	-0.0003	-0.0054	-0.0002	03:59:42	No
2	0.205	0.102	0.0003	0.0054	0.0004	04:00:21	No
3	0.059	0.029	0.0001	0.0010	0.0002	04:01:01	No
Mean:	0.030	0.015	0.0000				
SD :	0.1900	0.0950	0.0003				
%RSD:	627.4	627.4	627.4165				

Element: Hg Seq. No.: 40 AS Loc.: 19 Date: 07/25/2001
Sample ID: 16913

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.001	0.0000	-0.0016	0.0001	04:02:01	No
2	0.058	0.029	0.0001	0.0027	0.0002	04:02:40	No
3	-0.030	-0.015	0.0000	-0.0009	0.0000	04:03:20	No
Mean:	0.009	0.004	0.0000				
SD :	0.0449	0.0225	0.0001				
%RSD:	503.6	503.6	503.5987				

Element: Hg Seq. No.: 41 AS Loc.: 20 Date: 07/25/2001
Sample ID: 16914

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.023	0.0001	0.0015	0.0002	04:04:20	No
2	-0.061	-0.030	-0.0001	-0.0007	0.0000	04:05:00	No
3	-0.066	-0.033	-0.0001	-0.0026	0.0000	04:05:39	No
Mean:	-0.027	-0.013	0.0000				
SD :	0.0638	0.0319	0.0001				
%RSD:	237.5	237.5	237.4720				

Element: Hg Seq. No.: 42 AS Loc.: 21 Date: 07/25/2001
Sample ID: 16915

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.009	0.0000	-0.0027	0.0001	04:06:40	No
2	-0.161	-0.081	-0.0003	-0.0046	-0.0002	04:07:20	No
3	0.035	0.017	0.0001	0.0009	0.0001	04:08:00	No
Mean:	-0.048	-0.024	-0.0001				
SD :	0.1015	0.0507	0.0002				
%RSD:	210.7	210.7	210.7067				

Element: Hg Seq. No.: 43 AS Loc.: 22 Date: 07/25/2001
Sample ID: 16981

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.030	-0.0001	-0.0020	0.0000	04:09:00	No
2	0.046	0.023	0.0001	0.0004	0.0002	04:09:40	No
3	0.018	0.009	0.0000	0.0005	0.0001	04:10:20	No
Mean:	0.002	0.001	0.0000				
SD :	0.0544	0.0272	0.0001				
%RSD:	3540	3540	3539.6794				

Element: Hg Seq. No.: 44 AS Loc.: 23 Date: 07/25/2001
Sample ID: 16982

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.072	0.0002	0.0027	0.0003	04:11:20	No
2	0.106	0.053	0.0002	0.0022	0.0003	04:12:00	No
3	0.064	0.032	0.0001	0.0020	0.0002	04:12:40	No
Mean:	0.105	0.052	0.0002				
SD :	0.0394	0.0197	0.0001				
%RSD:	37.7	37.7	37.6795				

Element: Hg Seq. No.: 45 AS Loc.: 24 Date: 07/25/2001
Sample ID: 16982D

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.074	0.037	0.0001	0.0021	0.0002	04:13:44	No
2	0.100	0.050	0.0002	0.0035	0.0002	04:14:24	No
3	0.111	0.055	0.0002	0.0028	0.0003	04:15:04	No
Mean:	0.095	0.047	0.0002				
SD :	0.0189	0.0095	0.0000				

%RSD: 20.0 20.0 19.9821
The difference between locations 23 and 24 for [Hg] is 9.9 percent.

Element: Hg Seq. No.: 46 AS Loc.: 25 Date: 07/25/2001
Sample ID: 16982MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.328	2.664	0.0086	0.0731	0.0087	04:16:04	No
2	5.520	2.760	0.0089	0.0754	0.0090	04:16:45	No
3	5.471	2.735	0.0088	0.0751	0.0089	04:17:24	No
Mean:	5.440	2.720	0.0088				
SD :	0.0999	0.0500	0.0002				
%RSD:	1.8	1.8	1.8372				

The measured recovery for locations 23 and 25 for [Hg] is 88.9 percent.

Element: Hg Seq. No.: 47 AS Loc.: 26 Date: 07/25/2001
Sample ID: 16982MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.126	2.563	0.0083	0.0720	0.0084	04:18:25	No
2	4.820	2.410	0.0078	0.0636	0.0079	04:19:05	No
3	5.197	2.599	0.0084	0.0694	0.0085	04:19:44	No
Mean:	5.047	2.524	0.0082				
SD :	0.2006	0.1003	0.0003				
%RSD:	4.0	4.0	3.9734				

The measured recovery for locations 23 and 26 for [Hg] is 82.4 percent.

Element: Hg Seq. No.: 48 AS Loc.: 1 Date: 07/25/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0001	0.0030	0.0004	04:20:45	No
2	-0.164	-0.164	-0.0005	-0.0014	0.0000	04:21:24	No
3	-0.123	-0.123	-0.0004	0.0003	0.0001	04:22:03	No
Mean:	-0.108	-0.108	-0.0004				
SD :	0.0644	0.0644	0.0002				
%RSD:	59.4	59.4	59.3782				

QC value within specified limits.

Element: Hg Seq. No.: 49 AS Loc.: 8 Date: 07/25/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.679	2.679	0.0087	0.0747	0.0092	04:23:06	No
2	2.672	2.672	0.0086	0.0754	0.0092	04:23:45	No
3	2.733	2.733	0.0088	0.0770	0.0094	04:24:25	No
Mean:	2.695	2.695	0.0087				
SD :	0.0336	0.0336	0.0001				
%RSD:	1.2	1.2	1.2482				

QC value within specified limits.

Element: Hg Seq. No.: 50 AS Loc.: 27 Date: 07/25/2001
Sample ID: TCLP BLANK

Sample Information File C:\AAUSER\SAMPINFO\072401HG.SIF

Description :
Batch ID : 072401HG
Volume Units :
Weight Units :
Analyst : KC
Sample Volume : 0.00

AS Loc	Sample ID	Sample Weight	Sample Units	User Dilution	Remarks
9	TCLP BLANK			10.0000	
10	TCLP LCS			10.0000	
11	16950			10.0000	
12	16994			10.0000	
13	16994D			10.0000	
14	16994MS			10.0000	
15	16994MSD			10.0000	

072401 hg TCLP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0007	0.0053	0.0007	07:16:43	No
2			0.0005	0.0038	0.0005	07:17:23	No
3			0.0005	0.0027	0.0005	07:18:03	No
Mean:			0.0006				
SD :			0.0001				
%RSD:			22.8564				

Auto-zero performed.

Element: Hg Seq. No.: 16 AS Loc.: 2 Date: 07/26/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

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Element: Hg Seq. No.: 16 AS Loc.: 1 Date: 07/26/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			-0.0001	0.0045	0.0005	07:20:01	No
2			0.0000	0.0055	0.0006	07:20:41	No
3			-0.0001	0.0039	0.0005	07:21:20	No
Mean:			0.0000				
SD :			0.0000				
%RSD:			114.0995				

Reagent Blank Performed

Element: Hg Seq. No.: 17 AS Loc.: 9 Date: 07/26/2001
Sample ID: TCLP BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			-0.0005	-0.0007	0.0000	07:22:22	No
2			-0.0005	-0.0002	0.0000	07:23:02	No
3			-0.0005	-0.0014	0.0000	07:23:42	No
Mean:			-0.0005				
SD :			0.0000				
%RSD:			3.3123				

Element: Hg Seq. No.: 18 AS Loc.: 10 Date: 07/26/2001
Sample ID: TCLP LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			-0.0005	-0.0010	0.0000	07:24:42	No

Method Name: Hg
Method Description: Hg
Element: Hg

Date: 07/26/2001
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 072401HG.SIF Results Data Set Name: 072401hg

Element: Hg Seq. No.: 19 AS Loc.: 1 Date: 07/26/2001
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0003	0.0017	0.0003	07:29:46	No
2			0.0003	0.0027	0.0003	07:30:25	No
3			0.0004	0.0037	0.0004	07:31:05	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			12.0025				

Auto-zero performed.

Element: Hg Seq. No.: 20 AS Loc.: 2 Date: 07/26/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0012	0.0132	0.0016	07:32:06	No
2			0.0013	0.0146	0.0017	07:32:46	No
3			0.0013	0.0134	0.0016	07:33:26	No
Mean:			0.0013				
SD :			0.0000				
%RSD:			3.8523				

[Hg] Standard number 1 applied. [0.500]
Correlation Coefficient: 1.00000 Slope: 0.00254

Element: Hg Seq. No.: 21 AS Loc.: 3 Date: 07/26/2001
Sample ID: 1.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			-0.0003	-0.0002	0.0000	07:34:28	No
2			0.0029	0.0264	0.0032	07:35:07	No
3			0.0028	0.0263	0.0032	07:35:46	No
Mean:			0.0018				
SD :			0.0018				
%RSD:			101.6102				

[Hg] Standard number 2 applied. [1.000]
Correlation Coefficient: 0.87500 Slope: 0.00199

Element: Hg Seq. No.: 22 AS Loc.: 4 Date: 07/26/2001
Sample ID: 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0092	0.0826	0.0096	07:36:48	No
2			0.0092	0.0820	0.0096	07:37:27	No
3			0.0092	0.0817	0.0096	07:38:07	No
Mean:			0.0092				
SD :			0.0000				
%RSD:			0.1495				

[Hg] Standard number 3 applied. [3.000]
Correlation Coefficient: 0.97489 Slope: 0.00299

Element: Hg Seq. No.: 23 AS Loc.: 5 Date: 07/26/2001
Sample ID: 5.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0153	0.1353	0.0156	07:39:08	No
2			0.0154	0.1351	0.0157	07:39:47	No
3			0.0155	0.1357	0.0158	07:40:26	No
Mean:			0.0154				
SD :			0.0001				
%RSD:			0.5552				

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99290 Slope: 0.00305

Element: Hg Seq. No.: 24 AS Loc.: 6 Date: 07/26/2001
Sample ID: 10.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0349	0.3085	0.0352	07:41:27	No
2			0.0351	0.3048	0.0354	07:42:06	No
3			0.0340	0.2931	0.0343	07:42:46	No
Mean:			0.0346				
SD :			0.0006				
%RSD:			1.7117				

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99517 Slope: 0.00337

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0003	---	----	----	----
0.50 ppb	0.0013	0.500	0.378	0.0000	3.9
1.0 ppb	0.0018	1.000	0.532	0.0018	101.6
3.0 ppb	0.0092	3.000	2.741	0.0000	0.1
5.0 ppb	0.0154	5.000	4.569	0.0001	0.6
10.0 ppb	0.0346	10.000	10.29	0.0006	1.7
Correlation Coefficient: 0.99517		Slope:	0.00337	----	

Element: Hg Seq. No.: 25 AS Loc.: 1 Date: 07/26/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.201	0.201	0.0007	0.0070	0.0010	07:43:48	No
2	0.000	0.000	0.0000	0.0014	0.0003	07:44:28	No
3	-0.003	-0.003	0.0000	0.0018	0.0003	07:45:08	No
Mean:	0.066	0.066	0.0002				
SD :	0.1170	0.1170	0.0004				
%RSD:	176.8	176.8	176.7733				

Reagent Blank Performed

Element: Hg Seq. No.: 26 AS Loc.: 7 Date: 07/26/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.762	2.762	0.0093	0.0844	0.0096	07:46:11	No
2	2.768	2.768	0.0093	0.0826	0.0097	07:46:50	No
3	2.752	2.752	0.0093	0.0816	0.0096	07:47:31	No

Mean:	2.761	2.761	0.0093
SD :	0.0084	0.0084	0.0000
%RSD:	0.3	0.3	0.3052

QC value within specified limits.

Element: Hg Seq. No.: 27 AS Loc.: 1 Date: 07/26/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.045	0.045	0.0002	0.0027	0.0005	07:48:34	No
2	0.022	0.022	0.0001	0.0034	0.0004	07:49:14	No
3	-0.018	-0.018	-0.0001	0.0014	0.0003	07:49:54	No
Mean:	0.016	0.016	0.0001				
SD :	0.0317	0.0317	0.0001				
%RSD:	193.8	193.8	193.8423				

QC value within specified limits.

Element: Hg Seq. No.: 28 AS Loc.: 9 Date: 07/26/2001
Sample ID: TCLP BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-1.623	-0.162	-0.0005	-0.0008	0.0000	07:50:55	No
2	-1.593	-0.159	-0.0005	-0.0002	0.0000	07:51:35	No
3	-1.890	-0.189	-0.0006	-0.0020	-0.0001	07:52:15	No
Mean:	-1.702	-0.170	-0.0006				
SD :	0.1632	0.0163	0.0001				
%RSD:	9.6	9.6	9.5917				

Element: Hg Seq. No.: 29 AS Loc.: 10 Date: 07/26/2001
Sample ID: TCLP LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-1.268	-0.127	-0.0004	0.0015	0.0001	07:53:15	No
2	-0.574	-0.057	-0.0002	0.0030	0.0004	07:53:55	No
3	25.68	2.568	0.0086	0.0784	0.0092	07:54:34	No
Mean:	7.945	0.794	0.0027				
SD :	15.36	1.536	0.0052				
%RSD:	193.3	193.3	193.3329				

Element: Hg Seq. No.: 30 AS Loc.: 11 Date: 07/26/2001
Sample ID: 16950

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Element: Hg Seq. No.: 30 AS Loc.: 1 Date: 07/26/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0002	0.0033	0.0004	07:56:27	No
2	-0.063	-0.063	-0.0002	0.0029	0.0004	07:57:07	No
3	-0.057	-0.057	-0.0002	0.0039	0.0004	07:57:46	No
Mean:	-0.062	-0.062	-0.0002				
SD :	0.0042	0.0042	0.0000				

%RSD: 6.7 6.7 6.7078
Reagent Blank Performed

Element: Hg Seq. No.: 31 AS Loc.: 7 Date: 07/26/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.857	2.857	0.0096	0.0862	0.0100	07:58:50	No
2	2.837	2.837	0.0096	0.0834	0.0099	07:59:30	No
3	2.878	2.878	0.0097	0.0858	0.0100	08:00:09	No
Mean:	2.858	2.858	0.0096				
SD :	0.0206	0.0206	0.0001				
%RSD:	0.7	0.7	0.7197				

QC value within specified limits.

Element: Hg Seq. No.: 32 AS Loc.: 1 Date: 07/26/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0035	0.0005	08:01:12	No
2	-0.043	-0.043	-0.0001	0.0002	0.0002	08:01:51	No
3	0.008	0.008	0.0000	0.0030	0.0004	08:02:31	No
Mean:	0.000	0.000	0.0000				
SD :	0.0396	0.0396	0.0001				
%RSD:	40620	40620	40621.3546				

QC value within specified limits.

Element: Hg Seq. No.: 33 AS Loc.: 9 Date: 07/26/2001
Sample ID: TCLP BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.891	-0.089	-0.0003	-0.0001	0.0001	08:03:32	No
2	-1.137	-0.114	-0.0004	-0.0017	0.0000	08:04:12	No
3	-1.148	-0.115	-0.0004	-0.0019	0.0000	08:04:52	No
Mean:	-1.059	-0.106	-0.0004				
SD :	0.1451	0.0145	0.0000				
%RSD:	13.7	13.7	13.7100				

Element: Hg Seq. No.: 34 AS Loc.: 10 Date: 07/26/2001
Sample ID: TCLP LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	29.46	2.946	0.0099	0.0904	0.0103	08:05:51	No
2	29.10	2.910	0.0098	0.0868	0.0102	08:06:30	No
3	29.12	2.912	0.0098	0.0865	0.0102	08:07:10	No
Mean:	29.22	2.922	0.0098				
SD :	0.2022	0.0202	0.0001				
%RSD:	0.7	0.7	0.6920				

Element: Hg Seq. No.: 35 AS Loc.: 11 Date: 07/26/2001
Sample ID: 16950

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.497	-0.050	-0.0002	0.0001	0.0002	08:08:10	No
2	-0.770	-0.077	-0.0003	0.0011	0.0001	08:08:51	No
3	-0.650	-0.065	-0.0002	0.0014	0.0001	08:09:30	No
Mean:	-0.639	-0.064	-0.0002				
SD :	0.1365	0.0136	0.0000				
%RSD:	21.4	21.4	21.3548				

Element: Hg Seq. No.: 36 AS Loc.: 12 Date: 07/26/2001
Sample ID: 16994

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.816	-0.082	-0.0003	0.0004	0.0001	08:10:31	No
2	-0.568	-0.057	-0.0002	0.0017	0.0002	08:11:11	No
3	-0.776	-0.078	-0.0003	0.0009	0.0001	08:11:51	No
Mean:	-0.720	-0.072	-0.0002				
SD :	0.1331	0.0133	0.0000				
%RSD:	18.5	18.5	18.4829				

Element: Hg Seq. No.: 37 AS Loc.: 13 Date: 07/26/2001
Sample ID: 16994D

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.744	-0.074	-0.0003	0.0008	0.0001	08:12:51	No
2	-0.973	-0.097	-0.0003	-0.0010	0.0000	08:13:30	No
3	-0.781	-0.078	-0.0003	0.0008	0.0001	08:14:10	No
Mean:	-0.832	-0.083	-0.0003				
SD :	0.1228	0.0123	0.0000				
%RSD:	14.7	14.7	14.7479				

The difference between locations 12 and 13 for [Hg] is 14.5 percent.

Element: Hg Seq. No.: 38 AS Loc.: 14 Date: 07/26/2001
Sample ID: 16994MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	27.75	2.775	0.0093	0.0827	0.0097	08:15:10	No
2	28.71	2.871	0.0097	0.0859	0.0100	08:15:49	No
3	27.95	2.795	0.0094	0.0814	0.0098	08:16:29	No
Mean:	28.14	2.814	0.0095				
SD :	0.5069	0.0507	0.0002				
%RSD:	1.8	1.8	1.8014				

The measured recovery for locations 12 and 14 for [Hg] is 96.2 percent.

Element: Hg Seq. No.: 39 AS Loc.: 15 Date: 07/26/2001
Sample ID: 16994MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	27.28	2.728	0.0092	0.0794	0.0095	08:17:29	No
2	28.12	2.812	0.0095	0.0835	0.0098	08:18:09	No
3	28.18	2.818	0.0095	0.0849	0.0098	08:18:48	No
Mean:	27.86	2.786	0.0094				
SD :	0.5008	0.0501	0.0002				
%RSD:	1.8	1.8	1.7979				

The measured recovery for locations 12 and 15 for [Hg] is 95.3 percent.

Element: Hg Seq. No.: 40 AS Loc.: 1 Date: 07/26/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.065	0.065	0.0002	0.0033	0.0006	08:19:50	No
2	-0.011	-0.011	0.0000	0.0027	0.0003	08:20:29	No
3	-0.008	-0.008	0.0000	0.0025	0.0003	08:21:10	No
Mean:	0.015	0.015	0.0001				
SD :	0.0431	0.0431	0.0001				
%RSD:	284.9	284.9	284.9279				

QC value within specified limits.

Element: Hg Seq. No.: 41 AS Loc.: 8 Date: 07/26/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.899	2.899	0.0098	0.0883	0.0101	08:22:13	No
2	2.978	2.978	0.0100	0.0886	0.0104	08:22:53	No
3	2.935	2.935	0.0099	0.0863	0.0102	08:23:32	No
Mean:	2.938	2.938	0.0099				
SD :	0.0395	0.0395	0.0001				
%RSD:	1.3	1.3	1.3445				

QC value within specified limits.

VOA GC/MS DATA CHECKLIST
SW-846-8260B

BJH

PROJECT #: 8368	METHOD: 8260B
MATRIX: Water	7-24-01

INITIAL ANALYST ASSESSMENT			
Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are Tuning results compliant with method?	(Y)	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	(Y)	N	NA
Are all SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	(Y)	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	(Y)	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	(Y)	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	(Y)	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the Blank Spike?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (Blank, Blank Spike, samples)?	(Y)	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	(NA)
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	(NA)
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	(Y)	N	NA
Are all mistakes single lined out, initialled, & dated?	(Y)	N	NA
Are pHs recorded for all water samples?	(Y)	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: DAT	
Date: 7-24-01	Time: 10:15

PEER REVIEW			
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all applicable runlog sheets signed, dated, and included?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: VRR	
Date: 7-24-01	Time: 13:50

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 7-23-01
Calib. Method: 07230125.M
ACQ. Method: 07230125.M
BFB Std.ID #: VC1019
IS/Surr Std. ID # VC1070/VC1071

	CCV IS RT	CCV IS AREAS
#1	6.97	595194
#2	12.33	715043
#3	15.56	340390
#4		

MS Conditions
EMV: 1874
Tune File: BFB01.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 ICALMix	50ppm	VC1014
8260 ICV Mix	50ppm	VC1069
8260 Add Mix	50ppm	VC1073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JC0643	BFB 50ng	—	—	2ul	—	—	—	—	9:22	
JC0644	ICAL 1ppb	—	W	25ml	1	1	—	—	9:43	
JC0645	ICAL 4ppb	—			1	2	—	—	10:09	
JC0646	ICAL 10ppb	—			1	3	—	—	11:02	
JC0647	ICAL 20ppb	—			1	4	—	—	11:28	
JC0648	ICAL 30ppb	—			1	5	—	—	11:54	
JC0649	ICAL 40ppb	—			1	6	—	—	12:20	
JC0650	BAKE	—			1	7	—	—	12:46	
JC0651	ICAL 1ppb	—			1	8	—	—	13:12	
JC0652	ICV 10ppb	—			1	9	—	—	13:57	
JC0653	1 JC7230i MB	—			1	10	—	—	14:39	
JC0654	1 JC7230i LCS	—			1	11	1	X	15:13	
JC0655	28368 AC16854	—			1	12	1	X	15:55	
JC0656	28418 AC17127	—			1	13	1	X	16:21	
JC0657	↓ AC17128	—			1	14	1	X	16:47	
JC0658	↓ AC17129	—			1	15	1	X	17:13	
JC0659	28368 AC16854	MS —			1	16	1	X	17:39	
JC0660	↓ AC16854	MSD —							18:05	

Analyst/Date: VRR 7-24-01
Reviewer/Date: _____

Batch ID: W072301A Instrument ID: HP-MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28365 AC16854	7.23.01		7.24.01	25 ml Purge Navy
28418 AC17127	↓		↓	
AC17128				
AC17129				
AC16854 MS	7.23.01		7.24.01	
AC16854 MSD	↓		↓	
DUP				

Batch ID: _____ Instrument ID: _____

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
MS				
MSD				
DUP				

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00655.D Vial: 11
Acq On : 07/23/01 15:55 Operator: JP/VRR/DAT
Sample : AC16854 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 17:33 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	589717	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	663955	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	237978	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.44	65	246970	9.88	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.80%			
46) Toluene-d8	10.27	98	1022233	9.93	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.30%			
66) Bromofluorobenzene	13.97	95	322232	11.37	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 113.70%#			
Target Compounds						Qvalue
11) Acetone	3.29	58	168955	227.05	ug\L	67
24) 2-Butanone	6.16	72	2381	3.61	ug\L #	67
51) Tetrachloroethene	11.12	164	87130	3.29	ug\L	97

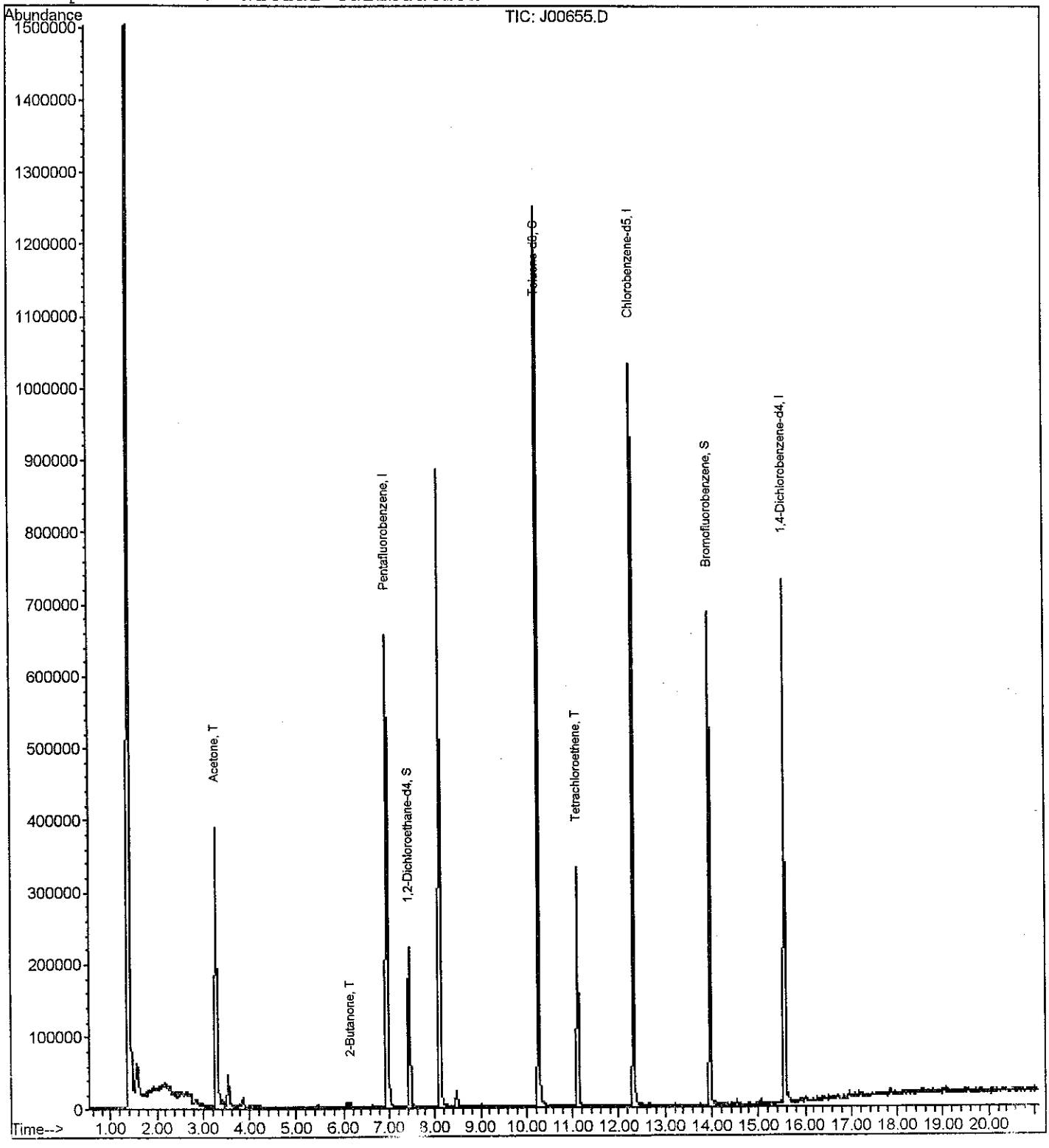
NOL

VRR
7.23.01

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00655.D Vial: 11
Acq On : 07/23/01 15:55 Operator: JP/VRR/DAT
Sample : AC16854 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 17:33 2001 Quant Results File: 07230125.RES

Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00655.D Vial: 11
Acq On : 07/23/01 15:55 Operator: JP/VRR/DAT
Sample : AC16854 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

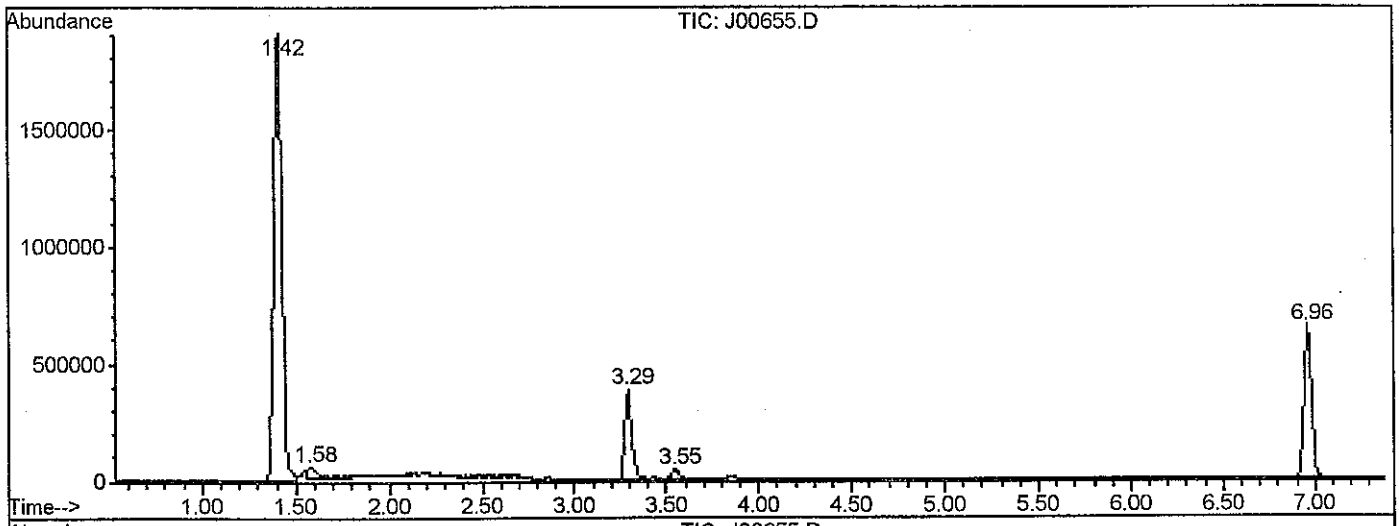
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.417	130	149	163	rBV	1906036	5441071	100.00%	26.034%
2	1.579	172	176	193	rVB	43087	141713	2.60%	0.678%
3	3.293	452	461	476	rBV	385672	1043706	19.18%	4.994%
4	3.546	494	503	512	rBV	41636	121394	2.23%	0.581%
5	6.962	1059	1071	1085	rBV	653906	1957766	35.98%	9.367%
6	7.437	1140	1150	1163	rBV	220291	625203	11.49%	2.991%
7	8.117	1249	1263	1275	rBV	885867	2299336	42.26%	11.002%
8	8.484	1311	1324	1332	rBV5	22746	60030	1.10%	0.287%
9	10.270	1611	1621	1636	rBV	1250211	2910459	53.49%	13.926%
10	11.118	1750	1762	1772	rBV2	330582	774089	14.23%	3.704%
11	12.321	1951	1962	1983	rBV	1031791	2353071	43.25%	11.259%
12	13.969	2227	2236	2246	rBV	684222	1532223	28.16%	7.331%
13	15.562	2493	2501	2512	rBV	726087	1639865	30.14%	7.846%

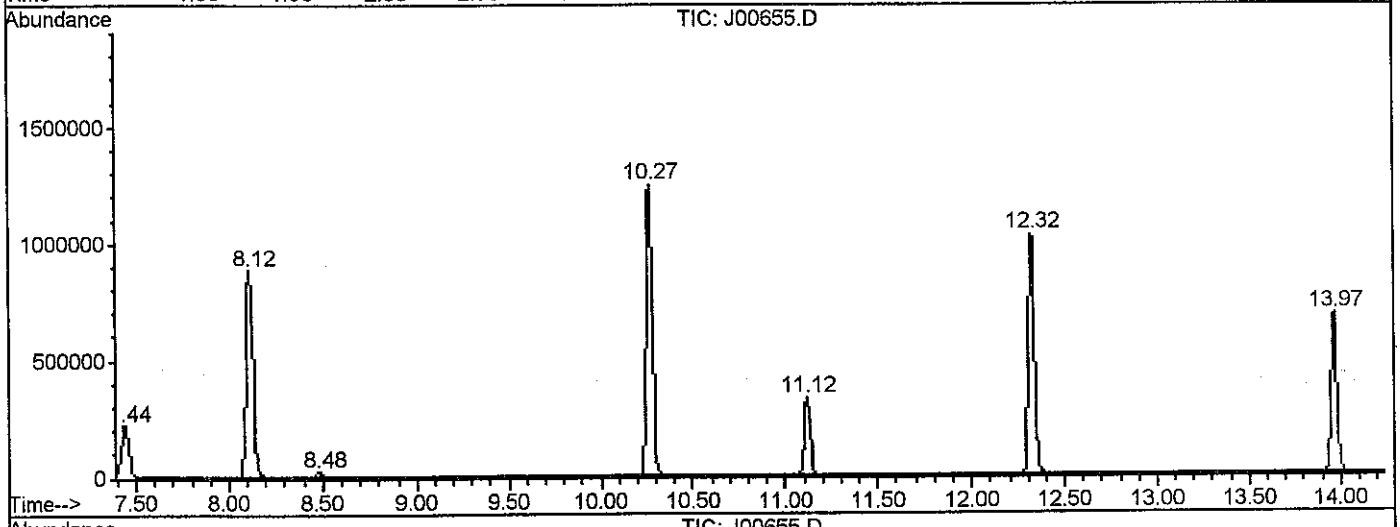
Sum of corrected areas: 20899926

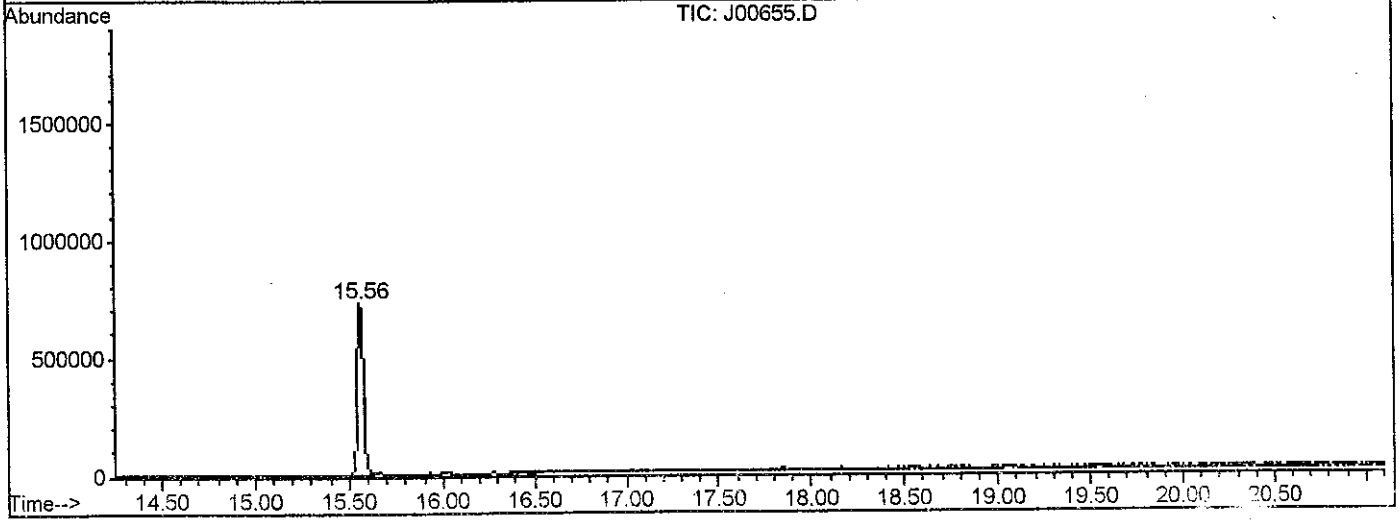
J00655.D 07230125.M Tue Jul 24 09:24:16 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J072301\J00655.D
Operator : JP/VRR/DAT
Acquired : 23 Jul 2001 15:55 using AcqMethod 07230125
Instrument : HP-MSJ
Sample Name: AC16854 25ml DF=1
Misc Info : 28368/W072301A
Vial Number: 11
Quant File :07230125.RES (RTE Integrator)







Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR/DAT Date Acquired: 23 Jul 2001 15:55
Data File: C:\HPCHEM\1\DATA\1J072301\J00655.D
Name: AC16854 25ml DF=1
Misc: 28368/W072301A
Method: c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00655.D 07230125.M Tue Jul 24 09:24:17 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00653.D Vial: 9
Acq On : 07/23/01 14:39 Operator: JP/VRR/DAT
Sample : IJ072301MB Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:03 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	639470	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	711618	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	282418	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.44	65	253883	9.36	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.60%			
46) Toluene-d8	10.27	98	1067067	9.67	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.70%			
66) Bromofluorobenzene	13.97	95	350503	10.43	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.30%			

Target Compounds Qvalue

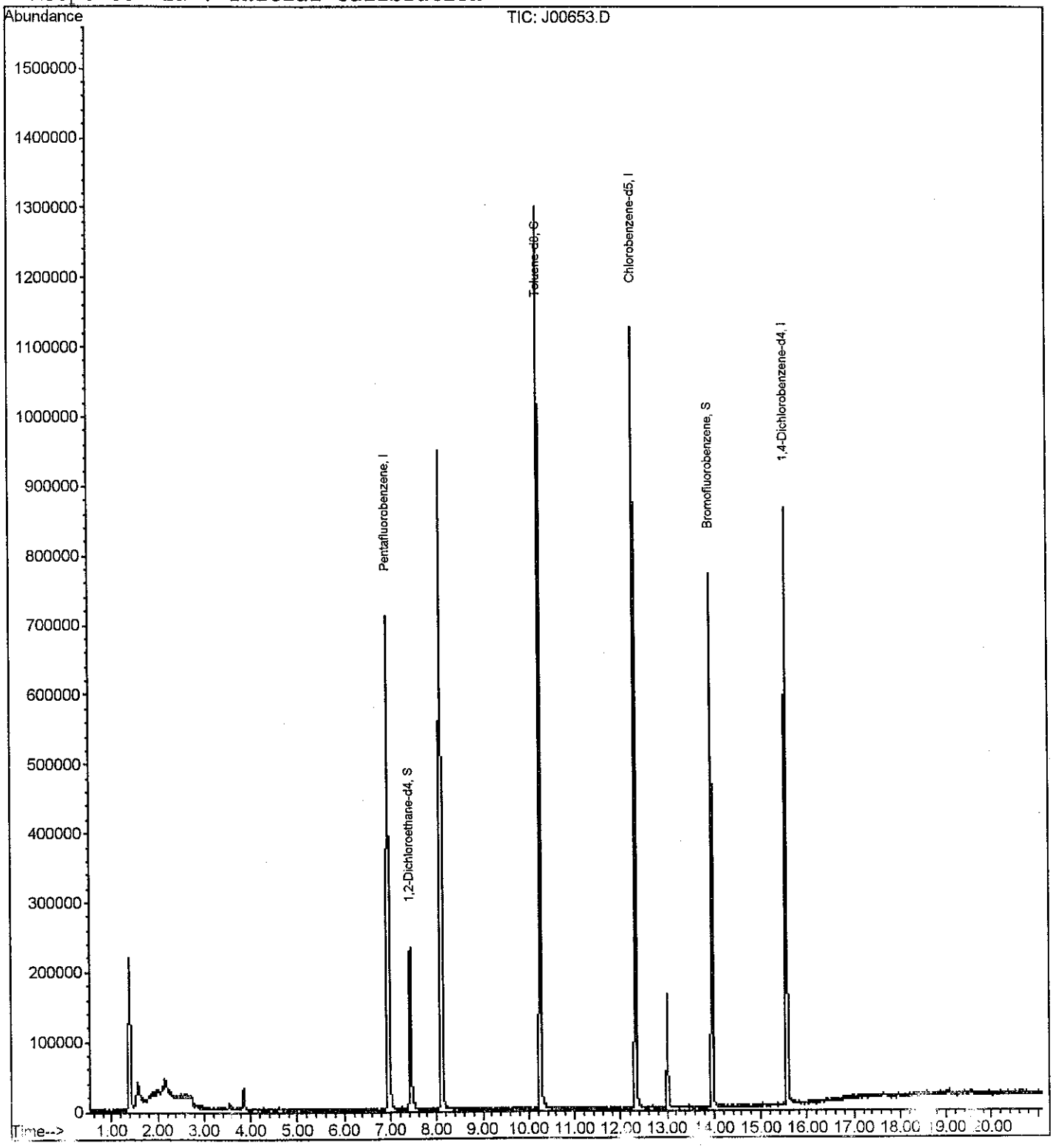
VRR
7-23-01

(#) = qualifier out of range (m) = manual integration
J00653.D 07230125.M Mon Jul 23 17:33:52 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00653.D Vial: 9
Acq On : 07/23/01 14:39 Operator: JP/VRR/DAT
Sample : IJ072301MB Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:03 2001 Quant Results File: 07230125.RES

Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00653.D Vial: 9
Acq On : 07/23/01 14:39 Operator: JP/VRR/DAT
Sample : IJ072301MB Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

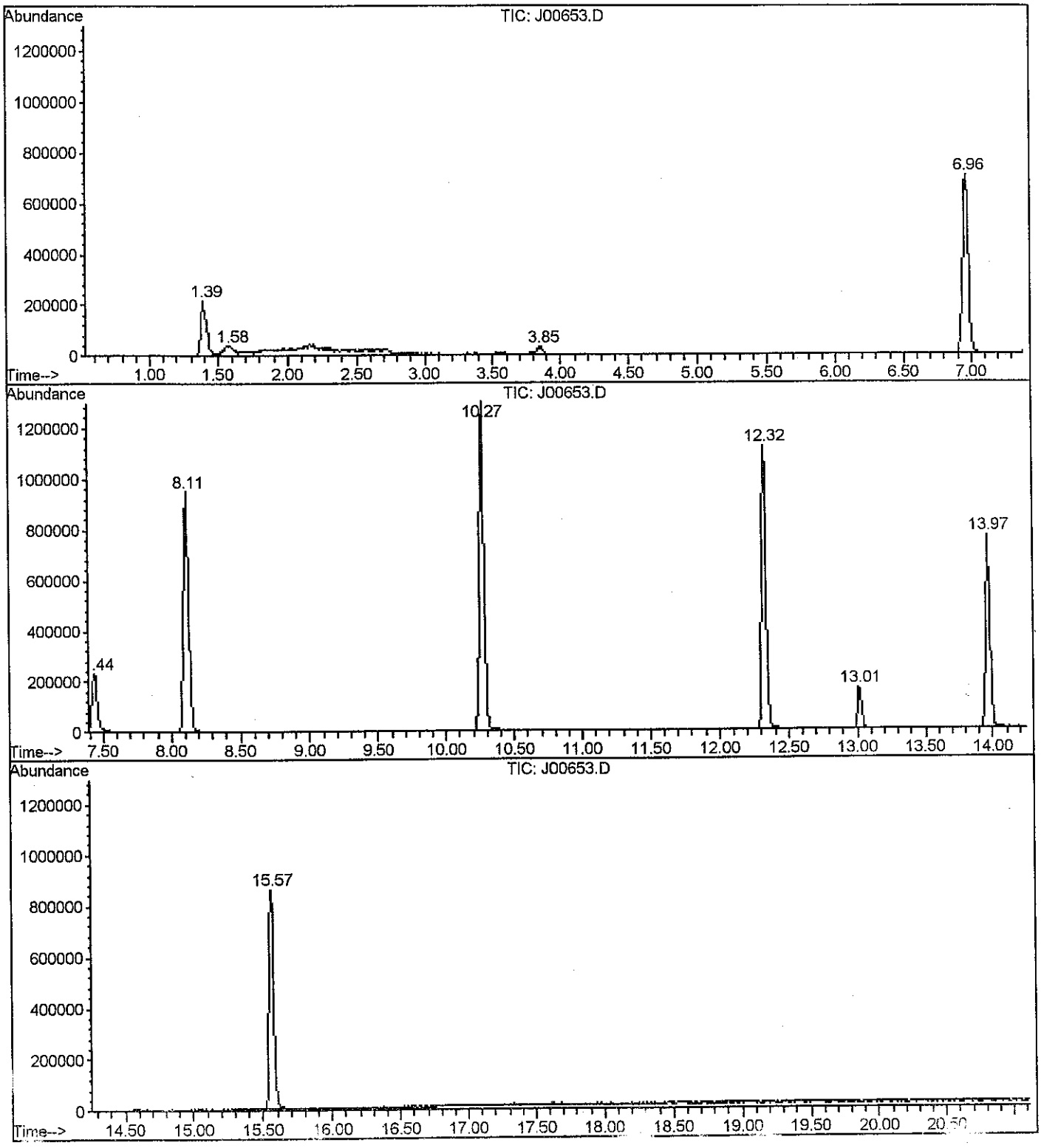
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.391	131	145	161	rBV	219035	652078	21.85%	4.183%
2	1.577	161	176	187	rBV	35715	186901	6.26%	1.199%
3	3.851	546	554	566	rVB3	30774	81927	2.75%	0.526%
4	6.960	1058	1071	1084	rBV2	708441	2095697	70.23%	13.444%
5	7.435	1138	1150	1172	rBV2	231491	666500	22.34%	4.276%
6	8.109	1250	1262	1278	rBV	949692	2426902	81.33%	15.569%
7	10.268	1610	1621	1633	rBV	1298180	2984065	100.00%	19.143%
8	12.325	1950	1963	1980	rBV	1124670	2496894	83.67%	16.018%
9	13.010	2070	2077	2091	rBV2	164956	342873	11.49%	2.200%
10	13.967	2226	2236	2251	rBV	767760	1651145	55.33%	10.592%
11	15.566	2492	2502	2514	rBV	860501	2003549	67.14%	12.853%

Sum of corrected areas: 15588531

J00653.D 07230125.M Tue Jul 24 09:23:45 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J072301\J00653.D
Operator : JP/VRR/DAT
Acquired : 23 Jul 2001 14:39 using AcqMethod 07230125
Instrument : HP-MSJ
Sample Name: IJ072301MB
Misc Info : 25ml
Vial Number: 9
Quant File :07230125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: JP/VRR/DAT Date Acquired: 23 Jul 2001 14:39
Data File: C:\HPCHEM\1\DATA\1J072301\J00653.D
Name: IJ072301MB
Misc: 25ml
Method: c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00653.D 07230125.M Tue Jul 24 09:23:46 2001

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 07·23·01 /HP-MS 5	METHOD: 8260B
MATRIX: WATER – 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

SEE PRINTOUTS

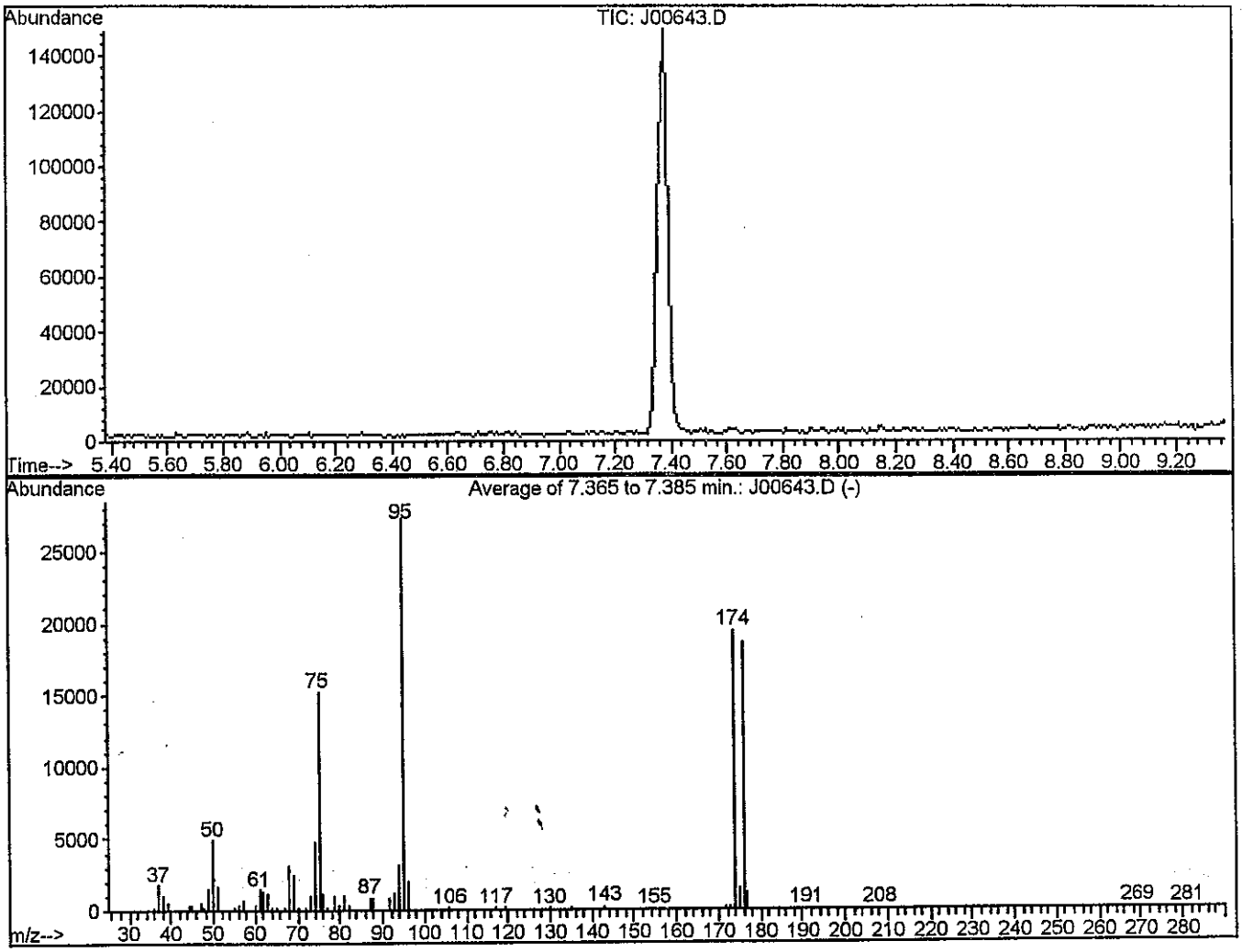
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: VRR	Reviewer:
Date: 7·23·01 Time: 14:05	Date: 07.24.2001 Time: 0930

BFB

Data File : C:\HPCHEM\1\DATA\1J072301\J00643.D
Acq On : 07/23/01 09:22
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 623, 624, 625; Background Corrected with Scan 615

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	4869	PASS
75	95	30	60	56.0	15263	PASS
95	95	100	100	100.0	27237	PASS
96	95	5	9	7.1	1936	PASS
173	174	0.00	2	0.6	123	PASS
174	95	50	100	71.6	19509	PASS
175	174	5	9	7.7	1510	PASS
176	174	95	101	95.2	18570	PASS
177	176	5	9	6.1	1139	PASS

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:08:09 2001
Response via : Initial Calibration

Calibration Files
1 =J00651.D 4 =J00645.D 10 =J00646.D
20 =J00647.D 30 =J00648.D 40 =J00649.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluoromet	0.864	0.816	0.815	0.774	0.692	0.680	0.774	9.53
3)	TP	Chloromethane	0.636	0.619	0.596	0.550	0.479	0.460	0.556	13.24
4)	TC	Vinyl Chloride	0.662	0.624	0.651	0.610	0.541	0.526	0.602	9.44
5)	T	Bromomethane	0.268	0.144	0.180	0.127	0.127	0.129	0.163	34.05
6)	T	Chloroethane	0.328	0.298	0.325	0.299	0.266	0.258	0.296	9.88
7)	T	Trichlorofluorometh	0.966	0.922	0.922	0.899	0.812	0.790	0.885	7.82
8)	T	Acrolein	0.017	0.018	0.016	0.017	0.017	0.017	0.017	3.84
9)	T	Acrylonitrile	0.043	0.042	0.041	0.044	0.044	0.044	0.043	2.91
10)	TMC	1,1-Dichloroethene	0.528	0.495	0.517	0.512	0.461	0.463	0.496	5.68
11)	T	Acetone		0.012	0.014	0.013	0.011	0.013	0.013	7.85
12)	T	Iodomethane	0.209	0.395	0.552	0.645	0.587	0.583	0.495	33.04
13)	T	Allylchloride	0.673	0.643	0.702	0.718	0.661	0.639	0.673	4.71
14)	T	Carbon Disulfide	1.836	1.579	1.583	1.646	1.535	1.538	1.620	7.00
15)	T	Acetonitrile	0.083	0.090	0.096	0.099	0.091	0.090	0.091	5.94
16)	T	Methylene Chloride	0.454	0.298	0.288	0.279	0.252	0.251	0.304	25.14
17)	T	trans-1,2-Dichloroe	0.571	0.513	0.549	0.541	0.491	0.484	0.525	6.54
18)	T	MethylTertButylEthe	0.581	0.499	0.529	0.623	0.593	0.590	0.569	8.08
19)	TP	1,1-Dichloroethane	1.003	0.894	0.904	0.949	0.867	0.856	0.912	6.05
20)	T	Isopropyl Ether	0.114	0.090	0.102	0.122	0.117	0.117	0.110	10.77
21)	T	Vinyl Acetate	0.496	0.404	0.431	0.543	0.522	0.531	0.488	11.76
22)	T	2,2-Dichloropropane	0.878	0.829	0.940	0.875	0.800	0.774	0.849	7.12
23)	T	cis-1,2-Dichloroeth	0.475	0.460	0.495	0.511	0.473	0.458	0.479	4.33
24)	T	2-Butanone	0.009	0.010	0.012	0.013	0.012	0.012	0.011	13.25
25)	T	Propionitrile	0.015	0.012	0.013	0.015	0.014	0.015	0.014	8.45
26)	T	Methacrylonitrile	0.088	0.080	0.085	0.096	0.088	0.088	0.087	5.88
27)	T	Bromochloromethane	0.171	0.155	0.158	0.166	0.150	0.149	0.158	5.67
28)	TC	Chloroform	1.004	0.984	0.974	0.997	0.907	0.896	0.960	4.89
29)	T	1,1,1-Trichloroetha	1.048	1.007	1.067	1.060	0.972	0.958	1.019	4.57
30)	T	Carbon Tetrachlorid	0.888	0.901	0.955	0.948	0.866	0.844	0.900	4.88
31)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	16.36
32)	T	1,1-Dichloropropene	0.255	0.244	0.256	0.260	0.237	0.229	0.247	4.87
33)	S	1,2-Dichloroethane-	0.410	0.425	0.423	0.457	0.413	0.416	0.424	4.03
34)	TM	Benzene	1.831	1.924	1.964	2.005	1.824	1.785	1.889	4.65
35)	T	Isobutyl alcohol	0.007	0.004	0.003	0.004	0.004	0.004	0.004	29.79
36)	T	1,2-Dichloroethane	0.477	0.498	0.495	0.531	0.483	0.480	0.494	4.03
37)	TM	Trichloroethene	0.542	0.575	0.614	0.622	0.581	0.563	0.583	5.19
38)	TC	1,2-Dichloropropane	0.371	0.397	0.394	0.432	0.394	0.386	0.396	5.10
39)	T	Dibromomethane	0.154	0.164	0.169	0.182	0.174	0.172	0.169	5.64
40)	T	Methylmethacrylate	0.071	0.069	0.078	0.101	0.100	0.102	0.087	18.00
41)	T	Bromodichloromethan	0.490	0.534	0.568	0.611	0.571	0.570	0.557	7.41
42)	T	2-Chloroethyl-vinyl	0.039	0.027	0.029	0.037	0.042	0.037	0.035	16.14
43)	T	cis-1,3-Dichloropro	0.474	0.506	0.575	0.643	0.615	0.602	0.569	11.57
44)	T	4-Methyl-2-Pentanon	0.016	0.016	0.016	0.023	0.024	0.025	0.020	22.09

*) = Out of Range

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:08:09 2001
Response via : Initial Calibration

Calibration Files
1 =J00651.D 4 =J00645.D 10 =J00646.D
20 =J00647.D 30 =J00648.D 40 =J00649.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	ISTD							
46)	S	Toluene-d8	1.549	1.550	1.632	1.630	1.468	1.472	1.550	4.63
47)	TMC	Toluene	1.061	1.061	1.073	1.061	0.974	0.951	1.030	5.17
48)	T	trans-1,3-Dichlorop	0.271	0.292	0.338	0.380	0.358	0.362	0.333	12.87
49)	T	Ethylmethacrylate	0.145	0.145	0.168	0.212	0.211	0.218	0.183	18.83
50)	T	1,1,2-Trichloroetha	0.147	0.153	0.146	0.160	0.150	0.151	0.151	3.39
51)	T	Tetrachloroethene	0.391	0.414	0.432	0.413	0.375	0.367	0.399	6.34
52)	T	1,3-Dichloropropane	0.318	0.323	0.340	0.357	0.332	0.331	0.333	4.13
53)	T	2-Hexanone	0.070	0.057	0.056	0.079	0.081	0.083	0.071	17.19
54)	T	Dibromochloromethan	0.210	0.230	0.243	0.279	0.263	0.260	0.247	10.06
55)	T	1,2-Dibromoethane	0.161	0.158	0.160	0.179	0.169	0.172	0.167	5.00
56)	TMP	Chlorobenzene	1.078	1.052	1.076	1.087	1.002	0.977	1.046	4.34
57)	T	1,1,1,2-Tetrachloro	0.350	0.359	0.367	0.375	0.347	0.336	0.356	3.99
58)	TC	Ethylbenzene	2.158	2.189	2.311	2.209	2.026	1.915	2.135	6.64
59)	TG	total-Xylene	0.706	0.738	0.769	0.746	0.689	0.658	0.718	5.71
60)	T	Styrene	0.975	1.062	1.126	1.141	1.066	1.021	1.065	5.86
61)	I	1,4-Dichlorobenzene-d	ISTD							
62)	TP	Bromoform	0.204	0.198	0.243	0.270	0.263	0.280	0.243	14.25
63)	T	Isopropylbenzene	4.203	4.441	4.755	4.581	4.191	4.246	4.403	5.25
64)	T	cis-1,4-dichloro-2-	0.078	0.094	0.101	0.119	0.124	0.131	0.108	18.87
65)	T	trans-1,4-dichloro-	0.125	0.125	0.132	0.137	0.133	0.137	0.131	4.16
66)	S	Bromofluorobenzene	1.199	1.112	1.231	1.252	1.147	1.202	1.190	4.40
67)	T	Bromobenzene	0.742	0.728	0.798	0.816	0.773	0.788	0.774	4.33
68)	TP	1,1,2,2-Tetrachloro	0.393	0.350	0.357	0.385	0.362	0.385	0.372	4.77
69)	T	1,2,3-Trichloroprop	0.470	0.421	0.452	0.466	0.432	0.447	0.448	4.27
70)	T	n-Propylbenzene	5.856	5.884	6.151	5.758	5.174	5.180	5.667	7.08
71)	T	2-Chlorotoluene	3.531	3.377	3.556	3.462	3.141	3.193	3.377	5.18
72)	T	4-Chlorotoluene	4.143	3.391	4.022	3.918	3.575	3.612	3.777	7.77
73)	T	1,3,5-Trimethylbenz	4.136	4.075	4.257	4.078	3.678	3.718	3.990	5.92
74)	T	Pentachloroethane	0.483	0.477	0.497	0.505	0.471	0.482	0.486	2.64
75)	T	tert-Butylbenzene	3.209	3.210	3.568	3.383	3.087	3.081	3.256	5.77
76)	T	1,2,4-Trimethylbenz	3.987	4.003	4.123	4.011	3.604	3.586	3.886	5.93
77)	T	sec-Butylbenzene	5.154	5.269	5.505	5.197	4.737	4.652	5.086	6.44
78)	T	1,3-Dichlorobenzene	1.792	1.681	1.738	1.727	1.550	1.531	1.670	6.36
79)	T	Isopropyltoluene	3.844	4.024	4.267	4.015	3.648	3.574	3.895	6.65
80)	T	1,4-Dichlorobenzene	1.805	1.600	1.695	1.695	1.563	1.575	1.655	5.64
81)	T	1,2-Dichlorobenzene	1.334	1.264	1.326	1.367	1.258	1.235	1.297	4.02
82)	T	n-Butylbenzene	3.770	3.869	4.231	4.108	3.708	3.664	3.892	5.88
83)	T	1,2-Dibromo-3-chlor	0.059	0.054	0.052	0.061	0.057	0.055	0.056	6.01
84)	T	1,2,4-trichlorobenz	0.880	0.801	0.855	0.879	0.827	0.782	0.837	4.90
85)	T	Hexachlorobutadiene	0.909	0.810	0.809	0.753	0.673	0.613	0.761	13.93
86)	T	Naphthalene	1.045	0.728	0.855	1.009	0.972	0.959	0.928	12.61
87)	T	1,2,3-Trichlorobenz	0.726	0.588	0.614	0.660	0.615	0.594	0.633	8.24

(#) = Out of Range

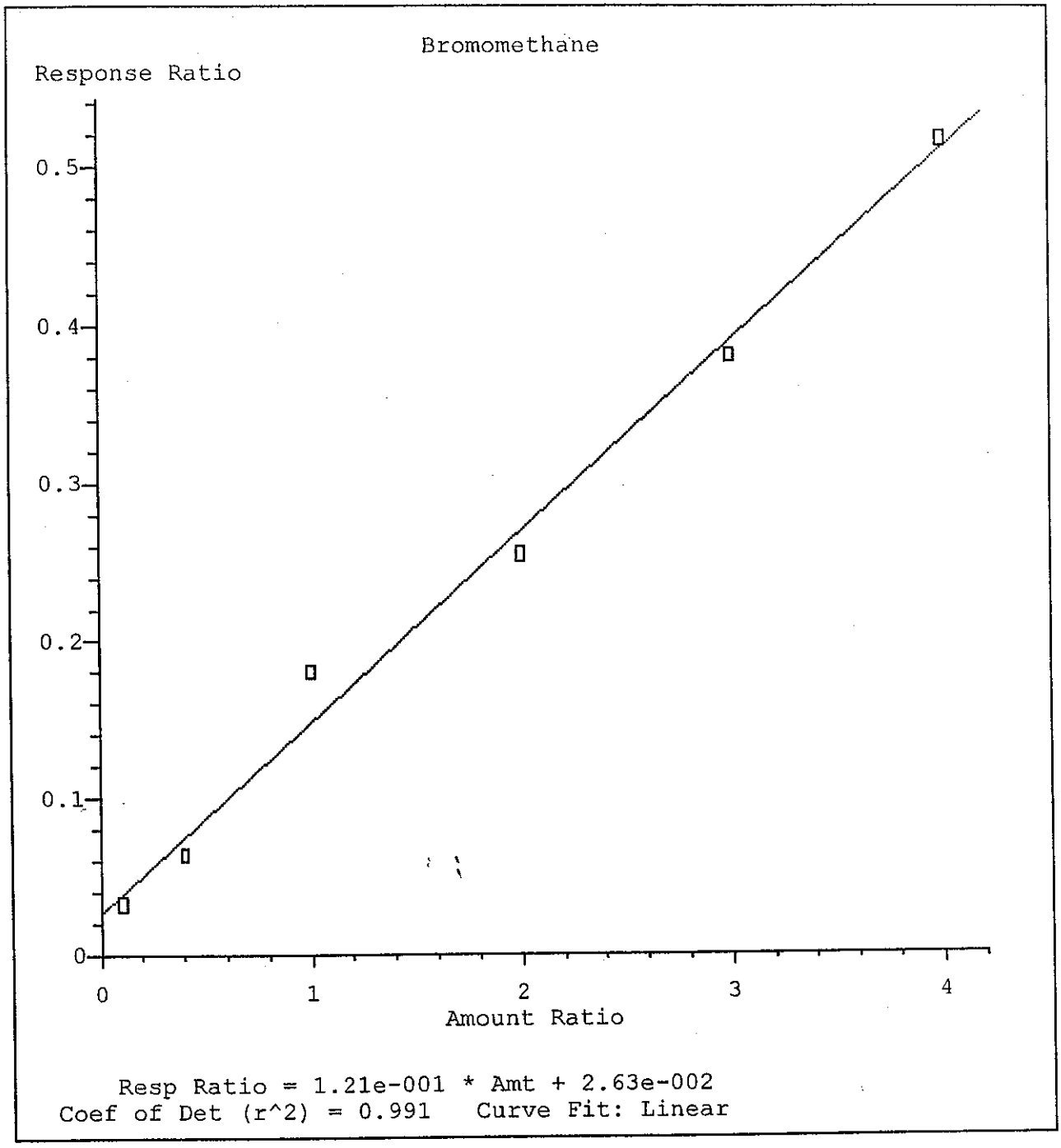
Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:08:09 2001
Response via : Initial Calibration

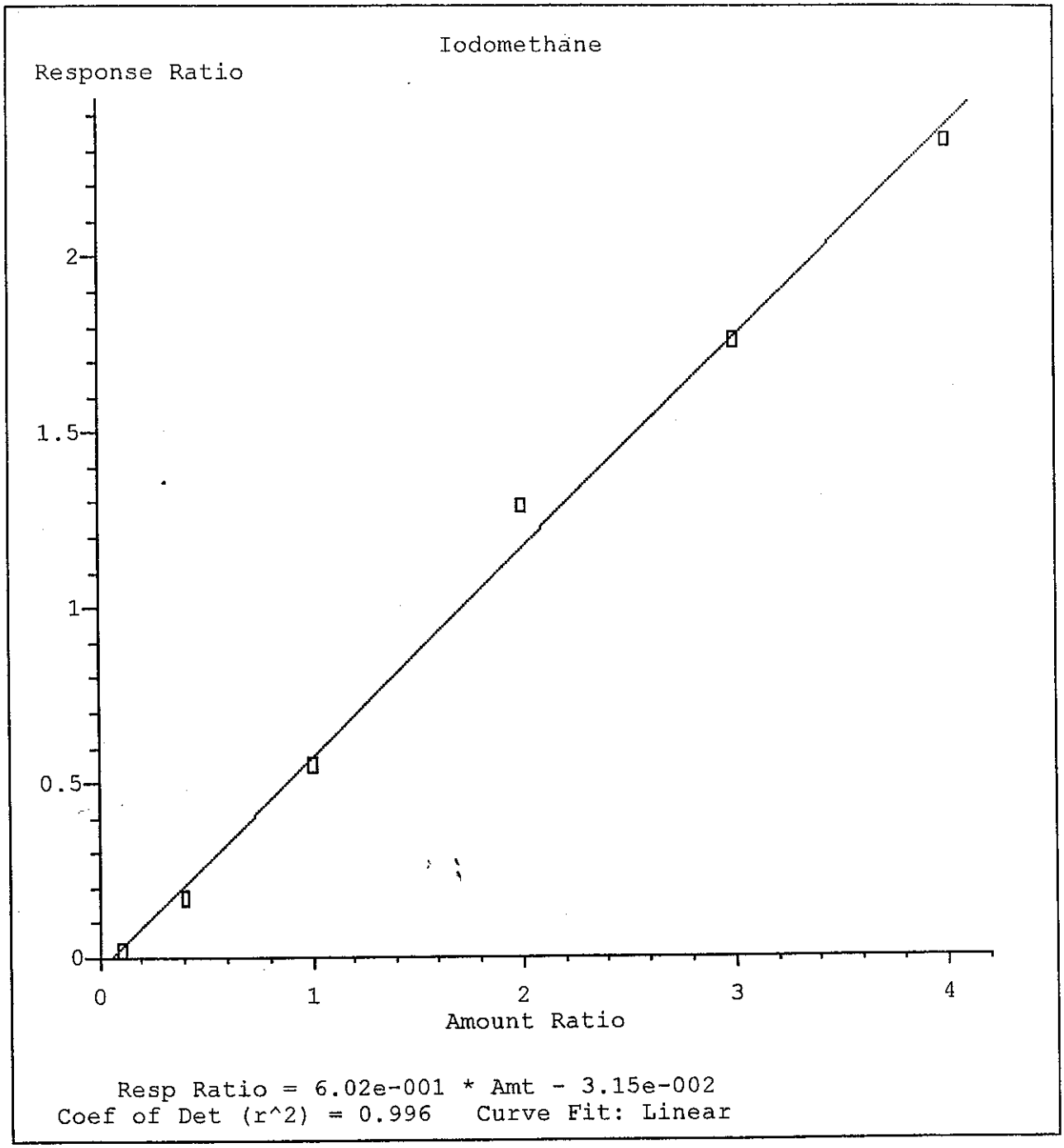
Calibration Files
1 =J00651.D 4 =J00645.D 10 =J00646.D
20 =J00647.D 30 =J00648.D 40 =J00649.D

Compound	1	4	10	20	30	40	Avg	%RSD
88) i 1.4-Difluorobenzene	----------ISTD----------							

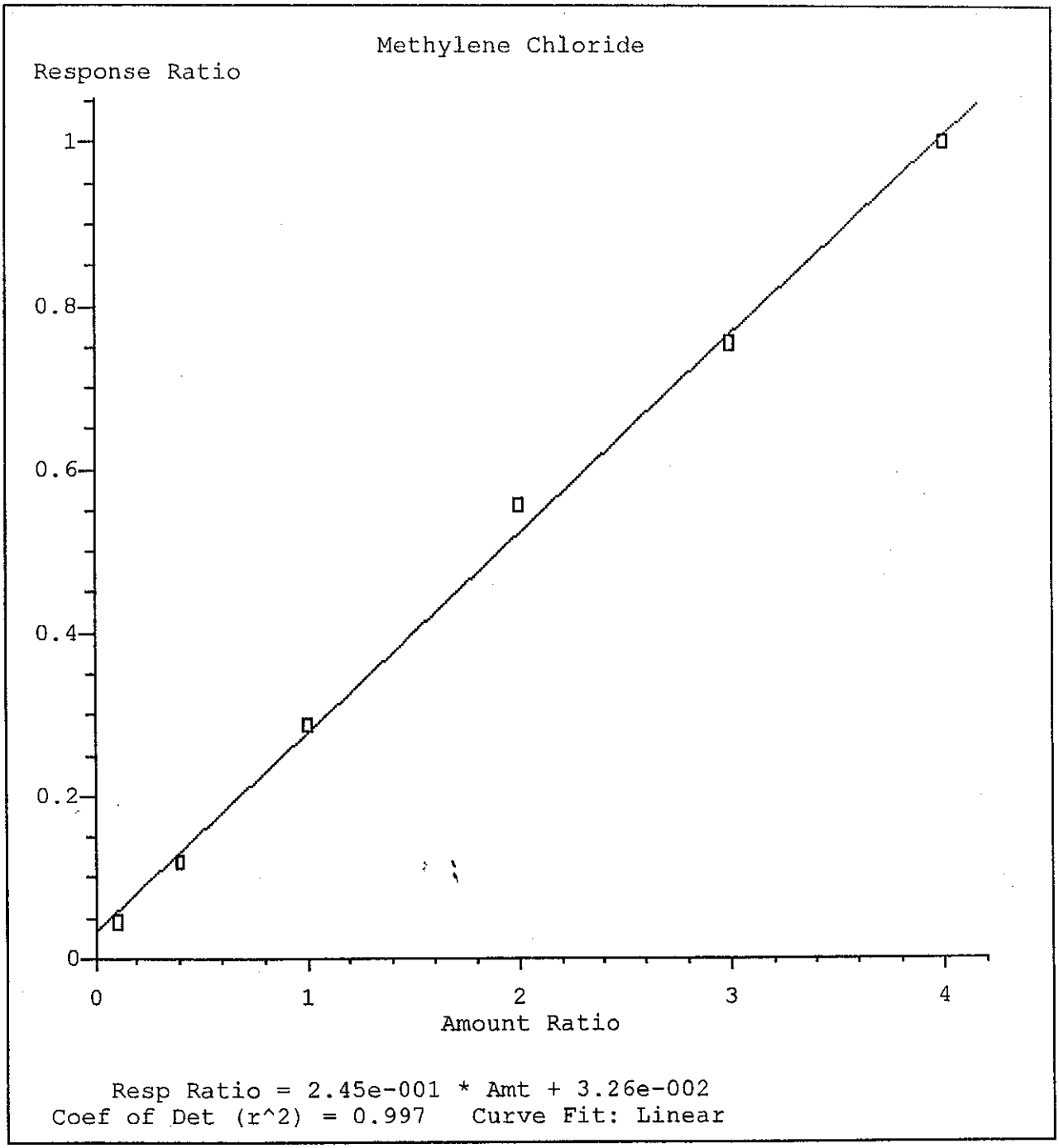
#) = Out of Range



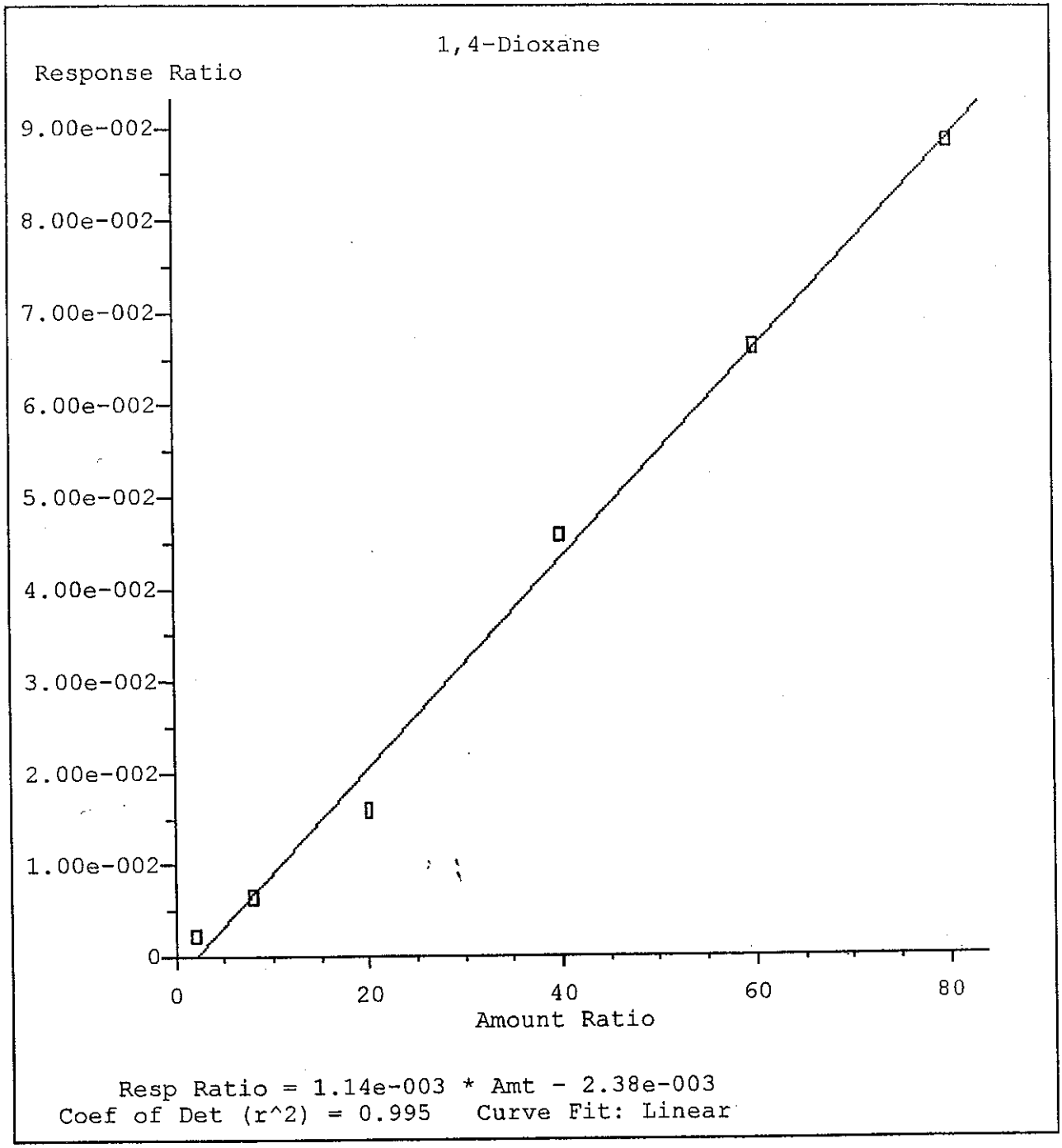
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



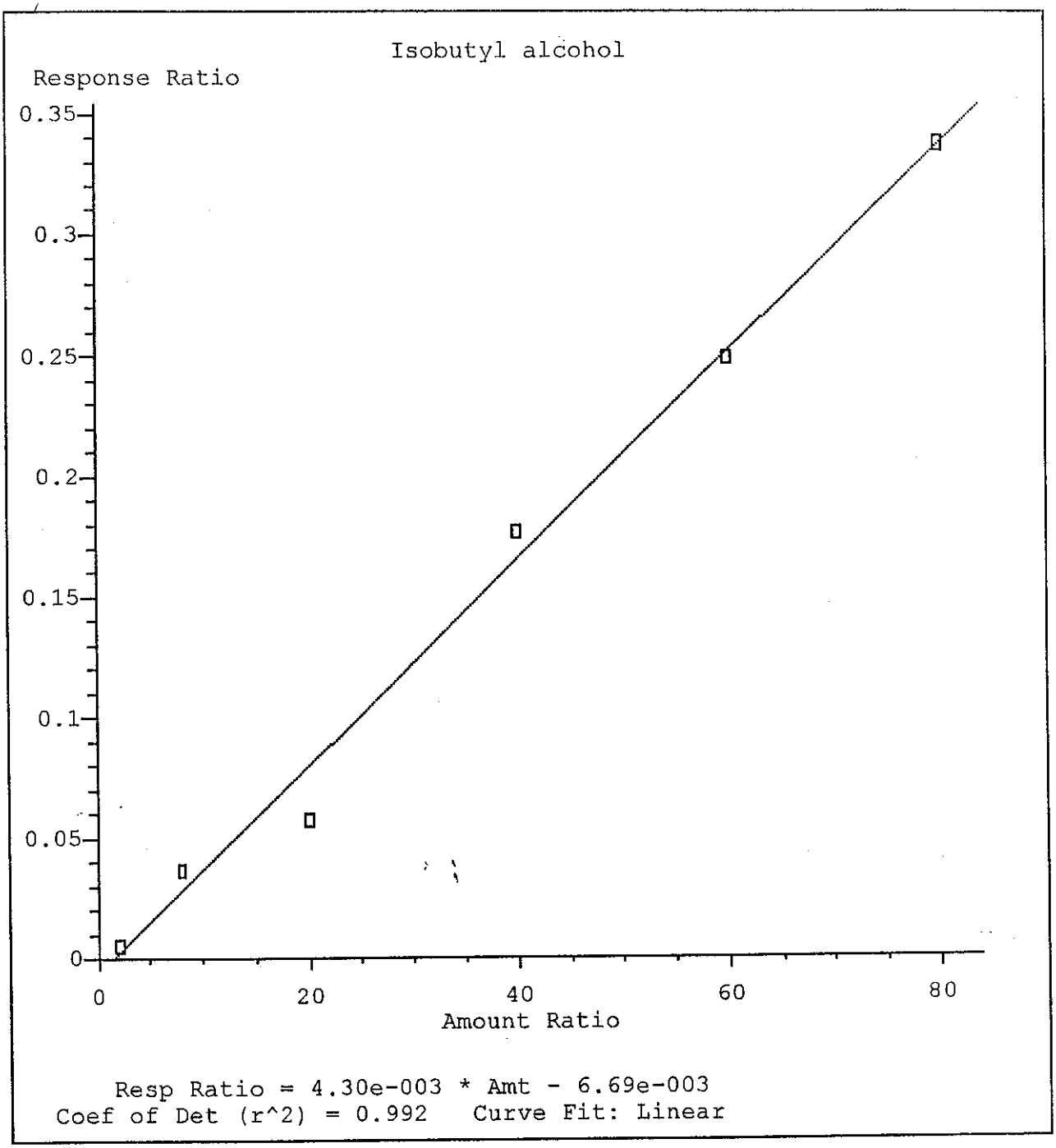
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



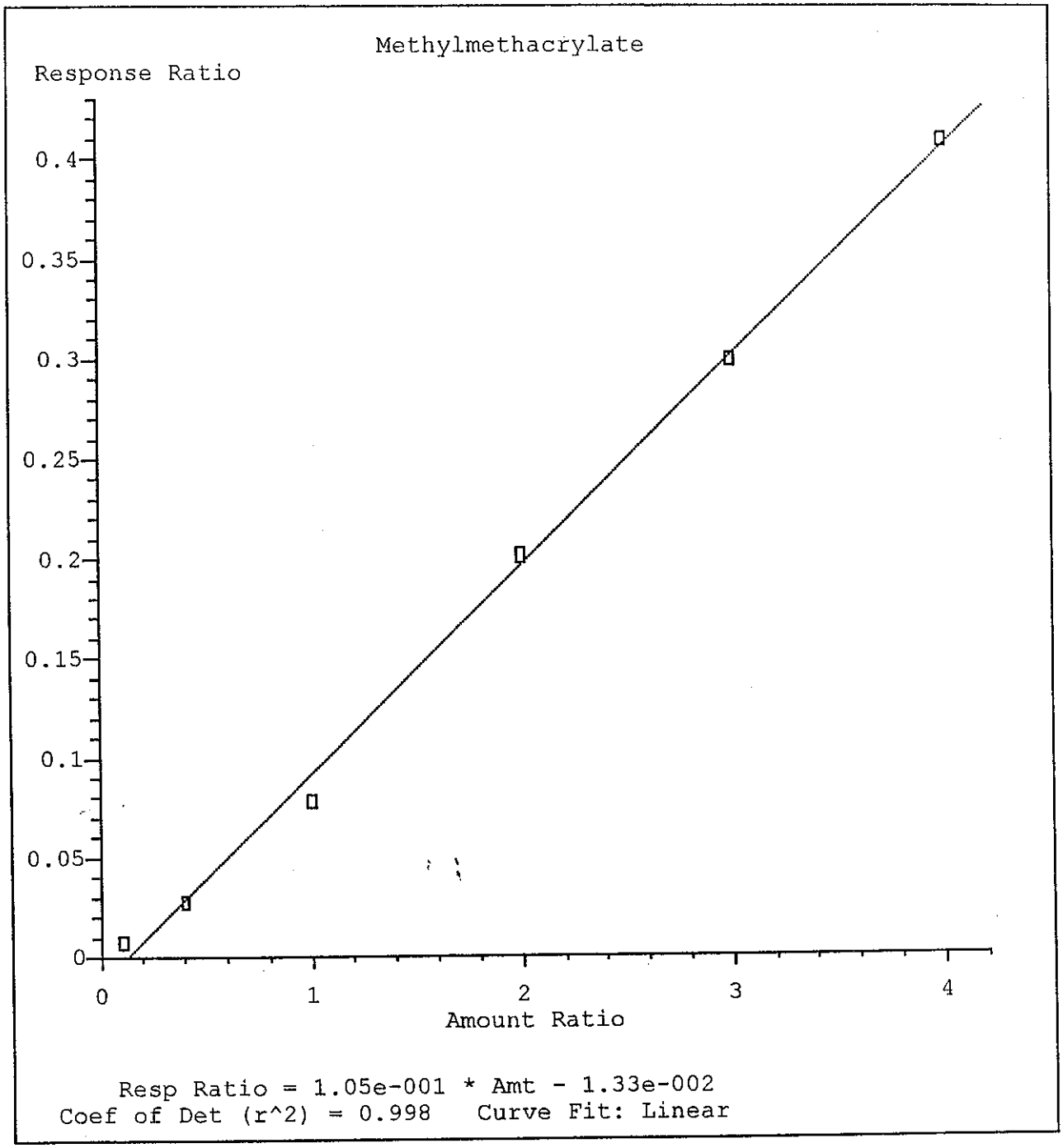
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



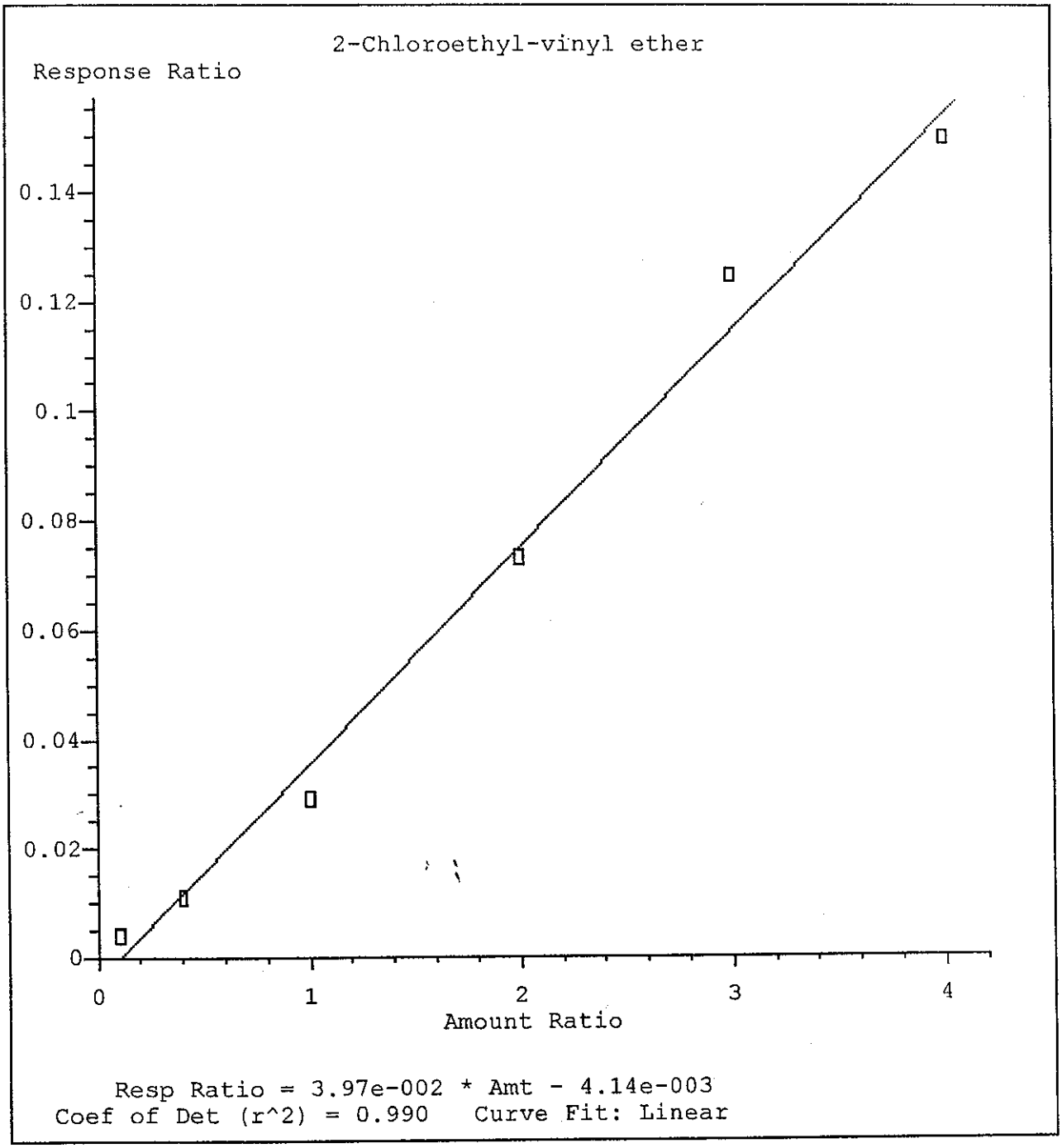
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



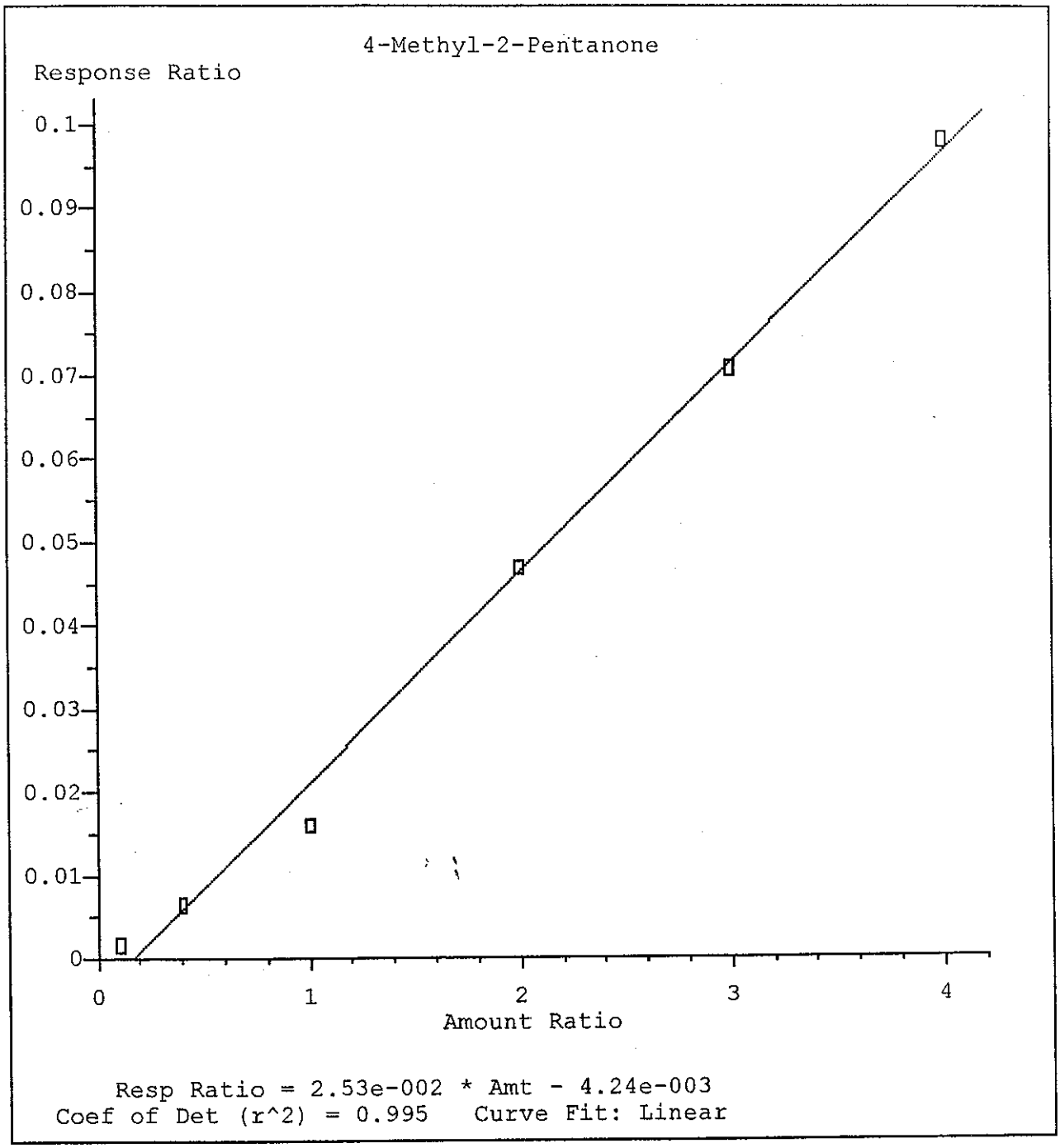
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



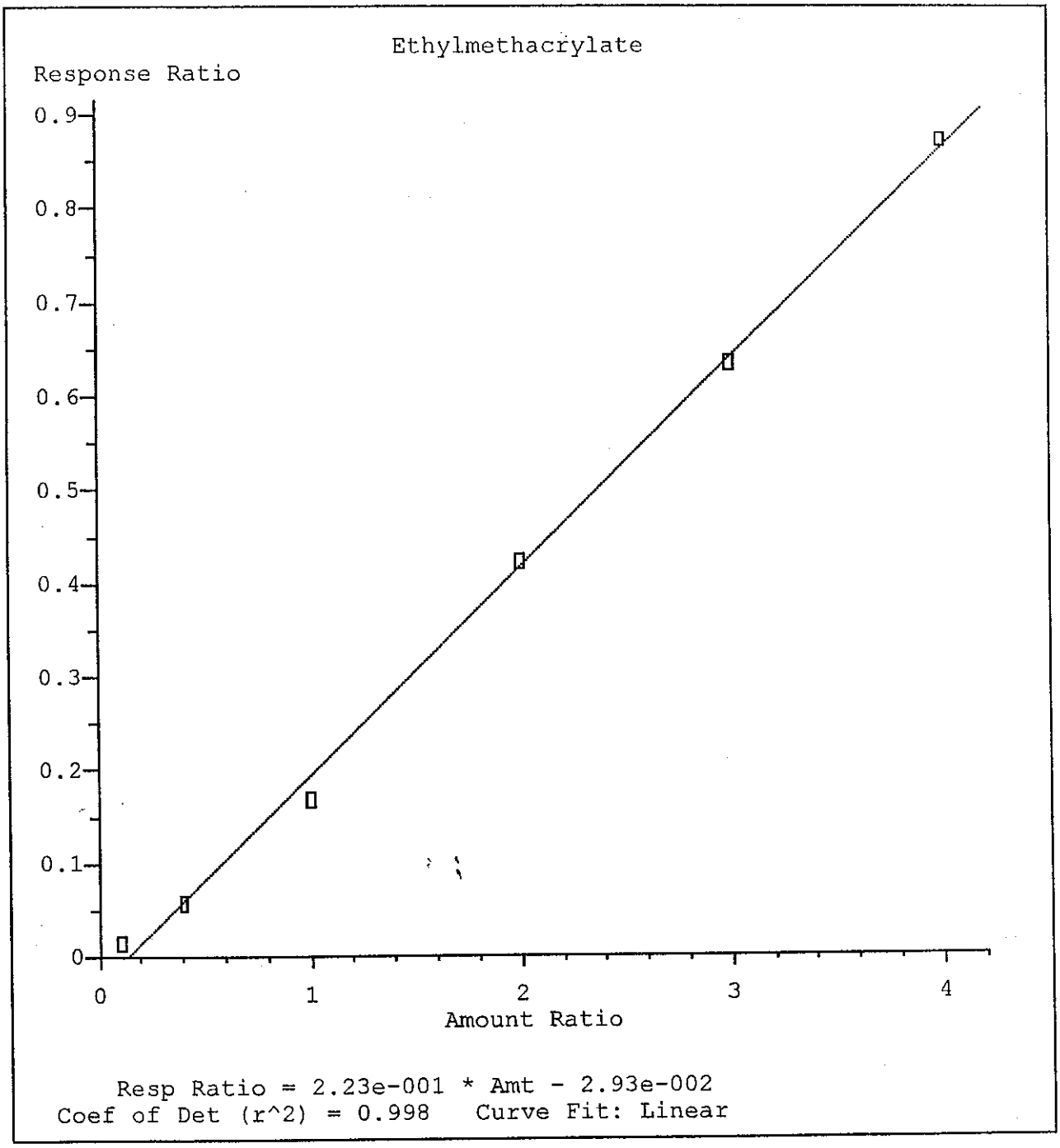
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



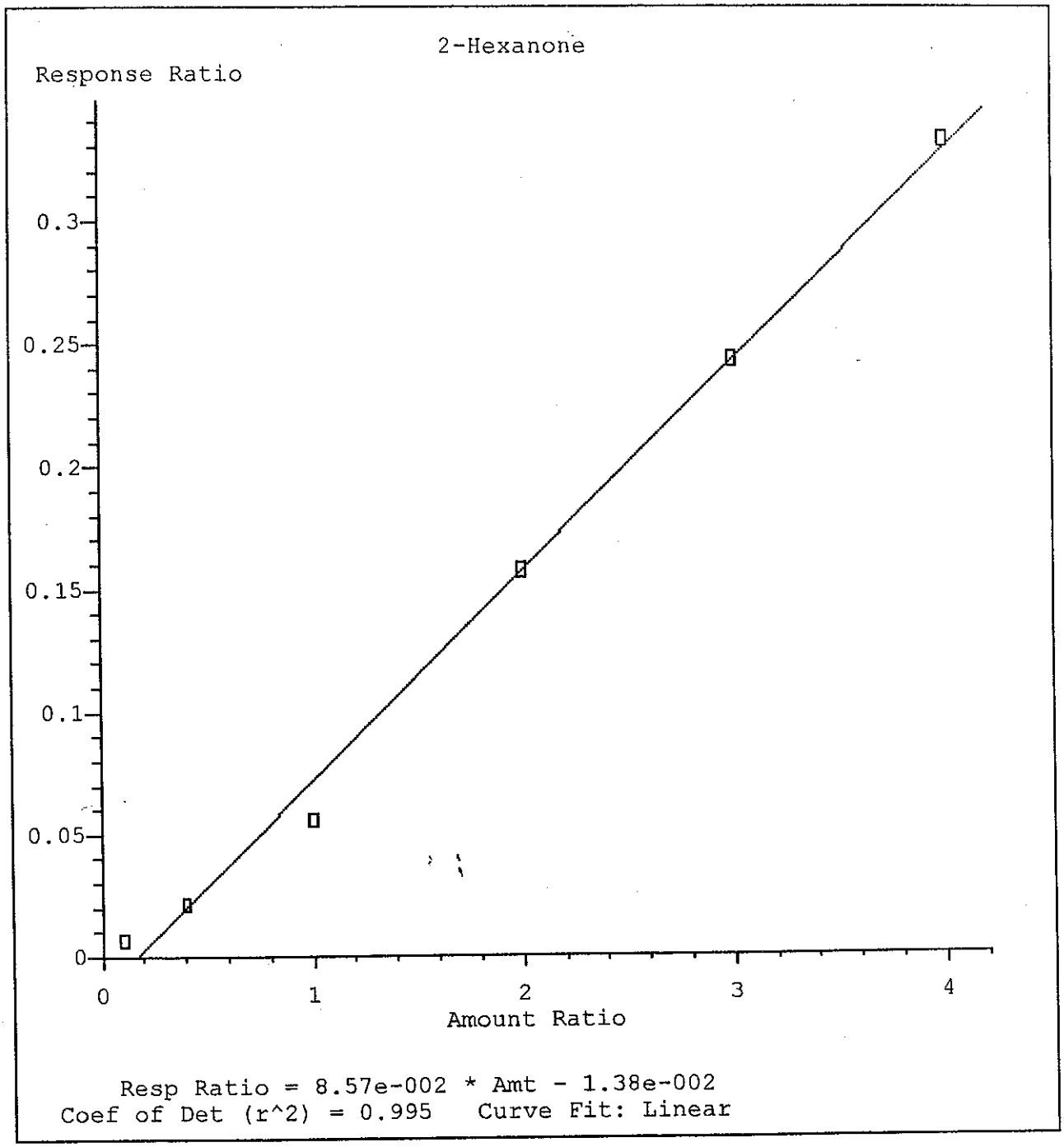
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



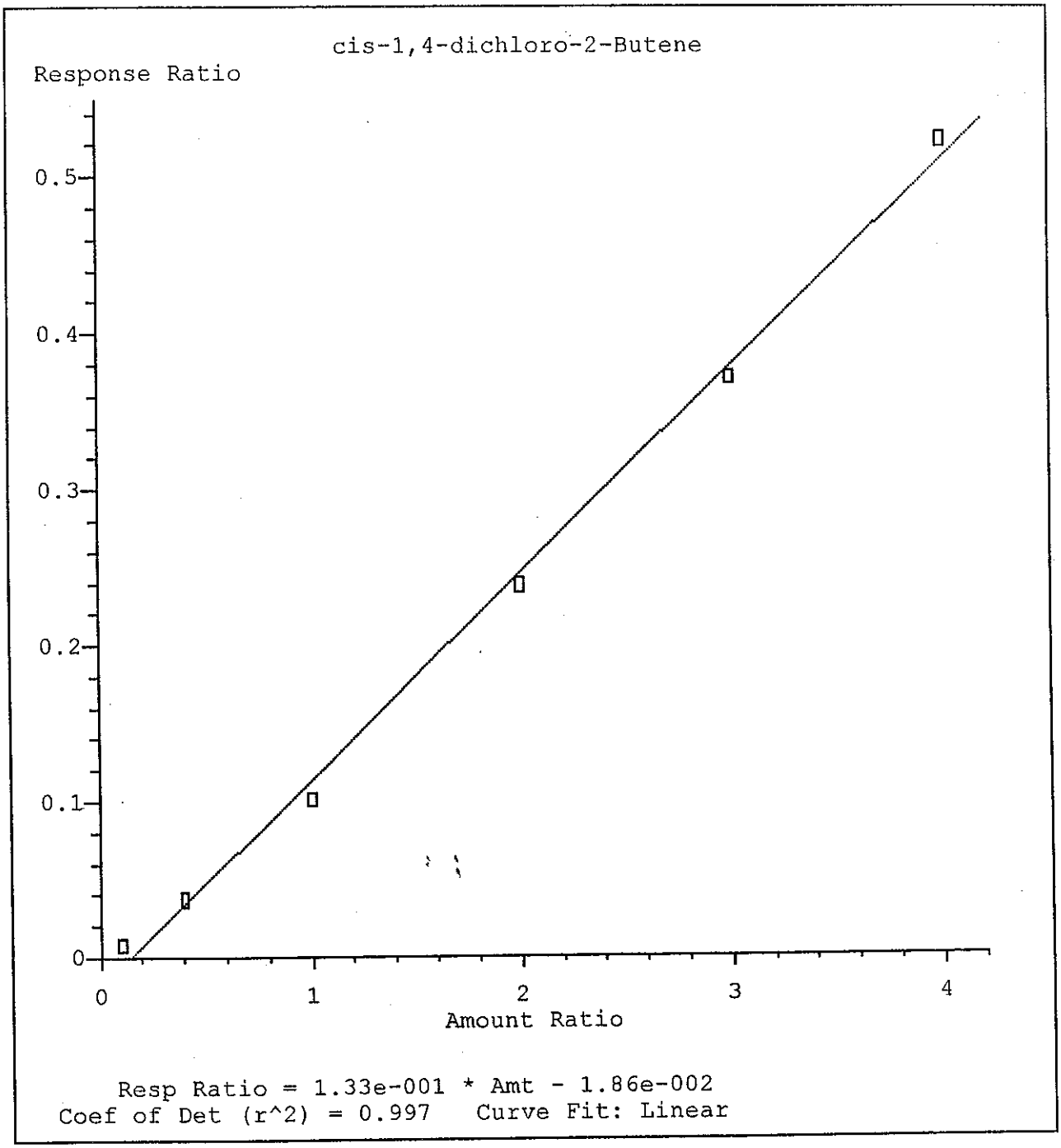
Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001



Method Name: C:\HPCHEM\1\DATA\1J072301\07230125.M
Calibration Table Last Updated: Mon Jul 23 13:54:12 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00651.D Vial: 7
Acq On : 07/23/01 13:12 Operator: JP/VRR/DAT
Sample : ICAL 1ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.98	168	608082	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.32	117	664875	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	293305	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	1500	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.45	65	24920	0.97	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 9.70%#				
46) Toluene-d8	10.27	98	103011	1.00	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 10.00%#				
66) Bromofluorobenzene	13.97	95	35180	1.01	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 10.10%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	52558	1.12	ug\L		99
3) Chloromethane	1.75	50	38653	1.14	ug\L		98
4) Vinyl Chloride	1.85	62	40276	1.10	ug\L		98
6) Chloroethane	2.27	64	19927	1.11	ug\L		97
7) Trichlorofluoromethane	2.53	101	58725	1.09	ug\L	#	100
8) Acrolein	3.09	56	2026	1.97	ug\L	#	55
9) Acrylonitrile	4.31	53	5196	1.98	ug\L	#	79
10) 1,1-Dichloroethene	3.15	96	32101	1.06	ug\L		97
12) Iodomethane	3.38	142	12545	0.87	ug\L		94
13) Allylchloride	3.65	39	40922	1.00	ug\L	#	89
14) Carbon Disulfide	3.44	76	111653	1.13	ug\L		99
15) Acetonitrile	3.66	41	50616	9.10	ug\L	#	88
16) Methylene Chloride	3.86	86	27634	0.53	ug\L		99
17) trans-1,2-Dichloroethene	4.24	96	34708	1.09	ug\L		97
18) MethylTertButylEther	4.24	73	35336	1.02	ug\L		98
19) 1,1-Dichloroethane	4.99	63	60984	1.10	ug\L		97
20) Isopropyl Ether	5.10	45	3504	1.39	ug\L	#	97
21) Vinyl Acetate	5.13	43	30161	1.02	ug\L		96
22) 2,2-Dichloropropane	6.02	77	53399	1.03	ug\L		99
23) cis-1,2-Dichloroethene	6.06	96	28885	0.99	ug\L		98
24) 2-Butanone	6.17	72	204	0.91	ug\L	#	1
25) Propionitrile	6.32	54	9255	10.73	ug\L	#	73
26) Methacrylonitrile	6.52	41	53499	10.07	ug\L		98
27) Bromochloromethane	6.50	128	10425	1.08	ug\L		96
28) Chloroform	6.65	83	61048	1.05	ug\L		99
29) 1,1,1-Trichloroethane	6.85	97	63747	1.03	ug\L		97
30) Carbon Tetrachloride	7.11	119	54000	0.99	ug\L		100
31) 1,4-Dioxane	9.10	88	1386	40.83	ug\L	#	57

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00651.D Vial: 7
Acq On : 07/23/01 13:12 Operator: JP/VRR/DAT
Sample : ICAL 1ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32) 1,1-Dichloropropene	7.13	77	15484	1.03 ug\L	95
34) Benzene	7.46	78	111338	0.97 ug\L	100
35) Isobutyl alcohol	7.57	43	3215	27.83 ug\L #	46
36) 1,2-Dichloroethane	7.57	62	29007	0.97 ug\L	98
37) Trichloroethene	8.49	95	32970	0.93 ug\L	97
38) 1,2-Dichloropropane	8.85	63	22586	0.94 ug\L #	97
39) Dibromomethane	9.05	93	9357	0.91 ug\L	95
40) Methylmethacrylate	9.05	69	4326	1.94 ug\L #	85
41) Bromodichloromethane	9.30	83	29767	0.88 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.74	63	2397	2.03 ug\L #	87
43) cis-1,3-Dichloropropene	9.93	75	28833	0.83 ug\L	94
44) 4-Methyl-2-Pentanone	10.16	85	945	2.29 ug\L #	73
47) Toluene	10.37	92	70562	1.03 ug\L	99
48) trans-1,3-Dichloropropene	10.75	75	17997	0.81 ug\L	90
49) Ethylmethacrylate	10.85	69	9509	1.95 ug\L #	95
50) 1,1,2-Trichloroethane	11.01	83	9785	0.97 ug\L	85
51) Tetrachloroethene	11.12	164	26022	0.98 ug\L	96
52) 1,3-Dichloropropane	11.23	76	21128	0.95 ug\L	96
53) 2-Hexanone	11.35	43	4513	2.40 ug\L #	83
54) Dibromochloromethane	11.57	129	13957	0.85 ug\L	93
55) 1,2-Dibromoethane	11.71	107	10711	0.97 ug\L #	98
56) Chlorobenzene	12.37	112	71654	1.03 ug\L #	87
57) 1,1,1,2-Tetrachloroethane	12.49	131	23245	0.98 ug\L	97
58) Ethylbenzene	12.50	91	143481	1.01 ug\L	97
59) total-Xylene	12.66	106	140886m	2.95 ug\L	
60) Styrene	13.25	104	64800	0.92 ug\L	96
62) Bromoform	13.55	173	5984	0.84 ug\L #	89
63) Isopropylbenzene	13.72	105	123264	0.95 ug\L	97
64) cis-1,4-dichloro-2-Butene	13.88	53	2280	1.99 ug\L #	78
65) trans-1,4-dichloro-2-Buten	14.28	53	3661	0.95 ug\L #	68
67) Bromobenzene	14.17	156	21777	0.96 ug\L #	87
68) 1,1,2,2-Tetrachloroethane	14.22	83	11522	1.06 ug\L	95
69) 1,2,3-Trichloropropane	14.28	75	13780	1.05 ug\L	91
70) n-Propylbenzene	14.28	91	171751	1.03 ug\L	97
71) 2-Chlorotoluene	14.43	91	103563	1.04 ug\L	99
72) 4-Chlorotoluene	14.58	91	121511	1.10 ug\L	98
73) 1,3,5-Trimethylbenzene	14.53	105	121297	1.04 ug\L	98
74) Pentachloroethane	15.05	167	14163	0.99 ug\L #	93
75) tert-Butylbenzene	14.98	119	94110	0.99 ug\L	98
76) 1,2,4-Trimethylbenzene	15.05	105	116943	1.03 ug\L	100
77) sec-Butylbenzene	15.28	105	151161	1.01 ug\L	97
78) 1,3-Dichlorobenzene	15.47	146	52547	1.07 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00651.D Vial: 7
Acq On : 07/23/01 13:12 Operator: JP/VRR/DAT
Sample : ICAL 1ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

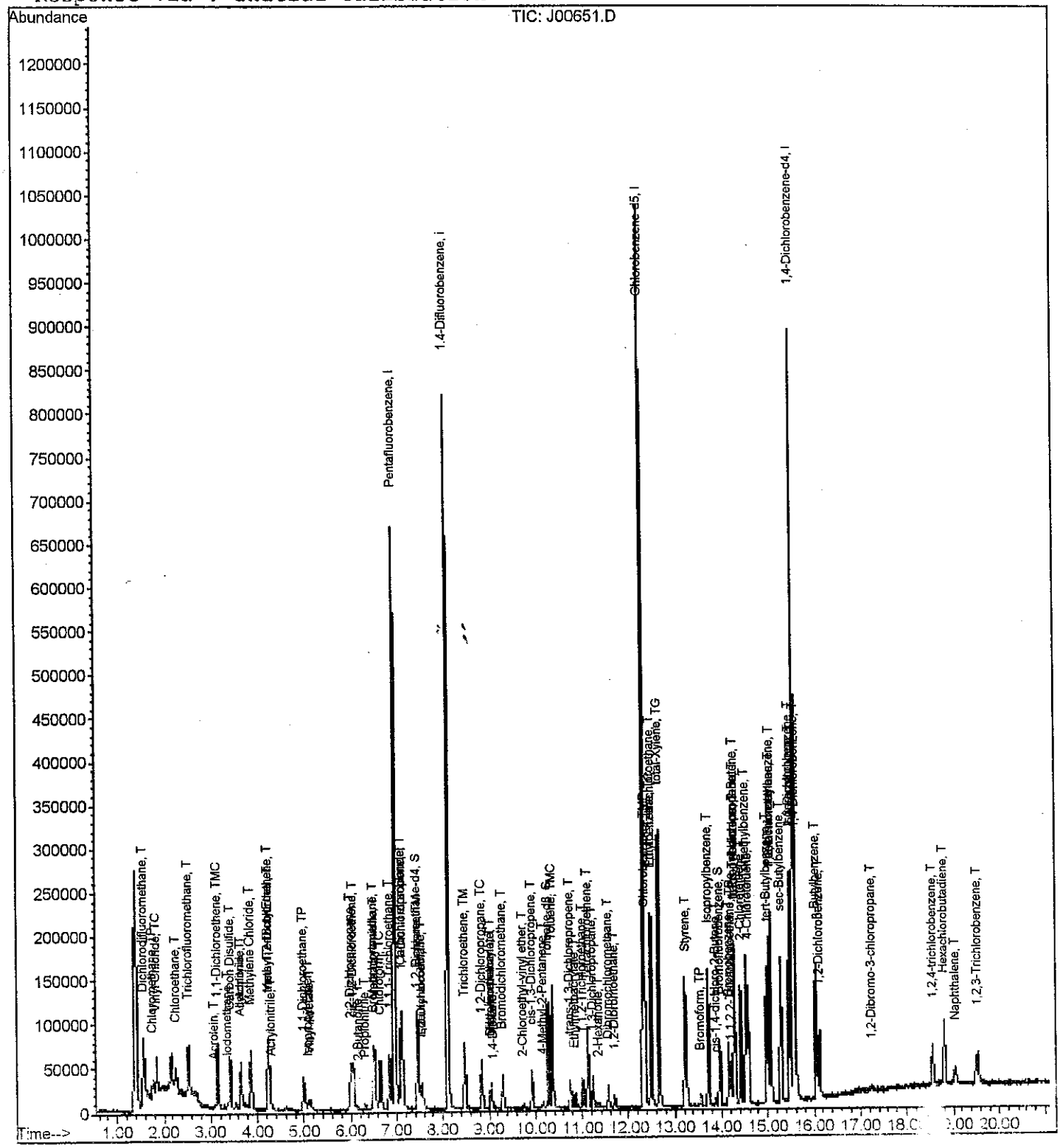
Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
79)	Isopropyltoluene	15.48	119	112760	0.99	ug\L		100
80)	1,4-Dichlorobenzene	15.60	146	52929	1.09	ug\L		94
81)	1,2-Dichlorobenzene	16.13	146	39141	1.03	ug\L		98
82)	n-Butylbenzene	16.04	91	110584	0.97	ug\L		96
83)	1,2-Dibromo-3-chloropropan	17.24	75	1742	1.05	ug\L	#	53
84)	1,2,4-trichlorobenzene	18.57	180	25817	1.05	ug\L		100
85)	Hexachlorobutadiene	18.81	225	26654	1.19	ug\L		100
86)	Naphthalene	19.05	128	30639	1.13	ug\L		100
87)	1,2,3-Trichlorobenzene	19.54	180	21299	1.15	ug\L	#	91

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00651.D Vial: 7
Acq On : 07/23/01 13:12 Operator: JP/VRR/DAT
Sample : ICAL 1ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00645.D Vial: 2
Acq On : 07/23/01 10:09 Operator: JP/VRR/DAT
Sample : ICAL 4ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07200125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.99	168	598784	10.00	ug\L	0.02
45) Chlorobenzene-d5	12.33	117	700031	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	332469	10.00	ug\L	0.01
88) 1.4-Difluorobenzene	8.12	116	1300	10.00	ug\L	0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.46	65	101734	4.01	ug\L	0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 40.10%#			
46) Toluene-d8	10.28	98	433953	4.00	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 40.00%#			
66) Bromofluorobenzene	13.97	95	147859	3.74	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 37.40%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.57	85	195535	4.22	ug\L	98
3) Chloromethane	1.77	50	148152	4.45	ug\L	99
4) Vinyl Chloride	1.86	62	149524	4.14	ug\L	99
5) Bromomethane	2.17	94	34561	2.59	ug\L #	78
6) Chloroethane	2.28	64	71276	4.03	ug\L	91
7) Trichlorofluoromethane	2.54	101	220747	4.17	ug\L #	100
8) Acrolein	3.10	56	8392	8.29	ug\L #	92
9) Acrylonitrile	4.31	53	20010	7.76	ug\L	96
10) 1,1-Dichloroethene	3.17	96	118595	3.99	ug\L	99
11) Acetone	3.32	58	2867	3.78	ug\L #	60
12) Iodomethane	3.38	142	94523	3.15	ug\L	97
13) Allylchloride	3.66	39	153939	3.82	ug\L	100
14) Carbon Disulfide	3.44	76	378124	3.90	ug\L	99
15) Acetonitrile	3.66	41	216345	39.51	ug\L	100
16) Methylene Chloride	3.87	86	71319	3.53	ug\L	95
17) trans-1,2-Dichloroethene	4.25	96	122799	3.91	ug\L	95
18) MethylTertButylEther	4.25	73	119551	3.51	ug\L	99
19) 1,1-Dichloroethane	5.01	63	214139	3.92	ug\L	100
20) Isopropyl Ether	5.09	45	20931	3.80	ug\L #	55
21) Vinyl Acetate	5.15	43	96723	3.31	ug\L	98
22) 2,2-Dichloropropane	6.03	77	198447	3.90	ug\L	99
23) cis-1,2-Dichloroethene	6.08	96	110080	3.84	ug\L	98
24) 2-Butanone	6.17	72	2327	3.74	ug\L #	82
25) Propionitrile	6.32	54	29697	34.96	ug\L #	87
26) Methacrylonitrile	6.53	41	191435	36.59	ug\L	99
27) Bromochloromethane	6.51	128	37145	3.92	ug\L	98
28) Chloroform	6.66	83	235679	4.10	ug\L	97
29) 1,1,1-Trichloroethane	6.87	97	241309	3.96	ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00645.D Vial: 2
Acq On : 07/23/01 10:09 Operator: JP/VRR/DAT
Sample : ICAL 4ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07200125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	7.11	119	215908	4.00 ug\L	98
31) 1,4-Dioxane	9.11	88	3884	77.66 ug\L #	73
32) 1,1-Dichloropropene	7.14	77	58531	3.96 ug\L	95
34) Benzene	7.48	78	460907	4.08 ug\L	100
35) Isobutyl alcohol	7.59	43	17371	82.96 ug\L	94
36) 1,2-Dichloroethane	7.58	62	119256	4.03 ug\L	99
37) Trichloroethene	8.49	95	137834	3.95 ug\L	99
38) 1,2-Dichloropropane	8.86	63	94977	4.01 ug\L #	95
39) Dibromomethane	9.06	93	39196	3.87 ug\L	100
40) Methylmethacrylate	9.06	69	16337	3.86 ug\L	94
41) Bromodichloromethane	9.31	83	127886	3.83 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.75	63	6569	3.80 ug\L	99
43) cis-1,3-Dichloropropene	9.95	75	121252	3.56 ug\L	100
44) 4-Methyl-2-Pentanone	10.18	85	3881	4.24 ug\L #	93
47) Toluene	10.37	92	297225	4.12 ug\L	99
48) trans-1,3-Dichloropropene	10.76	75	81861	3.51 ug\L	97
49) Ethylmethacrylate	10.85	69	40281	3.89 ug\L	95
50) 1,1,2-Trichloroethane	11.02	83	42793	4.04 ug\L	98
51) Tetrachloroethene	11.14	164	115983	4.15 ug\L	98
52) 1,3-Dichloropropane	11.24	76	90558	3.88 ug\L	99
53) 2-Hexanone	11.36	43	14894	4.09 ug\L	98
54) Dibromochloromethane	11.57	129	64433	3.72 ug\L	99
55) 1,2-Dibromoethane	11.71	107	44175	3.79 ug\L	100
56) Chlorobenzene	12.37	112	294624	4.03 ug\L	96
57) 1,1,1,2-Tetrachloroethane	12.50	131	100460	4.04 ug\L	98
58) Ethylbenzene	12.51	91	612842	4.10 ug\L	99
59) total-Xylene	12.67	106	619971m	12.34 ug\L	
60) Styrene	13.26	104	297447	3.99 ug\L	100
62) Bromoform	13.57	173	26375	3.26 ug\L	95
63) Isopropylbenzene	13.73	105	590623	4.03 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.89	53	12338	4.21 ug\L #	84
65) trans-1,4-dichloro-2-Buten	14.29	53	16605	3.80 ug\L	84
67) Bromobenzene	14.18	156	96872	3.76 ug\L	97
68) 1,1,2,2-Tetrachloroethane	14.23	83	46590	3.77 ug\L	98
69) 1,2,3-Trichloropropane	14.28	75	56003	3.76 ug\L	86
70) n-Propylbenzene	14.29	91	782489	4.15 ug\L	98
71) 2-Chlorotoluene	14.43	91	449036	3.99 ug\L	99
72) 4-Chlorotoluene	14.59	91	451006	3.59 ug\L	95
73) 1,3,5-Trimethylbenzene	14.54	105	541874	4.08 ug\L	98
74) Pentachloroethane	15.06	167	63466	3.93 ug\L	96
75) tert-Butylbenzene	14.99	119	426920	3.94 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	532414	4.12 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00645.D Vial: 2
Acq On : 07/23/01 10:09 Operator: JP/VRR/DAT
Sample : ICAL 4ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

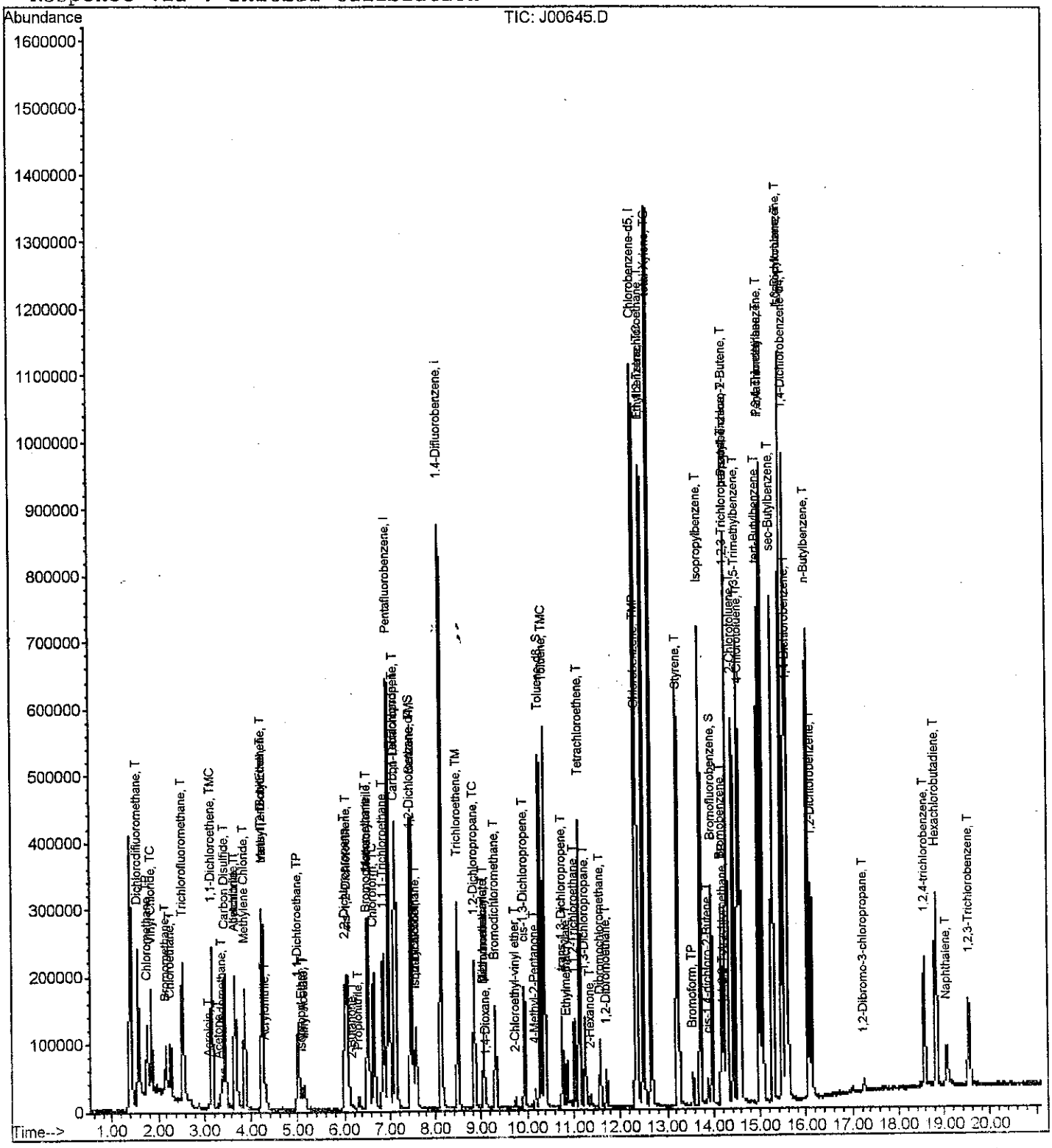
Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07200125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.29	105	700682	4.14 ug\L	100
78) 1,3-Dichlorobenzene	15.48	146	223514	4.03 ug\L	99
79) Isopropyltoluene	15.48	119	535175	4.13 ug\L	99
80) 1,4-Dichlorobenzene	15.60	146	212812	3.87 ug\L	98
81) 1,2-Dichlorobenzene	16.13	146	168137	3.90 ug\L	99
82) n-Butylbenzene	16.05	91	514505	3.98 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.25	75	7179	3.83 ug\L	93
84) 1,2,4-trichlorobenzene	18.58	180	106537	3.83 ug\L	100
85) Hexachlorobutadiene	18.82	225	107657	4.25 ug\L	100
86) Naphthalene	19.06	128	96775	3.14 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	78244	3.72 ug\L	98

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00645.D Vial: 2
Acq On : 07/23/01 10:09 Operator: JP/VRR/DAT
Sample : ICAL 4ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00646.D Vial: 3
Acq On : 07/23/01 11:02 Operator: JP/VRR/DAT
Sample : ICAL 10ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	595194	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.33	117	715043	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	340390	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	1344	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	251800	9.98	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.27	98	1167205	10.53	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.30%#				
66) Bromofluorobenzene	13.97	95	419034	10.34	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 103.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	485196	10.54	ug\L		99
3) Chloromethane	1.76	50	354553	10.71	ug\L		100
4) Vinyl Chloride	1.85	62	387652	10.81	ug\L		98
5) Bromomethane	2.18	94	109806	13.05	ug\L		86
6) Chloroethane	2.28	64	193652	11.01	ug\L		97
7) Trichlorofluoromethane	2.54	101	548595	10.42	ug\L	#	100
8) Acrolein	3.10	56	18704	18.58	ug\L	#	99
9) Acrylonitrile	4.30	53	49339	19.26	ug\L	#	92
10) 1,1-Dichloroethene	3.16	96	307761	10.42	ug\L		99
11) Acetone	3.31	58	7994	10.61	ug\L		89
12) Iodomethane	3.38	142	328510	9.70	ug\L		98
13) Allylchloride	3.66	39	417680	10.43	ug\L		98
14) Carbon Disulfide	3.44	76	942242	9.77	ug\L		100
15) Acetonitrile	3.66	41	570894	104.88	ug\L		98
16) Methylene Chloride	3.86	86	171135	10.40	ug\L		98
17) trans-1,2-Dichloroethene	4.24	96	326833	10.46	ug\L		99
18) MethylTertButylEther	4.24	73	314719	9.29	ug\L		99
19) 1,1-Dichloroethane	5.00	63	537968	9.91	ug\L		99
20) Isopropyl Ether	5.09	45	60660	9.34	ug\L	#	84
21) Vinyl Acetate	5.13	43	250248	8.62	ug\L		99
22) 2,2-Dichloropropane	6.01	77	559403	11.07	ug\L		99
23) cis-1,2-Dichloroethene	6.07	96	294401	10.33	ug\L		98
24) 2-Butanone	6.15	72	6161	8.89	ug\L		96
25) Propionitrile	6.31	54	77988	92.37	ug\L		99
26) Methacrylonitrile	6.52	41	504478	97.00	ug\L		99
27) Bromochloromethane	6.49	128	93922	9.97	ug\L		99
28) Chloroform	6.65	83	579513	10.14	ug\L		99
29) 1,1,1-Trichloroethane	6.86	97	634959	10.47	ug\L		99

= qualifier out of range (m) = manual integrat...

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00646.D Vial: 3
Acq On : 07/23/01 11:02 Operator: JP/VRR/DAT
Sample : ICAL 10ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	7.10	119	568407	10.61 ug\L	100
31) 1,4-Dioxane	9.09	88	9493	160.50 ug\L #	79
32) 1,1-Dichloropropene	7.13	77	152377	10.37 ug\L	98
34) Benzene	7.47	78	1168736	10.40 ug\L	100
35) Isobutyl alcohol	7.57	43	34091	148.65 ug\L	92
36) 1,2-Dichloroethane	7.56	62	294837	10.03 ug\L	99
37) Trichloroethene	8.48	95	365197	10.53 ug\L	99
38) 1,2-Dichloropropane	8.85	63	234769	9.97 ug\L	98
39) Dibromomethane	9.05	93	100675	10.00 ug\L	99
40) Methylmethacrylate	9.06	69	46601	8.72 ug\L	98
41) Bromodichloromethane	9.30	83	338124	10.19 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.74	63	17405	8.40 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	342244	10.10 ug\L	98
44) 4-Methyl-2-Pentanone	10.16	85	9501	7.99 ug\L #	87
47) Toluene	10.37	92	767342	10.41 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	241724	10.14 ug\L	99
49) Ethylmethacrylate	10.85	69	120155	8.83 ug\L	98
50) 1,1,2-Trichloroethane	11.02	83	104277	9.64 ug\L	99
51) Tetrachloroethene	11.13	164	308950	10.83 ug\L	97
52) 1,3-Dichloropropane	11.24	76	242943	10.19 ug\L	99
53) 2-Hexanone	11.35	43	39739	8.09 ug\L	99
54) Dibromochloromethane	11.56	129	174064	9.84 ug\L	99
55) 1,2-Dibromoethane	11.71	107	114618	9.62 ug\L	99
56) Chlorobenzene	12.36	112	769607	10.29 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	262253	10.31 ug\L	99
58) Ethylbenzene	12.50	91	1652598	10.83 ug\L	98
59) total-Xylene	12.66	106	1650233m	32.15 ug\L	
60) Styrene	13.25	104	804949	10.57 ug\L	100
62) Bromoform	13.56	173	82708	10.00 ug\L	98
63) Isopropylbenzene	13.72	105	1618550	10.80 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	53	34506	9.05 ug\L #	96
65) trans-1,4-dichloro-2-Buten	14.29	53	44928	10.04 ug\L #	87
67) Bromobenzene	14.17	156	271487	10.30 ug\L	100
68) 1,1,2,2-Tetrachloroethane	14.22	83	121391	9.59 ug\L	96
69) 1,2,3-Trichloropropane	14.28	75	153889	10.09 ug\L	93
70) n-Propylbenzene	14.29	91	2093686	10.85 ug\L	98
71) 2-Chlorotoluene	14.43	91	1199355	10.40 ug\L	99
72) 4-Chlorotoluene	14.58	91	1369058	10.65 ug\L	99
73) 1,3,5-Trimethylbenzene	14.54	105	1449017	10.67 ug\L	99
74) Pentachloroethane	15.06	167	169135	10.23 ug\L	96
75) tert-Butylbenzene	14.98	119	1214386	10.96 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	1403373	10.61 ug\L	99

#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00646.D Vial: 3
Acq On : 07/23/01 11:02 Operator: JP/VRR/DAT
Sample : ICAL 10ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1873963	10.83	ug\L	100
78)	1,3-Dichlorobenzene	15.47	146	591587	10.41	ug\L	99
79)	Isopropyltoluene	15.48	119	1452384	10.95	ug\L	100
80)	1,4-Dichlorobenzene	15.60	146	577029	10.24	ug\L	99
81)	1,2-Dichlorobenzene	16.12	146	451468	10.22	ug\L	98
82)	n-Butylbenzene	16.04	91	1440105	10.87	ug\L	100
83)	1,2-Dibromo-3-chloropropan	17.25	75	17615	9.18	ug\L	99
84)	1,2,4-trichlorobenzene	18.56	180	291073	10.21	ug\L	100
85)	Hexachlorobutadiene	18.82	225	275499	10.63	ug\L	100
86)	Naphthalene	19.05	128	290924	9.21	ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	209056	9.70	ug\L	100

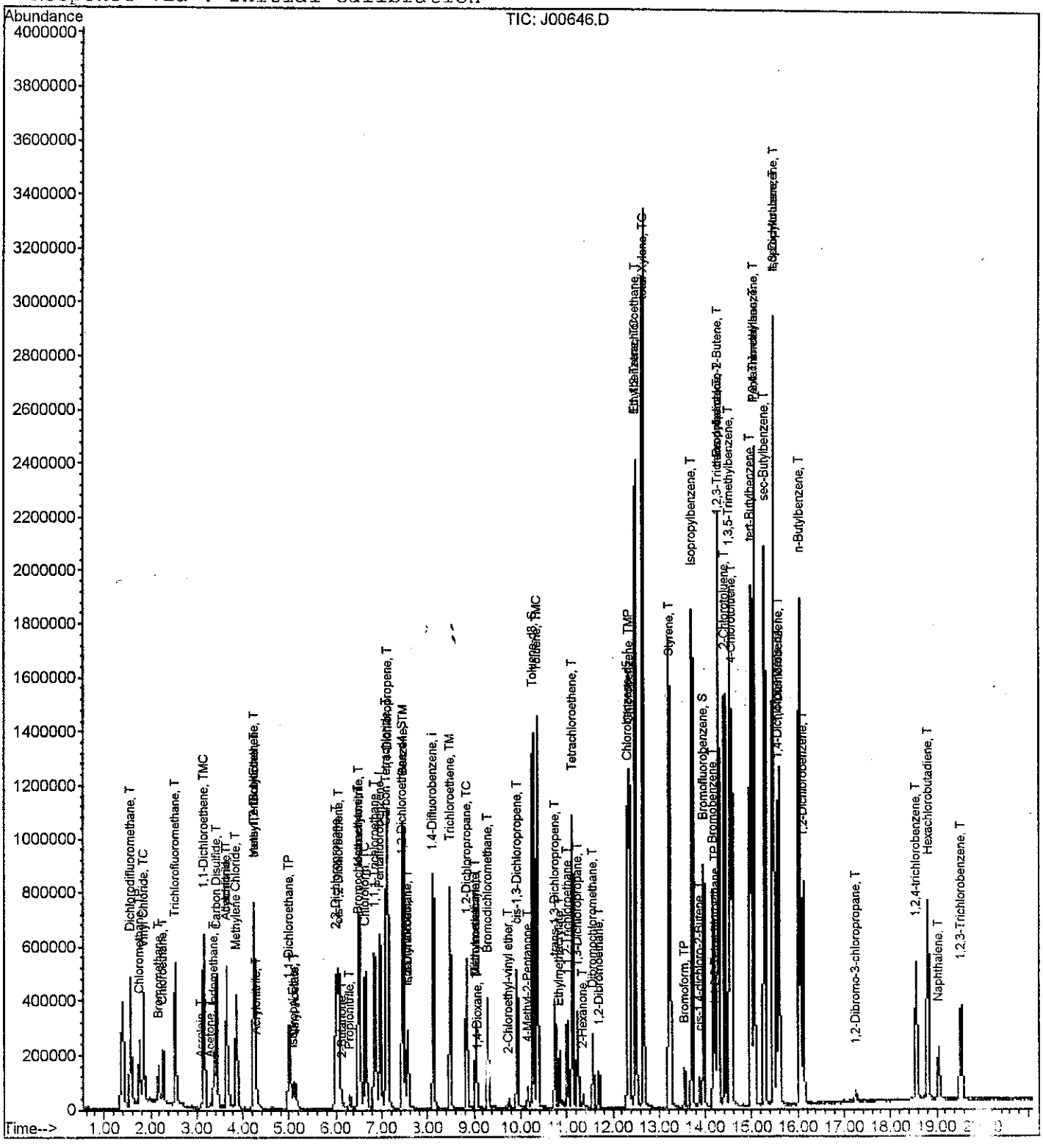
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00646.D
Acq On : 07/23/01 11:02
Sample : ICAL 10ppb (V01074,V01073)
Misc : 25ml
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001

Vial: 3
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00647.D Vial: 4
Acq On : 07/23/01 11:28 Operator: JP/VRR/DAT
Sample : ICAL 20ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	638768	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.33	117	788382	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	382681	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	796	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	583707	21.55	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 215.50%#				
46) Toluene-d8	10.27	98	2569663	21.02	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 210.20%#				
66) Bromofluorobenzene	13.97	95	958283	21.04	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 210.40%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.57	85	988361	20.00	ug\L		100
3) Chloromethane	1.76	50	702187	19.76	ug\L		100
4) Vinyl Chloride	1.85	62	779681	20.26	ug\L		99
6) Chloroethane	2.28	64	382331	20.25	ug\L		99
7) Trichlorofluoromethane	2.53	101	1148297	20.32	ug\L	#	100
8) Acrolein	3.10	56	43813	40.56	ug\L	#	97
9) Acrylonitrile	4.30	53	113377	41.23	ug\L		93
10) 1,1-Dichloroethene	3.16	96	653840	20.63	ug\L		99
11) Acetone	3.30	58	16861	20.86	ug\L		100
12) Iodomethane	3.38	142	824623	21.98	ug\L		98
13) Allylchloride	3.65	39	916687	21.34	ug\L		98
14) Carbon Disulfide	3.44	76	2102684	20.33	ug\L		100
15) Acetonitrile	3.66	41	1262917	216.19	ug\L		99
16) Methylene Chloride	3.86	86	355868	21.40	ug\L		97
17) trans-1,2-Dichloroethene	4.24	96	690710	20.61	ug\L		99
18) MethylTertButylEther	4.23	73	795937	21.89	ug\L		99
19) 1,1-Dichloroethane	5.00	63	1212382	20.81	ug\L		99
20) Isopropyl Ether	5.08	45	155693	21.07	ug\L	#	98
21) Vinyl Acetate	5.13	43	693897	22.28	ug\L		99
22) 2,2-Dichloropropane	6.01	77	1118136	20.61	ug\L		100
23) cis-1,2-Dichloroethene	6.06	96	653088	21.36	ug\L		99
24) 2-Butanone	6.15	72	15977	20.58	ug\L		100
25) Propionitrile	6.31	54	194805	214.98	ug\L		99
26) Methacrylonitrile	6.52	41	1221857	218.91	ug\L		98
27) Bromochloromethane	6.49	128	212485	21.02	ug\L		100
28) Chloroform	6.65	83	1273576	20.77	ug\L		100
29) 1,1,1-Trichloroethane	6.86	97	1353919	20.80	ug\L		99
30) Carbon Tetrachloride	7.11	119	1210467	21.04	ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00647.D Vial: 4
Acq On : 07/23/01 11:28 Operator: JP/VRR/DAT
Sample : ICAL 20ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,4-Dioxane	9.10	88	29283	422.20 ug\L #	45
32) 1,1-Dichloropropene	7.13	77	331901	21.05 ug\L	98
34) Benzene	7.47	78	2561488	21.23 ug\L	100
35) Isobutyl alcohol	7.57	43	113033	426.77 ug\L	94
36) 1,2-Dichloroethane	7.56	62	677976	21.49 ug\L	100
37) Trichloroethene	8.48	95	794788	21.34 ug\L	99
38) 1,2-Dichloropropane	8.85	63	552411	21.85 ug\L	100
39) Dibromomethane	9.05	93	232262	21.50 ug\L	98
40) Methylmethacrylate	9.05	69	128680	20.44 ug\L	98
41) Bromodichloromethane	9.30	83	780799	21.93 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.74	63	46834	19.50 ug\L	97
43) cis-1,3-Dichloropropene	9.93	75	821993	22.60 ug\L	100
44) 4-Methyl-2-Pentanone	10.17	85	29957	20.22 ug\L #	97
47) Toluene	10.36	92	1673644	20.60 ug\L	100
48) trans-1,3-Dichloropropene	10.76	75	598939	22.78 ug\L	99
49) Ethylmethacrylate	10.85	69	333657	20.25 ug\L	98
50) 1,1,2-Trichloroethane	11.01	83	252722	21.19 ug\L	99
51) Tetrachloroethene	11.12	164	651709	20.73 ug\L	99
52) 1,3-Dichloropropane	11.24	76	562732	21.41 ug\L	99
53) 2-Hexanone	11.35	43	124110	19.97 ug\L	98
54) Dibromochloromethane	11.57	129	439992	22.55 ug\L	98
55) 1,2-Dibromoethane	11.71	107	282593	21.51 ug\L	98
56) Chlorobenzene	12.36	112	1714730	20.80 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	591644	21.11 ug\L	99
58) Ethylbenzene	12.50	91	3483083	20.70 ug\L	99
59) total-Xylene	12.66	106	3530591m	62.39 ug\L	
60) Styrene	13.25	104	1798404	21.42 ug\L	99
62) Bromoform	13.56	173	206301	22.18 ug\L	98
63) Isopropylbenzene	13.72	105	3506372	20.81 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	53	91247	19.40 ug\L #	99
65) trans-1,4-dichloro-2-Buten	14.29	53	104477	20.78 ug\L	90
67) Bromobenzene	14.18	156	624878	21.09 ug\L	99
68) 1,1,2,2-Tetrachloroethane	14.22	83	294883	20.72 ug\L	97
69) 1,2,3-Trichloropropane	14.27	75	357037	20.83 ug\L	97
70) n-Propylbenzene	14.29	91	4406710	20.32 ug\L	98
71) 2-Chlorotoluene	14.43	91	2633615	20.32 ug\L	100
72) 4-Chlorotoluene	14.59	91	2998867	20.75 ug\L	99
73) 1,3,5-Trimethylbenzene	14.53	105	3121020	20.44 ug\L	99
74) Pentachloroethane	15.06	167	386848	20.80 ug\L	99
75) tert-Butylbenzene	14.98	119	2589160	20.78 ug\L	99
76) 1,2,4-Trimethylbenzene	15.06	105	3069805	20.64 ug\L	98
77) sec-Butylbenzene	15.28	105	3977843	20.44 ug\L	99

qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00647.D Vial: 4
Acq On : 07/23/01 11:28 Operator: JP/VRR/DAT
Sample : ICAL 20ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

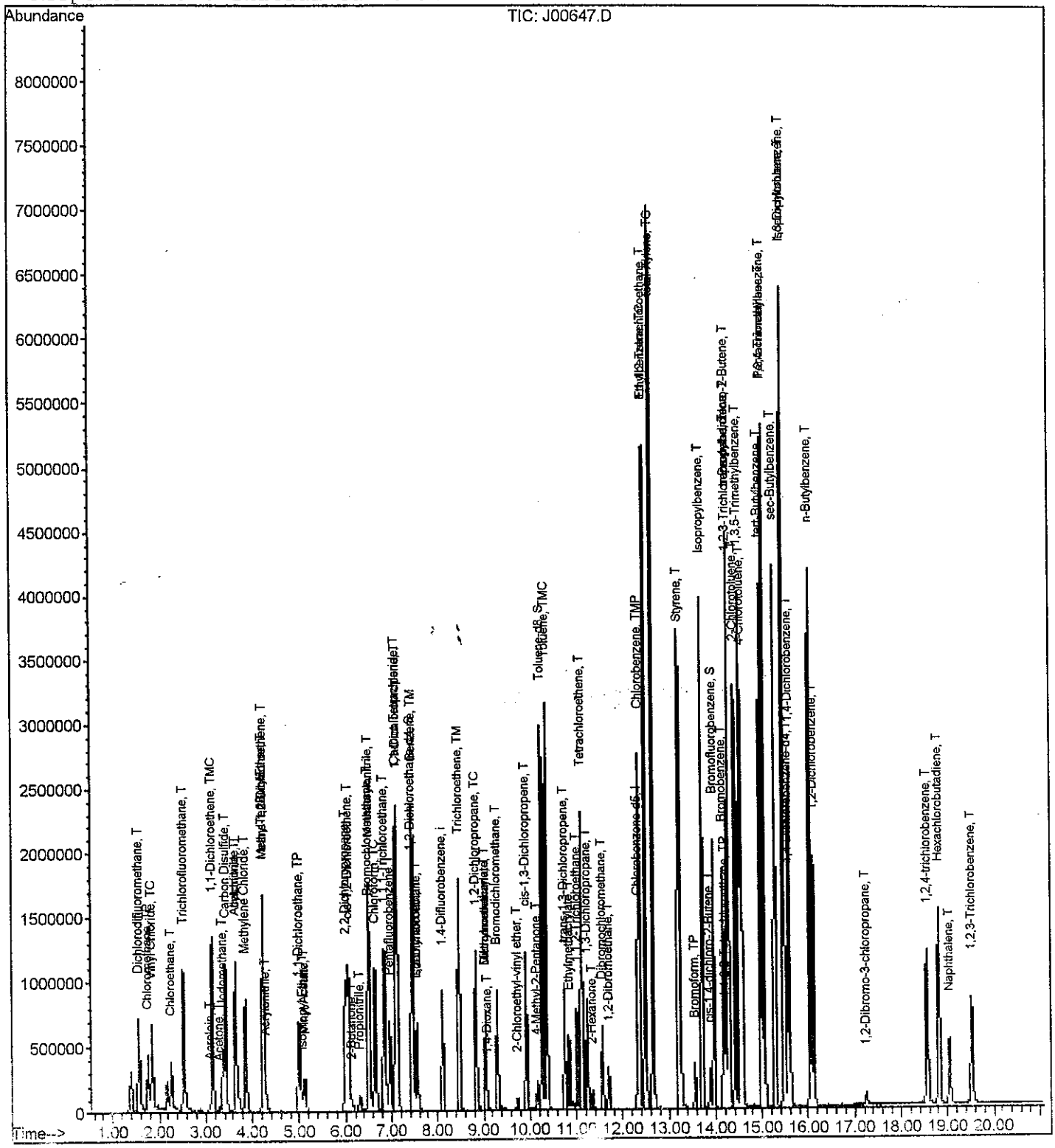
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) 1,3-Dichlorobenzene	15.47	146	1321544	20.68	ug\L	99
79) Isopropyltoluene	15.48	119	3072948	20.61	ug\L	100
80) 1,4-Dichlorobenzene	15.60	146	1297234	20.48	ug\L	100
81) 1,2-Dichlorobenzene	16.12	146	1045872	21.07	ug\L	98
82) n-Butylbenzene	16.05	91	3143772	21.11	ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	46575	21.60	ug\L	95
84) 1,2,4-trichlorobenzene	18.57	180	672803	21.00	ug\L	100
85) Hexachlorobutadiene	18.81	225	576641	19.80	ug\L	100
86) Naphthalene	19.05	128	771931	21.74	ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	504842	20.85	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00647.D Vial: 4
Acq On : 07/23/01 11:28 Operator: JP/VRR/DAT
Sample : ICAL 20ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00648.D Vial: 5
Acq On : 07/23/01 11:54 Operator: JP/VRR/DAT
Sample : ICAL 30ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	712045	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.33	117	863811	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	415551	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.12	116	2332	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	882835	29.24	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 292.40%#				
46) Toluene-d8	10.27	98	3805232	28.41	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 284.10%#				
66) Bromofluorobenzene	13.97	95	1429466	28.90	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 289.00%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	1478525	26.84	ug\L		99
3) Chloromethane	1.76	50	1023214	25.83	ug\L		99
4) Vinyl Chloride	1.85	62	1155940	26.94	ug\L		99
5) Bromomethane	2.24	94	50991	3.74	ug\L		98
6) Chloroethane	2.28	64	568026	26.99	ug\L		98
7) Trichlorofluoromethane	2.53	101	1733495	27.51	ug\L	#	100
8) Acrolein	3.09	56	73373	60.94	ug\L	#	97
9) Acrylonitrile	4.31	53	188443	61.47	ug\L		97
10) 1,1-Dichloroethene	3.16	96	985566	27.90	ug\L		98
11) Acetone	3.30	58	24416	27.09	ug\L		88
12) Iodomethane	3.38	142	1254773	29.81	ug\L		98
13) Allylchloride	3.66	39	1412557	29.50	ug\L		98
14) Carbon Disulfide	3.44	76	3279117	28.43	ug\L		99
15) Acetonitrile	3.66	41	1939073	297.78	ug\L		98
16) Methylene Chloride	3.86	86	538351	29.52	ug\L		98
17) trans-1,2-Dichloroethene	4.24	96	1048938	28.07	ug\L		98
18) MethylTertButylEther	4.23	73	1265742	31.23	ug\L		99
19) 1,1-Dichloroethane	5.00	63	1850968	28.50	ug\L		100
20) Isopropyl Ether	5.08	45	249400	29.88	ug\L	#	100
21) Vinyl Acetate	5.12	43	1114277	32.09	ug\L		100
22) 2,2-Dichloropropane	6.01	77	1709608	28.27	ug\L		100
23) cis-1,2-Dichloroethene	6.07	96	1011439	29.68	ug\L		99
24) 2-Butanone	6.15	72	25689	29.40	ug\L		96
25) Propionitrile	6.31	54	302607	299.58	ug\L		98
26) Methacrylonitrile	6.52	41	1885028	302.97	ug\L		99
27) Bromochloromethane	6.49	128	320990	28.48	ug\L		100
28) Chloroform	6.65	83	1937139	28.33	ug\L		99
29) 1,1,1-Trichloroethane	6.86	97	2077032	28.63	ug\L		99

(#) = Qualifier out of range (m) = manual integratio

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00648.D Vial: 5
Acq On : 07/23/01 11:54 Operator: JP/VRR/DAT
Sample : ICAL 30ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	7.11	119	1850792	28.87 ug\L	99
31) 1,4-Dioxane	9.08	88	47210	601.30 ug\L #	89
32) 1,1-Dichloropropene	7.13	77	506245	28.80 ug\L	98
34) Benzene	7.47	78	3896786	28.97 ug\L	100
35) Isobutyl alcohol	7.57	43	177538	594.98 ug\L	97
36) 1,2-Dichloroethane	7.57	62	1030982	29.32 ug\L	100
37) Trichloroethene	8.48	95	1241118	29.90 ug\L	99
38) 1,2-Dichloropropane	8.85	63	840813	29.84 ug\L	100
39) Dibromomethane	9.05	93	371102	30.82 ug\L	99
40) Methylmethacrylate	9.05	69	213221	29.77 ug\L	98
41) Bromodichloromethane	9.30	83	1220212	30.75 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.75	63	88955	32.49 ug\L	96
43) cis-1,3-Dichloropropene	9.93	75	1313077	32.39 ug\L	99
44) 4-Methyl-2-Pentanone	10.17	85	50458	29.70 ug\L #	99
47) Toluene	10.37	92	2523858	28.36 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	927933	32.22 ug\L	99
49) Ethylmethacrylate	10.85	69	548068	29.70 ug\L	99
50) 1,1,2-Trichloroethane	11.01	83	388924	29.76 ug\L	99
51) Tetrachloroethene	11.12	164	972948	28.24 ug\L	100
52) 1,3-Dichloropropane	11.23	76	859521	29.85 ug\L	100
53) 2-Hexanone	11.35	43	210434	30.02 ug\L	99
54) Dibromochloromethane	11.57	129	680393	31.83 ug\L	100
55) 1,2-Dibromoethane	11.71	107	438043	30.43 ug\L	99
56) Chlorobenzene	12.37	112	2596946	28.75 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	898731	29.26 ug\L	99
58) Ethylbenzene	12.50	91	5249514	28.47 ug\L	99
59) total-Xylene	12.66	106	5354753m	86.36 ug\L	
60) Styrene	13.25	104	2762472	30.03 ug\L	100
62) Bromoform	13.56	173	328440	32.52 ug\L	100
63) Isopropylbenzene	13.72	105	5224932	28.56 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	53	154393	29.44 ug\L #	100
65) trans-1,4-dichloro-2-Buten	14.29	53	165791	30.36 ug\L	99
67) Bromobenzene	14.18	156	964017	29.96 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.22	83	451318	29.20 ug\L	99
69) 1,2,3-Trichloropropane	14.27	75	538048	28.91 ug\L	99
70) n-Propylbenzene	14.29	91	6450747	27.39 ug\L	99
71) 2-Chlorotoluene	14.43	91	3888346	27.63 ug\L	99
72) 4-Chlorotoluene	14.58	91	4456771	28.40 ug\L	100
73) 1,3,5-Trimethylbenzene	14.53	105	4584608	27.65 ug\L	100
74) Pentachloroethane	15.06	167	587039	29.07 ug\L	100
75) tert-Butylbenzene	14.98	119	3848437	28.44 ug\L	100
76) 1,2,4-Trimethylbenzene	15.05	105	4492800	27.82 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00648.D Vial: 5
Acq On : 07/23/01 11:54 Operator: JP/VRR/DAT
Sample : ICAL 30ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

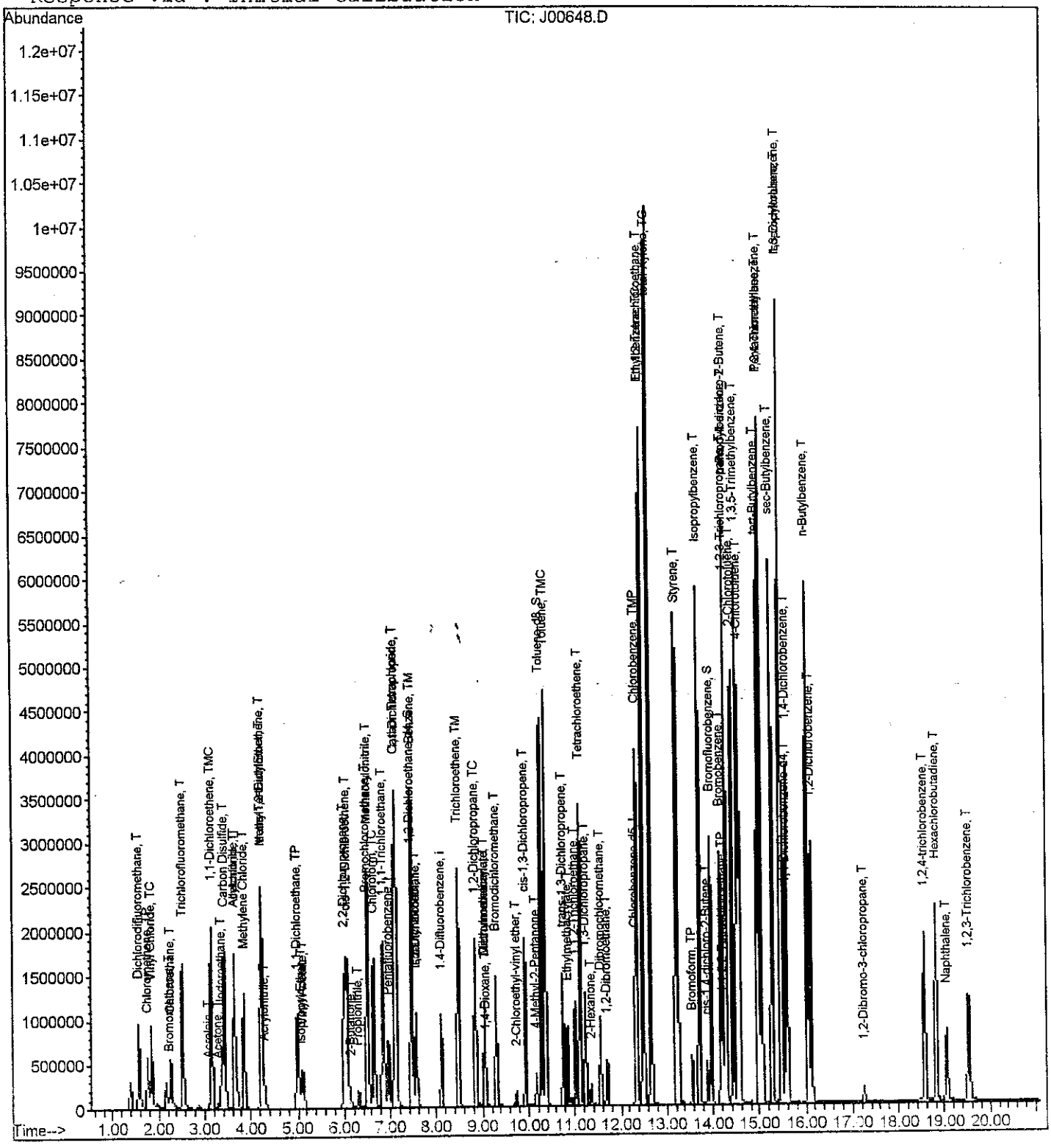
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	5905372	27.94 ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	1932508	27.85 ug\L	100
79) Isopropyltoluene	15.48	119	4548010	28.10 ug\L	100
80) 1,4-Dichlorobenzene	15.60	146	1948411	28.32 ug\L	100
81) 1,2-Dichlorobenzene	16.12	146	1568319	29.09 ug\L	99
82) n-Butylbenzene	16.05	91	4622788	28.59 ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	70681	30.19 ug\L	97
84) 1,2,4-trichlorobenzene	18.56	180	1031137	29.63 ug\L	100
85) Hexachlorobutadiene	18.81	225	839389	26.54 ug\L	100
86) Naphthalene	19.05	128	1211425	31.42 ug\L	100
87) 1,2,3-Trichlorobenzene	19.54	180	766098	29.13 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00648.D Vial: 5
Acq On : 07/23/01 11:54 Operator: JP/VRR/DAT
Sample : ICAL 30ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00649.D Vial: 6
Acq On : 07/23/01 12:20 Operator: JP/VRR/DAT
Sample : ICAL 40ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	724242	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.33	117	876488	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	398293	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.12	116	1666	10.00	ug\L		0.02
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	1205659	39.26	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 392.60%#				
46) Toluene-d8	10.28	98	5162259	37.99	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 379.90%#				
66) Bromofluorobenzene	13.97	95	1914249	40.37	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 403.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	1970464	35.17	ug\L		100
3) Chloromethane	1.77	50	1331211	33.04	ug\L		100
4) Vinyl Chloride	1.85	62	1522719	34.90	ug\L		100
5) Bromomethane	2.23	94	84182	7.42	ug\L		97
6) Chloroethane	2.27	64	746078	34.85	ug\L		100
7) Trichlorofluoromethane	2.54	101	2287299	35.69	ug\L	#	100
8) Acrolein	3.09	56	99924	81.59	ug\L	#	100
9) Acrylonitrile	4.30	53	254219	81.54	ug\L		100
10) 1,1-Dichloroethene	3.15	96	1342659	37.37	ug\L		100
11) Acetone	3.30	58	36364	39.67	ug\L		100
12) Iodomethane	3.38	142	1689844	39.30	ug\L		100
13) Allylchloride	3.65	39	1850985	38.00	ug\L		100
14) Carbon Disulfide	3.44	76	4456799	38.00	ug\L		100
15) Acetonitrile	3.66	41	2595408	391.86	ug\L		100
16) Methylene Chloride	3.86	86	726692	39.61	ug\L		100
17) trans-1,2-Dichloroethene	4.25	96	1402547	36.91	ug\L		100
18) MethylTertButylEther	4.23	73	1710398	41.49	ug\L		100
19) 1,1-Dichloroethane	5.00	63	2479897	37.54	ug\L		100
20) Isopropyl Ether	5.09	45	340053	39.74	ug\L	#	100
21) Vinyl Acetate	5.13	43	1537283	43.53	ug\L		100
22) 2,2-Dichloropropane	6.01	77	2241190	36.44	ug\L		100
23) cis-1,2-Dichloroethene	6.07	96	1326913	38.28	ug\L		100
24) 2-Butanone	6.15	72	35936	40.19	ug\L		100
25) Propionitrile	6.31	54	433907	422.34	ug\L		100
26) Methacrylonitrile	6.52	41	2541356	401.58	ug\L		100
27) Bromochloromethane	6.49	128	431106	37.61	ug\L		100
28) Chloroform	6.65	83	2594610	37.31	ug\L		100
29) 1,1,1-Trichloroethane	6.85	97	2775532	37.62	ug\L		100

(#) = qua[illegible]er [illegible] of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00649.D Vial: 6
Acq On : 07/23/01 12:20 Operator: JP/VRR/DAT
Sample : ICAL 40ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	7.11	119	2446253	37.51 ug\L	100
31) 1,4-Dioxane	9.09	88	64251	797.51 ug\L	100
32) 1,1-Dichloropropene	7.12	77	664424	37.16 ug\L	100
34) Benzene	7.47	78	5171920	37.81 ug\L	100
35) Isobutyl alcohol	7.57	43	244767	800.94 ug\L	100
36) 1,2-Dichloroethane	7.57	62	1390101	38.86 ug\L	100
37) Trichloroethene	8.48	95	1631888	38.65 ug\L	100
38) 1,2-Dichloropropane	8.84	63	1117952	39.01 ug\L	100
39) Dibromomethane	9.05	93	499149	40.76 ug\L	100
40) Methylmethacrylate	9.05	69	296757	40.26 ug\L	100
41) Bromodichloromethane	9.30	83	1651745	40.92 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.75	63	108595	38.78 ug\L	100
43) cis-1,3-Dichloropropene	9.93	75	1744323	42.31 ug\L	100
44) 4-Methyl-2-Pentanone	10.17	85	71219	40.56 ug\L #	100
47) Toluene	10.37	92	3334308	36.92 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	1267652	43.38 ug\L	100
49) Ethylmethacrylate	10.85	69	765207	40.38 ug\L	100
50) 1,1,2-Trichloroethane	11.02	83	531022	40.05 ug\L	100
51) Tetrachloroethene	11.12	164	1285263	36.77 ug\L	100
52) 1,3-Dichloropropane	11.24	76	1159122	39.67 ug\L	100
53) 2-Hexanone	11.35	43	291797	40.44 ug\L	100
54) Dibromochloromethane	11.56	129	910113	41.96 ug\L	100
55) 1,2-Dibromoethane	11.70	107	604333	41.38 ug\L	100
56) Chlorobenzene	12.36	112	3426977	37.40 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.49	131	1178924	37.83 ug\L	100
58) Ethylbenzene	12.50	91	6712189	35.88 ug\L	100
59) total-Xylene	12.66	106	6922809m	110.04 ug\L	
60) Styrene	13.25	104	3580505	38.35 ug\L	100
62) Bromoform	13.56	173	445920	46.07 ug\L	100
63) Isopropylbenzene	13.72	105	6764154	38.57 ug\L	100
64) cis-1,4-dichloro-2-Butene	13.88	53	208541	40.91 ug\L #	100
65) trans-1,4-dichloro-2-Buten	14.28	53	218711	41.79 ug\L	100
67) Bromobenzene	14.18	156	1256042	40.72 ug\L	100
68) 1,1,2,2-Tetrachloroethane	14.22	83	612892	41.37 ug\L	100
69) 1,2,3-Trichloropropane	14.28	75	711375	39.87 ug\L	100
70) n-Propylbenzene	14.29	91	8252779	36.56 ug\L	100
71) 2-Chlorotoluene	14.43	91	5050552	37.44 ug\L	100
72) 4-Chlorotoluene	14.58	91	5755148	38.26 ug\L	100
73) 1,3,5-Trimethylbenzene	14.53	105	5923556	37.27 ug\L	100
74) Pentachloroethane	15.05	167	768297	39.70 ug\L	100
75) tert-Butylbenzene	14.98	119	4908546	37.85 ug\L	100
76) 1,2,4-Trimethylbenzene	15.06	105	5712332	36.91 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00649.D Vial: 6
Acq On : 07/23/01 12:20 Operator: JP/VRR/DAT
Sample : ICAL 40ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

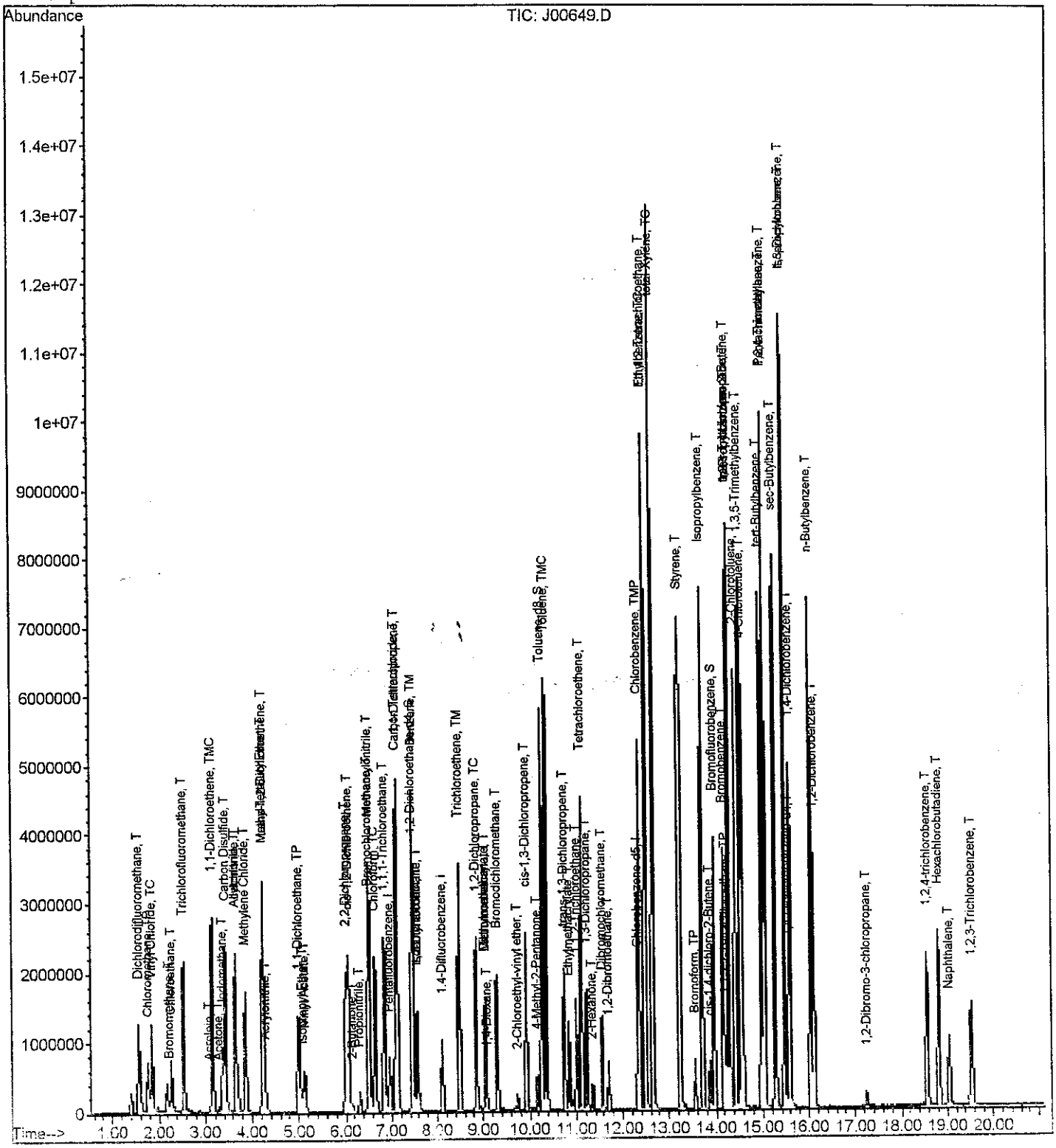
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.28	105	7412081	36.59	ug\L	100
78) 1,3-Dichlorobenzene	15.47	146	2439396	36.68	ug\L	100
79) Isopropyltoluene	15.48	119	5694384	36.70	ug\L	100
80) 1,4-Dichlorobenzene	15.60	146	2508542	38.05	ug\L	100
81) 1,2-Dichlorobenzene	16.12	146	1966966	38.07	ug\L	100
82) n-Butylbenzene	16.05	91	5837851	37.66	ug\L	100
83) 1,2-Dibromo-3-chloropropan	17.25	75	88255	39.33	ug\L	100
84) 1,2,4-trichlorobenzene	18.56	180	1245252	37.34	ug\L	100
85) Hexachlorobutadiene	18.82	225	976526	32.21	ug\L	100
86) Naphthalene	19.05	128	1527989	41.35	ug\L	100
87) 1,2,3-Trichlorobenzene	19.53	180	946684	37.56	ug\L	100

(# = qualifier out of range (m) = manual integration
J00649.D 07230125.M Mon Jul 23 13:57:50 2001 Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00649.D Vial: 6
Acq On : 07/23/01 12:20 Operator: JP/VRR/DAT
Sample : ICAL 40ppb (V01074,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 13:57 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 13:46:51 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 14:18 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	566074	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.32	117	678965	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	313816	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.12	116	1107	10.00	ug\L		0.02
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	259998	10.83	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 108.30%				
46) Toluene-d8	10.27	98	1111749	10.56	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#				
66) Bromofluorobenzene	13.96	95	400147	10.71	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 107.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	443559	10.13	ug\L		99
3) Chloromethane	1.76	50	318634	10.12	ug\L		99
4) Vinyl Chloride	1.85	62	340118	9.97	ug\L		98
5) Bromomethane	2.16	94	84815	10.45	ug\L		97
6) Chloroethane	2.27	64	176302	10.54	ug\L		90
7) Trichlorofluoromethane	2.53	101	535731	10.70	ug\L	#	100
8) Acrolein	3.08	56	18181	18.99	ug\L	#	76
9) Acrylonitrile	4.30	53	52165	21.41	ug\L		97
10) 1,1-Dichloroethene	3.15	96	287043	10.22	ug\L		94
11) Acetone	3.29	58	7775	10.88	ug\L		76
12) Iodomethane	3.38	142	231836	7.39	ug\L		99
13) Allylchloride	3.65	39	408657	10.73	ug\L		99
14) Carbon Disulfide	3.43	76	923780	10.08	ug\L		99
15) Acetonitrile	3.65	41	574718	111.02	ug\L		100
16) Methylene Chloride	3.85	86	158497	10.10	ug\L		98
17) trans-1,2-Dichloroethene	4.24	96	304843	10.26	ug\L		97
18) MethylTertButylEther	4.23	73	337565	10.48	ug\L		100
19) 1,1-Dichloroethane	4.99	63	522021	10.11	ug\L		100
20) Isopropyl Ether	5.07	45	64540	10.32	ug\L	#	44
21) Vinyl Acetate	5.12	43	280261	10.15	ug\L		97
22) 2,2-Dichloropropane	6.00	77	526233	10.95	ug\L		100
23) cis-1,2-Dichloroethene	6.06	96	281875	10.40	ug\L		98
24) 2-Butanone	6.15	72	7135	11.26	ug\L		80
25) Propionitrile	6.30	54	82761	103.06	ug\L	#	87
26) Methacrylonitrile	6.51	41	518509	104.83	ug\L		98
27) Bromochloromethane	6.48	128	89027	9.94	ug\L		96
28) Chloroform	6.64	83	551897	10.15	ug\L		97
29) 1,1,1-Trichloroethane	6.85	97	594512	10.31	ug\L		99

#) = qualifier out of range (m) = manual integration
07230125.M Mon Jul 23 14:18:23 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 14:18 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	7.09	119	527935	10.36 ug\L		100
31) 1,4-Dioxane	9.09	88	12415	212.87 ug\L	#	89
32) 1,1-Dichloropropene	7.12	77	144933	10.37 ug\L		94
34) Benzene	7.47	78	1108557	10.37 ug\L		100
35) Isobutyl alcohol	7.57	43	41015	183.26 ug\L		95
36) 1,2-Dichloroethane	7.56	62	290270	10.38 ug\L		99
37) Trichloroethene	8.48	95	342981	10.39 ug\L		98
38) 1,2-Dichloropropane	8.84	63	233591	10.43 ug\L	#	95
39) Dibromomethane	9.05	93	97186	10.15 ug\L		98
40) Methylmethacrylate	9.05	69	52465	10.08 ug\L		95
41) Bromodichloromethane	9.29	83	324536	10.29 ug\L		100
42) 2-Chloroethyl-vinyl ether	9.73	63	18838	9.42 ug\L		97
43) cis-1,3-Dichloropropene	9.93	75	339385	10.53 ug\L		97
44) 4-Methyl-2-Pentanone	10.17	85	12358	10.31 ug\L	#	89
47) Toluene	10.36	92	707066	10.11 ug\L		100
48) trans-1,3-Dichloropropene	10.75	75	238717	10.54 ug\L		98
49) Ethylmethacrylate	10.85	69	127040	9.68 ug\L		97
50) 1,1,2-Trichloroethane	11.01	83	105023	10.23 ug\L		98
51) Tetrachloroethene	11.12	164	278308	10.28 ug\L		98
52) 1,3-Dichloropropane	11.24	76	234432	10.36 ug\L		99
53) 2-Hexanone	11.34	43	48472	9.88 ug\L		96
54) Dibromochloromethane	11.56	129	167088	9.95 ug\L		99
55) 1,2-Dibromoethane	11.70	107	114539	10.12 ug\L		99
56) Chlorobenzene	12.36	112	711479	10.02 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.49	131	242953	10.06 ug\L		99
58) Ethylbenzene	12.49	91	1517464	10.47 ug\L		99
59) total-Xylene	12.66	106	1513149m	31.05 ug\L		
60) Styrene	13.25	104	728350	10.07 ug\L		96
62) Bromoform	13.56	173	75137	9.85 ug\L		95
63) Isopropylbenzene	13.71	105	1462769	10.59 ug\L		99
64) cis-1,4-dichloro-2-Butene	13.88	53	33647	9.49 ug\L	#	85
65) trans-1,4-dichloro-2-Buten	14.29	53	45026	10.92 ug\L		86
67) Bromobenzene	14.17	156	246176	10.13 ug\L	#	97
68) 1,1,2,2-Tetrachloroethane	14.22	83	121329	10.39 ug\L		99
69) 1,2,3-Trichloropropane	14.27	75	145041	10.32 ug\L		91
70) n-Propylbenzene	14.29	91	1894785	10.65 ug\L		99
71) 2-Chlorotoluene	14.43	91	1101056	10.39 ug\L		100
72) 4-Chlorotoluene	14.58	91	1103856	9.31 ug\L		99
73) 1,3,5-Trimethylbenzene	14.53	105	1309215	10.46 ug\L		99
74) Pentachloroethane	15.05	167	154967	10.16 ug\L		97
75) tert-Butylbenzene	14.98	119	1056284	10.34 ug\L		99
76) 1,2,4-Trimethylbenzene	15.05	105	1276262	10.47 ug\L		100

(#) = qualifier out of range (m) manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 14:18 2001 Quant Results File: 07230125.RES

Quant Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

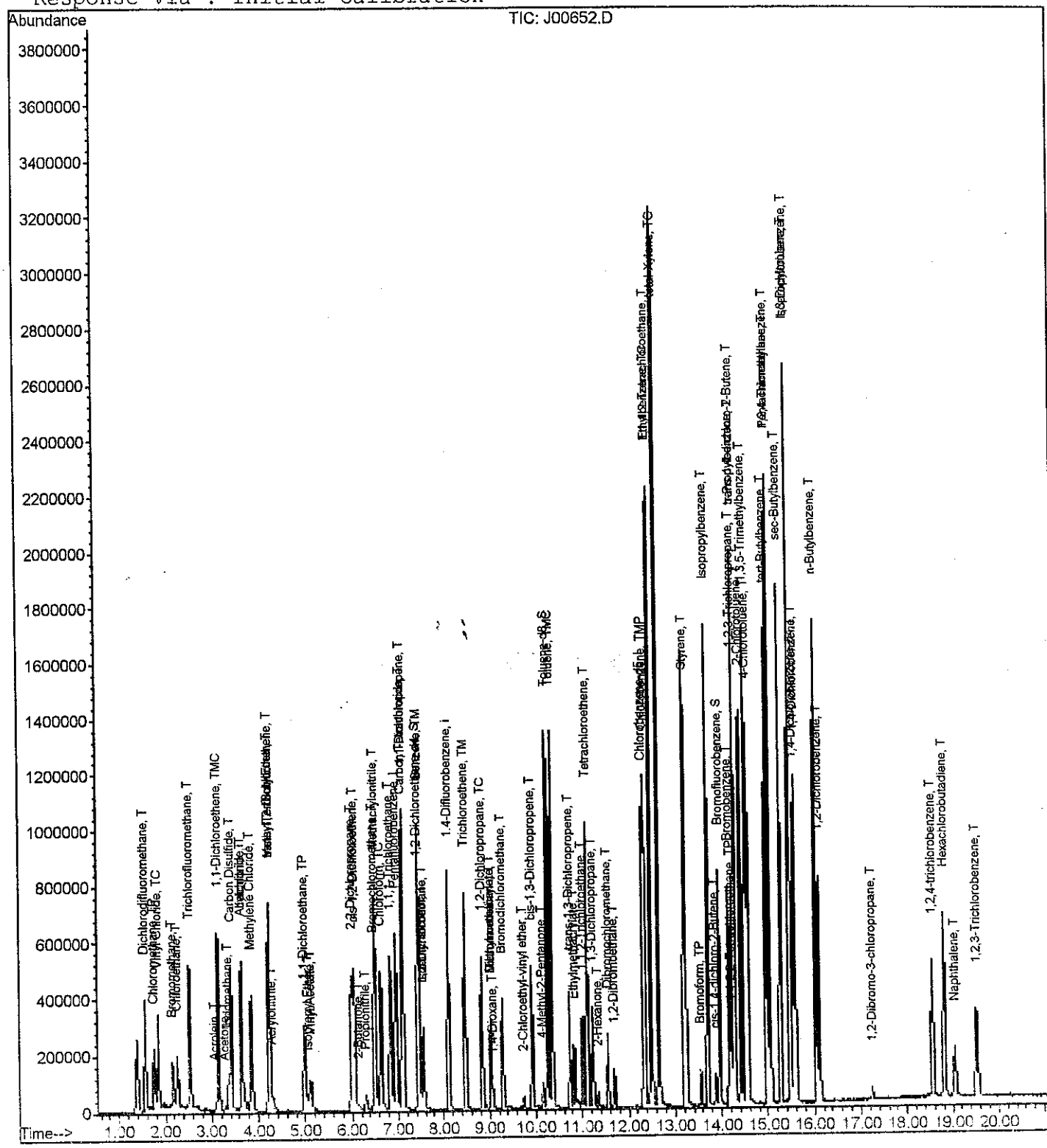
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1692710	10.61	ug\L	99
78)	1,3-Dichlorobenzene	15.47	146	536724	10.24	ug\L	98
79)	Isopropyltoluene	15.48	119	1290508	10.56	ug\L	98
80)	1,4-Dichlorobenzene	15.60	146	527935	10.16	ug\L	98
81)	1,2-Dichlorobenzene	16.12	146	412944	10.14	ug\L	99
82)	n-Butylbenzene	16.04	91	1307945	10.71	ug\L	99
83)	1,2-Dibromo-3-chloropropan	17.26	75	17380	9.83	ug\L	96
84)	1,2,4-trichlorobenzene	18.56	180	258098	9.82	ug\L	100
85)	Hexachlorobutadiene	18.81	225	242244	10.14	ug\L	100
86)	Naphthalene	19.05	128	259683	8.92	ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	190828	9.61	ug\L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 14:18 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	95	0.00
2	T	Dichlorodifluoromethane	0.774	0.784	-1.3	91	0.00
3	TP	Chloromethane	0.556	0.563	-1.3	90	0.00
4	TC	Vinyl Chloride	0.602	0.601	0.2	88	0.00
5	T	Bromomethane	0.163	0.150	8.0	79	-0.01
6	T	Chloroethane	0.296	0.311	-5.1	91	0.00
7	T	Trichlorofluoromethane	0.885	0.946	-6.9	98	0.00
8	T	Acrolein	0.017	0.016	5.9	97	-0.02
9	T	Acrylonitrile	0.043	0.046	-7.0	106	0.00
10	TMC	1,1-Dichloroethene	0.496	0.507	-2.2	93	0.00
11	T	Acetone	0.013	0.014	-7.7	94	-0.02
12	T	Iodomethane	0.495	0.410	17.2	71	0.00
13	T	Allylchloride	0.673	0.722	-7.3	98	0.00
14	T	Carbon Disulfide	1.620	1.632	-0.7	98	0.00
15	T	Acetonitrile	0.091	0.102	-12.1	101	-0.02
16	T	Methylene Chloride	0.304	0.280	7.9	93	0.00
17	T	trans-1,2-Dichloroethene	0.525	0.539	-2.7	93	0.00
18	T	MethylTertButylEther	0.569	0.596	-4.7	107	0.00
19	TP	1,1-Dichloroethane	0.912	0.922	-1.1	97	0.00
20	T	Isopropyl Ether	0.110	0.114	-3.6	106	-0.01
21	T	Vinyl Acetate	0.488	0.495	-1.4	109	0.00
22	T	2,2-Dichloropropane	0.849	0.930	-9.5	94	0.00
23	T	cis-1,2-Dichloroethene	0.479	0.498	-4.0	96	0.00
24	T	2-Butanone	0.011	0.013	-18.2	104	0.00
25	T	Propionitrile	0.014	0.015	-7.1	106	0.00
26	T	Methacrylonitrile	0.087	0.092	-5.7	103	-0.02
27	T	Bromochloromethane	0.158	0.157	0.6	95	-0.02
28	TC	Chloroform	0.960	0.975	-1.6	95	0.00
29	T	1,1,1-Trichloroethane	1.019	1.050	-3.0	94	0.00
30	T	Carbon Tetrachloride	0.900	0.933	-3.7	93	0.00
31	T	1,4-Dioxane	0.001	0.001	0.0	131	0.00
32	T	1,1-Dichloropropene	0.247	0.256	-3.6	95	-0.02
33	S	1,2-Dichloroethane-d4	0.424	0.459	-8.3	103	0.00
34	TM	Benzene	1.889	1.958	-3.7	95	0.00
35	T	Isobutyl alcohol	0.004	0.004	0.0	120	0.00
36	T	1,2-Dichloroethane	0.494	0.513	-3.8	98	0.00
37	TM	Trichloroethene	0.583	0.606	-3.9	94	0.00
38	TC	1,2-Dichloropropane	0.396	0.413	-4.3	99	0.00
39	T	Dibromomethane	0.169	0.172	-1.8	97	0.00
40	T	Methylmethacrylate	0.087	0.093	-6.9	113	0.00
41	T	Bromodichloromethane	0.557	0.573	-2.9	96	0.00
42	T	2-Chloroethyl-vinyl ether	0.035	0.033	5.7	108	0.00

(#) = C Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D Vial: 8
Acq On : 07/23/01 13:57 Operator: JP/VRR/DAT
Sample : ICV 10ppb (V01069,V01073) Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.569	0.600	-5.4	99	0.00
44	T	4-Methyl-2-Pentanone	0.020	0.022	-10.0	130	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
46	S	Toluene-d8	1.550	1.637	-5.6	95	0.00
47	TMC	Toluene	1.030	1.041	-1.1	92	0.00
48	T	trans-1,3-Dichloropropene	0.333	0.352	-5.7	99	0.00
49	T	Ethylmethacrylate	0.183	0.187	-2.2	106	0.00
50	T	1,1,2-Trichloroethane	0.151	0.155	-2.6	101	0.00
51	T	Tetrachloroethene	0.399	0.410	-2.8	90	0.00
52	T	1,3-Dichloropropane	0.333	0.345	-3.6	96	0.00
53	T	2-Hexanone	0.071	0.071	0.0	122	0.00
54	T	Dibromochloromethane	0.247	0.246	0.4	96	0.00
55	T	1,2-Dibromoethane	0.167	0.169	-1.2	100	0.00
56	TMP	Chlorobenzene	1.046	1.048	-0.2	92	0.00
57	T	1,1,1,2-Tetrachloroethane	0.356	0.358	-0.6	93	0.00
58	TC	Ethylbenzene	2.135	2.235	-4.7	92	0.00
59	TG	total-Xylene	0.718	0.743	-3.5	92	0.00
60	T	Styrene	1.065	1.073	-0.8	90	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00
62	TP	Bromoform	0.243	0.239	1.6	91	0.00
63	T	Isopropylbenzene	4.403	4.661	-5.9	90	0.00
64	T	cis-1,4-dichloro-2-Butene	0.108	0.107	0.9	98	0.00
65	T	trans-1,4-dichloro-2-Butene	0.131	0.143	-9.2	100	0.00
66	S	Bromofluorobenzene	1.190	1.275	-7.1	95	0.00
67	T	Bromobenzene	0.774	0.784	-1.3	91	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.372	0.387	-4.0	100	0.00
69	T	1,2,3-Trichloropropane	0.448	0.462	-3.1	94	0.00
70	T	n-Propylbenzene	5.667	6.038	-6.5	90	0.00
71	T	2-Chlorotoluene	3.377	3.509	-3.9	91	0.00
72	T	4-Chlorotoluene	3.777	3.518	6.9	81	0.00
73	T	1,3,5-Trimethylbenzene	3.990	4.172	-4.6	90	0.00
74	T	Pentachloroethane	0.486	0.494	-1.6	92	0.00
75	T	tert-Butylbenzene	3.256	3.366	-3.4	87	0.00
76	T	1,2,4-Trimethylbenzene	3.886	4.067	-4.7	91	0.00
77	T	sec-Butylbenzene	5.086	5.394	-6.1	90	0.00
78	T	1,3-Dichlorobenzene	1.670	1.710	-2.4	91	0.00
79	T	Isopropyltoluene	3.895	4.112	-5.6	89	0.00
80	T	1,4-Dichlorobenzene	1.655	1.682	-1.6	91	0.00
81	T	1,2-Dichlorobenzene	1.297	1.316	-1.5	91	0.00
82	T	n-Butylbenzene	3.892	4.168	-7.1	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00652.D
Acq On : 07/23/01 13:57
Sample : ICV 10ppb (V01069,V01073)
Misc : 25ml
MS Integration Params: rteint.p

Vial: 8
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.056	0.055	1.8	99	0.00
84	T	1,2,4-trichlorobenzene	0.837	0.822	1.8	89	0.00
85	T	Hexachlorobutadiene	0.761	0.772	-1.4	88	0.00
86	T	Naphthalene	0.928	0.828	10.8	89	0.00
87	T	1,2,3-Trichlorobenzene	0.633	0.608	3.9	91	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	82	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28368

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%	%	%
8260B	Chloromethane	106	102			60-140	20-150	4%	#VALUE!	<30	<50	108		38-116	38-116			<50	<75
8260B	Bromomethane	115	106			60-140	20-150	9%	#VALUE!	<30	<50	111		49-117	49-117			<50	<75
8260B	Vinyl Chloride	100	103			60-140	20-150	3%	#VALUE!	<30	<50	110		31-121	31-121			<50	<75
8260B	Chloroethane	106	101			60-140	20-150	5%	#VALUE!	<30	<50	111		62-116	62-116			<50	<75
8260B	Methylene Chloride	109	104			60-140	20-150	5%	#VALUE!	<30	<50	108		55-126	55-126			<50	<75
8260B	Acetone	563	494			60-140	20-150	13%	#VALUE!	<30	<50	133		43-165	43-165			<50	<75
8260B	Carbon Disulfide	112	104			60-140	20-150	7%	#VALUE!	<30	<50	107		76-119	76-119			<50	<75
8260B	1,1-Dichloroethene	100	99			60-140	20-150	1%	#VALUE!	<30	<50	110		54-128	54-128			<50	<75
8260B	1,1-Dichloroethane	106	105			60-140	20-150	1%	#VALUE!	<30	<50	109		62-141	62-141			<50	<75
8260B	cis-1,2-Dichloroethene	109	104			60-140	20-150	5%	#VALUE!	<30	<50	109		70-131	60-141			<50	<75
8260B	trans-1,2-Dichloroethene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	109		61-138	51-148			<50	<75
8260B	Chloroform	104	100			60-140	20-150	4%	#VALUE!	<30	<50	104		65-129	65-129			<50	<75
8260B	1,2-Dichloroethane	115	111			60-140	20-150	4%	#VALUE!	<30	<50	110		68-135	68-135			<50	<75
8260B	2-Butanone	107	103			60-140	20-150	3%	#VALUE!	<30	<50	107		50-163	50-163			<50	<75
8260B	1,1,1-Trichloroethane	110	106			60-140	20-150	4%	#VALUE!	<30	<50	108		68-135	68-135			<50	<75
8260B	Carbon Tetrachloride	109	103			60-140	20-150	5%	#VALUE!	<30	<50	109		67-125	67-125			<50	<75
8260B	Bromodichloromethane	95	99			60-140	20-150	3%	#VALUE!	<30	<50	89		68-135	58-145			<50	<75
8260B	1,2-Dichloropropane	115	108			60-140	20-150	6%	#VALUE!	<30	<50	110		76-132	76-132			<50	<75
8260B	Cis-1,3-Dichloropropene	108	105			60-140	20-150	3%	#VALUE!	<30	<50	110		70-122	70-122			<50	<75
8260B	Trichloroethylene	115	111			60-140	20-150	4%	#VALUE!	<30	<50	110		67-137	67-137			<50	<75
8260B	Dibromochloromethane	99	100			60-140	20-150	1%	#VALUE!	<30	<50	106		64-120	64-120			<50	<75
8260B	1,1,2-Trichloroethane	107	104			60-140	20-150	3%	#VALUE!	<30	<50	108		70-141	70-141			<50	<75
8260B	Benzene	111	106			60-140	20-150	5%	#VALUE!	<30	<50	18		51-139	51-139			<50	<75
8260B	trans-1,3-Dichloropropene	103	101			60-140	20-150	2%	#VALUE!	<30	<50	112		42-154	42-154			<50	<75
8260B	Bromoform	98	96			60-140	20-150	3%	#VALUE!	<30	<50	111		67-129	67-129			<50	<75
8260B	4-Methyl-2-Pentanone	93	95			60-140	20-150	2%	#VALUE!	<30	<50	86		77-119	77-119			<50	<75
8260B	2-Hexanone	95	94			60-140	20-150	1%	#VALUE!	<30	<50	90		47-165	47-165			<50	<75
8260B	Tetrachloroethylene	95	94			60-140	20-150	1%	#VALUE!	<30	<50	103		67-131	67-131			<50	<75
8260B	Toluene	101	98			60-140	20-150	3%	#VALUE!	<30	<50	108		31-137	31-137			<50	<75
8260B	1,1,2,2-Tetrachloroethane	110	107			60-140	20-150	3%	#VALUE!	<30	<50	109		55-138	55-138			<50	<75
8260B	Chlorobenzene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		69-140	69-140			<50	<75
8260B	Ethylbenzene	105	101			60-140	20-150	4%	#VALUE!	<30	<50	108		59-140	59-140			<50	<75
8260B	Styrene	104	102			60-140	20-150	2%	#VALUE!	<30	<50	106		71-133	71-133			<50	<75
8260B	Xylenes, Total	104	100			60-140	20-150	4%	#VALUE!	<30	<50	106		68-133	68-133			<50	<75
8260B	4-Bromofluorobenzene (Surr)	102	97			75-125	65-135	5%	#VALUE!			102							
8260B	1,2-Dichloroethane-d4 (Surr)	104	102			62-139	52-149	1%	#VALUE!			109							
8260B	Toluene-d8 (Surr)	101	97			75-125	65-135	4%	#VALUE!			106							

Notes:
1. SW-846, latest edition, unless otherwise noted
2. Includes sediments, waste solids

Page 1 of 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00653.D Vial: 9
Acq On : 07/23/01 14:39 Operator: JP/VRR/DAT
Sample : IJ072301MB Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:03 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	639470	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	711618	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	282418	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.44	65	253883	9.36	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.60%			
46) Toluene-d8	10.27	98	1067067	9.67	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.70%			
66) Bromofluorobenzene	13.97	95	350503	10.43	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.30%			

Target Compounds Qvalue

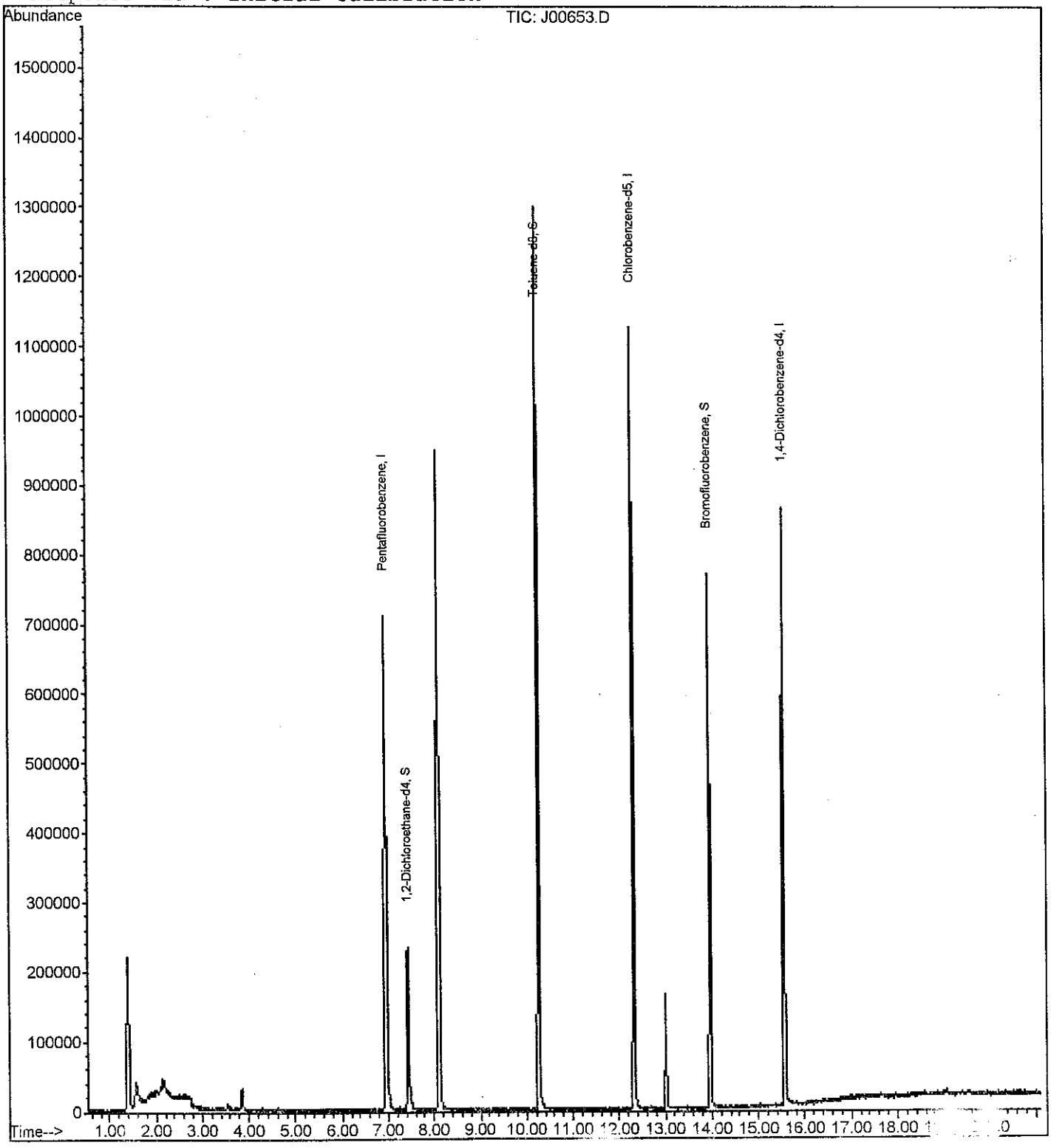
VRR
7.23.01

(#) = qualifier out of range (m) = manual integrati
J00653 07230125.M Mon Jul 23 17:34:15 200

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00653.D Vial: 9
Acq On : 07/23/01 14:39 Operator: JP/VRR/DAT
Sample : IJ072301MB Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:03 2001 Quant Results File: 07230125.RES

Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00654.D Vial: 10
Acq On : 07/23/01 15:13 Operator: JP/VRR/DAT
Sample : IJ072301LCS Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:34 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.96	168	506197	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.32	117	611658	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	267107	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	807	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.43	65	246657	11.49	ug\L		-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 114.90%				
46) Toluene-d8	10.27	98	1004010	10.59	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.90%#				
66) Bromofluorobenzene	13.97	95	325703	10.24	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.56	85	448711	11.46	ug\L		99
3) Chloromethane	1.76	50	304047	10.80	ug\L		100
4) Vinyl Chloride	1.84	62	335705	11.01	ug\L		97
5) Bromomethane	2.16	94	79872	11.09	ug\L		93
6) Chloroethane	2.26	64	166728	11.14	ug\L		93
7) Trichlorofluoromethane	2.53	101	500009	11.16	ug\L	#	100
8) Acrolein	3.08	56	19639	22.94	ug\L	#	94
9) Acrylonitrile	4.30	53	47127	21.63	ug\L		95
10) 1,1-Dichloroethene	3.14	96	275057	10.95	ug\L		96
11) Acetone	3.30	58	8502	13.31	ug\L		79
12) Iodomethane	3.37	142	243904	8.58	ug\L		96
13) Allylchloride	3.65	39	391771	11.51	ug\L		96
14) Carbon Disulfide	3.42	76	877845	10.71	ug\L		99
15) Acetonitrile	3.65	41	532717	115.08	ug\L		97
16) Methylene Chloride	3.85	86	150379	10.79	ug\L		98
17) trans-1,2-Dichloroethene	4.23	96	288190	10.85	ug\L		97
18) MethylTertButylEther	4.22	73	308403	10.70	ug\L		97
19) 1,1-Dichloroethane	4.99	63	501278	10.86	ug\L		99
20) Isopropyl Ether	5.08	45	61289	10.96	ug\L	#	53
21) Vinyl Acetate	5.11	43	252529	10.23	ug\L		98
22) 2,2-Dichloropropane	6.00	77	470150	10.94	ug\L		99
23) cis-1,2-Dichloroethene	6.06	96	259510	10.71	ug\L		97
24) 2-Butanone	6.15	72	6579	11.61	ug\L	#	90
25) Propionitrile	6.31	54	81550	113.57	ug\L	#	89
26) Methacrylonitrile	6.51	41	521349	117.87	ug\L		97
27) Bromochloromethane	6.49	128	83039	10.36	ug\L		95
28) Chloroform	6.63	83	526039	10.82	ug\L		99
29) 1,1,1-Trichloroethane	6.84	97	562900	10.91	ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00654.D Vial: 10
Acq On : 07/23/01 15:13 Operator: JP/VRR/DAT
Sample : IJ072301LCS Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:34 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	7.09	119	510708	11.20 ug\L		97
31) 1,4-Dioxane	9.08	88	11211	214.76 ug\L	#	18
32) 1,1-Dichloropropene	7.12	77	136581	10.93 ug\L		95
34) Benzene	7.46	78	1067882	11.17 ug\L		100
35) Isobutyl alcohol	7.57	43	41667	206.24 ug\L		100
36) 1,2-Dichloroethane	7.56	62	274261	10.97 ug\L		99
37) Trichloroethene	8.47	95	324091	10.98 ug\L		97
38) 1,2-Dichloropropane	8.84	63	216523	10.81 ug\L	#	96
39) Dibromomethane	9.05	93	94620	11.06 ug\L		97
40) Methylmethacrylate	9.05	69	47532	10.19 ug\L		95
41) Bromodichloromethane	9.30	83	306380	10.86 ug\L		99
42) 2-Chloroethyl-vinyl ether	9.74	63	6873	4.46 ug\L	#	56
43) cis-1,3-Dichloropropene	9.93	75	316738	10.99 ug\L		97
44) 4-Methyl-2-Pentanone	10.16	85	10962	10.24 ug\L	#	92
47) Toluene	10.36	92	679162	10.78 ug\L		99
48) trans-1,3-Dichloropropene	10.75	75	228558	11.21 ug\L		99
49) Ethylmethacrylate	10.85	69	122941	10.30 ug\L		97
50) 1,1,2-Trichloroethane	11.01	83	99978	10.81 ug\L		97
51) Tetrachloroethene	11.11	164	251330	10.30 ug\L		97
52) 1,3-Dichloropropane	11.24	76	222893	10.93 ug\L		100
53) 2-Hexanone	11.35	43	47223	10.56 ug\L		98
54) Dibromochloromethane	11.56	129	160545	10.61 ug\L		99
55) 1,2-Dibromoethane	11.70	107	107412	10.54 ug\L		98
56) Chlorobenzene	12.36	112	663986	10.38 ug\L		98
57) 1,1,1,2-Tetrachloroethane	12.49	131	223706	10.29 ug\L		98
58) Ethylbenzene	12.50	91	1411261	10.81 ug\L		99
59) total-Xylene	12.66	106	1397785m	31.84 ug\L		
60) Styrene	13.25	104	692319	10.63 ug\L		97
62) Bromoform	13.56	173	72318	11.14 ug\L		94
63) Isopropylbenzene	13.72	105	1354070	11.51 ug\L		99
64) cis-1,4-dichloro-2-Butene	13.88	53	31723	10.36 ug\L	#	92
65) trans-1,4-dichloro-2-Buten	14.28	53	37770	10.76 ug\L		92
67) Bromobenzene	14.18	156	209117	10.11 ug\L		97
68) 1,1,2,2-Tetrachloroethane	14.22	83	108306	10.90 ug\L		97
69) 1,2,3-Trichloropropane	14.27	75	126786	10.60 ug\L		90
70) n-Propylbenzene	14.29	91	1618914	10.69 ug\L		98
71) 2-Chlorotoluene	14.43	91	942481	10.45 ug\L		100
72) 4-Chlorotoluene	14.59	91	1082566	10.73 ug\L		94
73) 1,3,5-Trimethylbenzene	14.53	105	1127799	10.58 ug\L		100
74) Pentachloroethane	15.05	167	132808	10.23 ug\L		98
75) tert-Butylbenzene	14.98	119	912043	10.49 ug\L		99
76) 1,2,4-Trimethylbenzene	15.05	105	1105031	10.65 ug\L		99

(# = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00654.D Vial: 10
Acq On : 07/23/01 15:13 Operator: JP/VRR/DAT
Sample : IJ072301LCS Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:34 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

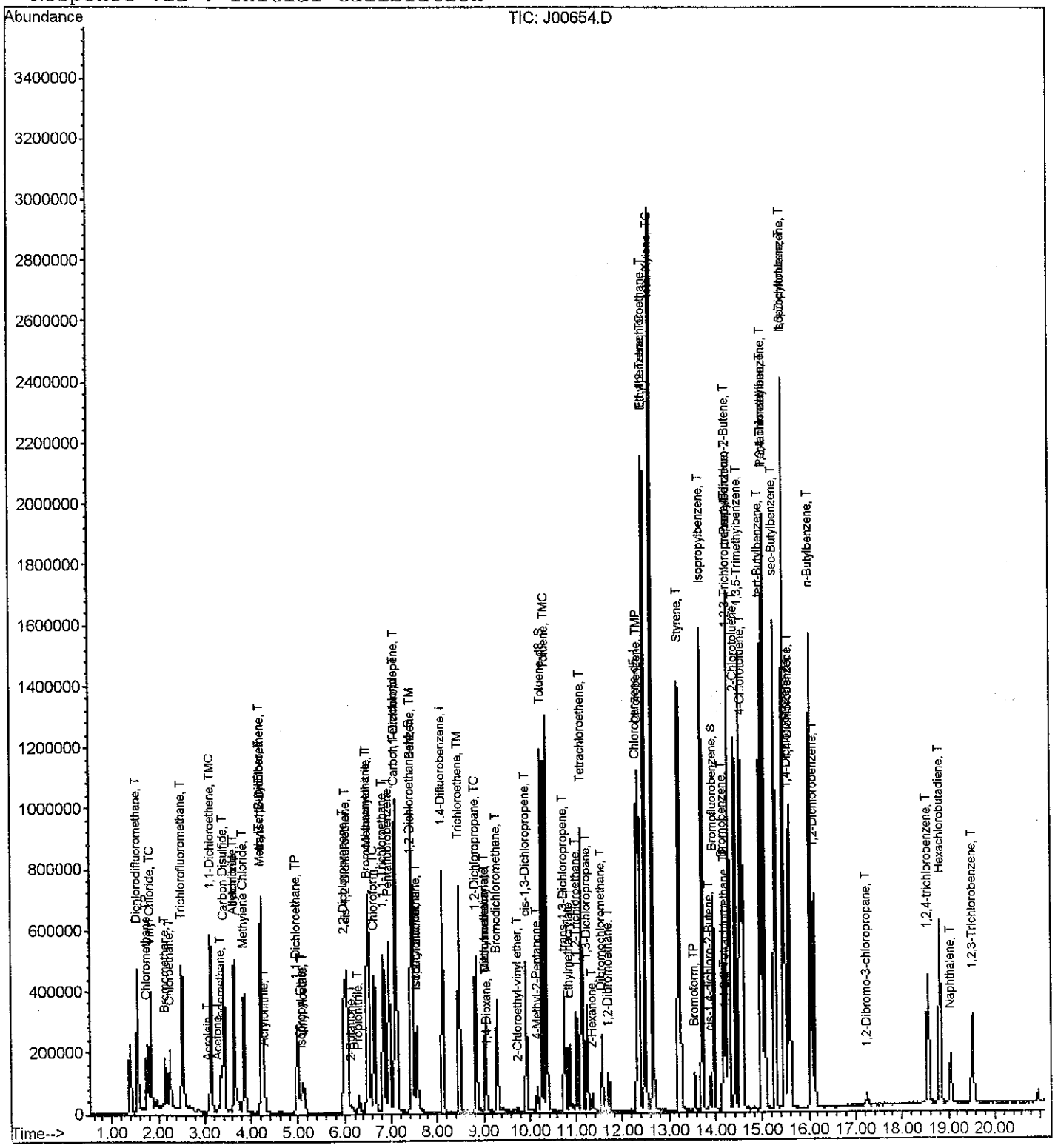
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.28	105	1447714	10.66	ug\L	98
78)	1,3-Dichlorobenzene	15.47	146	464007	10.40	ug\L	99
79)	Isopropyltoluene	15.48	119	1111500	10.68	ug\L	98
80)	1,4-Dichlorobenzene	15.60	146	448609	10.15	ug\L	98
81)	1,2-Dichlorobenzene	16.12	146	360099	10.39	ug\L	99
82)	n-Butylbenzene	16.05	91	1156063	11.12	ug\L	98
83)	1,2-Dibromo-3-chloropropan	17.24	75	17228	11.45	ug\L	92
84)	1,2,4-trichlorobenzene	18.56	180	228856	10.23	ug\L	100
85)	Hexachlorobutadiene	18.82	225	220562	10.85	ug\L	100
86)	Naphthalene	19.05	128	232236	9.37	ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	168555	9.97	ug\L	96

VRR
7-23-01

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J072301\J00654.D Vial: 10
Acq On : 07/23/01 15:13 Operator: JP/VRR/DAT
Sample : IJ072301LCS Inst : HP-MSJ
Misc : 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 15:34 2001 Quant Results File: 07230125.RES

Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00655.D Vial: 11
Acq On : 07/23/01 15:55 Operator: JP/VRR/DAT
Sample : AC16854 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 17:33 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

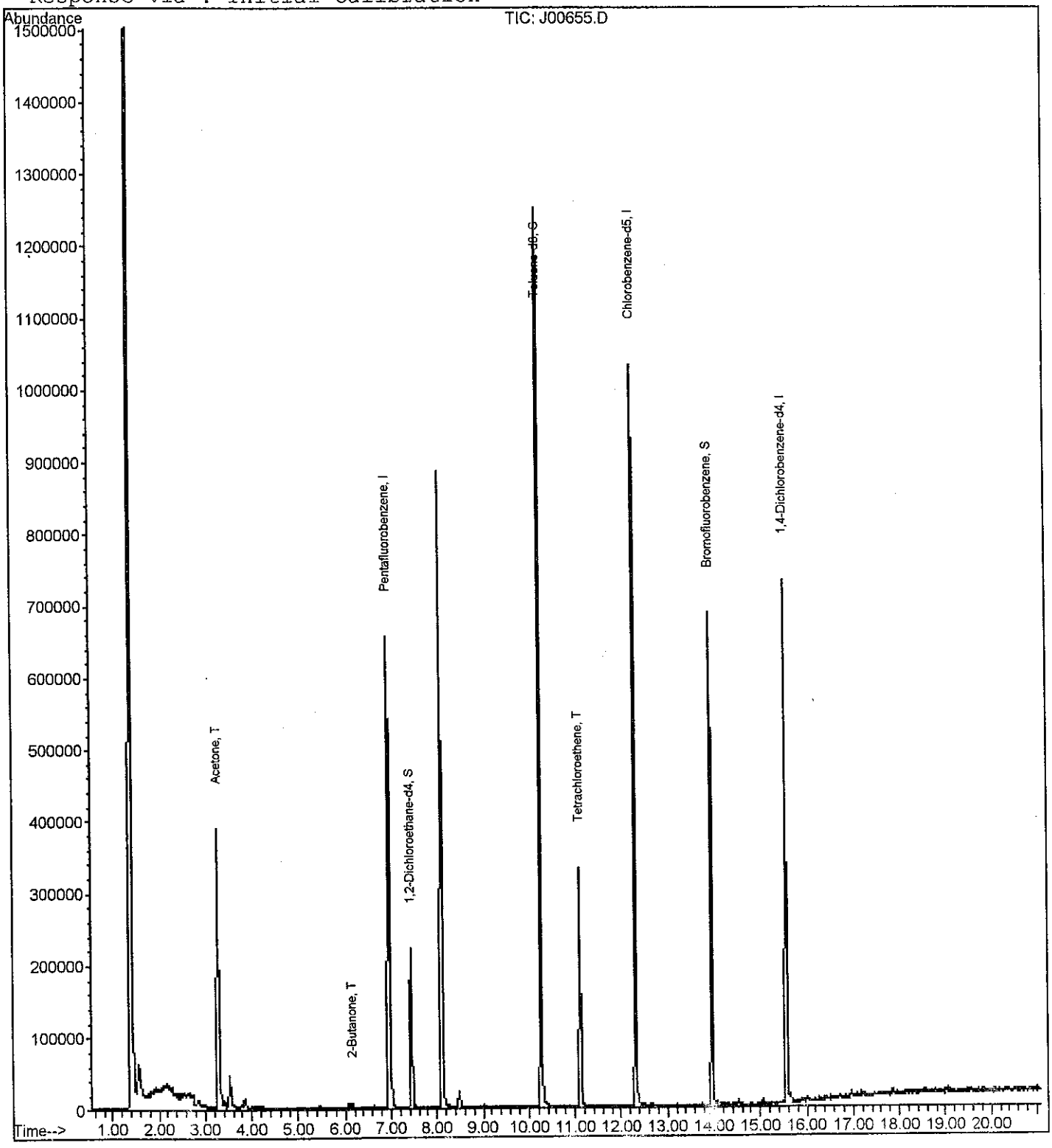
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.97	168	589717	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.33	117	663955	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	237978	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.44	65	246970	9.88	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.80%			
46) Toluene-d8	10.27	98	1022233	9.93	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.30%			
66) Bromofluorobenzene	13.97	95	322232	11.37	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 113.70%#			
Target Compounds						Qvalue
11) Acetone	3.29	58	168955	227.05	ug\L	67
24) 2-Butanone	6.16	72	2381	3.61	ug\L #	67
51) Tetrachloroethene	11.12	164	87130	3.29	ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00655.D Vial: 11
Acq On : 07/23/01 15:55 Operator: JP/VRR/DAT
Sample : AC16854 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 17:33 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00659.D Vial: 15
Acq On : 07/23/01 17:39 Operator: JP/VRR/DAT
Sample : AC16854MS 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:00 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.96	168	431424	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.32	117	568472	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.56	152	275458	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.10	116	496	10.00	ug\L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.44	65	215255	11.77	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 117.70%			
46) Toluene-d8	10.27	98	886249	10.06	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.60%			
66) Bromofluorobenzene	13.96	95	332950	10.15	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.55	85	340751	10.21	ug\L	99
3) Chloromethane	1.76	50	253106	10.55	ug\L	98
4) Vinyl Chloride	1.85	62	259314	9.98	ug\L	96
5) Bromomethane	2.16	94	70326	11.52	ug\L	95
6) Chloroethane	2.26	64	135442	10.62	ug\L	94
7) Trichlorofluoromethane	2.53	101	419929	11.00	ug\L #	100
8) Acrolein	3.09	56	14943	20.48	ug\L #	93
9) Acrylonitrile	4.30	53	45286	24.38	ug\L	96
10) 1,1-Dichloroethene	3.15	96	213807	9.99	ug\L	90
11) Acetone	3.30	58	154226	283.30	ug\L	70
12) Iodomethane	3.37	142	213944	8.82	ug\L	95
13) Allylchloride	3.65	39	326690	11.26	ug\L	85
14) Carbon Disulfide	3.43	76	783471	11.21	ug\L	99
15) Acetonitrile	3.65	41	385253	97.65	ug\L #	85
16) Methylene Chloride	3.86	86	129121	10.88	ug\L	95
17) trans-1,2-Dichloroethene	4.24	96	235252	10.39	ug\L	99
18) MethylTertButylEther	4.23	73	268481	10.93	ug\L	97
19) 1,1-Dichloroethane	4.99	63	416194	10.58	ug\L	99
20) Isopropyl Ether	5.07	45	27473	5.76	ug\L #	54
21) Vinyl Acetate	5.13	43	233453	11.10	ug\L	99
22) 2,2-Dichloropropane	6.00	77	399079	10.89	ug\L #	77
23) cis-1,2-Dichloroethene	6.06	96	220548	10.68	ug\L	96
24) 2-Butanone	6.15	72	8685	17.99	ug\L #	84
25) Propionitrile	6.32	54	74646	121.97	ug\L #	90
26) Methacrylonitrile	6.51	41	473321	125.56	ug\L	97
27) Bromochloromethane	6.48	128	70682	10.35	ug\L	92
28) Chloroform	6.64	83	453829	10.96	ug\L	97
29) 1,1,1-Trichloroethane	6.85	97	478973	10.90	ug\L	99

(#) = [illegible]ier out of range (m) = manual integration
J0065 07230125.M Tue Jul 24 08:45:29 2001 [illegible]ge

Data File : C:\HPCHEM\1\DATA\1J072301\J00659.D Vial: 15
Acq On : 07/23/01 17:39 Operator: JP/VRR/DAT
Sample : AC16854MS 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:00 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	7.10	119	431465	11.11 ug\L	98
31) 1,4-Dioxane	9.09	88	10857	241.18 ug\L #	94
32) 1,1-Dichloropropene	7.12	77	110313	10.36 ug\L	92
34) Benzene	7.46	78	904362	11.10 ug\L	100
35) Isobutyl alcohol	7.58	43	38644	223.16 ug\L	95
36) 1,2-Dichloroethane	7.56	62	245803	11.54 ug\L	97
37) Trichloroethene	8.48	95	288789	11.48 ug\L	93
38) 1,2-Dichloropropane	8.85	63	197908	11.59 ug\L #	95
39) Dibromomethane	9.05	93	83788	11.49 ug\L	95
40) Methylmethacrylate	9.04	69	43156	10.78 ug\L	91
41) Bromodichloromethane	9.30	83	272531	11.33 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.73	63	587	1.38 ug\L #	54
43) cis-1,3-Dichloropropene	9.93	75	265525	10.81 ug\L	94
44) 4-Methyl-2-Pentanone	10.16	85	10162	10.99 ug\L #	82
47) Toluene	10.36	92	591247	10.09 ug\L	100
48) trans-1,3-Dichloropropene	10.75	75	195318	10.30 ug\L	98
49) Ethylmethacrylate	10.84	69	112782	10.18 ug\L	98
50) 1,1,2-Trichloroethane	11.01	83	91711	10.66 ug\L	97
51) Tetrachloroethene	11.12	164	288962	12.74 ug\L	95
52) 1,3-Dichloropropane	11.24	76	198970	10.50 ug\L	99
53) 2-Hexanone	11.35	43	46017	11.00 ug\L	99
54) Dibromochloromethane	11.56	129	139410	9.91 ug\L	98
55) 1,2-Dibromoethane	11.70	107	93279	9.85 ug\L	99
56) Chlorobenzene	12.36	112	590871	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.49	131	206067	10.19 ug\L	99
58) Ethylbenzene	12.50	91	1276987	10.52 ug\L	98
59) total-Xylene	12.66	106	1269981m	31.12 ug\L	
60) Styrene	13.24	104	626583	10.35 ug\L	95
62) Bromoform	13.56	173	65873	9.84 ug\L	95
63) Isopropylbenzene	13.71	105	1214125	10.01 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.88	53	31144	9.93 ug\L #	98
65) trans-1,4-dichloro-2-Buten	14.28	53	40316	11.14 ug\L	87
67) Bromobenzene	14.18	156	206883	9.70 ug\L	92
68) 1,1,2,2-Tetrachloroethane	14.22	83	112521	10.98 ug\L	95
69) 1,2,3-Trichloropropane	14.27	75	128437	10.41 ug\L	94
70) n-Propylbenzene	14.28	91	1616428	10.35 ug\L	98
71) 2-Chlorotoluene	14.42	91	946571	10.18 ug\L	99
72) 4-Chlorotoluene	14.58	91	996255	9.58 ug\L	97
73) 1,3,5-Trimethylbenzene	14.53	105	1146540	10.43 ug\L	99
74) Pentachloroethane	15.05	167	132147	9.87 ug\L	98
75) tert-Butylbenzene	14.98	119	901866	10.05 ug\L	97
76) 1,2,4-Trimethylbenzene	15.05	105	1135754	10.61 ug\L	97

(#) = qualifier out of range (m) = manual integration

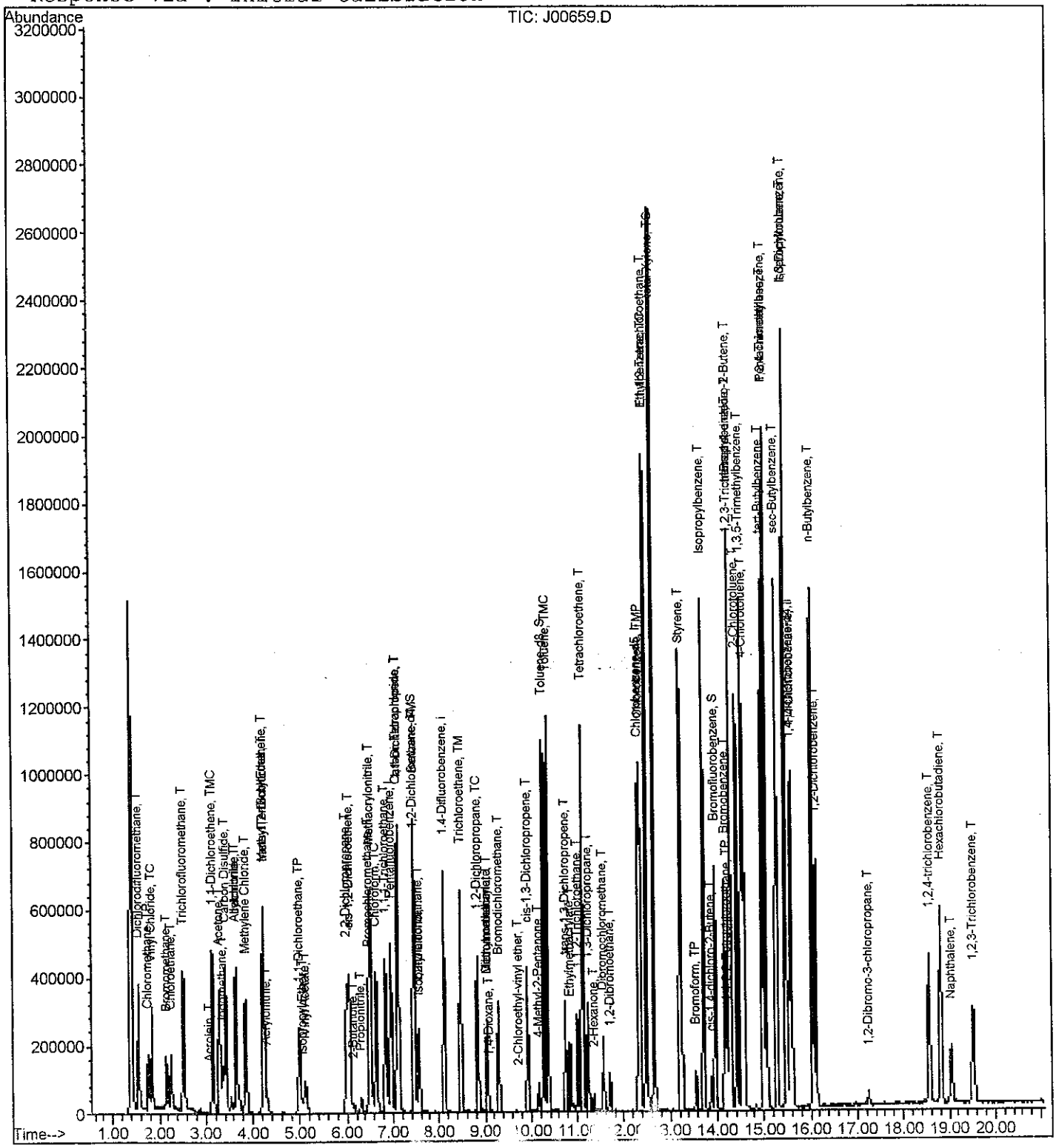
Data File : C:\HPCHEM\1\DATA\1J072301\J00659.D Vial: 15
Acq On : 07/23/01 17:39 Operator: JP/VRR/DAT
Sample : AC16854MS 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:00 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.28	105	1439837	10.28 ug\L	98
78) 1,3-Dichlorobenzene	15.47	146	459859	10.00 ug\L	98
79) Isopropyltoluene	15.48	119	1113300	10.38 ug\L	97
80) 1,4-Dichlorobenzene	15.60	146	444713	9.75 ug\L	99
81) 1,2-Dichlorobenzene	16.12	146	357731	10.01 ug\L	98
82) n-Butylbenzene	16.04	91	1172246	10.94 ug\L	99
83) 1,2-Dibromo-3-chloropropan	17.24	75	16310	10.51 ug\L	97
84) 1,2,4-trichlorobenzene	18.55	180	222603	9.65 ug\L	100
85) Hexachlorobutadiene	18.81	225	205135	9.78 ug\L	100
86) Naphthalene	19.04	128	240513	9.41 ug\L	100
87) 1,2,3-Trichlorobenzene	19.52	180	167245	9.59 ug\L	96

Data File : C:\HPCHEM\1\DATA\1J072301\J00659.D Vial: 15
Acq On : 07/23/01 17:39 Operator: JP/VRR/DAT
Sample : AC16854MS 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:00 2001 Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00660.D Vial: 16
Acq On : 07/23/01 18:05 Operator: JP/VRR/DAT
Sample : AC16854MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:26 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.97	168	438947	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.32	117	568387	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.57	152	277981	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	1027	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.44	65	208346	11.19	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 111.90%				
46) Toluene-d8	10.27	98	851113	9.66	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.60%				
66) Bromofluorobenzene	13.97	95	319835	9.67	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 96.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.55	85	347945	10.25	ug\L		97
3) Chloromethane	1.76	50	248289	10.17	ug\L		96
4) Vinyl Chloride	1.84	62	271611	10.27	ug\L		98
5) Bromomethane	2.16	94	66382	10.56	ug\L		100
6) Chloroethane	2.26	64	131294	10.12	ug\L		94
7) Trichlorofluoromethane	2.53	101	412592	10.62	ug\L	#	100
8) Acrolein	3.09	56	13239	17.84	ug\L	#	86
9) Acrylonitrile	4.30	53	44374	23.48	ug\L		92
10) 1,1-Dichloroethene	3.15	96	214963	9.87	ug\L		93
11) Acetone	3.30	58	153133	276.47	ug\L		69
12) Iodomethane	3.36	142	225624	9.12	ug\L		96
13) Allylchloride	3.65	39	321150	10.88	ug\L		98
14) Carbon Disulfide	3.43	76	739278	10.40	ug\L		100
15) Acetonitrile	3.65	41	457397	113.94	ug\L		99
16) Methylene Chloride	3.85	86	125942	10.38	ug\L		97
17) trans-1,2-Dichloroethene	4.24	96	228718	9.93	ug\L		99
18) MethylTertButylEther	4.23	73	275138	11.01	ug\L		99
19) 1,1-Dichloroethane	4.99	63	418609	10.46	ug\L		97
20) Isopropyl Ether	5.06	45	52343	10.80	ug\L	#	65
21) Vinyl Acetate	5.12	43	235153	10.99	ug\L		99
22) 2,2-Dichloropropane	6.00	77	385872	10.35	ug\L		96
23) cis-1,2-Dichloroethene	6.06	96	216852	10.32	ug\L		97
24) 2-Butanone	6.16	72	8240	16.77	ug\L	#	88
25) Propionitrile	6.30	54	71858	115.40	ug\L	#	88
26) Methacrylonitrile	6.51	41	461906	120.43	ug\L		96
27) Bromochloromethane	6.49	128	69221	9.96	ug\L		89
28) Chloroform	6.64	83	444628	10.55	ug\L		99
29) 1,1,1-Trichloroethane	6.85	97	462527	10.34	ug\L		99

(# = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00660.D Vial: 16
Acq On : 07/23/01 18:05 Operator: JP/VRR/DAT
Sample : AC16854MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28368/W072301A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 23 18:26 2001 Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	7.10	119	410512	10.39 ug\L		99
31) 1,4-Dioxane	9.09	88	9918	218.68 ug\L	#	83
32) 1,1-Dichloropropene	7.12	77	110858	10.23 ug\L		95
34) Benzene	7.46	78	877387	10.58 ug\L		100
35) Isobutyl alcohol	7.57	43	37602	214.05 ug\L		97
36) 1,2-Dichloroethane	7.56	62	239783	11.06 ug\L		98
37) Trichloroethene	8.48	95	277202	10.83 ug\L		95
38) 1,2-Dichloropropane	8.84	63	192246	11.07 ug\L	#	97
39) Dibromomethane	9.05	93	84556	11.39 ug\L		95
40) Methylmethacrylate	9.05	69	45414	11.10 ug\L		95
41) Bromodichloromethane	9.30	83	269140	11.00 ug\L		98
42) 2-Chloroethyl-vinyl ether	9.74	63	394	1.27 ug\L	#	68
43) cis-1,3-Dichloropropene	9.93	75	263039	10.53 ug\L		94
44) 4-Methyl-2-Pentanone	10.16	85	10578	11.21 ug\L	#	97
47) Toluene	10.36	92	575517	9.83 ug\L		100
48) trans-1,3-Dichloropropene	10.75	75	191708	10.12 ug\L		98
49) Ethylmethacrylate	10.84	69	114529	10.32 ug\L		99
50) 1,1,2-Trichloroethane	11.01	83	89156	10.37 ug\L		97
51) Tetrachloroethene	11.12	164	286627	12.64 ug\L		99
52) 1,3-Dichloropropane	11.24	76	192837	10.18 ug\L		100
53) 2-Hexanone	11.35	43	45581	10.91 ug\L		96
54) Dibromochloromethane	11.56	129	140017	9.96 ug\L		98
55) 1,2-Dibromoethane	11.70	107	94100	9.94 ug\L		99
56) Chlorobenzene	12.36	112	577439	9.72 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.49	131	197336	9.76 ug\L		99
58) Ethylbenzene	12.50	91	1229739	10.14 ug\L		99
59) total-Xylene	12.65	106	1224414m	30.01 ug\L		
60) Styrene	13.25	104	615322	10.16 ug\L		97
62) Bromoform	13.56	173	64590	9.56 ug\L		94
63) Isopropylbenzene	13.72	105	1193836	9.75 ug\L		99
64) cis-1,4-dichloro-2-Butene	13.88	53	31026	9.82 ug\L	#	98
65) trans-1,4-dichloro-2-Buten	14.28	53	37857	10.36 ug\L		91
67) Bromobenzene	14.17	156	201882	9.38 ug\L		92
68) 1,1,2,2-Tetrachloroethane	14.22	83	110151	10.65 ug\L		97
69) 1,2,3-Trichloropropane	14.27	75	129141	10.37 ug\L		89
70) n-Propylbenzene	14.28	91	1568628	9.96 ug\L		98
71) 2-Chlorotoluene	14.43	91	911818	9.71 ug\L		99
72) 4-Chlorotoluene	14.58	91	1054454	10.04 ug\L		94
73) 1,3,5-Trimethylbenzene	14.53	105	1088483	9.81 ug\L		100
74) Pentachloroethane	15.05	167	128127	9.49 ug\L		98
75) tert-Butylbenzene	14.98	119	869259	9.60 ug\L		98
76) 1,2,4-Trimethylbenzene	15.05	105	1074678	9.95 ug\L		93

(#) = qualifier out of range (m) = manual integratio

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J072301\J00660.D
Acq On : 07/23/01 18:05
Sample : AC16854MSD 25ml DF=1
Misc : 28368/W072301A
MS Integration Params: rteint.p
Quant Time: Jul 23 18:26 2001

Vial: 16
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 07230125.RES

Quant Method : c:\hpchem\1\data\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration
DataAcq Meth : 07230125

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.27	105	1396582	9.88 ug\L	98
78)	1,3-Dichlorobenzene	15.46	146	447402	9.64 ug\L	99
79)	Isopropyltoluene	15.48	119	1062215	9.81 ug\L	98
80)	1,4-Dichlorobenzene	15.60	146	432502	9.40 ug\L	98
81)	1,2-Dichlorobenzene	16.12	146	355052	9.84 ug\L	100
82)	n-Butylbenzene	16.05	91	1131358	10.46 ug\L	98
83)	1,2-Dibromo-3-chloropropan	17.25	75	18116	11.57 ug\L	95
84)	1,2,4-trichlorobenzene	18.56	180	219673	9.44 ug\L	100
85)	Hexachlorobutadiene	18.81	225	207418	9.80 ug\L	100
86)	Naphthalene	19.04	128	252773	9.80 ug\L	100
87)	1,2,3-Trichlorobenzene	19.53	180	165422	9.40 ug\L	98

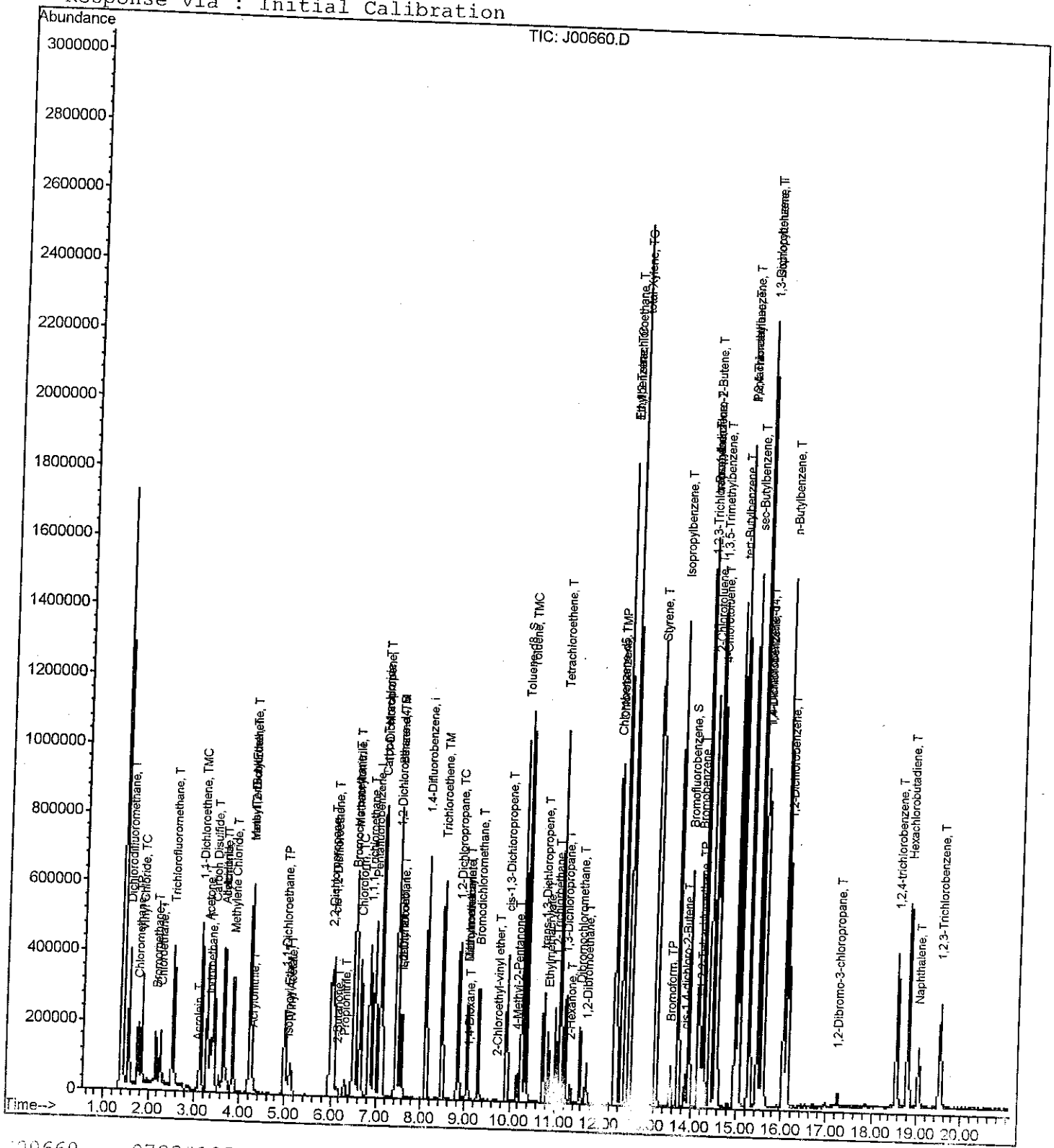
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J072301\J00660.D
Acq On : 07/23/01 18:05
Sample : AC16854MSD 25ml DF=1
Misc : 28368/W072301A
MS Integration Params: rteint.p
Quant Time: Jul 23 18:26 2001

Vial: 16
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 07230125.RES

Method : C:\HPCHEM\1\DATA\1J072301\07230125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Jul 23 14:12:14 2001
Response via : Initial Calibration



SVOC GC/MS DATA CHECKLIST
SW-846-8270C

PROJECT #: 28368	METHOD: 8270C
MATRIX:	

INITIAL ANALYST ASSESSMENT			
Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are Tuning results compliant with method?	(Y)	N	NA
Are DDT breakdown and tailing factors within method limits?	(Y)	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	(Y)	N	NA
Are all SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	(Y)	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	(Y)	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	(Y)	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	(Y)	N	NA
Is blank result less than 1/2 RDL for all analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	Y	(N)*	NA
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	(N)	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	(Y)	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8270C?	(Y)	N	NA
Are all mistakes single lined out, initialled, & dated?	(Y)	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: [signature]	
Date: 7/31/04	Time: 1445

PEER REVIEW			
Are Tuning results, DDT breakdown and tailing factors compliant with method?	(Y)	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all sample Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all blank and QC results acceptable?	Y	(N)	NA
Are all surrogate standard recoveries acceptable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all calculations correct and reported in the proper units?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Is the run log completely filled out (including review signature/date)?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Have all LIMS entries been checked for accuracy?	(Y)	N	NA

Reviewer: [signature]	
Date: 7/31/04	Time: 1455

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: (BNA) / BN

MATRIX: (WATER) / TCLP

EXT. METHOD: 3510 / (3520)

W
BNA W197

DATE/TIME: 7/17/01 11:40a.m

ANALYST: LL

INSTRUMENT: GC/MS

AAL I.D.	SAMPLE VOLUME	pH A	pH B	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
SW071701-1	1L	<2	7/2	2D		1.0mL	BLK
SW071701-2	〃	〃	〃	〃	0A	〃	LCS
SW071701-3	〃	〃	〃	〃	0Z	〃	LCSD
16854	950mL	〃	〃	〃		〃	Full list
16862	~~1L~~ 950mL	〃	〃	〃		〃	〃
16867	50mL	〃	〃	〃		5.0 mL*	very dirty
16866	50mL	〃	〃	〃		〃	〃

*Brought to 5.0mL due to thickness of concentrated sample

7/19/01 4:55 pm

START TIME: 1:15 pm STOP TIME: 7:45a.m START TIME: 9:45a.m STOP TIME: 1:30 a.m

SURROGATE I.D.: BN01E116 CONC.: BN500ppm/100ppm/acid INITAL: DG

SPIKE I.D.: SO1168 (Full list spike) CONC.: 50ppm INITIAL: ZD

SOLVENT ID #: EX01242 RapidVap TEMP.: 45oC

EXTRACT STORAGE: REFRIGERATOR # 5 BOX #: B-55

Spike witness: A, H

00041

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

[ ] Departmental Corrective Action [+] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: SV010703Z

Reported By: DG Date Reported: 7/31/01

Department: SVOC Project(s): 28368 PM: BJH

Discrepancy:

The recovery of N-Nitrosodi-n-propylamine in the LCS/LCSD was outside the Navy acceptance limits, and established in-house limits. Recovery @ 26% for both analyses. (as 7/31/01)

The recovery of HCCPD in the LCS/LCSD was outside the Navy acceptance limits. No in-house limits have been established for this cmpd. Recovery @ 2% for both analyses

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana (Diana Burdette) John Peterson David Fuller Duane J

Resolution:

Report Results

Resolution recorded by: DMB Date: 07.31.01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed back to department to be inserted into book.

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES

		Project Control Recoveries				Accuracy Limits		Project
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD %
Method No.	Analyte / Component	Water		Soil		Water	Soil	Water
8270C	Phenol	94	94			25-125	20-150	0%
8270C	bis (2-chloroethyl) ether	92	91			44-125	20-150	1%
8270C	2-Chlorophenol	79	80			41-125	20-150	1%
8270C	1,3-Dichlorobenzene	52	47			36-125	20-150	10%
8270C	1,4-Dichlorobenzene	51	50			30-125	20-150	2%
8270C	1,2-Dichlorobenzene	56	54			42-155	20-150	4%
8270C	2-Methylphenol	94	95			25-125	20-150	1%
8270C	2,2'-Oxybis (1-Chloropropane) [bis (2-Chloroisopropyl) ether]	46	45			36-166	20-150	2%
8270C	4-Methylphenol	101	100			33-125	20-150	1%
8270C	N-Nitroso-di-n-propylamine	26	26			37-125	20-150	0%
8270C	Hexachloroethane	47	47			25-153	20-150	0%
8270C	Nitrobenzene	95	91			46-133	20-150	4%
8270C	Isophorone	105	109			26-175	20-150	4%
8270C	2-Nitrophenol	92	92			44-125	20-150	0%
8270C	2,4-Dimethylphenol	75	78			45-139	20-150	4%
8270C	Bis (2-chloroethoxy) methane	96	102			49-125	20-150	6%
8270C	2,4-Dichlorophenol	96	97			46-125	20-150	1%
8270C	1,2,4-Trichlorobenzene	59	56			44-142	20-150	5%
8270C	Naphthalene	74	78			50-125	20-150	3%
8270C	4-Chloroaniline	97	101			45-136	20-150	4%
8270C	Hexachlorobutadiene	51	49			25-125	20-150	4%
8270C	4-Chloro-3-methylphenol	102	107			44-125	20-150	5%
8270C	2-Methylnaphthalene	75	77			41-125	20-150	3%
8270C	Hexachlorocyclopentadiene	2	2			41-125	20-150	0%
8270C	2,4,6-Trichlorophenol	96	93			39-128	20-150	3%
8270C	2,4,5-Trichlorophenol	97	99			25-175	20-150	2%
8270C	2-Chloronaphthalene	78	79			60-125	20-150	1%
8270C	2-Nitroaniline	102	103			50-125	20-150	1%
8270C	Dimethyl phthalate	104	109			25-175	20-150	5%
8270C	Acenaphthylene	90	88			47-125	20-150	2%
8270C	2,6-Dinitrotoluene	101	105			51-125	20-150	4%
8270C	3-Nitroaniline	99	102			51-125	20-150	3%
8270C	Acenaphthene	91	88			49-124	20-150	3%
8270C	2,4-Dinitrophenol	93	93			30-151	20-150	0%
8270C	4-Nitrophenol	103	104			25-131	20-150	1%
8270C	Dibenzofuran	95	92			52-125	20-150	3%
8270C	2,4-Dinitrotoluene	105	108			39-139	20-150	3%
8270C	Diethyl phthalate	109	116			37-125	20-150	6%
8270C	4-Chlorophenyl-phenyl ether	98	98			51-132	20-150	0%
8270C	Fluorene	97	100			48-139	20-150	3%
8270C	4-Nitroaniline	98	104			40-143	20-150	6%
8270C	4,6-Dinitro-2-methylphenol	97	94			26-134	20-150	3%
8270C	N-Nitrosodiphenylamine	83	79			27-125	20-150	5%
8270C	4-Bromophenyl-phenyl ether	105	101			53-127	20-150	4%
8270C	Hexachlorobenzene	105	104			46-133	20-150	1%
8270C	Pentachlorophenol	98	99			28-136	20-150	1%
8270C	Phenanthrene	107	105			54-125	20-150	2%
8270C	Anthracene	105	101			45-165	20-150	4%
8270C	Carbazole	103	105			34-132	20-150	2%
8270C	Di-n-butylphthalate	108	110			34-126	20-150	2%
8270C	Fluoranthene	103	106			47-125	20-150	3%
8270C	Pyrene	121	109			47-136	20-150	10%
8270C	Butylbenzylphthalate	115	121			26-125	20-150	5%
8270C	3,3'-Dichlorobenzidine	59	58			29-175	20-150	2%
8270C	Benzo (a) anthracene	110	112			51-133	20-150	2%
8270C	Chrysene	111	110			55-133	20-150	1%
8270C	bis (2-Ethylhexyl) phthalate	118	122			33-129	20-150	3%
8270C	Di-n-octylphthalate	116	114			38-127	20-150	2%
8270C	Benzo (b) fluoranthene	114	107			37-125	20-150	6%
8270C	Benzo (k) fluoranthene	117	116			37-123	20-150	1%
8270C	Benzo (a) pyrene	107	105			41-125	20-150	2%
8270C	Indene (1,2,3-cd) pyrene	109	116			27-160	20-150	6%
8270C	Dibenzo (a,h) anthracene	116	112			50-125	20-150	4%
8270C	Benzo (g,h,i) perylene	111	101			34-149	20-150	9%
8270C	Nitrobenzene-d5	91	88			35-114	23-120	3%
8270C	2-Fluorobiphenyl	83	80			43-116	30-115	4%
8270C	Terphenyl-d14	119	112			33-141	18-137	6%
8270C	Phenol-d5	85	84			10-110	24-113	1%
8270C	2-Fluorophenol	60	57			21-110	25-121	5%
8270C	2,4,6-Tribromophenol	104	101			10-123	19-122	3%
8270C	2-Chlorophenol-d4					33-110	20-130	#VALUE!
8270C	1,2-Dichorobenzene-d4					16-110	20-130	#VALUE!

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, water, solids

NS = Not Specified
NA = Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

GC\MS SEMI-VOLATILE INSTRUMENT LOG for AG-MSC

6017 Financial Drive, Norcross, GA 30071

Date: 07.26.01

Initial Cal. Date: 07.26.01

Acq. Method: 8270

ICAL Method :

Daily Method:

DFTPP ID #: 501132

Daily Cal ID #: 501170

ISTD ID #: 501A167

MS Conditions

EMV: 1494

Tune File: DFTPP

Scan Delay: 3.5

CCV ISTD Areas		Time
#1	75996	6.08
#2	175539	7.61
#3	218687	9.82
#4	122639	11.68
#5	213727	15.17
#6	187336	18.31

File Name	Lab Sample ID	Client Sample ID	Dilution	ALS#	Comments	Inj. Time
C03300	DFTPP 50	501132		1		
01	BNA 200	501161		2	Pass	0955
02	BNA 160	501162		3	Pass	
03	BNA 120	501163		4	Pass	
04	BNA 80	501164		5	Pass	
05	BNA 50	501170		6	Pass	
06	BNA 20	501166		7	Pass	
07	BNA 10	501167		8	Pass	
09	BNA 50	501170		9	Pass	
09	ICV BNA 50	501156		10	Pass	
10	QSW0717012			11	Pass	
11	QSW0717013			12	Pass	
12	QSW0718013			13	Pass	
13	QSW0717011			14	Pass	
14	QSW0718011			15	Pass	
15	QSS0718011			16	Pass	
16	16673 BNA 07.17			17	Pass	
17	16718			18	Pass	
18	16718ms			19	Pass	
19	16718msD			20	Pass	
				21	Pass	2146
				22		
				23		
				24		
				25		
				26		
				27		
				28		
				29		
				30		
				31		
				32		
				33		
				34		
				35		

Sign\Date: DWR 07.27.01

Approved By\ _____ Logbook

ACCURA ANALYTICAL LABORATORY, INC.

GC\MS SEMI-VOLATILE INSTRUMENT LOG for AG-MSC

6017 Financial Drive, Norcross, GA 30071

Date: 07.26.01 A

Initial Cal. Date: 07.26.01

Acq. Method: 8270

ICAL Method :

Daily Method:

DFTPP ID #: 501132

Daily Cal ID #: 501179

ISTD ID #: 501A167

MS Conditions

EMV: 1494

Tune File: DFTPP

Scan Delay: 3.5

	CCV ISTD Areas	Time
#1	845240	6.08
#2	181035	7.61
#3	215207	9.82
#4	165795	11.68
#5	189992	15.17
#6	153621	18.31

File Name	Lab Sample ID	Client Sample ID	Dilution	ALS#	Comments		Inj. Time
C03320	DFTPP 50			1		Pass	2214
21	BNA 50			2		Pass	
22	QSS07 20012			3		Pass	
23	QSS07 20011			4		Pass	
24	160891 BNA 07.20			5		Pass	
25	160892			6		Pass	
26	160892MS			7		Pass	
27	160892MSD			8		Pass	
28	160893			9		Pass	
29	160894			10		Pass	
30	160895			11		Pass	
31	160809			12	ISTD - ↑ 2	Fail	
32	160911			13		Pass	
33	160854			14		Pass	
34	160820			15		Pass	
35	160872		1:5	16	100 uL → 500 uL	Pass	0957
				17			
				18			
				19			
				20			
				21			
				22			
				23			
				24			
				25			
				26			
				27			
				28			
				29			
				30			
				31			
				32			
				33			
				34			
				35			

Signature: [illegible] 07.27.01

Approved By\Date: _____

Logbook ID# SVOC 101

Page # _____

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03333.D Vial: 14
Acq On : 07/27/01 08:09 Operator: DMB
Sample : 16854 BNA W 7/17 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 09:17:44 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 09:12:43 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	70346	40.00	ug/L	0.00
21) Naphthalene-d8	7.60	136	171262	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	226232	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	184673	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	229720	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	217811	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	161566	52.62	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 52.62%			
7) Phenol-d5	5.61	99	272758	83.73	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 83.73%			
22) Nitrobenzene-d5	6.75	82	175863	45.90	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 91.80%			
42) 2-Fluorobiphenyl	8.93	172	198426	40.91	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 81.82%			
63) 2,4,6-Tribromophenol	10.82	330	89037	102.65	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 102.65%			
75) Terphenyl-d14	13.65	244	194072	44.00	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 88.00%			

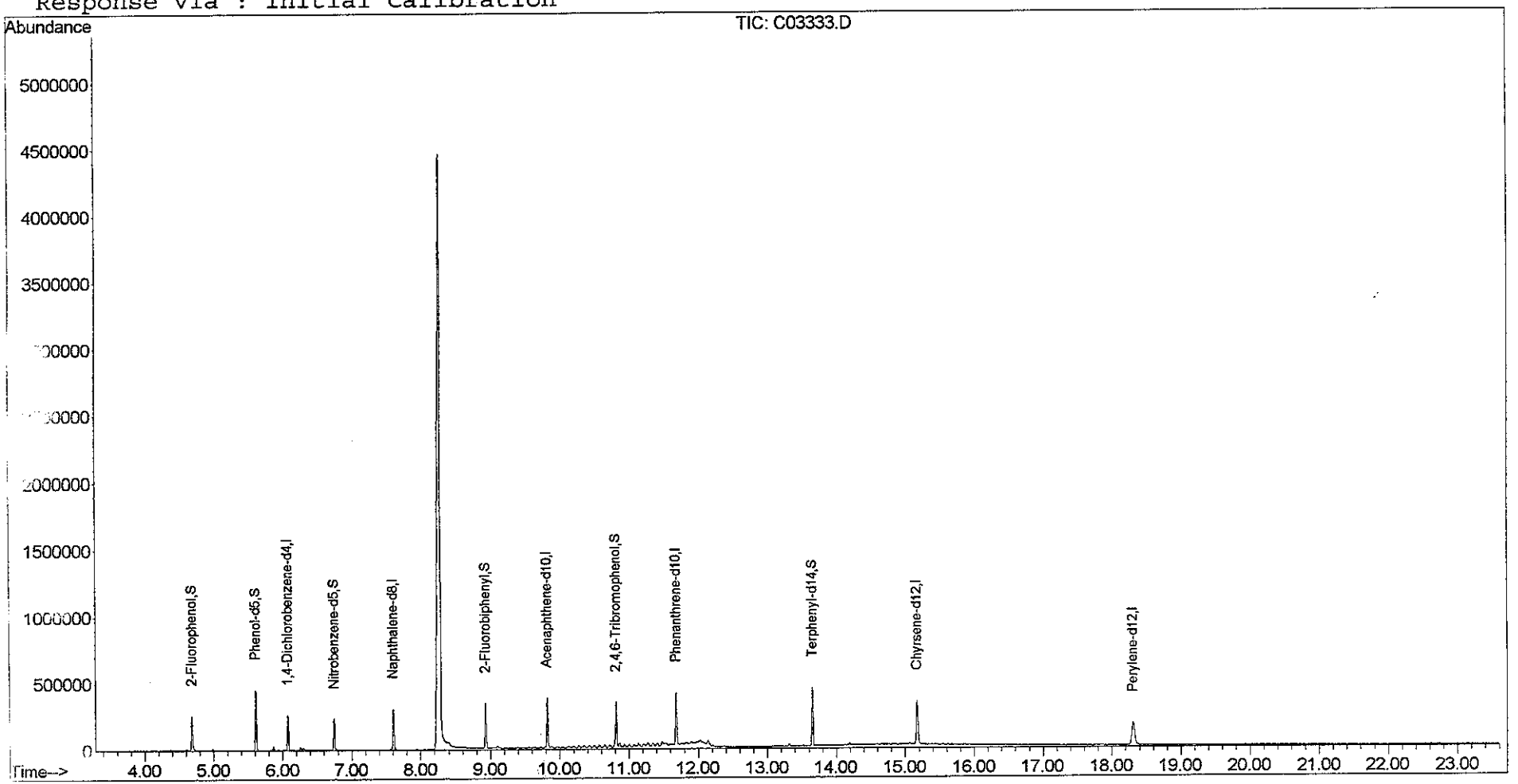
Target Compounds Qvalue

DMB 7.27.01

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03333.D Vial: 14
Acq On : 07/27/01 08:09 Operator: DMB
Sample : 16854 BNA W 7/17 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 9:41 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 09:12:43 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : D:\MSDCHEM\1\DATA\072601A\C03333.D Vial: 14
Acq On : 07/27/01 08:09 Operator: DMB
Sample : 16854 BNA W 7/17 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 4 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

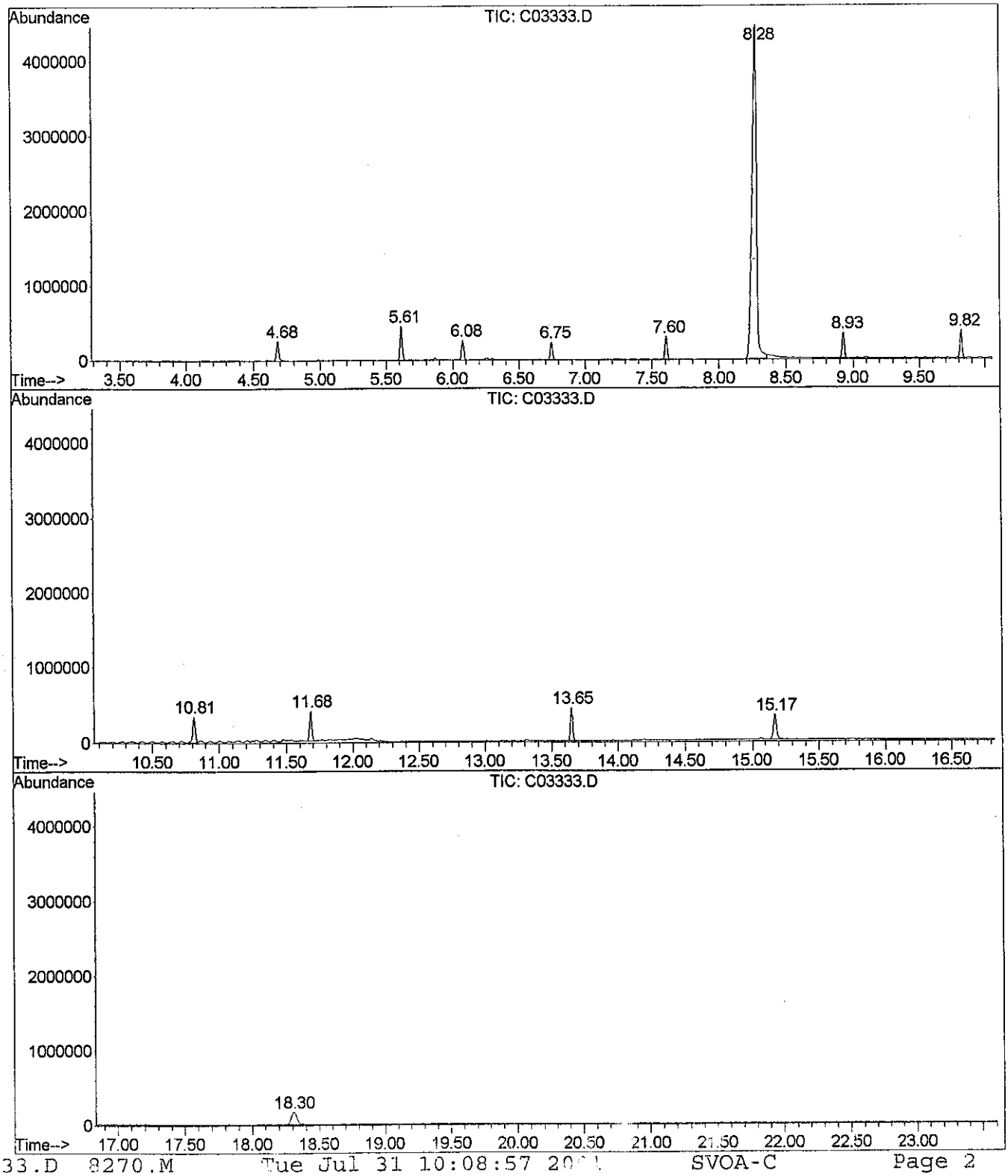
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.683	234	239	249	rVB	261159	332017	3.06%	2.085%
2	5.612	392	397	405	rVB	454468	507298	4.68%	3.185%
3	6.076	472	476	481	rVB	262525	289092	2.67%	1.815%
4	6.746	585	590	597	rBV	235390	287209	2.65%	1.803%
5	7.604	732	736	742	rVB	305486	370572	3.42%	2.327%
6	8.279	836	851	864	rBV	4463529	10847261	100.00%	68.105%
7	8.931	954	962	966	rBV	341216	413824	3.82%	2.598%
8	9.819	1108	1113	1118	rVB	371753	417164	3.85%	2.619%
9	10.812	1272	1282	1287	rBV	342323	447043	4.12%	2.807%
10	11.681	1425	1430	1436	rBV	389849	474322	4.37%	2.978%
11	13.650	1760	1765	1770	rBV	440638	502153	4.63%	3.153%
12	15.171	2018	2024	2032	rBV	331194	528814	4.88%	3.320%
13	18.303	2547	2557	2572	rVB3	169505	510604	4.71%	3.206%

Sum of corrected areas: 15927373

LSC Report - Integrated Chromatogram

File : D:\MSDCHEM\1\DATA\072601A\C03333.D
Operator : DMB
Acquired : 27 Jul 2001 8:09 am using AcqMethod 8270
Instrument : AG-MSC
Sample Name: 16854 BNA W 7/17
Misc Info :
Vial Number: 14
Quant File :8270.RES (RTE Integrator)



Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\072601A\C03333.D
Acq On : 07/27/01 08:09
Sample : 16854 BNA W 7/17
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

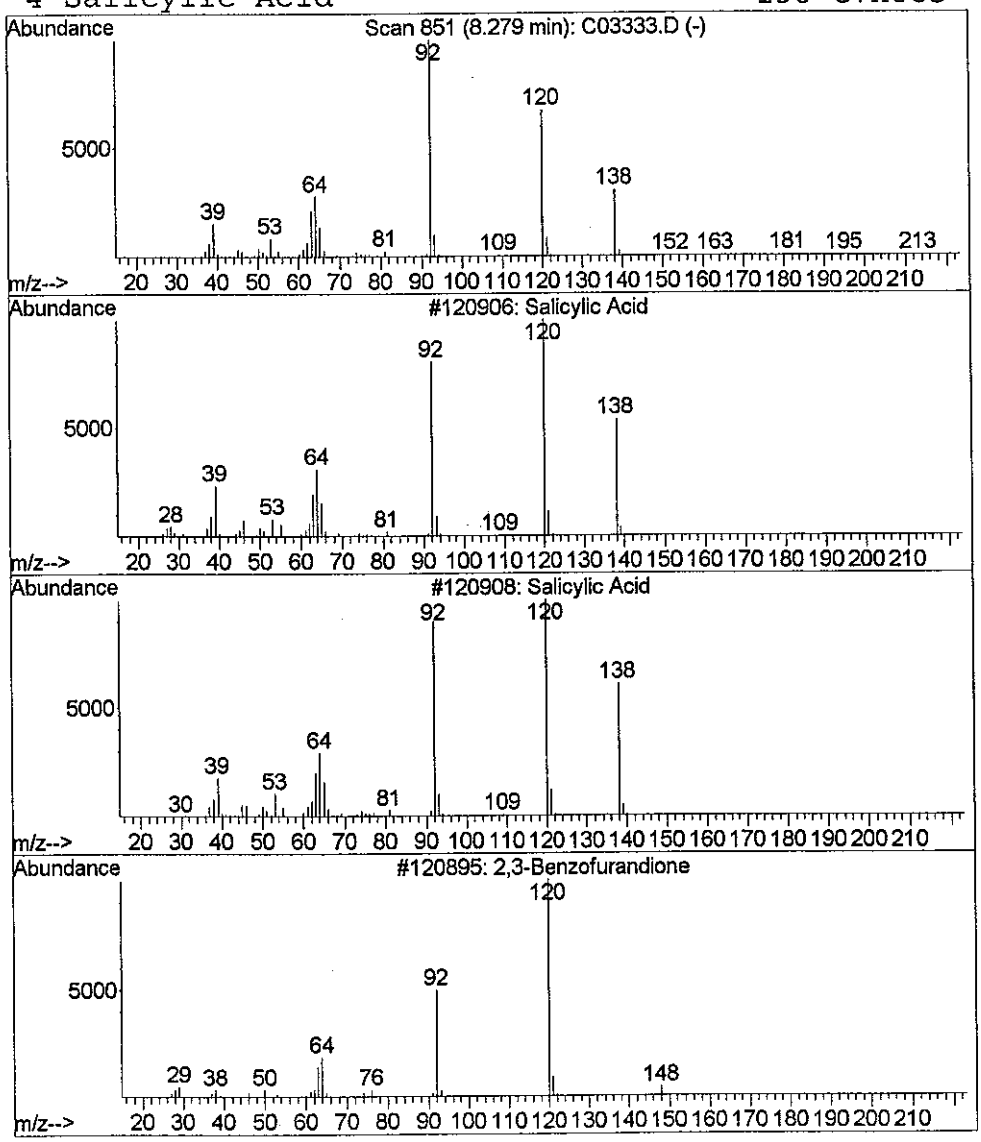
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : D:\DATABASE\NIST98.L

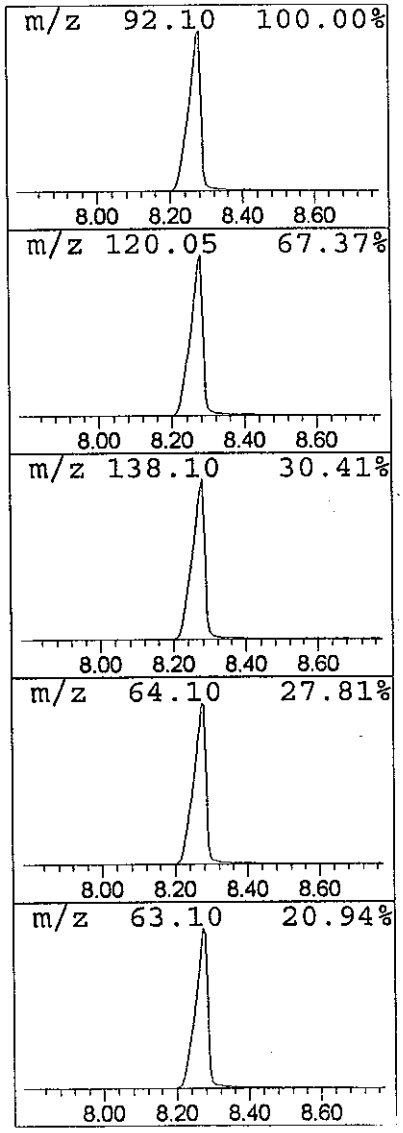
****

Peak Number 1 unknown — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.28	1170.87 ug/L	10847300	Naphthalene-d8	7.60

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Salicylic Acid	138	C7H6O3	000069-72-7	70
2	Salicylic Acid	138	C7H6O3	000069-72-7	70
3	2,3-Benzofurandione	148	C8H4O3	004732-72-3	64
4	Salicylic Acid	138	C7H6O3	000069-72-7	58





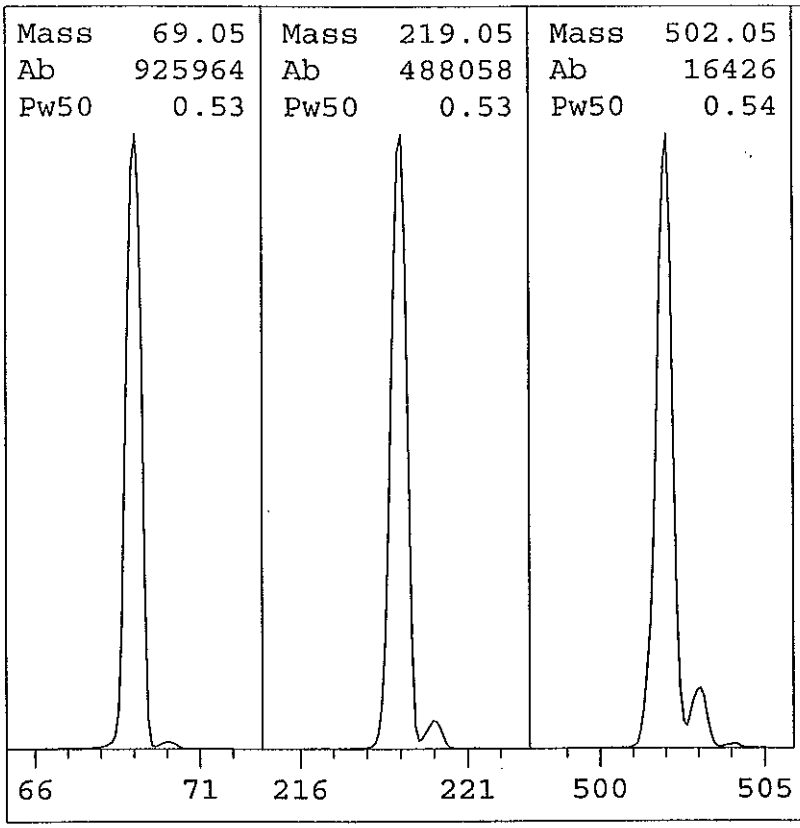
Tentatively Identified Compound (LSC) summary

Operator ID: DMB Date Acquired: 27 Jul 2001 8:09 am
Data File: D:\MSDCHEM\1\DATA\072601A\C03333.D
Name: 16854 BNA W 7/17
Misc:
Method: D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: D:\DATABASE\NIST98.L

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
unknown	8.28	1170.9	ug/L	10847300	2	7.60	370572	40.0

HP5972 DFTPP Dynamic Target Tune

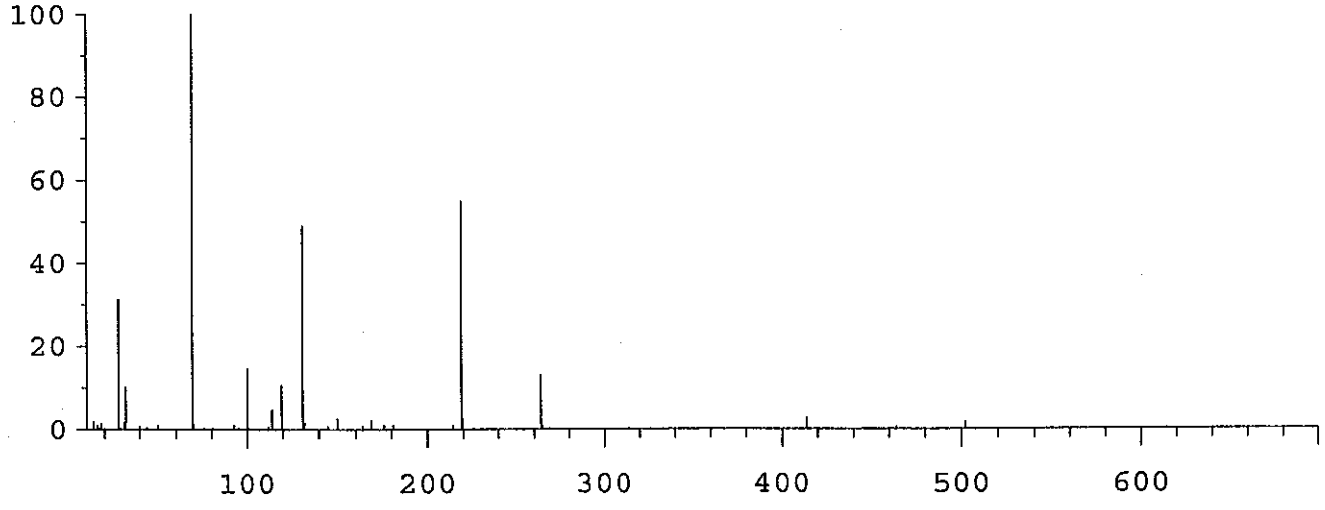
Tue Jul 31 10:14:32 2001 C:\HPCHEM\1\5972\DFTPP.U



EMVolts	2071	AmuGain	542
Xray	25.7	AmuOffs	72
Emission	35.0	Wid219	-0.038
MS Temp	172	TTI	OFF
Vacuum	64	DC Pol	POS
Samples	8	Repeller	20.50
Averages	3	IonFocus	80.0
StepSize	0.10	EntLens	0.00
MassGain	353	EntOffs	VAR
MassOffs	2	Filament	2

PFTBA OPEN

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100
120 peaks Base: 69.05 Abundance: 845312



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.05	845312	100.00	70.05	9312	1.10
218.95	464192	54.91	219.95	20320	4.38
501.95	15054	1.78	502.95	1481	9.84

TARGET MASS:	69	131	219	502
DYNAMIC ENT OFFSET:	12.5	16.8	19.8	21.1
TARGET ABUND(%):	100.0	[illegible]	44.0	1.6
ACTUAL TUNE ABUND(%):	100.0	[illegible]	54.9	1.8

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D Vial: 14
Acq On : 07/26/01 18:08 Operator: DMB
Sample : QSW0717011 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:32 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	112081	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	290489	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	376895	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	313929	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	344463	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	267853	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	299202	61.17	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 61.17%			
7) Phenol-d5	5.61	99	489490	94.31	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 94.31%			
22) Nitrobenzene-d5	6.75	82	309940	47.69	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 95.38%			
42) 2-Fluorobiphenyl	8.93	172	362247	44.83	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 89.66%			
63) 2,4,6-Tribromophenol	10.82	330	149009	101.06	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 101.06%			
75) Terphenyl-d14	13.65	244	396632	59.97	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 119.94%			

Target Compounds Qvalue

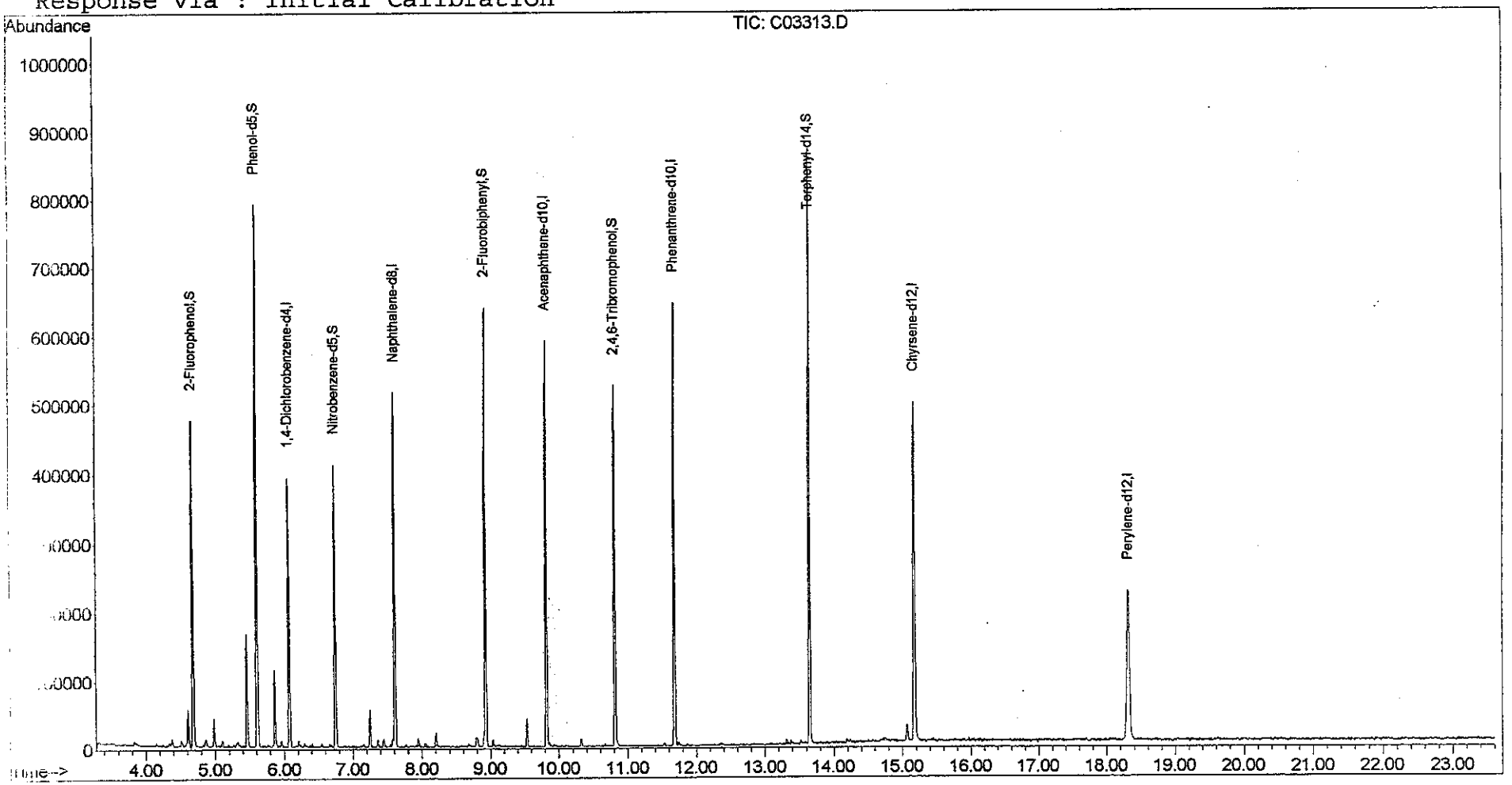
DMB 07.27.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D Vial: 14
Acq On : 07/26/01 18:08 Operator: DMB
Sample : QSW0717011 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:36 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D
Acq On : 07/26/01 18:08
Sample : QSW0717011
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 4 % of largest Peak
Max Peaks: 100
Peak Location: TOP

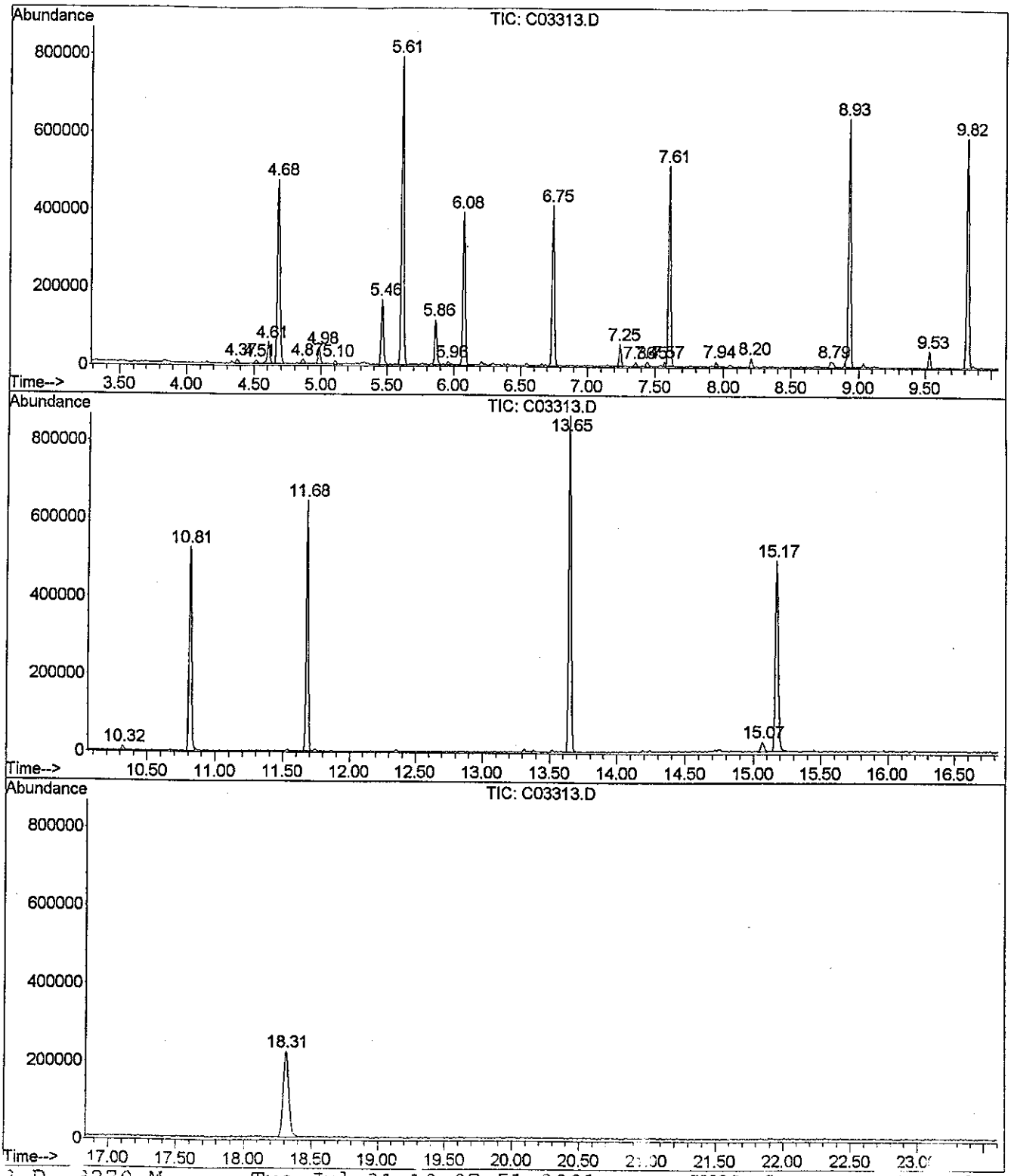
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.372	183	186	192	rVB3	11412	16625	1.66%	0.185%
2	4.513	206	210	215	rVB2	8527	11820	1.18%	0.131%
3	4.607	217	226	234	rVB2	55506	74800	7.48%	0.830%
4	4.684	234	239	247	rBV	473098	584655	58.44%	6.489%
5	4.866	265	270	273	rBV2	10751	14552	1.45%	0.162%
6	4.983	287	290	297	rVB	40896	47232	4.72%	0.524%
7	5.101	308	310	314	rVB2	8942	10614	1.06%	0.118%
8	5.459	366	371	380	rBV	166787	204116	20.40%	2.265%
9	5.612	392	397	404	rVB	790979	914244	91.38%	10.147%
10	5.865	437	440	447	rVB	114360	125175	12.51%	1.389%
11	5.959	452	456	460	rBV3	8919	11359	1.14%	0.126%
12	6.076	471	476	482	rBV	391701	444560	44.43%	4.934%
13	6.746	583	590	597	rBV	410684	469074	46.88%	5.206%
14	7.245	671	675	680	rVB	56448	59724	5.97%	0.663%
15	7.357	689	694	699	rVB	10446	12776	1.28%	0.142%
16	7.445	705	709	712	rBV2	12324	16204	1.62%	0.180%
17	7.569	727	730	732	rBV2	11549	11539	1.15%	0.128%
18	7.610	732	737	741	rVB	512949	607848	60.75%	6.746%
19	7.945	791	794	797	rBV4	12604	12505	1.25%	0.139%
20	8.203	835	838	843	rBV3	22410	26094	2.61%	0.290%
21	8.791	934	938	946	rVB5	14970	31275	3.13%	0.347%
22	8.932	957	962	967	rVB	637218	713919	71.36%	7.924%
23	9.531	1061	1064	1072	rVB3	41495	46374	4.64%	0.515%
24	9.819	1108	1113	1118	rBV	588555	689483	68.91%	7.652%
25	10.318	1196	1198	1202	rVB2	10885	12364	1.24%	0.137%
26	10.812	1277	1282	1288	rBV	524038	647088	64.68%	7.182%
27	11.681	1425	1430	1435	rBV	643765	757093	75.67%	8.403%
28	13.650	1760	1765	1772	rBV	863271	1000504	100.00%	11.104%
29	15.066	2000	2006	2013	rBV2	25407	42500	4.25%	0.472%
30	15.172	2018	2024	2037	rVB	490815	776462	77.61%	8.618%
31	18.309	2548	2558	2574	rVB3	219834	617540	61.72%	6.854%

Sum of corrected areas: 9010118

File : D:\MSDCHEM\1\DATA\072601\C03313.D
Operator : DMB
Acquired : 26 Jul 2001 6:08 pm using AcqMethod 8270
Instrument : AG-MSC
Sample Name: QSW0717011
Misc Info :
Vial Number: 14
Quant File :8270.RES (RTE Integrator)



Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D
Acq On : 07/26/01 18:08
Sample : QSW0717011
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

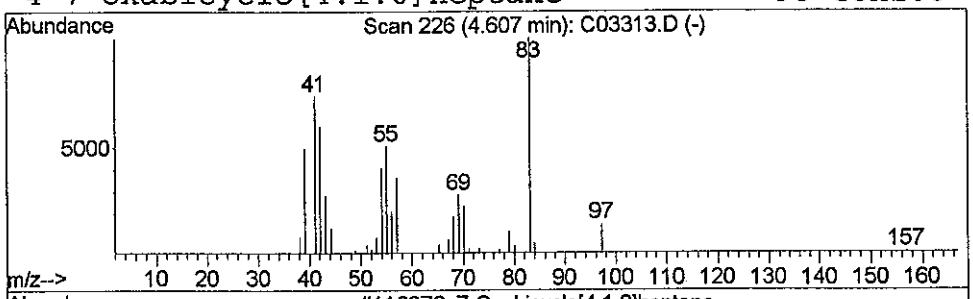
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : D:\DATABASE\NIST98.L

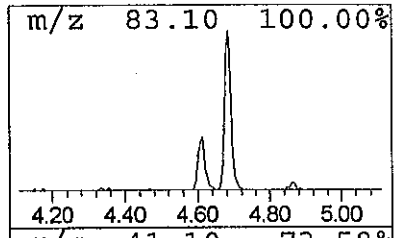
****

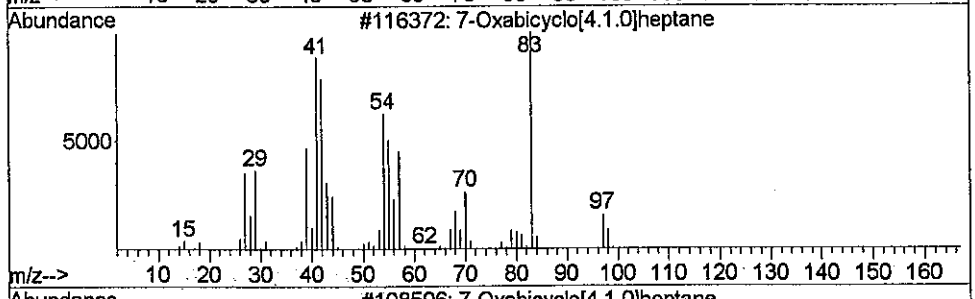
Peak Number 1 unknown hydrocarbon Concentration Rank 3

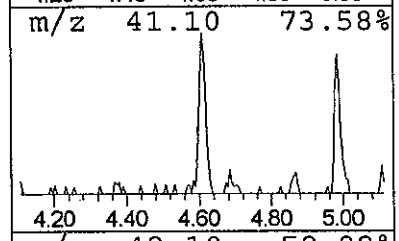
R.T.	EstConc	Area	Relative to ISTD	R.T.
4.61	6.73 ug/L	74800	1,4-Dichlorobenzene-d4	6.08

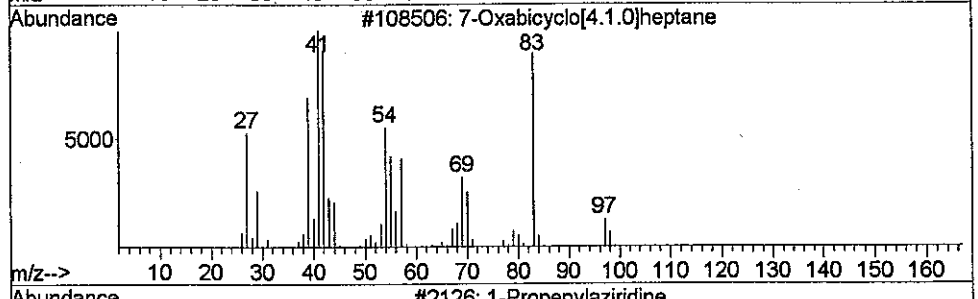
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7-Oxabicyclo[4.1.0]heptane	98	C6H10O	000286-20-4	72
2	7-Oxabicyclo[4.1.0]heptane	98	C6H10O	000286-20-4	72
3	1-Propenylaziridine	83	C5H9N	1000192-51-0	64
4	7-Oxabicyclo[4.1.0]heptane	98	C6H10O	000286-20-4	56

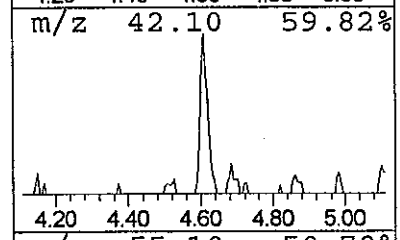


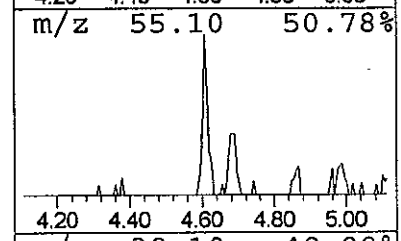


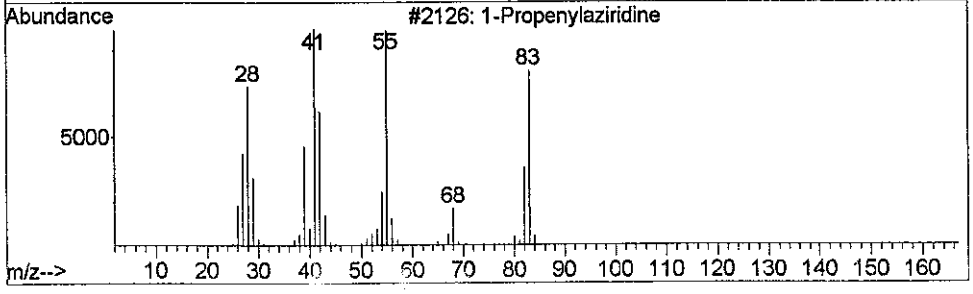


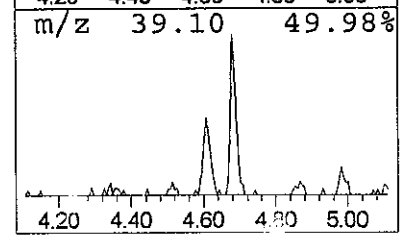












Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D
Acq On : 07/26/01 18:08
Sample : QSW0717011
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

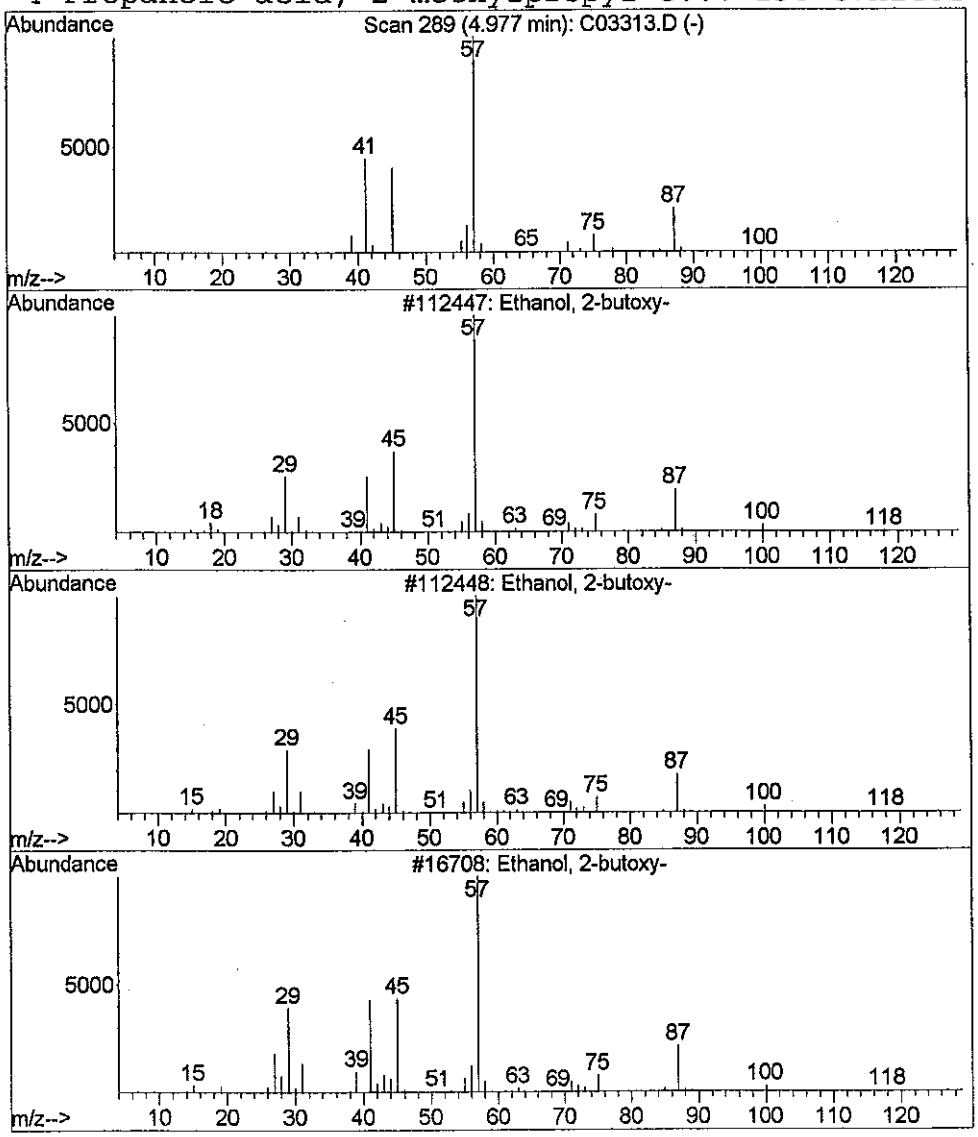
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : D:\DATABASE\NIST98.L

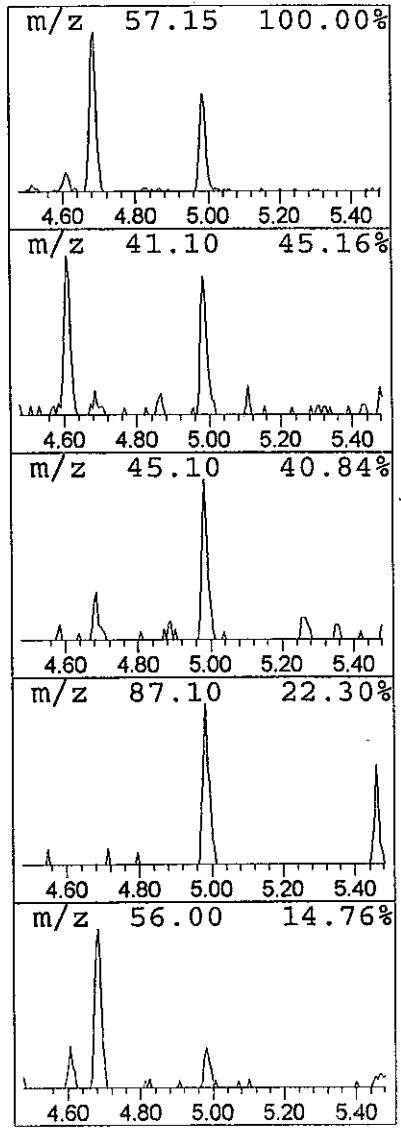
****

Peak Number 2 Ethanol, 2-butoxy- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.98	4.25 ug/L	47232	1,4-Dichlorobenzene-d4	6.08

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	83
2	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	83
3	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	83
4	Propanoic acid, 2-methylpropyl e...	130	C7H14O2	000540-42-1	38





Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D
Acq On : 07/26/01 18:08
Sample : QSW0717011
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

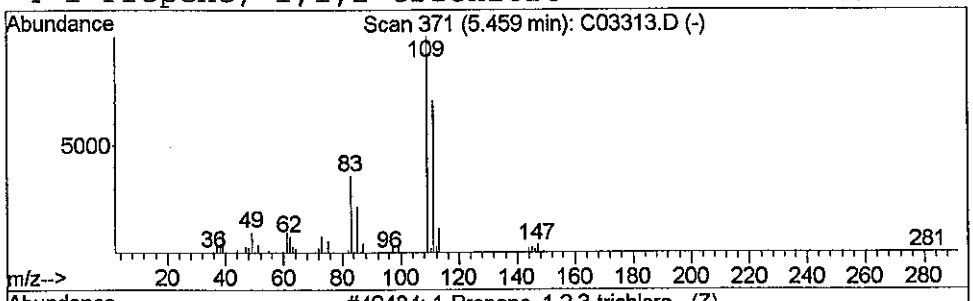
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : D:\DATABASE\NIST98.L

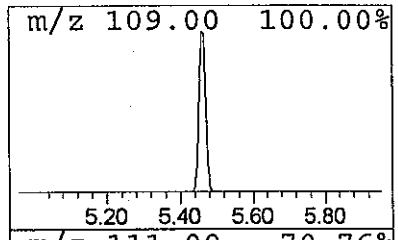
****

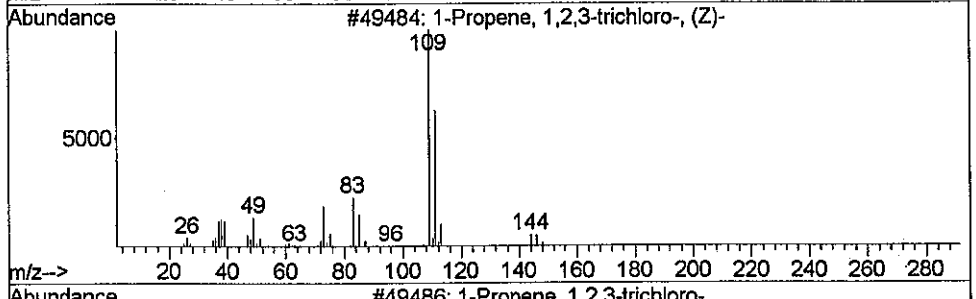
Peak Number 3 1-Propene, 1,2,3-trichloro-... Concentration Rank 1

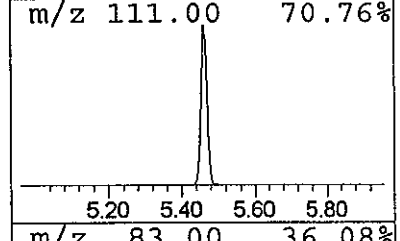
R.T.	EstConc	Area	Relative to ISTD	R.T.
5.46	18.37 ug/L	204116	1,4-Dichlorobenzene-d4	6.08

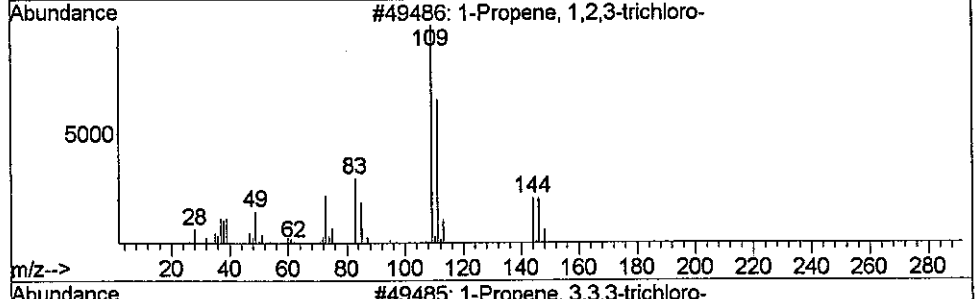
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 1,2,3-trichloro-, (Z)-	144	C3H3Cl3	013116-57-9	90
2	1-Propene, 1,2,3-trichloro-	144	C3H3Cl3	000096-19-5	78
3	1-Propene, 3,3,3-trichloro-	144	C3H3Cl3	002233-00-3	72
4	1-Propene, 1,1,2-trichloro-	144	C3H3Cl3	021400-25-9	50

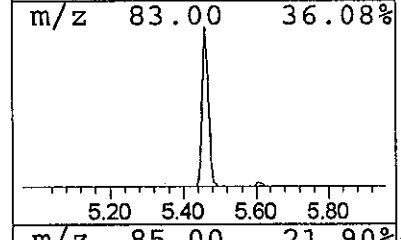


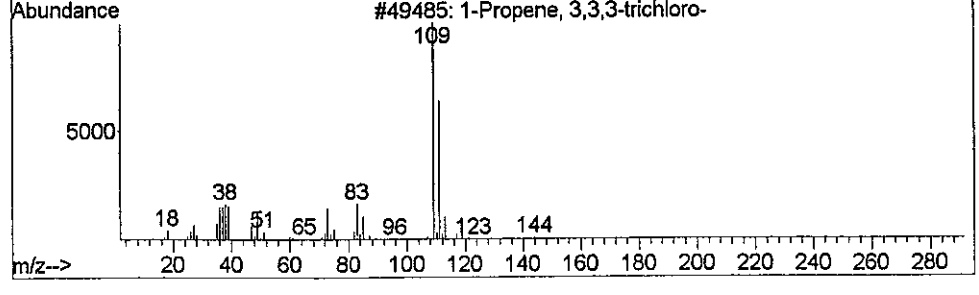


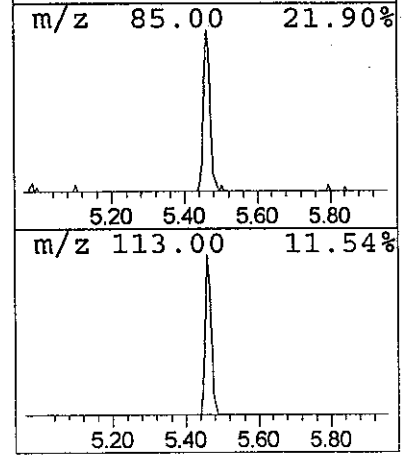












Library Search Compound Report

Data File : D:\MSDCHEM\1\DATA\072601\C03313.D
Acq On : 07/26/01 18:08
Sample : QSW0717011
Misc :
MS Integration Params: LSCINT.P

Vial: 14
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

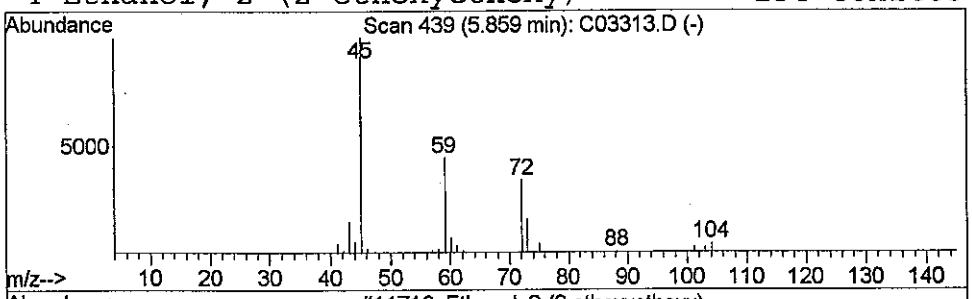
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : D:\DATABASE\NIST98.L

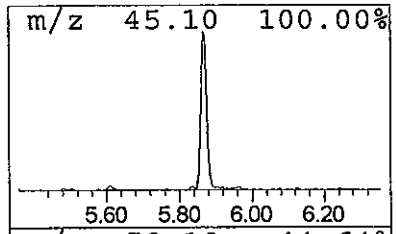
****

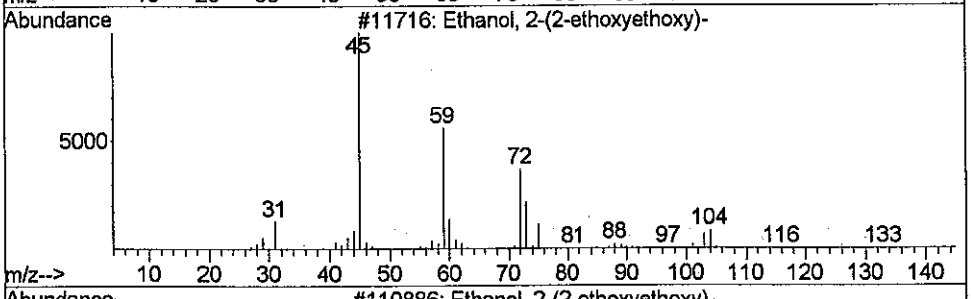
Peak Number 4 unknown hydrocarbon Concentration Rank 2

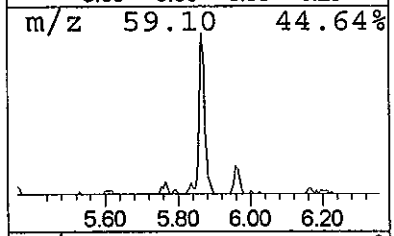
R.T.	EstConc	Area	Relative to ISTD	R.T.
5.86	11.26 ug/L	125175	1,4-Dichlorobenzene-d4	6.08

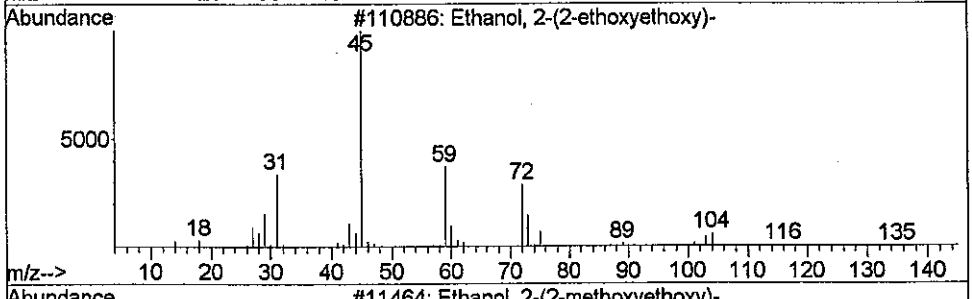
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	74
2	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	72
3	Ethanol, 2-(2-methoxyethoxy)-	120	C5H12O3	000111-77-3	59
4	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	53

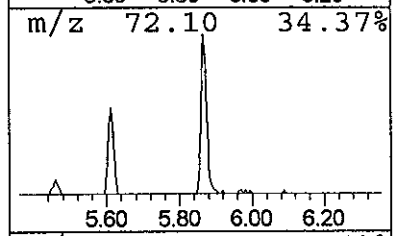


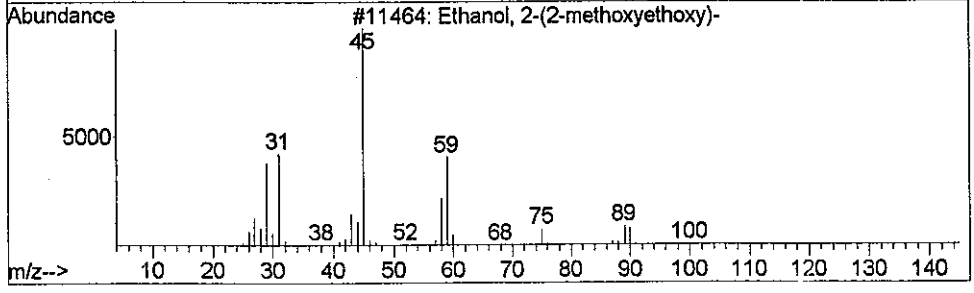


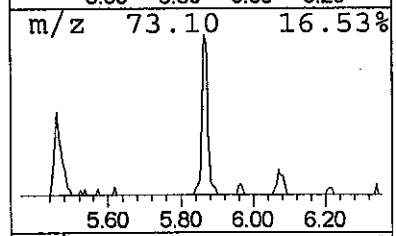


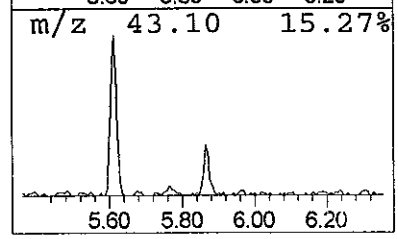












Tentatively Identified Compound (LSC) summary

Operator ID: DMB Date Acquired: 26 Jul 2001 6:08 pm
Data File: D:\MSDCHEM\1\DATA\072601\C03313.D
Name: QSW0717011
Misc:
Method: D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: D:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydrocarbon	4.61	6.7	ug/L	74800	1	6.08	444560	40.0
Ethanol, 2-butoxy-	4.98	4.3	ug/L	47232	1	6.08	444560	40.0
1-Propene, 1,2,3-...	5.46	18.4	ug/L	204116	1	6.08	444560	40.0
unknown hydrocarbon	5.86	11.3	ug/L	125175	1	6.08	444560	40.0

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03310.D Vial: 11
Acq On : 07/26/01 16:20 Operator: DMB
Sample : QSW0717012 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	54994	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	135244	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	181314	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	146818	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	157640	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	118671	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	216512	90.21	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 90.21%			
7) Phenol-d5	5.61	99	324755	127.53	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 127.53%#			
22) Nitrobenzene-d5	6.75	82	274869	90.85	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 181.70%#			
42) 2-Fluorobiphenyl	8.93	172	323229	83.16	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 166.32%#			
63) 2,4,6-Tribromophenol	10.82	330	107158	155.40	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 155.40%#			
75) Terphenyl-d14	13.65	244	359748	118.86	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 237.72%#			
Target Compounds						Qvalue
2) Pyridine	3.47	79	57468	38.75	ug/L	95
3) N-nitrosodimethylamine	3.42	42	23701	41.31	ug/L	96
4) Methylmethanesufonate	4.54	80	39796	42.76	ug/L	98
6) Ethylmethanesulfonate	5.24	79	50679	46.54	ug/L	97
8) Phenol	5.63	94	148850	46.78	ug/L	96
9) Aniline	5.73	93	96073	51.97	ug/L	98
10) bis(2-Chloroethyl)ether	5.76	63	123172	46.11	ug/L	100
11) 2-Chlorophenol	5.87	128	88680	39.64	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	59621	26.07	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	60877	25.63	ug/L	98
14) Benzyl alcohol	6.21	108	142340m	50.66	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	60568	28.04	ug/L	100
16) 2-Methylphenol	6.32	108	103746	46.83	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.38	45	94240	46.22	ug/L	99
18) 3,4-Methylphenol	6.48	108	299989	100.79	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	79029	48.32	ug/L	99
20) Hexachloroethane	6.69	117	32096	23.47	ug/L	95
23) Nitrobenzene	6.77	77	124786	47.73	ug/L	98
24) Isophorone	7.03	82	164295	52.61	ug/L	100
25) 2-Nitrophenol	7.15	139	65291	45.96	ug/L	97

(#) = qualifier out of range (m) = manual integration DWB

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03310.D Vial: 11
Acq On : 07/26/01 16:20 Operator: DMB
Sample : QSW0717012 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) 2,4-Dimethylphenol	7.13	107	113147	37.38 ug/L	98
27) Benzoic Acid	7.16	105	38069	43.85 ug/L	97
28) bis(2-Chloroethoxy)methane	7.25	93	119382	48.21 ug/L	99
29) 2,4-Dichlorophenol	7.42	162	97910	47.98 ug/L	98
30) 1,2,4-Trichlorobenzene	7.54	180	75533	29.40 ug/L	99
31) Naphthalene	7.63	128	167082	37.24 ug/L	99
32) 4-Chloroaniline	7.69	127	116440	48.29 ug/L	99
33) 2,6-Dichlorophenol	7.70	162	48184	50.05 ug/L	96
34) Hexachlorobutadiene	7.83	225	38841	25.63 ug/L	98
35) 4-Chloro-3-methylphenol	8.23	107	119297	51.18 ug/L	99
36) 2-Methylnaphthalene	8.48	142	160806	37.74 ug/L	100
37) 1-Methylnaphthalene	8.62	142	82991	38.88 ug/L	96
39) Hexachlorocyclopentadiene	8.75	237	1490	1.13 ug/L	93
40) 2,4,6-Trichlorophenol	8.84	196	81997	48.11 ug/L	99
41) 2,4,5-Trichlorophenol	8.88	196	90313	48.42 ug/L	98
43) 2-Chloronaphthalene	9.10	162	153656	39.25 ug/L	99
44) 2-Nitroaniline	9.23	65	117325	50.76 ug/L	99
45) Dimethylphthalate	9.45	163	158820	51.76 ug/L	100
46) Acenaphthylene	9.64	152	201713	45.11 ug/L	99
47) 2,6-Dinitrotoluene	9.56	165	57699	50.61 ug/L	99
48) 3-Nitroaniline	9.74	138	85531	49.66 ug/L	100
49) Acenaphthene	9.86	153	265958	45.52 ug/L	99
50) 2,4-Dinitrophenol	9.87	184	152647	46.38 ug/L	96
51) 4-Nitrophenol	9.88	109	92070	51.61 ug/L	99
52) Dibenzofuran	10.05	168	218985	47.74 ug/L	98
53) 2,4-Dinitrotoluene	10.05	165	75572	52.63 ug/L	98
54) Diethylphthalate	10.32	149	187968	54.28 ug/L	99
55) 2,3,4,6-Tetrachlorophenol	10.24	232	30319	49.52 ug/L	99
56) Fluorene	10.49	166	263400	48.60 ug/L	99
57) 4-Chlorophenyl-phenylether	10.45	204	131893	49.13 ug/L	99
58) 4-Nitroaniline	10.52	138	88056	48.95 ug/L	99
60) 4,6-Dinitro-2-methylphenol	10.57	198	43517	48.33 ug/L	98
61) n-Nitrosodiphenylamine	10.59	169	158188	48.37 ug/L	99
62) Azobenzene	10.65	77	186284	52.62 ug/L	99
64) 4-Bromophenyl-phenylether	11.07	248	100003	52.33 ug/L	100
65) Hexachlorobenzene	11.29	284	62816	52.43 ug/L	97
66) Pentachlorophenol	11.50	266	45462	48.87 ug/L	96
67) Phenanthrene	11.71	178	280909	53.38 ug/L	99
68) Anthracene	11.77	178	271331	52.35 ug/L	99
69) Carbazole	11.95	167	188811	51.37 ug/L #	96
70) Di-n-butylphthalate	12.35	149	269202	54.17 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03310.D Vial: 11
Acq On : 07/26/01 16:20 Operator: DMB
Sample : QSW0717012 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

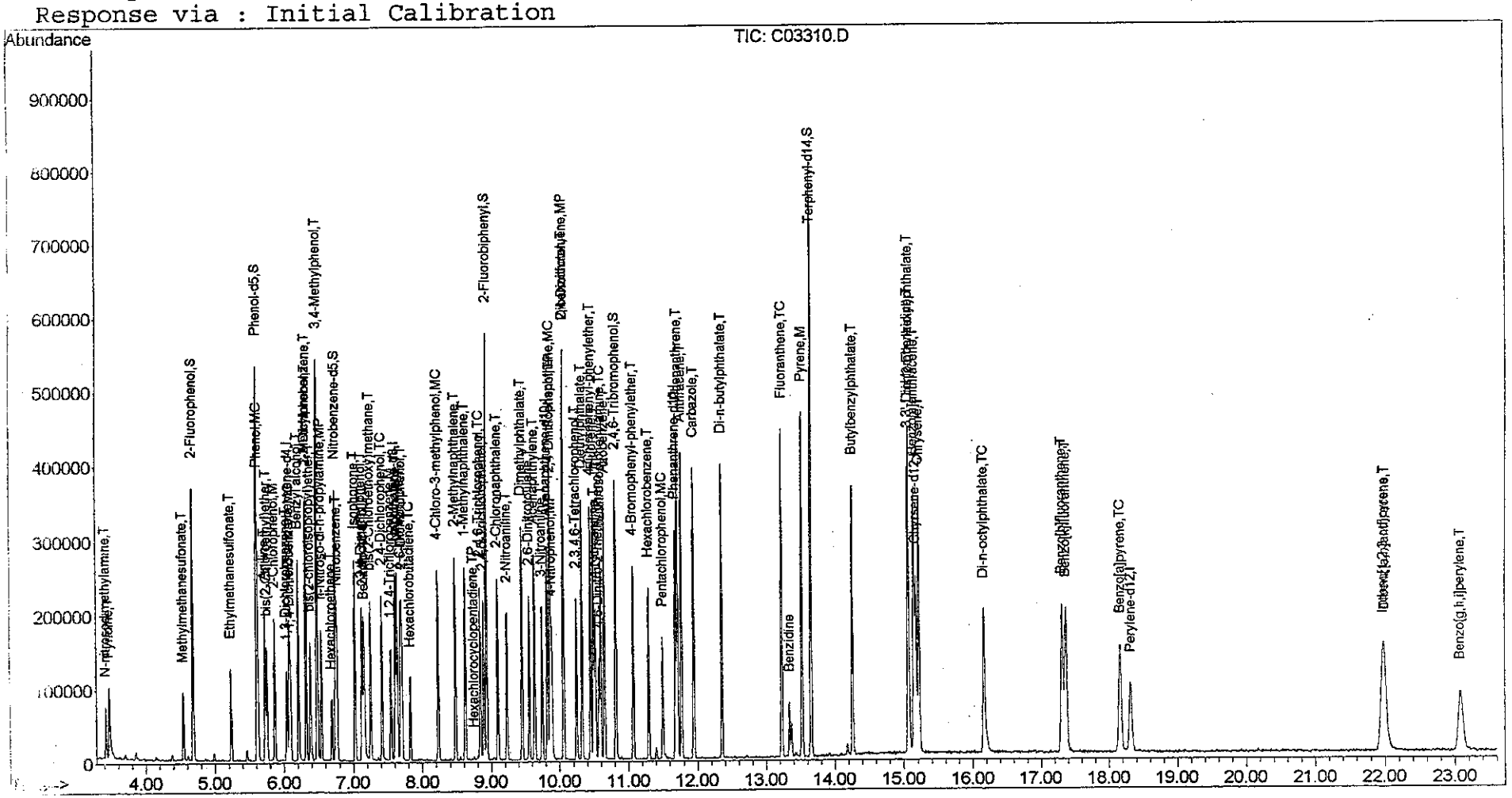
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.23	202	272514	51.28	ug/L		100
72) Benzidine	13.34	184	38003	66.79	ug/L	#	97
74) Pyrene	13.52	202	329484	60.35	ug/L		99
76) Butylbenzylphthalate	14.25	149	213715	57.60	ug/L		100
77) 3,3'-Dichlorobenzidine	15.05	252	36208	29.70	ug/L		100
78) Benzo[a]anthracene	15.14	228	303904	54.92	ug/L		99
79) Chrysene	15.22	228	304284	55.48	ug/L		99
80) bis(2-Ethylhexyl)phthalate	15.07	149	193028	58.78	ug/L		99
82) Di-n-octylphthalate	16.16	149	227821	57.97	ug/L		100
83) Benzo[b]fluoranthene	17.30	252	237120	57.16	ug/L		99
84) Benzo[k]fluoranthene	17.36	252	243026	58.67	ug/L		98
85) Benzo[a]pyrene	18.16	252	205732	53.43	ug/L		99
86) Indeno[1,2,3-cd]pyrene	21.96	276	221299	54.45	ug/L		88
87) Dibenz[a,h]anthracene	21.99	278	198639	58.24	ug/L		99
88) Benzo[g,h,i]perylene	23.07	276	227726	55.74	ug/L		99

(# = qualifier out of range (m) = manual in ration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03310.D Vial: 11
Acq On : 07/26/01 16:20 Operator: DMB
Sample : QSW0717012 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:31 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03311.D Vial: 12
Acq On : 07/26/01 16:56 Operator: DMB
Sample : QSW0717013 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	61678	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	154068	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	221835	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	191664	40.00	ug/L	0.00
73) Chyrsene-d12	15.18	240	227560	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	186273	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	231556	86.02	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 86.02%			
7) Phenol-d5	5.61	99	358907	125.66	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 125.66%#			
22) Nitrobenzene-d5	6.75	82	302903	87.88	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 175.76%#			
42) 2-Fluorobiphenyl	8.93	172	378154	79.52	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 159.04%#			
63) 2,4,6-Tribromophenol	10.82	330	136712	151.87	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 151.87%#			
75) Terphenyl-d14	13.65	244	488711	111.86	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 223.72%#			
Target Compounds						Qvalue
2) Pyridine	3.47	79	62389	37.51	ug/L	99
3) N-nitrosodimethylamine	3.42	42	25505	39.64	ug/L #	93
4) Methylmethanesufonate	4.54	80	45823	43.90	ug/L	100
6) Ethylmethanesulfonate	5.24	79	53524	43.82	ug/L	95
8) Phenol	5.63	94	166951	46.79	ug/L	95
9) Aniline	5.73	93	107832	52.01	ug/L	98
10) bis(2-Chloroethyl)ether	5.76	63	136199	45.46	ug/L	99
11) 2-Chlorophenol	5.87	128	100604	40.09	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	60505	23.59	ug/L	99
13) 1,4-Dichlorobenzene	6.09	146	66837	25.09	ug/L	99
14) Benzyl alcohol	6.21	108	158544m	50.31	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	65256	26.94	ug/L	98
16) 2-Methylphenol	6.32	108	118284	47.61	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	103199	45.13	ug/L	99
18) 3,4-Methylphenol	6.48	108	335249	100.43	ug/L	100
19) n-Nitroso-di-n-propylamine	6.54	70	93225	50.83	ug/L	99
20) Hexachloroethane	6.69	117	36056	23.51	ug/L	99
23) Nitrobenzene	6.77	77	135571	45.52	ug/L	99
24) Isophorone	7.03	82	194498	54.67	ug/L	99
25) 2-Nitrophenol	7.15	139	74355	45.94	ug/L	97

#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03311.D Vial: 12
Acq On : 07/26/01 16:56 Operator: DMB
Sample : QSW0717013 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	133888	38.83	ug/L		99
27)	Benzoic Acid	7.16	105	44286	44.78	ug/L		97
28)	bis(2-Chloroethoxy)methane	7.25	93	144109	51.08	ug/L		98
29)	2,4-Dichlorophenol	7.42	162	112223	48.27	ug/L		97
30)	1,2,4-Trichlorobenzene	7.54	180	82208	28.09	ug/L		98
31)	Naphthalene	7.63	128	193668	37.89	ug/L		98
32)	4-Chloroaniline	7.69	127	139121	50.65	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	52289	47.68	ug/L		96
34)	Hexachlorobutadiene	7.83	225	42471	24.60	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	141769	53.39	ug/L		98
36)	2-Methylnaphthalene	8.48	142	187564	38.64	ug/L		99
37)	1-Methylnaphthalene	8.62	142	97476	40.08	ug/L		100
39)	Hexachlorocyclopentadiene	8.75	237	1517	0.94	ug/L		76
40)	2,4,6-Trichlorophenol	8.84	196	96557	46.31	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	112468	49.28	ug/L		99
43)	2-Chloronaphthalene	9.09	162	189774	39.62	ug/L		98
44)	2-Nitroaniline	9.23	65	145209	51.35	ug/L		100
45)	Dimethylphthalate	9.45	163	204289	54.42	ug/L		100
46)	Acenaphthylene	9.63	152	241560	44.16	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	73465	52.66	ug/L		99
48)	3-Nitroaniline	9.74	138	107425	50.98	ug/L		99
49)	Acenaphthene	9.86	153	312918	43.78	ug/L		99
50)	2,4-Dinitrophenol	9.87	184	187584	46.59	ug/L		95
51)	4-Nitrophenol	9.88	109	113851	52.16	ug/L		100
52)	Dibenzofuran	10.05	168	259218	46.18	ug/L		98
53)	2,4-Dinitrotoluene	10.05	165	95293	54.25	ug/L		96
54)	Diethylphthalate	10.32	149	245257	57.88	ug/L		98
55)	2,3,4,6-Tetrachlorophenol	10.24	232	39776	53.10	ug/L		97
56)	Fluorene	10.49	166	331030	49.93	ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	160198	48.77	ug/L		99
58)	4-Nitroaniline	10.52	138	114299	51.93	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	55051	46.84	ug/L		97
61)	n-Nitrosodiphenylamine	10.59	169	198174	46.42	ug/L		98
62)	Azobenzene	10.65	77	233288	50.48	ug/L		99
64)	4-Bromophenyl-phenylether	11.07	248	125485	50.30	ug/L		98
65)	Hexachlorobenzene	11.29	284	81604	52.18	ug/L		99
66)	Pentachlorophenol	11.49	266	60058	49.46	ug/L		98
67)	Phenanthrene	11.71	178	359966	52.40	ug/L		99
68)	Anthracene	11.77	178	341194	50.43	ug/L		99
69)	Carbazole	11.95	167	251269	52.37	ug/L	#	98
70)	Di-n-butylphthalate	12.35	149	358396	55.24	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03311.D Vial: 12
Acq On : 07/26/01 16:56 Operator: DMB
Sample : QSW0717013 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

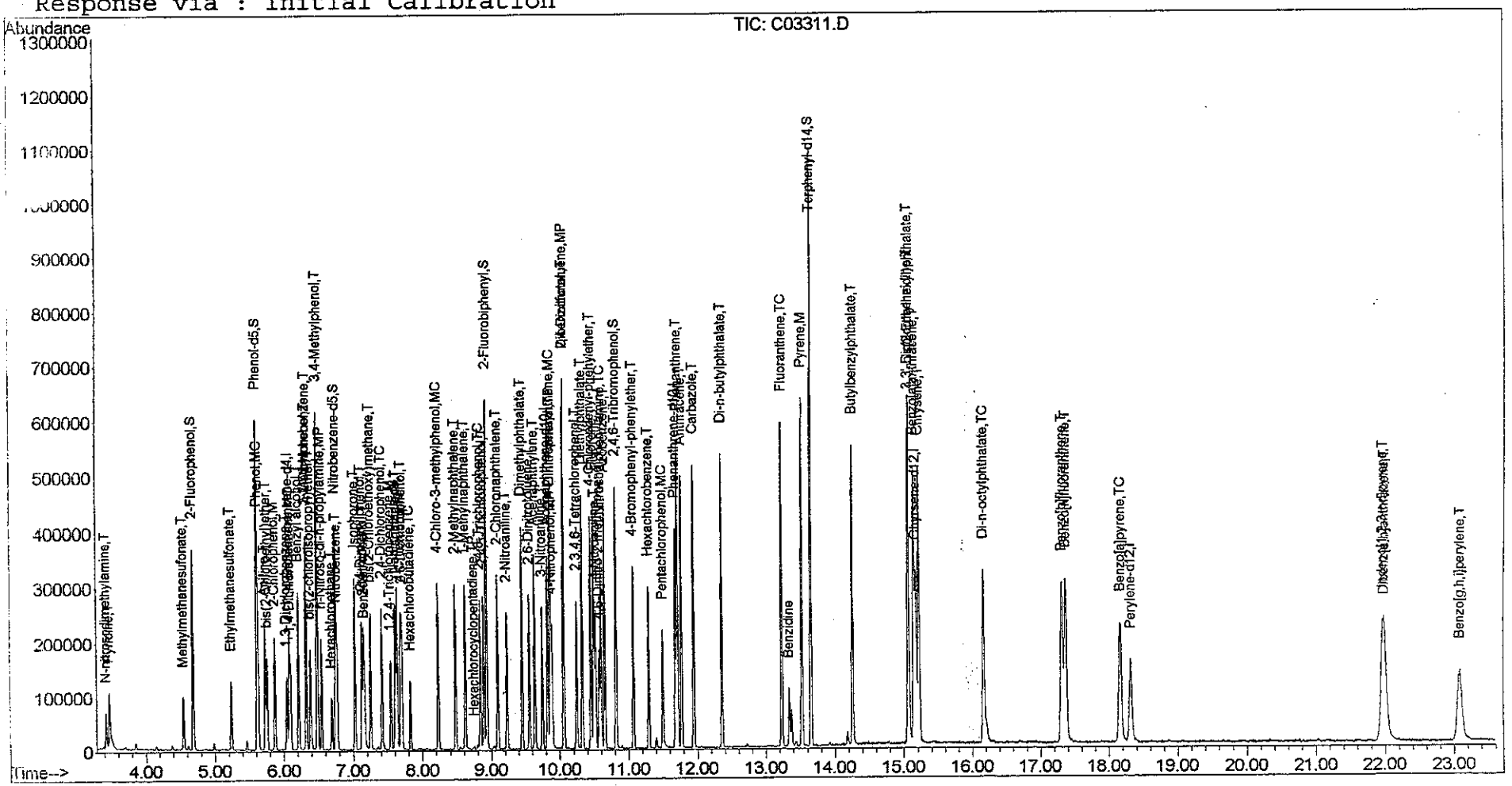
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	367915	53.04	ug/L		99
72)	Benzidine	13.33	184	55330	74.48	ug/L	#	98
74)	Pyrene	13.52	202	430317	54.60	ug/L		99
76)	Butylbenzylphthalate	14.25	149	324480	60.59	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	51058	29.01	ug/L		93
78)	Benzo[a]anthracene	15.14	228	446857	55.94	ug/L		99
79)	Chrysene	15.22	228	436155	55.09	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	289589	61.09	ug/L		100
82)	Di-n-octylphthalate	16.16	149	352801	57.19	ug/L		99
83)	Benzo[b]fluoranthene	17.31	252	349122	53.62	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	376839	57.96	ug/L		99
85)	Benzo[a]pyrene	18.16	252	316982	52.45	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.96	276	369080	57.85	ug/L		72
87)	Dibenz[a,h]anthracene	22.00	278	300825	56.19	ug/L		99
88)	Benzo[g,h,i]perylene	23.08	276	324702	50.63	ug/L		90

#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03311.D Vial: 12
Acq On : 07/26/01 16:56 Operator: DMB
Sample : QSW0717013 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:32 2001 Quant Results File: 8270.RES

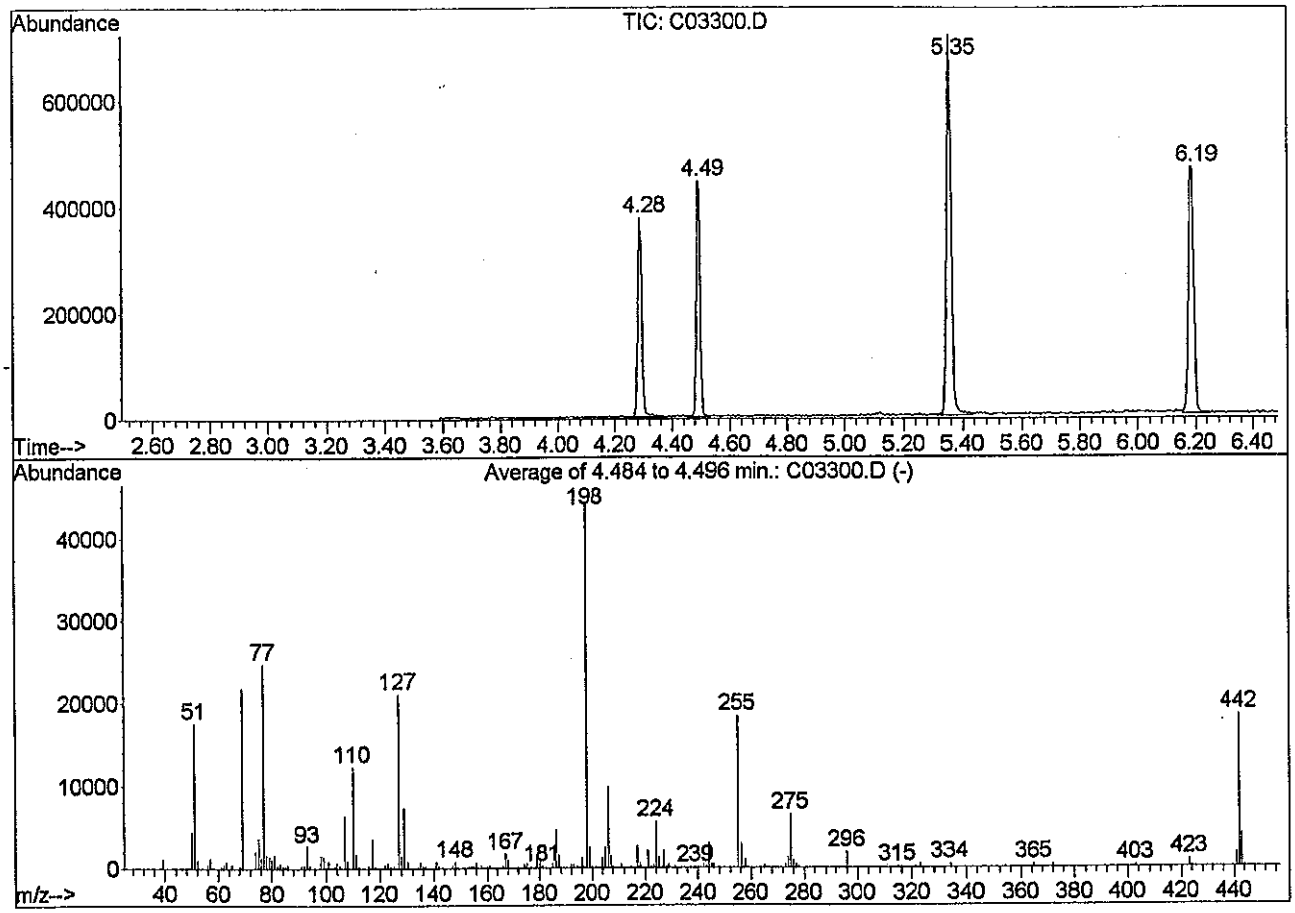
Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



DFTPP

Data File : D:\MSDCHEM\1\DATA\072601\C03300.D
Acq On : 07/26/01 09:55
Sample : DFTPP 50 S01132
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method

Vial: 1
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00



AutoFind: Scans 154, 155, 156; Background Corrected with Scan 150

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.4	17538	PASS
68	69	0.00	2	1.6	344	PASS
69	198	0.00	100	49.1	21839	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	47.5	21148	PASS
197	198	0.00	1	0.5	243	PASS
198	198	100	100	100.0	44485	PASS
199	198	5	9	5.9	2608	PASS
275	198	10	30	14.6	6480	PASS
365	198	1	100	1.0	467	PASS
441	443	0.01	100	45.9	1819	PASS
442	198	40	100	41.5	18482	PASS
443	442	17	23	21.5	3966	PASS

1	4.284	rBV	0.123	363467	4.255	4.378
2	4.490	rBV	0.076	398465	4.455	4.531
3	5.354	rBV	0.123	726946	5.312	5.436
4	6.188	rVB	0.100	590184	6.153	6.253

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	Pyridine	0.982	1.181	1.157	1.089	1.081	1.004	1.079	6.79
3)	T	N-nitrosodimeth	0.410	0.423	0.452	0.431	0.392	0.396	0.417	4.97
4)	T	Methylmethanesu	0.651	0.723	0.717	0.680	0.706	0.647	0.677	6.05
5)	S	2-Fluorophenol	1.561	1.973	1.851	1.792	1.676	1.682	1.746	7.81
6)	T	Ethylmethanesul	0.749	0.824	0.813	0.778	0.868	0.774	0.792	5.76
7)	S	Phenol-d5	1.803	1.982	1.924	1.829	1.907	1.800	1.852	4.84
8)	MC	Phenol	2.231	2.452	2.436	2.306	2.409	2.257	2.314	5.45
9)	T	Aniline	1.360	1.520	1.381	1.339	1.380	1.311	1.345	8.80
10)	T	bis(2-Chloroeth	1.835	2.075	1.999	1.934	1.959	1.877	1.943	4.07
11)	M	2-Chlorophenol	1.515	1.789	1.724	1.641	1.642	1.592	1.627	6.59
12)	T	1,3-Dichloroben	1.598	1.838	1.778	1.689	1.586	1.592	1.664	6.45
13)	MC	1,4-Dichloroben	1.767	1.950	1.773	1.705	1.632	1.645	1.727	6.74
14)	T	Benzyl alcohol	1.796	2.110	2.134	2.011	2.219	2.117	2.044	7.11
15)	T	1,2-Dichloroben	1.562	1.715	1.620	1.634	1.522	1.513	1.571	5.94
16)	T	2-Methylphenol	1.508	1.720	1.641	1.656	1.706	1.596	1.611	6.24
17)	T	bis(2-chloroiso	1.431	1.600	1.490	1.473	1.543	1.459	1.483	4.80
18)	T	3,4-Methylpheno	2.011	2.345	2.195	2.176	2.328	2.135	2.165	6.65
19)	MP	n-Nitroso-di-n-	1.070	1.209	1.224	1.183	1.336	1.213	1.190	7.49
20)	T	Hexachloroethan	0.909	1.108	1.040	1.016	0.957	0.994	0.995	6.76
21)	I	Naphthalene-d8	ISTD							
22)	S	Nitrobenzene-d5	0.852	0.972	0.943	0.886	0.879	0.880	0.895	5.10
23)	T	Nitrobenzene	0.747	0.877	0.805	0.774	0.756	0.734	0.773	6.91
24)	T	Isophorone	0.840	1.026	0.923	0.909	0.981	0.926	0.924	6.99
25)	TC	2-Nitrophenol	0.384	0.445	0.442	0.415	0.427	0.429	0.420	5.33
26)	T	2,4-Dimethylphe	0.798	0.925	0.952	0.894	0.915	0.914	0.895	5.58
27)	T	Benzoic Acid			0.245	0.245	0.284	0.277	0.257	8.80
28)	T	bis(2-Chloroeth	0.681	0.823	0.753	0.719	0.749	0.710	0.732	6.54
29)	TC	2,4-Dichlorophe	0.559	0.651	0.607	0.604	0.626	0.609	0.604	5.19
30)	M	1,2,4-Trichloro	0.762	0.879	0.775	0.742	0.733	0.734	0.760	7.67
31)	T	Naphthalene	1.303	1.522	1.387	1.288	1.277	1.286	1.327	7.40
32)	T	4-Chloroaniline	0.683	0.796	0.736	0.704	0.731	0.693	0.713	6.53
33)	T	2,6-Dichlorophe	0.277	0.307	0.292	0.278	0.294	0.282	0.285	5.13
34)	TC	Hexachlorobutad	0.453	0.501	0.465	0.436	0.424	0.433	0.448	6.15
35)	MC	4-Chloro-3-meth	0.645	0.734	0.681	0.651	0.757	0.700	0.689	6.28
36)	T	2-Methylnaphtha	1.210	1.391	1.284	1.254	1.291	1.245	1.260	5.99
37)	T	1-Methylnaphtha	0.606	0.729	0.627	0.613	0.646	0.613	0.631	7.41
38)	I	Acenaphthene-d10	ISTD							
39)	TP	Hexachlorocyclo	0.300	0.318	0.303	0.289	0.252	0.284	0.290	7.11
40)	TC	2,4,6-Trichloro	0.356	0.435	0.384	0.380	0.358	0.362	0.376	7.58
41)	T	2,4,5-Trichloro	0.398	0.440	0.432	0.416	0.398	0.401	0.411	4.41

(#) = ut of Range ### Number of [illegible]ration levels ex[illegible]ed f[illegible] ###

[illegible].M Fri Jul 27 [illegible] SYS

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
42)	S	2-Fluorobipheny	0.891	0.991	0.880	0.867	0.764	0.808	0.858	8.77
43)	T	2-Chloronaphtha	0.887	0.996	0.885	0.864	0.779	0.811	0.864	8.17
44)	T	2-Nitroaniline		0.534	0.520	0.500	0.523	0.500	0.510	3.73
45)	T	Dimethylphthala	0.649	0.768	0.686	0.659	0.695	0.642	0.677	6.76
46)	T	Acenaphthylene	0.959	1.127	1.010	0.972	0.940	0.946	0.986	6.72
47)	T	2,6-Dinitrotolu	0.215	0.273	0.255	0.250	0.276	0.249	0.252	8.07
48)	T	3-Nitroaniline		0.410	0.374	0.357	0.404	0.363	0.380	5.76
49)	MC	Acenaphthene	1.261	1.493	1.305	1.302	1.239	1.209	1.289	7.60
50)	TP	2,4-Dinitrophen			0.725	0.730	0.748	0.717	0.726	1.97
51)	MP	4-Nitrophenol		0.393	0.379	0.385	0.438	0.375	0.394	5.80
52)	T	Dibenzofuran	1.039	1.187	1.020	0.991	0.982	0.938	1.012	8.62
53)	MP	2,4-Dinitrotolu	0.273	0.337	0.325	0.307	0.351	0.311	0.317	7.83
54)	T	Diethylphthalat	0.686	0.855	0.760	0.750	0.807	0.752	0.764	7.03
55)	T	2,3,4,6-Tetrach	0.110	0.150	0.134	0.131	0.150	0.138	0.135	10.03
56)	T	Fluorene	1.136	1.376	1.214	1.185	1.193	1.134	1.196	7.19
57)	T	4-Chlorophenyl-	0.573	0.664	0.608	0.586	0.596	0.565	0.592	6.15
58)	T	4-Nitroaniline		0.402	0.401	0.370	0.437	0.376	0.397	5.93
59)	I	Phenanthrene-d10	----------	----------	ISTD	----------	----------	----------		
60)	T	4,6-Dinitro-2-m			0.222	0.230	0.268	0.259	0.245	7.78
61)	TC	n-Nitrosodiphen	0.880	1.036	0.915	0.886	0.854	0.860	0.891	8.10
62)	T	Azobenzene	0.951	1.130	1.029	0.941	0.906	0.929	0.965	9.16
63)	S	2,4,6-Tribromop	0.162	0.214	0.189	0.183	0.194	0.193	0.188	8.37
64)	T	4-Bromophenyl-p	0.507	0.605	0.555	0.510	0.490	0.503	0.521	8.63
65)	T	Hexachlorobenze	0.362	0.361	0.336	0.314	0.312	0.304	0.326	8.25
66)	MC	Pentachlorophen		0.244	0.235	0.236	0.278	0.267	0.253	7.03
67)	T	Phenanthrene	1.435	1.572	1.477	1.426	1.384	1.353	1.434	5.10
68)	T	Anthracene	1.386	1.572	1.453	1.395	1.385	1.331	1.412	5.65
69)	T	Carbazole	0.981	1.092	1.047	0.967	0.999	0.929	1.001	5.35
70)	T	Di-n-butylphtha	1.146	1.464	1.393	1.339	1.437	1.336	1.354	7.65
71)	TC	Fluoranthene	1.312	1.569	1.497	1.442	1.436	1.355	1.448	6.30
72)		Benzidine	0.171	0.136	0.143	0.144	0.161	0.176	0.155	10.68
73)	I	Chyrsene-d12	----------	----------	ISTD	----------	----------	----------		
74)	M	Pyrene	1.367	1.601	1.452	1.351	1.334	1.392	1.385	8.83
75)	S	Terphenyl-d14	0.785	0.883	0.782	0.730	0.753	0.771	0.768	8.37
76)	T	Butylbenzylphth	0.762	1.009	0.969	0.940	0.993	1.006	0.941	9.23
77)	T	3,3'-Dichlorobe	0.261	0.309	0.329	0.312	0.313	0.334	0.309	7.60
78)	T	Benzo[a]anthrac	1.320	1.580	1.494	1.392	1.348	1.378	1.404	7.00
79)	T	Chrysene	1.402	1.558	1.459	1.373	1.318	1.368	1.392	6.88
80)	T	bis(2-Ethylhexy	0.659	0.848	0.865	0.877	0.864	0.900	0.833	9.66
81)	I	Perylene-d12	----------	----------	ISTD	----------	----------	----------		
82)	TC	Di-n-octylphtha	0.825	1.254	1.332	1.383	1.470	1.522	1.325	18.08

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
83)	T	Benzo[b]fluoran	1.167	1.529	1.470	1.419	1.348	1.443	1.398	8.29
84)	T	Benzo[k]fluoran	1.171	1.587	1.438	1.405	1.371	1.434	1.396	8.87
85)	TC	Benzo[a]pyrene	1.067	1.390	1.351	1.344	1.284	1.334	1.298	8.23
86)	T	Indeno[1,2,3-cd	1.028	1.323	1.344	1.325	1.478	1.579	1.370	13.26
87)	T	Dibenz[a,h]anth	0.809	1.110	1.276	1.220	1.171	1.250	1.150	13.88
88)	T	Benzo[g,h,i]per	1.153	1.408	1.493	1.173	1.409	1.544	1.377	11.15

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	39010	40.00	ug/L	0.00
21) Naphthalene-d8	7.60	136	89734	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	112862	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	98057	40.00	ug/L	0.00
73) Chyrsene-d12	15.18	240	153019	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	124365	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	328718	193.07	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 193.07%#			
7) Phenol-d5	5.61	99	335447	185.70	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 185.70%#			
22) Nitrobenzene-d5	6.75	82	381933	190.26	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 380.52%#			
42) 2-Fluorobiphenyl	8.93	172	452589	187.05	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 374.10%#			
63) 2,4,6-Tribromophenol	10.81	330	87714	190.45	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 190.45%#			
75) Terphenyl-d14	13.65	244	513672	174.84	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 349.68%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	205983	195.79	ug/L	98
3) N-nitrosodimethylamine	3.41	42	81163	199.45	ug/L	99
4) Methylmethanesufonate	4.54	80	119739	181.38	ug/L	96
6) Ethylmethanesulfonate	5.24	79	143996	186.40	ug/L	99
8) Phenol	5.62	94	411173	182.19	ug/L	99
9) Aniline	5.73	93	218937	166.95	ug/L	95
10) bis(2-Chloroethyl)ether	5.75	63	374568	198.45	ug/L	96
11) 2-Chlorophenol	5.86	128	290457	183.01	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	305180	188.10	ug/L	100
13) 1,4-Dichlorobenzene	6.09	146	315750	187.43	ug/L	98
14) Benzyl alcohol	6.21	108	374342m	187.81	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	279271	182.28	ug/L	99
16) 2-Methylphenol	6.32	108	282808	179.98	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	270102	186.76	ug/L	98
18) 3,4-Methylphenol	6.48	108	766965	363.26	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	212855	183.48	ug/L	99
20) Hexachloroethane	6.69	117	183356	189.01	ug/L	99
23) Nitrobenzene	6.76	77	322967	186.17	ug/L	99
24) Isophorone	7.02	82	385988	186.27	ug/L	99
25) 2-Nitrophenol	7.15	139	179174	190.07	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26) 2,4-Dimethylphenol	7.12	107	389177	193.80	ug/L		99
27) Benzoic Acid	7.17	105	104129	180.77	ug/L		93
28) bis(2-Chloroethoxy)methane	7.25	93	311095	189.33	ug/L		99
29) 2,4-Dichlorophenol	7.42	162	255618	188.78	ug/L		99
30) 1,2,4-Trichlorobenzene	7.54	180	311475	182.71	ug/L		99
31) Naphthalene	7.63	128	550518	184.92	ug/L		99
32) 4-Chloroaniline	7.68	127	291936	182.47	ug/L		99
33) 2,6-Dichlorophenol	7.70	162	117669	184.22	ug/L		99
34) Hexachlorobutadiene	7.82	225	191043	189.97	ug/L		99
35) 4-Chloro-3-methylphenol	8.23	107	294979	190.73	ug/L		99
36) 2-Methylnaphthalene	8.47	142	514400	181.95	ug/L		100
37) 1-Methylnaphthalene	8.62	142	262661	185.44	ug/L		99
39) Hexachlorocyclopentadiene	8.75	237	161715	197.41	ug/L		100
40) 2,4,6-Trichlorophenol	8.84	196	201076	189.55	ug/L		99
41) 2,4,5-Trichlorophenol	8.88	196	222969	192.05	ug/L		98
43) 2-Chloronaphthalene	9.09	162	465438	190.99	ug/L		99
44) 2-Nitroaniline	9.23	65	272041	189.09	ug/L		100
45) Dimethylphthalate	9.45	163	360037	188.52	ug/L		99
46) Acenaphthylene	9.63	152	536007	192.58	ug/L		100
47) 2,6-Dinitrotoluene	9.55	165	137593	193.87	ug/L		99
48) 3-Nitroaniline	9.74	138	209911	195.80	ug/L		99
49) Acenaphthene	9.86	153	684533	188.24	ug/L		99
50) 2,4-Dinitrophenol	9.87	184	400962	195.72	ug/L		97
51) 4-Nitrophenol	9.88	109	220893	198.91	ug/L		97
52) Dibenzofuran	10.05	168	523252	183.24	ug/L		99
53) 2,4-Dinitrotoluene	10.05	165	176527	197.52	ug/L		98
54) Diethylphthalate	10.32	149	416758	193.32	ug/L		99
55) 2,3,4,6-Tetrachlorophenol	10.24	232	74560	195.64	ug/L		97
56) Fluorene	10.49	166	638347	189.23	ug/L		99
57) 4-Chlorophenyl-phenylether	10.45	204	313358	187.50	ug/L		97
58) 4-Nitroaniline	10.52	138	223307	199.42	ug/L		99
60) 4,6-Dinitro-2-methylphenol	10.57	198	120909	201.08	ug/L		99
61) n-Nitrosodiphenylamine	10.59	169	395524	181.09	ug/L		99
62) Azobenzene	10.65	77	424492	179.53	ug/L		99
64) 4-Bromophenyl-phenylether	11.06	248	232569	182.21	ug/L		100
65) Hexachlorobenzene	11.29	284	145097	181.34	ug/L		99
66) Pentachlorophenol	11.49	266	127697	205.55	ug/L		95
67) Phenanthrene	11.71	178	681081	192.75	ug/L		99
68) Anthracene	11.76	178	668136	193.01	ug/L		98
69) Carbazole	11.95	167	487163	198.46	ug/L	#	97
70) Di-n-butylphthalate	12.35	149	668253	201.32	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

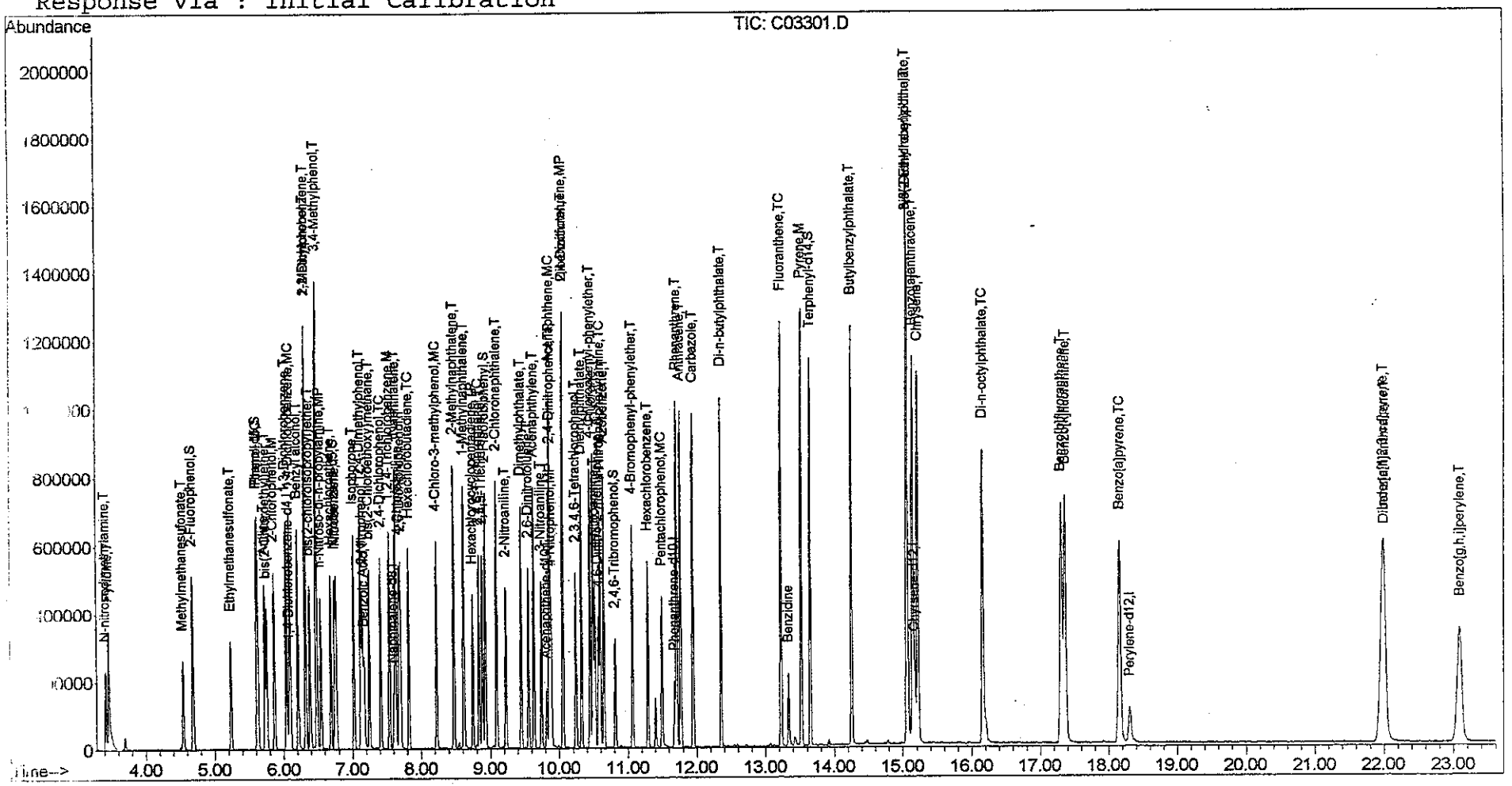
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.22	202	746727	210.41	ug/L		99
72) Benzidine	13.33	184	104250	274.31	ug/L	#	97
74) Pyrene	13.52	202	917727	173.18	ug/L		99
76) Butylbenzylphthalate	14.25	149	696415	193.37	ug/L		99
77) 3,3'-Dichlorobenzidine	15.05	252	234920	198.25	ug/L		97
78) Benzo[a]anthracene	15.14	228	1007129	187.51	ug/L		99
79) Chrysene	15.21	228	967239	181.68	ug/L		99
80) bis(2-Ethylhexyl)phthalate	15.07	149	627372	228.96	ug/L		99
82) Di-n-octylphthalate	16.16	149	924330	224.43	ug/L		99
83) Benzo[b]fluoranthene	17.30	252	877280	201.81	ug/L		99
84) Benzo[k]fluoranthene	17.36	252	850386	195.90	ug/L		98
85) Benzo[a]pyrene	18.16	252	817718	202.66	ug/L		99
86) Indeno[1,2,3-cd]pyrene	21.97	276	941265	220.99	ug/L		70
87) Dibenz[a,h]anthracene	22.00	278	753330	210.75	ug/L		99
88) Benzo[g,h,i]perylene	23.09	276	906972	211.84	ug/L		99

(#) = qualifier out of range (m) = manual integration
C03301.D 8270 Fri Jul 27 08:28:0[illegible] 8270.M Page

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:15 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	70776	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	173727	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	236381	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	193628	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	221453	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	184459	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	476259	154.18	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 154.18%#			
7) Phenol-d5	5.61	99	509699	155.52	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 155.52%#			
22) Nitrobenzene-d5	6.75	82	611794	157.42	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 314.84%#			
42) 2-Fluorobiphenyl	8.93	172	764087	150.78	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 301.56%#			
63) 2,4,6-Tribromophenol	10.82	330	149863	164.79	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 164.79%#			
75) Terphenyl-d14	13.65	244	683018	160.64	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 321.28%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	284295	148.94	ug/L	99
3) N-nitrosodimethylamine	3.41	42	112205	151.98	ug/L	99
4) Methylmethanesufonate	4.54	80	183201	152.96	ug/L	98
6) Ethylmethanesulfonate	5.24	79	219221	156.41	ug/L	99
8) Phenol	5.63	94	638998	156.06	ug/L	99
9) Aniline	5.73	93	371059	155.95	ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	531295	155.15	ug/L	99
11) 2-Chlorophenol	5.87	128	450632	156.50	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	450654	153.10	ug/L	100
13) 1,4-Dichlorobenzene	6.09	146	465752	152.39	ug/L	100
14) Benzyl alcohol	6.21	108	599363m	165.74	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	428234	154.06	ug/L	99
16) 2-Methylphenol	6.32	108	451918	158.52	ug/L	98
17) bis(2-chloroisopropyl)ethe	6.38	45	413174	157.46	ug/L	99
18) 3,4-Methylphenol	6.48	108	1208682	315.53	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	343344	163.13	ug/L	99
20) Hexachloroethane	6.69	117	281453	159.92	ug/L	99
23) Nitrobenzene	6.77	77	510224	151.92	ug/L	99
24) Isophorone	7.03	82	643297	160.35	ug/L	99
25) 2-Nitrophenol	7.15	109	297996	163.28	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	635210	163.38	ug/L		99
27)	Benzoic Acid	7.19	105	192350	172.48	ug/L		96
28)	bis(2-Chloroethoxy)methane	7.25	93	493104	155.01	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	423053	161.38	ug/L		98
30)	1,2,4-Trichlorobenzene	7.54	180	510210	154.59	ug/L		99
31)	Naphthalene	7.63	128	893695	155.05	ug/L		99
32)	4-Chloroaniline	7.69	127	481310	155.39	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	196090	158.57	ug/L		98
34)	Hexachlorobutadiene	7.82	225	301030	154.62	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	486504	162.48	ug/L		99
36)	2-Methylnaphthalene	8.48	142	865317	158.09	ug/L		99
37)	1-Methylnaphthalene	8.62	142	425964	155.34	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	268323	156.39	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	342324	154.08	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	379389	156.02	ug/L		98
43)	2-Chloronaphthalene	9.09	162	766432	150.16	ug/L		100
44)	2-Nitroaniline	9.23	65	473099	157.01	ug/L		100
45)	Dimethylphthalate	9.45	163	607419	151.86	ug/L		99
46)	Acenaphthylene	9.63	152	894852	153.51	ug/L		100
47)	2,6-Dinitrotoluene	9.55	165	235390	158.36	ug/L		99
48)	3-Nitroaniline	9.74	138	343105	152.80	ug/L		99
49)	Acenaphthene	9.86	153	1142867	150.05	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	677638	157.93	ug/L		95
51)	4-Nitrophenol	9.88	109	354585	152.45	ug/L		100
52)	Dibenzofuran	10.05	168	886717	148.26	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	294073	157.10	ug/L		99
54)	Diethylphthalate	10.32	149	710580	157.38	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	130876	163.96	ug/L		97
56)	Fluorene	10.49	166	1072151	151.75	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	533781	152.50	ug/L		99
58)	4-Nitroaniline	10.52	138	355820	151.72	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.57	198	200446	168.81	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	665786	154.38	ug/L		99
62)	Azobenzene	10.65	77	719567	154.12	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	389477	154.53	ug/L		99
65)	Hexachlorobenzene	11.29	284	235439	149.01	ug/L		99
66)	Pentachlorophenol	11.49	266	206785	168.57	ug/L		96
67)	Phenanthrene	11.71	178	1047908	150.19	ug/L		98
68)	Anthracene	11.77	178	1030661	150.78	ug/L		99
69)	Carbazole	11.95	167	719272	148.39	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	1034889	157.89	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

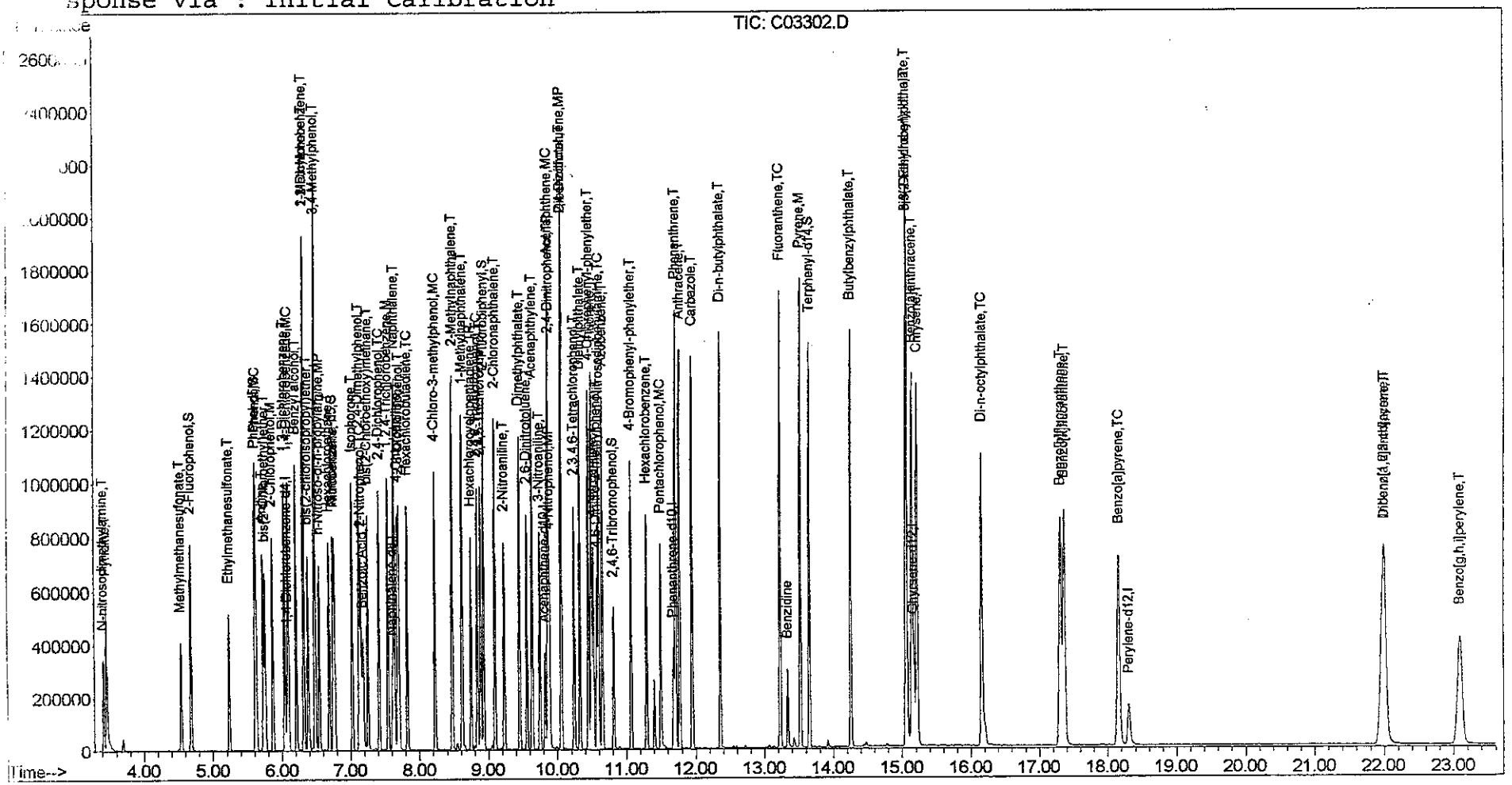
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	1049545	149.77	ug/L		99
72)	Benzidine	13.33	184	136220	181.52	ug/L	#	98
74)	Pyrene	13.52	202	1232707	160.74	ug/L		99
76)	Butylbenzylphthalate	14.25	149	891453	171.04	ug/L		100
77)	3,3'-Dichlorobenzidine	15.05	252	295480	172.30	ug/L		97
78)	Benzo[a]anthracene	15.14	228	1220473	157.01	ug/L		99
79)	Chrysene	15.22	228	1211557	157.25	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	797069	201.00	ug/L		100
82)	Di-n-octylphthalate	16.16	149	1122835	183.81	ug/L		98
83)	Benzo[b]fluoranthene	17.31	252	1064382	165.08	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	1058249	164.36	ug/L		99
85)	Benzo[a]pyrene	18.16	252	984137	164.44	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.98	276	1164747	184.37	ug/L		70
87)	Dibenz[a,h]anthracene	22.00	278	922490	174.00	ug/L		99
88)	Benzo[g,h,i]perylene	23.09	276	1139099	179.38	ug/L		99

(#) = [illegible] out of range (m) = manual integration
C03302.D M Fri Jul 27 08:22:50 2001 [illegible]

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:15 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	58880	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	154238	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	235606	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	218100	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	283187	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	242143	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	296121	115.23	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 115.23%#			
7) Phenol-d5	5.61	99	336934	123.58	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 123.58%#			
22) Nitrobenzene-d5	6.75	82	406601	117.84	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 235.68%#			
42) 2-Fluorobiphenyl	8.93	172	539743	106.86	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 213.72%#			
63) 2,4,6-Tribromophenol	10.82	330	126980	123.96	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 123.96%			
75) Terphenyl-d14	13.65	244	639911	117.69	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 235.38%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	190946	120.25	ug/L	99
3) N-nitrosodimethylamine	3.41	42	69259	112.76	ug/L	96
4) Methylmethanesufonate	4.54	80	124687	125.14	ug/L	99
6) Ethylmethanesulfonate	5.24	79	153325	131.50	ug/L	97
8) Phenol	5.63	94	425460	124.90	ug/L	99
9) Aniline	5.73	93	243743	123.14	ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	346065	121.47	ug/L	98
11) 2-Chlorophenol	5.87	128	290021	121.07	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	280183	114.42	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	288334	113.40	ug/L	99
14) Benzyl alcohol	6.21	108	391941m	130.28	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	268880	116.27	ug/L	100
16) 2-Methylphenol	6.32	108	301346	127.06	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	272604	124.88	ug/L	98
18) 3,4-Methylphenol	6.48	108	822448	258.08	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	236064	134.82	ug/L	99
20) Hexachloroethane	6.69	117	169019	115.44	ug/L	99
23) Nitrobenzene	6.77	77	349814	117.32	ug/L	100
24) Isophorone	7.02	82	454081	127.49	ug/L	99
25) 2-Nitrophenol	7.15	139	197488	121.89	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	423481	122.69	ug/L		99
27)	Benzoic Acid	7.17	105	131612	132.93	ug/L		95
28)	bis(2-Chloroethoxy)methane	7.25	93	346369	122.64	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	289476	124.38	ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	338984	115.69	ug/L		99
31)	Naphthalene	7.63	128	590813	115.46	ug/L		99
32)	4-Chloroaniline	7.68	127	338463	123.08	ug/L		100
33)	2,6-Dichlorophenol	7.70	162	136206	124.06	ug/L		97
34)	Hexachlorobutadiene	7.83	225	196194	113.50	ug/L		98
35)	4-Chloro-3-methylphenol	8.23	107	350424	131.82	ug/L		99
36)	2-Methylnaphthalene	8.48	142	597307	122.92	ug/L		99
37)	1-Methylnaphthalene	8.62	142	299057	122.84	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	177913	104.04	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	253188	114.33	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	281049	115.96	ug/L		98
43)	2-Chloronaphthalene	9.09	162	550584	108.22	ug/L		99
44)	2-Nitroaniline	9.23	65	369504	123.03	ug/L		100
45)	Dimethylphthalate	9.45	163	491568	123.30	ug/L		99
46)	Acenaphthylene	9.63	152	664482	114.36	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	194959	131.59	ug/L		99
48)	3-Nitroaniline	9.74	138	285518	127.58	ug/L		99
49)	Acenaphthene	9.86	153	875921	115.38	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	528648	123.61	ug/L		94
51)	4-Nitrophenol	9.88	109	309564	133.53	ug/L		100
52)	Dibenzofuran	10.05	168	693904	116.41	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	247821	132.83	ug/L		97
54)	Diethylphthalate	10.32	149	570538	126.78	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	105734	132.90	ug/L		97
56)	Fluorene	10.49	166	843534	119.79	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	420940	120.66	ug/L		99
58)	4-Nitroaniline	10.52	138	308528	131.99	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	175513	131.23	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	558613	114.99	ug/L		99
62)	Azobenzene	10.65	77	592750	112.71	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	320414	112.86	ug/L		99
65)	Hexachlorobenzene	11.29	284	203965	114.61	ug/L		99
66)	Pentachlorophenol	11.49	266	182105	131.79	ug/L		98
67)	Phenanthrene	11.71	178	905766	115.25	ug/L		99
68)	Anthracene	11.77	178	906514	117.74	ug/L		99
69)	Carbazole	11.95	167	653713	119.73	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	940174	127.34	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	939603	119.03	ug/L		99
72)	Benzidine	13.33	184	105194	124.45	ug/L	#	98
74)	Pyrene	13.52	202	1133162	115.55	ug/L		99
76)	Butylbenzylphthalate	14.25	149	843902	126.62	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	266119	121.35	ug/L		96
78)	Benzo[a]anthracene	15.14	228	1145450	115.23	ug/L		99
79)	Chrysene	15.22	228	1119670	113.64	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	734105	144.76	ug/L		100
82)	Di-n-octylphthalate	16.16	149	1067647	133.14	ug/L		98
83)	Benzo[b]fluoranthene	17.31	252	979430	115.72	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	995837	117.82	ug/L		99
85)	Benzo[a]pyrene	18.16	252	932575	118.70	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.98	276	1073488	129.45	ug/L		71
87)	Dibenz[a,h]anthracene	22.00	278	850859	122.26	ug/L		99
88)	Benzo[g,h,i]perylene	23.09	276	1023821	122.82	ug/L		100

(#) = qualifier out of range (m) = manual integration

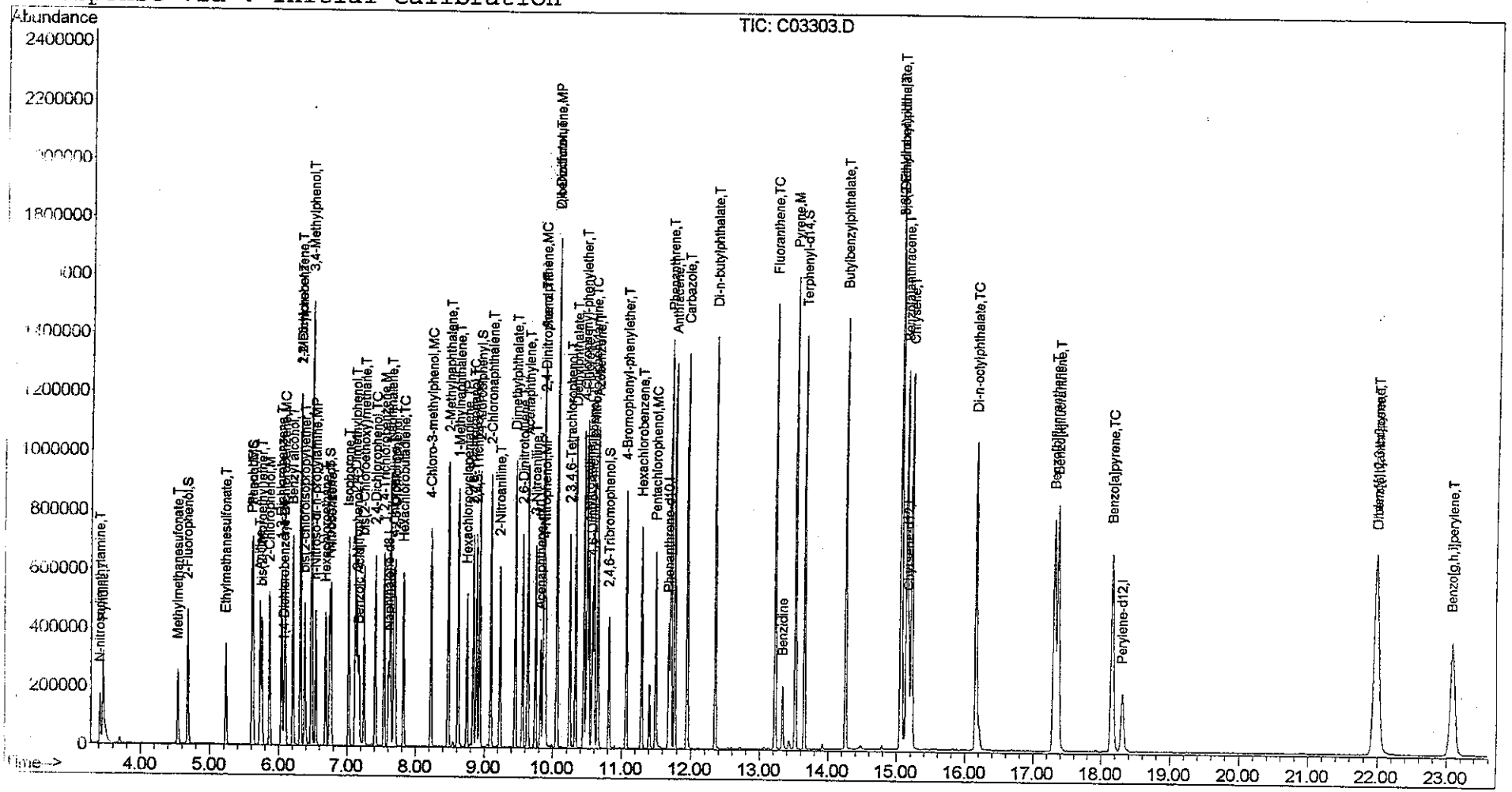
Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D
Acq On : 07/26/01 12:00
Sample : BNA 120 S01163
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001

Vial: 4
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



C03303.D 8270.M Fri Jul 27 08:23:15 2001 SVOA-C

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D
Acq On : 07/26/01 12:36
Sample : BNA 80 S01164
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001

Vial: 5
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	50939	40.00 ug/L	0.00
21) Naphthalene-d8	7.61	136	119361	40.00 ug/L	0.00
38) Acenaphthene-d10	9.82	164	147585	40.00 ug/L	0.00
59) Phenanthrene-d10	11.68	188	122633	40.00 ug/L	0.00
73) Chyrsene-d12	15.17	240	160255	40.00 ug/L	0.00
81) Perylene-d12	18.30	264	133641	40.00 ug/L	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	4.68	112	182582	82.13 ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 82.13%		
7) Phenol-d5	5.61	99	186380	79.01 ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 79.01%		
22) Nitrobenzene-d5	6.75	82	211552	79.23 ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 158.46%#		
42) 2-Fluorobiphenyl	8.93	172	255849	80.86 ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 161.72%#		
63) 2,4,6-Tribromophenol	10.82	330	44897	77.95 ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 77.95%		
75) Terphenyl-d14	13.65	244	233883	76.01 ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 152.02%#		
Target Compounds					Qvalue
2) Pyridine	3.46	79	110953	80.77 ug/L	99
3) N-nitrosodimethylamine	3.41	42	43887	82.59 ug/L	98
4) Methylmethanesufonate	4.54	80	69327	80.42 ug/L	98
6) Ethylmethanesulfonate	5.24	79	79226	78.54 ug/L	98
8) Phenol	5.63	94	234980	79.73 ug/L	98
9) Aniline	5.73	93	136458	79.69 ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	196991	79.93 ug/L	100
11) 2-Chlorophenol	5.87	128	167178	80.67 ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	172063	81.22 ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	173686	78.96 ug/L	99
14) Benzyl alcohol	6.21	108	204910m	78.73 ug/L	
15) 1,2-Dichlorobenzene	6.32	146	166474	83.21 ug/L	99
16) 2-Methylphenol	6.32	108	168726	82.23 ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	150081	79.47 ug/L	99
18) 3,4-Methylphenol	6.48	108	443288	160.79 ug/L	100
19) n-Nitroso-di-n-propylamine	6.54	70	120548	79.58 ug/L	100
20) Hexachloroethane	6.69	117	103475	81.69 ug/L	98
23) Nitrobenzene	6.77	77	184856	80.11 ug/L	100
24) Isophorone	7.03	82	217097	78.76 ug/L	99
25) 2-Nitrophenol	7.15	139	99010	78.96 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	213522	79.93 ug/L		98
27)	Benzoic Acid	7.17	105	58591	76.47 ug/L		95
28)	bis(2-Chloroethoxy)methane	7.25	93	171704	78.56 ug/L		99
29)	2,4-Dichlorophenol	7.42	162	144203	80.06 ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	177069	78.09 ug/L		100
31)	Naphthalene	7.63	128	307393	77.62 ug/L		98
32)	4-Chloroaniline	7.68	127	167982	78.93 ug/L		99
33)	2,6-Dichlorophenol	7.70	162	66262	77.99 ug/L		99
34)	Hexachlorobutadiene	7.83	225	103999	77.75 ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	155486	75.58 ug/L		99
36)	2-Methylnaphthalene	8.48	142	299386	79.61 ug/L		100
37)	1-Methylnaphthalene	8.62	142	146417	77.71 ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	85392	79.71 ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	112105	80.81 ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	122846	80.91 ug/L		97
43)	2-Chloronaphthalene	9.09	162	255159	80.07 ug/L		100
44)	2-Nitroaniline	9.23	65	147653	78.49 ug/L		99
45)	Dimethylphthalate	9.45	163	194600	77.92 ug/L		99
46)	Acenaphthylene	9.63	152	286927	78.83 ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	73757	79.47 ug/L		99
48)	3-Nitroaniline	9.74	138	105468	75.23 ug/L		99
49)	Acenaphthene	9.86	153	384222	80.80 ug/L		99
50)	2,4-Dinitrophenol	9.87	184	215422	80.41 ug/L		99
51)	4-Nitrophenol	9.88	109	113595	78.22 ug/L		99
52)	Dibenzofuran	10.05	168	292475	78.33 ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	90519	77.45 ug/L		99
54)	Diethylphthalate	10.32	149	221303	78.50 ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.24	232	38799	77.85 ug/L		98
56)	Fluorene	10.49	166	349768	79.29 ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	172999	79.16 ug/L		98
58)	4-Nitroaniline	10.52	138	109153	74.54 ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.57	198	56514	75.15 ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	217321	79.56 ug/L		98
62)	Azobenzene	10.65	77	230781	78.04 ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	125120	78.38 ug/L		99
65)	Hexachlorobenzene	11.29	284	77028	76.98 ug/L		99
66)	Pentachlorophenol	11.49	266	57940	74.57 ug/L		97
67)	Phenanthrene	11.71	178	349654	79.12 ug/L		99
68)	Anthracene	11.76	178	342105	79.02 ug/L		98
69)	Carbazole	11.95	167	237292	77.30 ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	328351	79.10 ug/L		99

(#) = qualifier out of range (m) = manual integration
C03304.D 8270.M Fri Jul 27 08:12:25 2001 ETOA-1

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

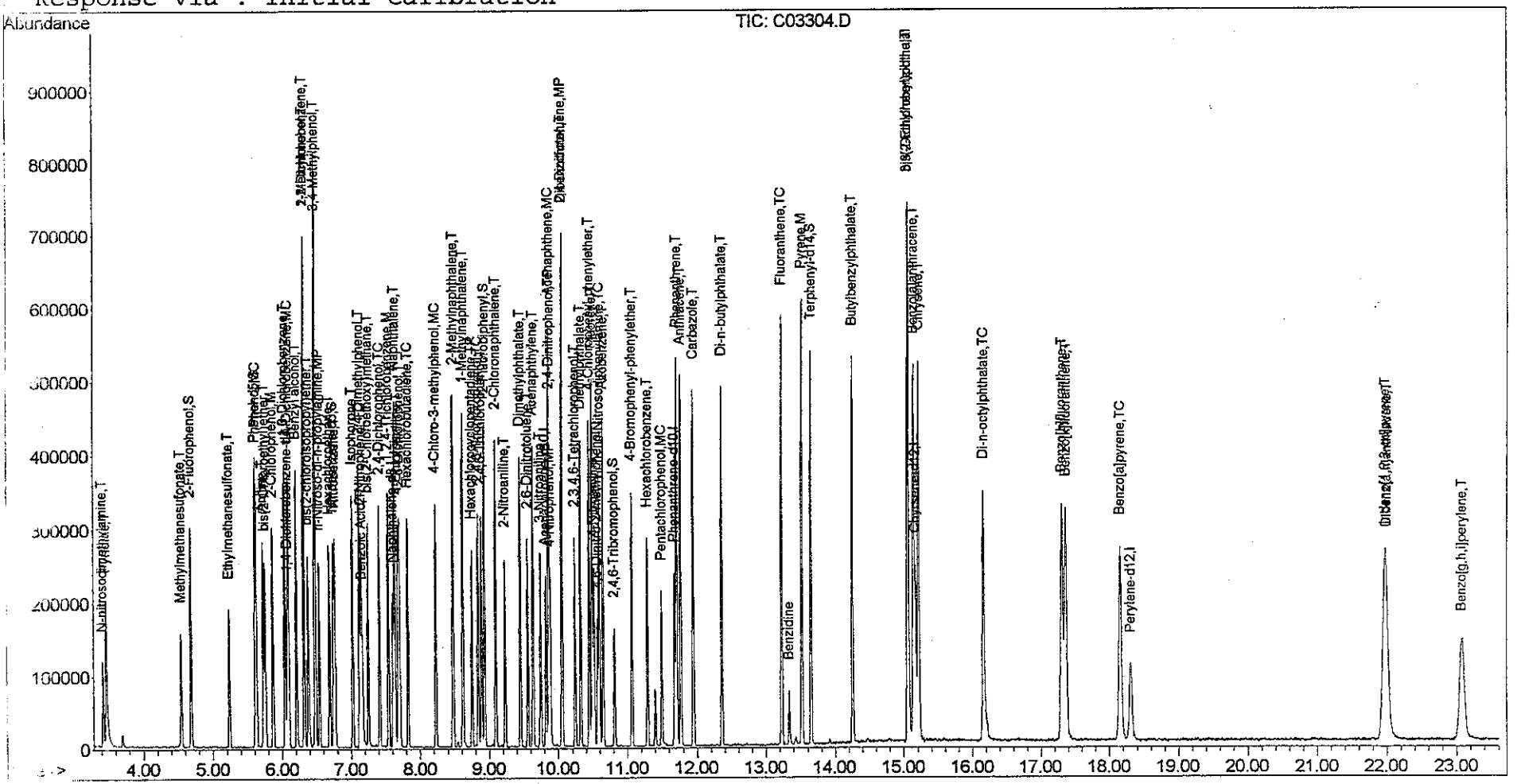
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	353651	79.68	ug/L		99
72)	Benzidine	13.33	184	35401	74.48	ug/L	#	96
74)	Pyrene	13.52	202	433060	78.03	ug/L		99
76)	Butylbenzylphthalate	14.25	149	301155	79.85	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	100060	80.63	ug/L		96
78)	Benzo[a]anthracene	15.14	228	446218	79.33	ug/L		99
79)	Chrysene	15.21	228	439962	78.91	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	280993	97.92	ug/L		99
82)	Di-n-octylphthalate	16.16	149	369751	83.54	ug/L		97
83)	Benzo[b]fluoranthene	17.30	252	379226	81.18	ug/L		98
84)	Benzo[k]fluoranthene	17.36	252	375532	80.50	ug/L		99
85)	Benzo[a]pyrene	18.15	252	359216	82.85	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.96	276	354068	77.36	ug/L		97
87)	Dibenz[a,h]anthracene	21.99	278	326008	84.87	ug/L		98
88)	Benzo[g,h,i]perylene	23.06	276	313630	68.17	ug/L		82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	75996	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	175539	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	218687	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	172639	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	213727	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	187336	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	175789	52.98	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 52.98%			
7) Phenol-d5	5.61	99	182790	52.03	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 52.03%			
22) Nitrobenzene-d5	6.75	82	206855	52.91	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 105.82%#			
42) 2-Fluorobiphenyl	8.93	172	240567	51.61	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 103.22%			
63) 2,4,6-Tribromophenol	10.82	330	40892	50.08	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 50.08%			
75) Terphenyl-d14	13.65	244	208945	50.78	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 101.56%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	109918	53.78	ug/L	99
3) N-nitrosodimethylamine	3.42	42	42977	54.68	ug/L	96
4) Methylmethanesufonate	4.54	80	68077	53.26	ug/L	97
6) Ethylmethanesulfonate	5.24	79	77239	51.55	ug/L	99
8) Phenol	5.63	94	231445	52.72	ug/L	99
9) Aniline	5.73	93	131219	51.49	ug/L	98
10) bis(2-Chloroethyl)ether	5.76	63	189914	51.47	ug/L	98
11) 2-Chlorophenol	5.87	128	163783	53.32	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	168872	53.65	ug/L	100
13) 1,4-Dichlorobenzene	6.10	146	168422	51.52	ug/L	99
14) Benzyl alcohol	6.21	108	202736m	52.35	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	153861	51.59	ug/L	99
16) 2-Methylphenol	6.32	108	155927	50.76	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	141501	49.94	ug/L	100
18) 3,4-Methylphenol	6.48	108	416985	100.90	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	116281	51.25	ug/L	97
20) Hexachloroethane	6.69	117	98751	52.06	ug/L	99
23) Nitrobenzene	6.77	77	176594	51.99	ug/L	99
24) Isophorone	7.03	82	202489	49.5[illegible]	ug/L	99
25) 2-Nitrophenol	7.15	139	97016	52.6[illegible]	ug/L	98

(#) = qualifie[illegible] of range (m[illegible] = manual integration
C03308.D [illegible] Jul [illegible] 08:21:52 2001 SVC -C

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26) 2,4-Dimethylphenol	7.13	107	208784	53.48	ug/L		99
27) Benzoic Acid	7.16	105	53777	47.03	ug/L		97
28) bis(2-Chloroethoxy)methane	7.25	93	165130	51.19	ug/L		99
29) 2,4-Dichlorophenol	7.42	162	133179	49.97	ug/L		98
30) 1,2,4-Trichlorobenzene	7.54	180	170159	51.04	ug/L		100
31) Naphthalene	7.63	128	304277	52.50	ug/L		98
32) 4-Chloroaniline	7.69	127	161411	51.41	ug/L		99
33) 2,6-Dichlorophenol	7.70	162	64163	51.01	ug/L		97
34) Hexachlorobutadiene	7.83	225	102001	52.04	ug/L		99
35) 4-Chloro-3-methylphenol	8.23	107	149338	48.71	ug/L		100
36) 2-Methylnaphthalene	8.48	142	281724	50.58	ug/L		100
37) 1-Methylnaphthalene	8.62	142	137604	49.28	ug/L		98
39) Hexachlorocyclopentadiene	8.75	237	82827	53.15	ug/L		100
40) 2,4,6-Trichlorophenol	8.84	196	104845	51.44	ug/L		98
41) 2,4,5-Trichlorophenol	8.88	196	118108	52.92	ug/L		99
43) 2-Chloronaphthalene	9.10	162	241811	51.40	ug/L		99
44) 2-Nitroaniline	9.23	65	142040	50.28	ug/L		100
45) Dimethylphthalate	9.45	163	187506	50.16	ug/L		99
46) Acenaphthylene	9.63	152	276100	51.12	ug/L		100
47) 2,6-Dinitrotoluene	9.55	165	69574	49.50	ug/L		99
48) 3-Nitroaniline	9.74	138	102102	48.06	ug/L		98
49) Acenaphthene	9.86	153	356857	50.31	ug/L		98
50) 2,4-Dinitrophenol	9.87	184	198276	48.90	ug/L		97
51) 4-Nitrophenol	9.88	109	103640	46.52	ug/L		100
52) Dibenzofuran	10.05	168	278766	50.12	ug/L		100
53) 2,4-Dinitrotoluene	10.05	165	88930	50.34	ug/L		97
54) Diethylphthalate	10.32	149	207889	48.18	ug/L		99
55) 2,3,4,6-Tetrachlorophenol	10.24	232	36676	48.54	ug/L		100
56) Fluorene	10.49	166	331759	50.08	ug/L		100
57) 4-Chlorophenyl-phenylether	10.45	204	166197	50.83	ug/L		98
58) 4-Nitroaniline	10.52	138	109554	48.86	ug/L		100
60) 4,6-Dinitro-2-methylphenol	10.57	198	47987	44.32	ug/L		100
61) n-Nitrosodiphenylamine	10.59	169	197358	51.31	ug/L		99
62) Azobenzene	10.65	77	222036	53.97	ug/L		100
64) 4-Bromophenyl-phenylether	11.07	248	119857	53.88	ug/L		99
65) Hexachlorobenzene	11.29	284	72541	51.56	ug/L		98
66) Pentachlorophenol	11.49	266	50687	45.46	ug/L		97
67) Phenanthrene	11.71	178	318737	51.06	ug/L		99
68) Anthracene	11.77	178	313510	51.08	ug/L		99
69) Carbazole	11.95	167	226012	51.98	ug/L	#	99
70) Di-n-butylphthalate	12.35	149	300515	50.66	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

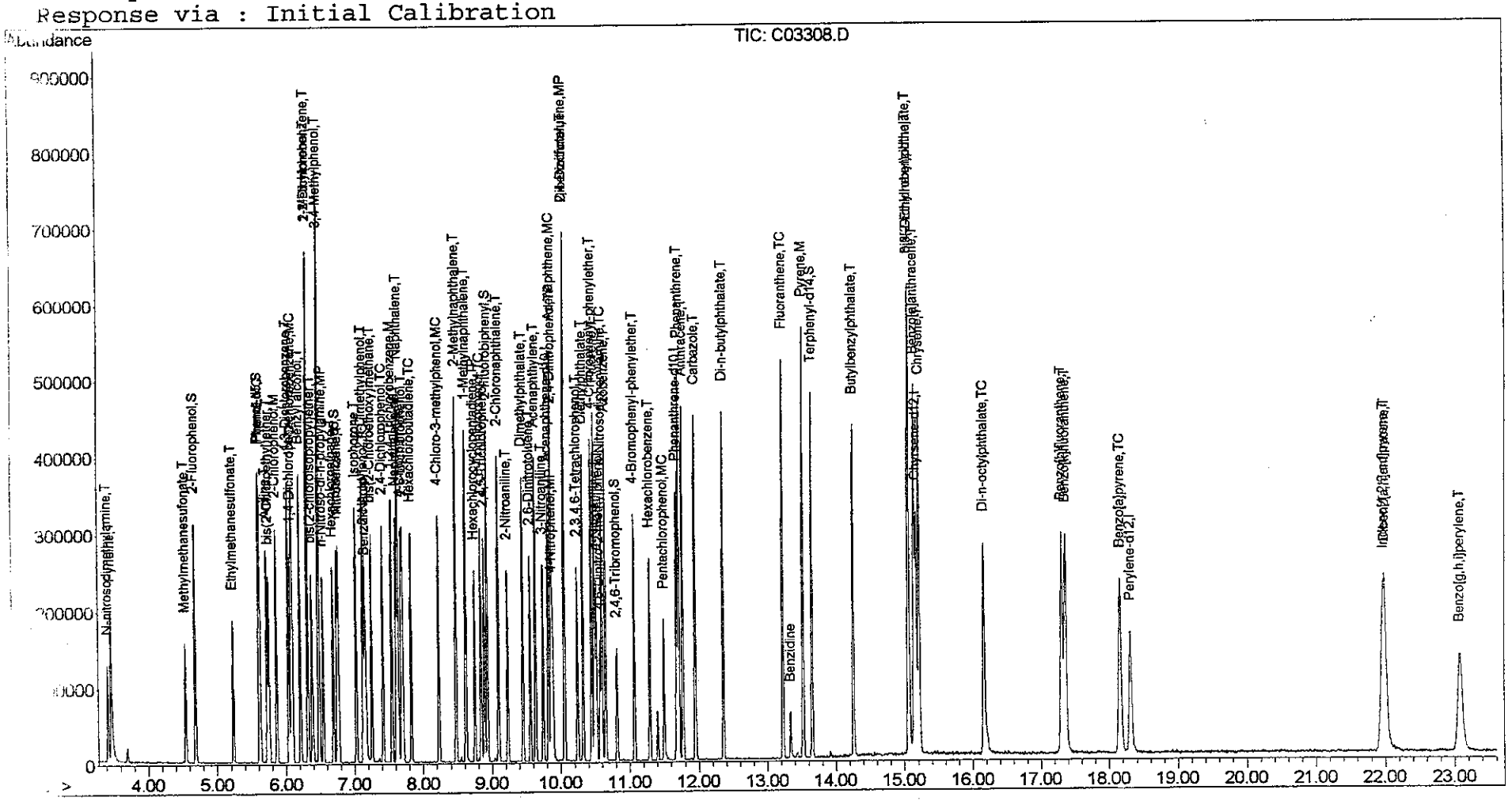
Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	323152	50.94	ug/L		100
72)	Benzidine	13.33	184	30776	44.27	ug/L	#	95
74)	Pyrene	13.52	202	388033	52.62	ug/L		99
76)	Butylbenzylphthalate	14.25	149	258774	50.95	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	87924	52.95	ug/L		95
78)	Benzo[a]anthracene	15.14	228	399051	53.22	ug/L		99
79)	Chrysene	15.22	228	389836	52.44	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	231045	61.86	ug/L		79
82)	Di-n-octylphthalate	16.16	149	311937	49.74	ug/L		98
83)	Benzo[b]fluoranthene	17.30	252	344308	52.64	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	336675	51.29	ug/L		99
85)	Benzo[a]pyrene	18.16	252	316282	52.16	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.96	276	314671	48.08	ug/L		77
87)	Dibenz[a,h]anthracene	21.99	278	298773	55.87	ug/L		98
88)	Benzo[g,h,i]perylene	23.07	276	349613	55.10	ug/L		90

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:10 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	74621	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	165749	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	206421	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	171123	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	199618	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	166475	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	73620	22.61	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 22.61%#			
7) Phenol-d5	5.61	99	73938	21.40	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 21.40%#			
22) Nitrobenzene-d5	6.75	82	80567	21.73	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 43.46%			
42) 2-Fluorobiphenyl	8.93	172	102314	23.12	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 46.24%			
63) 2,4,6-Tribromophenol	10.82	330	18276	22.74	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 22.74%#			
75) Terphenyl-d14	13.65	244	88156	23.00	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 46.00%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	44081	21.90	ug/L	100
3) N-nitrosodimethylamine	3.42	42	15782	20.27	ug/L #	94
4) Methylmethanesufonate	4.54	80	26974	21.36	ug/L	95
6) Ethylmethanesulfonate	5.24	79	30752	20.81	ug/L	99
8) Phenol	5.62	94	91477	21.19	ug/L	97
9) Aniline	5.73	93	56696	22.60	ug/L	96
10) bis(2-Chloroethyl)ether	5.76	63	77432	21.45	ug/L	99
11) 2-Chlorophenol	5.87	128	66748	21.99	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	68559	22.09	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	72757	22.58	ug/L	98
14) Benzyl alcohol	6.21	108	78718m	20.65	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	63981	21.83	ug/L	99
16) 2-Methylphenol	6.32	108	64188	21.35	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	59692	21.58	ug/L	99
18) 3,4-Methylphenol	6.48	108	174965	43.32	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	45096	20.32	ug/L	99
20) Hexachloroethane	6.69	117	41337	22.28	ug/L	99
23) Nitrobenzene	6.77	77	72674	22.68	ug/L	100
24) Isophorone	7.03	82	85048	22.22	ug/L	99
25) 2-Nitrophenol	7.15	139	36920	21.20	ug/L	98

(#) = qualifier out of range (m) manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	76665	20.67	ug/L		99
27)	Benzoic Acid	7.16	105	17905	16.83	ug/L	#	88
28)	bis(2-Chloroethoxy)methane	7.25	93	68210	22.47	ug/L		98
29)	2,4-Dichlorophenol	7.42	162	53939	21.57	ug/L		98
30)	1,2,4-Trichlorobenzene	7.54	180	72821	23.13	ug/L		99
31)	Naphthalene	7.63	128	126132	22.94	ug/L		99
32)	4-Chloroaniline	7.68	127	65942	22.31	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	25462	21.58	ug/L		98
34)	Hexachlorobutadiene	7.82	225	41524	22.35	ug/L		97
35)	4-Chloro-3-methylphenol	8.23	107	60846	21.30	ug/L		99
36)	2-Methylnaphthalene	8.48	142	115251	22.07	ug/L		99
37)	1-Methylnaphthalene	8.62	142	60391	23.08	ug/L		97
39)	Hexachlorocyclopentadiene	8.75	237	32796	21.89	ug/L		97
40)	2,4,6-Trichlorophenol	8.84	196	44936	23.16	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	45378	21.37	ug/L		95
43)	2-Chloronaphthalene	9.09	162	102759	23.05	ug/L		98
44)	2-Nitroaniline	9.23	65	55138	20.96	ug/L		97
45)	Dimethylphthalate	9.45	163	79284	22.70	ug/L		99
46)	Acenaphthylene	9.63	152	116340	22.85	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	28168	21.70	ug/L		99
48)	3-Nitroaniline	9.74	138	42332	21.59	ug/L		100
49)	Acenaphthene	9.86	153	154095	23.17	ug/L		99
50)	2,4-Dinitrophenol	9.87	184	80713	21.54	ug/L		97
51)	4-Nitrophenol	9.88	109	40575	19.98	ug/L		97
52)	Dibenzofuran	10.05	168	122558	23.47	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	34833	21.31	ug/L		99
54)	Diethylphthalate	10.32	149	88249	22.38	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	15471	22.20	ug/L		95
56)	Fluorene	10.49	166	141973	23.01	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	68525	22.42	ug/L		98
58)	4-Nitroaniline	10.52	138	41495	20.26	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.56	198	19705	18.78	ug/L		98
61)	n-Nitrosodiphenylamine	10.59	169	88654	23.26	ug/L		99
62)	Azobenzene	10.65	77	96709	23.44	ug/L		98
64)	4-Bromophenyl-phenylether	11.07	248	51798	23.25	ug/L		98
65)	Hexachlorobenzene	11.29	284	30896	22.13	ug/L		97
66)	Pentachlorophenol	11.50	266	20847	19.23	ug/L		97
67)	Phenanthrene	11.76	178	134544	21.82	ug/L		97
68)	Anthracene	11.76	178	134544	22.27	ug/L		97
69)	Carbazole	11.95	167	93439	21.81	ug/L		97
70)	Di-n-butylphthalate	12.35	149	125303	21.63	ug/L		98

(# = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

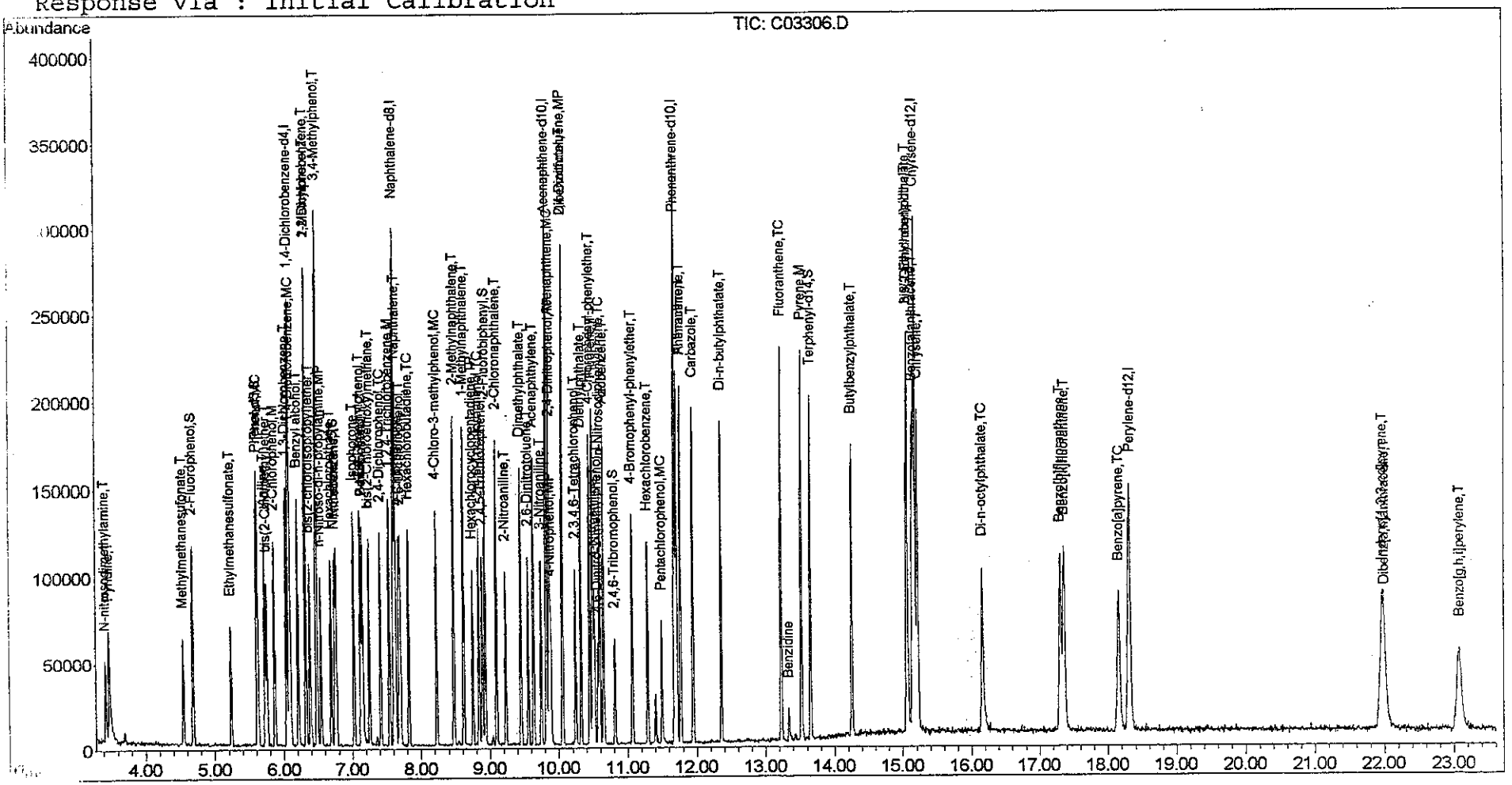
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.22	202	134207	21.67	ug/L		97
72) Benzidine	13.33	184	11599	17.49	ug/L	#	89
74) Pyrene	13.52	202	159810	23.12	ug/L		99
76) Butylbenzylphthalate	14.25	149	100742	21.44	ug/L		99
77) 3,3'-Dichlorobenzidine	15.05	252	30858	19.96	ug/L		96
78) Benzo[a]anthracene	15.14	228	157739	22.51	ug/L		99
79) Chrysene	15.21	228	155516	22.39	ug/L		99
80) bis(2-Ethylhexyl)phthalate	15.07	149	84650	23.68	ug/L		99
82) Di-n-octylphthalate	16.16	149	104411	18.94	ug/L		99
83) Benzo[b]fluoranthene	17.30	252	127255	21.87	ug/L		99
84) Benzo[k]fluoranthene	17.36	252	132117	22.74	ug/L		97
85) Benzo[a]pyrene	18.15	252	115720	21.42	ug/L		98
86) Indeno[1,2,3-cd]pyrene	21.96	276	110155	19.32	ug/L		99
87) Dibenz[a,h]anthracene	21.99	278	92390	19.31	ug/L		84
88) Benzo[g,h,i]perylene	23.07	276	117208	20.45	ug/L		89

(#) = qualifier out of range (m) = manual integration
C03306.D 8270.M Fri Jul 27 08:24:19 2001 SVOA-C

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	77116	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	178276	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	221487	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	174371	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	203007	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	178031	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	30087	8.94	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 8.94%#			
7) Phenol-d5	5.61	99	34757	9.73	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 9.73%#			
22) Nitrobenzene-d5	6.75	82	37992	9.53	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 19.06%#			
42) 2-Fluorobiphenyl	8.93	172	49326	10.39	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 20.78%#			
63) 2,4,6-Tribromophenol	10.82	330	7083	8.65	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 8.65%#			
75) Terphenyl-d14	13.65	244	39851	10.22	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 20.44%#			
Target Compounds						Qvalue
2) Pyridine	3.48	79	18938	9.11	ug/L	94
3) N-nitrosodimethylamine	3.43	42	7906	9.83	ug/L #	90
4) Methylmethanesufonate	4.54	80	12558	9.62	ug/L	92
6) Ethylmethanesulfonate	5.24	79	14445	9.46	ug/L	97
8) Phenol	5.62	94	43007	9.64	ug/L	98
9) Aniline	5.73	93	26211	10.11	ug/L	97
10) bis(2-Chloroethyl)ether	5.76	63	35382	9.48	ug/L	98
11) 2-Chlorophenol	5.87	128	29205	9.31	ug/L	97
12) 1,3-Dichlorobenzene	6.05	146	30816	9.61	ug/L	97
13) 1,4-Dichlorobenzene	6.09	146	34070	10.23	ug/L	95
14) Benzyl alcohol	6.21	108	34621m	8.79	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	30106	9.94	ug/L	99
16) 2-Methylphenol	6.32	108	29080	9.36	ug/L	97
17) bis(2-chloroisopropyl)ethe	6.38	45	27585	9.65	ug/L	96
18) 3,4-Methylphenol	6.48	108	77528	18.57	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	20634	9.00	ug/L	97
20) Hexachloroethane	6.69	117	17518	9.14	ug/L	98
23) Nitrobenzene	6.76	77	33288	9.66	ug/L	97
24) Isophorone	7.03	82	37445	9.10	ug/L	97
25) 2-Nitrophenol	7.15	139	17117	9.14	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	35587	8.92	ug/L		95
27)	Benzoic Acid	7.15	105	6792	5.94	ug/L		94
28)	bis(2-Chloroethoxy)methane	7.25	93	30334	9.29	ug/L		100
29)	2,4-Dichlorophenol	7.42	162	24917	9.26	ug/L		96
30)	1,2,4-Trichlorobenzene	7.54	180	33981	10.03	ug/L		99
31)	Naphthalene	7.63	128	58089	9.82	ug/L		99
32)	4-Chloroaniline	7.69	127	30420	9.57	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	12346	9.73	ug/L		95
34)	Hexachlorobutadiene	7.82	225	20205	10.11	ug/L		95
35)	4-Chloro-3-methylphenol	8.23	107	28743	9.35	ug/L		98
36)	2-Methylnaphthalene	8.48	142	53944	9.60	ug/L		100
37)	1-Methylnaphthalene	8.62	142	27001	9.60	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	16624	10.34	ug/L		98
40)	2,4,6-Trichlorophenol	8.84	196	19739	9.48	ug/L		97
41)	2,4,5-Trichlorophenol	8.89	196	22064	9.68	ug/L		98
43)	2-Chloronaphthalene	9.09	162	49114	10.27	ug/L		99
44)	2-Nitroaniline	9.23	65	23365	8.28	ug/L		97
45)	Dimethylphthalate	9.45	163	35925	9.59	ug/L		98
46)	Acenaphthylene	9.63	152	53126	9.73	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	11894	8.54	ug/L		93
48)	3-Nitroaniline	9.74	138	17490	8.31	ug/L		99
49)	Acenaphthene	9.86	153	69802	9.78	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	36432	9.06	ug/L		94
51)	4-Nitrophenol	9.88	109	15737	7.22	ug/L		98
52)	Dibenzofuran	10.05	168	57554	10.27	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	15134	8.63	ug/L		98
54)	Diethylphthalate	10.32	149	37968	8.97	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	6083	8.13	ug/L		98
56)	Fluorene	10.49	166	62911	9.50	ug/L		98
57)	4-Chlorophenyl-phenylether	10.45	204	31714	9.67	ug/L		98
58)	4-Nitroaniline	10.52	138	17709	8.06	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	7100	6.64	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	38350	9.87	ug/L		98
62)	Azobenzene	10.65	77	41447	9.86	ug/L		97
64)	4-Bromophenyl-phenylether	11.06	248	22094	9.73	ug/L		98
65)	Hexachlorobenzene	11.29	284	15772	11.08	ug/L		95
66)	Pentachlorophenol	11.49	266	7359	6.66	ug/L		91
67)	Phenanthrene	11.71	178	62553	9.96	ug/L		98
68)	Anthracene	11.77	178	60405	9.81	ug/L		98
69)	Carbazole	11.95	167	42767	9.80	ug/L	#	99
70)	Di-n-butylphthalate	12.35	149	49974	8.47	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

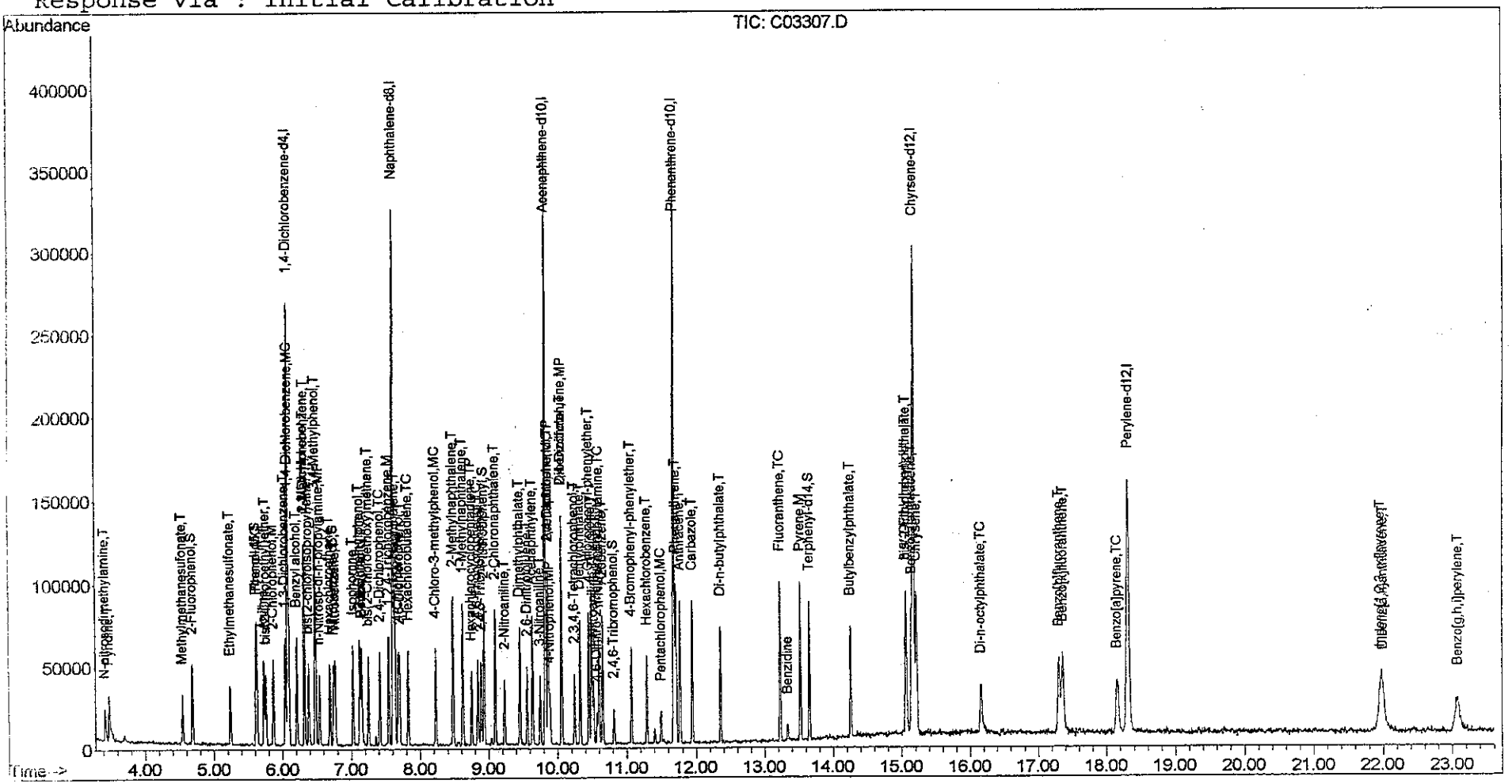
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	57187	9.06	ug/L		96
72)	Benzidine	13.33	184	7455	11.03	ug/L	#	92
74)	Pyrene	13.51	202	69379	9.87	ug/L		97
76)	Butylbenzylphthalate	14.25	149	38695	8.10	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	13260	8.43	ug/L		97
78)	Benzo[a]anthracene	15.14	228	66972	9.40	ug/L		98
79)	Chrysene	15.21	228	71142	10.07	ug/L		98
80)	bis(2-Ethylhexyl)phthalate	15.07	149	33464	9.21	ug/L		98
82)	Di-n-octylphthalate	16.16	149	36714	6.23	ug/L		98
83)	Benzo[b]fluoranthene	17.30	252	51959	8.35	ug/L		91
84)	Benzo[k]fluoranthene	17.36	252	52105	8.38	ug/L		98
85)	Benzo[a]pyrene	18.15	252	47492	8.22	ug/L		90
86)	Indeno[1,2,3-cd]pyrene	21.95	276	45732	7.50	ug/L		85
87)	Dibenz[a,h]anthracene	21.99	278	36015	7.04	ug/L		79
88)	Benzo[g,h,i]perylene	23.07	276	51323	8.37	ug/L		90

(#) = qualifier out of rang (*) = manual integration
C03307.D 8270.M F Jul 27 08:24:41 2001 2 Page 3

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:17 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D Vial: 10
Acq On : 07/26/01 15:43 Operator: DMB
Sample : ICV BNA 50 S01156 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	82851	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	192899	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	252107	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	214162	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	230847	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	175164	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	172112	47.60	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 47.60%			
7) Phenol-d5	5.61	99	182635	47.60	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 47.60%			
22) Nitrobenzene-d5	6.75	82	209907	48.64	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 97.28%			
42) 2-Fluorobiphenyl	8.93	172	267304	49.46	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 98.92%			
63) 2,4,6-Tribromophenol	10.82	330	47002	46.73	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 46.73%			
75) Terphenyl-d14	13.65	244	232170	52.38	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 104.76%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	106535m	47.68	ug/L	
3) N-nitrosodimethylamine	3.42	42	39862	46.12	ug/L #	99
4) Methylmethanesufonate	4.55	80	69823	49.80	ug/L	99
6) Ethylmethanesulfonate	5.24	79	78226	47.68	ug/L	100
8) Phenol	5.63	94	225815	47.11	ug/L	99
9) Aniline	5.74	93	119083	42.75	ug/L	100
10) bis(2-Chloroethyl)ether	5.76	63	195489	48.58	ug/L	98
11) 2-Chlorophenol	5.87	128	162866	48.32	ug/L	99
12) 1,3-Dichlorobenzene	6.05	146	167518	48.62	ug/L	100
13) 1,4-Dichlorobenzene	6.10	146	173509	48.50	ug/L	99
14) Benzyl alcohol	6.21	108	215173m	50.83	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	155710	47.85	ug/L	99
16) 2-Methylphenol	6.32	108	164924	49.42	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	146251	47.61	ug/L	99
18) 3,4-Methylphenol	6.48	108	430799	96.07	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	117217	47.57	ug/L	99
20) Hexachloroethane	6.69	117	100214	48.64	ug/L	99
23) Nitrobenzene	6.77	77	187004	50.15	ug/L	99
24) Isophorone	7.03	82	219623	49.30	ug/L	100
25) 2-Nitrophenol	7.15	139	99535	49.12	ug/L	100

(#) = qual r out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D Vial: 10
Acq On : 07/26/01 15:43 Operator: DMB
Sample : ICV BNA 50 S01156 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.13	107	205436	47.59	ug/L		99
27)	Benzoic Acid	7.17	105	54156	43.74	ug/L		94
28)	bis(2-Chloroethoxy)methane	7.25	93	176859	50.07	ug/L		100
29)	2,4-Dichlorophenol	7.42	162	144815	49.75	ug/L		99
30)	1,2,4-Trichlorobenzene	7.55	180	180654	49.30	ug/L		99
31)	Naphthalene	7.63	128	311854	48.73	ug/L		98
32)	4-Chloroaniline	7.69	127	166300	48.35	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	69256	50.44	ug/L		98
34)	Hexachlorobutadiene	7.83	225	110609	51.17	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	167067	50.25	ug/L		100
36)	2-Methylnaphthalene	8.48	142	313123	51.52	ug/L		99
37)	1-Methylnaphthalene	8.62	142	152139	49.97	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	87779	47.97	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	114649	48.38	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	126948	48.95	ug/L		96
43)	2-Chloronaphthalene	9.10	162	271986	49.96	ug/L		100
44)	2-Nitroaniline	9.23	65	156428	48.68	ug/L		99
45)	Dimethylphthalate	9.45	163	205906	48.27	ug/L		99
46)	Acenaphthylene	9.63	152	307161	49.40	ug/L		100
47)	2,6-Dinitrotoluene	9.55	165	77688	49.00	ug/L		98
48)	3-Nitroaniline	9.74	138	111344	46.49	ug/L		98
49)	Acenaphthene	9.86	153	405690	49.94	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	227942	49.81	ug/L		99
51)	4-Nitrophenol	9.88	109	120023	48.38	ug/L		99
52)	Dibenzofuran	10.05	168	316309	49.59	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	98575	49.38	ug/L		99
54)	Diethylphthalate	10.32	149	239516	49.74	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	41552	48.81	ug/L		90
56)	Fluorene	10.49	166	371735	49.33	ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	184433	49.40	ug/L		98
58)	4-Nitroaniline	10.52	138	120555	48.20	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	56101	42.72	ug/L		96
61)	n-Nitrosodiphenylamine	10.59	169	230355	48.29	ug/L		98
62)	Azobenzene	10.65	77	252416	48.88	ug/L		98
64)	4-Bromophenyl-phenylether	11.07	248	133484	47.88	ug/L		98
65)	Hexachlorobenzene	11.29	284	83849	47.98	ug/L		97
66)	Pentachlorophenol	11.49	266	62090	45.76	ug/L		96
67)	Phenanthrene	11.71	178	372961	48.58	ug/L		99
68)	Anthracene	11.77	178	362856	47.99	ug/L		99
69)	Carbazole	11.95	167	251053	46.83	ug/L	#	98
70)	Di-n-butylphthalate	12.35	149	342759	47.28	ug/L		100

(#) = qualifier out of [illegible] (m) = manual [illegible]gration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D Vial: 10
Acq On : 07/26/01 15:43 Operator: DMB
Sample : ICV BNA 50 S01156 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

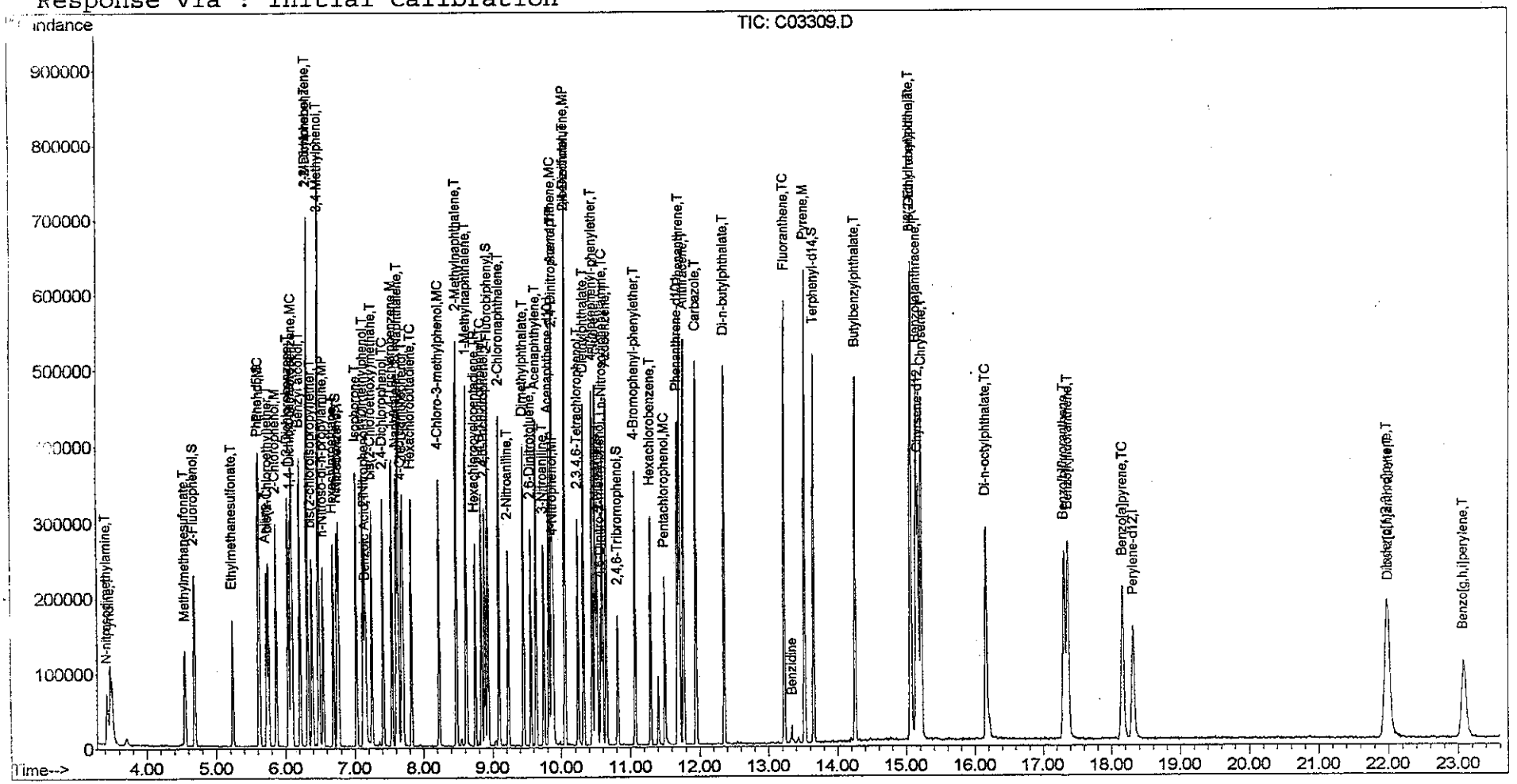
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	351441	45.34	ug/L		99
72)	Benzidine	13.34	184	13083	15.76	ug/L	#	100
74)	Pyrene	13.52	202	423897	53.02	ug/L		99
76)	Butylbenzylphthalate	14.25	149	288656	53.13	ug/L		100
77)	3,3'-Dichlorobenzidine	15.06	252	83236	46.62	ug/L		95
78)	Benzo[a]anthracene	15.14	228	416431	51.39	ug/L		100
79)	Chrysene	15.22	228	399781	49.78	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	248748	51.73	ug/L		99
82)	Di-n-octylphthalate	16.16	149	313178	53.99	ug/L		97
83)	Benzo[b]fluoranthene	17.30	252	304449	49.73	ug/L		98
84)	Benzo[k]fluoranthene	17.36	252	320111	52.36	ug/L		97
85)	Benzo[a]pyrene	18.16	252	281422	49.52	ug/L		100
86)	Indeno[1,2,3-cd]pyrene	21.97	276	295167	49.20	ug/L		71
87)	Dibenz[a,h]anthracene	22.00	278	213228	42.35	ug/L		90
88)	Benzo[g,h,i]perylene	23.07	276	275454	45.68	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D Vial: 10
Acq On : 07/26/01 15:43 Operator: DMB
Sample : ICV BNA 50 S01156 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:37 2001 Quant Results File: 8270.RES

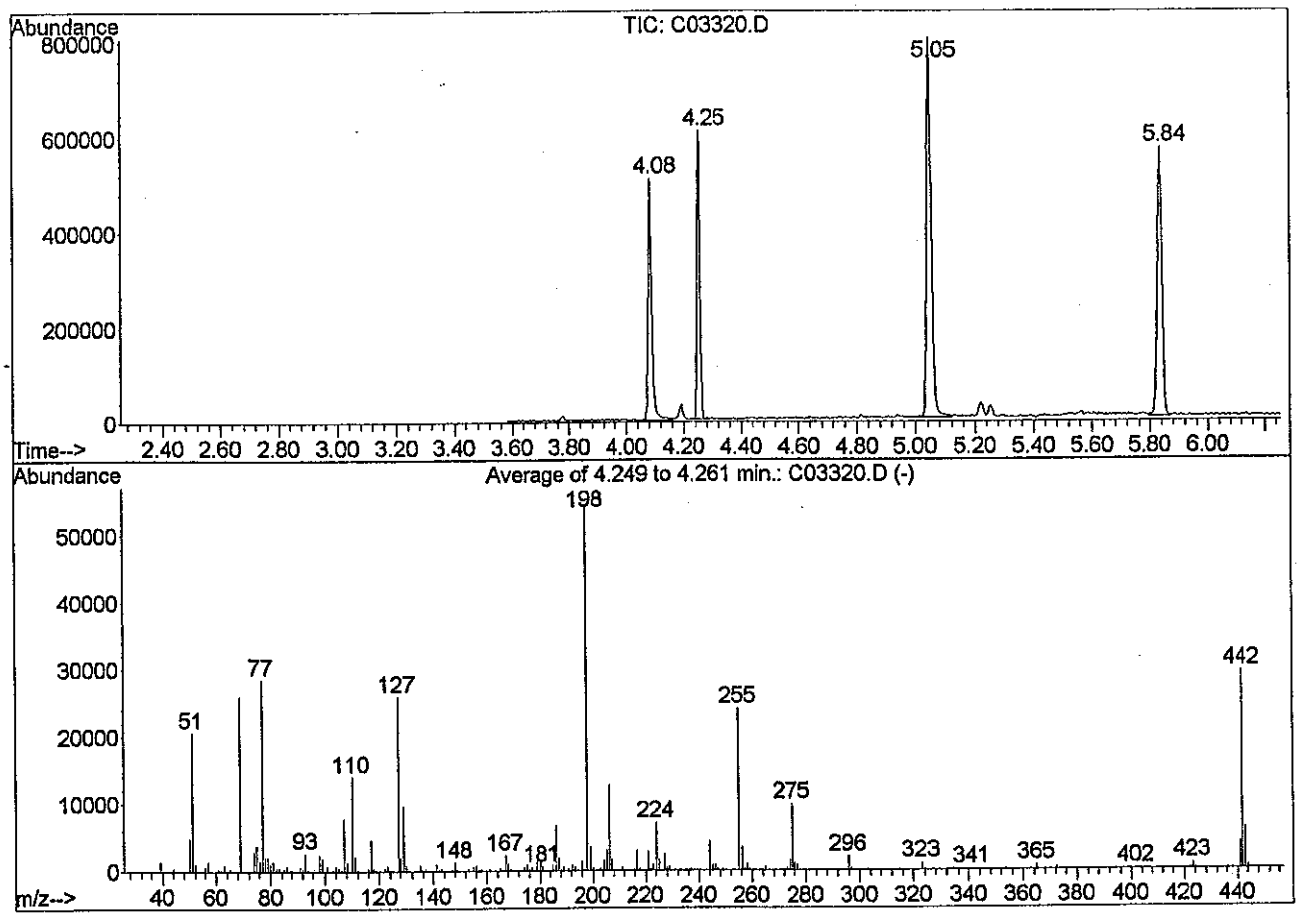
Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



DFTPP

Data File : D:\MSDCHEM\1\DATA\072601A\C03320.D
Acq On : 07/26/01 22:14
Sample : DFTPP 50 S01132
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method

Vial: 1
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00



AutoFind: Scans 114, 115, 116; Background Corrected with Scan 109

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.9	20650	PASS
68	69	0.00	2	0.6	167	PASS
69	198	0.00	100	47.9	26097	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	47.8	26029	PASS
197	198	0.00	1	0.4	233	PASS
198	198	100	100	100.0	54496	PASS
199	198	5	9	6.4	3461	PASS
275	198	10	30	18.1	9848	PASS
365	198	1	100	1.3	724	PASS
441	443	0.01	100	65.9	4058	PASS
442	198	40	100	54.0	29433	PASS
443	442	17	23	20.9	6157	PASS

1	4.084	rBV	0.123	437303	4.037	4.161
2	4.255	rBV	0.065	479087	4.220	4.284
3	5.048	rBV	0.123	810544	4.995	5.119
4	5.835	rVB	0.076	669209	5.794	5.871

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 09:07:33 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	84526	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	181035	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	215267	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	165795	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	189992	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	153621	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	179758	48.73	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 48.73%			
7) Phenol-d5	5.61	99	183724	46.94	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 46.94%			
22) Nitrobenzene-d5	6.75	82	202957	50.11	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 100.22%#			
42) 2-Fluorobiphenyl	8.93	172	233075	50.50	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 101.00%			
63) 2,4,6-Tribromophenol	10.82	330	38958	50.03	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 50.03%			
75) Terphenyl-d14	13.65	244	185756	50.92	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 101.84%			
Target Compounds						Qvalue
2) Pyridine	3.46	79	109819	48.18	ug/L	97
3) N-nitrosodimethylamine	3.42	42	42429	48.12	ug/L #	97
4) Methylmethanesufonate	4.54	80	66916	46.78	ug/L	96
6) Ethylmethanesulfonate	5.24	79	74788	44.68	ug/L	99
8) Phenol	5.63	94	230344	47.10	ug/L	99
9) Aniline	5.73	93	143901	50.64	ug/L	98
10) bis(2-Chloroethyl)ether	5.76	63	186262	45.37	ug/L	99
11) 2-Chlorophenol	5.87	128	160045	46.54	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	169550	48.23	ug/L	99
13) 1,4-Dichlorobenzene	6.09	146	175749	48.15	ug/L	100
14) Benzyl alcohol	6.21	108	201915m	46.75	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	157264	47.37	ug/L	99
16) 2-Methylphenol	6.32	108	158171	46.46	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	144774	46.20	ug/L	99
18) 3,4-Methylphenol	6.48	108	420102	91.83	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	110429	43.93	ug/L	99
20) Hexachloroethane	6.69	117	105901	50.38	ug/L	98
23) Nitrobenzene	6.76	77	173258	49.50	ug/L	99
24) Isophorone	7.03	82	199818	47.80	ug/L	97
25) 2-Nitrophenol	7.15	139	92584	48.68	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 09:07:33 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	204444	50.46	ug/L		99
27)	Benzoic Acid	7.17	105	41113	35.38	ug/L		98
28)	bis(2-Chloroethoxy)methane	7.25	93	157742	47.59	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	130125	47.63	ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	163665	47.59	ug/L		100
31)	Naphthalene	7.63	128	287379	47.85	ug/L		99
32)	4-Chloroaniline	7.68	127	154951	48.01	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	62481	48.49	ug/L		98
34)	Hexachlorobutadiene	7.83	225	102940	50.74	ug/L		97
35)	4-Chloro-3-methylphenol	8.23	107	146948	47.10	ug/L		99
36)	2-Methylnaphthalene	8.47	142	269539	47.26	ug/L		99
37)	1-Methylnaphthalene	8.62	142	132571	46.39	ug/L		97
39)	Hexachlorocyclopentadiene	8.75	237	79741	51.03	ug/L		98
40)	2,4,6-Trichlorophenol	8.84	196	95909	47.40	ug/L		98
41)	2,4,5-Trichlorophenol	8.88	196	109836	49.60	ug/L		99
43)	2-Chloronaphthalene	9.09	162	234146	50.37	ug/L		100
44)	2-Nitroaniline	9.23	65	127973	46.64	ug/L		98
45)	Dimethylphthalate	9.45	163	171515	47.08	ug/L		99
46)	Acenaphthylene	9.63	152	269598	50.78	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	63755	47.10	ug/L		97
48)	3-Nitroaniline	9.74	138	94334	46.13	ug/L		99
49)	Acenaphthene	9.86	153	342815	49.43	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	186519	47.73	ug/L		99
51)	4-Nitrophenol	9.88	109	92005	43.44	ug/L		98
52)	Dibenzofuran	10.05	168	264759	48.61	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	80913	47.47	ug/L		99
54)	Diethylphthalate	10.32	149	200200	48.69	ug/L		98
55)	2,3,4,6-Tetrachlorophenol	10.24	232	33914	46.65	ug/L		98
56)	Fluorene	10.49	166	310780	48.30	ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	158685	49.78	ug/L		99
58)	4-Nitroaniline	10.52	138	95627	44.77	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.57	198	43289	42.58	ug/L		98
61)	n-Nitrosodiphenylamine	10.59	169	186250	50.44	ug/L		99
62)	Azobenzene	10.65	77	210141	52.56	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	110296	51.11	ug/L		99
65)	Hexachlorobenzene	11.29	284	70913	52.42	ug/L		99
66)	Pentachlorophenol	11.49	266	46678	44.44	ug/L		97
67)	Phenanthrene	11.71	178	297088	49.99	ug/L		99
68)	Anthracene	11.76	178	294474	50.31	ug/L		98
69)	Carbazole	11.95	167	202252	48.73	ug/L	#	98
70)	Di-n-butylphthalate	12.35	149	264361	47.10	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 09:07:33 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

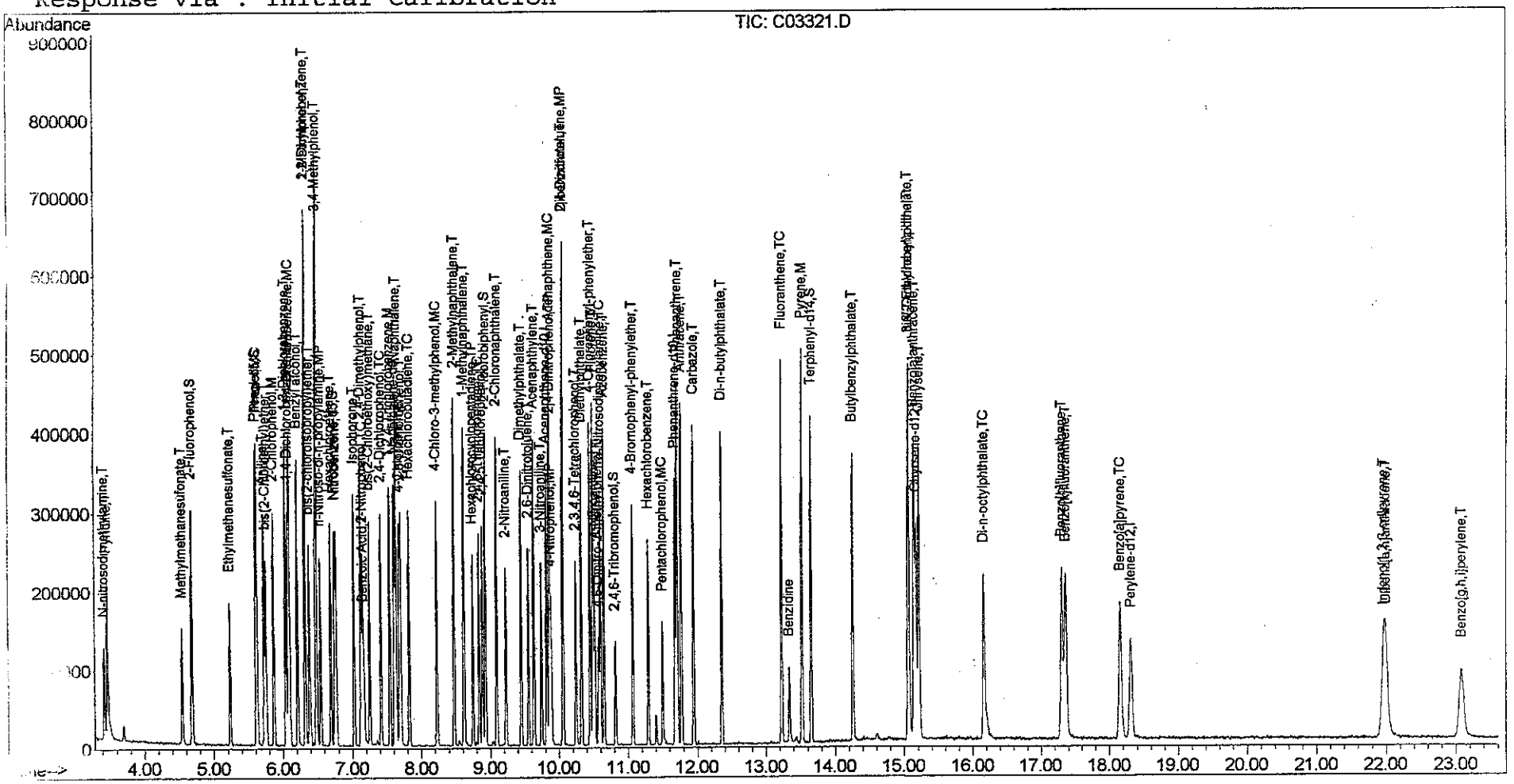
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	285190	47.53	ug/L		99
72)	Benzidine	13.33	184	49412	76.90	ug/L	#	97
74)	Pyrene	13.52	202	338991	51.52	ug/L		99
76)	Butylbenzylphthalate	14.25	149	220470	49.30	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	63660	43.32	ug/L		99
78)	Benzo[a]anthracene	15.14	228	333273	49.97	ug/L		98
79)	Chrysene	15.21	228	317991	48.11	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	188674	47.67	ug/L		98
82)	Di-n-octylphthalate	16.16	149	238262	46.83	ug/L		98
83)	Benzo[b]fluoranthene	17.30	252	251263	46.79	ug/L		98
84)	Benzo[k]fluoranthene	17.36	252	254798	47.52	ug/L		98
85)	Benzo[a]pyrene	18.16	252	233725	46.89	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.95	276	248413	47.22	ug/L		71
87)	Dibenz[a,h]anthracene	22.00	278	197182	44.66	ug/L		97
88)	Benzo[g,h,i]perylene	23.07	276	189651	35.86	ug/L		72

(#) = qualifier out of range (m) = manual integration
C03321.D 8270.M Fri Jul 27 09:08:22 2001 SVOA-4 Page

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 9:08 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00
2	T	Pyridine	1.079	1.039	3.7	100	0.00
3	T	N-nitrosodimethylamine	0.417	0.402	3.6	99	0.00
4	T	Methylmethanesufonate	0.677	0.633	6.5	98	0.00
5	S	2-Fluorophenol	1.746	1.701	2.6	102	0.00
6	T	Ethylmethanesulfonate	0.792	0.708	10.6	97	0.00
7	S	Phenol-d5	1.852	1.739	6.1	101	0.00
8	MC	Phenol	2.314	2.180	5.8	100	0.00
9	T	Aniline	1.345	1.362	-1.3	110	0.00
10	T	bis(2-Chloroethyl)ether	1.943	1.763	9.3	98	0.00
11	M	2-Chlorophenol	1.627	1.515	6.9	98	0.00
12	T	1,3-Dichlorobenzene	1.664	1.605	3.5	100	0.00
13	MC	1,4-Dichlorobenzene	1.727	1.663	3.7	104	0.00
14	T	Benzyl alcohol	2.044	1.911	6.5	100	0.00
15	T	1,2-Dichlorobenzene	1.571	1.488	5.3	102	0.00
16	T	2-Methylphenol	1.611	1.497	7.1	101	0.00
17	T	bis(2-chloroisopropyl)ether	1.483	1.370	7.6	102	0.00
18	T	3,4-Methylphenol	2.165	1.988	8.2	101	0.00
19	MP	n-Nitroso-di-n-propylamine	1.190	1.045	12.2	95	0.00
20	T	Hexachloroethane	0.995	1.002	-0.7	107	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00
22	S	Nitrobenzene-d5	0.895	0.897	-0.2	98	0.00
23	T	Nitrobenzene	0.773	0.766	0.9	98	0.00
24	T	Isophorone	0.924	0.883	4.4	99	0.00
25	TC	2-Nitrophenol	0.420	0.409	2.6	95	0.00
26	T	2,4-Dimethylphenol	0.895	0.903	-0.9	98	0.00
27	T	Benzoic Acid	0.257	0.182	29.2#	76	0.00
28	T	bis(2-Chloroethoxy)methane	0.732	0.697	4.8	96	0.00
29	TC	2,4-Dichlorophenol	0.604	0.575	4.8	98	0.00
30	M	1,2,4-Trichlorobenzene	0.760	0.723	4.9	96	0.00
31	T	Naphthalene	1.327	1.270	4.3	94	0.00
32	T	4-Chloroaniline	0.713	0.685	3.9	96	0.00
33	T	2,6-Dichlorophenol	0.285	0.276	3.2	97	0.00
34	TC	Hexachlorobutadiene	0.448	0.455	-1.6	101	0.00
35	MC	4-Chloro-3-methylphenol	0.689	0.649	5.8	98	0.00
36	T	2-Methylnaphthalene	1.260	1.191	5.5	96	0.00
37	T	1-Methylnaphthalene	0.631	0.586	7.1	96	0.00
38	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00
39	TP	Hexachlorocyclopentadiene	0.290	0.296	-2.1	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D Vial: 2
Acq On : 07/26/01 22:33 Operator: DMB
Sample : BNA 50 S01179 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.376	0.356	5.3	91	0.00
41	T	2,4,5-Trichlorophenol	0.411	0.408	0.7	93	0.00
42	S	2-Fluorobiphenyl	0.858	0.866	-0.9	97	0.00
43	T	2-Chloronaphthalene	0.864	0.870	-0.7	97	0.00
44	T	2-Nitroaniline	0.510	0.476	6.7	90	0.00
45	T	Dimethylphthalate	0.677	0.637	5.9	91	0.00
46	T	Acenaphthylene	0.986	1.002	-1.6	98	0.00
47	T	2,6-Dinitrotoluene	0.252	0.237	6.0	92	0.00
48	T	3-Nitroaniline	0.380	0.351	7.6	92	0.00
49	MC	Acenaphthene	1.289	1.274	1.2	96	0.00
50	TP	2,4-Dinitrophenol	0.726	0.693	4.5	94	0.00
51	MP	4-Nitrophenol	0.394	0.342	13.2	89	0.00
52	T	Dibenzofuran	1.012	0.984	2.8	95	0.00
53	MP	2,4-Dinitrotoluene	0.317	0.301	5.0	91	0.00
54	T	Diethylphthalate	0.764	0.744	2.6	96	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.135	0.126	6.7	92	0.00
56	T	Fluorene	1.196	1.155	3.4	94	0.00
57	T	4-Chlorophenyl-phenylether	0.592	0.590	0.3	95	0.00
58	T	4-Nitroaniline	0.397	0.355	10.6	87	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00
60	T	4,6-Dinitro-2-methylphenol	0.245	0.209	14.7	90	0.00
61	TC	n-Nitrosodiphenylamine	0.891	0.899	-0.9	94	0.00
62	T	Azobenzene	0.965	1.014	-5.1	95	0.00
63	S	2,4,6-Tribromophenol	0.188	0.188	0.0	95	0.00
64	T	4-Bromophenyl-phenylether	0.521	0.532	-2.1	92	0.00
65	T	Hexachlorobenzene	0.326	0.342	-4.9	98	0.00
66	MC	Pentachlorophenol	0.253	0.225	11.1	92	0.00
67	T	Phenanthrene	1.434	1.434	0.0	93	0.00
68	T	Anthracene	1.412	1.421	-0.6	94	0.00
69	T	Carbazole	1.001	0.976	2.5	89	0.00
70	T	Di-n-butylphthalate	1.354	1.276	5.8	88	0.00
71	TC	Fluoranthene	1.448	1.376	5.0	88	0.00
72		Benzidine	0.155	0.238	-53.5#	161	0.00
73	I	Chyrsene-d12	1.000	1.000	0.0	89	0.00
74	M	Pyrene	1.385	1.427	-3.0	87	0.00
75	S	Terphenyl-d14	0.768	0.782	-1.8	89	0.00
76	T	Butylbenzylphthalate	0.941	0.928	1.4	85	0.00
77	T	3,3'-Dichlorobenzidine	0.309	0.268	13.3	72	0.00
78	T	Benzo[a]anthracene	1.404	1.403	0.1	84	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\MSDCHEM\1\DATA\072601A\C03321.D
Acq On : 07/26/01 22:33
Sample : BNA 50 S01179
Misc :
MS Integration Params: rteint.p

Vial: 2
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	Chrysene	1.392	1.339	3.8	82	0.00
80	T	bis(2-Ethylhexyl)phthalate	0.833	0.794	4.7	82	0.00
81	I	Perylene-d12	1.000	1.000	0.0	82	0.00
82	TC	Di-n-octylphthalate	1.325	1.241	6.3	76	0.00
83	T	Benzo[b]fluoranthene	1.398	1.308	6.4	73	0.00
84	T	Benzo[k]fluoranthene	1.396	1.327	4.9	76	0.00
85	TC	Benzo[a]pyrene	1.298	1.217	6.2	74	0.00
86	T	Indeno[1,2,3-cd]pyrene	1.370	1.294	5.5	79	-0.02
87	T	Dibenz[a,h]anthracene	1.150	1.027	10.7	66	0.01
88	T	Benzo[g,h,i]perylene	1.377	0.988	28.2#	54	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SVO GC DATA CHECKLIST
SW-846-8081A / 8082 / 8151A

PROJECT #: 28368	METHOD: (circle applicable methods)		
MATRIX: WATER	8081A	(8082)	8151A

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
For Pesticides & Herbicides, were all hits verified with second column confirmation?	Y	N	(NA)
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: YQK	
Date: 07/30/01	Time: 14:30

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	~~NA~~
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: JL	
Date: 8/1/01	Time: 08:30

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: PEST / PCB — PEST W76 — PCBW77

MATRIX: WATER / TCLP

EXT. METHOD: 3510 / 3520

DATE/TIME: 7/12/01 11:40a.m

ANALYST: KZ

INSTRUMENT: GC/ECD

AAL I.D.	SAMPLE VOLUME	SURR 1.0mL	SPIKE 1.0mL	SOLVENT EXCHANGE	FINAL VOLUME	ACID CLEANED	COMMENTS
QPW071701-1	1L	1d		50	5.0mL	PCBW1	BLK P/P
QPW071701-2	"	"	2	"	"	"	LCS Pest
QPW071701-3	"	"	2	"	"	"	LCS PCB
QPW071701-4	"	"	2	"	"	"	LCSD PCB
16854	945mL	"	"	"	"	"	
							* BLK + LCSD
							concentrated to a
							low volume

A. H 7/12/01 7/13 RC

START TIME: 1:15p.m STOP TIME: ~~7/12/01~~ 7/13/01 7:45a.m RapidVap TEMP.: 45°C

CH2CL2 I.D.: EX01242 HEXANE I.D.: EX01232

SURROGATE I.D.: P01E113 CONC.: 0.5ppm INITIAL: KZ

SPIKE I.D.: P01E090 CONC.: 0.5ppm INITIAL: KZ

SPIKE I.D.: P01E077 CONC.: 5.0ppm INITIAL: KZ

EXTRACT STORAGE: REFRIGERATOR # 5, BOX # P- 215

Spike witness A, H

000059

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 07/20/01
Analyst Initials: YGK
Instrument Method: 8082 F2
Calibration Column: SPB-608
Confirmation Column: --

PCB Calibration Date: 07/11/01

Surrogate Recovery Limits (%)	
Decachlorobiphenyl	
Soil	45 - 127
Water	D - 128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. (%) DCB	Comments/Observations
1	Hexane	07011660	soil	1X	NA	
2	ccv PCB 1.0ppm		stk		98	1016-110%, 1260-98% PC1148
3	GPS0717011		S		95	TBA clean up
4	1 2				98	1016-99%, 1260-89%
5	16672 S TBA				97	
6	GPW0717011		W		79	
7	3				86	1016-85%, 1260-84%
8	4				78	1016-81%, 1260-83%
9	16854 W				58	
10	GPS0718013		S		100	
11	4				102	1016-98%, 1260-95%
12	16849 S				112	
13	16900 S 10X			10X	70	
14	16901 S 10X				110	
15	16902 S 10X				100	
16	16903 S 10X				80	
17	16941 S			1X	87	
18	Hexane		Soil		NA	
19	stk		stk			
20	ccv PCB 1.0ppm				94	1016-97%, 1260-96% PC1148
21	GPS0718013		S		92	TBA clean up wrong sample, rerun on 07/24/01
22	4				82	1016-83%, 1260-89%
23	16850 S TBA				92	

Signature/Date: 07/20/01

↓ Cont.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 07/20/01
Analyst Initials: _____
Instrument Method: _____
Calibration Column: _____
Confirmation Column: _____

PCB Calibration Date: _____

Surrogate Recovery Limits (%)	
Decachlorobiphenyl	
Soil	
Water	

Continued from p 81

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. (%) DCB	Comments/Observations
24	16942 S TBA	07011660	S	1X	102	TBA clean up
25	Hexane	1	Soln	1	NA	
26	ccv PCB 1.0ppm	1	Stn	1	88	1016-94% 1260-88% P01145

07/20/01

Signature/Date: 07/20/01

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200109.D Vial: 9
Acq On YGK 01/24 : ~~01/03/97~~ 13:09 07/20/01 Operator: YGK
Sample : 16854 W Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	11747190	0.067 ug/ml
Spiked Amount 0.100	Recovery = 67.00%		
12) S Decachlorobiphenyl	24.66	8553687	0.058 ug/ml
Spiked Amount 0.100	Recovery = 58.00%		
Target Compounds			
2) L1 Aroclor-1016{1}	0.00	0	N.D. ug/ml
3) L1 Aroclor-1016{2}	6.57f	203798	0.031 ug/ml
4) L1 Aroclor-1016{3}	7.71	680002	0.047 ug/ml
5) L1 Aroclor-1016{4}	0.00	0	N.D. ug/ml
6) L1 Aroclor-1016{5}	0.00	0	N.D. ug/ml
Sum Aroclor-1016		883800	0.078 ug/ml
Average Aroclor-1016			0.039 ug/ml
7) L2 Aroclor-1260{1}	13.98	107587	0.012 ug/ml
8) L2 Aroclor-1260{2}	14.49	49910	0.004 ug/ml
9) L2 Aroclor-1260{3}	17.42	43530	0.005 ug/ml
10) L2 Aroclor-1260{4}	18.11	108719	0.005 ug/ml
11) L2 Aroclor-1260{5}	19.67	154351	0.013 ug/ml
Sum Aroclor-1260		464098	0.040 ug/ml
Average Aroclor-1260			0.008 ug/ml

V = 945 mL

K = 1.058

PCB < 0.2

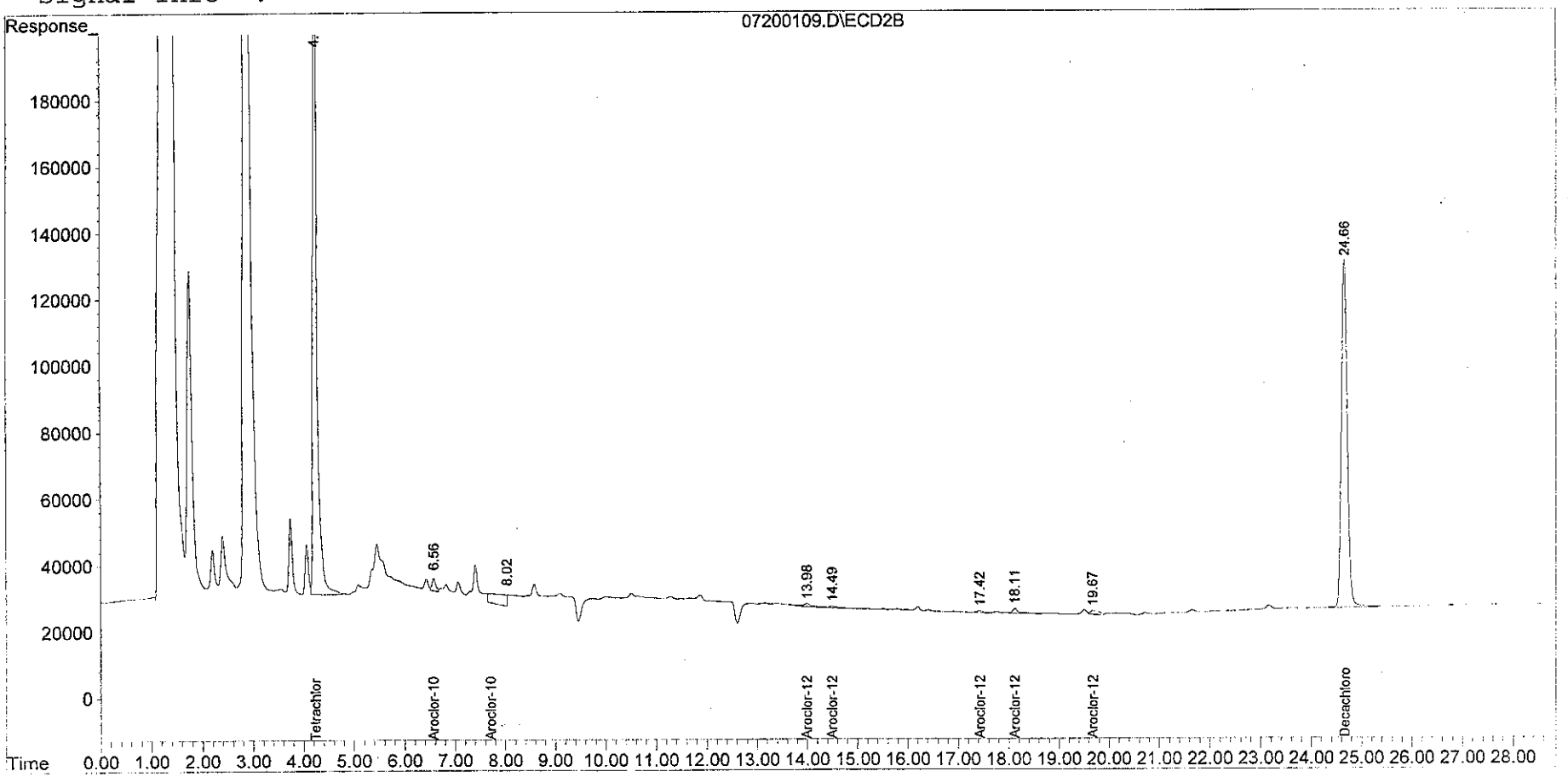
(f)=RT Delta [illegible] Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\3\DATA\072001\07200109.D Vial: 9
Acq On : 01/03/97 13:09 Operator: YGK
Sample : 16854 W Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200106.D Vial: 6
Acq On : ~~01/03/97~~ 11:27 07/20/01 Operator: YGK
Sample : QPW0717011 01/24/01 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

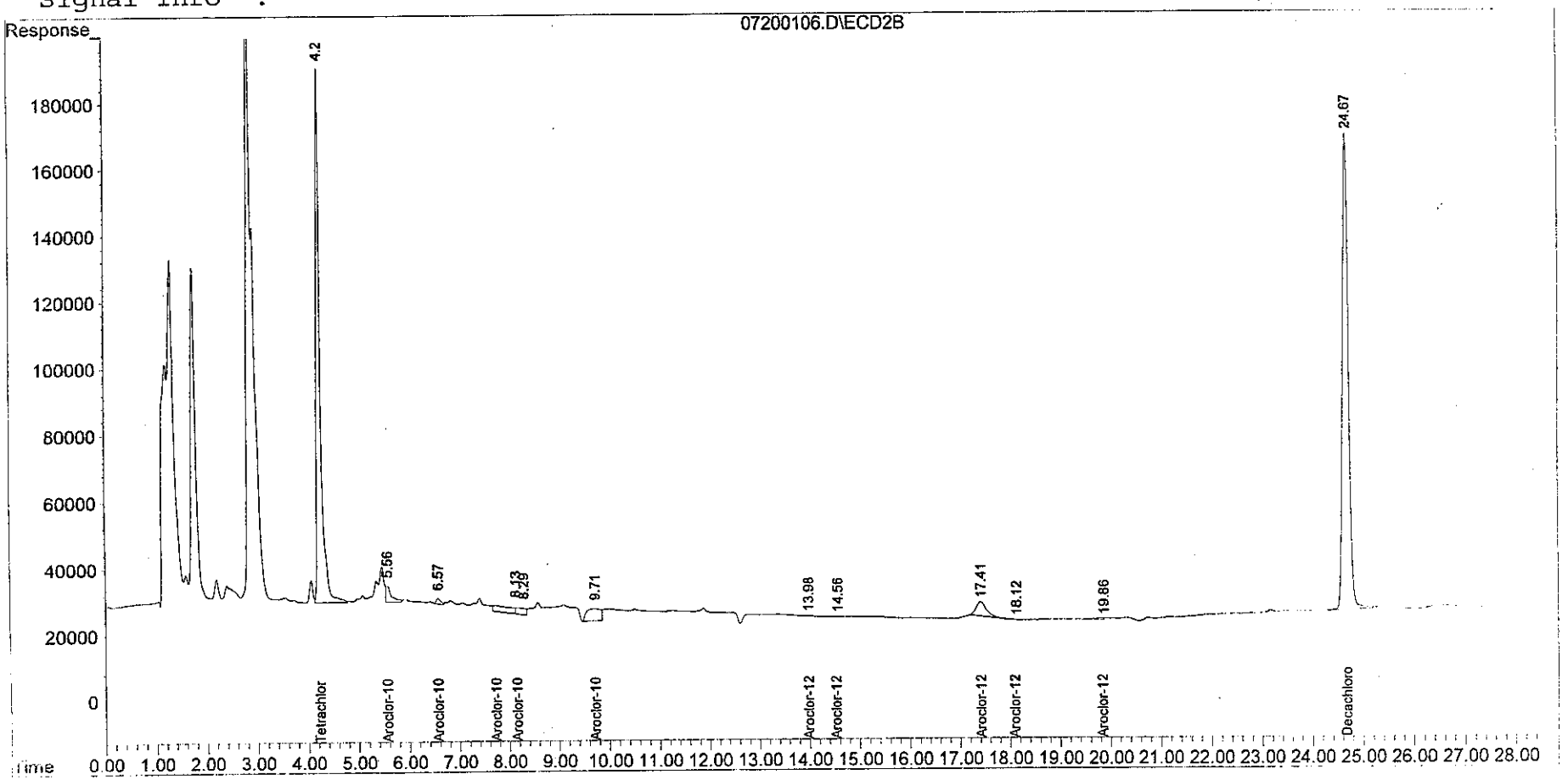
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	8532178	0.049 ug/ml
Spiked Amount 0.100	Recovery = 49.00%		
12) S Decachlorobiphenyl	24.67	11683725	0.079 ug/ml
Spiked Amount 0.100	Recovery = 79.00%		
Target Compounds			
2) L1 Aroclor-1016{1}	5.56	387878	0.112 ug/ml
3) L1 Aroclor-1016{2}	6.57f	100888	0.016 ug/ml
4) L1 Aroclor-1016{3}	7.73	445359	0.031 ug/ml
5) L1 Aroclor-1016{4}	8.16	252413	0.041 ug/ml
6) L1 Aroclor-1016{5}	9.71	730445	0.168 ug/ml
Sum Aroclor-1016		1916983	0.367 ug/ml
Average Aroclor-1016			0.073 ug/ml
7) L2 Aroclor-1260{1}	13.98	20560	0.002 ug/ml
8) L2 Aroclor-1260{2}	14.52	24972	0.002 ug/ml
9) L2 Aroclor-1260{3}	17.41	599781	0.075 ug/ml
10) L2 Aroclor-1260{4}	18.09	967	0.000 ug/ml
11) L2 Aroclor-1260{5}	19.84f	72787	0.006 ug/ml
Sum Aroclor-1260		719066	0.085 ug/ml
Average Aroclor-1260			0.017 ug/ml

Quantitation Report

Data File : C:\HPCHEM\3\DATA\072001\07200106.D Vial: 6
Acq On : 01/03/97 11:27 Operator: YGK
Sample : QPW0717011 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Accura Analytical Laboratory, Inc.

PCB's LCS/LCSD Report

Sample ID: QPW0717013&4 **Date Acquired:** 7/20/01

Operator: YGK **Instrument ID:** PEST-C

Data File: 072001078 **Bottle #:** 7&8

Method: 8082 **Matrix:** Water

Compounds	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
Aroclor 1016	1.0	0.847	85%	0.813	81%	61 - 112	Pass	Pass	4%	< 20	Pass
Aroclor 1260	1.0	0.894	89%	0.831	83%	70 - 129	Pass	Pass	7%	< 20	Pass

Surrogate	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	Pass/ Fail	Pass/ Fail
Decachlorobiphenyl	0.10	0.086	86%	0.078	78%	46 - 138	Pass	Pass

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200107.D Vial: 7
Acq On YGK : 01~~/03/97~~ 12:01 07/20/01 Operator: YGK
Sample 07/20: QPW0717013 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

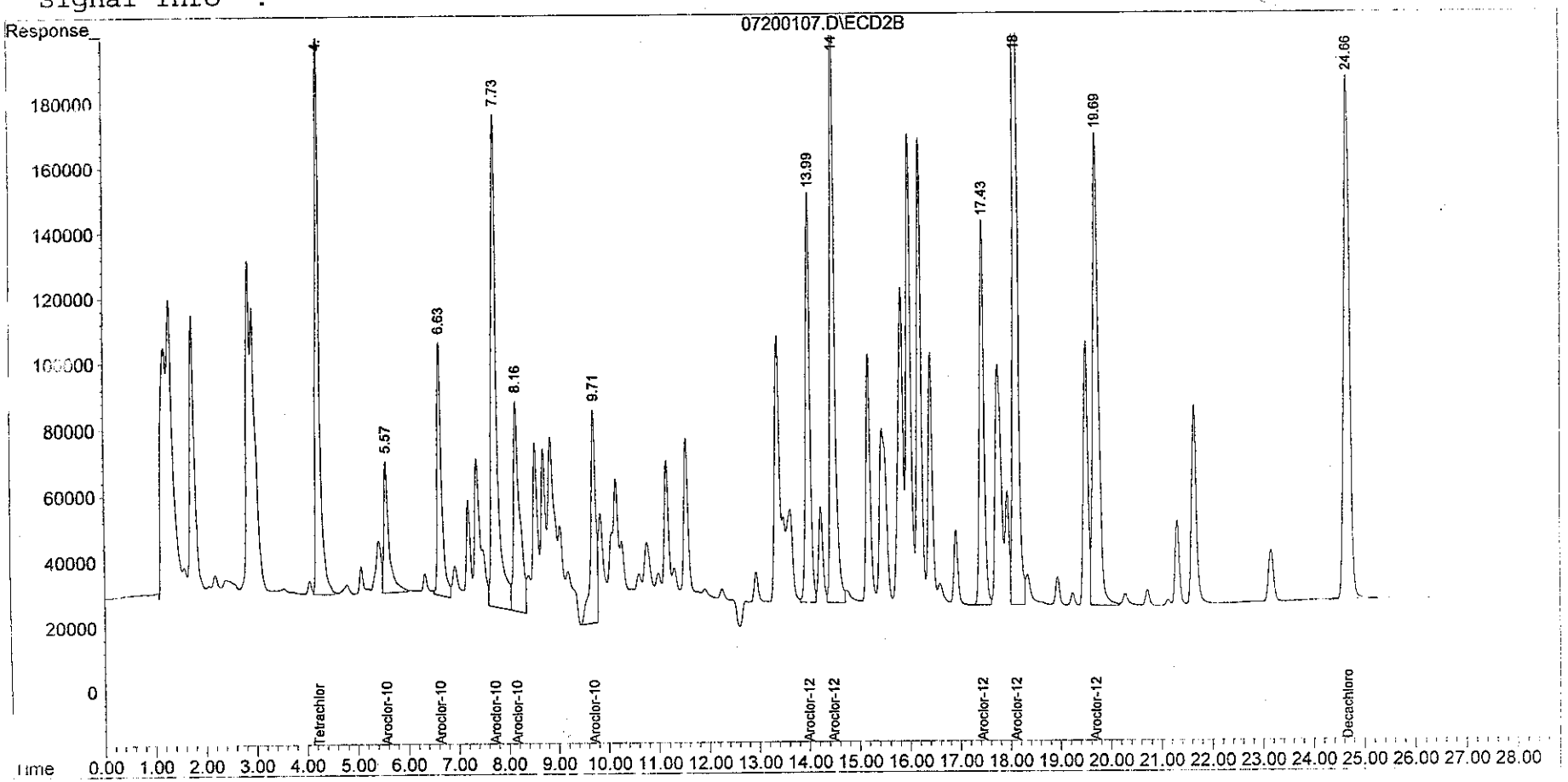
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	9198645	0.053 ug/ml
Spiked Amount 0.100		Recovery =	53.00%
12) S Decachlorobiphenyl	24.66	12810674	0.086 ug/ml
Spiked Amount 0.100		Recovery =	86.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	2810275	0.813 ug/ml
3) L1 Aroclor-1016{2}	6.63	4605051	0.710 ug/ml
4) L1 Aroclor-1016{3}	7.73	11493105	0.788 ug/ml
5) L1 Aroclor-1016{4}	8.16	5465020	0.880 ug/ml
6) L1 Aroclor-1016{5}	9.71	4545310	1.043 ug/ml
Sum Aroclor-1016		28918761	4.234 ug/ml
Average Aroclor-1016			0.847 ug/ml PS
7) L2 Aroclor-1260{1}	13.99	7492606	0.836 ug/ml
8) L2 Aroclor-1260{2}	14.47	11615891	0.868 ug/ml
9) L2 Aroclor-1260{3}	17.44	7161478	0.896 ug/ml
10) L2 Aroclor-1260{4}	18.10	18307453	0.918 ug/ml
11) L2 Aroclor-1260{5}	19.69	11169327	0.951 ug/ml
Sum Aroclor-1260		55746755	4.469 ug/ml
Average Aroclor-1260			0.894 ug/ml PP

Data File : C:\HPCHEM\3\DATA\072001\07200107.D
Acq On : 01/03/97 12:01
Sample : QPW0717013
Misc :
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Vial: 7
Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200108.D Vial: 8
Acq On : 01/03/97 12:35 Operator: YGK
Sample : QPW0717014 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

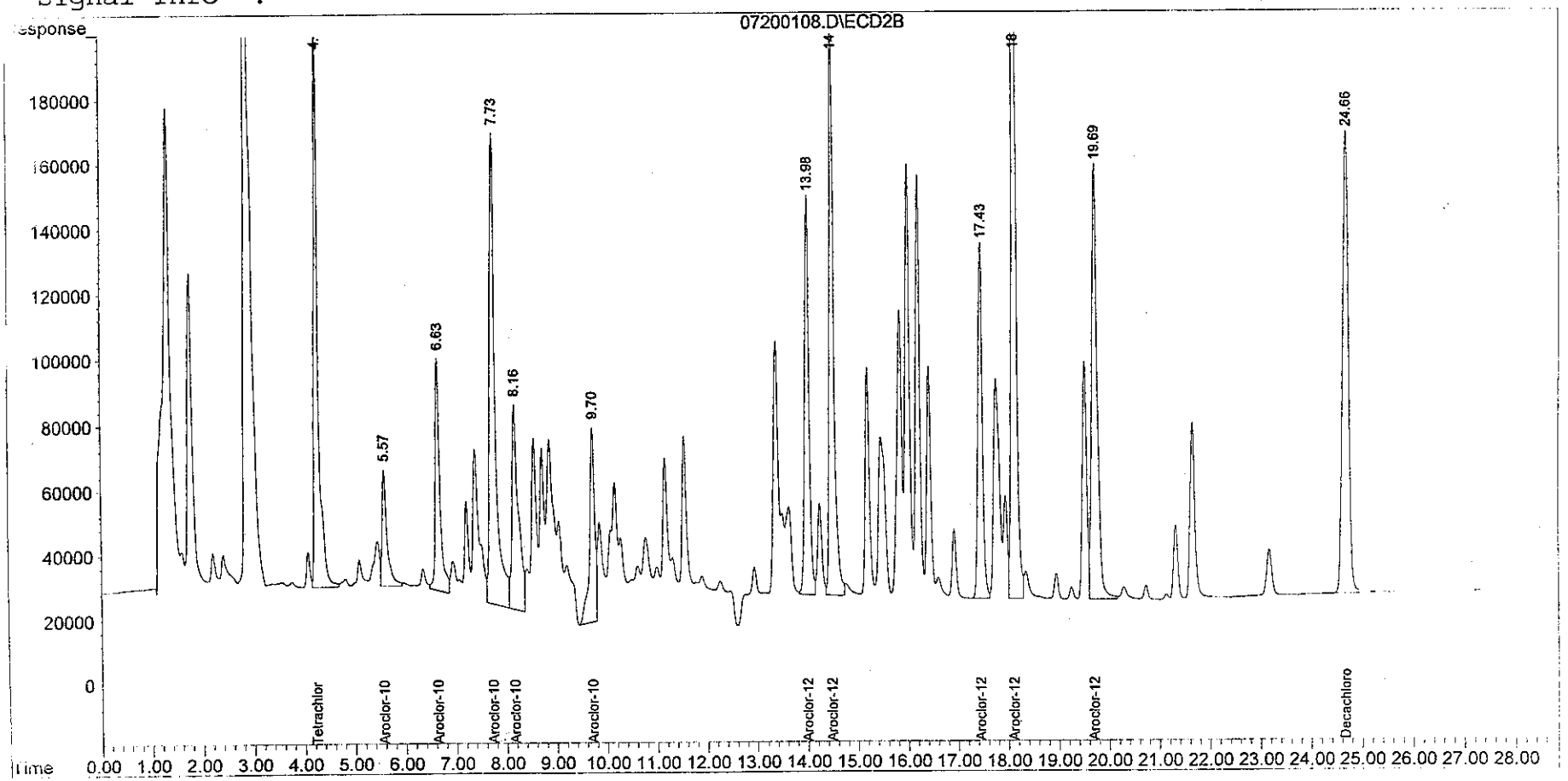
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	9721544	0.056 ug/ml
Spiked Amount 0.100		Recovery =	56.00%
12) S Decachlorobiphenyl	24.66	11511610	0.078 ug/ml
Spiked Amount 0.100		Recovery =	78.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	2425171	0.701 ug/ml
3) L1 Aroclor-1016{2}	6.63	4558097	0.703 ug/ml
4) L1 Aroclor-1016{3}	7.73	11481662	0.787 ug/ml
5) L1 Aroclor-1016{4}	8.16	5543691	0.893 ug/ml
6) L1 Aroclor-1016{5}	9.71	4266224	0.979 ug/ml
Sum Aroclor-1016		28274844	4.063 ug/ml
Average Aroclor-1016			0.813 ug/ml
7) L2 Aroclor-1260{1}	13.99	7340762	0.819 ug/ml
8) L2 Aroclor-1260{2}	14.47	10906628	0.815 ug/ml
9) L2 Aroclor-1260{3}	17.43	6593481	0.825 ug/ml
10) L2 Aroclor-1260{4}	18.10	16672258	0.836 ug/ml
11) L2 Aroclor-1260{5}	19.69	10130434	0.862 ug/ml
Sum Aroclor-1260		51643563	4.157 ug/ml
Average Aroclor-1260			0.831 ug/ml

Data File : C:\HPCHEM\3\DATA\072001\07200108.D
Acq On : 01/03/97 12:35
Sample : QPW0717014
Misc :
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Vial: 8
Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200102.D Vial: 2
Acq On ~~01/03/97 09:20~~ 07/20/01 09:20 Operator: YGK
Sample : CCV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Tue Jul 24 10:26:51 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	37801712	0.217 ug/ml
Spiked Amount 0.100		Recovery = 217.00%	
12) S Decachlorobiphenyl	24.68	28976149	0.195 ug/ml
Spiked Amount 0.100		Recovery = 195.00%	98
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	3711240	1.073 ug/ml
3) L1 Aroclor-1016{2}	6.64	6278308	0.968 ug/ml
4) L1 Aroclor-1016{3}	7.74	17066936	1.170 ug/ml
5) L1 Aroclor-1016{4}	8.16	7394135	1.191 ug/ml
6) L1 Aroclor-1016{5}	9.72	4757696	1.092 ug/ml
Sum Aroclor-1016		39208316	5.494 ug/ml
Average Aroclor-1016			1.099 ug/ml 110
7) L2 Aroclor-1260{1}	14.00	8851309	0.988 ug/ml
8) L2 Aroclor-1260{2}	14.49	12929150	0.966 ug/ml
9) L2 Aroclor-1260{3}	17.45	8012099	1.002 ug/ml
10) L2 Aroclor-1260{4}	18.12	19639124	0.985 ug/ml
11) L2 Aroclor-1260{5}	19.70	11247287	0.957 ug/ml
Sum Aroclor-1260		60678969	4.898 ug/ml
Average Aroclor-1260			0.980 ug/ml

98

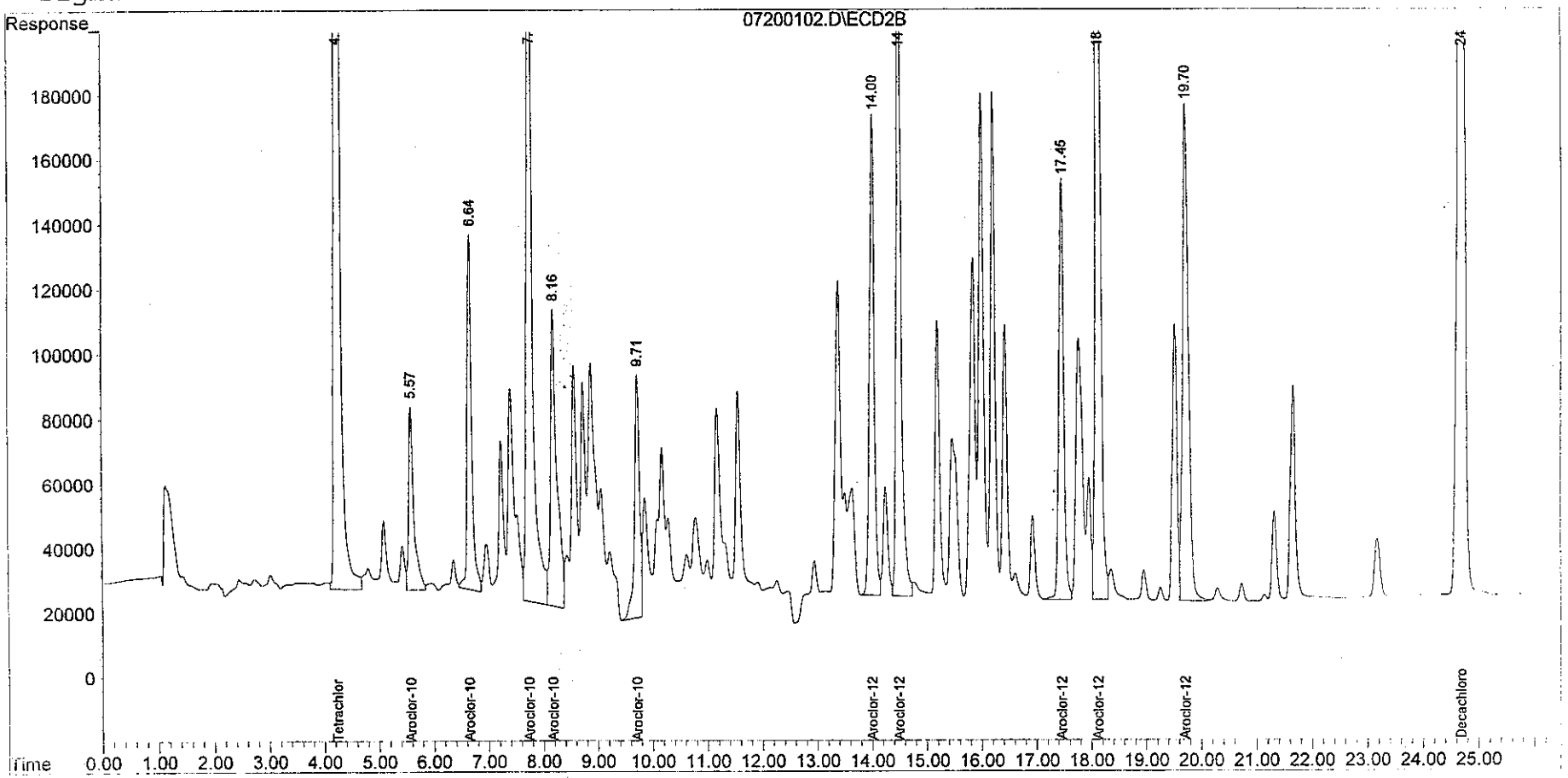
(F)=RT D[illegible] a > 1/2 Windo[illegible] (m)=manual int
07011660.M [illegible] 10:27:31 2001

Data File : C:\HPCHEM\3\DATA\072001\07200102.D
Acq On : 01/03/97 09:20
Sample : CCV AR 1016,1260 1.0 PPM,SS 0.20 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 24 10:27 2001 Quant Results File: 07011660.RES

Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Tue Jul 24 10:26:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200121.D Vial: 20
Acq On YCU 01/03/97 21:10 07/20/01 Operator: YGK
Sample : CCV PCB 1.0 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jan 6 8:44 1997 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

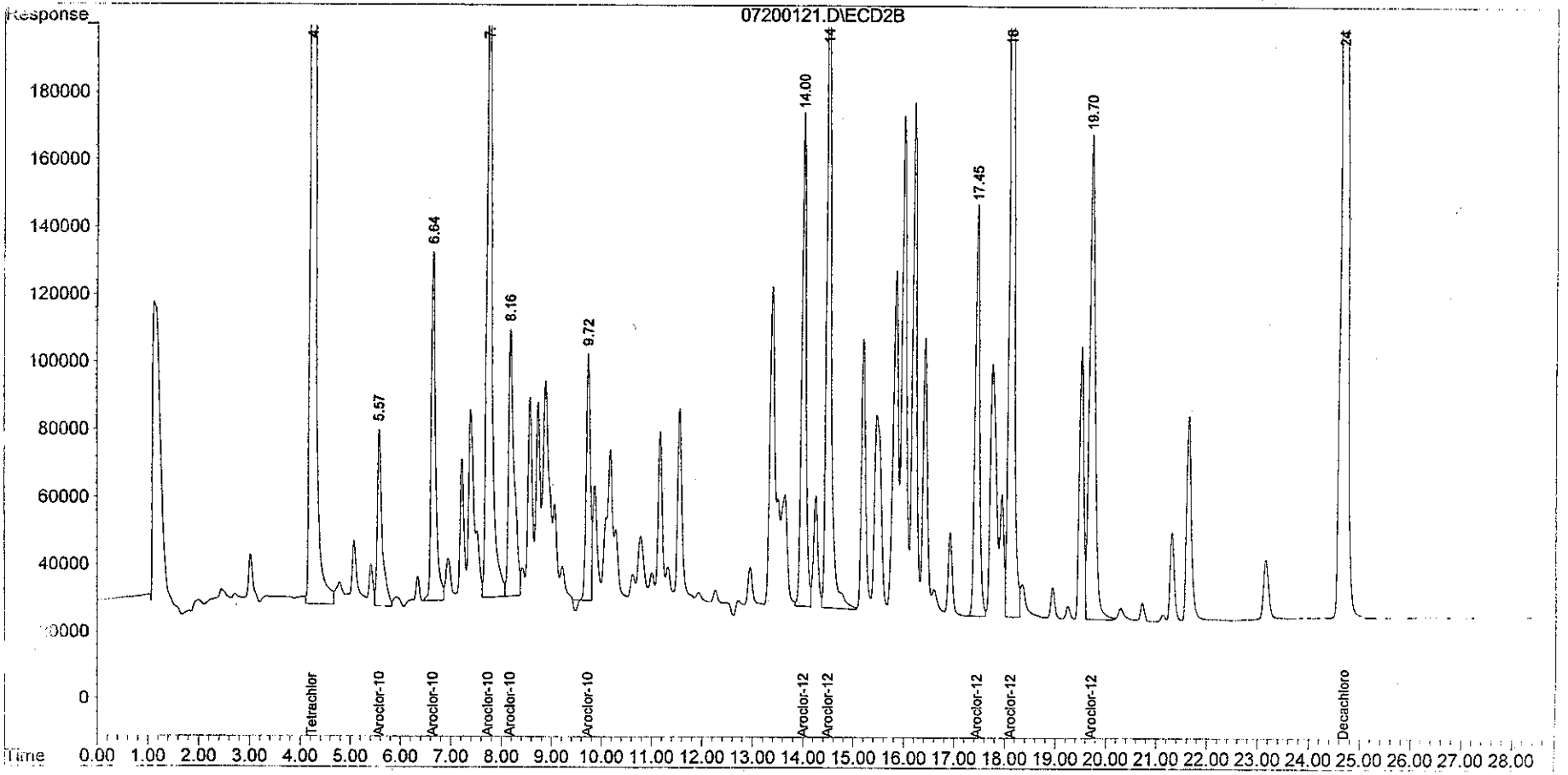
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	35792634	0.205 ug/ml
Spiked Amount 0.100		Recovery = 205.00%	
12) S Decachlorobiphenyl	24.68	27963527	0.188 ug/ml
Spiked Amount 0.100		Recovery = 188.00%	94
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	3440108	0.995 ug/ml
3) L1 Aroclor-1016{2}	6.64	6195226	0.956 ug/ml
4) L1 Aroclor-1016{3}	7.73	14597404	1.000 ug/ml
5) L1 Aroclor-1016{4}	8.16	6013222	0.969 ug/ml
6) L1 Aroclor-1016{5}	9.72	4030769	0.925 ug/ml
Sum Aroclor-1016		34276730	4.844 ug/ml
Average Aroclor-1016			0.969 ug/ml 97
7) L2 Aroclor-1260{1}	14.00	8793213	0.981 ug/ml
8) L2 Aroclor-1260{2}	14.48	13281111	0.992 ug/ml
9) L2 Aroclor-1260{3}	17.45	7541377	0.943 ug/ml
10) L2 Aroclor-1260{4}	18.12	18722659	0.939 ug/ml
11) L2 Aroclor-1260{5}	19.70	11188649	0.952 ug/ml
Sum Aroclor-1260		59527009	4.808 ug/ml
Average Aroclor-1260			0.962 ug/ml 96

(m)=m

Data File : C:\HPCHEM\3\DATA\072001\07200121.D Vial: 20
Acq On : 01/03/97 21:10 Operator: YGK
Sample : CCV PCB 1.0 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jan 6 8:44 1997 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\072001\07200127.D
Acq On YGK 01/04/97 00:32 07/20/01
Sample : CCV PCB 1.0 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 24 10:28 2001 Quant Results File: 07011660.RES

Vial: 26
Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

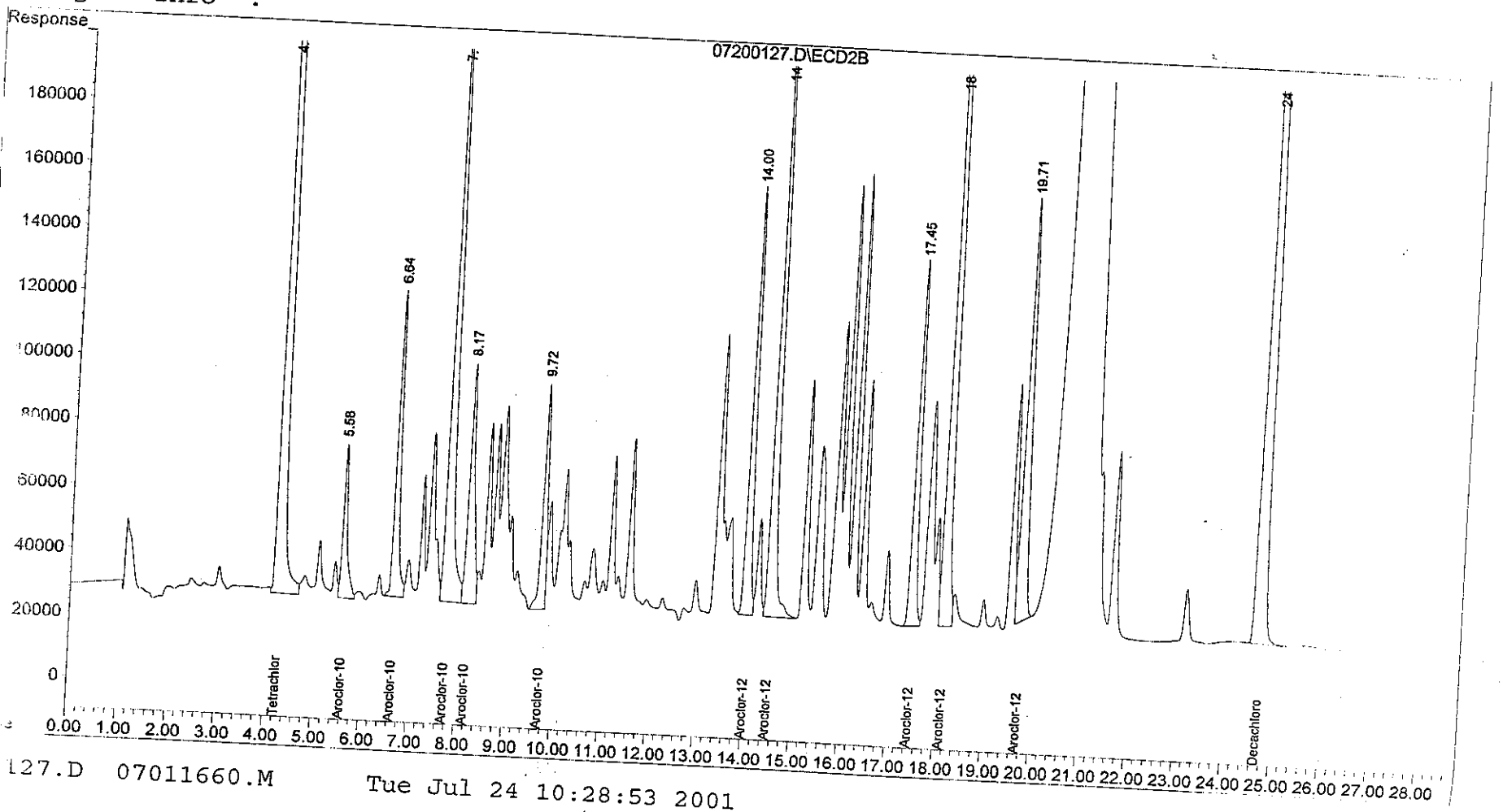
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	32617022	0.187 ug/ml
Spiked Amount 0.100		Recovery = 187.00%	
12) S Decachlorobiphenyl	24.69	26126363	0.176 ug/ml
Spiked Amount 0.100		Recovery = 176.00%	88
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	3155641	0.912 ug/ml
3) L1 Aroclor-1016{2}	6.64	5716046	0.882 ug/ml
4) L1 Aroclor-1016{3}	7.74	13753970	0.943 ug/ml
5) L1 Aroclor-1016{4}	8.17	5965924	0.961 ug/ml
6) L1 Aroclor-1016{5}	9.72	4296578	0.986 ug/ml
Sum Aroclor-1016		32888159	4.684 ug/ml
Average Aroclor-1016			0.937 ug/ml 94
7) L2 Aroclor-1260{1}	14.00	8010488	0.894 ug/ml
8) L2 Aroclor-1260{2}	14.49	12107198	0.904 ug/ml
9) L2 Aroclor-1260{3}	17.45	7051353	0.882 ug/ml
10) L2 Aroclor-1260{4}	18.12	17388790	0.872 ug/ml
11) L2 Aroclor-1260{5}	19.71	9865261	0.840 ug/ml
Sum Aroclor-1260		54423090	4.392 ug/ml
Average Aroclor-1260			0.878 ug/ml 88

Data File : C:\HPCHEM\3\DATA\072001\07200127.D
Acq On : 01/04/97 00:32 Vial: 26
Sample : CCV PCB 1.0 PPM Operator: YGK
Misc : Inst : HP-GCF
IntFile : EVENTS.E Multiplr: 1.00
Quant Time: Jul 24 10:28 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



127.D 07011660.M Tue Jul 24 10:28:53 2001

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 07/11/01 PEST-C	METHOD: (circle applicable methods)		
MATRIX: —	8081A	(8082)	8151A

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YGK	Reviewer: RL
Date: 07/12/01 Time: 11:00	Date: 07/17/01 Time: 10:05

Response Factor Report PEST-C

Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001

Calibration Files
1 =07110103.D 5 =07110107.D 4 =07110106.D
3 =07110105.D 2 =07110104.D

		Compound	1	5	4	3	2	Avg		%RSD
1)	S	Tetrachloro-m-xylene	1.790	1.753	1.681	1.757	1.735	1.743	E8	2.31
2)	L1	Aroclor-1016{1}	4.131	2.913	3.248	3.372	3.629	3.459	E6	13.17
3)	L1	Aroclor-1016{2}	7.906	5.445	5.895	6.289	6.879	6.483	E6	14.72
4)	L1	Aroclor-1016{3}	1.711	1.276	1.333	1.489	1.488	1.459	E7	11.62
5)	L1	Aroclor-1016{4}	7.193	5.287	5.656	6.514	6.388	6.208	E6	12.08
6)	L1	Aroclor-1016{5}	5.087	3.789	3.963	4.576	4.373	4.358	E6	11.80
7)	L2	Aroclor-1260{1}	1.053	0.802	0.823	0.882	0.920	0.896	E7	11.11
8)	L2	Aroclor-1260{2}	1.579	1.187	1.239	1.326	1.363	1.339	E7	11.29
9)	L2	Aroclor-1260{3}	8.991	7.481	7.575	7.758	8.161	7.993	E6	7.70
10)	L2	Aroclor-1260{4}	2.104	1.978	1.944	1.944	1.996	1.993	E7	3.30
11)	L2	Aroclor-1260{5}	1.152	1.165	1.180	1.178	1.199	1.175	E7	1.50
12)	S	Decachlorobiphenyl	1.596	1.400	1.413	1.510	1.505	1.485	E8	5.41

= Out of Ran

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110103.D
Acq On : 11 Jul 2001 10:45 Vial: 3
Sample : IC AR 1016,1260 0.10 PPM,SS 0.020 PPM Operator: YGK
Misc : Inst : PEST-C
IntFile : EVENTS.E Multiplr: 1.00
Quant Time: Jul 11 13:37 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	3580492	0.021 ug/ml
Spiked Amount 0.100	Recovery	=	21.00%
12) S Decachlorobiphenyl	24.69	3192815	0.022 ug/ml
Spiked Amount 0.100	Recovery	=	22.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.59	413096	0.117 ug/ml
3) L1 Aroclor-1016{2}	6.65	790578	0.121 ug/ml
4) L1 Aroclor-1016{3}	7.76	1711176	0.117 ug/ml
5) L1 Aroclor-1016{4}	8.19	719292	0.115 ug/ml
6) L1 Aroclor-1016{5}	9.74	508673	0.117 ug/ml
Sum Aroclor-1016		4142816	0.587 ug/ml
Average Aroclor-1016			0.117 ug/ml
7) L2 Aroclor-1260{1}	14.02	1053481	0.118 ug/ml
8) L2 Aroclor-1260{2}	14.51	1578749	0.118 ug/ml
9) L2 Aroclor-1260{3}	17.46	899130	0.112 ug/ml
10) L2 Aroclor-1260{4}	18.14	2104115	0.106 ug/ml
11) L2 Aroclor-1260{5}	19.73	1152282	0.098 ug/ml
Sum Aroclor-1260		6787757	0.552 ug/ml
Average Aroclor-1260			0.110 ug/ml

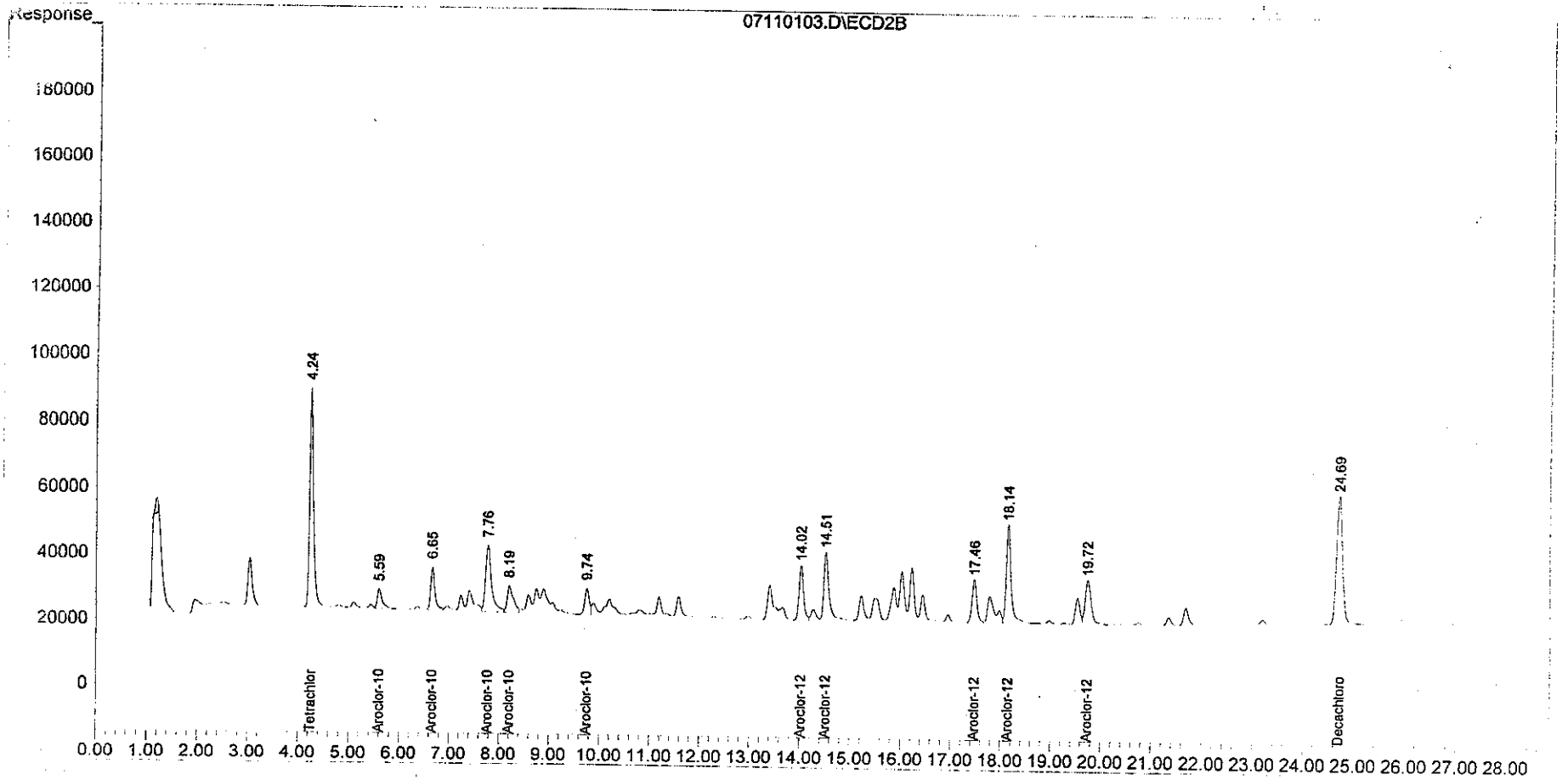
Window

Data File : C:\HPCHEM\3\DATA\071101\07110103.D
Acq On : 11 Jul 2001 10:45
Sample : IC AR 1016,1260 0.10 PPM,SS 0.020 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:37 2001 Quant Results File: 07011660.RES

Vial: 3
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110104.D
Acq On : 11 Jul 2001 11:19
Sample : IC AR 1016,1260 0.50 PPM,SS 0.10 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Vial: 4
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

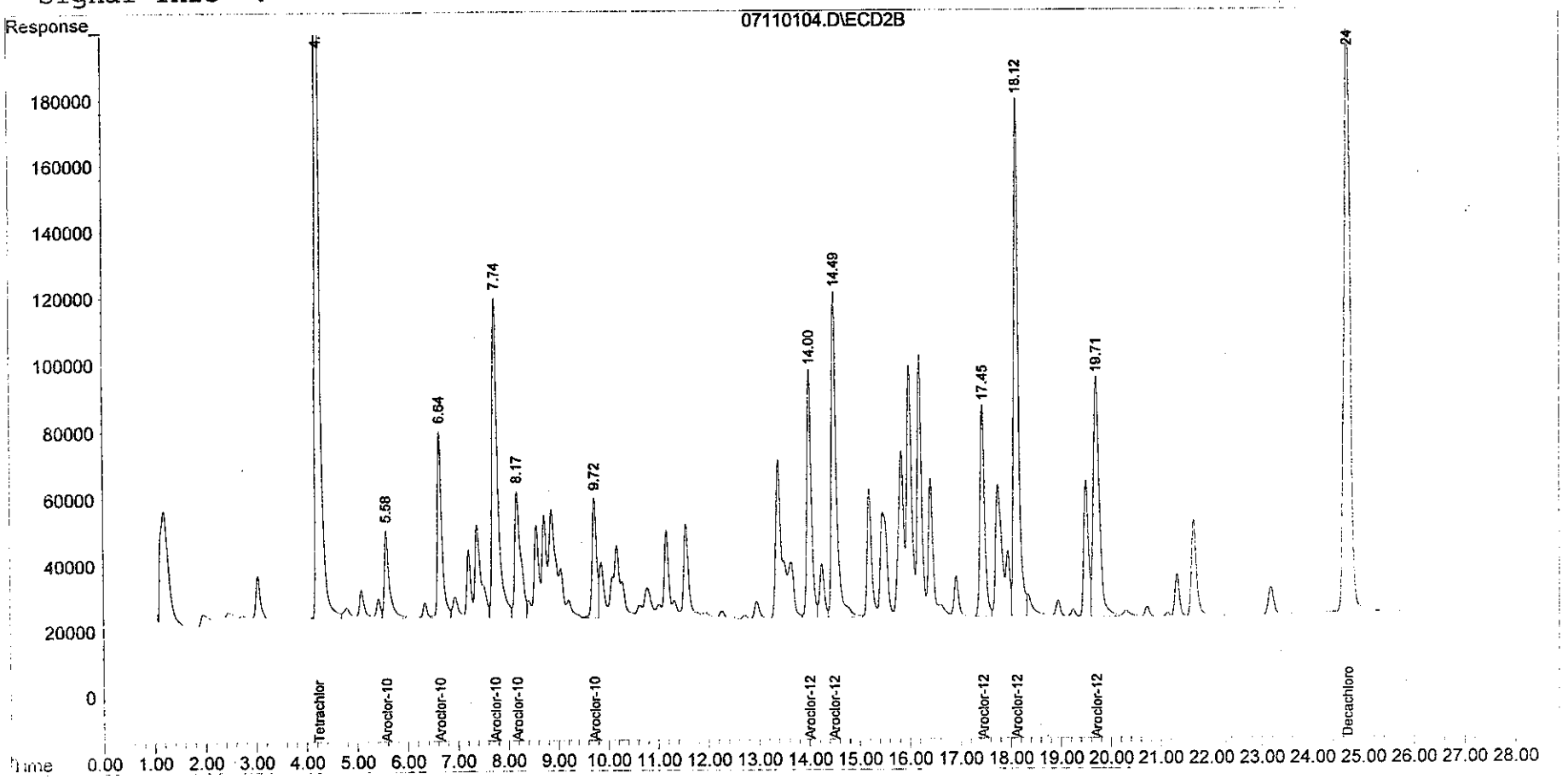
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	17348045	0.081 ug/ml
Spiked Amount 0.100	Recovery = 81.00%		
12) S Decachlorobiphenyl	24.68	15051651	0.097 ug/ml
Spiked Amount 0.100	Recovery = 97.00%		
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	1814489	0.456 ug/ml
3) L1 Aroclor-1016{2}	6.64	3439525	0.472 ug/ml
4) L1 Aroclor-1016{3}	7.74	7441932	0.466 ug/ml
5) L1 Aroclor-1016{4}	8.17	3193797	0.475 ug/ml
6) L1 Aroclor-1016{5}	9.72	2186375	0.474 ug/ml
Sum Aroclor-1016		18076118	2.343 ug/ml
Average Aroclor-1016			0.469 ug/ml
7) L2 Aroclor-1260{1}	14.00	4597807	0.518 ug/ml
8) L2 Aroclor-1260{2}	14.49	6812910	0.561 ug/ml
9) L2 Aroclor-1260{3}	17.45	4080513	0.551 ug/ml
10) L2 Aroclor-1260{4}	18.12	9982163	0.544 ug/ml
11) L2 Aroclor-1260{5}	19.71	5997296	0.544 ug/ml
Sum Aroclor-1260		31470690	2.717 ug/ml
Average Aroclor-1260			0.543 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110104.D Vial: 4
Acq On : 11 Jul 2001 11:19 Operator: YGK
Sample : IC AR 1016,1260 0.50 PPM,SS 0.10 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110105.D Vial: 5
Acq On : 11 Jul 2001 11:53 Operator: YGK
Sample : IC AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

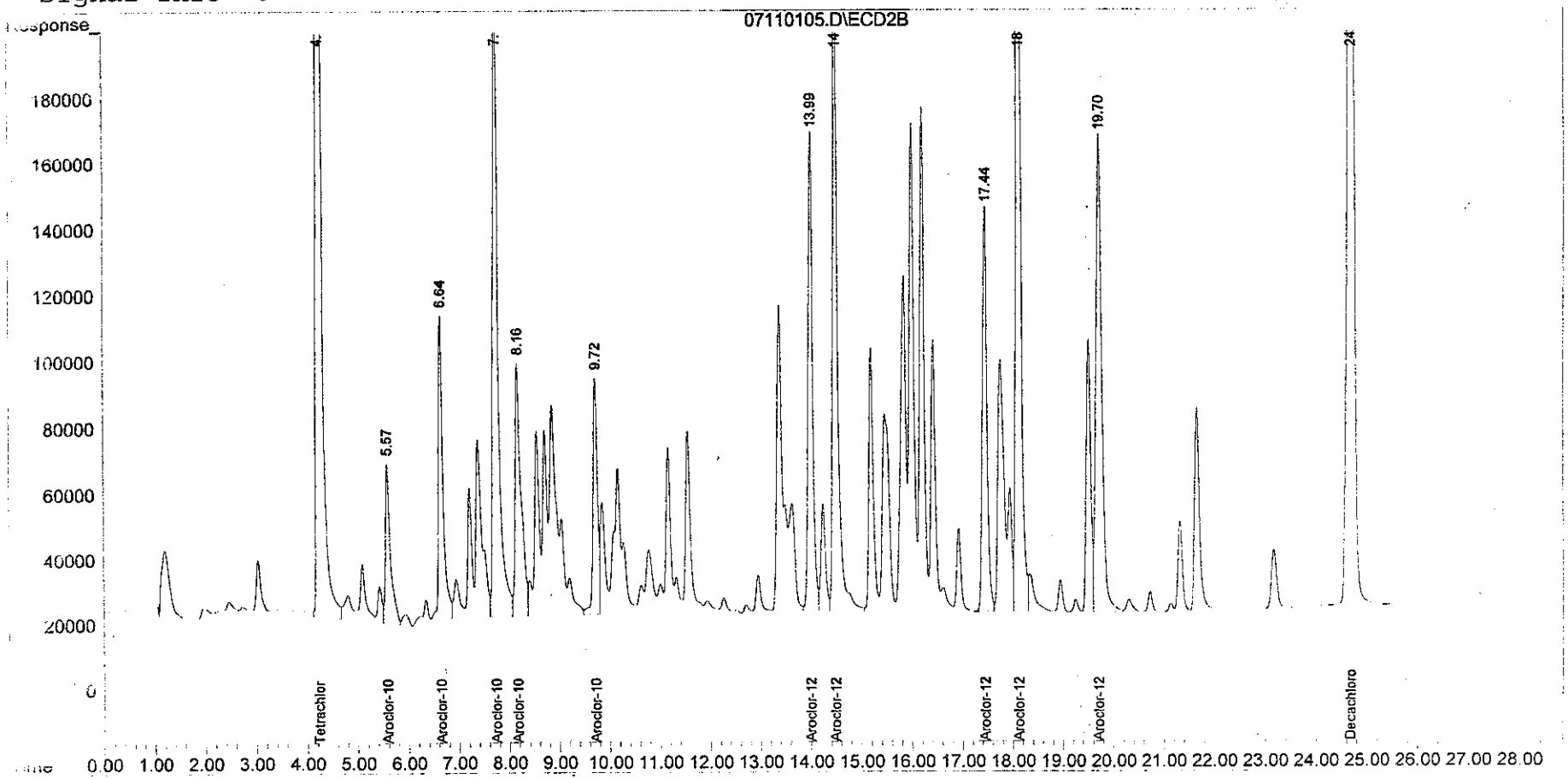
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	35141972	0.202 ug/ml
Spiked Amount 0.100		Recovery = 202.00%	
12) S Decachlorobiphenyl	24.67	30202396	0.203 ug/ml
Spiked Amount 0.100		Recovery = 203.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	3372371	0.975 ug/ml
3) L1 Aroclor-1016{2}	6.64	5815157	0.897 ug/ml
4) L1 Aroclor-1016{3}	7.73	14497278	0.993 ug/ml
5) L1 Aroclor-1016{4}	8.16	6264229	1.009 ug/ml
6) L1 Aroclor-1016{5}	9.72	4406109	1.011 ug/ml
Sum Aroclor-1016		34355144	4.886 ug/ml
Average Aroclor-1016			0.977 ug/ml
7) L2 Aroclor-1260{1}	14.00	8823765	0.985 ug/ml
8) L2 Aroclor-1260{2}	14.48	13263288	0.991 ug/ml
9) L2 Aroclor-1260{3}	17.44	7758310	0.971 ug/ml
10) L2 Aroclor-1260{4}	18.11	19441253	0.975 ug/ml
11) L2 Aroclor-1260{5}	19.70	11781556	1.003 ug/ml
Sum Aroclor-1260		61068172	4.924 ug/ml
Average Aroclor-1260			0.985 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110105.D Vial: 5
Acq On : 11 Jul 2001 11:53 Operator: YGK
Sample : IC AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110106.D Vial: 6
Acq On : 11 Jul 2001 12:26 Operator: YGK
Sample : IC AR 1016,1260 1.5 PPM,SS 0.30 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

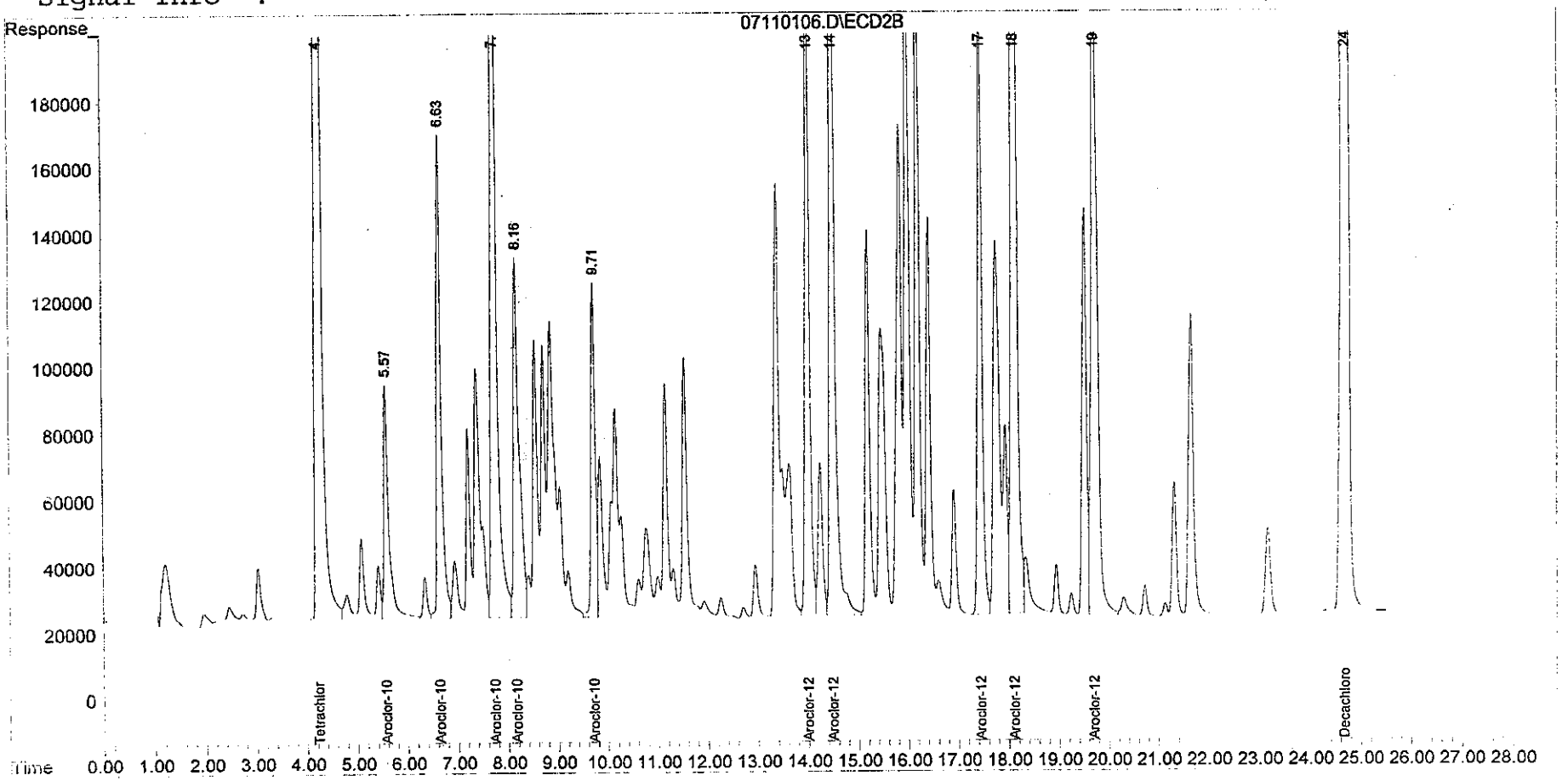
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	50419302	0.245 ug/ml
Spiked Amount 0.100		Recovery =	245.00%
12) S Decachlorobiphenyl	24.66	42399273	0.278 ug/ml
Spiked Amount 0.100		Recovery =	278.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	4871311	1.282 ug/ml
3) L1 Aroclor-1016{2}	6.63	8843219	1.259 ug/ml
4) L1 Aroclor-1016{3}	7.73	19988965	1.279 ug/ml
5) L1 Aroclor-1016{4}	8.16	8484749	1.286 ug/ml
6) L1 Aroclor-1016{5}	9.71	5945042	1.309 ug/ml
Sum Aroclor-1016		48133287	6.416 ug/ml
Average Aroclor-1016			1.283 ug/ml
7) L2 Aroclor-1260{1}	13.99	12345384	1.377 ug/ml
8) L2 Aroclor-1260{2}	14.47	18579137	1.467 ug/ml
9) L2 Aroclor-1260{3}	17.44	11363228	1.480 ug/ml
10) L2 Aroclor-1260{4}	18.11	29164778	1.533 ug/ml
11) L2 Aroclor-1260{5}	19.69	17693078	1.568 ug/ml
Sum Aroclor-1260		89145606	7.426 ug/ml
Average Aroclor-1260			1.485 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110106.D Vial: 6
Acq On : 11 Jul 2001 12:26 Operator: YGK
Sample : IC AR 1016,1260 1.5 PPM,SS 0.30 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110107.D Vial: 7
Acq On : 11 Jul 2001 13:00 Operator: YGK
Sample : IC AR 1016,1260 2.5 PPM,SS 0.50 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:33 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

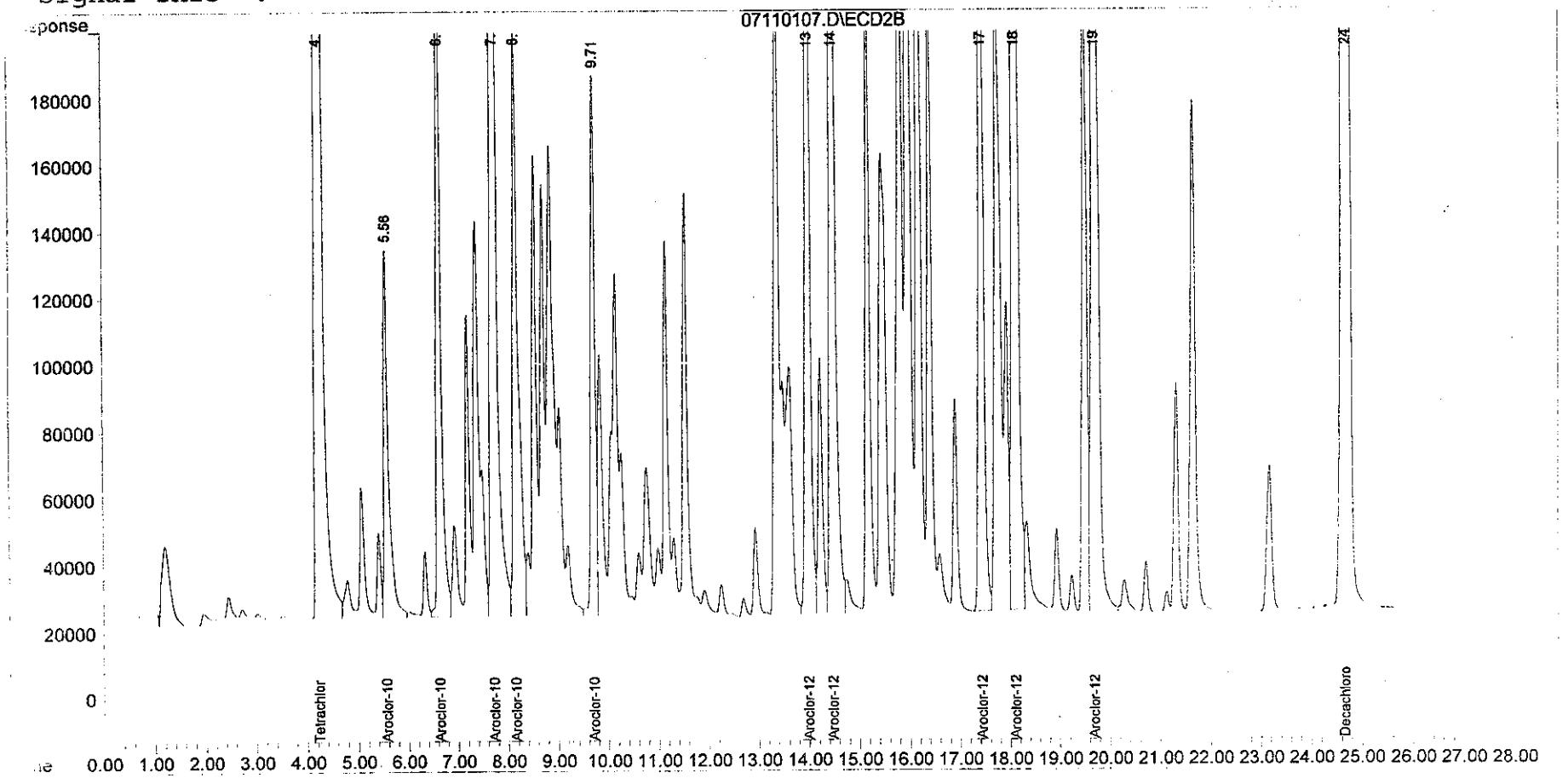
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.22	87642521	0.467 ug/ml
Spiked Amount 0.100		Recovery = 467.00%	
12) S Decachlorobiphenyl	24.65	69993751	0.465 ug/ml
Spiked Amount 0.100		Recovery = 465.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	7283360	1.984 ug/ml
3) L1 Aroclor-1016{2}	6.63	13612011	2.008 ug/ml
4) L1 Aroclor-1016{3}	7.72	31887989	2.106 ug/ml
5) L1 Aroclor-1016{4}	8.15	13217654	2.062 ug/ml
6) L1 Aroclor-1016{5}	9.71	9472955	2.125 ug/ml
Sum Aroclor-1016		75473969	10.284 ug/ml
Average Aroclor-1016			2.057 ug/ml
7) L2 Aroclor-1260{1}	13.98	20060898	2.232 ug/ml
8) L2 Aroclor-1260{2}	14.47	29671680	2.269 ug/ml
9) L2 Aroclor-1260{3}	17.43	18702243	2.384 ug/ml
10) L2 Aroclor-1260{4}	18.10	49449723	2.537 ug/ml
11) L2 Aroclor-1260{5}	19.69	29132301	2.525 ug/ml
Sum Aroclor-1260		147.0E6	11.947 ug/ml
Average Aroclor-1260			2.389 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110107.D Vial: 7
Acq On : 11 Jul 2001 13:00 Operator: YGK
Sample : IC AR 1016,1260 2.5 PPM,SS 0.50 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:33 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110108.D Vial: 8
Acq On : 11 Jul 2001 13:34 Operator: YGK
Sample : ICV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:23 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

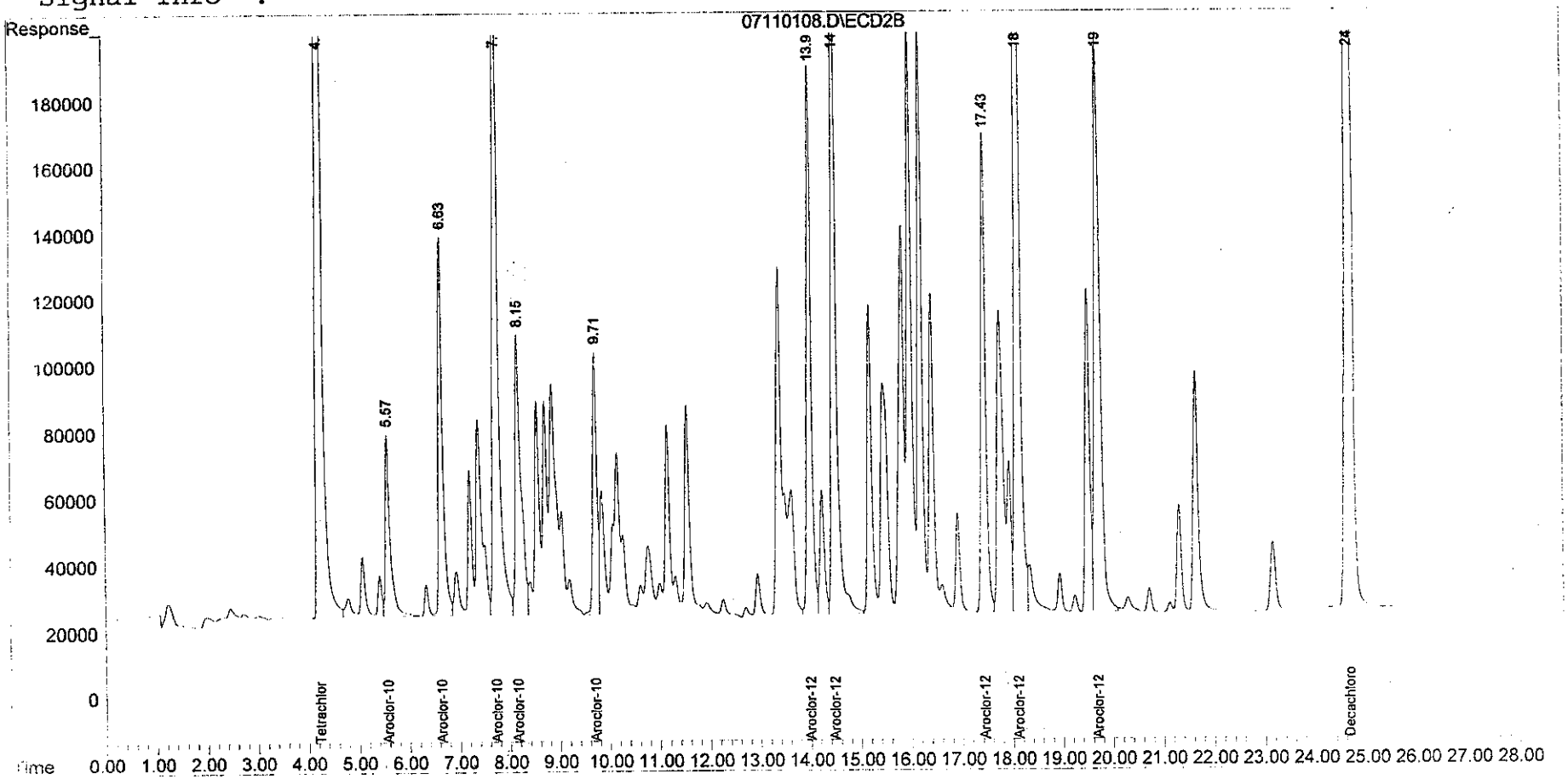
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.22	35987494	0.206 ug/ml
Spiked Amount 0.100		Recovery =	206.00%
12) S Decachlorobiphenyl	24.65	30573896	0.206 ug/ml
Spiked Amount 0.100		Recovery =	206.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	3687904	1.066 ug/ml
3) L1 Aroclor-1016{2}	6.63	6876154	1.061 ug/ml
4) L1 Aroclor-1016{3}	7.73	15707813	1.076 ug/ml
5) L1 Aroclor-1016{4}	8.16	6628721	1.068 ug/ml
6) L1 Aroclor-1016{5}	9.71	4654616	1.068 ug/ml
Sum Aroclor-1016		37555208	5.339 ug/ml
Average Aroclor-1016			1.068 ug/ml
7) L2 Aroclor-1260{1}	13.98	10033736	1.120 ug/ml
8) L2 Aroclor-1260{2}	14.47	15065799	1.125 ug/ml
9) L2 Aroclor-1260{3}	17.43	9143377	1.144 ug/ml
10) L2 Aroclor-1260{4}	18.10	23183739	1.163 ug/ml
11) L2 Aroclor-1260{5}	19.69	14025284	1.194 ug/ml
Sum Aroclor-1260		71451935	5.746 ug/ml
Average Aroclor-1260			1.149 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110108.D Vial: 8
Acq On : 11 Jul 2001 13:34 Operator: YGK
Sample : ICV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:23 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



GC/ECD PEST-C, PCBs Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 07/11/01
Analyst Initials: YGK
Instrument Method: 8082F2
Calibration Column: SPB-608
Confirmation Column: –

PCB Calibration Date: 07/11/01

Surrogate Recovery Limits (%)	
	Decachlorobiphenyl
Soil	45-127
Water	D-128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. (%) DCB	Comments/Observations
1	Hexane	07011660	soln	1X	NA	P01138
2	ccv PCB 1.0 ppm		sfd			P01057
3	IC Ar1016/1260 .010 ppm					P01058
4	0.50 ppm					P01138
5	1.0 ppm					P01060
6	1.5 ppm					P01061
7	2.5 ppm					P01145
8	ICV Ar1016/1260 1.0 ppm				103	1016-107%, 1260-115% P01055
9	IC Ar 1221 1.0 ppm				NA	P01041
10	IC Ar 1232 1.0 ppm					P01027
11	IC Ar 1242 1.0 ppm					P01032
12	IC Ar 1248 1.0 ppm					P01036
13	IC Ar 1254 1.0 ppm					
14	Hexane	07011660	soln		NA	
15	15914 w		w		96	
16	15586w 10X			10X	20	
17	QPW070501I			1X	98	
18	1 3				87	1016-99%, 1260-103%
19	15971 w				62	
20	15973 w				57	
21	15984 w				84	
22	16162 w				42	
23	QPW070601I				81	

Signature/Date: Jeff Kehm 07/11/01

cont

SVOC GC DATA CHECKLIST
SW-846-8081A / 8082 / 8151A

PROJECT #: 28368	METHOD: (circle applicable methods)		
MATRIX: WATER	8081A	8082	(8151A)

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
For Pesticides & Herbicides, were all hits verified with second column confirmation?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: YCK

Date: 07/30/01 Time: 14:40

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer:

Date: Time:

EXTRACTION LOG

ANALYSIS: HERBICIDE

DATE/TIME: 7/17/01 11:40a.m

MATRIX: WATER

HERBW042

ANALYST: JA

EXT. METHOD: 8151

INSTRUMENT: GC/ECD

AAL I.D.	SAMPLE VOLUME	pH <2	SURR 1.0ml	SPIKE 1.0ml	FINAL VOLUME	COMMENTS
QHW021701-1	1L		JA		5.0ml	BLK
QHW021701-2				JA		LCS
QHW021701-3				JA		LCSD
15131						
16854						

MECL2 ID: EX01256 ETHER ID: EX01247 HEXANE ID: EX01259

DIAZALD ID: EX01238 2-(2-ETHOXYETHOXY)-ETHANOL ID: EX00085

SURROGATE I.D. : H01E125 CONC. : 2.5ppm INITIAL : JA

SPIKE I.D. : H01E100 CONC. : 1.25-125ppm INITIAL : JA

EXTRACT STORAGE: REFRIGERATOR # 5, BOX #: H --

Spike Witness: JA

PAGE 050

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 07/18/01
Analyst Initials: YGK
Instrument Method: 8151D16
Calibration Column: HP5
Confirmation Column: DBW 1701

Herbicide Calibration Date: 06/26/01, 07/13/01

Surrogate Recovery Limits (%)	
	DCAA
Soil	52-130
Water	D-164

...ion	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
	Hexane	062601H	solv	1X		
	ccv Herb .25ppm		std		91	H01134
	15131W 50X		W		B2	old
	QHW0717011				93	
	2				88	
	3				90	
	15131W				91	
	16854W				79	
	ccv PCP,25ppm		std		96	PCP 103% H01153
	15131W 20X	062601H	W	20X	B2	
	15131W 50X			50X		
	15131W 100X			100X		
	Hexane		solv	1X	NA	
	ccv Herb .25ppm		std		94	H01134
	QHW0716011		W			
	2					
	3					
	14988W					
	14990W					
	14994W					
	14998W					
	15004W					
	15008W					

Date: Jeff Lehm 07/18/01

Herbrun.xls Page # 48

↓ cont

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180108.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\071801\07180108.D\ECD2B.CH
Acq On : 18 Jul 2001 15:15 Operator: YGK
Sample : 16854 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:41 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
	System Monitoring Compounds						
2) S	DCAA	13.12	13.35	4883783	4346002	0.393	0.321
Spiked Amount 0.500				Recovery =		78.60% ✓	64.20%
	Target Compounds						
1) T	Dalapon	6.87	6.82	492552	21943590	0.024	1.029 #
3) T	Dicamba	13.45	13.83	362240	50004	0.007	0.001 #
4) T	MCPP	13.76f	14.13	1680881	191161	61.517	5.719 #
5) T	MCPA	14.13	14.73f	659345	289130	16.476	5.270 #
6) T	Dichloroprop	14.80	0.00	1338241	0	0.077	N.D. #
7) T	2,4-D	15.30f	15.91	714392	258369	0.039	0.014 #
8) T	2,4,5-TP(Silvex)	16.61	17.00f	1234605	1030979	0.015	0.013
9) T	2,4,5-T	17.06	17.50	881141	295639	0.011	0.004 #
10) T	2,4-DB	17.77f	17.98	922966	758916	0.120	0.078 #
11) T	Dinoseb	18.03	18.64	3456990	829868	0.064	0.017 #

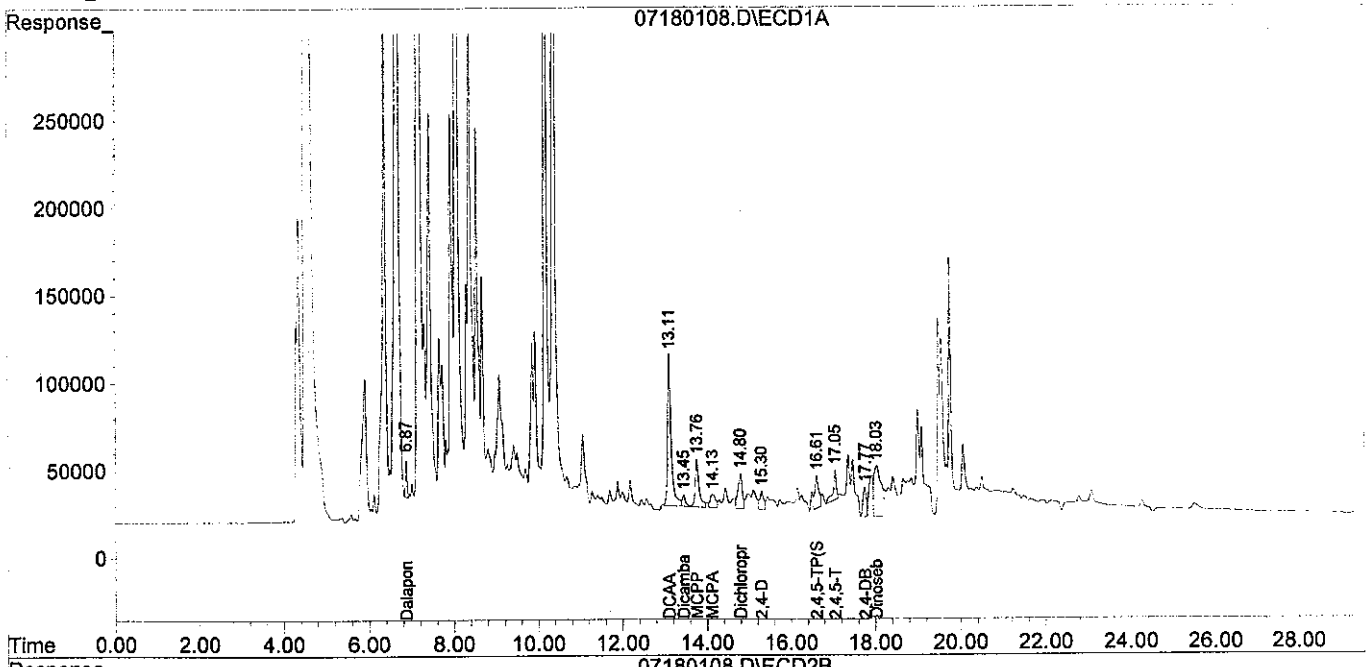
Herb <02

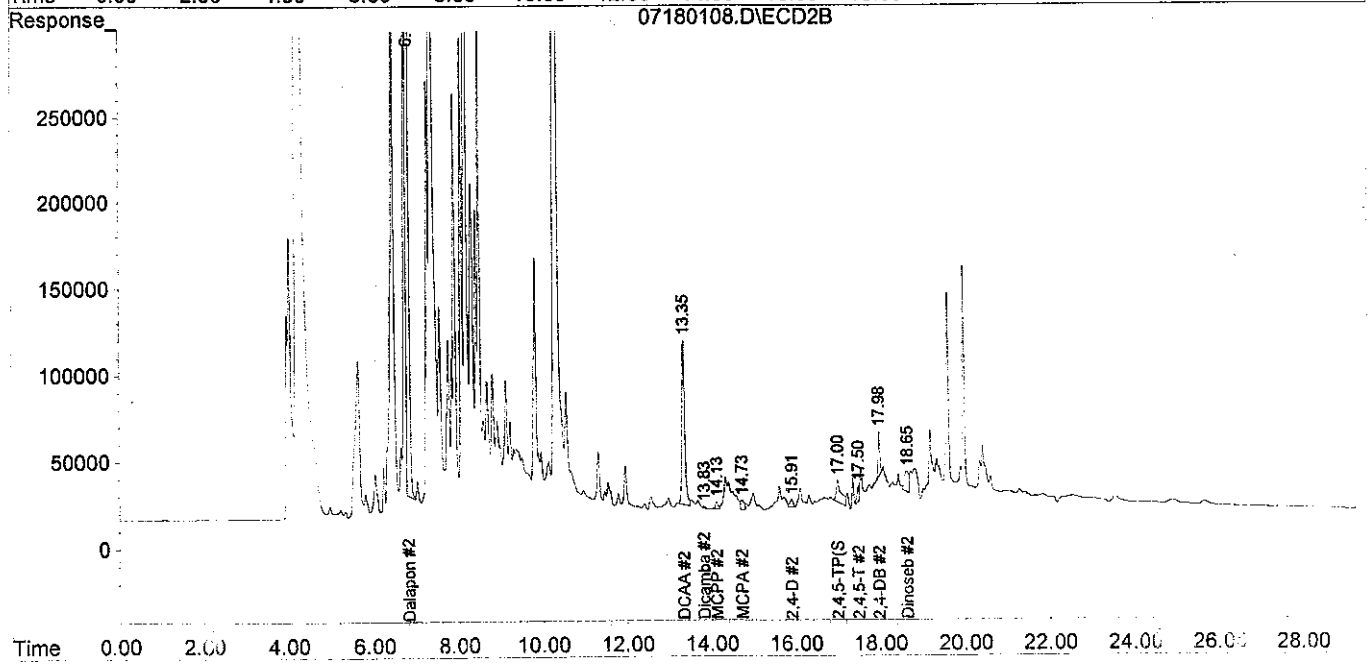
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int

Signal #1 : C:\HPCHEM\2\DATA\071801\07180108.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\2\DATA\071801\07180108.D\ECD2B.CH
Acq On : 18 Jul 2001 15:15 Operator: YGK
Sample : 16854 W Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:41 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180104.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\071801\07180104.D\ECD2B.CH
Acq On : 18 Jul 2001 12:41 Operator: YGK
Sample : QHW0717011 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:29 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.14	13.37	5764603	6031923	0.464	0.445	
		Spiked Amount 0.500				Recovery =	92.80% ✓	89.00%	
		Target Compounds							
1)	T	Dalapon	6.89	6.76	39294	79728	0.002	0.004	#
3)	T	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
4)	T	MCPP	13.88f	0.00	75628	0	2.768	N.D.	#
5)	T	MCPA	14.16	14.61f	51522	106123	1.287	1.934	#
6)	T	Dichloroprop	14.82	0.00	597974	0	0.034	N.D.	#
7)	T	2,4-D	15.30f	15.93f	488525	94778	0.026	0.005	#
8)	T	2,4,5-TP(Silvex)	16.58	16.90	104821	35466	0.001	0.000	#
9)	T	2,4,5-T	17.02	17.59f	71416	607454	0.001	0.008	#
10)	T	2,4-DB	17.75	18.03	483067	12166	0.063	0.001	#
11)	T	Dinoseb	18.03	18.67	593180	161208	0.011	0.003	#

Herb < ½ DL

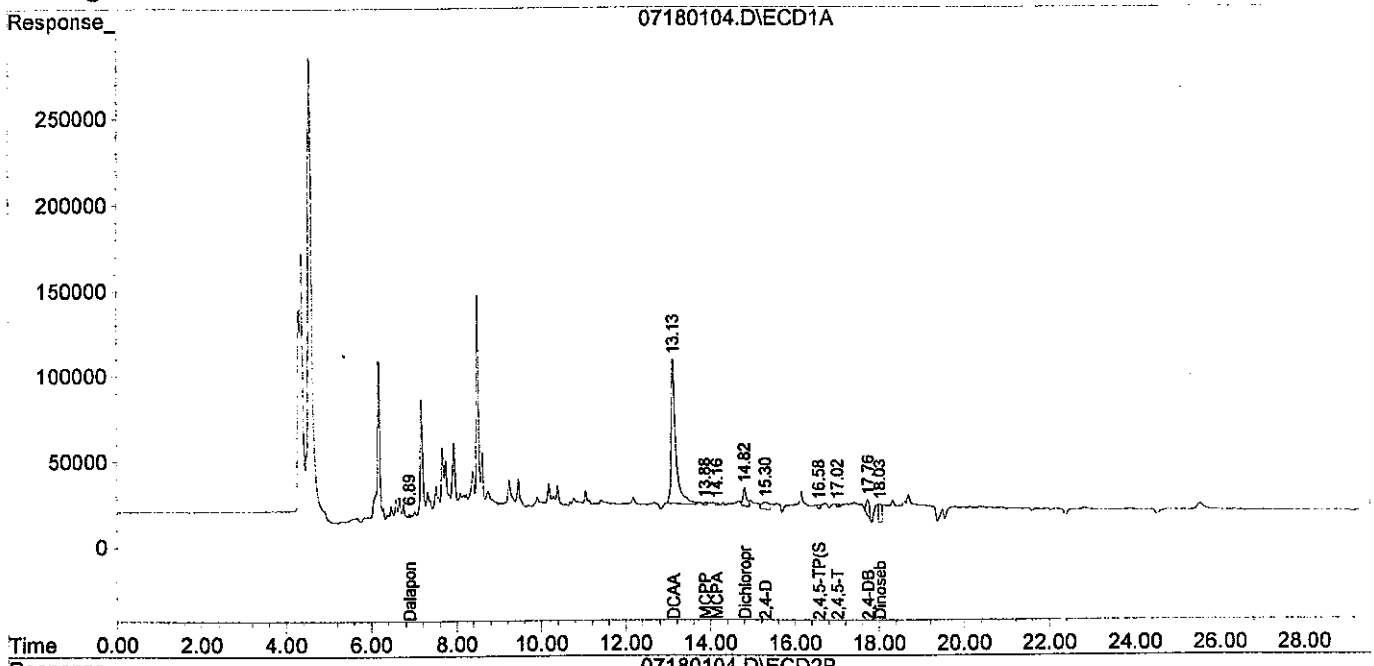
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual in
07180104.D 062601H [illegible] Page#

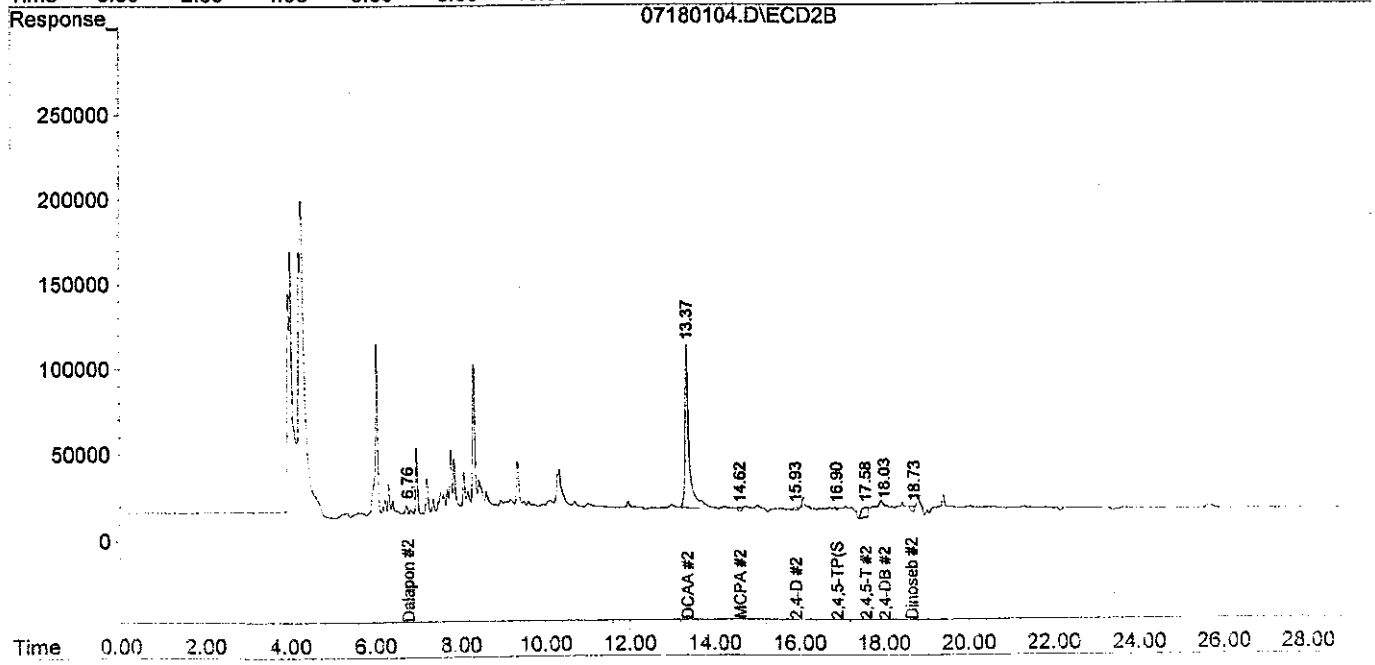
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180104.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\071801\07180104.D\ECD2B.CH
Acq On : 18 Jul 2001 12:41 Operator: YGK
Sample : QHW0717011 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:29 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Accura Analytical Laboratory, Inc.
Herbicides LCS/LCS DUP Report

Sample ID:	QHW0717012&3	**Date Acquired:**	7/18/01
Operator:	YGK	**Instrument ID:**	PEST-B
Data File:	07180105&06	**Bottle #:**	5&6
Method:	8151A	**Matrix:**	WATER

Compounds	Expected Con. (ppm)	LCS Con. (ppm)	LCS % Recovery	LCSD Con. (ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
2,4D	0.25	0.249	100%	0.22	88%	51 - 123	Pass	Pass	12%	< 20	Pass
Silvex(2,4,5-TP)	0.25	0.198	79%	0.203	81%	53 - 117	Pass	Pass	2%	< 20	Pass
2,4,5-T	0.25	0.189	76%	0.2	80%	53 - 117	Pass	Pass	6%	< 20	Pass
Dinoseb	0.25	0.12	48%	0.124	50%	23 - 87	Pass	Pass	3%	< 20	Pass

Surrogate	Expected Con. (ppm)	LCS Con. (ppm)	LCS % Recovery	LCSD Con. (ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail
DCAA	0.50	0.438	88%	0.448	90%	58 - 110	Pass	Pass

*-Inhouse limits to be developed.

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180105.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\071801\07180105.D\ECD2B.CH
Acq On : 18 Jul 2001 13:19 Operator: YGK
Sample : QHW0717012 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:31 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

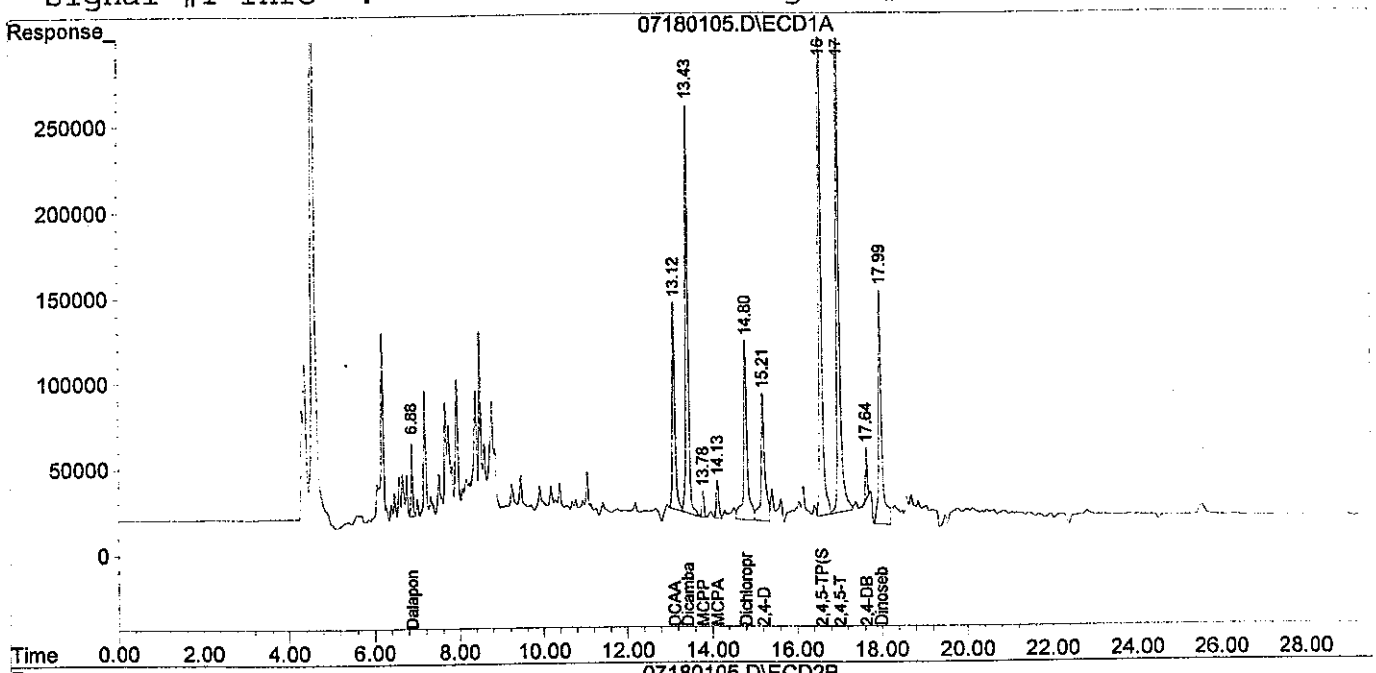
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.12	13.35	5439616	6315617	0.438	0.466	
Spiked Amount 0.500					Recovery =		87.60% ✓	93.20%	
		Target Compounds							
1)	T	Dalapon	6.88	6.77	1249434	1582808	0.061	0.074	
3)	T	Dicamba	13.43	13.80	10305445	10674207	0.188	0.211	
4)	T	MCPP	13.79	14.12	515116	725090	18.852	21.691	
5)	T	MCPA	14.13	14.65	864824	1119901	21.611	20.413	
6)	T	Dichloroprop	14.80	15.23	5862621	2833951	0.336	0.173	#
7)	T	2,4-D	15.21	15.84	4620321	3436846	0.249	0.184	#
8)	T	2,4,5-TP(Silvex)	16.59	16.89	16609211	15966100	0.198	0.197	
9)	T	2,4,5-T	17.01	17.48	15050339	13894637	0.189	0.184	
10)	T	2,4-DB	17.65	17.98	823512	2660500	0.107	0.272	#
11)	T	Dinoseb	17.99	18.66	6464305	4293465	0.120	0.085	#

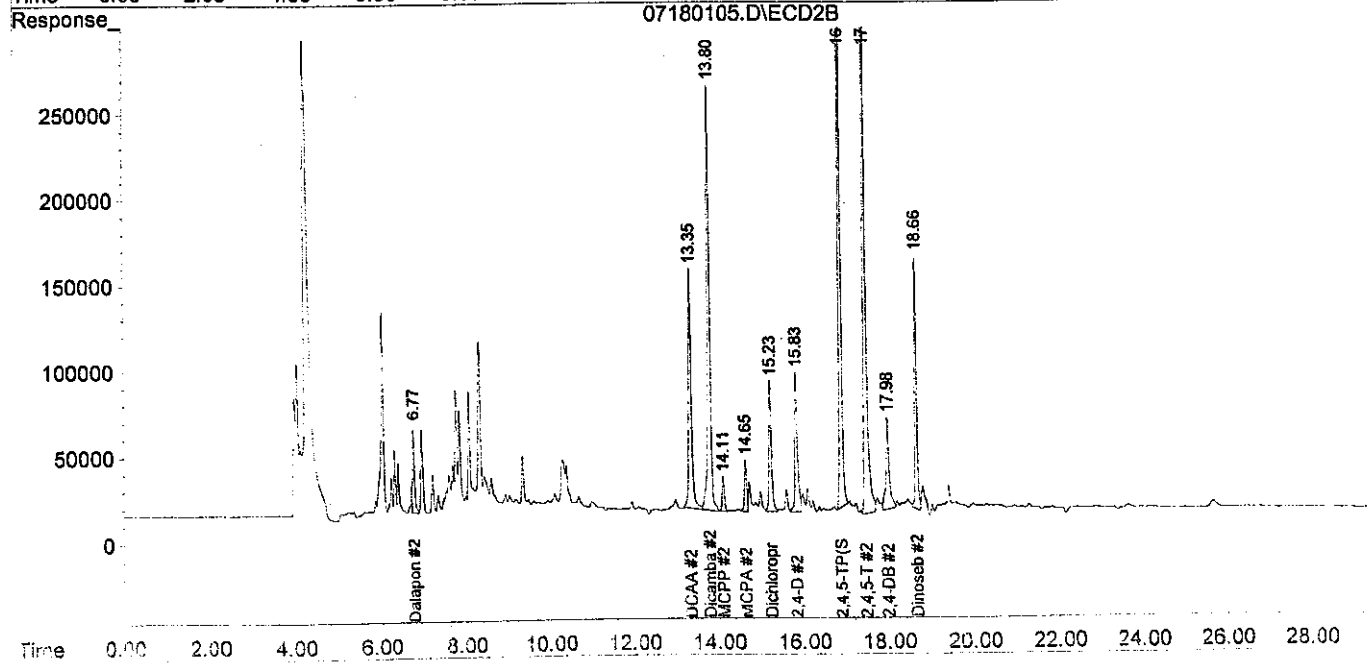
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180105.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\071801\07180105.D\ECD2B.CH
Acq On : 18 Jul 2001 13:19 Operator: YGK
Sample : QHW0717012 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:31 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180106.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\071801\07180106.D\ECD2B.CH
Acq On : 18 Jul 2001 13:58 Operator: YGK
Sample : QHW0717013 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:33 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

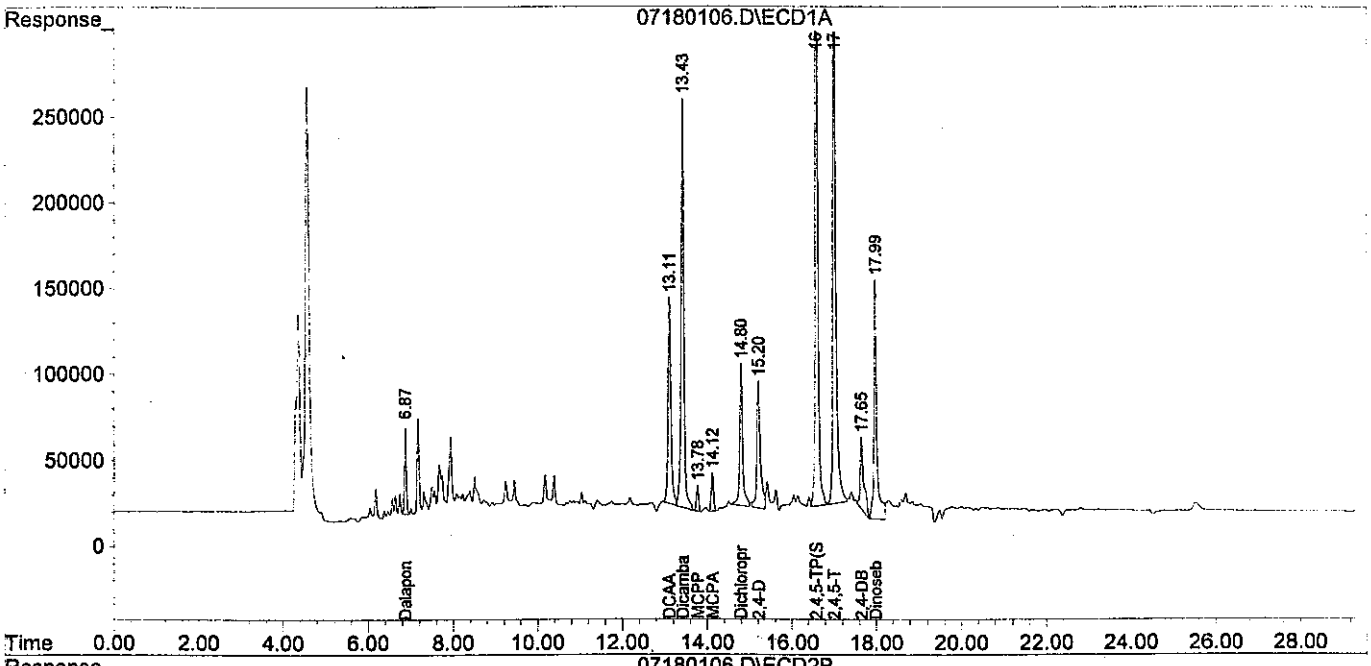
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.12	13.35	5562790	6434004	0.448	0.475	
		Spiked Amount 0.500			Recovery	=	89.60% ✓	95.00%	
		Target Compounds							
1)	T	Dalapon	6.87	6.76	1461419	1904902	0.071	0.089	#
3)	T	Dicamba	13.43	13.80	10570920	10634751	0.193	0.211	
4)	T	MCPP	13.78	14.11	530612	715164	19.419	21.395	
5)	T	MCPA	14.13	14.65	800483	1178129	20.003	21.475	
6)	T	Dichloroprop	14.80	15.23	3925815	2999174	0.225	0.183	
7)	T	2,4-D	15.20	15.83	4078049	3565632	0.220	0.191	
8)	T	2,4,5-TP(Silvex)	16.59	16.89	17008808	16567776	0.203	0.205	
9)	T	2,4,5-T	17.01	17.48	15889107	15084041	0.200	0.200	
10)	T	2,4-DB	17.65	17.98	2351073	2351518	0.306	0.241	
11)	T	Dinoseb	17.99	18.66	6691270	4493650	0.124	0.089	#

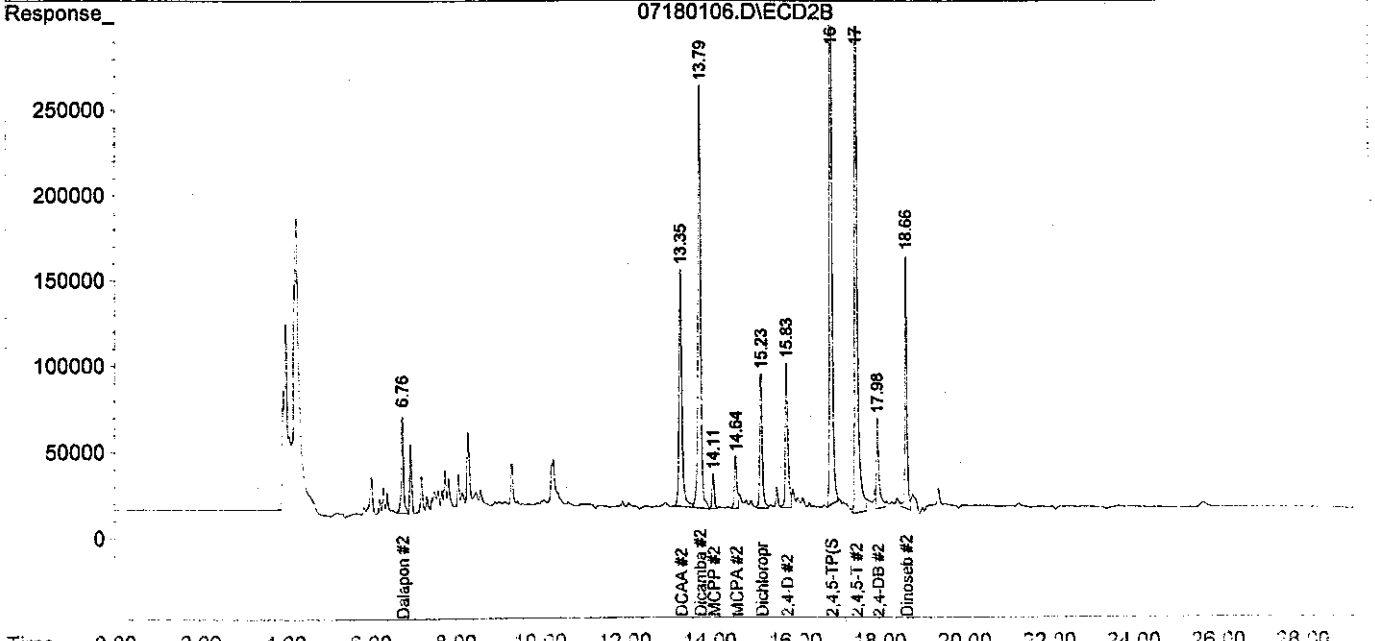
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180106.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\071801\07180106.D\ECD2B.CH
Acq On : 18 Jul 2001 13:58 Operator: YGK
Sample : QHW0717013 Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:33 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180102.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\071801\07180102.D\ECD2B.CH
Acq On : 18 Jul 2001 9:49 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:28 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Thu Jul 19 08:27:24 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

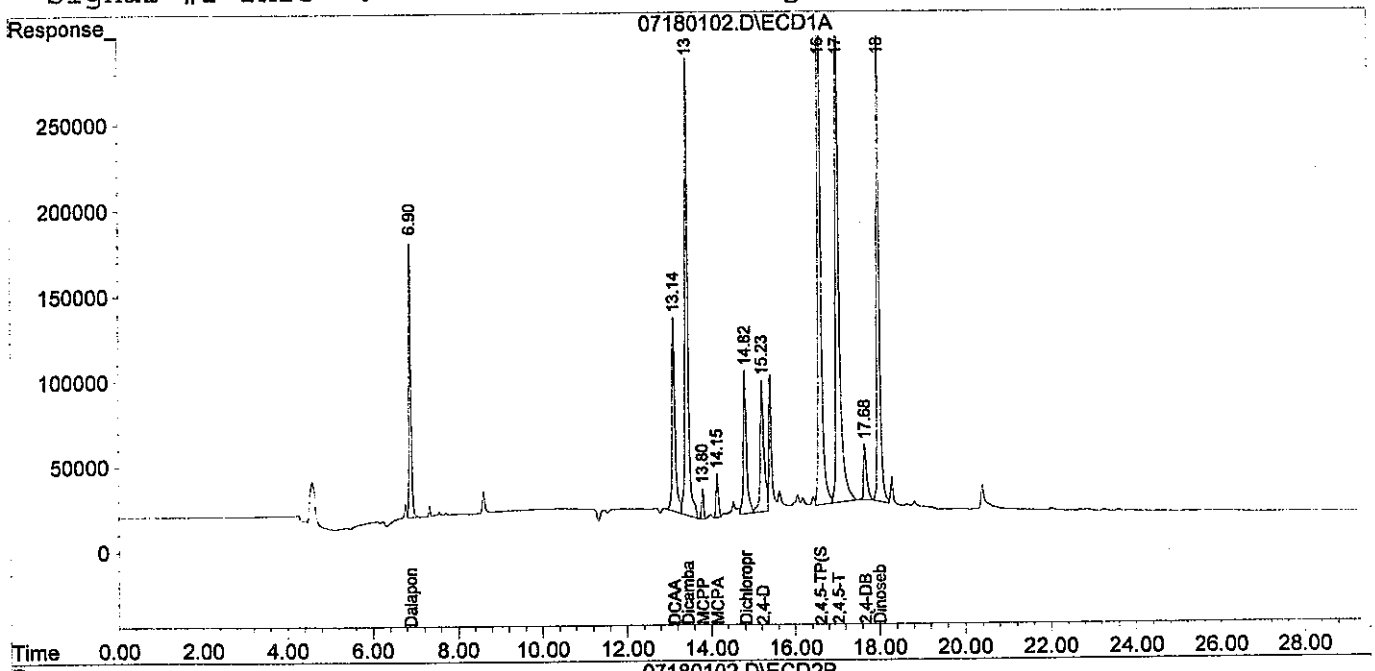
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.14	13.37	5651273	6142512	0.455	0.453
Spiked Amount 0.500					Recovery =		91.00% ✓	90.60%
		Target Compounds						
1)	T	Dalapon	6.90	6.79	4946185	5067555	0.241	0.238
3)	T	Dicamba	13.45	13.82	12708840	11757584	0.232	0.233
4)	T	MCPP	13.81	14.14	632336	788929	23.142	23.601
5)	T	MCPA	14.15	14.67	960571	1298259	24.003	23.664
6)	T	Dichloroprop	14.82	15.25	4127986	3639691	0.237	0.222
7)	T	2,4-D	15.23	15.86	4634460	4254537	0.250	0.228
8)	T	2,4,5-TP(Silvex)	16.61	16.91	19576672	18420457	0.234	0.228
9)	T	2,4,5-T	17.04	17.50	18636148	17452581	0.234	0.231
10)	T	2,4-DB	17.68	18.01	1668031	2240025	0.217	0.229
11)	T	Dinoseb	18.00	18.68	11788190	11084194	0.219	0.221

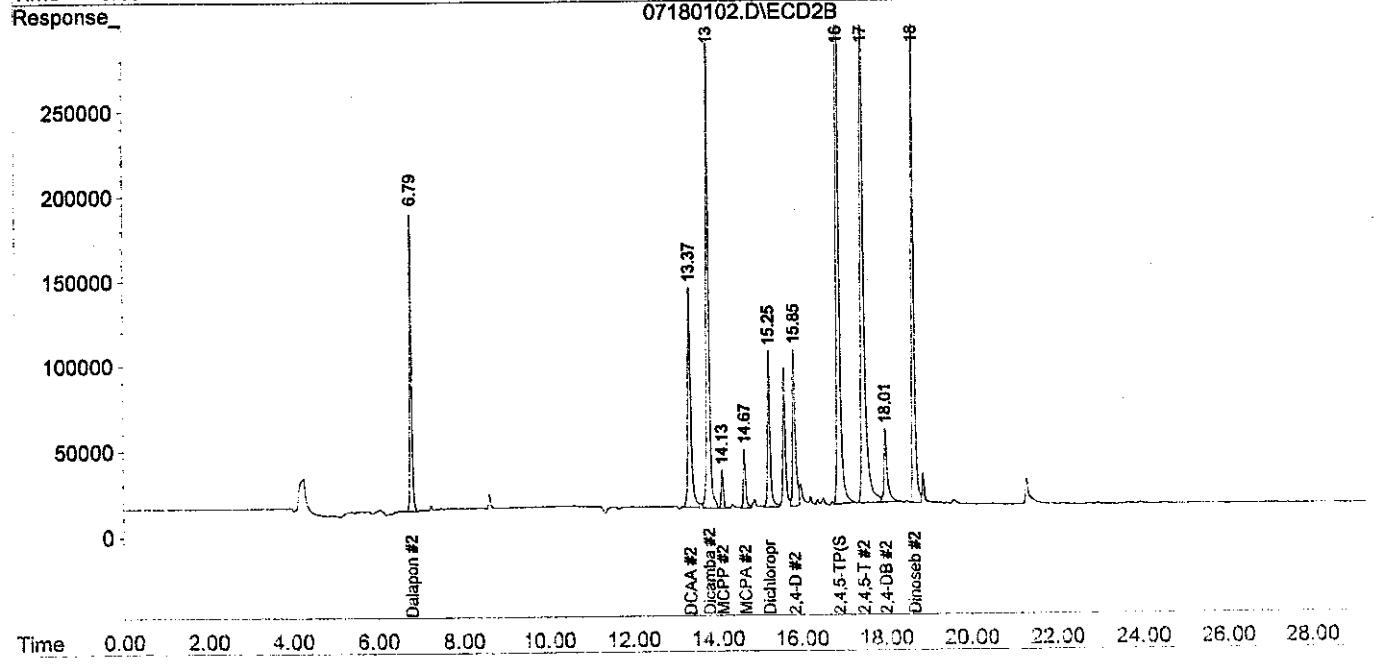
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180102.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\071801\07180102.D\ECD2B.CH
Acq On : 18 Jul 2001 9:49 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:28 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Thu Jul 19 08:27:24 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180114.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\2\DATA\071801\07180114.D\ECD2B.CH
Acq On : 18 Jul 2001 19:03 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:46 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

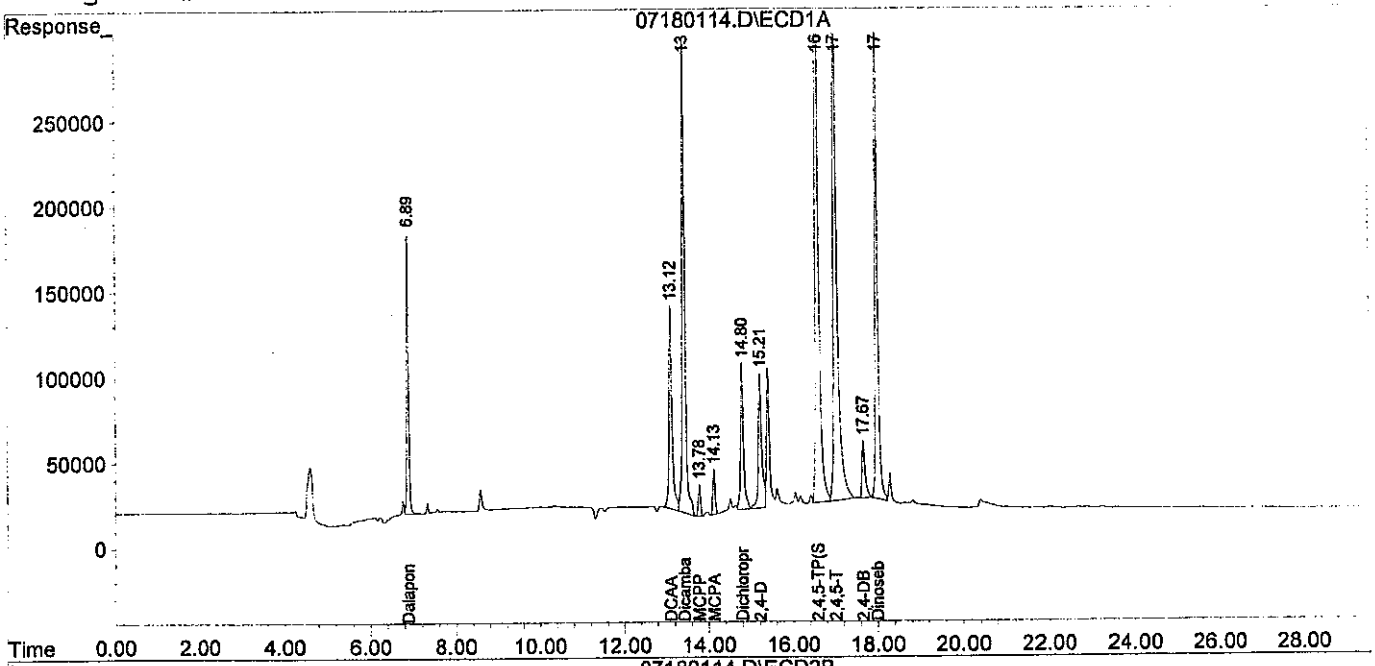
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.12	13.35	5841935	6451553	0.470	0.476
		Spiked Amount 0.500			Recovery	=	94.00%	95.20%
		Target Compounds						
1)	T	Dalapon	6.89	6.78	5024213	5187907	0.245	0.243
3)	T	Dicamba	13.43	13.80	13154485	12177579	0.241	0.241
4)	T	MCPP	13.79	14.12	659952	821553	24.153	24.577
5)	T	MCPA	14.13	14.65	973344	1348202	24.323	24.575
6)	T	Dichloroprop	14.80	15.23	4052491	3776967	0.232	0.231
7)	T	2,4-D	15.21	15.84	4611936	4428669	0.249	0.237
8)	T	2,4,5-TP(Silvex)	16.59	16.90	20202489	19124676	0.241	0.237
9)	T	2,4,5-T	17.02	17.48	19292029	18058497	0.242	0.239
10)	T	2,4-DB	17.67	18.00	1719486	2285332	0.224	0.234
11)	T	Dinoseb	17.99	18.66	12234435	11532354	0.227	0.230

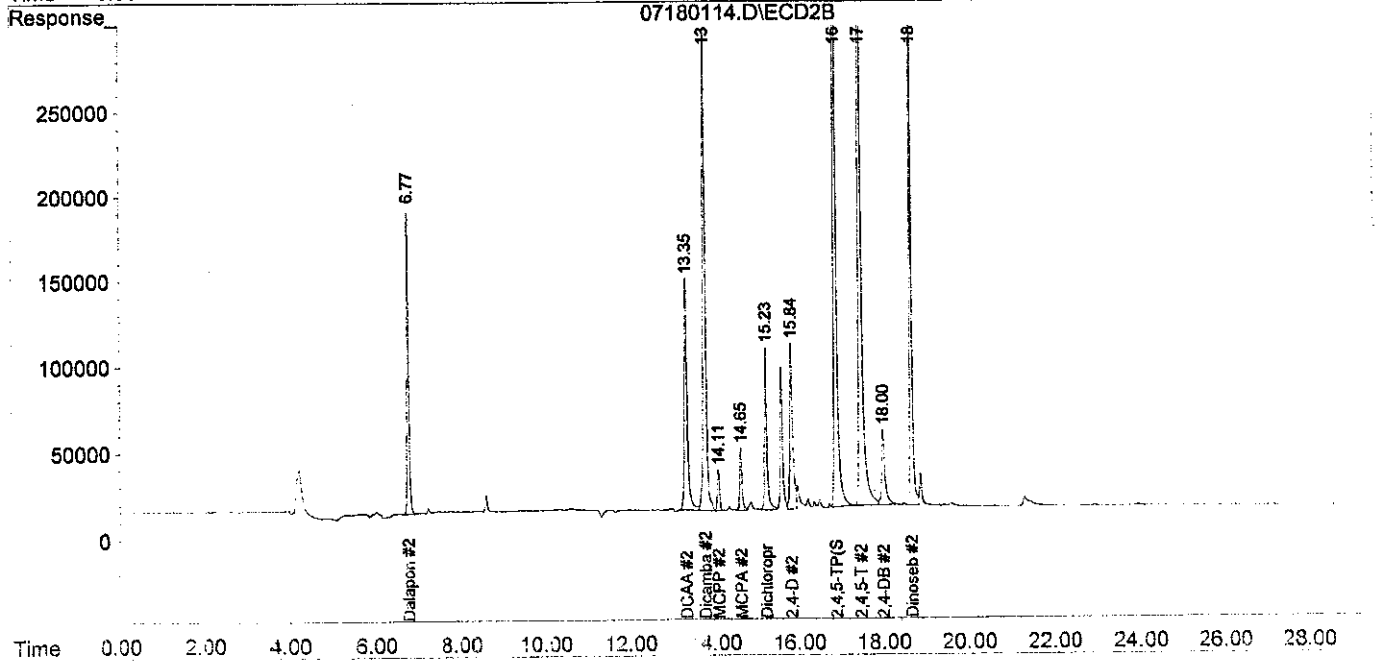
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180114.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\2\DATA\071801\07180114.D\ECD2B.CH
Acq On : 18 Jul 2001 19:03 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 8:46 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180126.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\2\DATA\071801\07180126.D\ECD2B.CH
Acq On : 19 Jul 2001 2:34 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:03 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

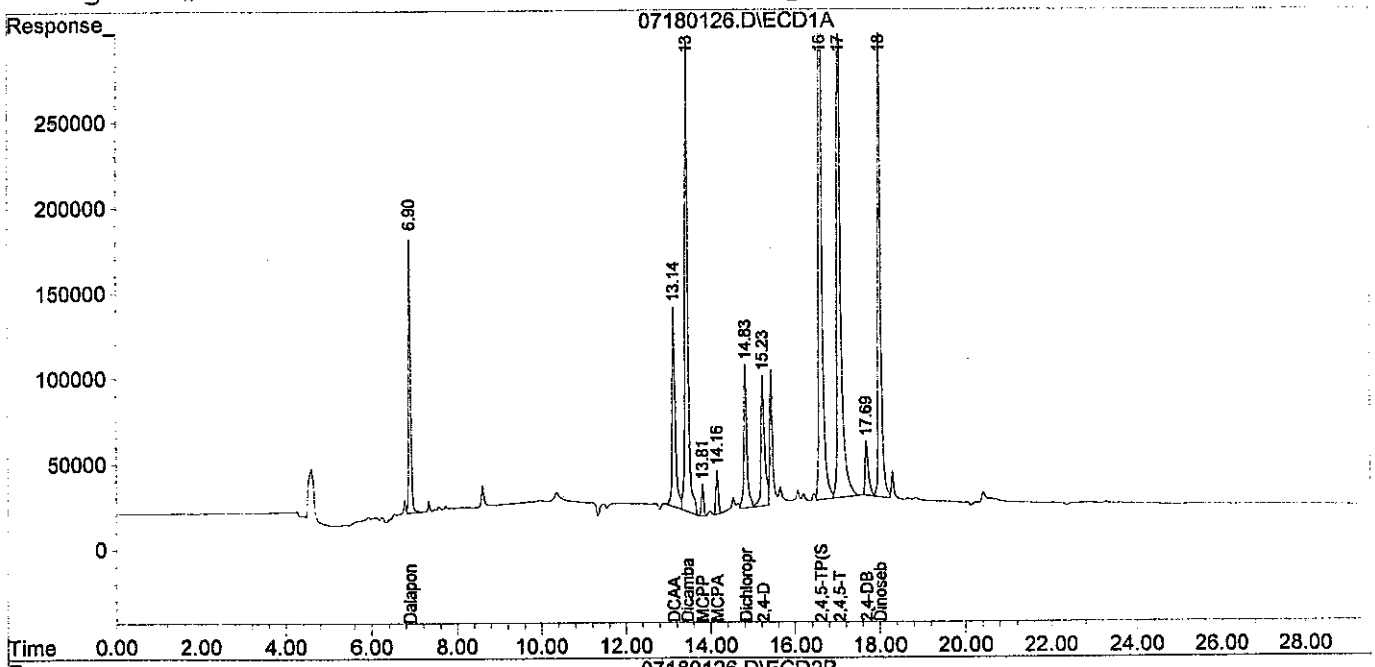
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.15	13.38	5714335	6179328	0.460	0.456
		Spiked Amount 0.500			Recovery	=	92.00%	91.20%
		Target Compounds						
1)	T	Dalapon	6.90	6.79	4954074	5134372	0.242	0.241
3)	T	Dicamba	13.46	13.83	12998650	12038415	0.238	0.238
4)	T	MCPP	13.82	14.14	634525	785170	23.222	23.489
5)	T	MCPA	14.16	14.68	929371	1232945	23.224	22.474
6)	T	Dichloroprop	14.83	15.26	3991771	3715842	0.229	0.227
7)	T	2,4-D	15.24	15.86	4539910	4332864	0.245	0.232
8)	T	2,4,5-TP(Silvex)	16.62	16.92	19833249	18736032	0.237	0.232
9)	T	2,4,5-T	17.05	17.50	18912542	17745462	0.238	0.235
10)	T	2,4-DB	17.69	18.02	1729123	2186709	0.225	0.224
11)	T	Dinoseb	18.01	18.68	12153823	11357846	0.226	0.226

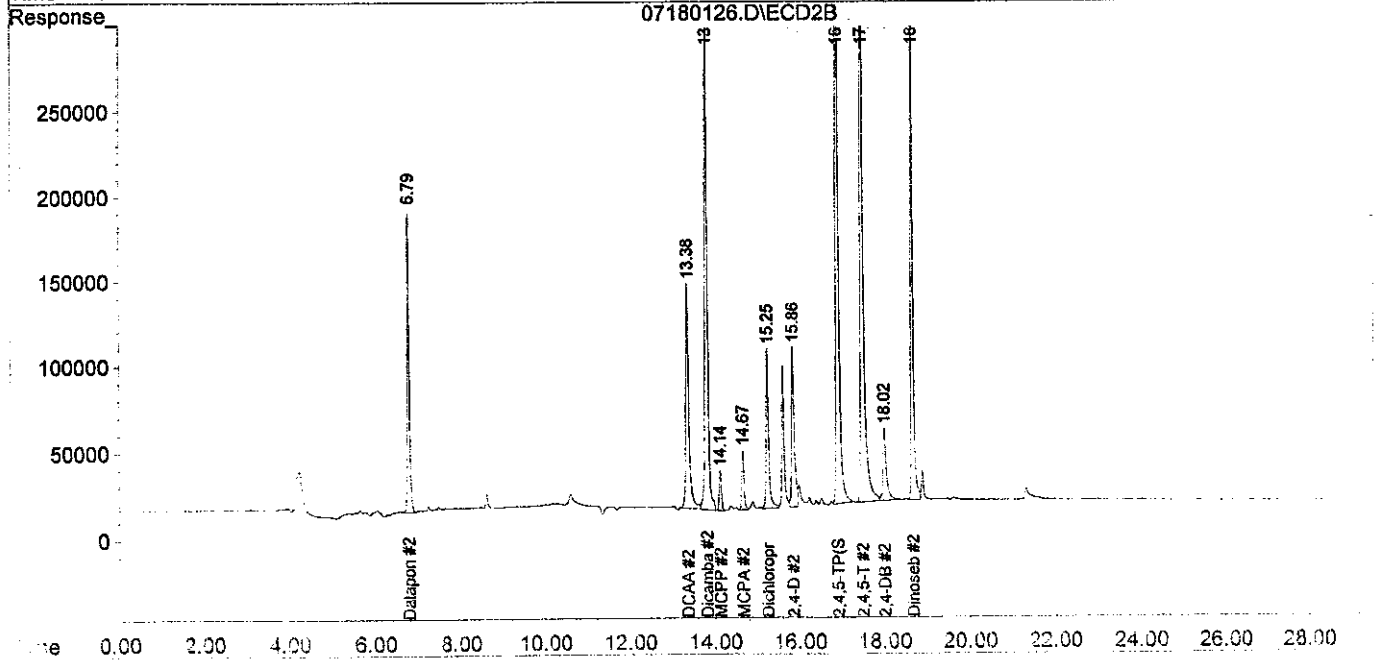
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180126.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\2\DATA\071801\07180126.D\ECD2B.CH
Acq On : 19 Jul 2001 2:34 Operator: YGK
Sample : CCV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:03 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180127.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\2\DATA\071801\07180127.D\ECD2B.CH
Acq On : 19 Jul 2001 3:11 Operator: YGK
Sample : CCV PCP .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:47 2001 Quant Results File: 0701PCP.RES

Quant Method : C:\HPCHEM\2\METHODS\0701PCP.M (Chemstation Integrator)
Title : PENTACHLOROPHENOL ,CALIBR.07/13/01
Last Update : Fri Jul 13 14:33:46 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
System Monitoring Compounds						
1) SS DCAA	13.18	13.41	5231780	7285968	0.475	0.467
Spiked Amount 0.500			Recovery	=	95.00%	93.40%
Target Compounds						
2) T PENTACHLOROPHENO	16.18	16.13	54004474	53098585	0.260	0.227

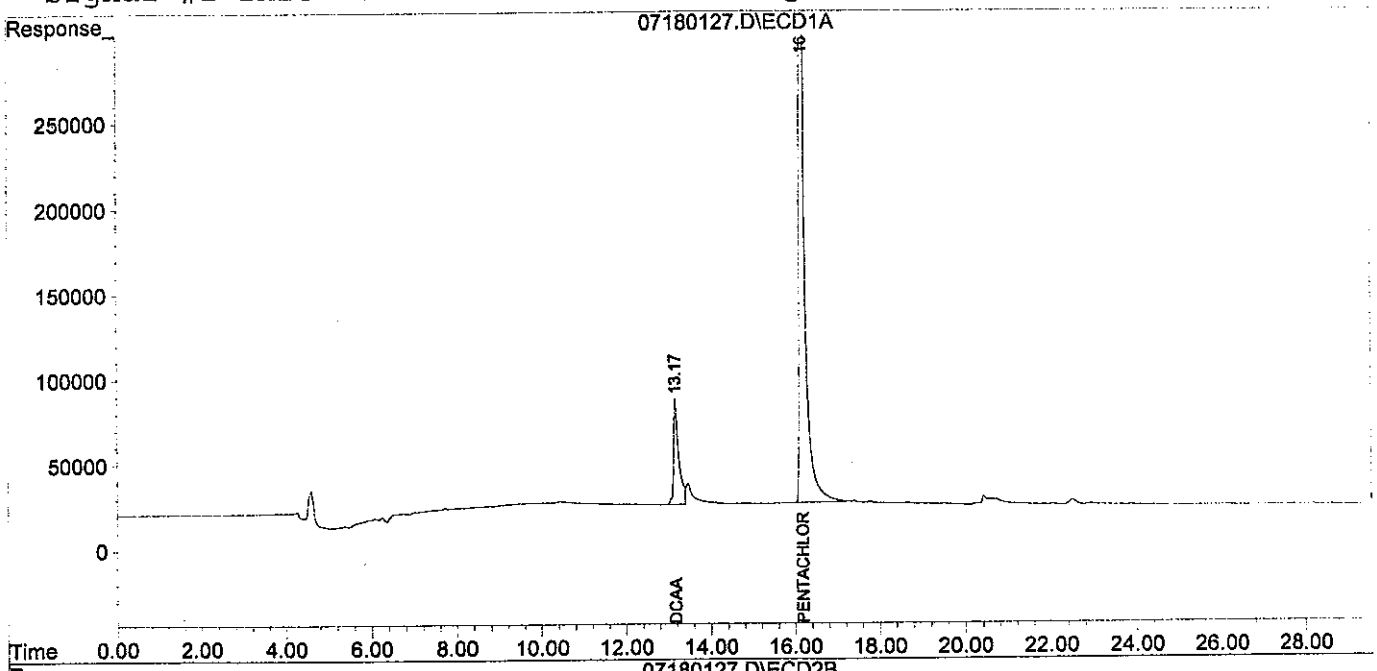
(f)=RT Delta > 1/3 Window (#)=Amounts differ by > 25% (m) manual
071801 P M Thu Jul 19 9:48:32 2001 Page 1

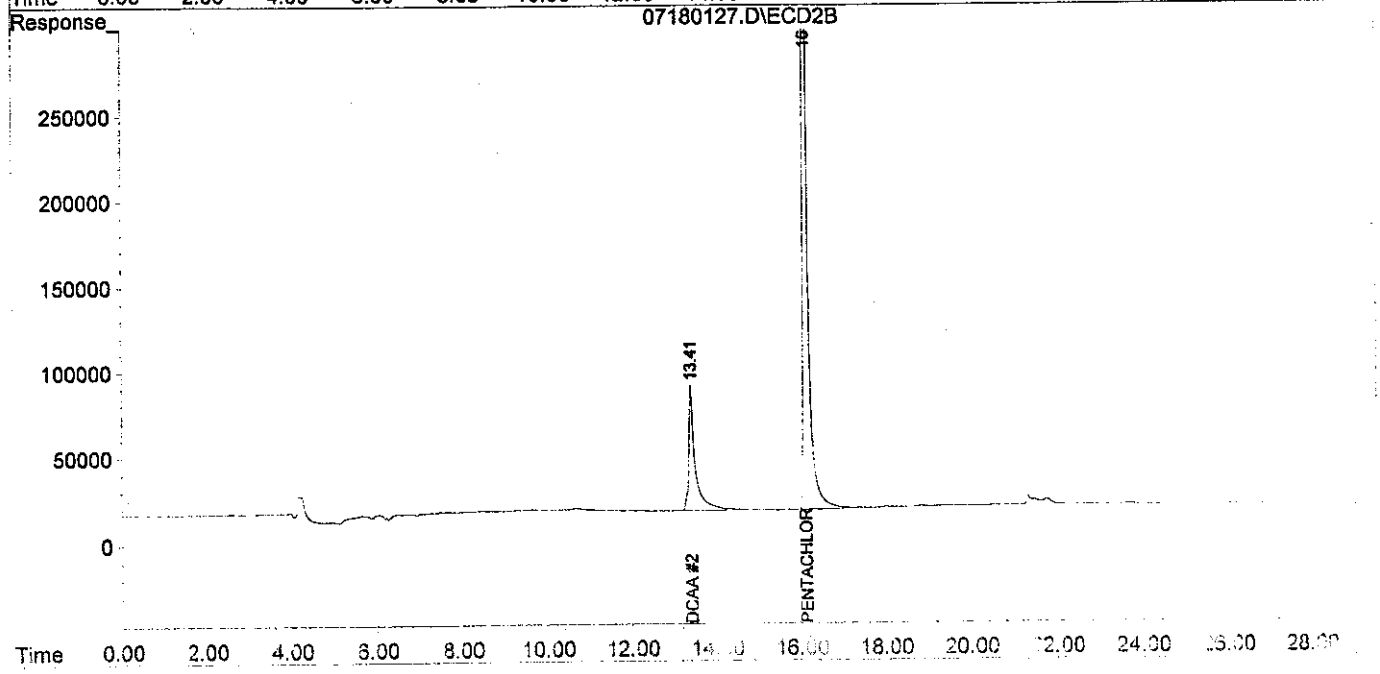
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180127.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\2\DATA\071801\07180127.D\ECD2B.CH
Acq On : 19 Jul 2001 3:11 Operator: YGK
Sample : CCV PCP .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:47 2001 Quant Results File: 0701PCP.RES

Quant Method : C:\HPCHEM\2\METHODS\0701PCP.M (Chemstation Integrator)
Title : PENTACHLOROPHENOL ,CALIBR.07/13/01
Last Update : Fri Jul 13 14:33:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\071801\07180109.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\071801\07180109.D\ECD2B.CH
Acq On : 18 Jul 2001 15:53 Operator: YGK
Sample : CCV PCP .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:44 2001 Quant Results File: 0701PCP.RES

Quant Method : C:\HPCHEM\2\METHODS\0701PCP.M (Chemstation Integrator)
Title : PENTACHLOROPHENOL ,CALIBR.07/13/01
Last Update : Fri Jul 13 14:33:46 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
System Monitoring Compounds						
1) SS DCAA	13.14	13.37	5297022	7384828	0.482	0.475
Spiked Amount 0.500			Recovery	=	96.40%	95.00%
Target Compounds						
2) T PENTACHLOROPHENO	16.15	16.10	53491644	52829996	0.258	0.225

103

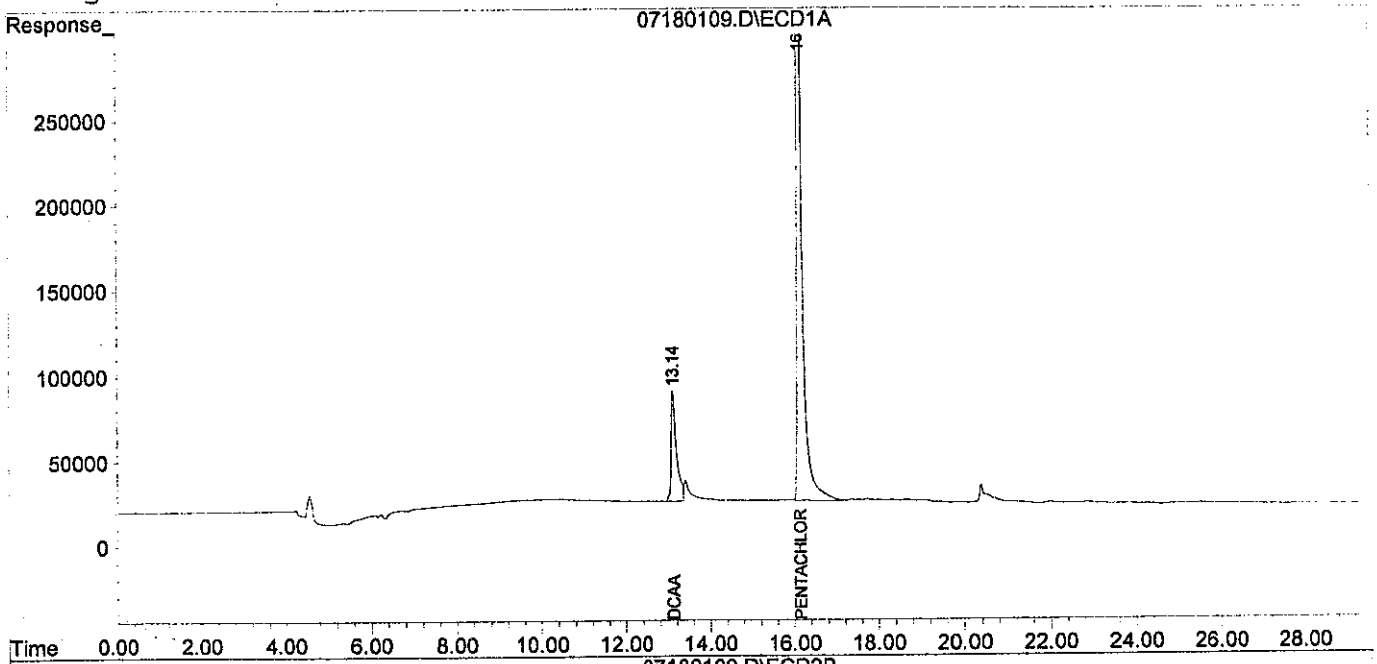
(#) = alta > '2 Window ( )=Amounts differ by > 25% (m) n.

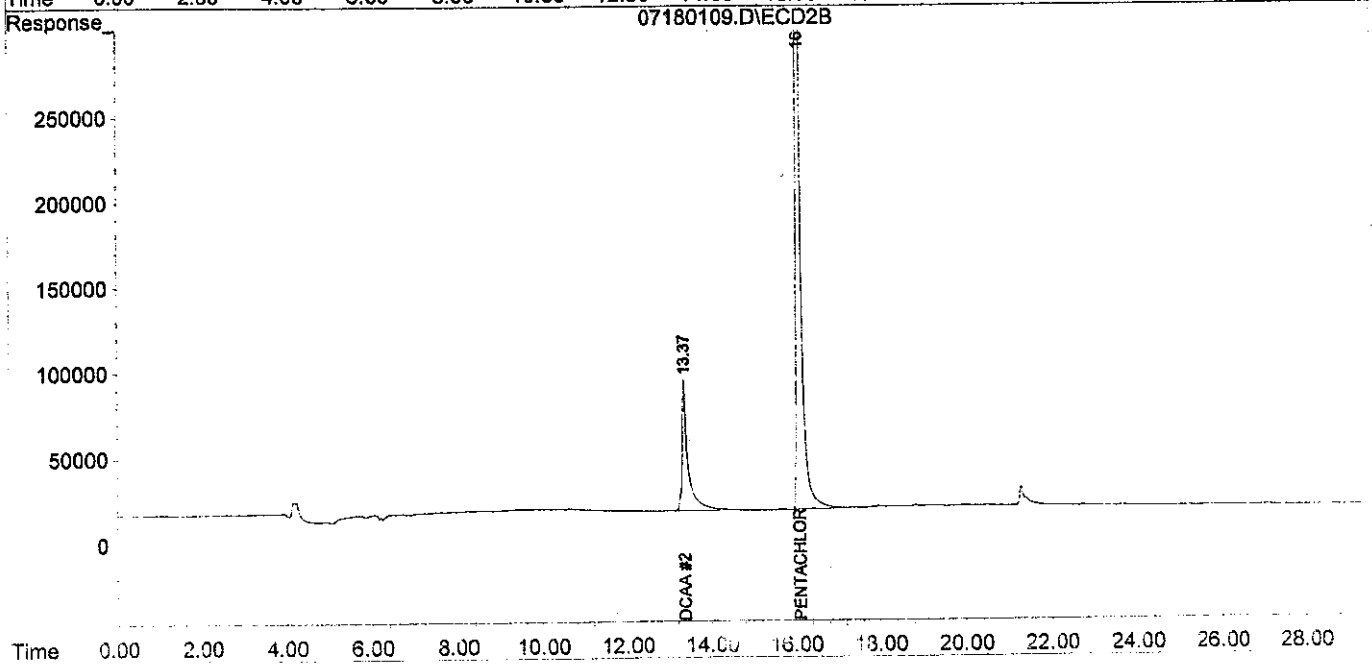
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\071801\07180109.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\071801\07180109.D\ECD2B.CH
Acq On : 18 Jul 2001 15:53 Operator: YGK
Sample : CCV PCP .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jul 19 9:44 2001 Quant Results File: 0701PCP.RES

Quant Method : C:\HPCHEM\2\METHODS\0701PCP.M (Chemstation Integrator)
Title : PENTACHLOROPHENOL ,CALIBR.07/13/01
Last Update : Fri Jul 13 14:33:46 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 06/26/01 PEST-B	METHOD: (circle applicable methods)
MATRIX: -	8081A 8082 (8151A)

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is the runlog completely filled out (~~including review signature/date~~)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YPK	Reviewer: RL
Date: 06/27/01 Time: 9:50	Date: 07/03/01 Time: 10:16

Response Factor Report PEST-B

Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 15:11:51 2001

Calibration Files
1 =06260104.D 2 =06260105.D 3 =06260106.D
4 =06260107.D 5 =06260108.D

		Compound	1	2	3	4	5	Avg		%RSD
1)	T	Dalapon	2.304	2.047	2.054	1.939	1.904	2.050	E7	7.64
2)	S	DCAA	1.507	1.247	1.230	1.118	1.108	1.242	E7	12.97
3)	T	Dicamba	6.827	5.507	5.412	4.850	4.751	5.469	E7	15.15
4)	T	MCPP	2.448	2.615	2.793	2.836	2.971	2.732	E4	7.46
5)	T	MCPA	3.704	3.934	4.092	4.090	4.189	4.002	E4	4.75
6)	T	Dichloroprop	2.220	1.753	1.738	1.535	1.474	1.744	E7	16.80
7)	T	2,4-D	2.201	1.881	1.861	1.684	1.649	1.855	E7	11.83
8)	T	2,4,5-TP(Silvex)	9.833	8.479	8.423	7.595	7.540	8.374	E7	11.09
9)	T	2,4,5-T	9.439	8.058	8.026	7.170	7.084	7.956	E7	11.91
10)	T	2,4-DB	7.777	7.593	7.799	7.557	7.666	7.678	E6	1.40
11)	T	Dinoseb	6.106	5.375	5.460	4.983	4.969	5.378	E7	8.62

Signal #2 Calibration Files
1 =06260104.D 2 =06260105.D 3 =06260106.D
4 =06260107.D 5 =06260108.D

		Compound	1	2	3	4	5	Avg		%RSD
1)	T	Dalapon	2.378	2.091	2.145	2.044	2.008	2.133	E7	6.85
2)	S	DCAA	1.595	1.348	1.356	1.240	1.235	1.355	E7	10.78
3)	T	Dicamba	5.762	4.966	5.051	4.739	4.721	5.048	E7	8.39
4)	T	MCPP	3.395	3.247	3.321	3.360	3.390	3.343	E4	1.83
5)	T	MCPA	6.288	5.370	5.469	5.230	5.074	5.486	E4	8.61
6)	T	Dichloroprop	1.948	1.608	1.663	1.516	1.452	1.638	E7	11.69
7)	T	2,4-D	2.145	1.831	1.900	1.743	1.709	1.866	E7	9.27
8)	T	2,4,5-TP(Silvex)	8.889	7.974	8.144	7.682	7.732	8.084	E7	6.03
9)	T	2,4,5-T	8.388	7.474	7.632	7.119	7.140	7.551	E7	6.84
10)	T	2,4-DB	1.208	0.938	0.936	0.897	0.909	0.978	E7	13.28
11)	T	Dinoseb	5.300	4.932	5.071	4.865	4.940	5.022	E7	3.43

(#) = Out of Range

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD2B.CH
Acq On : 26 Jun 2001 17:31 Operator: YGK
Sample : IC HERB .10 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:55 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

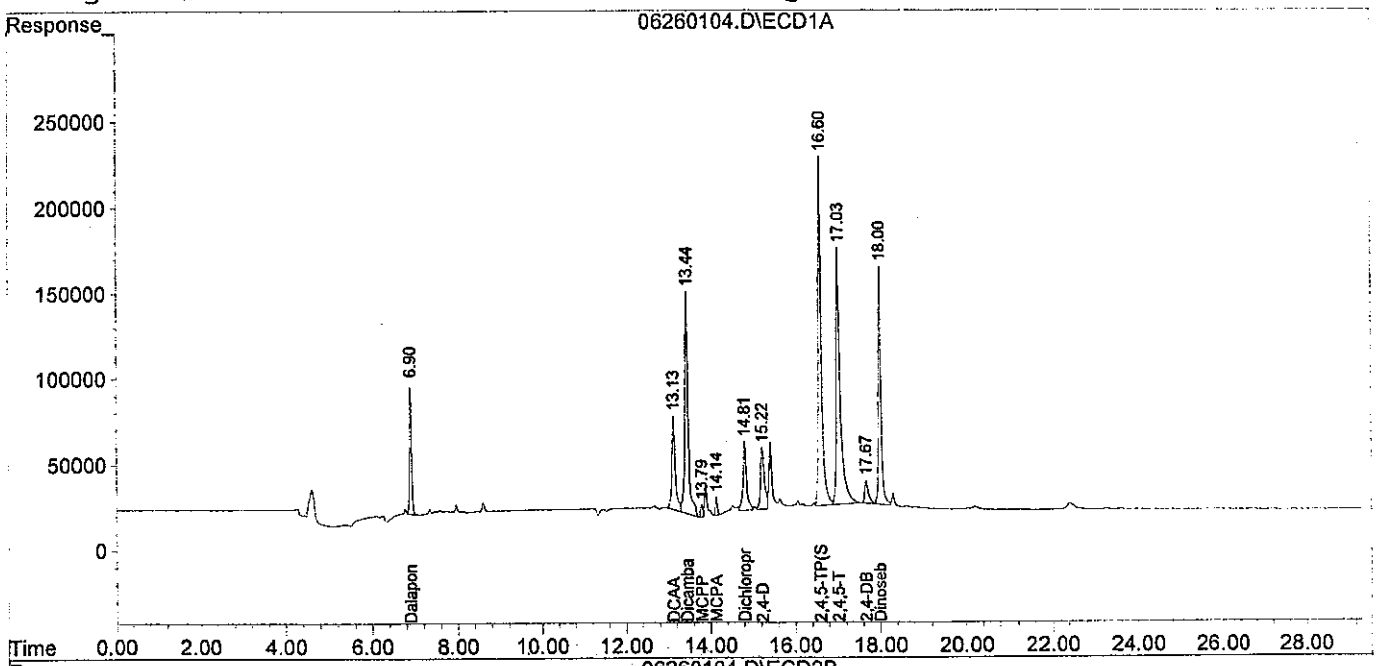
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
	System Monitoring Compounds						
2) S	DCAA	13.13	13.37	3014501	3190280	0.260	0.119 #
	Spiked Amount 0.500			Recovery	=	52.00%	23.80%
	Target Compounds						
1) T	Dalapon	6.90	6.79	2303630	2377945	0.120	0.055 #
3) T	Dicamba	13.45	13.82	6826677	5761511	0.132	0.051 #
4) T	MCPP	13.80	14.13	244761	339506	9.371	5.802 #
5) T	MCPA	14.14	14.66	370372	628805	9.684	6.516 #
6) T	Dichloroprop	14.81	15.25	2219876	1947534	0.136	0.060 #
7) T	2,4-D	15.22	15.86	2201298	2144860	0.126	0.059 #
8) T	2,4,5-TP(Silvex)	16.61	16.91	9833391	8889313	0.125	0.044 #
9) T	2,4,5-T	17.03	17.50	9439283	8387785	0.127	0.048 #
10) T	2,4-DB	17.67	18.00	777701	1207647	0.108	0.071 #
11) T	Dinoseb	18.00	18.67	6105517	5299522	0.123	0.047 #

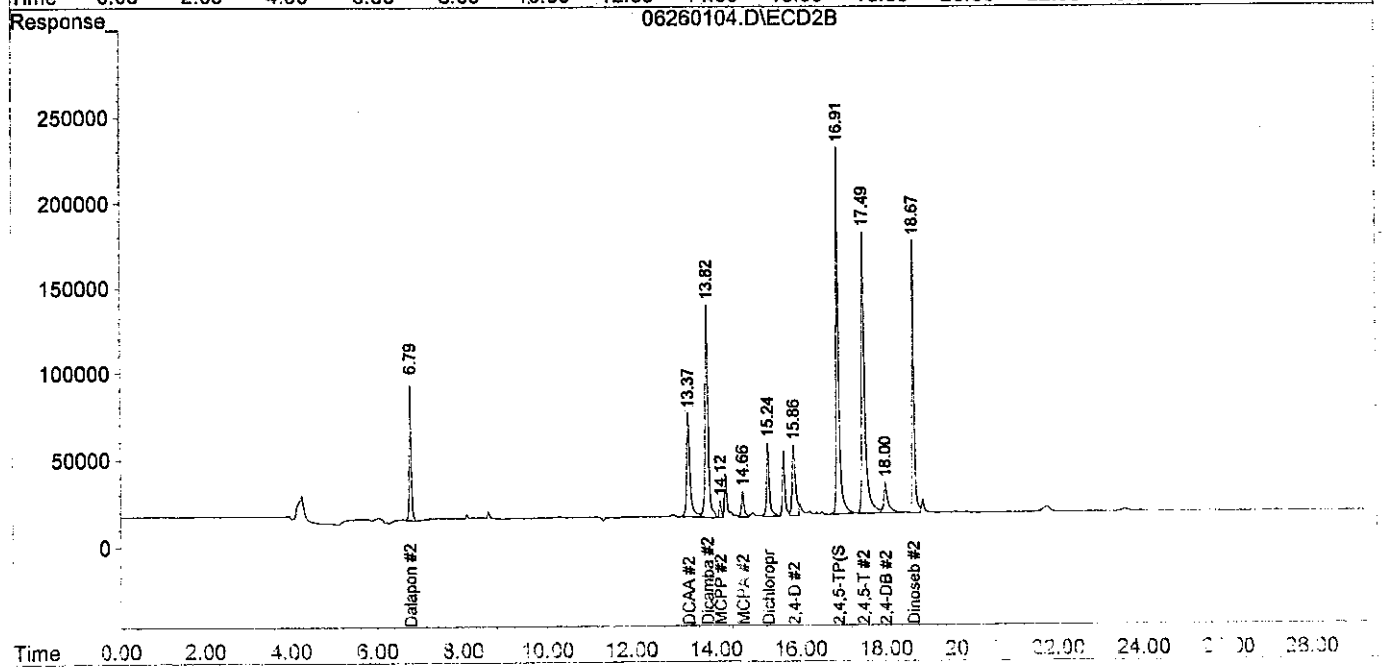
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD2B.CH
Acq On : 26 Jun 2001 17:31 Operator: YGK
Sample : IC HERB .10 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:55 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD2B.CH
Acq On : 26 Jun 2001 18:09 Operator: YGK
Sample : IC HERB .20 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:56 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

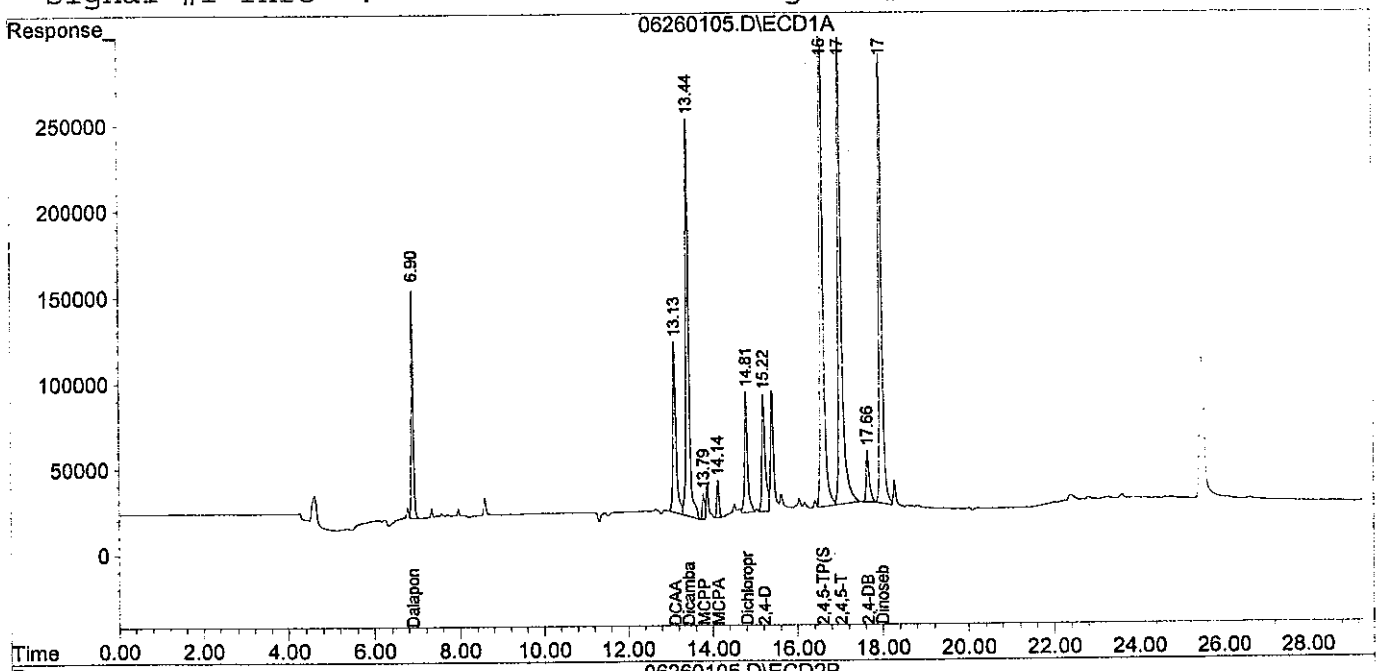
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.13	13.37	4986367	5392699	0.430	0.228	#
		Spiked Amount 0.500			Recovery	=	86.00%	45.60%	
		Target Compounds							
1)	T	Dalapon	6.90	6.79	4093794	4181826	0.212	0.109	#
3)	T	Dicamba	13.44	13.81	11013134	9932160	0.213	0.100	#
4)	T	MCPP	13.79	14.13	522926	649461	20.052	11.918	#
5)	T	MCPA	14.14	14.66	786893	1073916	20.502	11.951	#
6)	T	Dichloroprop	14.81	15.24	3506824	3216394	0.215	0.114	#
7)	T	2,4-D	15.22	15.85	3761027	3662527	0.214	0.113	#
8)	T	2,4,5-TP(Silvex)	16.60	16.91	16958997	15948971	0.216	0.089	#
9)	T	2,4,5-T	17.03	17.49	16116189	14948779	0.217	0.097	#
10)	T	2,4-DB	17.66	18.00	1518605	1876094	0.208	0.120	#
11)	T	Dinoseb	18.00	18.67	10749420	9864292	0.216	0.099	#

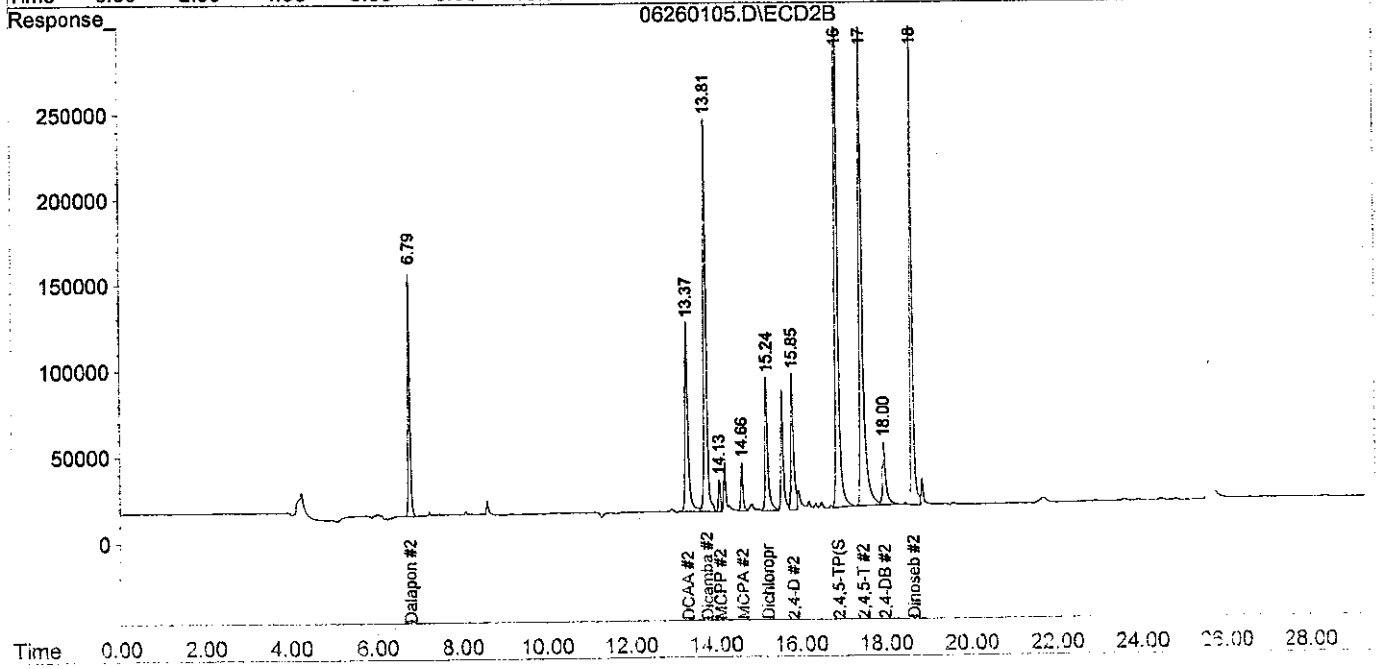
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD2B.CH
Acq On : 26 Jun 2001 18:09 Operator: YGK
Sample : IC HERB .20 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:56 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD2B.CH
Acq On : 26 Jun 2001 18:47 Operator: YGK
Sample : IC HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

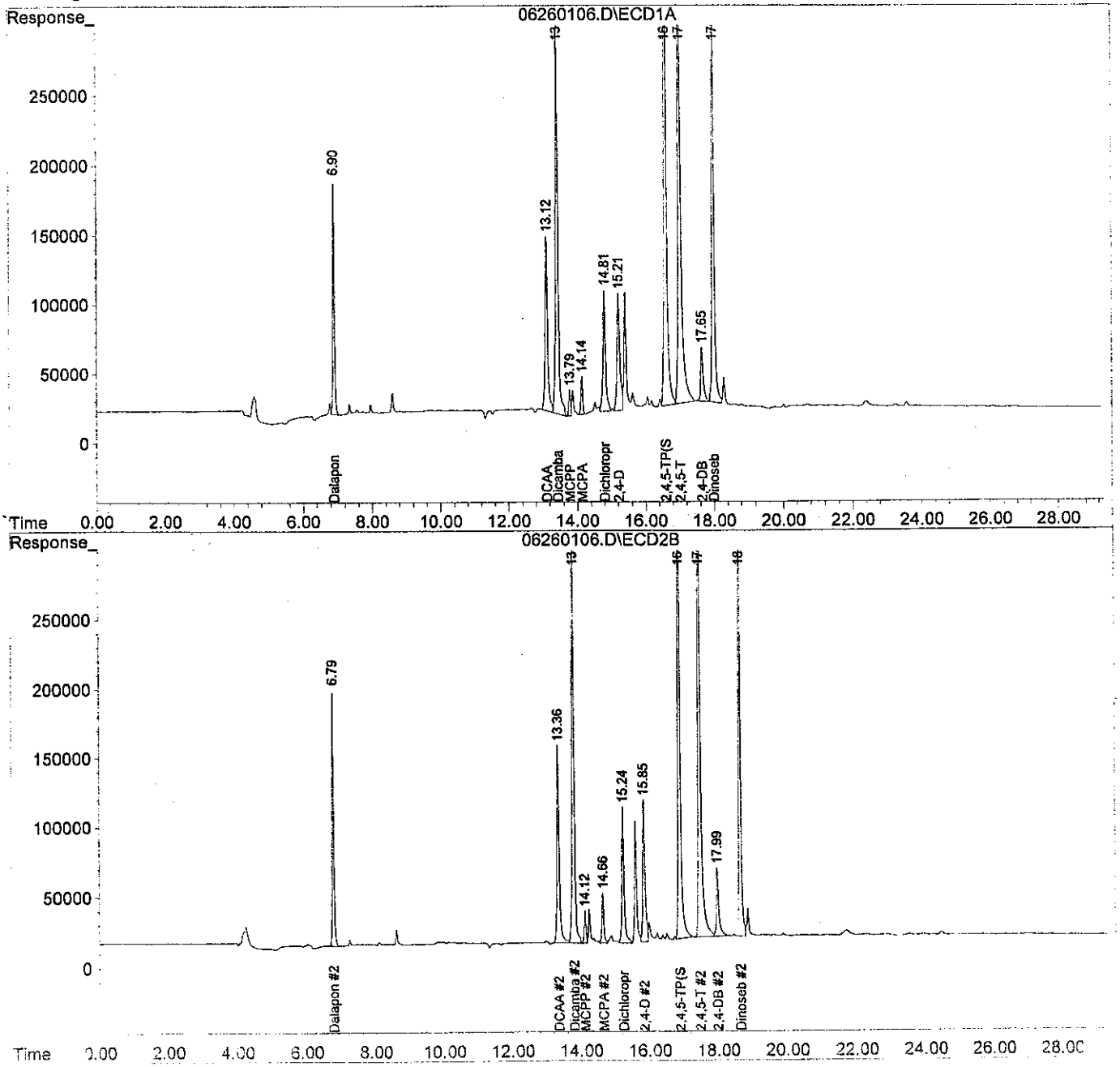
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
	System Monitoring Compounds							
2) S	DCAA	13.12	13.36	6149726	6778227	0.533	0.327	#
Spiked Amount 0.500				Recovery =		106.60%	65.40%	
	Target Compounds							
1) T	Dalapon	6.90	6.79	5135771	5361741	0.268	0.161	#
3) T	Dicamba	13.44	13.81	13529042	12626555	0.263	0.148	#
4) T	MCPP	13.80	14.13	698128	830159	27.055	16.822	#
5) T	MCPA	14.14	14.66	1022962	1367273	26.717	16.917	#
6) T	Dichloroprop	14.81	15.24	4345418	4158506	0.268	0.171	#
7) T	2,4-D	15.22	15.85	4652301	4750049	0.264	0.167	#
8) T	2,4,5-TP(Silvex)	16.60	16.90	21056634	20360963	0.270	0.132	#
9) T	2,4,5-T	17.02	17.49	20066197	19079452	0.272	0.143	#
10) T	2,4-DB	17.66	17.99	1949707	2340860	0.266	0.169	#
11) T	Dinoseb	17.99	18.67	13649570	12677927	0.275	0.149	#

Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD2B.CH
Acq On : 26 Jun 2001 18:47 Operator: YGK
Sample : IC HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD2B.CH
Acq On : 26 Jun 2001 19:24 Operator: YGK
Sample : IC HERB .40 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

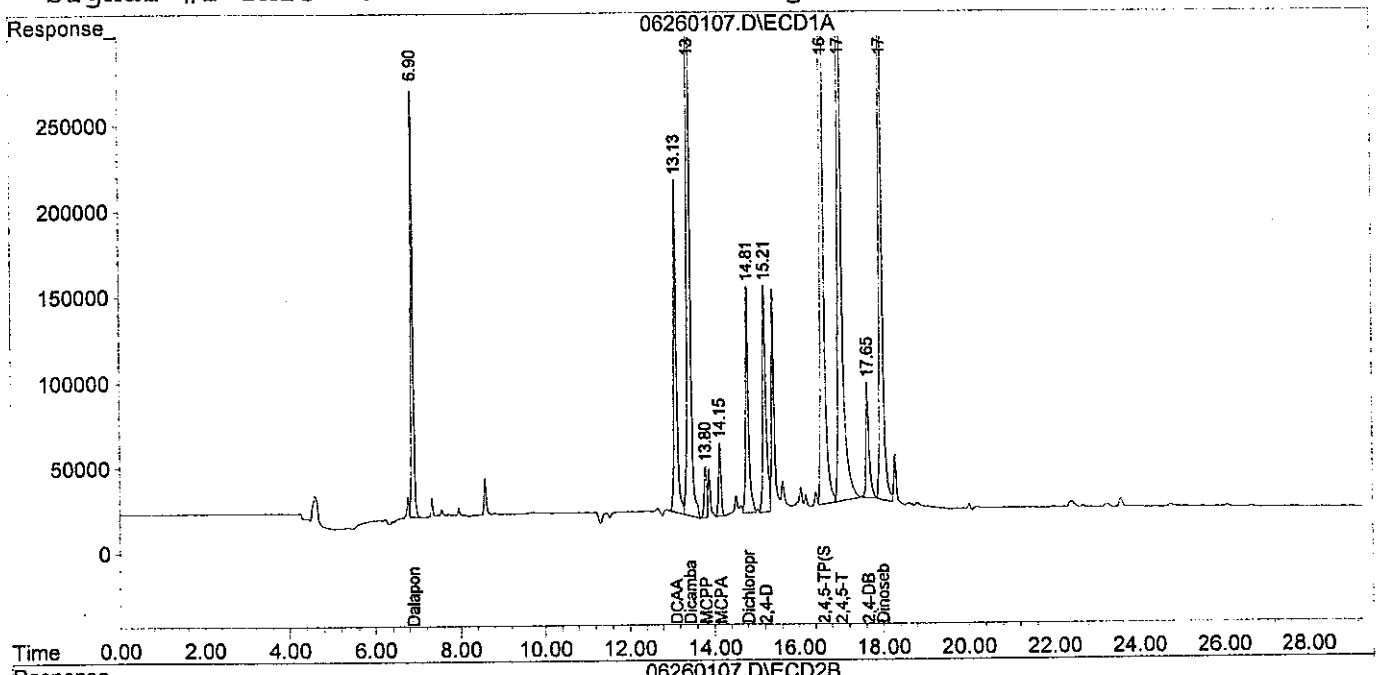
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
	System Monitoring Compounds							
2) S	DCAA	13.13	13.36	8944141	9922440	0.774	0.556	#
Spiked Amount 0.500				Recovery =		154.80%	111.20%	
	Target Compounds							
1) T	Dalapon	6.90	6.79	7754674	8176914	0.404	0.287	#
3) T	Dicamba	13.44	13.81	19401784	18957097	0.377	0.265	#
4) T	MCPP	13.80	14.13	1134524	1344149	44.161	30.483	#
5) T	MCPA	14.15	14.67	1635830	2091928	42.693	28.982	#
6) T	Dichloroprop	14.81	15.24	6138538	6065403	0.376	0.289	
7) T	2,4-D	15.21	15.85	6734717	6973607	0.380	0.284	#
8) T	2,4,5-TP(Silvex)	16.60	16.90	30378295	30727407	0.389	0.243	#
9) T	2,4,5-T	17.02	17.48	28681197	28475710	0.388	0.257	#
10) T	2,4-DB	17.66	17.99	3022976	3586872	0.408	0.299	#
11) T	Dinoseb	18.00	18.67	19930325	19461214	0.401	0.274	#

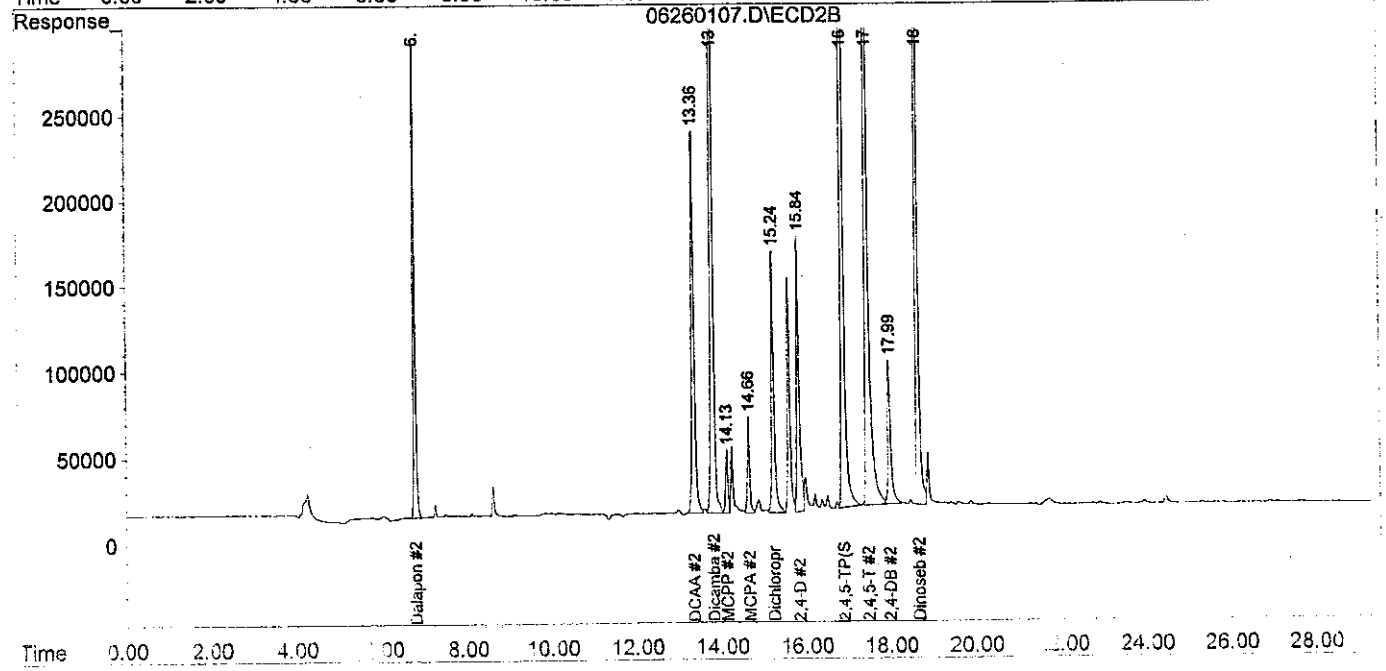
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD2B.CH
Acq On : 26 Jun 2001 19:24 Operator: YGK
Sample : IC HERB .40 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD2B.CH
Acq On : 26 Jun 2001 20:02 Operator: YGK
Sample : IC HERB .50 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:59 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

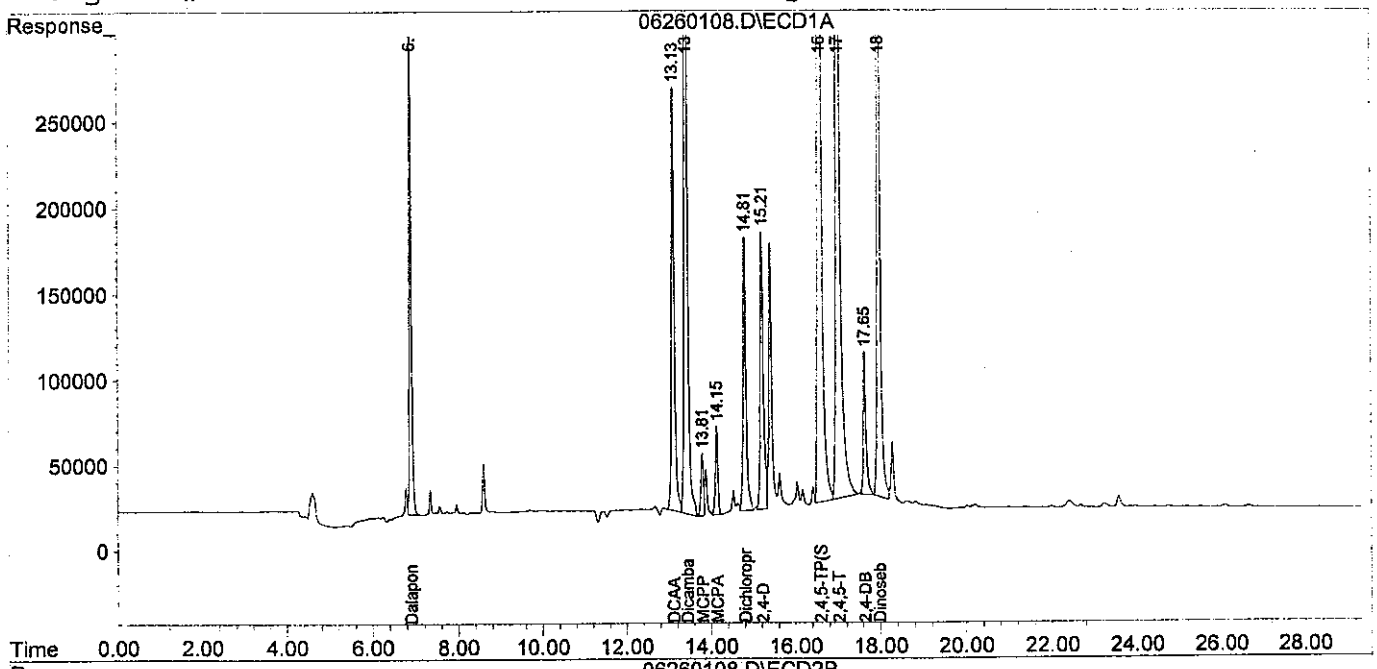
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.13	13.37	11080237	12348173	0.928	0.790	
Spiked Amount 0.500					Recovery =		185.60%	158.00%	
		Target Compounds							
1)	T	Dalapon	6.90	6.79	9521275	10040974	0.480	0.403	
3)	T	Dicamba	13.44	13.82	23756714	23603908	0.449	0.387	
4)	T	MCPP	13.81	14.14	1485466	1695168	56.522	43.501	
5)	T	MCPA	14.15	14.67	2094694	2536998	53.786	40.048	#
6)	T	Dichloroprop	14.81	15.24	7369866	7260799	0.437	0.390	
7)	T	2,4-D	15.22	15.85	8242770	8547054	0.456	0.397	
8)	T	2,4,5-TP(Silvex)	16.60	16.91	37698724	38660814	0.468	0.370	
9)	T	2,4,5-T	17.02	17.49	35418501	35702372	0.463	0.383	
10)	T	2,4-DB	17.65	17.99	3833004	4546988	0.510	0.419	
11)	T	Dinoseb	18.00	18.67	24842516	24699403	0.482	0.408	

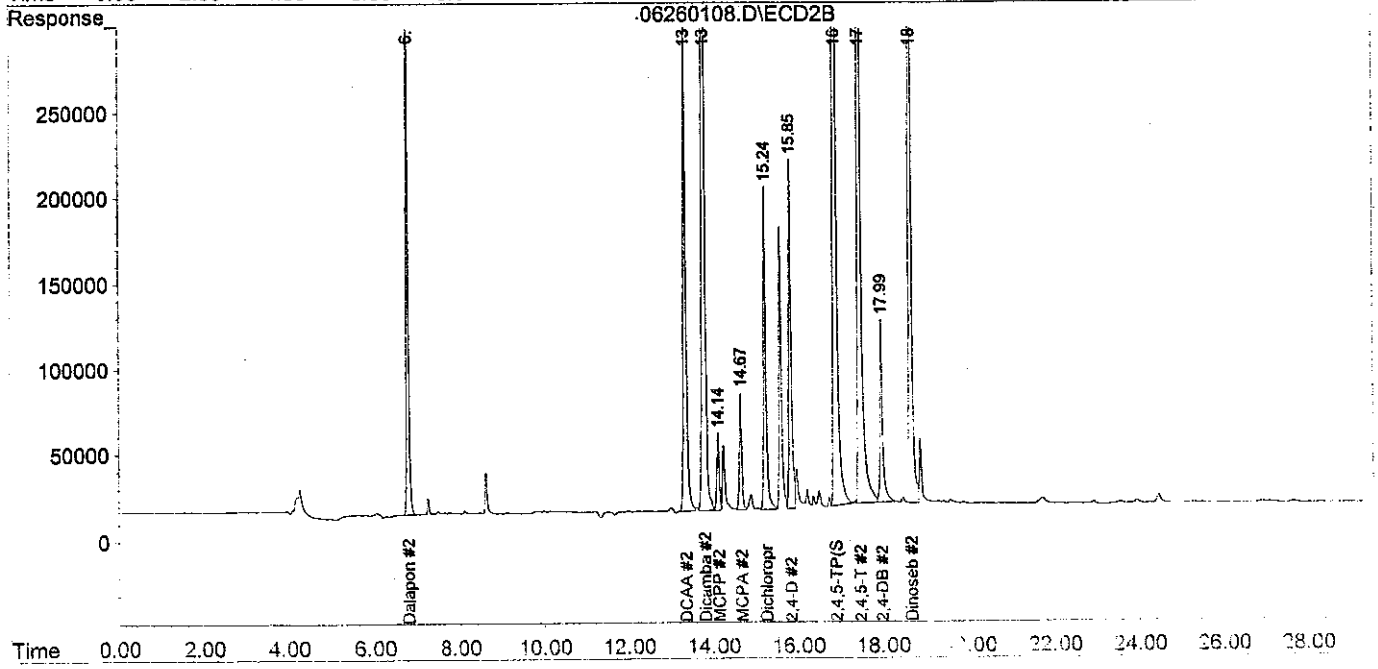
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD2B.CH
Acq On : 26 Jun 2001 20:02 Operator: YGK
Sample : IC HERB .50 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:59 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD2B.CH
Acq On : 26 Jun 2001 21:17 Operator: YGK
Sample : ICV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 9:02 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

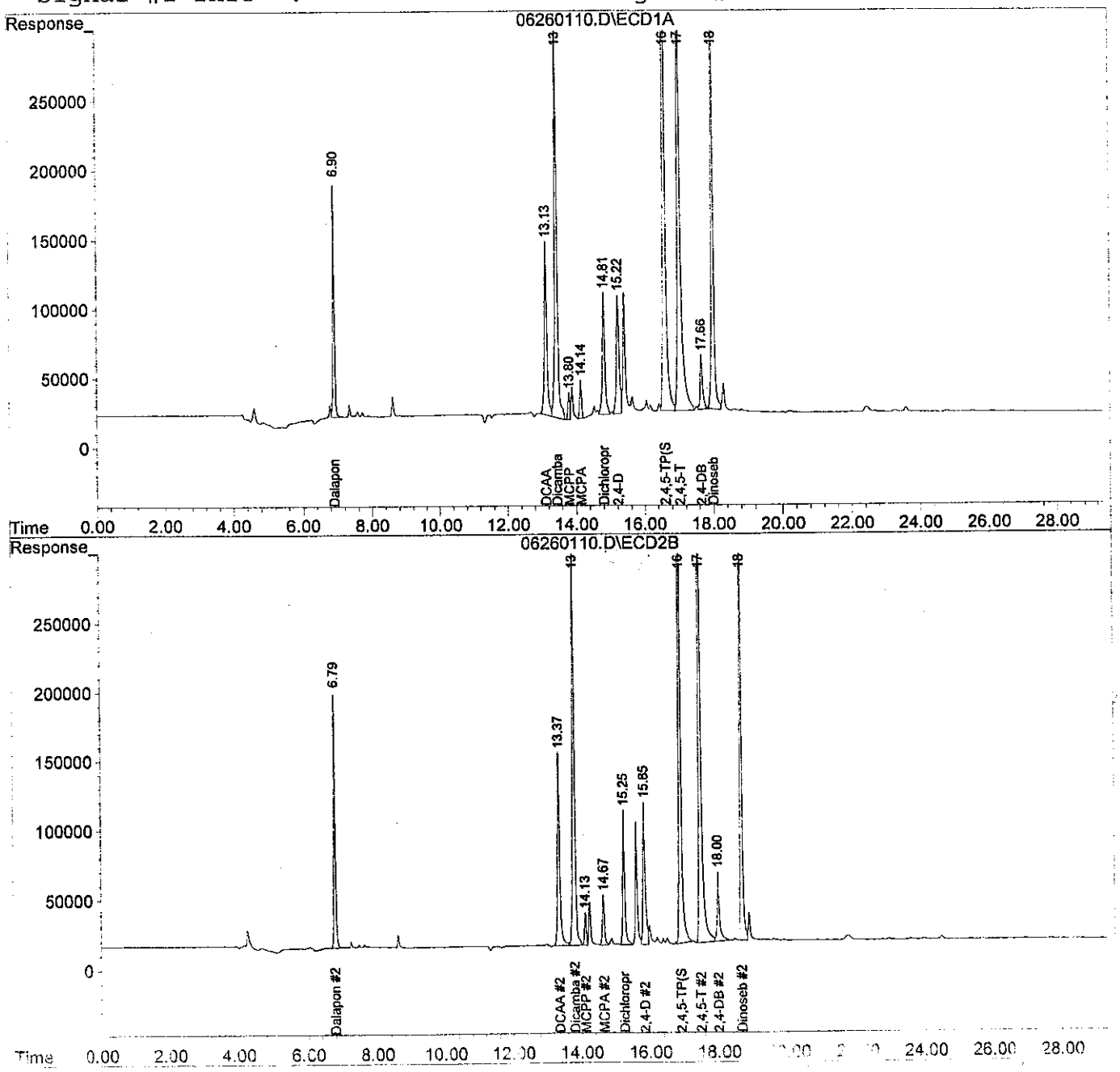
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.13	13.37	6172440	6682132	0.497	0.493
		Spiked Amount 0.500			Recovery	=	99.40%	98.60%
		Target Compounds						
1)	T	Dalapon	6.90	6.79	5270215	5388152	0.257	0.253
3)	T	Dicamba	13.45	13.82	13895835	12782413	0.254	0.253
4)	T	MCPP	13.80	14.14	732571	859680	26.811	25.718
5)	T	MCPA	14.15	14.67	1057765	1373355	26.432	25.033
6)	T	Dichloroprop	14.82	15.25	4297273	4075556	0.246	0.249
7)	T	2,4-D	15.22	15.85	4718415	4742409	0.254	0.254
8)	T	2,4,5-TP(Silvex)	16.60	16.91	21517839	19777872	0.257	0.245
9)	T	2,4,5-T	17.03	17.49	20494816	19245289	0.258	0.255
10)	T	2,4-DB	17.66	18.00	2027753	2527735	0.264	0.259
11)	T	Dinoseb	18.00	18.67	13678520	12904768	0.254	0.257

Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD2B.CH
Acq On : 26 Jun 2001 21:17 Operator: YGK
Sample : ICV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 9:02 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 06/26/01
Analyst Initials: YCK
Instrument Method: 8151D16
Calibration Column: HP-5 (F)
Confirmation Column: J&W 1701

Herbicide Calibration Date: 06/26/01

Surrogate Recovery Limits (%)	
	DCAA
Soil	52 - 130
Water	D - 164

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
1	Hexane	062601H	sol	1X	NA	
2	std		std			
3 2	std					
4 3	IC Herb .10 ppm					H01136
5 4	IC Herb .20 ppm					H01135
6 5	IC Herb .25 ppm					H01134
7 6	IC Herb .40 ppm					H01132
8 7	IC Herb .50 ppm					H01132
10 8	std					
9	ICV Herb .25 ppm				99	H01137
YCK 06/26						

Signature/Date: Yefim Zeyfman 06/26/01

SVO GC DATA CHECKLIST
SW-846-8081A / 8082 / 8151A

PROJECT #: 22368	METHOD: (circle applicable methods)		
MATRIX: Water	(8081A)	8082	8151A

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are continuing calibrations compliant with method requirements?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	~~NA~~
Are all requested analytes below the upper calibration limit?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
For Pesticides & Herbicides, were all hits verified with second column confirmation?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	Y	N	NA
Are all analytes to be reported indicated as such on the raw data?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Has all data been entered into LIMS?	Y	N	NA

Analyst: RL

Date: 07/30/01 Time: 12:16

PEER REVIEW

Are continuing calibrations compliant with method requirements?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Are all blank and QC results acceptable?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
Are all calculations correct and reported in the proper units?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Is the runlog completely filled out (~~including review signature/date~~)?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Have all LIMS entries been checked for accuracy?	(Y)	N	NA

Reviewer: YGK

Date: 08/01/01 Time: 9:35

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: PEST / PCB

MATRIX: WATER / TCLP

EXT. METHOD: 3510 / 3520

DATE/TIME: 7/17/01 11:40a.m

ANALYST: KT

INSTRUMENT: GC/ECD

AAL I.D.	SAMPLE VOLUME	SURR 1.0mL	SPIKE 1.0mL	SOLVENT EXCHANGE	FINAL VOLUME	ACID CLEANED	COMMENTS
QPW071701-1	1 L	1g		5g	5.0mL	PCBV1	BLK P/P
QPW071701-2	"	"	2	"	"	"	LCS Pest
QPW071701-3	"	"	2	"	"	"	LCS PCB
QPW071701-4	"	"	2	"	"	"	LCSD PCB
16854	945mL	"	"	"	"	"	
							* BLK + LCSD
							concentrated to a
							low volume

START TIME: 1:15p.m STOP TIME: ~~7:45p.m~~ 7/18/01 7:45a.m RapidVap TEMP.: 45°C

CH2CL2 I.D.: EX01242 HEXANE I.D.: EX01232

SURROGATE I.D.: P01E113 CONC.: 0.5ppm INITIAL: KT

SPIKE I.D.: P01E090 CONC.: 0.5ppm INITIAL: KT

SPIKE I.D.: P01E077 CONC.: 5.0ppm INITIAL: KT

EXTRACT STORAGE: REFRIGERATOR # 5, BOX # P- 215

Spike witness

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC\ECD PEST INSTRUMENT D RUNLOG

Date: 072701 Acq. Method: CLPAC Q ICAL Method : 808|0729 Initial Cal. Date: 07/29/01

Daily Method: CLPAC Q Column A: Rtx-CLP1 Detector A: Micro ECD Endrin Breakdown: 8.34 DDT Breakdown: 7.68

Calibrated Column: A / B / Both Column B: Rtx-CLP2 Detector B: Micro ECD Endrin Breakdown: 9.20 DDT Breakdown: 9.93

Surrogate Recovery Limit (%)		
	TCMX	DCB
Soil	30-150	30-150
Water	↓	↓

File Name	Vial	Lab Sample ID	Client Sample ID	Matrix	Dil. Fact.	TCMX Rec. (%)	DCB Rec. (%)	Inj. Time	Comments
D002299	1	Primer	NA	Soil	1X	NA	NA	09:37	
2300	2	Hexane		Solv				10:05	
2301	3	Hexane		↓				10:34	
2302	4	PEM		Soil				11:03	P011600
2303	5	10PPB Pest IC						11:32	P010930
2304	6	20PPB Pest IC						12:00	P011670
2305	7	50PPB Pest IC						12:29	P011660
2306	8	100PPB Pest IC						12:58	P011640
2307	9	150PPB Pest IC				↓	↓	13:27	P010900
2308	10	50PPB Pest ICV				96/94	104/98	13:56	P011680
2309	11	250PPB Chlor. ICV				NA	NA	14:24	P011420
2310	12	2500PPB Toxa. ICV		↓		↓	↓	14:53	P01112
2311	13	Hexane		Solv.		38/40	35/73	15:22	QPLW071701-1
2312	14	QPLW071701-2		Water		52/68	76/72	15:51	QPLW071701-2 RL7-29-01
2313	15	QPLW071701-1		↓		54/59	53/50	16:20	16854
2314	16	16854 LW		↓		NA	NA	16:49	Hexane
2315	17	QPS072401G		Soil		108/69	102/94	17:17	
2316	18	QPS072401D				69/69	104/96	17:46	
2317	19	MS172745				79/80	102/92	18:15	
2318	20	MSD172745				54/55	97/90	18:44	
2319	21	172745				77/79	100/92	19:12	
2320	22	172775				77/78	100/92	19:41	
2321	23	172765				82/84	96/87	20:10	
2322	24	QPS072301I						20:39	
2323	25	QPS072301J			↓			21:08	
2324	26	17105MS20X			20			21:36	
2325	27	17105MSD20X		↓	↓			22:05	

Analyst / Date: _____ Reviewer / Date: _____

Logbook ID: SVOC-100

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

GC\ECD PEST INSTRUMENT D RUNLOG

Date: 07/29/01 Acq. Method: CLPACQ ICAL Method: 80810729 Initial Cal. Date: 07/29

Daily Method: CLPACQ Column A: Rtx-CLP1 Detector A: Micro ECD Endrin Breakdown: 8.34 DDT Breakdown: 7.68

Calibrated Column: A / B / Both Column B: Rtx-CLP2 Detector B: Micro ECD Endrin Breakdown: 9.20 DDT Breakdown: 9.93

Surrogate Recovery Limit (%)		
	TCMX	DCB
Soil	30-150	30-150
Water	↓	↓

File Name	Vial	Lab Sample ID	Client Sample ID	Matrix	Dil. Fact.	TCMX Rec. (%)	DCB Rec. (%)	Inj. Time	Comments
D00 2326	28	171052OX5	NA	Soil	20			22:34	
2327	29	171015 10X			10			23:03	
2328	30	17102 10X5			10			23:31	
2329	31	17103 20X5			20			00:00	
2330	32	Hexane		50/5.	1X			00:29	
2331	33	PEM		5bd				00:57	PO1160
2332	34	Standard						01:26	PO1166
2333	35	50PPB Pest	CCV			85/85	109/97	01:55	PO1166

Analyst / Date: _____ Reviewer / Date: _____

Logbook ID: SVOC-100

Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 08:40:58 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
1) CSA Tetrachloro-m-xy	4.03	4.01	199.6E6	114.5E6	54.255	58.888	
Spiked Amount 100.000			Recovery =		54.25%	58.89%	
22) CSA Decachlorobiphen	14.81	15.73	230.6E6	121.8E6	53.445	50.062	
Spiked Amount 100.000			Recovery =		53.45%	50.06%	
Target Compounds							
2) CMA alpha-BHC	4.92	4.98	1407642	1139165	0.219	0.324	#
3) CMA gamma-BHC (Linda	5.48	5.61f	926459	14416041	0.154	4.408	#
4) CMA Heptachlor	6.36	6.47	18956700	10274666	3.550	3.324	
5) CMB Aldrin	6.88f	7.10	24269476	2254726	4.250	0.718	#
6) CMB beta-BHC	5.62	5.77f	2204330	41308697	0.786	27.321	#
7) CMB delta-BHC	5.95	6.36	18890965	5402450	3.157	1.668	#
8) CMB Heptachlor Epoxi	8.12	8.24	21659154	715614	4.075	0.244	#
9) CMA Endosulfan I	8.88✓	9.05✓	38737184	17941650	6.543✓	5.956	
10) CMB gamma-Chlordane	8.36	8.58f	3233903	3080440	0.561	0.967	#
11) CMB alpha-Chlordane	8.64	8.91	4017202	1112864	0.739	0.365	#
12) CMB 4,4-DDE	8.73f	9.24f	11420048	1962080	2.516	0.694	#
13) CMA Dieldrin	9.39	9.58	4381114	916830	0.771	0.280	#
14) CMA Endrin	9.86	10.21	8900168	1495436	2.019	0.617	#
15) CMB Endosulfan II	10.29f	10.64	606183	2031640	0.120	0.657	#
16) CMA 4,4-DDD	10.02	0.00	2324954	0	0.537	N.D.	#
17) CMA 4,4-DDT	10.62	11.10	15775211	3303664	4.288	1.583	#
18) CMB Endrin Aldehyde	11.18	11.35	4240439	4308135	1.061	1.975	#
19) CMB Endosulfan Sulfa	12.09	11.93	2295789	1336346	0.492	0.501	
20) CMA Methoxychlor	0.00	12.55f	0	4187062	N.D.	3.919	#
21) CMB Endrin Ketone	12.62f	13.05	16847080	1257582	2.779	0.356	#

DL: $\frac{5.0}{945} = 0.00529$

Endosulfan I = 0.035J

K = 1.058

- Delta > 1/2 Window (#)=Amounts differ by > 25% m)=manual int.

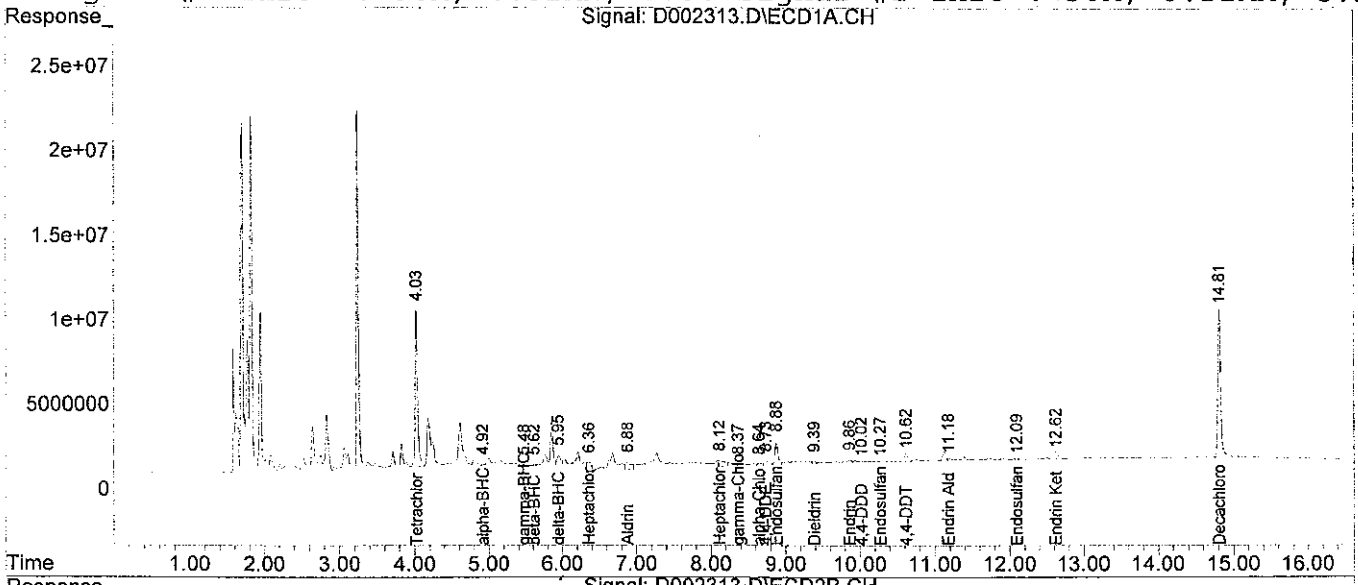
Quantitation Report (Not Reviewed)

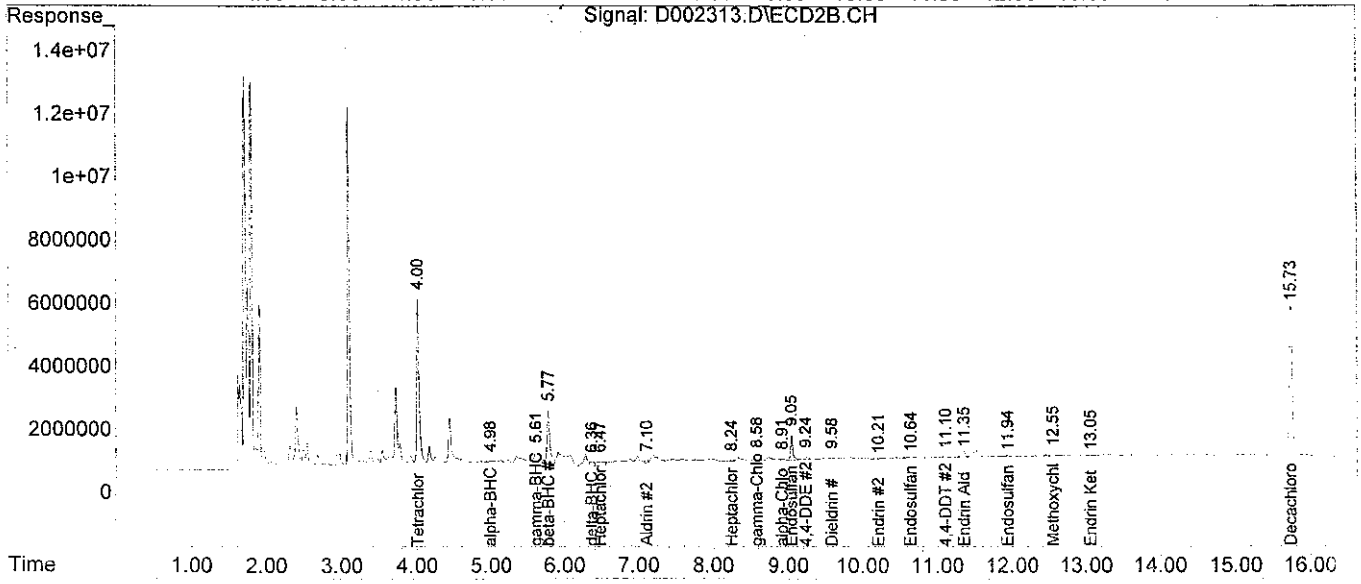
Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 8:40 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 08:50:51 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	Target Compounds							
1)	L1 Chlordane{1}	6.21	0.00	39484837	0	275.074	N.D.	#
2)	L1 Chlordane{2}	6.36	6.47	22473097	12051938	87.815	88.224	
3)	L1 Chlordane{3}	7.17	8.66f	12755939	268927	55.103	0.873	#
4)	L1 Chlordane{4}	0.00	8.83	0	527255	N.D.	2.051	#
5)	L1 Chlordane{5}	8.36	8.91	595070	2036065	1.045	8.277	#
6)	L1 Chlordane{6}	8.59	10.42	1795196	321292	3.806	6.180	#
7)	L1 Chlordane{7}	10.17	7.41	2406761	3674161	12.480	28.964	#
	Sum Chlordane			79510900	18879638	435.322	134.569	
	Average Chlordane					72.554	22.428	

Chlordane 2

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int

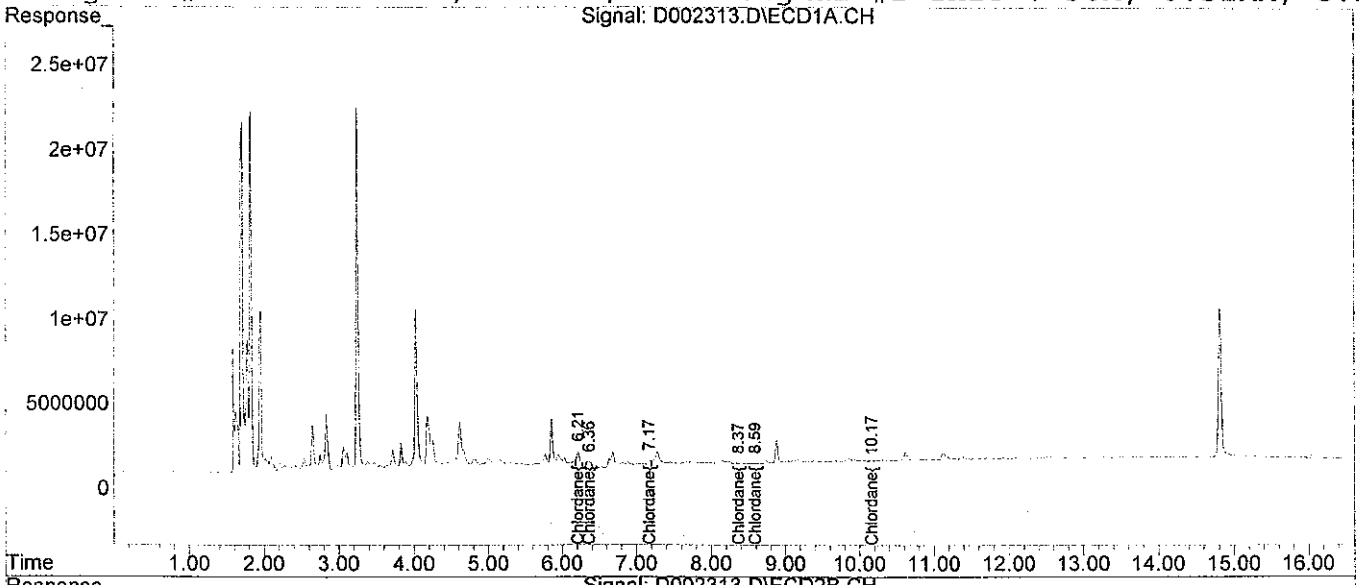
Quantitation Report (Not Reviewed)

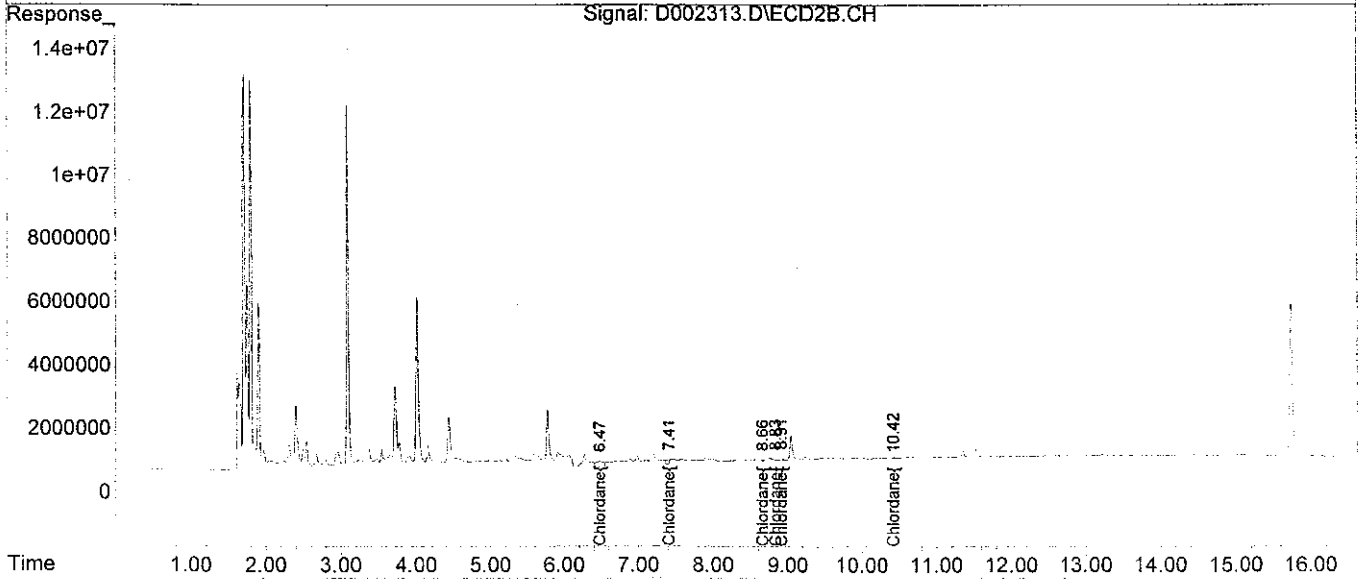
Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 8:50 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 08:51:31 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	Target Compounds							
1)	L1 Toxaphene{1}	9.57	0.00	100520	0	1.528	N.D.	#
2)	L1 Toxaphene{2}	9.94	11.35	1010853	4308135	8.632	42.020	#
3)	L1 Toxaphene{3}	10.52	0.00	249768	0	2.180	N.D.	#
4)	L1 Toxaphene{4}	11.12	12.45	14065362	629399	95.735	4.839	#
5)	L1 Toxaphene{5}	11.91	12.55	403519	4187062	1.763	36.165	#
6)	L1 Toxaphene{6}	12.62	13.31	10392117	402870	75.513	6.087	#
	Sum Toxaphene			26222138	9527466	185.350	89.110	
Average	Toxaphene					30.892	22.277	

Tox = < DL

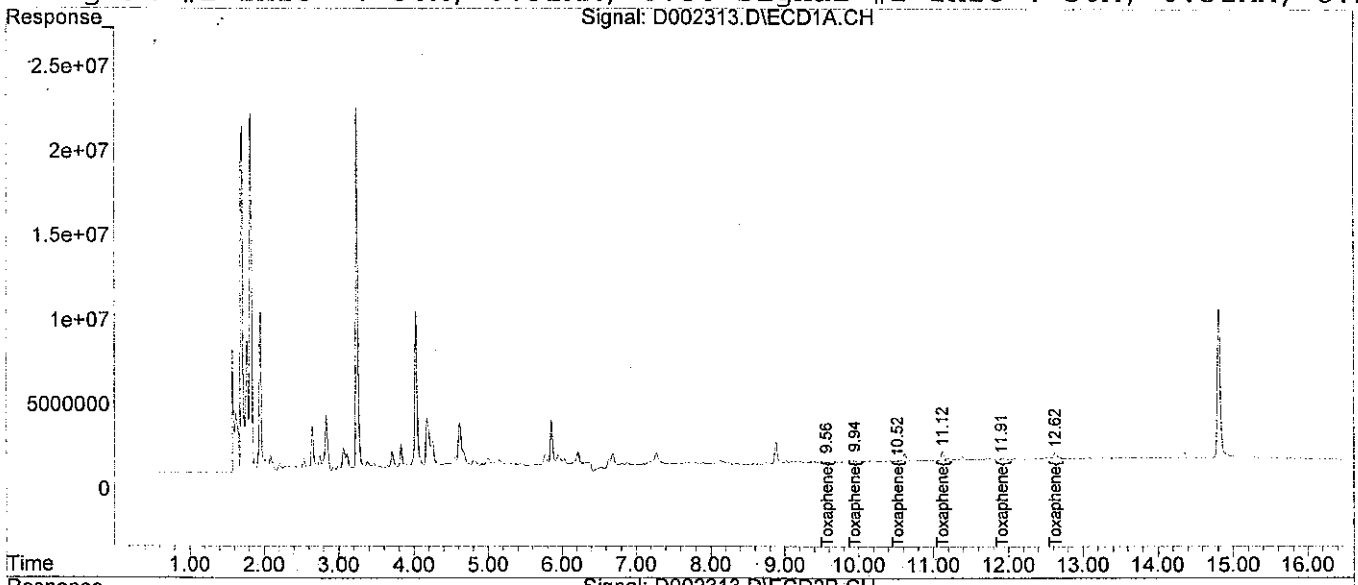
Quantitation Report (Not Reviewed)

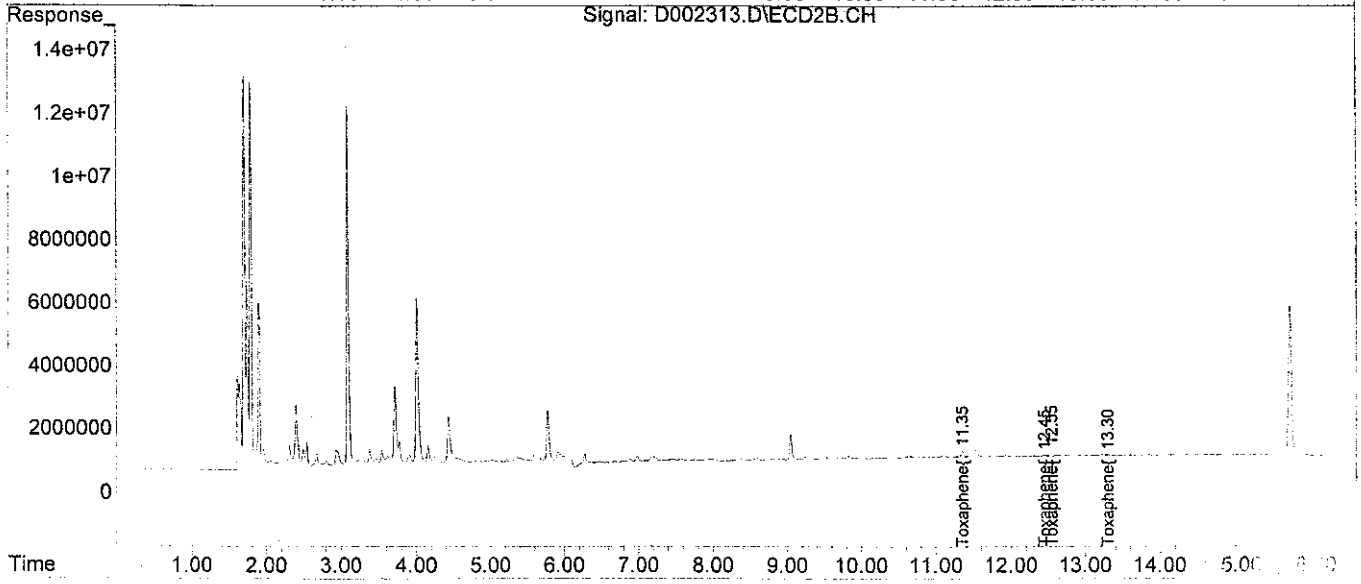
Data File : E:\DATA\072901\D002313.D\ECD1A.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : Inst : AG-GCG
Misc : 16854 W Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002313.D\ECD2B.CH Vial: 15
Acq On : 29 Jul 2001 16:20 Operator: RL
Sample : QPW0717101-2 Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 8:51 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 08:39:13 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
1) CSA Tetrachloro-m-xy	4.03	4.01	141.5E6	78323858	38.457	40.283	
Spiked Amount 100.000			Recovery =		38.46%	40.28%	
22) CSA Decachlorobiphen	14.81	15.73	359.8E6	177.9E6	84.790	73.106	
Spiked Amount 100.000			Recovery =		84.79%	73.11%	
Target Compounds							
2) CMA alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3) CMA gamma-BHC (Linda	5.44f	5.63	669389	85164	0.111	0.026	#
4) CMA Heptachlor	6.33f	0.00	973601	0	0.182	N.D.	#
5) CMB Aldrin	0.00	0.00	0	0	N.D.	N.D.	
6) CMB beta-BHC	5.68f	5.77f	728920	13291237	0.260	8.791	#
7) CMB delta-BHC	5.98	0.00	2118950	0	0.354	N.D.	#
8) CMB Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9) CMA Endosulfan I	8.88	9.05	19216944	10559742	3.246	3.506	✓
10) CMB gamma-Chlordane	8.32f	0.00	5314400	0	0.922	N.D.	#
11) CMB alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12) CMB 4,4-DDE	0.00	0.00	0	0	N.D.	N.D.	
13) CMA Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14) CMA Endrin	0.00	0.00	0	0	N.D.	N.D.	
15) CMB Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
16) CMA 4,4-DDD	0.00	0.00	0	0	N.D.	N.D.	
17) CMA 4,4-DDT	0.00	0.00	0	0	N.D.	N.D.	
18) CMB Endrin Aldehyde	11.12f	11.36	2459949	1056104	0.615	0.484	
19) CMB Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20) CMA Methoxychlor	0.00	12.55f	0	4359168	N.D.	4.080	#
21) CMB Endrin Ketone	12.63f	0.00	8629232	0	1.424	N.D.	#

DL = 0.005

Endosulfan I = 0.018J

)= T Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

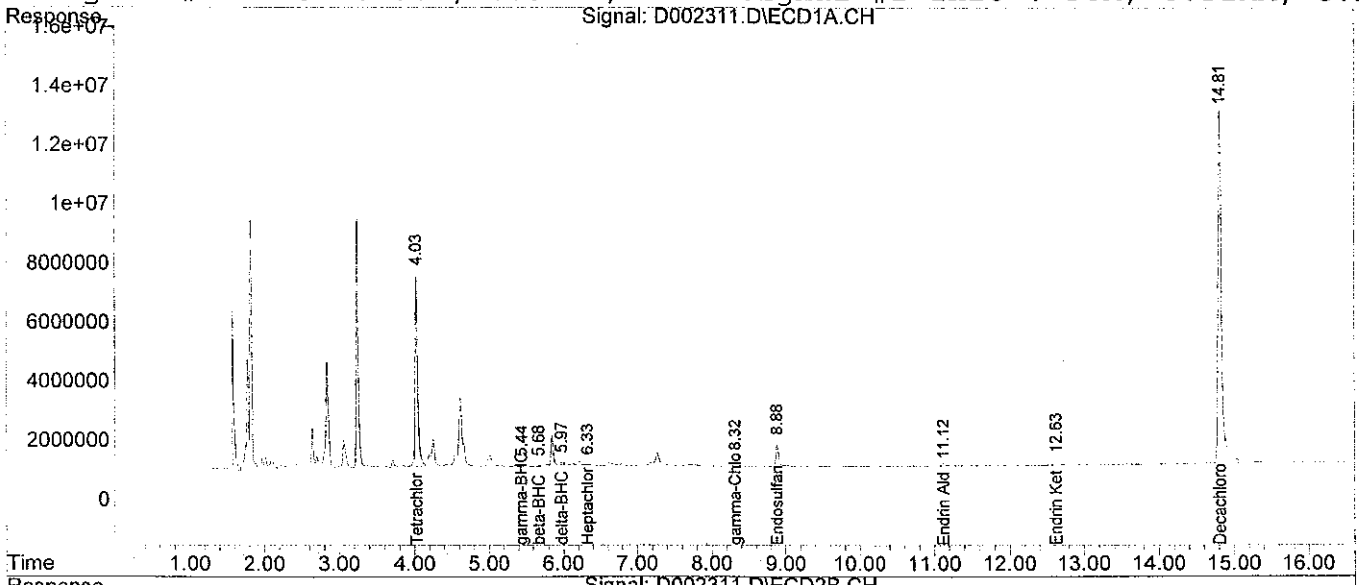
Quantitation Report (Not Reviewed)

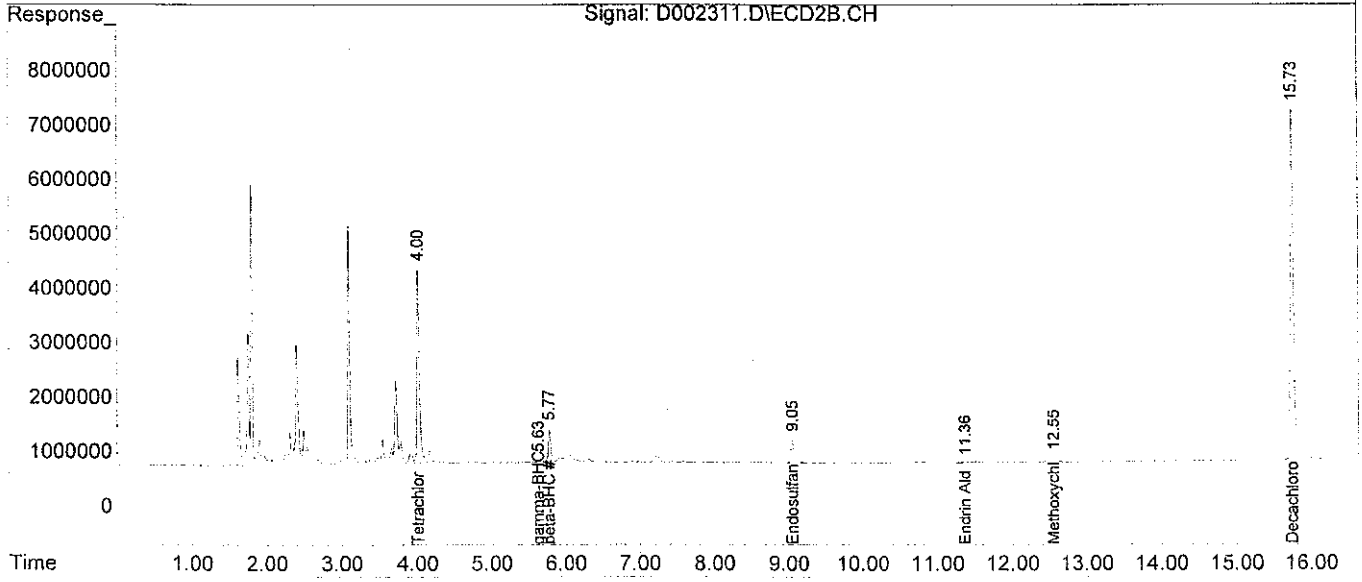
Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 8:39 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 08:50:26 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
Target Compounds						
1) L1 Chlordane{1}	6.21	6.16	3225650	702350	22.472	9.264 #
2) L1 Chlordane{2}	0.00	6.51f	0	495188	N.D.	3.625 #
3) L1 Chlordane{3}	7.18	0.00	2138962	0	9.240	N.D. #
4) L1 Chlordane{4}	0.00	8.81	0	331765	N.D.	1.291 #
5) L1 Chlordane{5}	8.32	0.00	5234696	0	9.192	N.D. #
Sum Chlordane			10599308	1529302	40.903	14.180
Average Chlordane					13.634	4.727

Chlor = < 1/2 DL

(f)=RT Delta > 1/2 Window (#)=Amounts di[illegible]% (m)=manual int.

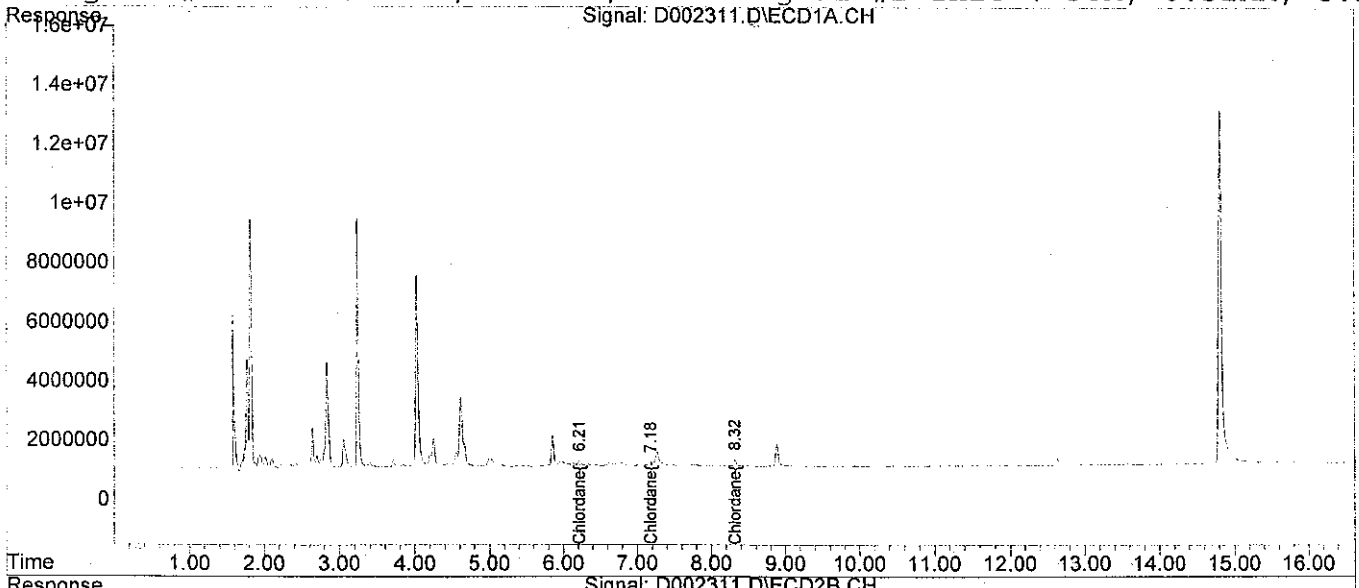
Quantitation Report (Not Reviewed)

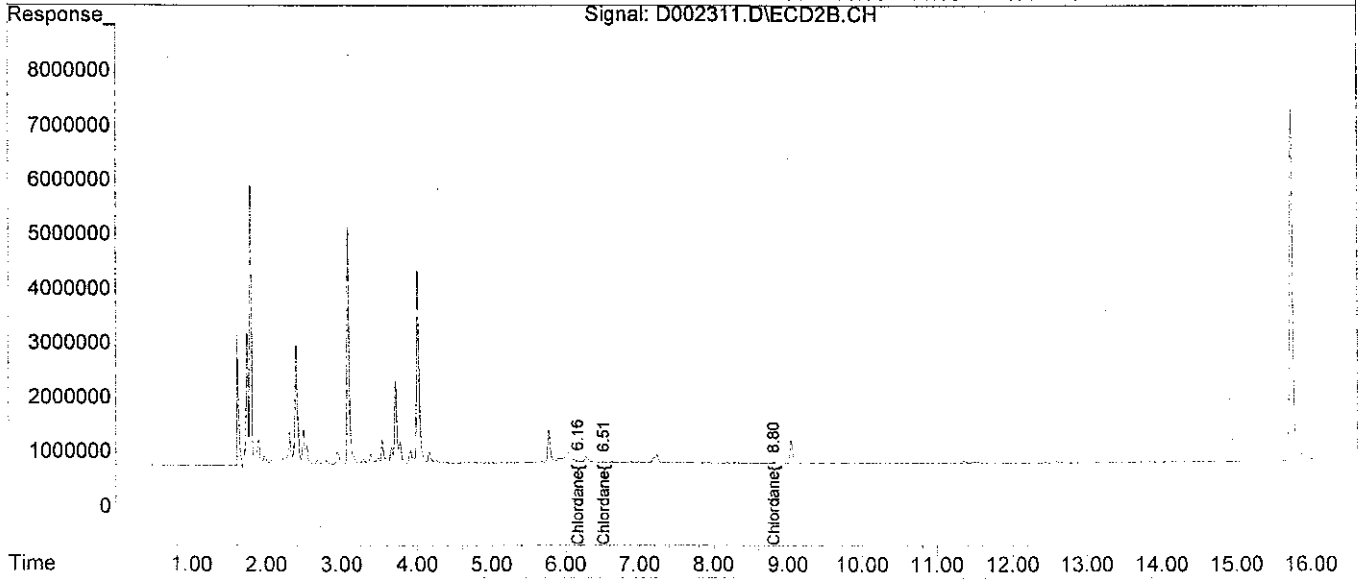
Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 8:50 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 08:51:16 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
Target Compounds							
2) L1 Toxaphene{2}	0.00	11.36	0	1056104	N.D.	10.301	#
4) L1 Toxaphene{4}	11.12	0.00	1881683	0	12.807	N.D.	#
5) L1 Toxaphene{5}	0.00	12.55	0	4511980	N.D.	38.971	#
6) L1 Toxaphene{6}	12.63	0.00	6487630	0	47.142	N.D.	#
Sum Toxaphene			8369313	5568084	59.949	49.272	
Average Toxaphene					29.975	24.636	

Tox = < 1/2 DL

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

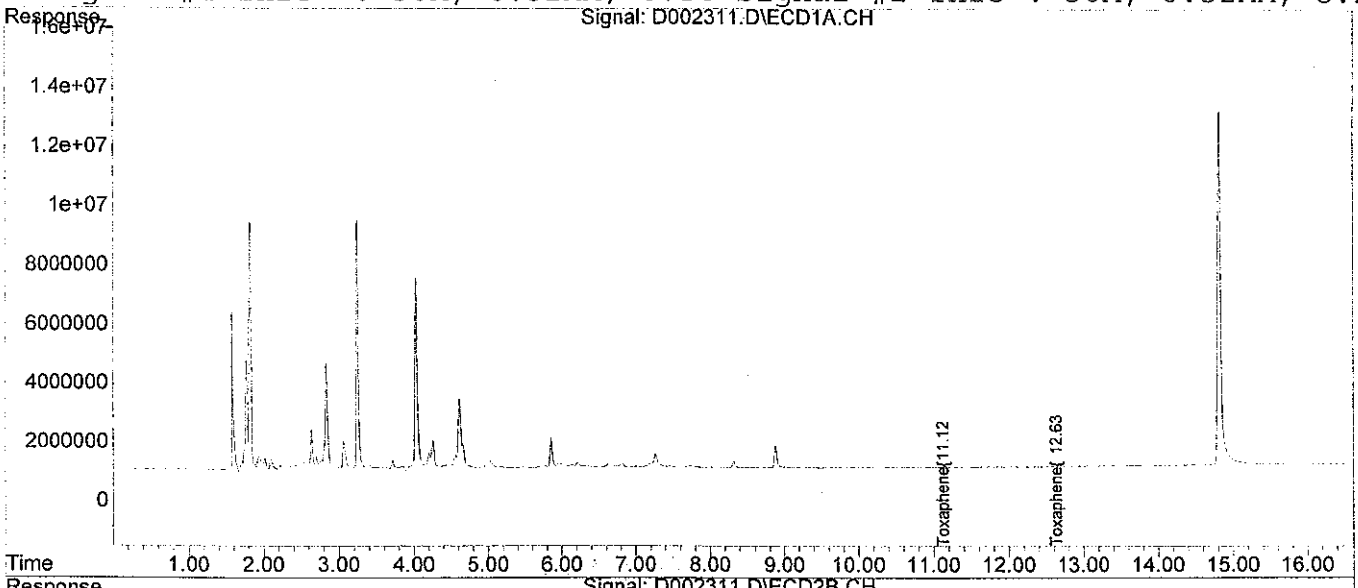
Quantitation Report (Not Reviewed)

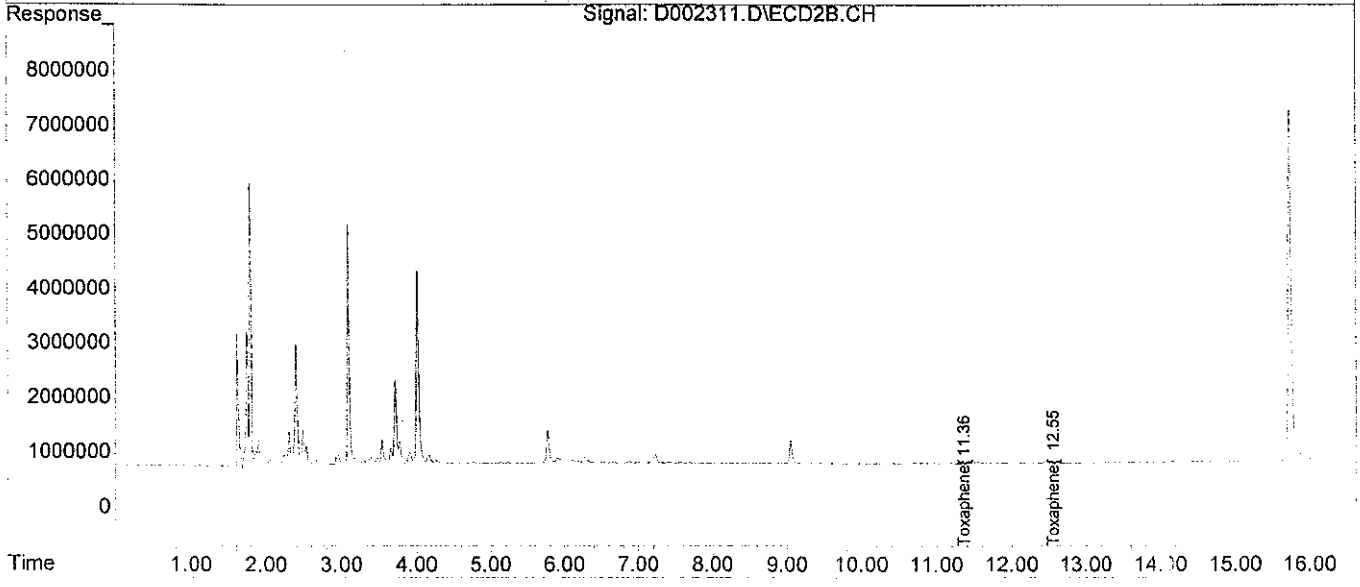
Data File : E:\DATA\072901\D002311.D\ECD1A.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-1 Multiplr: 1.00
IntFile : EVENTS1.E

Data File : E:\DATA\072901\D002311.D\ECD2B.CH Vial: 13
Acq On : 29 Jul 2001 15:22 Operator: RL
Sample : HEXANE Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jul 30 8:51 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002312.D\ECD1A.CH Vial: 14
Acq On : 29 Jul 2001 15:51 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-2 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002312.D\ECD2B.CH Vial: 14
Acq On : 29 Jul 2001 15:51 Operator: RL
Sample : QPW0717101-1 Inst : AG-GCG
Misc : QPW0717101-2 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 07:31:18 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
1) CSA Tetrachloro-m-xy	4.03	4.01	211.5E6	131.9E6	57.502	67.857	
Spiked Amount 100.000			Recovery =		57.50%	67.86%	
22) CSA Decachlorobiphen	14.81	15.73	325.1E6	174.5E6	76.269	71.712	
Spiked Amount 100.000			Recovery =		76.27%	71.71%	
Target Compounds							
2) CMA alpha-BHC	4.93	5.01	571.2E6	299.8E6	88.752	85.296	
3) CMA gamma-BHC (Linda	5.48	5.65	527.5E6	288.2E6	87.483	88.125	
4) CMA Heptachlor	6.35	6.47	367.9E6	215.2E6	68.892	69.629	
5) CMB Aldrin	6.93	7.10	377.9E6	202.1E6	66.179	64.407	
6) CMB beta-BHC	5.64	5.80	223.2E6	181.4E6	79.573	119.989	#
7) CMB delta-BHC	5.97	6.36	556.8E6	310.4E6	93.054	95.844	
8) CMB Heptachlor Epoxi	8.12	8.24	482.2E6	262.6E6	90.718	89.684	
9) CMA Endosulfan I	8.90	9.03	560.0E6	280.3E6	94.589	93.064	
10) CMB gamma-Chlordane	8.36	8.62	498.5E6	270.8E6	86.444	85.015	
11) CMB alpha-Chlordane	8.63	8.91	472.1E6	261.8E6	86.882	85.911	
12) CMB 4,4'-DDE	8.80	9.28	390.6E6	240.1E6	86.045	84.954	
13) CMA Dieldrin	9.39	9.58	538.4E6	303.7E6	94.771	92.830	
14) CMA Endrin	9.86	10.21	477.7E6	259.7E6	108.374	107.107	
15) CMB Endosulfan II	10.32	10.65	413.0E6	245.5E6	81.694	79.348	
16) CMA 4,4'-DDD	10.02	10.48	405.4E6	218.8E6	93.636	92.591	
17) CMA 4,4'-DDT	10.59	11.13	420.3E6	232.8E6	114.246	111.526	
18) CMB Endrin Aldehyde	11.19	11.36	371.4E6	219.1E6	92.932	100.424	
19) CMB Endosulfan Sulfa	12.09	11.94	469.7E6	254.5E6	100.750	95.417	
20) CMA Methoxychlor	11.62	12.60	224.2E6	123.5E6	113.768	115.598	
21) CMB Endrin Ketone	12.67	13.05	559.6E6	320.1E6	92.325	90.565	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

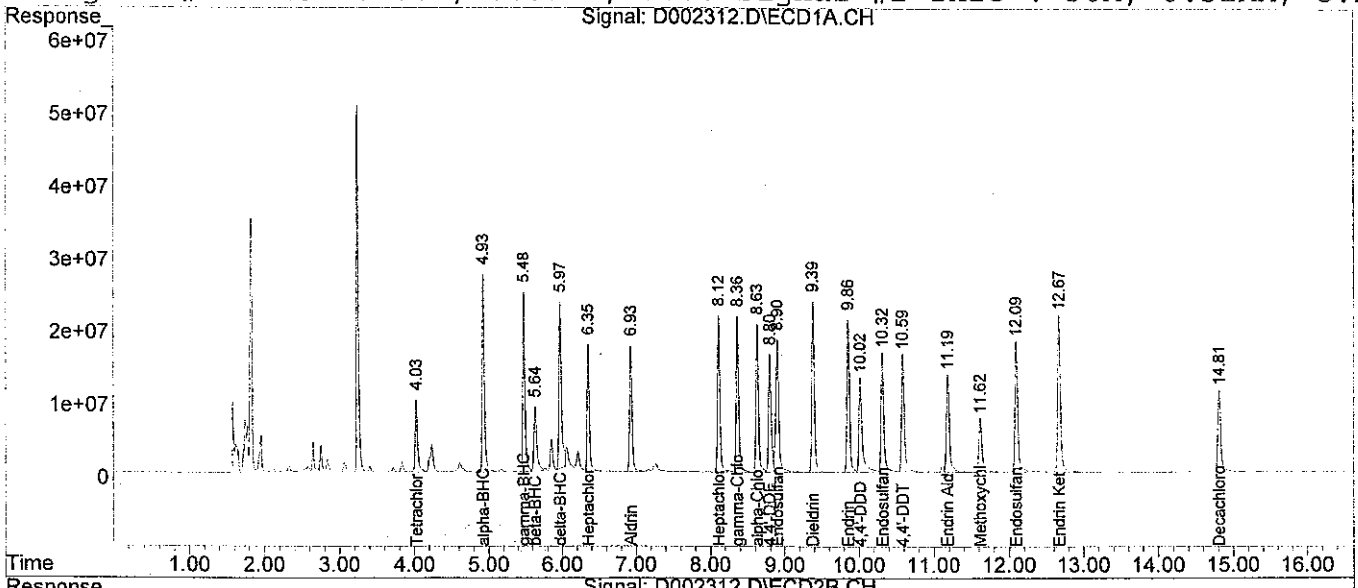
Quantitation Report (Not Reviewed)

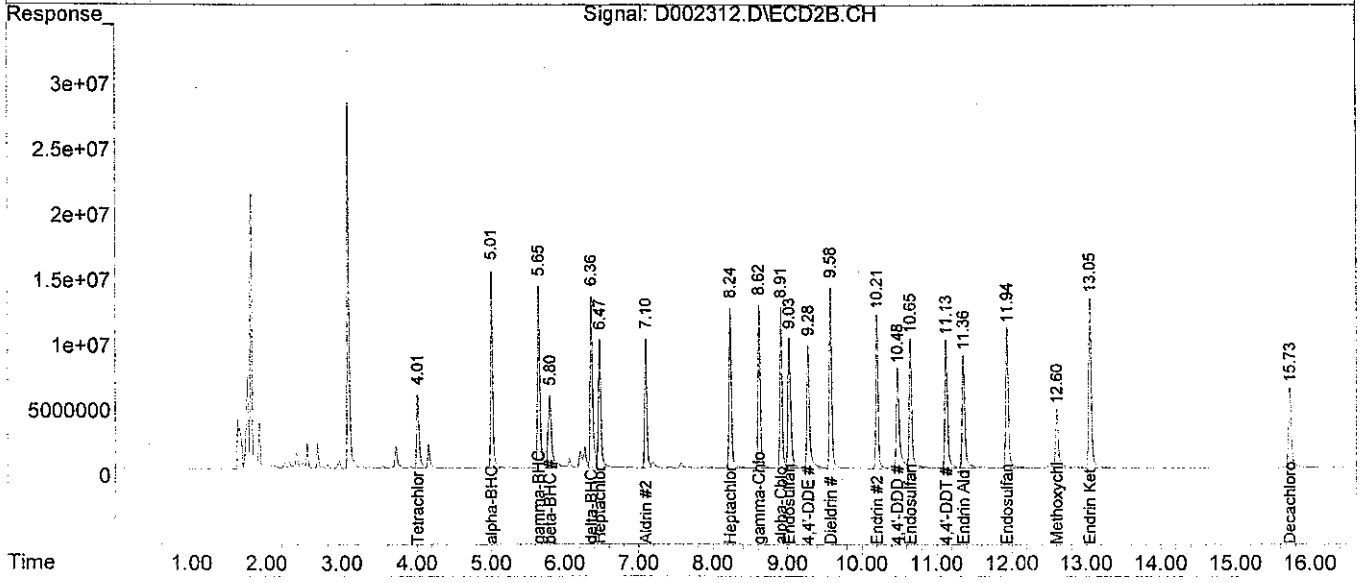
Data File : E:\DATA\072901\D002312.D\ECD1A.CH Vial: 14
Acq On : 29 Jul 2001 15:51 Operator: RL
Sample : Inst : AG-GCG
Misc : QPW0717101-2 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : E:\DATA\072901\D002312.D\ECD2B.CH Vial: 14
Acq On : 29 Jul 2001 15:51 Operator: RL
Sample : QPW0717101-1 Inst : AG-GCG
Misc : QPW0717101-2 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Jul 30 7:31 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 7/8/2001 **Batch ID:** Pest W 96 **Matrix:** Water

Ext. Method: 3520 **MS ID:** LCS **MSD ID:** LCSD

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1		16881	7/8/2001	
2		16882		
3		16883		
4		16884		
5		16885		
6		16886		
7		16887		
8		16888		
9	28368	16854	7/17/01	Navy
10	28371	16869	7/19/01	
11	28380	16911		
12		16912		
13		16913		
14		16914		
15		16915		
16	28417	17095	7/20/01	
17	28416	17114		
18		17120		
19				
20				

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 12 12:51:09 2001 Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
1) CSA Tetrachloro-m-xy	3.92	3.91	218.1E6	140.0E6	82.853	86.837	
Spiked Amount 100.000			Recovery =		82.85%	86.84%	
22) CSA Decachlorobiphen	14.66	15.58	293.1E6	204.4E6	99.100	92.357	
Spiked Amount 100.000			Recovery =		99.10%	92.36%	
Target Compounds							
2) CMA alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3) CMA gamma-BHC (Linda	5.35	0.00	1145527	0	0.305	N.D.	#
4) CMA Heptachlor	6.21f	0.00	1943704	0	0.567	N.D.	#
5) CMB Aldrin	0.00	0.00	0	0	N.D.	N.D.	
6) CMB beta-BHC	5.55f	5.66f	579980	2155079	0.299	1.698	#
7) CMB delta-BHC	5.84	0.00	5053800	0	1.318	N.D.	#
8) CMB Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9) CMA Endosulfan I	8.76	0.00	3008894	0	0.810	N.D.	#
10) CMB gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11) CMB alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12) CMB 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13) CMA Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14) CMA Endrin	0.00	0.00	0	0	N.D.	N.D.	
15) CMB Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
16) CMA 4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
17) CMA 4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18) CMB Endrin Aldehyde	11.03	0.00	717817	0	0.254	N.D.	#
19) CMB Endosulfan Sulfa	11.94	0.00	962504	0	0.293	N.D.	#
20) CMA Methoxychlor	0.00	12.43f	0	1707326	N.D.	1.728	#
21) CMB Endrin Ketone	12.49f	0.00	3382160	0	0.796	N.D.	#

Pest < 1/20L

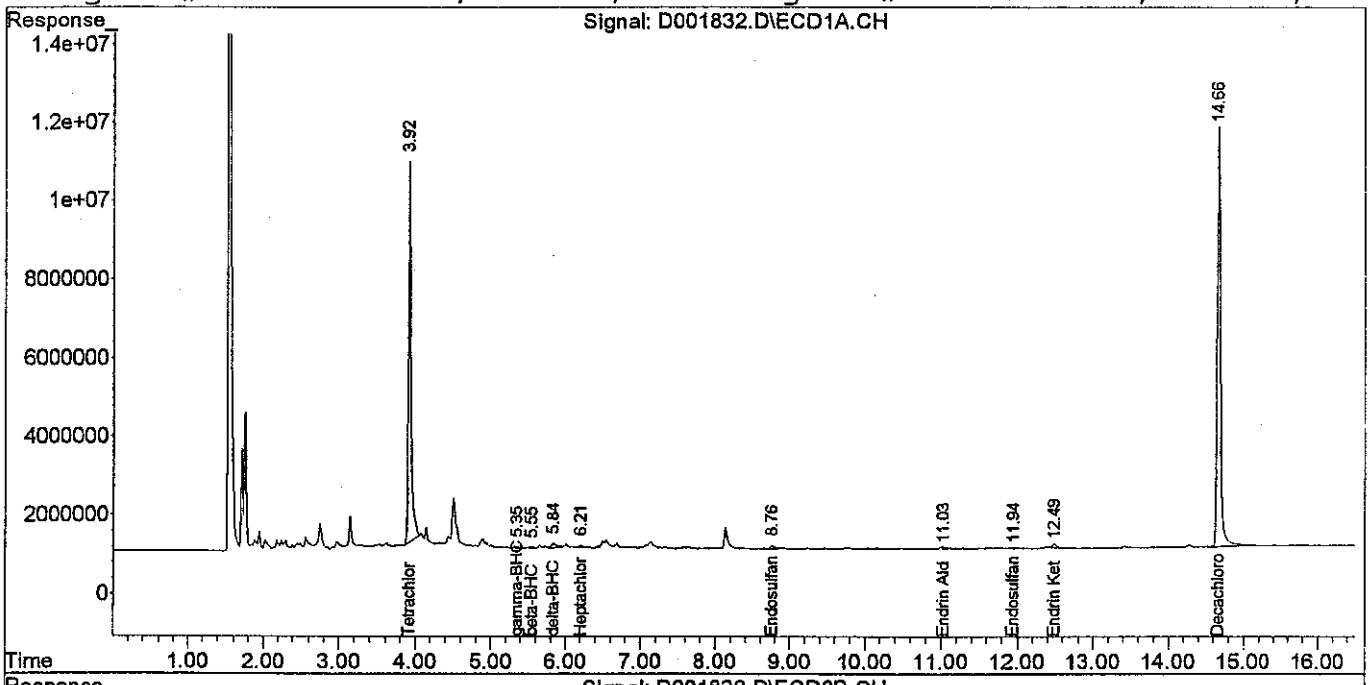
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 15 (m)=manual int.
D001832.D 8081A0710.M Thu Jul 12 12:51:09 2001 PE Page

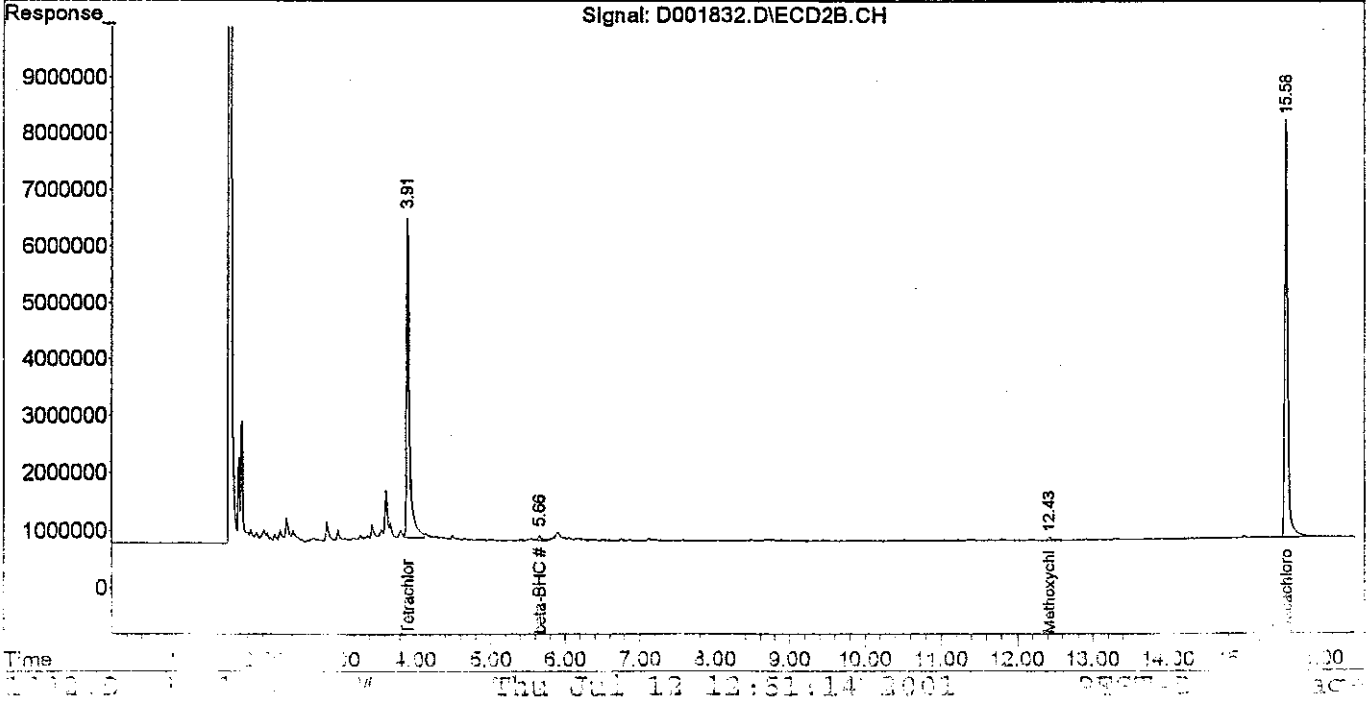
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 12 12:51 2001 Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 12 13:03:09 2001 Quant Results File: CHLOR0711.RES

Quant Method : E:\METHODS\CHLOR0711.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Wed Jul 11 09:32:26 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
Target Compounds							
1) L1 Chlordane{1}	0.00	6.05	0	1550962	N.D.	26.635	#
2) L1 Chlordane{2}	0.00	6.41f	0	472013	N.D.	5.100	#
3) L1 Chlordane{3}	7.14f	0.00	8564424	0	56.655	N.D.	#
5) L1 Chlordane{5}	0.00	8.48	0	697282	N.D.	3.357	#
6) L1 Chlordane{6}	0.00	8.78	0	435526	N.D.	2.368	#
Sum Chlordane			8564424	3155782	56.655	37.461	
Average Chlordane					56.655	9.365	

Chlor = 2DL

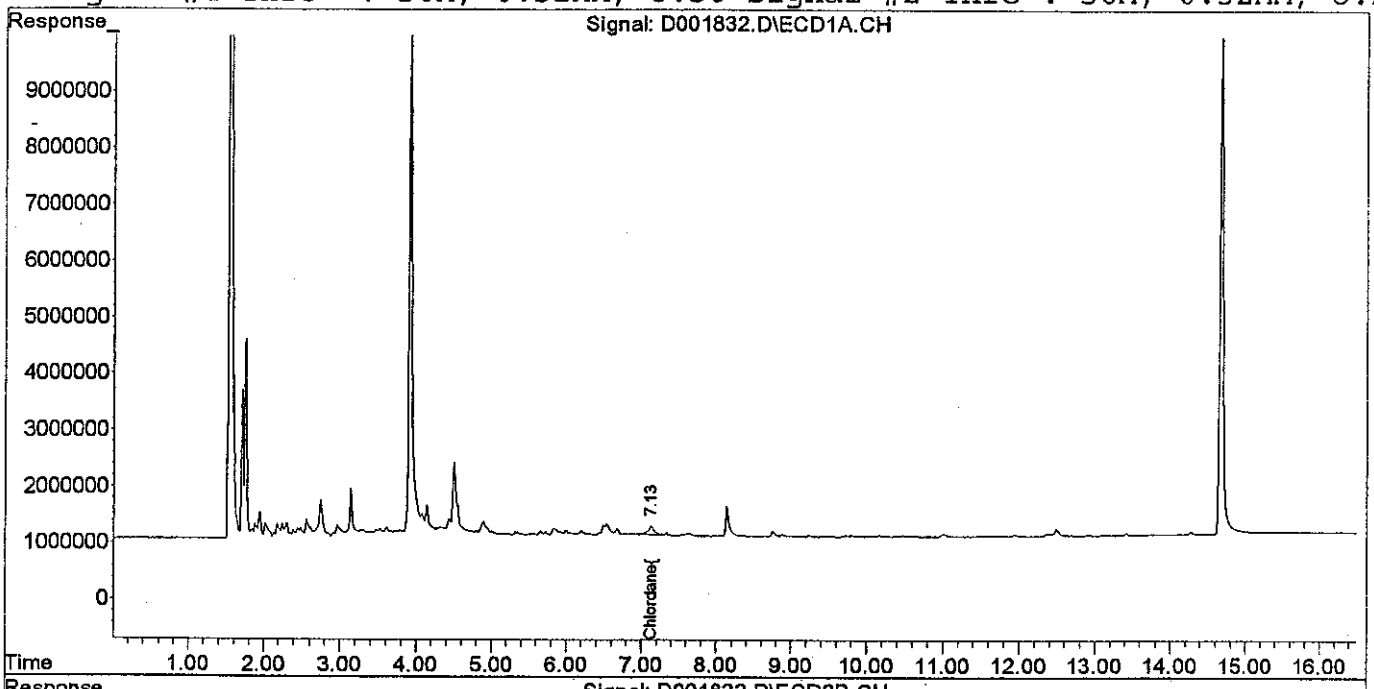
(f)=RT Delta > 1.2 Window (#)=Amounts differ by % (m)=manual int.

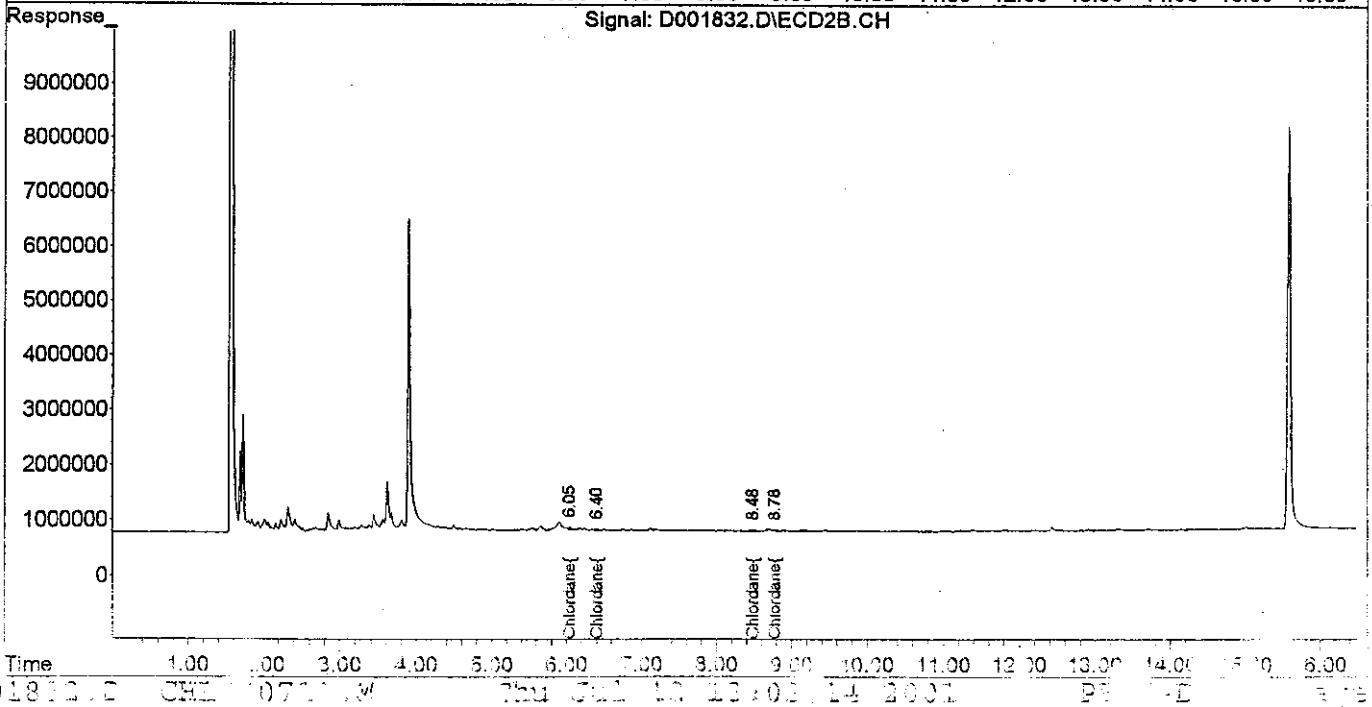
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 12 13:03 2001 Quant Results File: CHLOR0711.RES

Quant Method : E:\METHODS\CHLOR0711.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Wed Jul 11 09:32:26 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 12 12:54:59 2001 Quant Results File: TOX0711.RES

Quant Method : E:\METHODS\TOX0711.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Thu Jul 12 11:31:31 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
Target Compounds							
2) L1 Toxaphene{2}	11.00	0.00	220386	0	2.218	N.D.	#
4) L1 Toxaphene{4}	0.00	12.43	0	1707326	N.D.	18.299	#
6) L1 Toxaphene{6}	12.49	0.00	1120526	0	10.877	N.D.	#
Sum Toxaphene			1340912	1707326	13.095	18.299	
Average Toxaphene					6.548	18.299	

Tox = 48

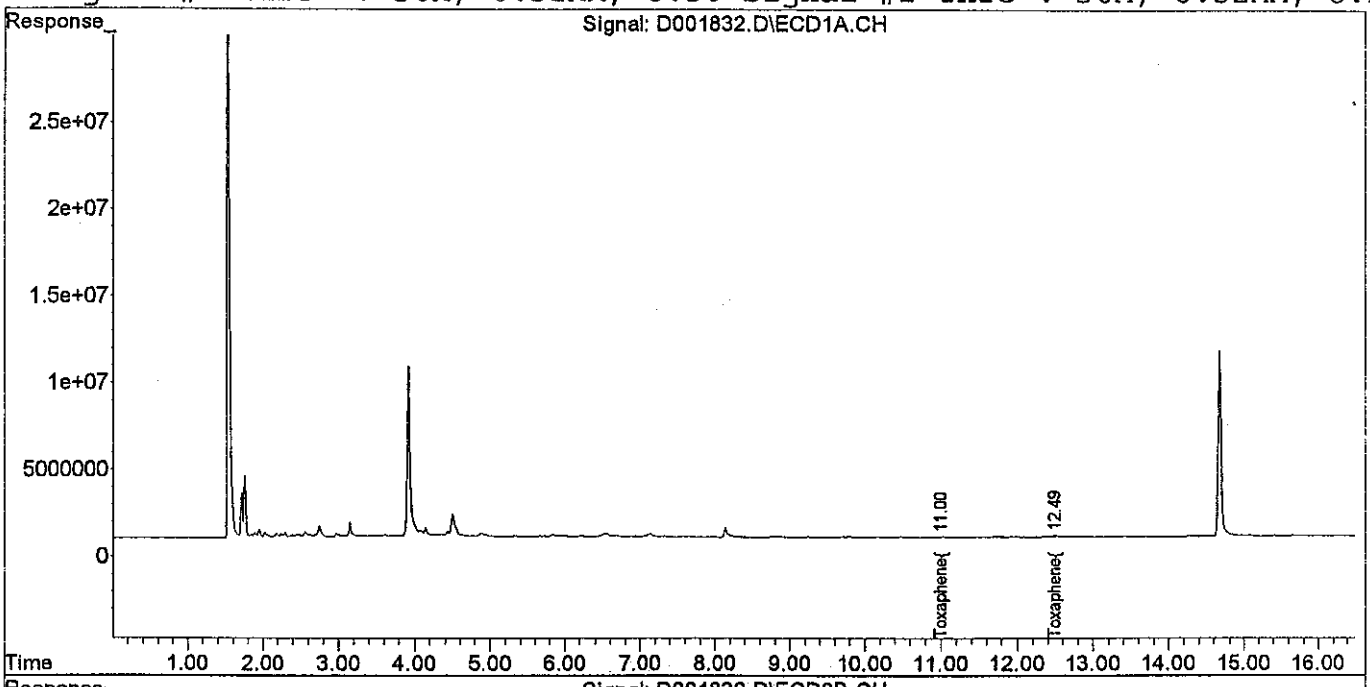
(d)=RT Delta > 0.0 Window (a)=Amounts diffe by > 25% (m)=manu... int.
...01832.D ...1.M ...ue Jul 12 12:55:... PEST-D ...ge

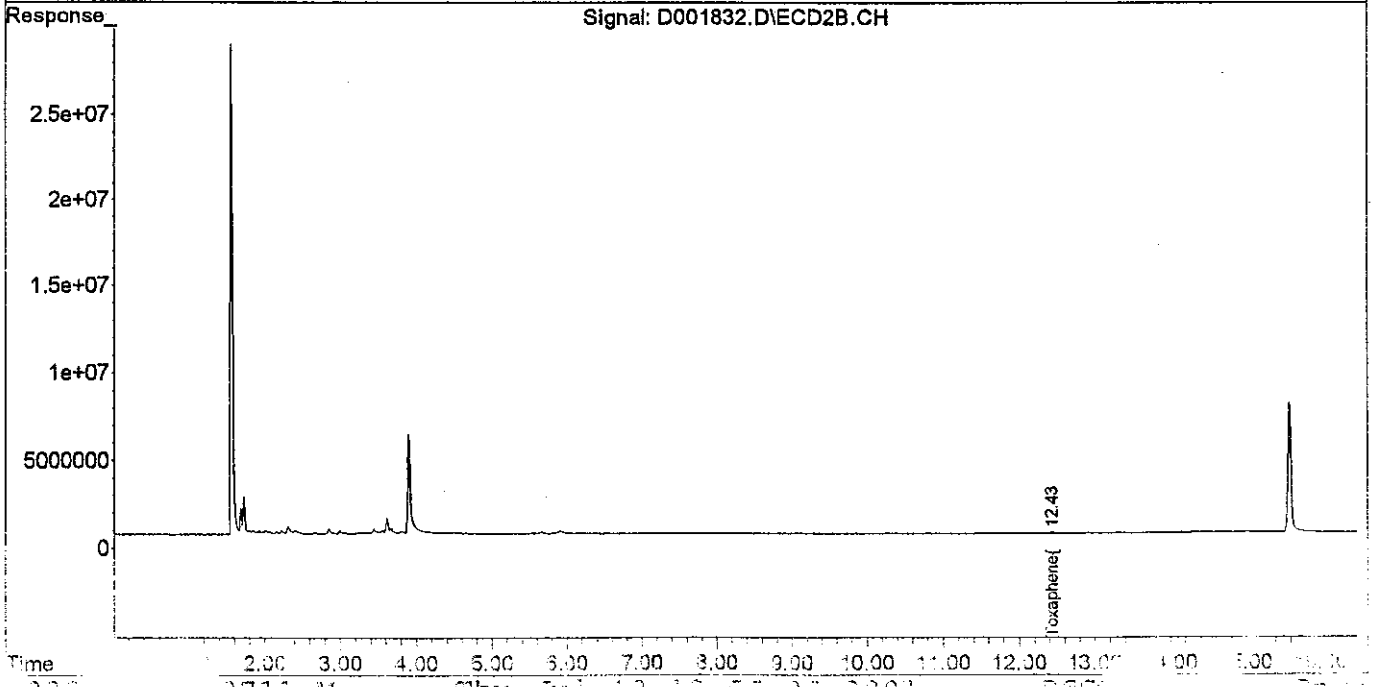
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001832.D\ECD1A.CH Vial: 74
Signal #2 : E:\DATA\071001\D001832.D\ECD2B.CH
Acq On : 11 Jul 2001 21:24 Operator: RL
Sample : QPW070801-1 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 12 12:54 2001 Quant Results File: TOX0711.RES

Quant Method : E:\METHODS\TOX0711.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Thu Jul 12 11:31:31 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001833.D\ECD1A.CH Vial: 75
Signal #2 : E:\DATA\071001\D001833.D\ECD2B.CH
Acq On : 11 Jul 2001 21:53 Operator: RL
Sample : QPW070801-2 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 12 12:51:15 2001 Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	3.92	3.91	212.4E6	114.9E6	80.686	71.238
Spiked Amount 100.000			Recovery =		80.69%	71.24%
22) CSA Decachlorobiphen	14.66	15.58	246.6E6	162.5E6	83.389	73.439
Spiked Amount 100.000			Recovery =		83.39%	73.44%
Target Compounds						
2) CMA alpha-BHC	4.81	4.90	454.3E6	270.5E6	108.077	103.809
3) CMA gamma-BHC (Linda	5.36	5.53	387.1E6	235.6E6	103.159	102.200
4) CMA Heptachlor	6.22	6.35	295.7E6	234.2E6	86.224	101.201
5) CMB Aldrin	6.79	6.97	324.2E6	210.4E6	90.170	92.919
6) CMB beta-BHC	5.51	5.69	196.4E6	123.3E6	101.328	97.129
7) CMB delta-BHC	5.84	6.24	375.3E6	229.0E6	97.849	109.213
8) CMB Heptachlor Epoxi	7.97	8.11	346.0E6	220.4E6	103.326	108.378
9) CMA Endosulfan I	8.76	8.89	375.8E6	203.7E6	101.190	94.579
10) CMB gamma-Chlordane	8.22	8.49	368.0E6	218.3E6	99.335	100.875
11) CMB alpha-Chlordane	8.48	8.78	342.8E6	204.0E6	105.627	101.165
12) CMB 4,4'-DDE	8.66	9.16	298.6E6	206.6E6	101.248	103.107
13) CMA Dieldrin	9.24	9.45	369.9E6	240.3E6	108.106	108.404
14) CMA Endrin	9.71	10.07	308.9E6	188.6E6	110.614	111.904
15) CMB Endosulfan II	10.17	10.52	307.0E6	217.9E6	92.899	98.111
16) CMA 4,4'-DDD	9.88	10.36	290.6E6	166.9E6	102.524	101.323
17) CMA 4,4'-DDT	10.45	11.00	306.0E6	190.6E6	107.045	104.136
18) CMB Endrin Aldehyde	11.04	11.22	282.8E6	178.4E6	100.075	104.537
19) CMB Endosulfan Sulfa	11.94	11.80	337.9E6	202.2E6	103.026	105.541
20) CMA Methoxychlor	11.48	12.48	180.0E6	109.8E6	106.587	111.112
21) CMB Endrin Ketone	12.52	12.91	413.6E6	261.6E6	97.306	101.434

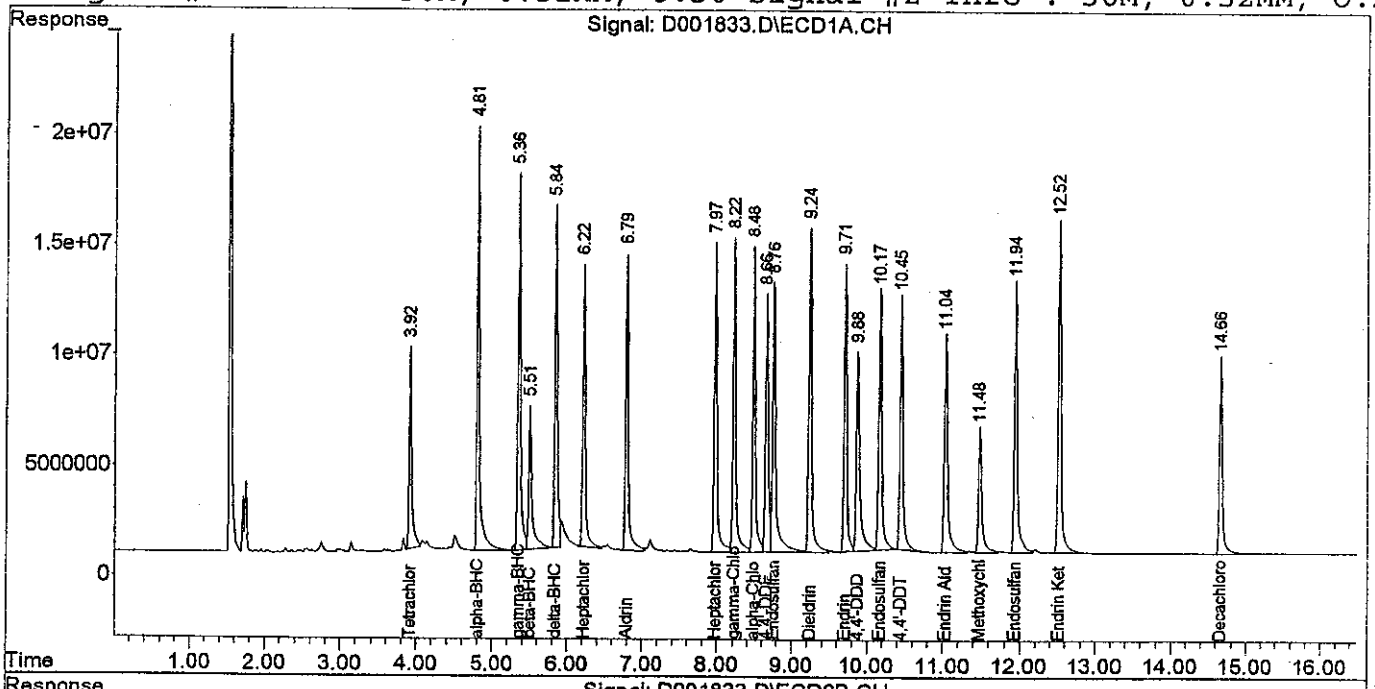
(#)=RT Delta > 1/2 Window (#)=Amounts diff[illegible] Manual Int.
D001833.D 8081A0710.M Thu Jul 12 12[illegible] PEST-2 Page 1

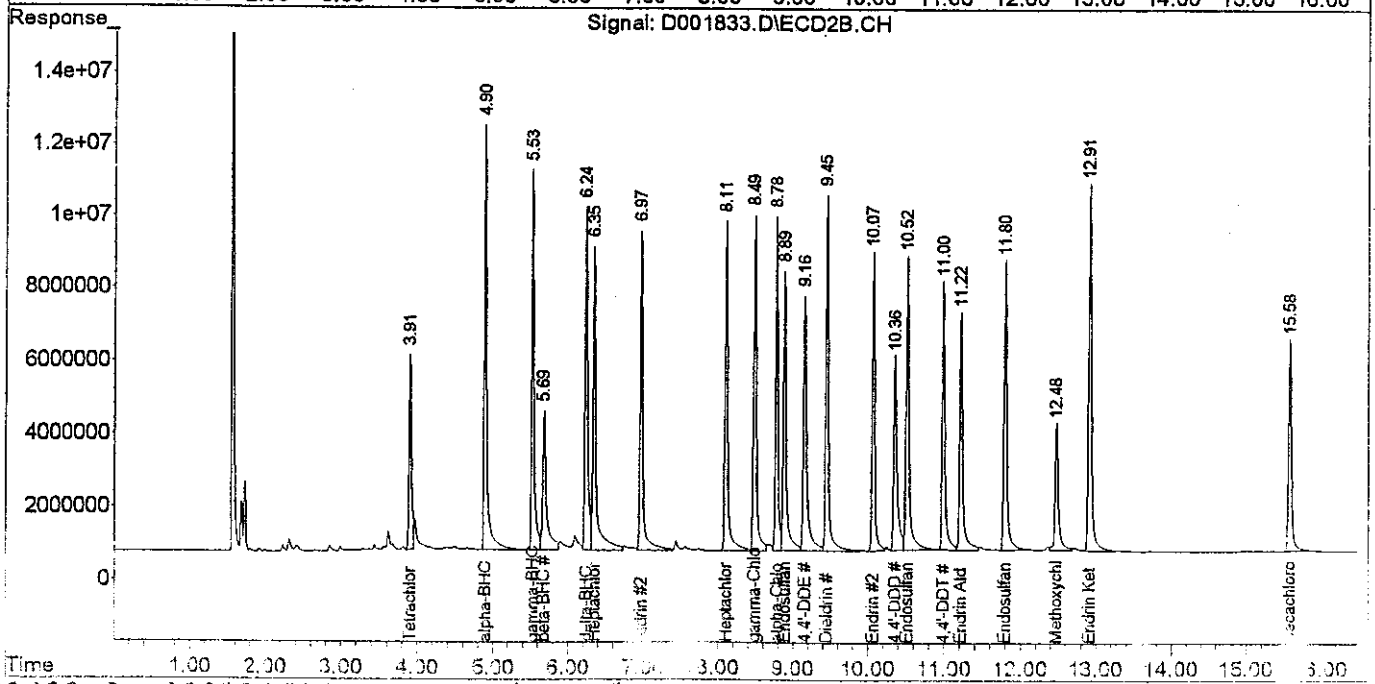
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001833.D\ECD1A.CH Vial: 75
Signal #2 : E:\DATA\071001\D001833.D\ECD2B.CH
Acq On : 11 Jul 2001 21:53 Operator: RL
Sample : QPW070801-2 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 12 12:51 2001 Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\071001\D001834.D\ECD1A.CH Vial: 76
Signal #2 : E:\DATA\071001\D001834.D\ECD2B.CH
Acq On : 11 Jul 2001 22:21 Operator: RL
Sample : QPW070801-3 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 12 12:51:25 2001 Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	3.92	3.91	195.9E6	127.3E6	74.437	78.932
Spiked Amount 100.000			Recovery =		74.44%	78.93%
22) CSA Decachlorobiphen	14.66	15.58	221.7E6	151.1E6	74.956	68.281
Spiked Amount 100.000			Recovery =		74.96%	68.28%
Target Compounds						
2) CMA alpha-BHC	4.81	4.90	435.9E6	260.5E6	103.679	99.985
3) CMA gamma-BHC (Linda	5.36	5.54	381.9E6	233.0E6	101.774	101.064
4) CMA Heptachlor	6.22	6.35	287.8E6	225.2E6	83.928	97.322
5) CMB Aldrin	6.79	6.97	318.8E6	201.7E6	88.672	89.052
6) CMB beta-BHC	5.51	5.69	201.7E6	126.4E6	104.054	99.586
7) CMB delta-BHC	5.84	6.24	396.5E6	241.7E6	103.388	115.267
8) CMB Heptachlor Epoxi	7.97	8.11	353.3E6	220.4E6	105.509	108.364
9) CMA Endosulfan I	8.76	8.89	369.0E6	206.8E6	99.360	96.012
10) CMB gamma-Chlordane	8.22	8.49	380.2E6	232.3E6	102.645	107.340
11) CMB alpha-Chlordane	8.49	8.78	352.5E6	212.1E6	108.631	105.198
12) CMB 4,4'-DDE	8.66	9.16	323.1E6	220.0E6	109.558	109.822
13) CMA Dieldrin	9.24	9.45	383.0E6	249.9E6	111.945	112.705
14) CMA Endrin	9.71	10.07	322.0E6	198.2E6	115.277	117.632
15) CMB Endosulfan II	10.17	10.52	322.9E6	234.8E6	97.709	105.693
16) CMA 4,4'-DDD	9.88	10.36	312.7E6	184.3E6	110.332	111.911
17) CMA 4,4'-DDT	10.45	11.00	327.4E6	208.3E6	114.521	113.843
18) CMB Endrin Aldehyde	11.04	11.23	292.9E6	189.9E6	103.668	111.292
19) CMB Endosulfan Sulfa	11.94	11.80	359.8E6	215.5E6	109.690	112.488
20) CMA Methoxychlor	11.48	12.48	184.8E6	112.7E6	109.402	114.131
21) CMB Endrin Ketone	12.52	12.92	438.5E6	276.9E6	103.180	107.348

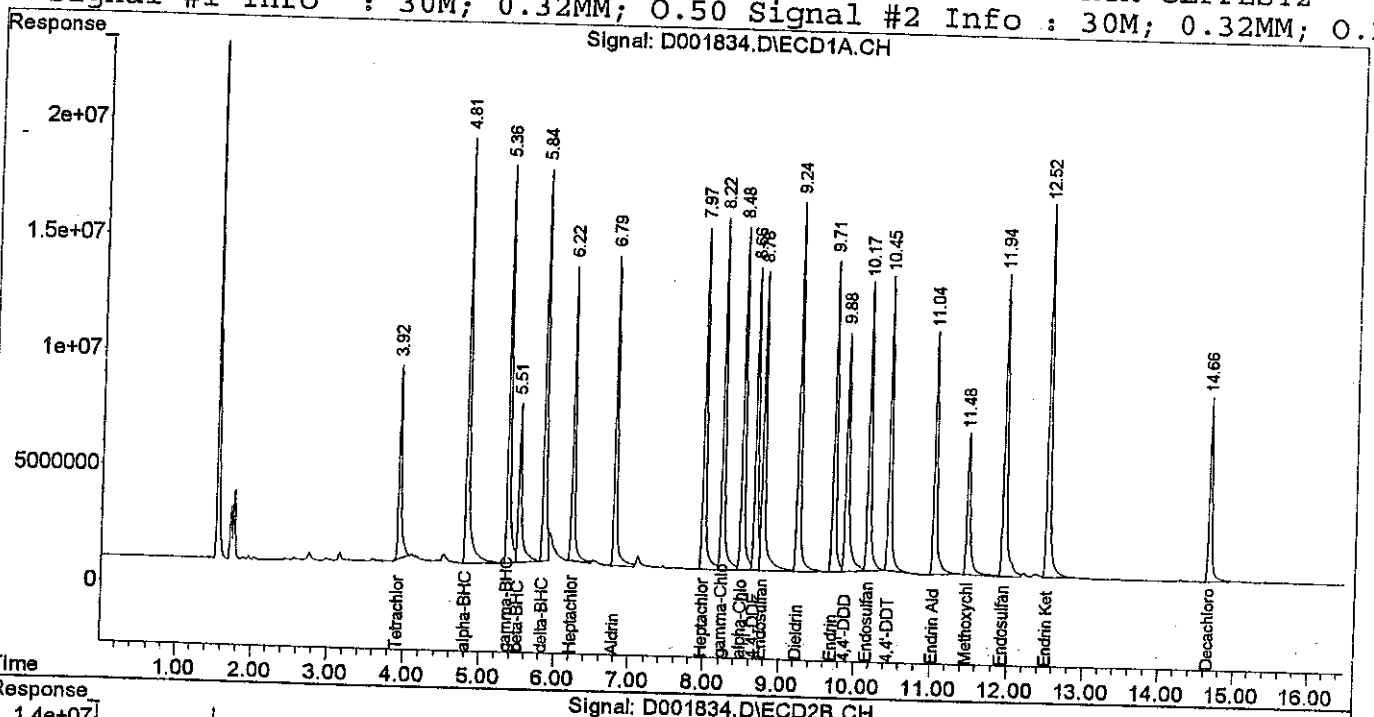
Quantitation Report (Not Reviewed)

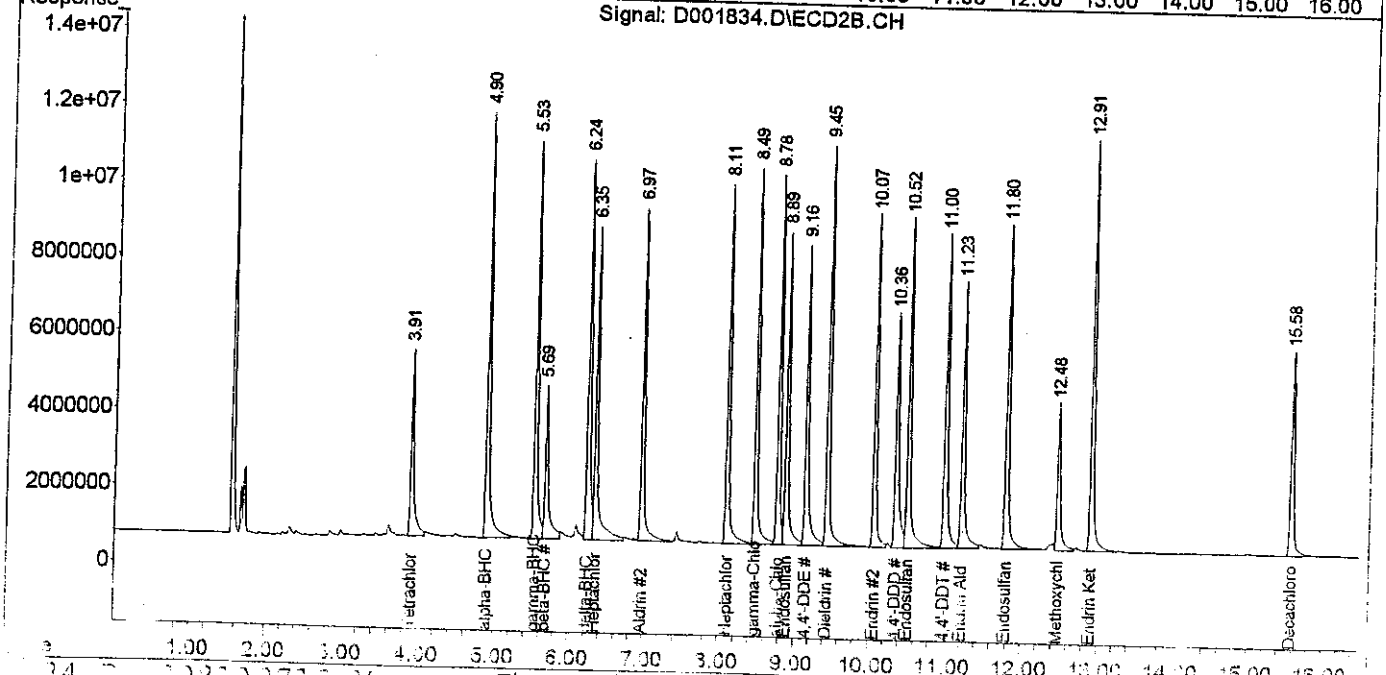
Signal #1 : E:\DATA\071001\D001834.D\ECD1A.CH
Signal #2 : E:\DATA\071001\D001834.D\ECD2B.CH
Acq On : 11 Jul 2001 22:21
Sample : QPW070801-3
Misc :
IntFile Signal #1: AUTOINT1.E
Quant Time: Jul 12 12:51 2001

Vial: 76
Operator: RL
Inst : AG-GCG
Multiplr: 1.00
IntFile Signal #2: AUTOINT2.E
Quant Results File: 8081A0710.RES

Quant Method : E:\METHODS\8081A0710.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Tue Jul 10 14:16:11 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1
Signal #1 Info : 30M; 0.32MM; 0.50
Signal #2 Phase: Rtx-CLPPEST2
Signal #2 Info : 30M; 0.32MM; 0.25UM





SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 07/29/01 AG GC G	METHOD: (circle applicable methods)		
MATRIX: Pest 8081 Calibration	(8081A)	8082	8151A

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: KL	Reviewer: YCK
Date: 07/29/01 Time: 08:15	Date: 07/31/01 Time: 15:45

Response Factor Report AG-GCG

Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001

Calibration Files
1 =D002303.D 2 =D002304.D 3 =D002305.D
4 =D002306.D 5 =D002307.D

	Compound	1	2	3	4	5	Avg		%RSD
1)	SAC Tetrachloro-m-xylene	3.269	4.463	3.616	3.587	3.457	3.678	E6	12.49
2)	CM alpha-BHC	4.655	7.475	6.602	6.804	6.647	6.436	E6	16.40
3)	CMA gamma-BHC (Lindane)	4.550	7.191	6.085	6.237	6.087	6.030	E6	15.70
4)	CMA Heptachlor	4.254	6.328	5.341	5.462	5.317	5.340	E6	13.79
5)	CMB Aldrin	4.559	6.868	5.739	5.773	5.613	5.710	E6	14.33
6)	CMB beta-BHC	2.421	3.598	2.702	2.715	2.590	2.805	E6	16.35
7)	CMB delta-BHC	4.444	7.030	5.979	6.156	6.310	5.984	E6	15.85
8)	CMB Heptachlor Epoxide	4.352	6.548	5.280	5.234	5.161	5.315	E6	14.81
9)	CMA Endosulfan I	4.929	7.278	5.847	5.792	5.755	5.920	E6	14.32
10)	CMB gamma-Chlordane	4.741	6.953	5.682	5.682	5.775	5.767	E6	13.63
11)	CMB alpha-Chlordane	4.474	6.502	5.445	5.339	5.410	5.434	E6	13.24
12)	CMB 4,4-DDE	3.579	5.330	4.414	4.534	4.839	4.539	E6	14.16
13)	CMA Dieldrin	4.527	6.850	5.607	5.645	5.775	5.681	E6	14.50
14)	CMA Endrin	3.695	5.194	4.264	4.339	4.549	4.408	E6	12.28
15)	CMB Endosulfan II	4.337	6.114	4.906	4.798	5.125	5.056	E6	13.01
16)	CMA 4,4-DDD	3.579	5.235	4.227	4.159	4.450	4.330	E6	13.84
17)	CMA 4,4-DDT	2.908	3.952	3.434	3.857	4.244	3.679	E6	14.12
18)	CMB Endrin Aldehyde	3.531	4.968	3.869	3.779	3.837	3.997	E6	13.98
19)	CMB Endosulfan Sulfate	4.039	5.750	4.496	4.416	4.607	4.662	E6	13.83
20)	CMA Methoxychlor	1.725	2.211	1.838	1.989	2.090	1.971	E6	9.84
21)	CMB Endrin Ketone	5.135	7.604	5.902	5.740	5.927	6.061	E6	15.17
22)	CSA Decachlorobiphenyl	4.533	5.803	4.330	4.055	4.139	4.572	E6	15.58

Signal #2 Calibration Files
1 =D002303.D 2 =D002304.D 3 =D002305.D
4 =D002306.D 5 =D002307.D

	Compound	1	2	3	4	5	Avg		%RSD
1)	CSA Tetrachloro-m-xylene	1.675	2.367	1.936	1.904	1.840	1.944	E6	13.21
2)	CMA alpha-BHC	2.624	4.105	3.577	3.674	3.593	3.514	E6	15.43
3)	CMA gamma-BHC (Lindane)	2.445	3.915	3.315	3.378	3.299	3.270	E6	16.11
4)	CMA Heptachlor	2.481	3.658	3.115	3.185	3.015	3.091	E6	13.62
5)	CMB Aldrin	2.471	3.809	3.163	3.165	3.083	3.138	E6	15.12
6)	CMB beta-BHC	1.261	1.870	1.525	1.466	1.438	1.512	E6	14.76
7)	CMB delta-BHC	2.453	3.795	3.229	3.304	3.414	3.239	E6	15.14
8)	CMB Heptachlor Epoxide	2.443	3.572	2.929	2.870	2.828	2.928	E6	13.90
9)	CMA Endosulfan I	2.494	3.757	2.987	2.915	2.908	3.012	E6	15.25
10)	CMB gamma-Chlordane	2.598	3.885	3.151	3.122	3.168	3.185	E6	14.38
11)	CMB alpha-Chlordane	2.559	3.744	3.002	2.949	2.982	3.047	E6	14.11
12)	CMB 4,4-DDE	2.288	3.415	2.751	2.772	2.904	2.826	E6	14.27
13)	CMA Dieldrin	2.652	3.993	3.245	3.206	3.265	3.272	E6	14.58
14)	CMA Endrin	2.024	2.898	2.353	2.382	2.467	2.425	E6	12.94
15)	CMB Endosulfan II	2.634	3.821	3.025	2.957	3.030	3.094	E6	14.16
16)	CMA 4,4-DDD	1.969	2.925	2.300	2.259	2.363	2.363	E6	14.75
17)	CMA 4,4-DDT	1.676	2.231	1.942	2.193	2.393	2.087	E6	13.46
18)	CMB Endrin Aldehyde	1.838	2.668	2.181	2.115	2.107	2.182	E6	13.84
19)	CMB Endosulfan Sulfate	2.363	3.326	2.560	2.496	2.593	2.668	E6	14.19
20)	CMA Methoxychlor	0.970	1.164	0.987	1.0[illegible]	1.142	1.068	E6	[illegible]
	CMB Endrin Ketone	3.070	4.427	3.439	3.[illegible]	3.415	3.534	E6	14.71
	CSA Decachlorobiphenyl	2.326	3.085	2.32[illegible]	2.1[illegible]	2.232	2.4[illegible]		

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002302.D\ECD1A.CH Vial: 4
Signal #2 : E:\DATA\072901\D002302.D\ECD2B.CH
Acq On : 29 Jul 2001 11:03 Operator: RL
Sample : PEM Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:14 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

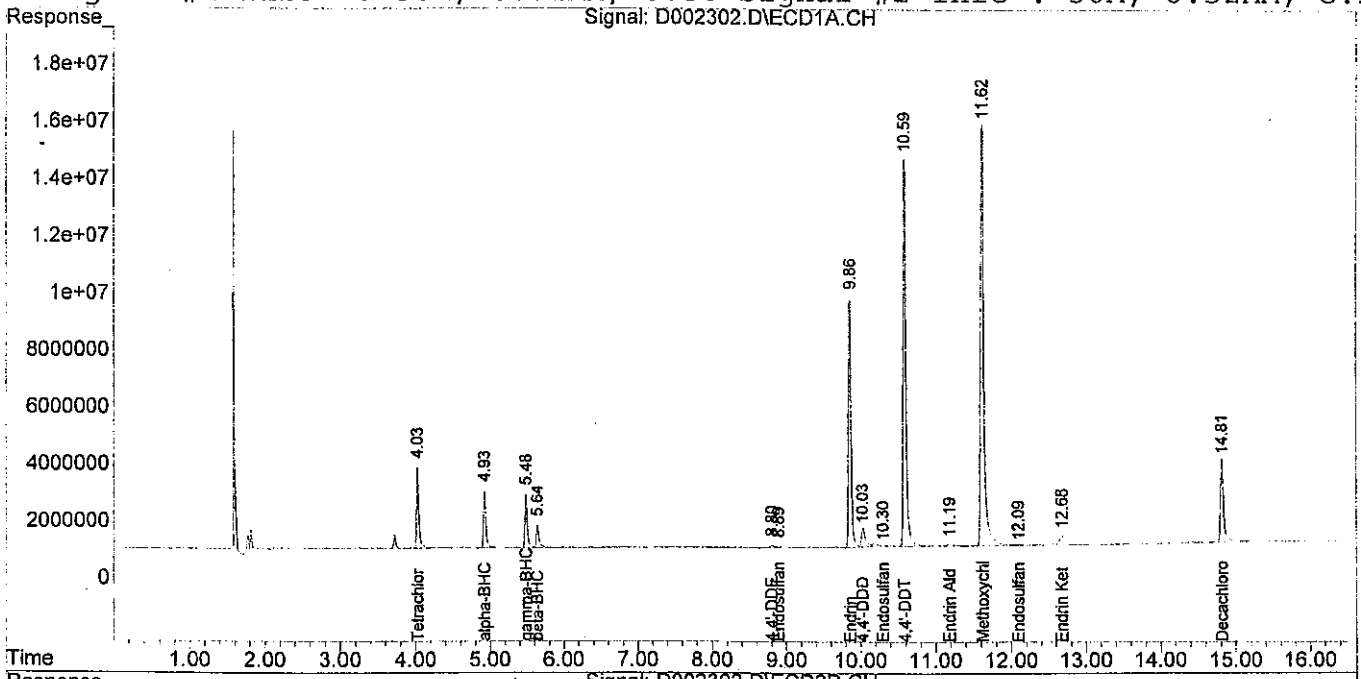
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	System Monitoring Compounds							
1)	CSA Tetrachloro-m-xy	4.03	4.01	61465454	32515780	16.710	16.723	
	Spiked Amount 100.000				Recovery =	16.71%	16.72%	
22)	CSA Decachlorobiphen	14.81	15.73	86251693	45290940	19.644	18.610	
	Spiked Amount 100.000				Recovery =	19.64%	18.61%	
	Target Compounds							
2)	CMA alpha-BHC	4.93	5.01	41484496	23566601	6.445	6.706	
3)	CMA gamma-BHC (Linda	5.48	5.65	41500288	22158816	6.882	6.775	
4)	CMA Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
5)	CMB Aldrin	0.00	0.00	0	0	N.D.	N.D.	
6)	CMB beta-BHC	5.64	5.80	22823300	11814515	8.136	7.814	
7)	CMB delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
8)	CMB Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	CMA Endosulfan I	8.90	0.00	625363	0	0.106	N.D.	#
10)	CMB gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	CMB alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12)	CMB 4,4'-DDE	8.81	9.29	1206607	1513472	0.266	0.536	#
13)	CMA Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	CMA Endrin	9.86	10.21	198.8E6	111.2E6	45.100	45.850	
15)	CMB Endosulfan II	10.30	0.00	1561737	0	0.309	N.D.	#
16)	CMA 4,4'-DDD	10.03	10.49	26807596	19546397	6.192	8.271	#
17)	CMA 4,4'-DDT	10.59	11.13	336.7E6	191.1E6	91.526	91.569	
18)	CMB Endrin Aldehyde	11.19	11.36	4657337	3841032	1.165	1.760	#
19)	CMB Endosulfan Sulfa	12.10	0.00	334302	0	0.072	N.D.	#
20)	CMA Methoxychlor	11.62	12.60	424.7E6	234.2E6	215.519	219.188	
21)	CMB Endrin Ketone	12.67	13.06	13427995	7424447	2.215	2.101	

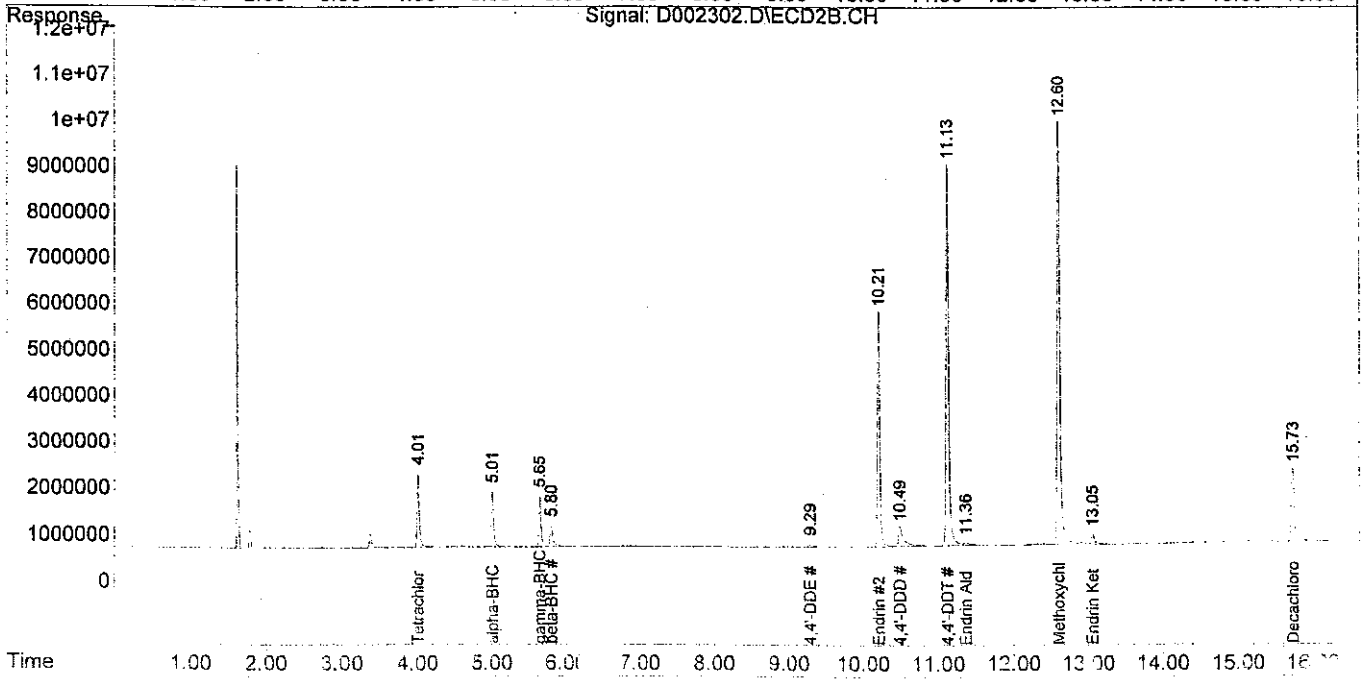
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002302.D\ECD1A.CH Vial: 4
Signal #2 : E:\DATA\072901\D002302.D\ECD2B.CH
Acq On : 29 Jul 2001 11:03 Operator: RL
Sample : PEM Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002303.D\ECD1A.CH Vial: 5
Signal #2 : E:\DATA\072901\D002303.D\ECD2B.CH
Acq On : 29 Jul 2001 11:32 Operator: RL
Sample : 10PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:21 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

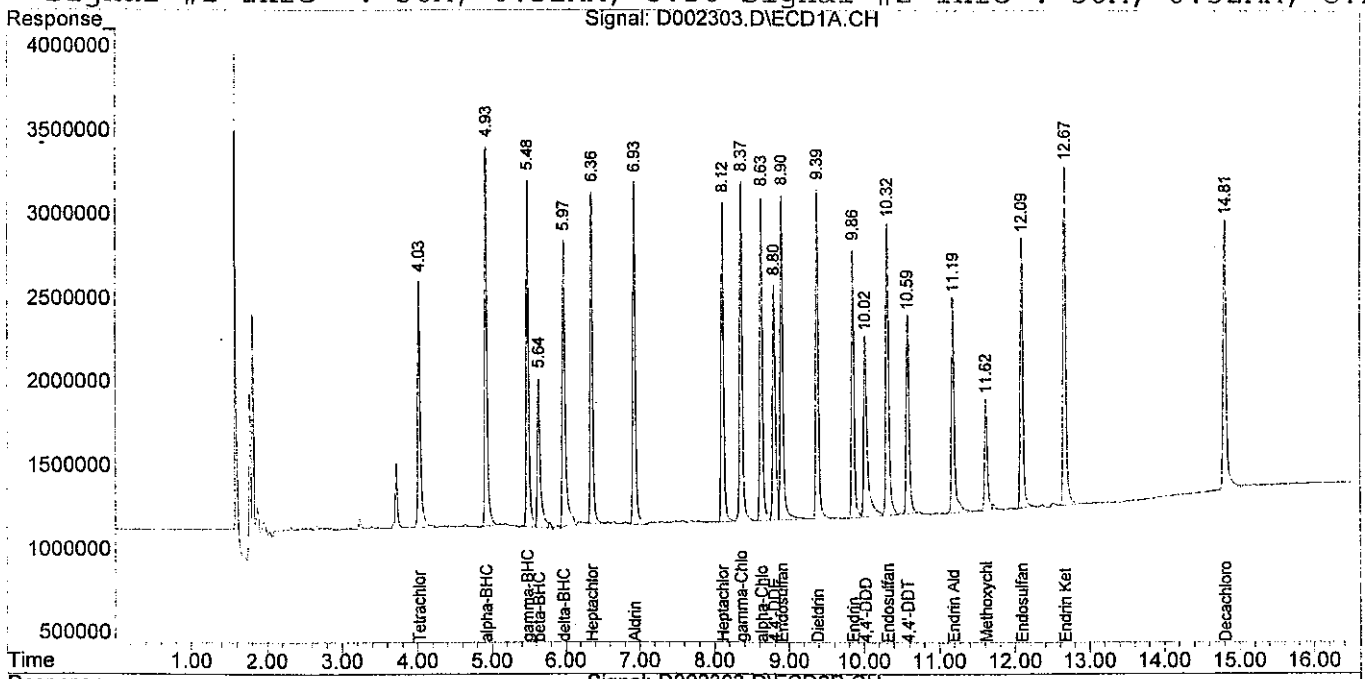
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	32694059	16754808	8.888	8.617
Spiked Amount 100.000			Recovery =		8.89%	8.62%
22) CSA Decachlorobiphen	14.81	15.73	45331247	23262492	10.275	9.559
Spiked Amount 100.000			Recovery =		10.28%	9.56%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	46547063	26239933	7.232	7.466
3) CMA gamma-BHC (Linda	5.48	5.65	45502314	24450339	7.546	7.476
4) CMA Heptachlor	6.36	6.47	42540511	24811073	7.966	8.027
5) CMB Aldrin	6.93	7.10	45589823	24706108	7.984	7.873
6) CMB beta-BHC	5.64	5.80	24206265	12609451	8.629	8.340
7) CMB delta-BHC	5.97	6.36	44444301	24531834	7.428	7.574
8) CMB Heptachlor Epoxi	8.12	8.24	43523474	24425577	8.189	8.341
9) CMA Endosulfan I	8.91	9.03	49293246	24937909	8.326	8.279
10) CMB gamma-Chlordane	8.37	8.62	47411592	25981028	8.222	8.158
11) CMB alpha-Chlordane	8.63	8.91	44739227	25587074	8.234	8.397
12) CMB 4,4'-DDE	8.80	9.29	35794176	22881887	7.886	8.097
13) CMA Dieldrin	9.39	9.59	45265535	26516009	7.968	8.104
14) CMA Endrin	9.86	10.21	36945495	20236455	8.381	8.346
15) CMB Endosulfan II	10.32	10.65	43368035	26344079	8.577	8.515
16) CMA 4,4'-DDD	10.02	10.49	35786765	19694501	8.265	8.334
17) CMA 4,4'-DDT	10.59	11.13	29082810	16760008	7.905	8.031
18) CMB Endrin Aldehyde	11.19	11.36	35313228	18378565	8.835	8.424
19) CMB Endosulfan Sulfa	12.09	11.94	40393668	23626993	8.665	8.857
20) CMA Methoxychlor	11.62	12.60	17253181	9702998	8.755	9.082
21) CMB Endrin Ketone	12.67	13.05	51348416	30700666	8.471	8.686

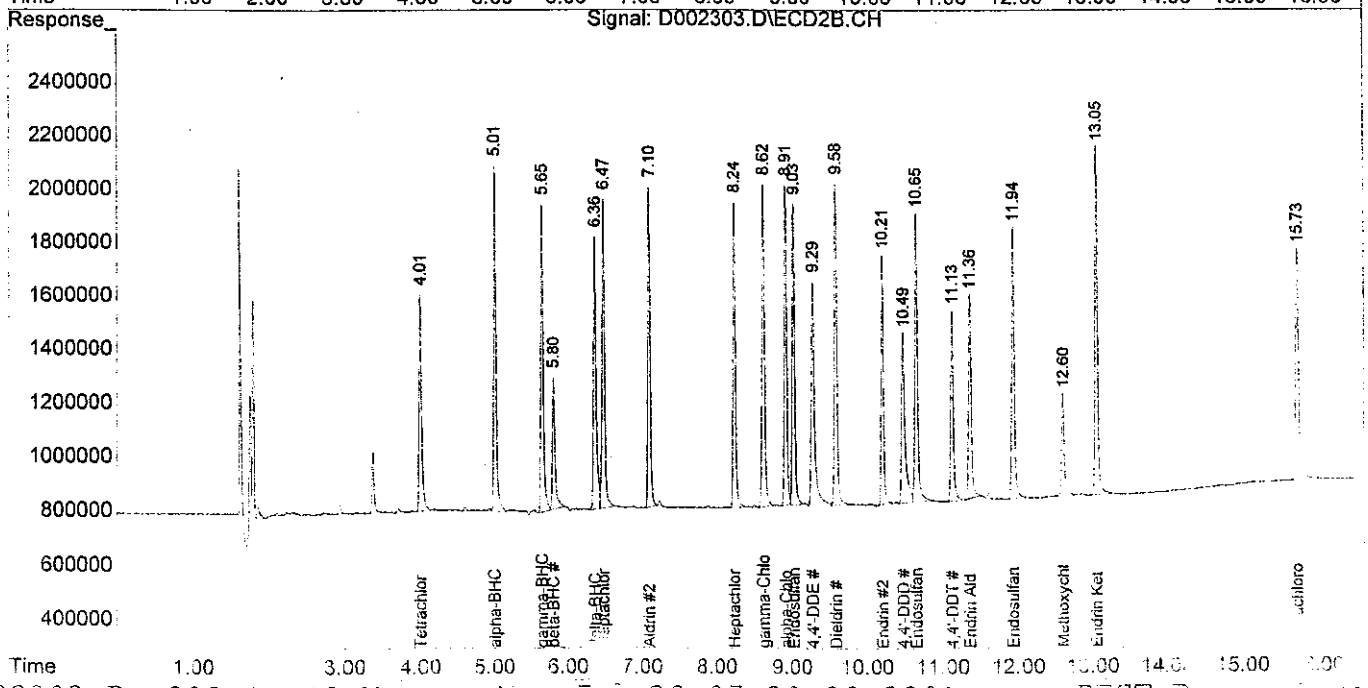
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002303.D\ECD1A.CH Vial: 5
Signal #2 : E:\DATA\072901\D002303.D\ECD2B.CH
Acq On : 29 Jul 2001 11:32 Operator: RL
Sample : 10PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





D002303.D 8081A 9.M Mon Jul 30 07:30:28 2001 PEST-D

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002304.D\ECD1A.CH Vial: 6
Signal #2 : E:\DATA\072901\D002304.D\ECD2B.CH
Acq On : 29 Jul 2001 12:00 Operator: RL
Sample : 20PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:31 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

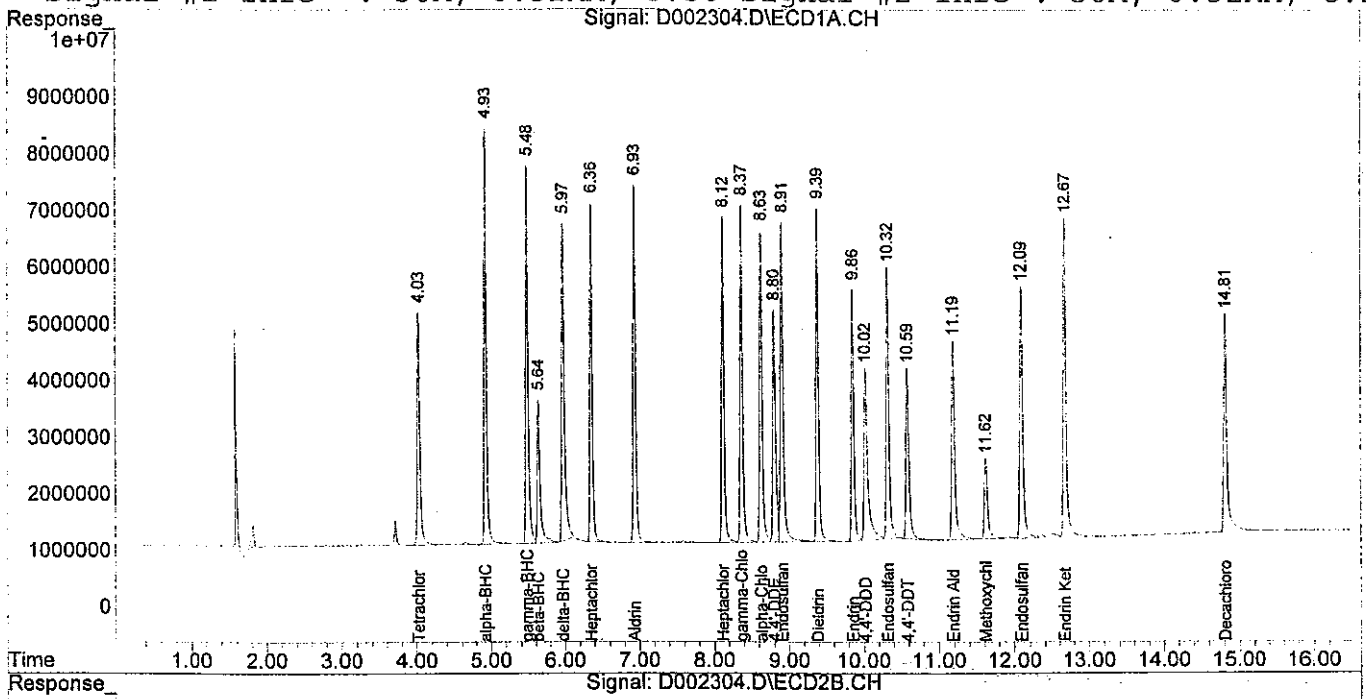
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	89255800	47342666	24.265	24.349
Spiked Amount 100.000			Recovery	=	24.27%	24.35%
22) CSA Decachlorobiphen	14.81	15.73	116.1E6	61705380	26.527	25.355
Spiked Amount 100.000			Recovery	=	26.53%	25.36%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	149.5E6	82099740	23.228	23.360
3) CMA gamma-BHC (Linda	5.48	5.65	143.8E6	78294724	23.850	23.940
4) CMA Heptachlor	6.36	6.48	126.6E6	73158489	23.698	23.669
5) CMB Aldrin	6.93	7.10	137.4E6	76179685	24.053	24.275
6) CMB beta-BHC	5.64	5.80	71965787	37403456	25.653	24.738
7) CMB delta-BHC	5.97	6.36	140.6E6	75896595	23.496	23.433
8) CMB Heptachlor Epoxi	8.12	8.24	131.0E6	71431200	24.638	24.394
9) CMA Endosulfan I	8.91	9.03	145.6E6	75131580	24.587	24.942
10) CMB gamma-Chlordane	8.37	8.62	139.1E6	77694050	24.113	24.395
11) CMB alpha-Chlordane	8.63	8.91	130.0E6	74870435	23.930	24.572
12) CMB 4,4'-DDE	8.80	9.29	106.6E6	68294291	23.484	24.165
13) CMA Dieldrin	9.39	9.59	137.0E6	79869381	24.115	24.409
14) CMA Endrin	9.86	10.21	103.9E6	57961663	23.567	23.905
15) CMB Endosulfan II	10.32	10.65	122.3E6	76427955	24.184	24.704
16) CMA 4,4'-DDD	10.02	10.49	104.7E6	58505825	24.180	24.756
17) CMA 4,4'-DDT	10.59	11.13	79030128	44626614	21.481	21.383
18) CMB Endrin Aldehyde	11.19	11.36	99352264	53362759	24.857	24.458
19) CMB Endosulfan Sulfa	12.09	11.94	115.0E6	66527319	24.670	24.938
20) CMA Methoxychlor	11.62	12.61	44228273	23289632	22.443	21.799
21) CMB Endrin Ketone	12.67	13.05	152.1E6	88543582	25.089	25.051

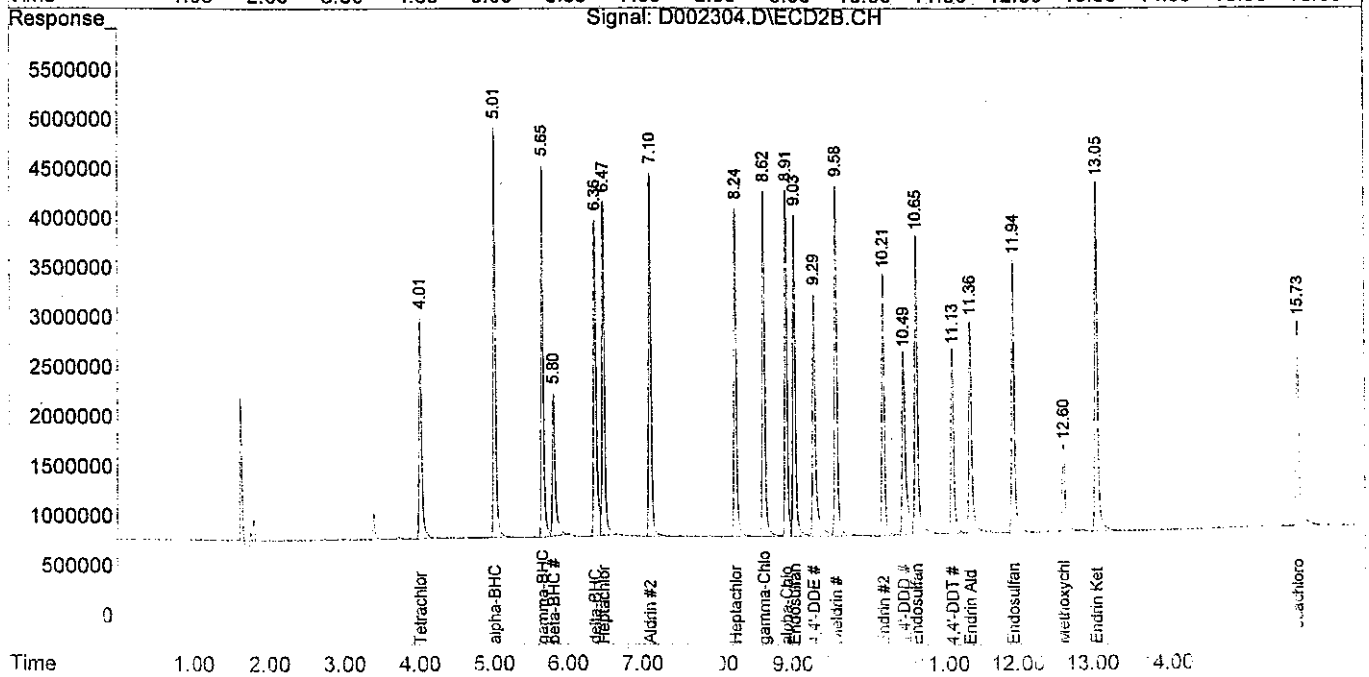
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002304.D\ECD1A.CH Vial: 6
Signal #2 : E:\DATA\072901\D002304.D\ECD2B.CH
Acq On : 29 Jul 2001 12:00 Operator: RL
Sample : 20PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002305.D\ECD1A.CH Vial: 7
Signal #2 : E:\DATA\072901\D002305.D\ECD2B.CH
Acq On : 29 Jul 2001 12:29 Operator: RL
Sample : 50PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:40 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

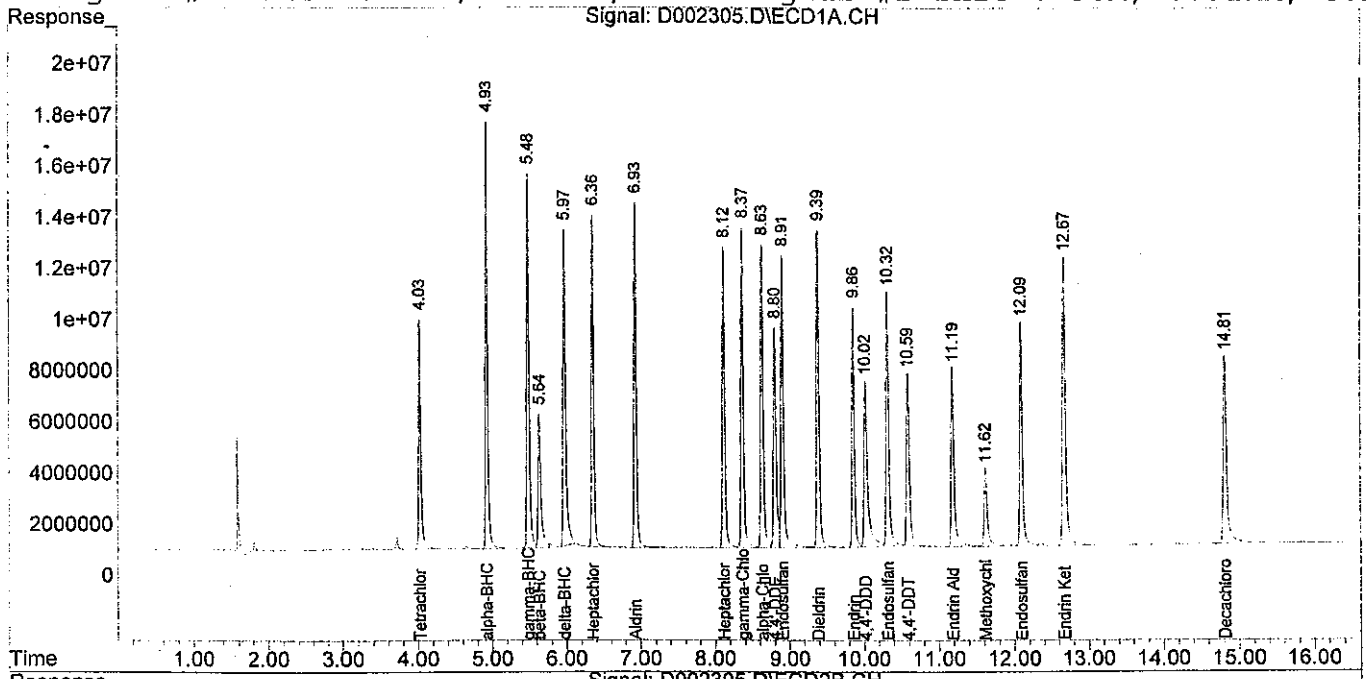
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	180.8E6	96787268	49.145	49.779
Spiked Amount 100.000			Recovery =		49.15%	49.78%
22) CSA Decachlorobiphen	14.81	15.73	216.5E6	116.3E6	50.088	47.797
Spiked Amount 100.000			Recovery =		50.09%	47.80%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	330.1E6	178.9E6	51.285	50.893
3) CMA gamma-BHC (Linda	5.48	5.65	304.2E6	165.8E6	50.456	50.685
4) CMA Heptachlor	6.36	6.48	267.1E6	155.8E6	50.009	50.394
5) CMB Aldrin	6.93	7.10	287.0E6	158.2E6	50.252	50.402
6) CMB beta-BHC	5.64	5.80	135.1E6	76245783	48.159	50.428
7) CMB delta-BHC	5.97	6.36	298.9E6	161.4E6	49.960	49.848
8) CMB Heptachlor Epoxi	8.12	8.24	264.0E6	146.4E6	49.671	50.008
9) CMA Endosulfan I	8.91	9.03	292.4E6	149.4E6	49.382	49.587
10) CMB gamma-Chlordane	8.37	8.62	284.1E6	157.6E6	49.264	49.472
11) CMB alpha-Chlordane	8.63	8.92	272.2E6	150.1E6	50.102	49.259
12) CMB 4,4'-DDE	8.80	9.29	220.7E6	137.6E6	48.623	48.676
13) CMA Dieldrin	9.39	9.59	280.4E6	162.2E6	49.354	49.585
14) CMA Endrin	9.86	10.21	213.2E6	117.6E6	48.363	48.514
15) CMB Endosulfan II	10.32	10.65	245.3E6	151.3E6	48.515	48.892
16) CMA 4,4'-DDD	10.02	10.49	211.3E6	115.0E6	48.813	48.658
17) CMA 4,4'-DDT	10.59	11.13	171.7E6	97078226	46.675	46.516
18) CMB Endrin Aldehyde	11.19	11.36	193.5E6	109.1E6	48.403	49.990
19) CMB Endosulfan Sulfa	12.09	11.94	224.8E6	128.0E6	48.225	47.988
20) CMA Methoxychlor	11.62	12.61	91875676	49338850	46.621	46.182
21) CMB Endrin Ketone	12.67	13.05	295.1E6	172.0E6	48.684	48.656

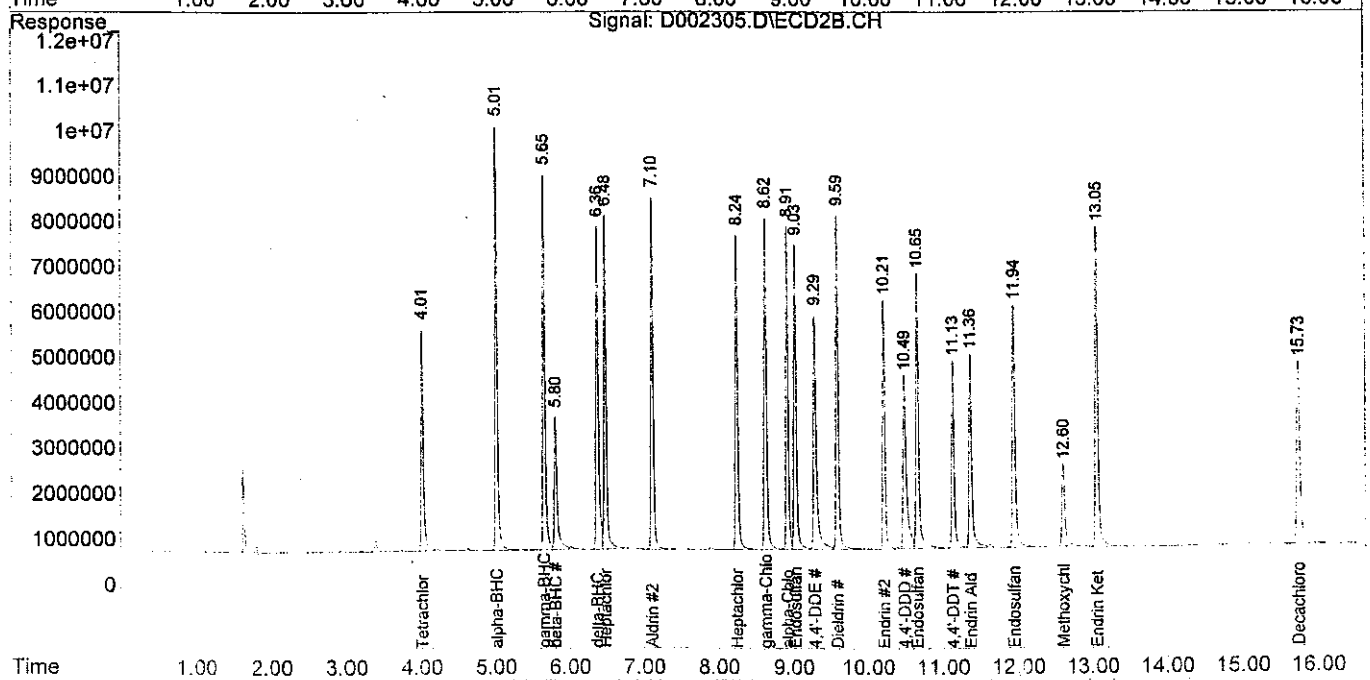
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002305.D\ECD1A.CH Vial: 7
Signal #2 : E:\DATA\072901\D002305.D\ECD2B.CH
Acq On : 29 Jul 2001 12:29 Operator: RL
Sample : 50PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002306.D\ECD1A.CH Vial: 8
Signal #2 : E:\DATA\072901\D002306.D\ECD2B.CH
Acq On : 29 Jul 2001 12:58 Operator: RL
Sample : 100PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:49 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; O.50 Signal #2 Info : 30M; 0.32MM; O.25UM

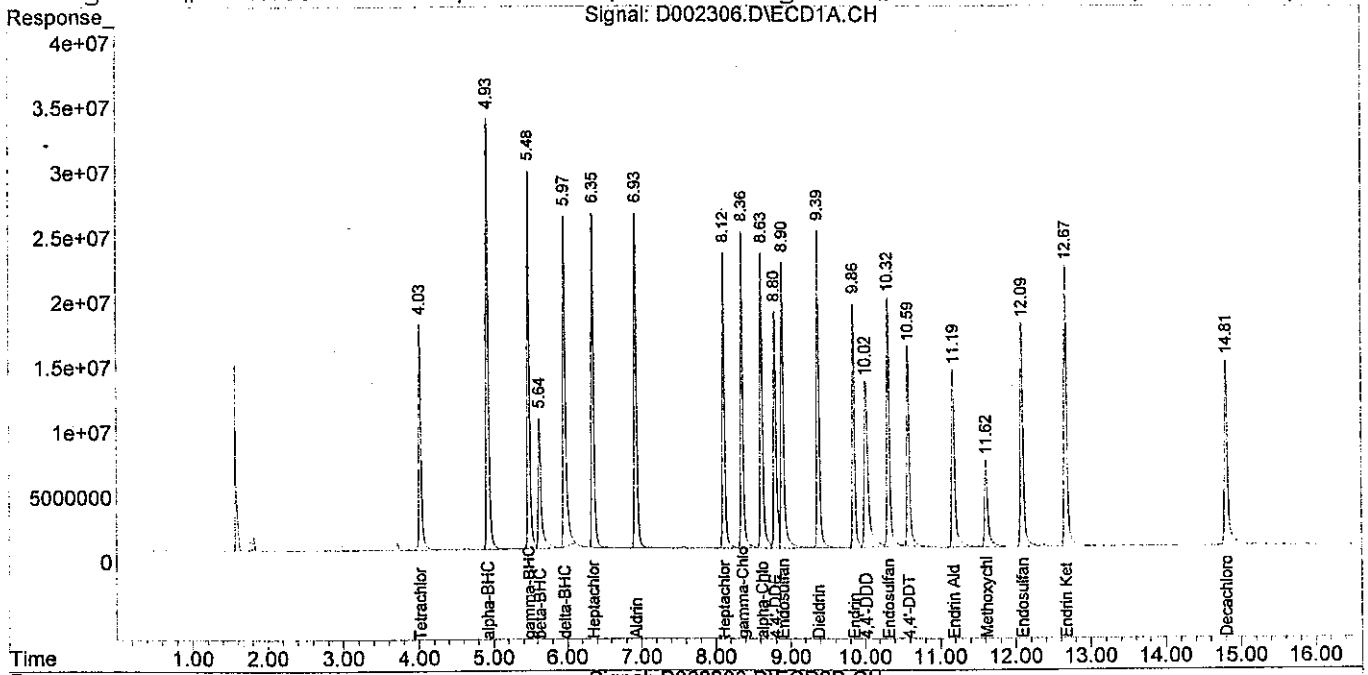
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	358.7E6	190.4E6	97.509	97.908
Spiked Amount 100.000			Recovery =		97.51%	97.91%
22) CSA Decachlorobiphen	14.81	15.73	405.5E6	219.9E6	96.142	90.351
Spiked Amount 100.000			Recovery =		96.14%	90.35%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	680.4E6	367.4E6	105.706	104.527
3) CMA gamma-BHC (Linda	5.48	5.65	623.7E6	337.8E6	103.434	103.295
4) CMA Heptachlor	6.35	6.47	546.2E6	318.5E6	102.271	103.043
5) CMB Aldrin	6.93	7.10	577.3E6	316.5E6	101.092	100.855
6) CMB beta-BHC	5.64	5.80	271.5E6	146.6E6	96.789	96.975
7) CMB delta-BHC	5.97	6.36	615.6E6	330.4E6	102.877	102.001
8) CMB Heptachlor Epoxi	8.12	8.24	523.4E6	287.0E6	98.476	98.009
9) CMA Endosulfan I	8.90	9.03	579.2E6	291.5E6	97.836	96.789
10) CMB gamma-Chlordane	8.36	8.62	568.2E6	312.2E6	98.537	98.042
11) CMB alpha-Chlordane	8.63	8.91	533.9E6	294.9E6	98.256	96.774
12) CMB 4,4'-DDE	8.80	9.28	453.4E6	277.2E6	99.881	98.096
13) CMA Dieldrin	9.39	9.58	564.5E6	320.6E6	99.371	97.968
14) CMA Endrin	9.86	10.21	433.9E6	238.2E6	98.437	98.240
15) CMB Endosulfan II	10.32	10.65	479.8E6	295.7E6	94.906	95.586
16) CMA 4,4'-DDD	10.02	10.48	415.9E6	225.9E6	96.051	95.580
17) CMA 4,4'-DDT	10.59	11.13	385.7E6	219.3E6	104.846	105.088
18) CMB Endrin Aldehyde	11.19	11.36	377.9E6	211.5E6	94.557	96.943
19) CMB Endosulfan Sulfa	12.09	11.94	441.6E6	249.6E6	94.722	93.569
20) CMA Methoxychlor	11.62	12.60	198.9E6	107.8E6	100.923	100.920
21) CMB Endrin Ketone	12.67	13.05	574.0E6	332.0E6	94.699	93.942

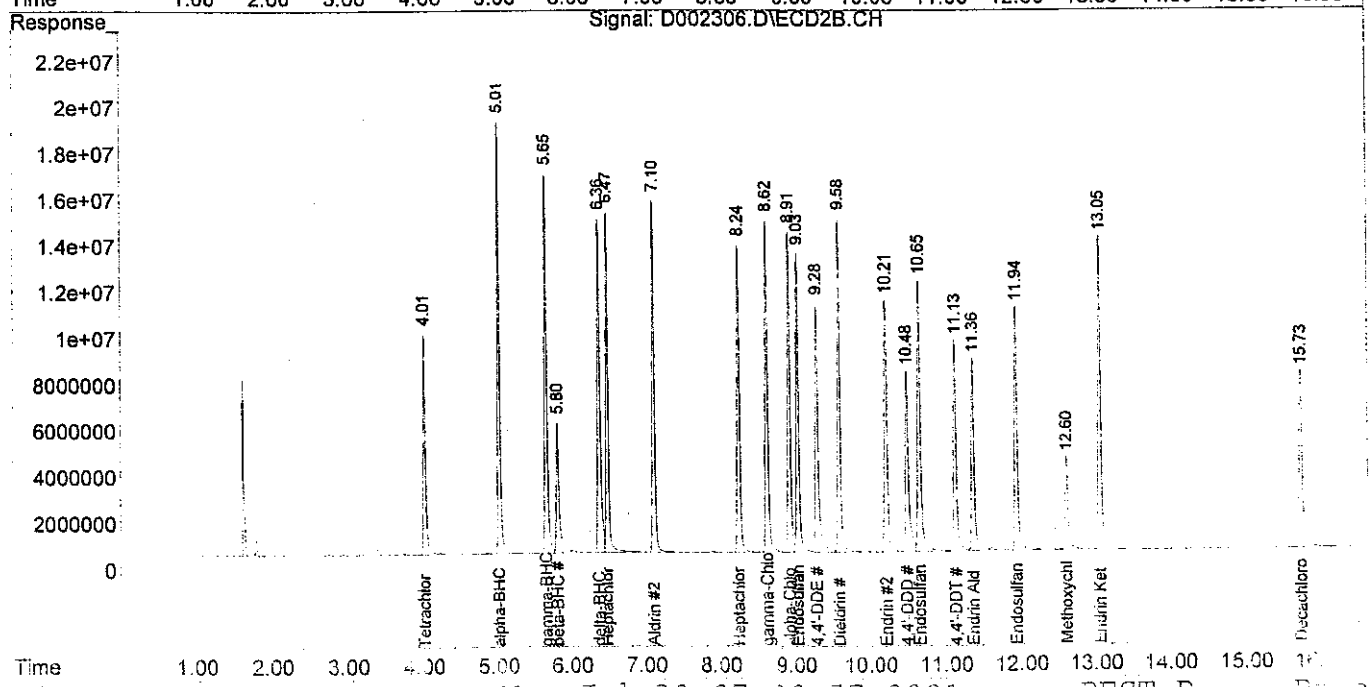
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002306.D\ECD1A.CH Vial: 8
Signal #2 : E:\DATA\072901\D002306.D\ECD2B.CH
Acq On : 29 Jul 2001 12:58 Operator: RL
Sample : 100PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002307.D\ECD1A.CH Vial: 9
Signal #2 : E:\DATA\072901\D002307.D\ECD2B.CH
Acq On : 29 Jul 2001 13:27 Operator: RL
Sample : 150PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:30:59 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

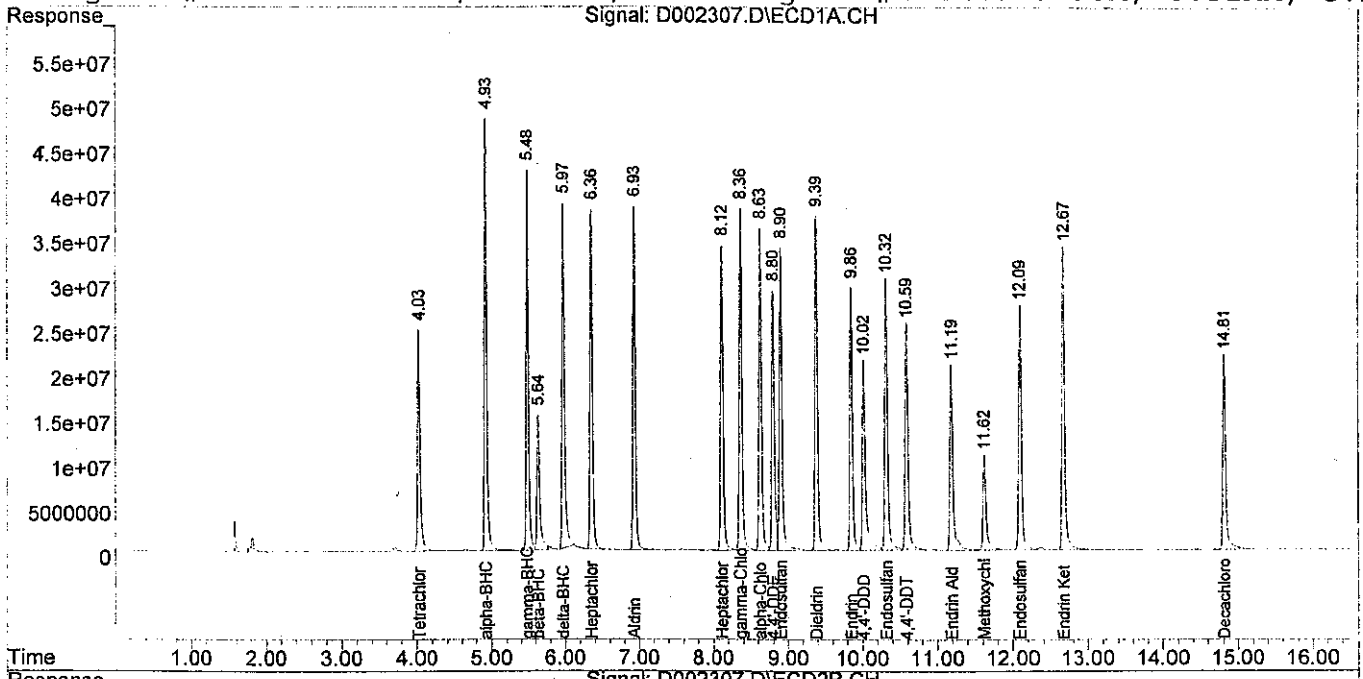
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	518.6E6	276.0E6	140.992	141.929
Spiked Amount 100.000			Recovery =		140.99%	141.93%
22) CSA Decachlorobiphen	14.81	15.73	620.8E6	334.7E6	151.677	137.544
Spiked Amount 100.000			Recovery =		151.68%	137.54%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	997.0E6	538.9E6	154.900	153.336
3) CMA gamma-BHC (Linda	5.48	5.65	913.0E6	494.9E6	151.411	151.310
4) CMA Heptachlor	6.36	6.47	797.5E6	452.3E6	149.343	146.324
5) CMB Aldrin	6.93	7.10	842.0E6	462.5E6	147.450	147.363
6) CMB beta-BHC	5.64	5.80	388.6E6	215.6E6	138.510	142.617
7) CMB delta-BHC	5.97	6.36	946.4E6	512.0E6	158.169	158.092
8) CMB Heptachlor Epoxi	8.12	8.24	774.2E6	424.3E6	145.660	144.884
9) CMA Endosulfan I	8.90	9.03	863.2E6	436.2E6	145.809	144.804
10) CMB gamma-Chlordane	8.37	8.62	866.3E6	475.2E6	150.225	149.193
11) CMB alpha-Chlordane	8.63	8.91	811.4E6	447.3E6	149.331	146.811
12) CMB 4,4'-DDE	8.80	9.28	725.8E6	435.6E6	159.896	154.142
13) CMA Dieldrin	9.39	9.58	866.3E6	489.7E6	152.498	149.669
14) CMA Endrin	9.86	10.21	682.3E6	370.1E6	154.780	152.621
15) CMB Endosulfan II	10.32	10.65	768.8E6	454.6E6	152.058	146.934
16) CMA 4,4'-DDD	10.02	10.48	667.4E6	354.4E6	154.150	149.981
17) CMA 4,4'-DDT	10.59	11.13	636.6E6	358.9E6	173.025	171.984
18) CMB Endrin Aldehyde	11.19	11.36	575.6E6	316.0E6	144.001	144.827
19) CMB Endosulfan Sulfa	12.09	11.94	691.1E6	388.9E6	148.247	145.792
20) CMA Methoxychlor	11.62	12.60	313.6E6	171.3E6	159.111	160.346
21) CMB Endrin Ketone	12.67	13.05	889.0E6	512.3E6	146.663	144.944

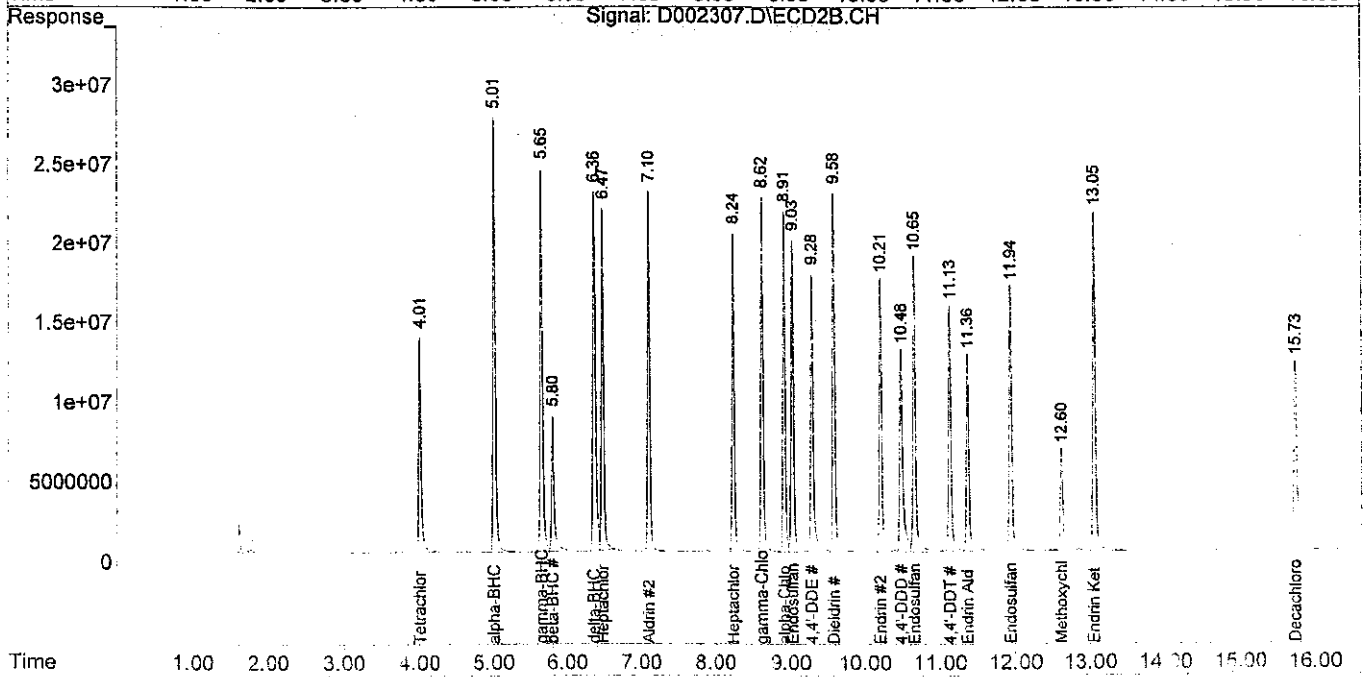
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002307.D\ECD1A.CH Vial: 9
Signal #2 : E:\DATA\072901\D002307.D\ECD2B.CH
Acq On : 29 Jul 2001 13:27 Operator: RL
Sample : 150PPB PEST IC Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:31 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002308.D\ECD1A.CH Vial: 10
Signal #2 : E:\DATA\072901\D002308.D\ECD2B.CH
Acq On : 29 Jul 2001 13:56 Operator: RL
Sample : 50PPB PEST ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 07:31:09 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

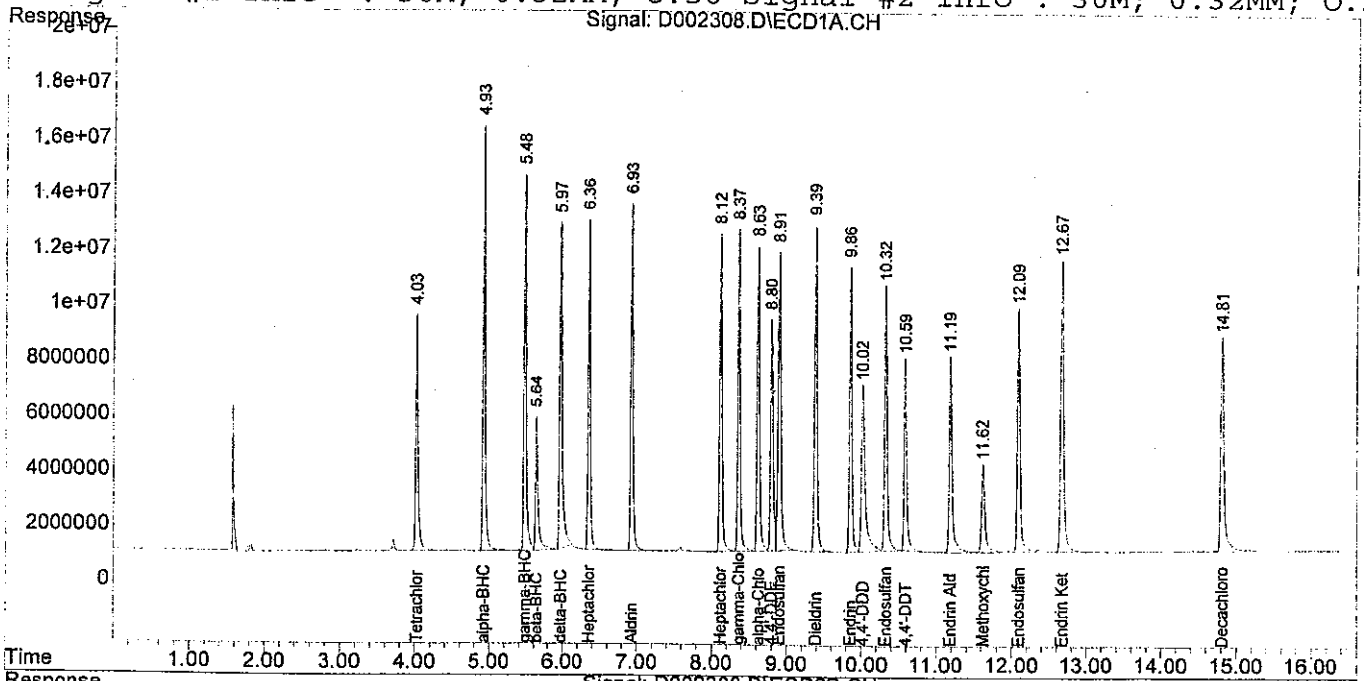
Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	175.7E6	91354169	47.752 96	46.984 94
Spiked Amount 100.000			Recovery =		47.75%	46.98%
22) CSA Decachlorobiphen	14.81	15.73	224.9E6	119.2E6	52.096 104	48.994 98
Spiked Amount 100.000			Recovery =		52.10%	48.99%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	304.8E6	162.2E6	47.353	46.163
3) CMA gamma-BHC (Linda	5.48	5.65	287.7E6	153.7E6	47.711	46.995
4) CMA Heptachlor	6.36	6.48	251.8E6	141.1E6	47.157	45.647
5) CMB Aldrin	6.93	7.10	272.5E6	147.7E6	47.727	47.058
6) CMB beta-BHC	5.64	5.80	134.7E6	72376032	48.028	47.869
7) CMB delta-BHC	5.97	6.36	288.2E6	152.1E6	48.158	46.954
8) CMB Heptachlor Epoxi	8.12	8.24	258.7E6	139.6E6	48.672	47.687
9) CMA Endosulfan I	8.91	9.03	271.7E6	142.0E6	45.900	47.134
10) CMB gamma-Chlordane	8.37	8.62	267.3E6	147.5E6	46.357	46.302
11) CMB alpha-Chlordane	8.63	8.92	253.7E6	142.8E6	46.691	46.866
12) CMB 4,4'-DDE	8.80	9.29	213.6E6	133.3E6	47.056	47.173
13) CMA Dieldrin	9.39	9.59	267.7E6	154.3E6	47.129	47.145
14) CMA Endrin	9.86	10.21	238.1E6	129.0E6	54.005	53.205
15) CMB Endosulfan II	10.32	10.66	246.1E6	151.8E6	48.680	49.054
16) CMA 4,4'-DDD	10.03	10.49	207.3E6	111.0E6	47.879	46.989
17) CMA 4,4'-DDT	10.59	11.13	176.8E6	99477710	48.069	47.666
18) CMB Endrin Aldehyde	11.19	11.36	197.6E6	109.1E6	49.440	49.995
19) CMB Endosulfan Sulfa	12.09	11.94	228.3E6	127.4E6	48.966	47.761
20) CMA Methoxychlor	11.62	12.61	97404240	53133050	49.426	49.733
21) CMB Endrin Ketone	12.67	13.06	280.6E6	161.0E6	46.293	45.537

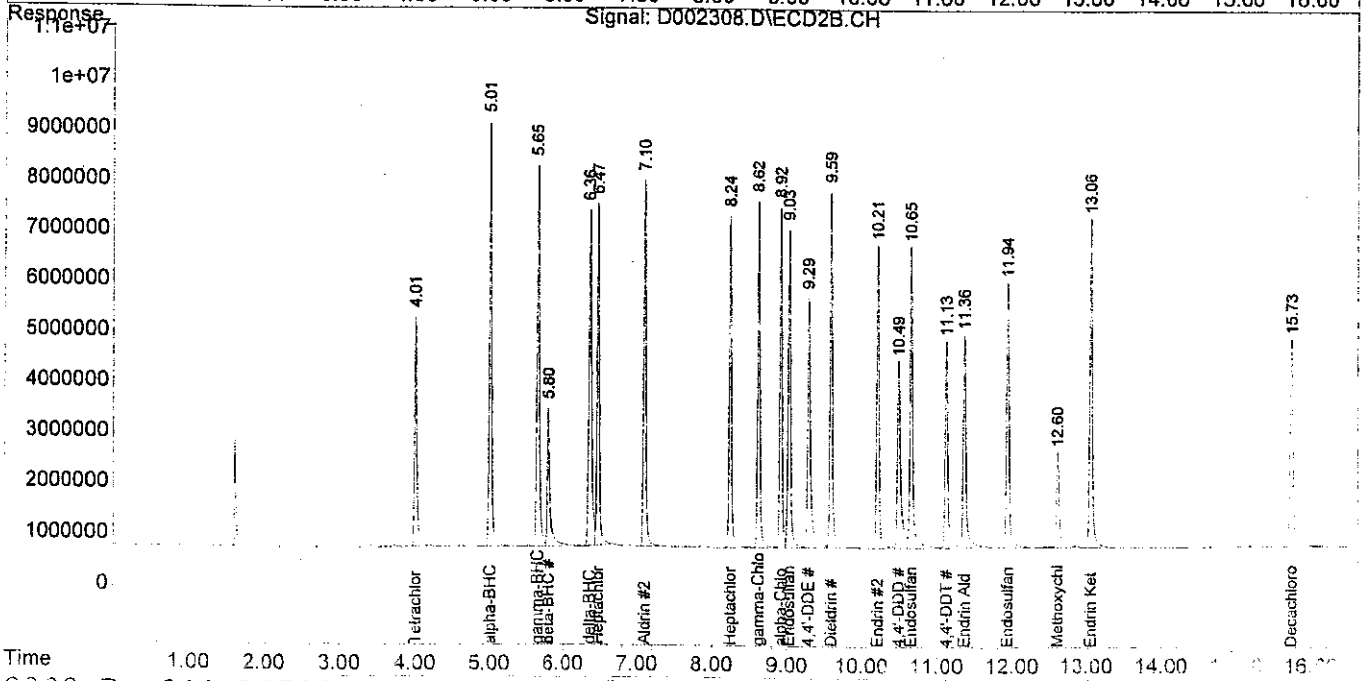
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002308.D\ECD1A.CH Vial: 10
Signal #2 : E:\DATA\072901\D002308.D\ECD2B.CH
Acq On : 29 Jul 2001 13:56 Operator: RL
Sample : 50PPB PEST ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 7:31 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 06:47:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002310.D\ECD1A.CH Vial: 12
Signal #2 : E:\DATA\072901\D002310.D\ECD2B.CH
Acq On : 29 Jul 2001 14:53 Operator: RL
Sample : 2500PPB TOXAPHENE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 07:17:16 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

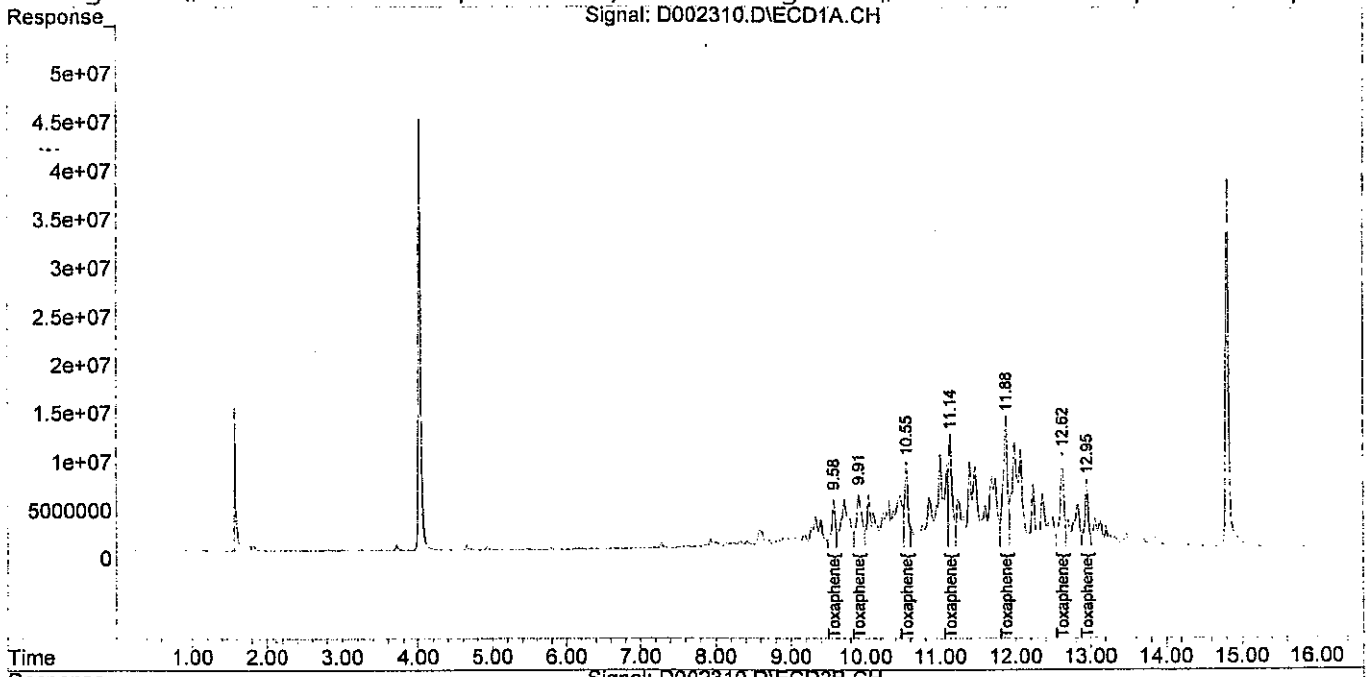
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	Target Compounds						
1)	L1 Toxaphene{1}	9.58	10.83	164.5E6	255.8E6	2500.000	2500.000
2)	L1 Toxaphene{2}	9.91	11.37	292.8E6	256.3E6	2500.000	2500.000
3)	L1 Toxaphene{3}	10.55	11.82	286.5E6	187.6E6	2500.000	2500.000
4)	L1 Toxaphene{4}	11.14	12.44	367.3E6	325.2E6	2500.000	2500.000
5)	L1 Toxaphene{5}	11.88	12.56	572.3E6	289.4E6	2500.000	2500.000
6)	L1 Toxaphene{6}	12.63	13.26	344.0E6	165.5E6	2500.000	2500.000
7)	L1 Toxaphene{7}	12.95	13.67	229.2E6	107.5E6	2500.000	2500.000
	Sum Toxaphene			2256.6E6	1587.4E6	17500.000	17500.000
Average	Toxaphene					2500.000	2500.000

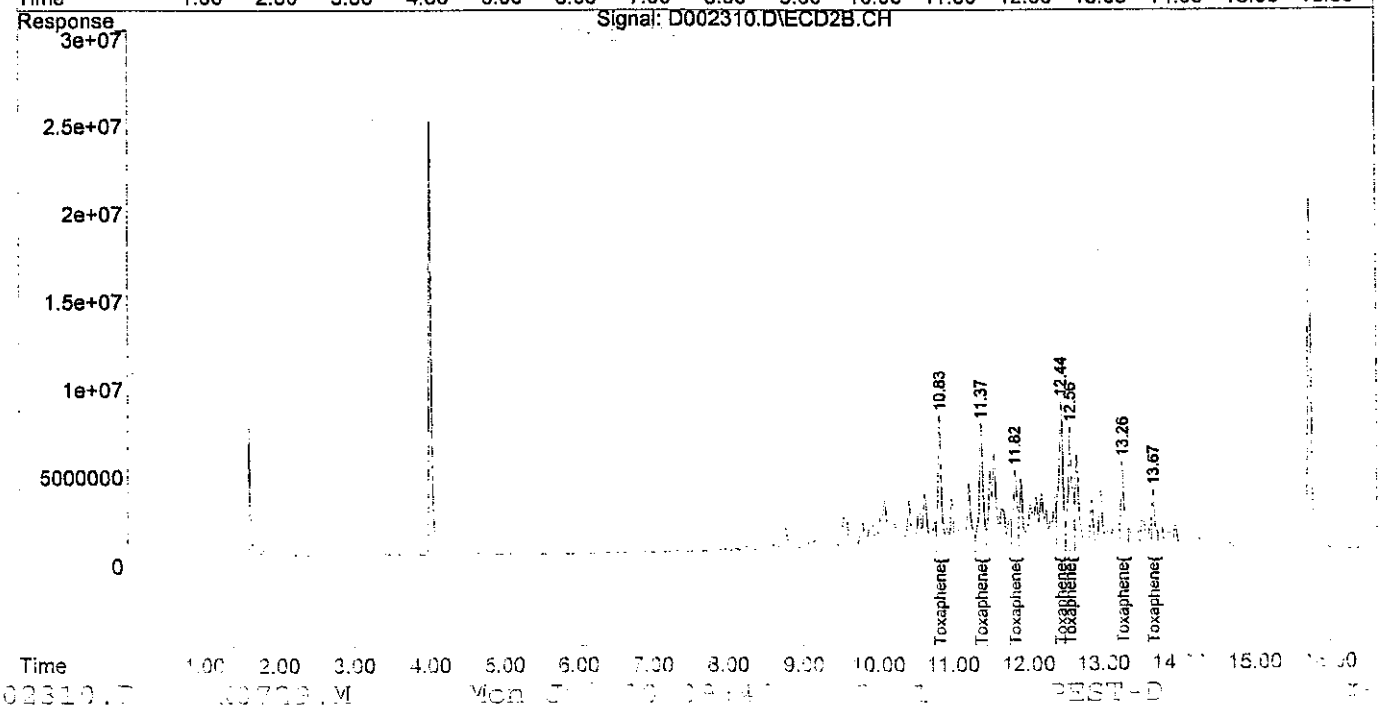
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002310.D\ECD1A.CH Vial: 12
Signal #2 : E:\DATA\072901\D002310.D\ECD2B.CH
Acq On : 29 Jul 2001 14:53 Operator: RL
Sample : 2500PPB TOXAPHENE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 7:17 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





D002310.D TOX0729.M Mon Jul 30 07:17:04 2001 PEST-D

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002309.D\ECD1A.CH Vial: 11
Signal #2 : E:\DATA\072901\D002309.D\ECD2B.CH
Acq On : 29 Jul 2001 14:24 Operator: RL
Sample : 250PPB CHLORDANE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 08:06:58 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	Target Compounds						
1)	L1 Chlordane{1}	6.21	6.20	35885676	18952883	250.000	250.000
2)	L1 Chlordane{2}	6.36	6.48	63978512	34151517	250.000	250.000
3)	L1 Chlordane{3}	7.19	8.62	57873263	77040655	250.000	250.000
4)	L1 Chlordane{4}	7.99	8.80	23864129	64268111	250.000	250.000
5)	L1 Chlordane{5}	8.37	8.91	142.4E6	61498256	250.000	250.000
6)	L1 Chlordane{6}	8.60	10.39	117.9E6	12997531	250.000	250.000
7)	L1 Chlordane{7}	10.18	7.40	48213799	31713002	250.000	250.000
	Sum Chlordane			490.1E6	300.6E6	1750.000	1750.000
Average	Chlordane					250.000	250.000

Quantitation Report (Not Reviewed)

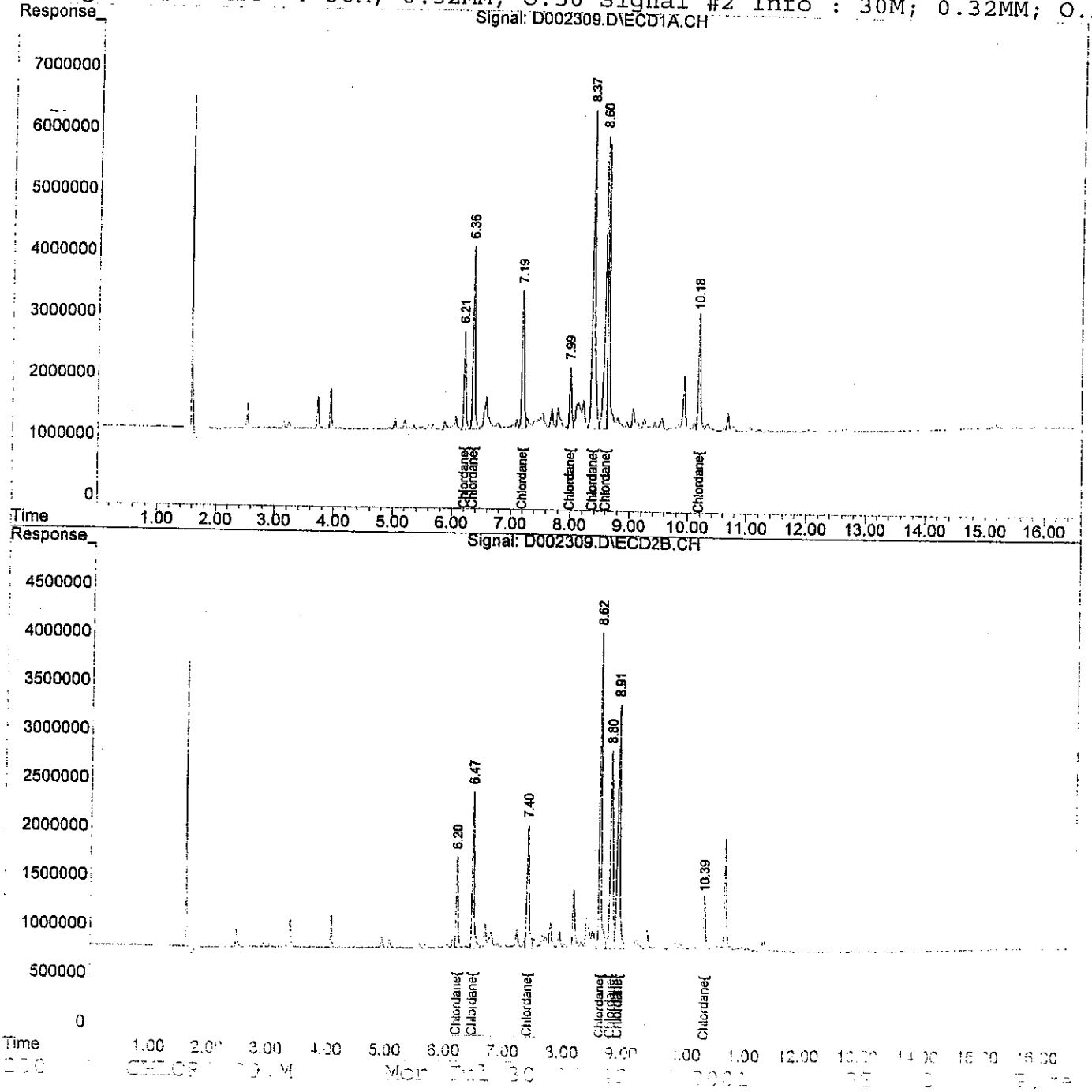
Signal #1 : E:\DATA\072901\D002309.D\ECD1A.CH
Signal #2 : E:\DATA\072901\D002309.D\ECD2B.CH
Acq On : 29 Jul 2001 14:24
Sample : 250PPB CHLORDANE ICV
Misc :

Vial: 11
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 8:06 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM



Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002310.D\ECD1A.CH Vial: 12
Signal #2 : E:\DATA\072901\D002310.D\ECD2B.CH
Acq On : 29 Jul 2001 14:53 Operator: RL
Sample : 2500PPB TOXAPHENE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 07:17:16 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	Target Compounds						
1)	L1 Toxaphene{1}	9.58	10.83	164.5E6	255.8E6	2500.000	2500.000
2)	L1 Toxaphene{2}	9.91	11.37	292.8E6	256.3E6	2500.000	2500.000
3)	L1 Toxaphene{3}	10.55	11.82	286.5E6	187.6E6	2500.000	2500.000
4)	L1 Toxaphene{4}	11.14	12.44	367.3E6	325.2E6	2500.000	2500.000
5)	L1 Toxaphene{5}	11.88	12.56	572.3E6	289.4E6	2500.000	2500.000
6)	L1 Toxaphene{6}	12.63	13.26	344.0E6	165.5E6	2500.000	2500.000
7)	L1 Toxaphene{7}	12.95	13.67	229.2E6	107.5E6	2500.000	2500.000
	Sum Toxaphene			2256.6E6	1587.4E6	17500.000	17500.000
	Average Toxaphene					2500.000	2500.000

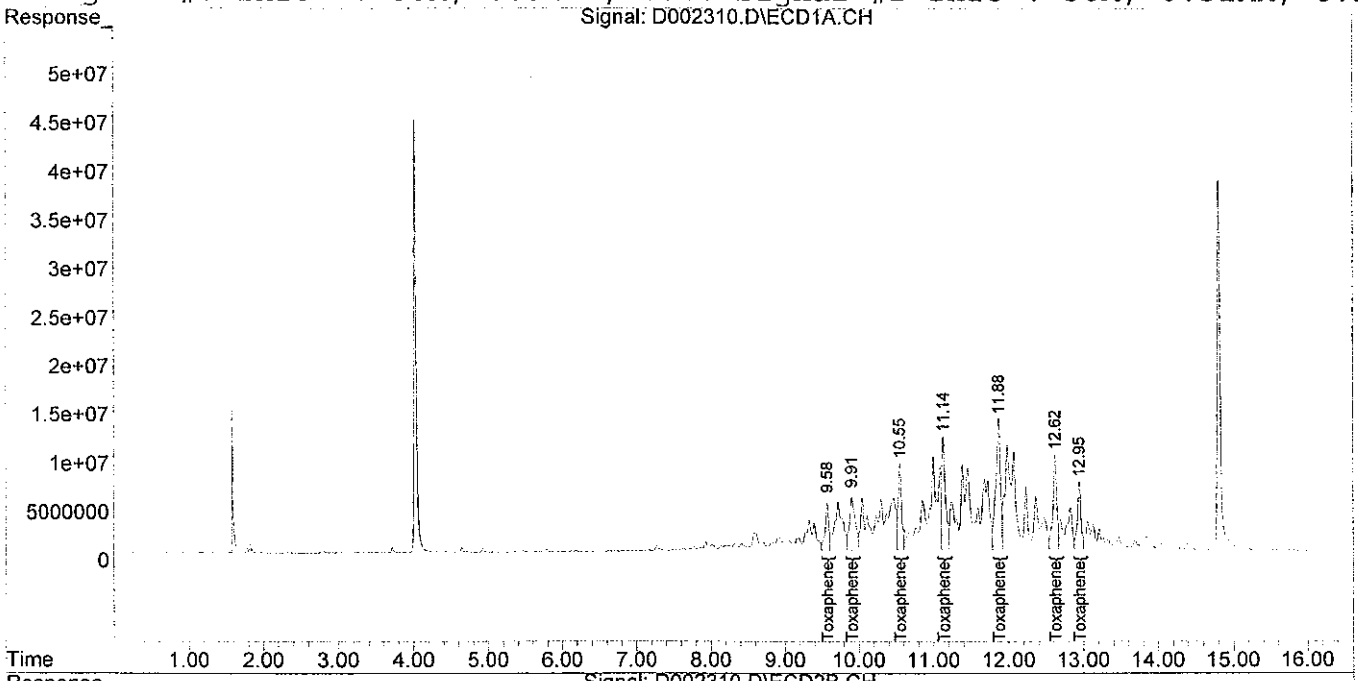
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

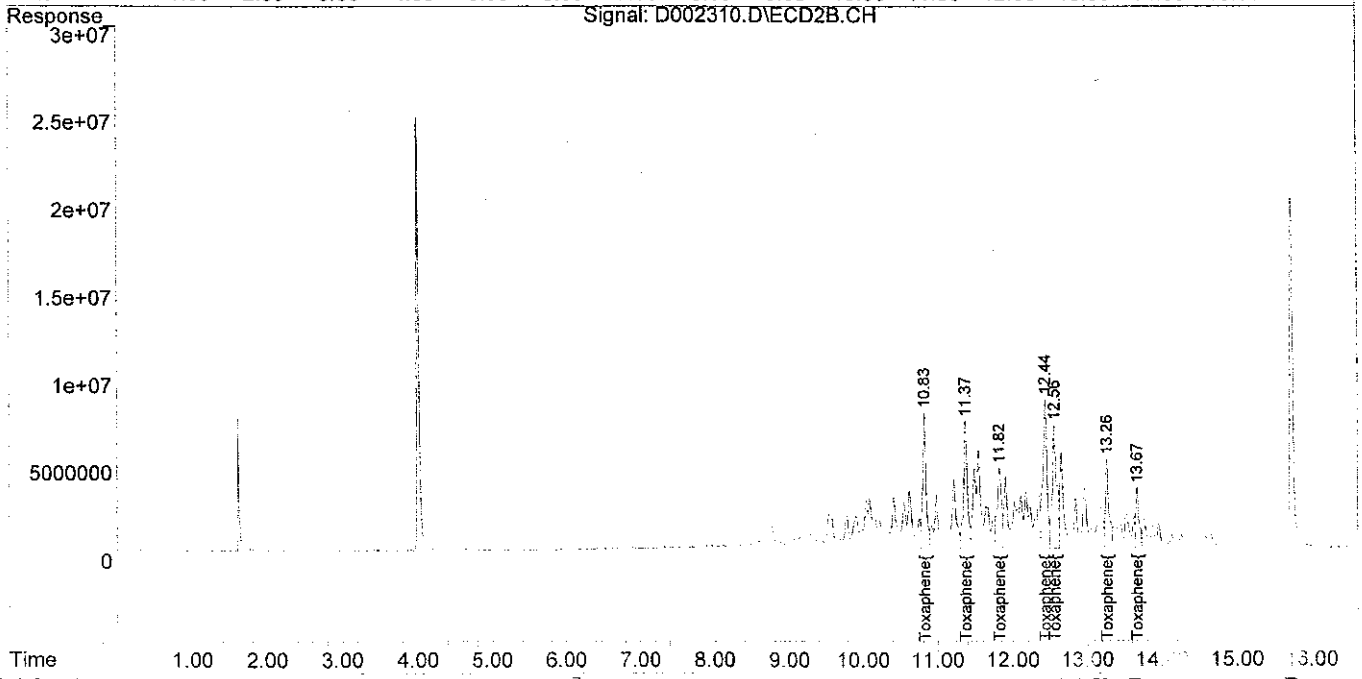
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002310.D\ECD1A.CH Vial: 12
Signal #2 : E:\DATA\072901\D002310.D\ECD2B.CH
Acq On : 29 Jul 2001 14:53 Operator: RL
Sample : 2500PPB TOXAPHENE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 7:17 2001 Quant Results File: TOX0729.RES

Quant Method : E:\METHODS\TOX0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 07:17:04 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002309.D\ECD1A.CH Vial: 11
Signal #2 : E:\DATA\072901\D002309.D\ECD2B.CH
Acq On : 29 Jul 2001 14:24 Operator: RL
Sample : 250PPB CHLORDANE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 08:06:58 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

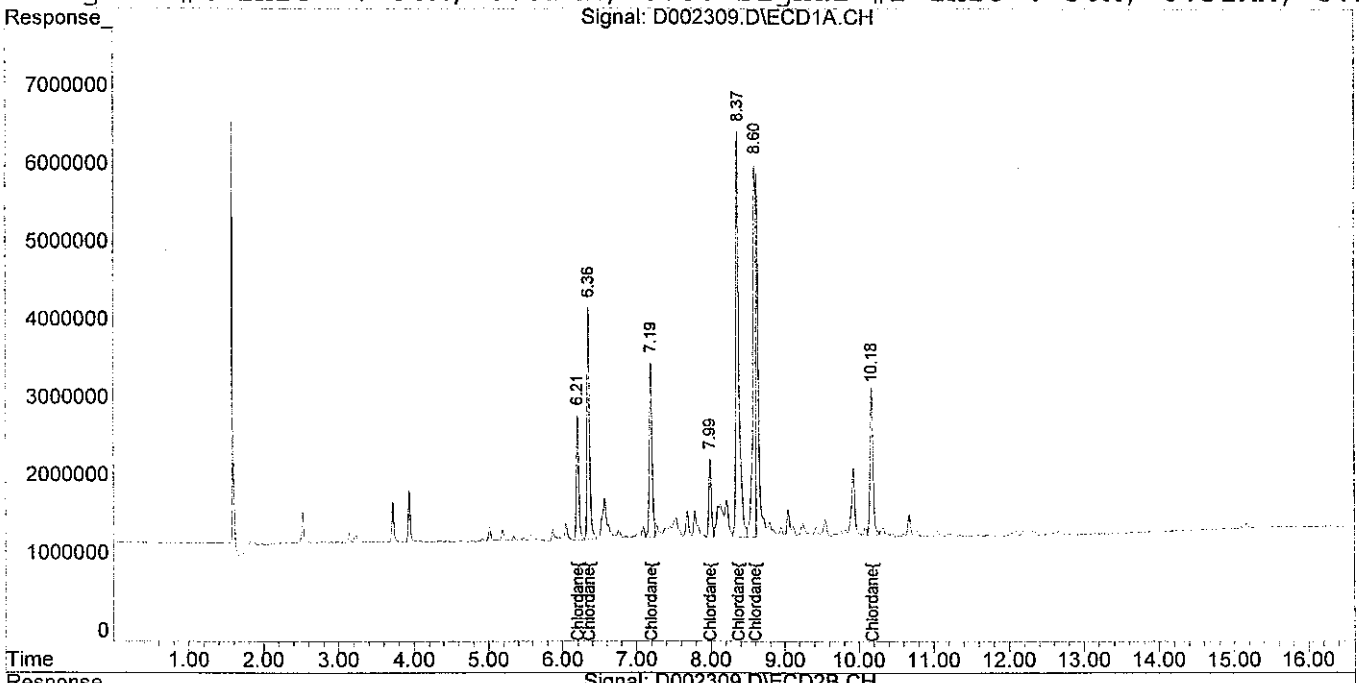
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	Target Compounds						
1)	L1 Chlordane{1}	6.21	6.20	35885676	18952883	250.000	250.000
2)	L1 Chlordane{2}	6.36	6.48	63978512	34151517	250.000	250.000
3)	L1 Chlordane{3}	7.19	8.62	57873263	77040655	250.000	250.000
4)	L1 Chlordane{4}	7.99	8.80	23864129	64268111	250.000	250.000
5)	L1 Chlordane{5}	8.37	8.91	142.4E6	61498256	250.000	250.000
6)	L1 Chlordane{6}	8.60	10.39	117.9E6	12997531	250.000	250.000
7)	L1 Chlordane{7}	10.18	7.40	48213799	31713002	250.000	250.000
	Sum Chlordane			490.1E6	300.6E6	1750.000	1750.000
Average	Chlordane					250.000	250.000

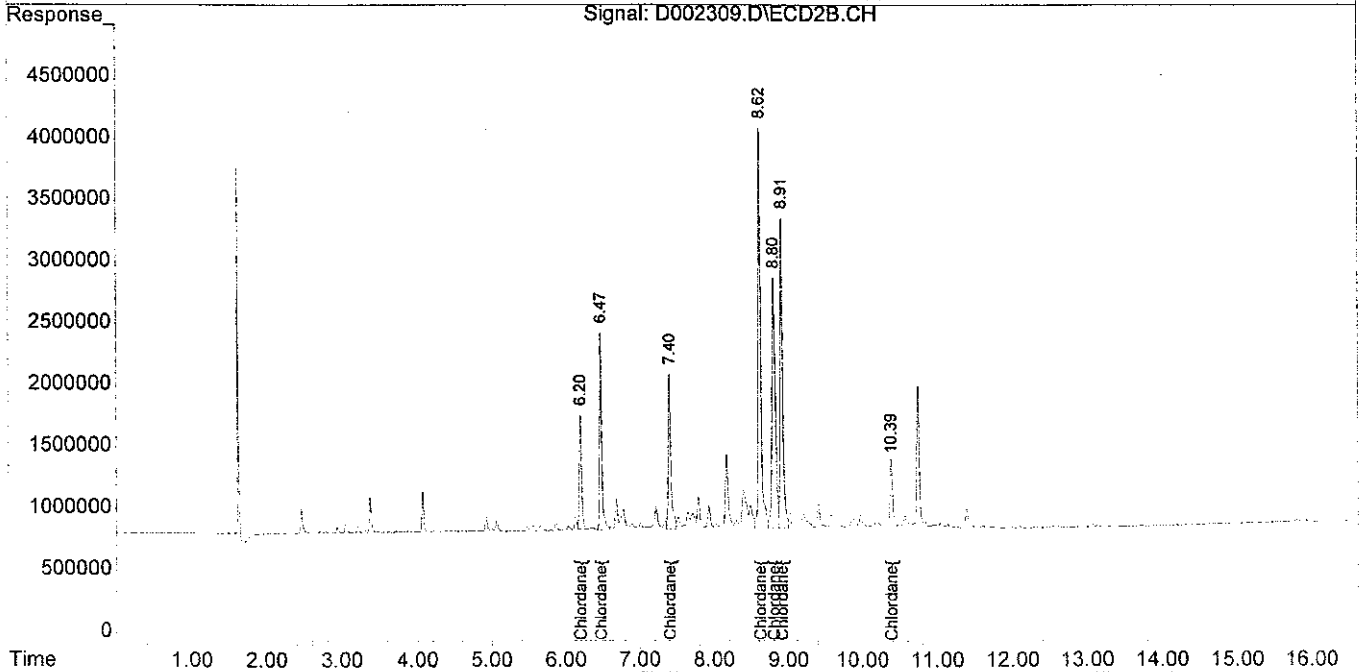
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002309.D\ECD1A.CH Vial: 11
Signal #2 : E:\DATA\072901\D002309.D\ECD2B.CH
Acq On : 29 Jul 2001 14:24 Operator: RL
Sample : 250PPB CHLORDANE ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: EVENTS2.E
Quant Time: Jul 30 8:06 2001 Quant Results File: CHLOR0729.RES

Quant Method : E:\METHODS\CHLOR0729.M (Chemstation Integrator)
Title : SW846-8081A
Last Update : Mon Jul 30 08:06:55 2001
Response via : Single Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL each
Signal #1 Phase : Rtx-CLPPesticides Signal #2 Phase: Rtx-CLPPesticides2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002308.D\ECD1A.CH Vial: 10
Signal #2 : E:\DATA\072901\D002308.D\ECD2B.CH
Acq On : 29 Jul 2001 13:56 Operator: RL
Sample : 50PPB PEST ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 09:41:20 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; O.50 Signal #2 Info : 30M; 0.32MM; O.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	175.7E6	91354169	47.752	46.984
Spiked Amount 100.000			Recovery =		47.75%	46.98%
22) CSA Decachlorobiphen	14.81	15.73	224.9E6	119.2E6	52.096	48.994
Spiked Amount 100.000			Recovery =		52.10%	48.99%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	304.8E6	162.2E6	47.353	46.163
3) CMA gamma-BHC (Linda	5.48	5.65	287.7E6	153.7E6	47.711	46.995
4) CMA Heptachlor	6.36	6.48	251.8E6	141.1E6	47.157	45.647
5) CMB Aldrin	6.93	7.10	272.5E6	147.7E6	47.727	47.058
6) CMB beta-BHC	5.64	5.80	134.7E6	72376032	48.028	47.869
7) CMB delta-BHC	5.97	6.36	288.2E6	152.1E6	48.158	46.954
8) CMB Heptachlor Epoxi	8.12	8.24	258.7E6	139.6E6	48.672	47.687
9) CMA Endosulfan I	8.91	9.03	271.7E6	142.0E6	45.900	47.134
10) CMB gamma-Chlordane	8.37	8.62	267.3E6	147.5E6	46.357	46.302
11) CMB alpha-Chlordane	8.63	8.92	253.7E6	142.8E6	46.691	46.866
12) CMB 4,4-DDE	8.80	9.29	213.6E6	133.3E6	47.056	47.173
13) CMA Dieldrin	9.39	9.59	267.7E6	154.3E6	47.129	47.145
14) CMA Endrin	9.86	10.21	238.1E6	129.0E6	54.005	53.205
15) CMB Endosulfan II	10.32	10.66	246.1E6	151.8E6	48.680	49.054
16) CMA 4,4-DDD	10.03	10.49	207.3E6	111.0E6	47.879	46.989
17) CMA 4,4-DDT	10.59	11.13	176.8E6	99477710	48.069	47.666
18) CMB Endrin Aldehyde	11.19	11.36	197.6E6	109.1E6	49.440	49.995
19) CMB Endosulfan Sulfa	12.09	11.94	228.3E6	127.4E6	48.966	47.761
20) CMA Methoxychlor	11.62	12.61	97404240	53133050	49.426	49.733
21) CMB Endrin Ketone	12.67	13.06	280.6E6	161.0E6	46.293	45.537

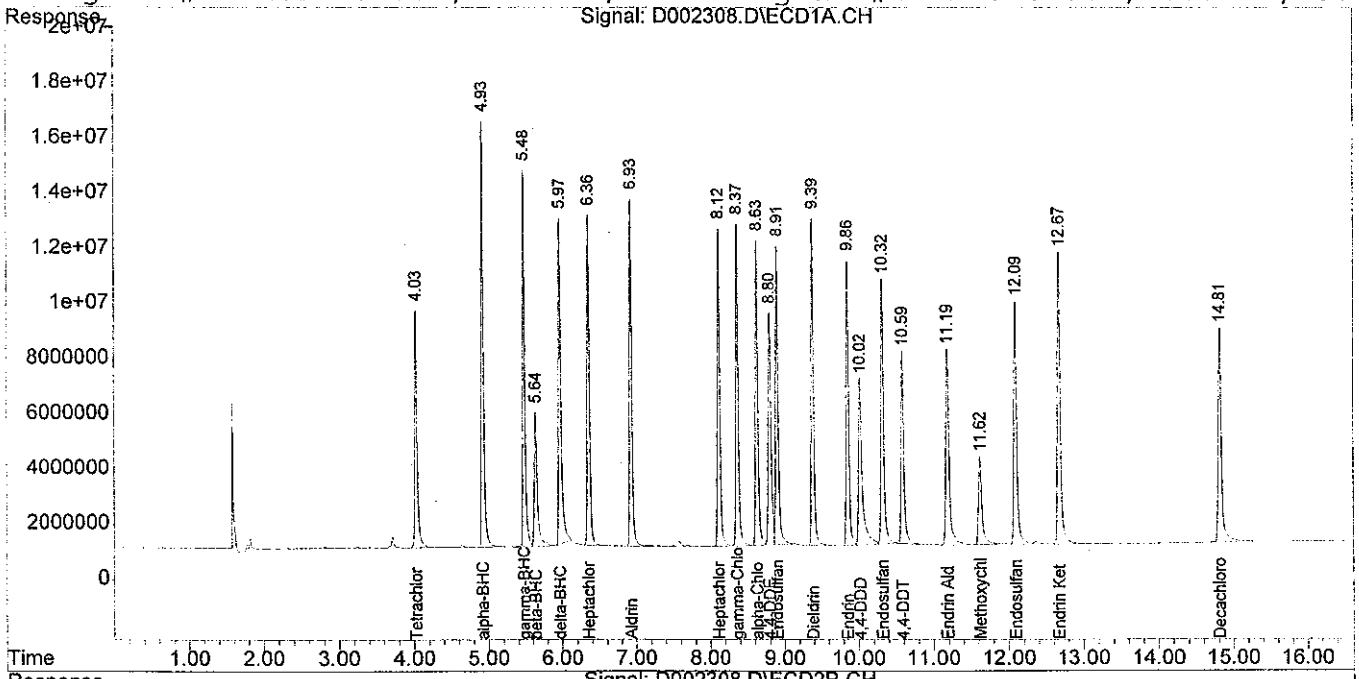
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

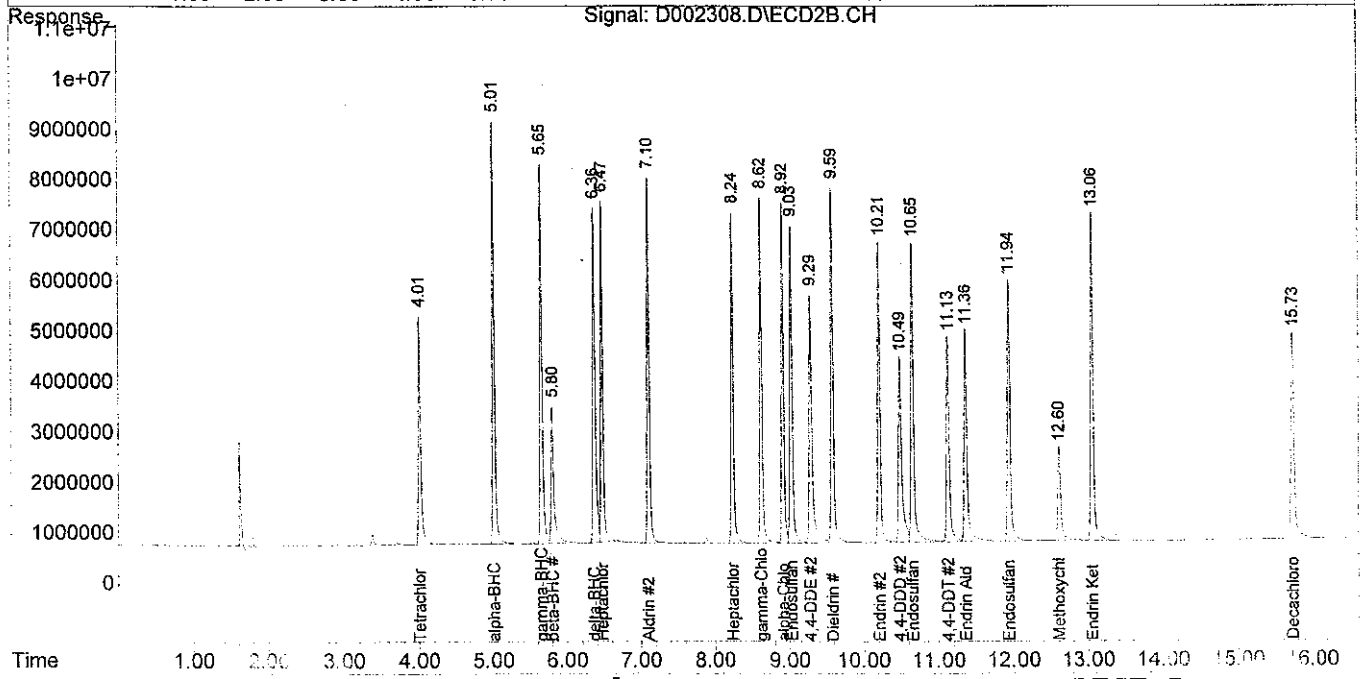
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\072901\D002308.D\ECD1A.CH Vial: 10
Signal #2 : E:\DATA\072901\D002308.D\ECD2B.CH
Acq On : 29 Jul 2001 13:56 Operator: RL
Sample : 50PPB PEST ICV Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Jul 30 9:41 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002333.D\ECD1A.CH
Acq On : 30 Jul 2001 1:55
Sample :
Misc : 50PPB PEST CCV
IntFile : AUTOINT1.E

Vial: 35
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

Data File : E:\DATA\072901\D002333.D\ECD2B.CH
Acq On : 30 Jul 2001 1:55
Sample : STANDARD
Misc :
IntFile : AUTOINT2.E

Vial: 35
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

Quant Time: Jul 30 09:41:30 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.03	4.01	155.5E6	82739095	42.281	42.553
Spiked Amount 100.000			Recovery	=	42.28%	42.55%
22) CSA Decachlorobiphen	14.81	15.73	215.5E6	118.2E6	49.863	48.588
Spiked Amount 100.000			Recovery	=	49.86%	48.59%
Target Compounds						
2) CMA alpha-BHC	4.93	5.01	277.6E6	151.3E6	43.131	43.041
3) CMA gamma-BHC (Linda	5.48	5.65	263.0E6	143.9E6	43.613	44.009
4) CMA Heptachlor	6.35	6.47	233.5E6	140.1E6	43.729	45.314
5) CMB Aldrin	6.93	7.10	251.0E6	139.3E6	43.956	44.375
6) CMB beta-BHC	5.64	5.80	126.3E6	71376329	45.038	47.208
7) CMB delta-BHC	5.97	6.36	282.2E6	152.9E6	47.156	47.198
8) CMB Heptachlor Epoxi	8.12	8.24	241.0E6	133.3E6	45.348	45.532
9) CMA Endosulfan I	8.90	9.02	267.1E6	140.0E6	45.119	46.488
10) CMB gamma-Chlordane	8.36	8.62	264.9E6	147.6E6	45.938	46.345
11) CMB alpha-Chlordane	8.63	8.91	250.1E6	140.8E6	46.036	46.201
12) CMB 4,4-DDE	8.80	9.28	223.5E6	137.4E6	49.238	48.613
13) CMA Dieldrin	9.39	9.58	262.7E6	152.8E6	46.236	46.685
14) CMA Endrin	9.86	10.21	210.2E6	117.9E6	47.678	48.643
15) CMB Endosulfan II	10.32	10.65	235.4E6	147.9E6	46.558	47.818
16) CMA 4,4-DDD	10.02	10.48	210.2E6	118.1E6	48.548	49.984
17) CMA 4,4-DDT	10.59	11.13	191.8E6	110.7E6	52.146	53.057
18) CMB Endrin Aldehyde	11.19	11.36	194.8E6	111.1E6	48.740	50.905
19) CMB Endosulfan Sulfa	12.09	11.94	224.0E6	128.7E6	48.041	48.247
20) CMA Methoxychlor	11.62	12.60	108.1E6	58767816	54.869	55.008
21) CMB Endrin Ketone	12.67	13.05	291.2E6	171.8E6	48.038	48.611

Quantitation Report (Not Reviewed)

Data File : E:\DATA\072901\D002333.D\ECD1A.CH
Acq On : 30 Jul 2001 1:55
Sample :
Misc : 50PPB PEST CCV
IntFile : AUTOINT1.E

Vial: 35
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

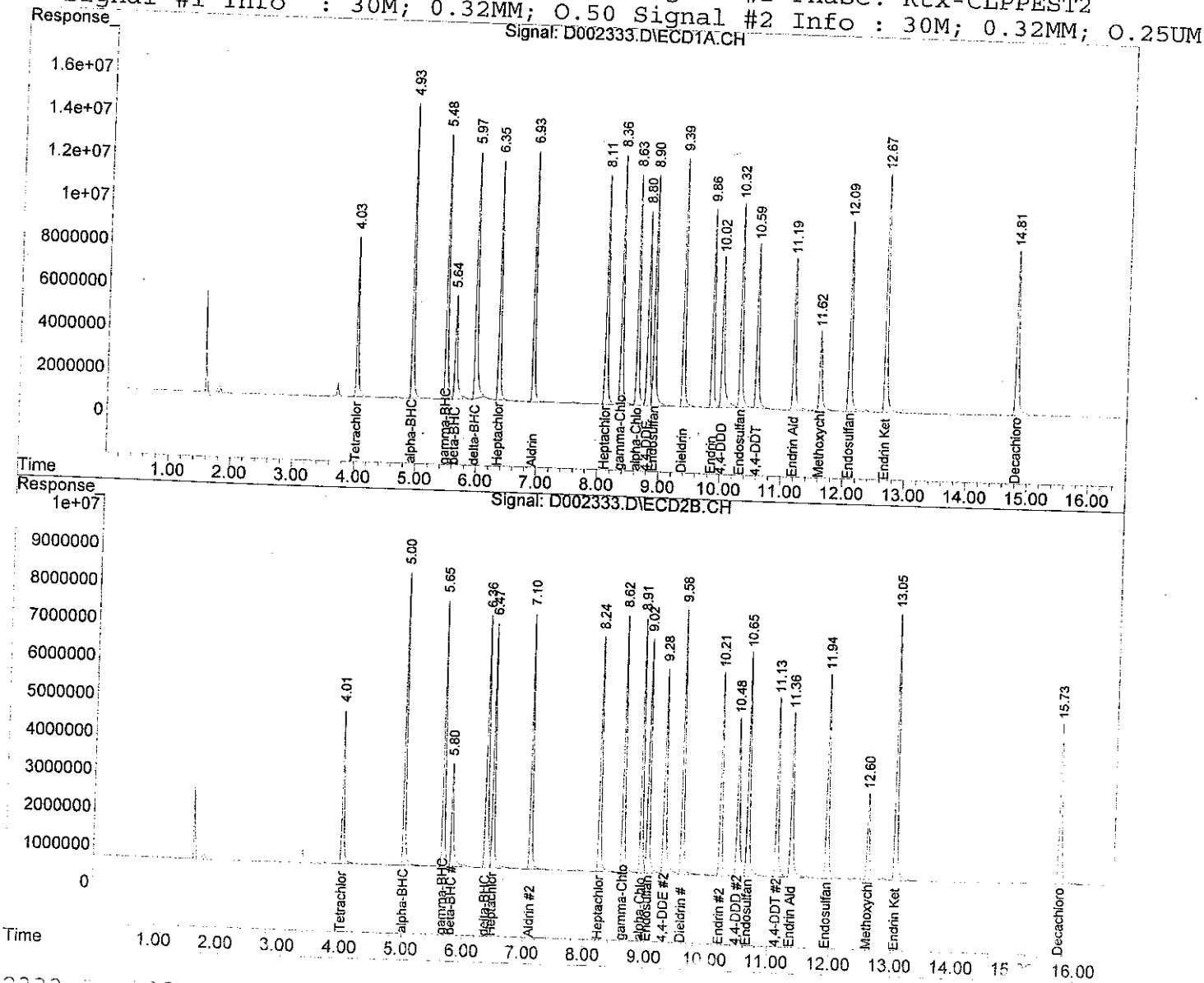
Data File : E:\DATA\072901\D002333.D\ECD2B.CH
Acq On : 30 Jul 2001 1:55
Sample : STANDARD
Misc :
IntFile : AUTOINT2.E

Vial: 35
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

Quant Time: Jul 30 9:41 2001 Quant Results File: 8081A0729.RES

Quant Method : E:\METHODS\8081A0729.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Mon Jul 30 08:24:08 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1
Signal #1 Info : 30M; 0.32MM; 0.50
Signal #2 Phase: Rtx-CLPPEST2
Signal #2 Info : 30M; 0.32MM; 0.25UM



ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC16854 **Accura Project #:** 28368

Client: CH2M HILL - CCI Date Sampled: 7/13/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 8/31/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: 017-060-39-IDW-Q2-01

CN = ∠ MDL = 0.2
TI = 0.0086
sulfide ID

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50 U
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/17/01 Result Units: °F

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ignitability/Flash Point	>140		80

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020 U

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.38	JB	1.0 U
Antimony	0.0031	J	0.0060
Arsenic	<RL		0.050
Barium	0.26	J	0.50
Beryllium	<RL		0.0030
Cadmium	0.00070	J	0.0050
Calcium	22		1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	0.0054	J	0.050
Iron	27		0.10
Lead	<RL		0.010
Magnesium	0.72		0.050
Manganese	0.094		0.050
Nickel	<RL		0.010
Potassium	4.8		1.0
Selenium	<RL		0.050
Silver	<RL		0.050

Sodium	31		1.0	
Vanadium	0.0022	J	0.010	
Zinc	~~0.029~~	JB	1.0 U	(BLK

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.53
Aroclor-1221	<RL		0.53
Aroclor-1232	<RL		0.53
Aroclor-1242	<RL		0.53
Aroclor-1248	<RL		0.53
Aroclor-1254	<RL		0.53
Aroclor-1260	<RL		0.53

ANALYSIS: Pesticides Navy Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits	
4,4'-DDD	<RL		0.11	
4,4'-DDE	<RL		0.11	
4,4'-DDT	<RL		0.11	
Aldrin	<RL		0.053	
alpha- Chlordane	<RL		0.053	
alpha-BHC	<RL		0.053	
alpha-Endosulfan	~~0.035~~ <RL	JB	0.053 U	(blk)
beta-BHC	<RL		0.053	
beta-Endosulfan	<RL		0.11	
delta-BHC	<RL		0.053	
Dieldrin	<RL		0.11	
Endosulfan sulfate	<RL		0.11	
Endrin	<RL		0.11	
Endrin aldehyde	<RL		0.11	
Endrin Ketone	<RL		0.11	
gamma-BHC	<RL		0.053	
gamma-Chlordane	<RL		0.053	
Heptachlor	<RL		0.053	
Heptachlor epoxide	<RL		0.053	
Methoxychlor	<RL		0.53	
Toxaphene	<RL		5.3	

ANALYSIS: pH (Water) Method Ref: 9040B

Date Ext/Dig/Prep: 7/16/01 Date Analyzed: 7/16/01 Result Units: pH units

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
pH	6.9	J	

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

Reactive Cyanide	<RL		0.10 MDL: 0.2

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	42		5.0 MDL = 10

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10

Dibenzofuran	<RL		10
Diethylphthalate	<RL		10
Dimethylphthalate	<RL		10
Di-n-butylphthalate	<RL		10
Di-n-octylphthalate	<RL		10
Fluoranthene	<RL		10
Fluorene	<RL		10
Hexachlorobenzene	<RL		10
Hexachlorobutadiene	<RL		10
Hexachlorocyclopentadiene	<RL		10
Hexachloroethane	<RL		10 UR
Indeno(1,2,3-cd)pyrene	<RL		10
Naphthalene	<RL		10
Nitrobenzene	<RL		10
N-Nitroso-di-n-propylamine	<RL		10 UR
N-Nitrosodiphenylamine	<RL		10
Pentachlorophenol	<RL		50
Phenanthrene	<RL		10
Phenol	<RL		10
Pyrene	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	3.3	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X Herbicide Sample Surrogates-W Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range D-164)	79		

ANALYSIS: X PCB Sample Surrogates (Waters Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-128)	58		

ANALYSIS: X Pest Sample Surrogates (Water Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	53		
Tetrachloro-m-xylene (Range 30-150)	54		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	99		
4-Bromofluorobenzene (80-120)	114		
Toluene-d8 (80-119)	99		

ANALYSIS: X SVOC Sample Surrogates (Waters Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

2,4,6-Tribromophenol	(Range 28-142)	103
2-Fluorobiphenyl	(Range 21-122)	82
2-Fluorophenol	(Range 11-114)	53
Nitrobenzene-d5	(Range 16-125)	92
Phenol-d6	(Range 9-109)	84
p-Terphenyl-d14	(Range 5-157)	88

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC16855** **Accura Project #:** **28368**

Client: **CH2M HILL - CCI** Date Sampled: 7/14/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 8/31/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.18	J	1.0
Antimony	<RL		0.0060
Arsenic	<RL		0.050
Barium	0.00070	J	0.50
Beryllium	<RL		0.0030
Cadmium	<RL		0.0050
Calcium	0.097	J	1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	<RL		0.050
Iron	<RL		0.10
Lead	<RL		0.010
Magnesium	<RL		0.050
Manganese	0.00070	J	0.050
Nickel	<RL		0.010
Potassium	0.061	J	1.0
Selenium	<RL		0.050
Silver	<RL		0.050
Sodium	0.47	J	1.0
Thallium	<RL		0.0050 0.008 U?
Vanadium	<RL		0.010
Zinc	0.017	J	1.0

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		0.50
Aroclor-1232	<RL		0.50
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Navy Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.10
4,4'-DDE	<RL		0.10
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha- Chlordane	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	0.018	J	0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.10
delta-BHC	<RL		0.050
Dieldrin	<RL		0.10
Endosulfan sulfate	<RL		0.10
Endrin	<RL		0.10
Endrin aldehyde	<RL		0.10
Endrin Ketone	<RL		0.10
gamma-BHC	<RL		0.050
gamma-Chlordane	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.50
Toxaphene	<RL		5.0

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.10

0.2 = MDL?

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	<RL		5.0

MDL = 10

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/26/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10
Dibenzofuran	<RL		10
Diethylphthalate	<RL		10
Dimethylphthalate	<RL		10
Di-n-butylphthalate	<RL		10
Di-n-octylphthalate	<RL		10
Fluoranthene	<RL		10

Fluorene	<RL	10	U
Hexachlorobenzene	<RL	10	
Hexachlorobutadiene	<RL	10	
Hexachlorocyclopentadiene	<RL	10	UR
Hexachloroethane	<RL	10	U
Indeno(1,2,3-cd)pyrene	<RL	10	
Naphthalene	<RL	10	
Nitrobenzene	<RL	10	
N-Nitroso-di-n-propylamine	<RL	10	UR
N-Nitrosodiphenylamine	<RL	10	
Pentachlorophenol	<RL	50	U
Phenanthrene	<RL	10	
Phenol	<RL	10	
Pyrene	<RL	10	

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 U
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12

Client Sample ID: METHOD BLANK AALSample ID #: AC16855 Accura Project #: 28368

Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X Herbicide QC Surrogates-Water Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range 58-110)	93		

ANALYSIS: X PCB QC Surrogates (Waters) Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 46-138)	79		

ANALYSIS: X Pest QC Surrogates (Waters) Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	85		
Tetrachloro-m-xylene (Range 30-150)	38		

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	97		

ANALYSIS: X SVOC QC Surrogates (Waters) Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/26/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 25-127)	101		
2-Fluorobiphenyl (Range 27-121)	90		
2-Fluorophenol (Range 24-101)	61		
Nitrobenzene-d5 (Range 24-114)	95		
Phenol-d6 (Range 26-104)	94		
p-Terphenyl-d14 (Range 28-139)	120		

28368

Responses to October 9, 2001 Data Memo
CH2MHill Contractors Inc.

AAL Project#: (28368,) 28507, 28508, 28512, 28530, 28744, 28764

Has the laboratory demonstrated acceptable control or precision and accuracy results. (Both
(Y) N 1 laboratory control and matrix spike/duplicate samples fail bias low.)
Comments: See QA-0111008

Does Case Narrative provide language towards steps taken by the laboratory to assure acceptable
(Y) N 2 recovery. (28512, 28744)
Comments: See QA 0111008

Does laboratory provide acceptable surrogate recovery for FL-PRO analyses. (The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve
(Y) N 3 acceptable recovery.) (28512, 28744)
Comments: No FLPRO requested. See QA-0111015

Is this taken care of: The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND
(Y) N 4 below the reporting limit." (28744)
Comments: See QA-0111022

Is this taken care of: The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample
(Y) N 5 volume was due to multiple analyses. (28512, 28744)
Comments: See QA-0111029

(Y) N 6 ~~Total dissolved solid~~ Oil & Grease 11/19/01 were analyzed outside holding time(28512)?
Comments:
See QA-0111036

Is this taken care of: Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as
(Y) N 7 stated in the CCI contract. (28512, 28744)
Comments: See QA-0111043

Is this taken care of: Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does
(Y) (N) 8 not indicate that the integration is a manual determination. (28512, 28744)
Comments: See QA-0111050

Is this taken care of: EDD: Laboratory cannot report data less than their method detection limit.
(Y) N 9 (28744)
Comments: See QA-0111058

Is this taken care of: EDD: Associated data qualifier codes should be presented in specified column.
(Y) N 10 (28512, 28744)
Comments: See QA-0111065

Is this taken care of: EDD: Surrogate compounds for FL PRO are not identified in Method Blank.
Y N 11 (28744)
Comments: No FLPRO requested; See QA-0111072

Note: new reports attached are included since thallium was analyzed by a subcontractor and not by MAL: So Tl removed from TAL metals list.
Jane 11/21/01

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC16854** **Accura Project #:** **28368**

Client: **CH2M HILL - CCI** Date Sampled: 7/13/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 11/21/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: **017-060-39-IDW-Q2-01**

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/17/01 Result Units: °F

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ignitability/Flash Point	>140		80

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.38	JB	1.0
Antimony	0.0031	J	0.0060
Arsenic	<RL		0.050
Barium	0.26	J	0.50
Beryllium	<RL		0.0030
Cadmium	0.00070	J	0.0050
Calcium	22		1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	0.0054	J	0.050
Iron	27		0.10
Lead	<RL		0.010
Magnesium	0.72		0.050
Manganese	0.094		0.050
Nickel	<RL		0.010
Potassium	4.8		1.0
Selenium	<RL		0.050
Silver	<RL		0.050

Sodium	31		1.0
Vanadium	0.0022	J	0.010
Zinc	0.029	JB	1.0

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.53
Aroclor-1221	<RL		0.53
Aroclor-1232	<RL		0.53
Aroclor-1242	<RL		0.53
Aroclor-1248	<RL		0.53
Aroclor-1254	<RL		0.53
Aroclor-1260	<RL		0.53

ANALYSIS: Pesticides Navy - W Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.11
4,4'-DDE	<RL		0.11
4,4'-DDT	<RL		0.11
Aldrin	<RL		0.053
alpha- Chlordane	<RL		0.053
alpha-BHC	<RL		0.053
alpha-Endosulfan	~~0.035~~	~~JB~~	0.053 u - BIK
beta-BHC	<RL		0.053
beta-Endosulfan	<RL		0.11
delta-BHC	<RL		0.053
Dieldrin	<RL		0.11
Endosulfan sulfate	<RL		0.11
Endrin	<RL		0.11
Endrin aldehyde	<RL		0.11
Endrin Ketone	<RL		0.11
gamma-BHC	<RL		0.053
gamma-Chlordane	<RL		0.053
Heptachlor	<RL		0.053
Heptachlor epoxide	<RL		0.053
Methoxychlor	<RL		0.53
Toxaphene	<RL		5.3

ANALYSIS: pH (Water/Liquids) Method Ref: 9040B

Date Ext/Dig/Prep: 7/16/01 Date Analyzed: 7/16/01 Result Units: pH units

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
pH	6.9	Y	

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

Reactive Cyanide	<RL		0.10

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	42		5.0

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10

Dibenzofuran	<RL	10
Diethylphthalate	<RL	10
Dimethylphthalate	<RL	10
Di-n-butylphthalate	<RL	10
Di-n-octylphthalate	<RL	10
Fluoranthene	<RL	10
Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	50
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	3.3	J	7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X Herbicide Sample Surrogates-W Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range D-164)	79		

ANALYSIS: X PCB Sample Surrogates (Waters Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-128)	58		

ANALYSIS: X Pest Sample Surrogates (Water Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	53		
Tetrachloro-m-xylene (Range 30-150)	54		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	99		
4-Bromofluorobenzene (80-120)	114		
Toluene-d8 (80-119)	99		

ANALYSIS: X SVOC Sample Surrogates (Waters Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/27/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits

2,4,6-Tribromophenol	(Range 28-142)	103
2-Fluorobiphenyl	(Range 21-122)	82
2-Fluorophenol	(Range 11-114)	53
Nitrobenzene-d5	(Range 16-125)	92
Phenol-d6	(Range 9-109)	84
p-Terphenyl-d14	(Range 5-157)	88

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC16855 **Accura Project #:** 28368

Client: CH2M HILL - CCI Date Sampled: 7/14/01

Client Contact: J. WILMOTH Date Received: 7/14/01

Client Project Number: 152044.33.03.03.30 Date Reported: 11/21/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 39 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Metals - Mercury -TAL Method Ref: 7470A

Date Ext/Dig/Prep: 7/24/01 Date Analyzed: 7/26/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - TAL Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 7/18/01 Date Analyzed: 7/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aluminum	0.18	J	1.0
Antimony	<RL		0.0060
Arsenic	<RL		0.050
Barium	0.00070	J	0.50
Beryllium	<RL		0.0030
Cadmium	<RL		0.0050
Calcium	0.097	J	1.0
Chromium	<RL		0.050
Cobalt	<RL		0.010
Copper	<RL		0.050
Iron	<RL		0.10
Lead	<RL		0.010
Magnesium	<RL		0.050
Manganese	0.00070	J	0.050
Nickel	<RL		0.010
Potassium	0.061	J	1.0
Selenium	<RL		0.050
Silver	<RL		0.050
Sodium	0.47	J	1.0
Vanadium	<RL		0.010
Zinc	0.017	J	1.0

ANALYSIS: Metals-Thallium (7841) Method Ref: 7841

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/13/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Thallium	<RL		2

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		0.50
Aroclor-1232	<RL		0.50
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Navy - W Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.10
4,4'-DDE	<RL		0.10
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha- Chlordane	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	0.018	J	0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.10
delta-BHC	<RL		0.050
Dieldrin	<RL		0.10
Endosulfan sulfate	<RL		0.10
Endrin	<RL		0.10
Endrin aldehyde	<RL		0.10
Endrin Ketone	<RL		0.10
gamma-BHC	<RL		0.050
gamma-Chlordane	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.50
Toxaphene	<RL		5.0

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 7/26/01 Date Analyzed: 7/27/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.10

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	<RL		5.0

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/26/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10
Dibenzofuran	<RL		10
Diethylphthalate	<RL		10
Dimethylphthalate	<RL		10
Di-n-butylphthalate	<RL		10
Di-n-octylphthalate	<RL		10
Fluoranthene	<RL		10

Client Sample ID: METHOD BLANK AALSample ID #: AC16855 Accura Project #: 28368

Fluorene	<RL		10
Hexachlorobenzene	<RL		10
Hexachlorobutadiene	<RL		10
Hexachlorocyclopentadiene	<RL		10
Hexachloroethane	<RL		10
Indeno(1,2,3-cd)pyrene	<RL		10
Naphthalene	<RL		10
Nitrobenzene	<RL		10
N-Nitroso-di-n-propylamine	<RL		10
N-Nitrosodiphenylamine	<RL		10
Pentachlorophenol	<RL		50
Phenanthrene	<RL		10
Phenol	<RL		10
Pyrene	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12

Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X Herbicide QC Surrogates-Water Method Ref: 8151A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/18/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range 58-110)	93		

ANALYSIS: X PCB QC Surrogates (Waters) Method Ref: 8082

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/20/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 46-138)	79		

ANALYSIS: X Pest QC Surrogates (Waters) Method Ref: 8081A

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/29/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-150)	85		
Tetrachloro-m-xylene (Range 30-150)	38		

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 7/23/01 Date Analyzed: 7/23/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	97		

ANALYSIS: X SVOC QC Surrogates (Waters) Method Ref: 8270C

Date Ext/Dig/Prep: 7/17/01 Date Analyzed: 7/26/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 25-127)	101		
2-Fluorobiphenyl (Range 27-121)	90		
2-Fluorophenol (Range 24-101)	61		
Nitrobenzene-d5 (Range 24-114)	95		
Phenol-d6 (Range 26-104)	94		
p-Terphenyl-d14 (Range 28-139)	120		

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111008

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not demonstrate acceptable control or precision and accuracy results. Both laboratory control and matrix spike/duplicate samples fail bias low.
Case Narrative does not provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
Recovery limits specified do not reflect in-house performance. See revised case narrative attached to QA-0111029.

Resolution recorded by: KMClemons Date: 11/15/01

Copied to (circle one): Bonnie Hogue (Michael Trinidad) David Fuller Kelly Clemons (John P) (Diana) (magdalia)

QA Comments
Future Tables will reflect laboratory limits.
KMclemons 11/15/01

QA Review by: KMClemons Date: 11/15/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111015

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not provide acceptable surrogate recovery for FL-PRO analyses. The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons
Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

Not Applicable

Resolution recorded by: KMclemons Date: 11/15/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/15/01

QA Review by: KMclemons Date: 11/15/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111022

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Resubmit summary reports and EDD to reflect result equal to or above the associated MDL.

N/A for project 28368
Correction of EDD corrected this issue. KMC 11/21/01

Resolution recorded by: KMC Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

C.R 11/21/01

QA Review by: KMC Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111029

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results. Attached. KMC 11/15/01
2. Include client project communication regarding inadequate sample volume available to meet contract quality control requirements. See below.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Although not enough sample was provided as stated in #1 above, the Project Specific Notes incorrectly communicated "Batch QC" to the lab. See attached for the referenced notes. See QA-0111057 - mechanism for project implementation which will correct this for future. The QA-0111057 has an SOP w/section specific checklists.

QA Review by: KMClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

J:\QATracking\AuditsTracking\ClientAudits\CCI\LQCF-QA0111029.doc

00000

NOTES FOR 28368

NAVY Level III Project - CCI LEVEL C

Need one good print-out of all cal., MS/MSD and LCS data.

Batch QC

Full Spike

QC Table on common drive.

Report all Flags,("J", "B", etc.)

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

AAL Project #: 28368

Client Project: CTO 17-NTC Orlando-Study Area 39 / 152044.33.03.03.30

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following sample was received by Accura Analytical Laboratory on 07/14/01 at 1040:

Client I.D.	Laboratory I.D.
017-OLD-39-IDW-Q2-01	AC16854

2. The sample cooler temperature was noted to be 4^0C upon receipt.

3. A subcontract laboratory performed Thallium by method 7841.

4. The "J" values noted for the Pesticides, Metals-TAL, and VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "B" values noted for the Pesticides and Metals-TAL results indicate that the compounds were detected in the samples and in the blank.

6. The "Y" value noted for the pH analysis indicates that the sample was analyzed outside the EPA recommended holding time.

7. The pH of the sample was 1.0 for the VOC analysis.

8. The detection limits were elevated for the sample due to limited sample volume:

   Pesticides-SW-846-8081A PCB-SW-846-8082

9. Batch QC for the Herbicides, SVOC, Pesticides, and PCB analyses consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume received from the client as indicated on the COC. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as matrix spike and matrix spike duplicate recoveries on the QC spreadsheet.

10. The laboratory control sample and laboratory control sample duplicate recoveries (LCS/LCSD) were outside the project specified limit for the following analytes:

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A2LA Accredited-ID: 120261 •Certificate #-1365.1•Exp 7/31/02 Effective 8/14/00•Scope: Testing Technologies Potable & Non-potable Water-Solid/Hazardous Waste

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

SVOC-SW-846-8270C
LCS/LCSD - N-Nitroso-di-n-propylamine Hexachlorocyclopentadiene

The limits provided are not generated in-house and therefore do not reflect actual laboratory performance.

11. The following spike recoveries were outside the project specified limits:

Reactive Cyanide-SW-846-7.332
Matrix Spike Duplicate - Reactive Cyanide.

The limits provided are not generated in-house and therefore do not reflect actual laboratory performance.

12. Tentatively Identified Compounds were reported as quantitative estimates.

13. Total Xylenes are flagged with an "m" to indicate that the m,p-xylenes and o-xylene were calibrated for separately and manipulated automatically by the HP Chem Station Software to produce Total Xylenes.

Approved for Quality Assurance Release By:

Kelly M. Clemons 11/16/01
Kelly M. Clemons Date
Quality Assurance Manager

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Environmental Analytical Services
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Laboratory Quality Communication Form
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111036

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Test ~~(Total dissolved solid)~~ were analyzed outside holding time(28512).
PH time 11/15/01

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Include client project communication regarding analyses performed outside holding time

there is no project communication to client regarding the stated issue. See below.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Although there is no evidence of client communication regarding the issue referenced here the mechanism for project implementation associated w/ QA-0111057 will correct this for future work. The SOP attached to QA-0111054 has section specific checklists which address this issue.

QA Review by: KMClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

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Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111043

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Summary reports from subcontract laboratory were provided for ~~chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity~~ thallium KMC 11/15/01. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:

1. Adhere to deliverable requirements for sub-contracted analyses. See data attached. KMC 11/17/01
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached original bid and the revised bid which indicate the intent to subcontract.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/26/01

QA Review by: KMClemons Date: 11/26/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

P. 02
FAX NO. 7704271907
NOV-15-2001 THU 02:47 PM ATC ASSOCIATES

Hygeia Laboratories, Inc.
Marietta, GA

DATA RESULT SHEETS - METALS PREPARATION

Project No.: M0108097
Matrix: soil (water) TCLP SPLP wipe filter paint chips other:
Analyst: VJ
Element: Pb Hg Other: (FL)
Calibration Curve ID: 010813.1015 GFAA
Date: 08/13/01
Analysis Method: SW-846 7420 7421 7470 7471 EPA 200.9 245.1 239.1 Other: (7844)
Batch ID: MDG010813A
Time: 10:15
Digestion Method: SW-846 3010A 3020A 3050B 7470 7471

	Sample Identification	Detection Limit (units)	Concentration (units)	Comments		Sample Identification	Detection Limit (units)	Concentration (units)	Comments
		PPB	PPB						
1	8097-01	2.00	BDL		16				
2	8097-02	2.00	BDL		17				
3	8097-03	2.00	BDL		18				
4					19				
5					20				
6					21				
7					22				
8					23				
9					24				
10					25				
11					26				
12					27				
13					28				
14					29				
15					30				

M

BDL = Below Detection Limit ppm = parts per million

Reviewed SR 08/16/01

File = Data-met

Hygeia Laboratories, Inc.
Marietta, GA

QC SUMMARY: ATOMIC ABSORPTION

PROJECT NO(S): mo108067, 8076, 8084, 8097, 80

ANALYSIS (circle 1): Flame AA (GF AA) CV AA CALIBRATION ID: 010813105 BFA

ELEMENT (circle 1): As Pb Hg Se (Tl) METHOD (circle 1): 7420 200.9 7470 7471 (7841)

ANALYSIS QC DATA

DATE: 08/13/01 TIME: 10:15 FILE: _____

	Initial Calibration		Continuing Verification							
	ICV/ICB	Limits	CCV/CC 1	CCV/CC 2	CCV/CC 3	CCV/CC 4	CCV/CC 5	CCV/CC 6	CCV/CC 7	Limits
% REC	101	95-105	102	105						
BLANK	BDL	< RL	BDL	BDL						< RL

True Value - ICV: 10.0 True Value - CCV: 10.0 Units: PPB

COMMENTS: _____ ALL OK

PREPARATION QC DATA

BATCH ID: MDG010813A MATRIX: Water PREP. DATE (m/d/y): 08/13/01 UNITS: PPB

LCS/LCSD Limits: Rec = 85-115 %; RPD = ±20%

True Value	LCS Result	LCS %Rec	LCSD Resul	LCSD %Rec	RPD
10.0	10.75	107	9.61	96	11

DUPLICATE Limits: Rec = RPD = ____%

Sample ID	Result	Duplicate	RPD

Use this data only if MS/MSD fails

METHOD BLANK Limit: < RL

Report Limit	Result
2.00	BDL

MS/MSD Limits: Rec = 75-125 %; RPD = ±20%

Sample ID	Result	Spike Conc.	MS Result	MS %Rec	MSD Result	MSD %Rec	RPD
8084-01	-0.02	10.0	9.61	96	10.01	100	4

COMMENTS: _____ (ALL OK)

PREPARATION QC DATA

BATCH ID: _____ MATRIX: _____ PREP. DATE (m/d/y): _____ UNITS: _____

LCS/LCSD Limits: Rec = _____%; RPD = ____%

True Value	LCS Result	LCS %Rec	LCSD Resul	LCSD %Rec	RPD

DUPLICATE Limits: Rec = RPD = ____%

Sample ID	Result	Duplicate	RPD

METHOD BLANK Limit: < RL

Report Limit	Result

MS/MSD Limits: Rec = _____%; RPD = ____%

Sample ID	Result	Spike Conc.	MS Result	MS %Rec	MSD Result	MSD %Rec	RPD

COMMENTS: _____ ALL OK

PREPARATION QC DATA

BATCH ID: _____ MATRIX: _____ PREP. DATE (m/d/y): _____ UNITS: _____

LCS/LCSD Limits: Rec = _____%; RPD = ____%

True Value	LCS Result	LCS %Rec	LCSD Resul	LCSD %Rec	RPD

DUPLICATE Limits: Rec = RPD = ____%

Sample ID	Result	Duplicate	RPD

METHOD BLANK Limit: < RL

Report Limit	Result

MS/MSD Limits: Rec = _____%; RPD = ____%

Sample ID	Result	Spike Conc.	MS Result	MS %Rec	MSD Result	MSD %Rec	RPD

COMMENTS: _____ ALL OK

Distribution: Original w/ raw data
Copies to each project file and QC dept.

Prepared By: _____ Date: _____

NOV-15-2001 THU 02:48 PM ATC ASSOCIATES FAX NO. 7704271907 P. 04

Hygeia Laboratories, Inc.

Marietta, GA

LOGBOOK NO. 010504-01

BATCH ID: M09010813A

Prep. Method (circle 1): EPA 200.9 206.2 239.2 279.2 (3020A)

Analysis Method: EPA 200.9 206.2 239.2 279.2 7060A 7421 (7841)

PERFORMED BY: VJ DATE(m/d/y): 08/13/01

MATRIX (circle 1): (WATER)

OTHER:

	SPIKE	ID	CONC.(µg/mL)	Exp. Date
S1	TI	M0107301	0-5	01/12/02
S2				
S3				

	Project Number	Lab Sample Number	Sample Amount mL	SPIKE ID	SPIKE Amt.(µL)	Final Volume (mL)	Comments
MB	NA	BLANK	50	NA		50	
LCS	NA	LCS		S1	1000	51	
LCSD		LCSD		S1	1000	51	
1	M0108067	8067-01					
2	M0108076	8076-01					
3	M0108084	8084-01					
4	M0108097	8097-01					
5		8097-02					
6		8097-03					
7	M0108099	8099-01					
8		8099-02					
9		8099-03					
10		8099-04					
11		WS-54					
12		WS-60					
13							
14							
15							
16							
17							
18							
19							
20							
MS	M0108084	8084-01MS	50	S1	1000	51	
MSD		8084-01MSD				50	
DUP		8084-01DUP				50	

Abbreviations: NA = not applicable

ARSENIC - EPA 200.9/206.2/7060A LEAD - EPA 200.9/239.2/7421 THALLIUM - EPA 200.9/279.2/7841

File = Lbgfaa

CCV	10.06	3.9	0.074	0.076	0.072
CCB	0.17	16.8	0.001	0.002	0.001
MB A 8/13	0.08	99.9	0.001	0.000	0.001
BLANK	0.00		0.001	0.000	0.003
LCS A 8/13	10.75	26.8	0.080	0.095	0.065
LCSD A 8/13	10.17	0.2	0.075	0.075	0.075
8084-01 DUP	-0.08	64.5	-0.001	-0.001	-0.000
8084-01 MS	9.61	23.0	0.070	0.082	0.059
8084-01 MSD	10.01	1.9	0.074	0.075	0.073
8067-01	-0.01	86.5	-0.000	-0.000	-0.000
8076-01	0.23	18.6	0.002	0.002	0.002
8084-01	-0.02	0.0	-0.000	-0.000	-0.000
8097-01	0.00	99.9	0.000	0.000	-0.000
CCV	10.23	13.7	0.076	0.083	0.068

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS	
CCB	-0.01	99.9	-0.000	-0.000	0.000
8097-02	-0.04	49.0	-0.000	-0.000	-0.000
8097-03	-0.09	99.9	-0.001	-0.001	-0.000
8099-01	-0.05	36.3	-0.000	-0.000	-0.001
8099-02	0.11	40.0	0.001	0.001	0.001
8099-03	0.26	9.4	0.002	0.002	0.002
8099-04	0.11	63.2	0.001	0.000	0.001
WS-54	0.61	9.5	0.005	0.005	0.005
WS-60	1.78	9.2	0.015	0.014	0.016
CCV	10.47	0.1	0.078	0.078	0.078
CCB	-0.12	45.6	-0.001	-0.001	-0.001
1	0.96	18.4	0.008	0.007	0.009
2	3.57	6.7	0.029	0.027	0.030
3	-0.01	99.9	-0.000	-0.001	0.001
4	0.24	9.9	0.002	0.002	0.002

rian SpectrAA 300/400 Zeeman Report

OPERATOR VJ
DATE 08/13/01
BATCH 10:15

PROGRAM 2 T1

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	2
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
85	10.0	3.0	NORMAL	NO
95	30.0	3.0	NORMAL	NO
125	10.0	3.0	NORMAL	NO
200	5.0	3.0	NORMAL	NO
400	5.0	3.0	NORMAL	NO
400	1.0	0.0	NORMAL	NO
400	2.0	0.0	NORMAL	YES
2200	0.9	0.0	NORMAL	YES
2200	2.0	3.0	NORMAL	NO
2400	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (mL)

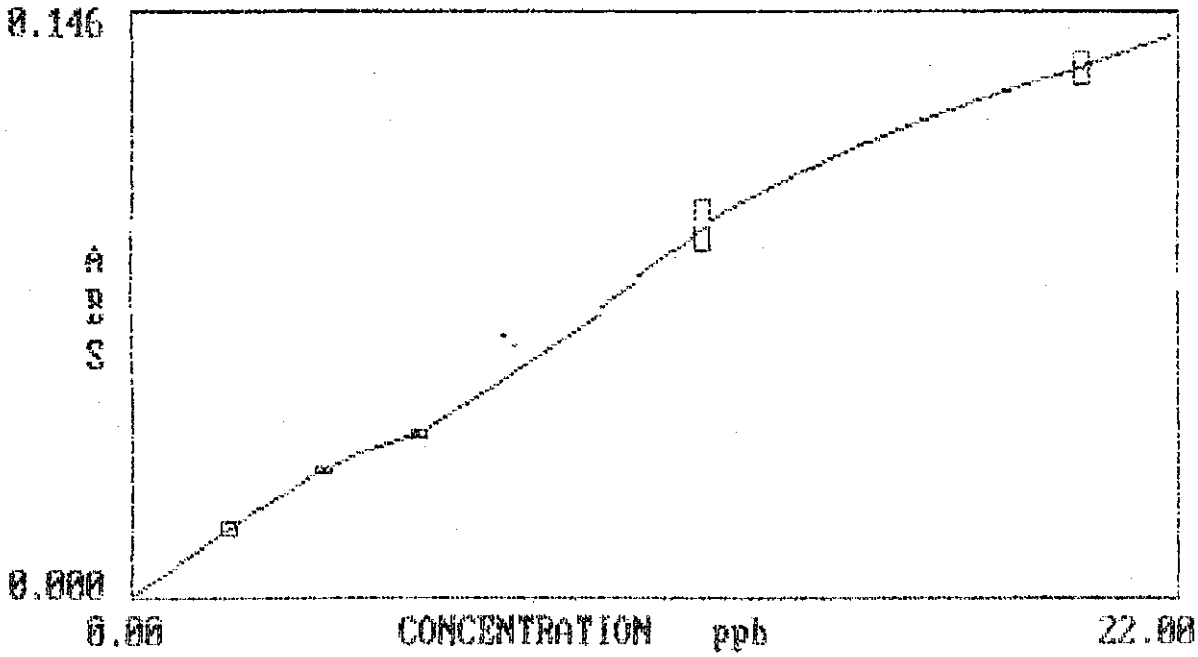
	SOLUTION	BLANK	MODIFIER
<	--	20	5
)ARD 1	2	18	5
)ARD 2	4	16	5
)ARD 3	6	14	5

ARD 5	20	0	5
<	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

PLE INJECT NO HOT INJECT NO PRE INJECT NO

<	CONC ppb	%RSD	MEAN ABS	READINGS	
	0.00		0.007	0.007	0.007
ARD 1	2.00	51.0	-0.002	-0.001	-0.003
	0.00		-0.002	-0.002	-0.003
ARD 1	2.00	99.9	-0.000	-0.000	-0.000
	0.00		0.000	-0.000	0.000
	0.00		-0.001	-0.002	-0.001
ARD 1	2.00	3.6	0.017	0.017	0.016
ARD 2	4.00	1.2	0.032	0.032	0.032
ARD 3	6.00	0.6	0.041	0.041	0.042
ARD 4	12.00	5.3	0.092	0.088	0.095
ARD 5	20.00	2.8	0.133	0.135	0.130



PROGRAM 2 T1 ZEEMAN
002 SAMPLE 29 REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK HEIGHT MAX.ABS. 0.55 BC ON

FIC RUN PAUSED PRINTING

SAMPLE LABELS

1. ICV	2. ICB	3. MB A 8/13
4. LCS A 8/13	5. LCSD A 8/13	6. 8004-01 DUP
7. 8004-01 MS	8. 8004-01 MSD	9. 8067-01
10. 8076-01	11. 8004-01	12. 8097-01
13. CCV	14. CCB	15. 8097-02
16. 8097-03	17. 8099-01	18. 8099-02
19. 8099-03	20. 8099-04	21. WS-54
22. WS-60	23. CCV	24. CCB
25. 1	26. 2	27. 3
28. 4	29. 5	30. 6
31. 7	32. 8	33. 9
34. 10	35. 11	36. 12
37. 13	38. 14	39. 15
40. 16	41. 17	42. 18
43. 19	44. 20	45. 21

CREMENT
ABELS

CALIBRATION CURVE IDENTIFICATION

Analyst Name VJ

Date of Calibration 08/13/01

Calibration Curve ID 010813101 5GFAA

Instrument ID GFAA

Analysis Method 7841

Preparation Method 3020A

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271 revised (8/2/00)						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
355	Waters	Volatiles	8260B	C	85	93.5	119	163.625	79.475	76.5
330	Waters	TPH	FL-PRO	C	68	74.8	95.2	130.9	63.58	61.2
330	Waters	TOC	9060	C	25	27.5	35	48.125	23.375	22.5
330	Waters	Alkalinity	EPA 305.1/310	C	8	8.8	11.2	15.4	7.48	7.2
330	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	30	33	42	57.75	28.05	27
330	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
330	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
330	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	120	130	170	220	115	120
330	Waters	Acetic Acid	HPLC/UV--see note 1.)	C	172.5	189.75	241.5	332.0625	161.2875	155.25
330	Waters	Butyric Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Lactic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Propionic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Pyruvic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5

ATTACHMENT B

lab bid form

1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A)	Please indicate which methods the laboratory is **not** capable of performing
	B)	Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C)	The analyses listed above may all be requested throughout the project.
	D)	Samples may be divided between 2 or 3 of the most competive labs.
	E)	Quotations must include sample, container, and cooler disposal
	F)	Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Laboratory Name	Facility Location	Date of Quotation Submittal
Accura Analytical Labs (AAL)	Norcross, GA	8.4.00

Lab Representative's Name/Title (please print)	Signature	Date
Martin Van Lear, Business Development	M. Martin Van Lear	8.4.00

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

AAL NOTES:

**1.) This quote is based on running an acid scan using a GC (Gas Chromatography) instead of HPLC. Samples will be subcontracted to another laboratory.
TheGC Scan includes all of the acids listed.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
71	Waters	Volatiles	8260B	C	125	137.5	175	240.625	116.875	112.5
66	Waters	TPH	FL-PRO	C	80	88	112	154	74.8	72
66	Waters	TOC	9060	C	40	44	56	77	37.4	36
66	Waters	Alkalinity	EPA 305.1/310	C	15	16.5	21	28.875	14.025	13.5
66	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	40	44	56	77	37.4	36
66	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
66	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
66	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	125	137.5	175	240.625	116.875	112.5
66	Waters	Acetic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Butyric Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Lactic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Propionic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Pyruvic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
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1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5
50	Waters	TDS	160.1	B	N/A	16.5	21	N/A	N/A	N/A
50	Waters	Sodium	6010B	B	N/A	16.5	21	N/A	N/A	N/A

ATTACHMENT B
lab bid form

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	7.31.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	7.31.00
Lab Representative's Name/Title (please print)	Signature	Date
David C. Fuller, Vice President		11.01.00
Lab Representative's Name/Title (please print)	Signature	Revised Date of Quotation Submittal

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111050

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does not indicate that the integration is a manual determination. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

2. Provide evidence of manual intergrations
3. UNABLE TO RESTORE DATA

Resolution recorded by: _____ Date: 11.19.2001

Copied to (circle one): ~~Bonnie Hogue~~ Michael Trinidad David Fuller Kelly Clemons Diana Duane John Migdalia Shaker

QA Comments
Set up daily system where data is saved on instrument's Hard Drive and upload to the network. Once on the network the data is backed-up daily.

QA Review by: KMclemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111058

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Laboratory cannot report data less than their method detection limit. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01

Resubmit EDD to reflect result equal to or above the associated MDL.

corrected

Resolution recorded by: _____ Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

C.R 11/21/01

QA Review by: _____ Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Result < MDL	RL < MDL	REC < LCL	REC > UCL	No %SOLIDS
193	193		38	
214	194			
385	214			
386	385			
	386			

EDD Errors

28368.csv

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111065

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Associated data qualifier codes should be presented in specified column. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Corrected

Resolution recorded by: _____ Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA 11/21/01

QA Review by: _____ Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111072

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28368 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Surrogate compounds for FL PRO are not identified in Method Blank. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Not applicable

Resolution recorded by: KMClemons Date: 11/15/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/15/01

QA Review by: KMClemons Date: 11/15/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

CH2MHILL DATA DELIVERABLE EVALUATION

Project Name: _____

CTO: 17 **Project Number:** 152044 **SDG#:** 28508

Project Manager Steve Tsangaris ***Laboratory*** Accuro

Preliminary Data

Date Due N/A **Date Received** _____

Final Data

Date Due 8/14/01 **Date Received** 9/18/01

Evaluation

- CCI Level: **A** **B** **C** (see comments, Level C was requested)
- Electronic Data Deliverables Received? **yes** **no**
- Review Level Needed: Evaluation: E Validation: _____

- **Validated Data**
  Date Due _____ **Date Received** _____

Archiving

- Total pages of final report: 10.
- Out-sourced? **Yes or No**

Comments

no raw data or subcontractor report are attached

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28508

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 7/31/01 at 1010:

Client Sample ID	Laboratory Sample ID
017-OLD-36-EB1-Q3-01	AC17845
017-OLD-36-FB1-Q3-01	AC17846
017-OLD-36-29B-Q3-01	AC17847
017-OLD-36-28B-Q3-01	AC17848

2. The sample cooler temperature was noted to be 4^0C upon receipt at the laboratory.

3. The following analyses were performed by a subcontract laboratory:

   Ethane and Ethene (W) Microseeps – AM18

   Methane (W) Microseeps – AM20GAX

   VFA's (W) Microseeps – AM21G

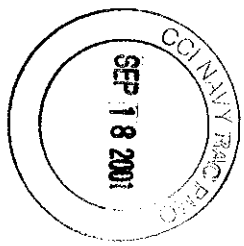
The following item was noted by the subcontract laboratory for the Methane analysis:

4. Methane had no matrix spike and matrix spike duplicate recoveries due to the sample concentration being 100 times greater than the spiking concentration.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/14/01
Date



This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.
A2LA Accredited-ID: 120261 •Certificate #-1365.1•Exp 7/31/02 Effective 8/14/00•Scope: Testing Technologies
Potable & Non-potable Water-Solid/Hazardous Waste

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17845** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-EB1-Q3-01**

ANALYSIS: **Ethane and Ethene (W) Microseeps** Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	100		5.0
Ethene	53		5.0

ANALYSIS: **Methane (W) Microseeps** Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2.9		0.015

ANALYSIS: **VFA's (W) Microseeps** Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	0.64	J	1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

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LABORATORY REPORT

Accura Sample ID #: **AC17846** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FB1-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	1200		5.0
Ethene	14		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	0.65		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17847** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-29B-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	86		5.0
Ethene	120		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	130		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17848** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-28B-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	110		5.0
Ethene	210		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1500		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	3.6		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	8.2		1.0
Pyruvic Acid	<RL		10

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17849** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL		5.0
Ethene	<RL		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

PROJECT QUALITY CONTROL RESULTS
AAL 28507

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviati	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL 28507

8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA			NA	NA
PETROLEUM HYDROCARBONS						%	%			%	%			%	%			%	%
FL-PRO	TPH	63	70			75-125	30-170	11%	#DIV/0!	<30	<50			75-125	70-130			<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

ASI

ANALYTICAL SERVICES, INC.

Draft Report

Preliminary Results Only

All Results and Detection Limits are Subject to Change Pending Final Review

Draft Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141358-1**

August 9, 2001

DRAFT -- Sample Description -- DRAFT

Accura Analytical Laboratory

Water, Project#28507, AC17839, 07/30/2001, 12:00, received 07/31/2001

Analytical Method	Analyte	Draft Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	BDL	1	mg/L
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Chloride (Cl)	BDL	0.1	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Draft Report
Preliminary Results Only
All Results and Detection Limits are Subject to Change Pending Final Review

Draft Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

August 9, 2001

Attention: Ms. Bonnie J. Hogue
Report No. **141358-2**

DRAFT -- Sample Description -- DRAFT
Accura Analytical Laboratory
Water, Project#28507, AC17840, 07/30/2001, 13:30, received 07/31/2001

Analytical Method	Analyte	Draft Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	BDL	1	mg/L
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Chloride (Cl)	0.2	0.1	mg/L

BDL - Below Detection Limit

Draft Report

Preliminary Results Only

All Results and Detection Limits are Subject to Change Pending Final Review

Draft Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141358-3**

August 9, 2001

DRAFT -- Sample Description -- DRAFT

Accura Analytical Laboratory

Water, Project#28507, AC17841, 07/30/2001, 15:30, received 07/31/2001

Analytical Method	Analyte	Draft Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	6	1	mg/L
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Chloride (Cl)	7.1	0.1	mg/L

BDL - Below Detection Limit

Draft Report
Preliminary Results Only
All Results and Detection Limits are Subject to Change Pending Final Review

Draft Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141358-4**

August 9, 2001

DRAFT -- Sample Description -- DRAFT
Accura Analytical Laboratory
Water, Project#28507, AC17842, 07/30/2001, 17:00, received 07/31/2001

Analytical Method	Analyte	Draft Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	21	1	mg/L
	Inorganic Anions			
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Chloride (Cl)	8.5	0.1	mg/L

BDL - Below Detection Limit

Analytical Services, Inc.

Quality Control

Report No. 141358

Inorganic Anions by Method EPA 300.0

Spike Recovery

Matrix : Aqueous

Batch # 70211

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	92	92	0	75 - 125	0 - 10
Chloride	90	90	0	75 - 125	0 - 10
Fluoride	93	93	0	75 - 125	0 - 10
Nitrate-Nitrogen	91	91	0	75 - 125	0 - 10
Nitrite-Nitrogen	97	98	1	75 - 125	0 - 10
Sulfate	93	92	1		

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	93	92	1	75 - 125	0 - 10
Chloride	92	92	0	75 - 125	0 - 10
Fluoride	90	90	0	75 - 125	0 - 10
Nitrate-Nitrogen	92	91	1	75 - 125	0 - 10
Nitrite-Nitrogen	98	98	0	75 - 125	0 - 10
Sulfate	93	93	0		

Inorganic Anions by Method EPA 300.0

Surrogate Recovery

Matrix : Aqueous

Batch # 70211

		% Recovery Objectives					
	Surrogate #	Surrogate Name					Surrogate Range
	S1	SURROGATE NOT APPLICABLE					
Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0

Blank Results Information

Matrix : Aqueous

Batch # 70211

Analyte	Blank Result	Detection Limit
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01
Chloride	BDL	0.1

Inorganic Anions by Method EPA 300.0

Sample Batch Information

Matrix : Aqueous

Batch # 70211

Sample ID	Preparation Date	Time	By	Notes	Analysis Date	Time	By	Inst #
70211BLK	07/31/01	1600	AMC/BAF		08/01/01	0117	AMC/BAF	IC
70211CALHIGH	07/31/01	1600	AMC/BAF		08/01/01	0137	AMC/BAF	IC
70211CALMID	07/31/01	1600	AMC/BAF		08/01/01	0158	AMC/BAF	IC
70211CALLOW	07/31/01	1600	AMC/BAF		08/01/01	0218	AMC/BAF	IC
70211LCS	07/31/01	1600	AMC/BAF		08/01/01	0238	AMC/BAF	IC
70211LCSD	07/31/01	1600	AMC/BAF		08/01/01	0259	AMC/BAF	IC
141241-1	07/31/01	1900	AMC/BAF		08/01/01	0319	AMC/BAF	IC
141241-1DUP	07/31/01	1900	AMC/BAF		08/01/01	0339	AMC/BAF	IC
141241-7	07/31/01	1900	AMC/BAF		08/01/01	0400	AMC/BAF	IC
141241-7DUP	07/31/01	1900	AMC/BAF		08/01/01	0420	AMC/BAF	IC
141241-12	07/31/01	1900	AMC/BAF		08/01/01	0440	AMC/BAF	IC
141241-17	07/31/01	1900	AMC/BAF		08/01/01	0500	AMC/BAF	IC
141241-22	07/31/01	1900	AMC/BAF		08/01/01	0521	AMC/BAF	IC
141152-17	07/31/01	1900	AMC/BAF		08/01/01	0541	AMC/BAF	IC
141152-18	07/31/01	1900	AMC/BAF		08/01/01	0601	AMC/BAF	IC
141349-1	07/31/01	1900	AMC/BAF		08/01/01	0622	AMC/BAF	IC
141134-1	07/31/01	1900	AMC/BAF		08/01/01	0642	AMC/BAF	IC
141134-2	07/31/01	1900	AMC/BAF		08/01/01	0702	AMC/BAF	IC
DBL7/31	07/31/01	1600	AMC/BAF		08/01/01	0722	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/01/01	1702	AMC/BAF	IC
141351-1	08/01/01	1000	AMC/BAF		08/01/01	1743	AMC/BAF	IC
141351-2	08/01/01	1000	AMC/BAF		08/01/01	1804	AMC/BAF	IC
141351-3	08/01/01	1000	AMC/BAF		08/01/01	1824	AMC/BAF	IC
141351-4	08/01/01	1000	AMC/BAF		08/01/01	1844	AMC/BAF	IC
141294-1	08/01/01	1000	AMC/BAF		08/01/01	1905	AMC/BAF	IC
141358-1	08/01/01	1010	AMC/BAF		08/01/01	1925	AMC/BAF	IC
141358-2	08/01/01	1010	AMC/BAF		08/01/01	1945	AMC/BAF	IC
141358-3	08/01/01	1010	AMC/BAF		08/01/01	2005	AMC/BAF	IC
141358-4	08/01/01	1010	AMC/BAF		08/01/01	2026	AMC/BAF	IC
141387-1	08/01/01	1730	AMC/BAF		08/01/01	2046	AMC/BAF	IC
141152-17MS	08/01/01	1800	AMC/BAF		08/01/01	2248	AMC/BAF	IC
141152-17MSD	08/01/01	1800	AMC/BAF		08/01/01	2308	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/02/01	0130	AMC/BAF	IC

Single Analyte Data

Blank Results Information

Batch Number	Analyte	Analysis Method	Preparation Method	Blank Result	Matrix
70378	TOC	EPA 9060		< 1.0000	Aqueous

Lab Control Information

Batch Number	Analyte	Analysis Method	LC % Rec.	LCD % Rec.	LC/LCD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	100	101	1	80 - 120	0 - 20

Matrix Spike Information

Batch Number	Analyte	Analysis Method	MS % Rec.	MSD % Rec.	MS/MSD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	95	94	1	89 - 125	0 - 11

Unspiked Sample Duplicate Information

Batch Number	Analyte	Analysis Method	Sample 1 RPD	Sample 2 RPD	RPD Range
70378	TOC	EPA 9060	1	1	0 - 11

Single Analyte Data
Sample Batch Information
Analysis : TOC ***Matrix : Aqueous***

Batch # 70378

Sample ID	Tag	Preparation Date	Time	By	Notes	Analysis Date	Time	By	Inst
70378BLK		/ /				08/07/01	2100	DJ	ASTRO
70378LCS		/ /				08/07/01	2100	DJ	ASTRO
70378LCSD		/ /				08/07/01	2100	DJ	ASTRO
70378CALCHK		/ /				08/07/01	2100	DJ	ASTRO
WP-78MS		/ /				08/07/01	2100	DJ	ASTRO
WP-78MSD		/ /				08/07/01	2100	DJ	ASTRO
WP-78		/ /				08/07/01	2100	DJ	ASTRO
WP-78DUP		/ /				08/07/01	2100	DJ	ASTRO
WP-72		/ /				08/07/01	2100	DJ	ASTRO
WP-72DUP		/ /				08/07/01	2100	DJ	ASTRO
141358-1		/ /				08/07/01	2100	DJ	ASTRO
141358-2		/ /				08/07/01	2100	DJ	ASTRO
141358-3		/ /				08/07/01	2100	DJ	ASTRO
141358-4		/ /				08/07/01	2100	DJ	ASTRO
141503-1		/ /				08/07/01	2100	DJ	ASTRO
141503-2		/ /				08/07/01	2100	DJ	ASTRO
141503-3		/ /				08/07/01	2100	DJ	ASTRO
141503-4		/ /				08/07/01	2100	DJ	ASTRO
141503-5		/ /				08/07/01	2100	DJ	ASTRO
141503-6		/ /				08/07/01	2100	DJ	ASTRO
141503-7		/ /				08/07/01	2100	DJ	ASTRO
141503-8		/ /				08/07/01	2100	DJ	ASTRO
141545-1		/ /				08/07/01	2100	DJ	ASTRO
141545-2		/ /				08/07/01	2100	DJ	ASTRO
141545-3									

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28507 Test Performed: TDS Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? _____ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? _____
   Reason for dilution. _____
4. Duplicate AAL sample number _____
   Is the RPD acceptable? _____ If not, what is the reason? _____
5. MS/MSD AAL sample number _____
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? _____
9. For titration tests, are the titration ratios acceptable? _____
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? ✓
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. ✓

Analyst entering results in Labworks. KS Date: 8/15/01

Peer Reviewer. D Date: 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
7/24/01	DG	6:30	13:30 7/25/01	17088 DUP	3	54.2323	100 mL	54.2319	54.2313		< DL	DATA NOT REPORTED per EPA
8-13-01	AS	11:00		Blank	1	71.7586		71.7582	71.7585		< DL	
				17839	2	72.6436		72.6422	72.6426		< DL	
				17840	3	54.2289		54.2279	54.2284		< DL	
				17841	4	70.3683		70.3772	70.3764	70.3769	86	
				17842	5	71.0181		71.0399	71.0364	71.0365	184	
			4 PM	17841D	6	73.4836		73.4916	73.4909	73.4911	75	sample re-run due to temp.
~~8-15-01~~ 8-15-01	AS	15:45	15:45	17841	7	54.830		54.839	54.842 AS		10	duplicates reported
			8/15/01	17841	8	57.566		57.575	57.576		10	
8/16/01	DG	6:45	14:30	Blank	4	70.3712	100 mL	70.3707	70.3708		~~306~~ < DL	
				17883	X	72.3853		72.4159	72.4165		306	
				17884	1	71.7601		71.7699	71.7699		98	
				17885	5	71.0156		71.0276	71.0278		120	
				17885D	6	73.4829		73.4922	73.4927		93	
				17886	13	69.0235		69.0315	69.0320		80	
				17887	7	69.5653		69.5700	69.5703		47	
				17889	14	61.3834		61.3926	61.3933		92	
				17890	8	56.7423		56.7543	56.7549		120	
				17891	9	65.5823		65.6113	65.6113		290	
				17978	21	53.8425	100 mL	53.9120	53.9123		695	
				17979	2	72.6462	1	72.6499	72.6492		37	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date: No. 00/Effective: 02/01/01

[ ] Departmental Corrective Action [ ] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number:

Reported By: Andrea J. Sutton Date Reported: 08/16/01

Department: Wet Chem Project(s): 28507 PM:

Discrepancy:

(1) Sample AC17841 analyzed in duplicate for TDS. RPD = 27.3%. There was not enough sample in the bottle designated for TDS, another unpreserved bottle with the same sample number was analyzed for TDS with RPD = 0 See TDS sample log page 21.

(2) All samples in project were analyzed out of holding time. Collection date: 7/30/01 Analysis Date 8/13/01

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Resolution recorded by: _____ **Date:** _____

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

report data as estimated due to analyzed out of hold time

QA Review by: A. C. R Date: 8/27/01

Original to QA copy in the QCF Book, copy in the project folder, copy to PM. QA will forward copy back to originator to be inserted into book.

QA Laboratory Quality Communication Form

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
7/24/01	DG	6:30	13:30 7/25/01	~~17088 DUP~~	~~3~~	~~54.2323~~	100 mL	54.2319	~~54.2313~~		< DL	DATA NOT REPORTED per lab
8-13-01	AS	11:00		Blank	1	71.7586		71.7582	71.7585		< DL	
				17839	2	72.6436		72.6422	72.6426		< DL	
				17840	3	54.2287		54.2279	54.2284		< DL	
				17841	4	70.3683		70.3772	70.3764	70.3769	86	
				17842	5	71.0181		71.0399	71.0364	71.0365	184	
				17841D	6	73.4836		73.4916	73.4909	73.4911	75	Sample re due to temp.
8-15-01 15:45	AS	15:45	8/15/01 13:45	17841	7	54.830		54.839	54.842 AS		100	C.R. 9/7/01 AS 08-23-01 duplicate reported value
			8/15/01	17841	8	57.566		57.575	57.576		100	
8/16/01	DG	6:45	14:30	Blank	4	70.3712	100 mL	70.3707	70.3708		~~306~~ < DL	
				17983	X	72.3853		72.4159	72.4165		306	
				17884	1	71.7601		71.7699	71.7699		98	
				17885	5	71.0156		71.0276	71.0278		120	
				17885D	6	73.4829		73.4922	73.4927		93	
				17886	13	69.0235		69.0315	69.0320		80	
				17887	7	69.5653		69.5700	69.5703		47	
				17888	14	61.3834		61.3926	61.3933		92	
				17890	8	56.7423		56.7543	56.7549		120	
				17891	9	65.5823		65.6113	65.6113		290	
				17978	21	53.8425	100 mL	53.9120	53.9123		695	
				17979	2	72.6462		72.6499	72.6492		37	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28509 Test Performed: Alkalinity Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? Y If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____
   Reason for dilution. —
4. Duplicate AAL sample number 17841
   Is the RPD acceptable? _____ If not, what is the reason? _____
5. MS/MSD AAL sample number 17842
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? —
9. For titration tests, are the titration ratios acceptable? —
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? —
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. ✓

Analyst entering results in Labworks. AS Date: 08-06-01

Peer Reviewer. VT Date: 08-24-01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08/21/01

Analyst: AS

Time Started: 09:35 / 10:00

Lot #'s: 0.02N H2SO4: 1046

Phenolphthalein Indicator: ←

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
						mg/L as $CaCO_3$				
* BLANK	100 mL		*4.5 endpoint	for blank	0.10	1				250mL flask
LCS	100mL +5		see blank	below Acid	12.40	2480 93.6%				*Basic III 3
AC17392*	100mL			H_2SO_4 0.2N	16.85	168.5				pH 11.7
AC17393				H_2SO_4 0.02N	19.55	195.5			17393 →	not enough
AS D 8-01-01										Sample for
AC17393MS					28.50	~~285~~ 295*				matrix spike
AC17393MSD		40mL		2.5 factor	17.50					see 17842 for
AC17839		100mL			0.15	15				spike/AS
AC17840					0.40	4				
AC17841					1.18	118				
AC17842					4.90	49				
AC17842MS	100 mL				17.43	174.3 100%				
AC17842MSD					17.35	173.5 99.6%				
AC17842D					1.15	11.5				
BLANK	100mL				0.10-0.20	0				4.2 endpoint

AC 8-01-01 AS

AS 8-01-01

AS 8-01-01

Calculation: Alkalinity, mg $CaCO_3/L = \frac{A \times N \times 50000}{mL\ sample}$

where: A = mL acid used

N = Normality of acid

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By: ____

ALKALNTY.XLS Page No. 13

VOA GC/MS DATA CHECKLIST
SW-846-8260B

PROJECT #: 28507	METHOD: 8260B
MATRIX: WATER	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	~~Y~~	N	NA
Are Tuning results compliant with method?	~~Y~~	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	~~Y~~	N	NA
Are all SPCC Response Factors acceptable for CCV?	~~Y~~	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	~~Y~~	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	~~Y~~	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	~~Y~~	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	~~Y~~	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	~~Y~~	N	NA
Are all spike recoveries acceptable for the LCS?	Y	N	~~NA~~
If all spike recoveries were not acceptable, was a Quality Notice Form completed?	~~Y~~	N	NA
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	Y	N	~~NA~~
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	~~Y~~	N	NA
Were sample analyses performed within holding times?	Y	N	~~NA~~
If sample analyses were not performed within holding times, was a Quality Notice Form completed?	~~Y~~	N	NA
Were analyses performed such that carryover was not a problem?	~~Y~~	N	NA
Are quantitations based on the latest acceptable initial calibration?	~~Y~~	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	~~NA~~
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	~~NA~~
Was the Modified 5035 method used? Was a Temporary Method Deviation form completed?	~~Y~~	N	~~NA~~ ~~NA~~
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	~~Y~~	N	NA
Are pHs recorded for all water samples?	~~Y~~	N	NA
Have the samples been reviewed, and **all** false positives deleted?	~~Y~~	N	NA
Are all samples and supporting data (QNF, QC Charts, Runlog and Batchbook Copies) in the folder?			

Analyst: VRR	
Date: 8.9.01	Time: 9:40

PEER REVIEW

Are Tuning results compliant with method?	(Y)	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all sample Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all blank and QC results acceptable?	(Y)	N	NA
Are all surrogate standard recoveries acceptable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all calculations correct and reported in the proper units?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Is the run log completely filled out (including review signature/date)?	(Y)	N	NA
Are pHs recorded for all water samples?	(Y)	N	NA
Are all applicable runlog sheets signed, dated, and included?	(Y)	N	NA
Have all samples and supporting data been included in the folder?	(Y)	N	NA
Have all LIMS entries been checked for accuracy?			

Reviewer: DAT	
Date: 8-9-01	Time: 13:40

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8·7·01
Calib. Method: 080601W.M
ACQ. Method: 080701W.M
BFB Std.ID #: VC1081
IS/Surr Std. ID # VC1076/VC1071

	CCV IS RT	CCV IS AREAS
#1	6.70	219634
#2	12·08	255172
#3	15·31	126943
#4		

MS Conditions
EMV: 1906
Tune File: BFB01.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 CCV	50ppm	VC1093
8260 Add Mix	50ppm	VC1073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JCC856	BFB 50ng	—	—	2ml	—	—	—	—	1013	
JCC857	CCV 10PPb	—	W	25ml	1	1	—	-	1035	
JCC858	IJ080701MB	—			1	2	—	-	1115	
JCC859	IJ080701LCS	—			1	3	—	—	1151	
JCC860	28512 AC17885	—		12·5ml	2	4	1	x	1225	
JCC861	AC17886MS	—			2	5	1	x	1258	
JCC862	AC17886MSD	—			2	6	1	x	1324	
JCC863	BLANK	—			2	7	—	—	1350	
JCC864	28507 AC17843	—		25ml	1	8	1	x	1416	
JCC865	AC17841	—		5ml	5	9	1	x	1442	
JCC866	AC17842	—		25ml	1	10	1	x	1508	
JCC867	28512 AC17888	—			1	11	1	x	1534	
JCC868	AC17890	—			1	12	1	x	1600	
JCC869	AC17891	—			1	13	1	x	1626	NOIL 1:10
JCC870	AC17887	—			1	14	1	x	1652	NRI to confirm Toluene
JCC871	28518 AC17926	—			1	15	1	x	1718	
JCC872	28530 AC17980	—			1	16	1	x	1745	
JCC873	AC17982	—			1	1	1	x	1811	
JCC874	28518 AC17919	—			1	2	1	x	1833	RI
JCC875	AC17920	—			1	3	1	x	1905	RI
JCC876	AC17921	—			1	4	1	x	1931	NOIL 1:2
JCC877	AC17922	—			1	5	1	x	1958	RI to confirm TCE
JCC878	AC17923	—			1	6	1	x	2025	RI
JCC879	AC17924	—			1	7	1	x	2051	RI
JCC880	AC17925	—			1	8	1	x	2118	
JCC881	28530 AC17978	—			1	9	1	x	2144	

Analyst/Date: VRR 8·8·01
Reviewer/Date:

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 080601
Calib. Method: 050601W.M
ACQ. Method: 030601W.M
BFB Std.ID #: V01081
IS/Surr Std. ID # V01070/V01071

	CCV IS RT	CCV IS AREAS
#1	6.71	201922
#2	12.08	235398
#3	15.31	118033
#4		

MS Conditions
EMV: 1906
Tune File: BFB01.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 ICAL mix	50 ppm	V01052
8260 ICV Mix	50 ppm	V01052
8260 Add Mix	50 ppm	V01053
8260		

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
J00336	BFB 50ng	—	—	2ul	—	—	—	—	9:57	
J00837	ICAL 1ppb	—	W	25ml	1	1	—	—	10:22	
J00838	ICAL 4ppb	—			1	2	—	—	10:48	
J00839	ICAL 10ppb	—			1	3	—	—	11:13	
J00840	ICAL 20ppb	—			1	4	—	—	11:39	
J00841	ICAL 30ppb	—			1	5	—	—	12:05	
J00842	ICAL 40ppb	—			1	6	—	—	12:30	
J00843	ICAL 1ppb	—			1	7	—	—	15:31	
J00844	ICV 10ppb	—			1	8	—	—	16:13	
J00845	1J080601MB	—			1	9	—	—	16:55	
J00846	1J080601LCS	—			1	10	—	—	1729	
J00847	BLANK	—			1	11	—	—	1755	
J00848	28507 AC17837	—			1	12	1	X	1821	
J00849	AC17840	—			1	13	1	X	1847	
J00850	AC17843	—			1	14	1	X	1913	NRI to CONFIRM TOLUENE
J00851	AC17841	—			1	15	1	X	1939	NDIL 1:5
J00852	AC17842	—			1	16	1	X	2004	NRI to CONFIRM TCE w.i
J00853	28512 AC17883	—			1	1	1	X	2030	
J00854	AC17884	—			1	2	1	X	2055	
J00855	AC17885	—			1	3	1	X	2121	

Analyst/Date: VRR 8.7.01
Reviewer/Date: _____

Batch ID: W 080801 A Instrument ID: HP MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28512 AC17837	8·6·01		8·8·01	25 ml Purge
AC17840				
AC17841		NDIL 1:5		
AC17842		NRI		
AC17843		NRI		
28512 AC17883				
AC17884				
AC17885				
AC17888	8·7·01			
AC17889				
AC17890				
AC17891				
28518 AC17919		NRI		
AC17920		NAI		
AC17921		NRI		
AC17922		NRI		
AC17923		NRI		
AC17924		NRI		
AC17925				
AC17926		NRI		
AC17886 MS				
AC17887 MSD				
DUP				

Batch ID: W 080701 A Instrument ID: HP-MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28530 AC17978	8·7·01		8·8·01	25 ml Purge
AC17979	8·8·01			
AC17980	8·7·01			
AC17981	8·8·01			
AC17982	8·7·01			
28478 AC17986	88·01			
AC17978 MS	8·8·01		8·8·01	
AC17978 MSD				
DUP				

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00848.D
Acq On : 08/06/01 18:21
Sample : AC17839 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 8:29 2001

Vial: 12
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	182223	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	204929	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	88149	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	79282	10.34	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.40%			
46) Toluene-d8	10.03	98	313646	10.45	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.50%#			
66) Bromofluorobenzene	13.72	95	107384	10.95	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 109.50%			
Target Compounds						Qvalue
3) Chloromethane	1.67	50	4107	0.59	ug\L	99
47) Toluene	10.12	92	45021	2.32	ug\L	99

VRR
8-7-01

(#) = q[illegible] m) = manual integration
J00848.D 08060[illegible] Tue Aug 07 08:29:38 2001

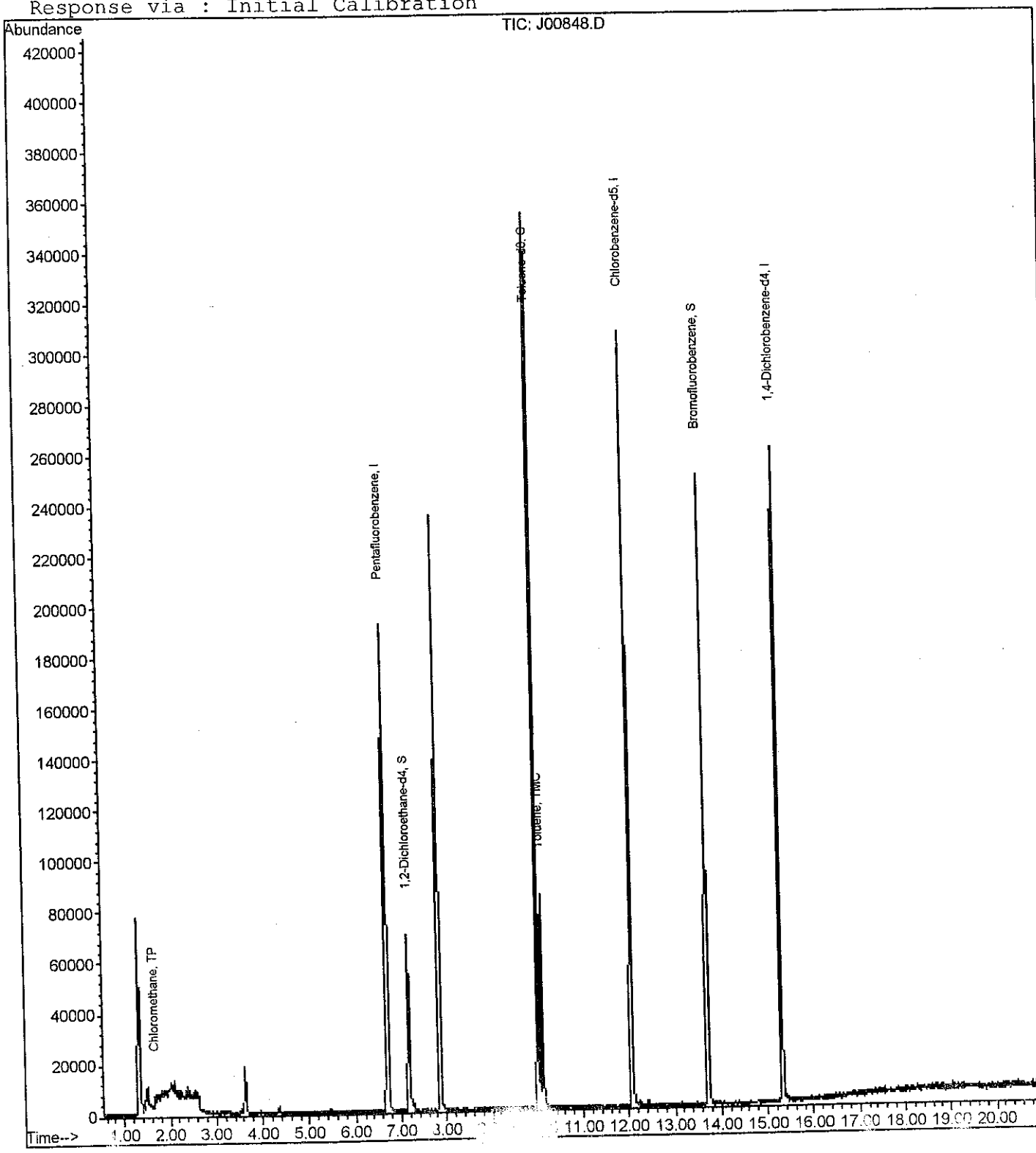
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00848.D
Acq On : 08/06/01 18:21
Sample : AC17839 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 8:29 2001

Vial: 12
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00848.D
Acq On : 08/06/01 18:21
Sample : AC17839 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 12
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

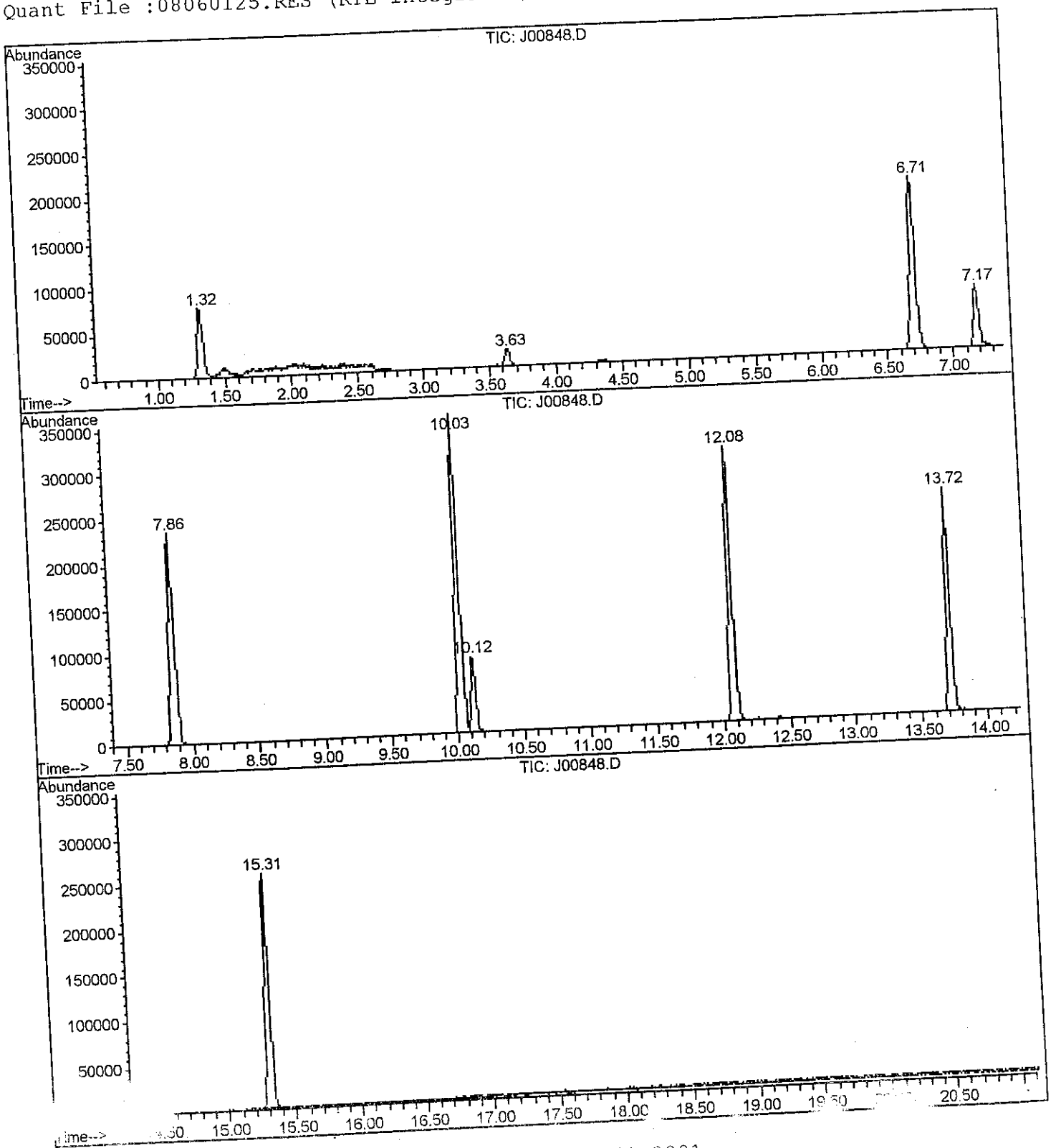
Signal : TIC

Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.317	119	132	148	rBV	76997	228683	27.25%	5.059%
2	3.632	509	517	526	rVB3	17967	46208	5.51%	1.022%
3	6.706	1013	1028	1043	rBV	192032	583606	69.54%	12.911%
4	7.175	1096	1106	1121	rBV2	69765	201092	23.96%	4.449%
5	7.860	1209	1220	1231	rBV2	235261	619408	73.81%	13.703%
6	10.026	1568	1580	1589	rBV	354453	839244	100.00%	18.566%
7	10.116	1589	1595	1604	rVB2	83488	195118	23.25%	4.316%
8	12.076	1911	1921	1931	rBV	306844	674437	80.36%	14.920%
9	13.718	2186	2194	2207	rBV2	249345	545530	65.00%	12.068%
10	15.312	2450	2459	2469	rBV	258750	586971	69.94%	12.985%

Sum of corrected areas: 4520297

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00848.D
Operator :
Acquired : 6 Aug 2001 18:21 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17839 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 12
Quant File :08060125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 18:21
Data File: C:\HPCHEM\1\DATA\1J080601\J00848.D
Name: AC17839 25ml DF=1
Misc: 28507/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00848.D 08060125.M Tue Aug 07 08:39:42 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00849.D Vial: 13
Acq On : 08/06/01 18:47 Operator:
Sample : AC17840 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:30 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	169751	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	194150	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	88210	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	75809	10.61	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 106.10%			
46) Toluene-d8	10.02	98	295143	10.38	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.80%			
66) Bromofluorobenzene	13.72	95	101742	10.36	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 103.60%			
Target Compounds						Qvalue
47) Toluene	10.12	92	37051	2.02	ug\L	99

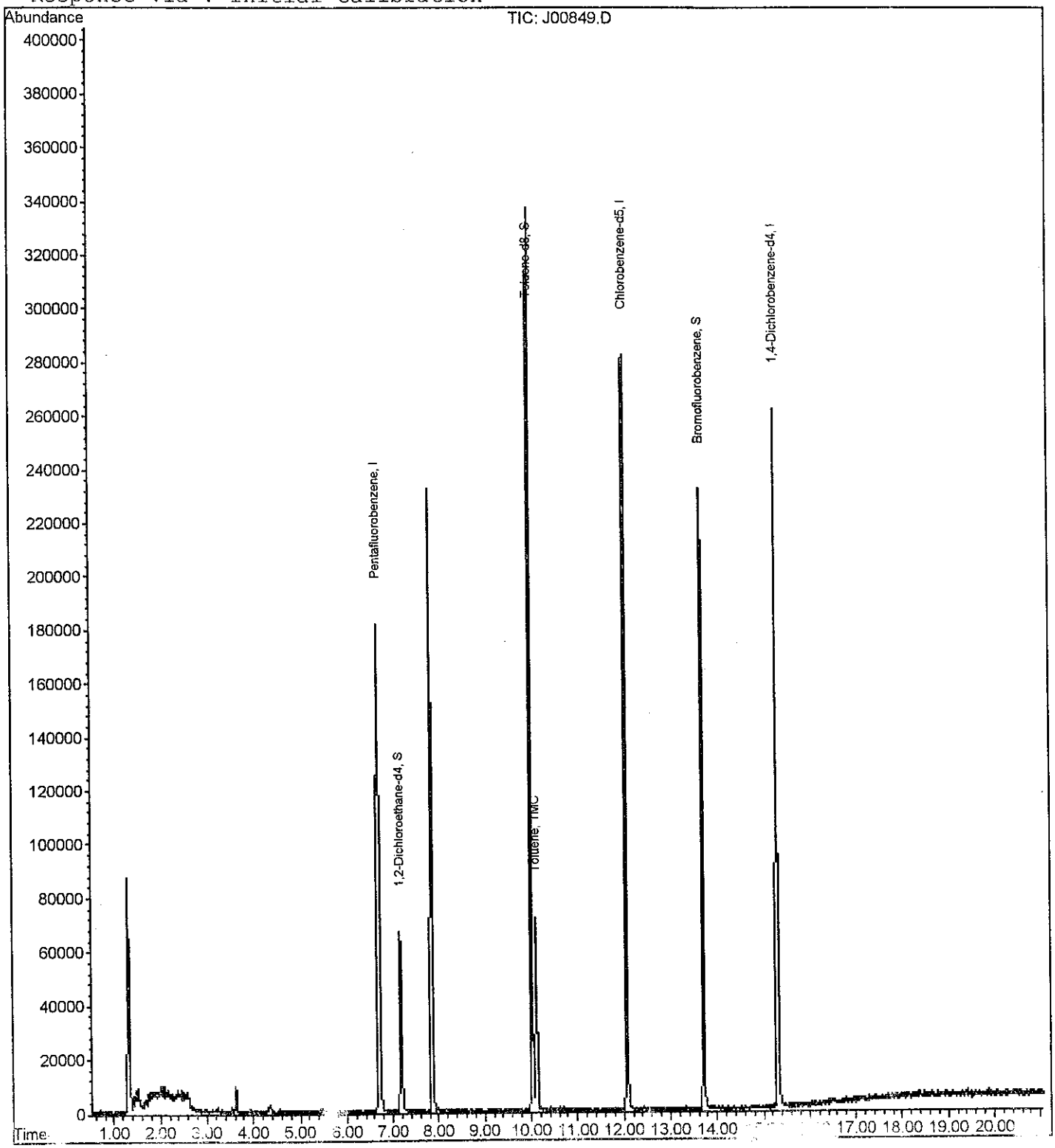
VRR
8-1-01

(#) = qualifier out of range (m) = manual ration
J00849.D 08060125.M Tue Aug 07 08:30:.. .001 Pag

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00849.D Vial: 13
Acq On : 08/06/01 18:47 Operator:
Sample : AC17840 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:30 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00849.D
Acq On : 08/06/01 18:47
Sample : AC17840 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 13
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

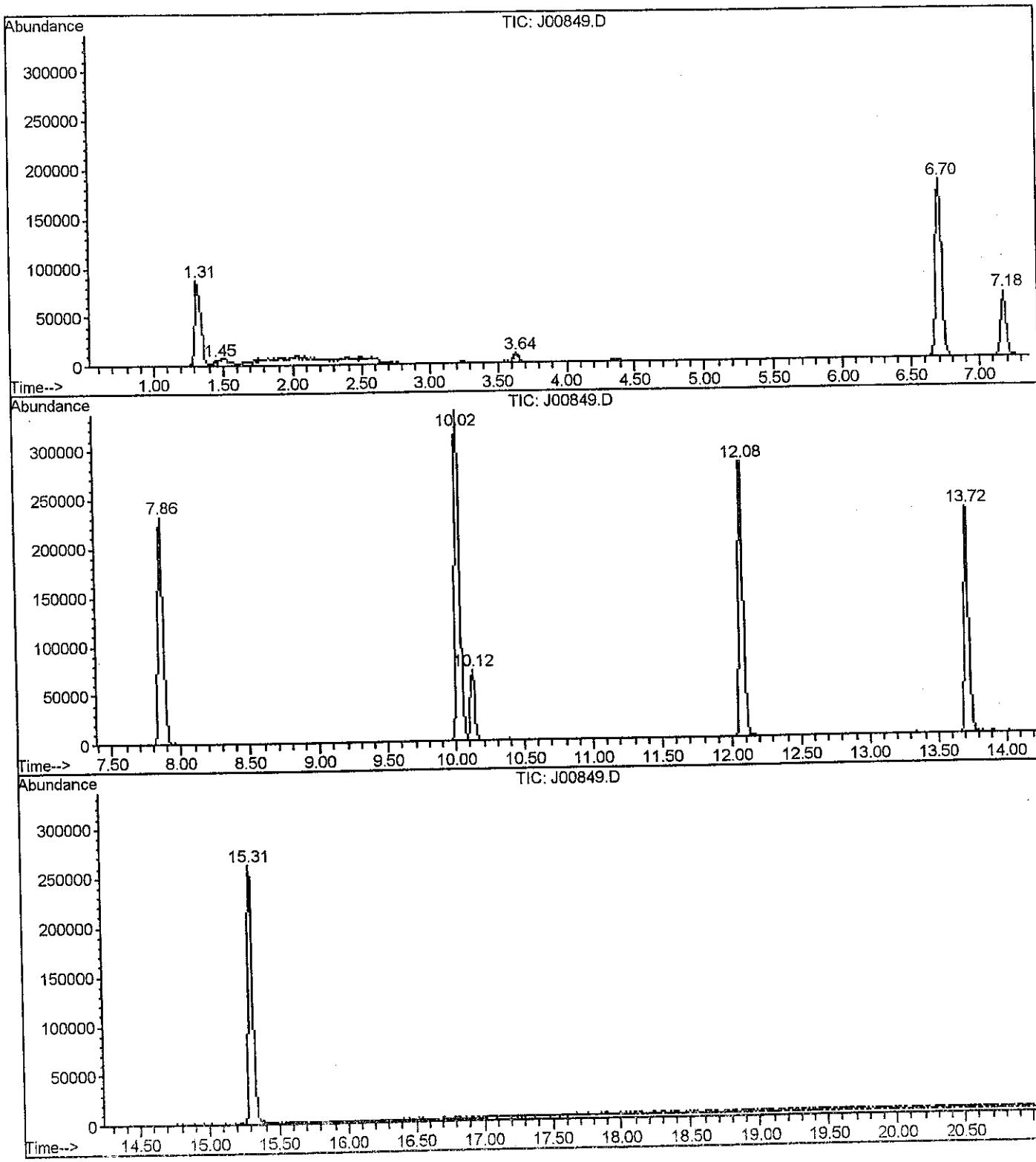
Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.314	125	132	147	rVB	85761	248063	31.97%	5.787%
2	1.452	147	155	156	rBV5	5313	8069	1.04%	0.188%
3	3.635	510	518	528	rBV3	9412	25078	3.23%	0.585%
4	6.703	1015	1028	1044	rBV	181476	551825	71.12%	12.873%
5	7.178	1095	1107	1117	rBV	66634	182106	23.47%	4.248%
6	7.863	1210	1221	1234	rBV2	231873	596482	76.88%	13.915%
7	10.023	1569	1580	1589	rBV	336731	775909	100.00%	18.100%
8	10.119	1589	1596	1606	rVB	70963	166272	21.43%	3.879%
9	12.079	1912	1922	1934	rBV	281791	637553	82.17%	14.873%
10	13.715	2186	2194	2211	rBV	231134	513028	66.12%	11.968%
11	15.309	2450	2459	2471	rBV2	260815	582338	75.05%	13.585%

Sum of corrected areas: 4286723

J00849.D 08060125.M Tue Aug 07 08:40:12 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00849.D
Operator :
Acquired : 6 Aug 2001 18:47 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17840 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 13
Quant File :08060125.RES (RTE Integrator)



J00849.D 08060125.M Tue Aug 07 08:40:13 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00849.D Vial: 13
Acq On : 08/06/01 18:47 Operator:
Sample : AC17840 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

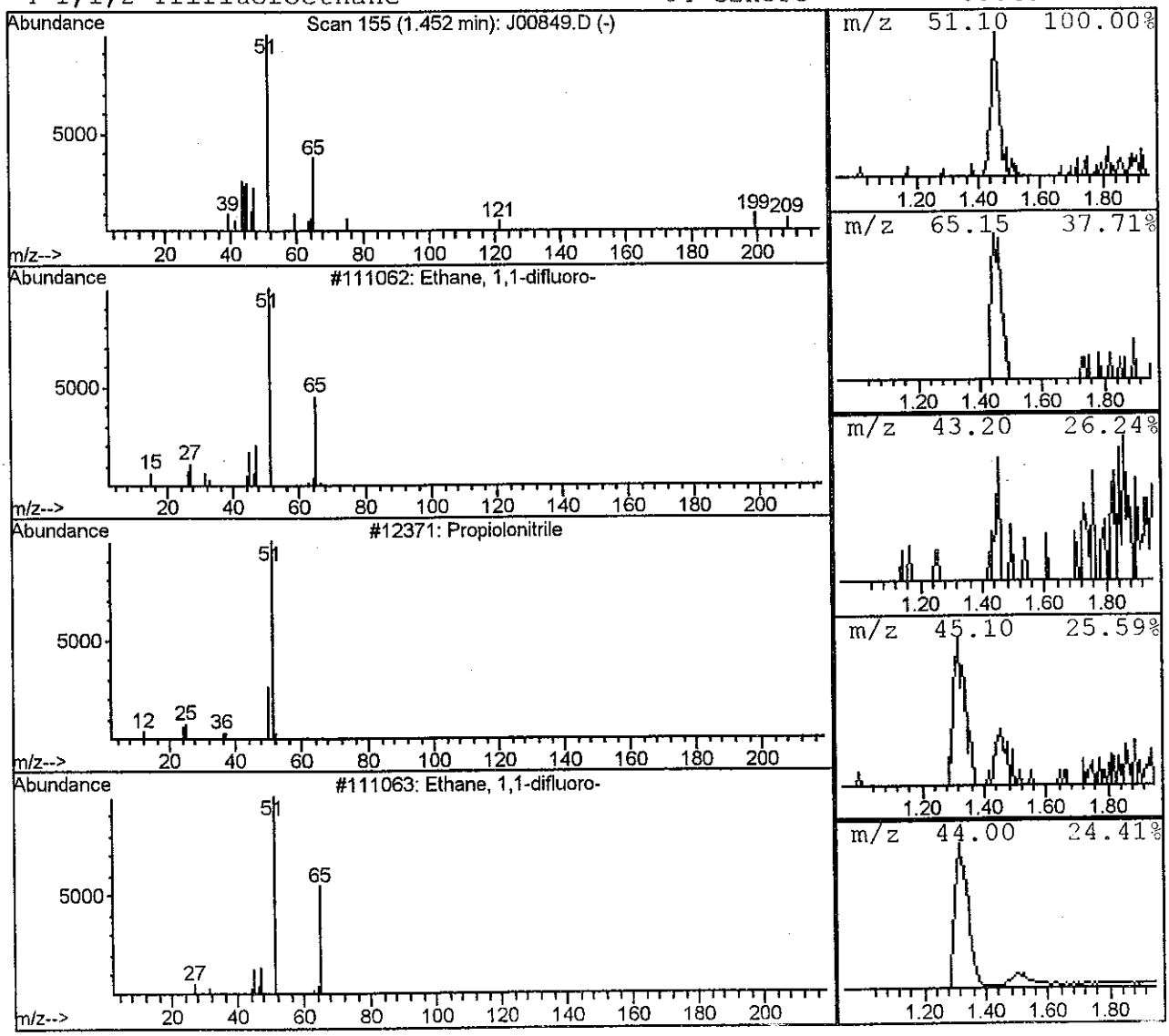
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Ethane, 1,1-difluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.45	80690.00 ug\L	8069	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	9
2	Propiolonitrile	51	C3HN	001070-71-9	3
3	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	2
4	1,1,2-Trifluoroethane	84	C2H3F3	000430-66-0	2



Tentatively Identified Compound (LSC) summary

perator ID: Date Acquired: 6 Aug 2001 18:47
ata File: C:\HPCHEM\1\DATA\1J080601\J00849.D
ame: AC17840 25ml DF=1
lisc: 28507/W080601A
lethod: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
itle: 8260 CALIBRATION FOR 25ML WATER
ibrary Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethane, 1,1-difluoro	1.45	80690.0	ug\L	8069	ISTD01	0.00	1	10.0

J00849.D 08060125.M Tue Aug 07 08:40:14 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00851.D Vial: 15
Acq On : 08/06/01 19:39 Operator:
Sample : AC17841 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:32 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	171598	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	182056	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	80650	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	81890	11.34	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.40%			
46) Toluene-d8	10.03	98	269802	10.12	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.20%			
66) Bromofluorobenzene	13.72	95	95980	10.69	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 106.90%			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.79	96	6992	0.87	ug\L	86
37) Trichloroethene	8.23	95	1067959	110.31	ug\L	98
47) Toluene	10.12	92	27748	1.61	ug\L	98

VRB
8-7-01

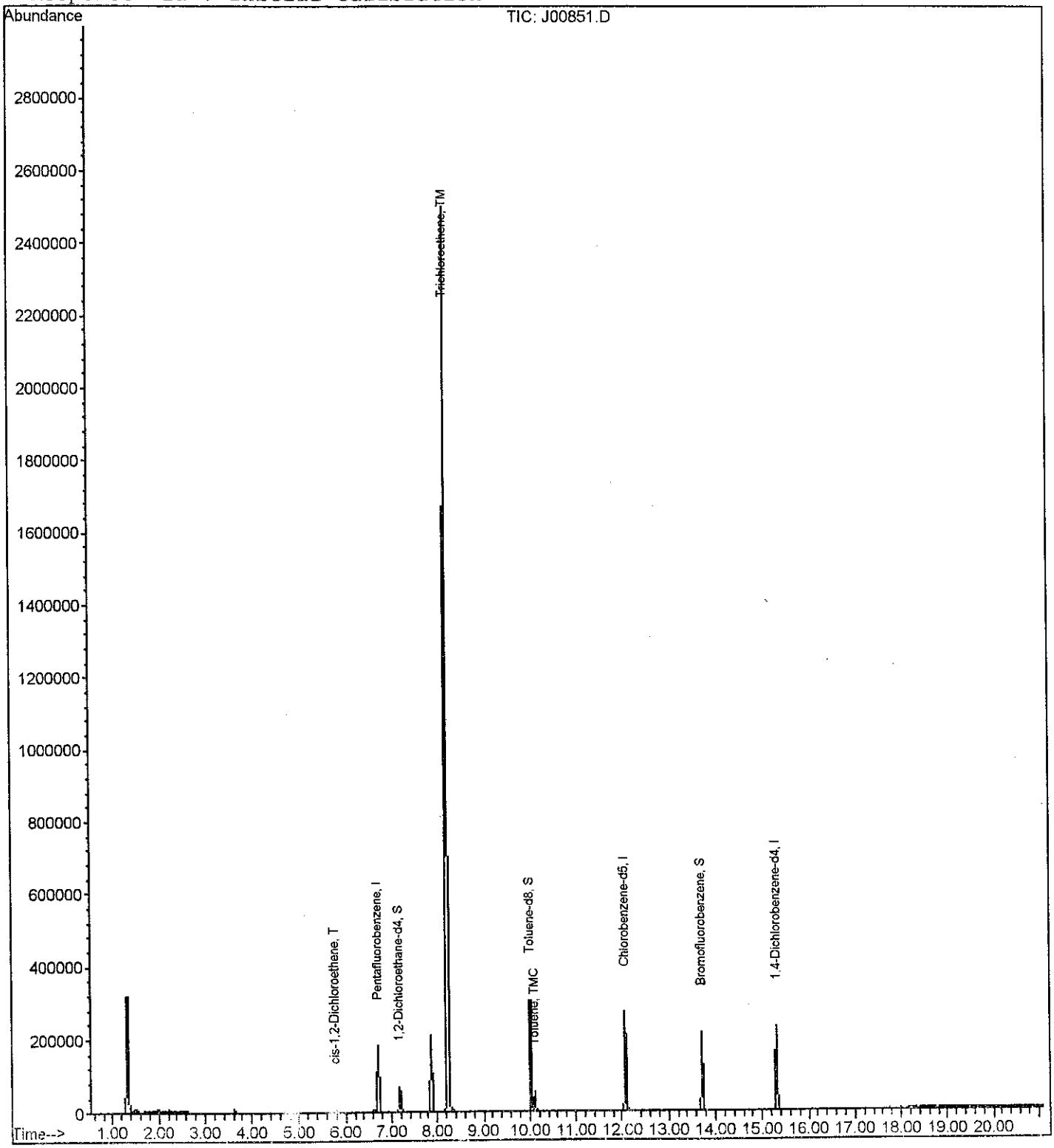
NDL 1.5

(#) = qualifier out of range (m) = manual integration
J00851.D 08060125.M Tue Aug 07 08:32:51 2001 Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00851.D Vial: 15
Acq On : 08/06/01 19:39 Operator:
Sample : AC17841 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:32 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00865.D Vial: 9
Acq On : 08/07/01 14:42 Operator:
Sample : AC17841 5ml DF=5 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:42 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	162915	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	195024	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	88654	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	75147	10.96	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 109.60%			
46) Toluene-d8	10.02	98	278512	9.75	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.50%			
66) Bromofluorobenzene	13.71	95	100631	10.20	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.00%			
Target Compounds						Qvalue
24) 2-Butanone	5.97	72	37	1.52	ug\L #	100
37) Trichloroethene	8.22	95	231143	25.15	ug\L	98

130

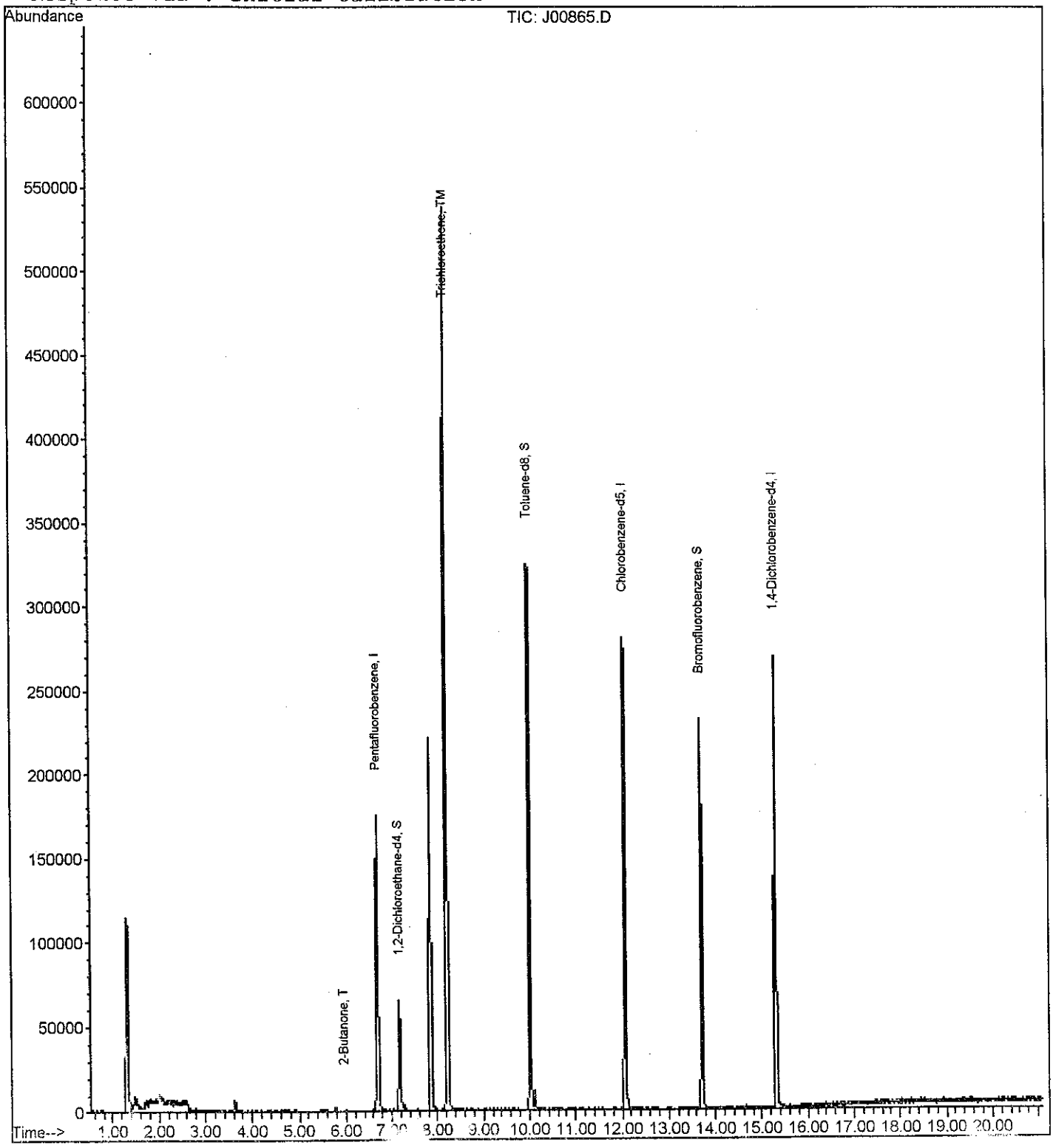
V RA
8.8.01

(#) = qualifier out of range (m) = manual integration
J00865.D 08070125.M Wed Aug 08 09:18:38 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00865.D Vial: 9
Acq On : 08/07/01 14:42 Operator:
Sample : AC17841 5ml DF=5 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:42 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00851.D
Acq On : 08/06/01 19:39
Sample : AC17841 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 15
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

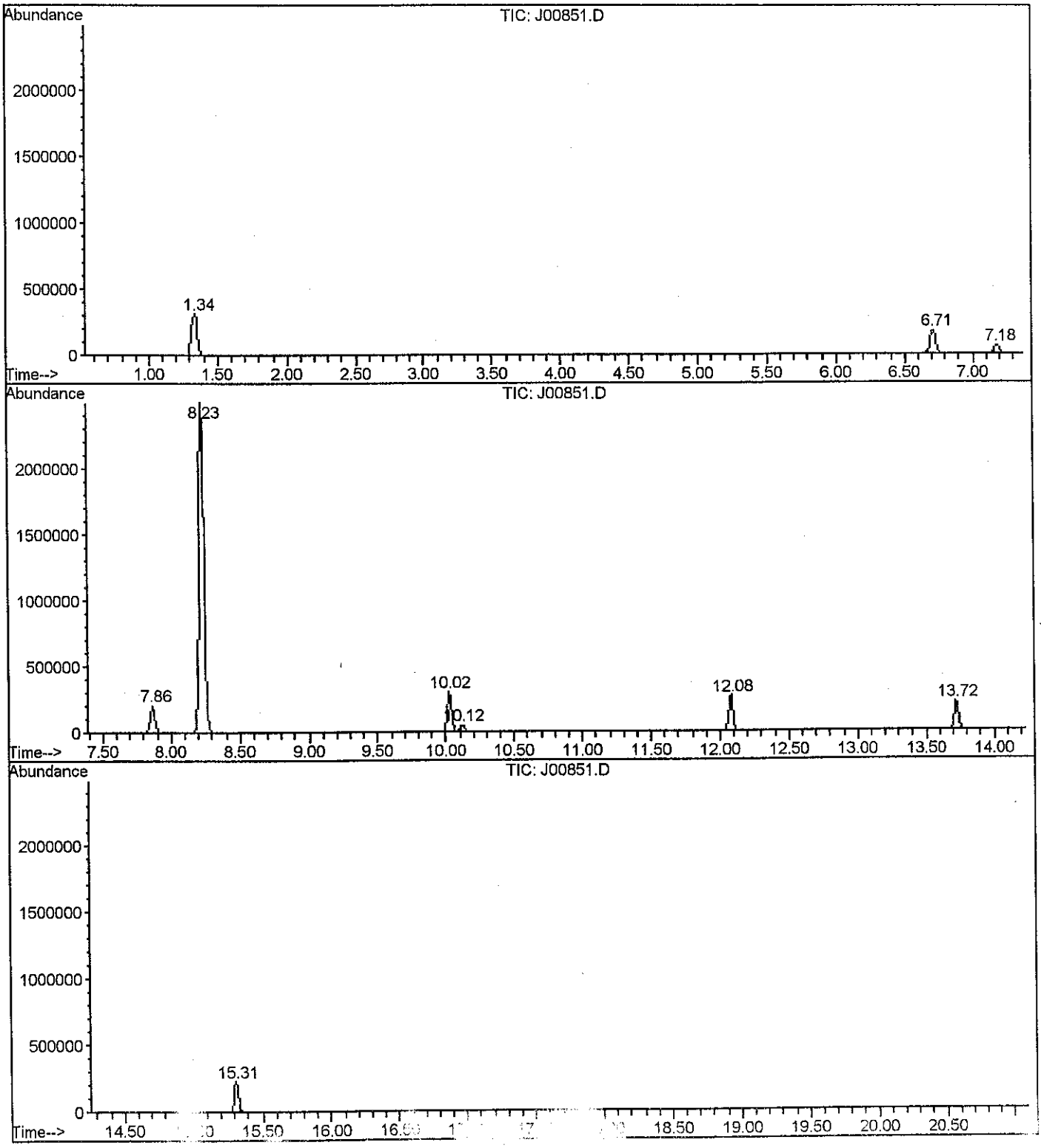
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.338	121	136	151	rBV	319746	988159	15.45%	8.841%
2	6.708	1018	1029	1042	rVB2	182656	563356	8.81%	5.040%
3	7.178	1096	1107	1119	rBV3	70011	205006	3.20%	1.834%
4	7.863	1212	1221	1235	rVB	211315	546433	8.54%	4.889%
5	8.230	1270	1282	1306	rBV	2499545	6397186	100.00%	57.233%
6	10.022	1571	1580	1590	rBV	306520	723192	11.30%	6.470%
7	10.118	1590	1596	1609	rVB	55271	129299	2.02%	1.157%
8	12.079	1912	1922	1935	rBV	270738	604505	9.45%	5.408%
9	13.721	2185	2195	2207	rBV2	217383	487267	7.62%	4.359%
10	15.315	2451	2460	2475	rBV	229710	533065	8.33%	4.769%

Sum of corrected areas: 11177468

J00851.D 08060125.M Tue Aug 07 08:41:46 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00851.D
Operator :
Acquired : 6 Aug 2001 19:39 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17841 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 15
Quant File :08060125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

perator ID: Date Acquired: 6 Aug 2001 19:39
ata File: C:\HPCHEM\1\DATA\1J080601\J00851.D
ame: AC17841 25ml DF=1
isc: 28507/W080601A
ethod: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
itle: 8260 CALIBRATION FOR 25ML WATER
ibrary Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00851.D 08060125.M Tue Aug 07 08:41:47 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00852.D Vial: 16
Acq On : 08/06/01 20:04 Operator:
Sample : AC17842 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:34 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	161448	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	167897	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	73380	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	76028	11.19	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 111.90%			
46) Toluene-d8	10.03	98	280672	11.41	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 114.10%#			
66) Bromofluorobenzene	13.72	95	89278	10.93	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 109.30%			
Target Compounds						Qvalue
11) Acetone	3.09	58	935	7.36	ug\L #	1
14) Carbon Disulfide	3.24	76	13287	0.63	ug\L #	91
23) cis-1,2-Dichloroethene	5.79	96	183801	24.38	ug\L	85
24) 2-Butanone	5.88	72	2875	17.36	ug\L #	100
37) Trichloroethene	8.23	95	275417	30.24	ug\L	98
47) Toluene	10.12	92	31524	1.98	ug\L	99

VRL
8.7.01

Confirmed with J00866

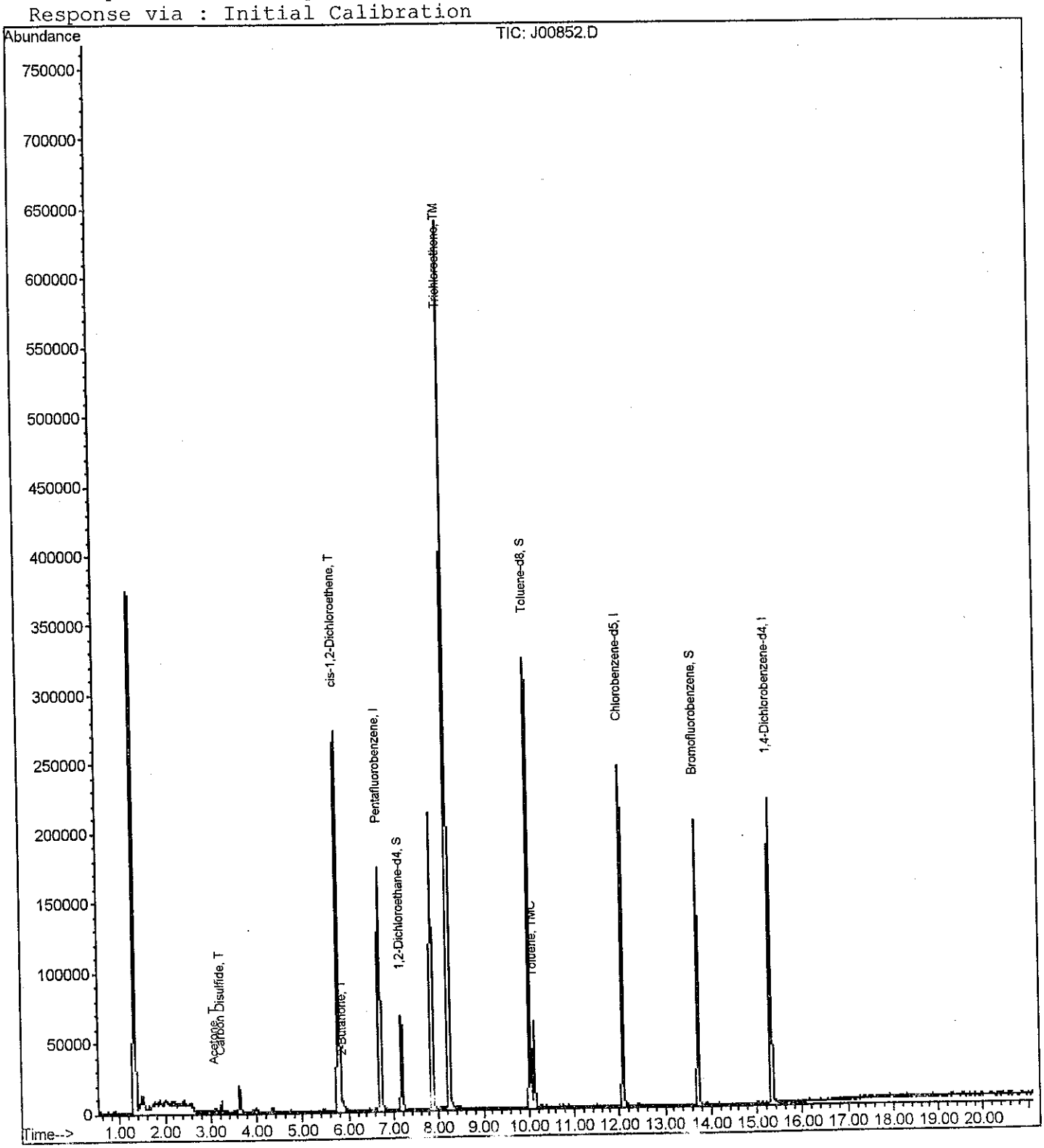
NI if Confirm Tee hit

(#) = qualifier o[illegible] of range (m) = manual integration
J00852.D 080[illegible]125 Tue Aug 07 08:34:45 2001 Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00852.D Vial: 16
Acq On : 08/06/01 20:04 Operator:
Sample : AC17842 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:34 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00852.D
Acq On : 08/06/01 20:04
Sample : AC17842 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 16
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

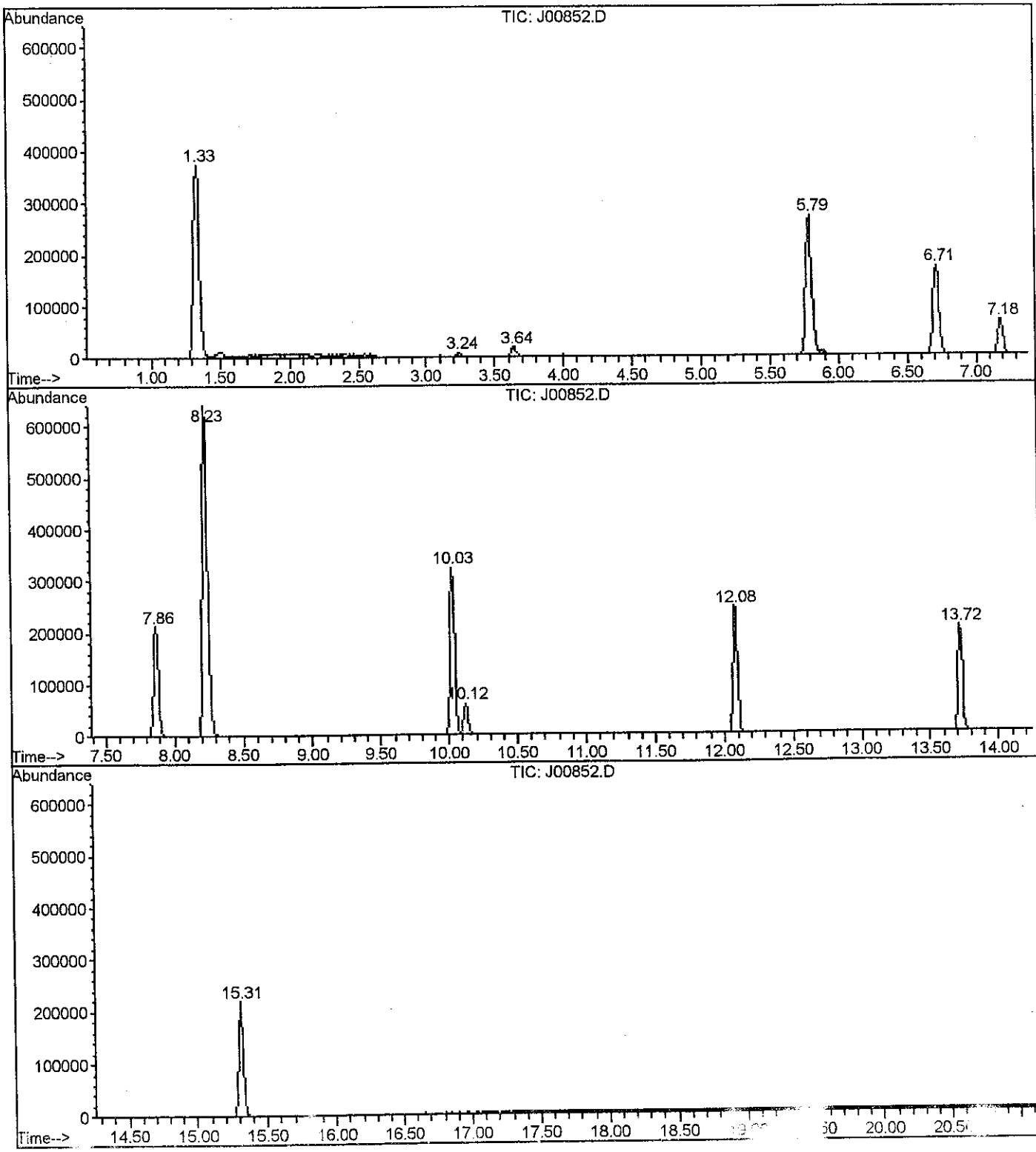
Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.332	121	135	149	rBV	374672	1145377	70.07%	15.482%
2	3.238	444	452	462	rBV2	8532	20313	1.24%	0.275%
3	3.635	509	518	530	rVB5	17954	48083	2.94%	0.650%
4	5.788	862	876	888	rBV	271845	861275	52.69%	11.642%
5	6.708	1017	1029	1045	rBV2	172928	531284	32.50%	7.181%
6	7.178	1098	1107	1120	rVB	67542	184178	11.27%	2.490%
7	7.863	1210	1221	1235	rBV	212058	566626	34.67%	7.659%
8	8.230	1269	1282	1301	rBV2	639266	1634515	100.00%	22.094%
9	10.028	1571	1581	1590	rBV	323313	758249	46.39%	10.249%
10	10.125	1590	1597	1608	rVB	60711	142813	8.74%	1.930%
11	12.079	1910	1922	1935	rBV	244610	559826	34.25%	7.567%
12	13.721	2185	2195	2205	rBV	204490	446908	27.34%	6.041%
13	15.315	2450	2460	2476	rBV	218836	498607	30.50%	6.740%

Sum of corrected areas: 7398054

J00852.D 08060125.M Tue Aug 07 08:42:12 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00852.D
Operator :
Acquired : 6 Aug 2001 20:04 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17842 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 16
Quant File :08060125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 20:04
Data File: C:\HPCHEM\1\DATA\1J080601\J00852.D
Name: AC17842 25ml DF=1
Misc: 28507/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00852.D 08060125.M Tue Aug 07 08:42:13 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00866.D Vial: 10
Acq On : 08/07/01 15:08 Operator:
Sample : AC17842 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:43 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	158646	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	191157	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	87391	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	74629	11.18	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 111.80%			
46) Toluene-d8	10.02	98	271968	9.72	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.20%			
66) Bromofluorobenzene	13.71	95	98784	10.16	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.60%			
Target Compounds						Qvalue
11) Acetone	3.10	58	1523	12.20	ug\L	81
16) Methylene Chloride	3.63	86	9237	0.54	ug\L	99
23) cis-1,2-Dichloroethene	5.77	96	155787	21.03	ug\L	85
24) 2-Butanone	5.86	72	3070	18.75	ug\L #	100
37) Trichloroethene	8.22	95	226367	25.29	ug\L	98
47) Toluene	10.11	92	139830	7.73	ug\L	99

VAR
8-8-01

(#) = qualifier out of range (m = manual integration
J00866.D 08070125.M Wed Aug 08 09:18:48 2001

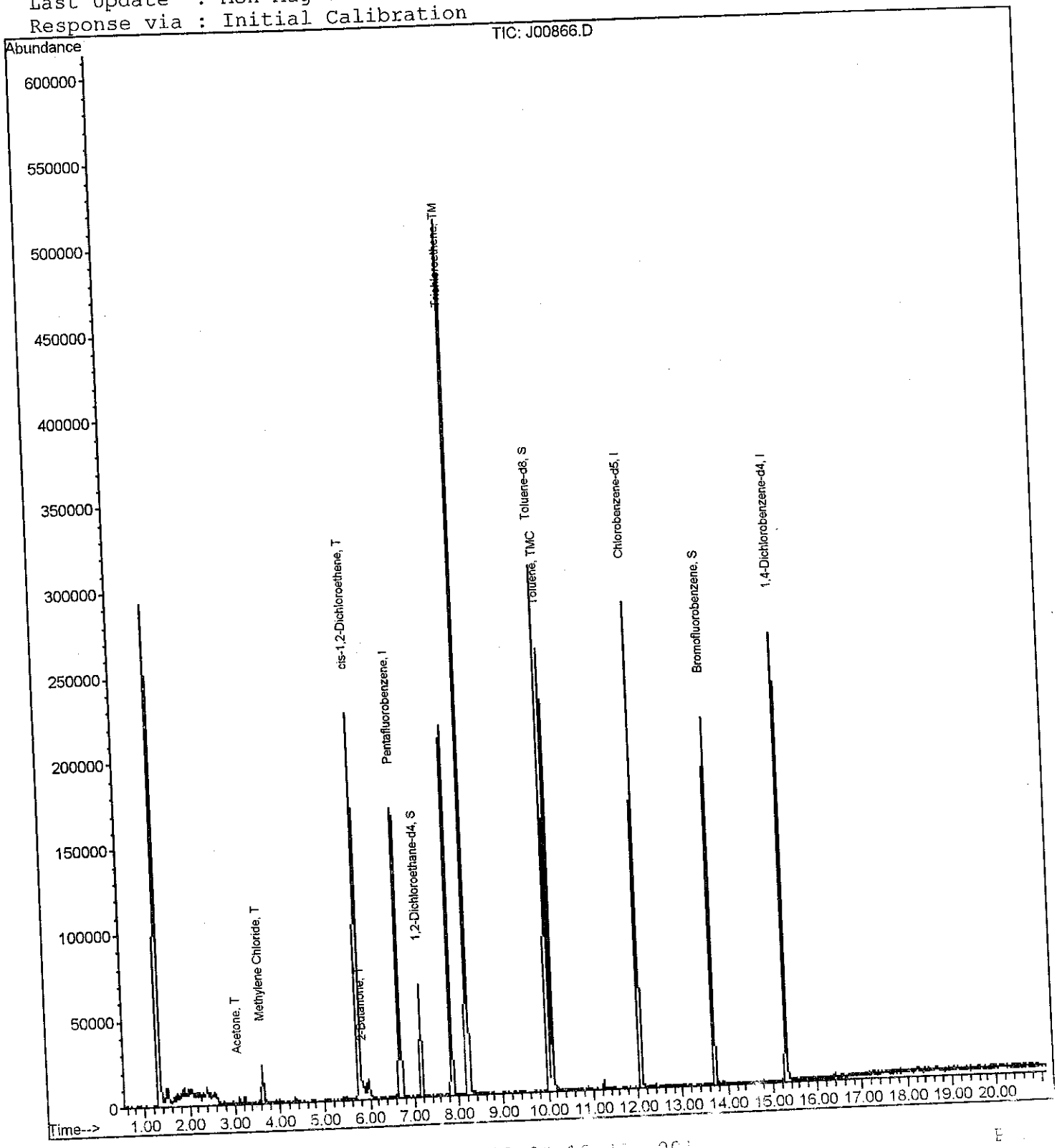
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00866.D
Acq On : 08/07/01 15:08
Sample : AC17842 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 16:43 2001

Vial: 10
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00866.D
Acq On : 08/07/01 15:08
Sample : AC17842 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 10
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

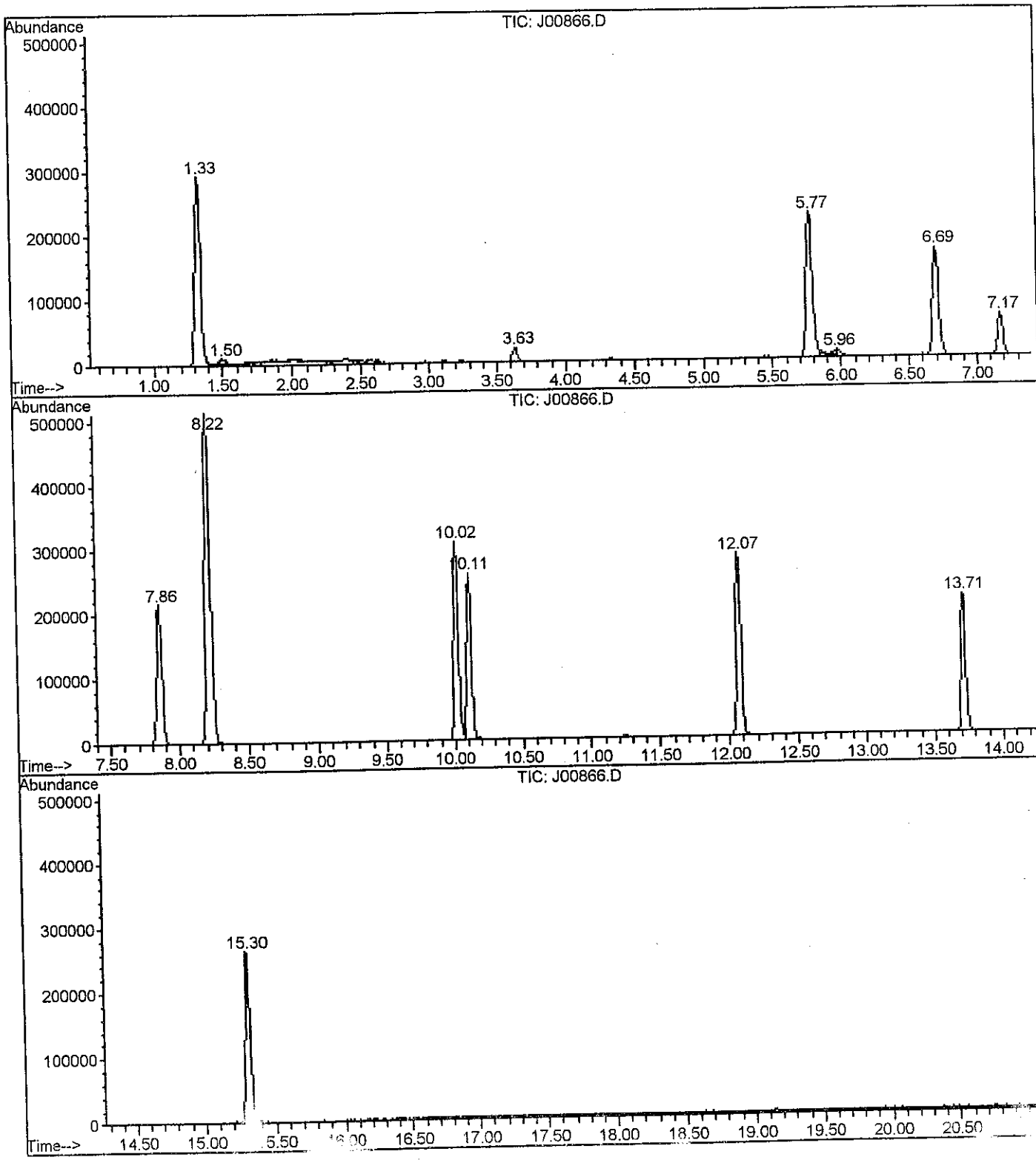
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.330	122	134	149	rBV	292334	843329	62.32%	11.448%
2	1.499	155	162	173	rVB	8204	28635	2.12%	0.389%
3	3.628	509	516	526	rVB4	21549	57835	4.27%	0.785%
4	5.775	861	873	884	rBV3	225407	727730	53.77%	9.879%
5	5.961	897	904	906	rBV	7258	14154	1.05%	0.192%
6	6.695	1014	1026	1039	rBV	168620	519703	38.40%	7.055%
7	7.170	1094	1105	1117	rBV2	64710	181011	13.38%	2.457%
8	7.856	1209	1219	1233	rBV	215640	569182	42.06%	7.727%
9	8.216	1269	1279	1292	rBV2	511989	1353298	100.00%	18.371%
10	10.021	1567	1579	1587	rBV	308575	732604	54.13%	9.945%
11	10.111	1587	1594	1605	rVB	257440	602587	44.53%	8.180%
12	12.071	1911	1920	1934	rBV2	284254	646871	47.80%	8.781%
13	13.713	2184	2193	2205	rBV2	214772	497202	36.74%	6.750%
14	15.301	2448	2457	2467	rBV	262744	592291	43.77%	8.040%

Sum of corrected areas: 7366432

J00866.D 08070125.M Wed Aug 08 09:19:12 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00866.D
Operator :
Acquired : 7 Aug 2001 15:08 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17842 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 10
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

perator ID: Date Acquired: 7 Aug 2001 15:08
ata File: C:\HPCHEM\1\DATA\1J080701\J00866.D
ame: AC17842 25ml DF=1
isc: 28507/W080601A
ethod: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
itle: 8260 CALIBRATION FOR 25ML WATER
ibrary Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00866.D 08070125.M Wed Aug 08 09:19:13 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00850.D
Acq On : 08/06/01 19:13
Sample : AC17843 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 8:31 2001

Vial: 14
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	6.70	168	155859	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	179849	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	79751	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	76332	11.64	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 116.40%			
46) Toluene-d8	10.02	98	279039	10.59	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.90%#			
66) Bromofluorobenzene	13.72	95	98911	11.14	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.40%#			
						Qvalue
Target Compounds						
47) Toluene	10.12	92	144615	8.50	ug\L	100

VRR 8.7.01

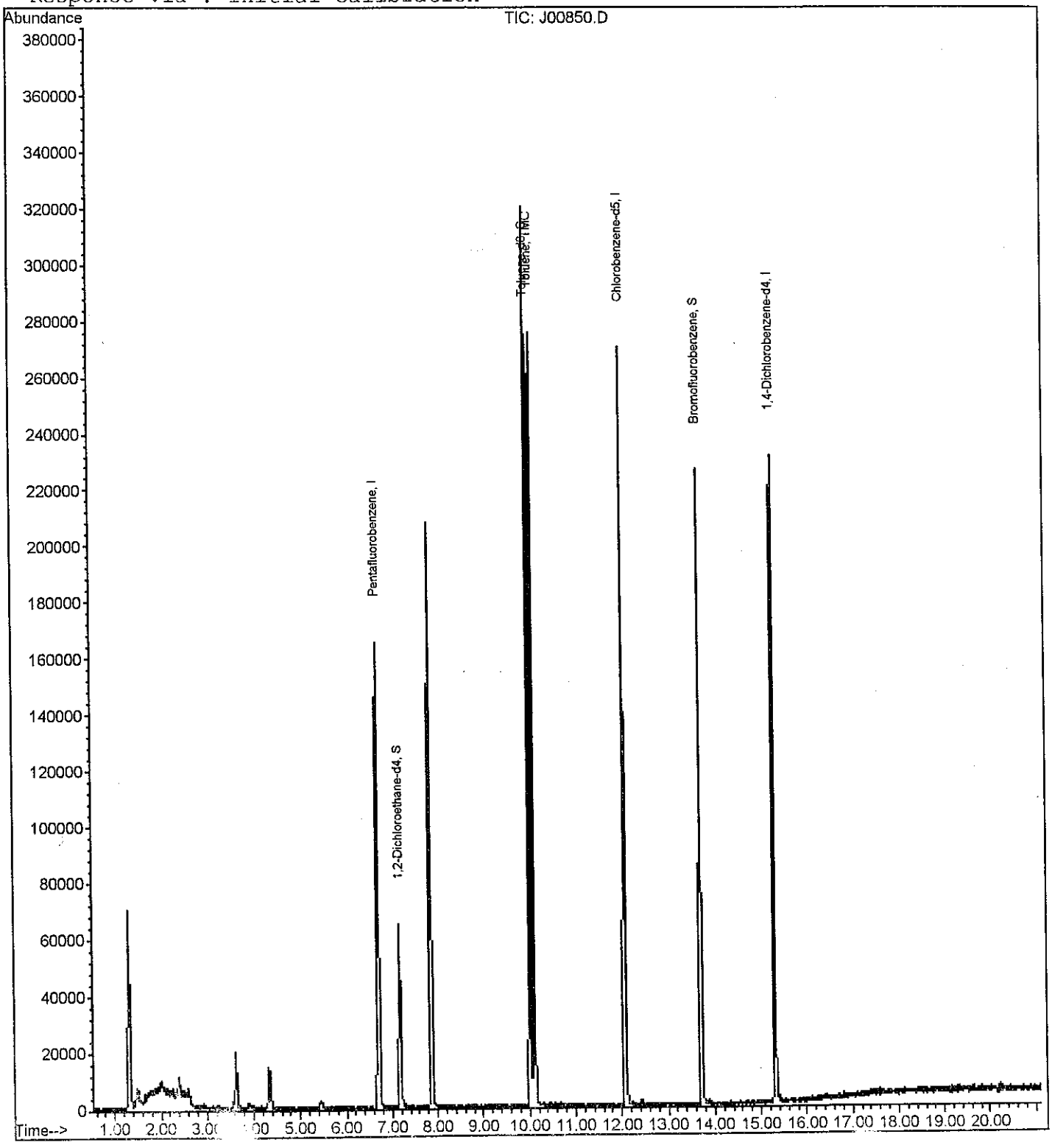
Toluene hit confirmed with JCC864

(#) = qualifier out of range (m) = manual integration
J00850.D 08060125.M Tue Aug 07 08:31:34 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00850.D Vial: 14
Acq On : 08/06/01 19:13 Operator:
Sample : AC17843 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:31 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00864.D Vial: 8
Acq On : 08/07/01 14:16 Operator:
Sample : AC17843 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:42 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	175989	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	199736	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	90299	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	78130	10.55	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 105.50%			
46) Toluene-d8	10.02	98	296113	10.12	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.20%			
66) Bromofluorobenzene	13.71	95	103882	10.34	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 103.40%			
Target Compounds						Qvalue
47) Toluene	10.11	92	188041	9.95	ug\L	100

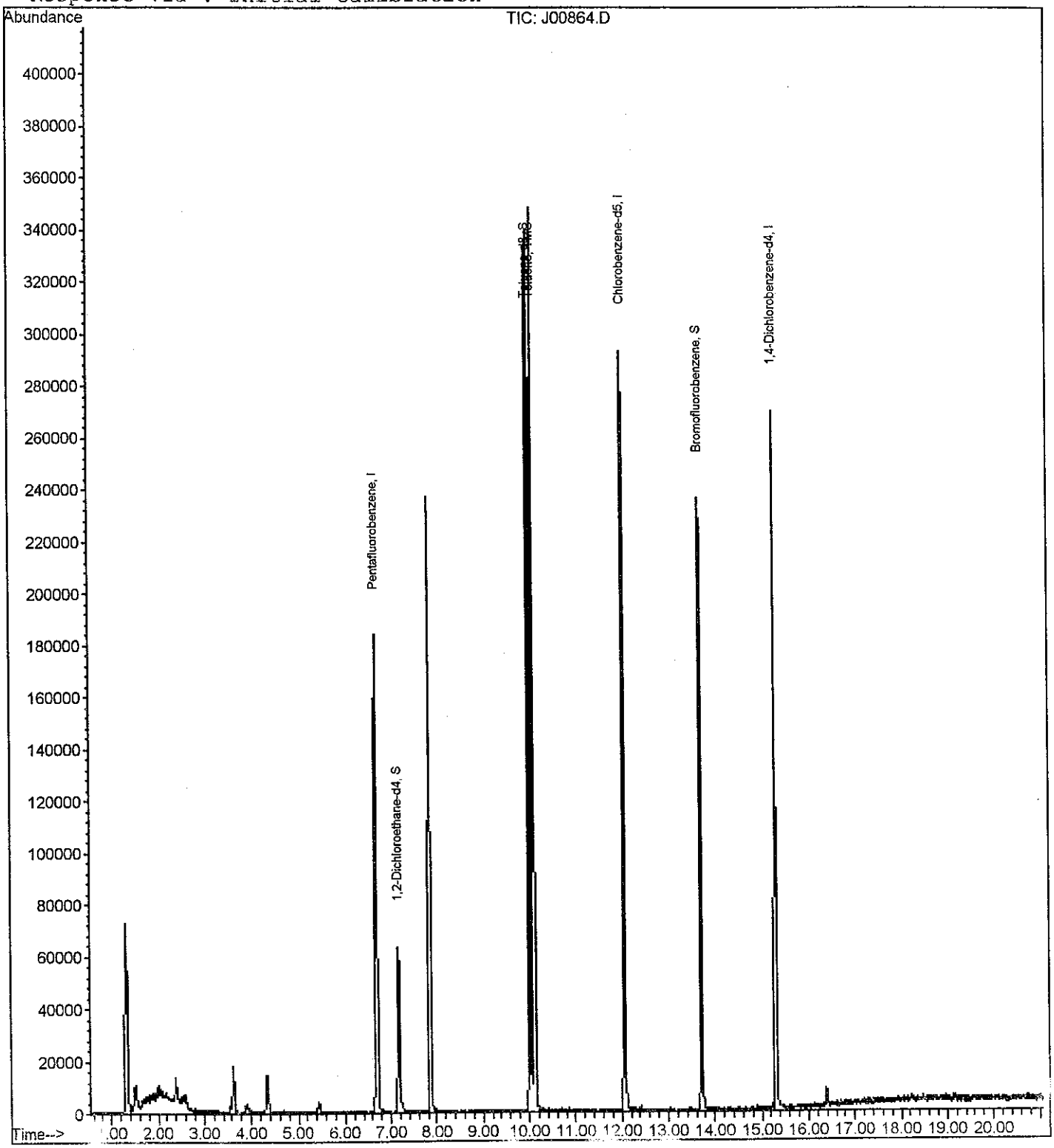
VRP
8.8.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00864.D Vial: 8
Acq On : 08/07/01 14:16 Operator:
Sample : AC17843 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:42 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00850.D Vial: 14
Acq On : 08/06/01 19:13 Operator:
Sample : AC17843 25ml DF=1 Inst : HP-MSJ
Misc : 28507/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

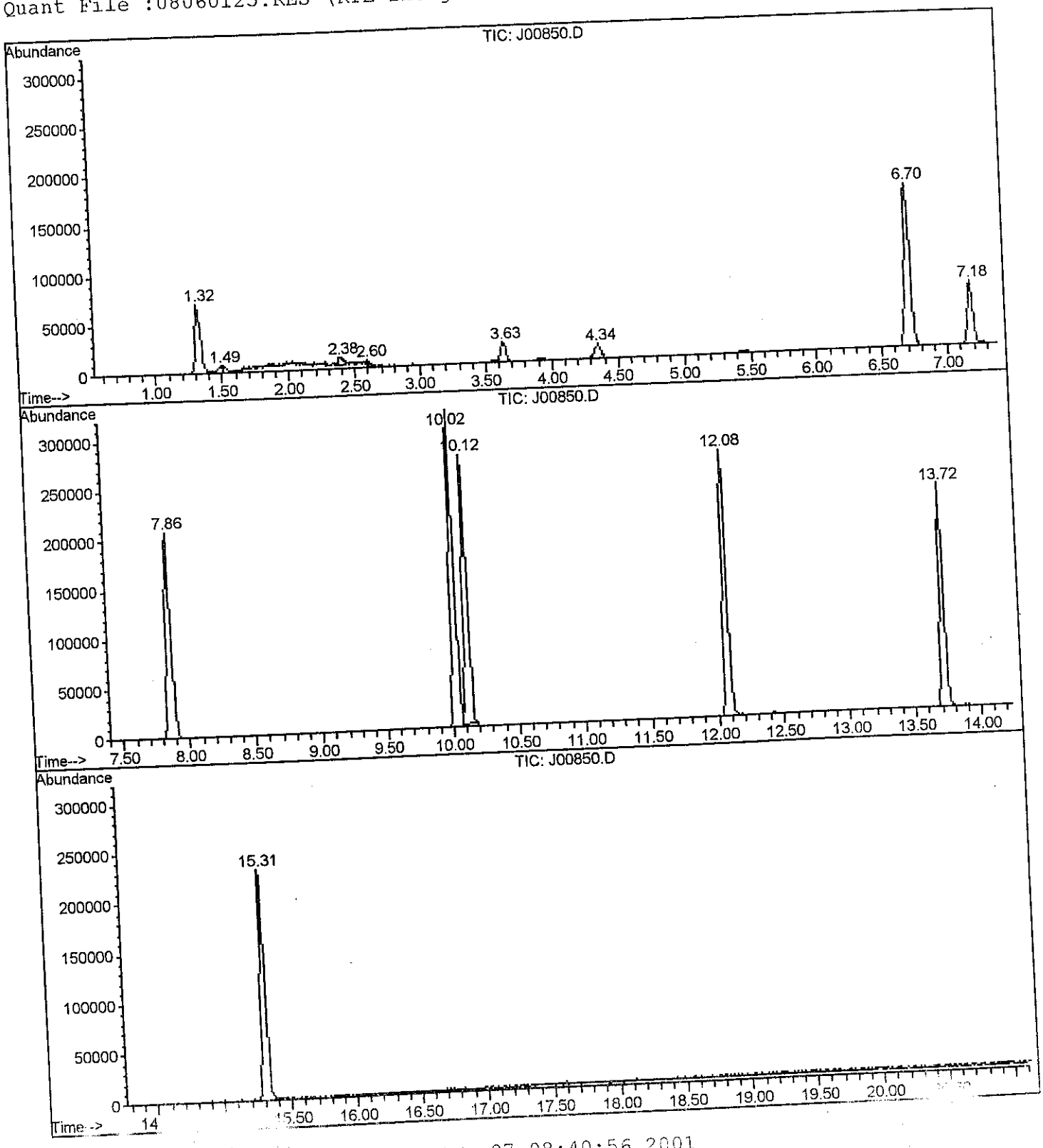
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.319	118	132	146	rBV	70628	208010	27.96%	4.521%
2	1.494	149	161	163	rBV	6051	15902	2.14%	0.346%
3	2.384	303	309	317	rVB5	6501	20102	2.70%	0.437%
4	2.600	343	345	351	rVB5	5667	7933	1.07%	0.172%
5	3.629	510	516	525	rVB5	19190	49715	6.68%	1.081%
6	4.345	625	635	648	rVB4	14802	49141	6.60%	1.068%
7	6.702	1015	1027	1043	rBV2	165409	513884	69.07%	11.170%
8	7.177	1095	1106	1116	rBV	64462	182331	24.51%	3.963%
9	7.863	1206	1220	1232	rBV	208092	543369	73.03%	11.810%
10	10.022	1566	1579	1588	rBV	319901	744012	100.00%	16.172%
11	10.118	1588	1595	1604	rVB	271966	620127	83.35%	13.479%
12	12.079	1912	1921	1934	rBV	269678	606218	81.48%	13.177%
13	13.721	2185	2194	2208	rBV	226344	500003	67.20%	10.868%
14	15.309	2449	2458	2469	rBV	230512	540000	72.58%	11.737%

Sum of corrected areas: 4600747

J00850.D 08060125.M Tue Aug 07 08:40:55 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00850.D
Operator :
Acquired : 6 Aug 2001 19:13 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17843 25ml DF=1
Misc Info : 28507/W080601A
Vial Number: 14
Quant File :08060125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00850.D
Acq On : 08/06/01 19:13
Sample : AC17843 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 14
Operator:
Inst : HP-MSJ
Multiplr: 1.00

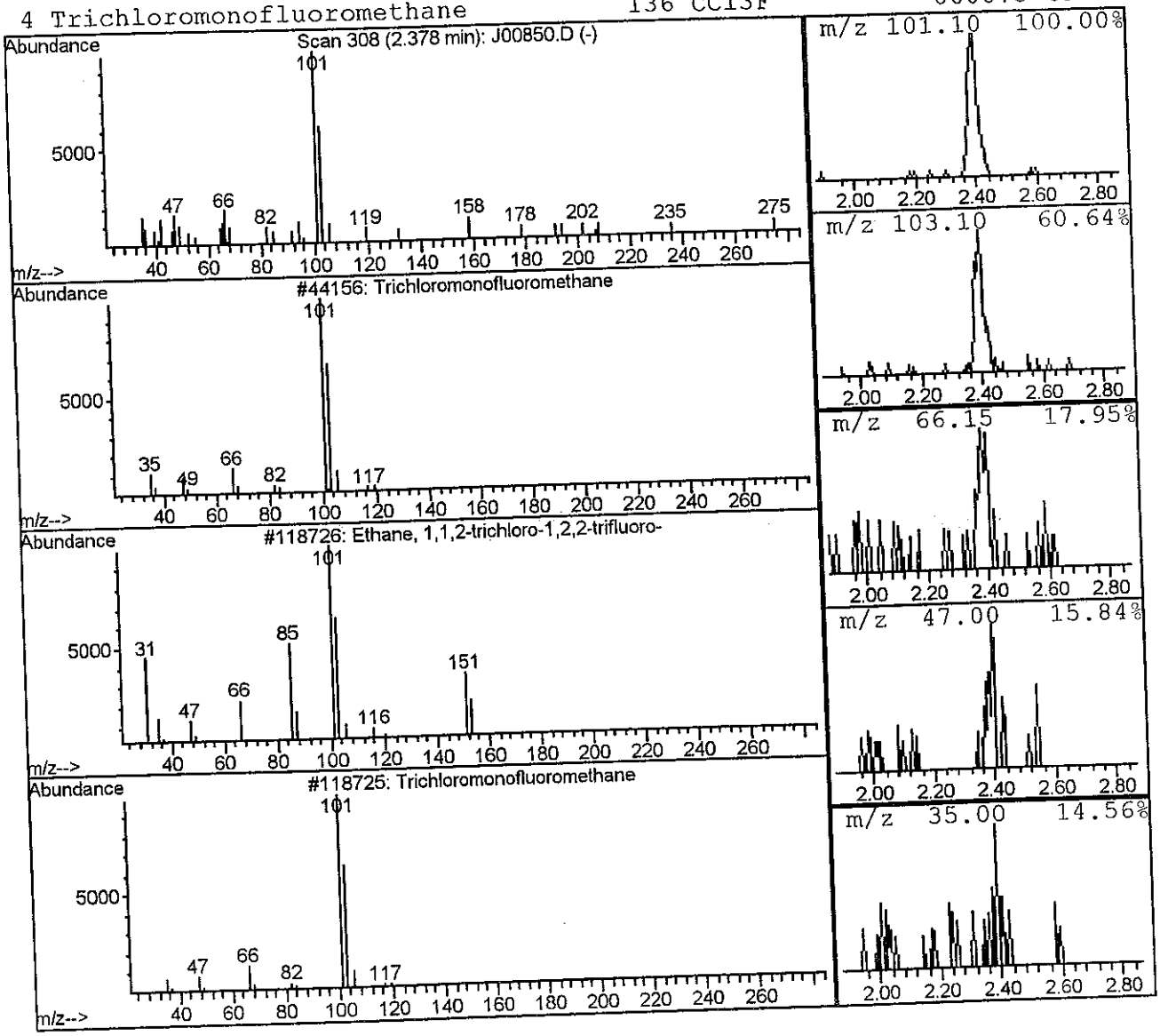
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Trichloromonofluoromethane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.38	201020.00 ug\L	20102	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Trichloromonofluoromethane	136	CCl3F	000075-69-4	72
2	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	72
3	Trichloromonofluoromethane	136	CCl3F	000075-69-4	72
4	Trichloromonofluoromethane	136	CCl3F	000075-69-4	72



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00850.D
Acq On : 08/06/01 19:13
Sample : AC17843 25ml DF=1
Misc : 28507/W080601A
MS Integration Params: LSCINT.P

Vial: 14
Operator:
Inst : HP-MSJ
Multiplr: 1.00

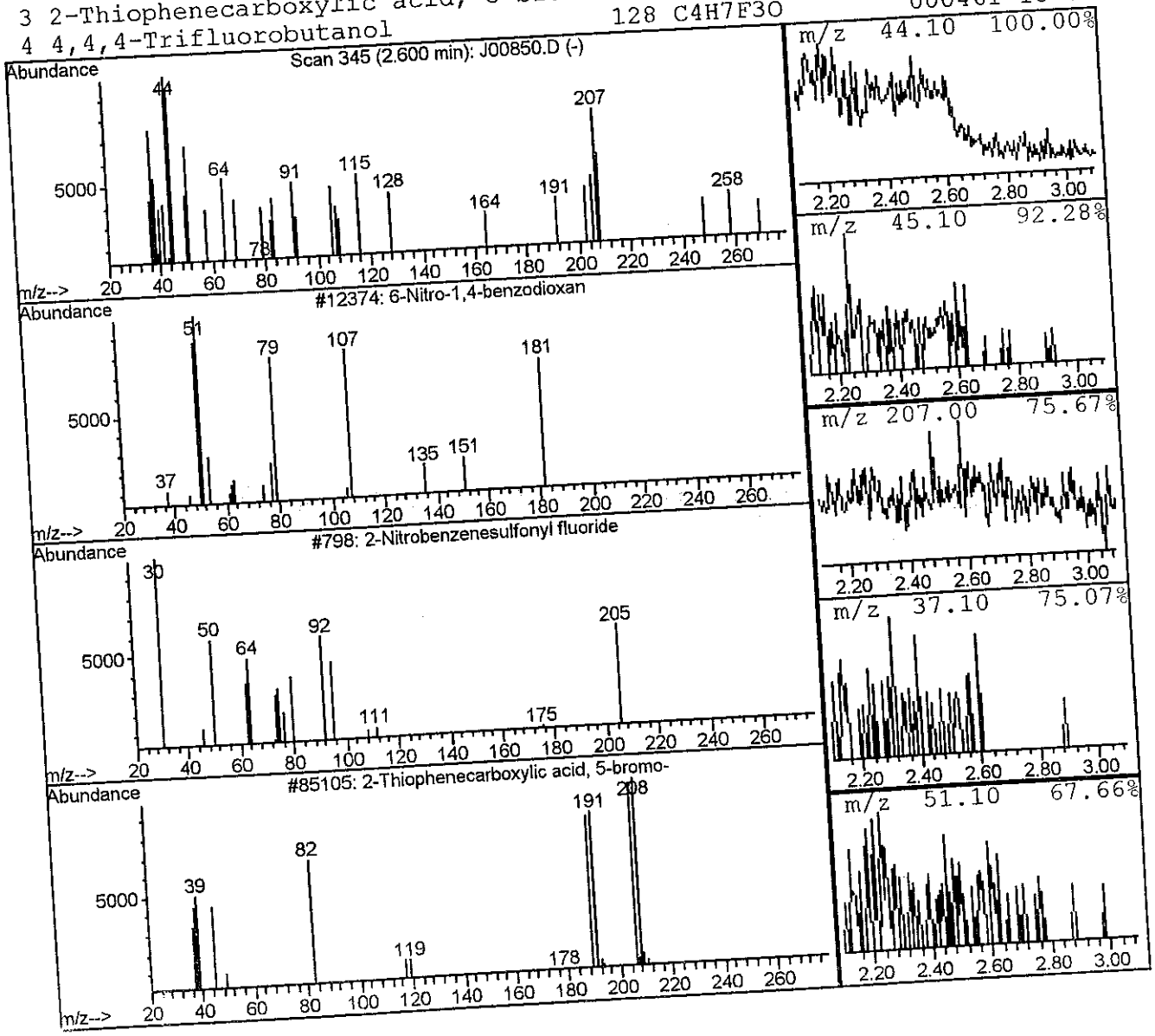
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 6-Nitro-1,4-benzodioxan Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.60	79330.00 ug\L	7933	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	6-Nitro-1,4-benzodioxan	181	C8H7NO4	1000224-00-3	74
2	2-Nitrobenzenesulfonyl fluoride	205	C6H4FNO4S	000433-98-7	74
3	2-Thiophenecarboxylic acid, 5-bromo	206	C5H3BrO2S	007311-63-9	64
4	4,4,4-Trifluorobutanol	128	C4H7F3O	000461-18-7	64



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 19:13
Data File: C:\HPCHEM\1\DATA\1J080601\J00850.D
Name: AC17843 25ml DF=1
Misc: 28507/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Trichloromonofluorom	2.38	201020.0	ug\L	20102	ISTD01	0.00	1	10.0
5-Nitro-1,4-benzodio	2.60	79330.0	ug\L	7933	ISTD01	0.00	1	10.0

J00850.D 08060125.M Tue Aug 07 08:40:57 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

Target Compounds Qvalue

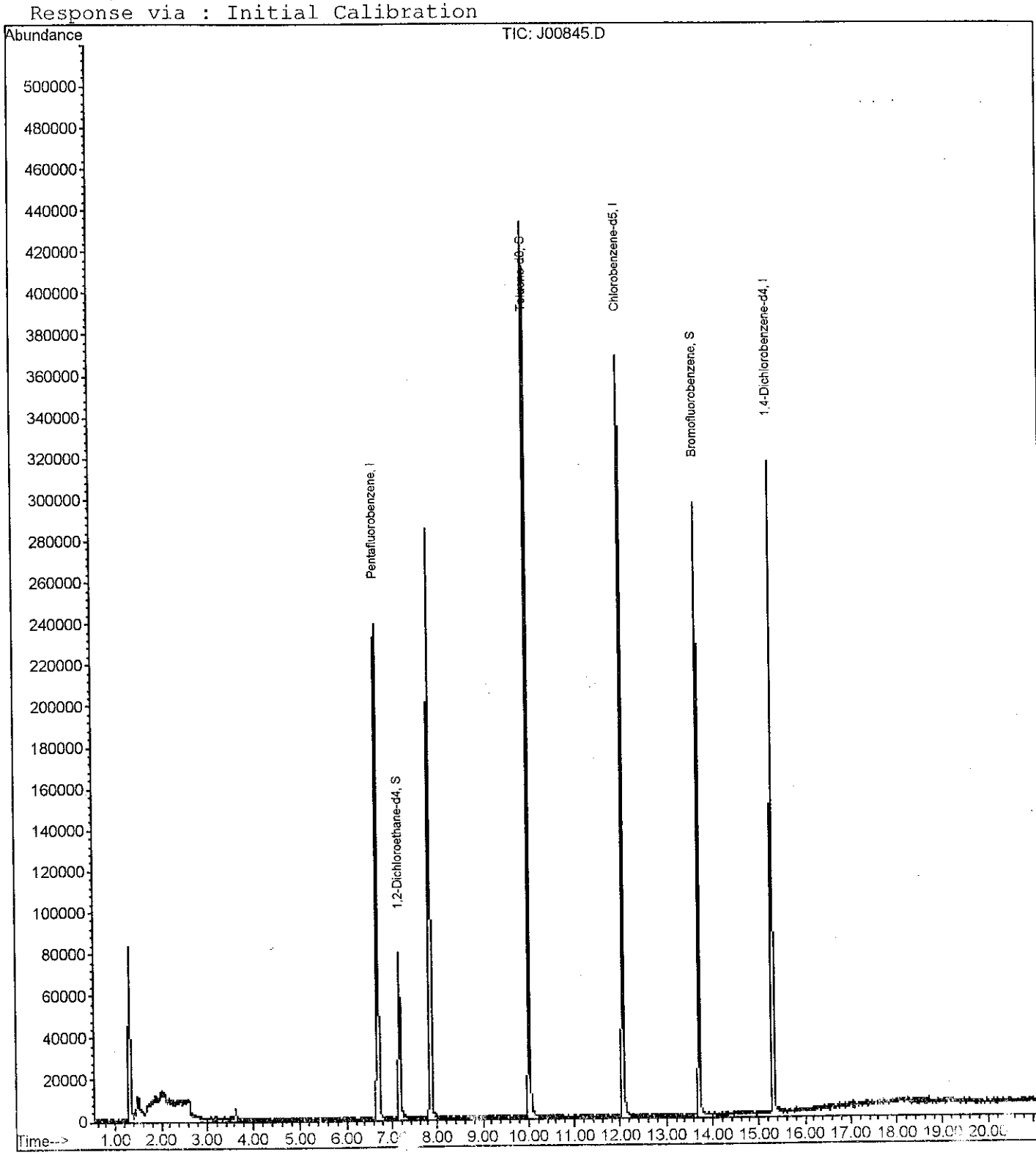
JRK
8.7.01

(#) = qualifier out of range (m) = manual integration
J00845.D 08060125.M Tue Aug 07 09:14:13 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D
Acq On : 08/06/01 16:55
Sample : 1J080601MB
Misc : WATER 25ml
MS Integration Params: LSCINT.P

Vial: 9
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

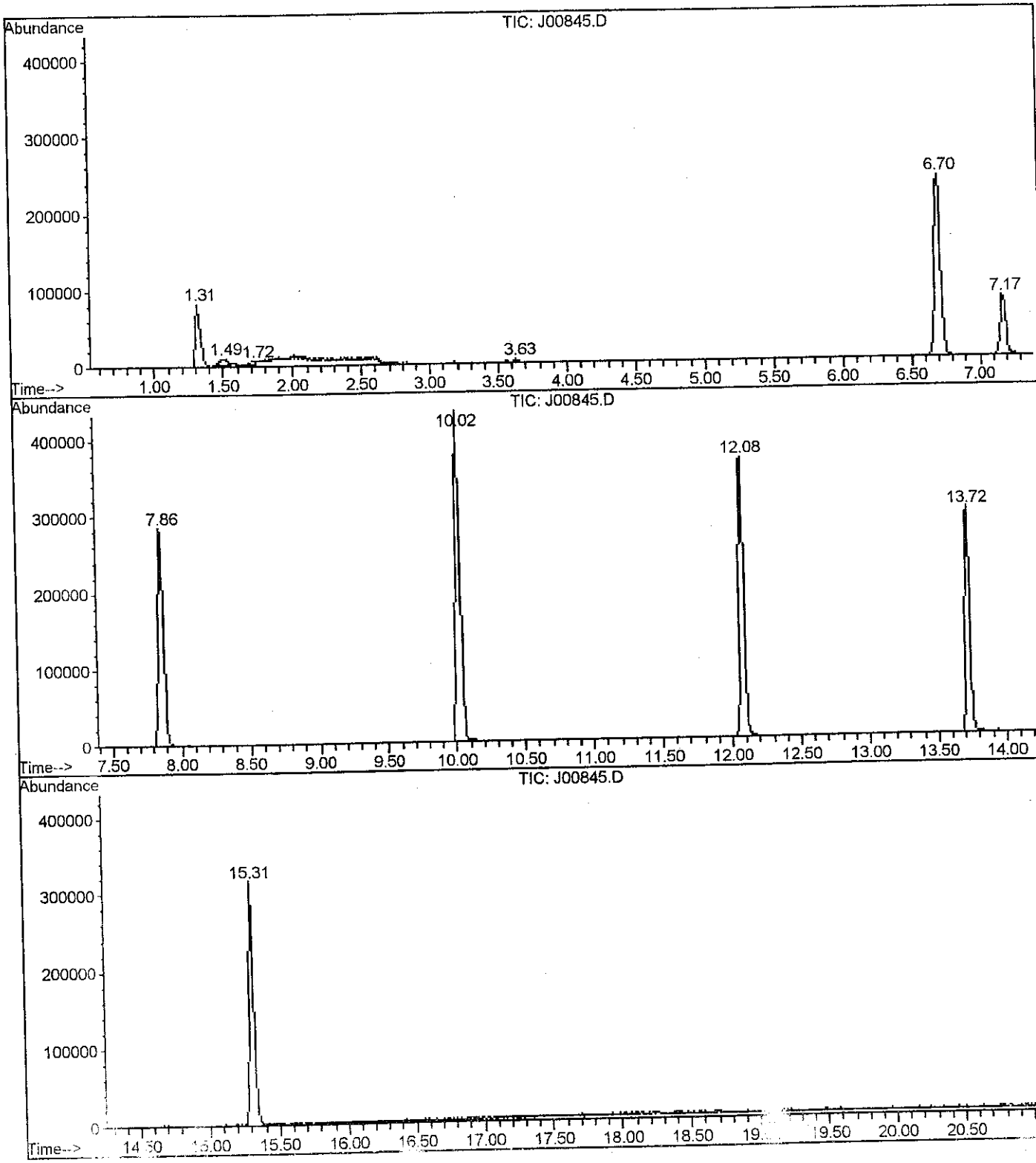
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.314	122	131	148	rBV	82888	227478	22.29%	4.336%
2	1.494	155	161	170	rBV	7277	24015	2.35%	0.458%
3	1.723	189	199	200	rBV4	4996	13179	1.29%	0.251%
4	3.629	510	516	524	rVB4	4983	11207	1.10%	0.214%
5	6.697	1013	1026	1039	rBV2	238572	745736	73.07%	14.215%
6	7.166	1095	1104	1115	rBV2	79309	233256	22.86%	4.446%
7	7.857	1207	1219	1236	rBV	285399	784391	76.86%	14.952%
8	10.023	1568	1579	1591	rBV	432721	1020509	100.00%	19.452%
9	12.079	1911	1921	1934	rBV	367299	812530	79.62%	15.488%
10	13.721	2184	2194	2208	rBV	296996	656057	64.29%	12.505%
11	15.309	2448	2458	2470	rBV	315489	717860	70.34%	13.683%

Sum of corrected areas: 5246218

J00845.D 08060125.M Tue Aug 07 08:43:44 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00845.D
Operator :
Acquired : 6 Aug 2001 16:55 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: 1J080601MB
Misc Info : WATER 25ml
Vial Number: 9
Quant File :08060125.RES (RTE Integrator)



J0[illegible].D 080[illegible]0125.M Tue Aug 07 08:43:45 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D
Acq On : 08/06/01 16:55
Sample : 1J080601MB
Misc : WATER 25ml
MS Integration Params: LSCINT.P

Vial: 9
Operator:
Inst : HP-MSJ
Multiplr: 1.00

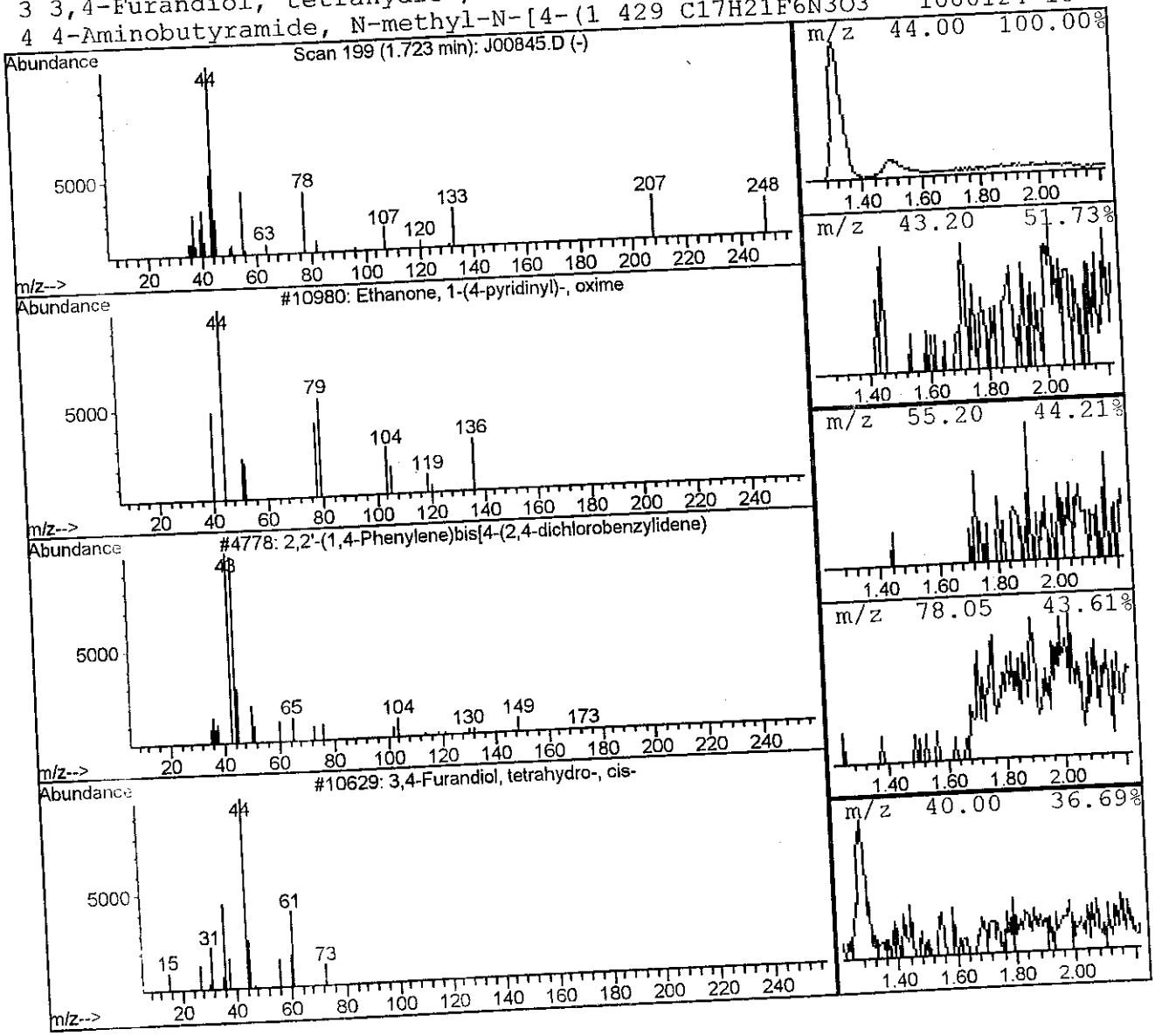
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Ethanone, 1-(4-pyridinyl)-, ox Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.72	131790.00 ug\L	13179	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanone, 1-(4-pyridinyl)-, oxime	136	C7H8N2O	001194-99-6	25
2	2,2'-(1,4-Phenylene)bis[4-(2,4-dich	556	C26H12Cl4N2O4	1000223-06-6	9
3	3,4-Furandiol, tetrahydro-, cis-	104	C4H8O3	004358-64-9	9
4	4-Aminobutyramide, N-methyl-N-[4-(1	429	C17H21F6N3O3	1000124-10-5	9



Tue Aug 07 08:43:46 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 16:55
Data File: C:\HPCHEM\1\DATA\1J080601\J00845.D
Name: 1J080601MB
Misc: WATER 25ml
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethanone, 1-(4-pyrid	1.72	131790.0	ug\L	13179	ISTD01	0.00	1	10.0

J00845.D 08060125.M Tue Aug 07 08:43:46 2001

Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Acq On : 08/07/01 11:15
Sample : 1J080701MB
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001

Vial: 2
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			

Target Compounds Qvalue

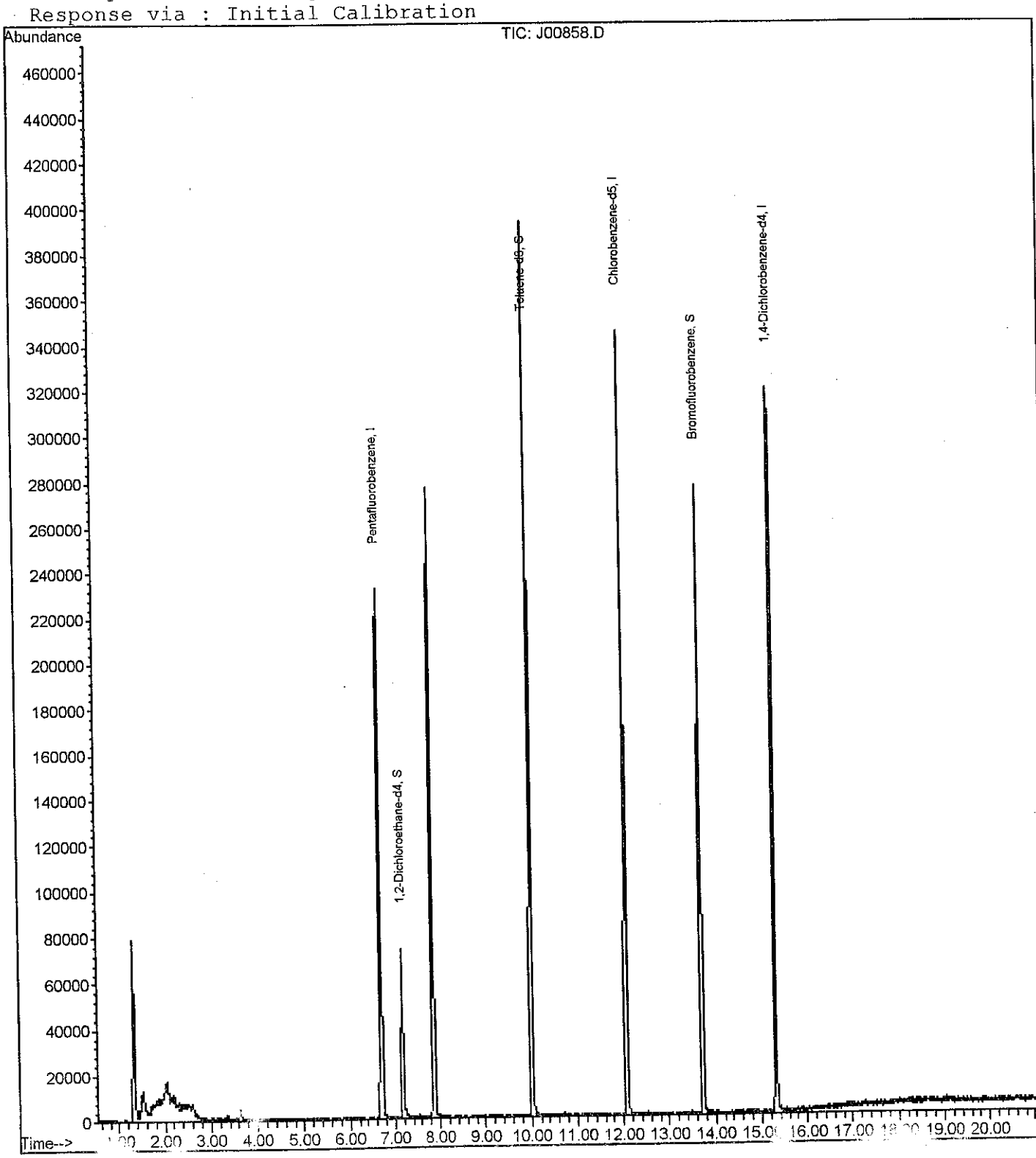
JRR
8-8-01

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Wed Aug 08 09:31:10 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 8/6/2001/HP-MS3	METHOD: 8260B
MATRIX: WATER - 25 ml	

Are all standards within expiration dates for both stock and serial standards? ~~Y~~ N NA

Are Tuning results compliant with method? ~~Y~~ N NA

Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds? Y ~~N~~ NA

If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below) ~~Y~~ N NA

Methylene chloride — Linear

2-Butanone — Linear.

Isobutyl alcohol — Linear

Is the runlog completely filled out (including review signature/date)? ~~Y~~ N NA

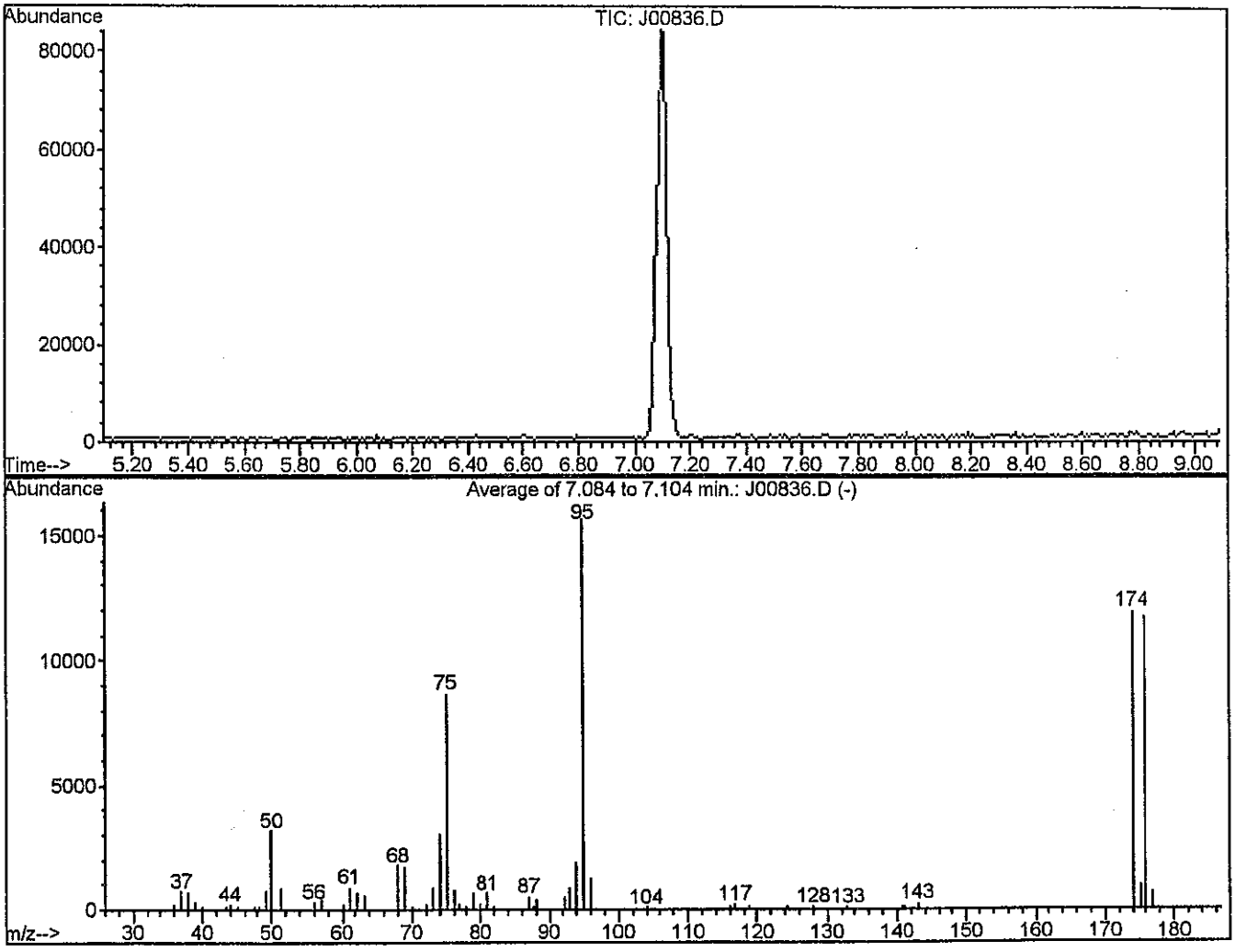
Are all mistakes single lined, initialled, and dated? ~~Y~~ N NA

Analyst: VRK	Reviewer:
Date: 8-6-01 Time: 16:50	Date: 08.07.2001 Time: 1025

BFB

Data File : C:\HPCHEM\1\DATA\1J080601\J00836.D
Acq On : 08/06/01 09:57
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER

Vial: 1
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	3141	PASS
75	95	30	60	55.4	8663	PASS
95	95	100	100	100.0	15641	PASS
96	95	5	9	7.5	1166	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.4	11953	PASS
175	174	5	9	8.0	959	PASS
176	174	95	101	97.8	11692	PASS
177	176	5	9	5.9	685	PASS

J00836.D 08060125.M Mon Aug 06 16:42 [illegible] 2000

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	RSD
1)	I	Pentafluorobenzene	ISTD							
2)	T	Dichlorodifluoromet	0.850	0.776	0.740	0.768	0.718	0.731	0.764	6.23
3)	TP	Chloromethane	0.487	0.379	0.372	0.361	0.345	0.329	0.379	14.78
4)	TC	Vinyl Chloride	0.594	0.530	0.509	0.510	0.493	0.494	0.522	7.27
5)	T	Bromomethane	0.203	0.140	0.155	0.149	0.150	0.147	0.157	14.60
6)	T	Chloroethane	0.300	0.283	0.285	0.281	0.266	0.263	0.280	4.83
7)	T	Trichlorofluorometh	0.931	1.028	0.984	0.984	0.939	0.893	0.960	5.03
8)	T	Acrolein	0.016	0.012	0.011	0.012	0.012	0.012	0.013	12.38
9)	T	Acrylonitrile	0.028	0.032	0.029	0.032	0.030	0.030	0.030	5.51
10)	TMC	1,1-Dichloroethene	0.511	0.452	0.447	0.453	0.441	0.432	0.456	6.13
11)	T	Acetone		0.009	0.008	0.009	0.007	0.007	0.008	10.18
12)	T	Iodomethane	0.465	0.586	0.628	0.694	0.643	0.646	0.610	12.96
13)	T	Allylchloride	0.525	0.556	0.560	0.564	0.546	0.543	0.549	2.60
14)	T	Carbon Disulfide	1.602	1.239	1.242	1.323	1.250	1.244	1.317	10.91
15)	T	Acetonitrile	0.057	0.060	0.060	0.060	0.058	0.057	0.059	2.64
16)	T	Methylene Chloride	0.376	0.422	0.286	0.253	0.245	0.244	0.304	25.06
17)	T	trans-1,2-Dichloroe	0.541	0.470	0.490	0.493	0.479	0.465	0.490	5.59
18)	T	MethylTertButylEthe	0.608	0.560	0.588	0.586	0.594	0.595	0.589	2.71
19)	TP	1,1-Dichloroethane	0.757	0.729	0.729	0.742	0.731	0.721	0.735	1.75
20)	T	Isopropyl Ether	0.081	0.074	0.075	0.074	0.078	0.079	0.077	3.66
21)	T	Vinyl Acetate	0.364	0.345	0.352	0.386	0.376	0.384	0.368	4.64
22)	T	2,2-Dichloropropane	0.924	0.862	0.875	0.871	0.849	0.820	0.867	3.96
23)	T	cis-1,2-Dichloroeth	0.489	0.471	0.460	0.471	0.457	0.454	0.467	2.75
24)	T	2-Butanone	0.010	0.007	0.008	0.010	0.011	0.011	0.010	16.34
25)	T	Propionitrile	0.009	0.010	0.010	0.010	0.011	0.011	0.010	5.58
26)	T	Methacrylonitrile	0.059	0.058	0.060	0.059	0.058	0.059	0.059	1.26
27)	T	Bromochloromethane	0.171	0.171	0.167	0.171	0.171	0.163	0.169	1.97
28)	TC	Chloroform	0.890	0.903	0.920	0.917	0.898	0.874	0.900	1.92
29)	T	1,1,1-Trichloroetha	1.021	1.050	1.056	1.062	1.029	1.009	1.038	2.04
30)	T	Carbon Tetrachlorid	0.961	0.984	0.981	1.000	0.964	0.945	0.973	2.03
31)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	5.94
32)	T	1,1-Dichloropropene	0.197	0.204	0.216	0.217	0.208	0.206	0.208	3.56
33)	S	1,2-Dichloroethane-	0.433	0.405	0.421	0.436	0.423	0.407	0.421	3.06
34)	TM	Benzene	1.571	1.605	1.603	1.640	1.609	1.597	1.604	1.40
35)	T	Isobutyl alcohol	0.002	0.002	0.003	0.003	0.003	0.003	0.003	17.98
36)	T	1,2-Dichloroethane	0.486	0.472	0.489	0.488	0.469	0.474	0.480	1.86
37)	TM	Trichloroethene	0.558	0.547	0.565	0.582	0.570	0.562	0.564	2.04
38)	TC	1,2-Dichloropropane	0.287	0.301	0.296	0.307	0.306	0.301	0.300	2.46
39)	T	Dibromomethane	0.164	0.176	0.182	0.181	0.179	0.178	0.177	3.62
40)	T	Methylmethacrylate	0.070	0.072	0.079	0.083	0.087	0.088	0.080	9.75
41)	T	Bromodichloromethan	0.561	0.547	0.582	0.593	0.582	0.589	0.576	3.09
42)	T	2-Chloroethyl-vinyl	0.059	0.049	0.052	0.059	0.057	0.054	0.055	7.05
43)	T	cis-1,3-Dichloropro	0.498	0.500	0.546	0.561	0.551	0.559	0.536	5.39
44)	T	4-Methyl-2-Pentanon	0.024	0.019	0.019	0.022	0.023	0.023	0.021	10.53

(#) = Out of Range

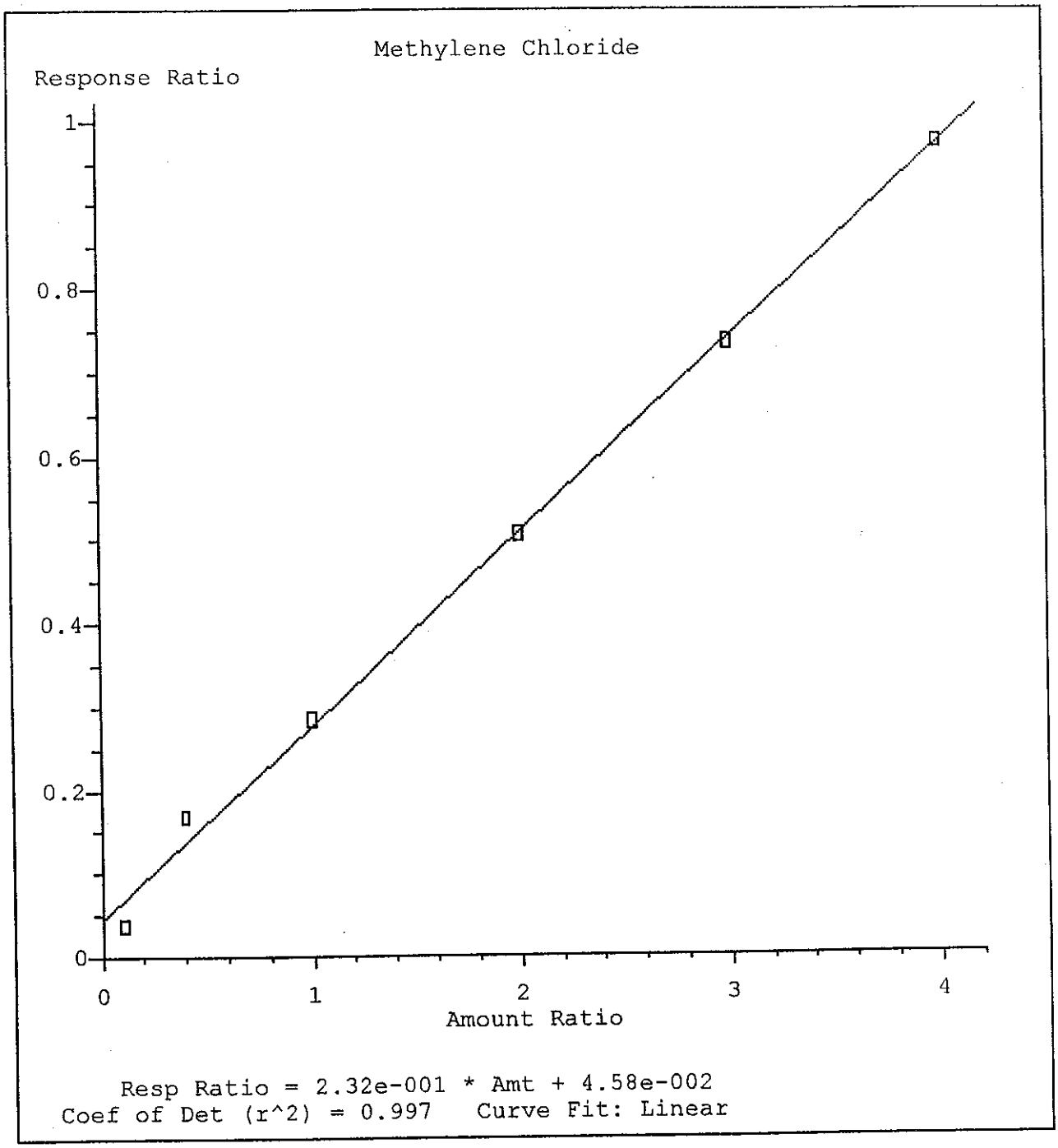
Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

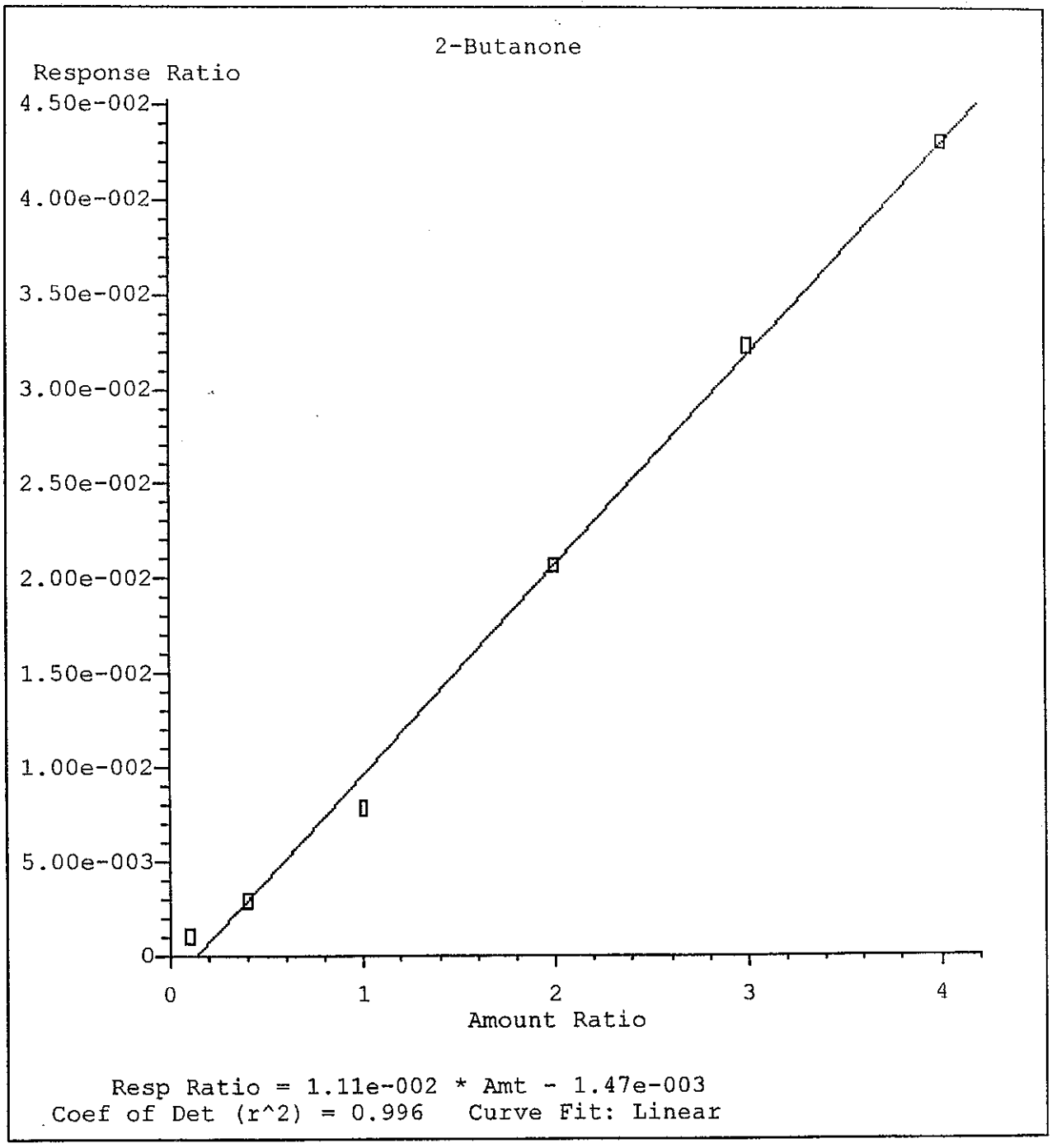
Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	ISTD							
46)	S	Toluene-d8	1.453	1.476	1.482	1.505	1.448	1.424	1.464	1.97
47)	TMC	Toluene	0.922	0.953	0.970	0.969	0.936	0.926	0.946	2.23
48)	T	trans-1,3-Dichlorop	0.327	0.326	0.363	0.362	0.356	0.360	0.349	4.99
49)	T	Ethylmethacrylate	0.139	0.152	0.169	0.170	0.174	0.182	0.164	9.69
50)	T	1,1,2-Trichloroetha	0.149	0.127	0.139	0.140	0.135	0.138	0.138	5.09
51)	T	Tetrachloroethene	0.407	0.426	0.425	0.416	0.396	0.396	0.411	3.23
52)	T	1,3-Dichloropropane	0.285	0.295	0.295	0.297	0.288	0.297	0.293	1.74
53)	T	2-Hexanone	0.060	0.046	0.047	0.054	0.054	0.054	0.052	9.83
54)	T	Dibromochloromethan	0.254	0.268	0.289	0.301	0.295	0.299	0.284	6.67
55)	T	1,2-Dibromoethane	0.172	0.171	0.184	0.180	0.182	0.184	0.179	3.34
56)	TMP	Chlorobenzene	1.051	1.072	1.057	1.060	1.037	1.009	1.048	2.11
57)	T	1,1,1,2-Tetrachloro	0.369	0.395	0.411	0.406	0.387	0.388	0.393	3.81
58)	TC	Ethylbenzene	1.976	2.058	2.088	2.097	2.034	1.969	2.037	2.69
59)	TG	total-Xylene	0.698	0.714	0.736	0.727	0.705	0.670	0.708	3.31
60)	T	Styrene	0.915	1.047	1.092	1.099	1.087	0.970	1.035	7.34
61)	I	1,4-Dichlorobenzene-d	ISTD							
62)	TP	Bromoform	0.266	0.267	0.280	0.305	0.305	0.310	0.289	7.08
63)	T	Isopropylbenzene	4.169	4.354	4.285	4.391	4.260	4.155	4.269	2.24
64)	T	cis-1,4-dichloro-2-	0.101	0.105	0.118	0.118	0.121	0.120	0.114	7.73
65)	T	trans-1,4-dichloro-	0.106	0.120	0.121	0.128	0.128	0.125	0.121	6.77
66)	S	Bromofluorobenzene	1.099	1.140	1.113	1.163	1.112	1.050	1.113	3.47
67)	T	Bromobenzene	0.777	0.791	0.839	0.865	0.826	0.808	0.818	3.95
68)	TP	1,1,2,2-Tetrachloro	0.285	0.308	0.321	0.334	0.323	0.317	0.315	5.39
69)	T	1,2,3-Trichloroprop	0.403	0.378	0.391	0.408	0.404	0.400	0.397	2.77
70)	T	n-Propylbenzene	4.992	5.107	5.154	5.275	5.139	4.967	5.106	2.22
71)	T	2-Chlorotoluene	3.003	2.992	3.066	3.083	2.987	2.905	3.006	2.11
72)	T	4-Chlorotoluene	3.493	3.463	3.549	3.615	3.490	3.340	3.492	2.64
73)	T	1,3,5-Trimethylbenz	3.695	3.845	3.903	3.989	3.880	3.702	3.836	3.03
74)	T	Pentachloroethane	0.500	0.519	0.557	0.550	0.541	0.517	0.531	4.21
75)	T	tert-Butylbenzene	3.163	3.274	3.276	3.336	3.262	3.110	3.237	2.58
76)	T	1,2,4-Trimethylbenz	3.767	3.815	3.845	3.908	3.770	3.635	3.790	2.43
77)	T	sec-Butylbenzene	4.777	4.769	4.841	4.966	4.807	4.631	4.798	2.27
78)	T	1,3-Dichlorobenzene	1.606	1.696	1.729	1.725	1.697	1.622	1.679	3.14
79)	T	Isopropyltoluene	3.826	3.977	3.957	4.065	3.925	3.778	3.921	2.66
80)	T	1,4-Dichlorobenzene	1.830	1.685	1.677	1.684	1.641	1.612	1.688	4.45
81)	T	1,2-Dichlorobenzene	1.324	1.297	1.317	1.321	1.304	1.284	1.308	1.20
82)	T	n-Butylbenzene	3.461	3.581	3.660	3.768	3.673	3.555	3.616	2.96
83)	T	1,2-Dibromo-3-chlor	0.080	0.065	0.060	0.058	0.057	0.060	0.063	13.68
84)	T	1,2,4-trichlorobenz	0.916	0.899	0.937	0.953	0.897	0.895	0.916	2.62
85)	T	Hexachlorobutadiene	0.799	0.902	0.855	0.858	0.774	0.749	0.823	7.05
86)	T	Naphthalene	0.888	0.886	0.993	1.067	1.059	1.058	0.992	8.62
87)	T	1,2,3-Trichlorobenz	0.684	0.659	0.683	0.700	0.679	0.658	0.677	2.39

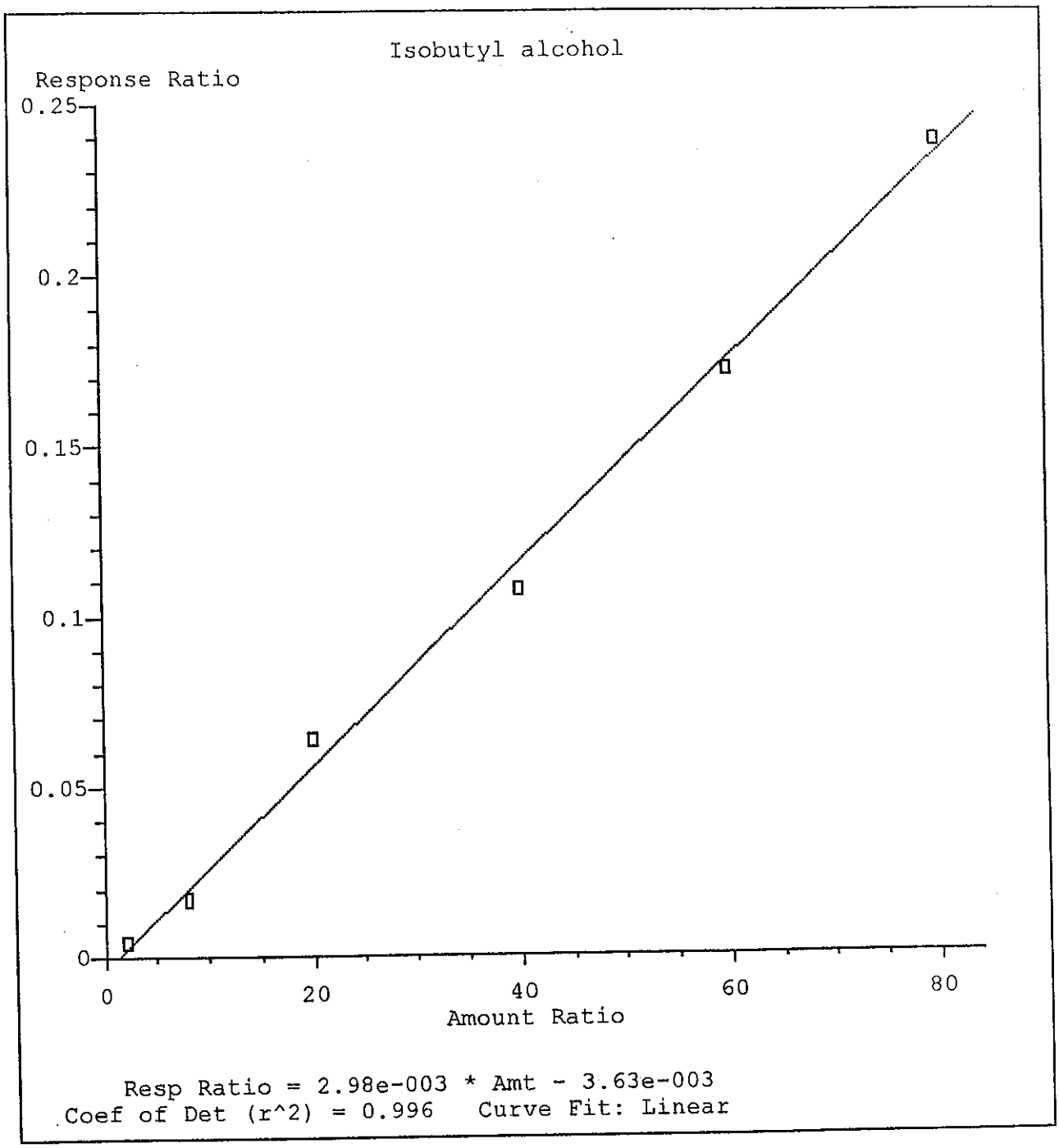
#) = Out of Range



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	236236	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	265458	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	125288	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.06	116	42	10.00	ug\L		-0.05
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	10238	1.03	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.30%#				
46) Toluene-d8	10.02	98	38560	0.99	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.90%#				
66) Bromofluorobenzene	13.72	95	13775	0.99	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.90%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	20075	1.11	ug\L		100
3) Chloromethane	1.66	50	11509	1.29	ug\L		97
4) Vinyl Chloride	1.74	62	14039	1.14	ug\L		100
5) Bromomethane	2.03	94	4797	1.29	ug\L		96
6) Chloroethane	2.13	64	7091	1.07	ug\L		94
7) Trichlorofluoromethane	2.38	101	21987	0.97	ug\L	#	100
8) Acrolein	2.92	56	281	0.94	ug\L	#	10
9) Acrylonitrile	4.04	53	1321	1.85	ug\L	#	82
10) 1,1-Dichloroethene	2.96	96	12069	1.12	ug\L		94
12) Iodomethane	3.17	142	10991	0.76	ug\L	#	95
13) Allylchloride	3.43	39	12393	0.96	ug\L	#	96
14) Carbon Disulfide	3.22	76	37856	1.22	ug\L	#	95
15) Acetonitrile	3.43	41	13403	9.70	ug\L		98
17) trans-1,2-Dichloroethene	3.98	96	12780	1.10	ug\L		98
18) MethylTertButylEther	3.98	73	14359	1.03	ug\L		99
19) 1,1-Dichloroethane	4.70	63	17891	1.03	ug\L	#	97
21) Vinyl Acetate	4.82	43	8589	0.99	ug\L	#	83
22) 2,2-Dichloropropane	5.72	77	21820	1.07	ug\L		94
23) cis-1,2-Dichloroethene	5.77	96	11543	1.05	ug\L	#	77
24) 2-Butanone	5.89	72	56	1.53	ug\L	#	100
25) Propionitrile	6.03	54	2152	9.04	ug\L	#	71
26) Methacrylonitrile	6.23	41	13877	9.98	ug\L		98
27) Bromochloromethane	6.21	128	2139	0.54	ug\L	#	1
28) Chloroform	6.37	83	21019	0.99	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	24120	0.98	ug\L		97
30) Carbon Tetrachloride	6.82	119	22706	0.99	ug\L		100
31) 1,4-Dioxane	8.86	88	477	19.29	ug\L	#	53
32) 1,1-Dichloropropene	6.84	77	4654	0.95	ug\L		94

(#) = [illegible] range (m) = manual integration
J00843.D 8260 Mon Aug 06 16:41:23 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) Benzene	7.20	78	37103	0.98 ug\L	100
35) Isobutyl alcohol	7.32	43	432	18.34 ug\L	89
36) 1,2-Dichloroethane	7.30	62	11470	1.01 ug\L	98
37) Trichloroethene	8.21	95	13181	0.99 ug\L	98
38) 1,2-Dichloropropane	8.59	63	6782	0.96 ug\L	100
39) Dibromomethane	8.79	93	3883	0.93 ug\L	95
40) Methylmethacrylate	8.80	69	1647	0.87 ug\L	90
41) Bromodichloromethane	9.04	83	13242	0.97 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.49	63	1387	1.07 ug\L #	84
43) cis-1,3-Dichloropropene	9.68	75	11774	0.93 ug\L	98
44) 4-Methyl-2-Pentanone	9.92	85	567	1.12 ug\L #	1
47) Toluene	10.11	92	24466	0.97 ug\L	100
48) trans-1,3-Dichloropropene	10.50	75	8693	0.94 ug\L	92
49) Ethylmethacrylate	10.63	69	3679	0.84 ug\L #	55
50) 1,1,2-Trichloroethane	10.77	83	3953	1.08 ug\L	90
51) Tetrachloroethene	10.87	164	10796	0.99 ug\L	96
52) 1,3-Dichloropropane	10.99	76	7576	0.97 ug\L	95
53) 2-Hexanone	11.11	43	1588	1.14 ug\L #	87
54) Dibromochloromethane	11.31	129	6744	0.89 ug\L	99
55) 1,2-Dibromoethane	11.46	107	4555	0.96 ug\L #	95
56) Chlorobenzene	12.12	112	27897	1.00 ug\L	92
57) 1,1,1,2-Tetrachloroethane	12.25	131	9807	0.94 ug\L	100
58) Ethylbenzene	12.26	91	52447	0.97 ug\L	98
59) total-Xylene	12.42	106	55563m	2.96 ug\L #	
60) Styrene	13.00	104	24291	0.88 ug\L	93
62) Bromoform	13.31	173	3328	0.92 ug\L	99
63) Isopropylbenzene	13.48	105	52230	0.98 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	1265	0.89 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.03	53	1331	0.88 ug\L #	53
67) Bromobenzene	13.92	156	9730	0.95 ug\L #	1
68) 1,1,2,2-Tetrachloroethane	13.98	83	3567	0.90 ug\L #	77
69) 1,2,3-Trichloropropane	14.02	75	5044	1.01 ug\L	89
70) n-Propylbenzene	14.04	91	62542	0.98 ug\L	98
71) 2-Chlorotoluene	14.17	91	37629	1.00 ug\L	100
72) 4-Chlorotoluene	14.33	91	43767	1.00 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	46293	0.96 ug\L	97
74) Pentachloroethane	14.80	167	6260	0.94 ug\L #	89
75) tert-Butylbenzene	14.73	119	39625	0.98 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	47202	0.99 ug\L	98
77) sec-Butylbenzene	15.03	105	59844	1.00 ug\L	98
78) 1,3-Dichlorobenzene	15.21	146	20116	0.96 ug\L	97
79) Isopropyltoluene	15.23	119	47931	0.98 ug\L	100

(#) = qualifier out of range (m) = manual integration
J00843.D 8260.M 8/23 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

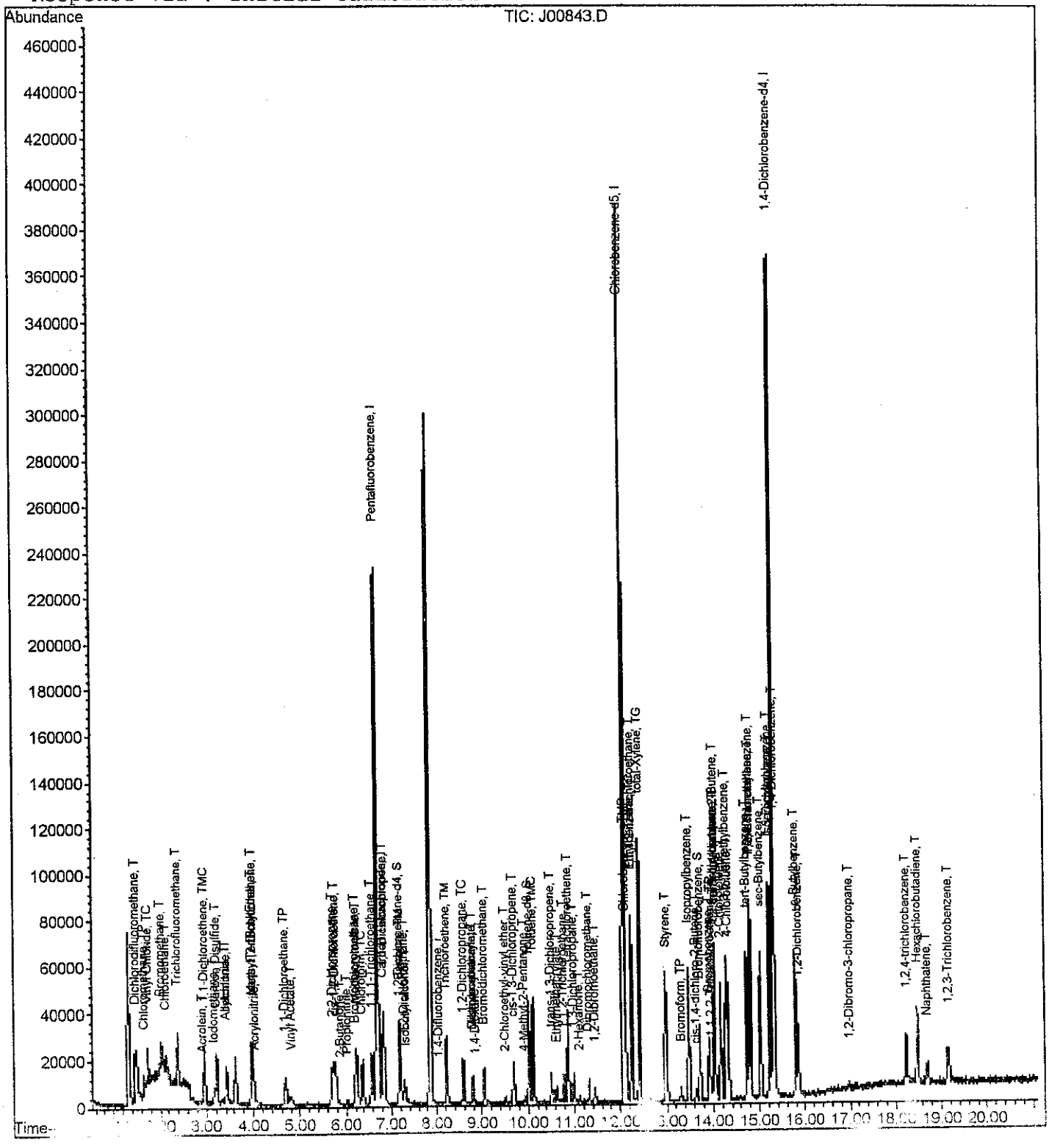
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	15.34	146	22924	1.08 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	16585	1.01 ug\L	100
82) n-Butylbenzene	15.79	91	43358	0.96 ug\L	97
83) 1,2-Dibromo-3-chloropropan	16.98	75	602	0.76 ug\L #	42
84) 1,2,4-trichlorobenzene	18.23	180	11481	1.00 ug\L	100
85) Hexachlorobutadiene	18.48	225	10015	0.97 ug\L	100
86) Naphthalene	18.68	128	11121	0.89 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	8565	1.01 ug\L #	58

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	214177	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.09	117	246940	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	120687	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.15	116	40	10.00	ug\L	0.05
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	34711	3.85	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 38.50%#			
46) Toluene-d8	10.03	98	145804	4.03	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 40.30%#			
66) Bromofluorobenzene	13.73	95	55048	4.10	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 41.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	66483	4.06	ug\L	99
3) Chloromethane	1.67	50	31236	3.85	ug\L	97
4) Vinyl Chloride	1.75	62	44864	4.01	ug\L	98
5) Bromomethane	2.05	94	11228	3.34	ug\L	98
6) Chloroethane	2.14	64	24269	4.05	ug\L	98
7) Trichlorofluoromethane	2.39	101	88083	4.28	ug\L #	100
8) Acrolein	2.92	56	2077	7.69	ug\L #	97
9) Acrylonitrile	4.05	53	3196	4.95	ug\L #	34
10) 1,1-Dichloroethene	2.97	96	38500	3.94	ug\L	99
11) Acetone	3.11	58	737	4.37	ug\L	100
12) Iodomethane	3.18	142	50205	3.84	ug\L	98
13) Allylchloride	3.45	39	47661	4.05	ug\L	99
14) Carbon Disulfide	3.24	76	106125	3.76	ug\L	100
15) Acetonitrile	3.45	41	51351	40.98	ug\L	99
16) Methylene Chloride	3.64	86	36126	5.30	ug\L	99
17) trans-1,2-Dichloroethene	4.00	96	40296	3.84	ug\L	93
18) MethylTertButylEther	3.99	73	47960	3.80	ug\L	99
19) 1,1-Dichloroethane	4.72	63	62447	3.97	ug\L	98
20) Isopropyl Ether	4.78	45	4368	2.66	ug\L #	44
21) Vinyl Acetate	4.84	43	29528	3.75	ug\L	99
22) 2,2-Dichloropropane	5.73	77	73807	3.98	ug\L #	78
23) cis-1,2-Dichloroethene	5.79	96	39985	4.00	ug\L	97
24) 2-Butanone	5.87	72	272	2.46	ug\L #	100
25) Propionitrile	6.04	54	8412	38.99	ug\L #	91
26) Methacrylonitrile	6.26	41	49603	39.33	ug\L	99
27) Bromochloromethane	6.21	128	14655	4.05	ug\L	96
28) Chloroform	6.38	83	77385	4.01	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	89991	4.05	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.85	119	84332	4.05 ug\L	99
31) 1,4-Dioxane	8.85	88	1706	76.11 ug\L #	66
32) 1,1-Dichloropropene	6.86	77	17476	3.92 ug\L	91
34) Benzene	7.21	78	137459	4.00 ug\L	100
35) Isobutyl alcohol	7.33	43	3593	68.53 ug\L #	82
36) 1,2-Dichloroethane	7.32	62	40434	3.94 ug\L	97
37) Trichloroethene	8.24	95	46901	3.88 ug\L	99
38) 1,2-Dichloropropane	8.61	63	25753	4.01 ug\L	98
39) Dibromomethane	8.80	93	15107	3.99 ug\L	98
40) Methylmethacrylate	8.82	69	6162	3.60 ug\L	95
41) Bromodichloromethane	9.07	83	46904	3.80 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	4216	3.58 ug\L #	89
43) cis-1,3-Dichloropropene	9.70	75	42870	3.73 ug\L	96
44) 4-Methyl-2-Pentanone	9.94	85	1616	3.51 ug\L #	1
47) Toluene	10.13	92	94191	4.03 ug\L	98
48) trans-1,3-Dichloropropene	10.52	75	32229	3.74 ug\L	98
49) Ethylmethacrylate	10.62	69	14996	3.70 ug\L	96
50) 1,1,2-Trichloroethane	10.79	83	12589	3.69 ug\L	95
51) Tetrachloroethene	10.88	164	42091	4.15 ug\L	97
52) 1,3-Dichloropropane	11.00	76	29182	4.03 ug\L	98
53) 2-Hexanone	11.12	43	4582	3.54 ug\L #	93
54) Dibromochloromethane	11.33	129	26470	3.77 ug\L	97
55) 1,2-Dibromoethane	11.46	107	16892	3.83 ug\L	99
56) Chlorobenzene	12.13	112	105929	4.09 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.26	131	39031	4.02 ug\L	97
58) Ethylbenzene	12.26	91	203401	4.04 ug\L	99
59) total-Xylene	12.43	106	210562m	12.04 ug\L #	
60) Styrene	13.02	104	103434	4.05 ug\L	99
62) Bromoform	13.32	173	12883	3.70 ug\L	100
63) Isopropylbenzene	13.49	105	210207	4.08 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	5802	4.22 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.05	53	5802	3.96 ug\L #	43
67) Bromobenzene	13.94	156	38184	3.87 ug\L #	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	14885	3.92 ug\L #	96
69) 1,2,3-Trichloropropane	14.05	75	18240	3.81 ug\L	98
70) n-Propylbenzene	14.05	91	246544	4.00 ug\L	99
71) 2-Chlorotoluene	14.18	91	142919	3.94 ug\L	98
72) 4-Chlorotoluene	14.34	91	167739	3.98 ug\L	99
73) 1,3,5-Trimethylbenzene	14.30	105	185633	4.01 ug\L	99
74) Pentachloroethane	14.81	167	25034	3.91 ug\L	95
75) tert-Butylbenzene	14.74	119	158062	4.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	184177	4.03 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

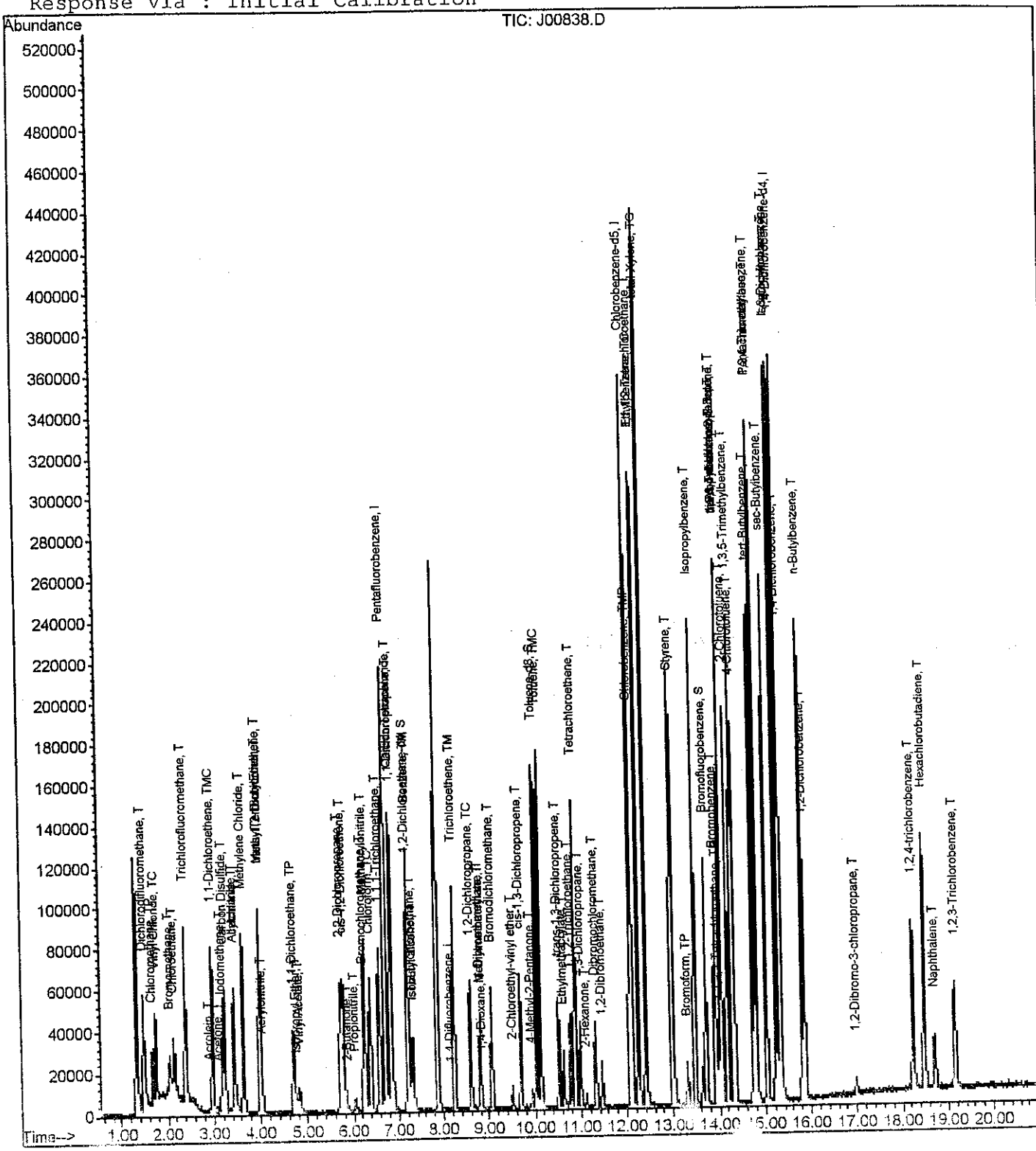
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.04	105	230202	3.98	ug\L	99
78)	1,3-Dichlorobenzene	15.23	146	81524	4.02	ug\L	96
79)	Isopropyltoluene	15.24	119	191984	4.06	ug\L	99
80)	1,4-Dichlorobenzene	15.35	146	81338	3.99	ug\L	97
81)	1,2-Dichlorobenzene	15.87	146	62621	3.97	ug\L	99
82)	n-Butylbenzene	15.81	91	172874	3.96	ug\L	100
83)	1,2-Dibromo-3-chloropropan	16.99	75	3119	4.09	ug\L	93
84)	1,2,4-trichlorobenzene	18.24	180	43387	3.92	ug\L	100
85)	Hexachlorobutadiene	18.49	225	43531	4.38	ug\L	100
86)	Naphthalene	18.71	128	42263	3.53	ug\L	100
87)	1,2,3-Trichlorobenzene	19.16	180	31804	3.89	ug\L	99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	201922	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	235398	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	118033	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	474	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	85055	10.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.10%			
46) Toluene-d8	10.03	98	348457	10.11	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.10%			
66) Bromofluorobenzene	13.73	95	131369	10.00	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	149435	9.69	ug\L	100
3) Chloromethane	1.67	50	73080	9.55	ug\L	98
4) Vinyl Chloride	1.75	62	102684	9.75	ug\L	100
5) Bromomethane	2.05	94	31233	9.84	ug\L	100
6) Chloroethane	2.15	64	57448	10.17	ug\L	100
7) Trichlorofluoromethane	2.40	101	198768	10.25	ug\L #	100
8) Acrolein	2.92	56	4604	18.08	ug\L #	100
9) Acrylonitrile	4.06	53	11794	19.36	ug\L	100
10) 1,1-Dichloroethene	2.98	96	90313	9.81	ug\L	100
11) Acetone	3.10	58	1481	9.32	ug\L	93
12) Iodomethane	3.18	142	126707	10.28	ug\L	100
13) Allylchloride	3.44	39	112982	10.20	ug\L	100
14) Carbon Disulfide	3.24	76	250721	9.43	ug\L	100
15) Acetonitrile	3.45	41	120839	102.29	ug\L	100
16) Methylene Chloride	3.64	86	57706	10.35	ug\L	100
17) trans-1,2-Dichloroethene	4.00	96	99024	10.02	ug\L	100
18) MethylTertButylEther	4.00	73	118748	9.99	ug\L	100
19) 1,1-Dichloroethane	4.71	63	147096	9.91	ug\L	100
20) Isopropyl Ether	4.79	45	15229	9.84	ug\L #	100
21) Vinyl Acetate	4.83	43	70469	9.49	ug\L	100
22) 2,2-Dichloropropane	5.73	77	176710	10.10	ug\L	100
23) cis-1,2-Dichloroethene	5.80	96	92802	9.84	ug\L	100
24) 2-Butanone	5.87	72	1578	8.36	ug\L #	100
25) Propionitrile	6.04	54	20397	100.28	ug\L	100
26) Methacrylonitrile	6.25	41	121263	102.00	ug\L	100
27) Bromochloromethane	6.22	128	33773	9.90	ug\L	100
28) Chloroform	6.38	83	185348	10.20	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	213173	10.17	ug\L	10[illegible]

= qualifier o[illegible] range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	6.84	119	198115	10.09 ug\L		100
31) 1,4-Dioxane	8.86	88	3882	183.70 ug\L	#	100
32) 1,1-Dichloropropene	6.86	77	43542	10.37 ug\L		100
34) Benzene	7.21	78	323624	9.99 ug\L		100
35) Isobutyl alcohol	7.33	43	10273	183.03 ug\L	#	78
36) 1,2-Dichloroethane	7.31	62	98830	10.20 ug\L		100
37) Trichloroethene	8.24	95	114163	10.02 ug\L		100
38) 1,2-Dichloropropane	8.60	63	59552	9.84 ug\L		100
39) Dibromomethane	8.80	93	36760	10.29 ug\L		100
40) Methylmethacrylate	8.82	69	15930	9.88 ug\L		100
41) Bromodichloromethane	9.06	83	117560	10.11 ug\L		100
42) 2-Chloroethyl-vinyl ether	9.51	63	10536	9.49 ug\L		100
43) cis-1,3-Dichloropropene	9.70	75	110210	10.18 ug\L		100
44) 4-Methyl-2-Pentanone	9.93	85	3749	8.65 ug\L	#	1
47) Toluene	10.13	92	228147	10.24 ug\L		100
48) trans-1,3-Dichloropropene	10.52	75	85376	10.39 ug\L		100
49) Ethylmethacrylate	10.62	69	39820	10.30 ug\L		100
50) 1,1,2-Trichloroethane	10.78	83	32796	10.09 ug\L		100
51) Tetrachloroethene	10.88	164	99814	10.32 ug\L		100
52) 1,3-Dichloropropane	11.00	76	69262	10.05 ug\L		100
53) 2-Hexanone	11.13	43	10780	8.74 ug\L		99
54) Dibromochloromethane	11.33	129	67859	10.15 ug\L		100
55) 1,2-Dibromoethane	11.46	107	43281	10.28 ug\L		100
56) Chlorobenzene	12.13	112	248499	10.08 ug\L		100
57) 1,1,1,2-Tetrachloroethane	12.25	131	96633	10.45 ug\L		100
58) Ethylbenzene	12.27	91	490838	10.24 ug\L		100
59) total-Xylene	12.43	106	518556m	31.11 ug\L	#	
60) Styrene	13.02	104	256776	10.54 ug\L		100
62) Bromoform	13.32	173	33018	9.69 ug\L		100
63) Isopropylbenzene	13.48	105	505825	10.04 ug\L		100
64) cis-1,4-dichloro-2-Butene	14.05	53	14277	10.62 ug\L		97
65) trans-1,4-dichloro-2-Buten	14.05	53	14277	9.97 ug\L	#	48
67) Bromobenzene	13.93	156	99049	10.26 ug\L		100
68) 1,1,2,2-Tetrachloroethane	13.99	83	37851	10.19 ug\L		100
69) 1,2,3-Trichloropropane	14.04	75	46157	9.85 ug\L		100
70) n-Propylbenzene	14.05	91	608339	10.09 ug\L		100
71) 2-Chlorotoluene	14.18	91	358416	10.10 ug\L		99
72) 4-Chlorotoluene	14.34	91	419438	10.18 ug\L		100
73) 1,3,5-Trimethylbenzene	14.29	105	460711	10.18 ug\L		100
74) Pentachloroethane	14.81	167	65795	10.50 ug\L		100
75) tert-Butylbenzene	14.74	119	386667	10.12 ug\L		100
76) 1,2,4-Trimethylbenzene	14.82	105	453819	10.14 ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	571426	10.09 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	204190	10.30 ug\L	98
79) Isopropyltoluene	15.24	119	467090	10.09 ug\L	100
80) 1,4-Dichlorobenzene	15.35	146	197999	9.94 ug\L	100
81) 1,2-Dichlorobenzene	15.87	146	155458	10.07 ug\L	100
82) n-Butylbenzene	15.80	91	431971	10.12 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7080	9.49 ug\L	100
84) 1,2,4-trichlorobenzene	18.24	180	110590	10.23 ug\L	100
85) Hexachlorobutadiene	18.48	225	100900	10.39 ug\L	100
86) Naphthalene	18.70	128	117222	10.01 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	80572	10.08 ug\L	100

(#) = qualifier out of range (m) = manual [illegible]
J00839.D 08060125.M Mon Aug 06 16:40:[illegible]

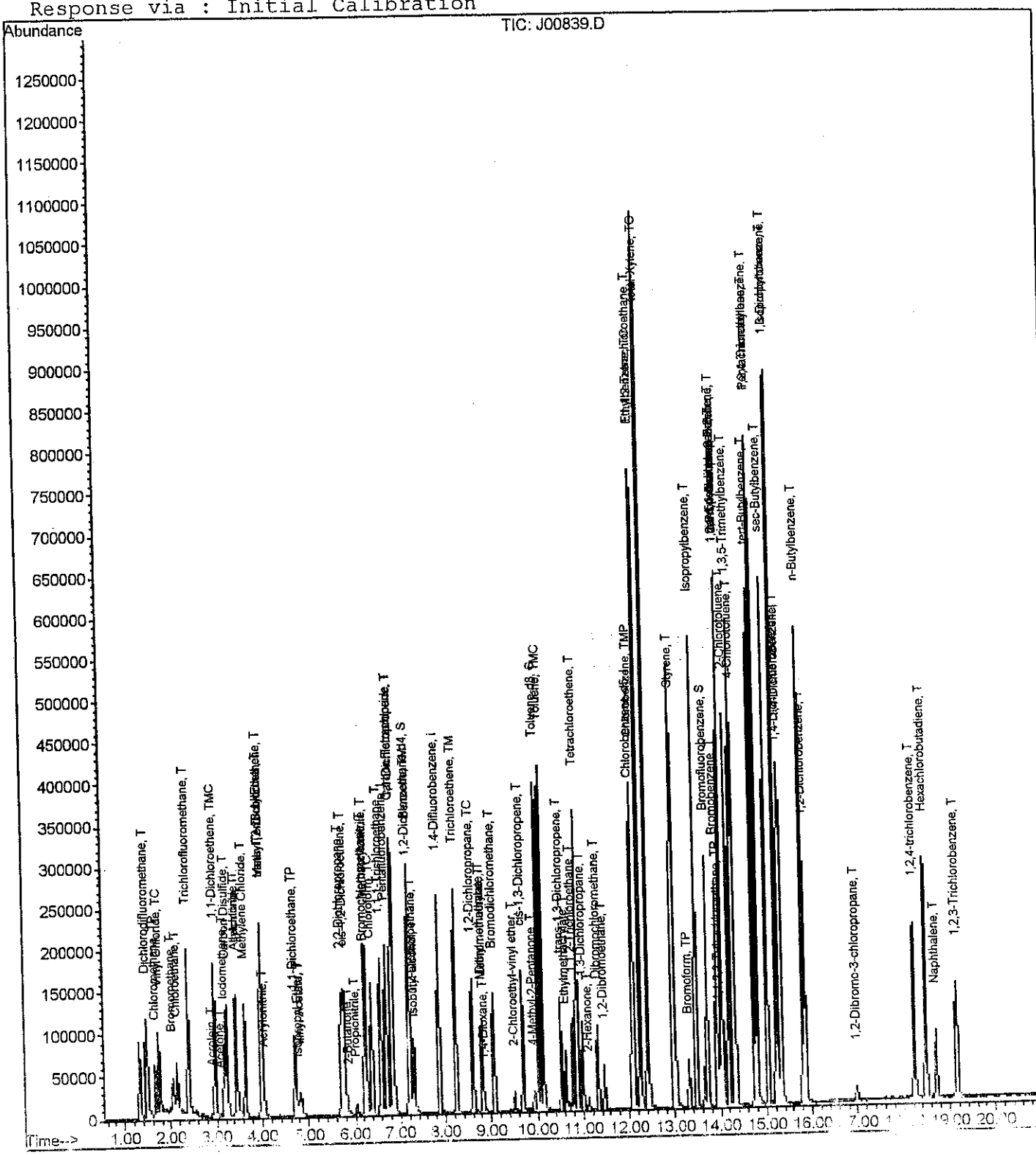
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D
Acq On : 08/06/01 11:13
Sample : ICAL 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 3
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D
Acq On : 08/06/01 11:39
Sample : ICAL 20 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 4
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	209421	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.09	117	250420	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	122077	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	281	10.00	ug\L	-0.22
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	182510	20.71	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 207.10%#			
46) Toluene-d8	10.03	98	753850	20.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 205.60%#			
66) Bromofluorobenzene	13.73	95	283929	20.90	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 209.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	321467	20.10	ug\L	100
3) Chloromethane	1.66	50	151083	19.04	ug\L	98
4) Vinyl Chloride	1.75	62	213735	19.56	ug\L	98
5) Bromomethane	2.05	94	62319	18.93	ug\L	99
6) Chloroethane	2.14	64	117818	20.11	ug\L	97
7) Trichlorofluoromethane	2.40	101	412252	20.51	ug\L #	100
8) Acrolein	2.91	56	10150	38.43	ug\L #	86
9) Acrylonitrile	4.05	53	26956	42.67	ug\L	94
10) 1,1-Dichloroethene	2.97	96	189664	19.86	ug\L	99
11) Acetone	3.11	58	3685	22.36	ug\L	68
12) Iodomethane	3.18	142	290779	22.75	ug\L	99
13) Allylchloride	3.45	39	236060	20.54	ug\L	98
14) Carbon Disulfide	3.24	76	554079	20.09	ug\L	99
15) Acetonitrile	3.45	41	250033	204.08	ug\L	99
16) Methylene Chloride	3.64	86	106099	19.88	ug\L	99
17) trans-1,2-Dichloroethene	4.00	96	206306	20.12	ug\L	98
18) MethylTertButylEther	3.99	73	245575	19.92	ug\L	99
19) 1,1-Dichloroethane	4.71	63	310774	20.19	ug\L	99
20) Isopropyl Ether	4.79	45	30842	19.21	ug\L #	74
21) Vinyl Acetate	4.83	43	161546	20.98	ug\L	99
22) 2,2-Dichloropropane	5.73	77	364651	20.09	ug\L	99
23) cis-1,2-Dichloroethene	5.79	96	197233	20.17	ug\L	97
24) 2-Butanone	5.87	72	4331	19.94	ug\L #	100
25) Propionitrile	6.03	54	42719	202.50	ug\L	96
26) Methacrylonitrile	6.25	41	248316	201.38	ug\L	98
27) Bromochloromethane	6.22	128	71482	20.20	ug\L	98
28) Chloroform	6.38	83	384187	20.38	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	444851	20.46	ug\L	99

(#) = qualifier out of range (m) = manual integration
J00840.D 08060125.M 6 16:40:54 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D
Acq On : 08/06/01 11:39
Sample : ICAL 20 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 4
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	418970	20.57 ug\L	100
31) 1,4-Dioxane	8.85	88	8937	407.77 ug\L #	75
32) 1,1-Dichloropropene	6.86	77	90753	20.84 ug\L	97
34) Benzene	7.21	78	686987	20.45 ug\L	100
35) Isobutyl alcohol	7.33	43	22547	373.71 ug\L #	92
36) 1,2-Dichloroethane	7.31	62	204333	20.34 ug\L	99
37) Trichloroethene	8.24	95	243596	20.62 ug\L	99
38) 1,2-Dichloropropane	8.60	63	128532	20.48 ug\L	99
39) Dibromomethane	8.80	93	75637	20.42 ug\L	96
40) Methylmethacrylate	8.81	69	34722	20.77 ug\L	94
41) Bromodichloromethane	9.06	83	248414	20.61 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	24543	21.31 ug\L	99
43) cis-1,3-Dichloropropene	9.69	75	235018	20.94 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	9097	20.24 ug\L #	1
47) Toluene	10.13	92	485146	20.48 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	181095	20.72 ug\L	98
49) Ethylmethacrylate	10.62	69	84910	20.65 ug\L	98
50) 1,1,2-Trichloroethane	10.78	83	70117	20.27 ug\L	97
51) Tetrachloroethene	10.88	164	208383	20.25 ug\L	98
52) 1,3-Dichloropropane	11.00	76	148746	20.28 ug\L	99
53) 2-Hexanone	11.12	43	26850	20.47 ug\L	97
54) Dibromochloromethane	11.33	129	150637	21.17 ug\L	100
55) 1,2-Dibromoethane	11.46	107	90388	20.19 ug\L	99
56) Chlorobenzene	12.12	112	530931	20.24 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	203444	20.69 ug\L	99
58) Ethylbenzene	12.26	91	1050268	20.59 ug\L	100
59) total-Xylene	12.43	106	1092314m	61.59 ug\L #	
60) Styrene	13.02	104	550566	21.24 ug\L	100
62) Bromoform	13.32	173	74458	21.12 ug\L	99
63) Isopropylbenzene	13.48	105	1072114	20.57 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	31295	22.50 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.05	53	31295	21.12 ug\L #	45
67) Bromobenzene	13.93	156	211098	21.15 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.99	83	81628	21.25 ug\L	97
69) 1,2,3-Trichloropropane	14.03	75	99589	20.54 ug\L	99
70) n-Propylbenzene	14.05	91	1287982	20.66 ug\L	100
71) 2-Chlorotoluene	14.18	91	752694	20.51 ug\L	98
72) 4-Chlorotoluene	14.34	91	882636	20.71 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	973868	20.80 ug\L	100
74) Pentachloroethane	14.81	167	134377	20.74 ug\L	97
75) tert-Butylbenzene	14.74	119	814484	20.61 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	954111	20.62 ug\L	99

(#) = qualifier out of range (m) = manual integr

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.04	105	1212451	20.70	ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	421222	20.55	ug\L	96
79) Isopropyltoluene	15.24	119	992368	20.73	ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	411156	19.95	ug\L	99
81) 1,2-Dichlorobenzene	15.87	146	322633	20.21	ug\L	98
82) n-Butylbenzene	15.80	91	919856	20.84	ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	14260	18.47	ug\L	86
84) 1,2,4-trichlorobenzene	18.24	180	232595	20.80	ug\L	100
85) Hexachlorobutadiene	18.48	225	209391	20.85	ug\L	100
86) Naphthalene	18.70	128	260452	21.51	ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	171000	20.68	ug\L	99

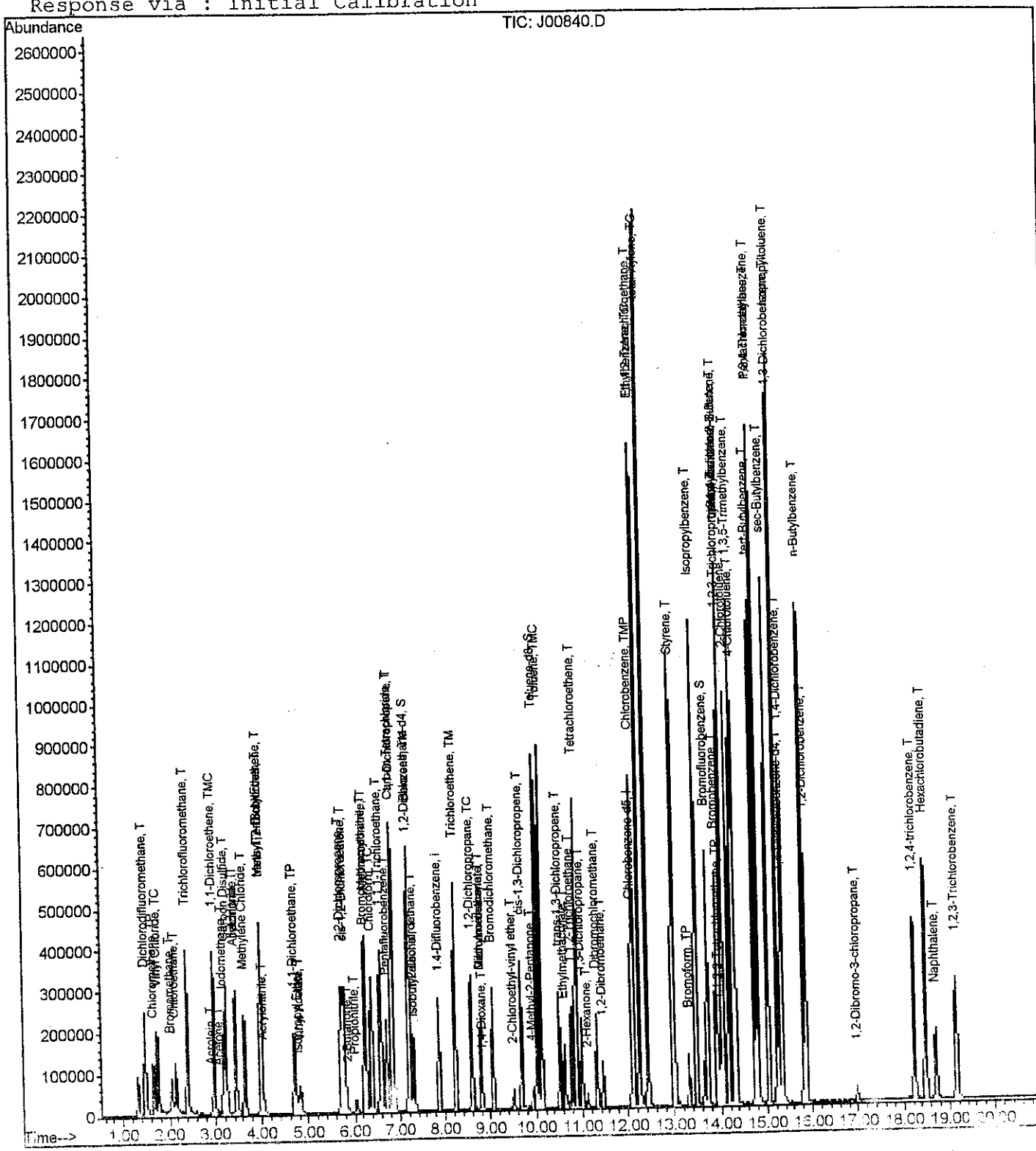
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D
Acq On : 08/06/01 11:39
Sample : ICAL 20 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 4
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.72	168	228150	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.08	117	275102	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	132491	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	421	10.00	ug\L		-0.23
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.19	65	289312	30.13	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 301.30%#				
46) Toluene-d8	10.03	98	1195016	29.66	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.60%#				
66) Bromofluorobenzene	13.72	95	441958	29.97	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 299.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	491561	28.21	ug\L		100
3) Chloromethane	1.67	50	236367	27.34	ug\L		98
4) Vinyl Chloride	1.74	62	337526	28.35	ug\L		99
5) Bromomethane	2.04	94	102458	28.57	ug\L		83
6) Chloroethane	2.15	64	182075	28.53	ug\L		98
7) Trichlorofluoromethane	2.39	101	642815	29.35	ug\L	#	100
8) Acrolein	2.91	56	16595	57.68	ug\L	#	90
9) Acrylonitrile	4.05	53	40878	59.39	ug\L		99
10) 1,1-Dichloroethene	2.98	96	301695	29.00	ug\L		99
11) Acetone	3.10	58	5047	28.10	ug\L		97
12) Iodomethane	3.18	142	440095	31.61	ug\L		96
13) Allylchloride	3.45	39	373603	29.84	ug\L		99
14) Carbon Disulfide	3.24	76	855766	28.49	ug\L		100
15) Acetonitrile	3.45	41	397963	298.16	ug\L		99
16) Methylene Chloride	3.64	86	167807	29.76	ug\L		98
17) trans-1,2-Dichloroethene	4.00	96	327745	29.34	ug\L		99
18) MethylTertButylEther	3.99	73	406778	30.29	ug\L		100
19) 1,1-Dichloroethane	4.70	63	500096	29.83	ug\L		99
20) Isopropyl Ether	4.78	45	53169	30.40	ug\L	#	23
21) Vinyl Acetate	4.83	43	257631	30.71	ug\L		100
22) 2,2-Dichloropropane	5.73	77	581182	29.39	ug\L		97
23) cis-1,2-Dichloroethene	5.79	96	312550	29.34	ug\L		97
24) 2-Butanone	5.88	72	7372	30.42	ug\L	#	100
25) Propionitrile	6.04	54	72946	317.40	ug\L		98
26) Methacrylonitrile	6.25	41	399632	297.49	ug\L		98
27) Bromochloromethane	6.22	128	116884	30.32	ug\L		94
28) Chloroform	6.38	83	614493	29.92	ug\L	#	1
29) 1,1,1-Trichloroethane	6.59	97	704600	29.75	ug\L		3

(#) = qual... out of range (m) = manu... ation

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D
Acq On : 08/06/01 12:05
Sample : ICAL 30 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 5
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	659615	29.73 ug\L	98
31) 1,4-Dioxane	8.85	88	15503	649.28 ug\L #	67
32) 1,1-Dichloropropene	6.86	77	142531	30.05 ug\L	95
34) Benzene	7.21	78	1101272	30.09 ug\L	100
35) Isobutyl alcohol	7.33	43	39294	590.50 ug\L	88
36) 1,2-Dichloroethane	7.31	62	321030	29.33 ug\L	100
37) Trichloroethene	8.23	95	390312	30.32 ug\L	99
38) 1,2-Dichloropropane	8.60	63	209691	30.67 ug\L	99
39) Dibromomethane	8.80	93	122706	30.41 ug\L	98
40) Methylmethacrylate	8.82	69	59735	32.79 ug\L	98
41) Bromodichloromethane	9.06	83	398143	30.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	39267	31.30 ug\L	98
43) cis-1,3-Dichloropropene	9.70	75	377356	30.86 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	15406	31.46 ug\L #	1
47) Toluene	10.13	92	772677	29.69 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	294117	30.63 ug\L	98
49) Ethylmethacrylate	10.62	69	143762	31.83 ug\L	99
50) 1,1,2-Trichloroethane	10.78	83	111359	29.31 ug\L	96
51) Tetrachloroethene	10.89	164	327047	28.93 ug\L	99
52) 1,3-Dichloropropane	11.00	76	237454	29.47 ug\L	100
53) 2-Hexanone	11.12	43	44352	30.78 ug\L	98
54) Dibromochloromethane	11.32	129	243349	31.13 ug\L	100
55) 1,2-Dibromoethane	11.46	107	150308	30.56 ug\L	97
56) Chlorobenzene	12.12	112	855952	29.70 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	319261	29.55 ug\L	97
58) Ethylbenzene	12.26	91	1678406	29.95 ug\L	100
59) total-Xylene	12.43	106	1744747m	89.55 ug\L #	
60) Styrene	13.01	104	897316	31.51 ug\L	98
62) Bromoform	13.32	173	121354	31.72 ug\L	99
63) Isopropylbenzene	13.48	105	1693119	29.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	51009	33.79 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.05	53	51009	31.72 ug\L #	39
67) Bromobenzene	13.93	156	328377	30.31 ug\L	96
68) 1,1,2,2-Tetrachloroethane	13.98	83	128342	30.78 ug\L	95
69) 1,2,3-Trichloropropane	14.04	75	160548	30.51 ug\L	95
70) n-Propylbenzene	14.05	91	2042742	30.20 ug\L	100
71) 2-Chlorotoluene	14.19	91	1187401	29.81 ug\L	98
72) 4-Chlorotoluene	14.34	91	1387227	29.99 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	1542146	30.35 ug\L	100
74) Pentachloroethane	14.81	167	215082	30.59 ug\L	97
75) tert-Butylbenzene	14.74	119	1296474	30.23 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	1498427	29.84 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D
Acq On : 08/06/01 12:05
Sample : ICAL 30 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 5
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	1910656	30.05 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	674357	30.32 ug\L	98
79) Isopropyltoluene	15.24	119	1560231	30.03 ug\L	100
80) 1,4-Dichlorobenzene	15.35	146	652092	29.16 ug\L	98
81) 1,2-Dichlorobenzene	15.87	146	518139	29.90 ug\L	99
82) n-Butylbenzene	15.81	91	1460079	30.47 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	22579	26.95 ug\L #	82
84) 1,2,4-trichlorobenzene	18.24	180	356537	29.37 ug\L	100
85) Hexachlorobutadiene	18.48	225	307516	28.21 ug\L	100
86) Naphthalene	18.70	128	420803	32.02 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	270049	30.10 ug\L	99

(#) = qualifier out of range (m) = manual integration

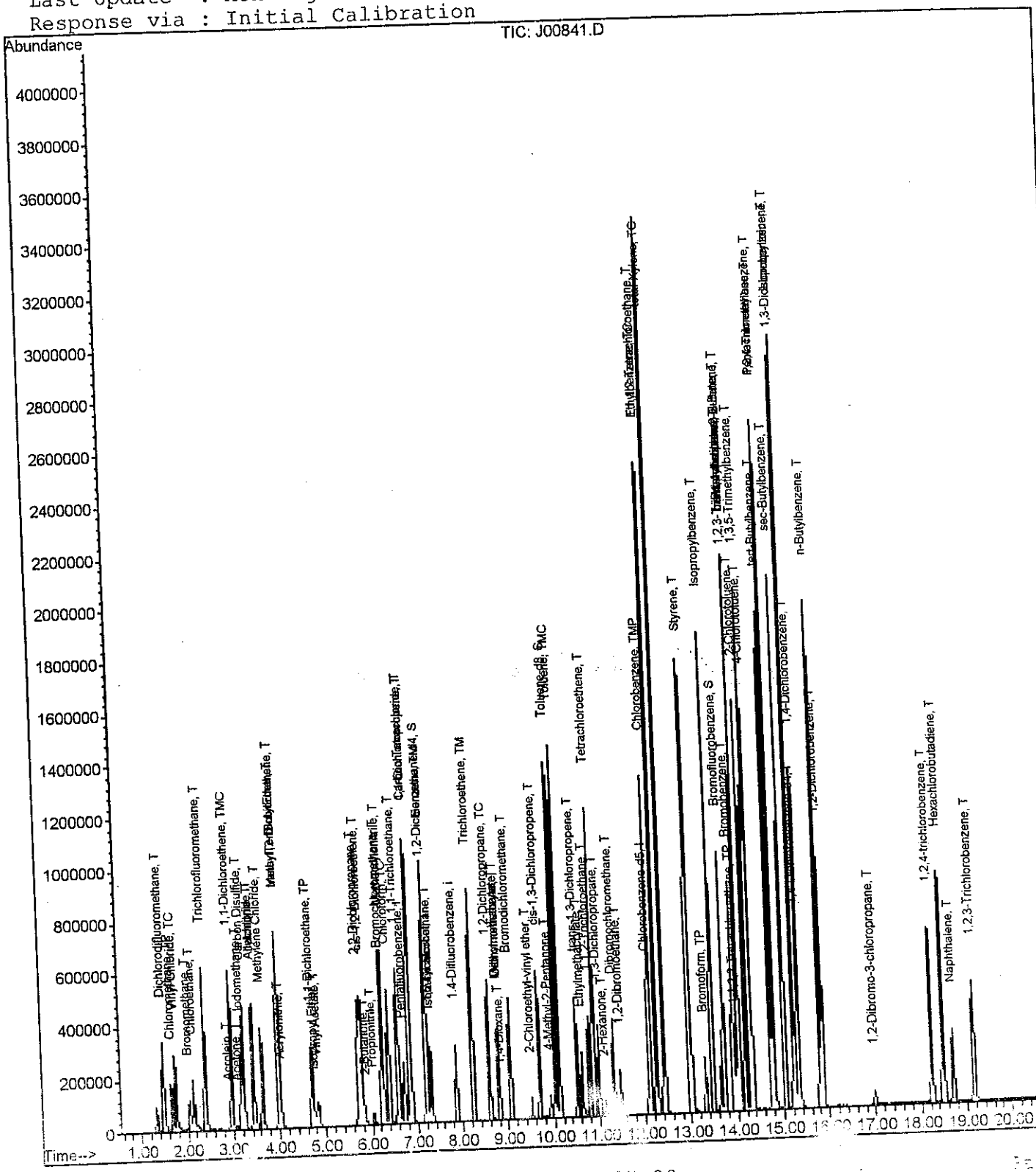
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D
Acq On : 08/06/01 12:05
Sample : ICAL 30 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 5
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.72	168	236977	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.10	117	283507	10.00	ug\L		0.01
61) 1,4-Dichlorobenzene-d4	15.33	152	126023	10.00	ug\L		0.02
88) 1.4-Difluorobenzene	7.87	116	380	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.19	65	385440	38.65	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 386.50%#				
46) Toluene-d8	10.05	98	1614379	38.88	ug\L		0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 388.80%#				
66) Bromofluorobenzene	13.74	95	529059	37.72	ug\L		0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 377.20%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	692564	38.27	ug\L		99
3) Chloromethane	1.66	50	312292	34.78	ug\L		94
4) Vinyl Chloride	1.75	62	468705	37.90	ug\L		99
5) Bromomethane	2.05	94	138965	37.31	ug\L		85
6) Chloroethane	2.14	64	249551	37.64	ug\L		99
7) Trichlorofluoromethane	2.39	101	846276	37.20	ug\L	#	100
8) Acrolein	2.91	56	22585	75.58	ug\L	#	89
9) Acrylonitrile	4.05	53	56343	78.81	ug\L	#	94
10) 1,1-Dichloroethene	2.97	96	409885	37.93	ug\L		100
11) Acetone	3.11	58	6573	35.24	ug\L		95
12) Iodomethane	3.18	142	612141	42.33	ug\L		96
13) Allylchloride	3.44	39	514739	39.58	ug\L		98
14) Carbon Disulfide	3.24	76	1179036	37.79	ug\L		99
15) Acetonitrile	3.45	41	537021	387.36	ug\L		97
16) Methylene Chloride	3.64	86	230823	40.05	ug\L		98
17) trans-1,2-Dichloroethene	4.00	96	440624	37.97	ug\L		97
18) MethylTertButylEther	3.98	73	563877	40.43	ug\L		99
19) 1,1-Dichloroethane	4.71	63	683438	39.24	ug\L		99
20) Isopropyl Ether	4.78	45	74635	41.09	ug\L	#	27
21) Vinyl Acetate	4.83	43	364053	41.77	ug\L		99
22) 2,2-Dichloropropane	5.73	77	776884	37.83	ug\L		96
23) cis-1,2-Dichloroethene	5.79	96	430587	38.92	ug\L		97
24) 2-Butanone	5.88	72	10204	40.10	ug\L	#	100
25) Propionitrile	6.05	54	100038	419.07	ug\L		98
26) Methacrylonitrile	6.25	41	558385	400.19	ug\L		97
27) Bromochloromethane	6.22	128	154414	38.56	ug\L		98
28) Chloroform	6.39	83	828379	38.83	ug\L	#	1
29) 1,1,1-Trichloroethane	6.59	97	956613	38.89	ug\L		99

(m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	895735	38.86 ug\L	100
31) 1,4-Dioxane	8.86	88	20699	834.61 ug\L #	68
32) 1,1-Dichloropropene	6.87	77	195288	39.63 ug\L	95
34) Benzene	7.21	78	1513451	39.82 ug\L	100
35) Isobutyl alcohol	7.33	43	56629	814.58 ug\L	95
36) 1,2-Dichloroethane	7.32	62	449661	39.56 ug\L	100
37) Trichloroethene	8.25	95	533085	39.87 ug\L	99
38) 1,2-Dichloropropane	8.62	63	285359	40.18 ug\L	99
39) Dibromomethane	8.82	93	169143	40.36 ug\L	99
40) Methylmethacrylate	8.83	69	83734	44.26 ug\L	97
41) Bromodichloromethane	9.07	83	558222	40.92 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	51039	39.17 ug\L	95
43) cis-1,3-Dichloropropene	9.70	75	529866	41.71 ug\L	99
44) 4-Methyl-2-Pentanone	9.95	85	21934	43.12 ug\L #	1
47) Toluene	10.14	92	1050622	39.17 ug\L	100
48) trans-1,3-Dichloropropene	10.53	75	408043	41.23 ug\L	99
49) Ethylmethacrylate	10.64	69	205861	44.23 ug\L	98
50) 1,1,2-Trichloroethane	10.79	83	156378	39.94 ug\L	97
51) Tetrachloroethene	10.90	164	449566	38.58 ug\L	98
52) 1,3-Dichloropropane	11.02	76	337307	40.62 ug\L	98
53) 2-Hexanone	11.14	43	61503	41.41 ug\L	99
54) Dibromochloromethane	11.34	129	338783	42.05 ug\L	98
55) 1,2-Dibromoethane	11.48	107	208182	41.07 ug\L	98
56) Chlorobenzene	12.14	112	1144230	38.52 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.27	131	439758	39.50 ug\L	99
58) Ethylbenzene	12.28	91	2233211	38.67 ug\L	100
59) total-Xylene	12.44	106	2279293m	113.52 ug\L #	
60) Styrene	13.03	104	1100246	37.49 ug\L	97
62) Bromoform	13.33	173	156316	42.95 ug\L	99
63) Isopropylbenzene	13.50	105	2094320	38.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.06	53	62865	43.78 ug\L	91
65) trans-1,4-dichloro-2-Buten	14.06	53	62865	41.10 ug\L #	39
67) Bromobenzene	13.94	156	407509	39.55 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.00	83	159651	40.25 ug\L	96
69) 1,2,3-Trichloropropane	14.05	75	201442	40.25 ug\L	93
70) n-Propylbenzene	14.06	91	2503911	38.91 ug\L	100
71) 2-Chlorotoluene	14.20	91	1464559	38.66 ug\L	98
72) 4-Chlorotoluene	14.35	91	1683484	38.26 ug\L	99
73) 1,3,5-Trimethylbenzene	14.31	105	1866159	38.61 ug\L	100
74) Pentachloroethane	14.82	167	260835	39.00 ug\L	98
75) tert-Butylbenzene	14.76	119	1567887	38.44 ug\L	100
76) 1,2,4-Trimethylbenzene	14.83	105	1832348	38.36 ug\L	100

(#) = qualifier out of range (m) = manual integration
J00842.D 08060125.M Mon Aug 06 16:41:16

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.06	105	2334501	38.61	ug\L		99
78) 1,3-Dichlorobenzene	15.24	146	817537	38.64	ug\L		97
79) Isopropyltoluene	15.26	119	1904586	38.54	ug\L		99
80) 1,4-Dichlorobenzene	15.36	146	812646	38.20	ug\L		99
81) 1,2-Dichlorobenzene	15.89	146	647087	39.26	ug\L		99
82) n-Butylbenzene	15.82	91	1791846	39.32	ug\L		99
83) 1,2-Dibromo-3-chloropropan	16.99	75	29998	37.65	ug\L	#	84
84) 1,2,4-trichlorobenzene	18.25	180	451116	39.07	ug\L		100
85) Hexachlorobutadiene	18.50	225	377795	36.44	ug\L		100
86) Naphthalene	18.71	128	533546	42.69	ug\L		100
87) 1,2,3-Trichlorobenzene	19.18	180	331858	38.89	ug\L		99

(#) = qualifier out of range (m) = manual integration
J00842.D 08060125.M Mon Aug 06 16:41:14 2001

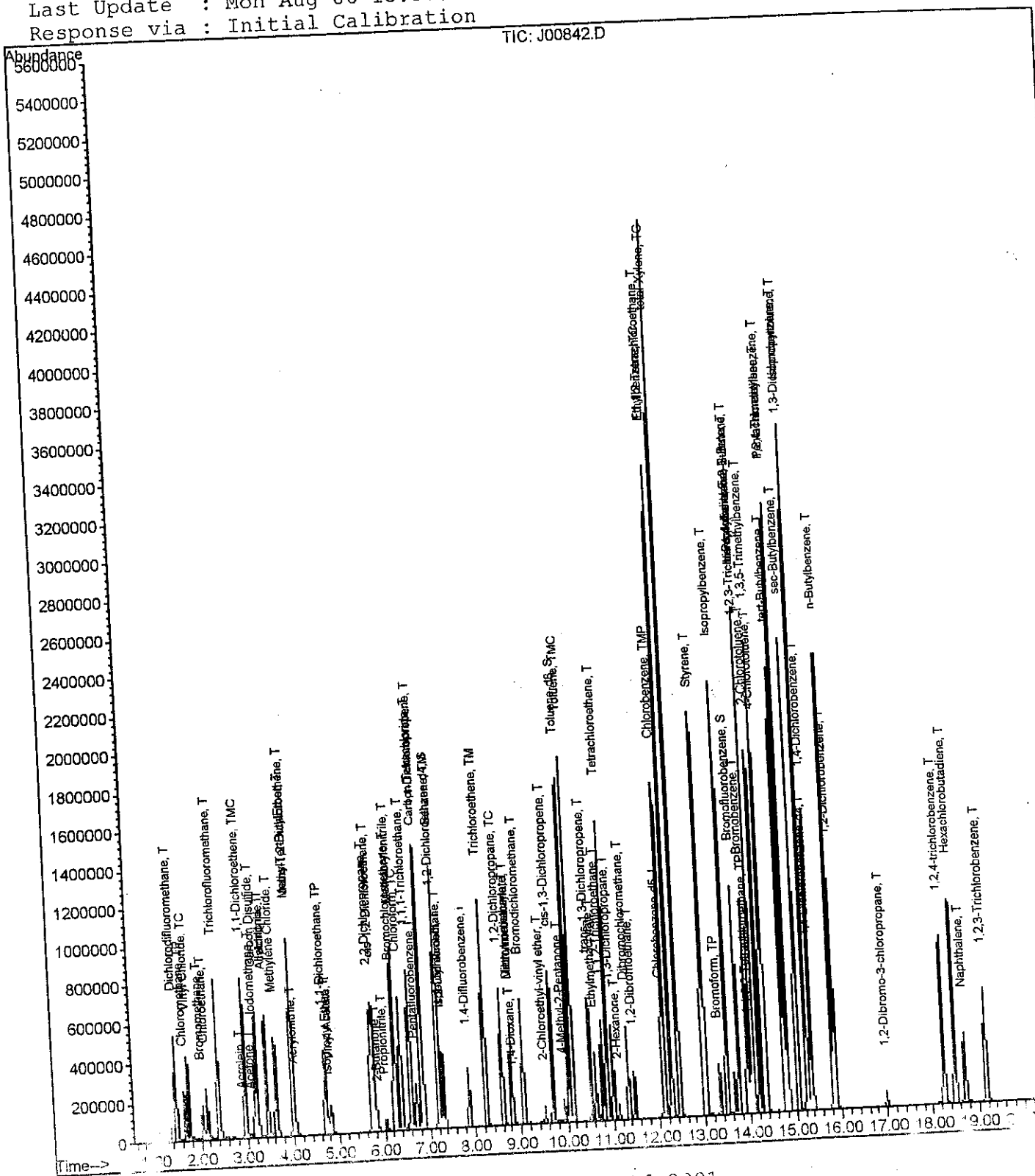
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D
Acq On : 08/06/01 12:30
Sample : ICAL 40 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 6
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	236749	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	271920	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	136085	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	46	10.00	ug\L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	102936	10.33	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.30%			
46) Toluene-d8	10.02	98	402158	10.10	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.00%			
66) Bromofluorobenzene	13.72	95	149700	9.88	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	185478	10.26	ug\L	99
3) Chloromethane	1.66	50	89700	10.00	ug\L	97
4) Vinyl Chloride	1.74	62	126218	10.22	ug\L	100
5) Bromomethane	2.04	94	30971m	8.32	ug\L	
6) Chloroethane	2.13	64	67507	10.19	ug\L	100
7) Trichlorofluoromethane	2.38	101	221851	9.76	ug\L #	100
8) Acrolein	2.90	56	5935	19.88	ug\L #	90
9) Acrylonitrile	4.03	53	15303	21.43	ug\L	95
10) 1,1-Dichloroethene	2.96	96	110481	10.23	ug\L	95
11) Acetone	3.10	58	2424	13.01	ug\L #	59
12) Iodomethane	3.17	142	144562	10.01	ug\L	97
13) Allylchloride	3.43	39	128977	9.93	ug\L	100
14) Carbon Disulfide	3.22	76	306632	9.84	ug\L	100
15) Acetonitrile	3.43	41	138391	99.92	ug\L	99
16) Methylene Chloride	3.63	86	61183	9.17	ug\L	98
17) trans-1,2-Dichloroethene	3.98	96	117661	10.15	ug\L	99
18) MethylTertButylEther	3.97	73	149459	10.73	ug\L	100
19) 1,1-Dichloroethane	4.70	63	170375	9.79	ug\L	99
20) Isopropyl Ether	4.77	45	18664m	10.28	ug\L	
21) Vinyl Acetate	4.80	43	89745	10.31	ug\L	97
22) 2,2-Dichloropropane	5.71	77	204482	9.97	ug\L	99
23) cis-1,2-Dichloroethene	5.77	96	110680	10.01	ug\L	97
24) 2-Butanone	5.86	72	2653m	11.41	ug\L	
25) Propionitrile	6.01	54	26079	109.35	ug\L	97
26) Methacrylonitrile	6.22	41	146128	104.83	ug\L	98
27) Bromochloromethane	6.20	128	41465	10.36	ug\L	98
28) Chloroform	6.36	83	214507	10.06	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	241792	9.84	ug\L	98

(#) = qualif[illegible]t of [illegible]ge (m) = manual integration
J00[illegible].D [illegible]on Aug 06 16:44:19 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	226500	9.84 ug\L	99
31) 1,4-Dioxane	8.84	88	5614	226.58 ug\L #	72
32) 1,1-Dichloropropene	6.85	77	48923	9.94 ug\L	93
34) Benzene	7.19	78	380136	10.01 ug\L	100
35) Isobutyl alcohol	7.31	43	13593	204.98 ug\L #	85
36) 1,2-Dichloroethane	7.29	62	117398	10.34 ug\L	99
37) Trichloroethene	8.22	95	131207	9.82 ug\L	99
38) 1,2-Dichloropropane	8.58	63	67927	9.57 ug\L	99
39) Dibromomethane	8.79	93	41892	10.01 ug\L	95
40) Methylmethacrylate	8.80	69	20795	11.00 ug\L	98
41) Bromodichloromethane	9.04	83	139253	10.22 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.50	63	13572	10.43 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	127539	10.05 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4814	9.47 ug\L #	1
47) Toluene	10.11	92	254492	9.89 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	98236	10.35 ug\L	97
49) Ethylmethacrylate	10.61	69	46882	10.50 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	39079	10.41 ug\L	97
51) Tetrachloroethene	10.87	164	112026	10.02 ug\L	99
52) 1,3-Dichloropropane	10.99	76	83613	10.50 ug\L	97
53) 2-Hexanone	11.11	43	14740	10.35 ug\L	98
54) Dibromochloromethane	11.32	129	82748	10.71 ug\L	98
55) 1,2-Dibromoethane	11.45	107	51404	10.57 ug\L	97
56) Chlorobenzene	12.11	112	285350	10.02 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.24	131	110222	10.32 ug\L	99
58) Ethylbenzene	12.25	91	557285	10.06 ug\L	99
59) total-Xylene	12.42	106	572541m	29.73 ug\L #	
60) Styrene	13.01	104	292603	10.40 ug\L	99
62) Bromoform	13.31	173	38751	9.86 ug\L	99
63) Isopropylbenzene	13.47	105	568522	9.79 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	16816	10.85 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	16816	10.18 ug\L #	44
67) Bromobenzene	13.92	156	111009	9.98 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.98	83	44964	10.50 ug\L	98
69) 1,2,3-Trichloropropane	14.02	75	55094	10.19 ug\L	96
70) n-Propylbenzene	14.04	91	672093	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	393728	9.62 ug\L	99
72) 4-Chlorotoluene	14.33	91	468656	9.86 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	500390	9.59 ug\L	99
74) Pentachloroethane	14.80	167	73416	10.16 ug\L	99
75) tert-Butylbenzene	14.73	119	427537	9.71 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	508226	9.85 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

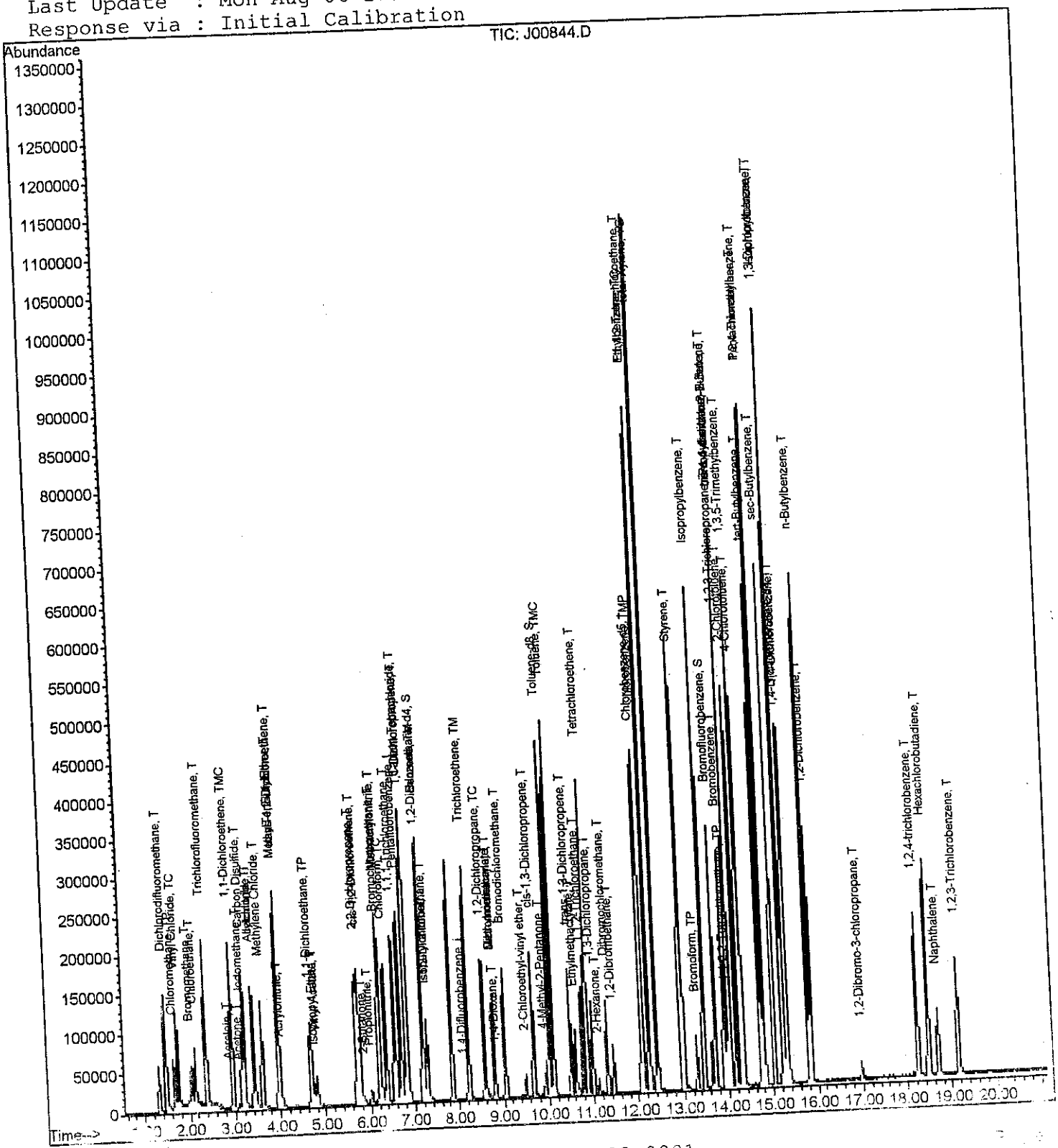
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	635434	9.73 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	227582	9.96 ug\L	98
79) Isopropyltoluene	15.23	119	521726	9.78 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	224040	9.75 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	176920	9.94 ug\L	99
82) n-Butylbenzene	15.80	91	488303	9.92 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7984	9.28 ug\L	89
84) 1,2,4-trichlorobenzene	18.23	180	112061	8.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	97843	8.74 ug\L	100
86) Naphthalene	18.69	128	121746	9.02 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	83493	9.06 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	117	-0.02
2	T	Dichlorodifluoromethane	0.764	0.783	-2.5	124	0.00
3	TP	Chloromethane	0.379	0.379	0.0	119	0.00
4	TC	Vinyl Chloride	0.522	0.533	-2.1	123	0.00
5	T	Bromomethane	0.157	0.131	16.6	99	0.00
6	T	Chloroethane	0.280	0.285	-1.8	118	-0.02
7	T	Trichlorofluoromethane	0.960	0.937	2.4	112	-0.02
8	T	Acrolein	0.013	0.013	0.0	129	-0.02
9	T	Acrylonitrile	0.030	0.032	-6.7	130	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.467	-2.4	122	-0.02
11	T	Acetone	0.008	0.010	-25.0	157#	0.00
12	T	Iodomethane	0.610	0.611	-0.2	114	-0.01
13	T	Allylchloride	0.549	0.545	0.7	114	0.00
14	T	Carbon Disulfide	1.317	1.295	1.7	122	-0.02
15	T	Acetonitrile	0.059	0.058	1.7	115	-0.02
16	T	Methylene Chloride	0.304	0.258	15.1	106	-0.02
17	T	trans-1,2-Dichloroethene	0.490	0.497	-1.4	119	-0.02
18	T	MethylTertButylEther	0.589	0.631	-7.1	126	-0.03
19	TP	1,1-Dichloroethane	0.735	0.720	2.0	116	-0.02
20	T	Isopropyl Ether	0.077	0.079	-2.6	123	-0.02
21	T	Vinyl Acetate	0.368	0.379	-3.0	126	-0.02
22	T	2,2-Dichloropropane	0.867	0.864	0.3	116	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.467	0.0	119	-0.03
24	T	2-Butanone	0.010	0.011	-10.0	168#	0.00
25	T	Propionitrile	0.010	0.011	-10.0	128	-0.03
26	T	Methacrylonitrile	0.059	0.062	-5.1	121	-0.02
27	T	Bromochloromethane	0.169	0.175	-3.6	123	-0.02
28	TC	Chloroform	0.900	0.906	-0.7	115	-0.02
29	T	1,1,1-Trichloroethane	1.038	1.021	1.6	113	-0.02
30	T	Carbon Tetrachloride	0.973	0.957	1.6	114	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	145	-0.02
32	T	1,1-Dichloropropene	0.208	0.207	0.5	112	-0.02
33	S	1,2-Dichloroethane-d4	0.421	0.435	-3.3	121	-0.02
34	TM	Benzene	1.604	1.606	-0.1	117	-0.02
35	T	Isobutyl alcohol	0.003	0.003	0.0	105	-0.03
36	T	1,2-Dichloroethane	0.480	0.496	-3.3	119	-0.02
37	TM	Trichloroethene	0.564	0.554	1.8	115	-0.02
38	TC	1,2-Dichloropropane	0.300	0.287	4.3	114	-0.02
39	T	Dibromomethane	0.177	0.177	0.0	114	0.00
40	T	Methylmethacrylate	0.080	0.088	-10.0	131	-0.02
41	T	Bromodichloromethane	0.576	0.588	-2.1	118	-0.02
42	T	2-Chloroethyl-vinyl ether	0.055	0.057	-3.6	129	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 T	cis-1,3-Dichloropropene	0.536	0.539	-0.6	116	-0.02
44 T	4-Methyl-2-Pentanone	0.021	0.020	4.8	128	-0.01
45 I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
46 S	Toluene-d8	1.464	1.479	-1.0	115	-0.02
47 TMC	Toluene	0.946	0.936	1.1	112	-0.02
48 T	trans-1,3-Dichloropropene	0.349	0.361	-3.4	115	-0.02
49 T	Ethylmethacrylate	0.164	0.172	-4.9	118	0.00
50 T	1,1,2-Trichloroethane	0.138	0.144	-4.3	119	0.00
51 T	Tetrachloroethene	0.411	0.412	-0.2	112	0.00
52 T	1,3-Dichloropropane	0.293	0.307	-4.8	121	0.00
53 T	2-Hexanone	0.052	0.054	-3.8	135	-0.02
54 T	Dibromochloromethane	0.284	0.304	-7.0	122	0.00
55 T	1,2-Dibromoethane	0.179	0.189	-5.6	119	0.00
56 TMP	Chlorobenzene	1.048	1.049	-0.1	115	-0.02
57 T	1,1,1,2-Tetrachloroethane	0.393	0.405	-3.1	114	0.00
58 TC	Ethylbenzene	2.037	2.049	-0.6	114	-0.02
59 TG	total-Xylene	0.708	0.702	0.8	110	0.00
60 T	Styrene	1.035	1.076	-4.0	114	0.00
61 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00
62 TP	Bromoform	0.289	0.285	1.4	117	0.00
63 T	Isopropylbenzene	4.269	4.178	2.1	112	0.00
64 T	cis-1,4-dichloro-2-Butene	0.114	0.124	-8.8	120	0.39
65 T	trans-1,4-dichloro-2-Butene	0.121	0.124	-2.5	118	0.00
66 S	Bromofluorobenzene	1.113	1.100	1.2	114	0.00
67 T	Bromobenzene	0.818	0.816	0.2	112	0.00
68 TP	1,1,2,2-Tetrachloroethane	0.315	0.330	-4.8	119	0.00
69 T	1,2,3-Trichloropropane	0.397	0.405	-2.0	119	-0.02
70 T	n-Propylbenzene	5.106	4.939	3.3	110	0.00
71 T	2-Chlorotoluene	3.006	2.893	3.8	109	0.00
72 T	4-Chlorotoluene	3.492	3.444	1.4	112	0.00
73 T	1,3,5-Trimethylbenzene	3.836	3.677	4.1	109	0.00
74 T	Pentachloroethane	0.531	0.539	-1.5	112	0.00
75 T	tert-Butylbenzene	3.237	3.142	2.9	111	0.00
76 T	1,2,4-Trimethylbenzene	3.790	3.735	1.5	112	0.00
77 T	sec-Butylbenzene	4.798	4.669	2.7	111	0.00
78 T	1,3-Dichlorobenzene	1.679	1.672	0.4	112	0.00
79 T	Isopropyltoluene	3.921	3.834	2.2	112	-0.02
80 T	1,4-Dichlorobenzene	1.688	1.646	2.5	113	0.00
[illegible] T	1,2-Dichlorobenzene	1.308	1.300	0.6	114	0.00
[illegible] T	n-Butylbenzene	3.616	3.588	0.8	113	0.00

(4) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.059	6.3	113	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.823	10.2	101	0.00
85	T	Hexachlorobutadiene	0.823	0.719	12.6	97	0.00
86	T	Naphthalene	0.992	0.895	9.8	104	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.614	9.3	104	-0.02
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

Qvalue

Target Compounds

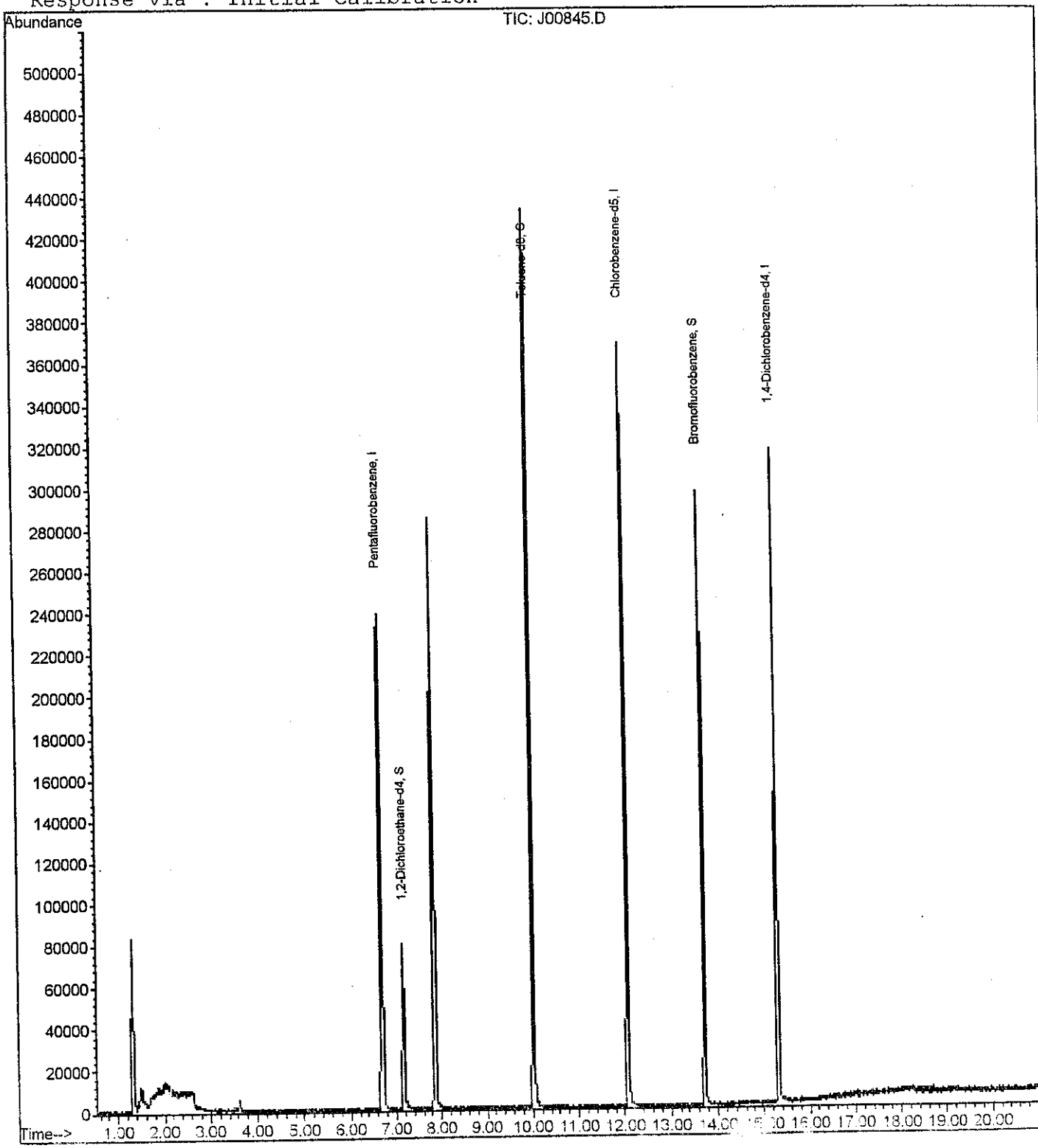
VLR
8-7-01

(#) = qualifier out of range (m) = manual integration
ID: 46 M Tue Aug 07 08:26:57 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	233724	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.08	117	266294	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	121257	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	113	10.00	ug\L		-0.22
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	91814	9.34	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.40%				
46) Toluene-d8	10.02	98	372739	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.72	95	126712	9.39	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	188464	10.56	ug\L		99
3) Chloromethane	1.65	50	87742	9.91	ug\L		99
4) Vinyl Chloride	1.74	62	125026	10.25	ug\L		100
5) Bromomethane	2.03	94	28499	7.76	ug\L		98
6) Chloroethane	2.13	64	67434	10.31	ug\L		100
7) Trichlorofluoromethane	2.38	101	225117	10.03	ug\L	#	100
8) Acrolein	2.91	56	4757	16.14	ug\L	#	10
9) Acrylonitrile	4.03	53	14090	19.98	ug\L		91
10) 1,1-Dichloroethene	2.96	96	105707	9.92	ug\L		98
11) Acetone	3.11	58	1826	9.93	ug\L		80
12) Iodomethane	3.17	142	124388	8.72	ug\L		97
13) Allylchloride	3.43	39	120530	9.40	ug\L		98
14) Carbon Disulfide	3.22	76	283366	9.21	ug\L		100
15) Acetonitrile	3.43	41	130302	95.30	ug\L		99
16) Methylene Chloride	3.63	86	75684	12.00	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	111235	9.72	ug\L		98
18) MethylTertButylEther	3.97	73	134807	9.80	ug\L		100
19) 1,1-Dichloroethane	4.69	63	163981	9.55	ug\L		98
20) Isopropyl Ether	4.77	45	17504	9.77	ug\L	#	25
21) Vinyl Acetate	4.81	43	75311	8.76	ug\L		100
22) 2,2-Dichloropropane	5.71	77	205722	10.16	ug\L		98
23) cis-1,2-Dichloroethene	5.77	96	103481	9.48	ug\L		99
24) 2-Butanone	5.86	72	2439	10.72	ug\L	#	100
25) Propionitrile	6.03	54	22045	93.63	ug\L	#	94
26) Methacrylonitrile	6.24	41	131276	95.39	ug\L		98
27) Bromochloromethane	6.20	128	35746	9.05	ug\L		98
28) Chloroform	6.37	83	201405	9.57	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	236941	9.77	ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	225318	9.91 ug\L	99
31) 1,4-Dioxane	8.83	88	4486	183.40 ug\L #	86
32) 1,1-Dichloropropene	6.84	77	46863	9.64 ug\L	88
34) Benzene	7.20	78	359692	9.59 ug\L	100
35) Isobutyl alcohol	7.32	43	11073	171.28 ug\L #	79
36) 1,2-Dichloroethane	7.30	62	105472	9.41 ug\L	99
37) Trichloroethene	8.23	95	125618	9.53 ug\L	99
38) 1,2-Dichloropropane	8.59	63	62462	8.92 ug\L	98
39) Dibromomethane	8.79	93	39746	9.62 ug\L	99
40) Methylmethacrylate	8.80	69	16703	8.95 ug\L	91
41) Bromodichloromethane	9.05	83	124715	9.27 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	10629	8.27 ug\L	94
43) cis-1,3-Dichloropropene	9.68	75	118981	9.50 ug\L	99
44) 4-Methyl-2-Pentanone	9.92	85	4319	8.61 ug\L #	1
47) Toluene	10.11	92	243381	9.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	91973	9.89 ug\L	99
49) Ethylmethacrylate	10.61	69	44341	10.14 ug\L	96
50) 1,1,2-Trichloroethane	10.77	83	34382	9.35 ug\L	95
51) Tetrachloroethene	10.87	164	107565	9.83 ug\L	98
52) 1,3-Dichloropropane	10.99	76	74731	9.58 ug\L	99
53) 2-Hexanone	11.12	43	12235	8.77 ug\L	93
54) Dibromochloromethane	11.32	129	74174	9.80 ug\L	100
55) 1,2-Dibromoethane	11.45	107	44624	9.37 ug\L	98
56) Chlorobenzene	12.12	112	258236	9.26 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.24	131	101990	9.75 ug\L	99
58) Ethylbenzene	12.26	91	525598	9.69 ug\L	99
59) total-Xylene	12.42	106	539877m	28.63 ug\L #	
60) Styrene	13.01	104	263629	9.56 ug\L	99
62) Bromoform	13.31	173	31938	9.12 ug\L	100
63) Isopropylbenzene	13.48	105	494223	9.55 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	13626	9.86 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	13626	9.26 ug\L #	56
67) Bromobenzene	13.92	156	93327	9.41 ug\L	94
68) 1,1,2,2-Tetrachloroethane	13.98	83	36078	9.45 ug\L	96
69) 1,2,3-Trichloropropane	14.03	75	45379	9.42 ug\L	97
70) n-Propylbenzene	14.04	91	598888	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	346083	9.49 ug\L	99
72) 4-Chlorotoluene	14.33	91	411375	9.72 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	445948	9.59 ug\L	100
74) Pentachloroethane	14.80	167	63083	9.80 ug\L	98
75) tert-Butylbenzene	14.73	119	371461	9.46 ug\L	100
76) 1,2,4-Trimethylbenzene	14.81	105	443984	9.66 ug\L	99

(#) = qualifier out of range (m) = manual integrati

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	557935	9.59 ug\L	99
78) 1,3-Dichlorobenzene	15.21	146	196156	9.64 ug\L	97
79) Isopropyltoluene	15.23	119	459077	9.65 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	187744	9.17 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	147798	9.32 ug\L	97
82) n-Butylbenzene	15.80	91	435909	9.94 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	6442	8.40 ug\L #	84
84) 1,2,4-trichlorobenzene	18.23	180	102453	9.22 ug\L	100
85) Hexachlorobutadiene	18.48	225	97686	9.79 ug\L	100
86) Naphthalene	18.68	128	106590	8.86 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	74972	9.13 ug\L	99

VRK 8.7.01

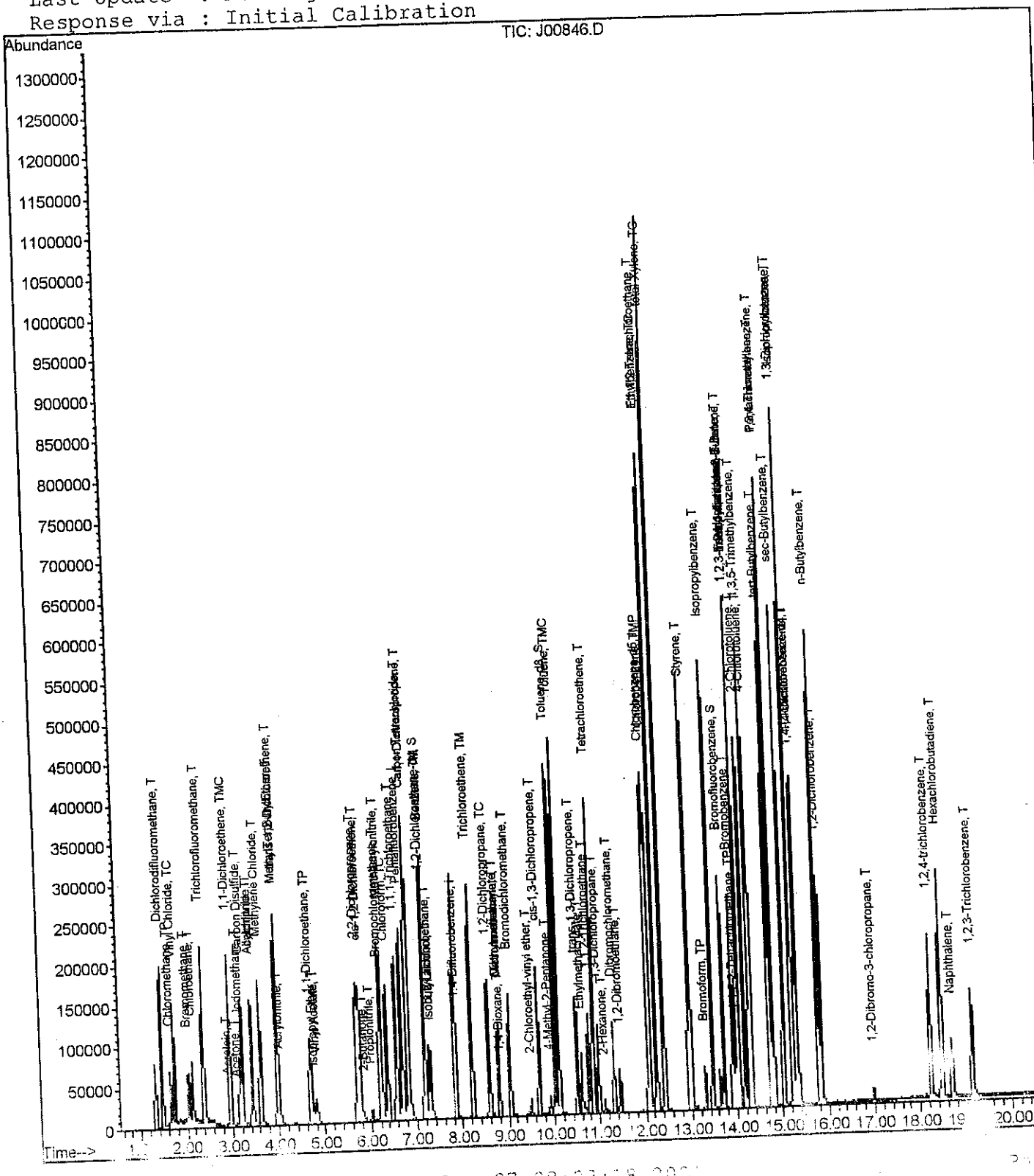
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D
Acq On : 08/06/01 17:29
Sample : 1J080601LCS
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001

Vial: 10
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

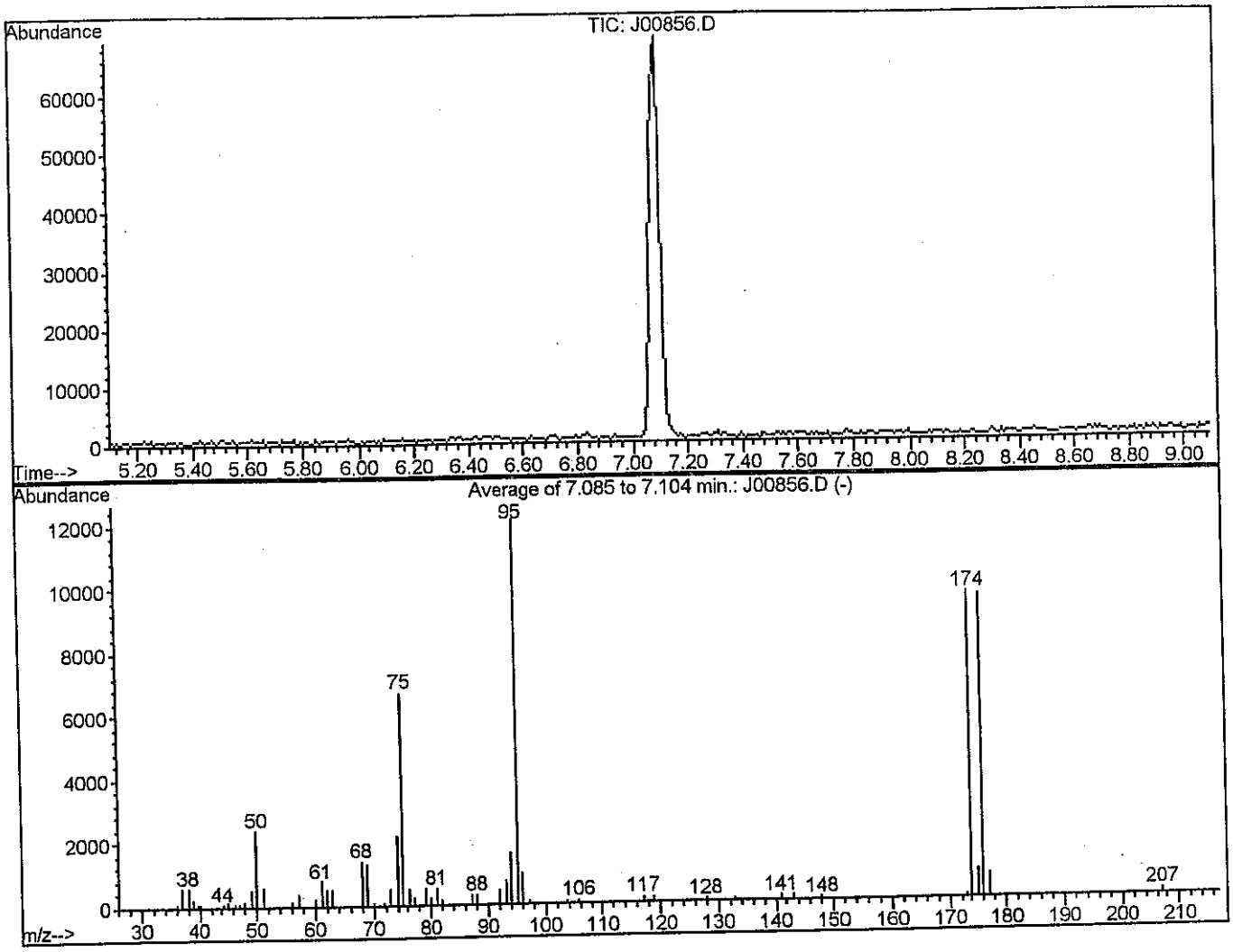
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\1J080701\J00856.D
Acq On : 08/07/01 10:13
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 587

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2364	PASS
75	95	30	60	55.4	6714	PASS
95	95	100	100	100.0	12123	PASS
96	95	5	9	7.7	934	PASS
173	174	0.00	2	0.6	61	PASS
174	95	50	100	79.7	9656	PASS
175	174	5	9	8.7	838	PASS
176	174	95	101	99.3	9587	PASS
177	176	5	9	7.2	693	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00
Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	219634	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	255172	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	126943	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	588	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	92347	9.99	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.02	98	388775	10.40	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	138775	9.82	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	175386	10.46	ug\L	100
3) Chloromethane	1.67	50	86062	10.34	ug\L	98
4) Vinyl Chloride	1.74	62	119953	10.47	ug\L	98
5) Bromomethane	2.04	94	28706	8.31	ug\L	100
6) Chloroethane	2.14	64	64895	10.56	ug\L	99
7) Trichlorofluoromethane	2.38	101	222834	10.57	ug\L #	100
8) Acrolein	2.91	56	5167	18.66	ug\L #	86
9) Acrylonitrile	4.05	53	14875	22.45	ug\L	90
10) 1,1-Dichloroethene	2.96	96	106094	10.59	ug\L	97
11) Acetone	3.12	58	1727	9.99	ug\L	98
12) Iodomethane	3.17	142	118706m	8.86	ug\L	
13) Allylchloride	3.43	39	127546	10.58	ug\L	95
14) Carbon Disulfide	3.23	76	270288	9.35	ug\L	99
15) Acetonitrile	3.44	41	128237	99.80	ug\L	94
16) Methylene Chloride	3.63	86	55710	8.97	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	111612	10.38	ug\L	99
18) MethylTertButylEther	3.97	73	132630	10.26	ug\L	100
19) 1,1-Dichloroethane	4.69	63	166500	10.32	ug\L	99
20) Isopropyl Ether	4.77	45	17628	10.47	ug\L #	93
21) Vinyl Acetate	4.82	43	72146	8.93	ug\L	99
22) 2,2-Dichloropropane	5.72	77	199606	10.49	ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	104605	10.20	ug\L	96
24) 2-Butanone	5.85	72	1966m	9.38	ug\L	
25) Propionitrile	6.02	54	21955	99.23	ug\L	98
26) Methacrylonitrile	6.24	41	131016	101.31	ug\L	98
27) Bromochloromethane	6.20	128	36255	9.77	ug\L	99
28) Chloroform	6.37	83	204983	10.37	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	234352	10.28	ug\L	98

= qua fier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00
Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	220780	10.34 ug\L	99
31) 1,4-Dioxane	8.84	88	4740	206.21 ug\L #	89
32) 1,1-Dichloropropene	6.85	77	48571	10.64 ug\L	99
34) Benzene	7.20	78	355362	10.09 ug\L	100
35) Isobutyl alcohol	7.32	43	11065m	181.36 ug\L	
36) 1,2-Dichloroethane	7.30	62	105489	10.01 ug\L	100
37) Trichloroethene	8.22	95	124564	10.05 ug\L	98
38) 1,2-Dichloropropane	8.59	63	65410	9.94 ug\L	100
39) Dibromomethane	8.79	93	38221	9.84 ug\L	96
40) Methylmethacrylate	8.81	69	17553	10.01 ug\L	95
41) Bromodichloromethane	9.05	83	126490	10.00 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	8646	7.16 ug\L	98
43) cis-1,3-Dichloropropene	9.69	75	115842	9.84 ug\L	96
44) 4-Methyl-2-Pentanone	9.92	85	4050	8.59 ug\L #	1
47) Toluene	10.12	92	248251	10.28 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	88881	9.98 ug\L	95
49) Ethylmethacrylate	10.62	69	42447	10.13 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	36640	10.40 ug\L	99
51) Tetrachloroethene	10.87	164	111457	10.63 ug\L	98
52) 1,3-Dichloropropane	10.99	76	77373	10.35 ug\L	98
53) 2-Hexanone	11.12	43	11508	8.61 ug\L	100
54) Dibromochloromethane	11.32	129	75098	10.36 ug\L	96
55) 1,2-Dibromoethane	11.45	107	46761	10.25 ug\L	96
56) Chlorobenzene	12.11	112	266716	9.98 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	104648	10.44 ug\L	98
58) Ethylbenzene	12.25	91	543669	10.46 ug\L	98
59) total-Xylene	12.42	106	571672m	31.63 ug\L #	
60) Styrene	13.00	104	279291	10.57 ug\L	98
62) Bromoform	13.31	173	35042	9.56 ug\L	99
63) Isopropylbenzene	13.47	105	539808	9.96 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	16330	11.29 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.04	53	16330	10.60 ug\L #	42
67) Bromobenzene	13.93	156	104972	10.11 ug\L #	96
68) 1,1,2,2-Tetrachloroethane	13.97	83	41310	10.34 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	50023	9.92 ug\L	100
70) n-Propylbenzene	14.05	91	659930	10.18 ug\L	99
71) 2-Chlorotoluene	14.18	91	386840	10.14 ug\L	99
72) 4-Chlorotoluene	14.33	91	453510	10.23 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	496120	10.19 ug\L	99
74) Pentachloroethane	14.80	167	67695	10.05 ug\L	97
75) tert-Butylbenzene	14.73	119	412220	10.03 ug\L	98
76) 1,2,4-Trimethylbenzene	14.80	105	494364	10.28 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	614818	10.09 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	220497	10.35 ug\L	97
79) Isopropyltoluene	15.23	119	512085	10.29 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	208898	9.75 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	170639	10.28 ug\L	98
82) n-Butylbenzene	15.80	91	478982	10.43 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	7651	9.53 ug\L	96
84) 1,2,4-trichlorobenzene	18.23	180	116183	9.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	113430	10.86 ug\L	100
86) Naphthalene	18.69	128	123765	9.83 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	87823	10.22 ug\L	98

(#) = qualifier out of range (m) = manual integration

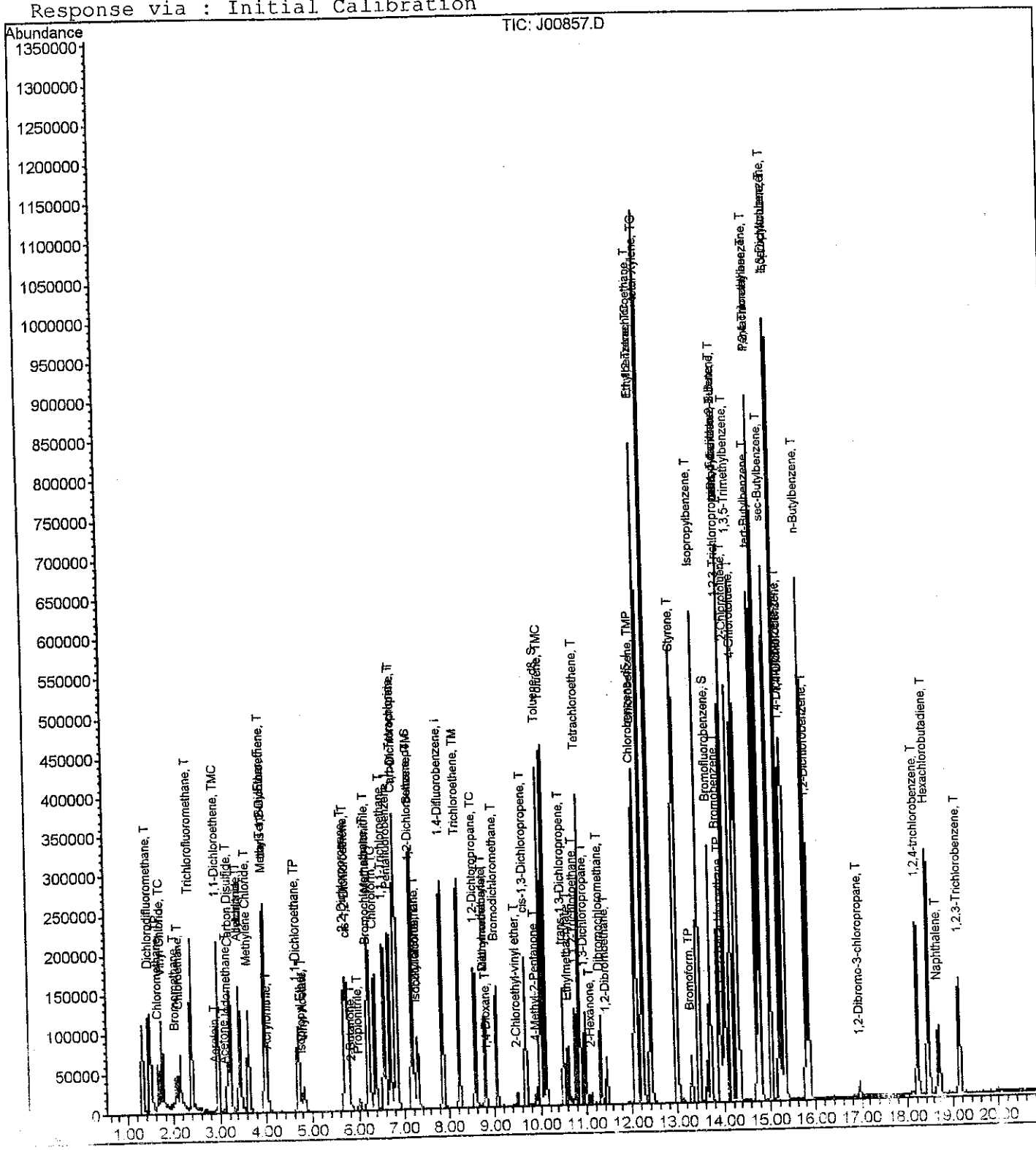
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	-0.01
2	T	Dichlorodifluoromethane	0.764	0.799	-4.6	117	0.00
3	TP	Chloromethane	0.379	0.392	-3.4	115	0.00
4	TC	Vinyl Chloride	0.522	0.546	-4.6	117	0.00
5	T	Bromomethane	0.157	0.131	16.6	92	0.00
6	T	Chloroethane	0.280	0.295	-5.4	113	-0.01
7	T	Trichlorofluoromethane	0.960	1.015	-5.7	112	-0.01
8	T	Acrolein	0.013	0.012	7.7	112	0.00
9	T	Acrylonitrile	0.030	0.034	-13.3	126	0.00
10	TMC	1,1-Dichloroethene	0.456	0.483	-5.9	117	-0.02
11	T	Acetone	0.008	0.008	0.0	112	0.02
12	T	Iodomethane	0.610	0.540	11.5	94	-0.01
13	T	Allylchloride	0.549	0.581	-5.8	113	-0.01
14	T	Carbon Disulfide	1.317	1.231	6.5	108	-0.01
15	T	Acetonitrile	0.059	0.058	1.7	106	-0.01
16	T	Methylene Chloride	0.304	0.254	16.4	97	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.508	-3.7	113	-0.01
18	T	MethylTertButylEther	0.589	0.604	-2.5	112	-0.03
19	TP	1,1-Dichloroethane	0.735	0.758	-3.1	113	-0.02
20	T	Isopropyl Ether	0.077	0.080	-3.9	116	-0.02
21	T	Vinyl Acetate	0.368	0.328	10.9	101	0.00
22	T	2,2-Dichloropropane	0.867	0.909	-4.8	113	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.476	-1.9	113	-0.02
24	T	2-Butanone	0.010	0.009	10.0	125	-0.02
25	T	Propionitrile	0.010	0.010	0.0	108	-0.02
26	T	Methacrylonitrile	0.059	0.060	-1.7	108	0.00
27	T	Bromochloromethane	0.169	0.165	2.4	107	-0.02
28	TC	Chloroform	0.900	0.933	-3.7	110	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.067	-2.8	110	-0.01
30	T	Carbon Tetrachloride	0.973	1.005	-3.3	111	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	122	-0.02
32	T	1,1-Dichloropropene	0.208	0.221	-6.3	112	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.420	0.2	109	-0.02
34	TM	Benzene	1.604	1.618	-0.9	110	-0.01
35	T	Isobutyl alcohol	0.003	0.003	0.0	86	-0.02
36	T	1,2-Dichloroethane	0.480	0.480	0.0	107	-0.01
37	TM	Trichloroethene	0.564	0.567	-0.5	109	-0.01
38	TC	1,2-Dichloropropane	0.300	0.298	0.7	109	-0.01
39	T	Dibromomethane	0.177	0.174	1.7	104	-0.01
40	T	Methylmethacrylate	0.080	0.080	0.0	110	-0.01
41	T	Bromodichloromethane	0.576	0.576	0.0	108	-0.01
42	T	2-Chloroeth[illegible]-vinyl ether	0.[illegible]	0.039	29.1#	8	0.00

(#) = Out o Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 T	cis-1,3-Dichloropropene	0.536	0.527	1.7	105	-0.01
44 T	4-Methyl-2-Pentanone	0.021	0.018	14.3	108	-0.01
45 I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
46 S	Toluene-d8	1.464	1.524	-4.1	112	-0.01
47 TMC	Toluene	0.946	0.973	-2.9	109	-0.01
48 T	trans-1,3-Dichloropropene	0.349	0.348	0.3	104	-0.01
49 T	Ethylmethacrylate	0.164	0.166	-1.2	107	0.00
50 T	1,1,2-Trichloroethane	0.138	0.144	-4.3	112	0.00
51 T	Tetrachloroethene	0.411	0.437	-6.3	112	-0.01
52 T	1,3-Dichloropropane	0.293	0.303	-3.4	112	-0.01
53 T	2-Hexanone	0.052	0.045	13.5	105	0.00
54 T	Dibromochloromethane	0.284	0.294	-3.5	111	0.00
55 T	1,2-Dibromoethane	0.179	0.183	-2.2	108	0.00
56 TMP	Chlorobenzene	1.048	1.045	0.3	107	-0.01
57 T	1,1,1,2-Tetrachloroethane	0.393	0.410	-4.3	108	0.00
58 TC	Ethylbenzene	2.037	2.131	-4.6	111	-0.01
59 TG	total-Xylene	0.708	0.747	-5.5	110	0.00
60 T	Styrene	1.035	1.095	-5.8	109	-0.01
61 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
62 TP	Bromoform	0.289	0.276	4.5	106	-0.01
63 T	Isopropylbenzene	4.269	4.252	0.4	107	0.00
64 T	cis-1,4-dichloro-2-Butene	0.114	0.129	-13.2	117	0.39
65 T	trans-1,4-dichloro-2-Butene	0.121	0.129	-6.6	115	-0.01
66 S	Bromofluorobenzene	1.113	1.093	1.8	106	0.00
67 T	Bromobenzene	0.818	0.827	-1.1	106	0.00
68 TP	1,1,2,2-Tetrachloroethane	0.315	0.325	-3.2	109	-0.01
69 T	1,2,3-Trichloropropane	0.397	0.394	0.8	108	-0.01
70 T	n-Propylbenzene	5.106	5.199	-1.8	108	0.00
71 T	2-Chlorotoluene	3.006	3.047	-1.4	107	0.00
72 T	4-Chlorotoluene	3.492	3.573	-2.3	108	0.00
73 T	1,3,5-Trimethylbenzene	3.836	3.908	-1.9	108	0.00
74 T	Pentachloroethane	0.531	0.533	-0.4	103	0.00
75 T	tert-Butylbenzene	3.237	3.247	-0.3	107	0.00
76 T	1,2,4-Trimethylbenzene	3.790	3.894	-2.7	109	-0.01
77 T	sec-Butylbenzene	4.798	4.843	-0.9	108	0.00
78 T	1,3-Dichlorobenzene	1.679	1.737	-3.5	108	0.00
79 T	Isopropyltoluene	3.921	4.034	-2.9	110	-0.01
80 T	1,4-Dichlorobenzene	1.688	1.646	2.5	106	0.00
81 T	1,2-Dichlorobenzene	1.308	1.344	-2.8	110	0.00
82 T	n-Butylbenzene	3.616	3.773	-4.3	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.060	4.8	108	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.915	0.1	105	-0.02
85	T	Hexachlorobutadiene	0.823	0.894	-8.6	112	0.00
86	T	Naphthalene	0.992	0.975	1.7	106	-0.01
87	T	1,2,3-Trichlorobenzene	0.677	0.692	-2.2	109	-0.01
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.26

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

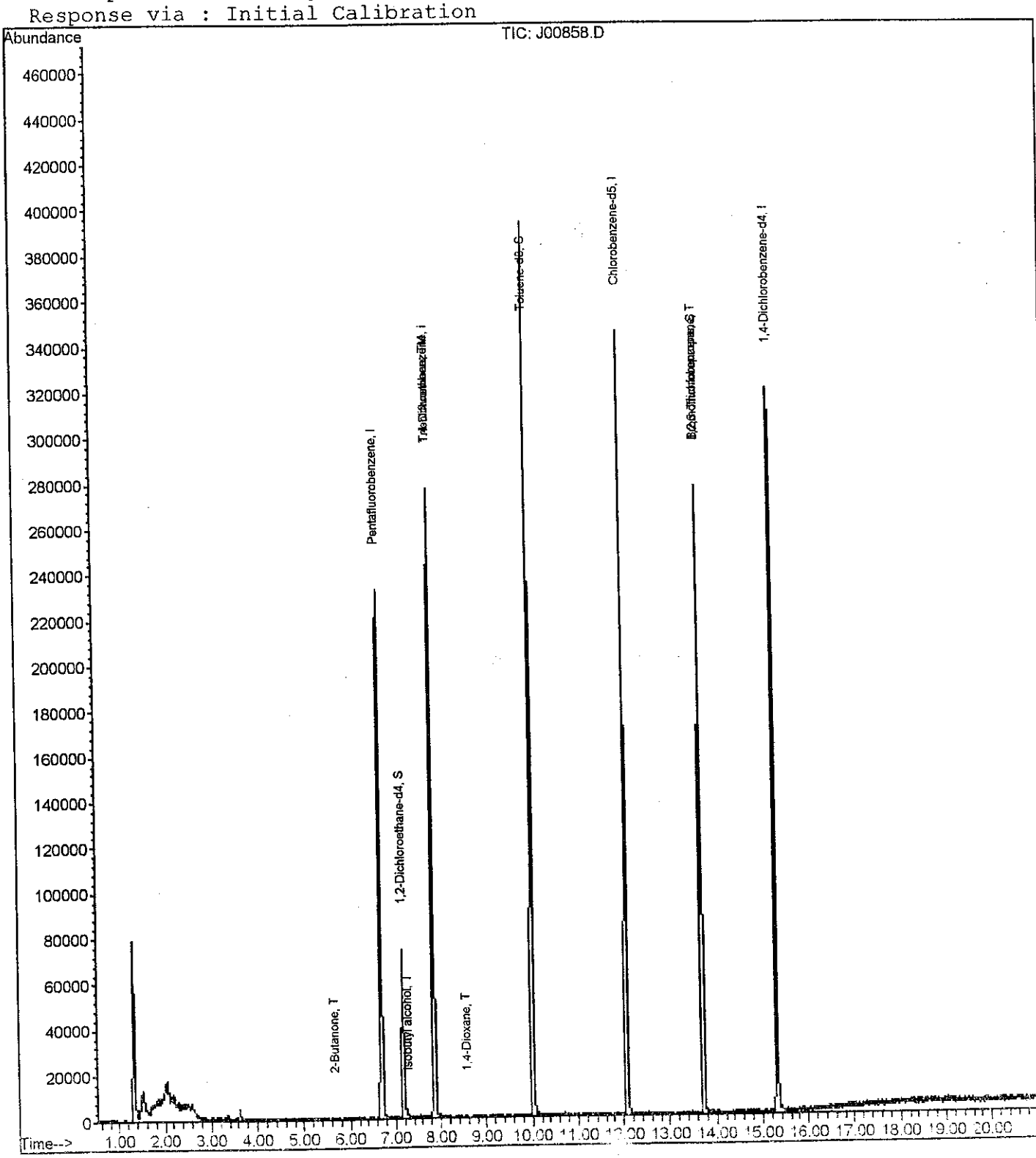
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	607	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			
Target Compounds						Qvalue
16) Methylene Chloride	3.62	86	1699	-1.65	ug\L	90
24) 2-Butanone	5.68	72	38	1.47	ug\L #	100
31) 1,4-Dioxane	8.57	88	39	1.65	ug\L #	53
35) Isobutyl alcohol	7.29	43	45	12.86	ug\L #	13
37) Trichloroethene	7.86	95	10670	0.84	ug\L #	6
69) 1,2,3-Trichloropropane	13.72	75	72268	16.50	ug\L #	4

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Wed Aug 08 09:1[illegible]:52 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Acq On : 08/07/01 11:15
Sample : 1J080701MB
Misc : WATER 25ml
MS Integration Params: LSCINT.P

Vial: 2
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

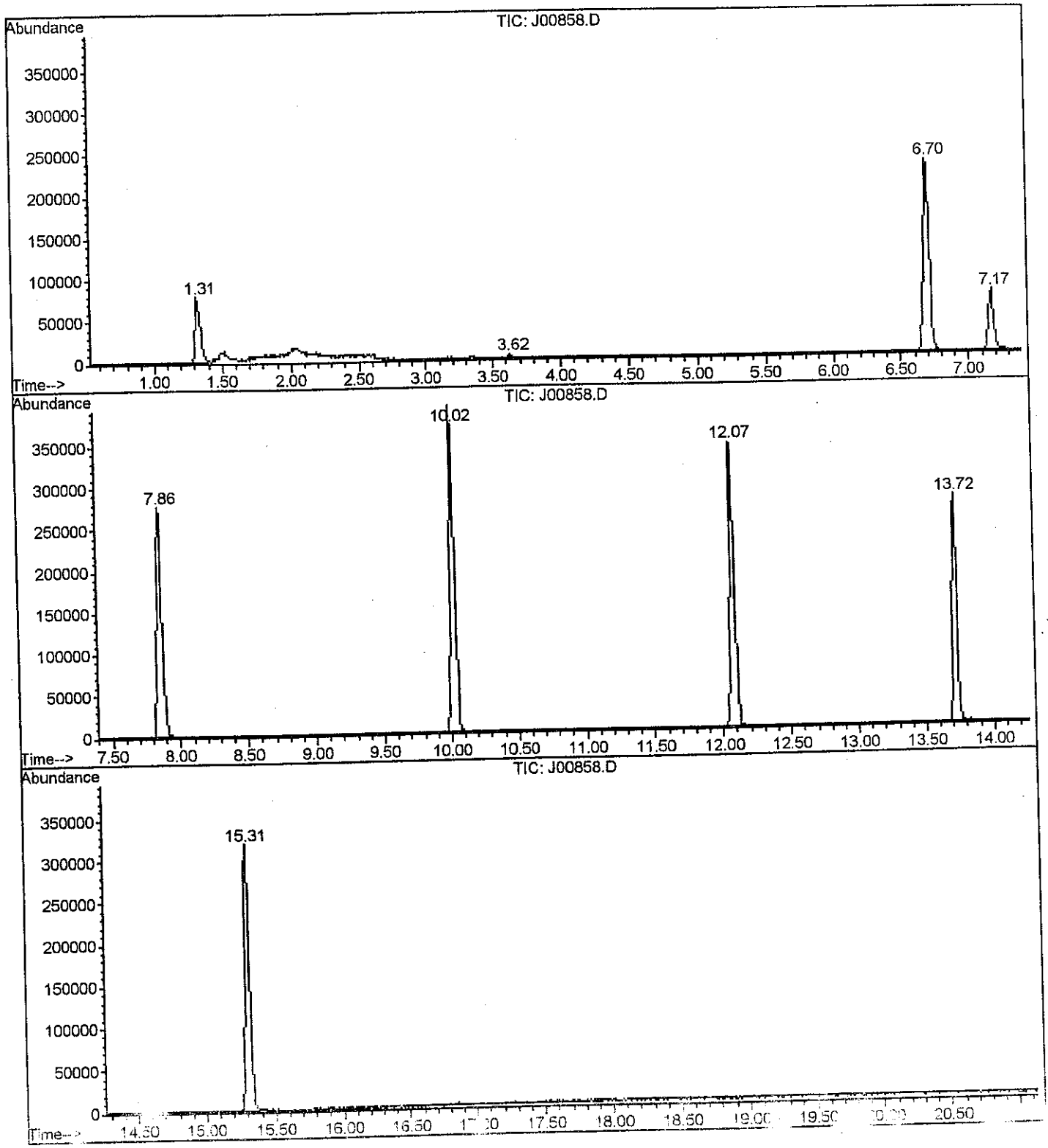
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 09:11:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 09:11:36 2001

PROJECT QUALITY CONTROL RESULTS

Method No[1]	Analyte / Component	Project Control Rec. MS Water	Project Control Rec. MSD Water	Project Control Rec. MS Soil[2]	Project Control Rec. MSD Soil[2]	Accuracy Limits MS/MSD Recoveries Water	Accuracy Limits MS/MSD Recoveries Soil[2]	Project Control MS/MSD % Deviation Water	Project Control MS/MSD % Deviation Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Project Control Recoveries LCS Water	Project Control Recoveries LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Accuracy Limits LCS Recoveries Soil[2]	Project Control Field Dup % Deviation Water	Project Control Field Dup % Deviation Soil[2]	Precision Limit Field Dup Deviati Water	Precision Limit Field Dup Deviati Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135				

1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste solids

NS - Not Specified

PROJECT QUALITY CONTROL RESULTS

8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			NA	NA
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100							
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-Pro	TPH					50-150	30-170	#DIV/0!	#DIV/0!	<30	<50			75-125	70-130			<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes adjacent wash solids

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00 ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00 ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00 ug\L	-0.24
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%		
46) Toluene-d8	10.02	98	326206	9.56 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%		
66) Bromofluorobenzene	13.71	95	120738	9.39 ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06 ug\L	100
3) Chloromethane	1.66	50	70978	9.43 ug\L	96
4) Vinyl Chloride	1.74	62	103810	10.02 ug\L	99
5) Bromomethane	2.03	94	23858	7.64 ug\L	95
6) Chloroethane	2.14	64	59738	10.75 ug\L	99
7) Trichlorofluoromethane	2.38	101	205122	10.76 ug\L #	100
8) Acrolein	2.90	56	4262	17.02 ug\L #	98
9) Acrylonitrile	4.05	53	12105	20.21 ug\L	96
10) 1,1-Dichloroethene	2.96	96	94103	10.39 ug\L	96
11) Acetone	3.09	58	1463	9.36 ug\L	96
12) Iodomethane	3.17	142	108723	8.97 ug\L	99
13) Allylchloride	3.43	39	111544	10.24 ug\L	98
14) Carbon Disulfide	3.23	76	260882	9.98 ug\L	99
15) Acetonitrile	3.43	41	117249	100.94 ug\L	98
16) Methylene Chloride	3.62	86	50301	8.96 ug\L	97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26 ug\L	100
18) MethylTertButylEther	3.98	73	121538	10.40 ug\L #	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09 ug\L	99
20) Isopropyl Ether	4.78	45	14585	9.58 ug\L #	98
21) Vinyl Acetate	4.81	43	73102	10.01 ug\L	98
22) 2,2-Dichloropropane	5.72	77	182353	10.60 ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27 ug\L	95
24) 2-Butanone	5.87	72	989	5.81 ug\L #	100
25) Propionitrile	6.01	54	20647	103.23 ug\L #	93
26) Methacrylonitrile	6.23	41	119238	102.00 ug\L	98
27) Bromochloromethane	6.21	128	34868	10.39 ug\L	97
28) Chloroform	6.37	83	186427	10.43 ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00859.D 08070125.M Wed [illegible] 2001 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L	97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L #	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L	100
34) Benzene	7.19	78	320799	10.07 ug\L	100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L #	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L	100
37) Trichloroethene	8.22	95	110904	9.90 ug\L	99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L	97
39) Dibromomethane	8.79	93	36266	10.33 ug\L	97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L	96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L #	1
47) Toluene	10.11	92	221665	10.06 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L	96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L	98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L	98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L	99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L	94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L	100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L #	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L	100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L	99
59) total-Xylene	12.42	106	505157m	30.63 ug\L #	
60) Styrene	13.00	104	245510	10.18 ug\L	97
62) Bromoform	13.31	173	34658	10.39 ug\L	95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L #	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L	95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L	95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L	99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L	99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L	99
74) Pentachloroethane	14.80	167	62015	10.11 ug\L	98
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	[illegible]781	10.11 ug\L	100

(#) = qualifier out of range (m) = manua[illegible] on

J00859.D 08070125.M [illegible]ed Aug 08 09:[illegible]:46

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

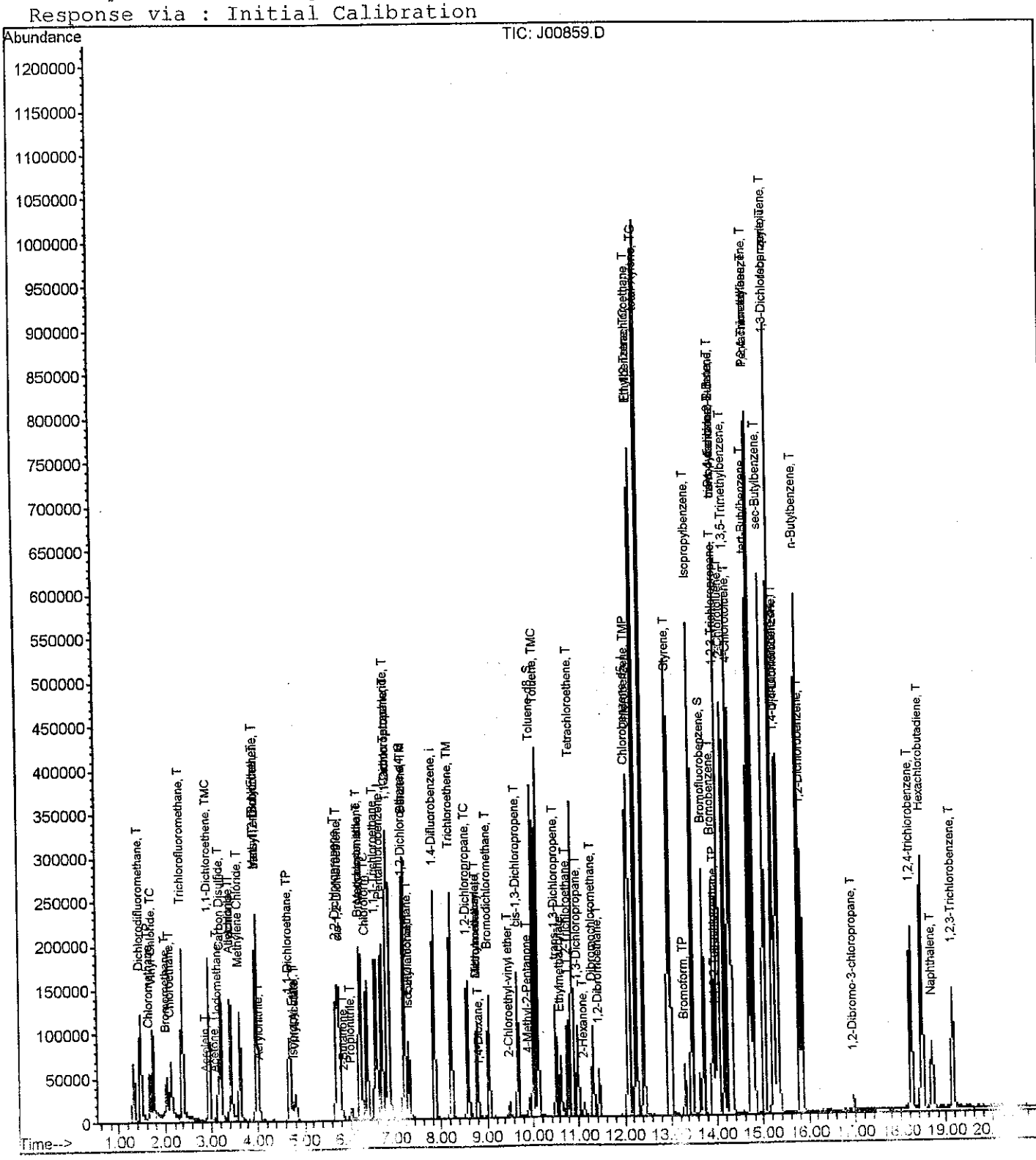
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03	ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22	ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03	ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91	ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22	ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68	ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96	ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71	ug\L	100
86) Naphthalene	18.69	128	109386	9.55	ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77	ug\L	96

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00 ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00 ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00 ug\L	-0.24
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%		
46) Toluene-d8	10.02	98	326206	9.56 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%		
66) Bromofluorobenzene	13.71	95	120738	9.39 ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06 ug\L	100
3) Chloromethane	1.66	50	70978	9.43 ug\L	96
4) Vinyl Chloride	1.74	62	103810	10.02 ug\L	99
5) Bromomethane	2.03	94	23858	7.64 ug\L	95
6) Chloroethane	2.14	64	59738	10.75 ug\L	99
7) Trichlorofluoromethane	2.38	101	205122	10.76 ug\L #	100
8) Acrolein	2.90	56	4262	17.02 ug\L #	98
9) Acrylonitrile	4.05	53	12105	20.21 ug\L	96
10) 1,1-Dichloroethene	2.96	96	94103	10.39 ug\L	96
11) Acetone	3.09	58	1463	9.36 ug\L	96
12) Iodomethane	3.17	142	108723	8.97 ug\L	99
13) Allylchloride	3.43	39	111544	10.24 ug\L	98
14) Carbon Disulfide	3.23	76	260882	9.98 ug\L	99
15) Acetonitrile	3.43	41	117249	100.94 ug\L	98
16) Methylene Chloride	3.62	86	50301	8.96 ug\L	97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26 ug\L	100
18) MethylTertButylEther	3.98	73	121538	10.40 ug\L #	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09 ug\L	99
20) Isopropyl Ether	4.78	45	14585	9.58 ug\L #	98
21) Vinyl Acetate	4.81	43	73102	10.01 ug\L	98
22) 2,2-Dichloropropane	5.72	77	182353	10.60 ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27 ug\L	95
24) 2-Butanone	5.87	72	989	5.81 ug\L #	100
25) Propionitrile	6.01	54	20647	103.23 ug\L #	93
26) Methacrylonitrile	6.23	41	119238	102.00 ug\L	98
27) Bromochloromethane	6.21	128	34868	10.39 ug\L	97
28) Chloroform	6.37	83	186427	10.43 ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00859.D 08 09:12:26 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L	97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L #	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L	100
34) Benzene	7.19	78	320799	10.07 ug\L	100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L #	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L	100
37) Trichloroethene	8.22	95	110904	9.90 ug\L	99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L	97
39) Dibromomethane	8.79	93	36266	10.33 ug\L	97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L	96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L #	1
47) Toluene	10.11	92	221665	10.06 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L	96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L	98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L	98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L	99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L	94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L	100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L #	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L	100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L	99
59) total-Xylene	12.42	106	505157m	30.63 ug\L #	
60) Styrene	13.00	104	245510	10.18 ug\L	97
62) Bromoform	13.31	173	34658	10.39 ug\L	95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L #	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L	95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L	95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L	99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L	99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L	99
74) Pentachloroethane	14.80	167	62015	10.11 ug\L	98
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11 ug\L	100

(#) = qualifier out of range (m) = manual integration
[illegible] Wed Aug 08 09:[illegible] 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D
Acq On : 08/07/01 11:51
Sample : 1J080701LCS
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001

Vial: 3
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

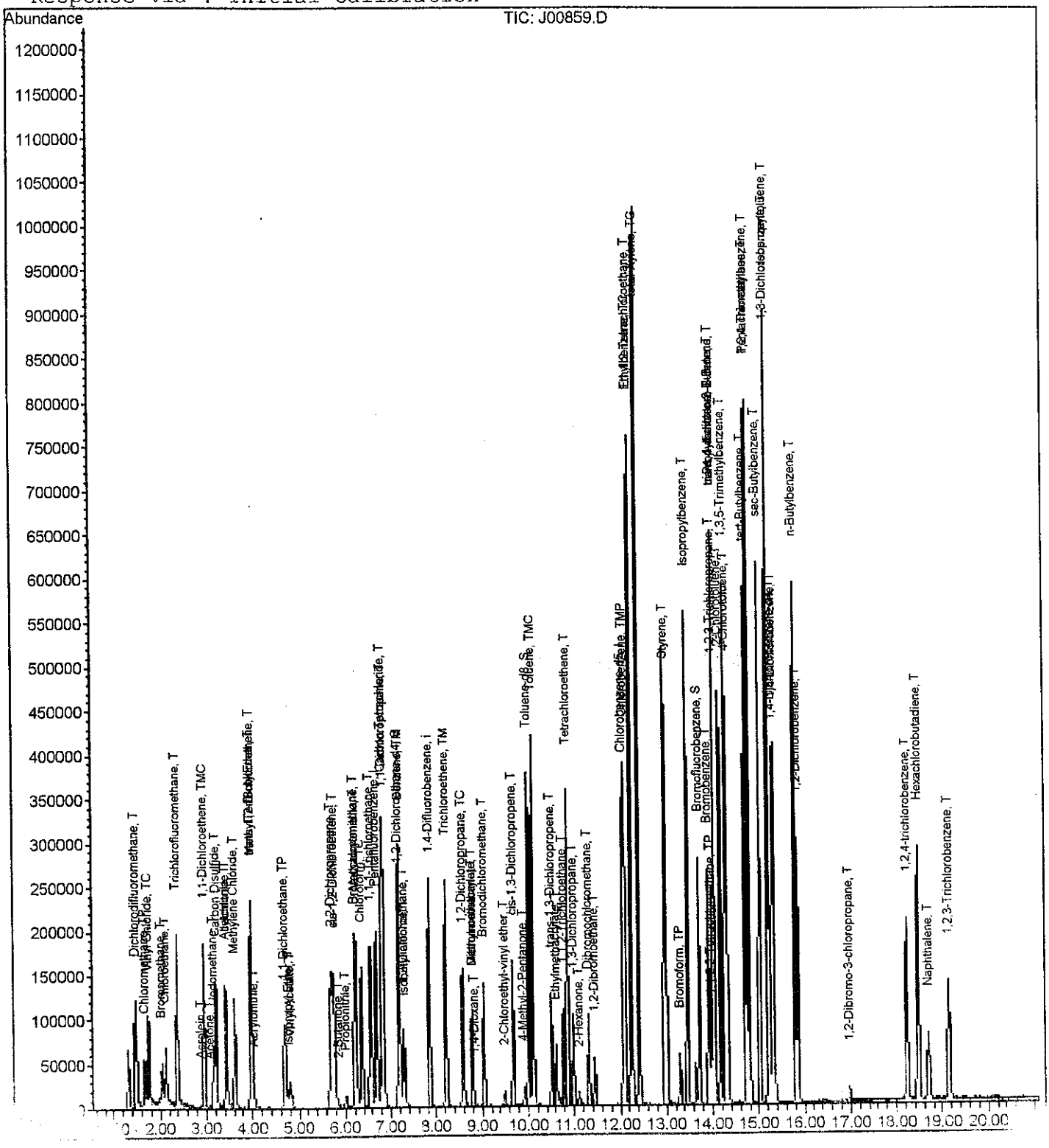
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22 ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91 ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22 ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68 ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96 ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71 ug\L	100
86) Naphthalene	18.69	128	109386	9.55 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77 ug\L	96

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	212050	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	233454	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	94056	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	87082	9.76	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
46) Toluene-d8	10.02	98	340265	9.95	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.72	95	117121	11.19	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.90%#			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	75959	7.67	ug\L	84
24) 2-Butanone	5.86	72	1645	8.31	ug\L #	100
37) Trichloroethene	8.22	95	150129	12.55	ug\L	97
47) Toluene	10.11	92	16822	0.76	ug\L	97

(#) = qual... er out of range (m) = manual integration
...0125.M ...Wed Aug ... 2001 ...

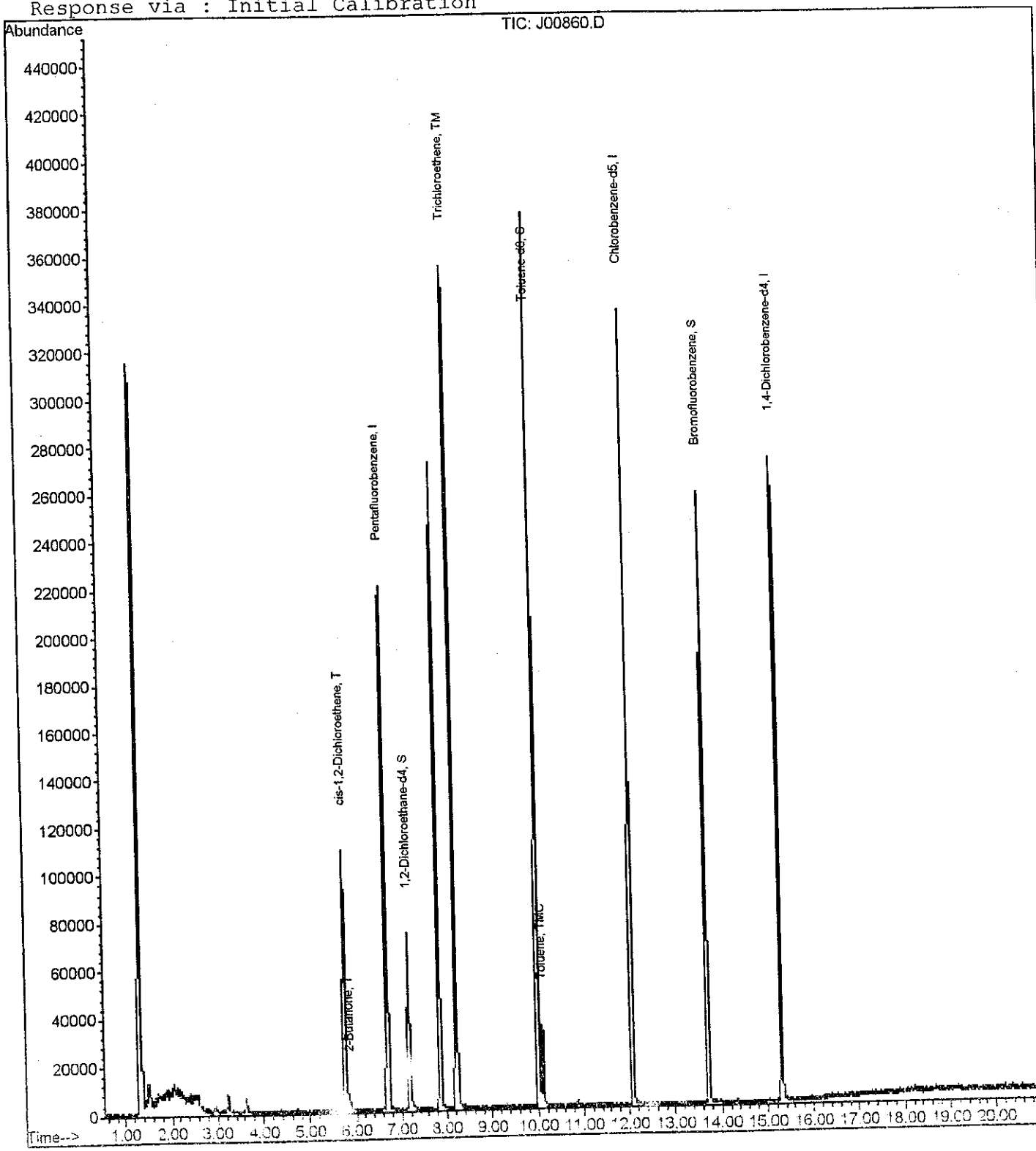
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D
Acq On : 08/07/01 12:25
Sample : AC17885 12.5ml DF=2
Misc : 28512/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	202248	10.00 ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	227865	10.00 ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	111231	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	40	10.00 ug\L	-0.21
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.16	65	87638	10.30 ug\L	-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.00%		
46) Toluene-d8	10.02	98	352305	10.56 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#		
66) Bromofluorobenzene	13.71	95	122910	9.93 ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.30%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	156222	10.11 ug\L	99
3) Chloromethane	1.66	50	71750	9.36 ug\L	95
4) Vinyl Chloride	1.74	62	103462	9.80 ug\L	98
5) Bromomethane	2.04	94	22924	7.21 ug\L	97
6) Chloroethane	2.13	64	59474	10.51 ug\L	99
7) Trichlorofluoromethane	2.38	101	211774	10.91 ug\L #	100
8) Acrolein	2.90	56	4511	17.69 ug\L #	98
9) Acrylonitrile	4.04	53	12554	20.58 ug\L	99
10) 1,1-Dichloroethene	2.96	96	93911	10.18 ug\L	97
11) Acetone	3.09	58	2220	13.95 ug\L	65
12) Iodomethane	3.17	142	104709	8.48 ug\L	98
13) Allylchloride	3.43	39	115927	10.44 ug\L	97
14) Carbon Disulfide	3.23	76	272562	10.24 ug\L	99
15) Acetonitrile	3.43	41	119904	101.34 ug\L	97
16) Methylene Chloride	3.62	86	53631	9.47 ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	104205	10.52 ug\L	98
18) MethylTertButylEther	3.97	73	127788	10.74 ug\L	100
19) 1,1-Dichloroethane	4.68	63	150494	10.13 ug\L	98
20) Isopropyl Ether	4.78	45	6944	4.48 ug\L #	1
21) Vinyl Acetate	4.80	43	72069	9.69 ug\L	99
22) 2,2-Dichloropropane	5.71	77	183928	10.49 ug\L	96
23) cis-1,2-Dichloroethene	5.77	96	176243	18.66 ug\L	91
24) 2-Butanone	5.86	72	4422	21.01 ug\L #	100
25) Propionitrile	6.02	54	21644	106.24 ug\L	97
26) Methacrylonitrile	6.23	41	126992	106.64 ug\L	99
27) Bromochloromethane	6.20	128	33669	9.85 ug\L	96
28) Chloroform	6.36	83	190452	10.46 ug\L #	1
29) 1,1,1-Trichloroethane	6.56	97	217255	10.35 ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.81	119	207456	10.55 ug\L	98
31) 1,4-Dioxane	8.84	88	4630	218.74 ug\L #	71
32) 1,1-Dichloropropene	6.85	77	42753	10.17 ug\L	94
34) Benzene	7.19	78	332053	10.24 ug\L	100
35) Isobutyl alcohol	7.33	43	11269	199.29 ug\L	94
36) 1,2-Dichloroethane	7.29	62	102517	10.57 ug\L	100
37) Trichloroethene	8.22	95	270042	23.67 ug\L	99
38) 1,2-Dichloropropane	8.58	63	59524	9.82 ug\L	100
39) Dibromomethane	8.78	93	36773	10.28 ug\L	98
40) Methylmethacrylate	8.80	69	17398	10.77 ug\L	96
41) Bromodichloromethane	9.04	83	118963	10.22 ug\L	97
42) 2-Chloroethyl-vinyl ether	9.68	63	879m	0.79 ug\L	
43) cis-1,3-Dichloropropene	9.68	75	106543	9.83 ug\L	94
44) 4-Methyl-2-Pentanone	9.91	85	3584	8.26 ug\L #	1
47) Toluene	10.11	92	246948	11.46 ug\L	98
48) trans-1,3-Dichloropropene	10.50	75	82676	10.39 ug\L	96
49) Ethylmethacrylate	10.61	69	39761	10.63 ug\L	97
50) 1,1,2-Trichloroethane	10.76	83	34110	10.84 ug\L	96
51) Tetrachloroethene	10.87	164	100215	10.70 ug\L	98
52) 1,3-Dichloropropane	10.99	76	71370	10.69 ug\L	98
53) 2-Hexanone	11.11	43	12670	10.61 ug\L	97
54) Dibromochloromethane	11.31	129	70870	10.95 ug\L	98
55) 1,2-Dibromoethane	11.45	107	44016	10.80 ug\L #	98
56) Chlorobenzene	12.11	112	239157	10.02 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.24	131	93703	10.47 ug\L	98
58) Ethylbenzene	12.25	91	482734	10.40 ug\L	99
59) total-Xylene	12.41	106	487840m	30.23 ug\L #	
60) Styrene	13.00	104	234905	9.96 ug\L	99
62) Bromoform	13.30	173	31799	9.90 ug\L	97
63) Isopropylbenzene	13.47	105	458364	9.65 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	12592	9.94 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.04	53	13331	9.87 ug\L #	48
67) Bromobenzene	13.92	156	89661	9.86 ug\L	96
68) 1,1,2,2-Tetrachloroethane	13.97	83	36789	10.51 ug\L	97
69) 1,2,3-Trichloropropane	14.02	75	43546	9.86 ug\L #	3
70) n-Propylbenzene	14.04	91	556765	9.80 ug\L	99
71) 2-Chlorotoluene	14.17	91	332066	9.93 ug\L	98
72) 4-Chlorotoluene	14.32	91	393994	10.14 ug\L #	94
73) 1,3,5-Trimethylbenzene	14.28	105	421385	9.88 ug\L	100
74) Pentachloroethane	14.80	167	59546	10.09 ug\L	97
75) tert-Butylbenzene	14.73	119	355028	9.86 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	426238	10.11 ug\L	98

(#) = qualifier out of range (m) = manual integrati

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

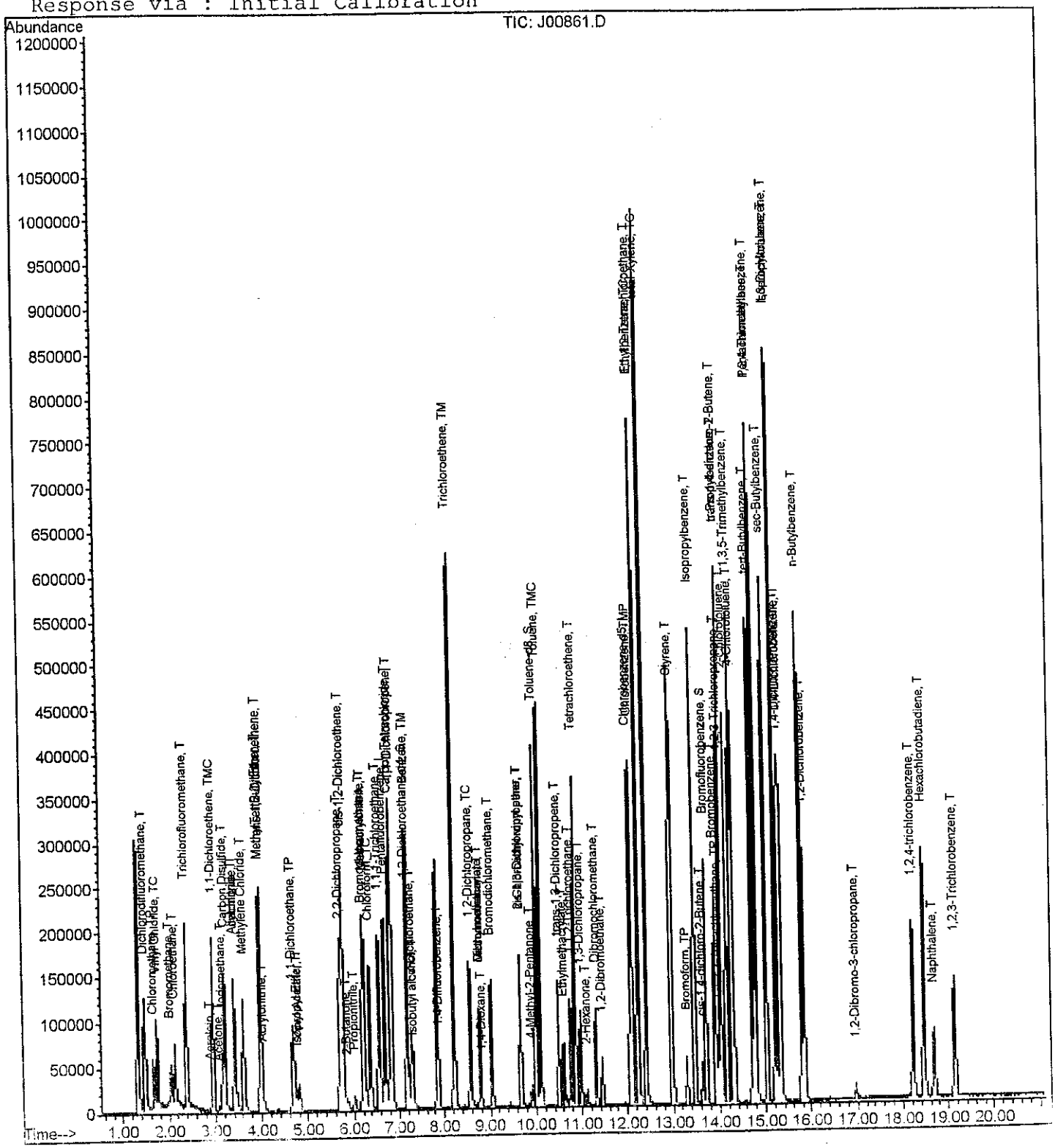
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	529227	9.92 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	188305	10.08 ug\L	96
79) Isopropyltoluene	15.22	119	438717	10.06 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182541	9.72 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	144855	9.96 ug\L	98
82) n-Butylbenzene	15.79	91	409848	10.19 ug\L	98
83) 1,2-Dibromo-3-chloropropan	16.96	75	7140	10.15 ug\L	97
84) 1,2,4-trichlorobenzene	18.22	180	100229	9.84 ug\L	100
85) Hexachlorobutadiene	18.47	225	95255	10.41 ug\L	100
86) Naphthalene	18.68	128	104589	9.48 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	73120	9.71 ug\L	98

(#) = qualifier out of range (m) = manual integration
J00861.D 08070[illegible].M Wed Aug 08 09:12:41 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	183834	10.00 ug\L	-0.01
45) Chlorobenzene-d5	12.07	117	217739	10.00 ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110646	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	36	10.00 ug\L	-0.24
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.16	65	78377	10.13 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%		
46) Toluene-d8	10.02	98	305449	9.58 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.80%		
66) Bromofluorobenzene	13.71	95	117358	9.53 ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	153366	10.92 ug\L	99
3) Chloromethane	1.66	50	75425	10.83 ug\L	99
4) Vinyl Chloride	1.74	62	105657	11.01 ug\L	98
5) Bromomethane	2.04	94	24355	8.43 ug\L	100
6) Chloroethane	2.14	64	57992	11.28 ug\L	100
7) Trichlorofluoromethane	2.38	101	204134	11.57 ug\L #	100
8) Acrolein	2.90	56	4476	19.31 ug\L #	100
9) Acrylonitrile	4.05	53	13301	23.98 ug\L	93
10) 1,1-Dichloroethene	2.96	96	92544	11.04 ug\L	100
11) Acetone	3.10	58	1980	13.68 ug\L	76
12) Iodomethane	3.17	142	121782	10.85 ug\L	97
13) Allylchloride	3.44	39	112947	11.19 ug\L	98
14) Carbon Disulfide	3.23	76	286931	11.85 ug\L	99
15) Acetonitrile	3.44	41	118800	110.46 ug\L	98
16) Methylene Chloride	3.63	86	52464	10.34 ug\L	98
17) trans-1,2-Dichloroethene	3.99	96	98330	10.92 ug\L	99
18) MethylTertButylEther	3.98	73	123505	11.42 ug\L	97
19) 1,1-Dichloroethane	4.69	63	143212	10.60 ug\L	99
20) Isopropyl Ether	4.77	45	14945	10.61 ug\L #	40
21) Vinyl Acetate	4.81	43	74279	10.99 ug\L	100
22) 2,2-Dichloropropane	5.72	77	161472	10.14 ug\L	94
23) cis-1,2-Dichloroethene	5.77	96	150416	17.52 ug\L	92
24) 2-Butanone	5.87	72	3543	18.68 ug\L #	100
25) Propionitrile	6.03	54	18863	101.86 ug\L	96
26) Methacrylonitrile	6.24	41	110888	102.45 ug\L	98
27) Bromochloromethane	6.20	128	30061	9.68 ug\L	98
28) Chloroform	6.36	83	166307	10.05 ug\L #	1
29) 1,1,1-Trichloroethane	6.56	97	196523	10.30 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00862.D 08070125.M Wed Aug 08 09:14:06 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	181785	10.17 ug\L	100
31) 1,4-Dioxane	8.84	88	3946	205.10 ug\L #	69
32) 1,1-Dichloropropene	6.85	77	37700	9.86 ug\L	92
34) Benzene	7.19	78	283089	9.60 ug\L	100
35) Isobutyl alcohol	7.32	43	6493	130.79 ug\L #	43
36) 1,2-Dichloroethane	7.29	62	91197	10.34 ug\L	98
37) Trichloroethene	8.22	95	237729	22.92 ug\L	99
38) 1,2-Dichloropropane	8.59	63	53873	9.78 ug\L	99
39) Dibromomethane	8.79	93	34490	10.61 ug\L	98
40) Methylmethacrylate	8.81	69	15018	10.23 ug\L	95
41) Bromodichloromethane	9.05	83	107526	10.16 ug\L	99
43) cis-1,3-Dichloropropene	9.68	75	97558	9.90 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4271	10.82 ug\L #	1
47) Toluene	10.11	92	219601	10.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	75360	9.91 ug\L	94
49) Ethylmethacrylate	10.62	69	37921	10.61 ug\L	99
50) 1,1,2-Trichloroethane	10.77	83	31235	10.39 ug\L	100
51) Tetrachloroethene	10.87	164	89335	9.98 ug\L	99
52) 1,3-Dichloropropane	10.99	76	65387	10.25 ug\L	98
53) 2-Hexanone	11.12	43	11187	9.81 ug\L #	96
54) Dibromochloromethane	11.31	129	63983	10.34 ug\L	100
55) 1,2-Dibromoethane	11.45	107	40652	10.44 ug\L	95
56) Chlorobenzene	12.11	112	223966	9.82 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	87064	10.18 ug\L	99
58) Ethylbenzene	12.25	91	449902	10.14 ug\L	99
59) total-Xylene	12.41	106	465165m	30.17 ug\L #	
60) Styrene	13.00	104	233935	10.38 ug\L	99
62) Bromoform	13.30	173	30781	9.63 ug\L	98
63) Isopropylbenzene	13.47	105	459964	9.74 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	13490	10.70 ug\L	98
65) trans-1,4-dichloro-2-Buten	14.04	53	13490	10.05 ug\L #	51
67) Bromobenzene	13.92	156	86867	9.60 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.97	83	35543	10.21 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	44500	10.13 ug\L	100
70) n-Propylbenzene	14.04	91	548557	9.71 ug\L	100
71) 2-Chlorotoluene	14.17	91	322494	9.70 ug\L	97
72) 4-Chlorotoluene	14.33	91	385414	9.98 ug\L #	96
73) 1,3,5-Trimethylbenzene	14.29	105	421279	9.93 ug\L	100
74) Pentachloroethane	14.80	167	58121	9.90 ug\L	97
75) tert-Butylbenzene	14.73	119	349688	9.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	418742	9.99 ug\L	100
77) sec-Butylbenzene	15.03	105	524525	9.88 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

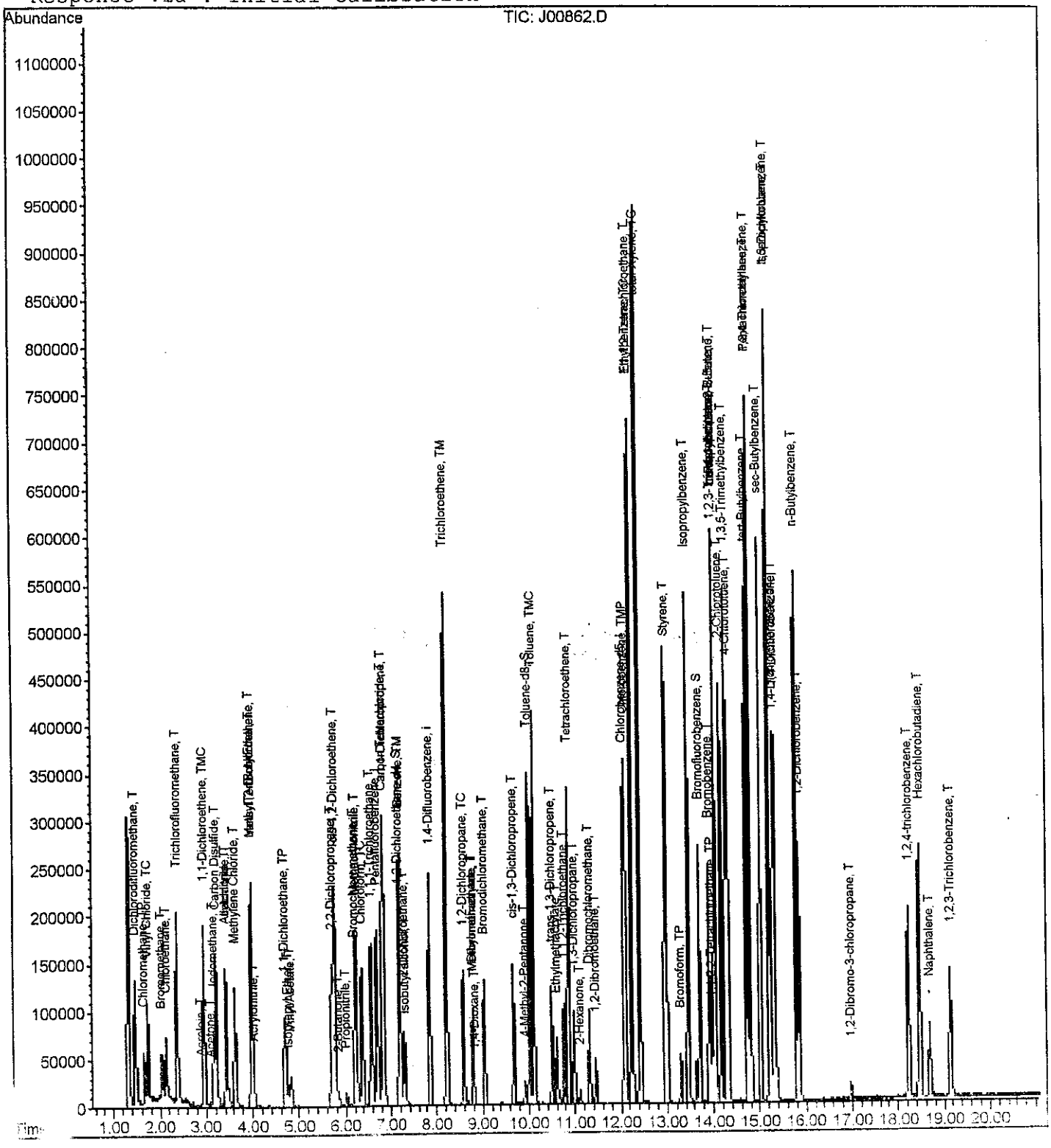
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78)	1,3-Dichlorobenzene	15.22	146	183210	9.86	ug\L	96
79)	Isopropyltoluene	15.22	119	439765	10.14	ug\L	100
80)	1,4-Dichlorobenzene	15.34	146	182089	9.75	ug\L	98
81)	1,2-Dichlorobenzene	15.86	146	145629	10.06	ug\L	100
82)	n-Butylbenzene	15.79	91	406100	10.15	ug\L	100
83)	1,2-Dibromo-3-chloropropan	16.97	75	6949	9.93	ug\L	92
84)	1,2,4-trichlorobenzene	18.22	180	99005	9.77	ug\L	100
85)	Hexachlorobutadiene	18.47	225	90935	9.99	ug\L	100
86)	Naphthalene	18.69	128	110664	10.08	ug\L	100
87)	1,2,3-Trichlorobenzene	19.14	180	75678	10.10	ug\L	98

(#) = qualifier out of range (m) = manual integration
J00862.D 08070125.M Wed Aug 08 14:07 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 28507	METHOD: FL-PRO
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
Are multicomponent patterns resolvable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: BS	
Date: 8/9/01	Time: 09:50

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL	
Date: 8/10/01	Time: 15:19

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 8/6/01 **Batch ID:** DROW 79 **Matrix:** Water

Ext. Method: 3520 **MS ID:** LCS **MSD ID:** LCSD

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1	28507	17839	8/6/01	FL-Pro
2		17840		
3		17841		
4		17842		
5	28562	17883		
6		17884		
7		17885		
8		17886		
9		17887		
10		17888		
11		17890		
12		17891		
13	28530	17978	8/8/01	
14		17979		
15		17982		
16				
17				
18				
19				
20				

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

FL PRO

ANALYSIS: (DRO) / PAH

DATE/TIME: 8/6/01 8:00 GA

MATRIX: WATER

ANALYST: LL

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0ml	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QEW080601-1	1L	<2	LL		1.0mL	BLK
QEW080601-2				LL		LCS
QEW080601-3				LL		LCSD
17839						
17840	910mL					Strong odor
17841	1L					very dirty
17842	1					1
17883	920mL					
17884	1L					
17885						
17886						
17887						
17888						very dirty
17890						1
17891	940mL					

8/7/01 5:20 pm

START TIME: ~~2:00pm 8/6~~ 4:15pm STOP TIME: ~~12:00pm 8/6~~ 8/6

SOLVENT ID #: EX0127

SURROGATE I.D.: FL01E115 FL01E134 B01E136 CONC.: 300ppm INITAL: LL

SURROGATE I.D.: FL01E122 CONC.: 50ppm 300ppm INITAL: LL

SPIKE I.D.: FL01E135 CONC.: 250ppm INITIAL: LL

SPIKE I.D.: — CONC.: — INITIAL: —

EXTRACT STORAGE: REFRIG.# 5, BOX #: D-196 | D-197 RapidVap TEMP.: 45°C

Spike witness: DR

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Instrument DRO-A

Sequence Date: 8/8/01

Analyst Initials: BP

Run Method: PAW 0727

Quant Method: ↓

	Sample	Blank/LCS
Water OTP/Limits (C39)	52-142/42-193	52-142/42-193
Soil OTP/Limits (C39)	52-109/62-118	62-109/68-115

Compound: FL-PRO

Date: 07/27/01

BP 8/8/01 PRO

Vial position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C39 Recovery	DRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solv Blank	NA	Med.	1x	NA →			✓	
2	4250 ppm PRO ccv	↓	Std		123/98	111	015V167		
3	QFW080601I	8/6/01	Water		62/56				
4	QFW080601J				65/48	63			
5	QFW080601K				68/57	70			
6	17839 W				67/78				
7	17840 W				65/70				
8	17841 W				56/54				
9	17842 W				50/63				
10	17883 W				62/84				
11	17884 W				54/49				
12	17885 W	↓	↓		62/78				
1	Solv Blank	NA	Med.		NA →				
2	4250 ppm PRO ccv	↓	Std		114/98	110	015V167		
13	17886 W	8/6/01	Water		59/73				
14	17887 W				60/103				
15	17888 W			✓	51/87				
16	17890 W			5x	61/59				Rerun w/a dilution
17	17891 W			↓	64/41				↓
	17890 W			1x	62/97				
	17891 W	↓	↓		63/60				
	Solv Blank	NA	Med.		NA →				
2	4250 ppm PRO ccv	↓	Std	↓	120/95	115	015V167	↓	

Initials / Date: BP 8/9/01

SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: 7/27/01 HP 6C0	METHOD: 8000
MATRIX: FL-PRO ECAL	

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: [illegible]	Reviewer: RJ
Date: 7/30/01 Time: 12:45	Date: 7/30/01 Time: 15:01

FL-PRO Initial Calibration

Date: 7/27/01
Method: FL-PRO
Instrume HPGCO; Front Column
Analyst: BP
ICAL ID: PRO0727

Concentration (PPM)	Area	RF
850	104812006	123308.2
2550	190903019	74863.9
4250	293463899	69050.3
5950	367696358	61797.7
7692	447686810	58201.6

Average RF: 77444.4

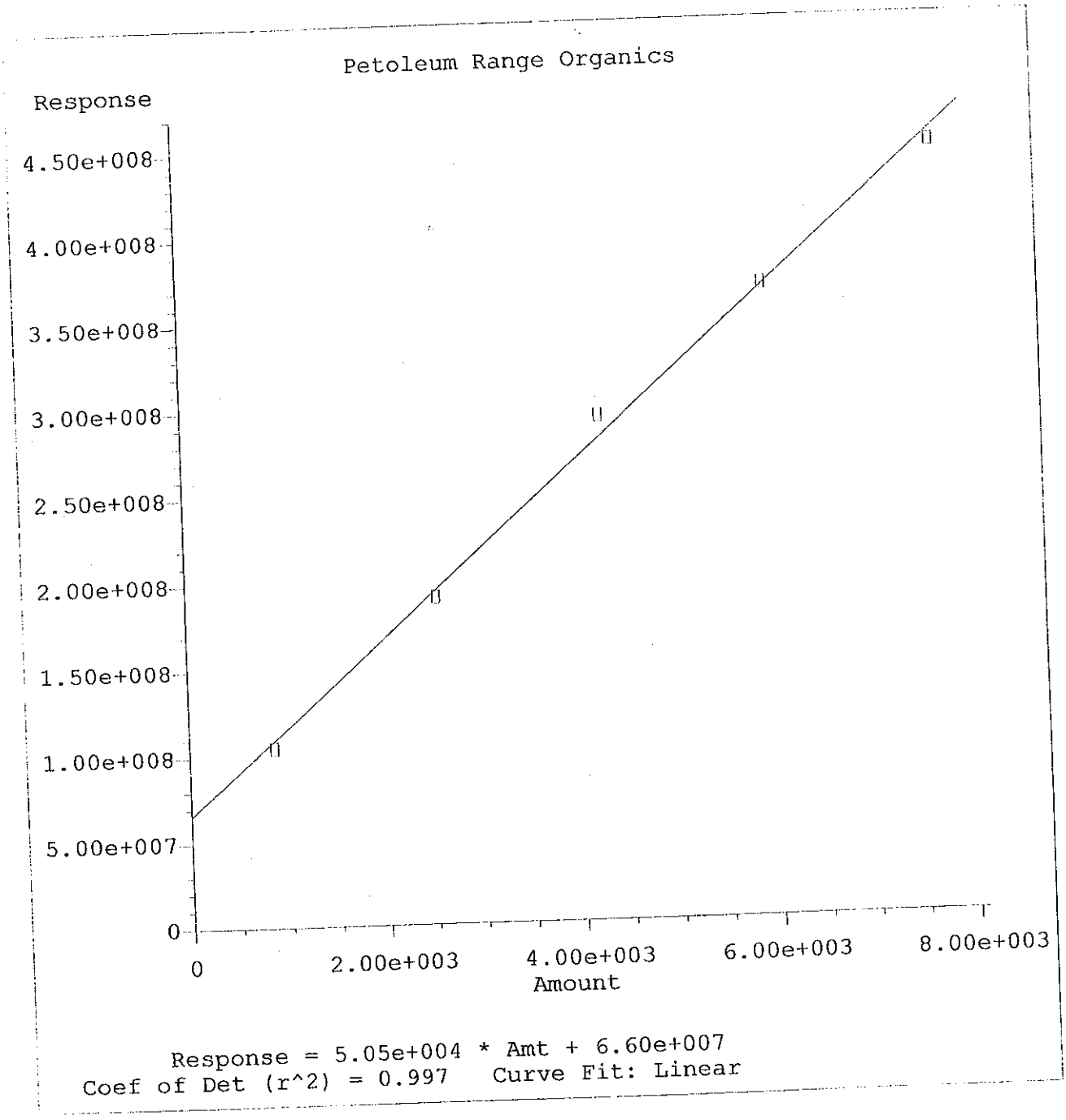
Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:43:25 2001

Calibration Files
1 =07270102.D 2 =07270103.D 3 =07270104.D
4 =07270105.D 5 =07270106.D

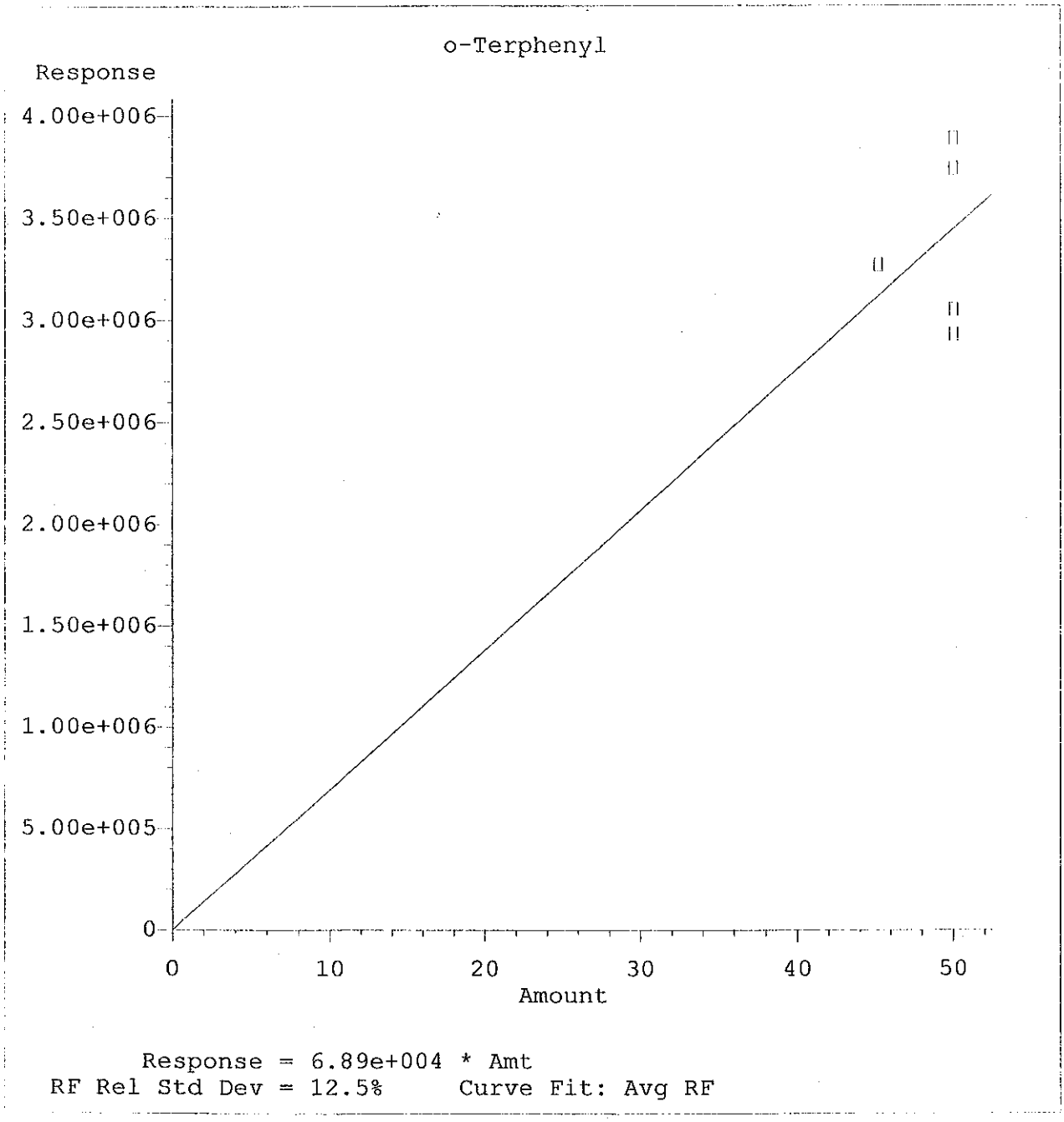
	Compound	1	2	3	4	5	Avg		%RSD
1) HM	Petoleum Range Organi	1.233	0.749	0.691	0.618	0.582	0.774	E5	34.14
2)	o-Terphenyl	5.855	6.098	7.782	7.485	7.231	6.890	E4	12.49
3) SC	C(39)	4.031	4.077	3.915	3.187	2.728	3.587	E4	16.74

(#) = Out of Range

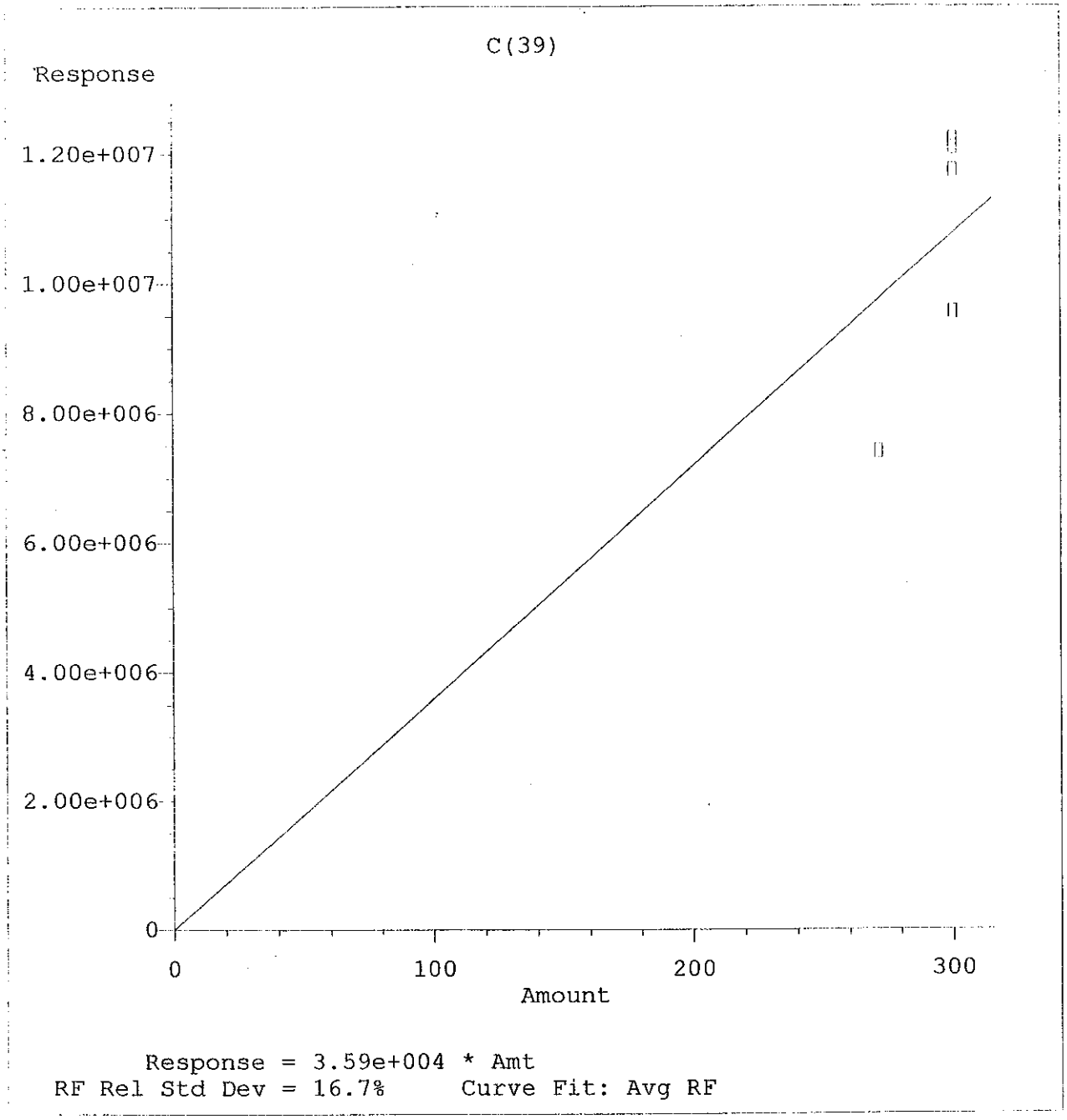
PRO0727.M Mon Jul 30 12:23:29 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001



Response = 3.59e+004 * Amt
RF Rel Std Dev = 16.7% Curve Fit: Avg RF

Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001

ANALYTICAL LABORATORY, INC.
Environmental Analytical Services

Instrument DRO-A

Sequence Date: 7/27/01
Analyst Initials: BP
Run Method: P1a 0727
Quant Method: ↓

	Sample	Blank/LCS
Water OTP/C39 Limits	52-142/42-193	52-142/42-193
Soil OTP/C39 Limits	62-109/60-118	62-109/60-118

Compound: 1-C. P1a
Date: 07/27/01

BP 7/30/01
P1a

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C39 Recovery	~~DRO~~ P1a Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solv. Blank	NA	Med.	1x				✓	
2	500 ppm P1a ICAL	↓	Std	↓			01V165	↓	
3	2550		↓				166		
4	4250						167		
5	5950						168		
6	7650		↓				↓ 169		
7	Solv Blank		Med.						
8	4250 ppm P1a Ccv		Std		104/106	99	01V170	↓	

BP 7/30/01

Initials / Date: BP 7/30/01

Runlog_DRO-A.xls

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270102.D Vial: 2
Acq On : 07/27/01 13:17 Operator: BP
Sample : 850 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:41 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	2927738	1580.699 ug/mlm
Spiked Amount 50.000	Recovery = 3161.40%		
3) SC C(39)	38.72	12092728	1664.284 ug/mlm
Spiked Amount 150.000	Recovery = 1109.52%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	104812006	901.622 ug/ml

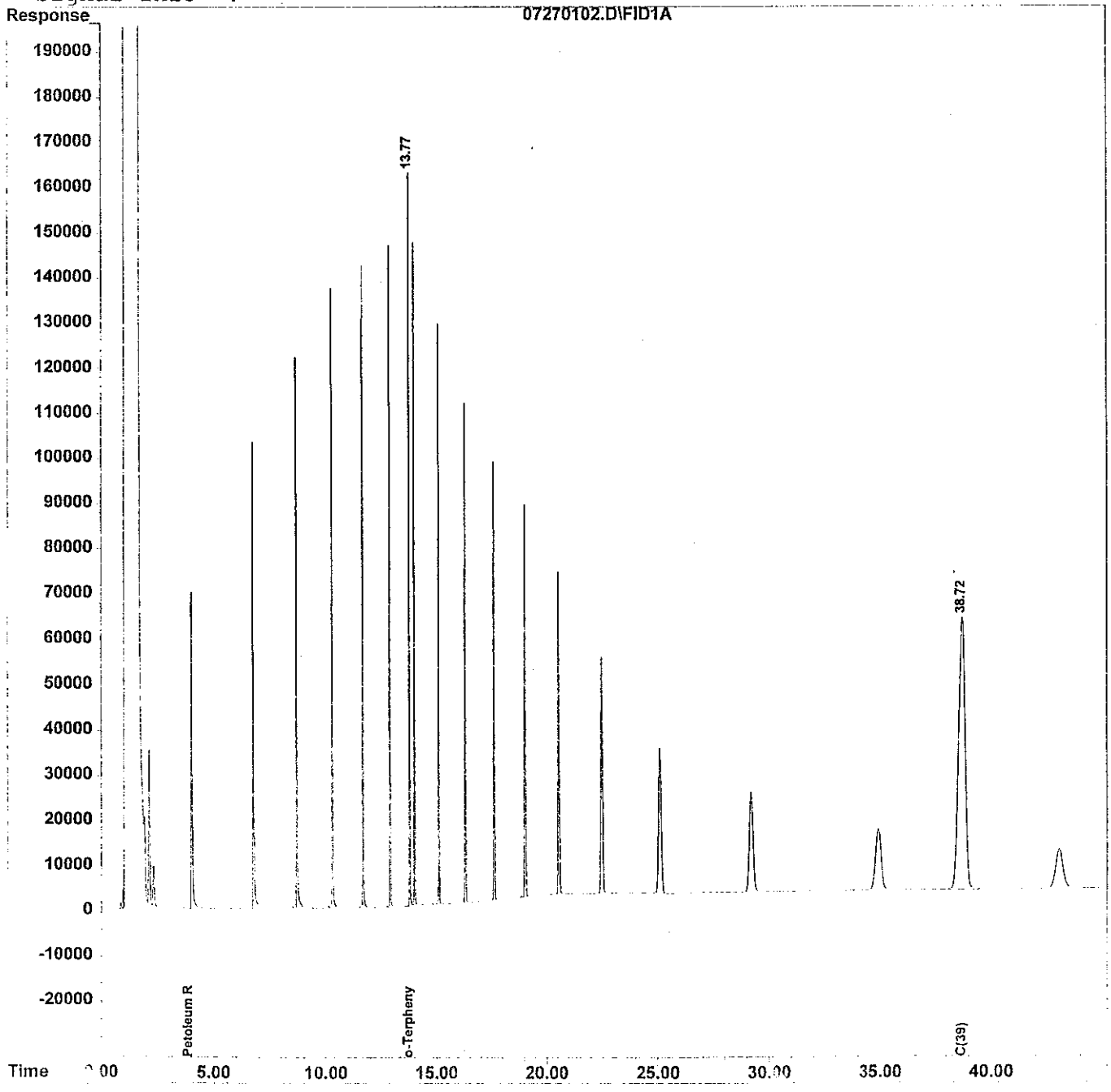
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270102.D Vial: 2
Acq On : 07/27/01 13:17 Operator: BP
Sample : 850 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:41 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270103.D
Acq On : 07/27/01 14:12
Sample : 2550 PPM PRO ICAL
Misc :
IntFile : PRO0914.e
Quant Time: Jul 27 16:36 2001 Quant Results File: PRO0727.RES

Vial: 3
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3049123	885.005 ug/mlm
Spiked Amount 50.000	Recovery = 1770.01%		
3) SC C(39)	38.73	12229892	858.924 ug/mlm
Spiked Amount 150.000	Recovery = 572.62%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	190903019	1550.334 ug/ml

(f)=RT Delta > 1/2 Window
(m)=manual int.

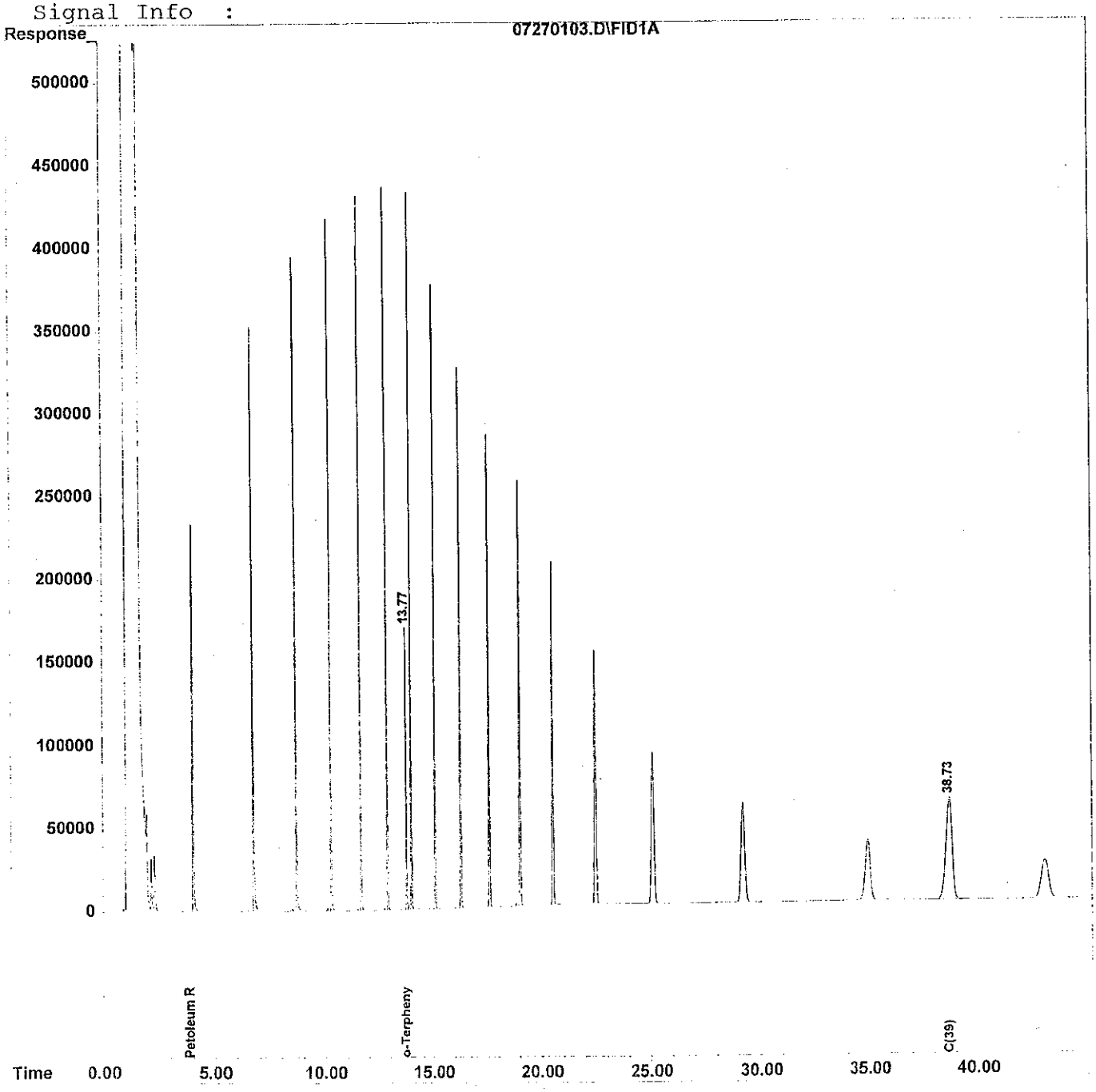
Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270103.D
Acq On : 07/27/01 14:12
Sample : 2550 PPM PRO ICAL
Misc :
IntFile : PRO0914.e
Quant Time: Jul 27 16:36 2001 Quant Results File: PRO0727.RES

Vial: 3
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Single Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270104.D Vial: 4
Acq On : 07/27/01 15:07 Operator: BP
Sample : 4250 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3890822	1676.699 ug/mlm
Spiked Amount 50.000	Recovery	= 3353.40%	
3) SC C(39)	38.70	11744517	1234.014 ug/mlm
Spiked Amount 150.000	Recovery	= 822.68%	
Target Compounds			
1) HM Petoleum Range Organics	3.93	293463899	4571.798 ug/ml

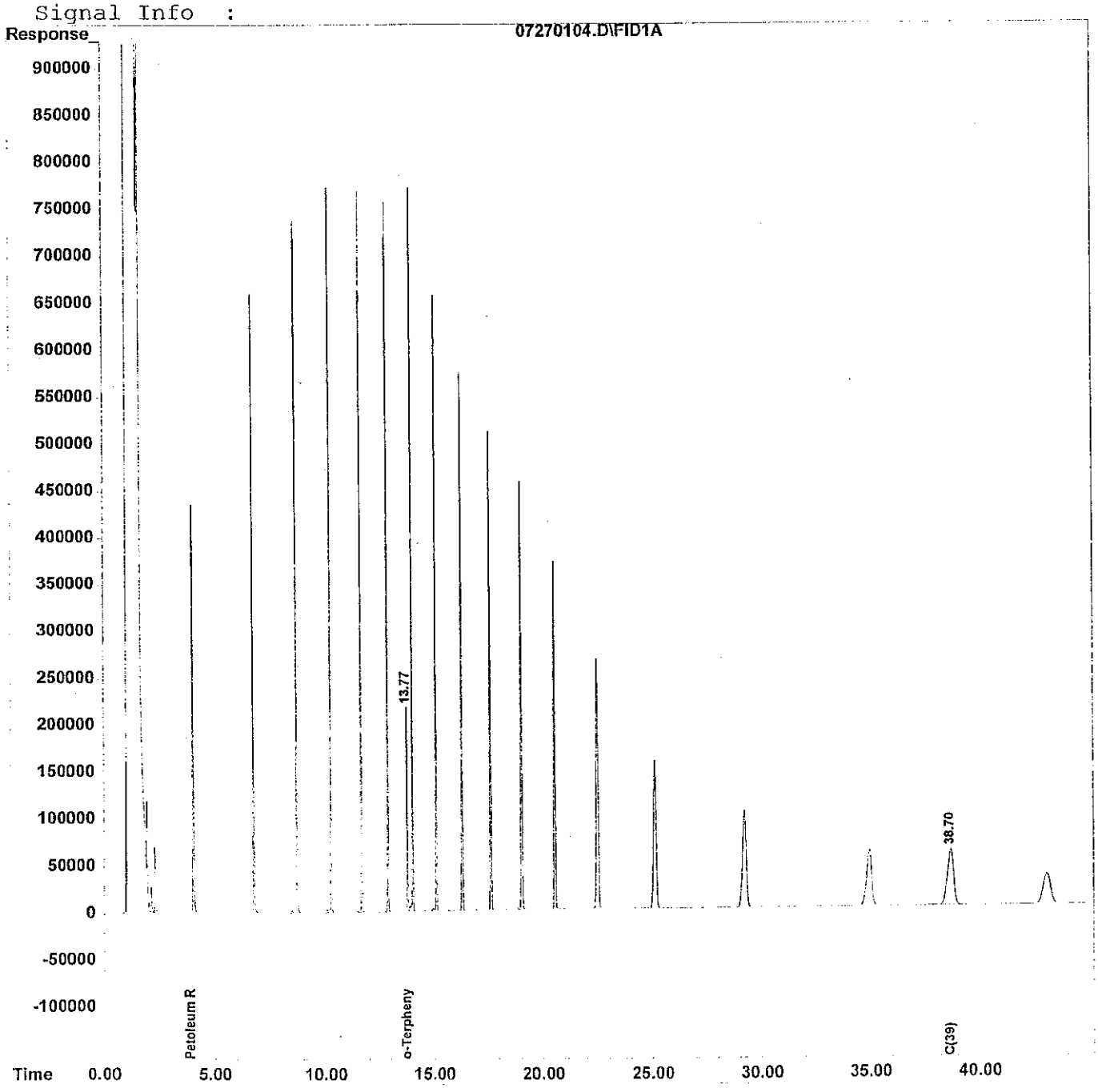
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270104.D Vial: 4
Acq On : 07/27/01 15:07 Operator: BP
Sample : 4250 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270105.D Vial: 5
Acq On : 07/27/01 16:01 Operator: BP
Sample : 5950 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:48 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3742546	2020.951 ug/mlm
Spiked Amount 50.000	Recovery	= 4041.90%	
3) SC C(39)	38.64	9559750	1316.396 ug/mlm
Spiked Amount 150.000	Recovery	= 877.60%	
Target Compounds			
1) HM Petoleum Range Organics	3.93	367696358	5637.335 ug/ml

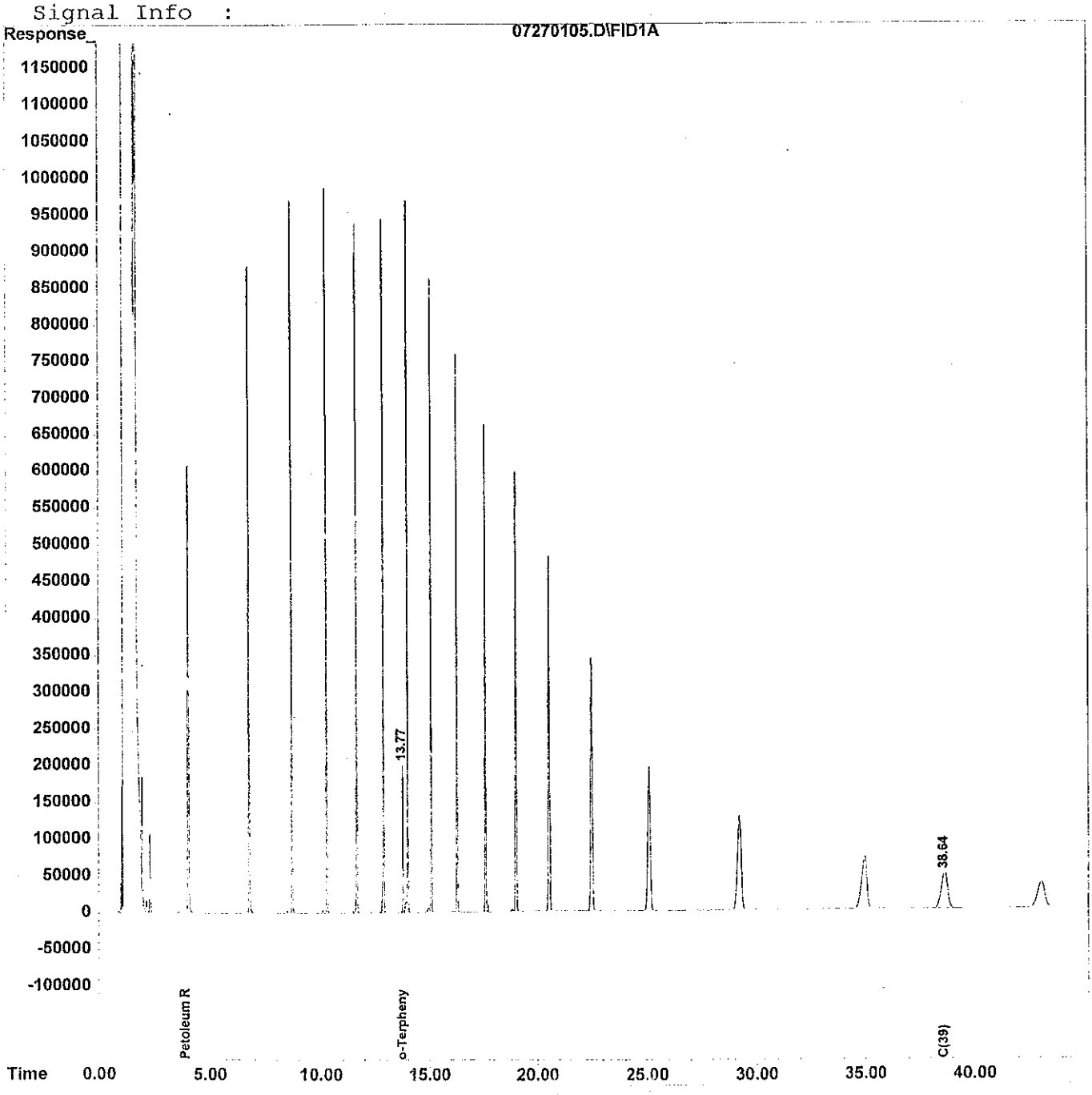
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270105.D Vial: 5
Acq On : 07/27/01 16:01 Operator: BP
Sample : 5950 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:48 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270106.D
Acq On : 07/27/01 16:56
Sample : 7692 PPM PRO ICAL
Misc :
IntFile : PRO0914.e
Quant Time: Jul 27 17:42 2001 Quant Results File: PRO0727.RES

Vial: 6
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:02:04 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3268474	48.030 ug/mlm
Spiked Amount 50.000	Recovery =		96.06%
3) SC C(39)	38.65	7406144	194.784 ug/mlm
Spiked Amount 150.000	Recovery =		129.86%
Target Compounds			
1) HM Petoleum Range Organics	3.93	447686810	7376.549 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

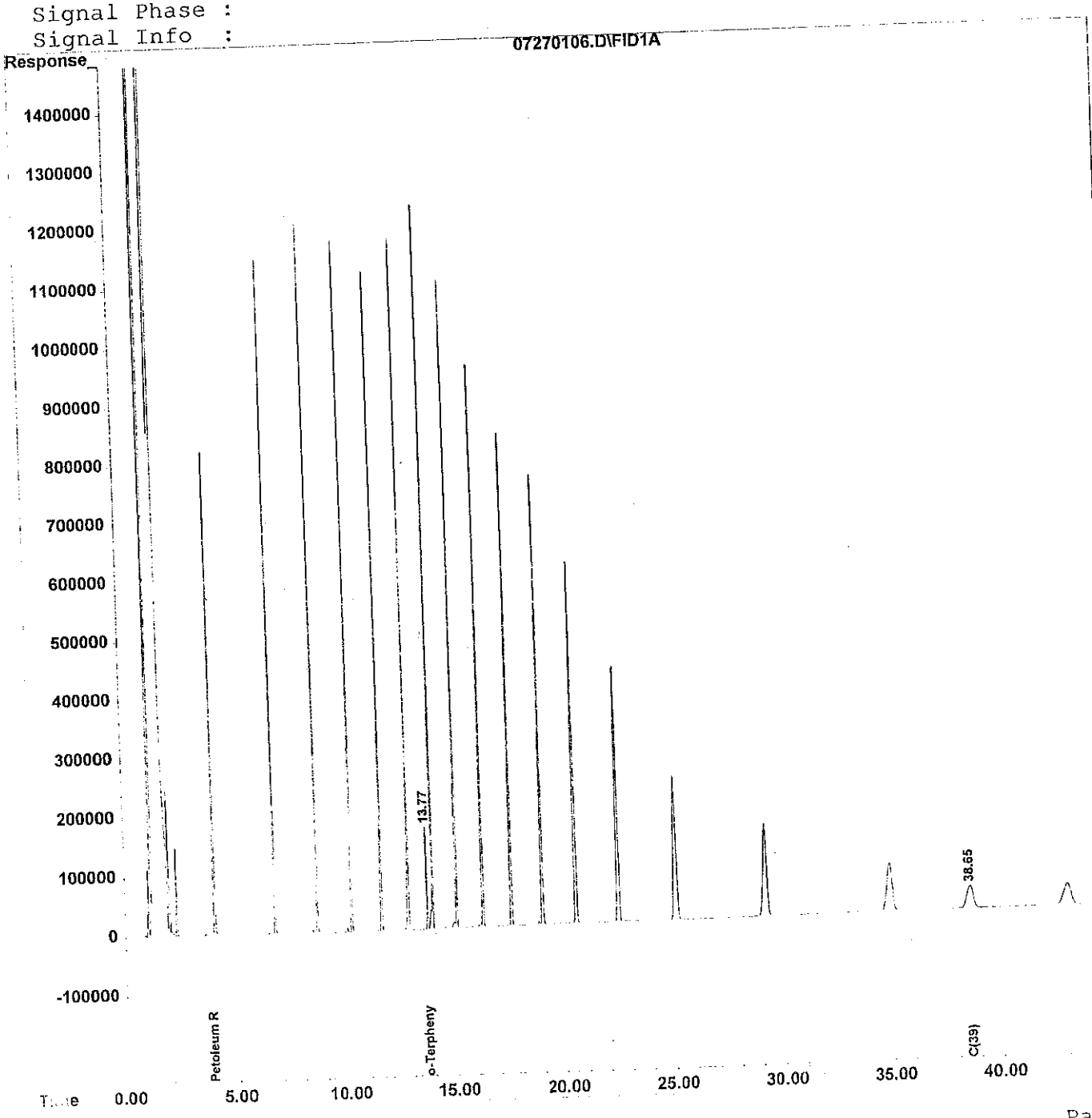
Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270106.D
Acq On : 07/27/01 16:56
Sample : 7692 PPM PRO ICAL
Misc :
IntFile : PRO0914.e
Quant Time: Jul 27 17:42 2001 Quant Results File: PRO0727.RES

Vial: 6
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:02:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270108.D Vial: 7
Acq On : 07/27/01 18:45 Operator: BP
Sample : 4250 PPM PRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 28 10:43 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3584180	52.018 ug/mlm
Spiked Amount 50.000	Recovery	=	104.04%
3) SC C(39)	38.66	11386090	317.394 ug/mlm
Spiked Amount 300.000	Recovery	=	105.80%
Target Compounds			
1) HM Petoleum Range Organics	3.93	277671058	4194.188 ug/ml

4194.188 / 4250 = 99%

(f)=RT Delta > 1/2 Window (m)=manual int.

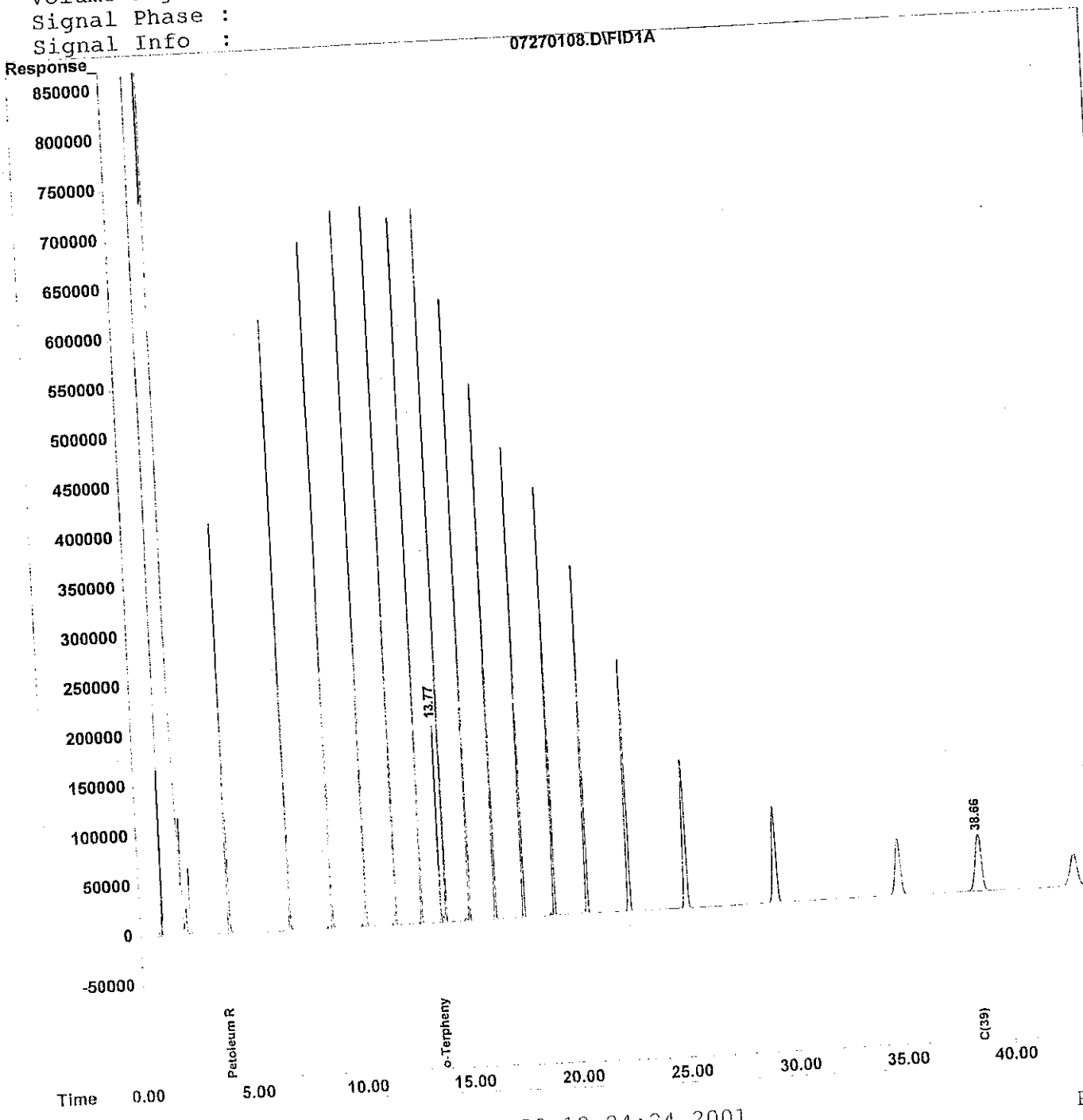
Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270108.D
Acq On : 07/27/01 18:45
Sample : 4250 PPM PRO ICV
Misc :
IntFile : PRO0914.e
Quant Time: Jul 28 10:43 2001 Quant Results File: PRO0727.RES

Vial: 7
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL Pro ICAL
Lab Standard ID#: 015V165 - 169
Prepared By: BP

Date Made: 6/26/01
Expire Date: 12/26/01
Matrix: Med

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-Pro Std	Ex01254-1, -2	500 PPM	100 ml	850 PPM
			300 ml	2550
			500 ml	4250
			700 ml	5950
			1000 ml	7692
OTP	Ex99102-10	10,000 PPM	5.0 ml	50 PPM
C(39)	501A104	3,000 PPM	100 ml	300 PPM
Med.	Ex01241	—	to dilute to 1000ml	(except 015V169).
OTP & C39 Conc. in	015V169 is	45.2 & 27	1.5 PPM	respectively.
	AP 6/26/01			

Standard Name: FL Pro ICV
Lab Standard ID#: 015V170
Prepared By: BP

Date Made: 6/26/01
Expire Date: 12/26/01
Matrix: Med

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL Pro Std	501A106	500 PPM	500 ml	4250 PPM
OTP	Ex01203	10,000 PPM	5 ml	50 PPM
C(39)	Ex01216-5	3,000 PPM	100 ml	300 PPM
Made-up to a	final vol.	of 1000ml	w/ Med.	(Ex01241)
		BP 6/26/01		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080102.D Vial: 2
Acq On : 08/08/01 09:32 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 10:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	4221075	61.261 ug/ml
Spiked Amount 50.000		Recovery =	122.52%
3) SC C(39)	38.52f	10590323	295.212 ug/ml
Spiked Amount 300.000		Recovery =	98.40%
Target Compounds			
1) HM Petoleum Range Organics	3.93	305098843	4737.540 ug/ml

4737.540 / 4250 = 111%

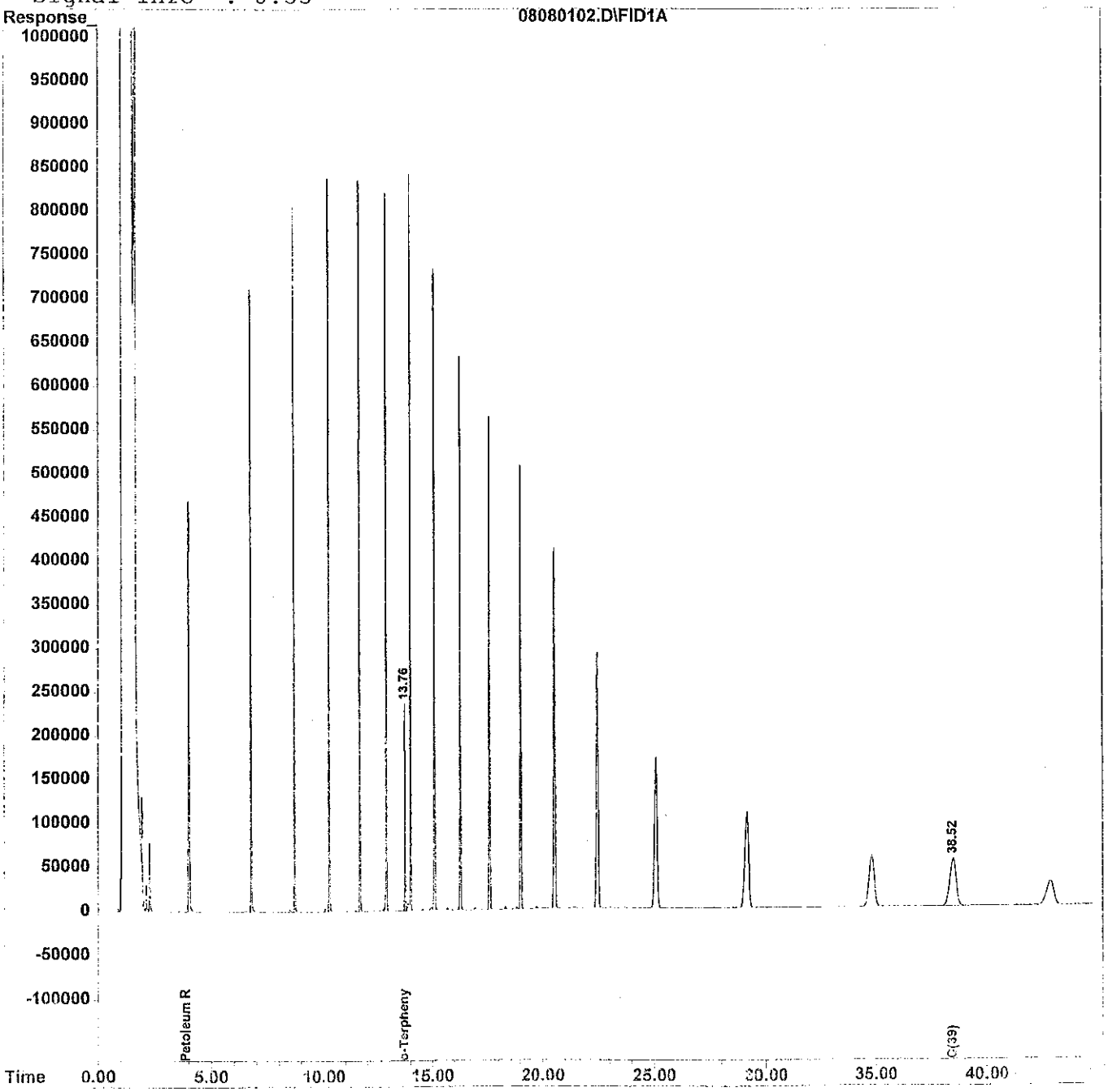
(f)=RT Delta > 1/2 Window (m)=manual Int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080102.D Vial: 2
Acq On : 08/08/01 09:32 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 10:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080114.D Vial: 2
Acq On : 08/08/01 21:35 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:10 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	3930227	57.040 ug/ml
Spiked Amount 50.000	Recovery = 114.08%		
3) SC C(39)	38.36f	10524994	293.391 ug/mlm
Spiked Amount 300.000	Recovery = 97.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	301949910	4675.158 ug/ml

$\frac{4675.158}{4250} = 110\%$

(f)=RT Delta > 1/2 Window (m)=manual int.

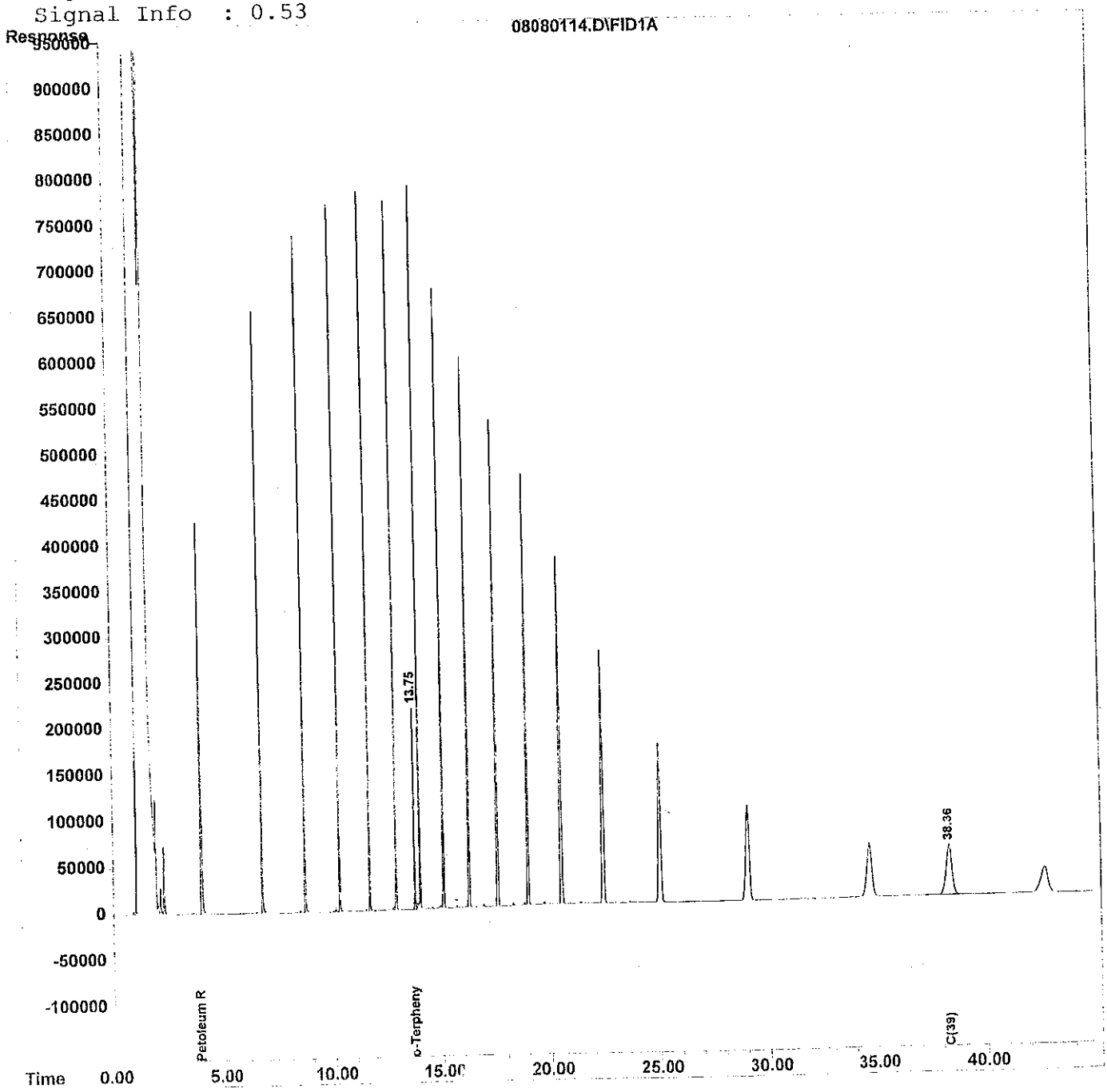
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080114.D
Acq On : 08/08/01 21:35
Sample : 4250 PPM PRO CCV
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 7:10 2001 Quant Results File: PRO0727.RES

Vial: 2
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080123.D Vial: 2
Acq On : 08/09/01 05:48 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:11 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	4136595	60.035 ug/ml
Spiked Amount 50.000	Recovery = 120.07%		
3) SC C(39)	38.45f	10250849	285.749 ug/mlm
Spiked Amount 300.000	Recovery = 95.25%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	312828452	4890.665 ug/ml

4890.665 / 4250 = 115%

(f)=RT Delta > 1/2 Window (m)=manual int.

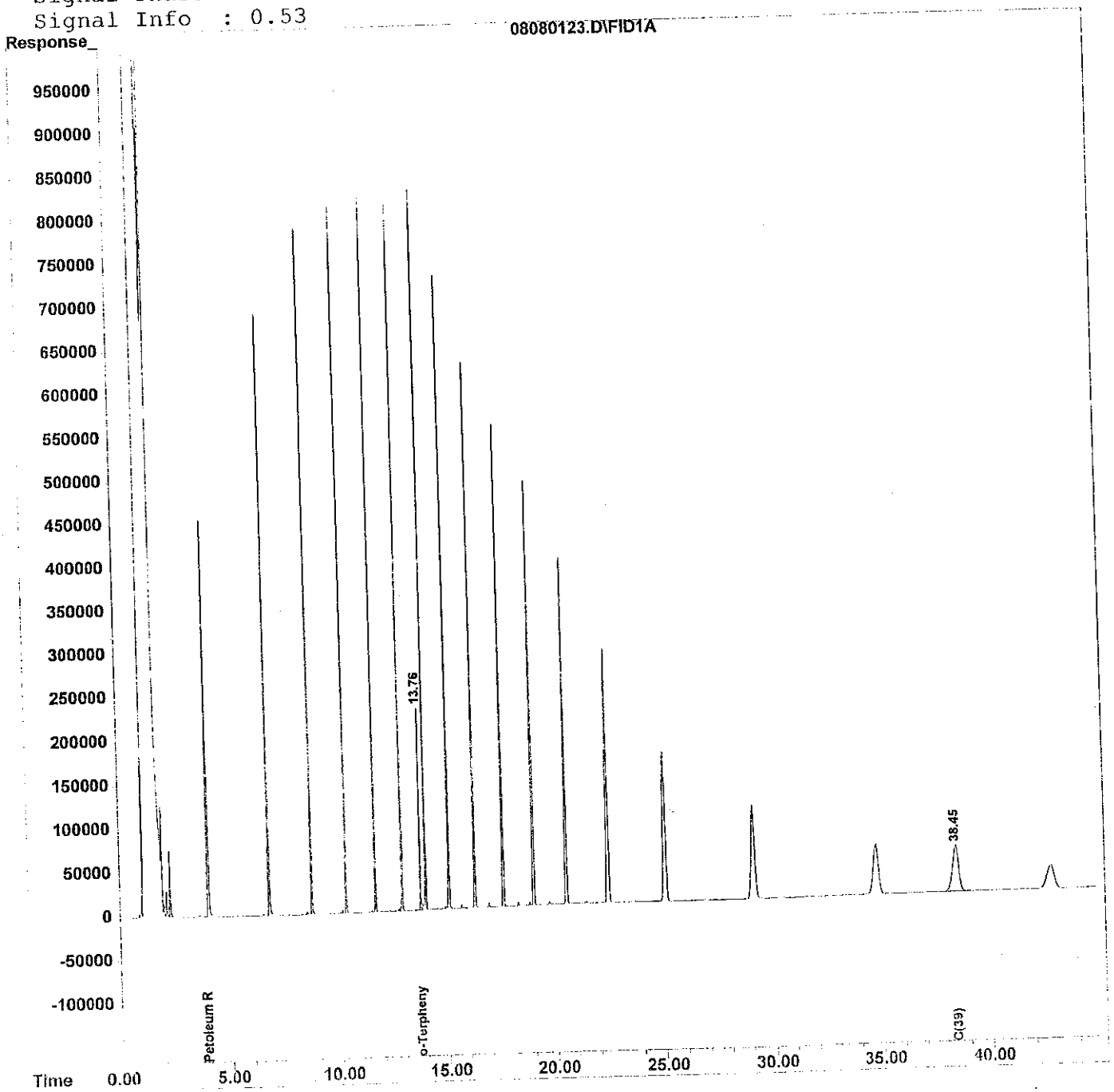
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080123.D
Acq On : 08/09/01 05:48
Sample : 4250 PPM PRO CCV
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 7:11 2001 Quant Results File: PRO0727.RES

Vial: 2
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080106.D
Acq On : 08/08/01 13:11
Sample : 17839 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 8 13:59 2001 Quant Results File: PRO0727.RES

Vial: 6
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2307961	33.496 ug/mlm
Spiked Amount 50.000	Recovery =		66.99%
3) SC C(39)	38.38f	8427824	234.931 ug/mlm
Spiked Amount 300.000	Recovery =		78.31%
Target Compounds			
1) HM Petoleum Range Organics	3.93	69702143	74.268 ug/ml

< RL

(f)=RT Delta > 1/2 Window
(m)=manual int.

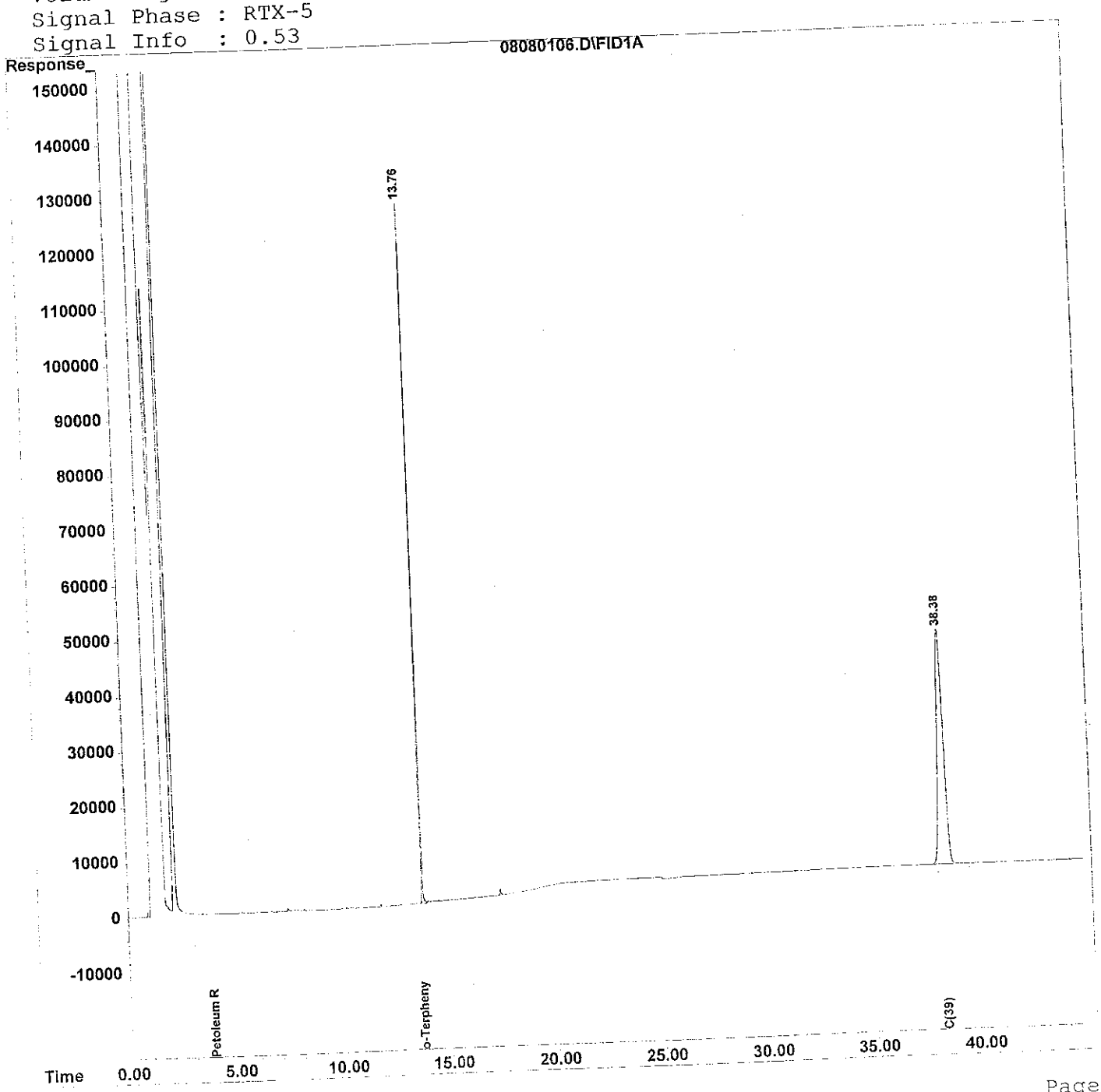
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080106.D
Acq On : 08/08/01 13:11
Sample : 17839 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 8 13:59 2001 Quant Results File: PRO0727.RES

Vial: 6
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080107.D
Acq On : 08/08/01 14:06
Sample : 17840 W
Misc : 910 ml
IntFile : PRO0914.e
Quant Time: Aug 8 15:10 2001 Quant Results File: PRO0727.RES

Vial: 7
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2225228	32.295 ug/ml
Spiked Amount 50.000	Recovery =		64.59%
3) SC C(39)	38.32f	7550504	210.475 ug/mlm
Spiked Amount 300.000	Recovery =		70.16%
Target Compounds			
1) HM Petoleum Range Organics	3.93	67533420	31.305 ug/ml

RL

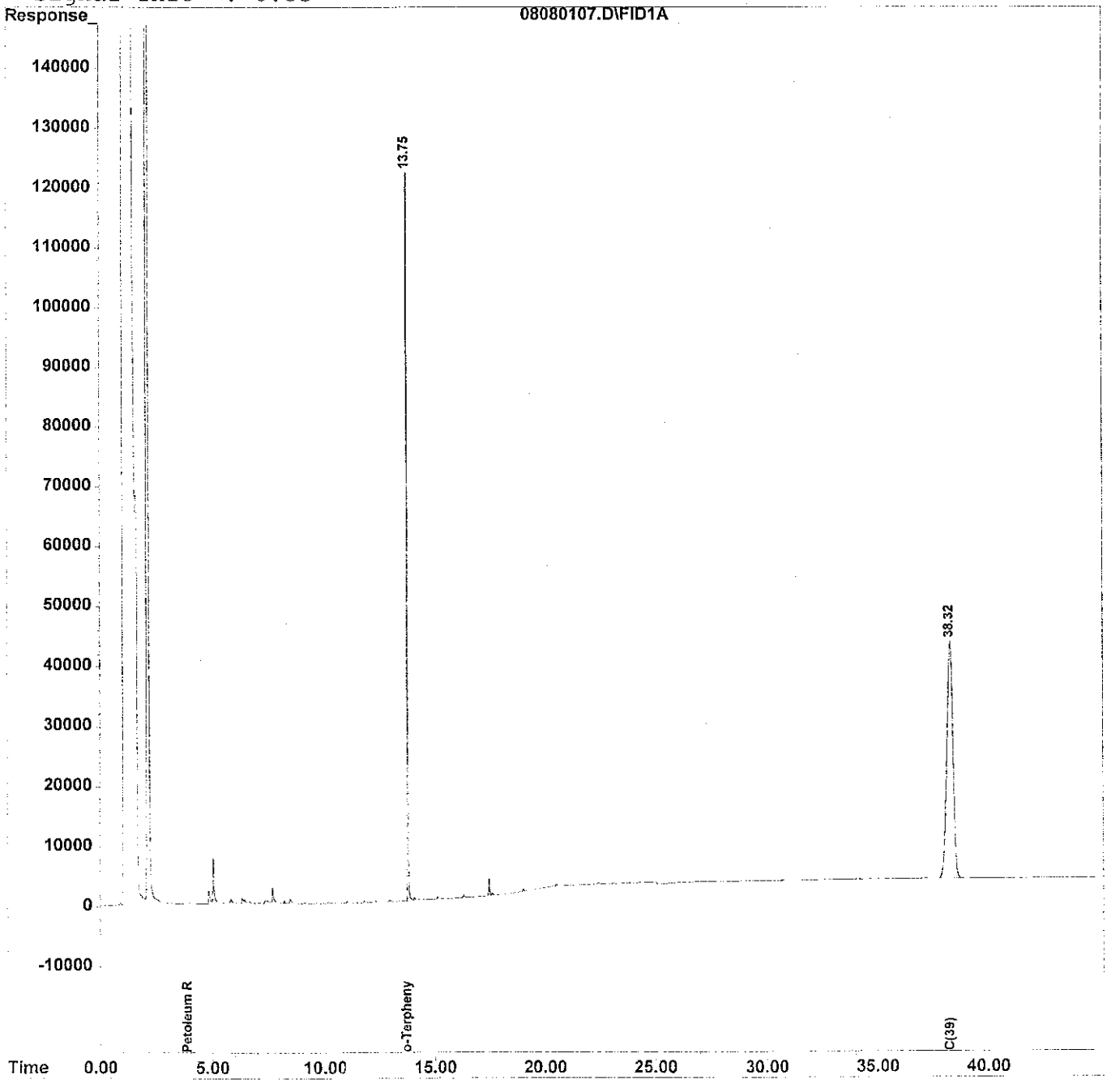
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080107.D Vial: 7
Acq On : 08/08/01 14:06 Operator: BP
Sample : 17840 W Inst : HPGCO
Misc : 910 ml Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 15:10 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080108.D
Acq On : 08/08/01 16:06
Sample : 17841 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 8:10 2001 Quant Results File: PRO0727.RES

Vial: 8
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.73	1921626	27.889 ug/ml
Spiked Amount 50.000	Recovery =		55.78%
3) SC C(39)	38.22f	5846095	162.963 ug/mlm
Spiked Amount 300.000	Recovery =		54.32%
Target Compounds			
1) HM Petoleum Range Organics	3.93	71264487	105.219 ug/ml

< RL

(f)=RT Delta > 1/2 Window (m)=manual int.

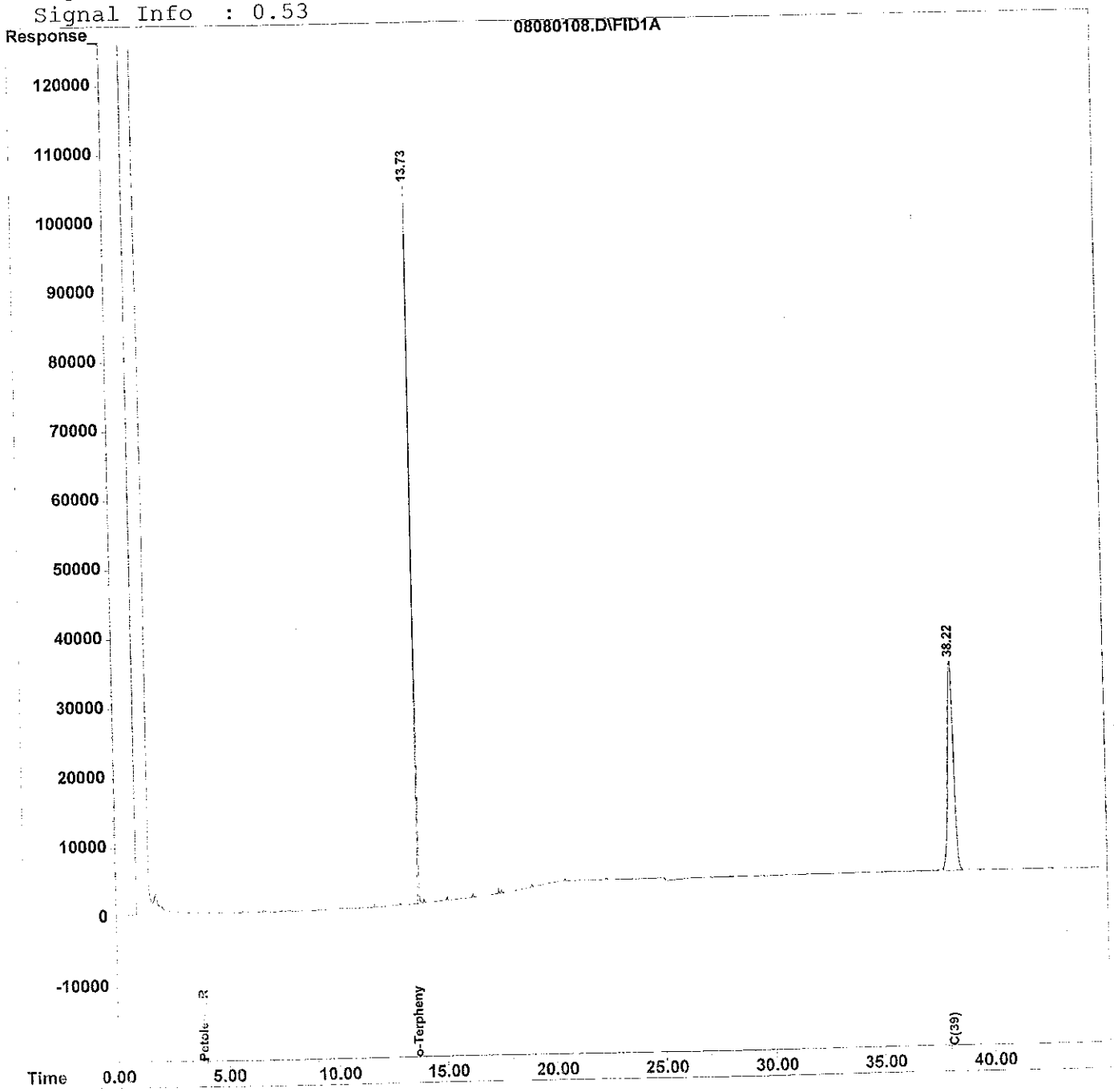
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080108.D
Acq On : 08/08/01 16:06
Sample : 17841 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 8:10 2001 Quant Results File: PRO0727.RES

Vial: 8
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080109.D Vial: 9
Acq On : 08/08/01 17:01 Operator: BP
Sample : 17842 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:11 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	1717440	24.925 ug/ml
Spiked Amount 50.000	Recovery =		49.85%
3) SC C(39)	38.28f	6812198	189.894 ug/mlm
Spiked Amount 300.000	Recovery =		63.30%
Target Compounds			
1) HM Petoleum Range Organics	3.93	68197342	44.458 ug/ml

< RL

(f)=RT Delta > 1/2 Window (m)=manual int.

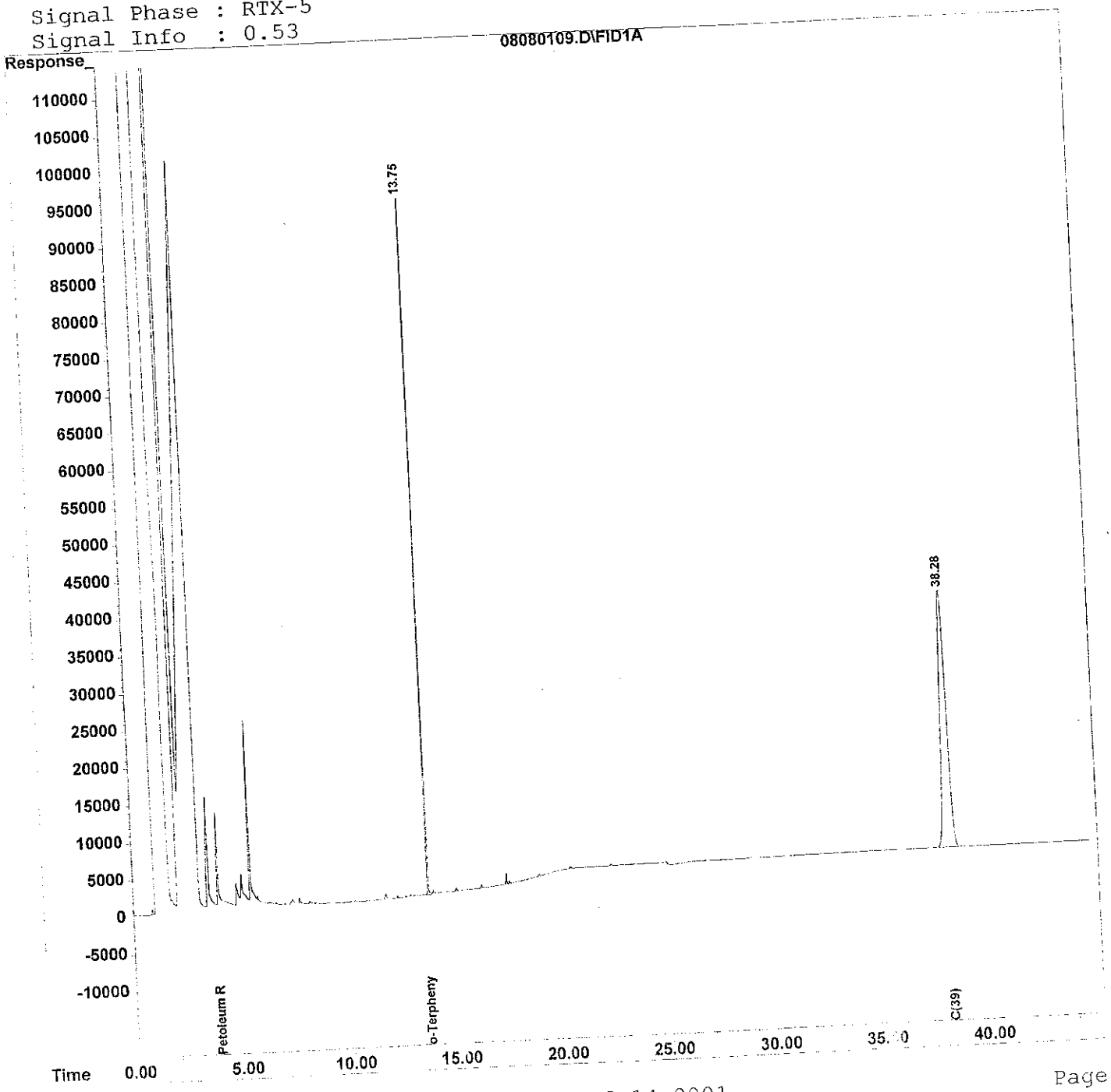
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080109.D
Acq On : 08/08/01 17:01
Sample : 17842 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 8:11 2001 Quant Results File: PRO0727.RES

Vial: 9
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2147752	31.171 ug/mlm
Spiked Amount 50.000	Recovery = 62.34%		
3) SC C(39)	38.44f	6004297	167.373 ug/mlm
Spiked Amount 300.000	Recovery = 55.79%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	64544071	N.D. ug/ml

<1/2RL

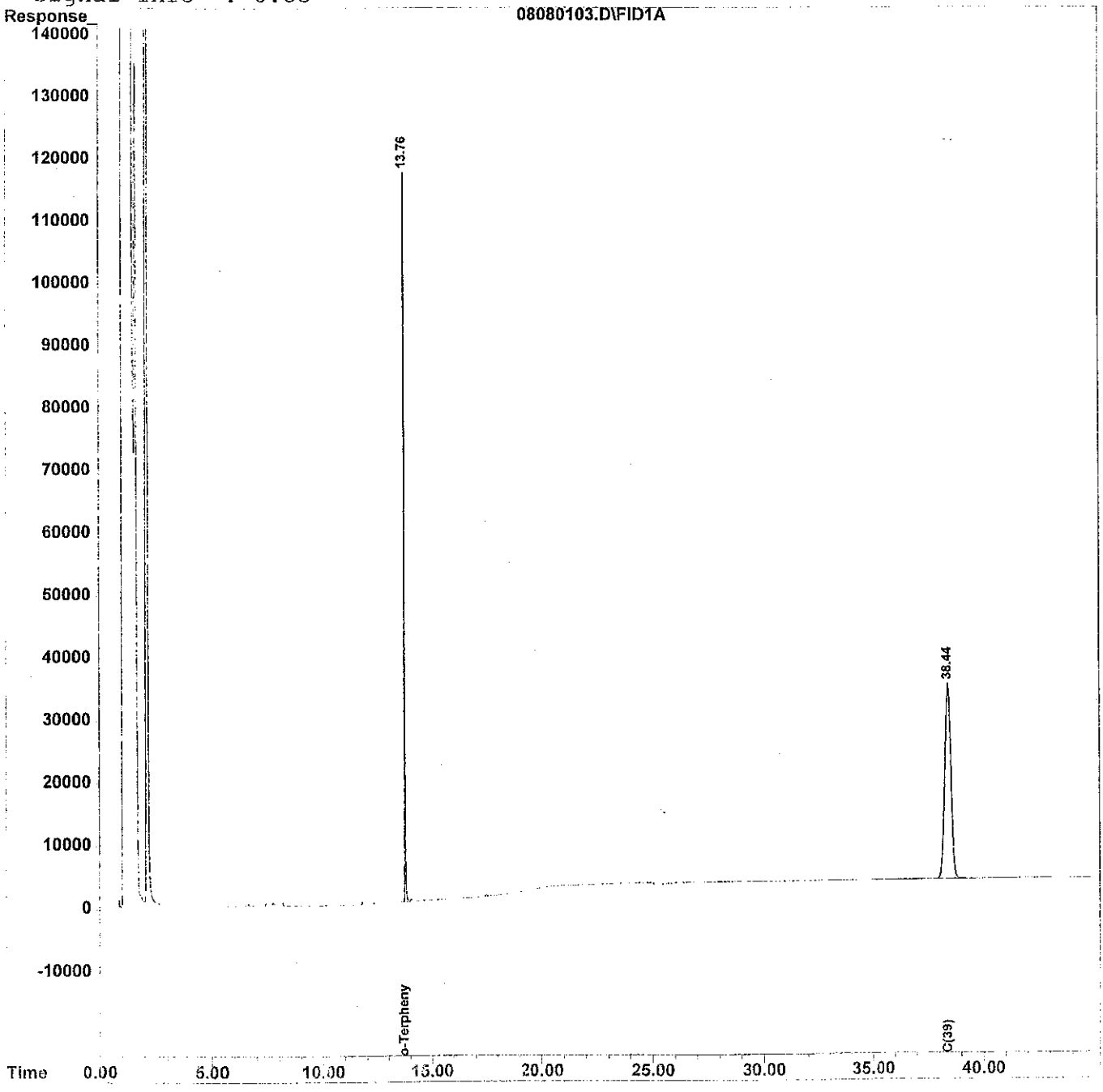
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2228791	32.347 ug/ml
Spiked Amount 50.000	Recovery = 64.69%		
3) SC C(39)	38.40f	5171113	144.148 ug/mlm
Spiked Amount 300.000	Recovery = 48.05%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	202074040	2696.591 ug/ml

2696.591 / 4250 = 63%

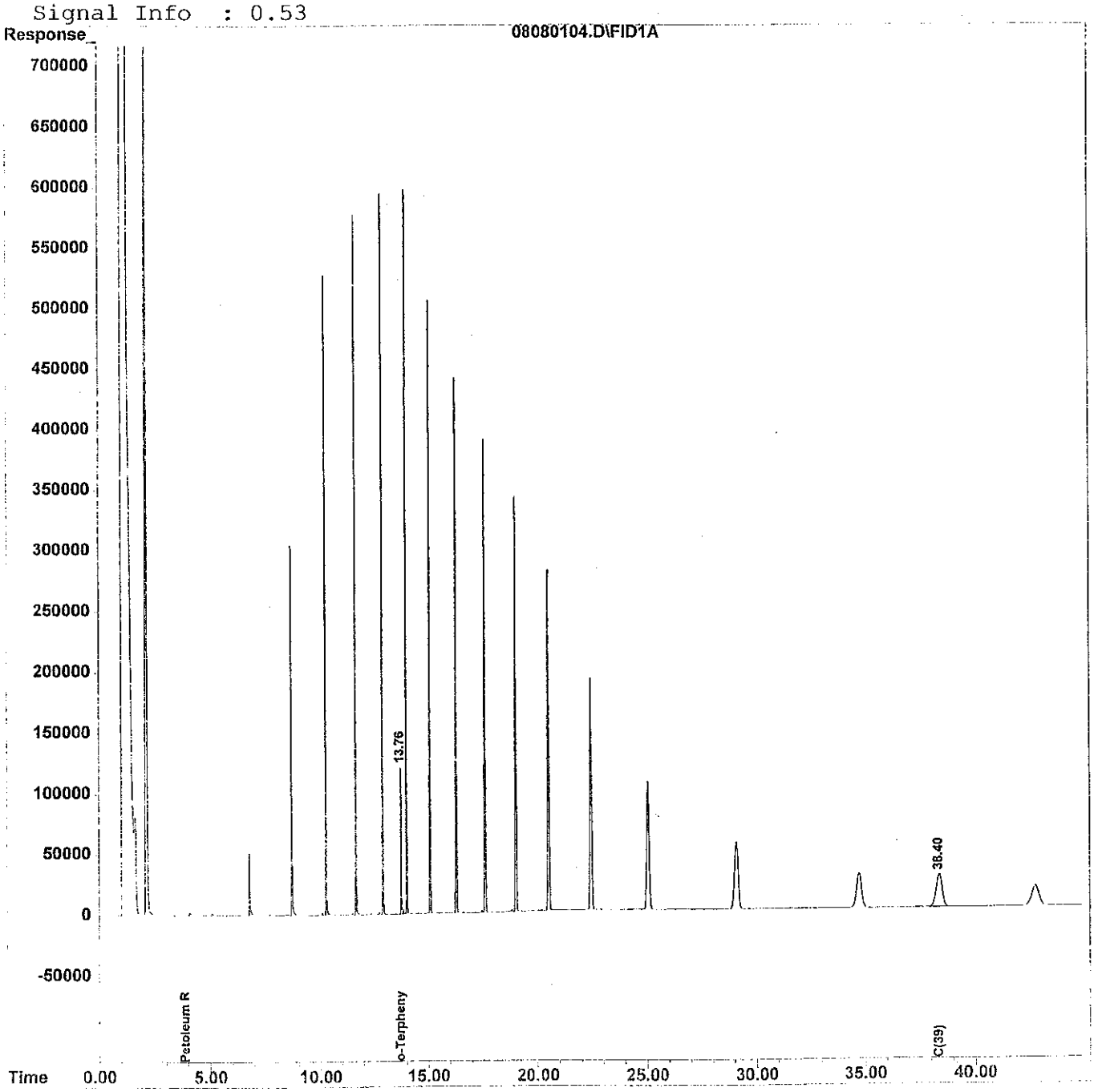
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080105.D Vial: 5
Acq On : 08/08/01 12:16 Operator: BP
Sample : QFW0806013 Inst : HPGCO
Misc : PRO WATER LCSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2328552	33.795 ug/ml
Spiked Amount 50.000	Recovery = 67.59%		
3) SC C(39)	38.37f	6107448	170.249 ug/mlm
Spiked Amount 300.000	Recovery = 56.75%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	216443050	2981.245 ug/ml

$\frac{2981}{4250} = 70\%$

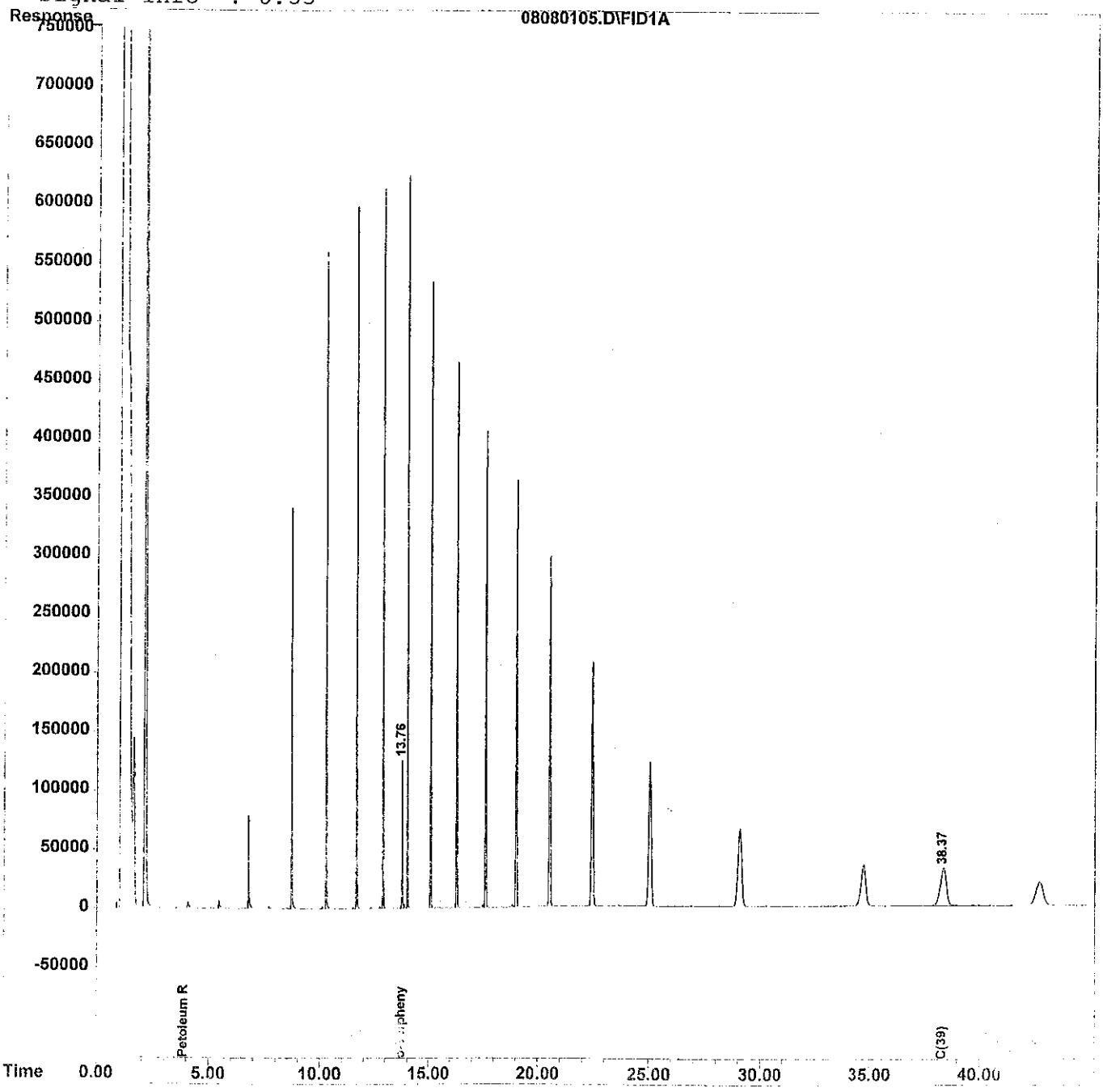
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080105.D Vial: 5
Acq On : 08/08/01 12:16 Operator: BP
Sample : QFW0806013 Inst : HPGCO
Misc : PRO WATER LCSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

26508 / HC24

[1] COC NUMBER: 0730-3

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS CCI	4350 W. CYPRESS ST. STE 600 TAMPA FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH CCI	115 PERIMETER CENTER PL. NE STE 700 ATLANTA GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH	770-604-9182		JENNIFER OTTOSON CH2MHILL	205 INDIAN RIVER DR COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOL. FATTY ACIDS	METHANE, ETHANE, ETHENE							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AC
1	017-OLD-36-EB1-Q3-01		W	7-30-01	1200	III	14	2	2									17845
2	017-OLD-36-FB1-Q3-01		W	7-30-01	1330			2	2									46
3	017-OLD-36-29B-Q3-01		W	7-30-01	1530			2	2									47
4	017-OLD-36-28B-Q3-01		W	7-30-01	1700	↓	↓	2	2									48
5																		
6																		
7																		
8																		
9																		
10																		

[29] SAMPLER(S) AND COMPANY (please print): J. OTTOSON / I. LYNCH

[30] COURIER AND SHIPPING NUMBER: FedEx ~~828954654870~~ 828884397534

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:	7-30-01	1830	Printed Name and Signature: FED EX		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: FED EX	7-31-01	1010	Printed Name and Signature:	7-31-01	1010

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] **Copy 2** - PMO

Form CC1001, Rev 06/00

Instructions for filling out COC Record

MOST OF THE INFORMATION CAN BE FOUND IN THE SAMPLING AND ANALYSIS PLAN!

1) COC Number: Assign a unique ID that is linked to the project; e.g., 152901-001
2) Project Name: Overall name of project (NAS Whiting Field)
3) Project Phase, Site, or Task: Name of specific site/task (Bldg 1429 excavation)
4) Project Contact: CCI contact person at site
5) Project Number: Project number assigned including WBS
6) CTO or DO Number: CTO or DO number assigned
7) Project Tel No. and Fax No.: Numbers where laboratory can call with questions or fax preliminary results
8) Laboratory Name and Contact: Name of lab where samples are to be sent and contact person
9) Lab PO Number: Laboratory Purchase Order number for the particular sampling event
10) Lab Tel No and Fax No: Numbers to call lab with questions and to fax copy of COC
11) Fax and Mail Reports to; Recipient 1 (Name and Company): Person and company where prelim and/or final copy of analytical is to be sent
12) Fax and Mail Reports to; Recipient 2 (Name and Company): Person and company where prelim and/or final copy of analytical is to be sent if to more than one
13) Fax and Mail Reports to; Recipient 3 (Name and Company): Person and company where prelim and/or final copy of analytical is to be sent if to more than one
14) Recipient 1 (Address, Tel No., and Fax No.): Address, phone number and fax number of where prelim is to be faxed and final analytical is to be sent
15) Recipient 2 (Address, Tel No., and Fax No.): Address, phone number and fax number of where prelim is to be faxed and final analytical is to be sent if more than one
16) Recipient 3 (Address, Tel No., and Fax No.): Address, phone number and fax number of where prelim is to be faxed and final analytical is to be sent if more than one
17) Item (numbered 1 thru 10): to be used when relinquishing samples
18) Sample Identifier: Specific sample number for each sample NOT FOR EACH BOTTLE
19) Sample Description/Location: Describe sample and where it was collected (confirmation soil collected at NW wall of excavation A or groundwater sample collected at MW3 at OWS 13 or soil boring collected at 2' interval at OWS 13)
20) Matrix: Soil, Sediment, Water, Oil, Product, Vapor, Wipe, etc.
21) Date Collected: What day was sample collected
22) Time Collected: What time was sample collected (24-hour clock)
23) Data Package Level: CCI Data Package Level (A, B, or C)
24) TAT (Calendar Days): Place turn-around-time in days for when preliminary results are due
25) Analyses Required (Include Method Numbers): List one analysis per column and include method number (will be listed in Sampling and Analysis Plan) (TCL VOCs by 8260B)
26) Sample Type: Field, QC, Grab, Composite (include all applicable descriptions; e.g. Field Grab
27) Comments/Screening Readings: Place any comments here, for example, "strong organic odor". Also if soil was screened before sent to lab, place screening results here.
28) Lab ID: Leave this blank, this is for lab's use.
29) Sampler(s) and Company: ALL samplers' names and companies here.
30) Courier and Shipping Number: Put name of shipping company and airbill number(s) here. Include ALL airbill numbers. (Fed Ex#: 123456789, 987654321, 132435465)
31) Samples Temp and Conditions Upon Receipt: Leave blank, lab will fill in.
32) Relinquished by: Sign and print name and place date and time here. Date should be on or after date collected. (See the SOP for custodial instructions)
33) Received by: Sign and print name and place date and time here. (See the SOP for custodial instructions)

CH2MHILL DATA DELIVERABLE EVALUATION

Project Name: _____

CTO 17 **Project Number** 28507

Project Manager Steve Tsangaris ***Scientist*** Lisa Schwan
Laboratory Accura

Preliminary Data

Date Due n/a **Date Received** n/a

Final Data

Date Due 7/30/01 **Date Received** 9/18/01

Evaluation

- CCI Level (circle one) **A** **B** (C)
- Electronic Data Deliverables (circle one) **yes** **no**
- Review Level **E** = Evaluation E **V** = Validation _____
  Vendor _____
  Validated Data
  Date Due _____ **Date**
  Received _____
- Sample Delivery Group Number 28507

Archiving

- SDG Measurement (in inches) ~150 pages
- Scanning Cost = inches x 0.10 _____
- Additional Cost _____
- Out-sourced **Y or N**

  Vendor _____

  Date of Archive _____

Comments

_____

_____

_____

_____

_____

ACCURA ANALYTICAL LABORATORY
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Case Narrative

AAL Project #: 28507

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 07/31/01 at 1010:

Client I.D.	Laboratory I.D.
017-OLD-36-EB1-Q3-01	AC17839
017-OLD-36-FB1-Q3-01	AC17840
017-OLD-36-29B-Q3-01	AC17841
017-OLD-36-28B-Q3-01	AC17842
017-OLD-36-TB1-Q3-01	AC17843

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding time, and the results for this analysis should be considered estimated.

5. The pH of the samples was 1.0 prior to VOC analysis.

6. The Chloride, Nitrate Nitrogen, Nitrite Nitrogen, and TOC analyses were performed by a subcontract laboratory.

7. The following sample required dilution due to high analyte concentration, resulting in an elevated detection limit:

   VOC-SW-846-8260B
   017-OLD-36-29B-Q3-01 (Trichloroethene)

CCI NAVY RA
SEP 18 2001

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Case Narrative

8. Surrogate o-Terphenyl was outside the method specified limits for all samples and Quality Control performed for the FLA-PRO analysis. Note that all surrogates recoveries were within in-house limits established in the laboratory; therefore the data was accepted.

9. Project Specific QC for the FLA-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as matrix spike and matrix spike recoveries on the QC spreadsheet.

10. The laboratory control sample and laboratory control sample duplicate recoveries (LCS/LCSD) were outside the project specified limits for the following analysis:

    FLA-PRO

    The recoveries were within in-house limits established in the laboratory; therefore the data was accepted.

Approved for Quality Assurance Release By:

Camden Robinson — Date 8/28/01
Quality Assurance Officer

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CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

28507 2C

[1] COC NUMBER: 0730-1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.1201.08	ACCURA LABS Bonnie Hogue	Steve TSANGARIS ~~4350~~ CH2M / CCI	4350 W. Cypress St suite 600 Tampa FL
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 17		JEFF WILMOTH CCI	~~43~~ 115 Perimeter Center PL. NE, Suite 700 ATLANTA GA ~~39507~~
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH	770-604-9182	770-449-8800	JENNIFER OTTOSON CH2M HILL	205 INDIAN RIVER DRIVE COCOA FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260 B	ALK. 310.1	NO_3 NO_2 Cl- SO4	TOC 9060	~~Sulfide 376~~ ~~Diss.~~ (FL)	FLOPRO DEFLPRO				[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AL
1	017-OLD-36-EBI-Q3-01		W	7-30-01	1200	III	14	3	1	1	1		2						17859
2	017-OLD-36-FBI-Q3-01		W	7-30-01	1330	"	"	3	1	1	1		2						MO
3	017-OLD-36-29B-Q3-01		W	7-30-01	1530	"	"	3	1	1	1		2						M1
4	017-OLD-36-28B-Q3-01		W	7-30-01	1700	"	"	3	1	1	1		2						M2
5	017-OLD-36-TBI-Q3-01		W	7-30-01	—	"	"	3											M3
6																			
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print): J. OTTOSON / I. LYNCH

[30] COURIER AND SHIPPING NUMBER: fedEx 826884397534

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:	7-30-01	1830	Printed Name and Signature: ~~Lee~~		
Printed Name and Signature: Fedex	7/31	1010	Printed Name and Signature:	7/31	1010
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

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LABORATORY REPORT

Accura Sample ID #: **AC17839** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-EB1-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	1.5		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.59	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.3	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	78		
o-Terphenyl (Range 82-142)	67	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	103		
4-Bromofluorobenzene (80-120)	110		
Toluene-d8 (80-119)	105		

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17840** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FB1-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	4.0		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	0.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.0	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	70		
o-Terphenyl (Range 82-142)	65	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	106		
4-Bromofluorobenzene (80-120)	104		
Toluene-d8 (80-119)	104		

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LABORATORY REPORT

Accura Sample ID #: **AC17841** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-29B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	12		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/15/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	10	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	6		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	0.87	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.6	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	130	25
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	54		
o-Terphenyl (Range 82-142)	56	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	113		
4-Bromofluorobenzene (80-120)	107		
Toluene-d8 (80-119)	101		

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LABORATORY REPORT

Accura Sample ID #: **AC17842** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-28B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	49		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.5		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	180	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	21		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	24		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.0	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	30	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	63		
o-Terphenyl (Range 82-142)	50	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	112		
4-Bromofluorobenzene (80-120)	109		
Toluene-d8 (80-119)	114		

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LABORATORY REPORT

Accura Sample ID #: **AC17843** **Accura Project #:** **28507**

Client: CH2M HILL - CCI Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/24/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-TBL-Q3-01**

ANALYSIS: **VOC's Navy (25 ml purge)** Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	8.5	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	116		
4-Bromofluorobenzene (80-120)	111		
Toluene-d8 (80-119)	106		

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LABORATORY REPORT

Accura Sample ID #: **AC17844** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5

Client Sample ID: METHOD BLANK AALSample ID #: AC17844 Accura Project #: 28507

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	56		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	103		

Accura Analytical Laboratory- Technical Meeting Items

Data Quality

LCS MS/MSD
Quality Control Limits verses project limits
Surrogate Recovery
Case narrative
QC Exceptions (batch QC)
EDD
communication

28507

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LABORATORY REPORT

Accura Sample ID #: AC17839 **Accura Project #:** 28507

Client: CH2M HILL - CCI Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-EB1-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	1.5		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	~~<RL~~	0.1 U	0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	~~<RL~~	0.01U	0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	~~<RL~~	0.01U	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	~~<RL~~	1.0UR	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	~~Y~~ J	5.0

11/13/01 OY

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	~~<RL~~	1.0U	1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.59	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.3	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	78		
o-Terphenyl (Range 82-142)	67	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	103		
4-Bromofluorobenzene (80-120)	110		
Toluene-d8 (80-119)	105		

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LABORATORY REPORT

Accura Sample ID #: AC17840 **Accura Project #:** 28507

Client: CH2M HILL - CCI Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-FB1-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	~~4.0~~ 01C	1.	1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	0.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	~~<RL~~	0.01U	0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	~~<RL~~	0.01U	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	~~<RL~~	1.0 U R	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	~~X~~ S	5.0

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ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	~~<RL~~	1.0 U	1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.0	J	5.5

Client Sample ID: 017-OLD-36-FB1-Q3-01 AALSample ID #: AC17840 Accura Project #: 28507

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	70		
o-Terphenyl (Range 82-142)	65	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	106		
4-Bromofluorobenzene (80-120)	104		
Toluene-d8 (80-119)	104		

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LABORATORY REPORT

Accura Sample ID #: AC17841 **Accura Project #:** 28507

Client: CH2M HILL - CCI Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-29B-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	12		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	~~<RL~~	0.01U	0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	~~<RL~~	0.01	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	~~<RL~~	0.01 UR	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/15/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	10	~~X~~ J	5.0

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ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	6		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	0.87	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.6	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	130	25
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	54		
o-Terphenyl (Range 82-142)	56	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	113		
4-Bromofluorobenzene (80-120)	107		
Toluene-d8 (80-119)	101		

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LABORATORY REPORT

Accura Sample ID #: **AC17842** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-28B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	49		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.5		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL	UR	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	180	J	5.0

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ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	21		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	24		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.0	J	5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	30	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	63		
o-Terphenyl (Range 82-142)	50	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	112		
4-Bromofluorobenzene (80-120)	109		
Toluene-d8 (80-119)	114		

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LABORATORY REPORT

Accura Sample ID #: AC17843 **Accura Project #:** 28507

Client: CH2M HILL - CCI Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/24/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-TBL-Q3-01**

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	8.5	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	116		
4-Bromofluorobenzene (80-120)	111		
Toluene-d8 (80-119)	106		

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LABORATORY REPORT

Accura Sample ID #: **AC17844** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 8/28/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL	1.0U	1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL	0.1U	0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL	0.01U	0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL	0.01U	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	~~<RL~~	1.0 UR	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	5.0U	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL	1.0U	1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5

Client Sample ID: METHOD BLANK AALSample ID #: AC17844 Accura Project #: 28507

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	56		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	103		

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Case Narrative

AAL Project #: 28507

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 07/31/01 at 1010:

Client I.D.	Laboratory I.D.
017-OLD-36-EB1-Q3-01	AC17839
017-OLD-36-FB1-Q3-01	AC17840
017-OLD-36-29B-Q3-01	AC17841
017-OLD-36-28B-Q3-01	AC17842
017-OLD-36-TB1-Q3-01	AC17843

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.
   J all pos.
4. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding time, and the results for this analysis should be considered estimated.

5. The pH of the samples was 1.0 prior to VOC analysis.

6. The Chloride, Nitrate Nitrogen, Nitrite Nitrogen, and TOC analyses were performed by a subcontract laboratory.

7. The following sample required dilution due to high analyte concentration, resulting in an elevated detection limit:

   VOC-SW-846-8260B
   017-OLD-36-29B-Q3-01 (Trichloroethene)

CCI NAVY R...
SEP 1 8 2001

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Case Narrative

8. Surrogate o-Terphenyl was outside the method specified limits for all samples and Quality Control performed for the FLA-PRO analysis. Note that all surrogates recoveries were within in-house limits established in the laboratory; therefore the data was accepted.

9. Project Specific QC for the FLA-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as matrix spike and matrix spike recoveries on the QC spreadsheet.

10. The laboratory control sample and laboratory control sample duplicate recoveries (LCS/LCSD) were outside the project specified limits for the following analysis:

    FLA-PRO

    R = POS UL-ND

    The recoveries were within in-house limits established in the laboratory; therefore the data was accepted.

not listed on sheet recovery outside of limit specified on report.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/28/01
Date

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CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9262

CHAIN-OF-CUSTODY RECORD

28507 / 2C

[1] COC NUMBER: 0730-1

Field	Value
[2] PROJECT NAME:	NTC ORLANDO
[3] PROJECT PHASE/SITE/TASK:	SA-36
[4] PROJECT CONTACT:	JEFF Wilmoth
[5] PROJECT NUMBER:	152044.32.1201.08
[6] CTO OR DO NUMBER:	CTO 17
[7] PROJECT TEL NO AND FAX NO:	770-604-9182
[8] LAB NAME AND CONTACT:	ACCURA LABS Bonnie Hogue
[9] LAB PO NUMBER:	
[10] LAB TEL NO AND FAX NO:	770-449-8800
[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	Steve Tsangaris ~~4350~~ CH2M / CCI
[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	JeFF Wilmoth CCI
[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	JENNifer OTTOSON CH2M Hill
[14] RECIPIENT 1 (Address, Tel No., and Fax No.):	4350 W. Cypress St Suite 600 Tampa FL
[15] RECIPIENT 2 (Address, Tel No., and Fax No.):	~~43~~ 115 Perimeter Center Pl. NE, Suite 700 Atlanta GA
[16] RECIPIENT 3 (Address, Tel No., and Fax No.):	205 Indian River Drive Cocoa FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260 B	ALK. 310.1	NO2 NO3 CL- 300.1	TOC 9060	~~Sulfide~~	~~Diss.~~ (FL)	FLO PRO DEPELPRO			[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AC
1	017-OLD-36-EB1-Q3-01		W	7-30-01	1200	III	14	3	1	1	1			2					17839
2	017-OLD-36-FB1-Q3-01		W	7-30-01	1330	↓	↓	3	1	1	1			2					40
3	017-OLD-36-29B-Q3-01		W	7-30-01	1530	↓	↓	3	1	1	1			2					41
4	017-OLD-36-28B-Q3-01		W	7-30-01	1700	↓	↓	3	1	1	1			2					42
5	017-OLD-36-TB1-Q3-01		W	7-30-01	—			3											43
6																			
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print) J. OTTOSON / I. LYNCH

[30] COURIER AND SHIPPING NUMBER: fedEx 826884397534

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: [signature]	7-30-01	1830	Printed Name and Signature: ~~[signature]~~		
Printed Name and Signature: [signature] Fedex	7/31	1010	Printed Name and Signature: [signature]	7/31	1010
Printed Name and Signature:			Printed Name and Signature:		

28507

Responses to October 9, 2001 Data Memo
CH2MHill Contractors Inc.

AAL Project#: 28368, (28507,) 28508, 28512, 28530, 28744, 28764

(Y) N 1 Has the laboratory demonstrated acceptable control or precision and accuracy results. (Both laboratory control and matrix spike/duplicate samples fail bias low.)
Comments: See QA-0111009

(Y) N 2 Does Case Narrative provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)
Comments: See QA-0111009

(Y) N 3 Does laboratory provide acceptable surrogate recovery for FL-PRO analyses. (The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery.) (28512, 28744)
Comments: See QA-0111016

Y N 4 Is this taken care of: The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744)
Comments: Not applicable, See QA-0111023

(Y) N 5 Is this taken care of: The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)
Comments: See QA-0111030

(Y) N 6 Total dissolved solid were analyzed outside holding time(28512)?
Comments: See QA-0111037

Is this taken care of: Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as
(Y) N 7 stated in the CCI contract. (28512, 28744)
Comments: See QA-0111044

Is this taken care of: Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does
(Y) N 8 not indicate that the integration is a manual determination. (28512, 28744)
Comments: See QA-0111051

Is this taken care of: EDD: Laboratory cannot report data less than their method detection limit.
Y N 9 (28744)
Comments: not applicable - See QA-0111059
* Note: RL is corrected for AN sample # AC17840 - see attached. JMW 11/20/01

Is this taken care of: EDD: Associated data qualifier codes should be presented in specified column.
(Y) N 10 (28512, 28744)
Comments: See QA-0111066

Is this taken care of: EDD: Surrogate compounds for FL PRO are not identified in Method Blank.
(Y) N 11 (28744)
Comments: See QA-0111073

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17840** **Accura Project #:** **28507**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 11/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FB1-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	4.0		1.0

ANALYSIS: Chloride (EPA 300.0) Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	0.2		0.1

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/1/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/13/01 Date Analyzed: 8/15/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111009

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not demonstrate acceptable control or precision and accuracy results. Both laboratory control and matrix spike/duplicate samples fail bias low.
Case Narrative does not provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
Recovery limits specified do not reflect in-house performance. See revised case narrative attached.

Resolution recorded by: KMClemons Date: 11/20/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/20/01

QA Review by: KMClemons Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

AAL Project #: 28507

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 07/31/01 at 1010:

Client I.D.	Laboratory I.D.
017-OLD-36-EB1-Q3-01	AC17839
017-OLD-36-FB1-Q3-01	AC17840
017-OLD-36-29B-Q3-01	AC17841
017-OLD-36-28B-Q3-01	AC17842
017-OLD-36-TB1-Q3-01	AC17843

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding time.

5. The pH of the samples was 1.0 prior to VOC analysis.

6. A subcontract laboratory completed the following analyses: Chloride, Nitrate Nitrogen, Nitrite Nitrogen, and TOC.

7. The following sample required dilution due to high analyte concentration, resulting in an elevated detection limit:

   VOC-SW-846-8260B
   017-OLD-36-29B-Q3-01 (Trichloroethene)

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REVISED

8. The detection limit was elevated for the following sample due to limited sample volume received per bottle from the client, i.e. less than 1000ml:

   FL-PRO
   017-OLD-36-FB1-Q3-01

9. The following surrogate recovery did not meet the reported FL-PRO recovery range as specified by the method for the samples and associated QC analyses: o-Terphenyl. This is indicated on the reports by the "Z" flag. Please note that the outlier recoveries met the following aqueous in-house established limits:

Sample:	Surrogate Compound	Recovery Range
	o-Terphenyl	33-100
	Spike Compound	**Recovery Range**
	FL-PRO	20-113
Blank/LCS:	Surrogate Compound	Recovery Range
	o-Terphenyl	51-115
	Spike Compound	**Recovery Range**
	FL-PRO	16-116

In addition, per the FL-PRO method developed by the State of Florida the following addresses outlier surrogate recoveries:

a. High recoveries may be due to a coeluting matrix interference or the presence of high molecular weight contaminants.
b. High recoveries may also be due to memory effects caused by poor sample volatility, backflash or carryover.
c. Low recoveries may be due to adsorption by the sample matrix.
d. Low recoveries may also be caused by incorrect integration. The chromatographic profile or motor oils does not give baseline resolution of all components, resulting in a characteristic rise in baseline underneath the resolved hydrocarbon components known as the "unresolved complex mixture".
e. If the surrogate recovery is outside of established limits, the results must be flagged and an explanation offered.

The following offers AAL's response to the method corrective measures concerning surrogates that fall outside the method specified limits:

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Case Narrative

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a. There does not appear to be any chromatographic interference affecting the surrogate recoveries.
b. All FL-PRO analyses are <RL except for one sample. There does not appear to be carryover, etc.
c. This is possible perhaps and would constitute matrix interference.
d. The correct integration process is used for surrogates.

Since this process was observed in the samples and QC analyses, it is likely related to either of the following: the extraction process or the written method. It is inconclusive at this time what the reason is since it was learned via communications with Dr. Carl Kircher with the State of Florida that the FL-PRO method in general has created difficulty in achieving the method stated surrogate recoveries for laboratories who analyze via this method. Please note that Accura continues to evaluate the FL-PRO method internally.

10. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified recovery range for the following analysis: FL-PRO. Please note that the outlier recoveries met the aqueous in-house established limits as stated in Comment #9 above.

11. Batch QC for the FL-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume received from the client. Note that the laboratory control sample and laboratory control sample duplicate recoveries are reported as matrix spike and matrix spike recoveries on the QC spreadsheet.

12. Total Xylenes are flagged with an "m" to indicate that the m,p-xylenes and o-xylene were calibrated for separately and manipulated automatically by the HP Chem Station Software to produce Total Xylenes.

13. Tentatively Identified Compounds are reported as quantitative estimates as presented in the raw data.

Approved for Quality Assurance Release By:

Kelly M. Clemons — 11/20/01

Kelly M. Clemons
Quality Assurance Manager

Date

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111016

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not provide acceptable surrogate recovery for FL-PRO analyses. The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons
Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results. See revised case Narrative attached to QA-0111009

Resolution recorded by: KMclemons Date: 11/20/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/20/01

QA Review by: KMclemons Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111023

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons
Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Resubmit summary reports and EDD to reflect result equal to or above the associated MDL.
project 28507 was not affected

Resolution recorded by: Carla C Rhue Date: 11/15/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

11/20/01

QA Review by: KMClemons Date: 11/20/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111030

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
2. Include client project communication regarding inadequate sample volume available to meet contract quality control requirements.

#1. See Case Narrative attached to QA-0111009
#2. see below.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Although not enough sample was provided as stated in #1 above, the Project Specific notes incorrectly communicated "Batch QC" to the laboratory. See attached for the notes. See QA-0111057 - mechanism for project implementation which will correct this for future work. The QA-0111057 has an SOP w/ section specific checklists.

QA Review by: KMClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

J:\QATracking\AuditsTracking\ClientAudits\CCI\LQCF-QA0111030.doc

NOTES FOR 28507

NAVY Level III Project - CCI LEVEL C

Need one good print-out of all cal., MS/MSD and LCS data.

Batch QC.

Full List Spike.

QC Table on common drive.

Report all Flags,("J", "B", etc.)

REPORT TIC's ALONG WITH THIS PROJECT!!!

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111037

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Test (Total dissolved solid) were analyzed outside holding time(28512).

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Include client project communication regarding analyses performed outside holding time

There is no project communication to client regarding the stated issue. See below.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Although there is no client communication regarding the issue referenced here, the mechanism for project implementation associated w/ QA-0111057 will correct this for future work. The SOP attached to QA-0111057 has section specific checklists which address this issue.

QA Review by: KMClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
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Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111044

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Adhere to deliverable requirements for sub-contracted analyses. see attached.
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached original bid and the revised bid which indicate the intent to subcontract. KMC 11/26/01

Resolution recorded by: KMClemons Date: 11/26/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/26/01

QA Review by: KMClemons Date: 11/26/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

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Analytical Services, Inc.

Ion Chromatography

EPA 300.0, 9056

Batch 300.0 - 70211
9056 - 70212

Date 7-31-01

Analyst [illegible]

Sample number	Client Name	Dilution	Date/Prep	Rerun
1 BLK			7-31-01 1400	
2 CAL	High			
3	Med			
4	Low			
5 ICS				
6 ICSD				
7 131241-1	Austell	1/100	7-31-01 1900	
8 -1dup		1/100		
9 -2		1/200		
10 -2dup		1/200		
11 -12		1/100		
12 -17		1/100		
13 -22		5/100		
14 141152-17	Thomas	-	7-31-01 2000	
15 -18				
16 131141341	Macon			
17 -2			7-31-01 1400	
18 BLK				
19 CAL	High			
20 141342	IPC		7-1-01 1400	
21 BLK				
22 CAL	High		8-1-01 1000	
23 141351-1	Maitland			
24 -2				
25 -3				

Sample number	Client Name	Dilution	Date/Prep	Rerun
26 141351-4	Maitland		8-1-01 1400	
27 141354-1	Cash Chase			
28 141358-1	Access		8-1-01 1200	
29 -2				
30 -3				
31 -4				
32 141387			8-1-01 1730	
33 BLK			8-1-01 1400	
34 CAL	High			
35 141152-17	MS		8-1-01 1300	
36 1	MSD			
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

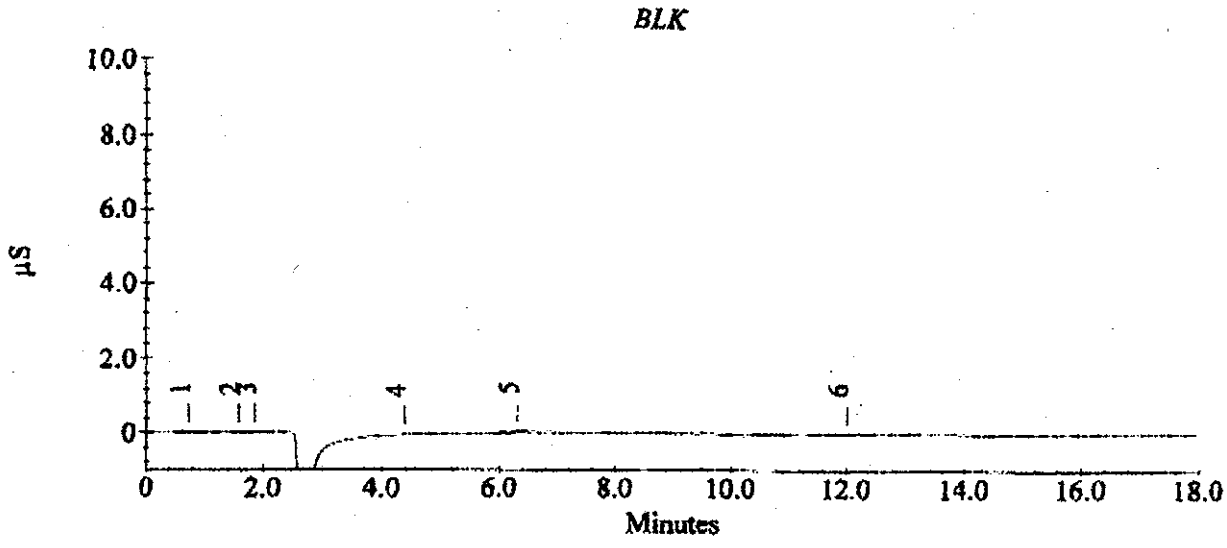
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\BLK-7-27-01_032.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01low.met
Date Time Collected : 7/27/01 9:12:34 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.73	0.000	2196	195
2	Unknown 2	1.58	0.000	1841	193
3	Unknown 3	1.87	0.000	1295	237
5	Unknown 4	6.32	0.000	5071	259
6	Unknown 5	12.02	0.000	4478	286



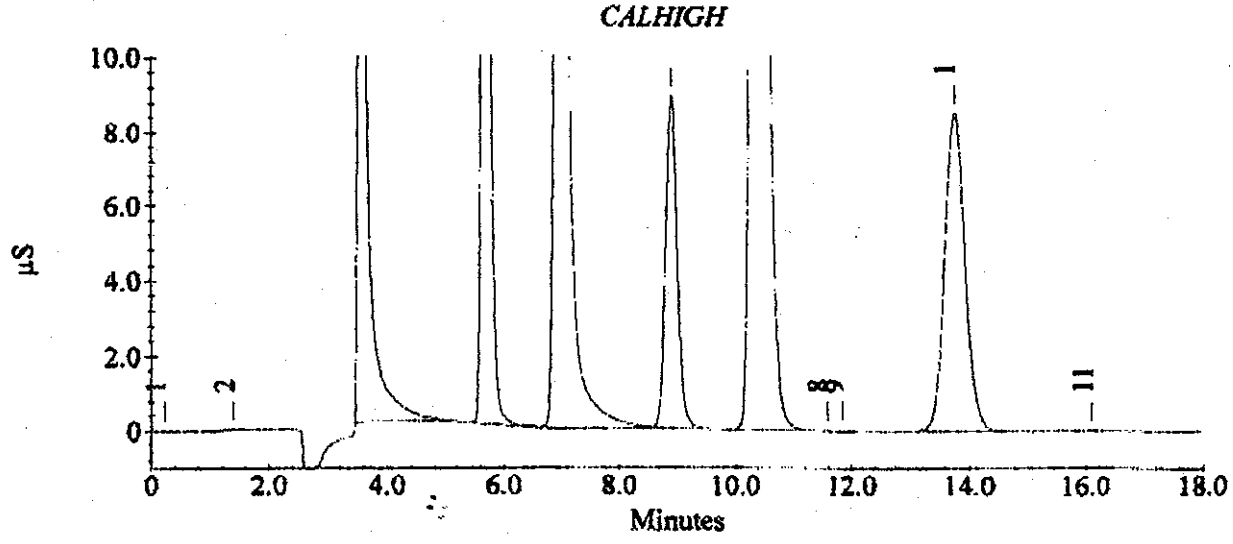
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\CALHIGH-7-27-01_033.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01high.met
Date Time Collected : 7/27/01 9:32:36 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.23	0.000	1108	219
2	Unknown 2	1.40	0.000	4758	205
3	FLUORIDE	3.57	8.154	2913370	339098
4	CHLORIDE	5.70	9.704	3122982	360627
5	NITRITE	7.00	10.065	5801465	454639
6	BROMIDE	8.90	9.830	1208616	88610
7	NITRATE	10.38	9.935	8277504	521870
8	Unknown 3	11.58	0.000	1286	285
9	Unknown 4	11.85	0.000	1378	190
10	SULFATE	13.75	9.577	1968878	84810



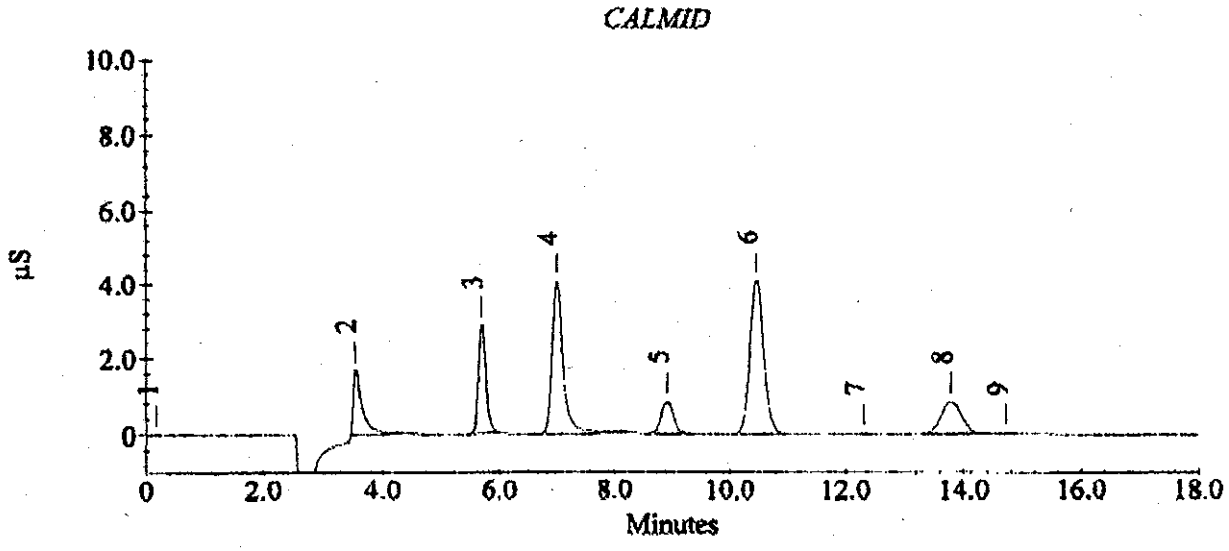
Sample Analysis Report

Sample Name : CALMID
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\CALMID-7-27-01_034.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01low.met
Date Time Collected : 7/27/01 9:52:38 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.18	0.000	1315	231
2	FLUORIDE	3.55	0.647	169852	16524
3	CHLORIDE	5.68	0.963	259298	28145
4	NITRITE	7.00	0.996	522754	40207
5	BROMIDE	8.92	1.018	114813	8125
6	NITRATE	10.47	1.026	666215	40488
7	Unknown 2	12.32	0.000	1691	239
8	SULFATE	13.78	1.060	195066	8274
9	Unknown 3	14.72	0.000	1793	123



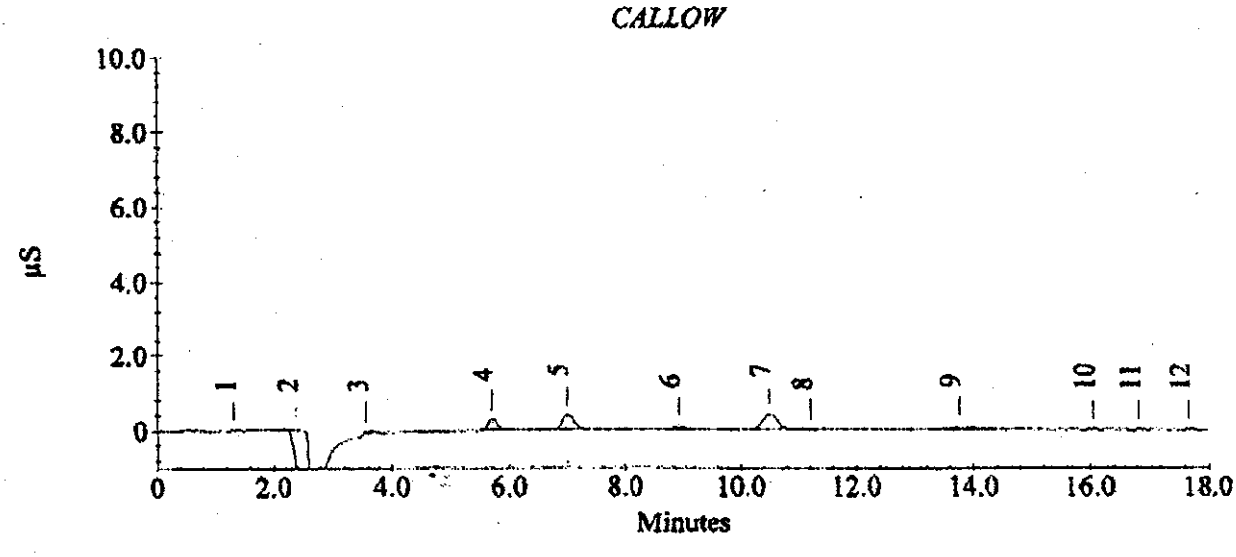
Sample Analysis Report

Sample Name : CALLOW
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\CALLOW-7-27-01_035.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01low.met
Date Time Collected : 7/27/01 10:12:41 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	1.32	0.000	1707	204
2	Unknown 2	2.38	0.000	261414	9408
3	FLUORIDE	3.57	0.189	4595	596
4	CHLORIDE	5.70	0.195	26213	2806
5	NITRITE	7.00	0.087	45415	3671
6	BROMIDE	8.92	0.147	10686	874
7	NITRATE	10.48	0.092	63320	3758
9	SULFATE	13.75	0.242	24572	995
10	Unknown 3	16.05	0.000	2007	249
11	Unknown 4	16.82	0.000	1498	215
12	Unknown 5	17.67	0.000	3078	291



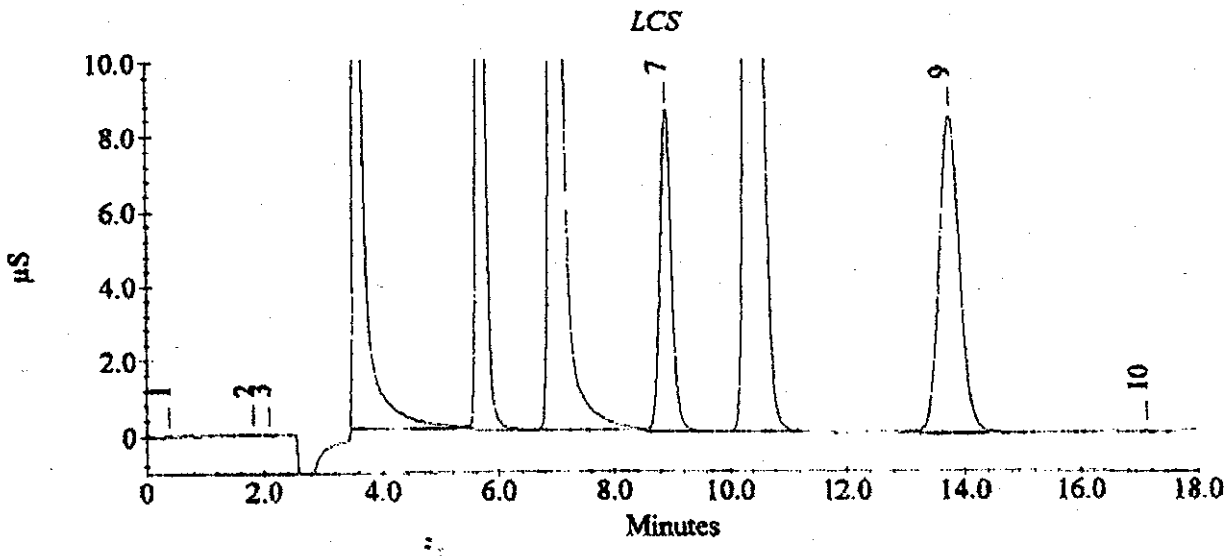
Sample Analysis Report

Sample Name : LCS
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\LCS-7-27-01_036.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01high.met
Date Time Collected : 7/27/01 10:32:40 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.38	0.000	1121	177
2	Unknown 2	1.82	0.000	2243	185
4	FLUORIDE	3.57	8.281	2960416	337915
5	CHLORIDE	5.68	9.267	2977004	329385
6	NITRITE	7.00	9.879	5693148	447651
7	BROMIDE	8.90	9.541	1172369	85348
8	NITRATE	10.40	9.293	7722273	489932
9	SULFATE	13.75	9.582	1969827	84223
10	Unknown 3	17.12	0.000	1336	125



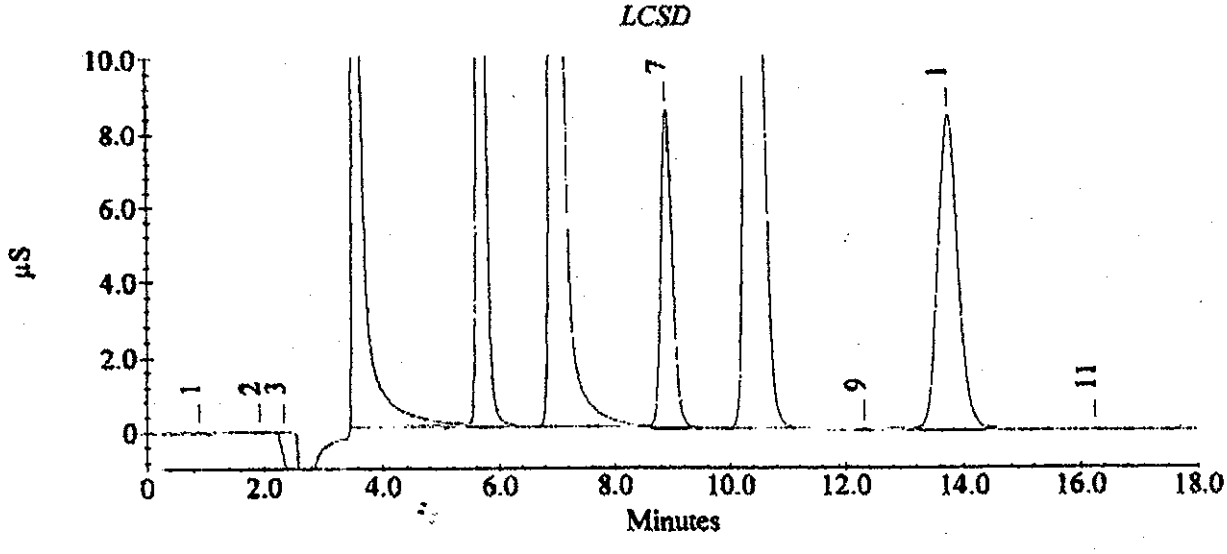
Sample Analysis Report

Sample Name : LCSD
Data File Name : C:\PEAKNET\DATA\SAMPLES\JULY 2001\LCSD-7-27-01_037.DXD

Method File Name : c:\peaknet\method\bfacmethod7-17-01high.met
Date Time Collected : 7/27/01 10:52:44 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.90	0.000	1691	202
2	Unknown 2	1.92	0.000	2348	174
3	Unknown 3	2.35	0.000	266676	8033
4	FLUORIDE	3.57	8.343	2983298	337720
5	CHLORIDE	5.68	9.246	2970038	329297
6	NITRITE	7.00	9.856	5680080	447815
7	BROMIDE	8.90	9.450	1160939	84906
8	NITRATE	10.40	9.283	7713696	489631
9	Unknown 4	12.32	0.000	1509	167
10	SULFATE	13.73	9.551	1963416	83799
11	Unknown 5	16.23	0.000	1140	227



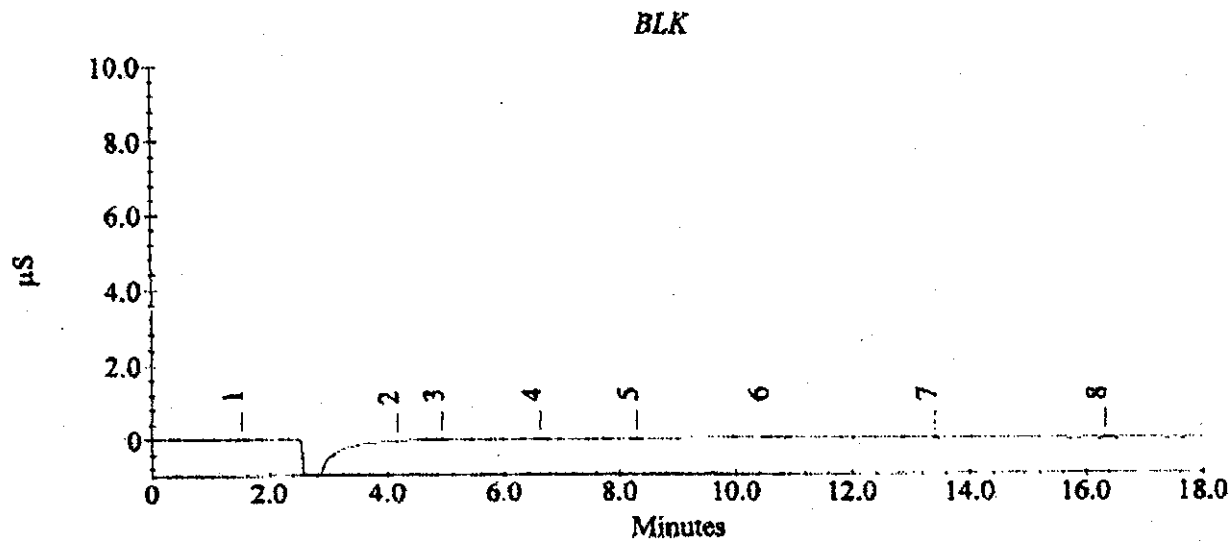
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\SAMPLES\AUGUST 2001\BLK-8-1-01_001.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/1/01 5:02:56 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	1.53	0.000	1354	223
3	Unknown 2	4.93	0.000	2235	163
4	Unknown 3	6.63	0.000	1155	170
6	NITRATE	10.55	-0.018	1175	160
7	SULFATE	13.42	0.050	1115	214
8	Unknown 4	16.33	0.000	2696	227



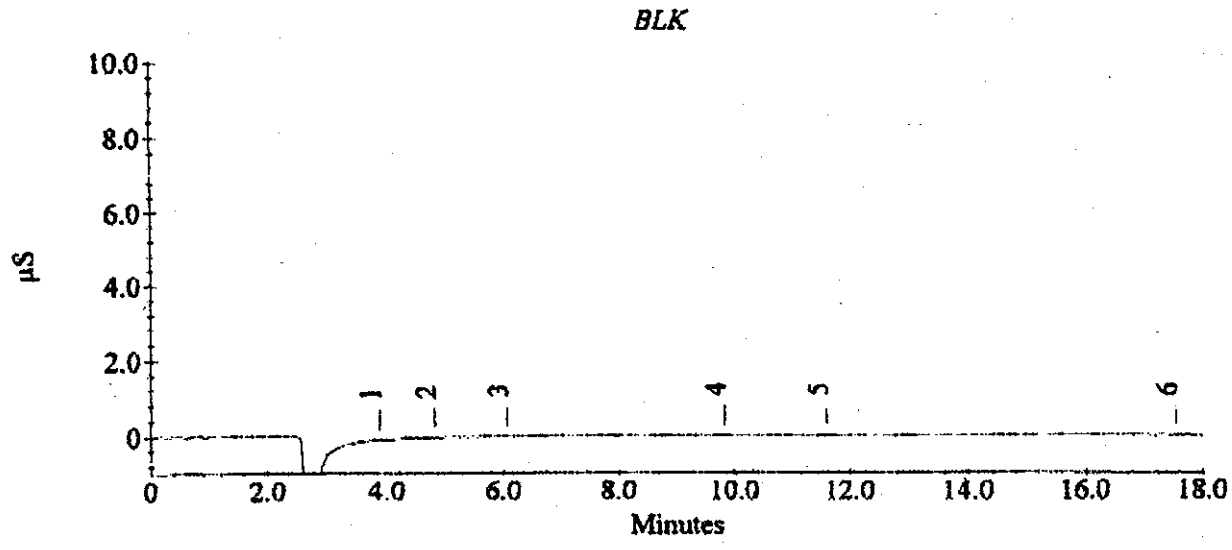
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\SAMPLES\AUGUST 2001\BLK-8-1-01_014.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/1/01 9:27:04 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
2	Unknown 1	4.82	0.000	4191	153
4	Unknown 2	9.82	0.000	2027	243
5	Unknown 3	11.60	0.000	2199	196
6	Unknown 4	17.55	0.000	2943	210



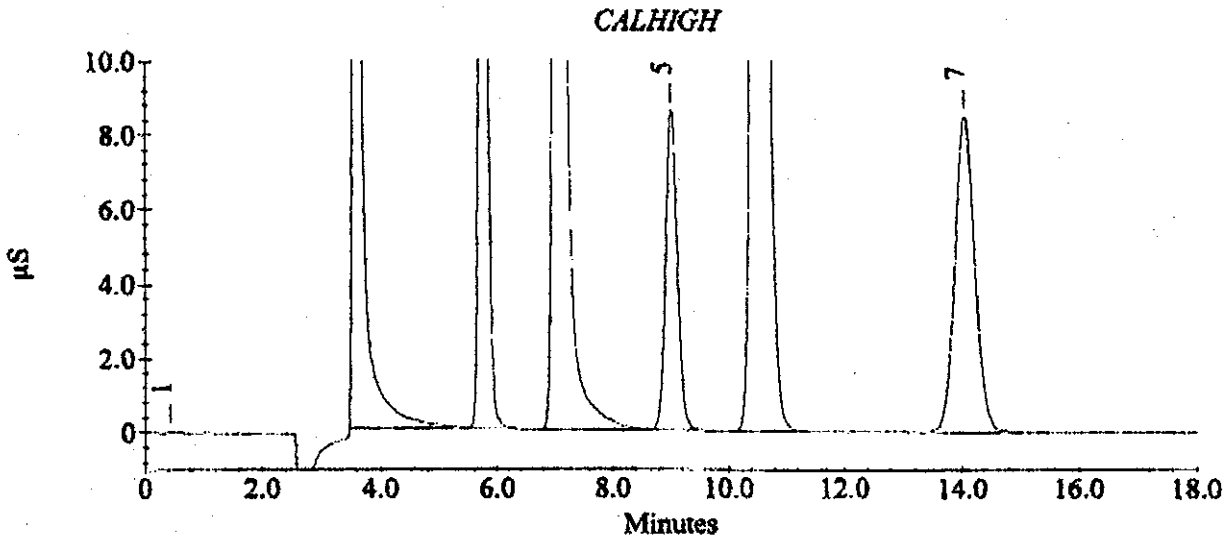
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\SAMPLES\AUGUST 2001\CALHIGH-8-1-01_015.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/1/01 9:47:21 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	Unknown 1	0.43	0.000	1005	189
2	FLUORIDE	3.58	9.369	3423284	378750
3	CHLORIDE	5.75	9.297	3052685	337884
4	NITRITE	7.08	9.876	5770525	453348
5	BROMIDE	9.00	9.292	1170562	85400
6	NITRATE	10.52	9.352	7953486	504126
7	SULFATE	14.03	9.429	1979822	84511



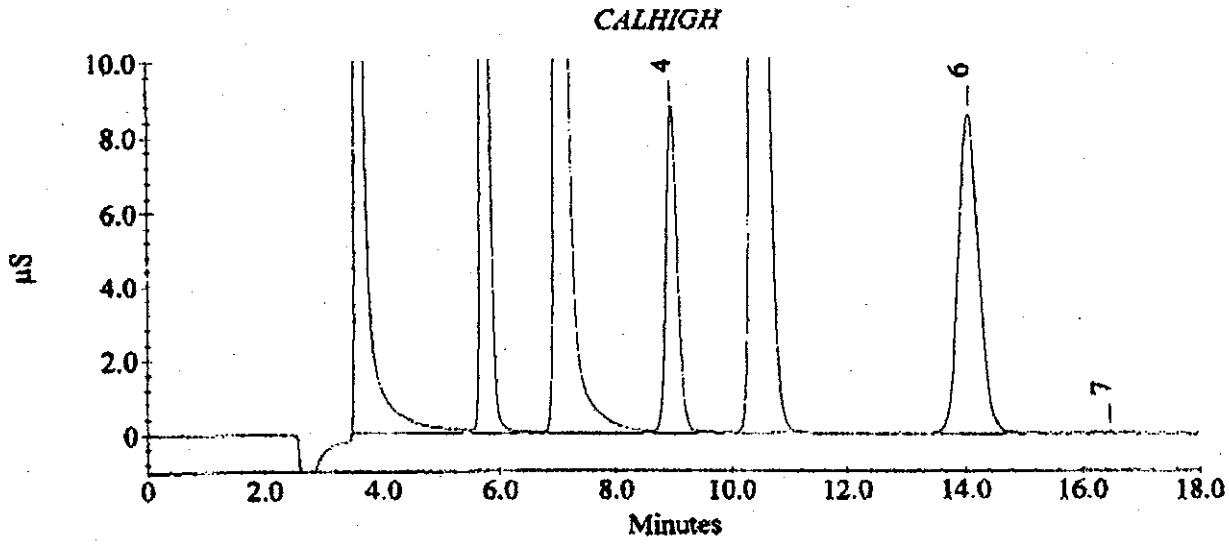
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\SAMPLES\AUGUST 2001\CALHIGH-8-1-01_002.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/1/01 5:23:17 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.58	9.518	3478926	377367
2	CHLORIDE	5.75	9.363	3075021	349202
3	NITRITE	7.07	9.892	5779487	454767
4	BROMIDE	8.97	9.390	1183087	85911
5	NITRATE	10.47	9.345	7947818	501876
6	SULFATE	14.07	9.426	1979142	84417
7	Unknown 1	16.47	0.000	1234	188



Analytical Services, Inc.

TOC
EPA Method 415.2 / 9060

Date 09.07.01
Time 2100

Batch 70378, 70379
Analyst DJ

Pos. #	Sample ID
1	30.0 ppm
2	〃
3	〃
4	Wash
5	1.00 ppm STD
6	2.50
7	5.00
8	10.0
9	20.0
10	40.0
11	50.0
12	Wash
13	BLK
14	WP-78 v,Known
15	〃 〃
16	〃 〃
17	〃 v,Known/MS
18	〃 2 MSD
19	LCS
20	LCSD
21	wash
22	WP72 Known
23	〃 〃
24	〃 〃
25	FO IDA1
26	〃 2
27	〃 3
28	〃 4
29	Wash ~~MDL2~~
30	FO MDL 2 2

Pos. #	Sample ID
31	MDL3
32	〃 4
33	〃 5
34	〃 6
35	〃 7
36	MDL 1
37	~~ff~~ CALCHK
38	141358-1 Acuma
39	〃 〃
40	〃 〃
41	〃 〃
42	141358-2
43	〃 〃
44	〃 〃
45	〃 〃
46	134358-3
47	〃 〃
48	〃 〃
49	〃 〃
50	141358-4
51	〃 〃
52	〃 〃
53	〃 〃
54	~~141358~~ 141503-1
55	〃 Acuma
56	〃 〃
57	〃 〃
58	141503-2
59	〃 〃
60	〃 〃

Pos. #	Sample ID
61	141503-2
62	141503-3
63	〃
64	〃
65	〃
66	141503-4
67	〃
68	〃
69	〃
70	141503-5
71	〃
72	〃
73	〃
74	141503-6
75	〃
76	〃
77	〃
78	141503-7
79	〃
80	〃
81	〃
82	141545-1 Acuma
83	〃 〃
84	〃 〃
85	〃 〃
86	141545-2
87	〃 〃
88	〃 〃
89	〃 〃
90	~~CALCHK~~ 141545-3

Pos. #	Sample ID
91	141545-3
92	〃 〃
93	〃 〃
94	CALCHK
95	Wash
96	BLK
97	141440-1 ~~Dup~~
98	〃 DUP
99	141440-1MS
100	〃 MSD
101	LCS
102	LCSD
103	Wash
104	141440-4
105	141480-2 ~~Dup~~ Tot
106	〃 -3 25 Lig
107	141355-1 Sing
108	141425-1 ~~Dup~~
109	〃 -2
110	〃 -3
111	〃 -4
112	〃 -5
113	〃 -6
114	〃 -6DUP
115	141518-1 ~~Dup~~
116	141470-1 ~~Dup~~ Tot
117	〃 -2
118	〃 -3
119	〃 -4
120	CALCHK

1 30.0 ppm Std
2 141503-2
3 〃
4 〃
5 〃
6 141503-3
7 〃
8 〃
9 〃
10 141503-7
11 〃
12 〃
13 〃
14 CALCHK

Analytical Services, Inc.

TOC

EPA Method 415.2 / 9060

Date 08-07-01
Time 2100

Analyst 70378, 70379
Batch # 05

TOC Calibration Std. 70378 : TV = 50.0ppm
10.0 mls of TOC Calibration Stock Std. 38 (1000 ppm) diluted to 200.0 mls with organic free DI H_2O.

TOC Intermediate Std. 70378 : TV = 100.0 ppm
20.0 mls of TOC Calibration Stock Std. 38 (1000 ppm) diluted to 200.0 mls with organic free DI H_2O.

70378 Multipoint Calibration Stds.

0.01 => blank 08.07.01

True Value (ppm)	Prep of Calibration Curve: mls of TOC Int. Std. 70378 diluted to 100.0 mls with organic free DI H_2O.
~~0.50~~	~~0.5~~
~~1.25~~	~~1.25~~ 08.07.01
~~1.00~~	~~1.00~~
2.5	2.5
5.0	5.0
10.0	10.0
20.0	20.0
30.0	30.0
40.0	40.0

_____ Calibration Check Stds.

True Value (ppm)	Prep of Calibration Curve: mls of TOC Int. Std._____ diluted to 100.0 mls with organic free DI H_2O.
1.0	1.0
5.0	5.0
15.0	15.0
25.0	25.0
30.0	30.0
40.0	40.0

70378 LCS / LCSD: TV = 20.0 ppm
2.0 mls TOC Spiking Stock Std. 0094 (1000 ppm) diluted to 100.0 mls with organic free DI H_2O.

70378 MS /MSD: TV of spike = 20.0 ppm
2.00 mls TOC Spiking Stock Std. 0094 (1000 ppm) diluted to 100.0 mls with ASI sample # WP78 (70378) 14144O-1 (70379)

Phosphoric Acid 455
Sodium Persulfate 463

EDA prep: 2.00ml TOC Spiking Stock (0094) to 100ml w/organic free DI H_2O TV: 20.0ppm

MDL prep: 1.00 ml TOC Spiking Stock (0094) to 100 ml w/organic Free DI H_2O. TV=2.00ppm

Q.C. Information for Batch # 70378 Printed: 08/08/2001 19:05:49

Total Organic Carbon
Analysis Method : EPA 9060 Matrix : Aqueous
Blank result : < 1.0000

Laboratory Control Results

		Spike Amt.	% Recovery	RPD
L C Result :	20.0000	20.0000	100	1
L C Duplicate Result :	20.1000	20.0000	101	
Acceptance Limits :	% Recovery : 80 - 120		RPD : 0 - 20	

Matrix Spike Results

	Result	Sample Result	Spike Amt.	% Recovery	RPD
MS :	46.9000	28.0000	20.0000	95	1
MSD:	46.8000	28.0000	20.0000	94	
Acceptance Limits :	% Recovery : 89 - 125			RPD : 0 - 11	

Sample Duplicate Results (unspiked)

	First Sample	Second Sample
Result :	28.0000	61.2000
Duplicate Result :	27.8000	60.6000
Relative Percent Diff.	1 %	1 %
Acceptance Limits :	RPD : 0 - 11	

Total Organic Carbon
Analysis Method : SM 5310 C Matrix : Aqueous
Blank result : < 0.5000

Laboratory Control Results

		Spike Amt.	% Recovery	RPD
L C Result :	20.0000	20.0000	100	1
L C Duplicate Result :	20.1000	20.0000	101	
Acceptance Limits :	% Recovery : 80 - 120		RPD : 0 - 20	

Matrix Spike Results

	Result	Sample Result	Spike Amt.	% Recovery	RPD
MS :	46.9000	28.0000	20.0000	95	1
MSD:	46.8000	28.0000	20.0000	94	
Acceptance Limits :	% Recovery : 89 - 125			RPD : 0 - 11	

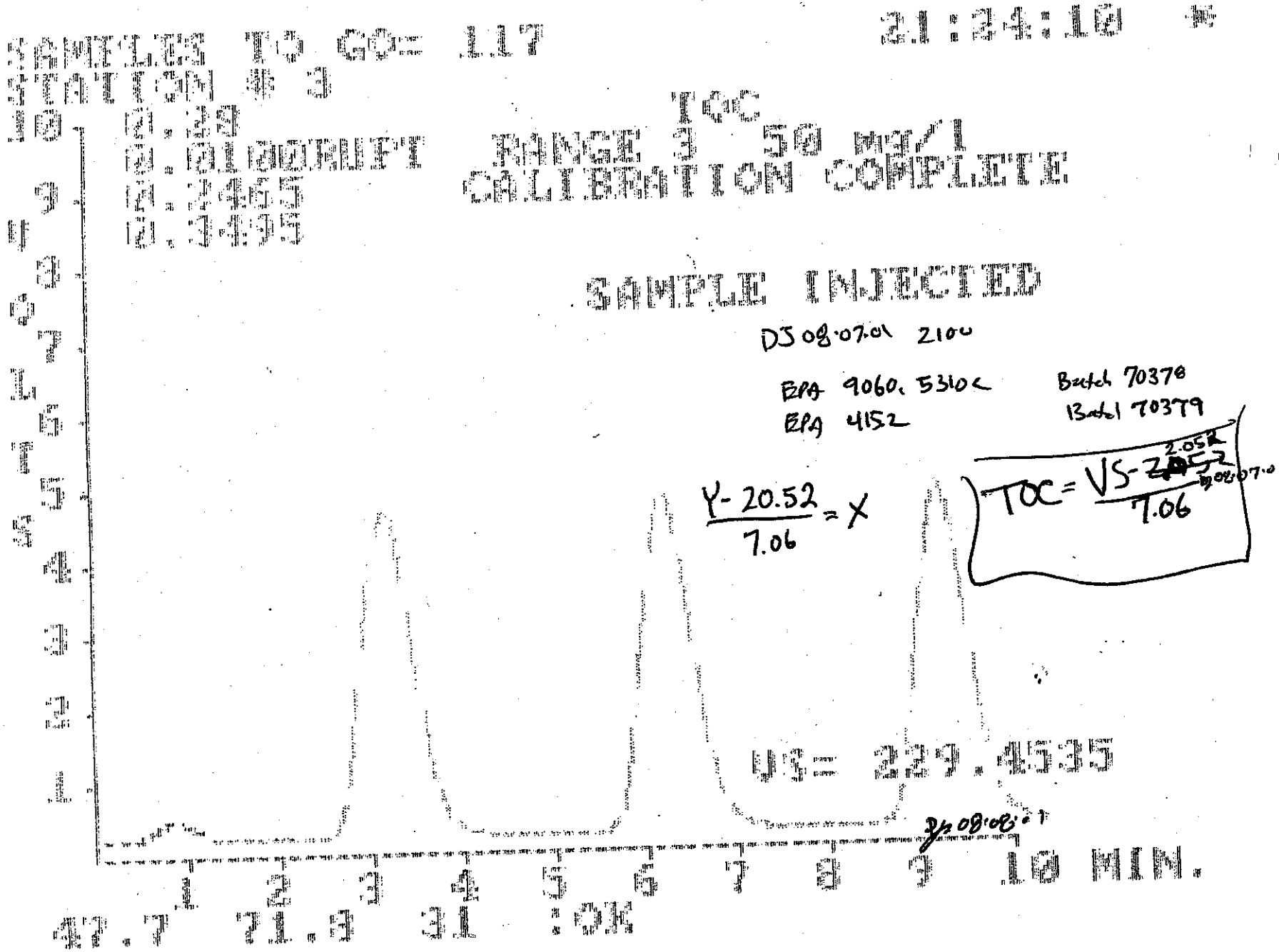
Sample Duplicate Results (unspiked)

	First Sample	Second Sample
Result :	28.0000	61.2000
Duplicate Result :	27.8000	60.6000
Relative Percent Diff.	1 %	1 %
Acceptance Limits :	RPD : 0 - 11	

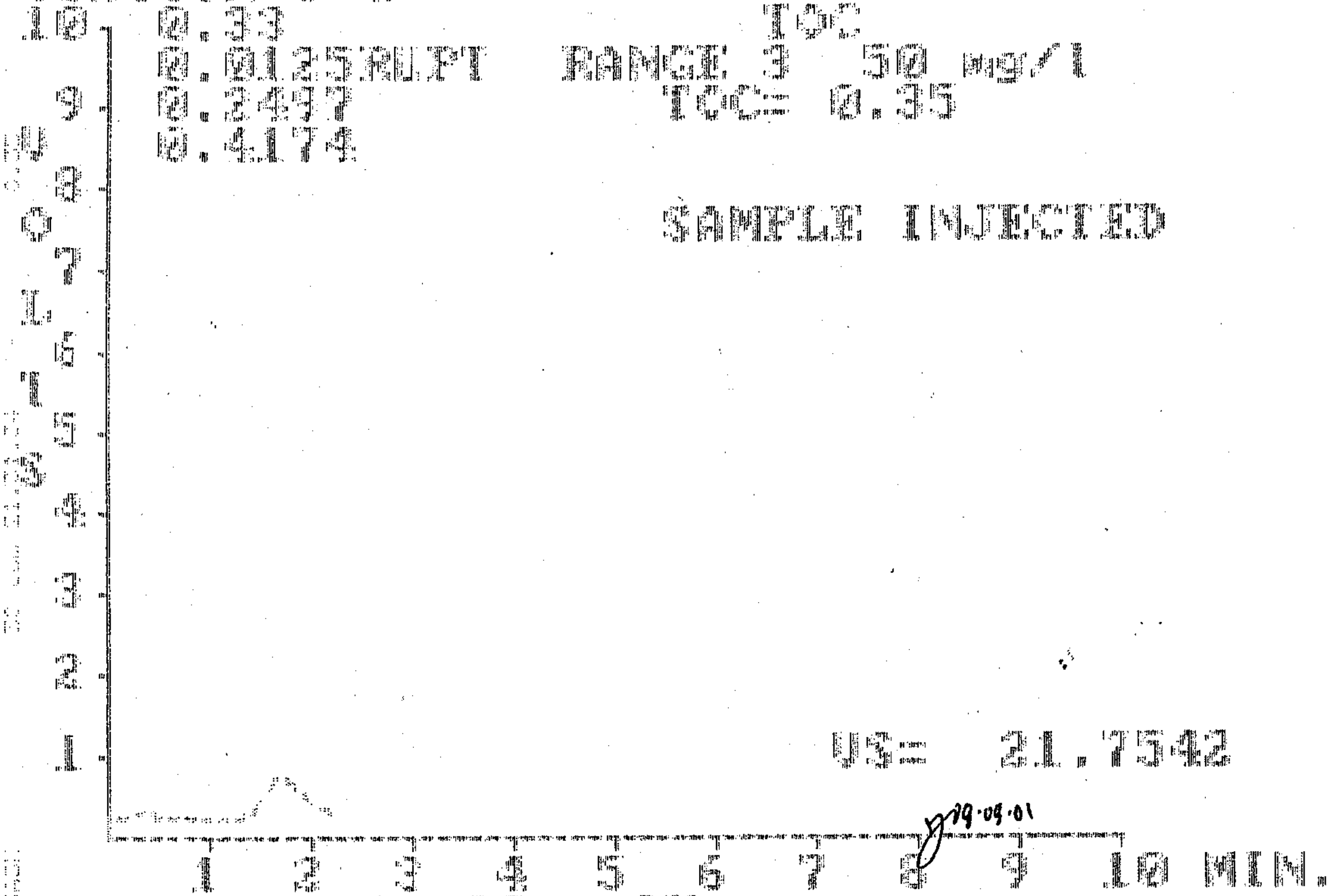
Q.C. Information for Batch # 70378 Printed: 08/08/2001 19:05:49

Sample Batch Information

Sample ID	Prep Date	Time	By	Prep Notes	Abb	Anal Date	Time	By	Inst #
70378BLK	/ /					08/07/2001	2100	DJ	ASTRO
70378LCS	/ /					08/07/2001	2100	DJ	ASTRO
70378LCSD	/ /					08/07/2001	2100	DJ	ASTRO
70378CALCHK	/ /					08/07/2001	2100	DJ	ASTRO
WP-78MS	/ /					08/07/2001	2100	DJ	ASTRO
WP-78MSD	/ /					08/07/2001	2100	DJ	ASTRO
WP-78	/ /					08/07/2001	2100	DJ	ASTRO
WP-78DUP	/ /					08/07/2001	2100	DJ	ASTRO
WP-72	/ /					08/07/2001	2100	DJ	ASTRO
WP-72DUP	/ /					08/07/2001	2100	DJ	ASTRO
141358-1	/ /					08/07/2001	2100	DJ	ASTRO
141358-2	/ /					08/07/2001	2100	DJ	ASTRO
141358-3	/ /					08/07/2001	2100	DJ	ASTRO
141358-4	/ /					08/07/2001	2100	DJ	ASTRO
141503-1	/ /					08/07/2001	2100	DJ	ASTRO
141503-2	/ /					08/07/2001	2100	DJ	ASTRO
141503-3	/ /					08/07/2001	2100	DJ	ASTRO
141503-4	/ /					08/07/2001	2100	DJ	ASTRO
141503-5	/ /					08/07/2001	2100	DJ	ASTRO
141503-6	/ /					08/07/2001	2100	DJ	ASTRO
141503-7	/ /					08/07/2001	2100	DJ	ASTRO
141503-8	/ /					08/07/2001	2100	DJ	ASTRO
141545-1	/ /					08/07/2001	2100	DJ	ASTRO
141545-2	/ /					08/07/2001	2100	DJ	ASTRO
141545-3	/ /					08/07/2001	2100	DJ	ASTRO


SAMPLES TO GO: 117
21:34:18
SAMPLE # 3
12.289
12.280RUPT
12.2465
12.3455
TOC RANGE 30 MG/L
CALIBRATION COMPLETE
SAMPLE INJECTED
DJ 08.07.01 2100
EPA 9060, 5310C
EPA 4152
Batch 70378
Batch 70379
Y - 20.52 / 7.06 = X
TOC = VS - 2.052 / 7.06
DJ 08.07.01
VS = 229.4535
DJ 08.08.01
10 MIN.

SAMPLES TO GO= 117 21:31:34
STATION # 4



47.3 70.9 30 :OK

SAMPLE INJECTED
TOC 0.49
RANGE TOC
1.41 ppm
8-22-01

SAMPLES TO GO= 115

STATION # 6

TOC

RANGE 3 50 mg/l

TOC= 1.43

SAMPLE INJECTED

2.57 ppm

309-09-01

308-22-01

SAMPLES TO GO= 114

STATION # 7

TOC

RANGE 3 50 mg/l

TOC= 3.12

SAMPLE INJECTED

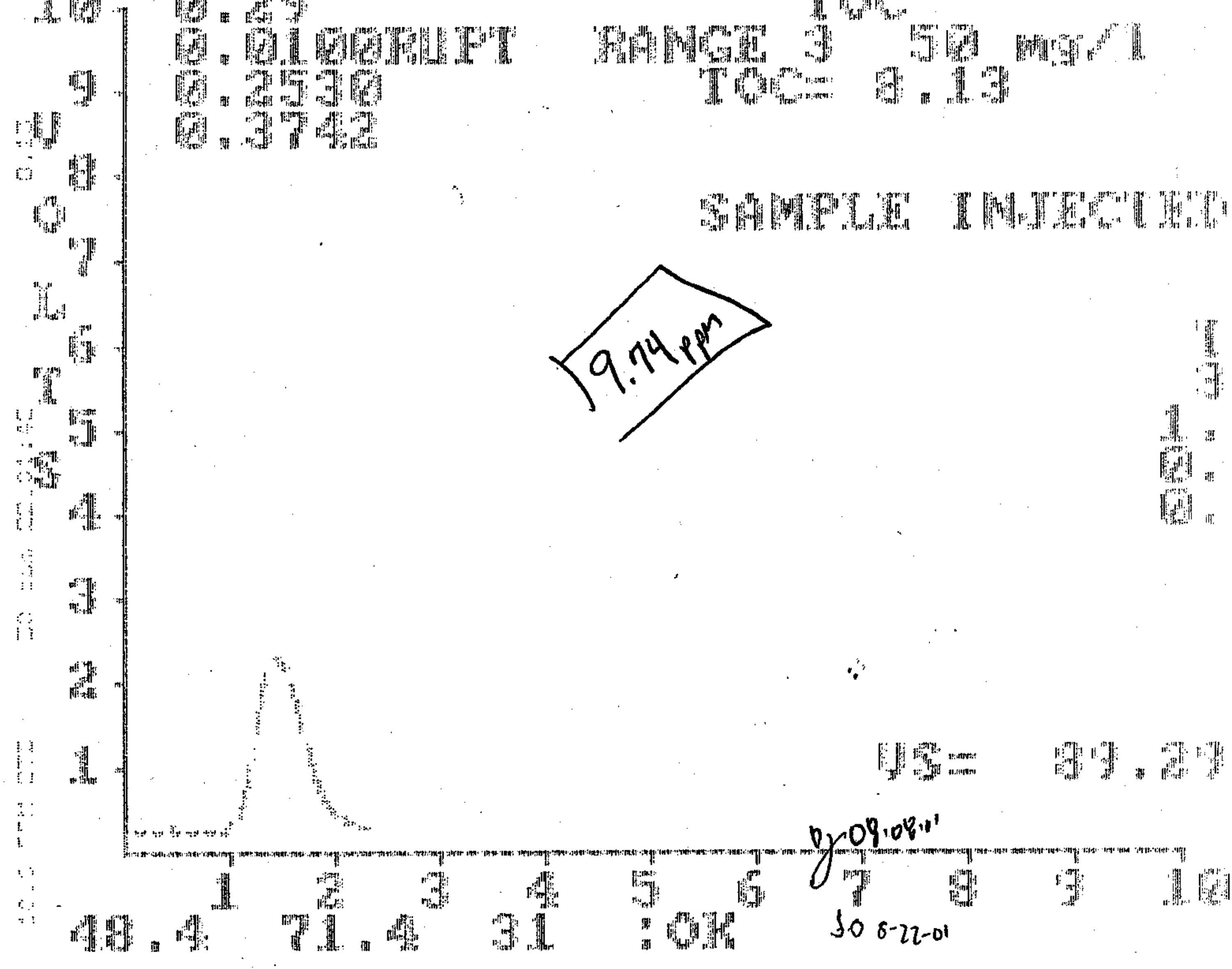
4.60 ppm

US= 52.36

J 08-08-01

J 08-22-01

SAMPLES TO GO= 113 22:01
STATION # 8
10 0.29 TOC
0.0100RUPT RANGE 3 50 mg/l
0.2530 TOC= 8.13
0.3742



MIN.

SAMPLES TO GO= 112 22:09

STATION # 9

TOC

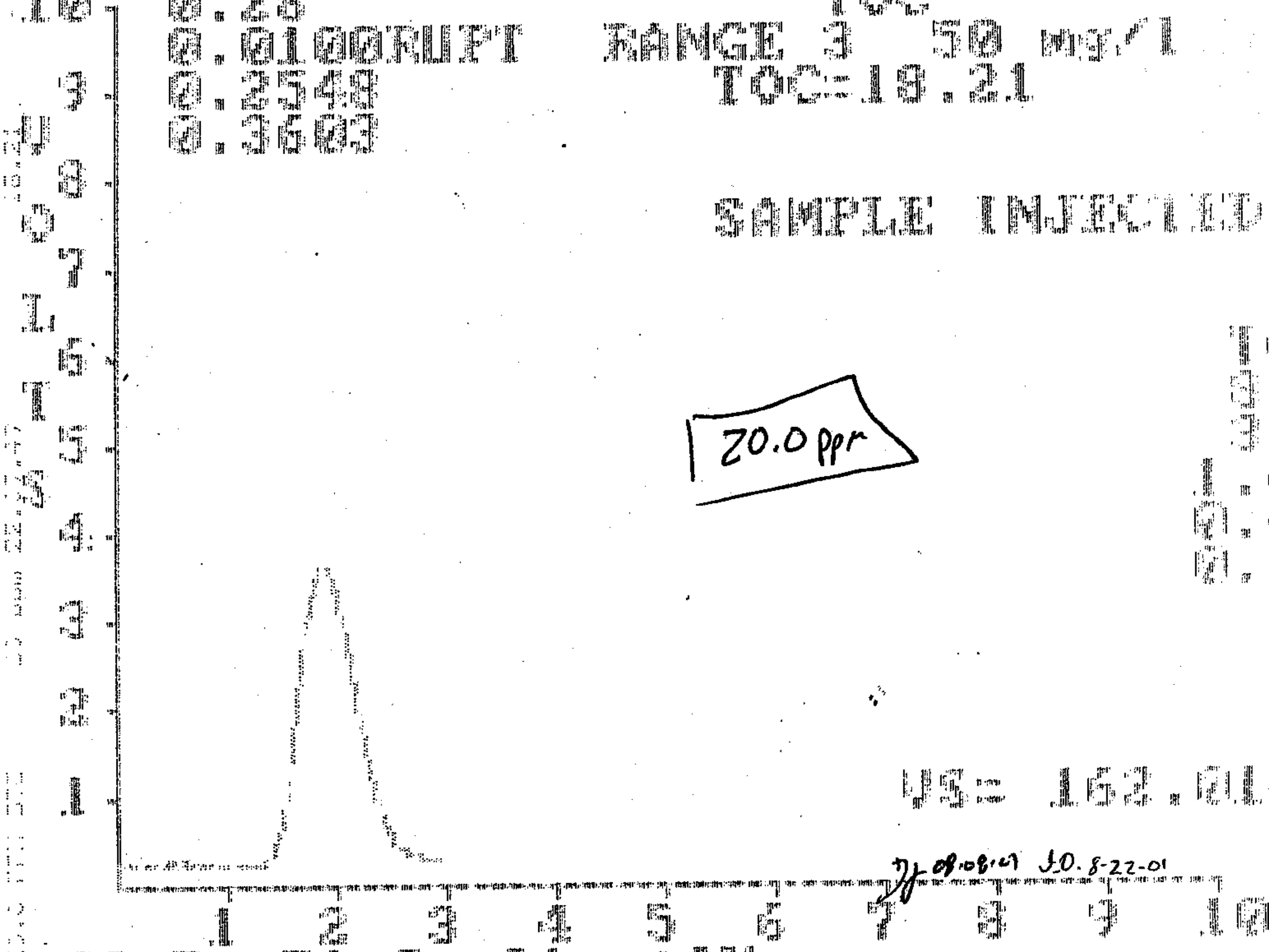
0.28

0.0100RUPT RANGE 3 50 mg/l

0.2548 TOC=18.21

0.3603

SAMPLE INJECTED



20.0 ppm

DJ 08-08-01 J.O. 8-22-01

US= 162.01

48.7 71.0 31 :OK

SAMPLES TO GO= 111

STATION # 10

10:20:10

TOC

RANGE 3.50 mg/l

TOC=39.15

SAMPLE INJECTED

40.4 hr

10.8-22-01

US= 385.75

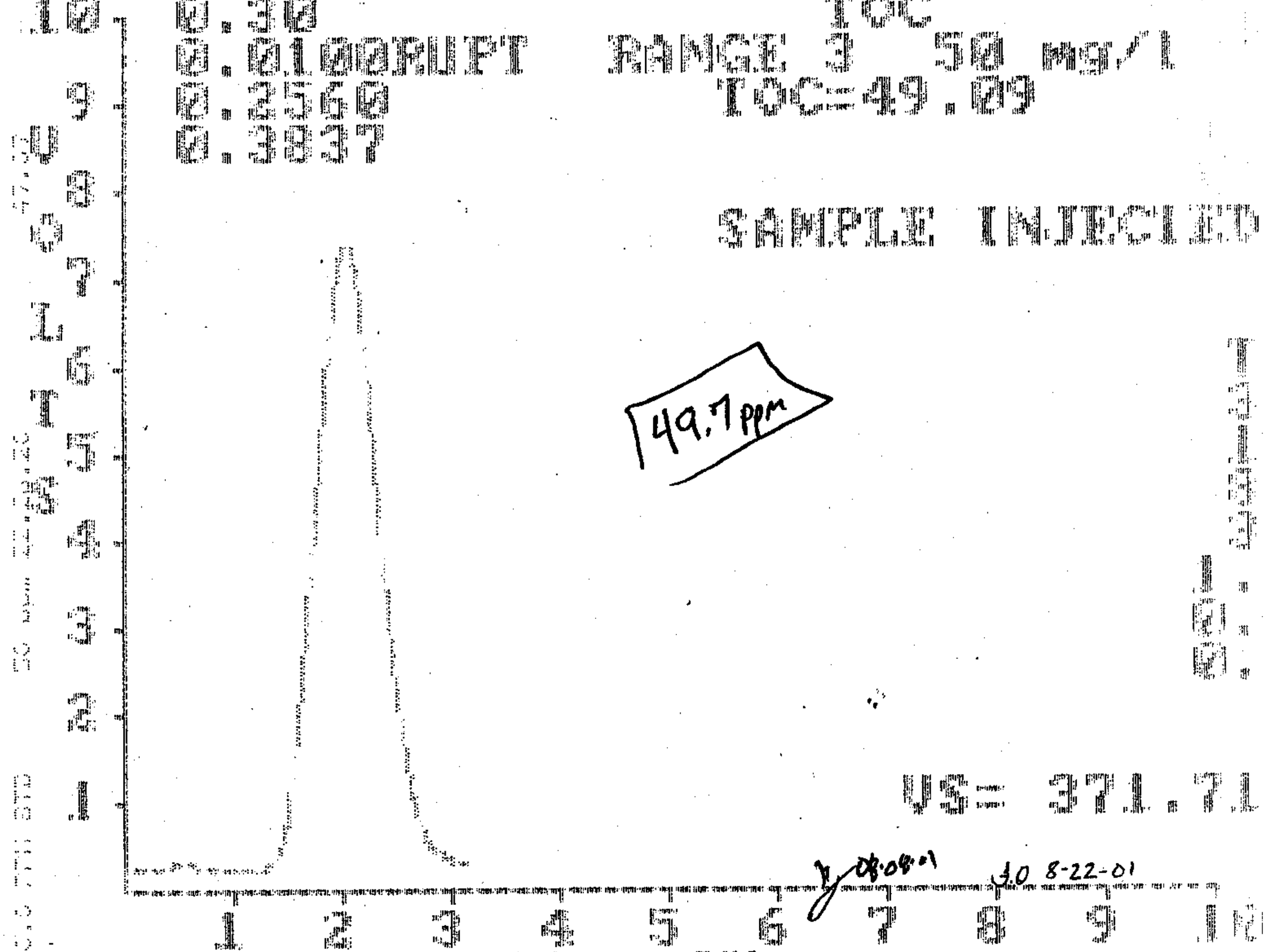
02

SAMPLES TO GO= 110 22:25
STATION # 11

TOC

0.30
0.0100RUFT RANGE 3 50 mg/l
0.2560 TOC=49.09
0.3837

SAMPLE INJECTED



49.7 ppm

VS= 371.71

08-08-01 J.O 8-22-01

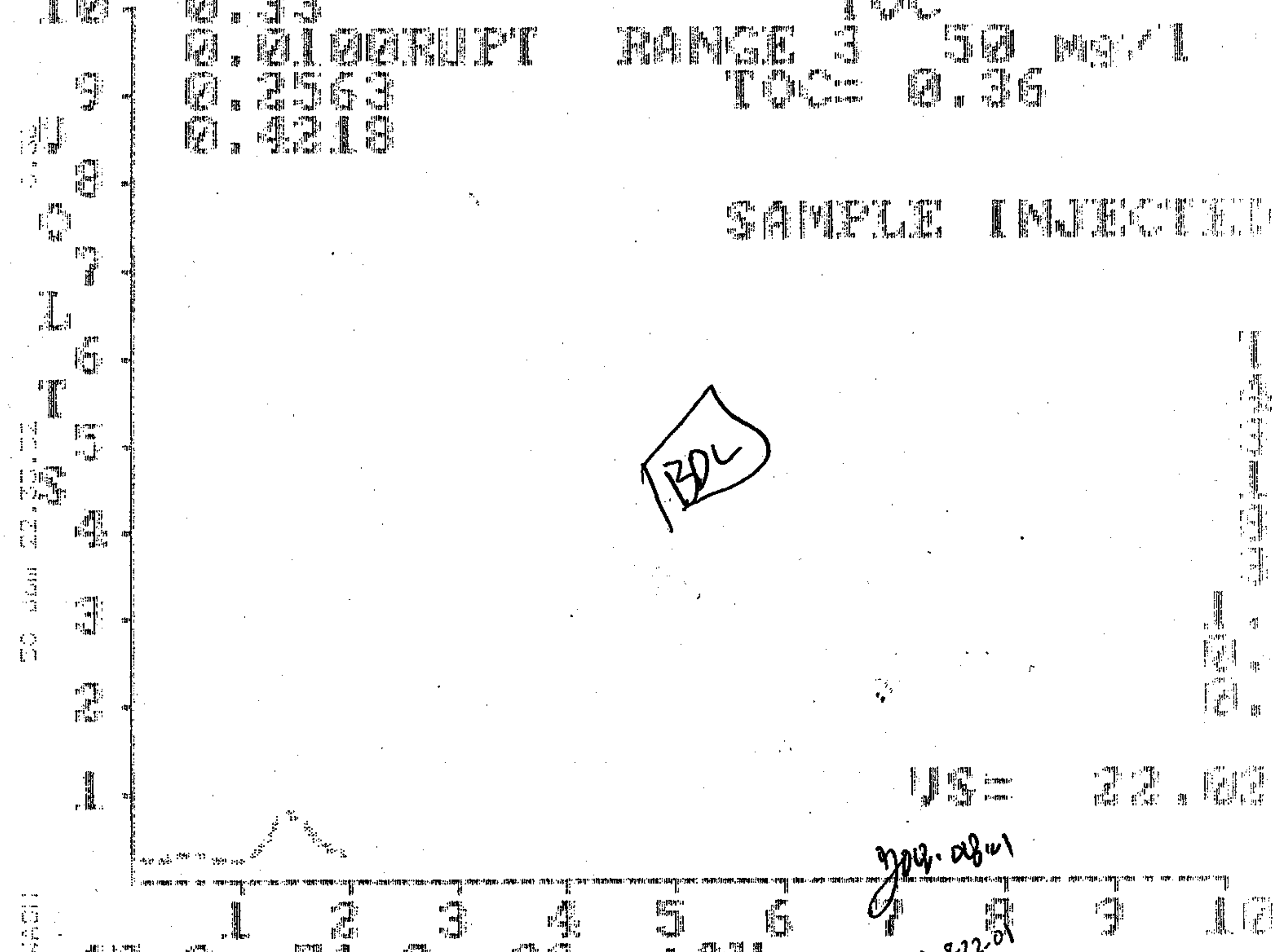
MIN.

49.1 70.8 31 :OK

SAMPLES TO GO= 109 22:33
STATION # 12

TOC
0.33
0.0100RUPT RANGE 3 50 mg/l
0.2563 TOC= 0.36
0.4218

SAMPLE INJECTED



47.3 71.3 32 :OK

SAMPLE INJECTED
BDL
10/9/01 10 5-22-01

SAMPLES TO GO= 107

STATION # 14

12:30

0.0100RUPT

0.3536

0.3737

RANGE TOC

TOC=26.56

SAMPLE INJECTED

28 ppm

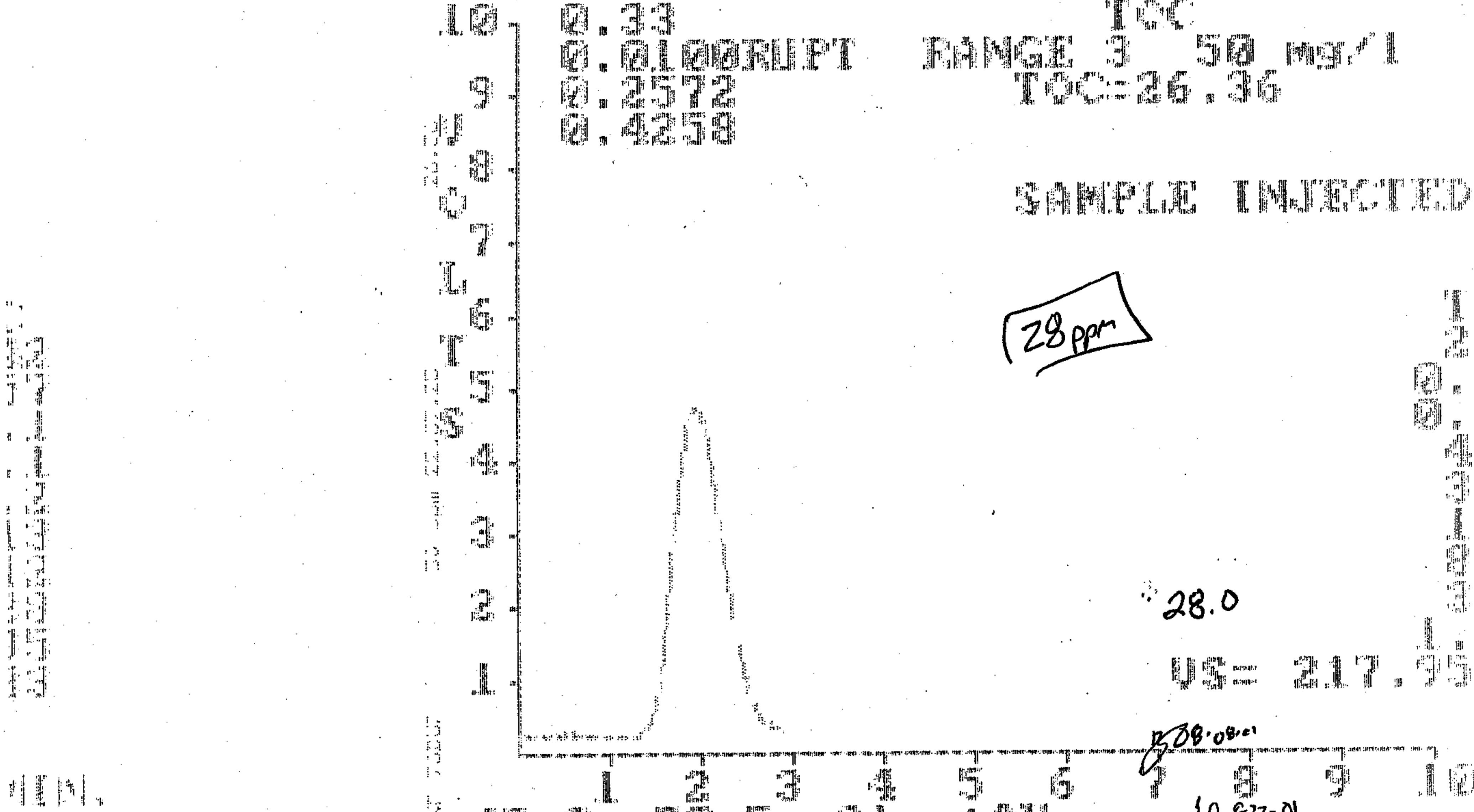
28.2

US= 219.

TDB-0901

30 8-22-0

SAMPLES TO GO= 106 22:57
STATION # 15



47.0 70.5 31 :OK

SAMPLE INJECTED
TOC=26.16
RANGE: 3
28 PPM
27.8 PPM
JD 8-22-01
JD 8-24-01

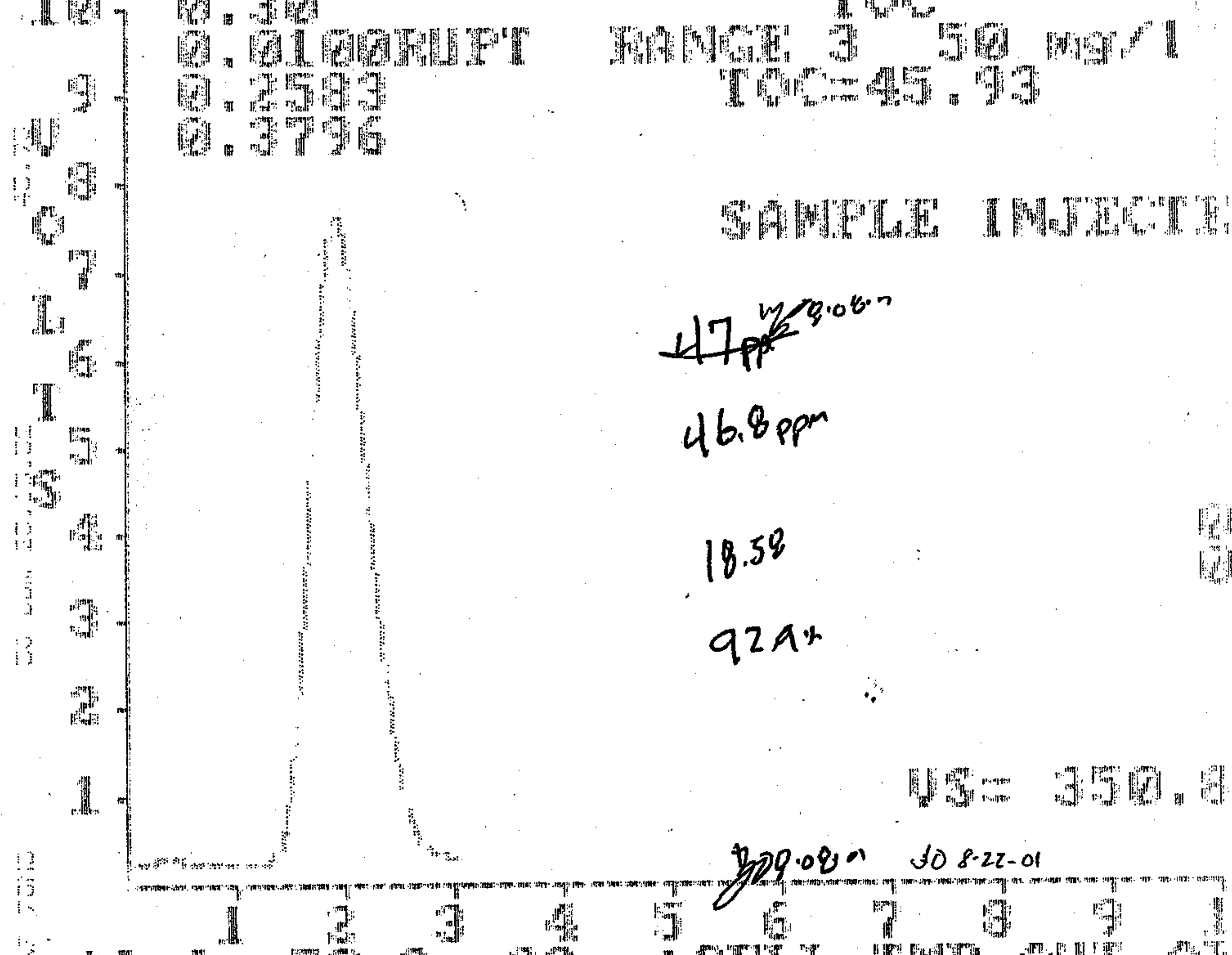
SAMPLES TO GO= 104 23:1

STATION # 17

TOC

0.30
0.0100RUPT RANGE 3 50 mg/l
0.2583 TOC=45.93
0.3796

SAMPLE INJECTED



~~47ppm~~ 8-08-01

46.8 ppm

18.58

92 Ax

VS= 350.8

9-08-01 JO 8-22-01

46.6 70.9 32 :CELL TMP OUT OF

VEN.

SAMPLE INJECTION # 18

RANGE TOC
TOC=46.10 ppm

46.9 ppm

93.1%

10. 8-22-01

SAMPLES TO GO: 102

STATION # 19

08:21

08:21 RUPT

08:22

RANGE 10
TOC 10.19 mg/l

SAMPLE INJECTED

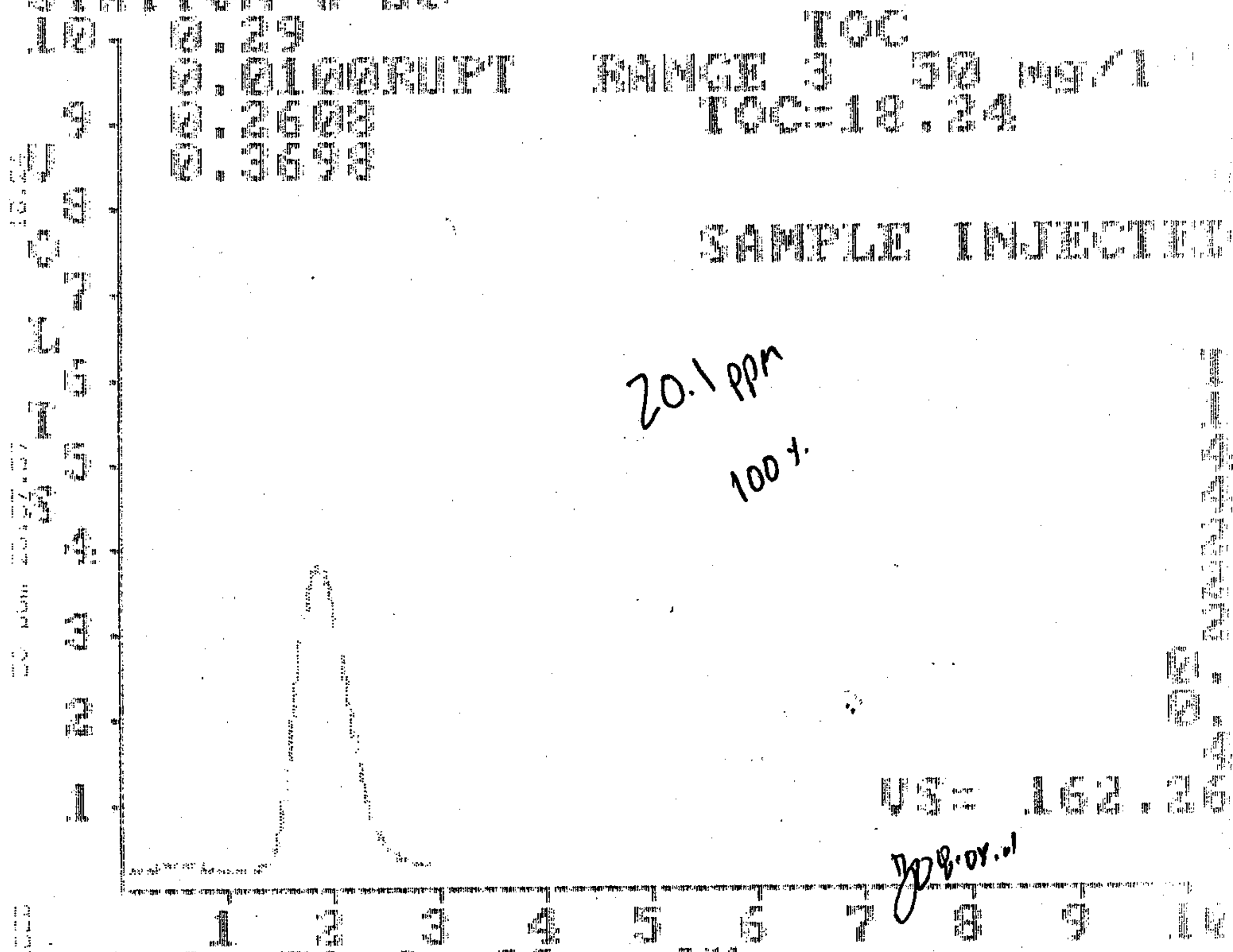
20 ppm

10%

8-22-01

SAMPLES TO GO= 101 23:3

STATION # 20



47.3 71.4 32 :OK

8-22-01

SAMPLES TO GO= 100

STATION # 21

10 0.34

0.0100RUFT

0.2610

0.4320

RANGE IOC

IOC= 0.32 MG/L

SAMPLE INJECTED

BDL

USE 13.0

1 2 3 4 5 6 7 8 9 10

87.7 70.0 32.0K

J.O 8-22-01

SAMPLE INJECTED

61.2ppm

JO. 8-22-01

SAMPLES TO GO= 98

ION #23

RUPT RANGE TOC

TOC=50.32

SAMPLE INJEC

60.6 ppm

US= 449.

8-22-01

8-22-01

1:39

SAMPLES TO GO= 97

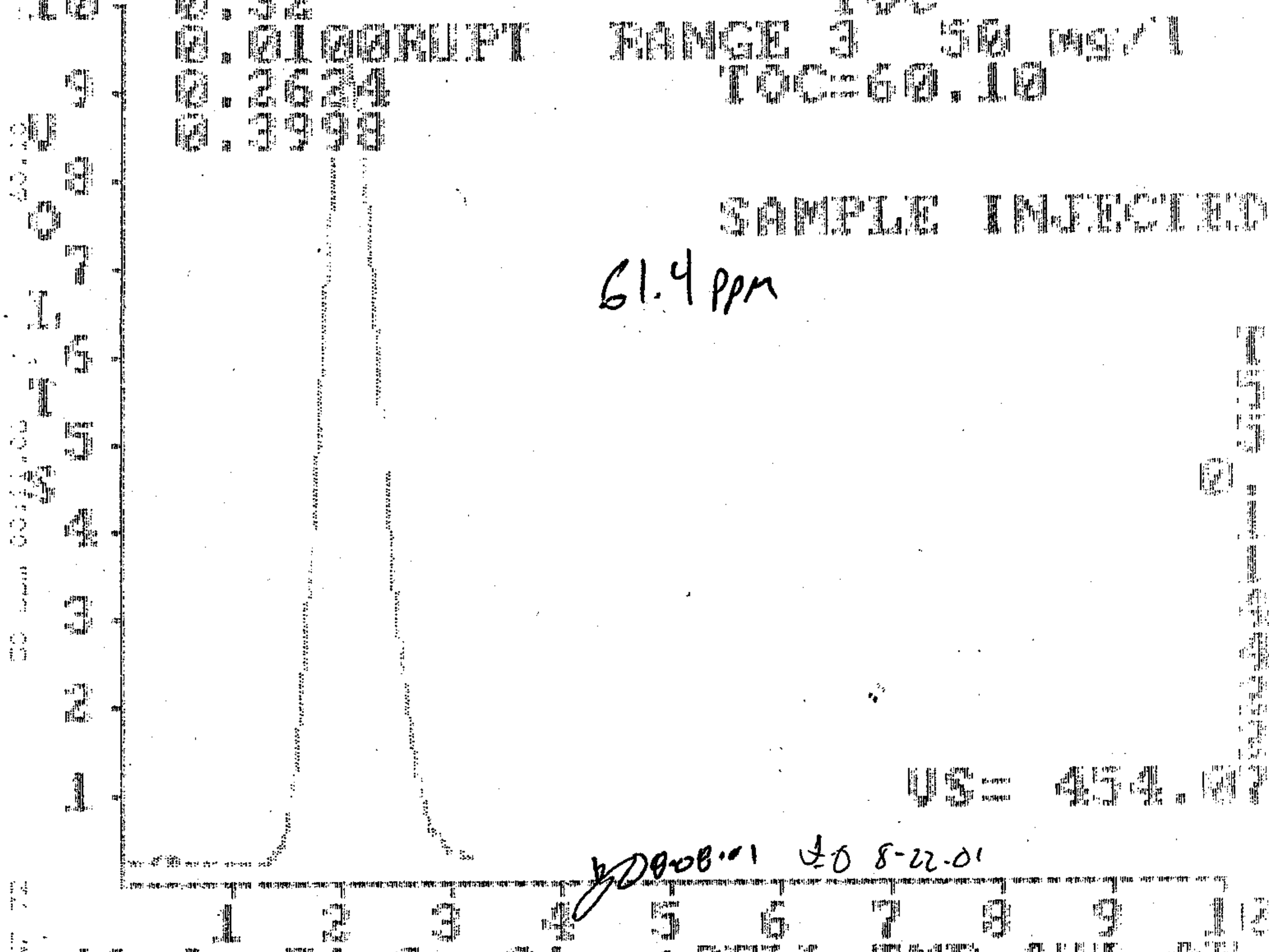
STATION # 24

TOC

.10 0.32
0.0100RUPT RANGE 3 50 mg/l
0.2624 TOC=60.10
0.3999

SAMPLE INJECTED

61.4 ppm



US= 454.8

8-08-01 8-22-01

3 MIN.

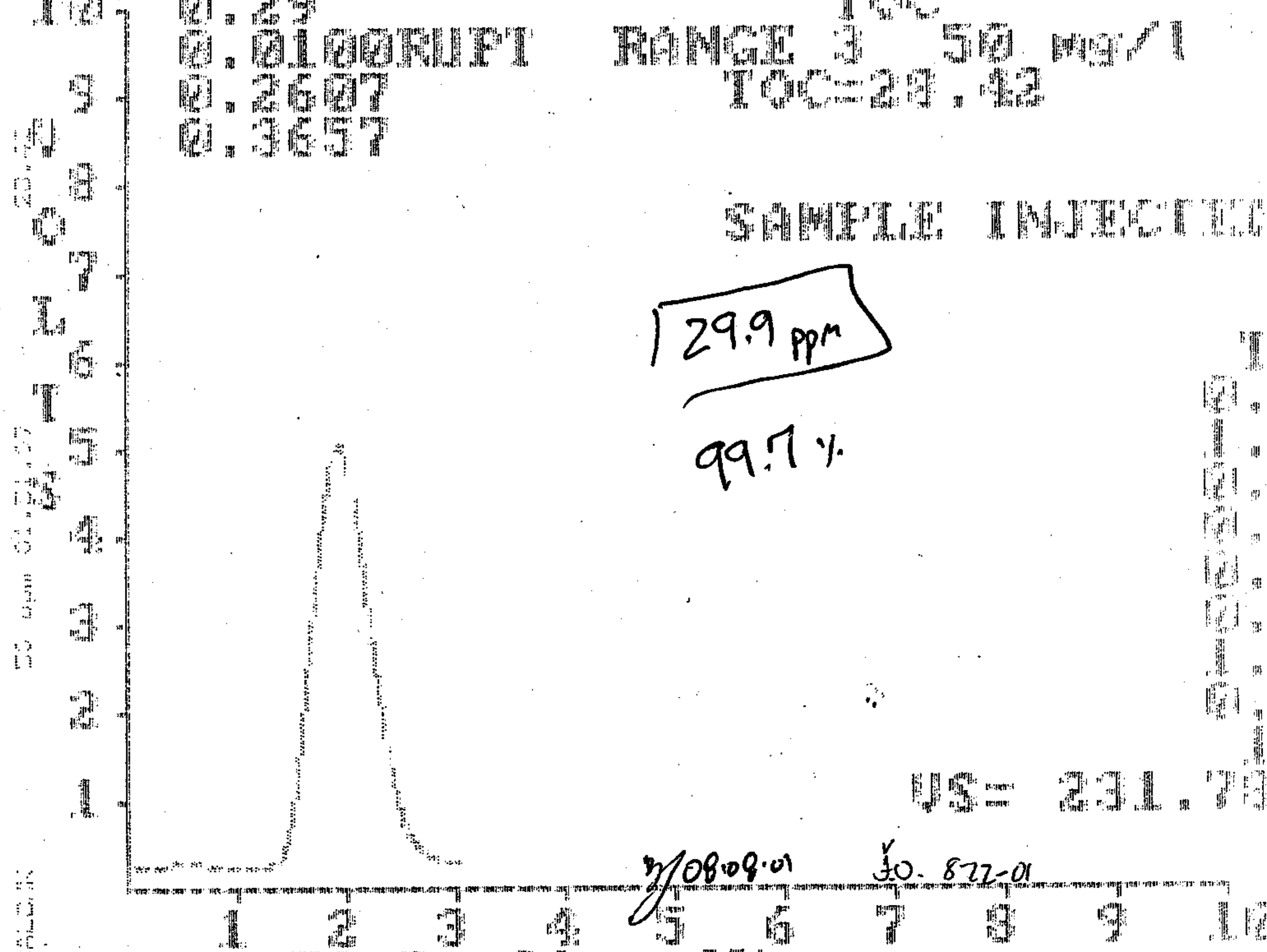
46.6 71.2 31 :CELL TMP OUT OF

SAMPLES TO GO= 64 01:5
STATION # 37

TOC

0.29
0.0100RUPI RANGE 3 50 mg/l
0.2607 TOC=28.42
0.3657

SAMPLE INJECTIO



29.9 ppm

99.7 %

US= 231.7

08.08.01 JO. 822-01

48.0 71.7 31 :OK

MIN.

SAMPLE INJECTION

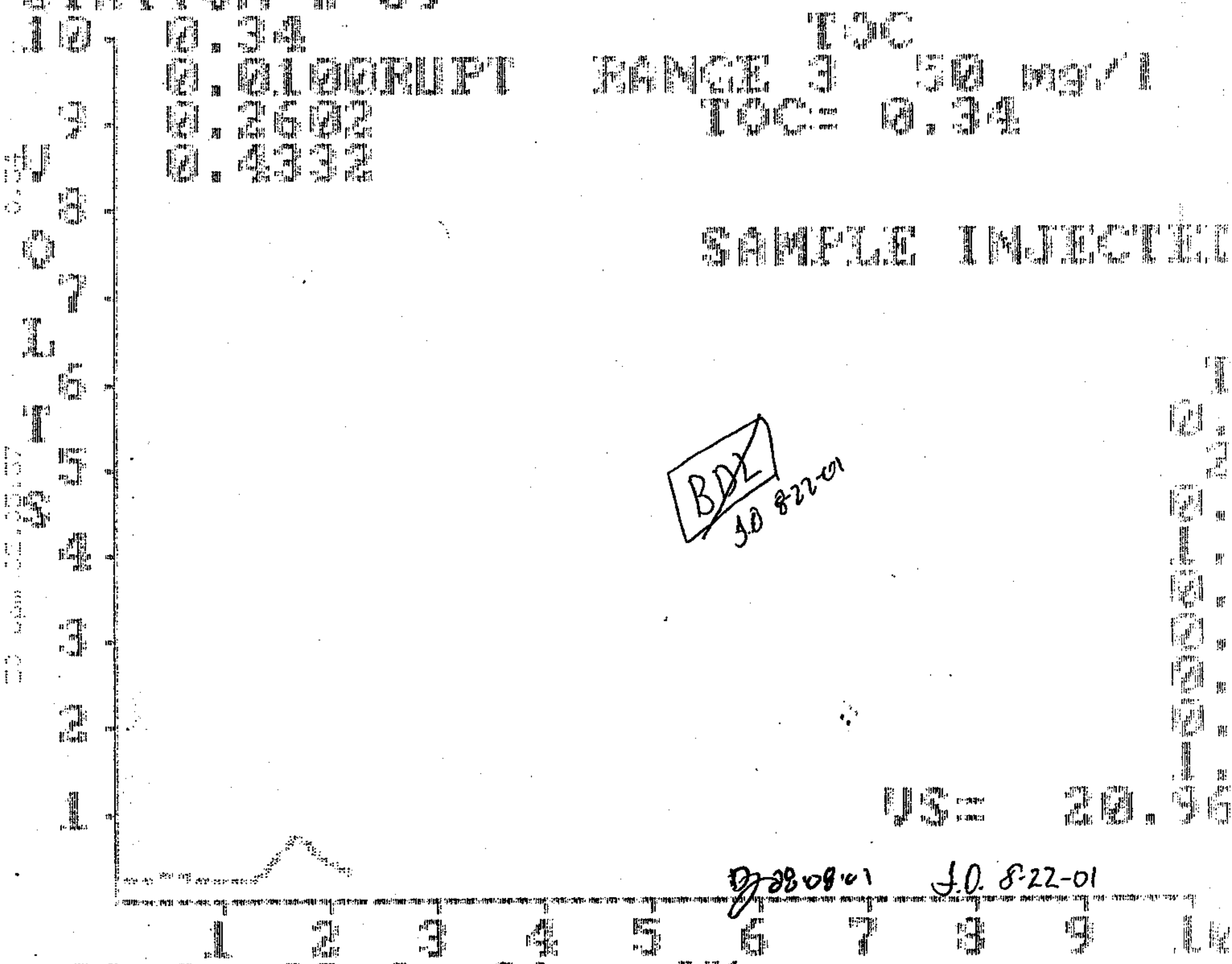
RANGE TOC
TOC= 0.38 mg/l

BDL

8.08.01

8.22-01

SAMPLES TO GO= 82 02:05
STATION # 39



MIN.

48.0 69.6 31 :OK

SAMPLES TO GO= 91 03:12

STATION # 40

TOC

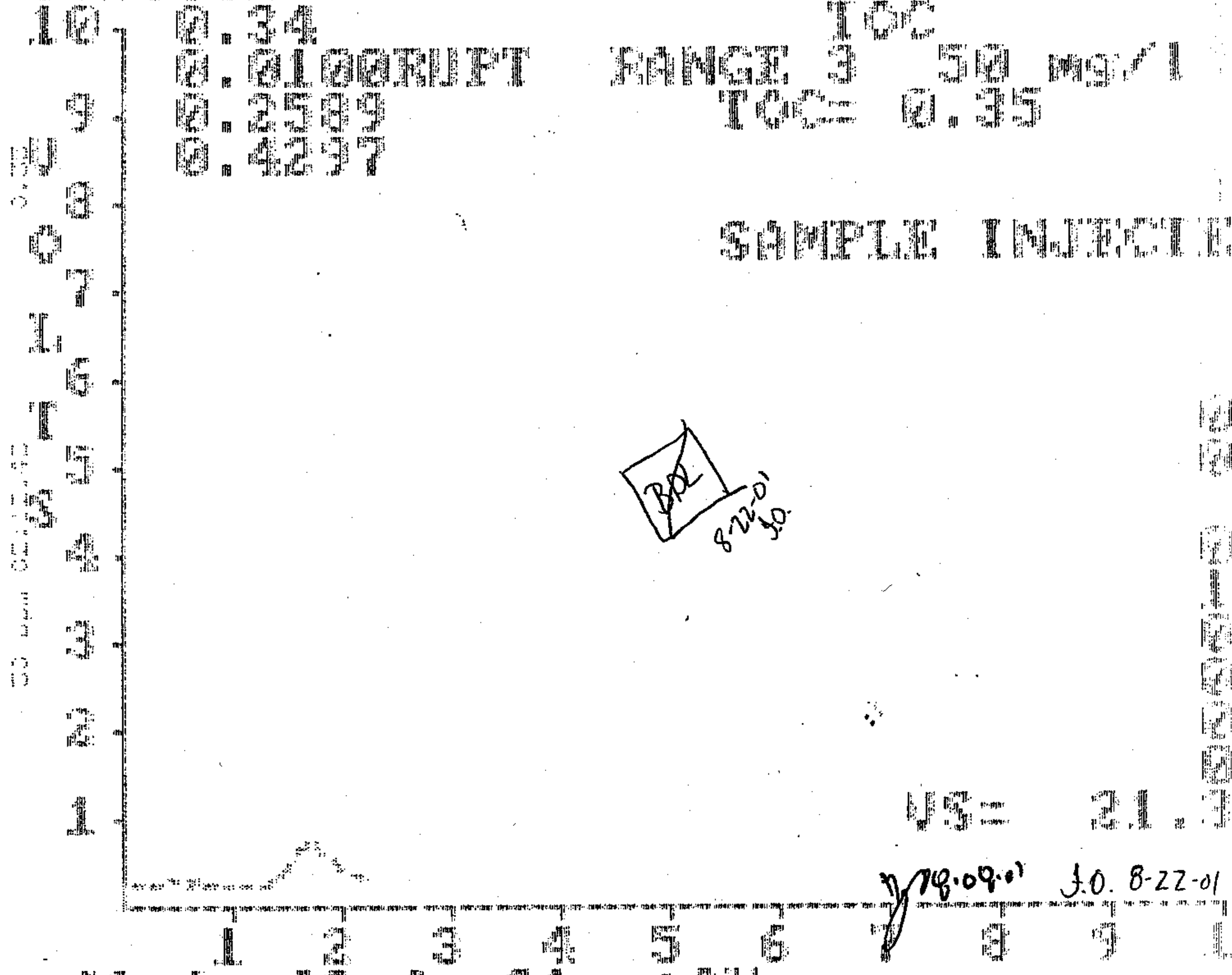
0.34

0.0100RUPT RANGE 3 50 mg/l

0.2589 TOC= 0.35

0.4297

SAMPLE INJECTE



VS= 21.35

43.4 69.4 31 :OK

SAMPLES TO GO= 30 02:3

STATION # 41

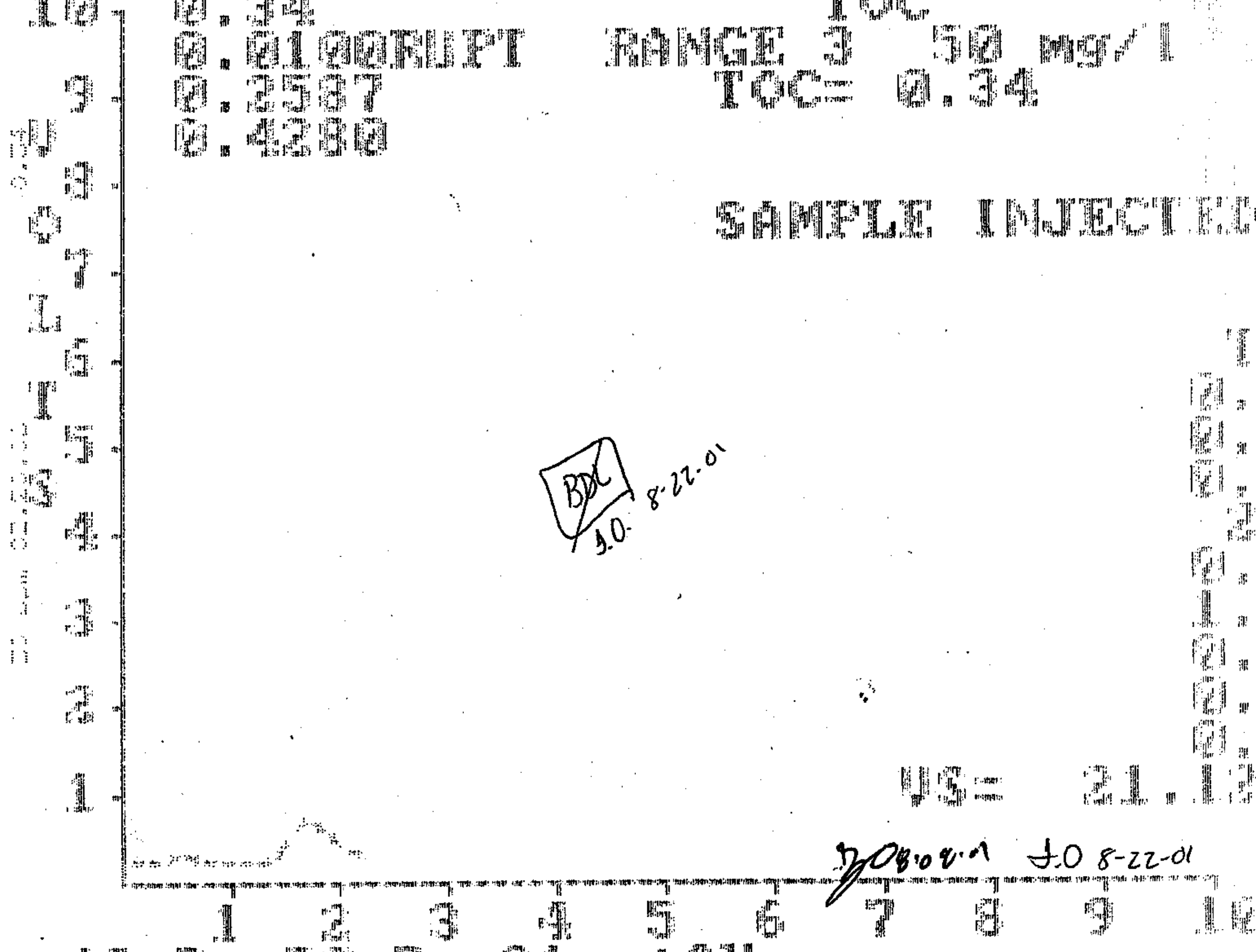
0.34 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2587 TOC= 0.34

0.4280

SAMPLE INJECTED



US= 21.1

J.O. 8-22-01

MIN.

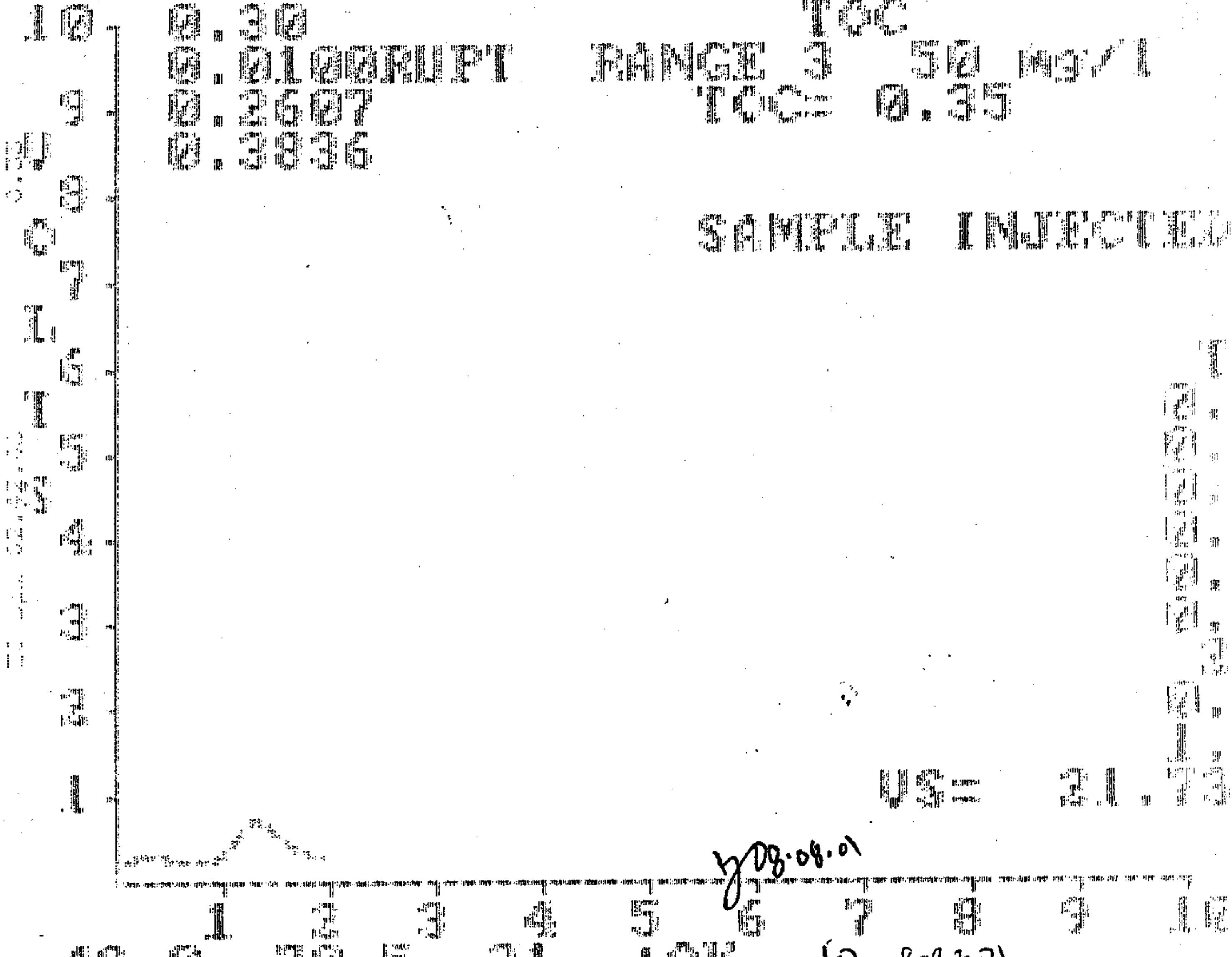
48.7 70.7 31 :OK

SAMPLE INJECTED
RANGE TOC 50 mg/l
TOC= 0.36
STATION # 43
SAMPLES TO GO= 79
BDL
8-22-01

SAMPLES TO GO: 78
STATION # 43
02:29
02:00RUFT
02:10
02:11
RANGE TOC 3.50 mg/l
TOC 0.37
SAMPLE INJECTED
02:
BDL
10-22-01
10-22-01

SAMPLES TO GO= 77 03:4

STATION # 44



MIN.

48.0 70.5 31 :OK

JO 8-22-01

SAMPLE INJECTED

RANGE 100
TOC= 0.39 mg/l

08/22/01 13:45:26
08/22/01 13:50:26
08/22/01 13:55:26
08/22/01 14:00:26
08/22/01 14:05:26
08/22/01 14:10:26
08/22/01 14:15:26
08/22/01 14:20:26
08/22/01 14:25:26
08/22/01 14:30:26
08/22/01 14:35:26
08/22/01 14:40:26
08/22/01 14:45:26
08/22/01 14:50:26
08/22/01 14:55:26
08/22/01 15:00:26
08/22/01 15:05:26
08/22/01 15:10:26
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08/27/01 04

SAMPLES TO GO: 15
STATION # 46
RANGE: 10
TOC: 3.97 mg/l
SAMPLE INJECTED
6 ppm
8-22-01

SAMPLE ID: 74
STATION # 42
RANGE TOC
TOC: 3.58 mg/l
SAMPLE INJECTED

US: 60.

8-22-01 8-22-01

17

SAMPLES TO GO= 72 03:14

STATION # 48

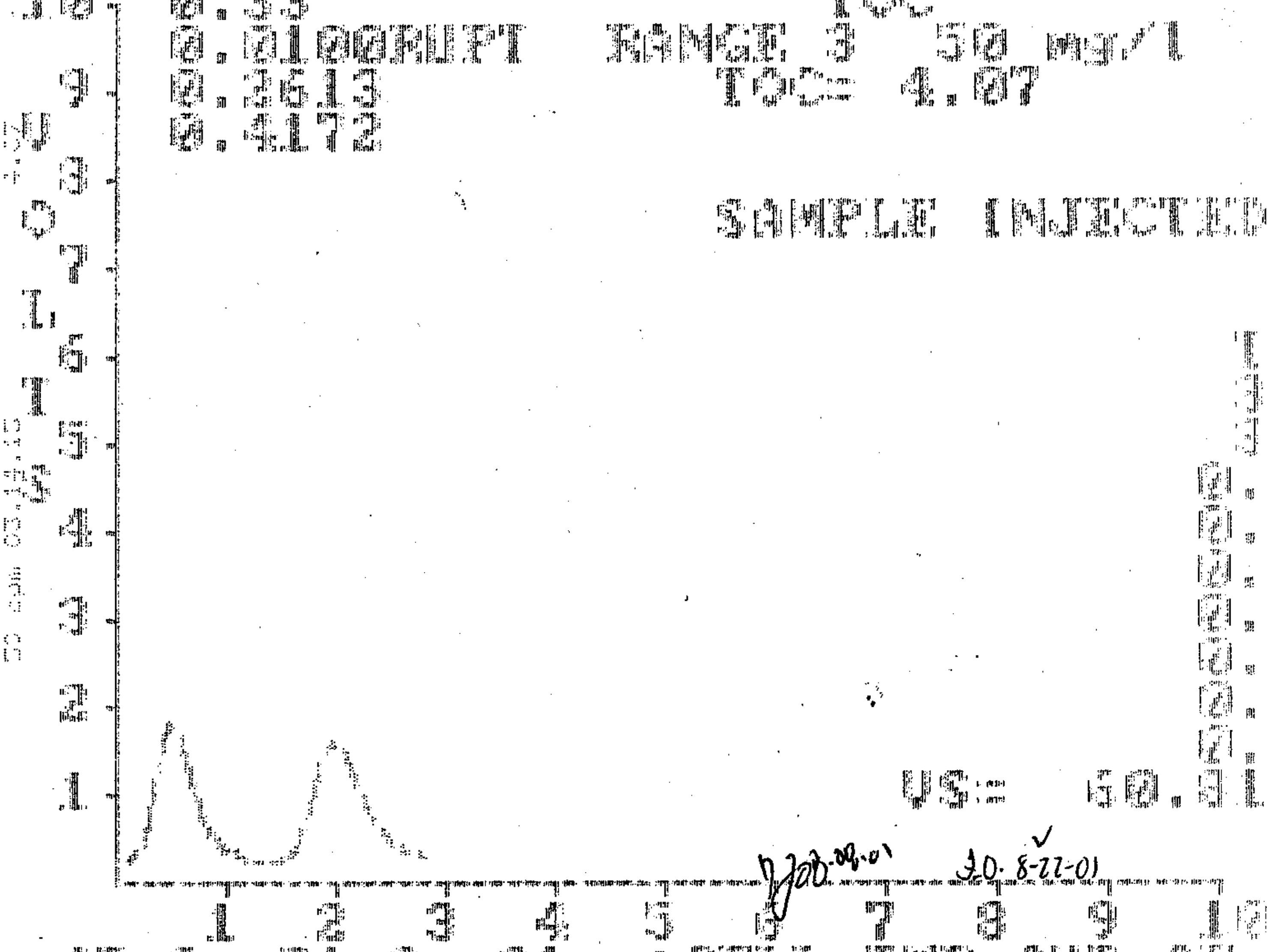
0.33 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2613 TOC= 4.07

0.4172

SAMPLE INJECTED



US= 60.31

JJ 08.08.01 JD 8-22-01

MIN.

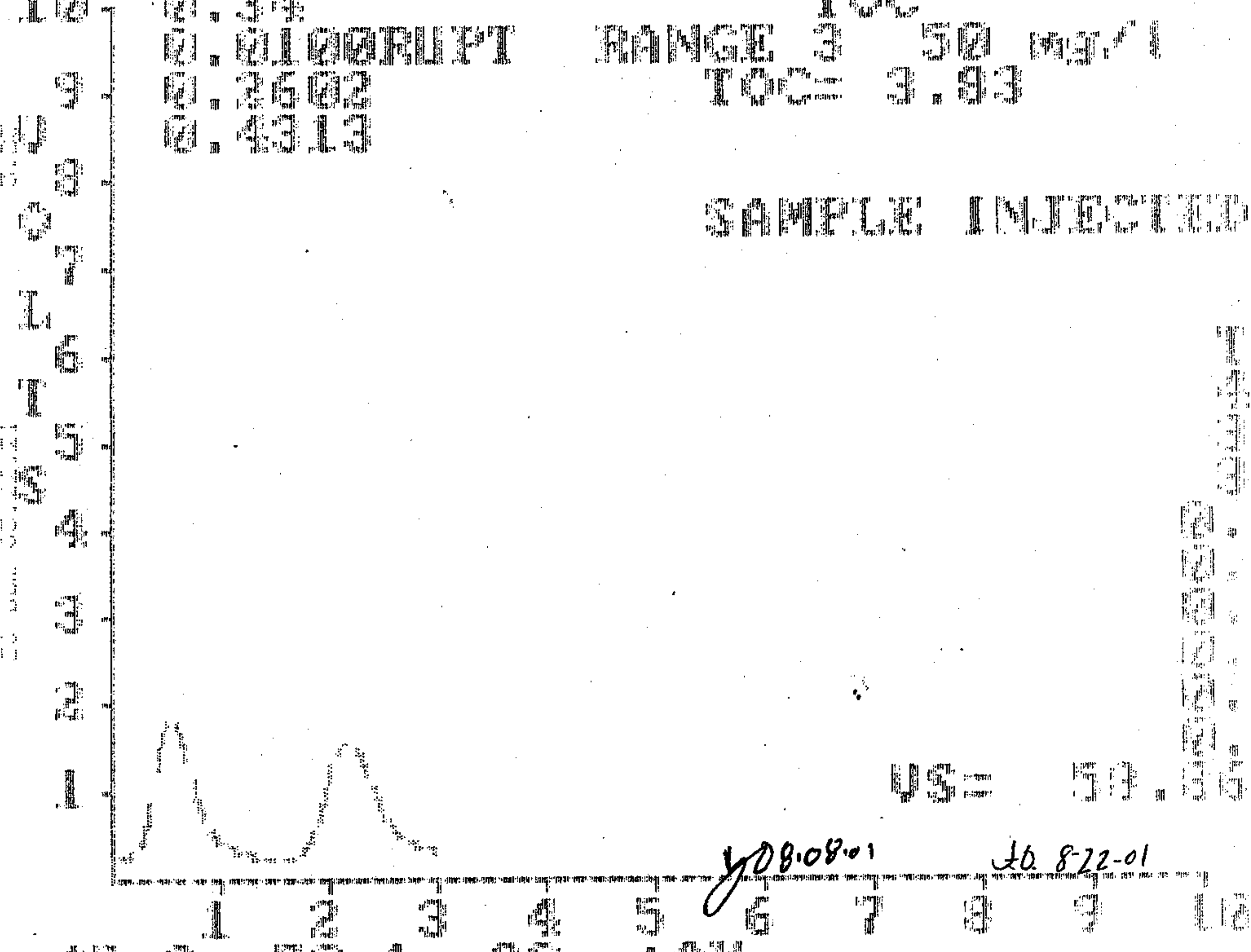
45.9 71.2 31 :CELL TMP OUT OF

SAMPLES TO GO= 72
STATION # 49

0.34
0.0100RUPT RANGE 3 50 mg/l
0.2602
0.4313

TOC
TOC= 3.93

SAMPLE INJECTED



VS= 50.56

47.3 70.1 30 :OK

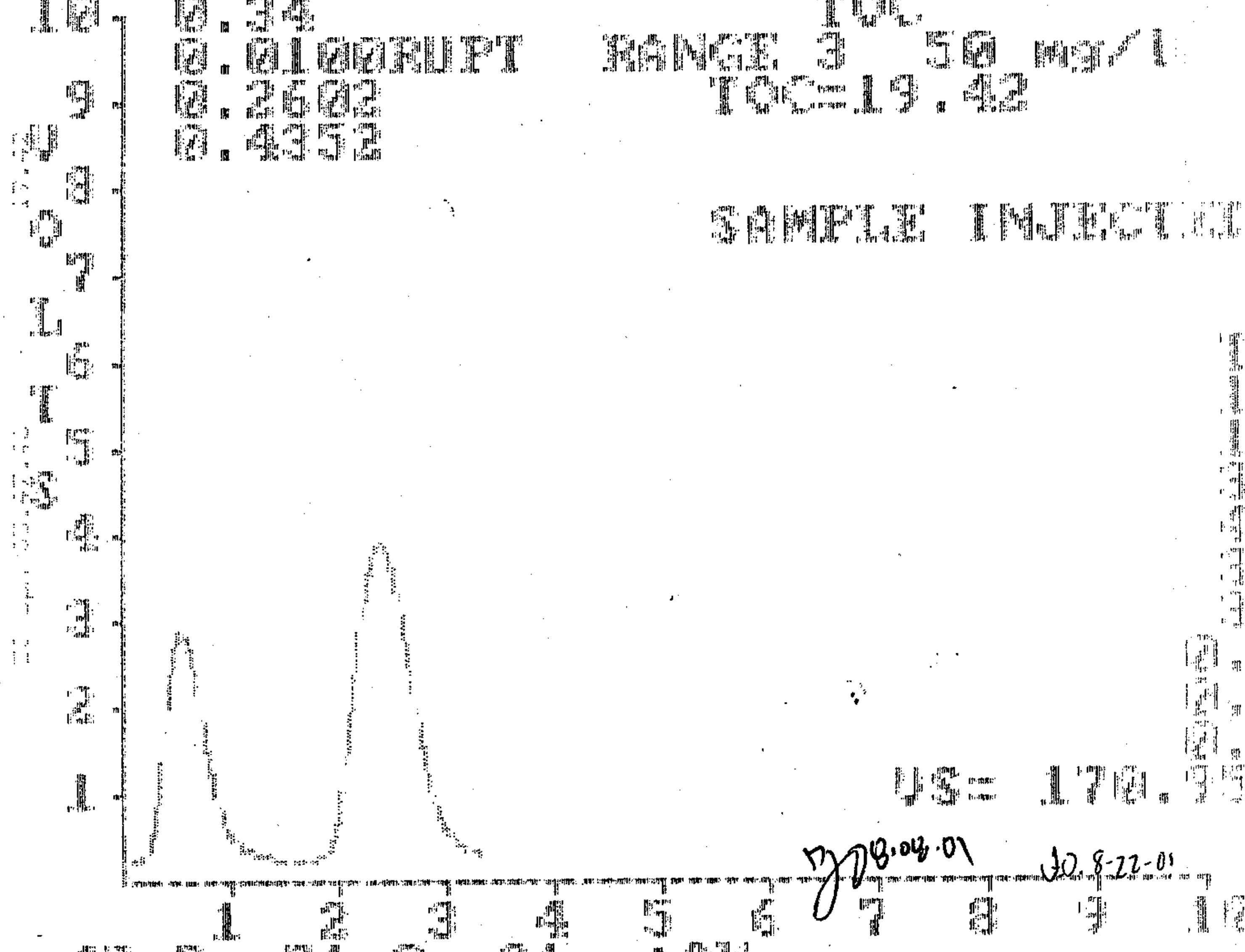
Y08.08.01 JO 8-22-01

SAMPLE INJECTED
RANGE TOC
TOC 17.38 mg/l
21 ppm
8.08.01 JO 8-22-01

SAMPLE INJECTED
RANGE 10C
TOC 19.49
19.08.01
08-22-0

L3

SAMPLES TO GO= 69 03:4
STATION # 52



MIN.

47.7 71.0 31 :OK

SAMPLES TO GO: 68

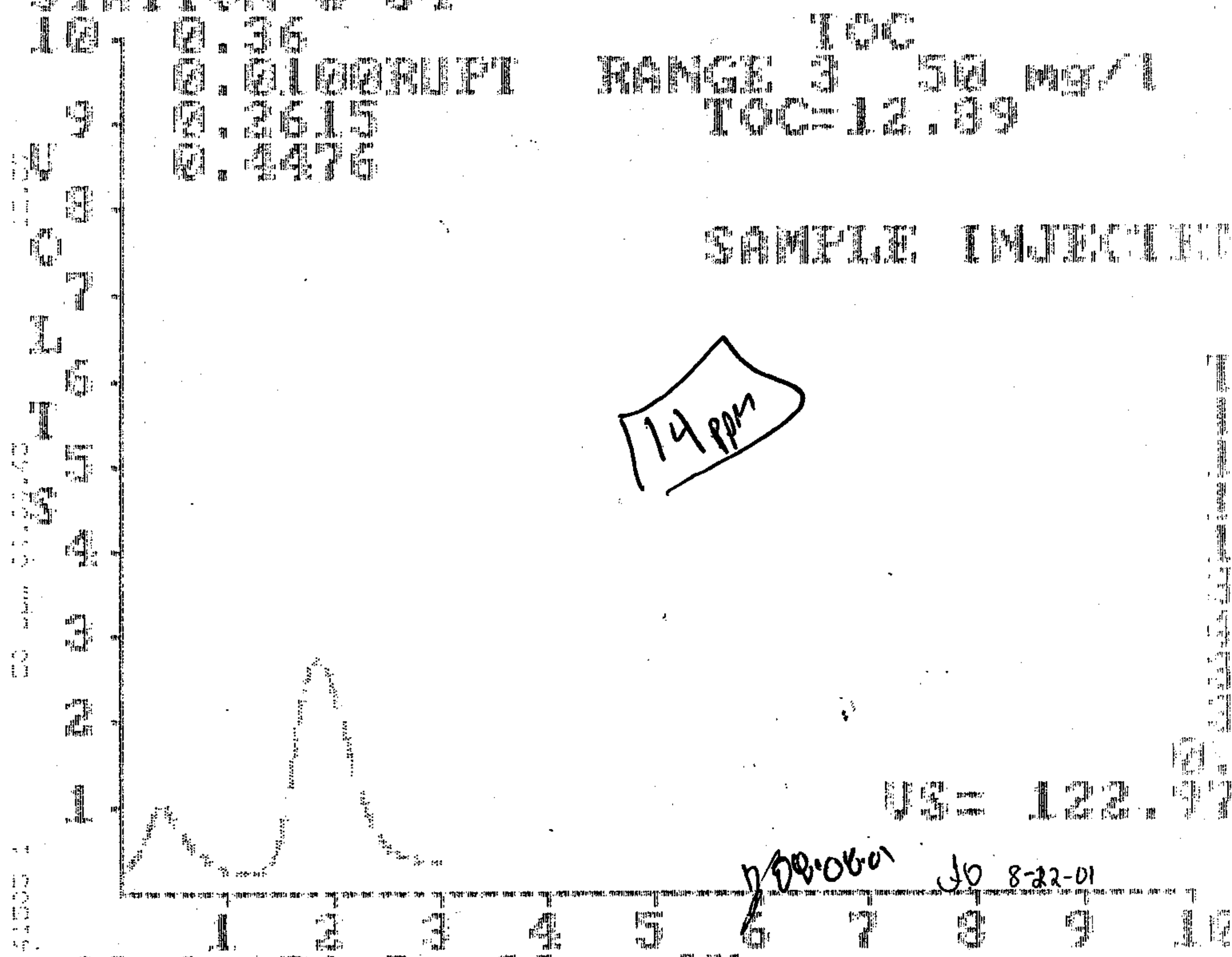
STATION # 53

RANGE TOC
TOC=19.48

SAMPLE INJECTED

08.08.01 12.08.22.01

SAMPLES TO GO= 67 04:04
STATION # 54



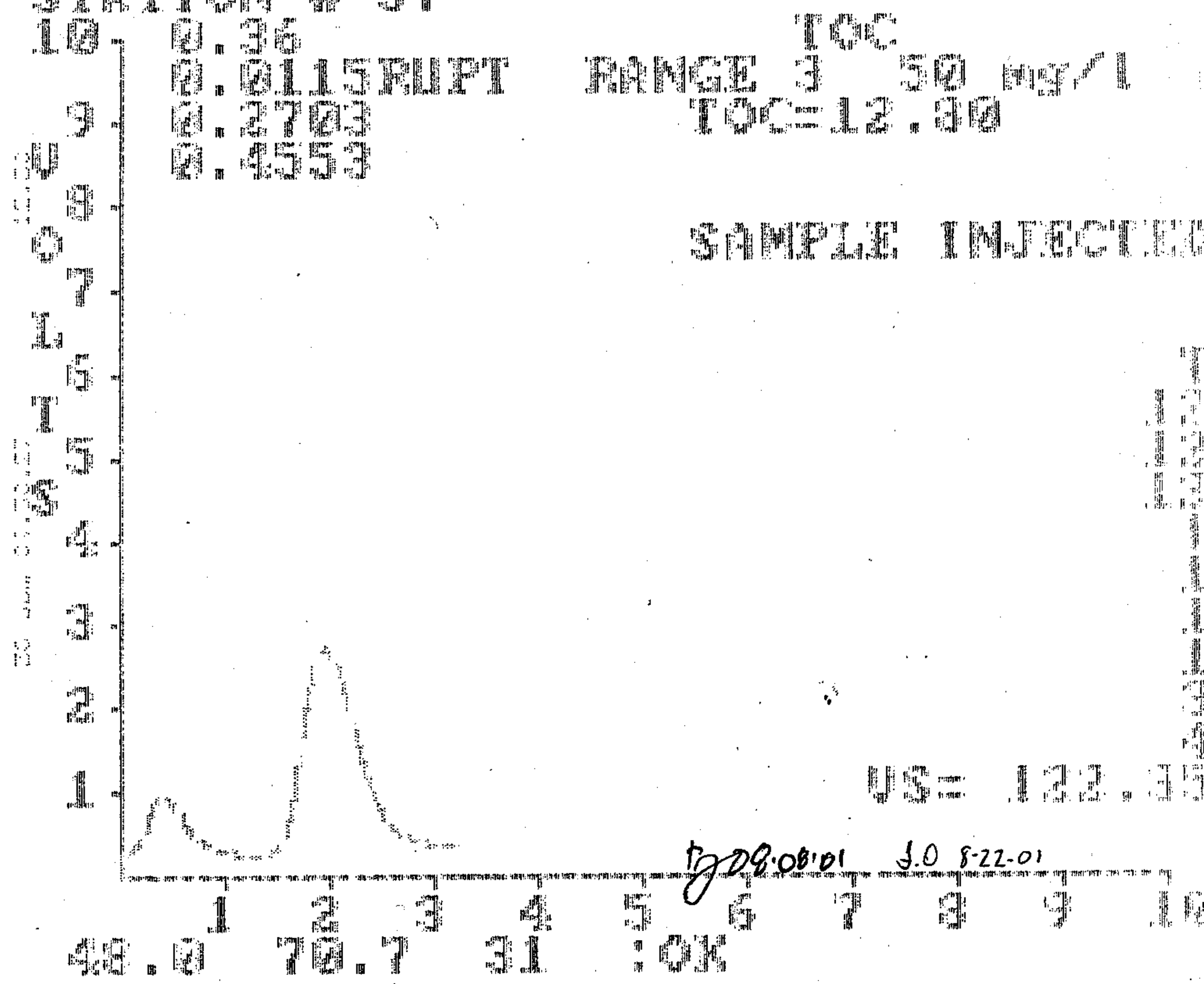
48.0 71.5 32 :OK

SAMPLES TO GO: 66
STATION # 55
RANGE TOC
TOC: 12.72
SAMPLE INJECTED
VS= 12L.
8-29-01
10-8-22-01

SAMPLE INJECTED
TOC
RANGE: 3.50 mg/l
TOC: 2.65
09.08.01 D.O. 8-22-01

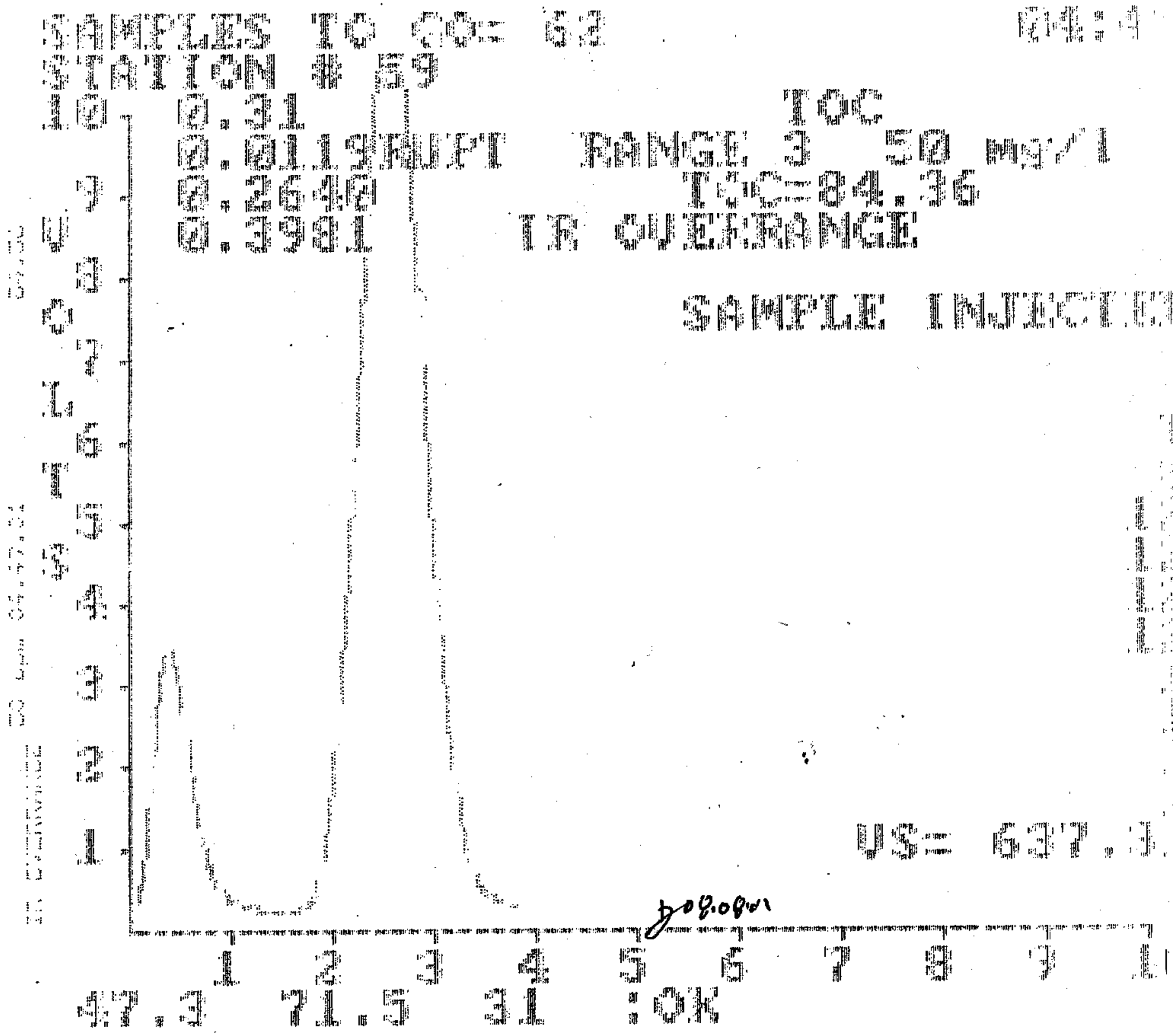
SAMPLES TO GO= 64

STATION # 57



SAMPLE INJECTED
Rerun at
D1 25/100
08.08.01

35



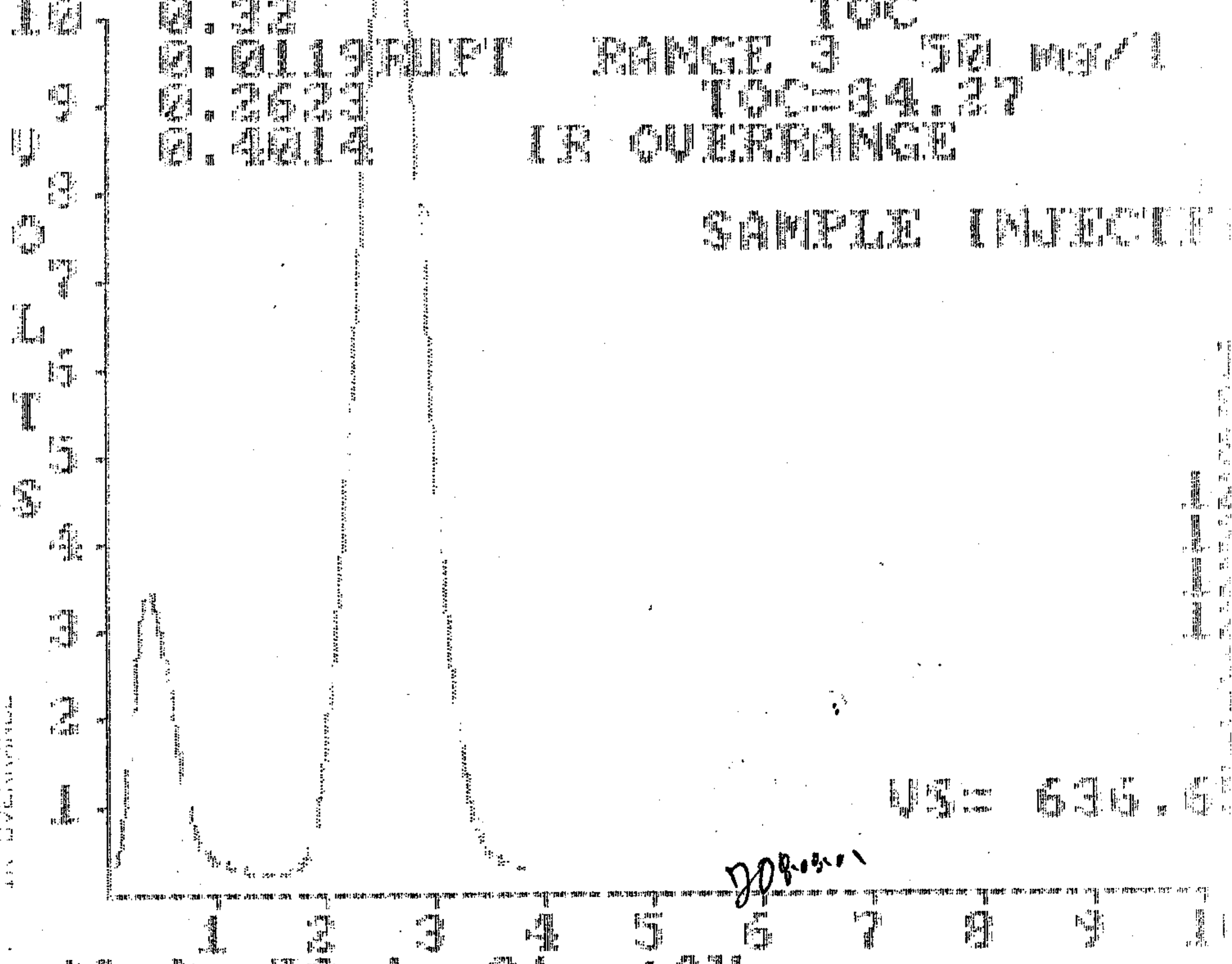
SAMPLES TO GO= 62
STATION # 59
TOC
10
0.31
0.0119RUPT
RANGE 3 50 mg/l
0.2640
TOC=84.36
0.3981
IR OVERRANGE
SAMPLE INJECTE
VOLTS
9
8
7
6
5
4
3
2
1
US= 637.3
1 2 3 4 5 6 7 8 9 10
47.3 71.5 31 :OK

MIN.

002

SAMPLES TO GO= 51 04:5
STATION # 60
0.32 TOC
0.0119RUPT RANGE 3 50 mg/l
0.2623 TOC=34.27
0.4014 IR OVERRANGE

SAMPLE INJECT



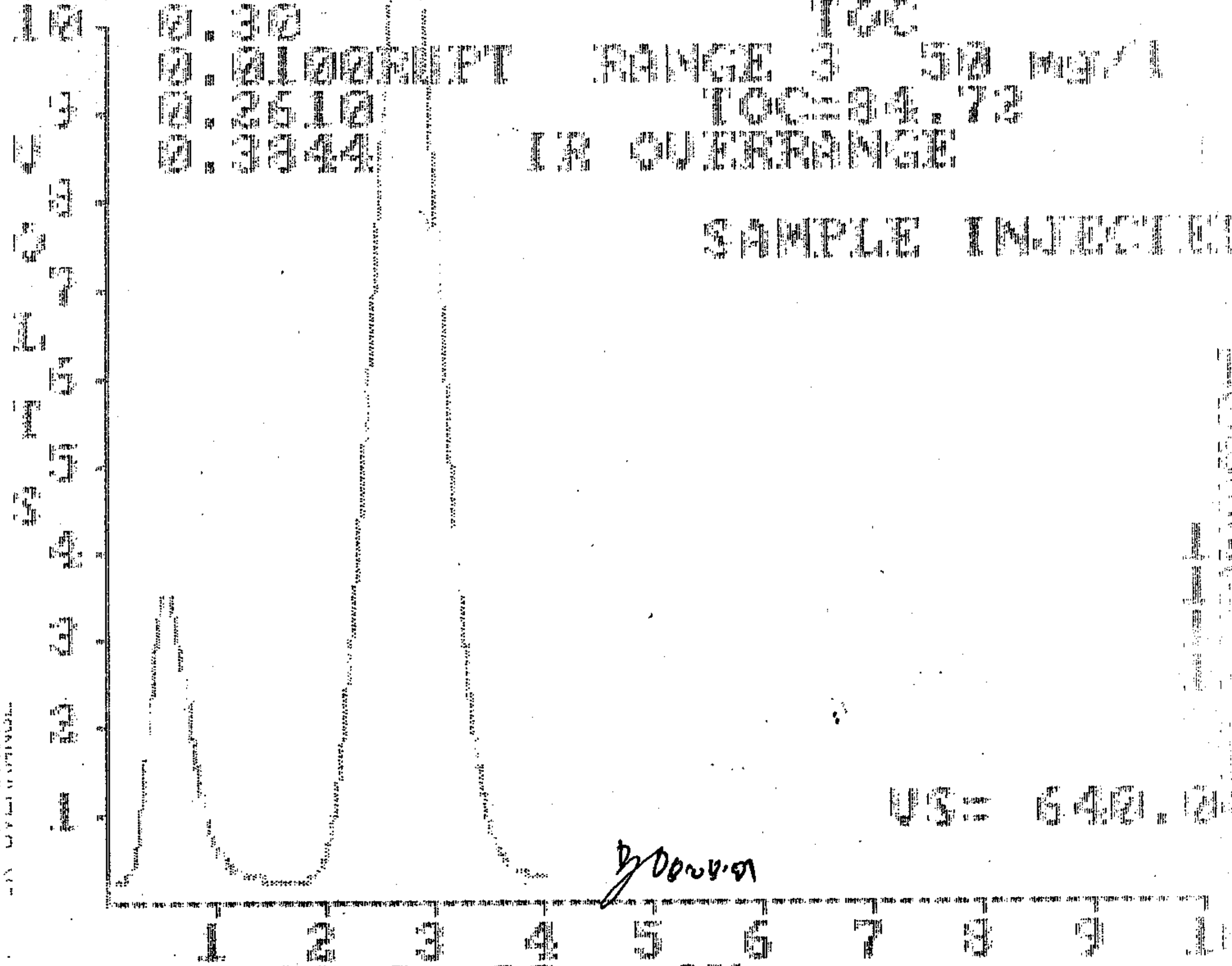
48.0 72.1 31 :OK

MIN.

30

SAMPLES TO GO= 60 05:0

STATION # 61

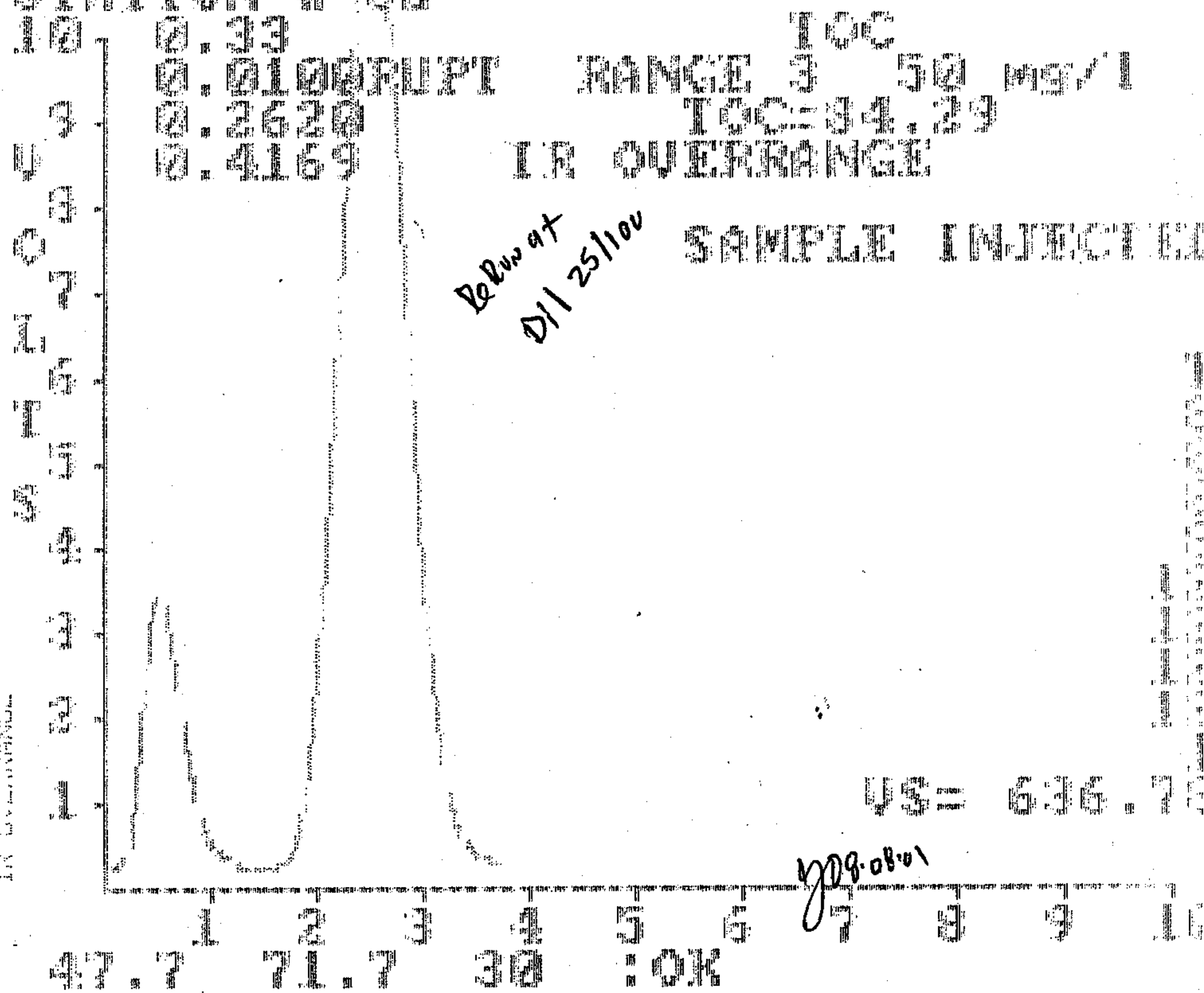


MIN.

48.4 71.0 30 :OK

44

SAMPLES TO GO= 59 05:1
STATION # 62

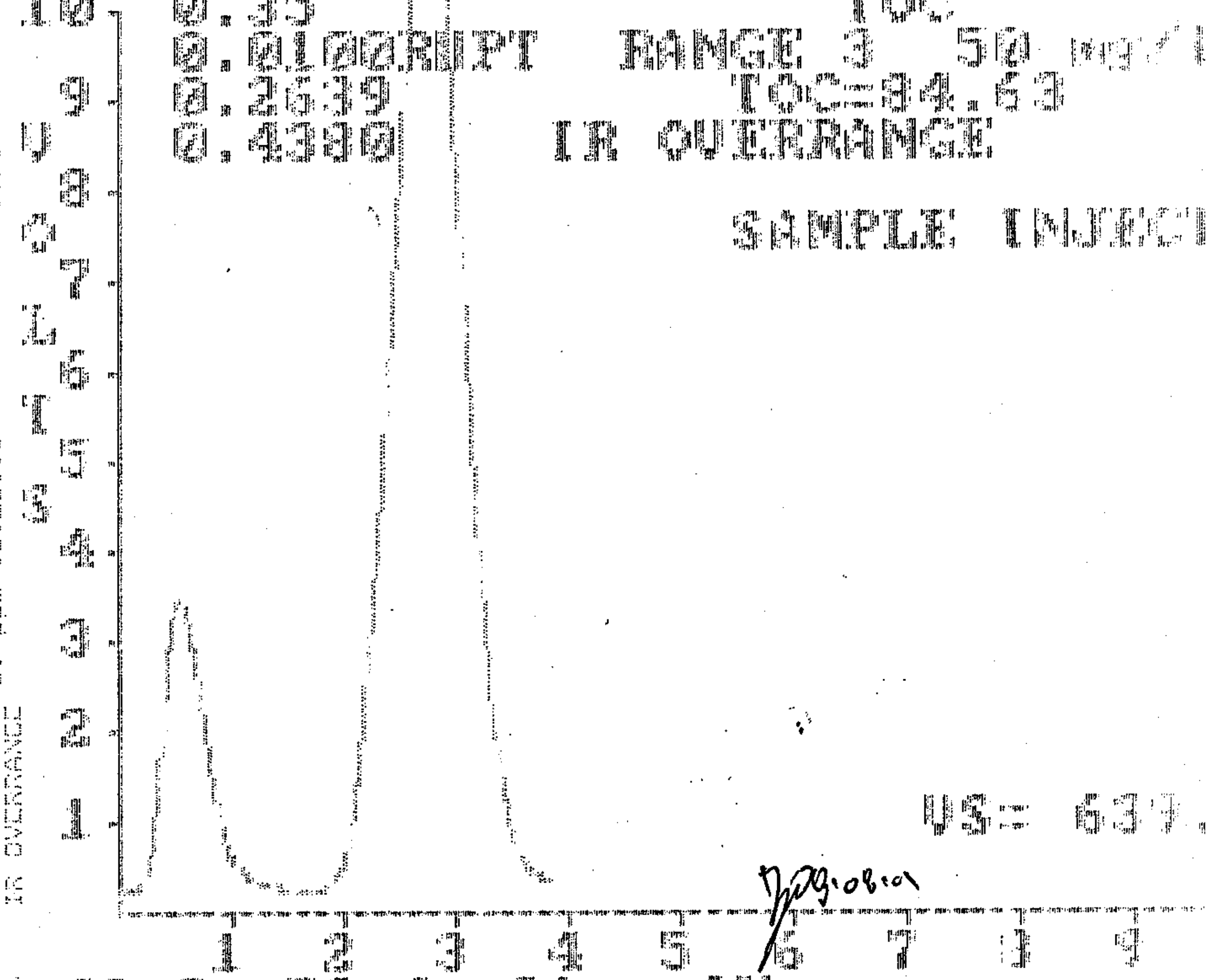


MIN.

43

MIN.

SAMPLES TO GO= 58
STATION # 63
10 0.35 TOC
0.0100RUPT RANGE 3 50 mg/l
0.2639 TOC=34.63
0.4380 IR OVERRANGE



49.0 72.4 31 :OK

5:03 SAMPLES TO GO= 57 05:35

STATION # 64

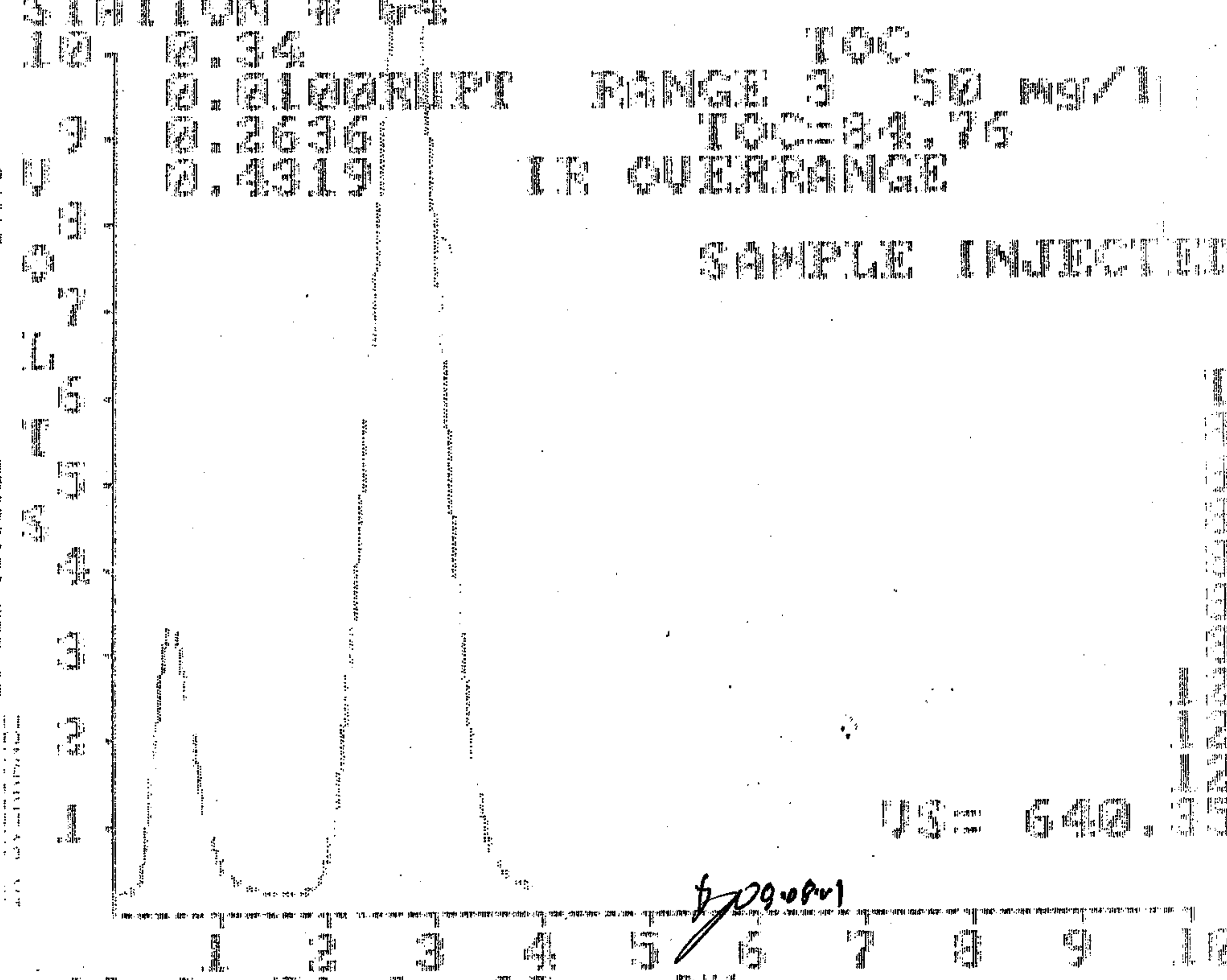
0.34 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2636 TOC=84.76

0.4319 IR OVERRANGE

SAMPLE INJECTED



2 MIN.

43.4 71.2 30 :OK

SAMPLES TO GO= 56 05:4

STATION # 65

TOC

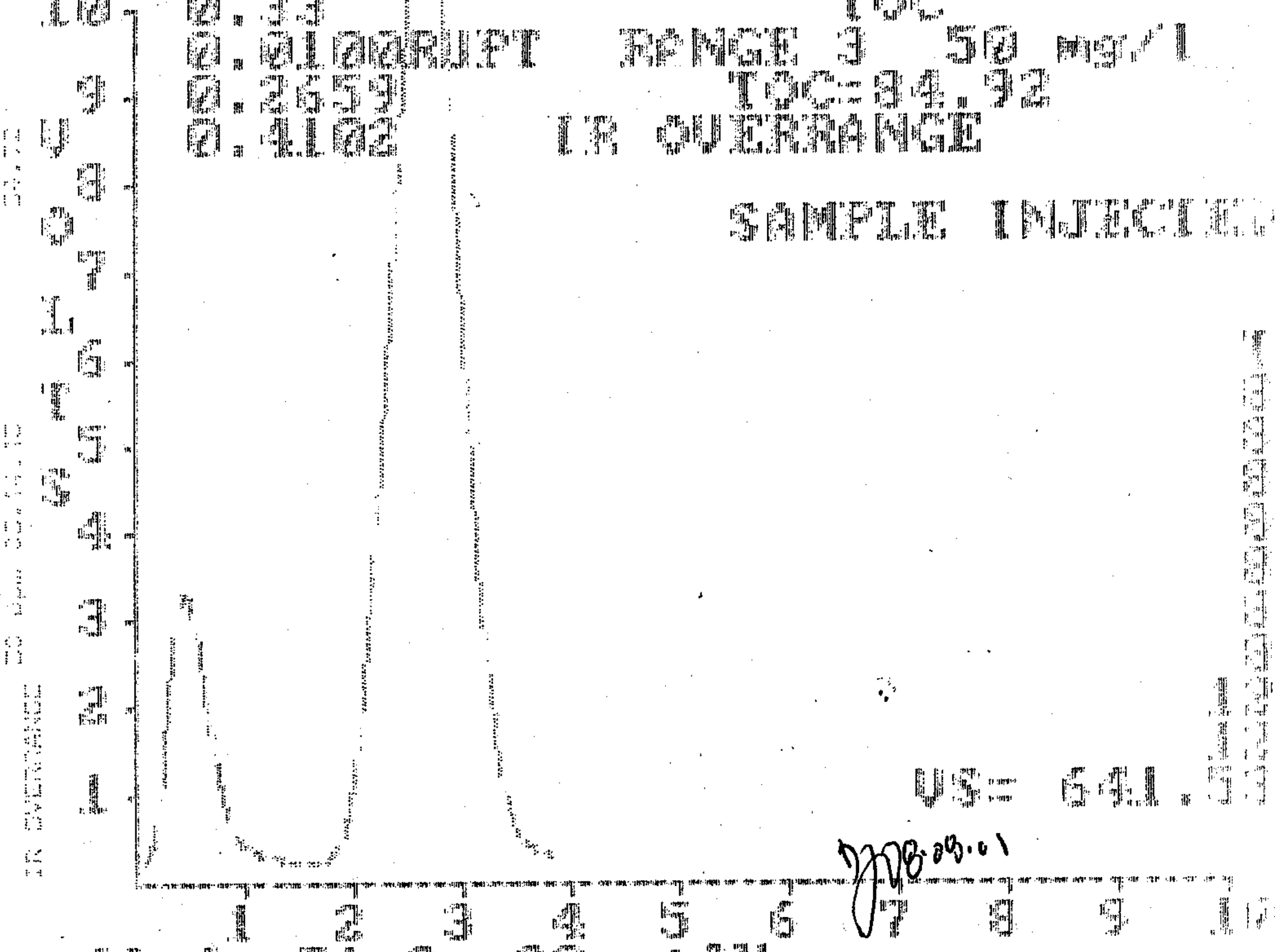
0.33

0.0100RUPT RANGE 3 50 mg/l

0.2659 TOC=84.92

0.4102 IR OVERRANGE

SAMPLE INJECTE



43.4 71.2 30 :OK

SAMPLE INJECTED
13ppm
J.O. 8-22-01

SAMPLE INJECTED

RANGE TOC
TOC 10.58 mg/L

RJ080902

8-22-01 V

SAMPLES TO GO= 53 05:0

STATION # 68

TOC

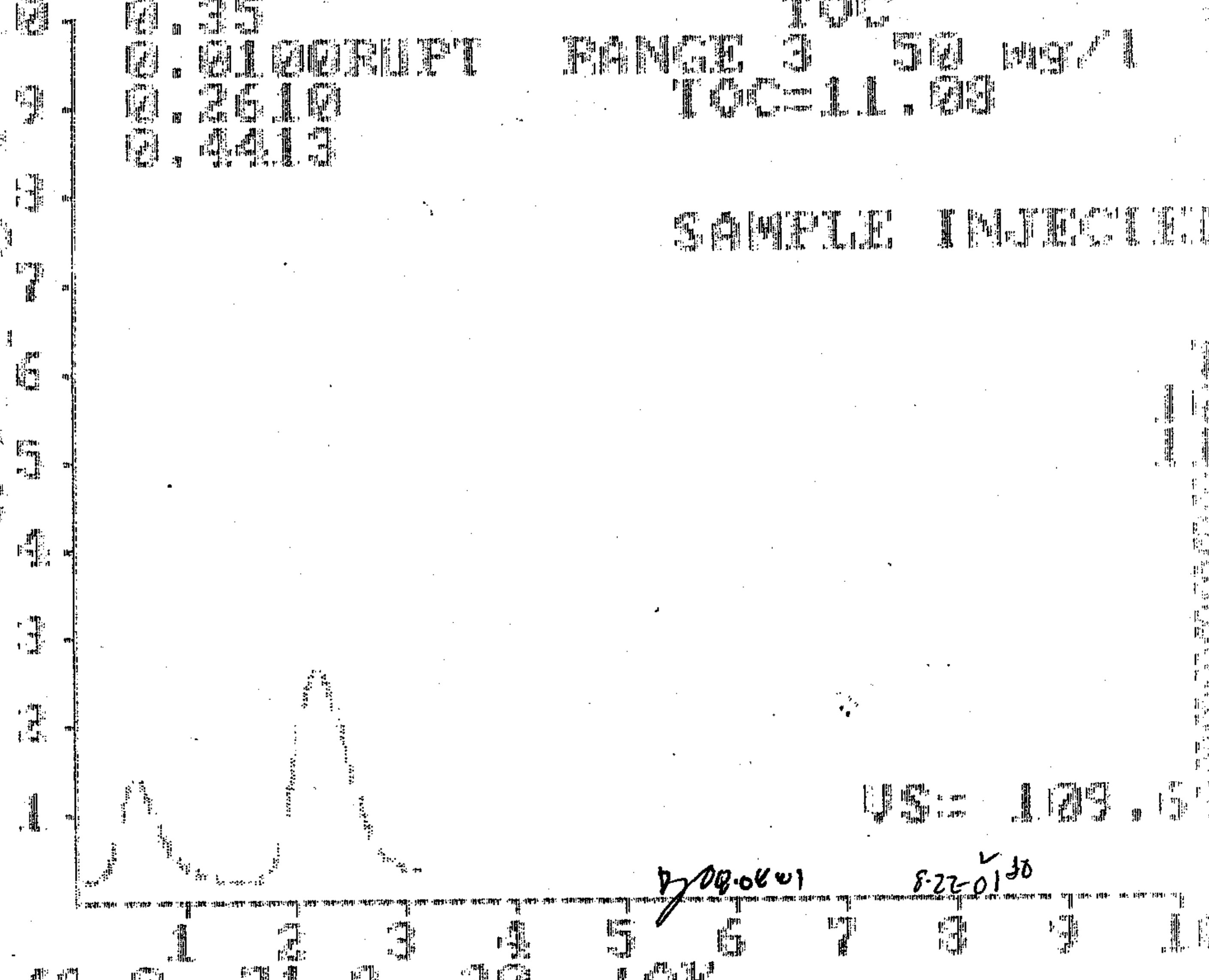
0.35

0.0100RUPT RANGE 3 50 mg/l

0.2610 TOC=11.03

0.4413

SAMPLE INJECTED

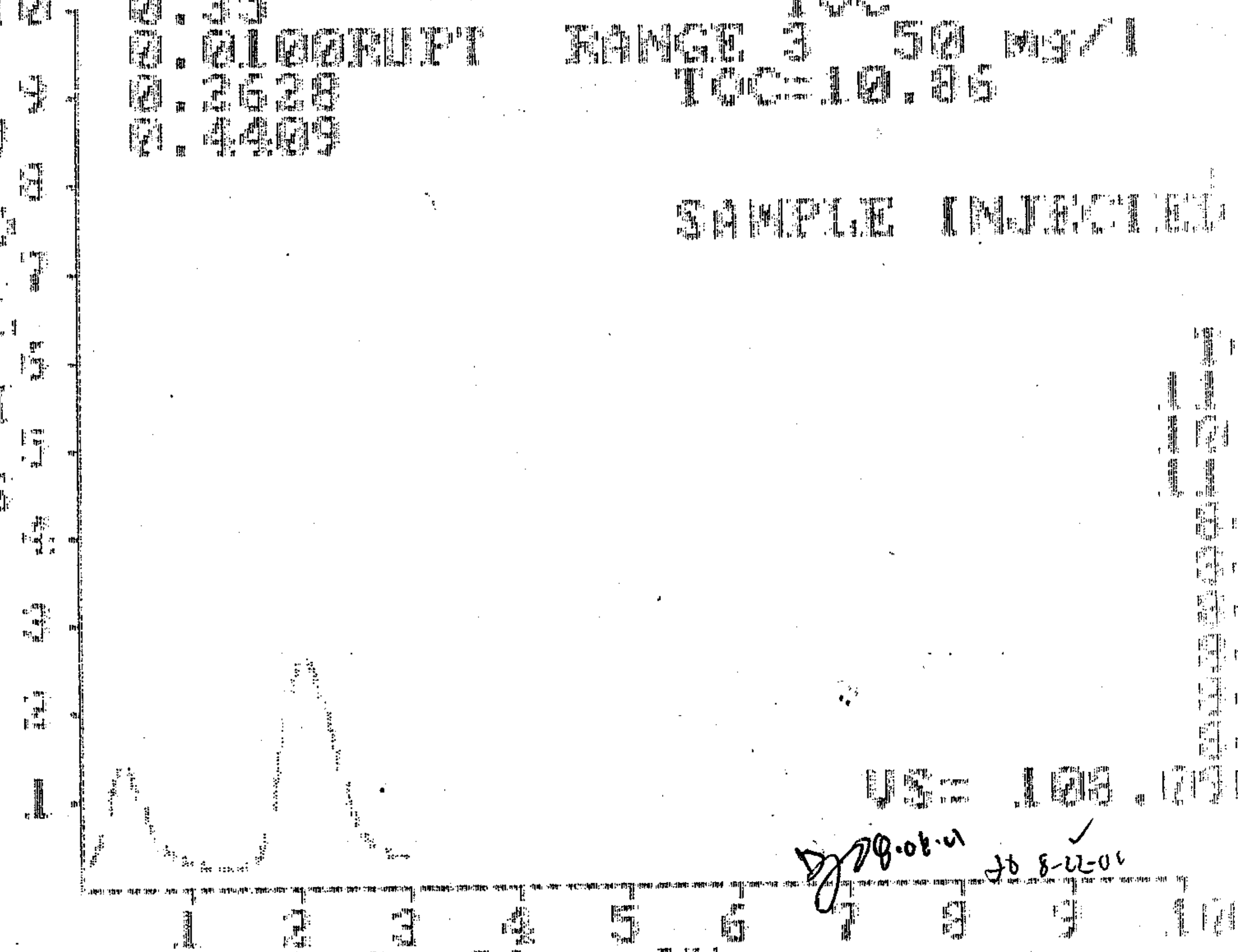


US= 109.5

48.0 71.8 30 :OK

SAMPLES TO GO= 52 05:17
STATION # 69
TOC
0.35
0.0100RUPT RANGE 3 50 mg/l
0.2628 TOC=10.86
0.4409

SAMPLE INJECTED



US= 108.09

08.08.01 JO 8-22-01

47.3 71.4 31 :OK

MIN.

SAMPLES TO GO= 51

STATION # 70

RANGE: TOC

TOC: 3.27 mg/l

SAMPLE INJECTED

10 ppm

US= 30.3

JJ 8-22-01

SAMPLES TO GO= 50 05:3

STATION # 71

TOC

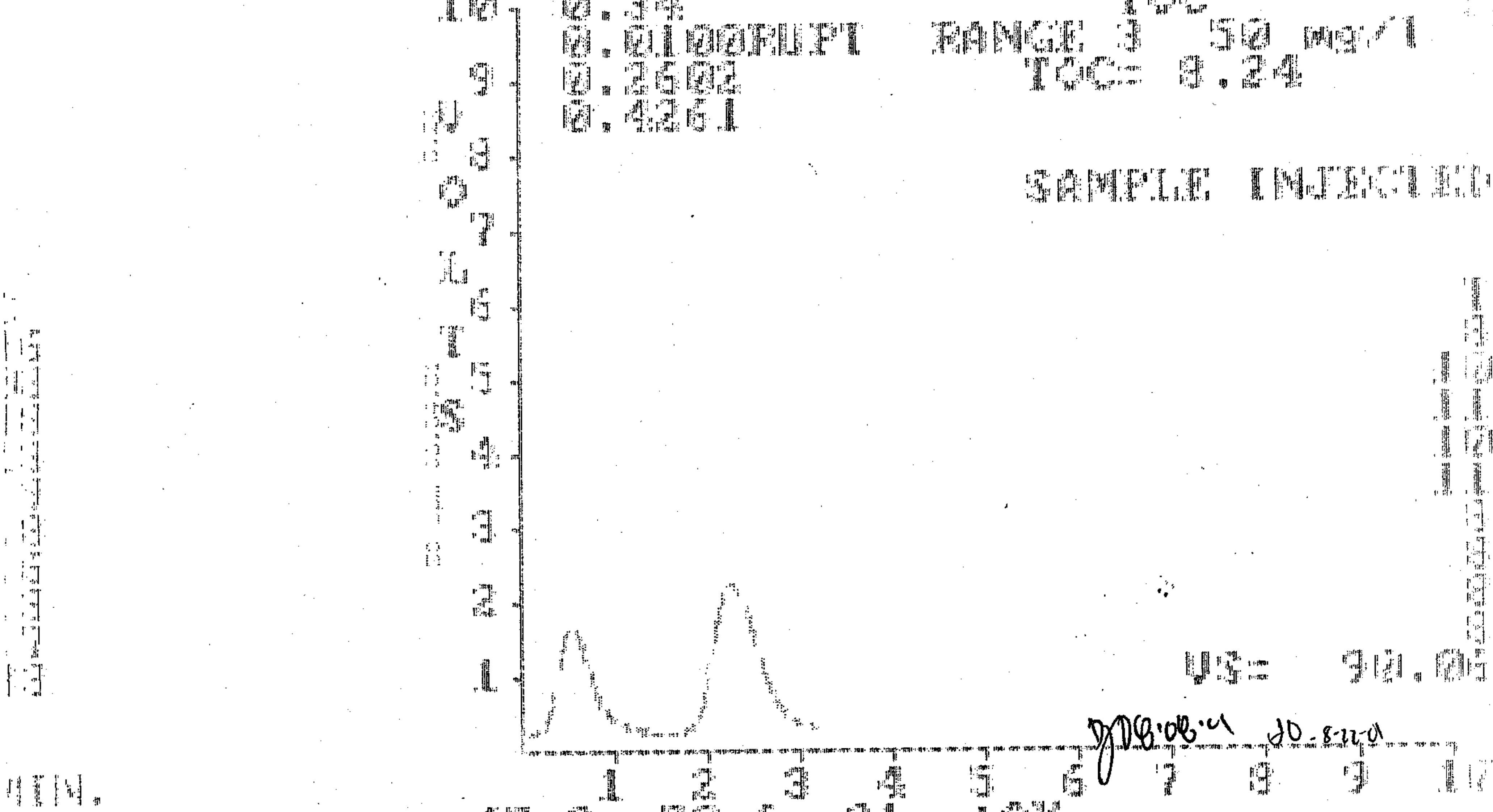
0.34

0.0100RUPT RANGE 3 50 mg/l

0.2602 TOC= 8.24

0.4261

SAMPLE INJECTED



VS= 90.0

47.3 70.6 31 :OK

DJ 08.08.01 JD 8-22-01

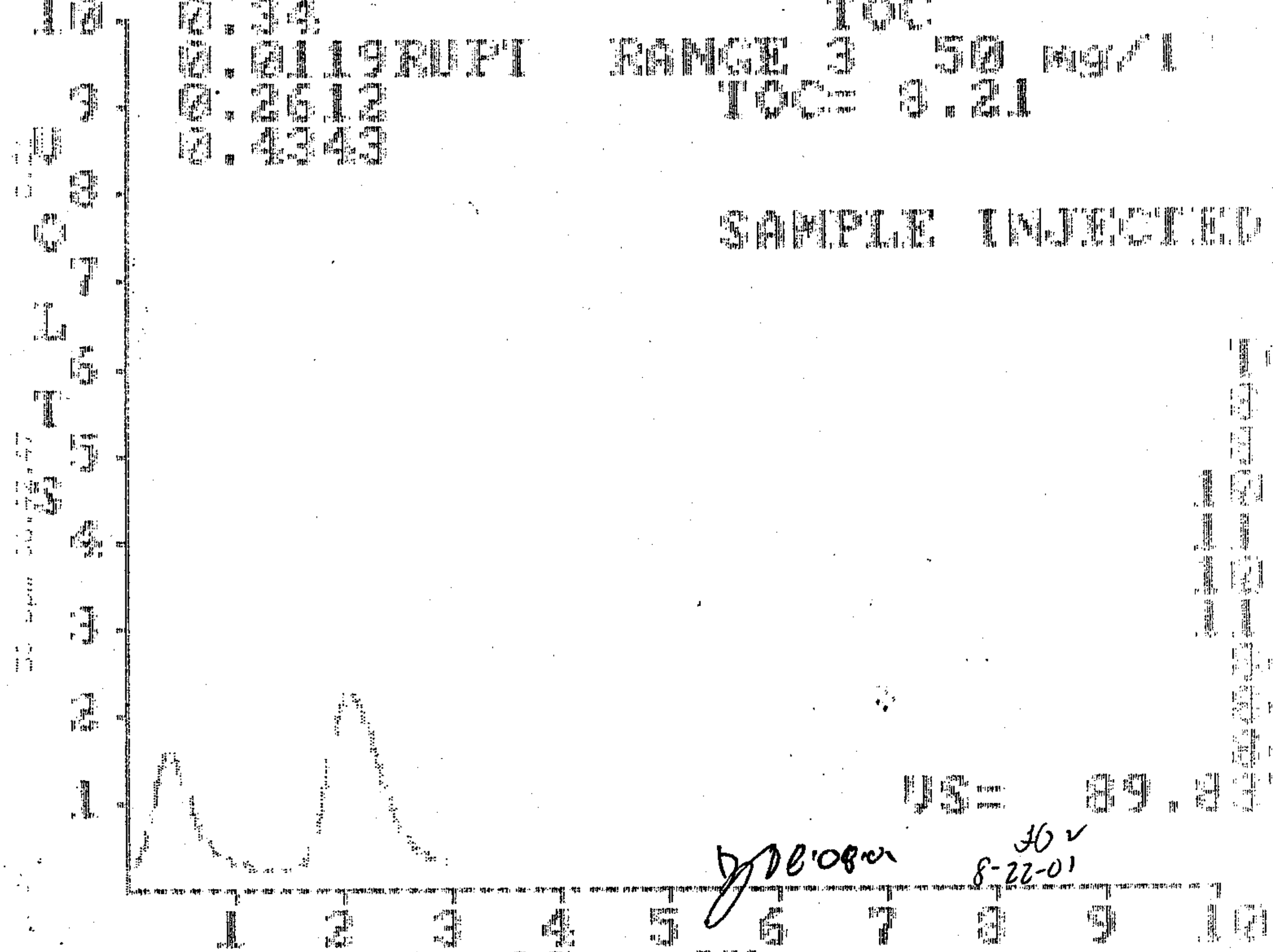
SAMPLES TO GO= 49 06:4

STATION # 72

TOC

0.34
0.0119RUPI RANGE 3 50 mg/l
0.2612 TOC= 3.21
0.4343

SAMPLE INJECTED



US= 89.8

8-22-01

MN.

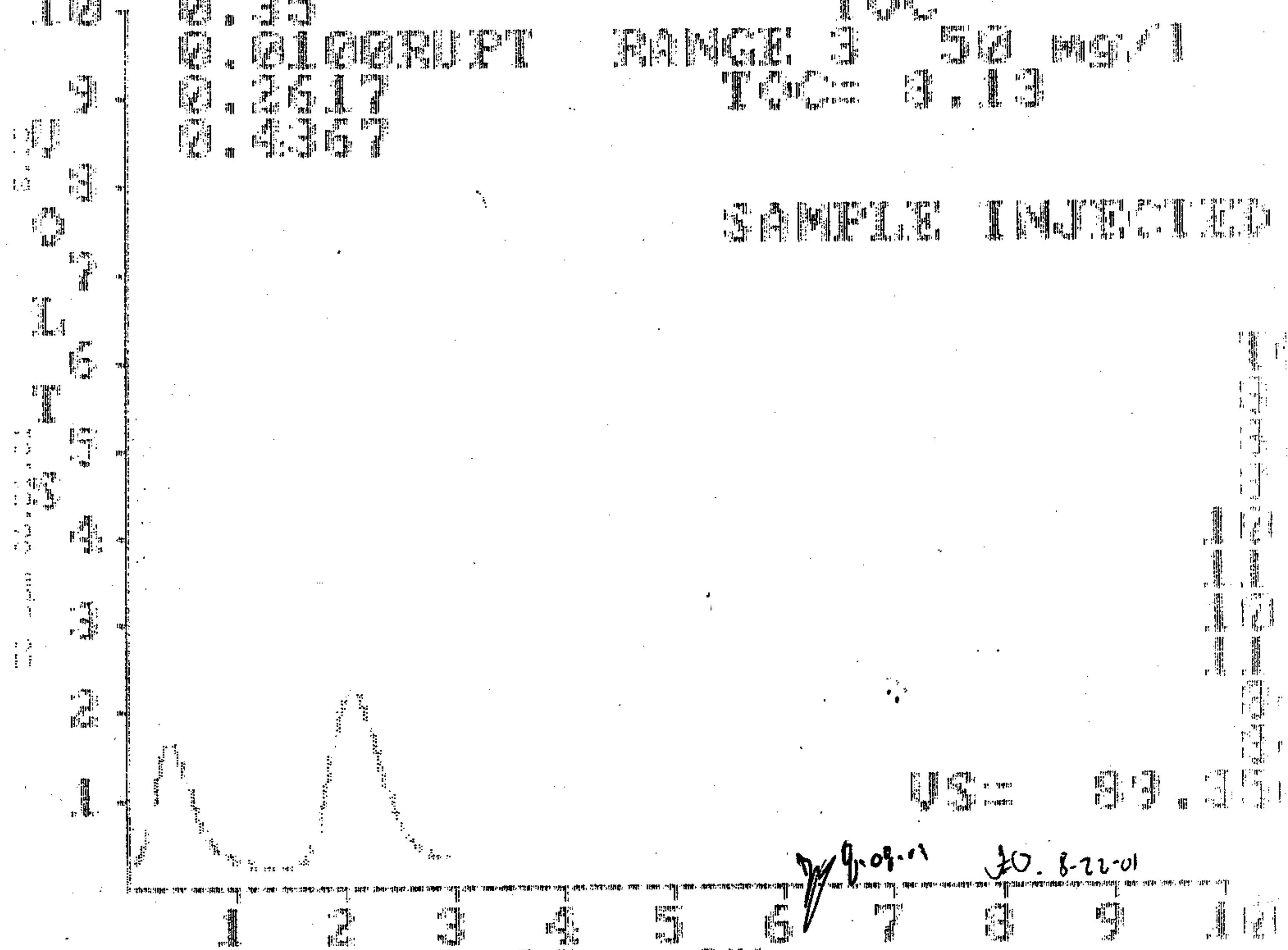
49.1 70.4 30 :OK

SAMPLES TO GO= 48 06:51
STATION # 73

TOC

0.35
0.0100RUPT RANGE 3 50 mg/l
0.2617 TOC= 8.13
0.4367

SAMPLE INJECTED



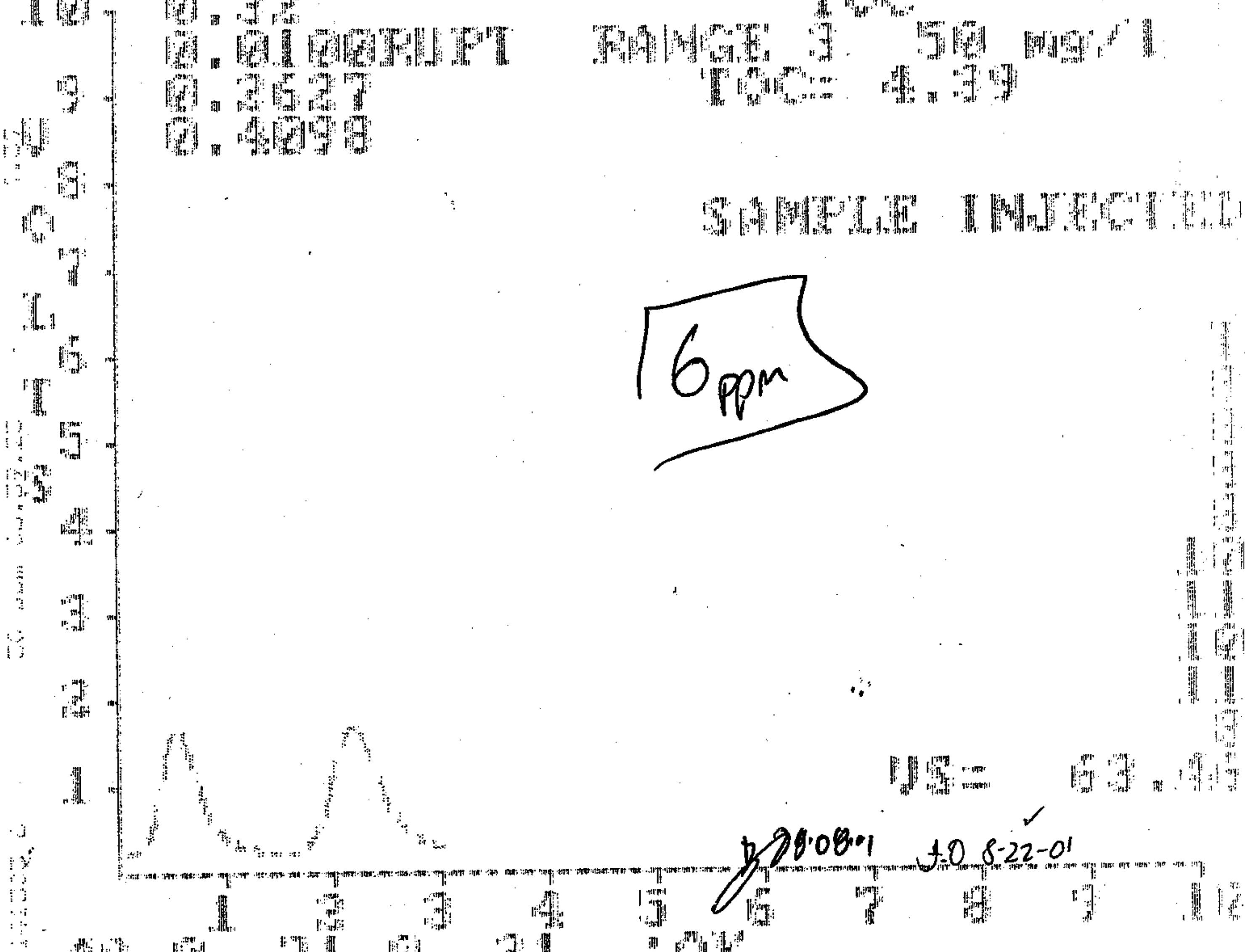
US= 89.35

9.08.01 JO. 8-22-01

48.7 71.5 30 :OK

SAMPLES TO GO= 47 05:5
STATION # 74
TOC
0.32
0.0100RUPT RANGE 3 50 mg/l
0.2627 TOC= 4.39
0.4098

SAMPLE INJECTED



48.0 71.0 31 :OK

SAMPLES TO GO= 46 07:07

STATION # 75

TOC

0.31

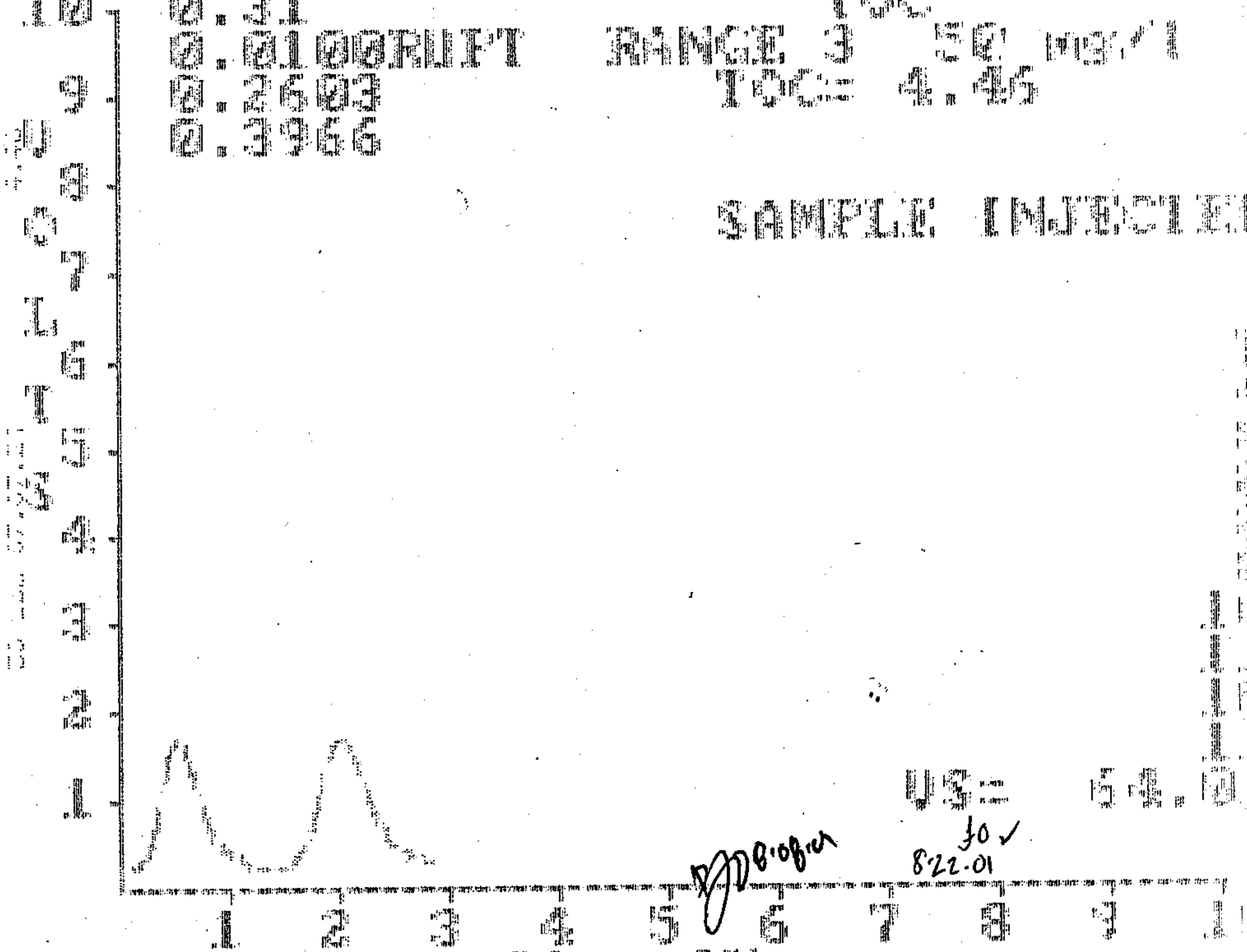
0.0100RUFT RANGE 3 50 mg/l

TOC= 4.46

0.2603

0.3966

SAMPLE INJECTED



US= 54.01

48.4 69.9 31 :OK

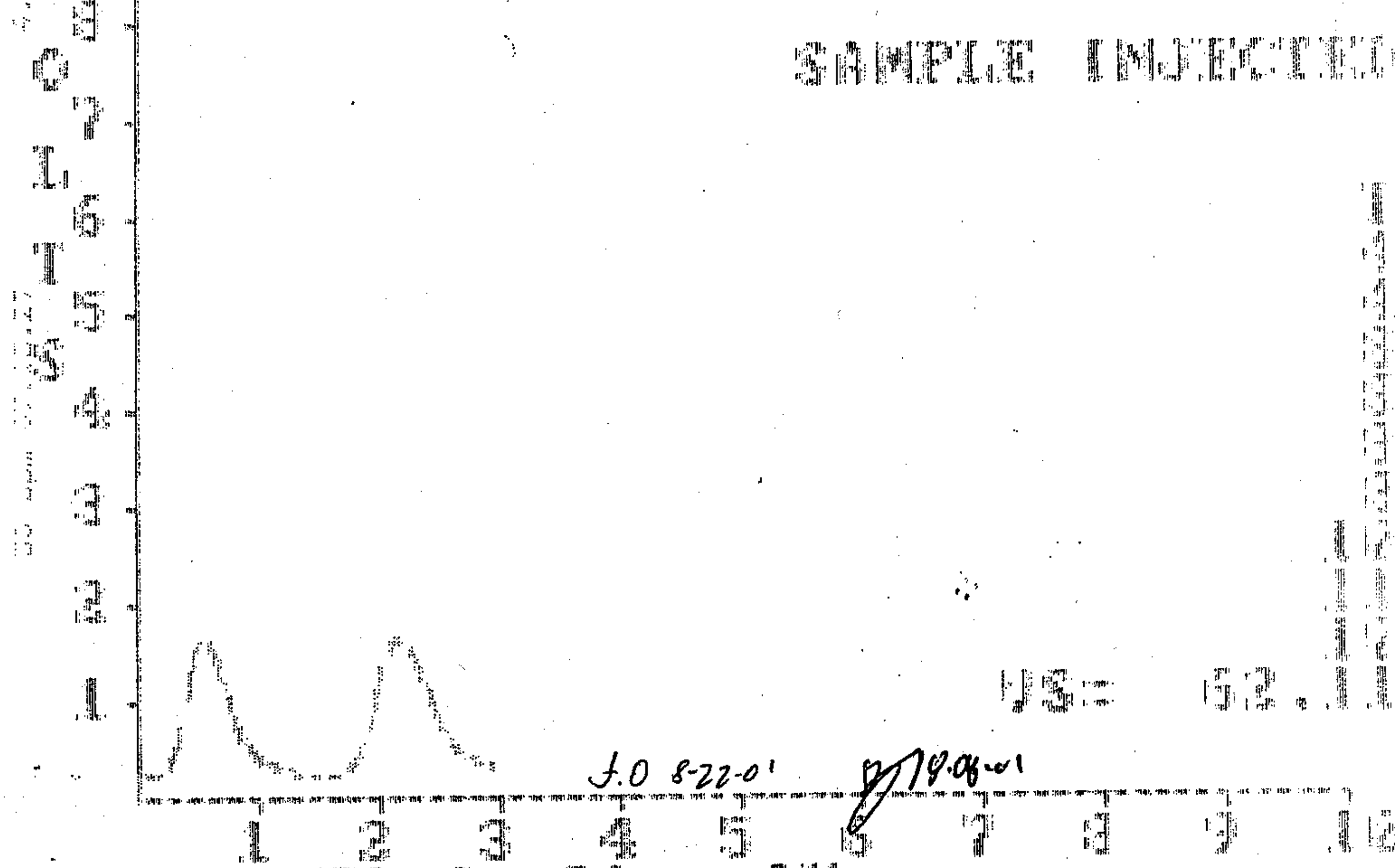
MIN.

8-22-01

13

SAMPLES TO GO= 45 07:15
STATION # 76
0.34 TOC
0.0100RUPI RANGE 3 50 mg/l
0.2598 TOC= 4.23
0.4308

SAMPLE INJECTED



MIN.

48.4 70.4 31 :OK

SAMPLES TO GO= 44 07:3

STATION # 77

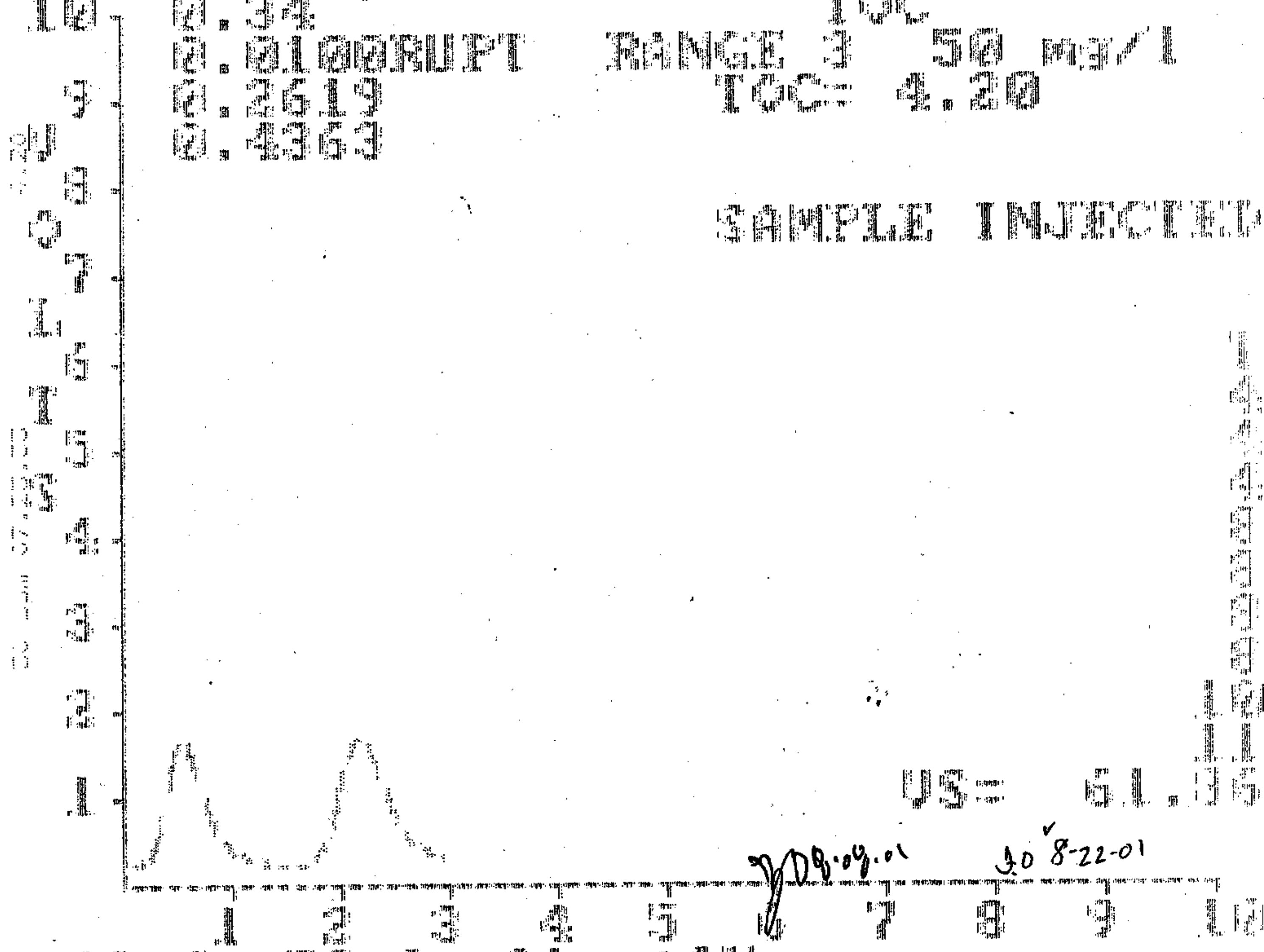
0.34 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2619 TOC= 4.20

0.4363

SAMPLE INJECTED



US= 61.5

48.4 70.6 31 :OK

MIN.

SAMPLES TO GO= 49
STATION # 78
RANGE TOC
TOC= 73.85
IN OUTRANGE
SAMPLE INJECTED
Rerun at
pH
25100
7B.08.01

30

SAMPLES TO GO= 42

07:4.

STATION # 79

TOC

10 0.34

0.0100RUPT RANGE 3 50 mg/l

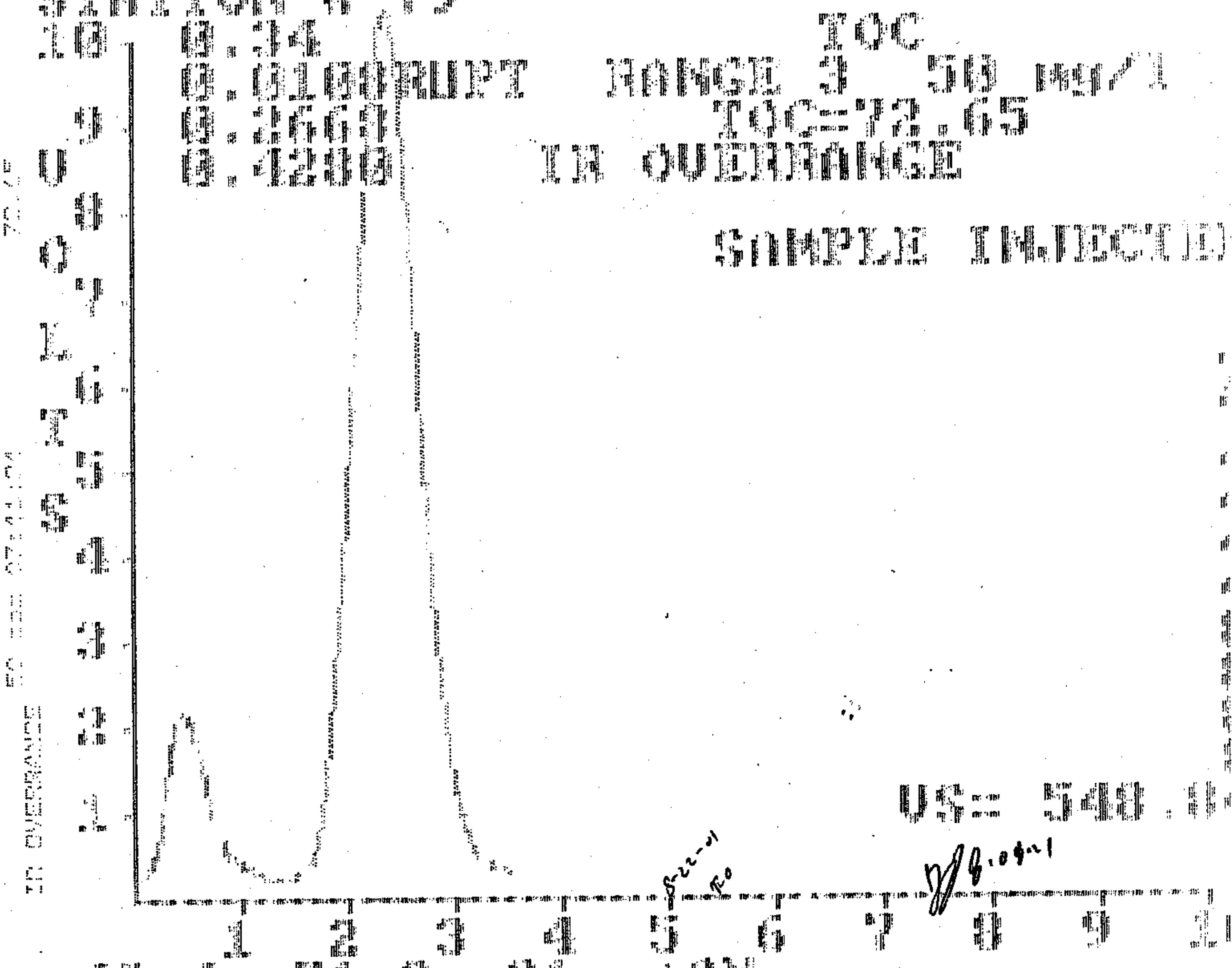
TOC=72.65

0.1660

0.4200 IR OVERRANGE

SAMPLE INJECTED

US= 540.0



48.4 71.2 31 :OK

MIN.

SAMPLE INJECTED
IN QUERANGE
TOC=3.10
RANGE 10
SAMPLE TO GO: 41

SAMPLES TO GO= 40 07:5

STATION # E1

TOC

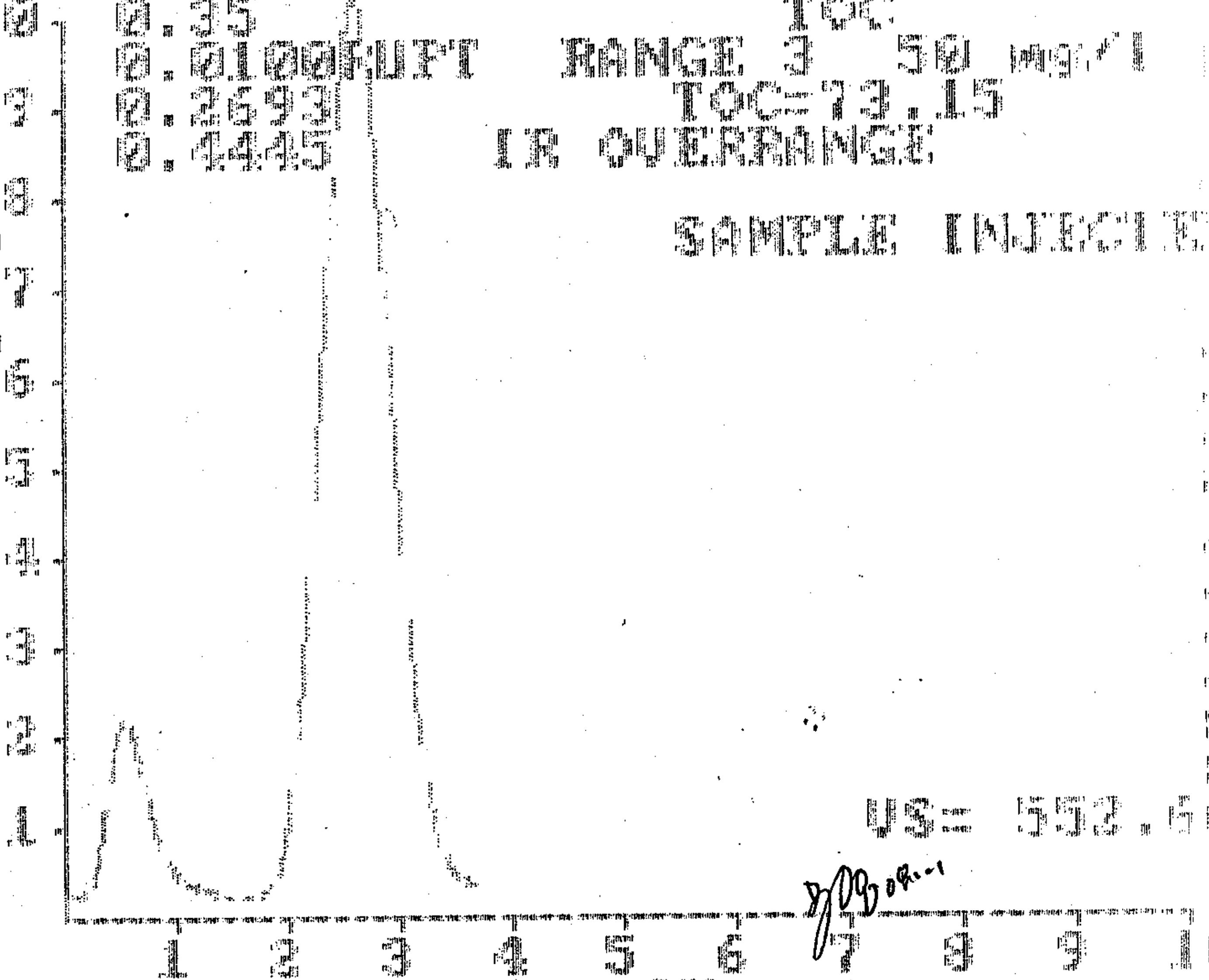
0.35

0.0100RUPT RANGE 3 50 mg/l

0.2693 TOC=73.15

0.4445 IR OVERRANGE

SAMPLE INJECTE



US= 552.5

47.7 71.7 32 :OK

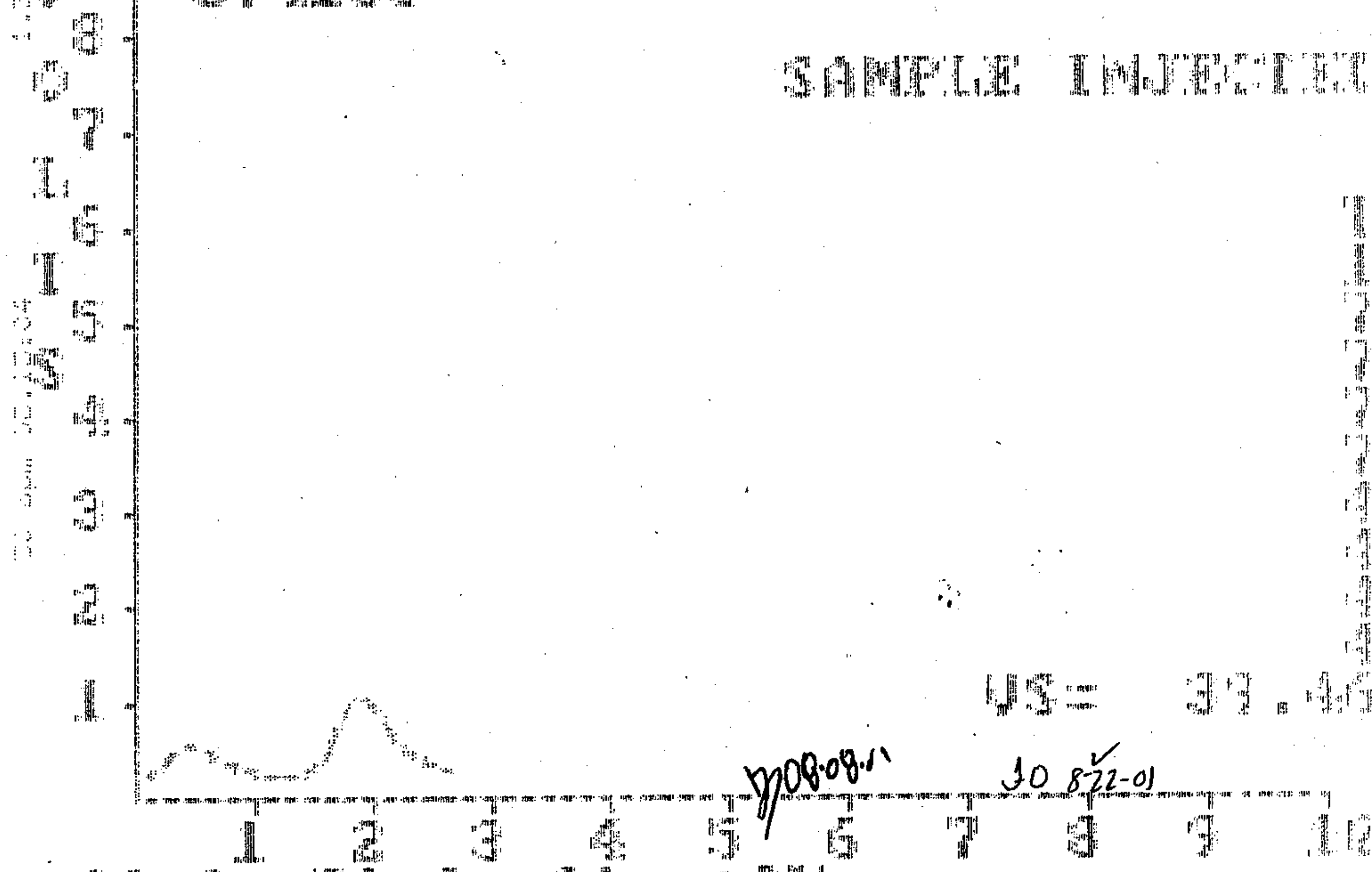
MIN.

SAMPLE INJECTED
3ppm
J.O 8-22-01

17

SAMPLES TO GO= 38 08:15
STATION # 03
10 0.33 TOC
0.0108RUPT RANGE 3 50 mg/l
0.2666 TOC= 1.53
0.4155

SAMPLE INJECTE



MIN.

43.0 71.6 31 :OK

SAMPLE INJECTED
RANGE 100
TOC 1.64
10.08.01
8-22-01

SAMPLES TO GO= 36 08:1

STATION # 05

TOC

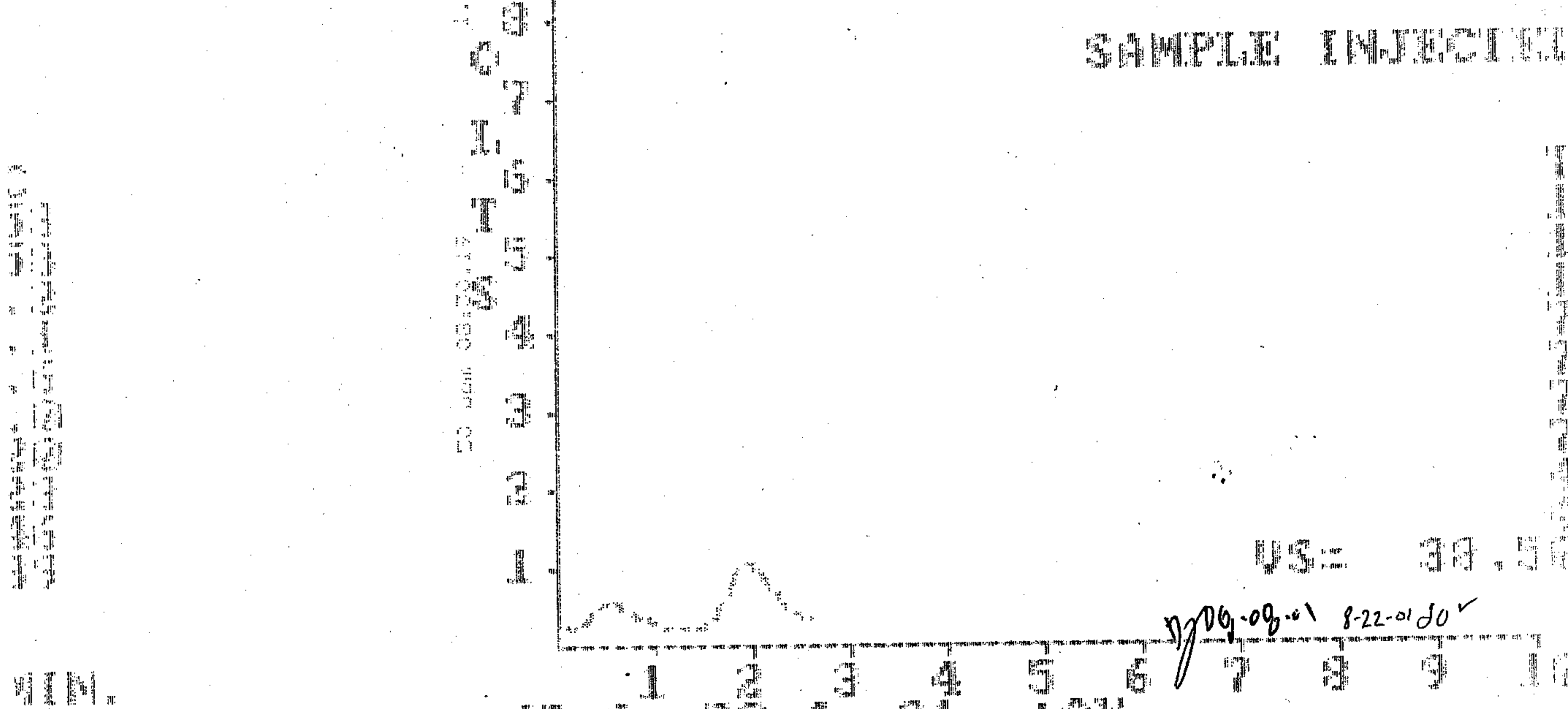
10 0.35

0.0100DRIFT RANGE 3 50 mg/l

0.2567 TOC= 1.41

0.4414

SAMPLE INJECTI

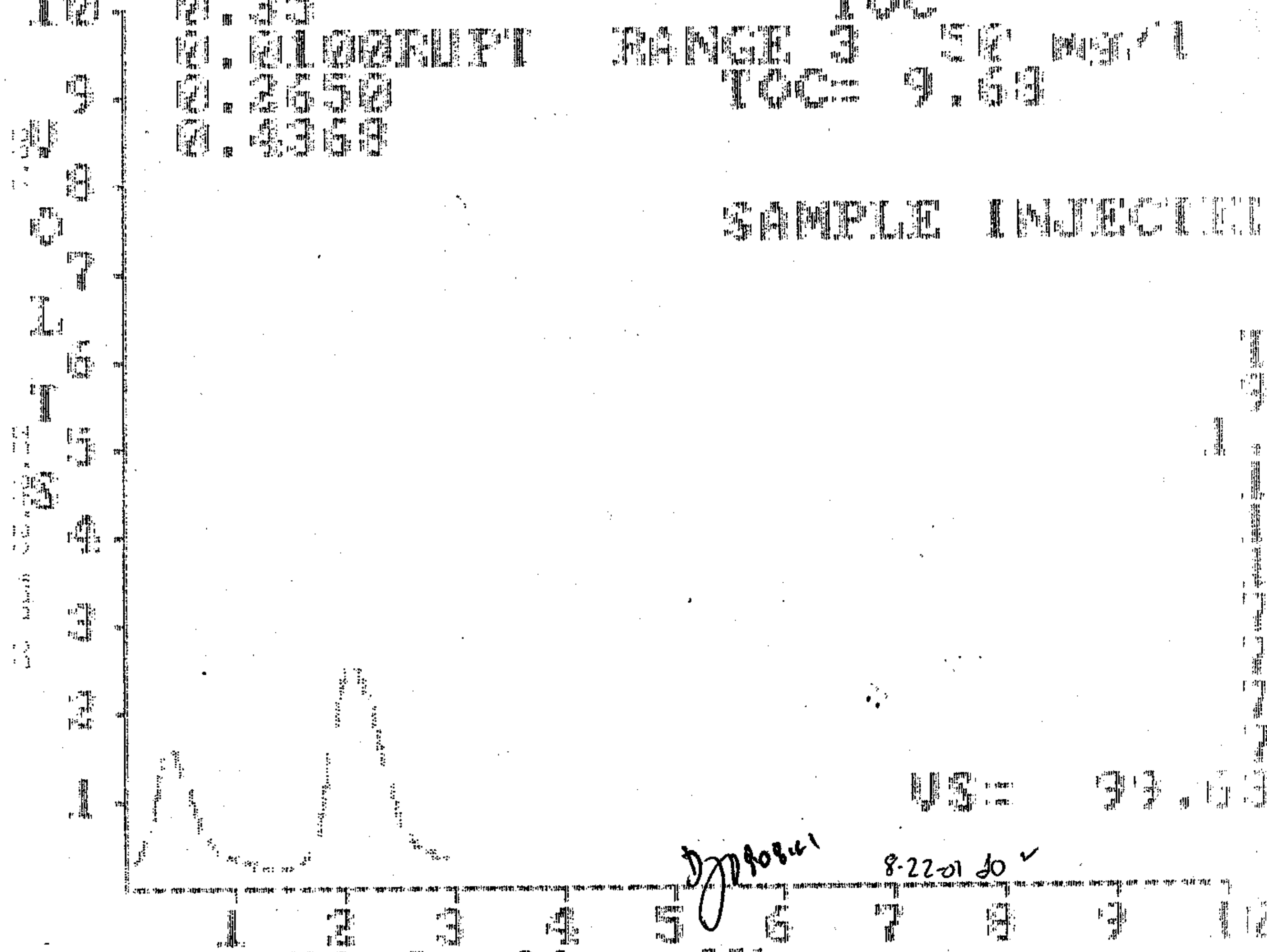


47.3 70.4 31 :OK

SAMPLES TO GO: 35
STATION # 86
RANGE TOC
TOC= 3.12
SAMPLE INJECTED
11 ppm
8/09-08-01
8-22-01

SAMPLES TO GO= 34 05:45

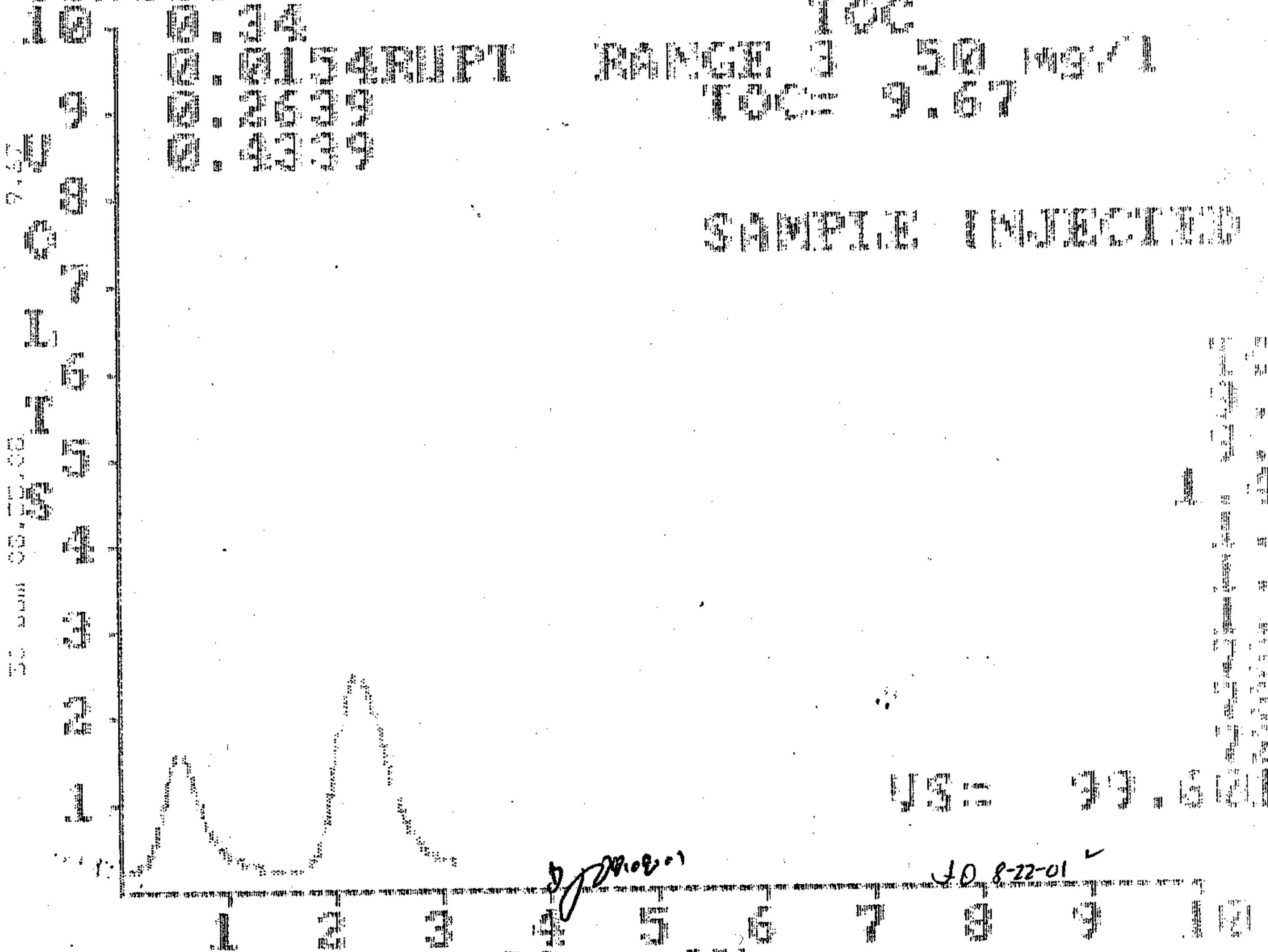
STATION # 87



MIN.

48.0 71.6 31 :OK

SAMPLES TO GO= 33 08:55
STATION # 88
TOC
0.14
0.0154RUPT RANGE 3 50 mg/l
0.2639 TOC= 9.67
0.4339



48.0 71.3 31 :OK

IN.

JD 8-22-01

27

SAMPLES TO GO= 32 01:

STATION # 89

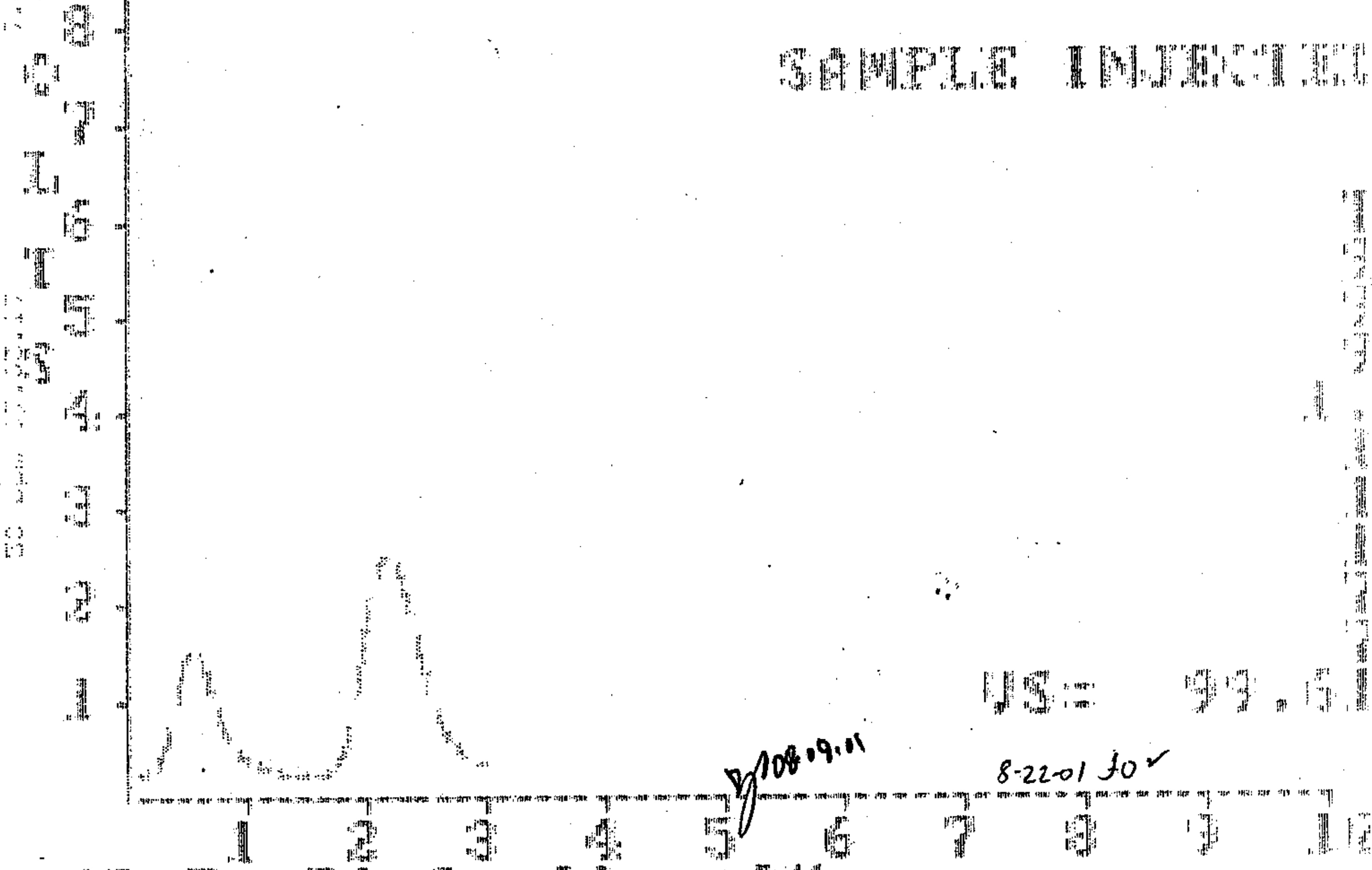
.10 0.35 TOC

0.0100RUPI RANGE 3 50 mg/l

0.2637 TOC= 9.68

0.4396

SAMPLE INJECTE



US= 99.6

108.9.11

8-22-01 JO ✓

MIN.

47.7 71.3 31 :OK

SAMPLES TO GO= 31

STATION # 96

RANGE 3 TOC

TOC 6.36 mg/l

SAMPLE INJECTION

BDL

US= 31.

8-22-01

SAMPLES TO GO= 30
RANGE: TOC
TOC: 0.36
SAMPLE INJECTION
08.08.1
8-22-01

SAMPLE INJECTED
8-22-01

SAMPLES TO GO: 38
ATION # 33
RANGE: 150
TSC: 0.35
SAMPLE INJECT
USE: 21.
8-22-01

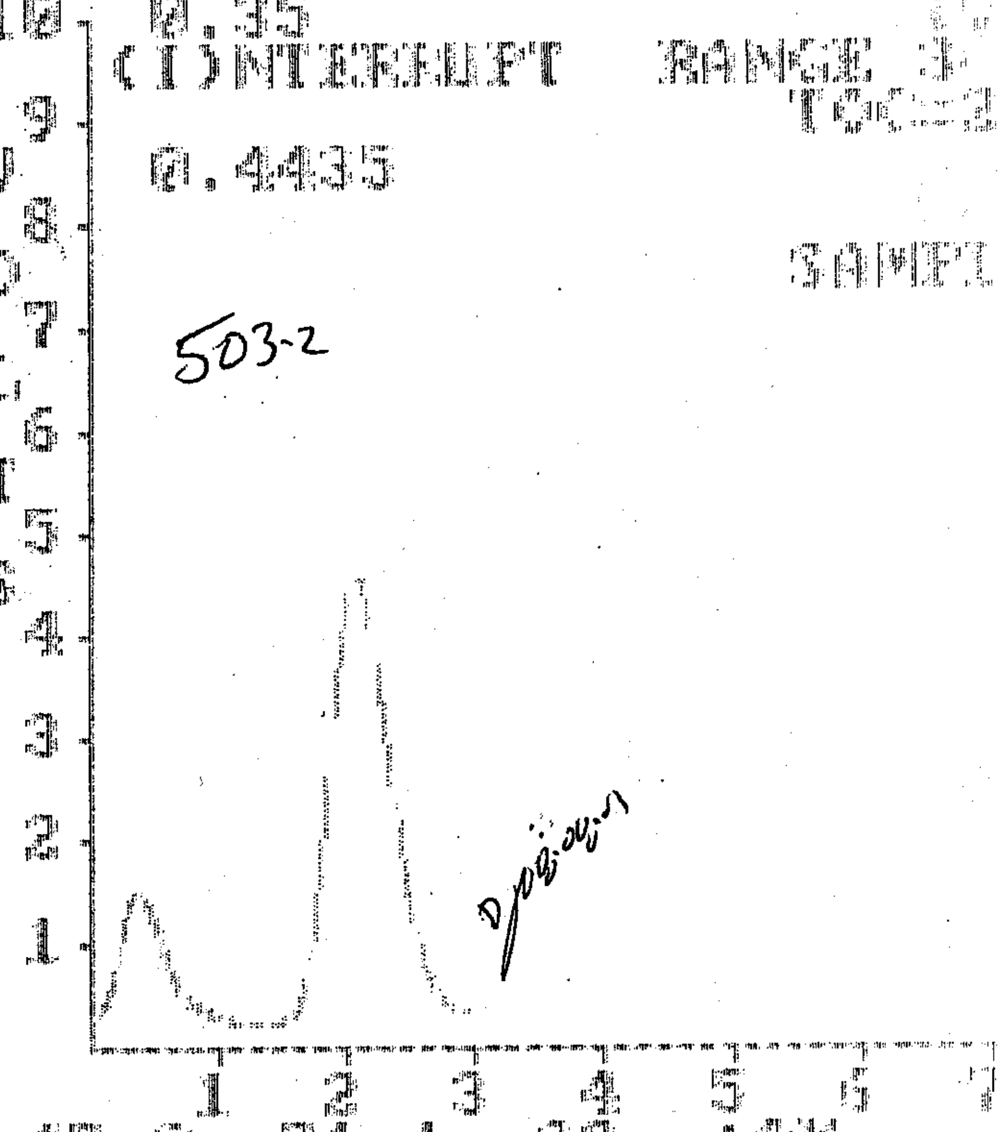
TOC
RANGE 3.50 mg/l
TOC=27.48
SAMPLE INJECTED
29.0 ppm
96.8%
8-22-01

SAMPLE INJECTED
RANGE: 10C
TOC= 0.38 mg/L
BDL
10-22-01

SAMPLES TO GO= 11
STATION # 4
10 0.35
(I)NTERRUPT RANGE 3
TC=2

0.4435

SAMPL



47.0 71.1 33 :OK

15:14:30

50 mg/l
.06

INJECTED

TOC
22.6
21.9

S= 184.6394

JO 8-22-01

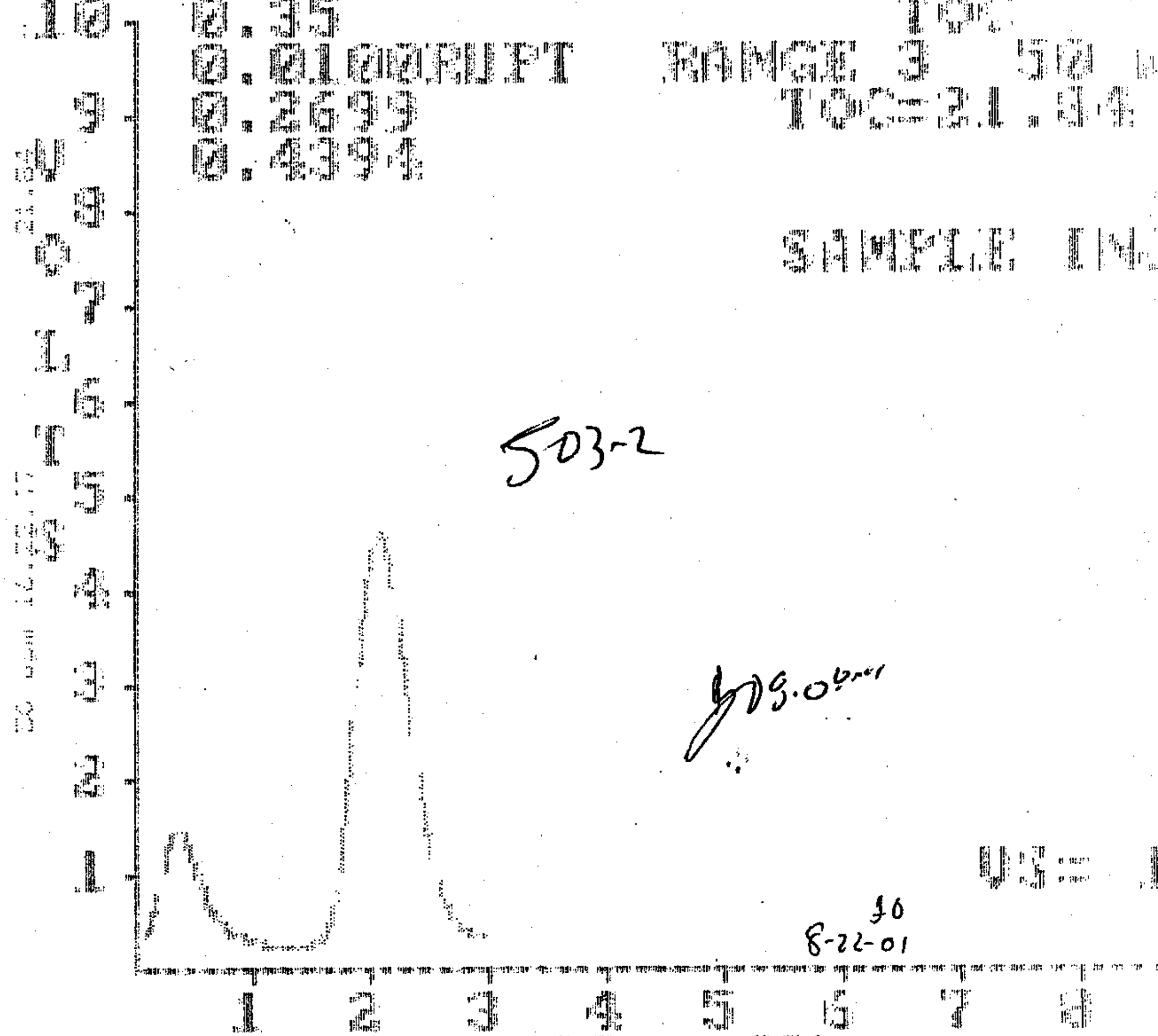
8 9 10 MIN.

SAMPLES TO GO= 10
STATION # 5

TOC

0.35
0.0100RUPT RANGE 3 50 m
0.2699 TOC=21.84
0.4394

SAMPLE IN



US=

48.0 70.5 33 :OK

DIL 25/100

J03-3

95 ppm

DL=4

DB080...

10 8-22-17

503-3

6:39:31

/1

CTED

TOC
22.5
21.3
22.1
22.5
21.9

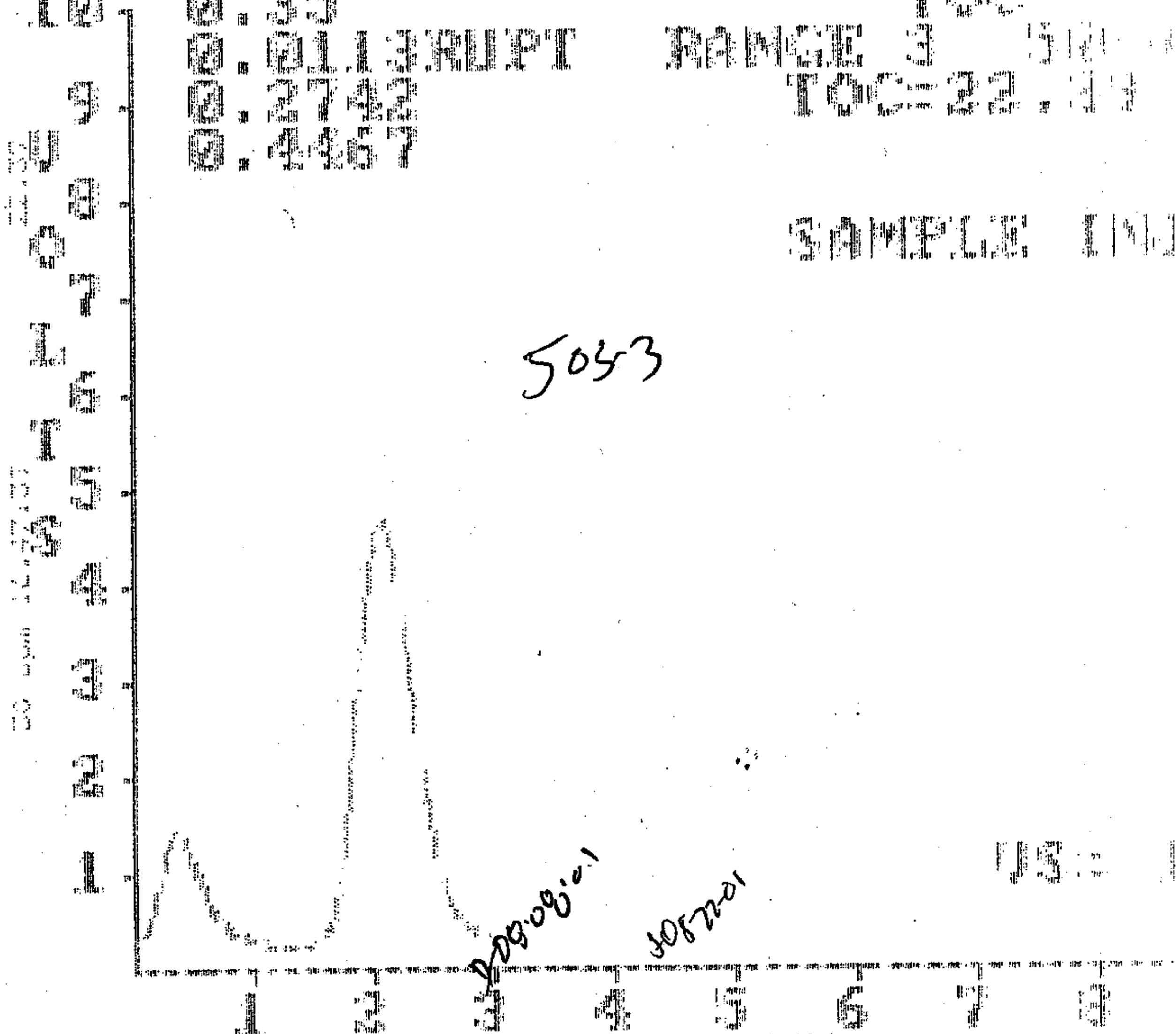
1.5395

10 MIN.

SAMPLES TO GO= 7
STATION # 8

TOC
0.35
0.0113RUPT RANGE 3 50
0.2742 TOC=22.3
0.4467

SAMPLE IN



47.7 70.6 34 :OK

6:47:38

TOC
23.3
23.5
21.8
21.4
21.5
21.9

6.8673

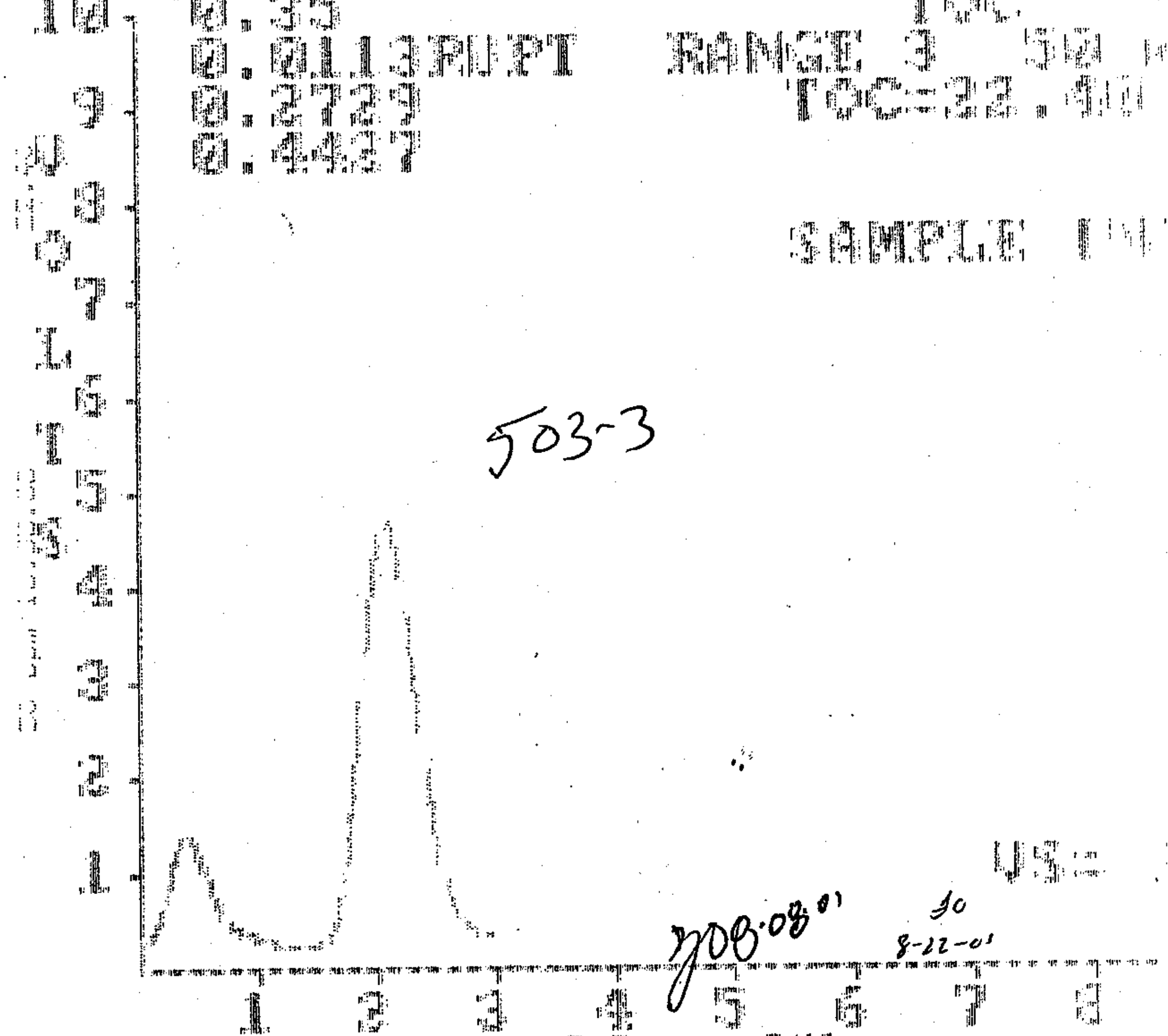
10 MIN.

SAMPLES TO GO= 6
STATION # 9

TOC

10 0.35
0.0113RUPT RANGE 3 50
0.2729 TOC=22.40
0.4437

SAMPLE IN



48.0 71.1 34 :OK

Dil 251:00
176 ppm
DL=4
503.7
18:09:01

7:04:05

71

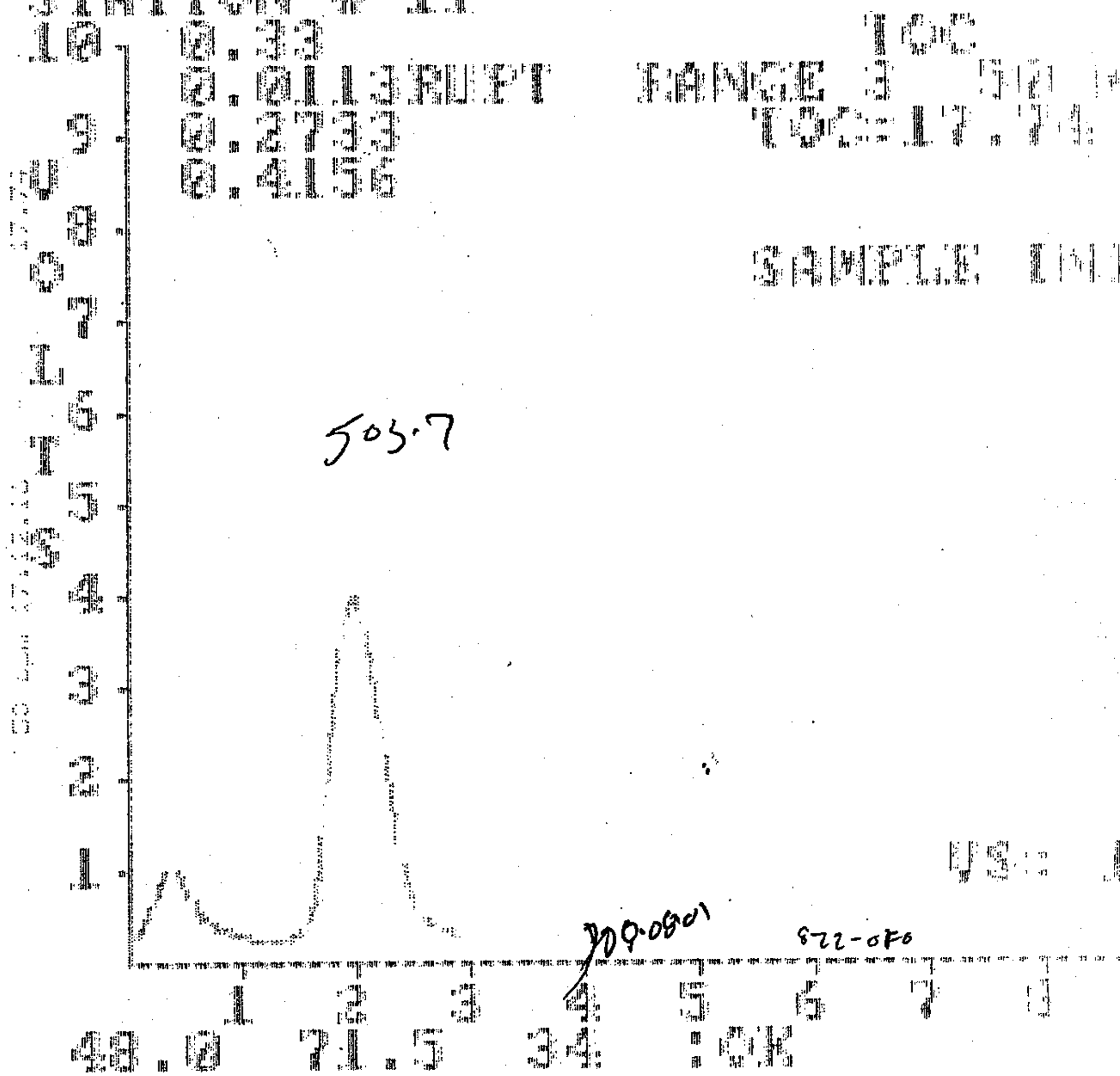
ICED

TOC
33.4
33.6
33.7
33.5
38.3
32.1
33.5
31.9

3.7218

10 MIN.

SAMPLES TO GO= 4
STATION # 11

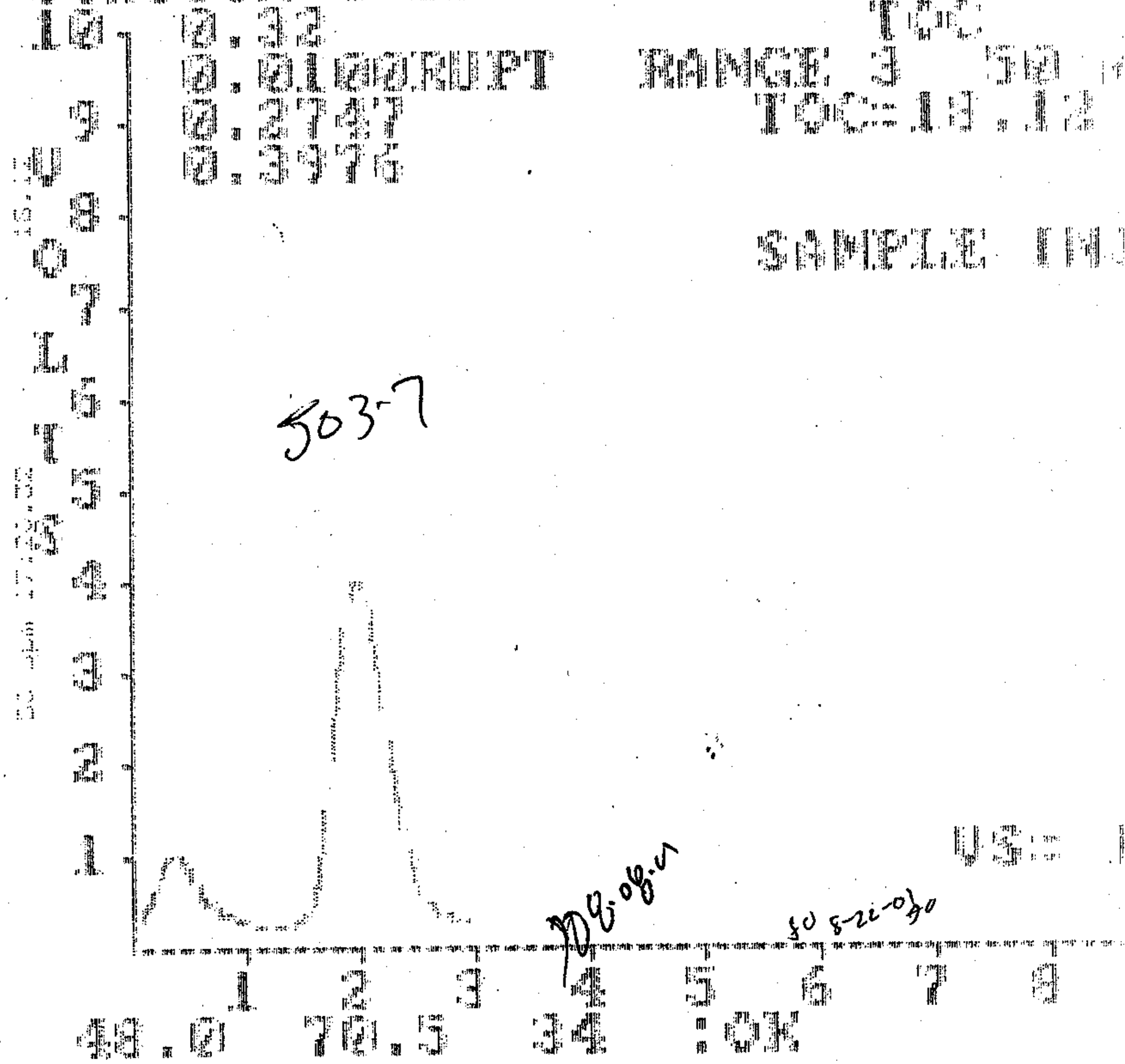


7:13:15

ICED

10 MIN.

SAMPLES TO GO= 3
STATION # 12



10:11:35
TOC
RANGE 3.52 MG/L
CALIBRATION COMPLETE
SAMPLE INJECTED
US: 330.4358
0 1 2 3 4 5 6 7 8 9 10 MIN.

IMPLES TO GO= 4 18:19:35

ATION # 2

TOC

0.34

0.2100RUPT RANGE 3 50 mg/l

0.2751 TOC=21.62

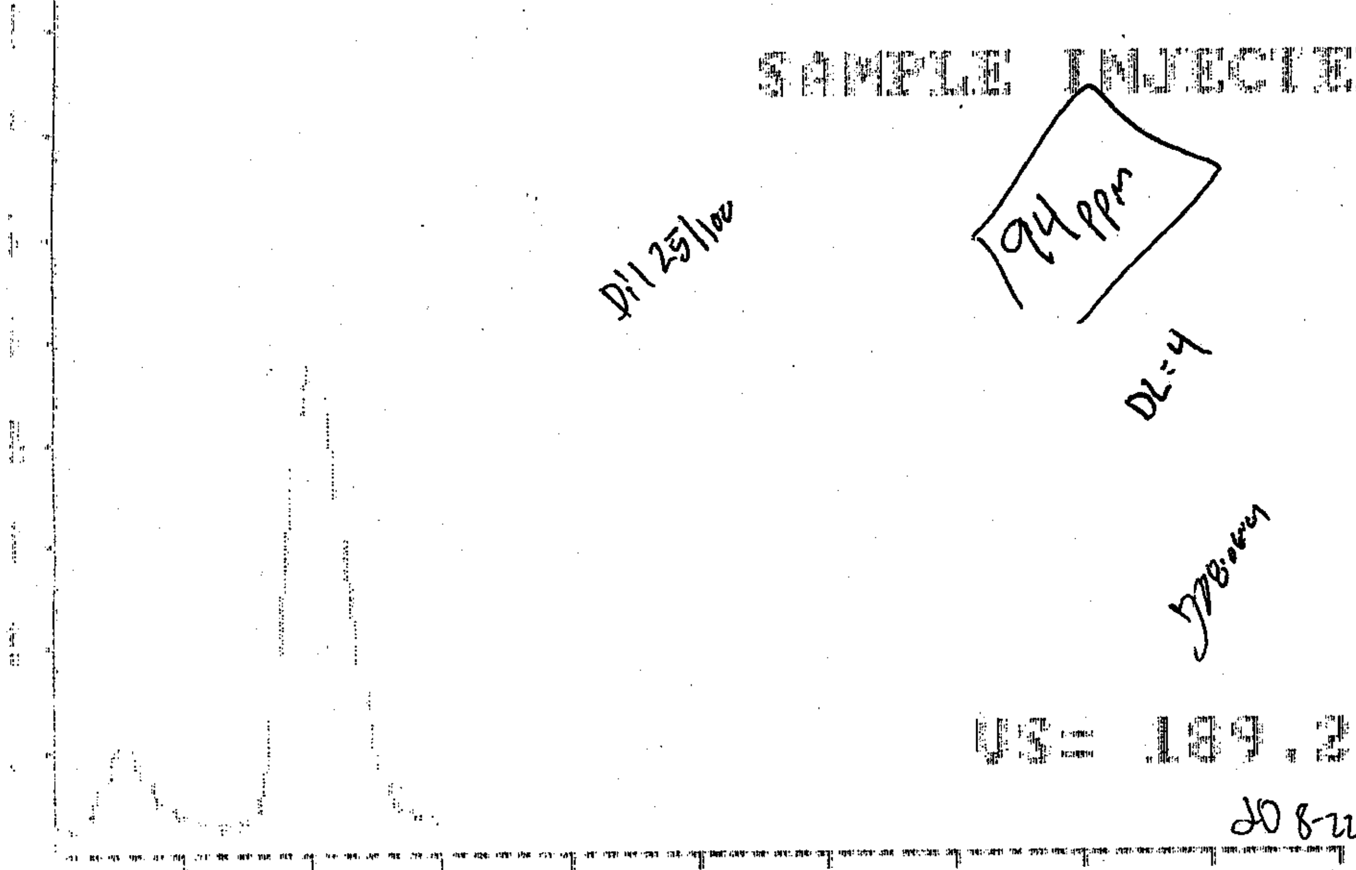
0.4275

SAMPLE INJECTED 503-2

Dil 25/100

94 ppm

DL=4



VS= 189.2247

8-22-01

53.4 70.3 35 10K

SAMPLES TO GO= 3 18:27:42

STATION # 3

0.33

TOC

0.0111RUPI RANGE 3 50 mg/l

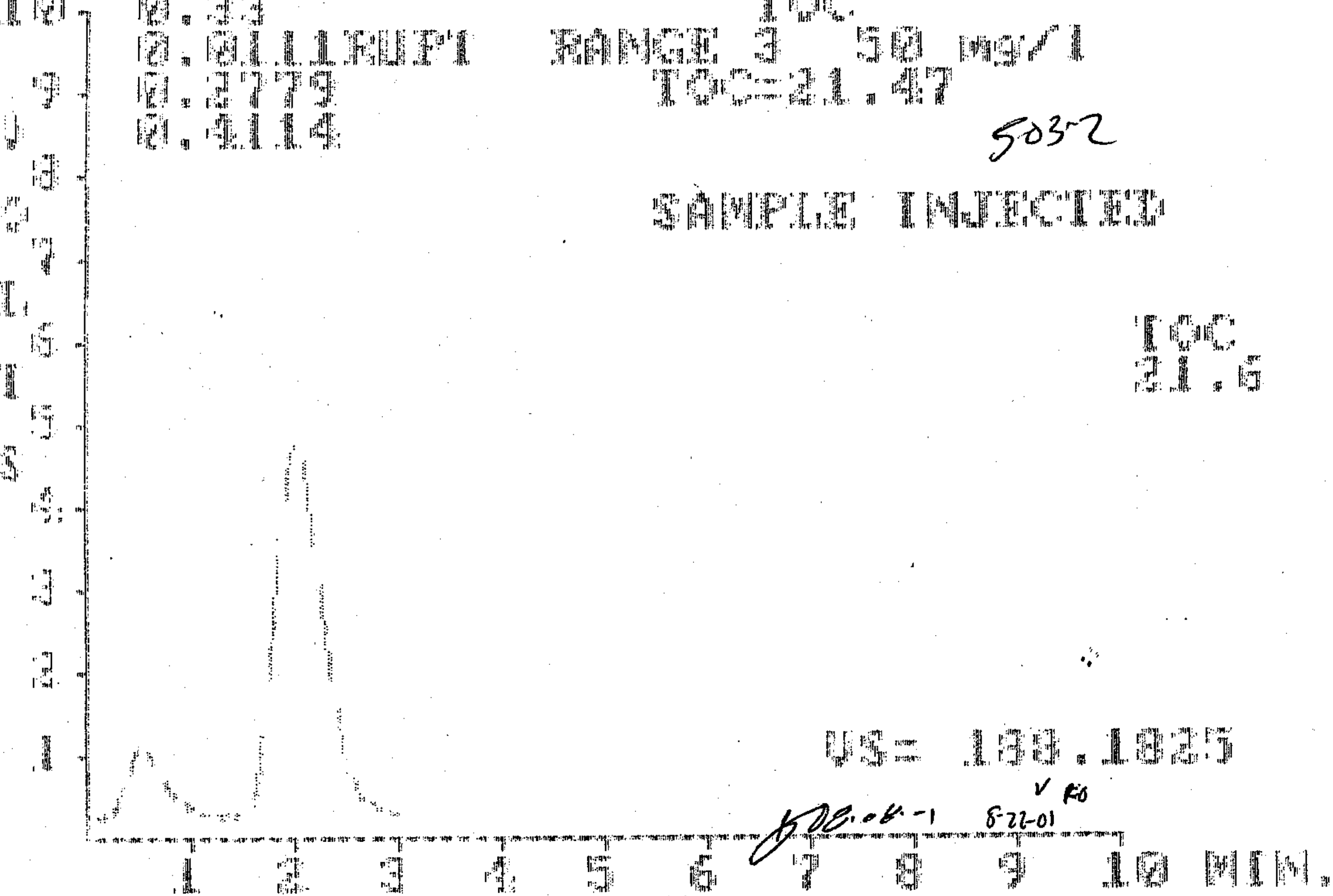
0.2779 TOC=21.47

0.4114

503-2

SAMPLE INJECTED

TOC
21.6



US= 188.1825

8-22-01

49.4 70.7 35 :OK

SAMPLES TO GO= 2 18:55:54

STATION # 4

0.31 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2788 TOC=16.91

0.3976

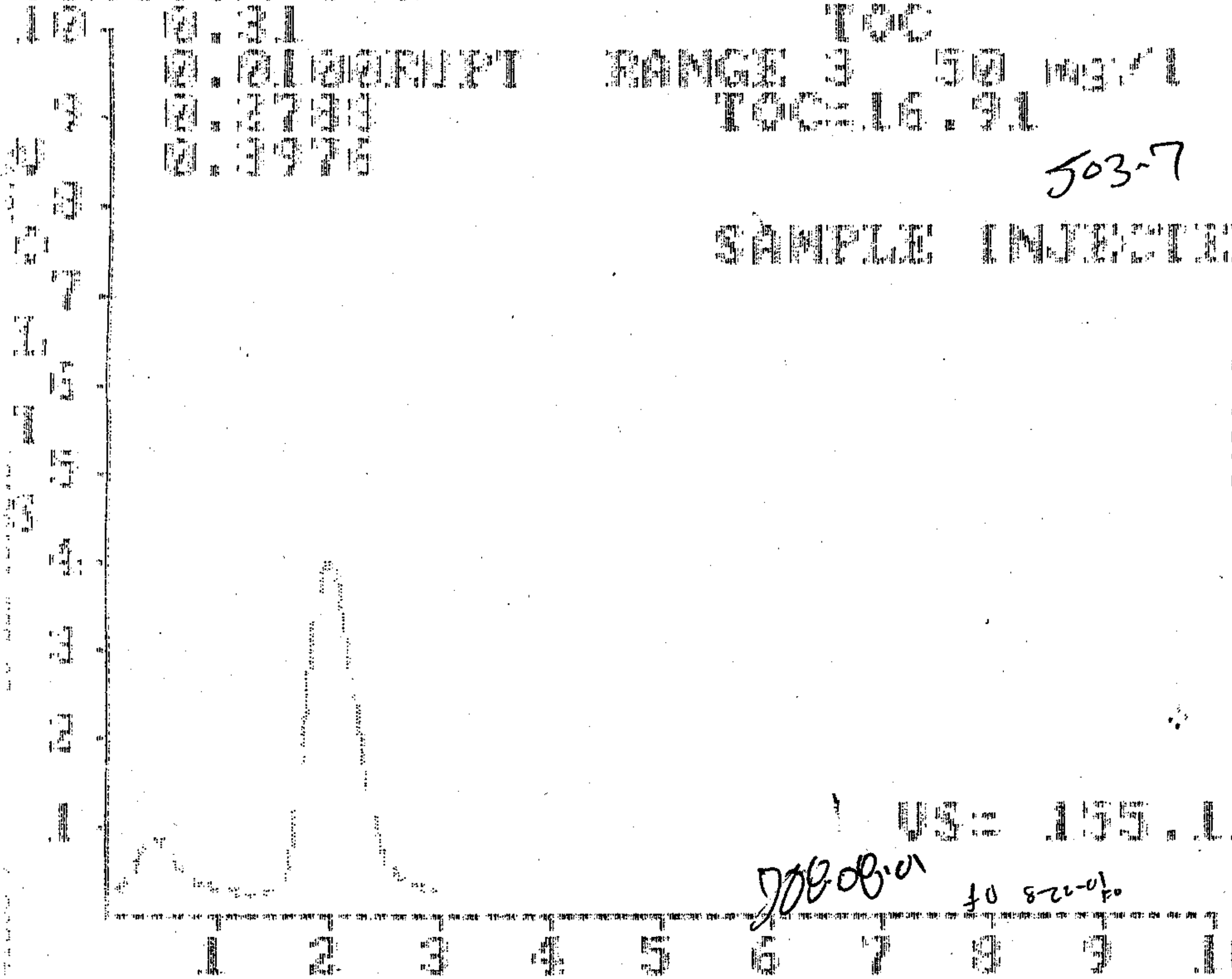
J03-7

SAMPLE INJECTED

TOC
21.5
21.6

US= 155.152

JDB 08.01 fO 8-22-01



48.4 72.0 35 :OK

SAMPLE INJECTED
29.6 ppm
98.8%
JDB-08-1
JD 8-22-01
10 MIN.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271 revised (8/2/00)						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
355	Waters	Volatiles	8260B	C	85	93.5	119	163.625	79.475	76.5
330	Waters	TPH	FL-PRO	C	68	74.8	95.2	130.9	63.58	61.2
330	Waters	TOC	9060	C	25	27.5	35	48.125	23.375	22.5
330	Waters	Alkalinity	EPA 305.1/310	C	8	8.8	11.2	15.4	7.48	7.2
330	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	30	33	42	57.75	28.05	27
330	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
330	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
330	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	120	130	170	220	115	120
330	Waters	Acetic Acid	HPLC/UV--see note 1.)	C	172.5	189.75	241.5	332.0625	161.2875	155.25
330	Waters	Butyric Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Lactic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Propionic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Pyruvic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5

ATTACHMENT B

lab bid form

1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	8.4.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	8.4.00
Lab Representative's Name/Title (please print)	Signature	Date

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

AAL NOTES:

**1.) This quote is based on running an acid scan using a GC (Gas Chromatography) instead of HPLC. Samples will be subcontracted to another laboratory.
TheGC Scan includes all of the acids listed.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
71	Waters	Volatiles	8260B	C	125	137.5	175	240.625	116.875	112.5
66	Waters	TPH	FL-PRO	C	80	88	112	154	74.8	72
66	Waters	TOC	9060	C	40	44	56	77	37.4	36
66	Waters	Alkalinity	EPA 305.1/310	C	15	16.5	21	28.875	14.025	13.5
66	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	40	44	56	77	37.4	36
66	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
66	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
66	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	125	137.5	175	240.625	116.875	112.5
66	Waters	Acetic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Butyric Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Lactic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Propionic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Pyruvic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5
50	Waters	TDS	160.1	B	N/A	16.5	21	N/A	N/A	N/A
50	Waters	Sodium	6010B	B	N/A	16.5	21	N/A	N/A	N/A

ATTACHMENT B
lab bid form

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	7.31.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	7.31.00
Lab Representative's Name/Title (please print)	Signature	Date
David C. Fuller, Vice President		11.01.00
Lab Representative's Name/Title (please print)	Signature	Revised Date of Quotation Submittal

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111051

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does not indicate that the integration is a manual determination. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:

1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

2. Provide evidence of manual intergrations

Resolution recorded by: _____ Date: 11.15.2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

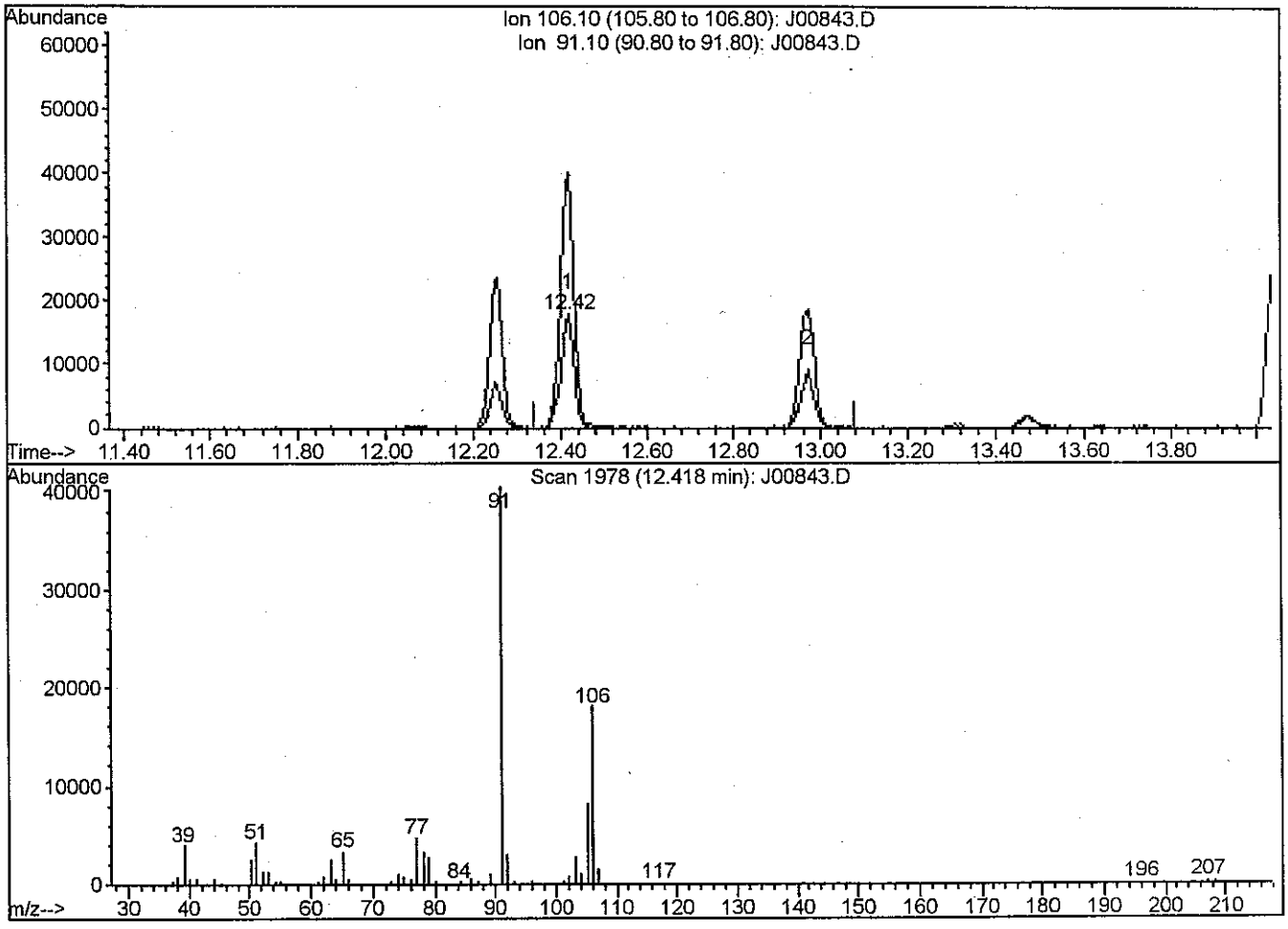
QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 6 15:41 2001 Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00843.D

(59) total-Xylene (TG)

12.42min 2.96ug\L m

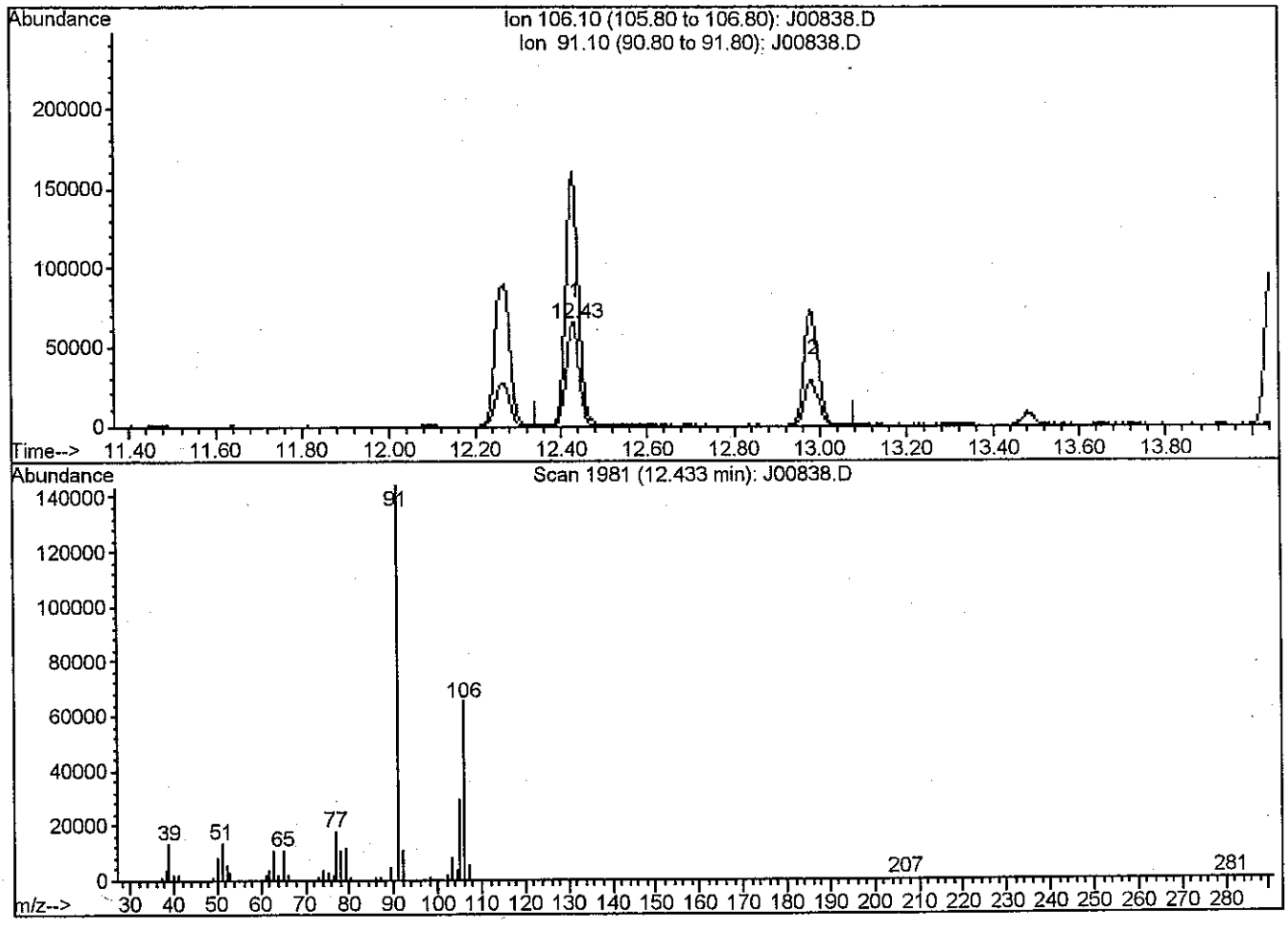
response 55563

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	233.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00838.D

(59) total-Xylene (TG)

12.43min 12.04ug\L m

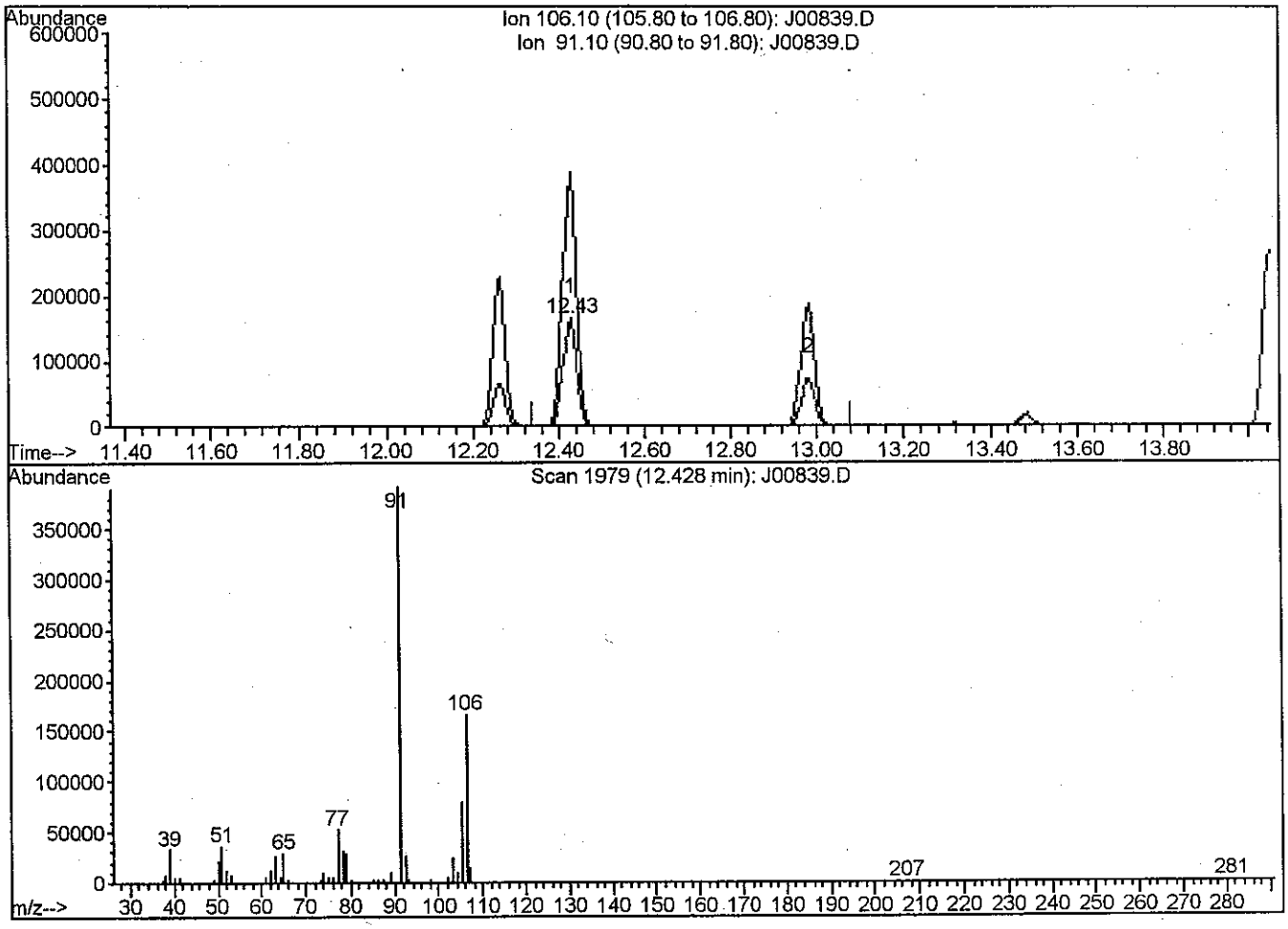
response 210562

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.65#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: 10t2001.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00839.D

(59) total-Xylene (TG)

12.43min 31.11ug\L m

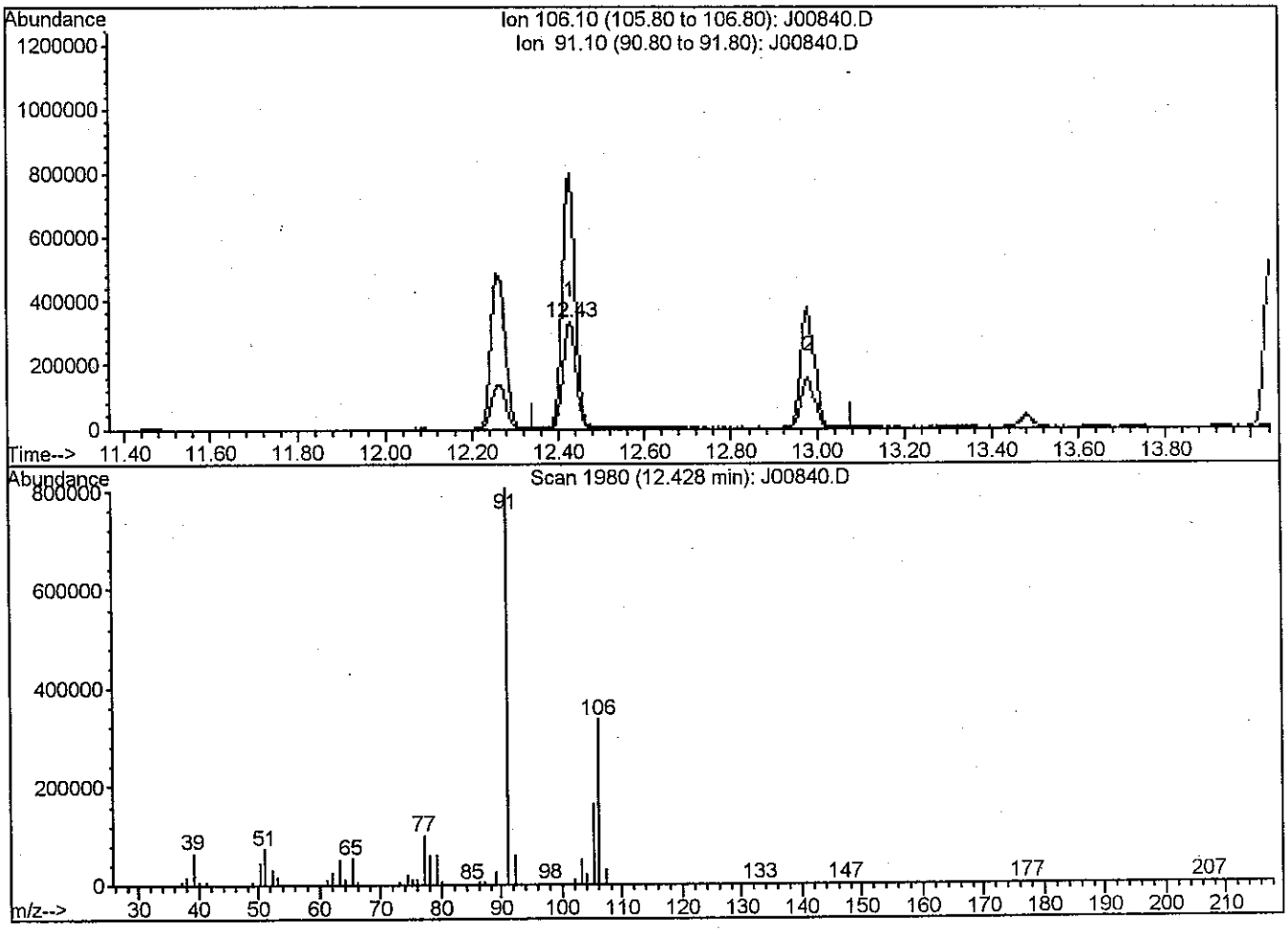
response 518556

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: 40t2001.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00840.D

(59) total-Xylene (TG)

12.43min 61.59ug\L m

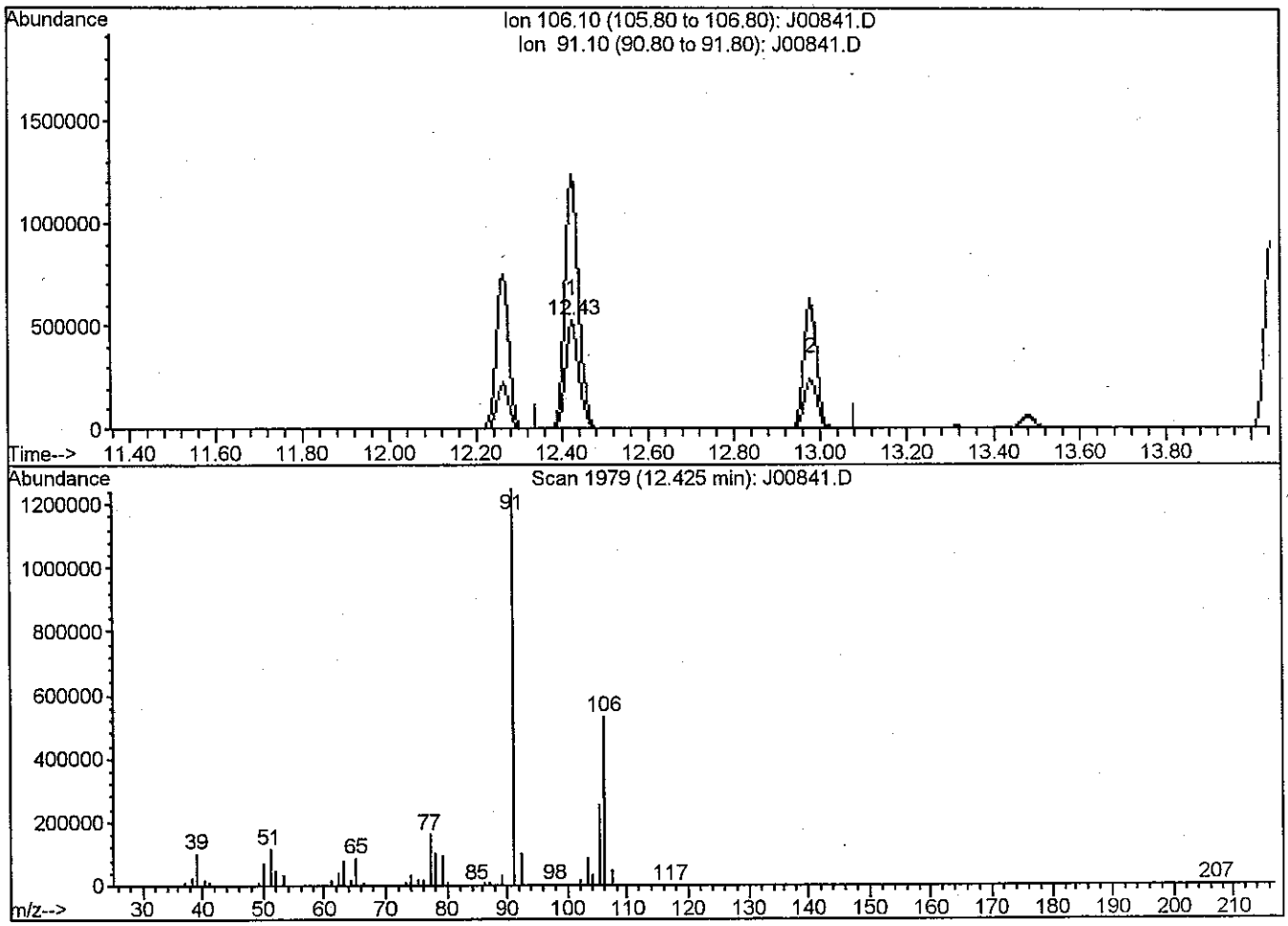
response 1092314

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.49#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 6 15:41 2001 Quant Method: temp.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00841.D

(59) total-Xylene (TG)

12.43min 89.55ug\L m

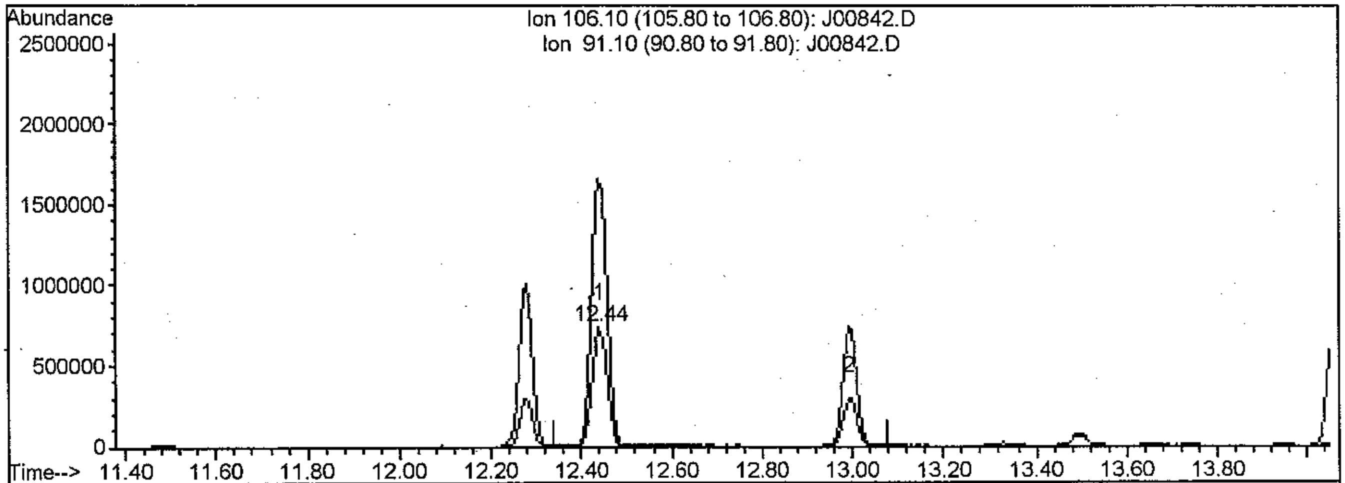
response 1744747

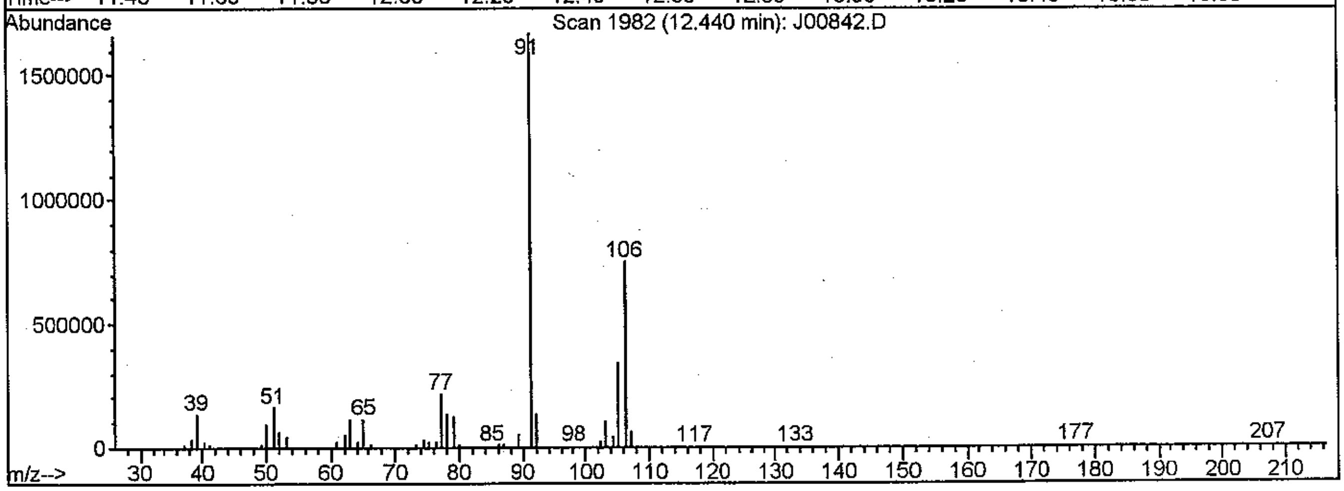
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File	: C:\HPCHEM\1\DATA\1J080601\J00842.D	Vial:	6
Acq On	: 08/06/01 12:30	Operator:	JP/VRR/DAT
Sample	: ICAL 40 PPb (V01083,V01073)	Inst	: HP-MSJ
Misc	: WATER 25ml	Multiplr:	1.00
Q8aibtEgmatiAngPa6ahs:4ît2001t.p		Quant Results File:	temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00842.D

(59) total-Xylene (TG)

12.44min 113.52ug\L m

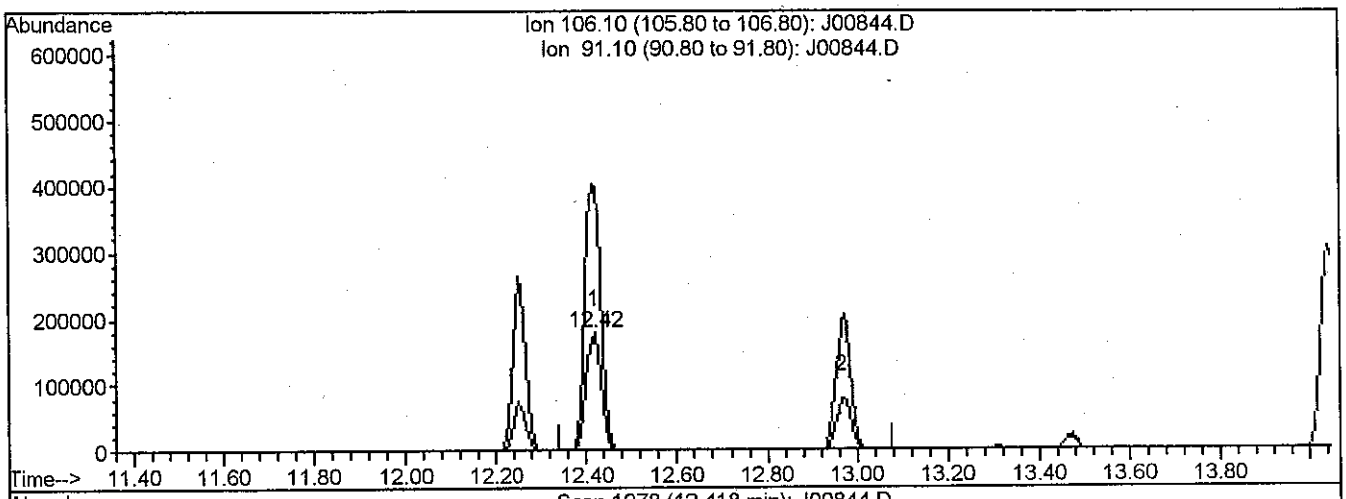
response 2279293

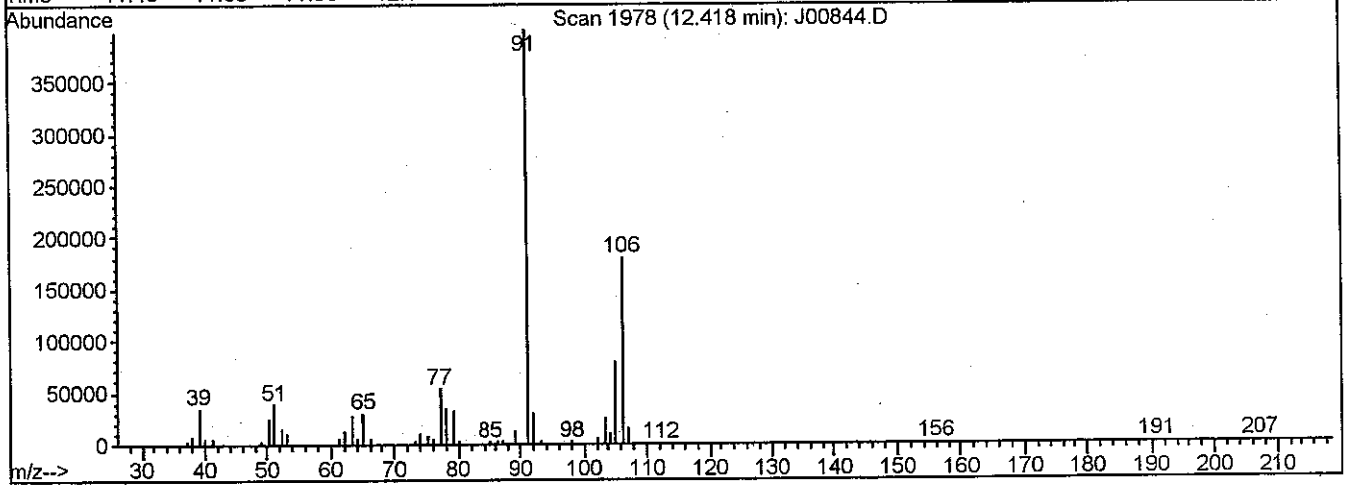
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	236.99#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00844.D

(59) total-Xylene (TG)

12.42min 29.73ug\L m

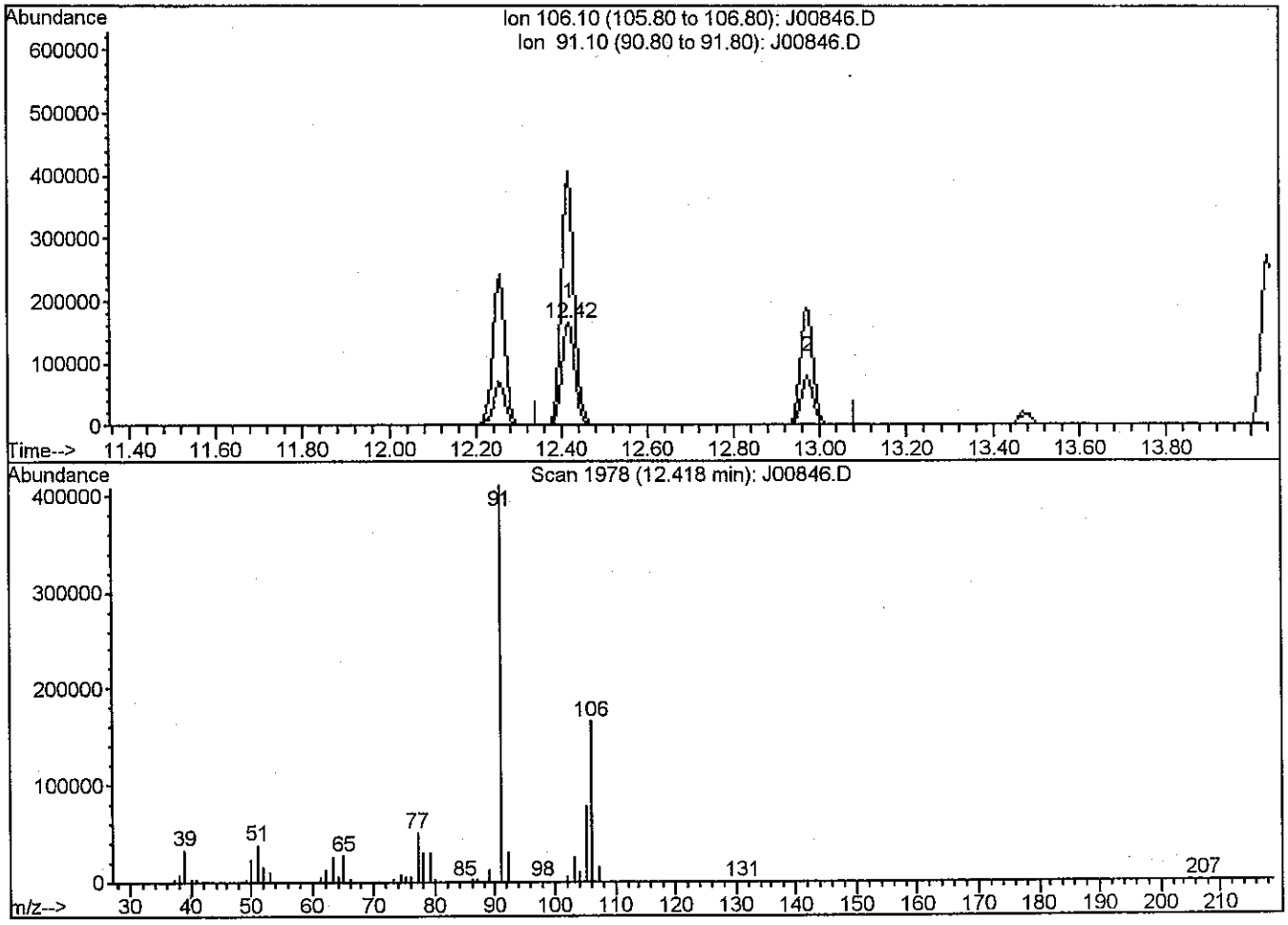
response 572541

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: 8t2001.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00846.D

(59) total-Xylene (TG)

12.42min 28.63ug\L m

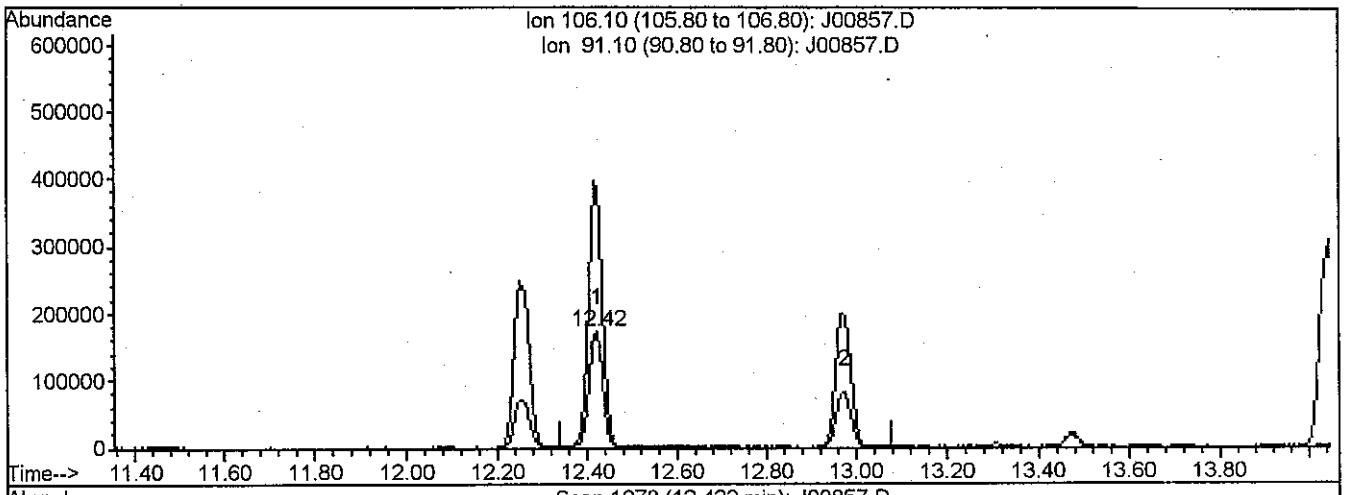
response 539877

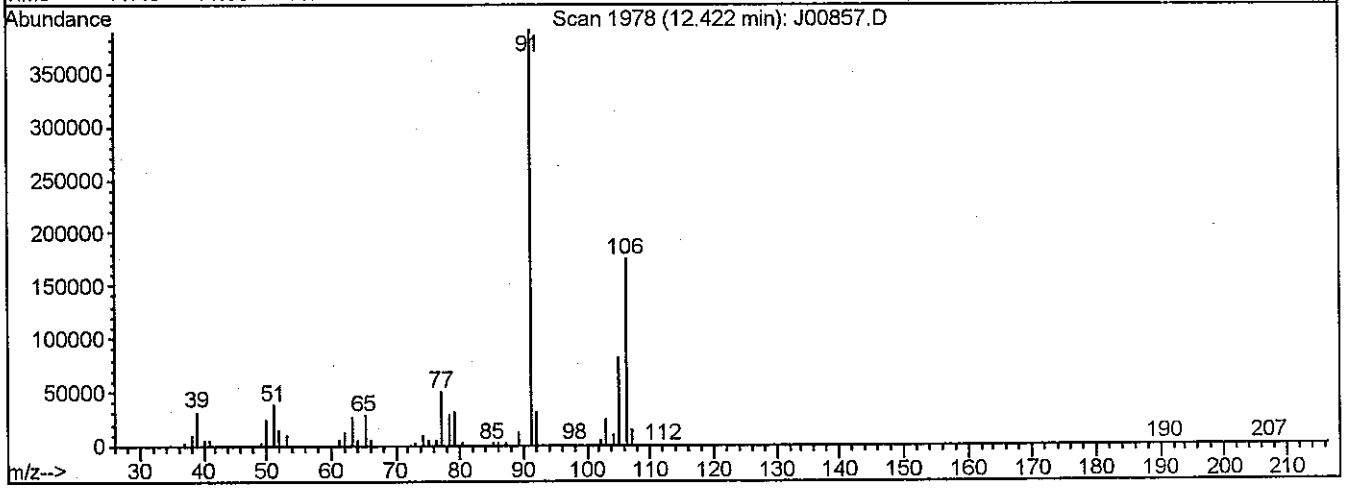
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.29#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00857.D

(59) total-Xylene (TG)

12.42min 31.63ug\L m

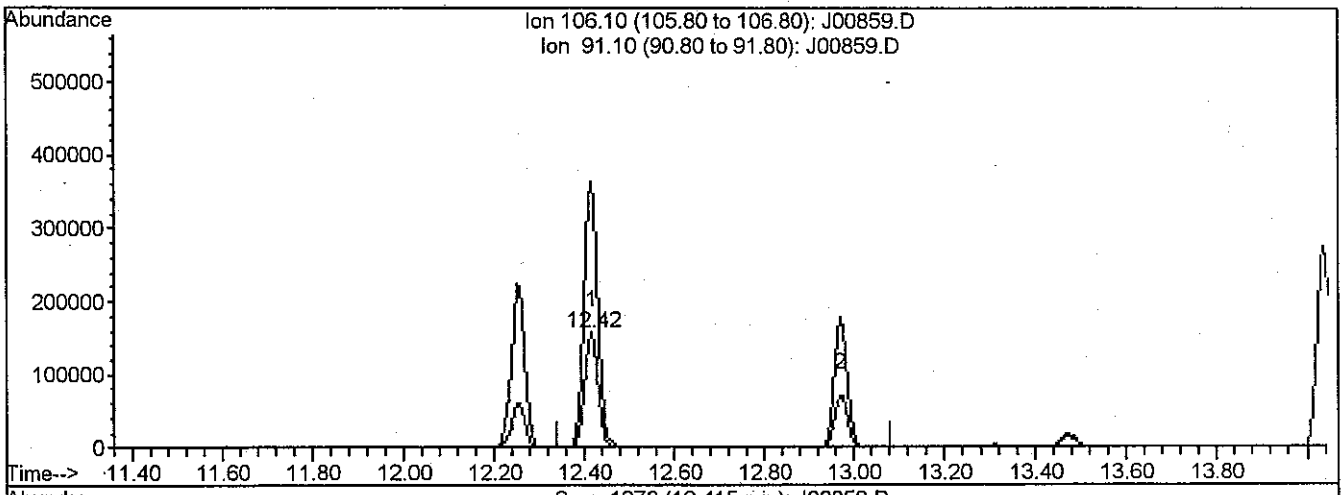
response 571672

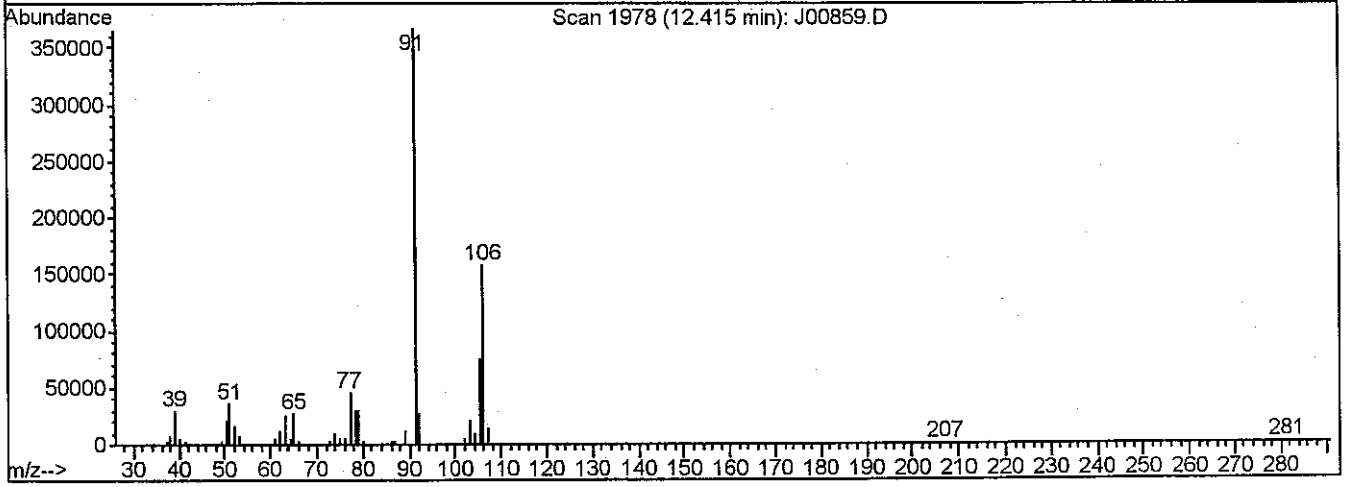
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	229.84#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00859.D

(59) total-Xylene (TG)

12.42min 30.63ug\L m

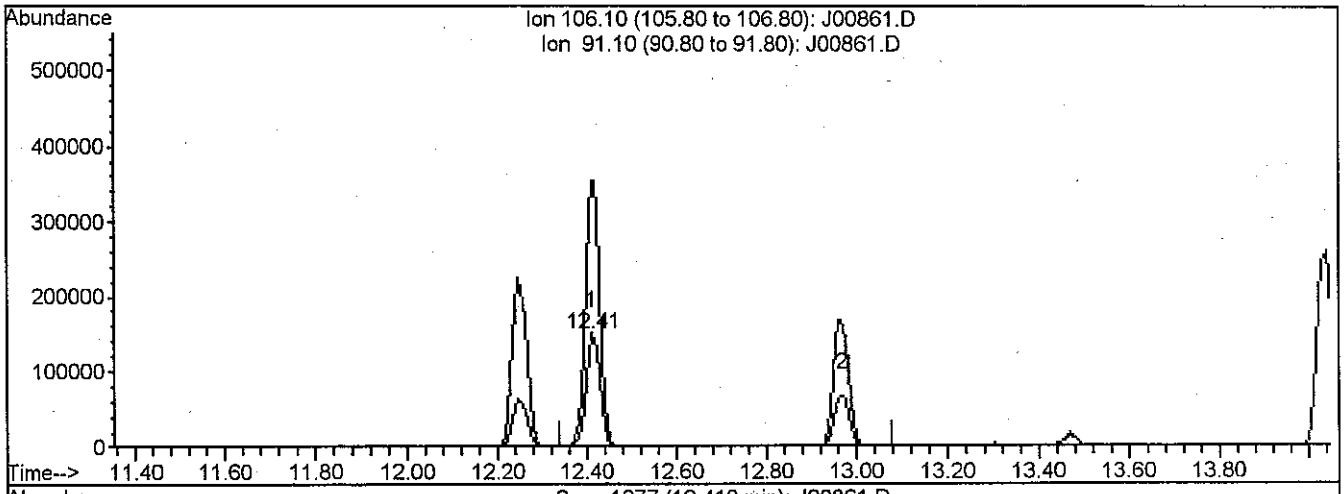
response 505157

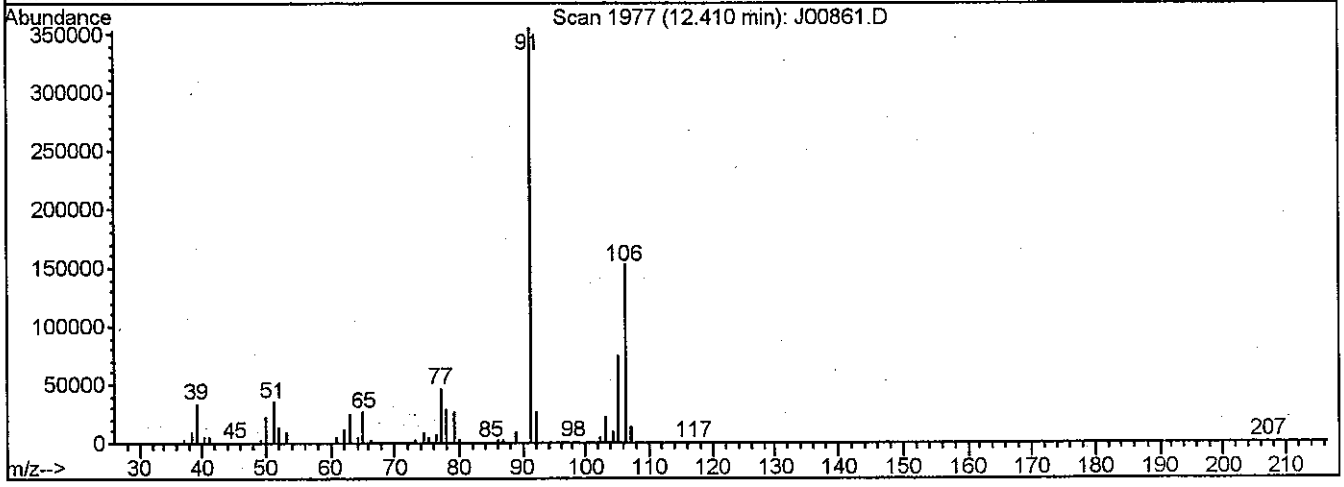
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	237.59#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00861.D

(59) total-Xylene (TG)

12.41min 30.23ug\L m

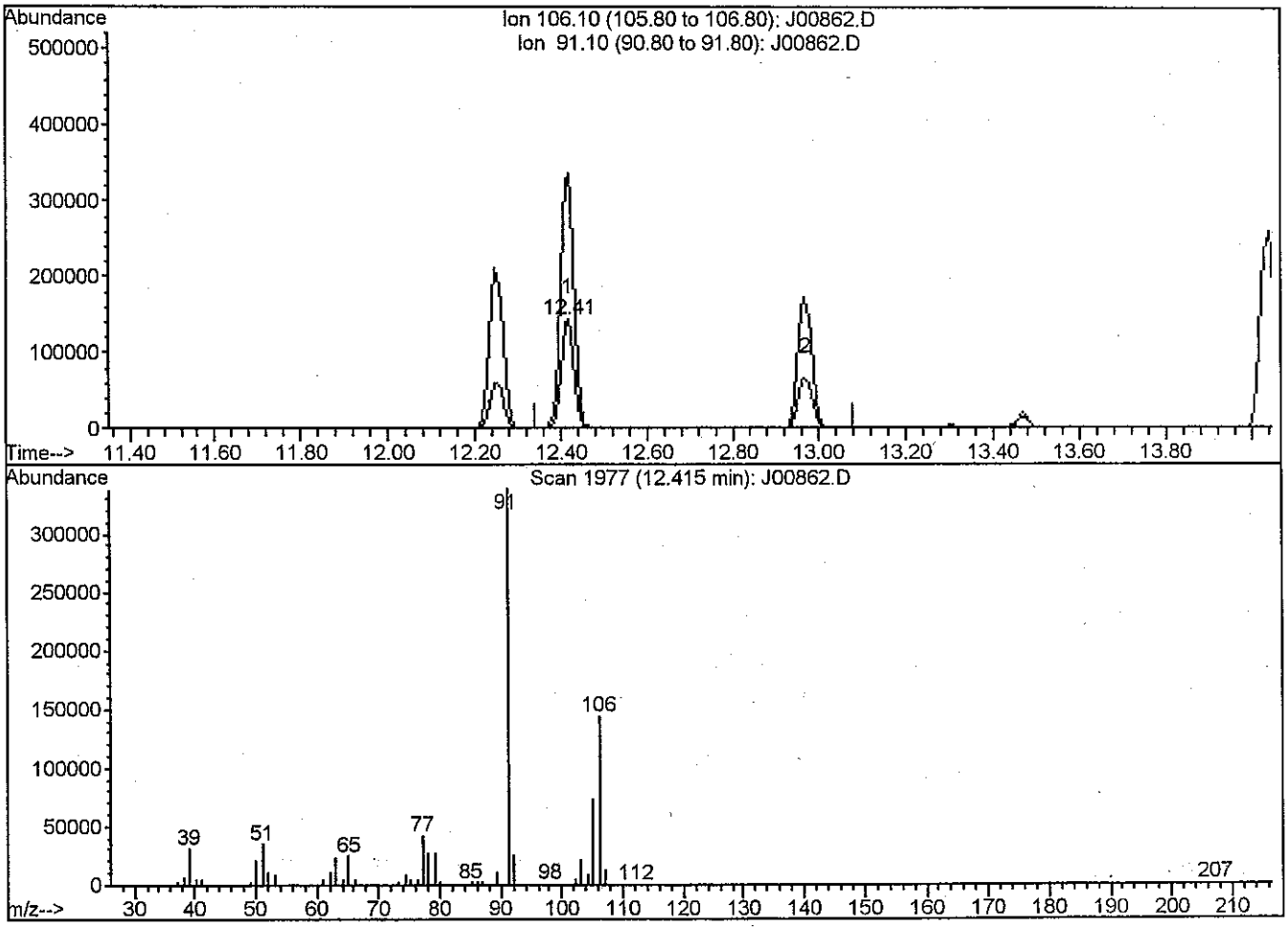
response 487840

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.90#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00862.D

(59) total-Xylene (TG)

12.41min 30.17ug\L m

response 465165

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	243.45#
0.00	0.00	0.00
0.00	0.00	0.00

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111059

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Laboratory cannot report data less than their method detection limit. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01

Resubmit EDD to reflect result equal to or above the associated MDL.

N/A for project 28507

Resolution recorded by: _____ Date: 11/20/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

11/20/01

QA Review by: _____ Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Result < MDL	RL < MDL	REC < LCL	REC > UCL	No %SOLIDS
		69		
		138		
		207		
		276		

correct Lab Qualifier — text column.

EDD Errors

28507.csv

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111066

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Associated data qualifier codes should be presented in specified column. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

CORRECTED

Resolution recorded by: Thomas A. Date Date: 11/20/2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Corrected

C.R 11/20/01

QA Review by: _____ Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111073

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28507 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Surrogate compounds for FL PRO are not identified in Method Blank. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

CORRECTED

Resolution recorded by: Thomas C. Hatch Date: 11/20/2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Corrected

C.K 11/20/01

QA Review by: _____ Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

FL-PRO CONTROL LIMITS

Updated on 7/12/01 Analyst:BP

	OTP		C39		Spike Rec% (LCS Only)	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
SOIL (Blank & LCS)	38	131	0	53	26	104
WATER (Blank & LCS)	51	115	0	131	16	116

Accura Analytical Laboratory, Inc.
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6017 Financial Drive
Norcross, GA 30071

ADDITIONAL DATA

Laboratory Quality Communication Form
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111047

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Adhere to deliverable requirements for sub-contracted analyses. See raw data attached.
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached original bid and the revised bid which indicate the intent to subcontract.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

QA Review by: KellyClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108078-01	AC17978
P0108078-02	AC17979
P0108078-03	AC17980

28530

Approved By: _____

NOTES:These samples were analyzed with project P0108093 for the QA/QC requirements.

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17978	Water	02 Aug. 01 9:40	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/01
Ethane	150	5.0	ng/L	AM18	rw	8/16/01
Ethene	5600	5.0	ng/L		rw	8/16/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/01
Methane	7.8	0.015	ug/L	AM20GAX	rw	8/16/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Pyruvic acid	< 10	10	mg/L		bc	8/24/01

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17979	Water	02 Aug. 01 10:00	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/01
Ethane	360	5.0	ng/L	AM18	rw	8/16/01
Ethene	410	5.0	ng/L		rw	8/16/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/01
Methane	49	0.015	ug/L	AM20GAX	rw	8/16/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Pyruvic acid	< 10	10	mg/L		bc	8/24/01

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17980	Water	02 Aug. 01 11:45	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/01
Ethane	49	5.0	ng/L	AM18	rw	8/16/01
Ethene	1300	5.0	ng/L		rw	8/16/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/01
Methane	1.9	0.015	ug/L	AM20GAX	rw	8/16/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/01
Pyruvic acid	< 10	10	mg/L		bc	8/24/01

P0108078

----- BIOREM-2 -----
----- QUALITY CONTROL -----
----- ANALYSIS DATE: 08/16/01 -----
----- MATRIX: WATER -----

CONTINUING CALIBRATION STANDARDS

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 413	159.6	160.3	0.45
OXYGEN	X28 413	16.96	16.00	5.78
NITROGEN	X28 413	135.1	128.2	5.28
CARBON MONOXIDE	X28 413	14.55	13.85	4.91
METHANE (TCD)	X28 413	5.48	5.26	4.02
METHANE (FID)	X28 414	36.66	39.56	7.62
ETHANE	X28 414	23631	23652	0.09
ETHYLENE	X28 414	26522	26512	0.04
PROPANE	X28 414	33655	33521	0.40
PROPYLENE	X28 414	39153	39182	0.07
ISO-BUTANE	X28 414	42718	42576	0.33
N-BUTANE	X28 414	43297	43460	0.38
METHANE (FID) D	X28 414	36.66	39.16	6.61
ETHANE D	X28 414	23631	24191	2.34
ETHYLENE D	X28 414	26522	27365	3.13

METHOD BLANK

COMPOUND	FILE ID	DET. LIMIT	MEASURED
CARBON DIOXIDE	X28 416	0.60mg/l	ND
OXYGEN	X28 416	0.15mg/l	ND
NITROGEN	X28 416	0.40mg/l	ND
CARBON MONOXIDE	X28 416	0.40mg/l	ND
METHANE (TCD)	X28 416	0.07mg/l	ND
METHANE (FID)	X28 416	0.015ug/l	ND
ETHANE	X28 416	5ng/l	ND
ETHYLENE	X28 416	5ng/l	ND
PROPANE	X28 416	25ng/l	ND
PROPYLENE	X28 416	25ng/l	ND
ISO-BUTANE	X28 416	25ng/l	ND
N-BUTANE	X28 416	25ng/l	ND
METHANE (FID) D	X28 416	0.15ug/l	ND
ETHANE D	X28 416	50ng/l	ND
ETHYLENE D	X28 416	50ng/l	ND

CONTINUING CALIBRATION VERIFICATION STANDARD (LH012700)

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 415	21.28	21.61	3.07
OXYGEN	X28 415	9.69	9.91	4.55
METHANE (FID)	X28 415	73.31	70.32	8.15
ETHANE	X28 415	47164	47061	0.44
ETHYLENE	X28 415	53282	52731	2.07

ANALYST INITIALS RCW

REVIEW

P0108078

----- BIOREM-2 -----
----- QUALITY CONTROL -----
---- ANALYSIS DATE: 08/16/01 ----
----- MATRIX: WATER -----

CONTINUING CALIBRATION STANDARDS

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 413	159.6	160.3	0.45
OXYGEN	X28 413	16.96	16.00	5.78
NITROGEN	X28 413	135.1	128.2	5.28
CARBON MONOXIDE	X28 413	14.55	13.85	4.91
METHANE (TCD)	X28 413	5.48	5.26	4.02
METHANE (FID)	X28 414	36.66	39.56	7.62
ETHANE	X28 414	23631	23652	0.09
ETHYLENE	X28 414	26522	26512	0.04
PROPANE	X28 414	33655	33521	0.40
PROPYLENE	X28 414	39153	39182	0.07
ISO-BUTANE	X28 414	42718	42576	0.33
N-BUTANE	X28 414	43297	43460	0.38
METHANE (FID) D	X28 414	36.66	39.16	6.61
ETHANE D	X28 414	23631	24191	2.34
ETHYLENE D	X28 414	26522	27365	3.13

METHOD BLANK

COMPOUND	FILE ID	DET. LIMIT	MEASURED
CARBON DIOXIDE	X28 416	0.60mg/l	ND
OXYGEN	X28 416	0.15mg/l	ND
NITROGEN	X28 416	0.40mg/l	ND
CARBON MONOXIDE	X28 416	0.40mg/l	ND
METHANE (TCD)	X28 416	0.07mg/l	ND
METHANE (FID)	X28 416	0.015ug/l	ND
ETHANE	X28 416	5ng/l	ND
ETHYLENE	X28 416	5ng/l	ND
PROPANE	X28 416	25ng/l	ND
PROPYLENE	X28 416	25ng/l	ND
ISO-BUTANE	X28 416	25ng/l	ND
N-BUTANE	X28 416	25ng/l	ND
METHANE (FID) D	X28 416	0.15ug/l	ND
ETHANE D	X28 416	50ng/l	ND
ETHYLENE D	X28 416	50ng/l	ND

CONTINUING CALIBRATION VERIFICATION STANDARD (LH012700)

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 415	21.28	21.61	3.07
OXYGEN	X28 415	9.69	9.91	4.55
METHANE (FID)	X28 415	73.31	70.32	8.15
ETHANE	X28 415	47164	47061	0.44
ETHYLENE	X28 415	53282	52731	2.07

ANALYST INITIALS RCW

REVIEW

Microseeps, Inc.

Bioremediation/Natural Attenuation Raw Data Summary

PROJECT: P0108078

INSTRUMENT: BIOREM-2

ANALYSIS DATE: 8/16/01

Analysis Type(s)	Associated Lab Method Reference	Preparation Batch Number	COC ID Number(s)
Aqueous Samples:	SOP-AM19		
Light Hydrocarbons			M081604 2 ✓
LHC(methane)			M081604 3 ✓
Permanent Gases			X
Bubble Strip Samples:	AM20GAx		
Light Hydrocarbons			
LHC(methane)			
Permanent Gases			
Hydrogen			

Analyst Initials: RCW

Reviewer Initials: MLi

Data reviewed: 8-17-01

Attachments:

Raw Data Summaries: Data File ID, Date/Time Analyzed, Laboratory Sample ID

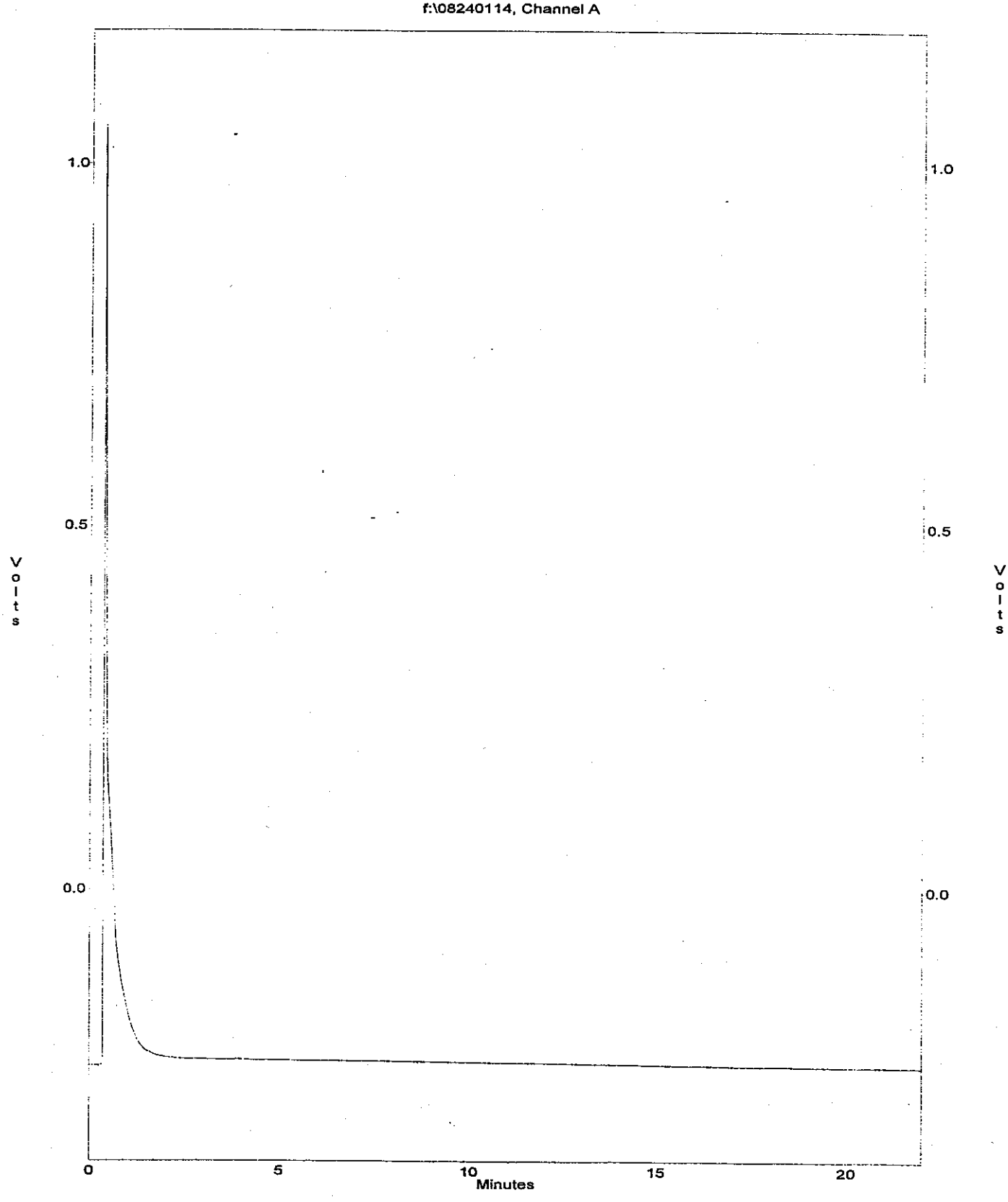
Remarks:

File name	CO2 Amounts	O2 Amounts	N2 Amounts	CH4 Amounts	CO Amounts	Date and Time	Sample Name
X28B4.13A	160.345	16.004	128.193	5.264	13.853	08-16-2001 08:51:30	PG081601A
X28B4.14A	10.015	4.428	179.465	0.000	0.000	08-16-2001 09:10:07	LH081601A
X28B4.15A	21.607	9.910	360.486	0.000	0.000	08-16-2001 09:24:50	CCV LH012700
X28B4.16A	0.000	0.000	0.000	0.000	0.000	08-16-2001 09:47:54	MB081601A
X28B4.56A	15.824	7.444	13.472	0.000	0.000	08-16-2001 18:07:53	P0108078-01A
X28B4.57A	86.590	0.994	15.609	0.000	0.000	08-16-2001 18:17:25	P0108078-02A
X28B4.58A	0.319	7.728	19.184	0.000	0.000	08-16-2001 18:27:11	P0108078-03A

File name	METHANE ug/L Amounts	ETHANE ng/L Amounts	ETHENE ng/L Amounts	Date and Time	Sample Name
X28A4.13A	177.390	0.000	0.000	08-16-2001 08:51:30	PG081601A
X28A4.14A	39.560	23652.445	26511.637	08-16-2001 09:10:07	LH081601A
X28A4.15A	70.324	47098.348	52763.012	08-16-2001 09:24:50	CCV LH012700
X28A4.16A	0.000	0.000	0.000	08-16-2001 09:47:54	MB081601A
X28A4.56A	7.754	149.716	5624.741	08-16-2001 18:07:53	P0108078-01A
X28A4.57A	48.652	363.890	412.161	08-16-2001 18:17:25	P0108078-02A
X28A4.58A	1.940	49.016	1389.571	08-16-2001 18:27:11	P0108078-03A

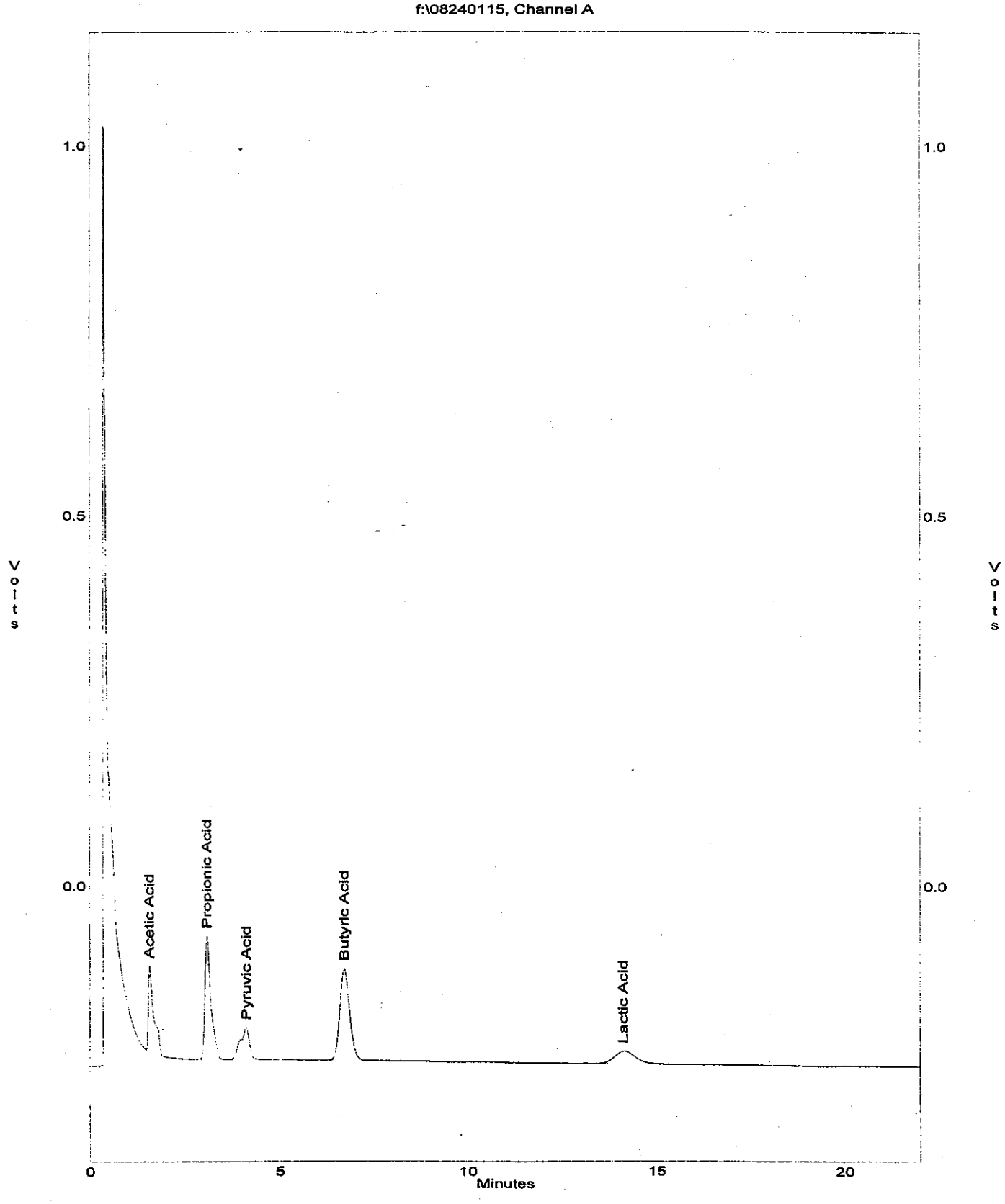
External Standard Report -- Channel A
File : f:\08240114
Method : f:\vfa.met
Sample ID : p108167-01a
Acquired : Aug 24, 2001 19:58:55
User : System

--- No Peaks Found.


f:\08240114, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

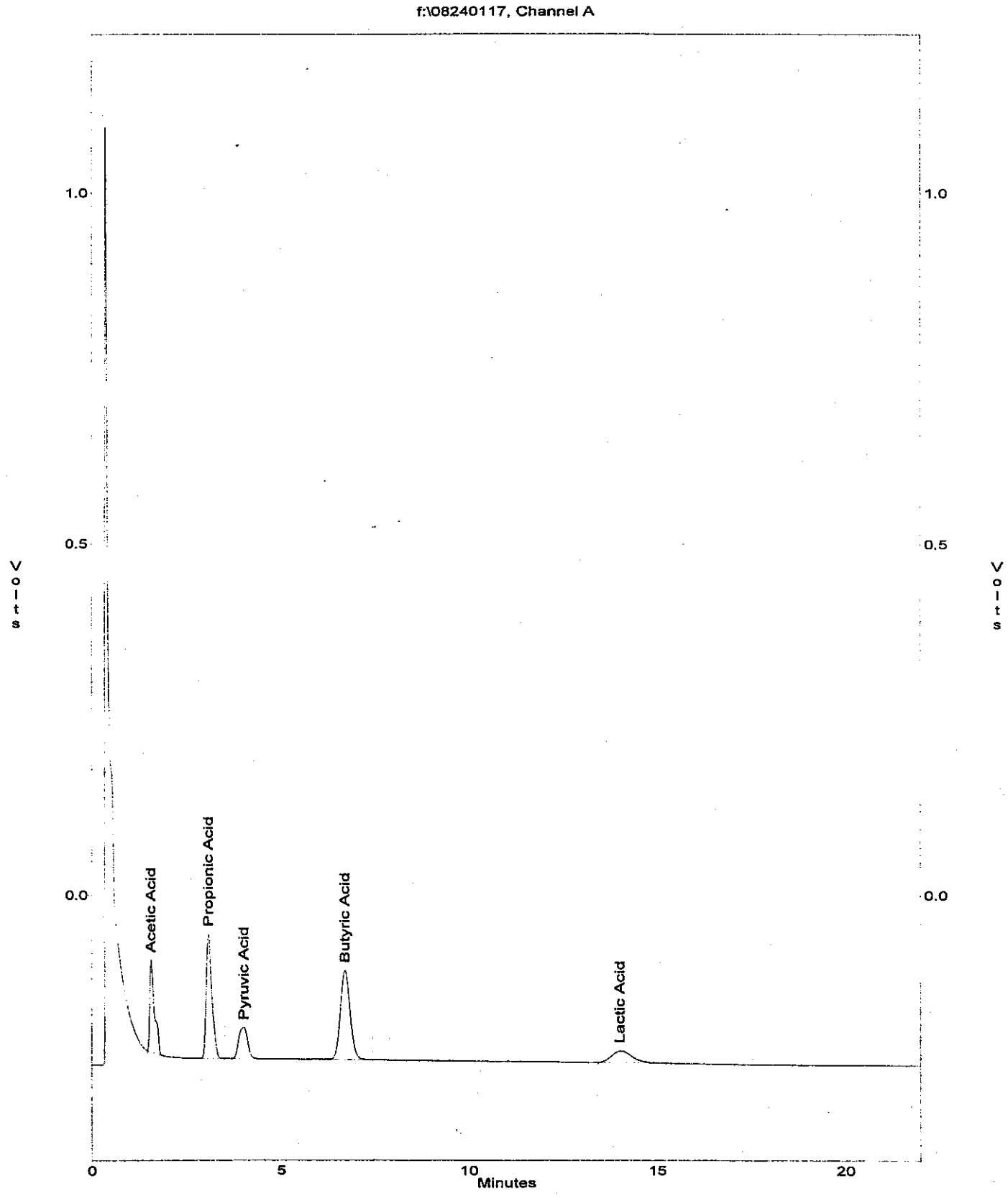
External Standard Report -- Channel A
File : f:\08240115
Method : f:\vfa.met
Sample ID : p108167-01a ms
Acquired : Aug 24, 2001 20:21:37
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.568	83.737 mg/l	1112334	114377
2	Propionic Acid	3.082	87.297 mg/l	1863089	165341
3	Pyruvic Acid	4.125	87.063 mg/l	718850	42863
4	Butyric Acid	6.717	87.328 mg/l	2249933	123458
5	Lactic Acid	14.118	94.733 mg/l	646216	16696
Totals			440.157	6590422	462735


f:\08240115, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

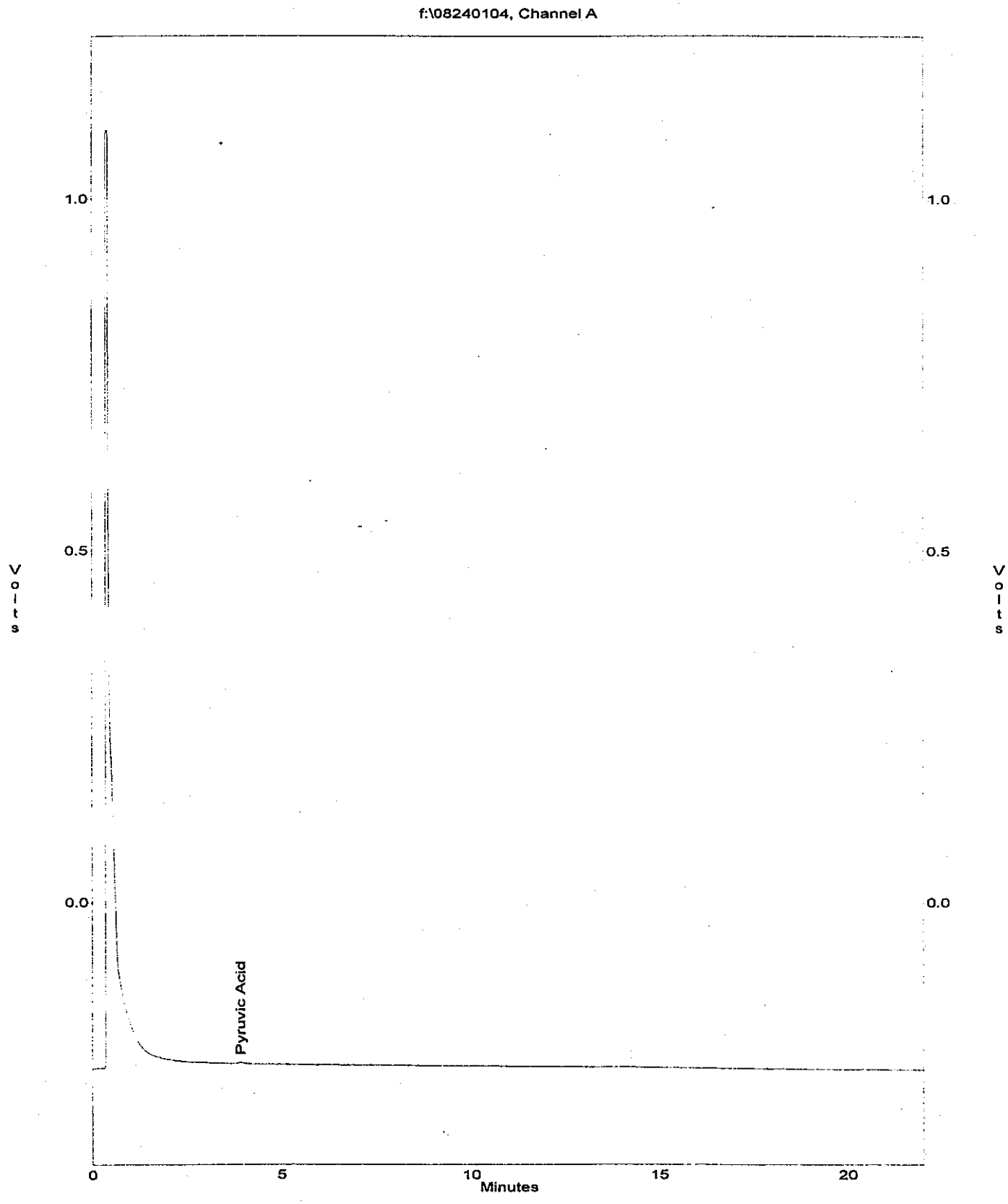
External Standard Report -- Channel A
File : f:\08240117
Method : f:\vfa.met
Sample ID : p108167-01a msd
Acquired : Aug 24, 2001 21:07:03
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.567	84.696 mg/l	1124964	131869
2	Propionic Acid	3.082	86.950 mg/l	1855723	177587
3	Pyruvic Acid	4.015	87.829 mg/l	725048	44370
4	Butyric Acid	6.715	86.850 mg/l	2237682	126922
5	Lactic Acid	14.015	90.945 mg/l	619675	16699
Totals			437.270	6563092	497447


f:\08240117, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

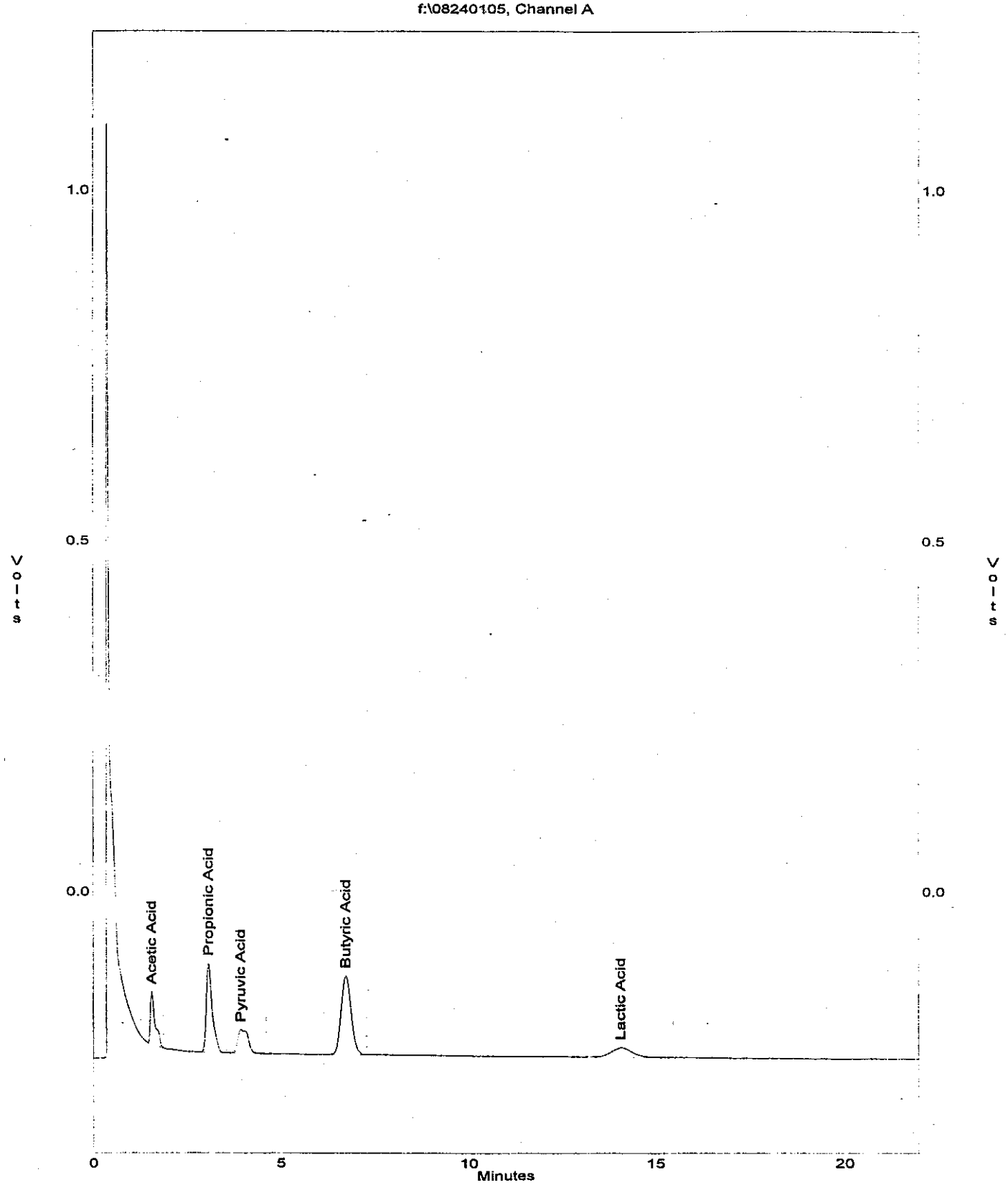
External Standard Report -- Channel A
File : f:\08240104
Method : f:\vfa.met
Sample ID : mb
Acquired : Aug 24, 2001 16:11:42
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.935	1.617 mg/l	28118	1764
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			1.617	28118	1764


f:\08240104, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

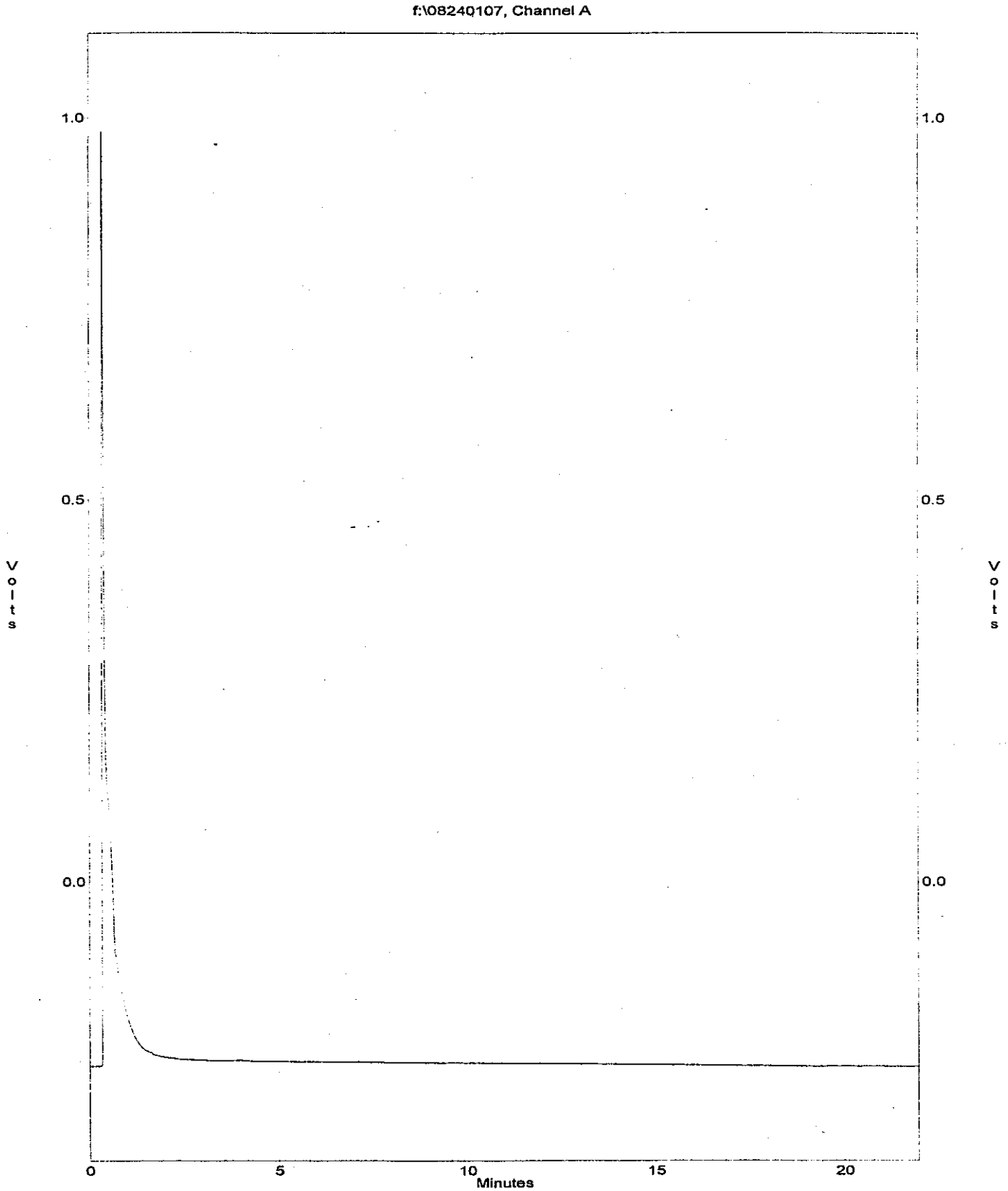
External Standard Report -- Channel A
File : f:\08240108
Method : f:\vfa.met
Sample ID : p108078-02a
Acquired : Aug 24, 2001 17:42:35
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.925	0.136 mg/l	16149	1083
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.136	16149	1083


f:\08240105, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

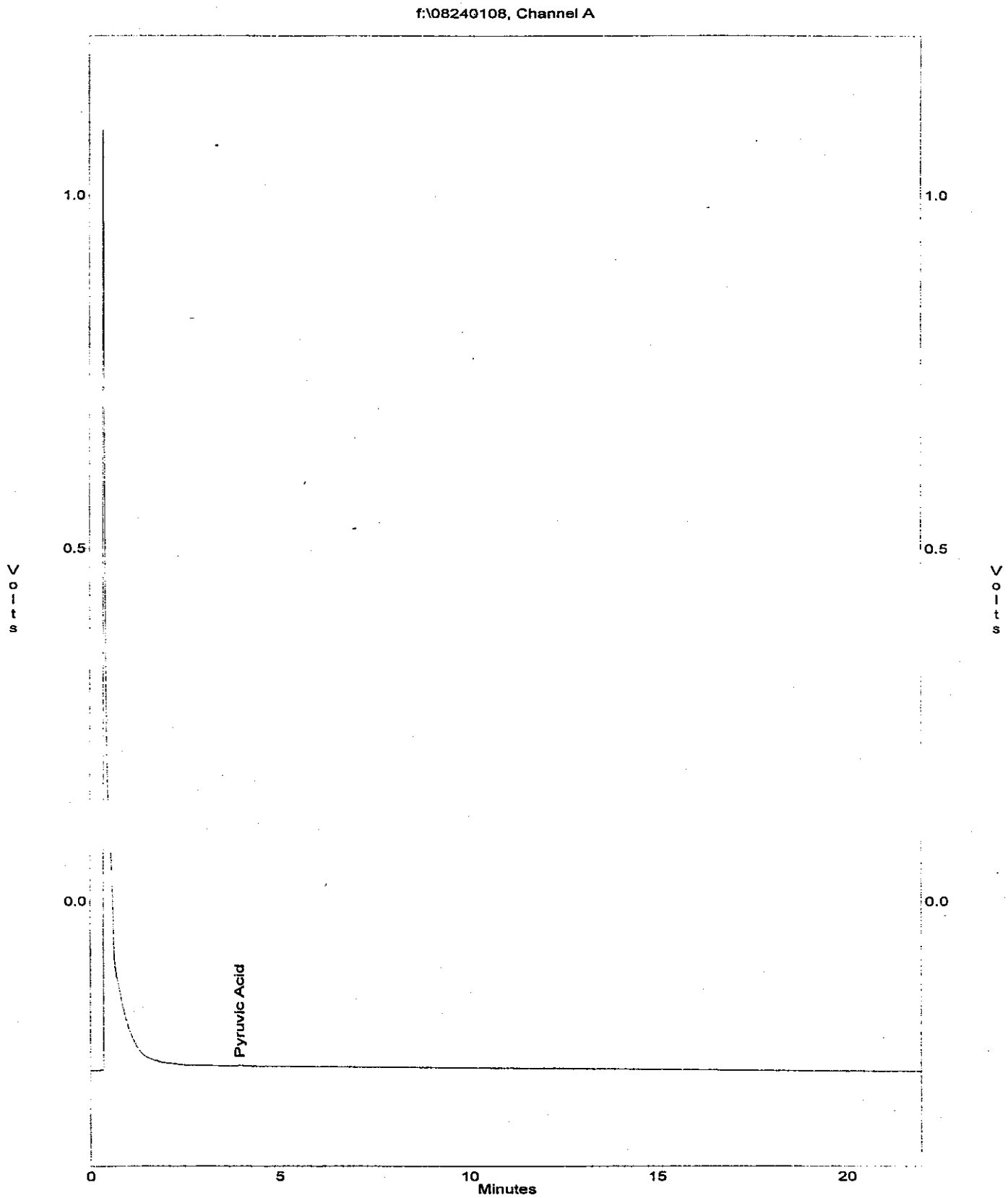
External Standard Report -- Channel A
File : f:\08240107
Method : f:\vfa.met
Sample ID : p108078-01a
Acquired : Aug 24, 2001 17:19:51
User : System

--- No Peaks Found.


f:\08240107, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

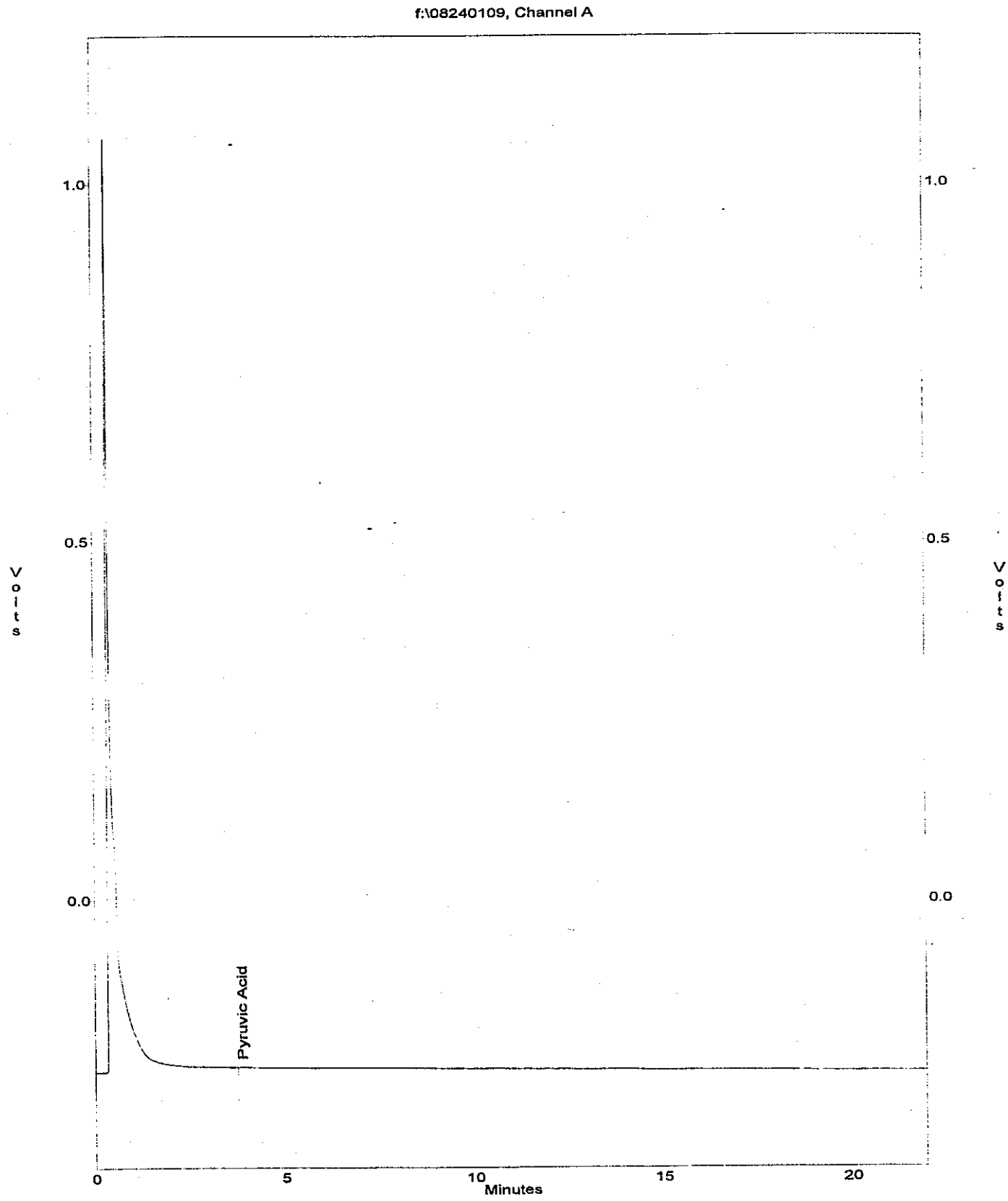
External Standard Report -- Channel A
File : f:\08240105
Method : f:\vfa.met
Sample ID : lcs supelco 10x
Acquired : Aug 24, 2001 16:34:24
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.572	49.215 mg/l	657593	74264
2	Propionic Acid	3.087	63.465 mg/l	1357071	126331
3	Pyruvic Acid	3.947	77.904 mg/l	644809	33134
4	Butyric Acid	6.725	77.078 mg/l	1987185	111637
5	Lactic Acid	14.067	77.959 mg/l	528678	13497
Totals			345.621	5175336	358863

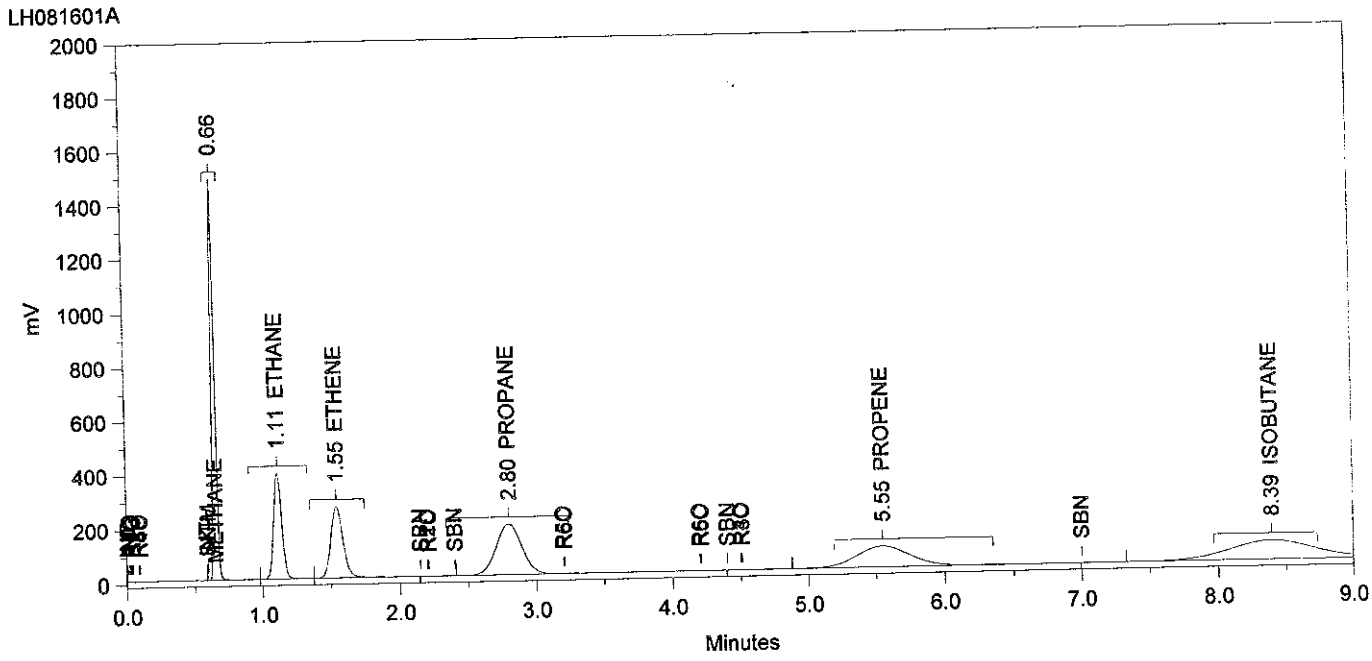

f:\08240108, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\08240109
Method : f:\vfa.met
Sample ID : p108078-03a
Acquired : Aug 24, 2001 18:05:17
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.905	0.319 mg/l	17626	1091
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.319	17626	1091


f:\08240109, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

11/28/20011:55:20 PMC:\CPWIN\X28\X28A4.14RLH081601A08-16-2001 09:10:07X28A_W2.MET



Sample Name: **LH081601A**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:10:07am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.14R**
Date Stamp: 8/16/01 09:10:06am
Sequence File: X28A.SEQ #414
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

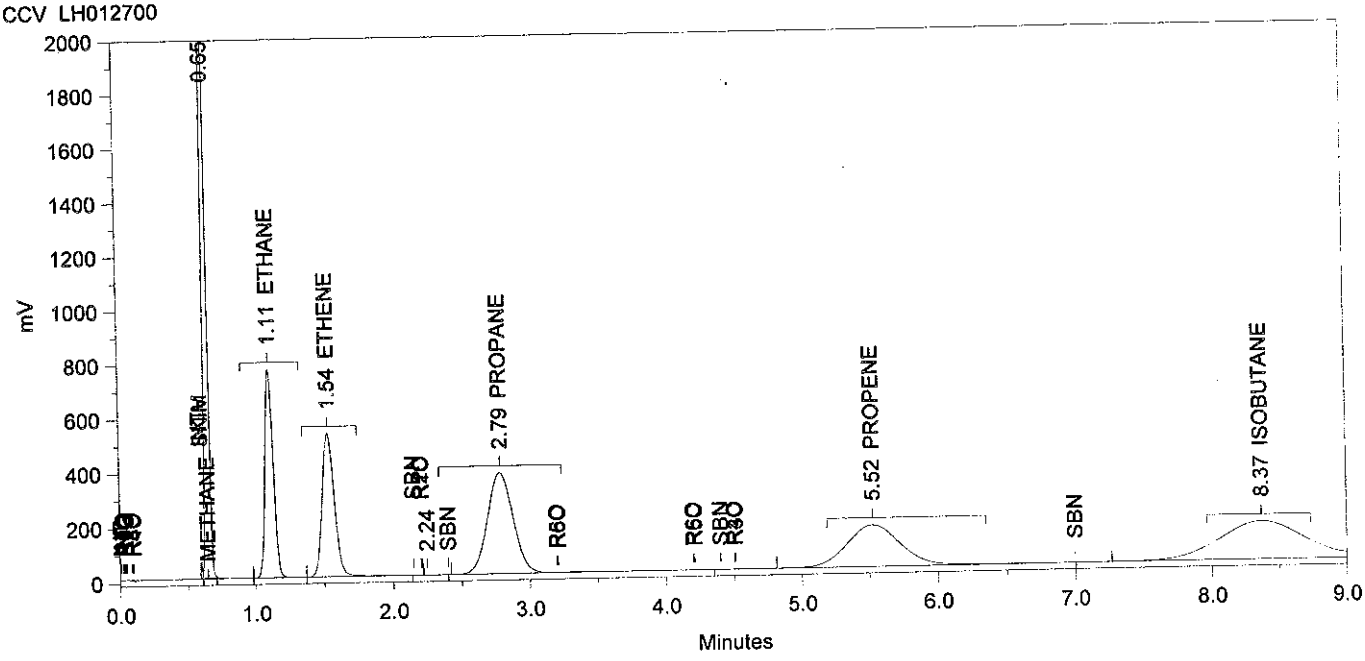
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.656	METHANE	~~39.7563~~ 39.56	0.019	2627135.0	15.976	SBB	0.029	1489487.00	58.823
2	1.115	ETHANE	23652.4500	11.320	1583607.0	9.630	TVV	0.068	389650.40	15.388
3	1.545	ETHENE	26511.6400	12.688	1616468.0	9.830	TVB	0.103	262628.10	10.372
4	2.800	PROPANE	33520.6000	16.043	2431164.0	14.784	BB	0.218	185879.60	7.341
5	5.548	PROPENE	39183.2800	18.753	2085193.0	12.680	BB	0.457	76100.38	3.005
6	8.393	ISOBUTANE	42575.9400	20.377	3042361.0	18.501	BV	0.729	69546.25	2.747
7	9.850	N-BUTANE	43460.2100	20.800	3058649.0	18.600	VB	0.866	58851.51	2.324

11-28-01

Total Area = 16444580.0, Total Amount = 208943.9, Total Height = 2532143.0, Sample Units = ug/l, ng/l

11/28/20011:55:27 PMC:\CPWIN\X28\X28A4.15RCCV LH01270008-16-2001 09:24:50X28A_W2.MET

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:24:50am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.15R**
Date Stamp: 8/16/01 09:24:50am
Sequence File: X28A.SEQ #415
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

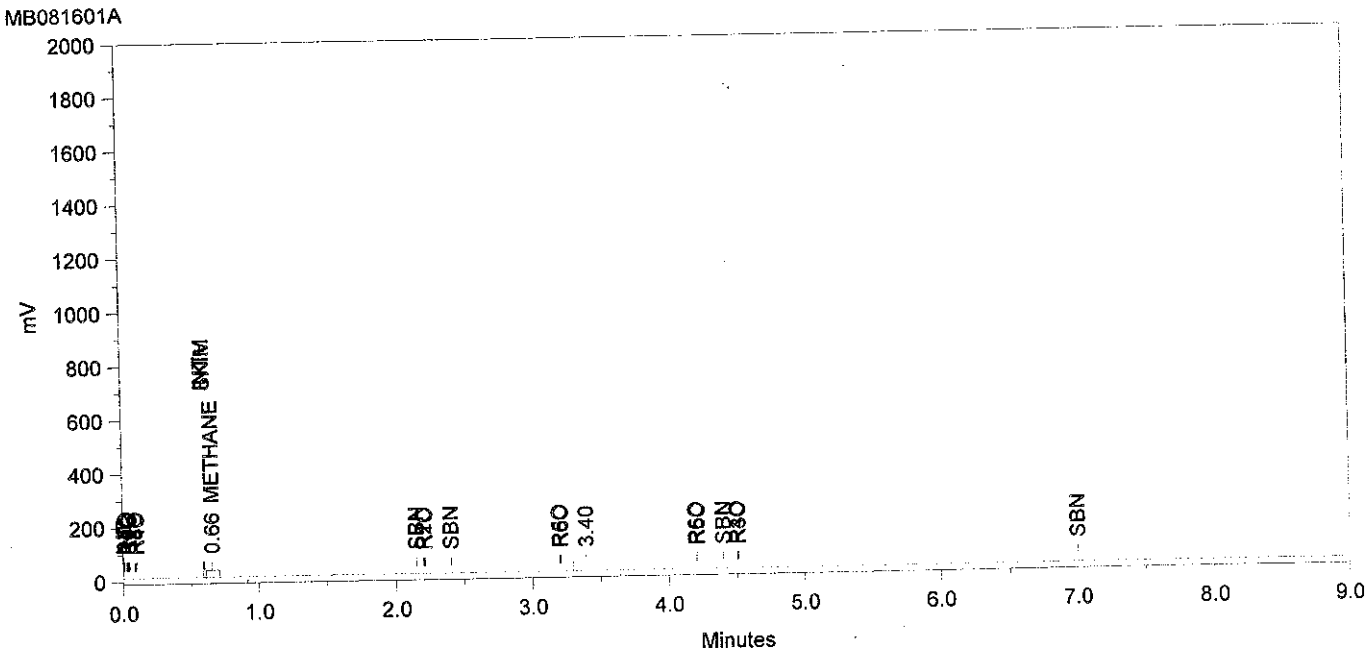
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.648	METHANE	70.32 ~~70.3918~~	0.017	4651557.0	14.506	SBB	0.038	2014707.00	49.330
2	1.108	ETHANE	470983 ~~47060.7700~~	11.354	3150868.0	9.826	TVV	0.068	769232.10	18.835
3	1.536	ETHENE	527613 ~~52730.5100~~	12.721	3215086.0	10.026	TVB	0.102	524714.30	12.848
4	2.245		0.0692	0.000	4570.3	0.014	BB	0.098	776.92	0.019
5	2.787	PROPANE	66487.4600	16.040	4822165.0	15.038	BB	0.218	368764.50	9.029
6	5.524	PROPENE	77642.4900	18.731	4131854.0	12.885	BB	0.455	151445.80	3.708
7	8.368	ISOBUTANE	84321.5800	20.343	6025390.0	18.790	BV	0.729	137815.10	3.374
8	9.816	N-BUTANE	86189.2200	20.793	6065836.0	18.916	VB	0.867	116670.60	2.857

11-28-01

Total Area = 32067330.0, Total Amount = 414502.5, Total Height = 4084126.0, Sample Units = ug/l, ng/l



Sample Name: **MB081601A**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:47:54am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.16R**
Date Stamp: 8/16/01 09:47:54am
Sequence File: X28A.SEQ #416
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

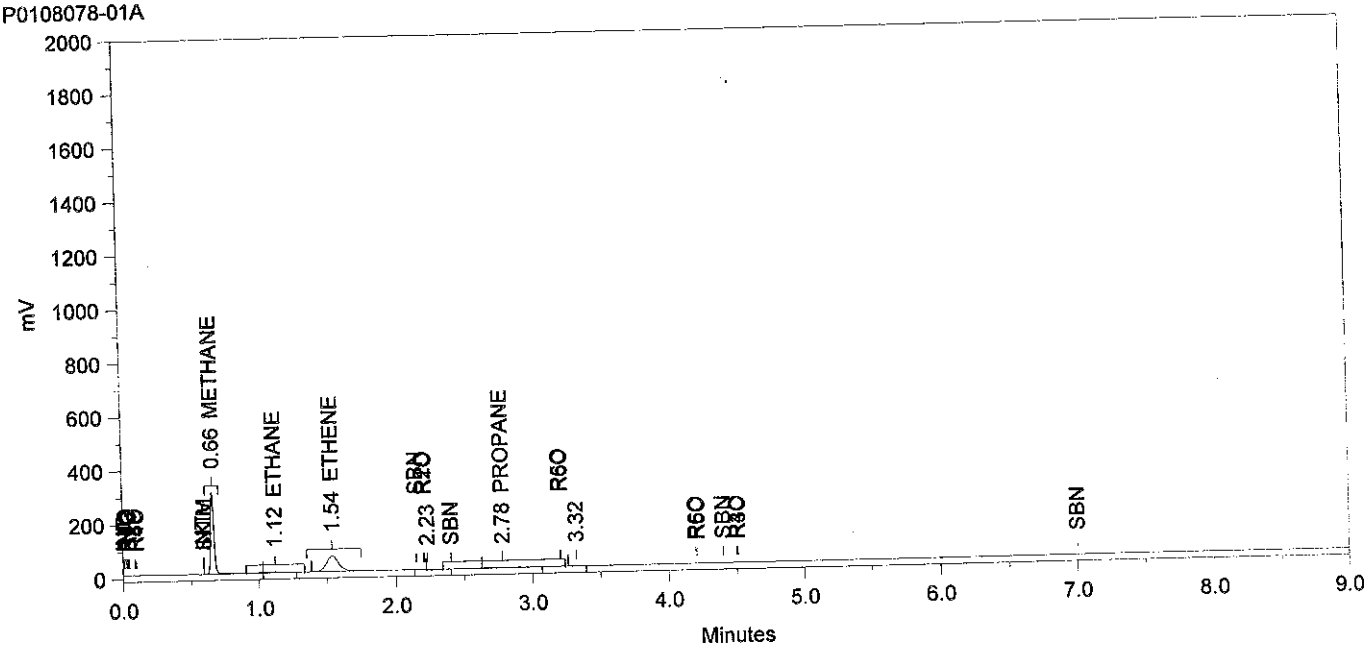
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.656	METHANE	~~0.0151~~	60.206	998.8	60.206	BB	0.137	121.51	62.567
2	3.396		0.0100	39.794	660.2	39.794	BB	0.151	72.70	37.433

11-28-01

Total Area = 1658.9, Total Amount = 0.025, Total Height = 194.21, Sample Units = ug/l, ng/l

11/28/20011:55:39 PMC:\CPWIN\X28\X28A4.56RP0108078-01A08-16-2001 18:07:53X28A_W2.MET

P0108078-01A



Sample Name: **P0108078-01A**
Acquired from Chrom1--FID via port 1 on 8/16/01 06:07:53pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.56R**
Date Stamp: 8/16/01 06:07:52pm
Sequence File: X28A.SEQ #456
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

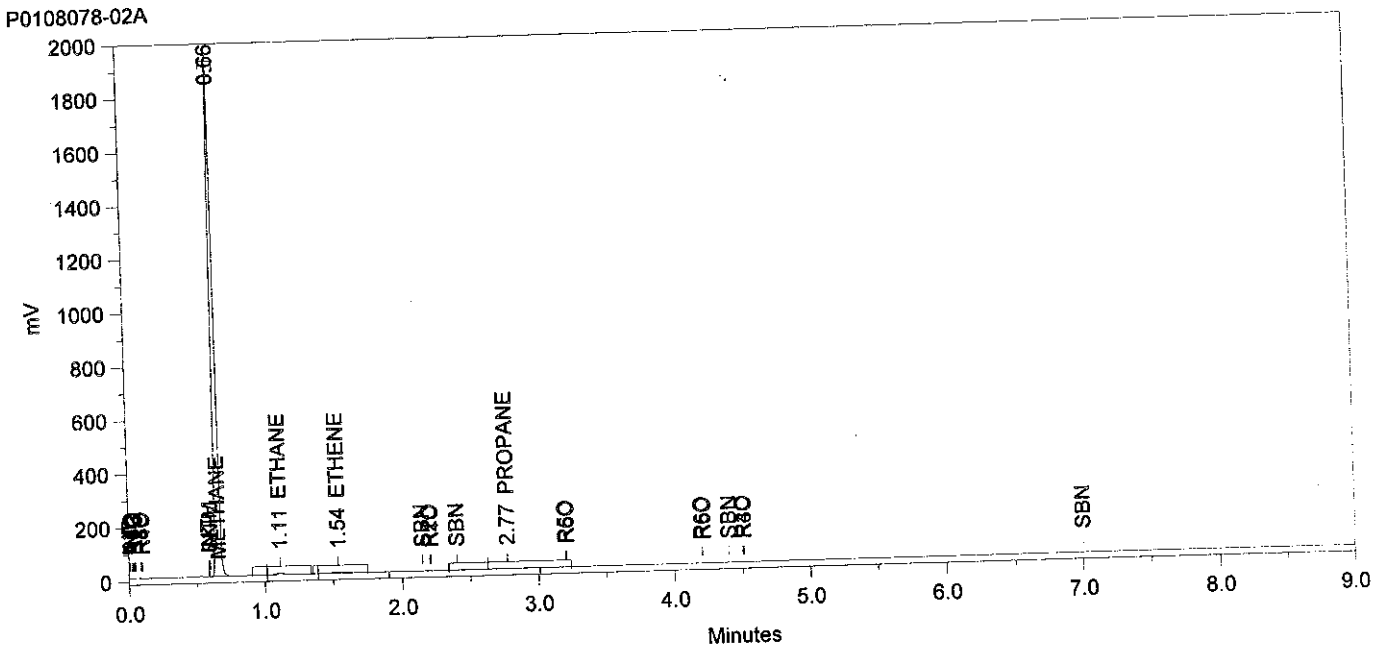
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.662	METHANE	7.75 ~~7.7761~~	0.133	513849.7	57.624	SBB	0.028	306283.70	82.921
2	1.118	ETHANE	149.7163	2.564	10024.0	1.124	TVB	0.067	2484.58	0.673
3	1.538	ETHENE	5624.7410	96.334	342951.9	38.459	BB	0.102	55988.91	15.158
4	2.227		0.3120	0.005	20619.2	2.312	BB	0.081	4217.43	1.142
5	2.776	PROPANE	56.2386	0.963	4078.8	0.457	BB	0.204	333.48	0.090
6	3.322		0.0032	0.000	211.9	0.024	BB	0.059	59.87	0.016

Total Area = 891735.4, Total Amount = 5838.788, Total Height = 369367.9, Sample Units = ug/l, ng/l

11/28/20011:55:45 PMC:\CPWIN\X28\X28A4.57RP0108078-02A08-16-2001 18:17:25X28A_W2.MET



Sample Name: **P0108078-02A**
Acquired from Chrom1--FID via port 1 on 8/16/01 06:17:25pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.57R**
Date Stamp: 8/16/01 06:17:24pm
Sequence File: X28A.SEQ #457
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

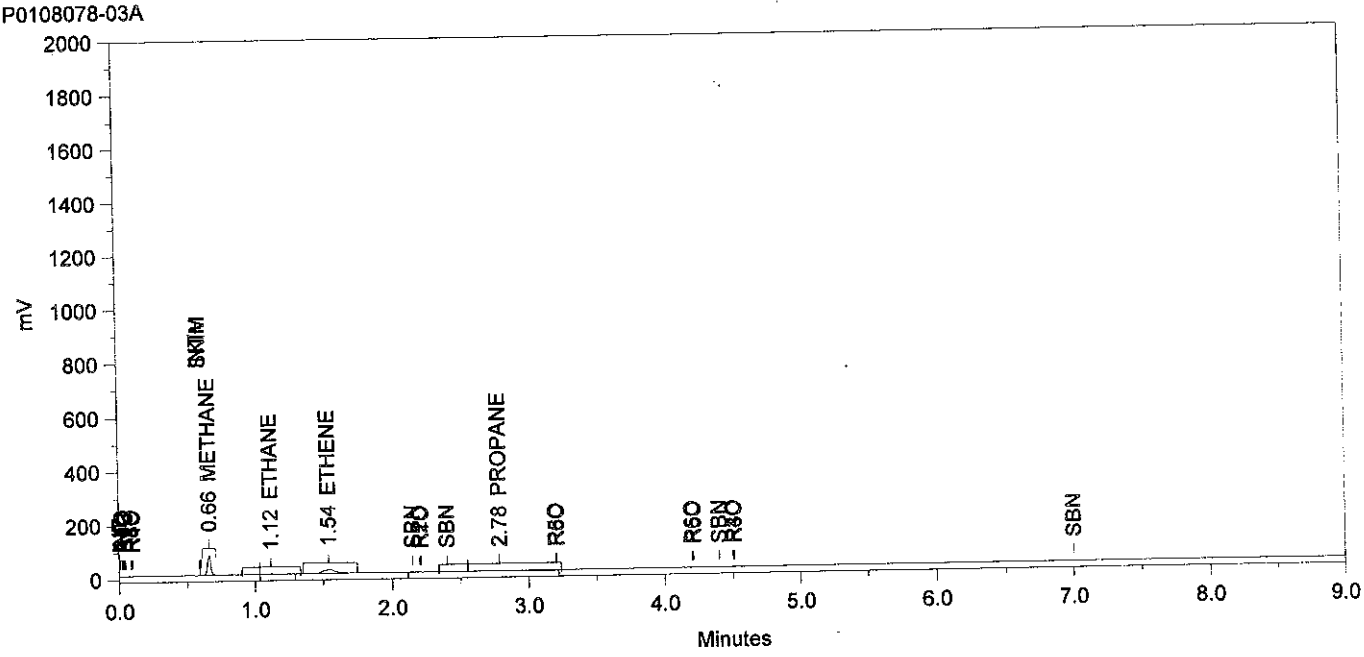
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.657	METHANE	48.65 ~~48.7139~~	5.654	3218997.0	98.405	SBB	0.028	1943603.00	99.472
2	1.112	ETHANE	363.8899	42.232	24363.6	0.745	TVV	0.066	6107.03	0.313
3	1.537	ETHENE	412.1614	47.835	25130.3	0.768	TVB	0.106	3955.71	0.202
4	2.771	PROPANE	36.8742	4.280	2674.4	0.082	BB	0.172	258.55	0.013

Total Area = 3271165.0, Total Amount = 861.638, Total Height = 1953925.0, Sample Units = ug/l, ng/l

P0108078-03A



Sample Name: **P0108078-03A**
Acquired from Chrom1--FID via port 1 on 8/16/01 06:27:11pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.58R**
Date Stamp: 8/16/01 06:27:10pm
Sequence File: X28A.SEQ #458
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.662	METHANE	1.9401	0.079	128200.8	44.329	SBB	0.028	75106.16	82.590
2	1.116	ETHANE	49.0161	2.003	3281.8	1.135	TVB	0.068	801.81	0.882
3	1.541	ETHENE	1389.5710	56.787	84725.0	29.296	BB	0.105	13447.05	14.787
4	2.784	PROPANE	1006.4500	41.130	72995.2	25.240	BB	0.768	1583.21	1.741

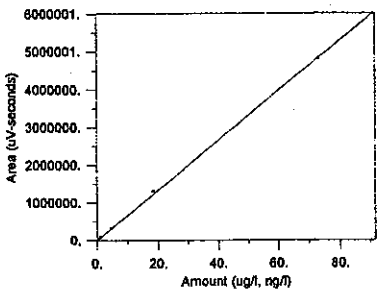
Total Area = 289202.8, Total Amount = 2446.977, Total Height = 90938.23, Sample Units = ug/l, ng/l

Calibration File Name: **C:\CPWIN\X28\X28A_W2.CAL** Version = 10
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/l, ng/l
7 components with 5 levels each

1 METHANE

Retention time = 0.660 min., Search window = 0.050 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.286	21080.0	73706.29	Manual	8/9/2001 12:56:5
2	1.145	79029.0	69020.96	Manual	8/9/2001 12:56:5
3	4.582	322352.0	70351.81	Manual	8/9/2001 12:56:5
4	18.328	1310364.0	71495.2	Manual	8/9/2001 12:56:5
5	73.312	4818435.0	65725.05	Manual	8/9/2001 11:54:5

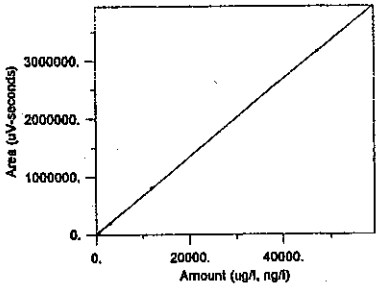


Calibration formula: Y = 66080.96 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9993, Average error = 6.24%
Average CF = 70059.8700 with RSD = 4.24%

2 ETHANE

Retention time = 1.120 min., Search window = 0.216 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	184.620	12078.0	65.42087	Manual	8/9/2001 12:56:5
2	738.500	46884.0	63.48544	Manual	8/9/2001 12:56:5
3	2963.900	193947.0	65.43642	Manual	8/9/2001 12:56:5
4	11816.000	800624.0	67.75761	Manual	8/9/2001 12:56:5
5	47263.000	3162355.0	66.90974	Manual	8/9/2001 11:54:5

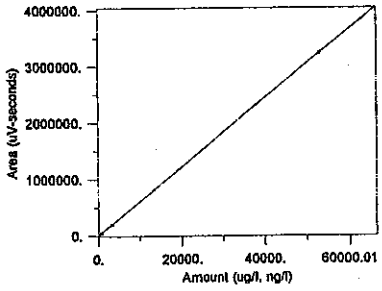


Calibration formula: Y = 66.953 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.20%
Average CF = 65.8020 with RSD = 2.49%

3 ETHENE

Retention time = 1.550 min., Search window = 0.198 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

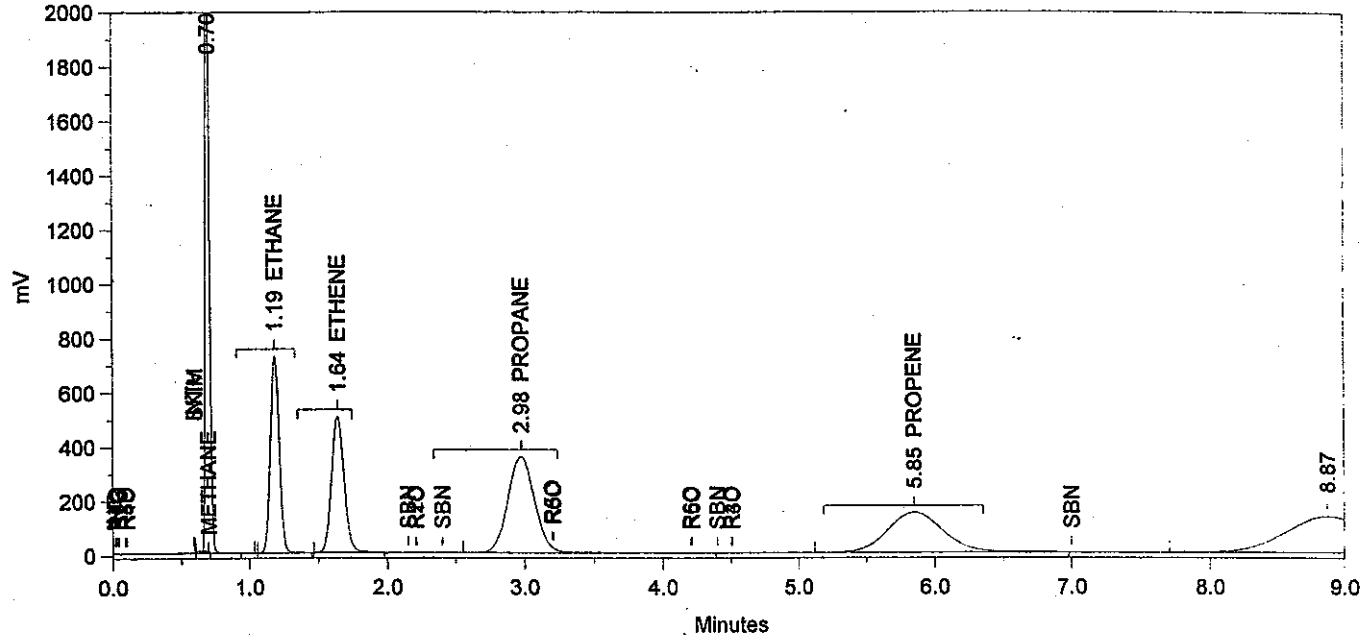
Level	Amount	Area	Area/Amt	Source	Date and time
1	207.200	12219.0	58.97201	Manual	8/9/2001 12:56:5
2	828.800	48069.0	57.99831	Manual	8/9/2001 12:56:5
3	3315.300	198195.0	59.78192	Manual	8/9/2001 12:56:5
4	13261.000	817807.0	61.67009	Manual	8/9/2001 12:56:5
5	53044.000	3232173.0	60.93381	Manual	8/9/2001 11:54:5



Calibration formula: Y = 60.972 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.26%
Average CF = 59.8712 with RSD = 2.46%

11/28/20012:37:30 PMC:\CPWIN\X28\X28A1.08RLH05200108-9-2001 11:44:20X28A_W1.MET

LH052001



Sample Name: **LH052001**
Acquired from Chrom1--FID via port 1 on 8/9/01 11:44:20am by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.08R**
Date Stamp: 8/9/01 11:44:20am
Sequence File: X28A.SEQ #108
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

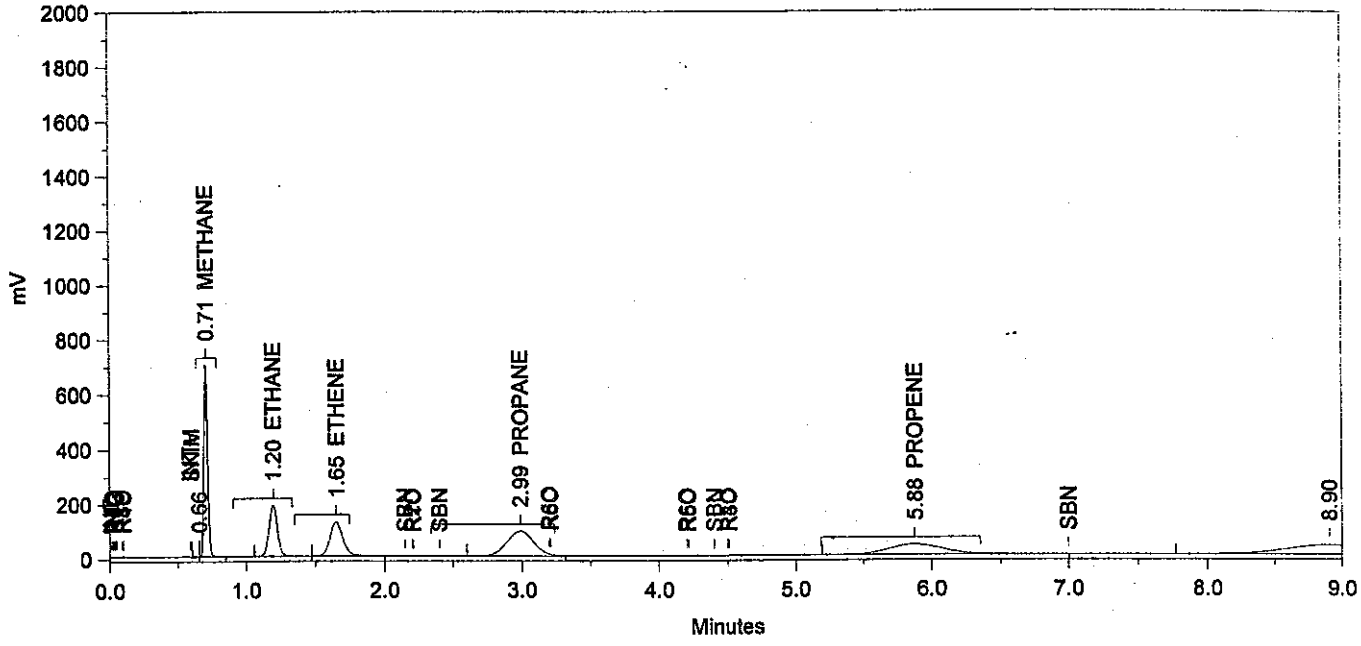
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
2	0.697	METHANE	72.7923	0.022	~~4810182.0~~	14.845	BB	0.040	2017059.00	50.424
4	1.188	ETHANE	47196.8800	14.217	~~3159981.0~~	9.752	BB	0.072	728084.90	18.201
6	1.641	ETHENE	52747.1300	15.889	~~3216100.0~~	9.925	BB	0.107	502220.50	12.555
7	2.976	PROPANE	67067.5500	20.203	4864237.0	15.012	BB	0.228	356087.60	8.902
8	5.850	PROPENE	78248.9100	23.571	4164125.0	12.851	BB	0.468	148285.10	3.707
9	8.875		92.2733	0.028	6097512.0	18.818	BV	0.755	134683.80	3.367
10	10.402	N-BUTANE	86549.9100	26.071	6091221.0	18.798	VB	0.893	113745.00	2.844

ML 11-28-01

Total Area = 32403360.0, Total Amount = 331975.4, Total Height = 4000165.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

4818435 - Manual integration
3162355
3232173

LH080901A



Sample Name: **LH080901A**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:01:13pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.09R**
Date Stamp: 8/9/01 12:01:12pm
Sequence File: X28A.SEQ #109
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

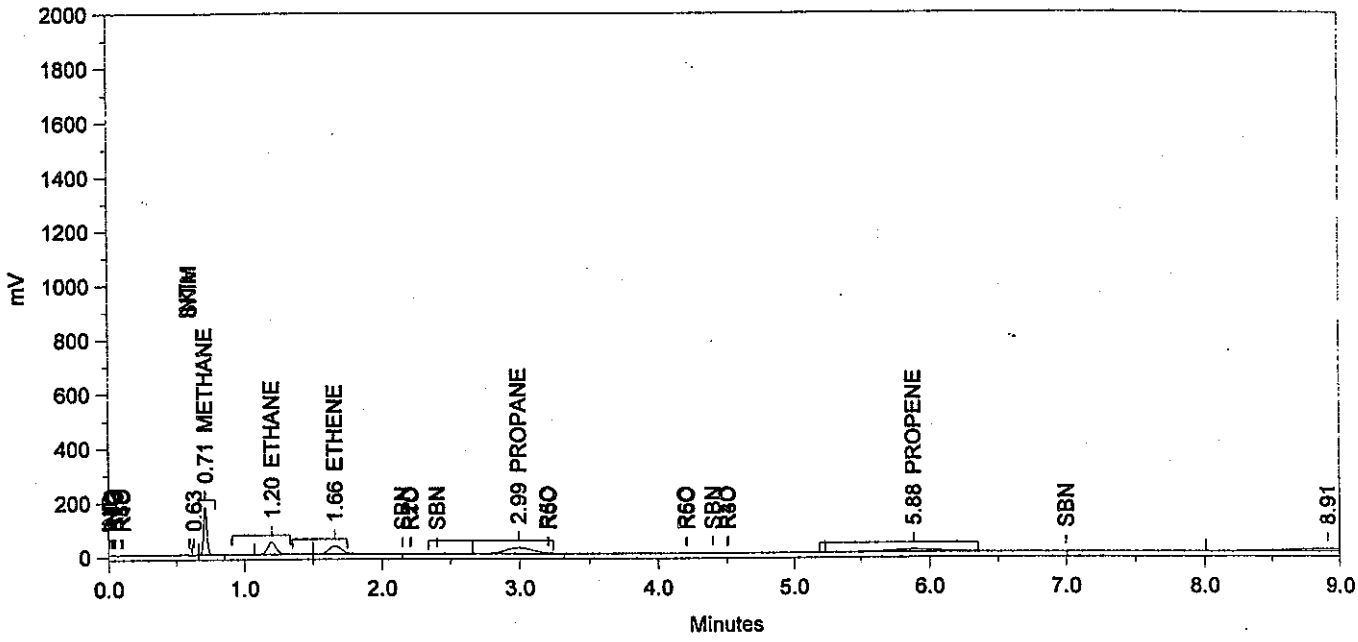
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.655		0.0408	0.000	2696.0	0.032	BB	-9.030	-4.98	0.000
3	0.707	METHANE	19.7319	0.023	~~1303983.0~~	15.591	BB	0.031	709411.60	58.434
4	1.197	ETHANE	11957.9700	14.098	~~800624.1~~	9.573	BV	0.072	186458.80	15.359
5	1.652	ETHENE	13412.8200	15.813	~~817806.6~~	9.779	VB	0.108	125821.40	10.364
6	2.988	PROPANE	17697.0100	20.864	1283519.0	15.348	BB	0.233	91820.16	7.563
7	5.878	PROPENE	19831.7300	23.381	1055374.0	12.620	BB	0.471	37359.21	3.077
8	8.905		23.5972	0.028	1559328.0	18.646	BV	0.756	34397.29	2.833
9	10.431	N-BUTANE	21878.3200	25.793	1539755.0	18.412	VB	0.892	28767.65	2.370

Total Area = 8363006.0, Total Amount = 84821.22, Total Height = 1214031.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

1310364
800624
817807

LH080901B



Sample Name: **LH080901B**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:18:41pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.10R**
Date Stamp: 8/9/01 12:18:40pm
Sequence File: X28A.SEQ #110
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

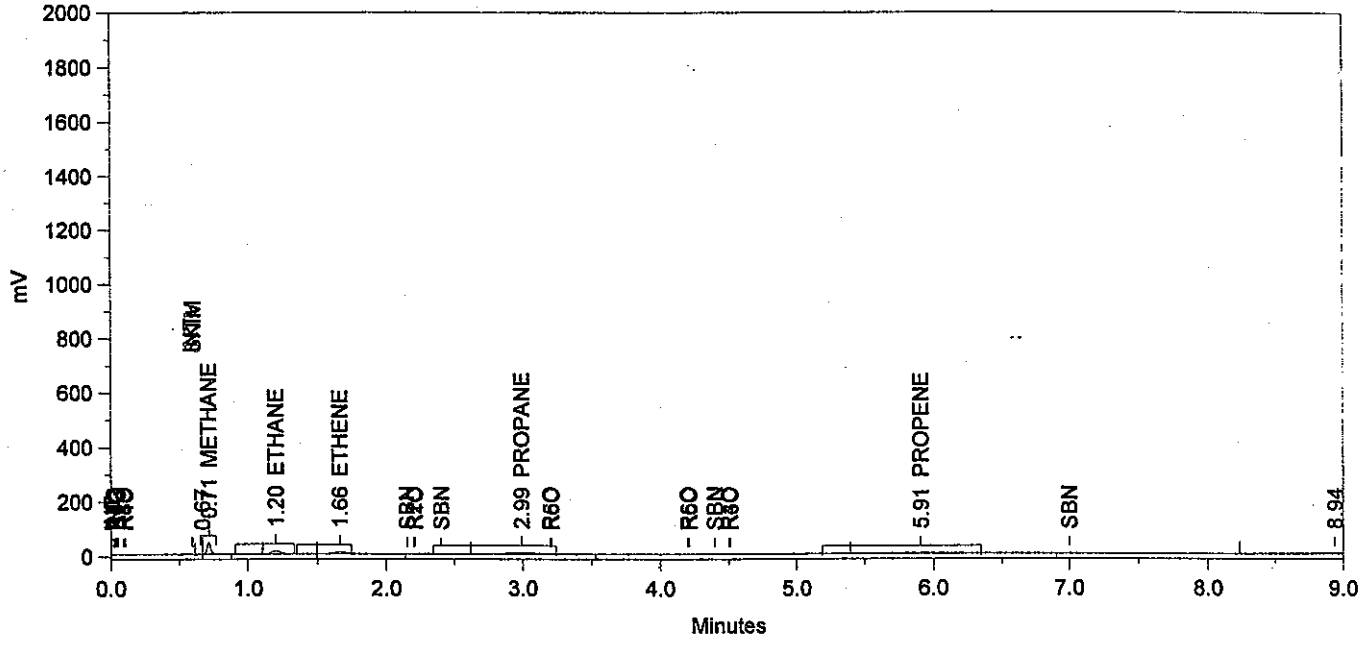
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.627		0.0451	0.000	2978.6	0.145	BB	0.025	1979.10	0.656
2	0.711	METHANE	4.8264	0.023	~~318931.6~~	15.573	BB	0.030	177730.10	58.895
3	1.200	ETHANE	2894.7060	13.881	~~193809.8~~	9.463	BV	0.071	45247.19	14.994
4	1.658	ETHENE	3237.3020	15.524	~~197384.9~~	9.638	VB	0.110	29796.34	9.874
5	2.993	PROPANE	4641.3790	22.256	336627.3	16.437	BB	0.245	22919.16	7.595
6	5.880	PROPENE	4811.4800	23.072	256049.6	12.502	BB	0.478	8924.94	2.957
7	8.909		5.6318	0.027	372153.7	18.171	BV	0.752	8244.18	2.732
8	10.453	N-BUTANE	5258.7300	25.217	370099.6	18.071	VB	0.890	6932.33	2.297

Total Area = 2048035.0, Total Amount = 20854.1, Total Height = 301773.4, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

322352
193947
198195

LH080901C



Sample Name: **LH080901C**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:32:22pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.11R**
Date Stamp: 8/9/01 12:32:22pm
Sequence File: X28A.SEQ #111
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

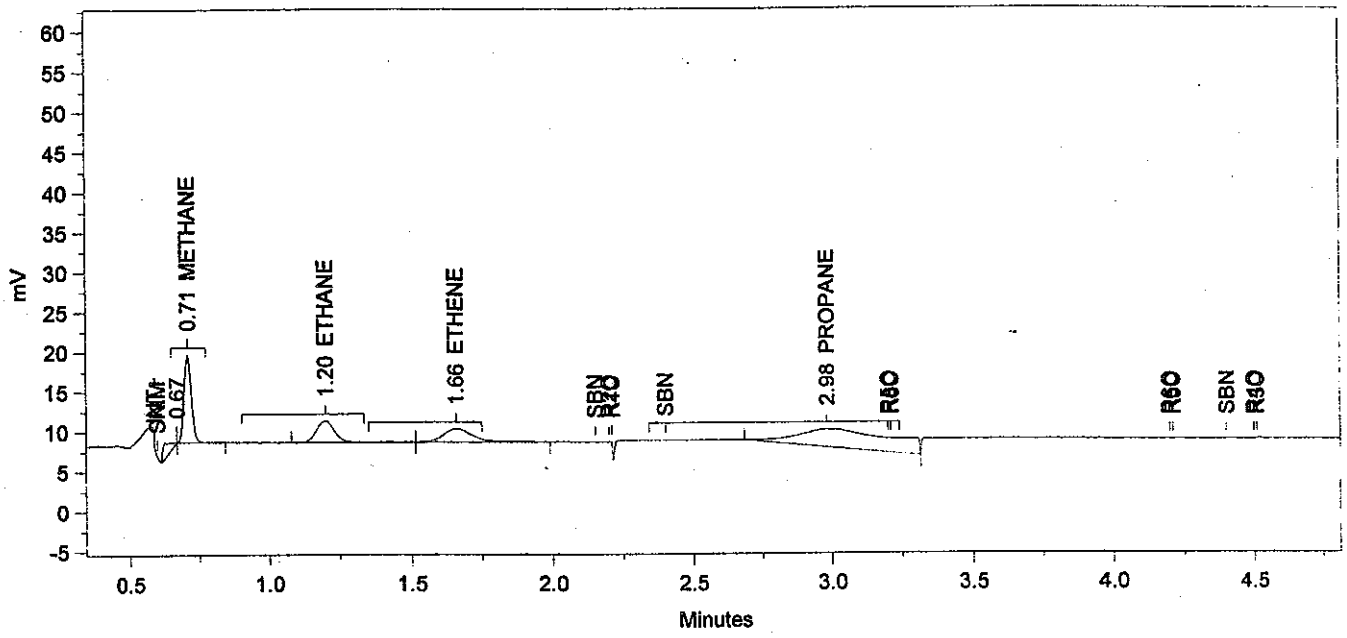
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.665		0.0448	0.001	2957.4	0.624	BB	0.800	61.65	0.085
2	0.713	METHANE	1.1826	0.025	~~78145.2~~	16.479	BB	0.030	43650.26	60.179
3	1.202	ETHANE	697.6604	14.472	~~46710.6~~	9.850	BV	0.071	10914.30	15.047
4	1.661	ETHENE	782.4048	16.230	~~47704.8~~	10.060	VB	0.114	6997.36	9.647
5	2.992	PROPANE	998.7422	20.718	72436.2	15.275	BB	0.230	5253.38	7.243
6	5.909	PROPENE	1136.0750	23.566	60457.8	12.749	BB	0.478	2108.59	2.907
7	8.939		1.2275	0.025	81117.5	17.105	BV	0.712	1899.76	2.619
8	10.450	N-BUTANE	1203.4090	24.963	84693.7	17.859	VB	0.856	1648.76	2.273

Total Area = 474223.2, Total Amount = 4820.745, Total Height = 72534.06, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

79029
46884
48069

LH080901D



Sample Name: **LH080901D**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:45:16pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.12R**
Date Stamp: 8/9/01 12:45:16pm
Sequence File: X28A.SEQ #112
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

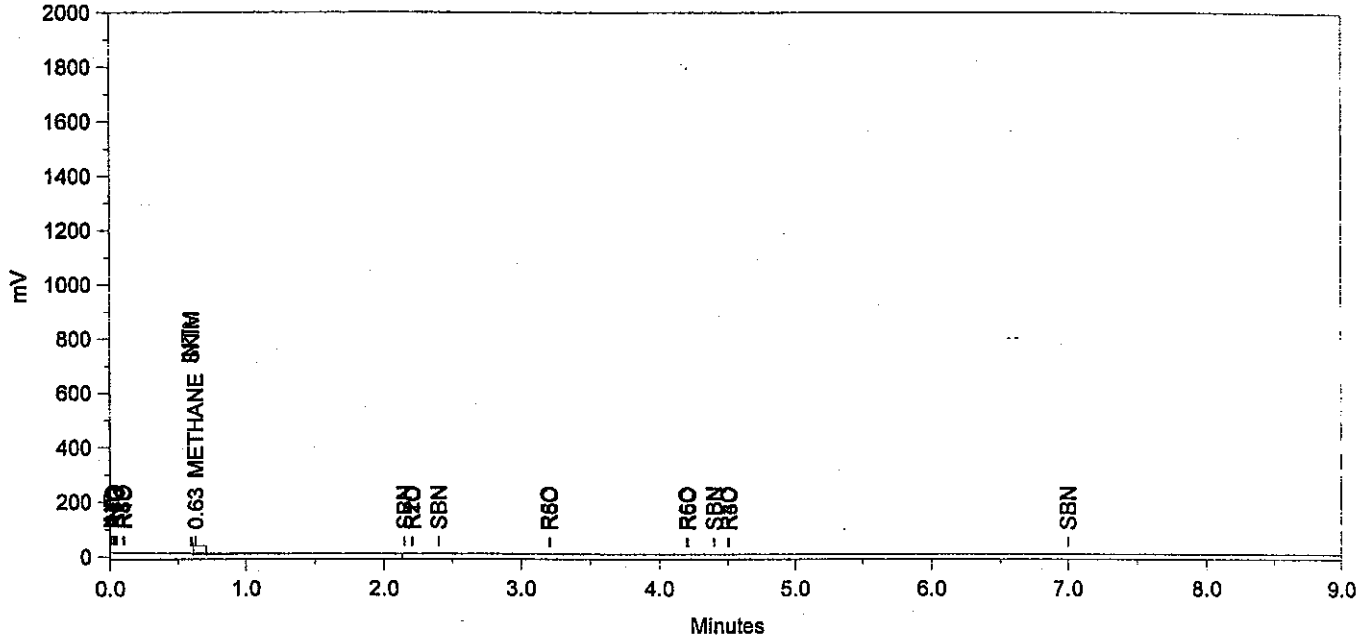
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.670		0.0594	0.004	3928.1	2.512	BB	2.480	26.40	0.139
2	0.710	METHANE	0.2934	0.017	~~19386.0~~	12.398	BB	0.029	10996.82	57.715
3	1.199	ETHANE	180.3965	10.641	12078.1 ok	7.724	BV	0.075	2674.16	14.035
4	1.658	ETHENE	200.3987	11.820	12218.7 ok	7.814	VB	0.121	1676.48	8.799
5	2.981	PROPANE	760.3850	44.851	55148.8	35.270	BB	0.409	2245.13	11.783
6	5.893	PROPENE	291.2432	17.179	15498.9	9.912	BB	0.484	533.95	2.802
7	8.965		0.2973	0.018	19645.3	12.564	BV	0.687	476.81	2.502
8	10.440	N-BUTANE	262.2778	15.470	18458.6	11.805	VB	0.726	423.82	2.224

11-28-01

Total Area = 156362.6, Total Amount = 1695.351, Total Height = 19053.55, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

21080

MB080901B



Sample Name: **MB080901B**
Acquired from Chrom1--FID via port 1 on 8/9/01 01:15:13pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.14R**
Date Stamp: 8/9/01 01:15:12pm
Sequence File: X28A.SEQ #114
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

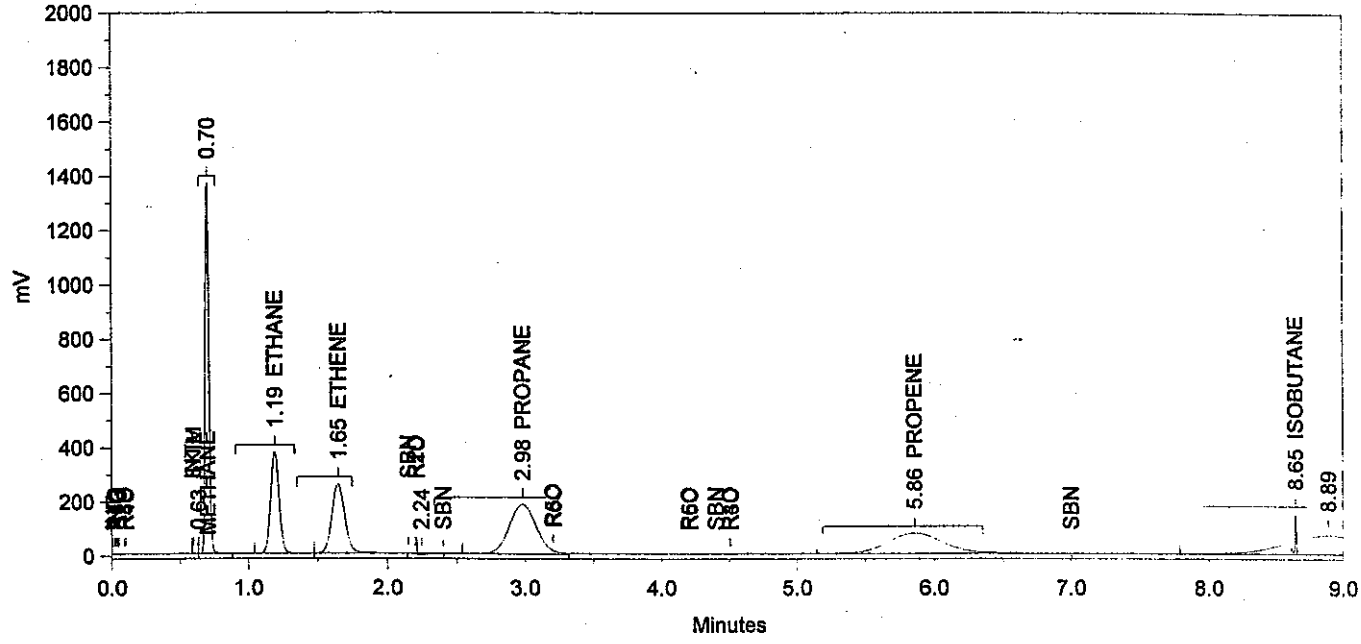
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.627	METHANE	~~1.4529~~	100.000	96009.6	100.000	BB	0.579	2762.81	100.000

Total Area = 96009.6, Total Amount = 1.453, Total Height = 2762.81, Sample Units = ug/l, ng/l

valve switch

LH080901E



Sample Name: **LH080901E**
Acquired from Chrom1--FID via port 1 on 8/9/01 01:30:08pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.15R**
Date Stamp: 8/9/01 01:30:08pm
Sequence File: X28A.SEQ #115
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.635		0.0212	0.000	1402.3	0.008	BB	0.456	51.21	0.002
2	0.703	METHANE	39.8373	0.022	2632490.0	15.691	BB	0.032	1381689.00	54.019
3	1.193	ETHANE	24144.4400	13.455	1616547.0	9.635	BV	0.072	375539.50	14.682
4	1.646	ETHENE	27033.8200	15.066	1648307.0	9.825	VB	0.107	256447.80	10.026
5	2.243		0.4631	0.000	30601.3	0.182	BB	0.109	4662.65	0.182
6	2.982	PROPANE	35216.1900	19.626	2554140.0	15.224	BB	0.231	184276.50	7.205
7	5.858	PROPENE	39986.8900	22.284	2127959.0	12.684	BB	0.468	75773.94	2.962
8	8.645	ISOBUTANE	8627.8270	4.808	616521.0	3.675	BV	0.068	151537.10	5.925
9	8.889		36.7373	0.020	2427638.0	14.470	VV	0.583	69366.02	2.712
10	10.410	N-BUTANE	44354.3700	24.718	3121578.0	18.606	VB	0.890	58449.66	2.285

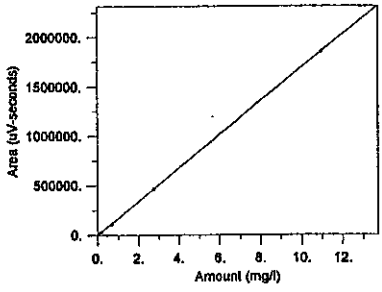
Total Area = 16777180.0, Total Amount = 179440.6, Total Height = 2557793.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

Calibration File Name: **C:\CPWIN\X28\X28B_W2.CAL** Version = 7
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 1000
Amount units = mg/l
5 components with 5 levels each

4 CH4

Retention time = 8.260 min., Search window = 0.575 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

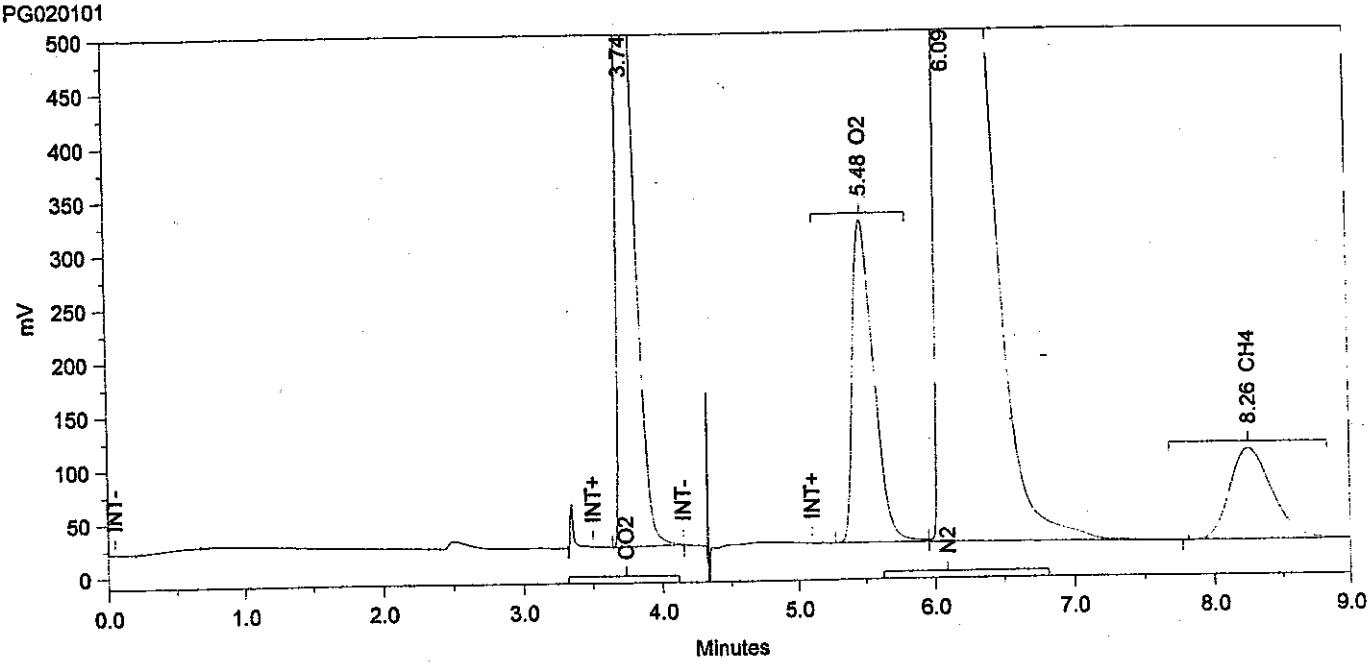
Level	Amount	Area	Area/Amt	Source	Date and time
1	0.043	9898.0	231261.7	Manual	8/9/2001 10:10:4
2	0.171	28107.0	164080.6	Manual	8/9/2001 10:10:4
3	0.685	105855.0	154532.8	Manual	8/9/2001 10:10:4
4	2.740	464408.0	169485.8	Manual	8/9/2001 10:10:4
5	10.960	1853512.0	169116.1	Manual	8/9/2001 10:10:4



Calibration formula: Y = 169084.1 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 9.72%
Average CF = 177695.4000 with RSD = 17.19%

11/28/20013:34:12 PMC:\CPWIN\X28\X28B1.00RPG02010108-9-2001 09:12:38X28B_W2.MET

PG020101



Sample Name: **PG020101**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:12:38am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.00R**
Date Stamp: 8/9/01 09:12:38am
Sequence File: X28A.SEQ #100
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

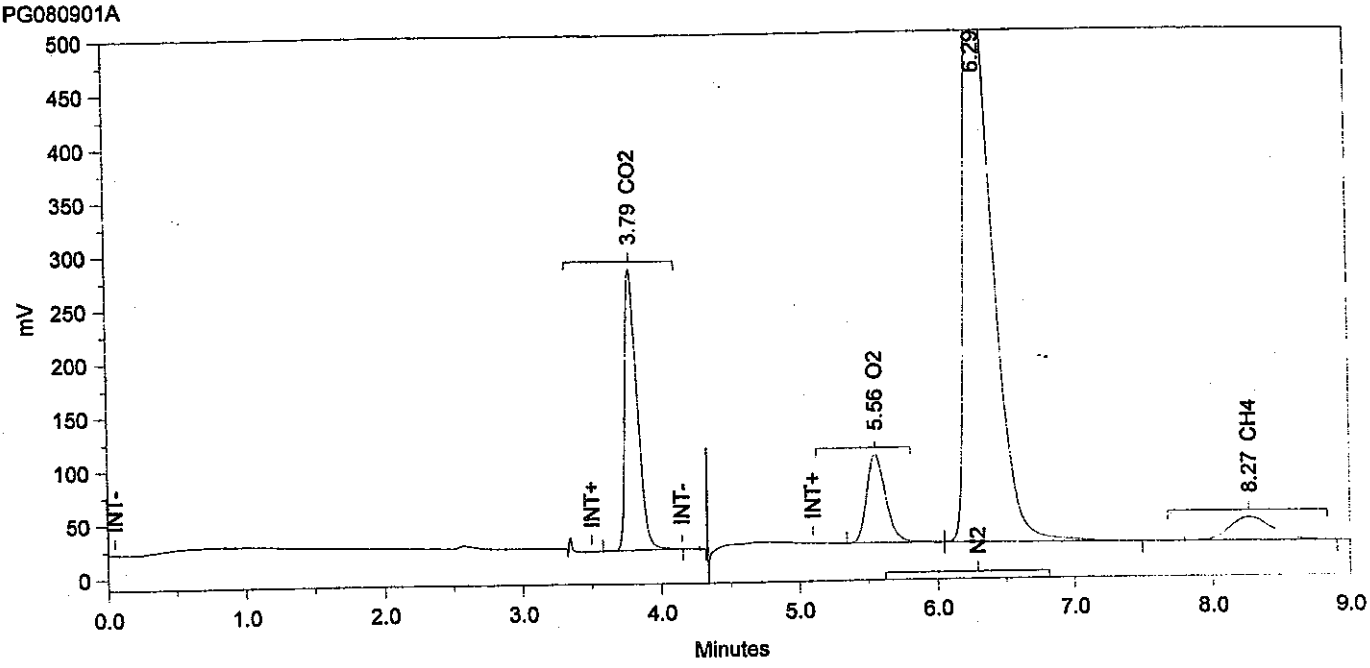
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.736	CO2	318.2950	48.040	6452702.0	14.134	BB	0.119	907161.30	28.765
2	5.482	O2	33.9174	5.119	3203000.0	7.016	BV	0.177	300877.80	9.540
3	6.088	N2	270.2144	40.783	30933720.0	67.755	VB	0.296	1741891.00	55.232
4	8.255	CH4	10.9621	1.654	1853512.0	4.060	BV	0.362	85364.38	2.707
5	9.677	CO	29.1763	4.404	3212042.0	7.035	VB	0.452	118448.30	3.756

Total Area = 45654970.0, Total Amount = 662.565, Total Height = 3153743.0, Sample Units = mg/l

PG080901A



Sample Name: **PG080901A**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:28:56am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.01R**
Date Stamp: 8/9/01 09:28:56am
Sequence File: X28A.SEQ #101
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

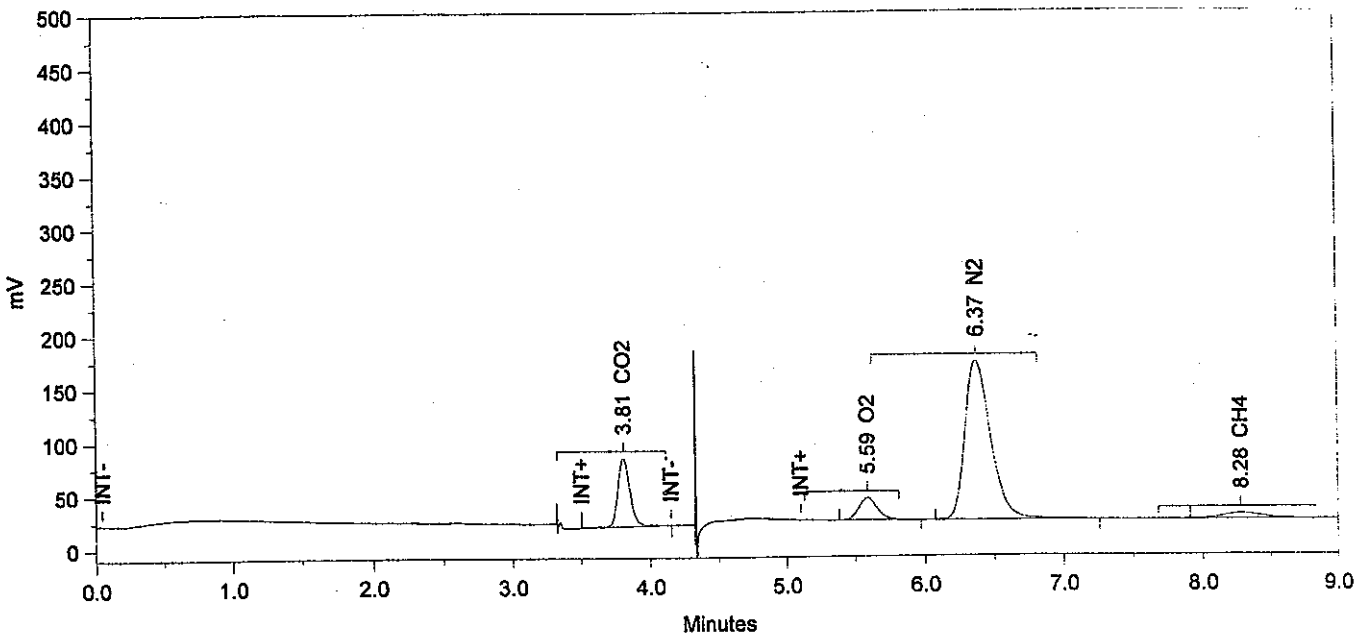
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.790	CO2	79.5234	47.976	1612155.0	14.101	BB	0.102	262420.30	26.841
2	5.557	O2	8.4631	5.106	799218.7	6.991	BV	0.162	82439.20	8.432
3	6.290	N2	67.8886	40.957	7771783.0	67.977	VB	0.222	583600.40	59.692
4	8.270	CH4	2.7466	1.657	464408.3	4.062	BB	0.356	21764.68	2.226
5	9.771	CO	7.1334	4.304	785323.3	6.869	BB	0.477	27454.77	2.808

Total Area = 11432890.0, Total Amount = 165.755, Total Height = 977679.3, Sample Units = mg/l

PG080901B



Sample Name: **PG080901B**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:41:53am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.02R**
Date Stamp: 8/9/01 09:41:52am
Sequence File: X28A.SEQ #102
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

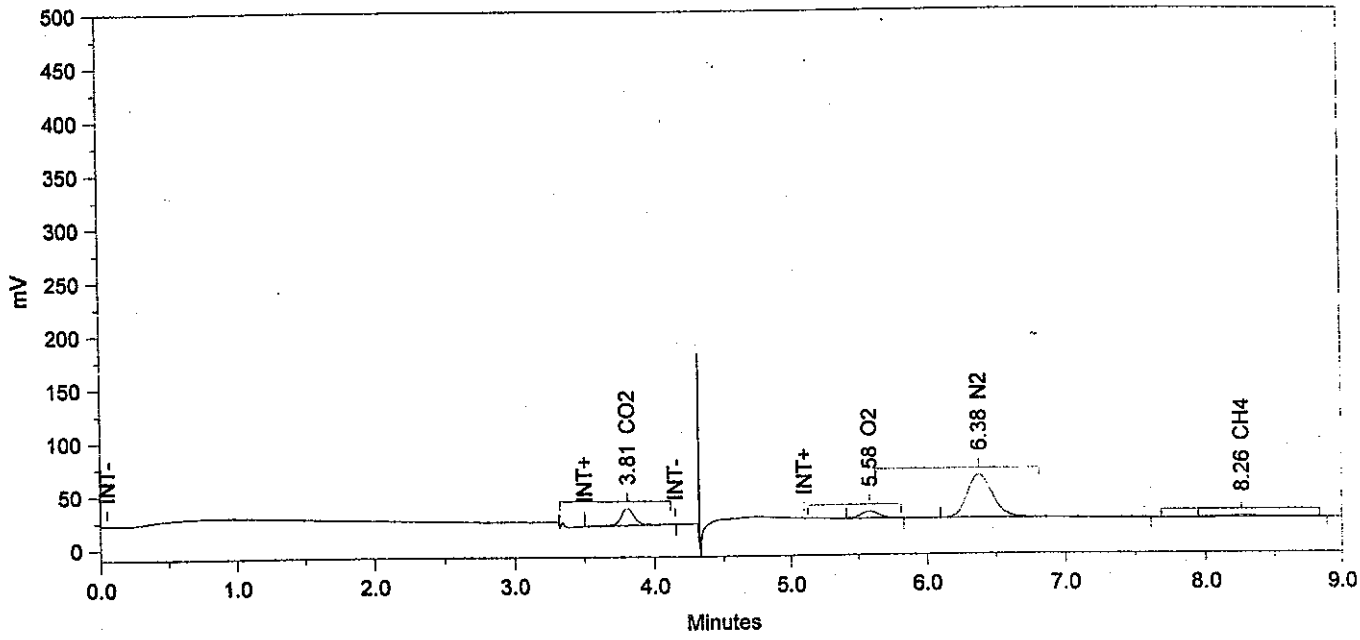
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.807	CO2	19.5772	48.869	396883.1	14.541	BB	0.102	64621.47	26.552
2	5.586	O2	2.0611	5.145	194638.8	7.131	BB	0.155	20963.07	8.613
3	6.373	N2	16.5811	41.390	1898173.0	69.547	BB	0.213	148729.10	61.110
4	8.277	CH4	0.6260	1.563	105854.8	3.878	BB	0.347	5079.11	2.087
5	10.019	CO	1.2154	3.034	133807.4	4.903	BB	0.559	3987.26	1.638

Total Area = 2729357.0, Total Amount = 40.061, Total Height = 243380.0, Sample Units = mg/l

PG080901C



Sample Name: **PG080901C**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:55:14am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.03R**
Date Stamp: 8/9/01 09:55:14am
Sequence File: X28A.SEQ #103
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

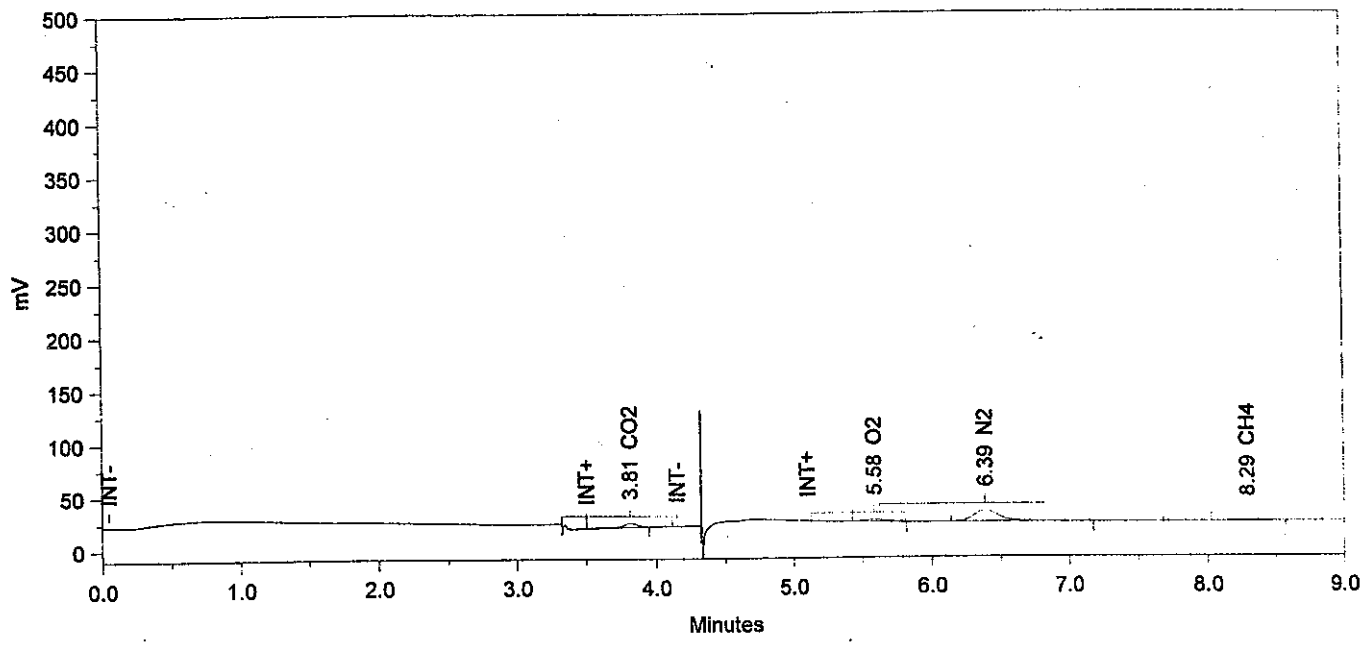
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.809	CO2	5.3306	47.318	108065.4	14.895	BB	0.112	16092.98	24.607
2	5.581	O2	0.6395	5.677	60391.4	8.324	BB	0.148	6812.38	10.417
3	6.377	N2	4.5109	40.042	516405.0	71.179	BB	0.212	40575.29	62.043
4	8.260	CH4	0.1662	1.476	28106.9	3.874	BB	0.346	1352.39	2.068
5	10.625		0.6183	5.488	12534.8	1.728	BB	0.369	565.83	0.865

Total Area = 725503.5, Total Amount = 11.266, Total Height = 65398.87, Sample Units = mg/l

PG080901D



Sample Name: **PG080901D**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:07:57am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.04R**
Date Stamp: 8/9/01 10:07:56am
Sequence File: X28A.SEQ #104
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

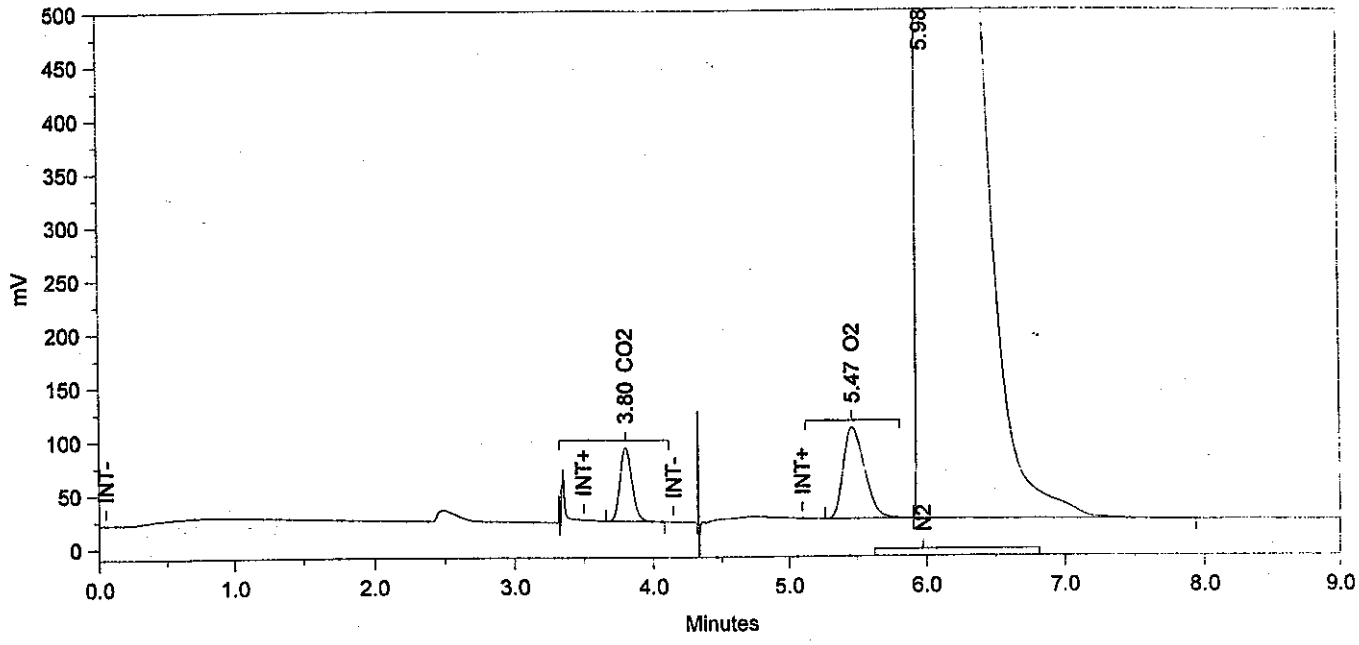
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.812	CO2	1.3203	47.541	26766.6	13.936	BB	0.113	3960.25	23.211
2	5.584	O2	0.2001	7.207	18901.1	9.841	BB	0.148	2129.57	12.482
3	6.385	N2	1.2106	43.588	138583.3	72.154	BB	0.219	10531.39	61.725
4	8.291	CH4	0.0462	1.664	~~7815.5~~	4.069	BB	0.296	440.46	2.582

Total Area = 192066.6, Total Amount = 2.777, Total Height = 17061.68, Sample Units = mg/l
* Some peaks have been manually integrated,

11/28/20013:39:07 PMC:\CPWIN\X28\X28B1.05RLH05200108-9-2001 10:23:30X28B_W2.MET

LH052001



Sample Name: **LH052001** (LCS)
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:23:30am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.05R**
Date Stamp: 8/9/01 10:23:30am
Sequence File: X28A.SEQ #105
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

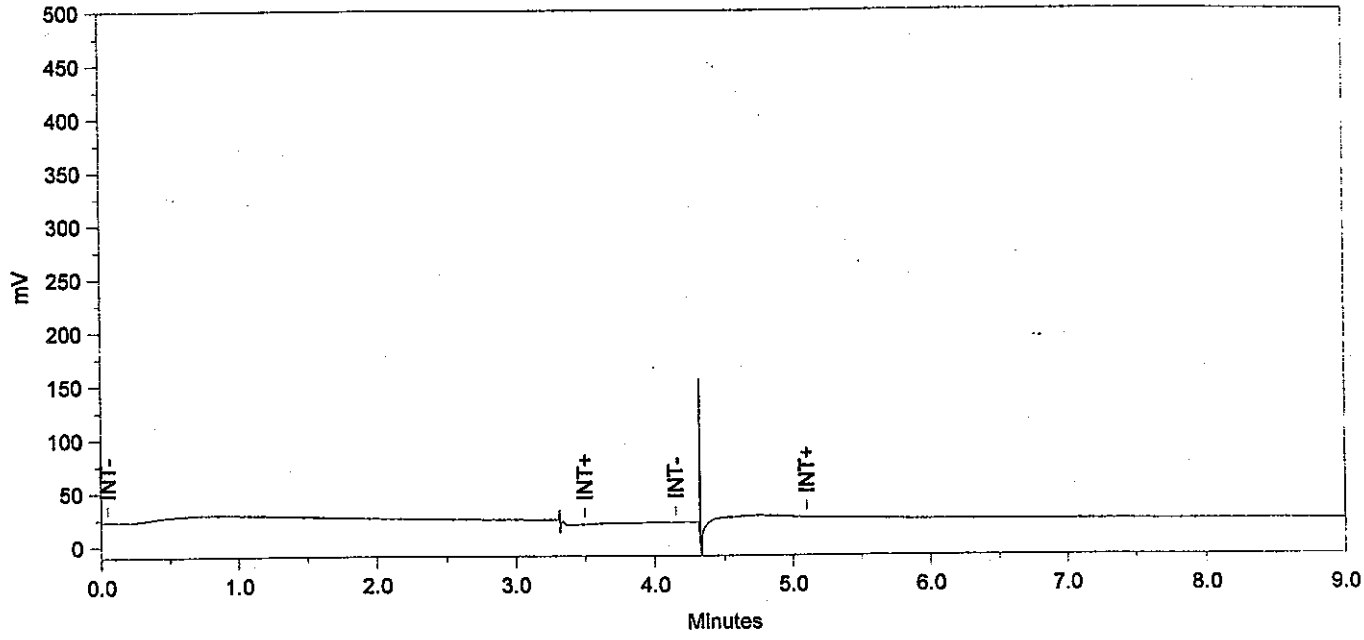
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.804	CO2	20.7142	4.977	419932.5	0.923	BB	0.101	69318.63	3.216
2	5.468	O2	9.8680	2.371	931885.4	2.048	BV	0.181	85720.55	3.978
3	5.977	N2	385.6486	92.653	44148430.0	97.029	VB	0.368	2000071.00	92.806

Total Area = 45500250.0, Total Amount = 416.231, Total Height = 2155110.0, Sample Units = mg/l

11/28/20013:39:30 PMC:\CPWIN\X28\X28B1.06RMB080901A08-9-2001 10:36:54X28B_W2.MET

MB080901A



Sample Name: **MB080901A**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:36:54am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.06R**
Date Stamp: 8/9/01 10:36:54am
Sequence File: X28A.SEQ #106
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

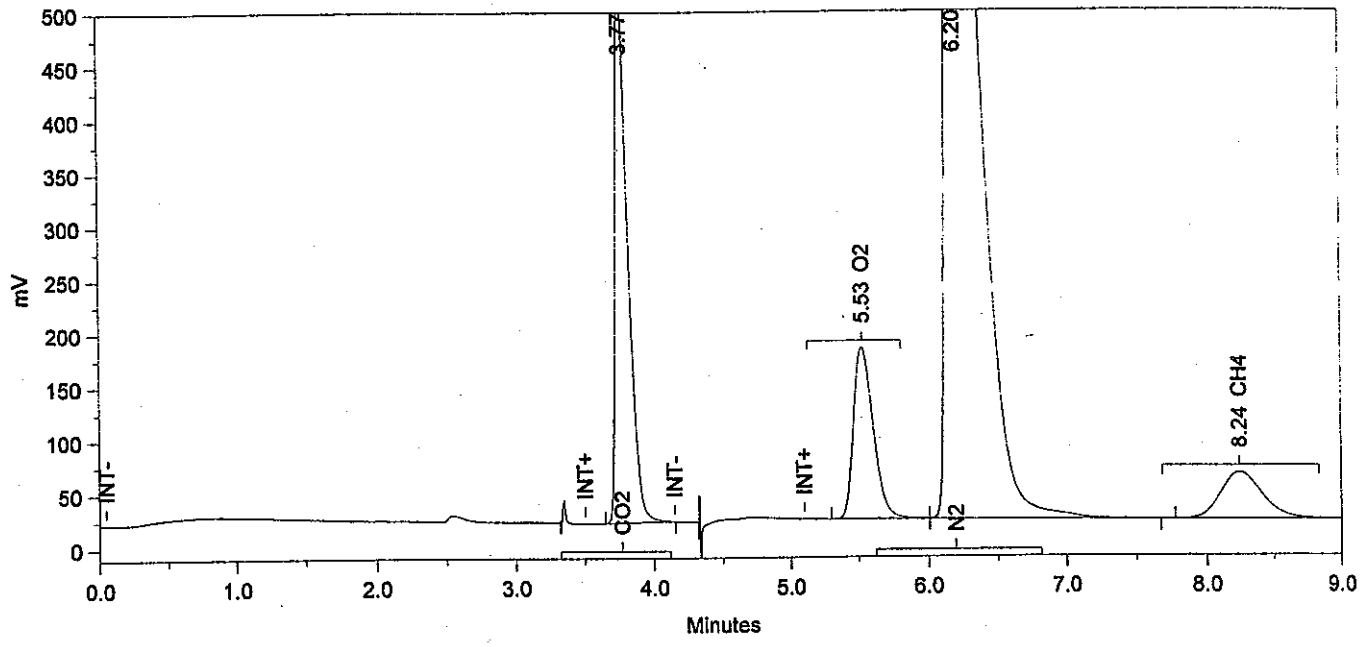
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = mg/l

11/28/20013:40:13 PMC:\CPWIN\X28\X28B1.07RPG080901E08-9-2001 10:50:19X28B_W2.MET

PG080901E



Sample Name: **PG080901E**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:50:19am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.07R**
Date Stamp: 8/9/01 10:50:18am
Sequence File: X28A.SEQ #107
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.767	CO2	161.6964	48.241	3278024.0	14.230	BB	0.107	510420.10	27.771
2	5.528	O2	16.9347	5.052	1599237.0	6.942	BV	0.166	160107.50	8.711
3	6.200	N2	136.4208	40.700	15617240.0	67.794	VB	0.245	1064492.00	57.917
4	8.241	CH4	5.5102	1.644	931692.9	4.044	BB	0.357	43508.10	2.367
5	9.672	CO	14.6248	4.363	1610056.0	6.989	BB	0.452	59422.16	3.233

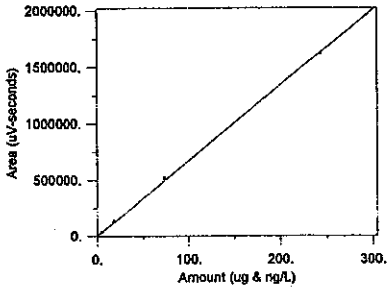
Total Area = 23036250.0, Total Amount = 335.187, Total Height = 1837950.0, Sample Units = mg/l

Calibration File Name: **C:\CPWIN\X28\X28D_W2.CAL** Version = 6
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug & ng/L
3 components with 4 levels each

1 METHANE

Retention time = 0.700 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

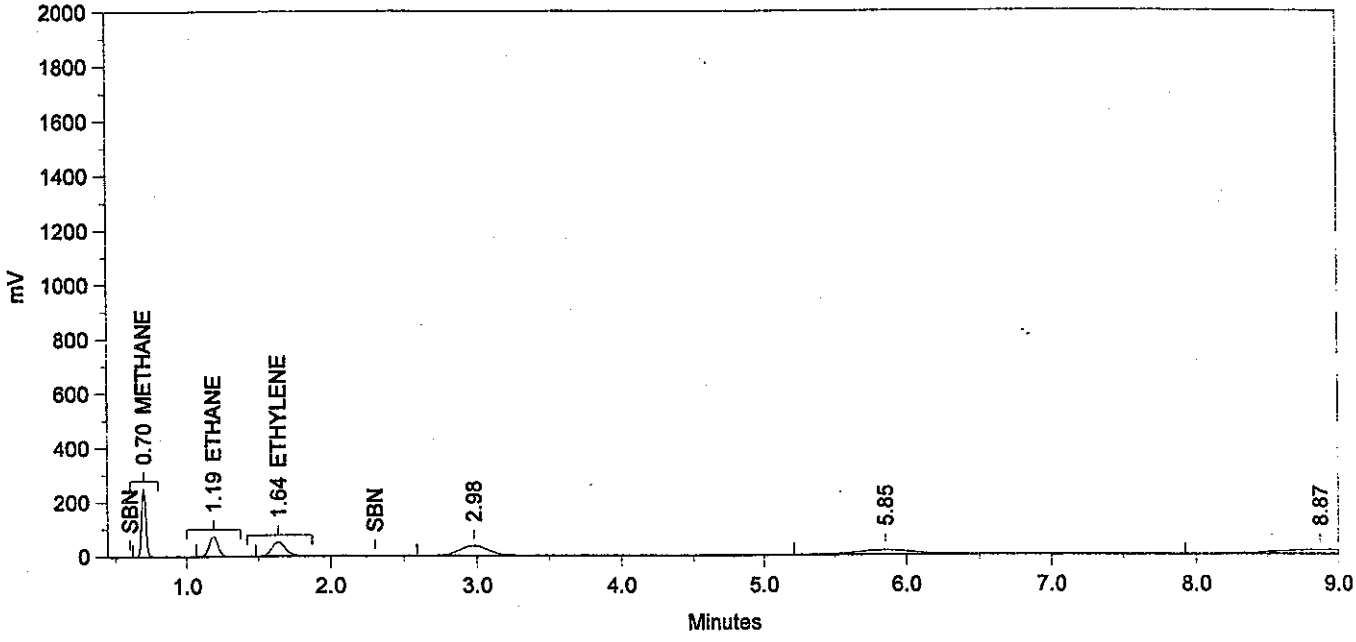
Level	Amount	Area	Area/Amt	Source	Date and time
1	4.582	36568.0	7980.795	Manual	8/9/2001 12:22:3
2	18.328	133880.0	7304.671	Manual	8/9/2001 12:08:1
3	73.312	520300.0	7097.065	Manual	8/9/2001 1:04:58
4	243.600	1620473.0	6652.188	Manual	8/9/2001 1:04:58



Calibration formula: Y = 6692.729 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9993, Average error = 8.76%
Average CF = 7258.6800 with RSD = 7.62%

11/28/20013:43:00 PMC:\CPWIN\X28\X28D1.08RLH05200108-9-2001 11:44:20X28D_W1.MET

LH052001



Sample Name: **LH052001**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 11:44:20am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.08R**
Date Stamp: 8/9/01 11:44:20am
Sequence File: X28C.SEQ #108
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

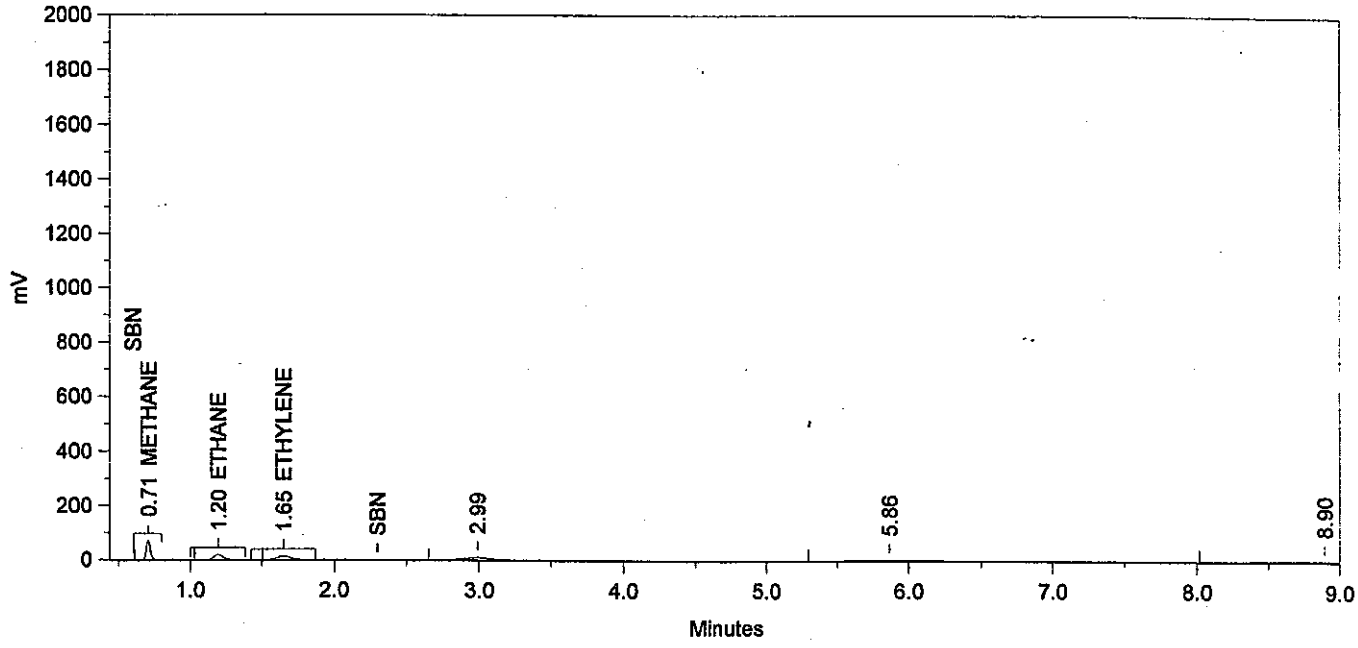
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.696	METHANE	77.7411	0.075	520300.1	15.758	BB	0.034	253347.10	56.048
2	1.187	ETHANE	48281.6600	46.875	316883.6	9.597	BV	0.073	72811.77	16.108
3	1.640	ETHYLENE	54322.1800	52.739	322820.8	9.777	VB	0.107	50169.88	11.099
4	2.978		73.5928	0.071	492536.5	14.917	BB	0.229	35805.89	7.921
5	5.851		63.4467	0.062	424631.7	12.861	BB	0.475	14903.30	3.297
6	8.870		91.3153	0.089	611148.5	18.510	BV	0.753	13520.23	2.991
7	10.411		91.6566	0.089	613433.2	18.579	VB	0.892	11458.80	2.535

Total Area = 3301755.0, Total Amount = 103001.6, Total Height = 452017.0, Sample Units = ug & ng/L

LH080901A



Sample Name: **LH080901A**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 12:01:14pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.09R**
Date Stamp: 8/9/01 12:01:14pm
Sequence File: X28C.SEQ #109
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

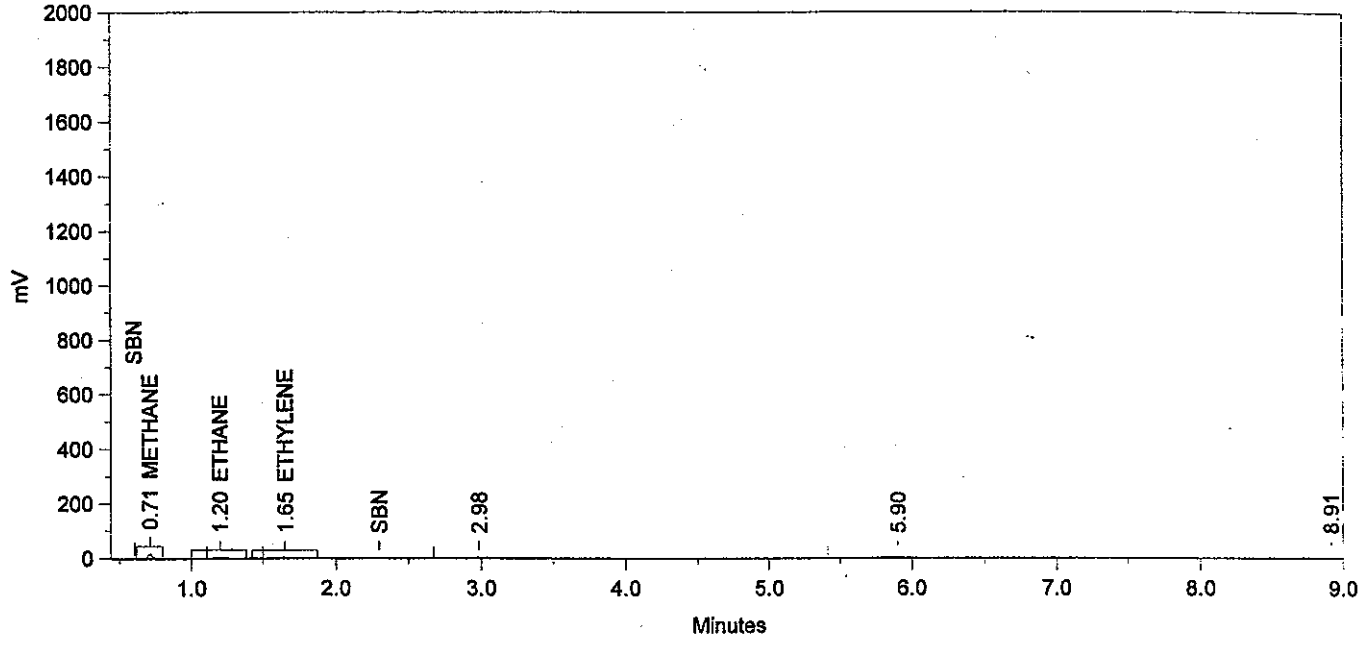
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.706	METHANE	20.0038	0.076	133880.3	15.573	BB	0.031	71148.94	58.248
2	1.196	ETHANE	12339.7900	46.693	80988.9	9.421	BB	0.072	18727.82	15.332
3	1.653	ETHYLENE	13983.9600	52.914	83102.6	9.667	BB	0.110	12598.14	10.314
4	2.990		19.7410	0.075	132121.5	15.369	BB	0.237	9308.29	7.620
5	5.865		16.5458	0.063	110736.6	12.881	BB	0.478	3862.40	3.162
6	8.896		23.7480	0.090	158938.7	18.488	BV	0.752	3523.61	2.885
7	10.435		23.8944	0.090	159918.5	18.602	VB	0.894	2980.02	2.440

Total Area = 859686.9, Total Amount = 26427.68, Total Height = 122149.2, Sample Units = ug & ng/L

LH080901B



Sample Name: **LH080901B**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 12:18:41pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.10R**
Date Stamp: 8/9/01 12:18:40pm
Sequence File: X28C.SEQ #110
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

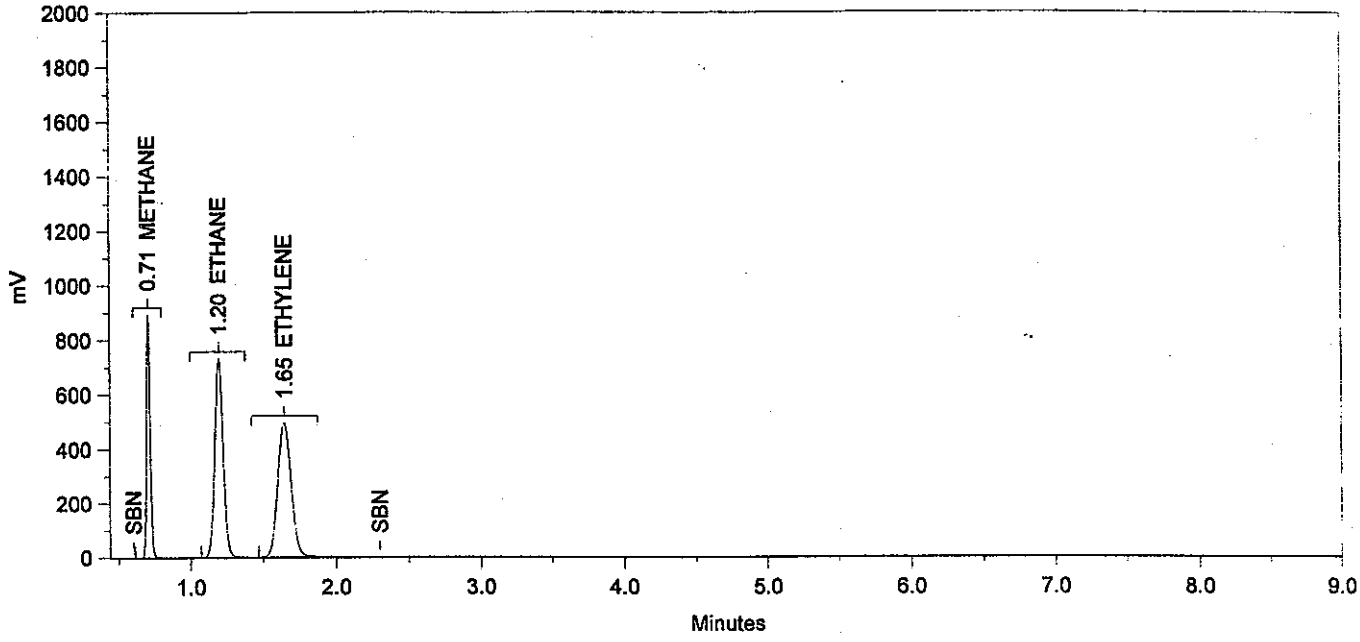
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.711	METHANE	5.4639	0.080	36568.4	16.591	BB	0.034	17949.27	58.435
2	1.199	ETHANE	3141.5740	45.736	20618.9	9.355	BV	0.076	4532.11	14.755
3	1.652	ETHYLENE	3700.7530	53.877	21992.5	9.978	VB	0.119	3070.65	9.997
4	2.984		6.2048	0.090	41527.1	18.841	BB	0.274	2522.47	8.212
5	5.900		4.0684	0.059	27229.0	12.354	BB	0.452	1004.03	3.269
6	8.915		5.0761	0.074	33973.0	15.413	BV	0.657	861.76	2.805
7	10.405		5.7529	0.084	38502.8	17.469	VB	0.827	776.42	2.528

Total Area = 220411.6, Total Amount = 6868.893, Total Height = 30716.72, Sample Units = ug & ng/L

STD 216 10X



Sample Name: **STD 216 10X**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:00:38pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.13R**
Date Stamp: 8/9/01 01:00:38pm
Sequence File: X28C.SEQ #113
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

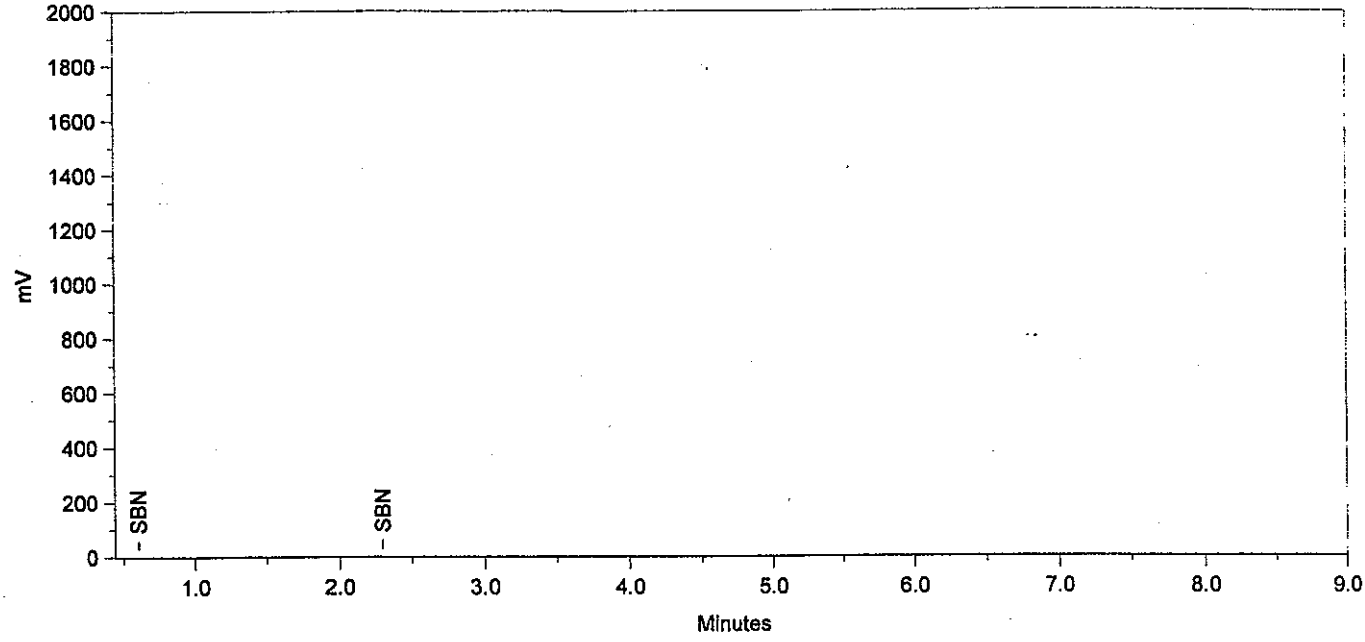
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.707	METHANE	242.1243	0.024	1620473.0	20.665	BB	0.030	902603.30	42.410
2	1.195	ETHANE	472483.8000	47.354	3101020.0	39.545	BV	0.071	730637.10	34.330
3	1.647	ETHYLENE	525050.2000	52.622	3120220.0	39.790	VB	0.105	495050.90	23.260

Total Area = 7841712.0, Total Amount = 997776.1, Total Height = 2128291.0, Sample Units = ug & ng/L

MB080901B



Sample Name: **MB080901B**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:15:13pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.14R**
Date Stamp: 8/9/01 01:15:12pm
Sequence File: X28C.SEQ #114
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time	= 12.0 min	Sample Rate	= 3.33 per sec.
Amount Inj.	= 0.000	Dilution Factor	= 1.000
Sample Weight	= 0.000	Int Std Amount	= 0.000

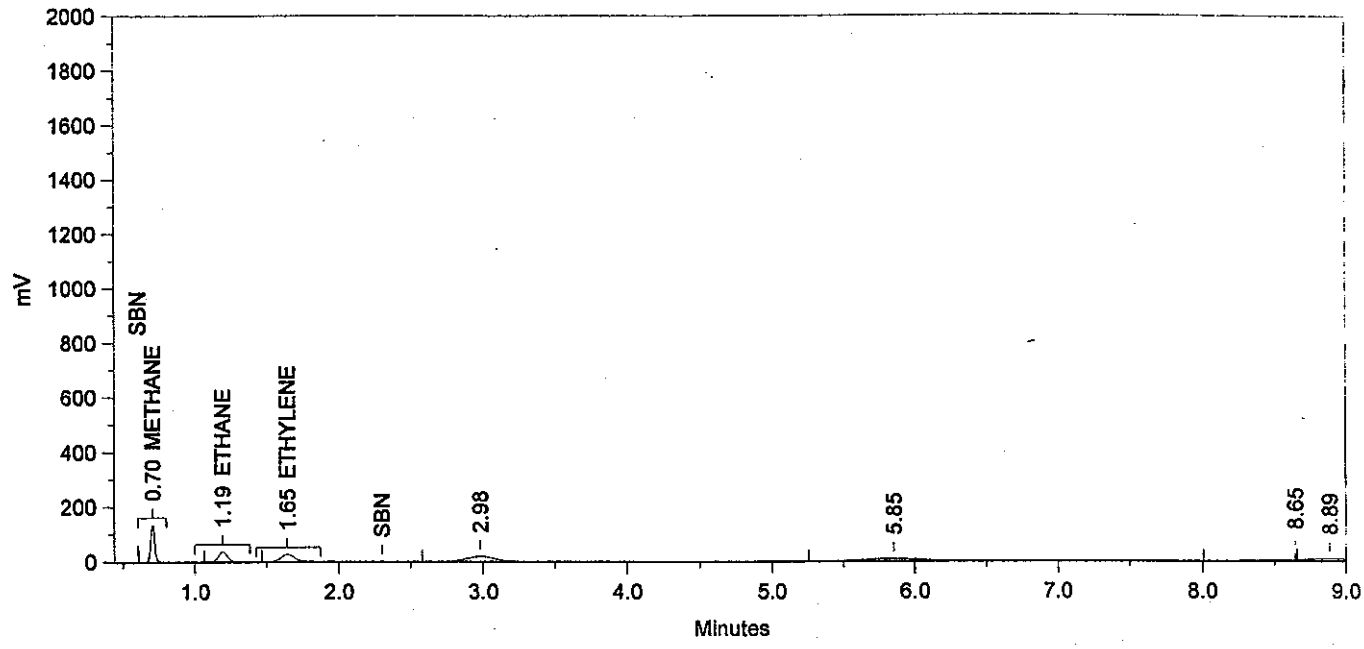
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

11/28/20013:46:41 PMC:\CPWIN\X28\X28D1.15RLH080901E08-9-2001 13:30:08X28D_W2.MET

LH080901E



Sample Name: **LH080901E**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:30:08pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.15R**
Date Stamp: 8/9/01 01:30:08pm
Sequence File: X28C.SEQ #115
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

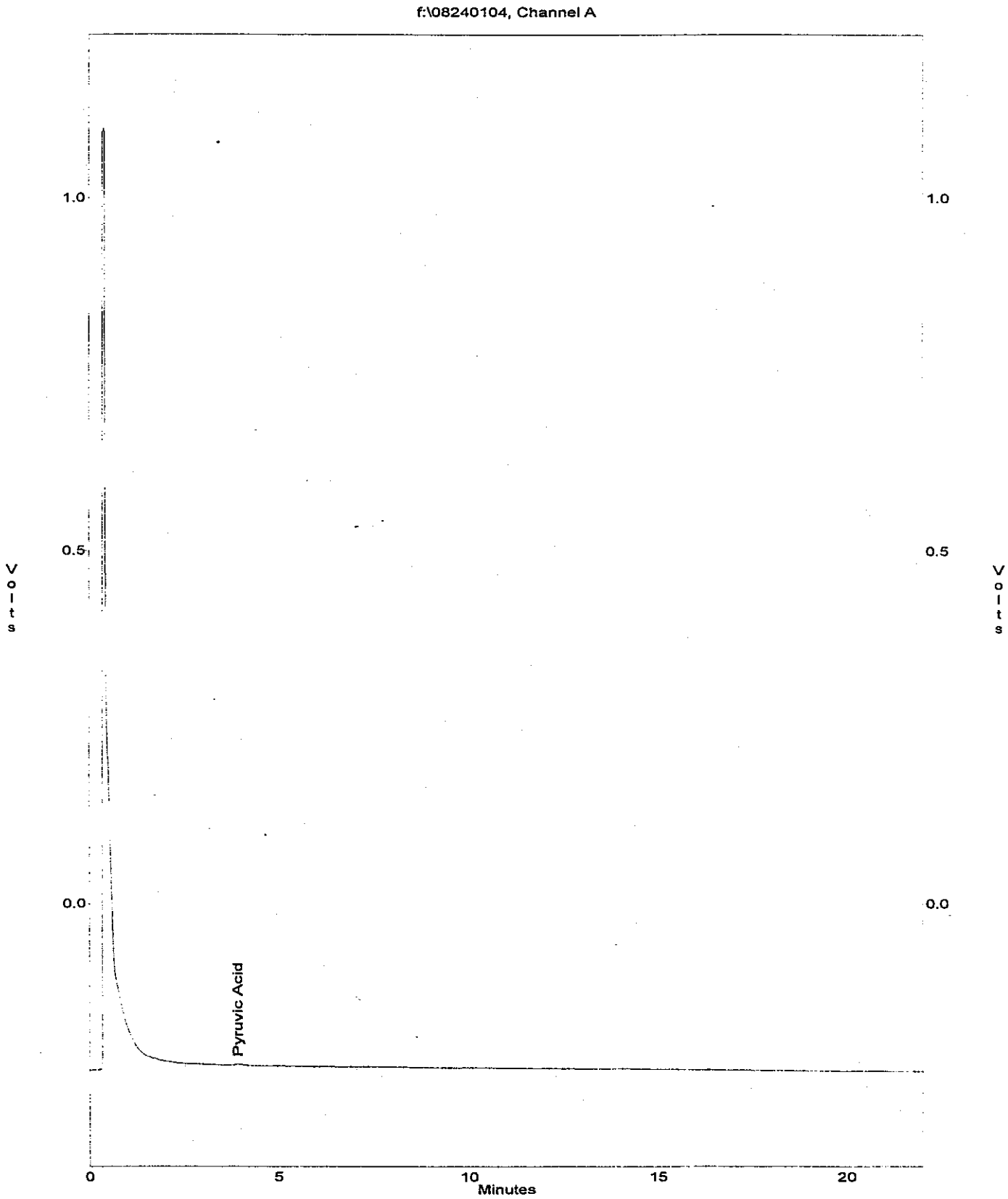
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.702	METHANE	39.5448	0.074	264662.4	15.604	BB	0.032	138105.30	51.697
2	1.192	ETHANE	24794.3900	46.269	162731.3	9.594	BV	0.072	37497.26	14.036
3	1.645	ETHYLENE	28588.9400	53.350	169895.7	10.017	VB	0.110	25775.91	9.649
4	2.980		37.7734	0.070	252807.4	14.905	BV	0.230	18319.00	6.857
5	5.855		32.7526	0.061	219204.3	12.924	VV	0.474	7710.33	2.886
6	8.645		10.0960	0.019	67569.6	3.984	VV	0.042	26775.24	10.023
7	8.887		37.2436	0.070	249261.3	14.696	VV	0.589	7048.28	2.638
8	10.394		46.3149	0.086	309973.3	18.276	VB	0.874	5912.69	2.213

Total Area = 1696106.0, Total Amount = 53587.05, Total Height = 267144.0, Sample Units = ug & ng/L

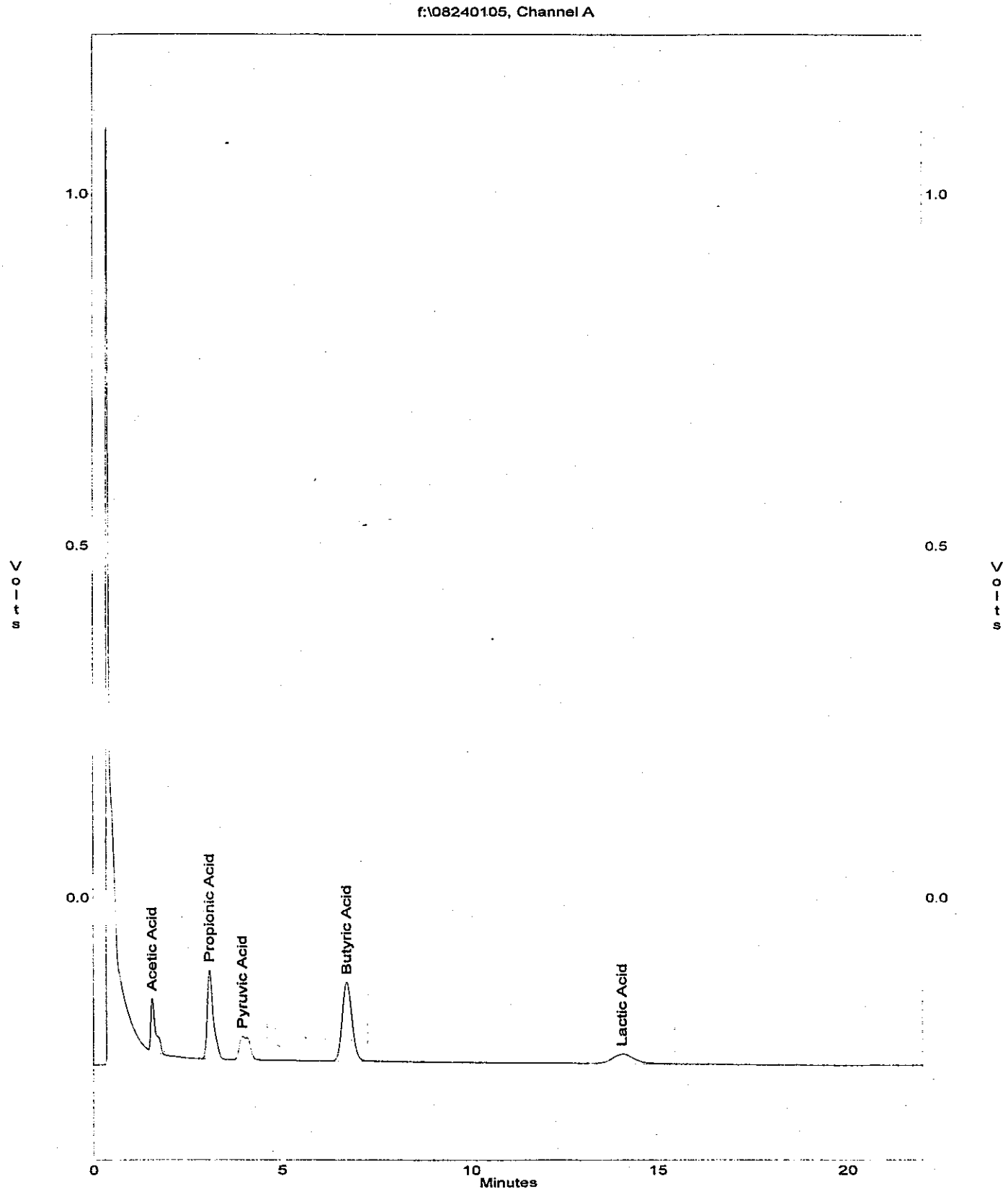
External Standard Report -- Channel A
File : f:\08240104
Method : f:\vfa.met
Sample ID : mb
Acquired : Aug 24, 2001 16:11:42
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.935	1.617 mg/l	28118	1764
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			1.617	28118	1764


f:\08240104, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

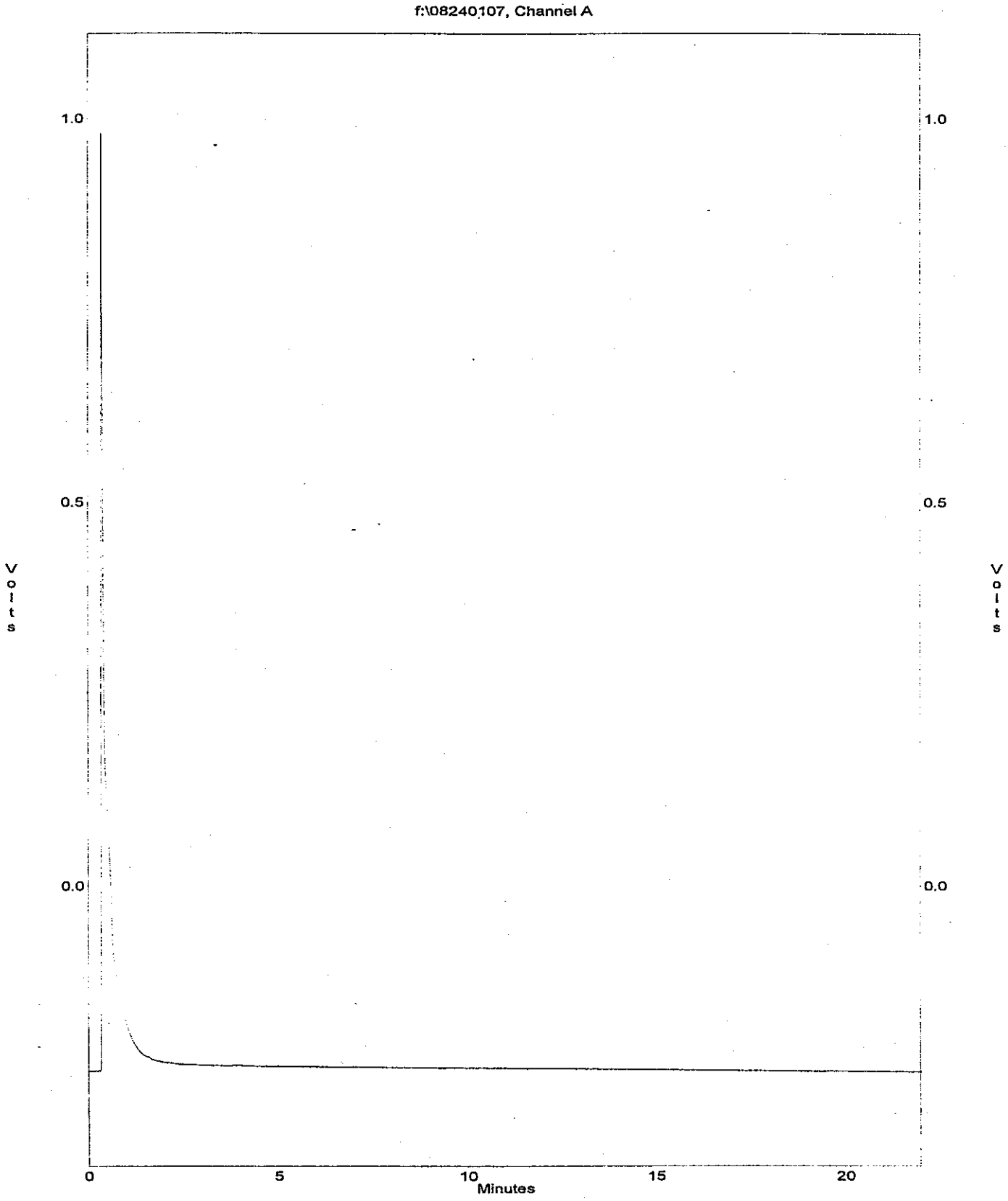
External Standard Report -- Channel A
File : f:\08240105
Method : f:\vfa.met
Sample ID : lcs supelco 10x
Acquired : Aug 24, 2001 16:34:24
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.572	49.215 mg/l	657593	74264
2	Propionic Acid	3.087	63.465 mg/l	1357071	126331
3	Pyruvic Acid	3.947	77.904 mg/l	644809	33134
4	Butyric Acid	6.725	77.078 mg/l	1987185	111637
5	Lactic Acid	14.067	77.959 mg/l	528678	13497
Totals			345.621	5175336	358863


f:\08240105, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

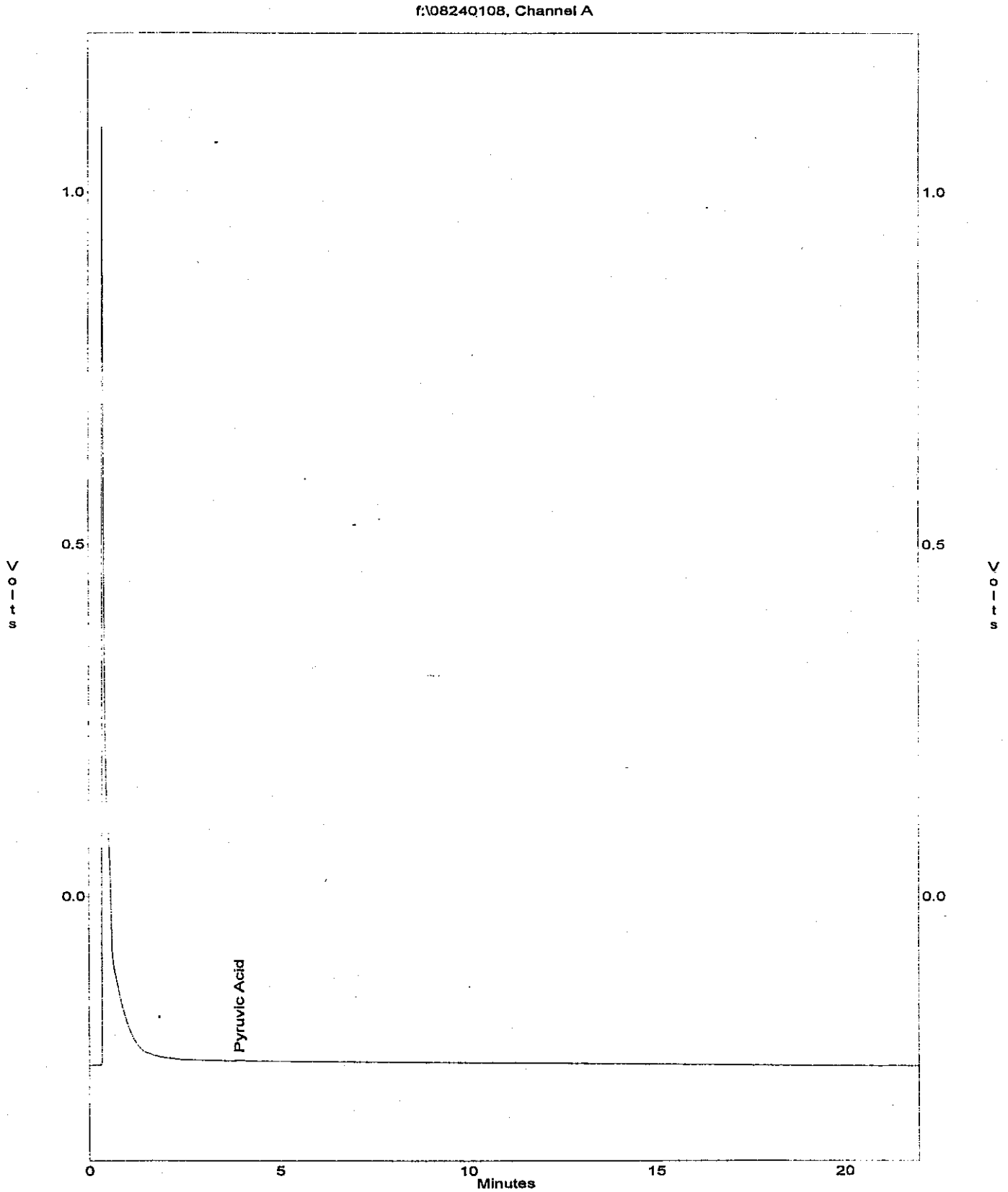
External Standard Report -- Channel A
File : f:\08240107
Method : f:\vfa.met
Sample ID : p108078-01a
Acquired : Aug 24, 2001 17:19:51
User : System

--- No Peaks Found.


f:\08240107, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

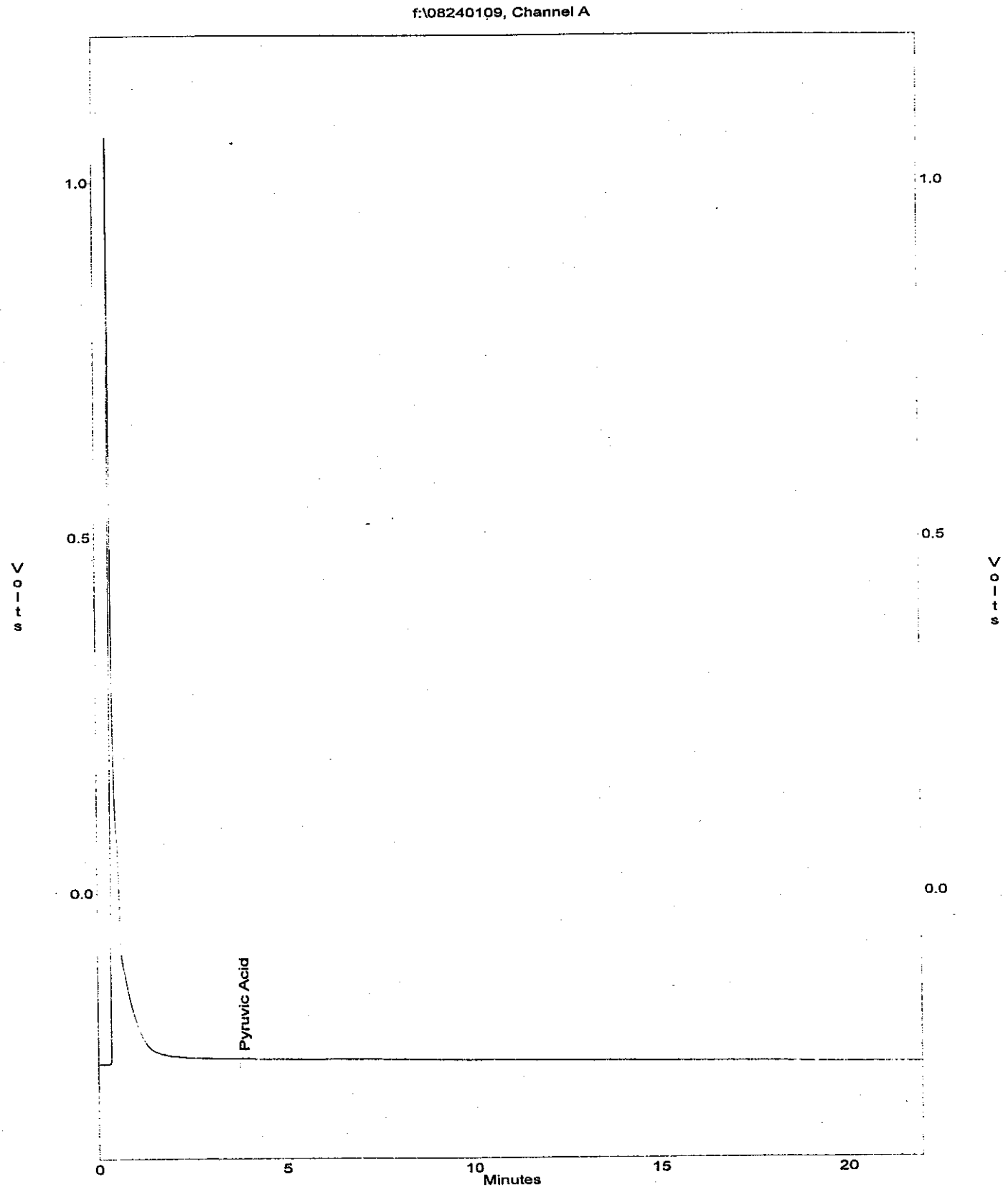
External Standard Report -- Channel A
File : f:\08240108
Method : f:\vfa.met
Sample ID : p108078-02a
Acquired : Aug 24, 2001 17:42:35
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.925	0.136 mg/l	16149	1083
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.136	16149	1083


f:\08240108, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

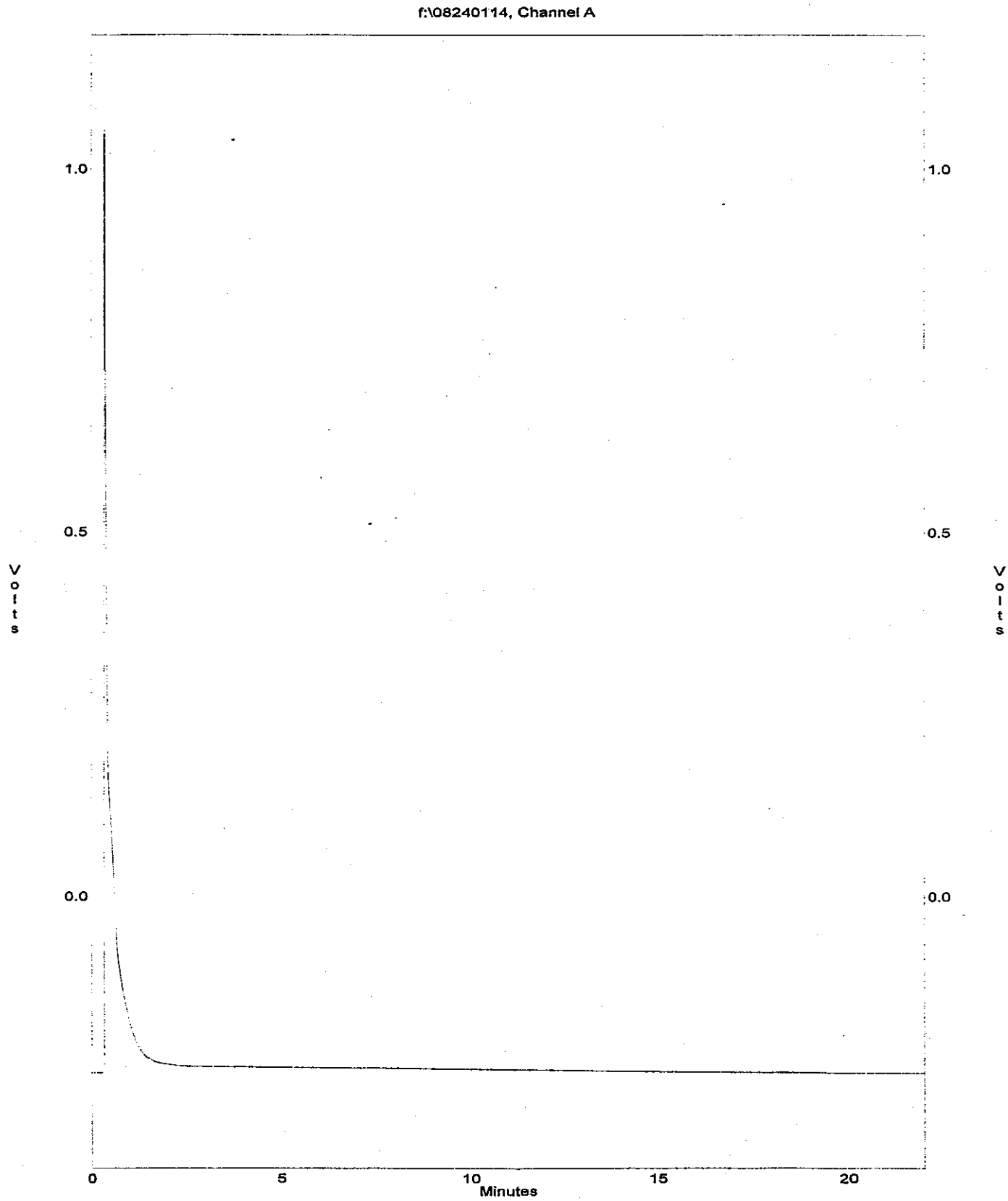
External Standard Report -- Channel A
File : f:\08240109
Method : f:\vfa.met
Sample ID : p108078-03a
Acquired : Aug 24, 2001 18:05:17
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.905	0.319 mg/l	17626	1091
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.319	17626	1091


f:\08240109, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

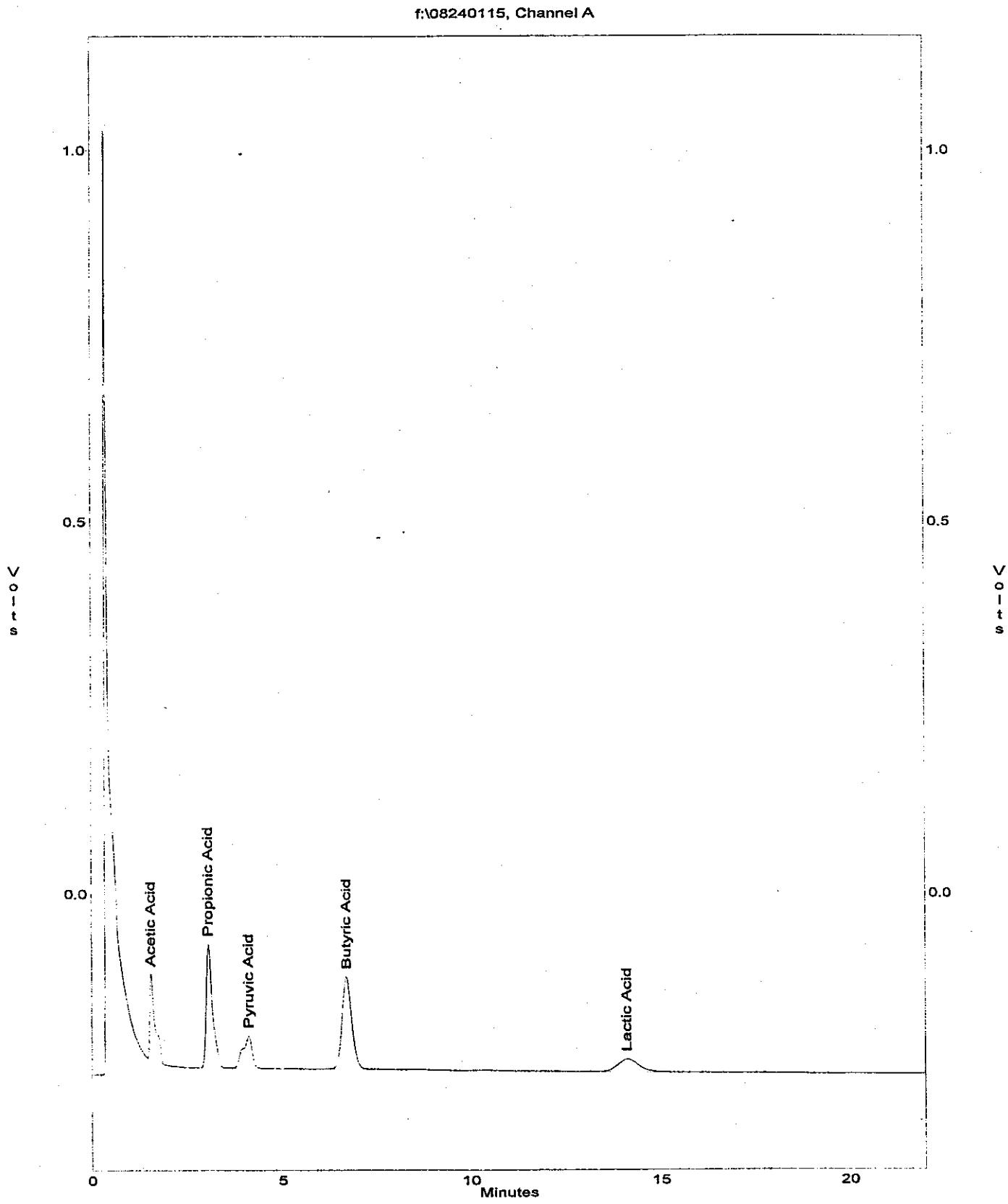
External Standard Report -- Channel A
File . . . : f:\08240114
Method : f:\vfa.met
Sample ID : p108167-01a
Acquired : Aug 24, 2001 19:58:55
User : System

--- No Peaks Found.


f:\08240114, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

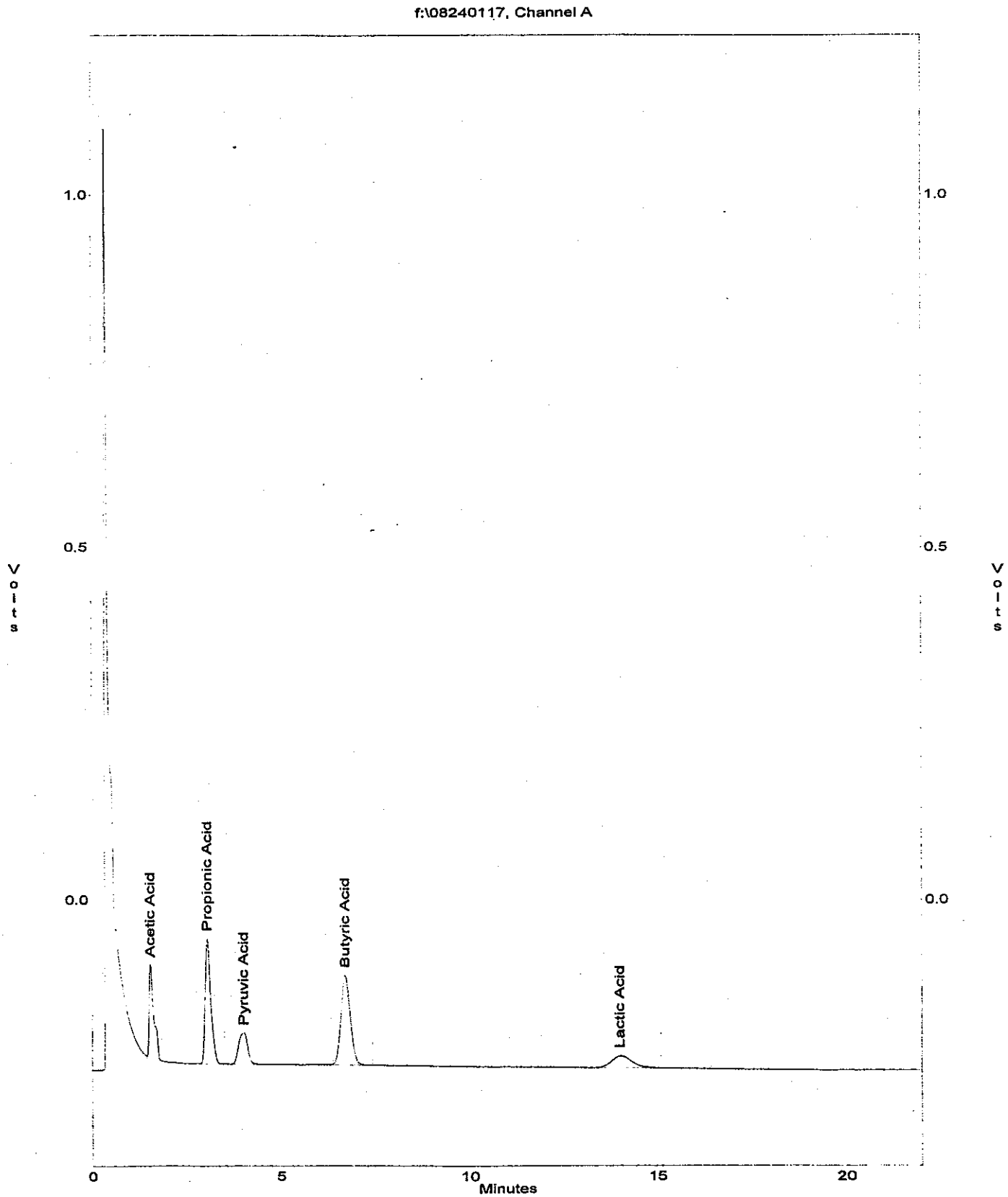
External Standard Report -- Channel A
File : f:\08240115
Method : f:\vfa.met
Sample ID : p108167-01a ms
Acquired : Aug 24, 2001 20:21:37
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.568	83.737 mg/l	1112334	114377
2	Propionic Acid	3.082	87.297 mg/l	1863089	165341
3	Pyruvic Acid	4.125	87.063 mg/l	718850	42863
4	Butyric Acid	6.717	87.328 mg/l	2249933	123458
5	Lactic Acid	14.118	94.733 mg/l	646216	16696
Totals			440.157	6590422	462735


f:\08240115, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\08240117
Method : f:\vfa.met
Sample ID : p108167-01a msd
Acquired : Aug 24, 2001 21:07:03
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.567	84.696 mg/l	1124964	131869
2	Propionic Acid	3.082	86.950 mg/l	1855723	177587
3	Pyruvic Acid	4.015	87.829 mg/l	725048	44370
4	Butyric Acid	6.715	86.850 mg/l	2237682	126922
5	Lactic Acid	14.015	90.945 mg/l	619675	16699
Totals			437.270	6563092	497447


f:\08240117, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Acetic Acid

* - Replicate Not Used

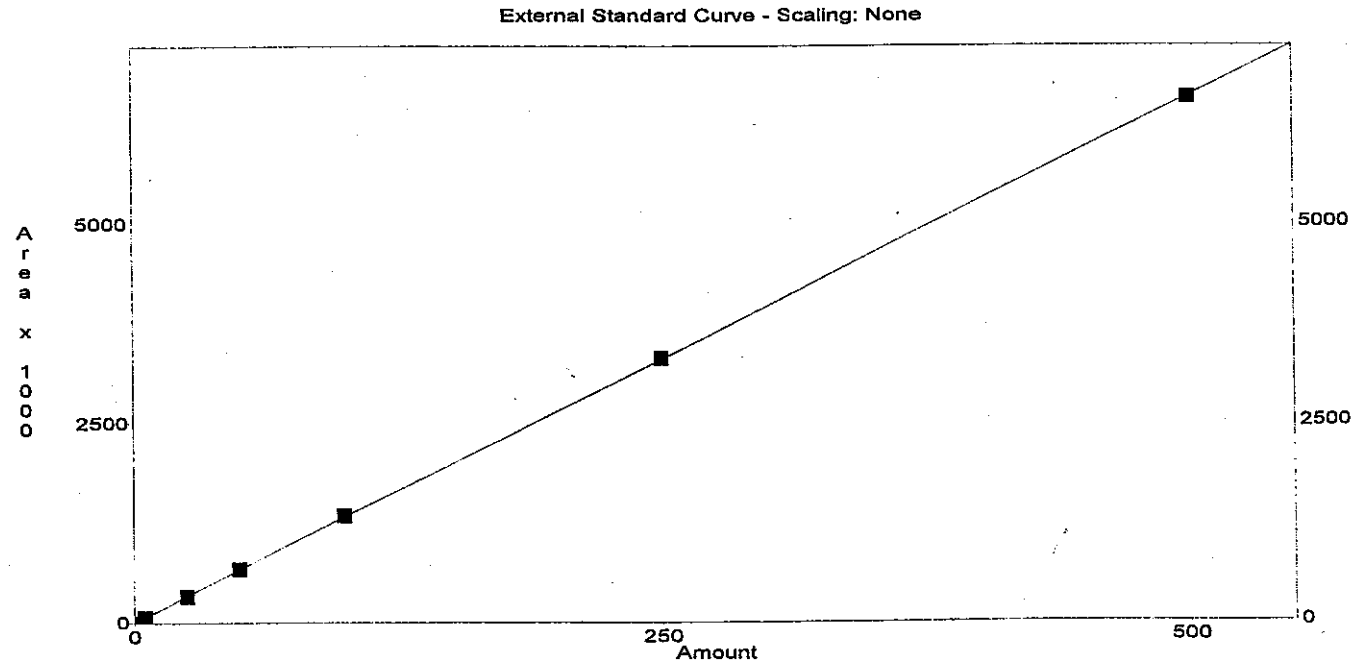
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	64973	5	12994.60	64973							0
2	328479	25	13139.16	328479							0
3	671882	50	13437.64	671882							0
4	1336454	100	13364.54	1336454							0
5	3319178	250	13276.71	3319178							0
6	6585289	500	13170.58	6585289							0

Calib Flag: Replace

Average RF: 13230.5
RF StdDev: 161.612
RF %RSD: 1.222

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.5916e-005 x Area - 0.707003
R^2 = 0.999978



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Propionic Acid

* - Replicate Not Used

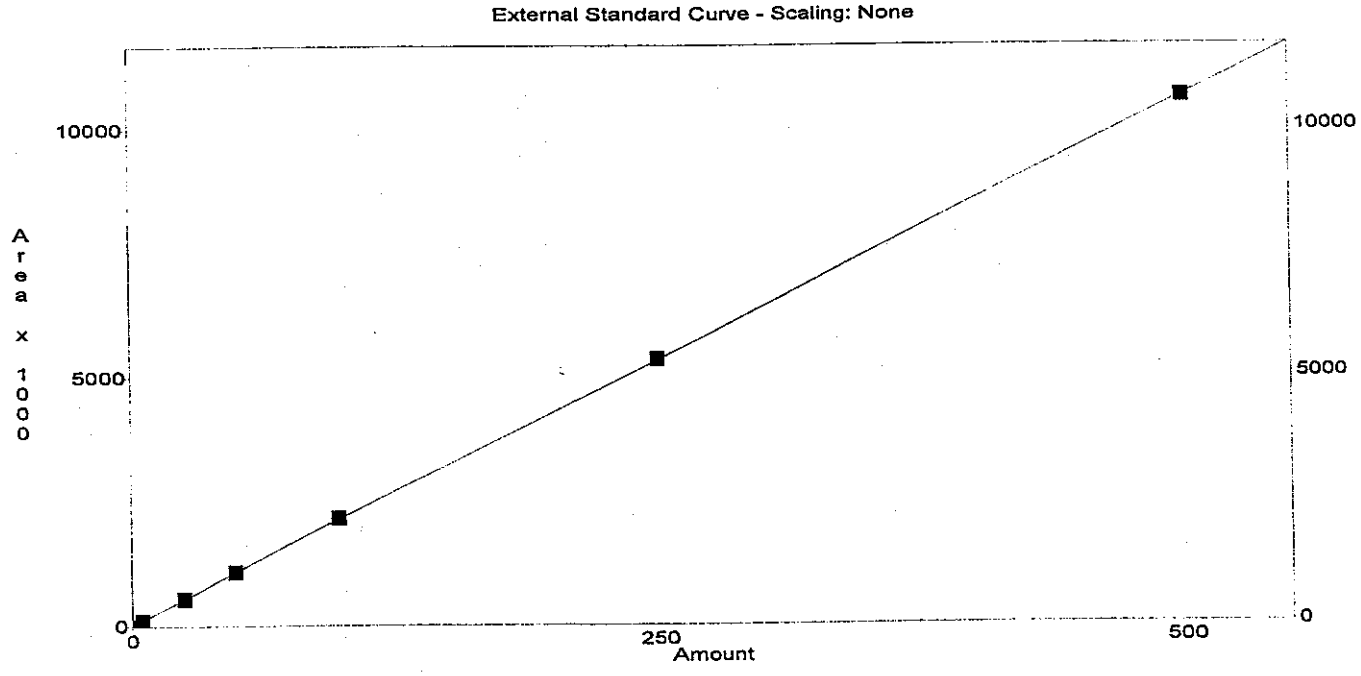
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	103918	5	20783.60	103918							0
2	540311	25	21612.44	540311							0
3	1064175	50	21283.50	1064175							0
4	2140226	100	21402.26	2140226							0
5	5342047	250	21368.19	5342047							0
6	10613017	500	21226.03	10613017							0

Calib Flag: Replace

Average RF: 21279.3
RF StdDev: 276.614
RF %RSD: 1.300

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 4.70969e-005 x Area - 0.448899
R^2 = 0.999988



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Pyruvic Acid

* - Replicate Not Used

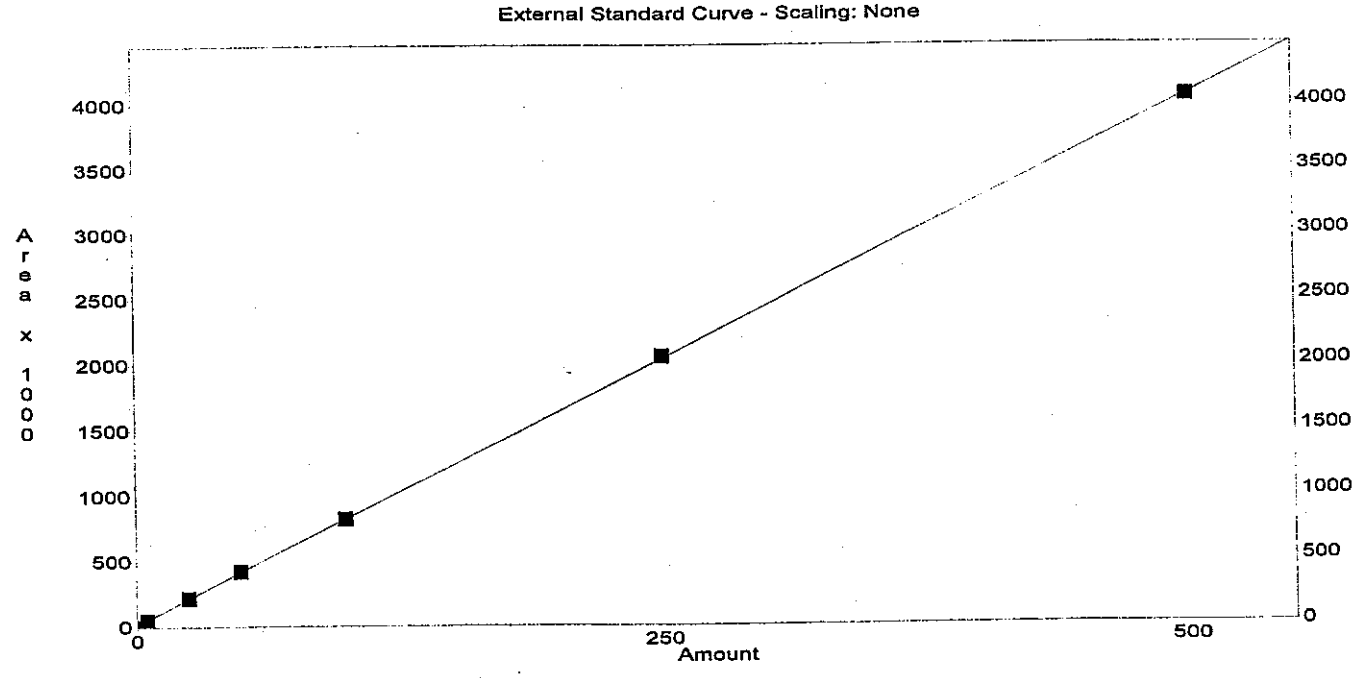
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	47890	5	9578.00	47890							0
2	217373	25	8694.92	217373							0
3	420757	50	8415.14	420757							0
4	819086	100	8190.86	819086							0
5	2055064	250	8220.26	2055064							0
6	4048118	500	8096.24	4048118							0

Calib Flag: Replace

Average RF: 8532.57
RF StdDev: 554.575
RF %RSD: 6.500

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 0.000123703 x Area - 1.86123
R^2 = 0.999956



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Butyric Acid

* - Replicate Not Used

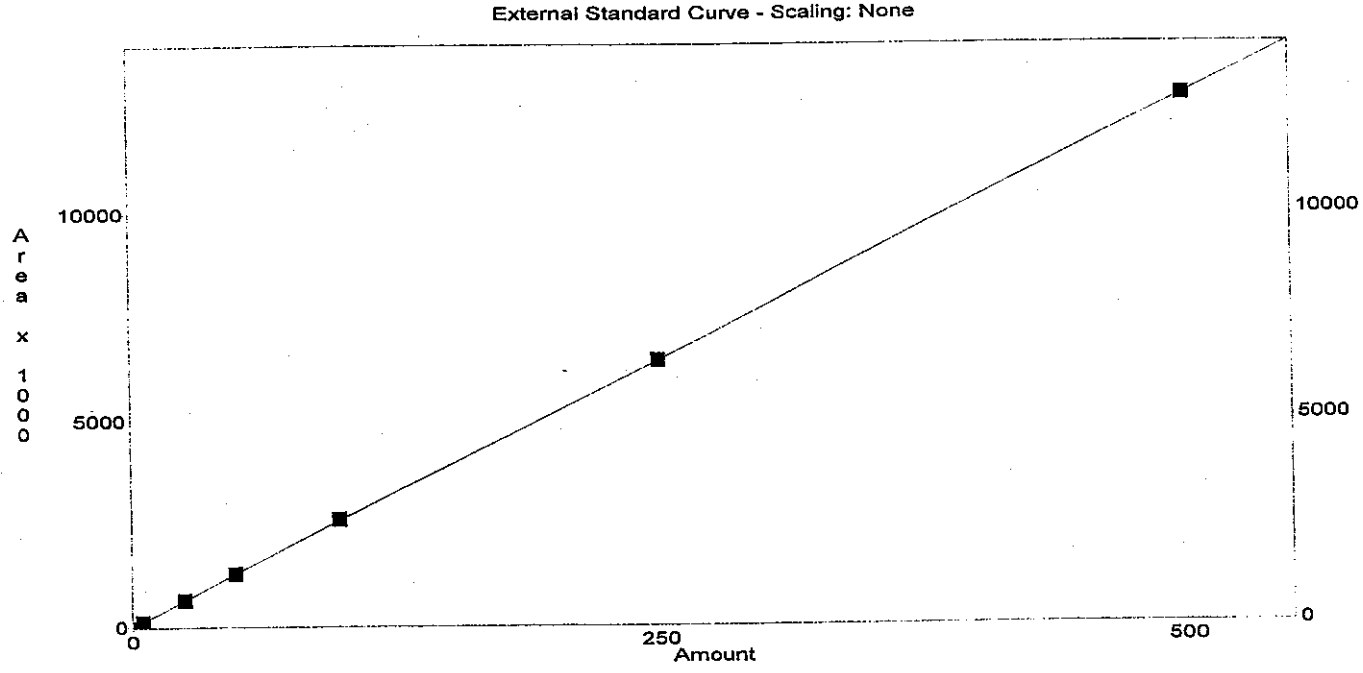
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	127856	5	25571.20	127856							0
2	653670	25	26146.80	653670							0
3	1278518	50	25570.36	1278518							0
4	2597429	100	25974.29	2597429							0
5	6430390	250	25721.56	6430390							0
6	12819739	500	25639.48	12819739							0

Calib Flag: Replace

Average RF: 25770.6
RF StdDev: 237.685
RF %RSD: 0.922

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.90115e-005 x Area - 0.445063
R^2 = 0.999991



Method : f:\vfa.met
Printed : Aug 24, 2001 09:23:34
Channel : A
Peak : Lactic Acid

* - Replicate Not Used

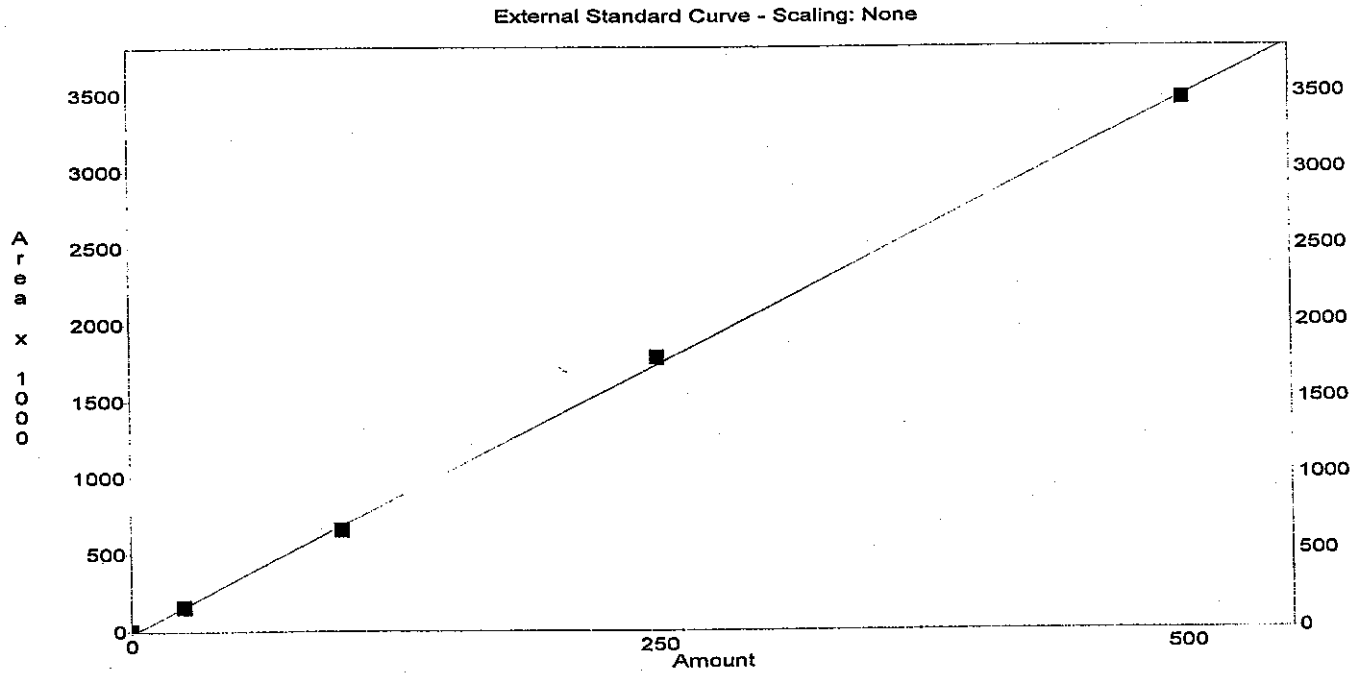
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
2	156235	25	6249.40	156235							0
3	356722	50	7134.44	356722*							0
4	655586	100	6555.86	655586							0
5	1782842	250	7131.37	1782842							0
6	3466346	500	6932.69	3466346							0

Calib Flag: Replace

Average RF: 6717.33
RF StdDev: 392.785
RF %RSD: 5.847

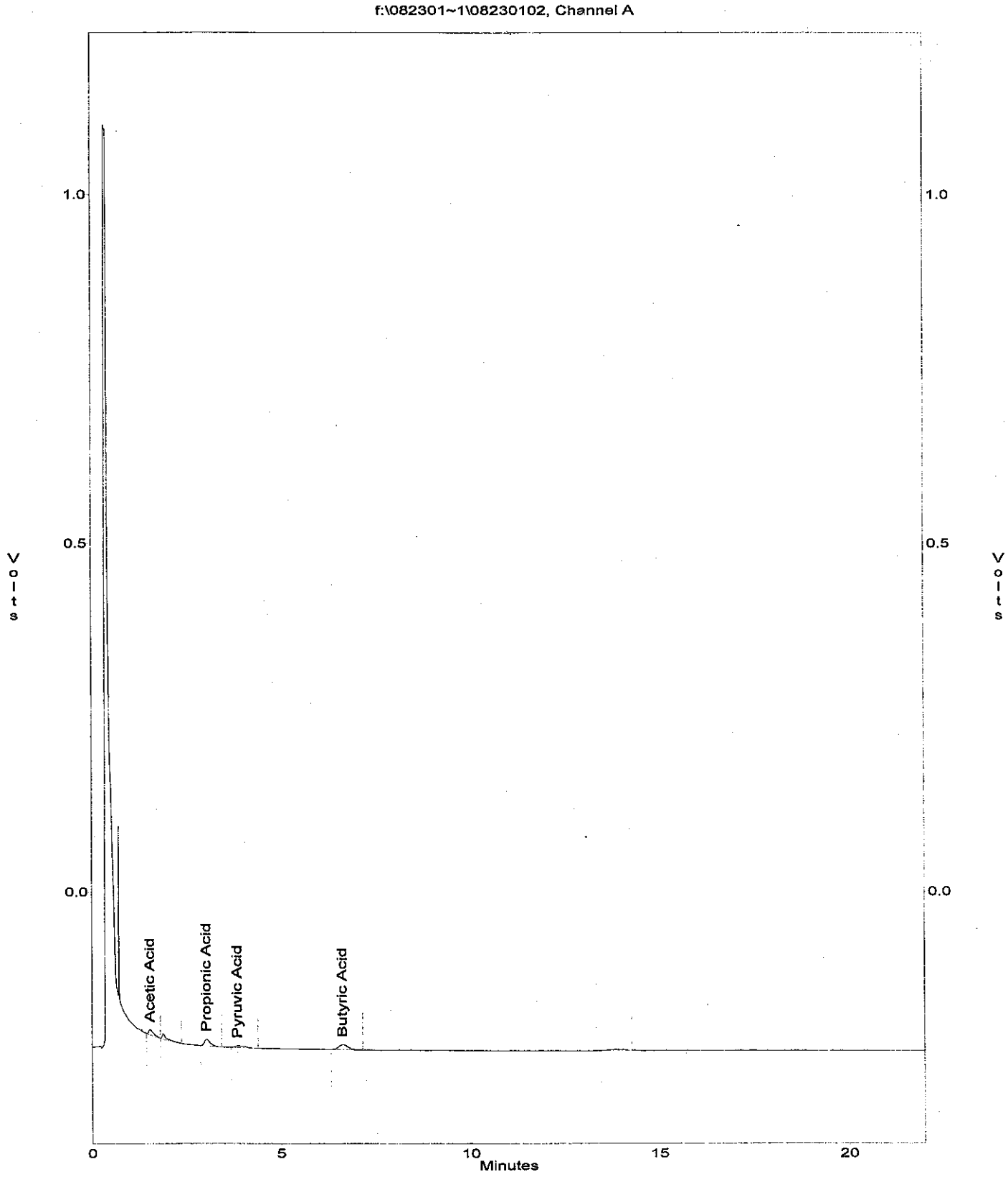
RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 0.000142707 x Area + 2.51341
R^2 = 0.999457



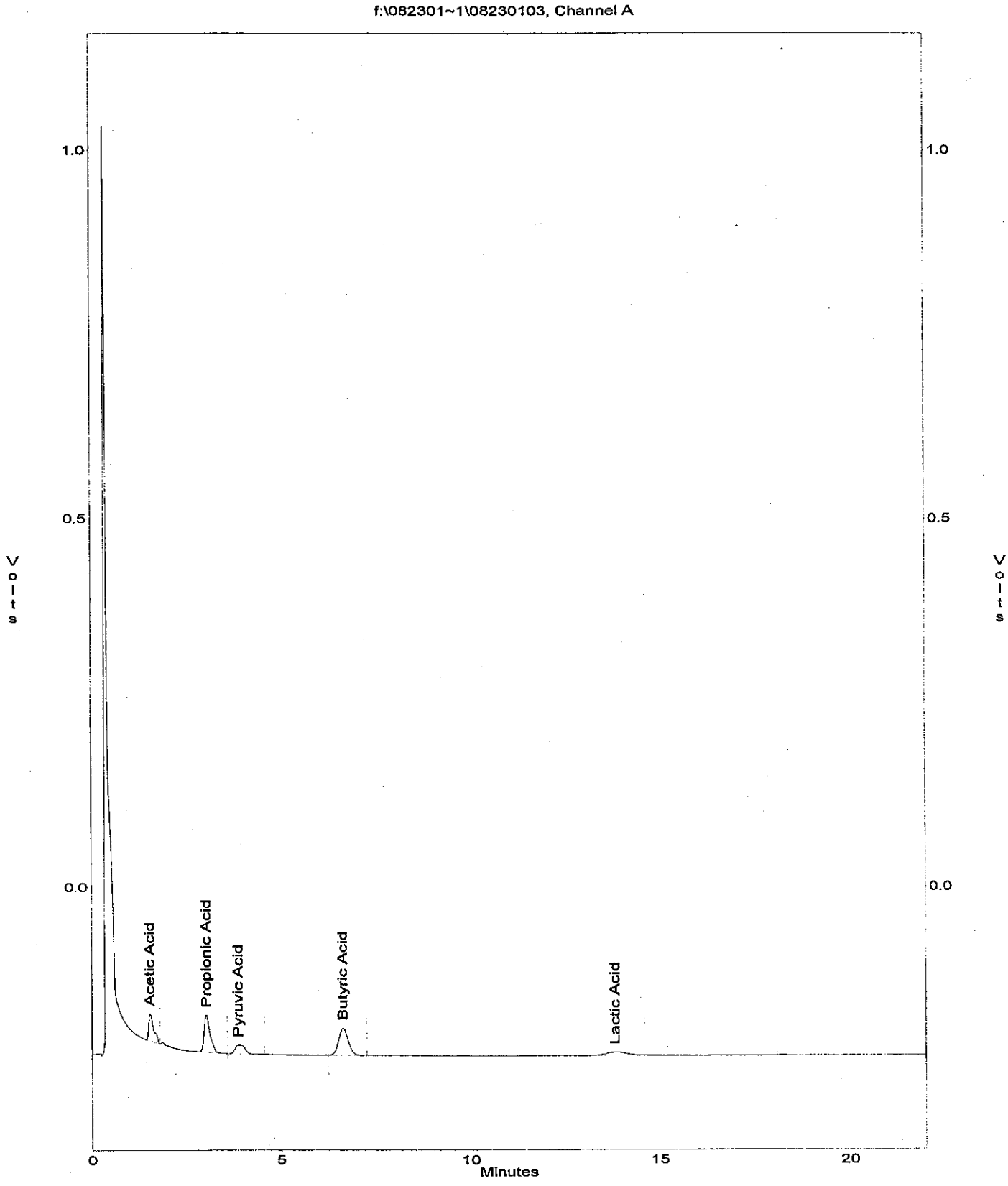
External Standard Report -- Channel A
File : f:\082301~1\08230102
Method : f:\vfa.met
Sample ID : 5 ppm
Acquired : Aug 23, 2001 15:25:19
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	3.521 mg/l	64973	7444
2	Propionic Acid	3.035	3.803 mg/l	103918	9927
3	Pyruvic Acid	3.845	4.758 mg/l	47890	2359
4	Butyric Acid	6.618	3.290 mg/l	127856	7234
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			15.372	344637	26964


f:\082301~1\08230102, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
0
5
10
15
20
Minutes

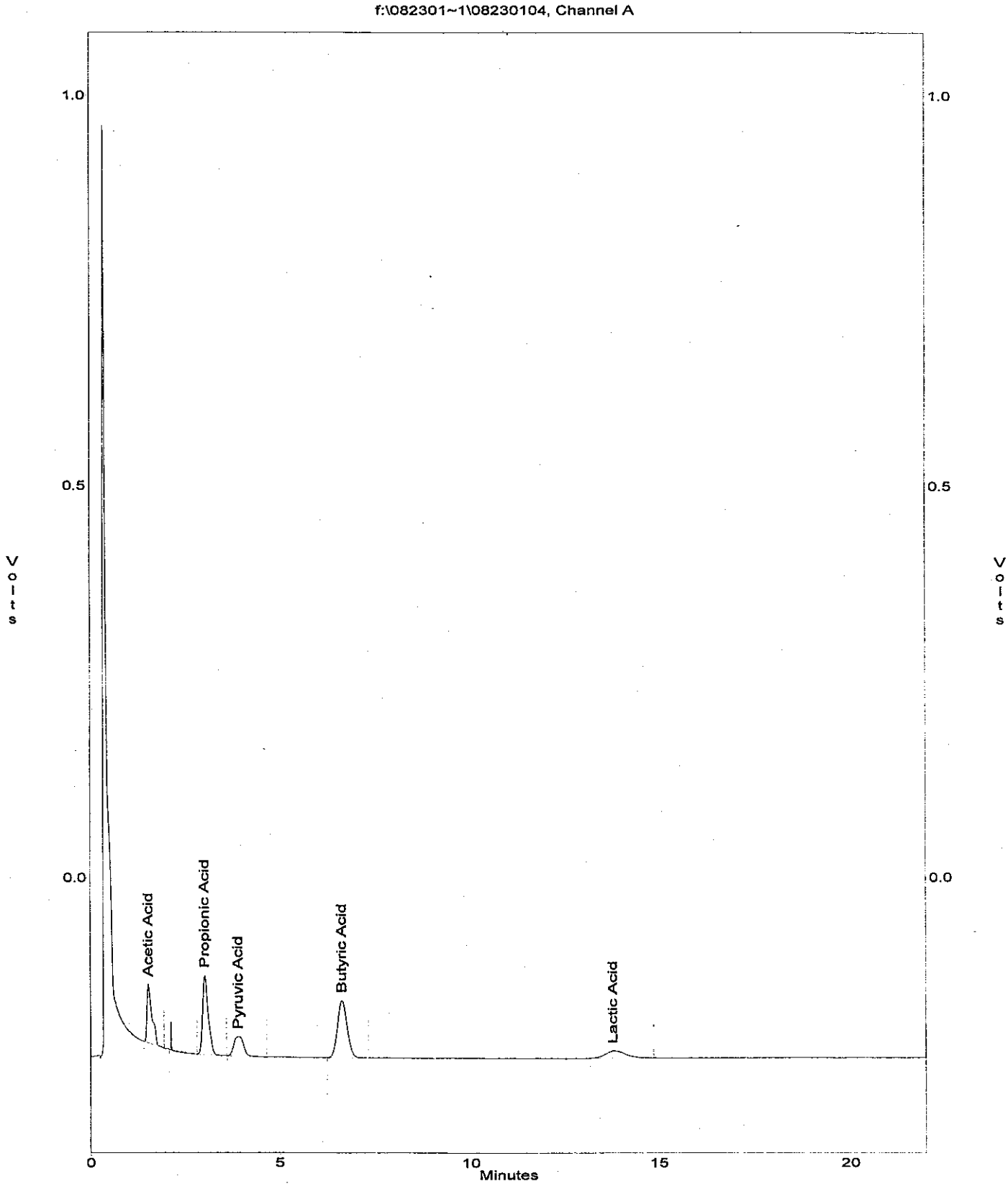
External Standard Report -- Channel A
File : f:\082301~1\08230103
Method : f:\vfa.met
Sample ID : 25 ppm
Acquired : Aug 23, 2001 15:48:01
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.543	23.028 mg/l	328479	37237
2	Propionic Acid	3.043	23.785 mg/l	540311	50313
3	Pyruvic Acid	3.878	24.117 mg/l	217373	12019
4	Butyric Acid	6.628	23.358 mg/l	653670	36846
5	Lactic Acid	13.815	43.692 mg/l	156235	4499
Totals			137.979	1896068	140914


f:\082301~1\08230103, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

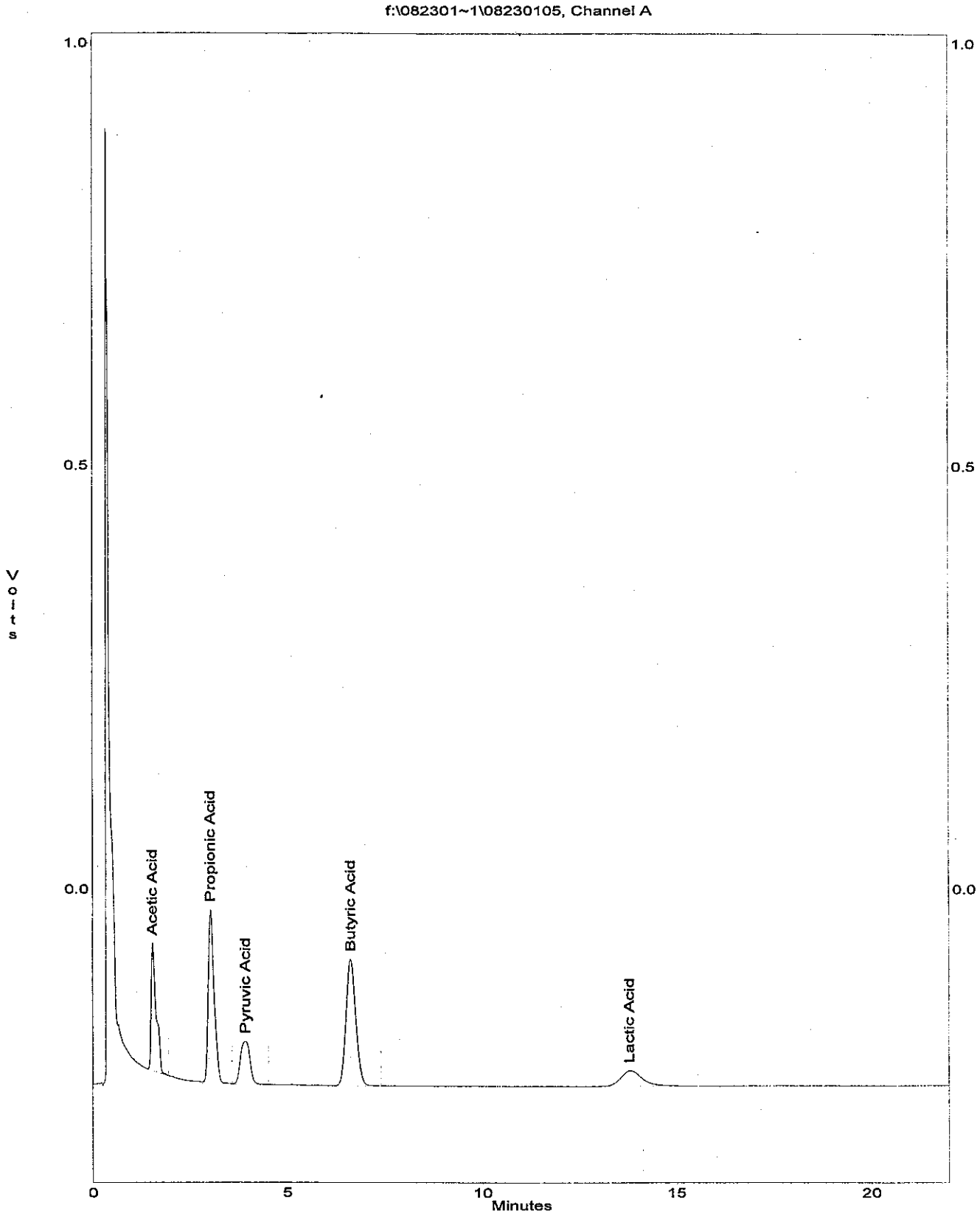
External Standard Report -- Channel A
File : f:\082301~1\08230104
Method : f:\vfa.met
Sample ID : 50 ppm
Acquired : Aug 23, 2001 16:10:46
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	48.451 mg/l	671882	75113
2	Propionic Acid	3.038	47.771 mg/l	1064175	100470
3	Pyruvic Acid	3.917	47.349 mg/l	420757	24485
4	Butyric Acid	6.628	47.205 mg/l	1278518	72992
5	Lactic Acid	13.795	68.754 mg/l	356722	9234
Totals			259.529	3792054	282294


f:\082301~1\08230104, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

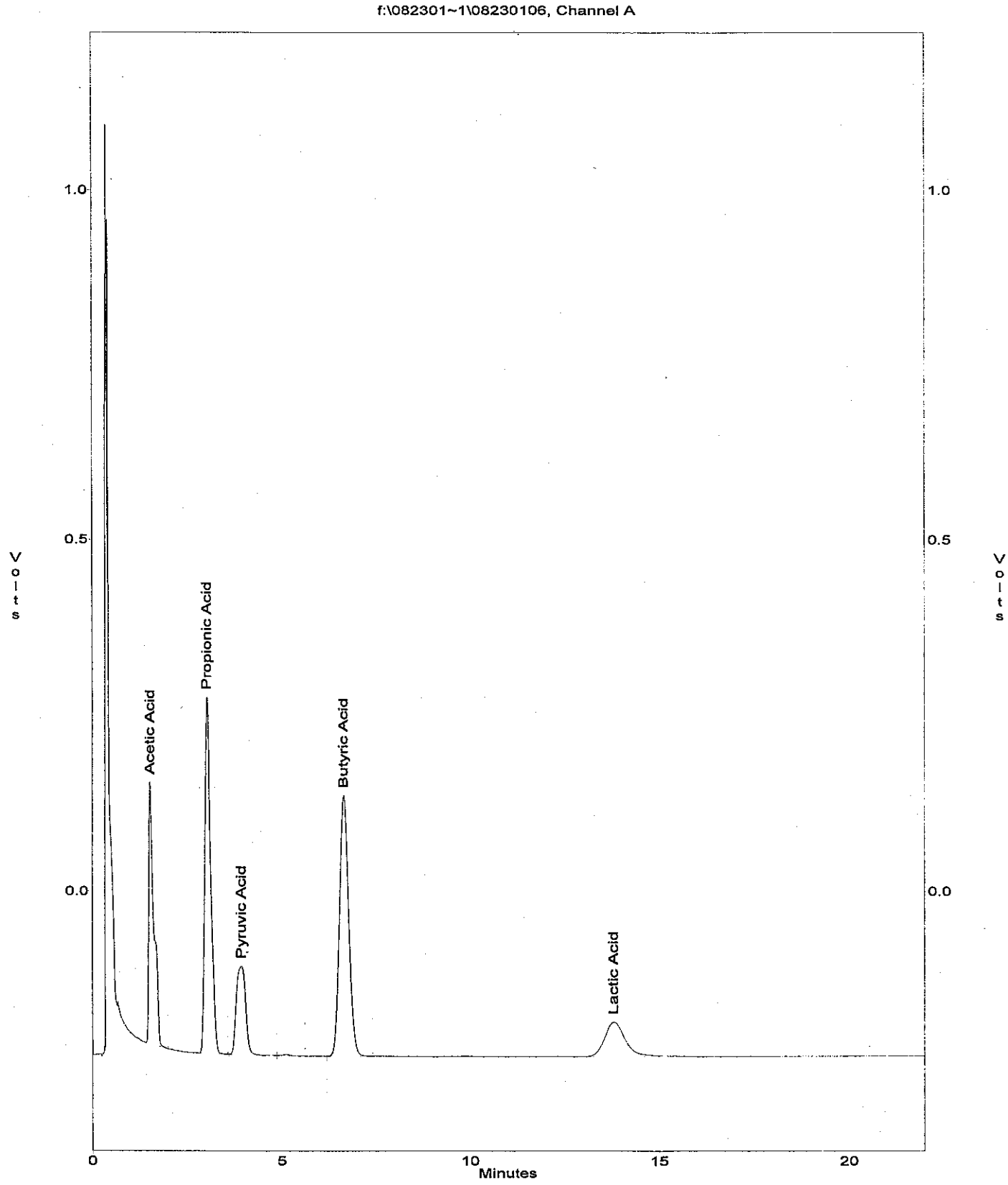
External Standard Report -- Channel A
File : f:\082301~1\08230105
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Aug 23, 2001 16:33:28
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.542	97.650 mg/l	1336454	150056
2	Propionic Acid	3.038	97.040 mg/l	2140226	203541
3	Pyruvic Acid	3.935	92.848 mg/l	819086	49995
4	Butyric Acid	6.632	97.541 mg/l	2597429	148670
5	Lactic Acid	13.808	106.115 mg/l	655586	17872
Totals			491.193	7548781	570134


f:\082301~1\08230105, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

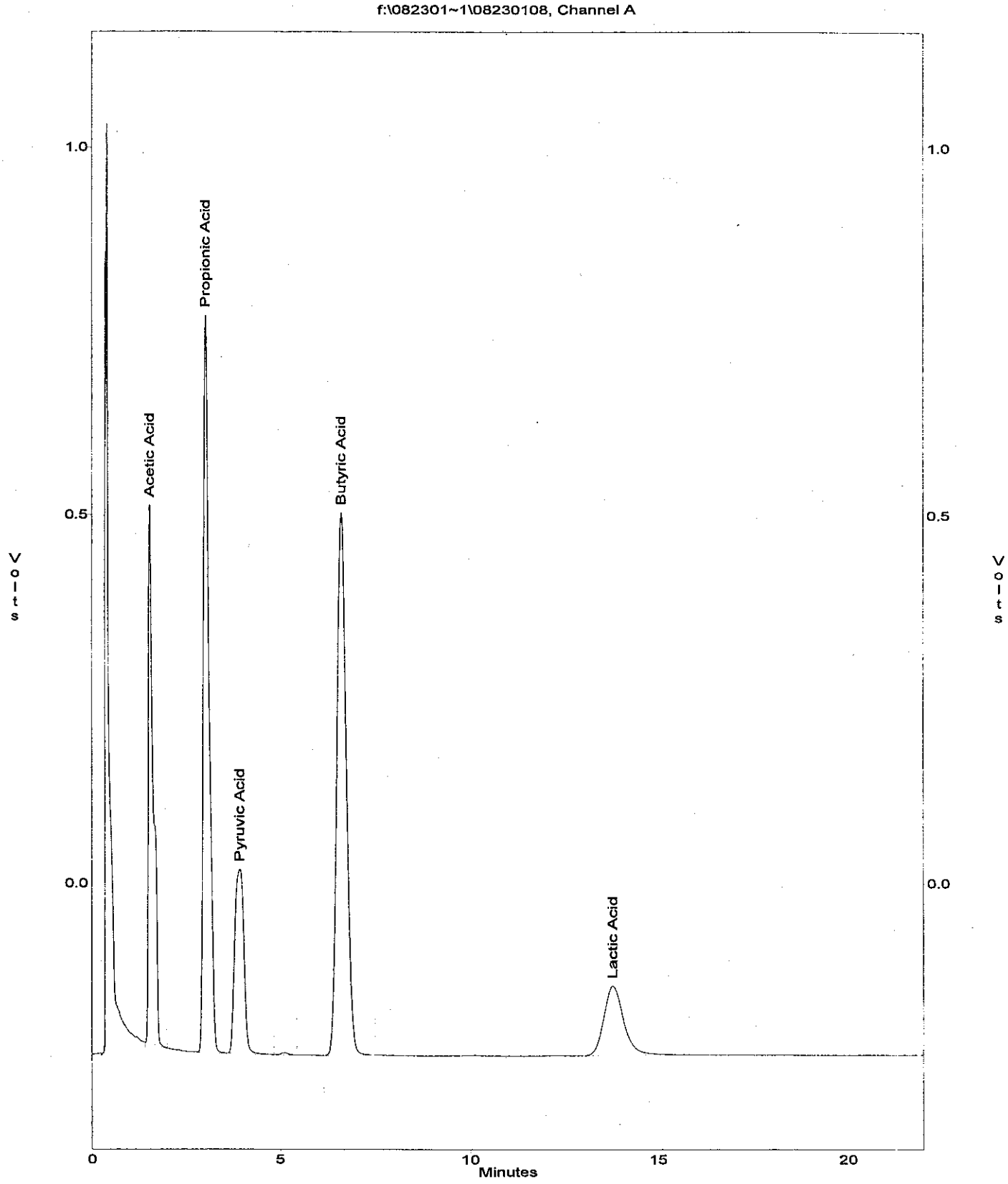
External Standard Report -- Channel A
File : f:\082301~1\08230106
Method : f:\vfa.met
Sample ID : 250 ppm
Acquired : Aug 23, 2001 16:56:12
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	244.433 mg/l	3319178	370391
2	Propionic Acid	3.040	243.643 mg/l	5342047	503771
3	Pyruvic Acid	3.945	234.028 mg/l	2055064	123733
4	Butyric Acid	6.630	243.825 mg/l	6430390	368581
5	Lactic Acid	13.813	247.031 mg/l	1782842	47962
Totals			1212.959	18929522	1414438


f:\082301~1\08230106, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

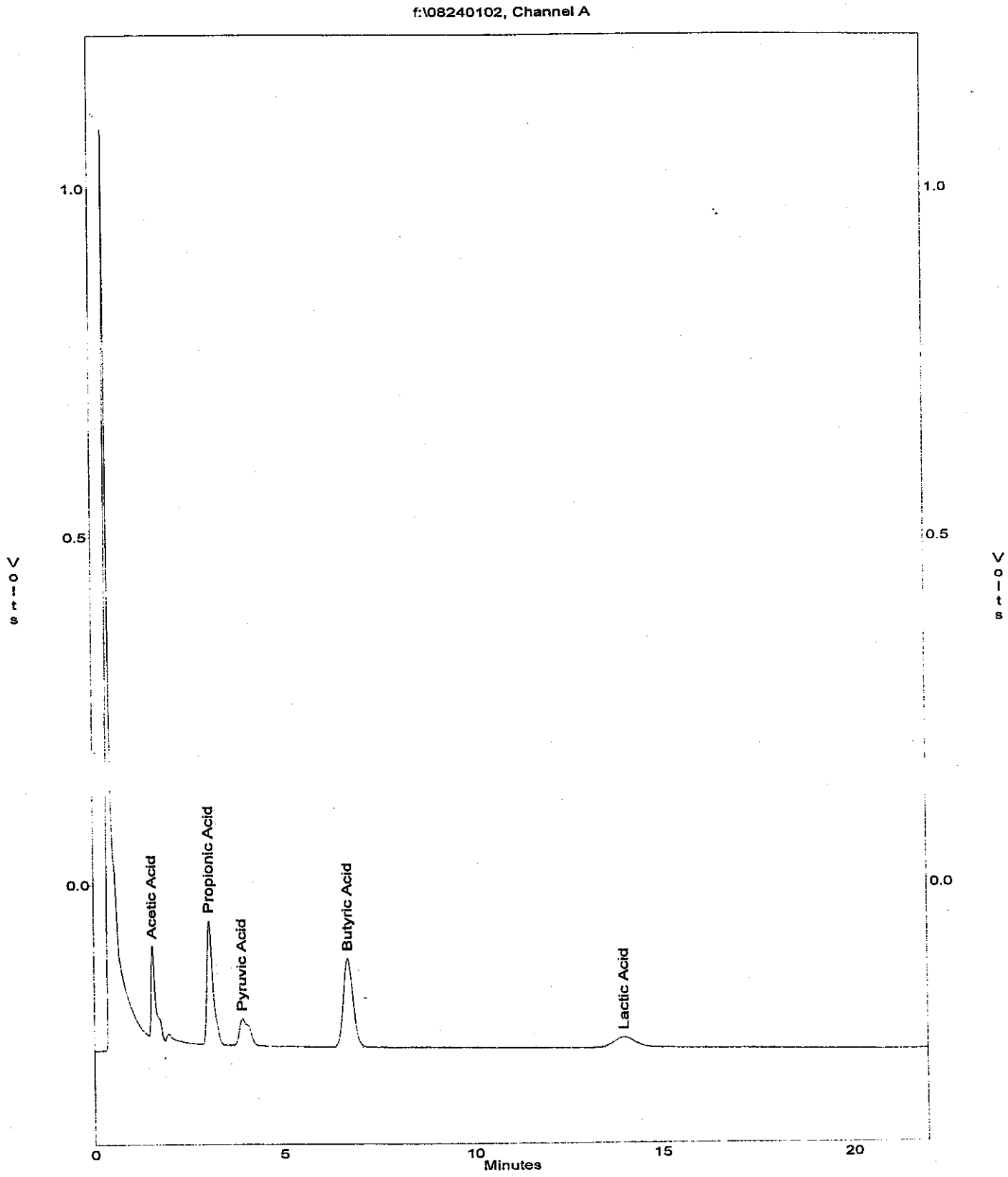
External Standard Report -- Channel A
File : f:\082301~1\08230108
Method : f:\vfa.met
Sample ID : 500 ppm
Acquired : Aug 23, 2001 17:41:39
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.542	486.226 mg/l	6585289	731615
2	Propionic Acid	3.040	484.986 mg/l	10613017	1000535
3	Pyruvic Acid	3.940	461.686 mg/l	4048118	250330
4	Butyric Acid	6.630	487.673 mg/l	12819739	736579
5	Lactic Acid	13.810	457.483 mg/l	3466346	94209
Totals			2378.054	37532512	2813268


f:\082301~1\08230108, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

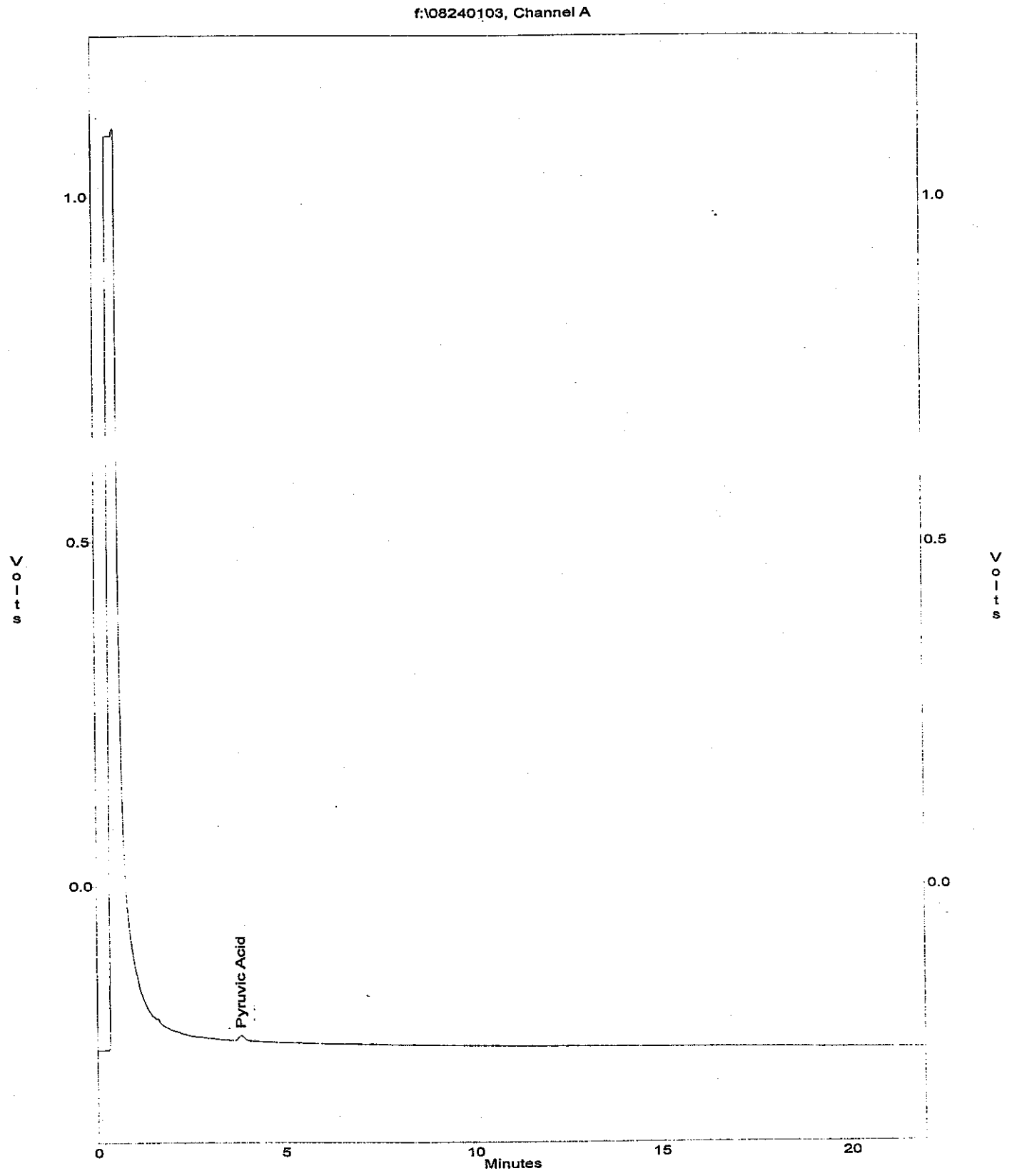
External Standard Report -- Channel A
File : f:\08240102
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Aug 24, 2001 15:08:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.563	85.381 mg/l	1133990	130263
2	Propionic Acid	3.072	87.962 mg/l	1877211	177000
3	Pyruvic Acid	3.923	88.916 mg/l	733834	38771
4	Butyric Acid	6.693	87.940 mg/l	2265614	126925
5	Lactic Acid	14.017	83.895 mg/l	570270	14747
Totals			434.094	6580919	487706


f:\08240102, Channel A
1.0
0.5
Volts
1.0
0.5
Volts
0.0
0.0
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\08240103
Method : f:\vfa.met
Sample ID : ib
Acquired : Aug 24, 2001 15:48:58
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.845	8.575 mg/l	84368	7319
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			8.575	84368	7319


f:\08240103, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17845** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-EB1-Q3-01**

ANALYSIS: **Ethane and Ethene (W) Microseeps** Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	100		5.0
Ethene	53		5.0

ANALYSIS: **Methane (W) Microseeps** Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2.9		0.015

ANALYSIS: **VFA's (W) Microseeps** Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL ~~0.64~~ ~~1.0~~	J	1.0 U
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

11/14/01

Lab result reported is less than their reported method detection limit.

CR

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17846** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FB1-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	1200		5.0
Ethene	14		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	0.65		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17847** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-29B-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	86		5.0
Ethene	120		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	130		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0 u
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17848** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/30/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-28B-Q3-01**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	110		5.0
Ethene	210		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1500		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	3.6		1.0
Butyric Acid	<RL		1.0 u
Lactic Acid	<RL		25 u
Propionic Acid	8.2		1.0
Pyruvic Acid	<RL		10 u

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17849** **Accura Project #:** **28508**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 7/31/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL	5.0 U	5.0
Ethene	<RL	5.0 U	5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	~~<RL~~	0.015 U	0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/23/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	~~<RL~~	1.0 U	1.0
Butyric Acid	~~<RL~~	1.0 U	1.0
Lactic Acid	~~<RL~~	25 U	25
Propionic Acid	~~<RL~~	10 U	1.0
Pyruvic Acid	~~<RL~~		10

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28508

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 7/31/01 at 1010:

Client Sample ID	Laboratory Sample ID
017-OLD-36-EB1-Q3-01	AC17845
017-OLD-36-FB1-Q3-01	AC17846
017-OLD-36-29B-Q3-01	AC17847
017-OLD-36-28B-Q3-01	AC17848

2. The sample cooler temperature was noted to be 4^0C upon receipt at the laboratory.

3. The following analyses were performed by a subcontract laboratory:

Ethane and Ethene (W) Microseeps – AM18
Methane (W) Microseeps – AM20GAX
VFA's (W) Microseeps – AM21G

} Lab reported RL = 5 on hard copy .1 on EDD

Acetic Acid - 017 old 36-EDI-Q3-01 = <RDL

The following item was noted by the subcontract laboratory for the Methane analysis:

4. Methane had no matrix spike and matrix spike duplicate recoveries due to the sample concentration being 100 times greater than the spiking concentration.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/14/01
Date

CCI NAVY RECD SEP 18 2001

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A2LA Accredited-ID: 120261 •Certificate #-1365.1•Exp 7/31/02 Effective 8/14/00•Scope: Testing Technologies
Potable & Non-potable Water-Solid/Hazardous Waste

28508

Responses to October 9, 2001 Data Memo
CH2MHill Contractors Inc.

AAL Project#: 28368, 28507, (28508,) 28512, 28530, 28744, 28764

Has the laboratory demonstrated acceptable control or precision and accuracy results. (Both
Y N 1 laboratory control and matrix spike/duplicate samples fail bias low.)
Comments: Not applicable - See QA-0111010

Does Case Narrative provide language towards steps taken by the laboratory to assure acceptable
Y N 2 recovery. (28512, 28744)
Comments: Not applicable - See QA-0111010

Does laboratory provide acceptable surrogate recovery for FL-PRO analyses. (The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve
Y N 3 acceptable recovery.) (28512, 28744)
Comments: Not applicable - See QA-0111017

Is this taken care of: The case narrative defines "J" values ~~for FL-PRO and VOCs~~ as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND
(Y) N 4 below the reporting limit." (28744)
Comments: ~~Not applicable - See QA-0111031~~ VME 11/17/01
~~Not applicable for project 28508~~
EDD correction resolved this issue. VME
See QA-0111034 11-20-01

Is this taken care of: The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample
Y N 5 volume was due to multiple analyses. (28512, 28744)
Comments: Not applicable - See QA-0111031

Y N 6 Total dissolved solid were analyzed outside holding time(28512)?
Comments:
Not applicable - See QA-0111038

Is this taken care of: Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as
Y N 7 stated in the CCI contract. (28512, 28744)
Comments: Sub-contract laboratory Raw data is included

Is this taken care of: Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does
Y N 8 not indicate that the integration is a manual determination. (28512, 28744)
Comments: Not applicable - See QA-0111052

Is this taken care of: EDD: Laboratory cannot report data less than their method detection limit.
Y N 9 (28744)
Comments: ~~Not applicable for Project 28508~~ YMC 11/20/01
See QA-0111060

Is this taken care of: EDD: Associated data qualifier codes should be presented in specified column.
Y N 10 (28512, 28744)
Comments: ~~Not applicable for Project 29508~~ YMC 11/20/01
~~See QA-0111074~~ YMC 11/20/01
See QA-0111067

Is this taken care of: EDD: Surrogate compounds for FL PRO are not identified in Method Blank.
Y N 11 (28744)
Comments: Not applicable - See QA-0111074

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111010

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not demonstrate acceptable control or precision and accuracy results. Both laboratory control and matrix spike/duplicate samples fail bias low.
Case Narrative does not provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

Not applicable - see subcontractor QC. Reports

Resolution recorded by: KMClemons Date: 11/7/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/7/01

QA Review by: KMClemons Date: 11/7/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111017

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not provide acceptable surrogate recovery for FL-PRO analyses. The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

Not applicable

Resolution recorded by: KMClemons Date: 11/15/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/15/01

QA Review by KMClemons Date: 11/15/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111024

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

The case narrative defines "J" values ~~for FL-PRO and VOCs~~ as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744) See attached. JMC 11/20/01

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Resubmit summary reports and EDD to reflect result equal to or above the associated MDL.

CORRECTION OF EDD RESOLVED ISSUE

MC 11/20/2001

Resolution recorded by: Thomas A. Dalal Date: 11/20/~~2001~~ 2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Corrected

Q.R 11/20/01

QA Review by: Carole L Robinson Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Result < MDL	RL < MDL	REC < LCL	REC > UCL	No %SOLIDS
21	2			
	3			
	4			
	10			
	11			
	12			
	18			
	19			
	20			
	26			
	27			
	28			
	34			
	35			
	36			

↳ EDD does not match report

Report RL = QLC

EDD = <MDL

28508.csv

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Page: Page -1 of 1
Lab Proj #: P0108056
Report Date: 08/24/01

Client Proj Name: SA39,NTC Orlando

Sample Identification

Lab Sample #	Client Sample ID
P0108056-01	AC17845
P0108056-02	AC17846
P0108056-03	AC17847
P0108056-04	AC17848

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-01

Sample Description: AC17845 | Matrix: Water | COC #: | Sampled Date/Time: | Received: 03 Aug. 01

Analyze with project P0108054 to meet QA/QC R ##########

Analyte(s)	Dil	Result	Flag	PQL	MDL	Units	Method #	Analysis Date/Time	Analyst	Batch #
RiskAnalysis										
Acetic Acid	1.00	0.64	J	1.0	0.58	mg/L	AM21G	##########	bc	M010823004
Butyric acid	1.00	< 1.0		1.0	0.20	mg/L		##########	bc	M010823004
Ethane	1.00	100		5.0	5.0	ng/L	AM18	##########	rw	M010816007
Ethene	1.00	53		5.0	5.0	ng/L		##########	rw	M010816007
Lactic Acid	1.00	< 25		25	17	mg/L	AM21G	##########	bc	M010823004
Methane	1.00	2.9		0.015	0.008	ug/L	AM20GAX	##########	rw	M010816025
Propionic acid	1.00	< 1.0		1.0	0.21	mg/L	AM21G	##########	bc	M010823004
Pyruvic acid	1.00	< 10		10	4.4	mg/L		##########	bc	M010823004

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-02

Sample Description: AC17846 | Matrix: Water | COC #: | Sampled Date/Time: ########## | Received: 03 Aug. 01

Analyte(s)	Dil	Result	Flag	PQL	MDL	Units	Method #	Analysis Date/Time	Analyst	Batch #
RiskAnalysis										
Acetic Acid	1.00	< 1.0		1.0	0.58	mg/L	AM21G	##########	bc	M010823004
Butyric acid	1.00	< 1.0		1.0	0.20	mg/L		##########	bc	M010823004
Ethane	1.00	1200		5.0	5.0	ng/L	AM18	##########	rw	M010816007
Ethene	1.00	14		5.0	5.0	ng/L		##########	rw	M010816007
Lactic Acid	1.00	< 25		25	17	mg/L	AM21G	##########	bc	M010823004
Methane	1.00	0.65		0.015	0.008	ug/L	AM20GAX	##########	rw	M010816025
Propionic acid	1.00	< 1.0		1.0	0.21	mg/L	AM21G	##########	bc	M010823004
Pyruvic acid	1.00	< 10		10	4.4	mg/L		##########	bc	M010823004

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-03

Sample Description	Matrix					Sampled Date/Time		Received		
AC17847	Water	COC #				##########		03 Aug. 01		
Analyte(s)	Dil	Result	Flag	PQL	MDL	Units	Method #	Analysis Date/Time	Analyst	Batch #
RiskAnalysis										
Acetic Acid	1.00	< 1.0		1.0	0.58	mg/L	AM21G	##########	bc	M010823004
Butyric acid	1.00	< 1.0		1.0	0.20	mg/L		##########	bc	M010823004
Ethane	1.00	86		5.0	5.0	ng/L	AM18	##########	rw	M010816007
Ethene	1.00	120		5.0	5.0	ng/L		##########	rw	M010816007
Lactic Acid	1.00	< 25		25	17	mg/L	AM21G	##########	bc	M010823004
Methane	1.00	130		0.015	0.008	ug/L	AM20GAX	##########	rw	M010816025
Proplonic acid	1.00	< 1.0		1.0	0.21	mg/L	AM21G	##########	bc	M010823004
Pyruvic acid	1.00	< 10		10	4.4	mg/L		##########	bc	M010823004

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-04

Sample Description	Matrix					Sampled Date/Time		Received		
AC17848	Water	COC #				##########		03 Aug. 01		
Analyte(s)	Dil	Result	Flag	PQL	MDL	Units	Method #	Analysis Date/Time	Analyst	Batch #
RiskAnalysis										
Acetic Acid	1.00	3.6		1.0	0.58	mg/L	AM21G	##########	bc	M010823004
Butyric acid	1.00	< 1.0		1.0	0.20	mg/L		##########	bc	M010823004
Ethane	1.00	110		5.0	5.0	ng/L	AM18	##########	rw	M010816007
Ethene	1.00	210		5.0	5.0	ng/L		##########	rw	M010816007
Lactic Acid	1.00	< 25		25	17	mg/L	AM21G	##########	bc	M010823004
Methane	1.00	1500		0.015	0.008	ug/L	AM20GAX	##########	rw	M010816025
Proplonic acid	1.00	8.2		1.0	0.21	mg/L	AM21G	##########	bc	M010823004
Pyruvic acid	1.00	< 10		10	4.4	mg/L		##########	bc	M010823004

Case Narrative:Methane had no recovery due to the sample concentration being 100 times greater then the spiking concentration.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111031

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
2. Include client project communication regarding inadequate sample volume available to meet contract quality control requirements.

Not applicable

Resolution recorded by: KMClemons Date: 11/17/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/17/01

QA Review by: KMClemons Date: 11/17/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111038

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Test (Total dissolved solid) were analyzed outside holding time(28512).

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Include client project communication regarding analyses performed outside holding time

Not applicable

Resolution recorded by: KMClemons Date: 11/17/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/17/01

QA Review by: KMClemons Date: 11/17/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111045

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Adhere to deliverable requirements for sub-contracted analyses. See data attached.
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached original bid and the revised bid which indicate the intent to subcontract.

Resolution recorded by: Kelly Clemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

QA Review by: Kelly Clemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271 revised (8/2/00)						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
355	Waters	Volatiles	8260B	C	85	93.5	119	163.625	79.475	76.5
330	Waters	TPH	FL-PRO	C	68	74.8	95.2	130.9	63.58	61.2
330	Waters	TOC	9060	C	25	27.5	35	48.125	23.375	22.5
330	Waters	Alkalinity	EPA 305.1/310	C	8	8.8	11.2	15.4	7.48	7.2
330	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	30	33	42	57.75	28.05	27
330	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
330	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
330	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	120	130	170	220	115	120
330	Waters	Acetic Acid	HPLC/UV--see note 1.)	C	172.5	189.75	241.5	332.0625	161.2875	155.25
330	Waters	Butyric Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Lactic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Propionic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Pyruvic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5

ATTACHMENT B
lab bid form

1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	8.4.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	8.4.00
Lab Representative's Name/Title (please print)	Signature	Date

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

AAL NOTES:

**1.) This quote is based on running an acid scan using a GC (Gas Chromatography) instead of HPLC. Samples will be subcontracted to another laboratory.
TheGC Scan includes all of the acids listed.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
71	Waters	Volatiles	8260B	C	125	137.5	175	240.625	116.875	112.5
66	Waters	TPH	FL-PRO	C	80	88	112	154	74.8	72
66	Waters	TOC	9060	C	40	44	56	77	37.4	36
66	Waters	Alkalinity	EPA 305.1/310	C	15	16.5	21	28.875	14.025	13.5
66	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	40	44	56	77	37.4	36
66	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
66	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
66	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	125	137.5	175	240.625	116.875	112.5
66	Waters	Acetic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Butyric Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Lactic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Propionic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Pyruvic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5
50	Waters	TDS	160.1	B	N/A	16.5	21	N/A	N/A	N/A
50	Waters	Sodium	6010B	B	N/A	16.5	21	N/A	N/A	N/A

ATTACHMENT B
lab bid form

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:

A) Please indicate which methods the laboratory is **not** capable of performing
B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
C) The analyses listed above may all be requested throughout the project.
D) Samples may be divided between 2 or 3 of the most competive labs.
E) Quotations must include sample, container, and cooler disposal
F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	7.31.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	7.31.00
Lab Representative's Name/Title (please print)	Signature	Date
David C. Fuller, Vice President		11.01.00
Lab Representative's Name/Title (please print)	Signature	Revised Date of Quotation Submittal

Business Type: [ ] Large [ ] Small [XX] Small Disadvantaged [ ] Woman-Owned [ ] Labor Surplus Area

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111052

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does not indicate that the integration is a manual determination. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

2. Provide evidence of manual intergrations

NOT APPLICABLE

Resolution recorded by: _____ Date: 11.15.2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

_____

_____

_____

_____

_____

_____

11/17/01

QA Review by: _____ Date: 11/17/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
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Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111060

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Laboratory cannot report data less than their method detection limit. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01

Resubmit EDD to reflect result equal to or above the associated MDL.

CORRECTED

Resolution recorded by: Thomas C. Hall Date: 11/20/2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

corrected C.R 11/20/01

QA Review by: _____ Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
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Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111067

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Associated data qualifier codes should be presented in specified column. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

CORRECTED

Resolution recorded by: Tammy C. Tabb Date: 11/20/2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Corrected C.R 11/20/01

QA Review by: Qnd Date: 11/20/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111074

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28508 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Surrogate compounds for FL PRO are not identified in Method Blank. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Not applicable

Resolution recorded by: KMClemons Date: 11/15/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/15/01

QA Review by: KMClemons Date: 11/15/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Order #: P0108056
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client Proj #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108056-01	AC17845
P0108056-02	AC17846
P0108056-03	AC17847
P0108056-04	AC17848

Approved By: _____

NOTES:Methane had no recovery due to the sample concentration being 100 times greater then the spiking concentration.

Order #: P0108056
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17845	Water	30 Jul. 01 12:00	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	<1.0	1.0	mg/L	AM21G	bc	8/23/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/23/01
Ethane	100	5.0	ng/L	AM18	rw	8/15/01
Ethene	53	5.0	ng/L		rw	8/15/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/23/01
Methane	2.9	0.015	ug/L	AM20GAX	rw	8/15/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/23/01
Pyruvic acid	< 10	10	mg/L		bc	8/23/01

Order #: P0108056
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17846	Water	30 Jul. 01 13:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/23/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/23/01
Ethane	1200	5.0	ng/L	AM18	rw	8/15/01
Ethene	14	5.0	ng/L		rw	8/15/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/23/01
Methane	0.65	0.015	ug/L	AM20GAX	rw	8/15/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/23/01
Pyruvic acid	< 10	10	mg/L		bc	8/23/01

Order #: P0108056
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17847	Water	30 Jul. 01 15:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/23/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/23/01
Ethane	86	5.0	ng/L	AM18	rw	8/15/01
Ethene	120	5.0	ng/L		rw	8/15/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/23/01
Methane	130	0.015	ug/L	AM20GAX	rw	8/15/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/23/01
Pyruvic acid	< 10	10	mg/L		bc	8/23/01

Order #: P0108056
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108056-04

Sample Description	Matrix	Sampled Date/Time	Received
AC17848	Water	30 Jul. 01 17:00	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	3.6	1.0	mg/L	AM21G	bc	8/23/01
Butyric acid	< 1.0	1.0	mg/L		bc	8/23/01
Ethane	110	5.0	ng/L	AM18	rw	8/15/01
Ethene	210	5.0	ng/L		rw	8/15/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/23/01
Methane	1500	0.015	ug/L	AM20GAX	rw	8/15/01
Propionic acid	8.2	1.0	mg/L	AM21G	bc	8/23/01
Pyruvic acid	< 10	10	mg/L		bc	8/23/01

Microseeps, Inc.

Bioremediation/Natural Attenuation Raw Data Summary

PROJECT: P0108056

INSTRUMENT: BIOREM-2

ANALYSIS DATE: 8/16/01

Analysis Type(s)	Associated Lab Method Reference	Preparation Batch Number	COC ID Number(s)
Aqueous Samples:	SOP-AM19		
Light Hydrocarbons			M081607 ✓
LHC(methane)			M081602S ✓
Permanent Gases			X
Bubble Strip Samples:	AM20GAx		
Light Hydrocarbons			
LHC(methane)			
Permanent Gases			
Hydrogen			

Analyst Initials: RCW

Reviewer Initials: MB

Data reviewed: 8-17-01

Attachments:

Raw Data Summaries: Data File ID, Date/Time Analyzed, Laboratory Sample ID

Remarks:

P0108056

---- BIOREM-2 ----
---- QUALITY CONTROL ----
---- ANALYSIS DATE: 08/16/01 ----
---- MATRIX: WATER ----

CONTINUING CALIBRATION STANDARDS

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 413	159.6	160.3	0.45
OXYGEN	X28 413	16.96	16.00	5.78
NITROGEN	X28 413	135.1	128.2	5.28
CARBON MONOXIDE	X28 413	14.55	13.85	4.91
METHANE (TCD)	X28 413	5.48	5.26	4.02
METHANE (FID)	X28 414	36.66	39.56	7.62
ETHANE	X28 414	23631	23652	0.09
ETHYLENE	X28 414	26522	26512	0.04
PROPANE	X28 414	33655	33521	0.40
PROPYLENE	X28 414	39153	39182	0.07
ISO-BUTANE	X28 414	42718	42576	0.33
N-BUTANE	X28 414	43297	43460	0.38
METHANE (FID) D	X28 414	36.66	39.16	6.61
ETHANE D	X28 414	23631	24191	2.34
ETHYLENE D	X28 414	26522	27365	3.13

METHOD BLANK

COMPOUND	FILE ID	DET. LIMIT	MEASURED
CARBON DIOXIDE	X28 416	0.60mg/l	ND
OXYGEN	X28 416	0.15mg/l	ND
NITROGEN	X28 416	0.40mg/l	ND
CARBON MONOXIDE	X28 416	0.40mg/l	ND
METHANE (TCD)	X28 416	0.07mg/l	ND
METHANE (FID)	X28 416	0.015ug/l	ND
ETHANE	X28 416	5ng/l	ND
ETHYLENE	X28 416	5ng/l	ND
PROPANE	X28 416	25ng/l	ND
PROPYLENE	X28 416	25ng/l	ND
ISO-BUTANE	X28 416	25ng/l	ND
N-BUTANE	X28 416	25ng/l	ND
METHANE (FID) D	X28 416	0.15ug/l	ND
ETHANE D	X28 416	50ng/l	ND
ETHYLENE D	X28 416	50ng/l	ND

CONTINUING CALIBRATION VERIFICATION STANDARD (LH012700)

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 415	21.28	21.61	3.07
OXYGEN	X28 415	9.69	9.91	4.55
METHANE (FID)	X28 415	73.31	70.32	8.15
ETHANE	X28 415	47164	47061	0.44
ETHYLENE	X28 415	53282	52731	2.07

ANALYST INITIALS RCW

REVIEW

MS/L

File name	CO2 Amounts	O2 Amounts	N2 Amounts	CH4 Amounts	Date and Time	Sample Name
X28B4.13A	160.345	16.004	128.193	5.264	08-16-2001 08:51:30	PG081601A
X28B4.14A	10.015	4.428	179.465	0.000	08-16-2001 09:10:07	LH081601A
X28B4.15A	21.607	9.910	360.486	0.000	08-16-2001 09:24:50	CCV LH012700
X28B4.16A	0.000	0.000	0.000	0.000	08-16-2001 09:47:54	MB081601A
X28B4.20A	0.000	4.119	13.854	0.000	08-16-2001 10:30:01	P0108056-01A
X28B4.21A	0.990	4.534	12.971	0.000	08-16-2001 10:39:29	P0108056-02A
X28B4.22A	64.161	1.343	17.171	0.248	08-16-2001 10:50:47	P0108056-03A
X28B4.23A	77.063	0.758	15.616	1.471	08-16-2001 11:07:10	P0108056-04A

→ 1471 ug/L

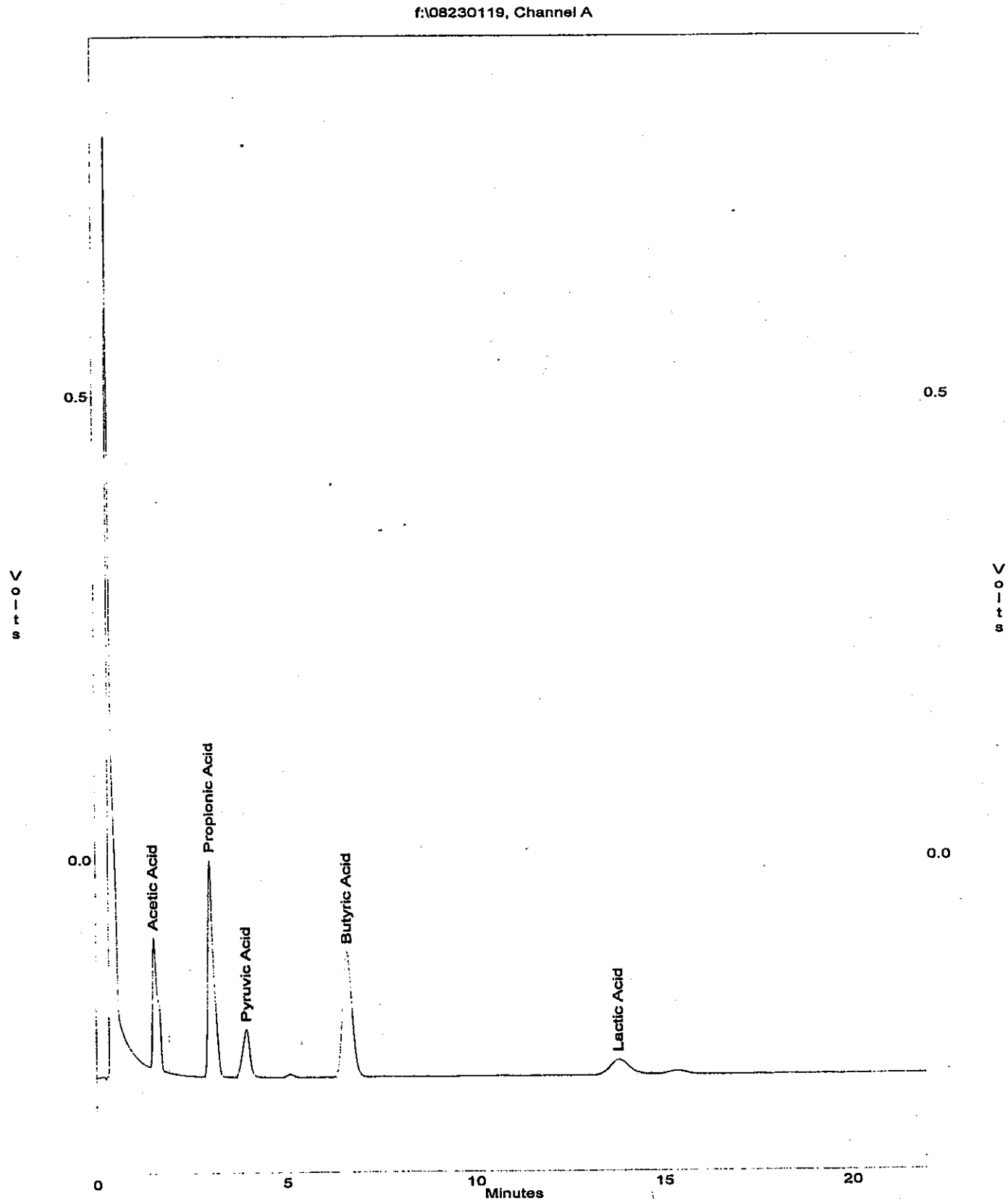
Chrom Perfect Summary ug/L ng/L ng/L Printed on 8/16/2001 at 1:18:40 PM

File name	METHANE Amounts	ETHANE Amounts	ETHENE Amounts	Date and Time	Sample Name
X28A4.13A	177.390	0.000	0.000	08-16-2001 08:51:30	PG081601A
X28A4.14A	39.560	23652.445	26511.637	08-16-2001 09:10:07	LH081601A
X28A4.15A	70.324	47098.348	52763.012	08-16-2001 09:24:50	CCV LH012700
X28A4.16A	0.000	0.000	0.000	08-16-2001 09:47:54	MB081601A
X28A4.20A	2.883	101.459	52.644	08-16-2001 10:30:01	P0108056-01A
X28A4.21A	0.649	1193.706	13.857	08-16-2001 10:39:29	P0108056-02A
X28A4.22A	78.605	85.704	118.394	08-16-2001 10:50:47	P0108056-03A
X28A4.23A	134.274	111.437	210.052	08-16-2001 11:07:10	P0108056-04A

File name	METHANE ug/L Amounts	Date and Time	Sample Name
X28D4.13A	1158.552	08-16-2001 08:51:20	PG081601A
X28D4.14A	39.161	08-16-2001 09:10:07	LH081601A
X28D4.15A	78.147	08-16-2001 09:24:51	CCV LH012700
X28D4.16A	0.000	08-16-2001 09:47:54	MB081601A
X28D4.20A	2.874	08-16-2001 10:30:02	P0108056-01A
X28D4.21A	0.729	08-16-2001 10:39:29	P0108056-02A
X28D4.22A	131.697	08-16-2001 10:50:48	P0108056-03A
X28D4.23A	736.193	08-16-2001 11:07:10	P0108056-04A

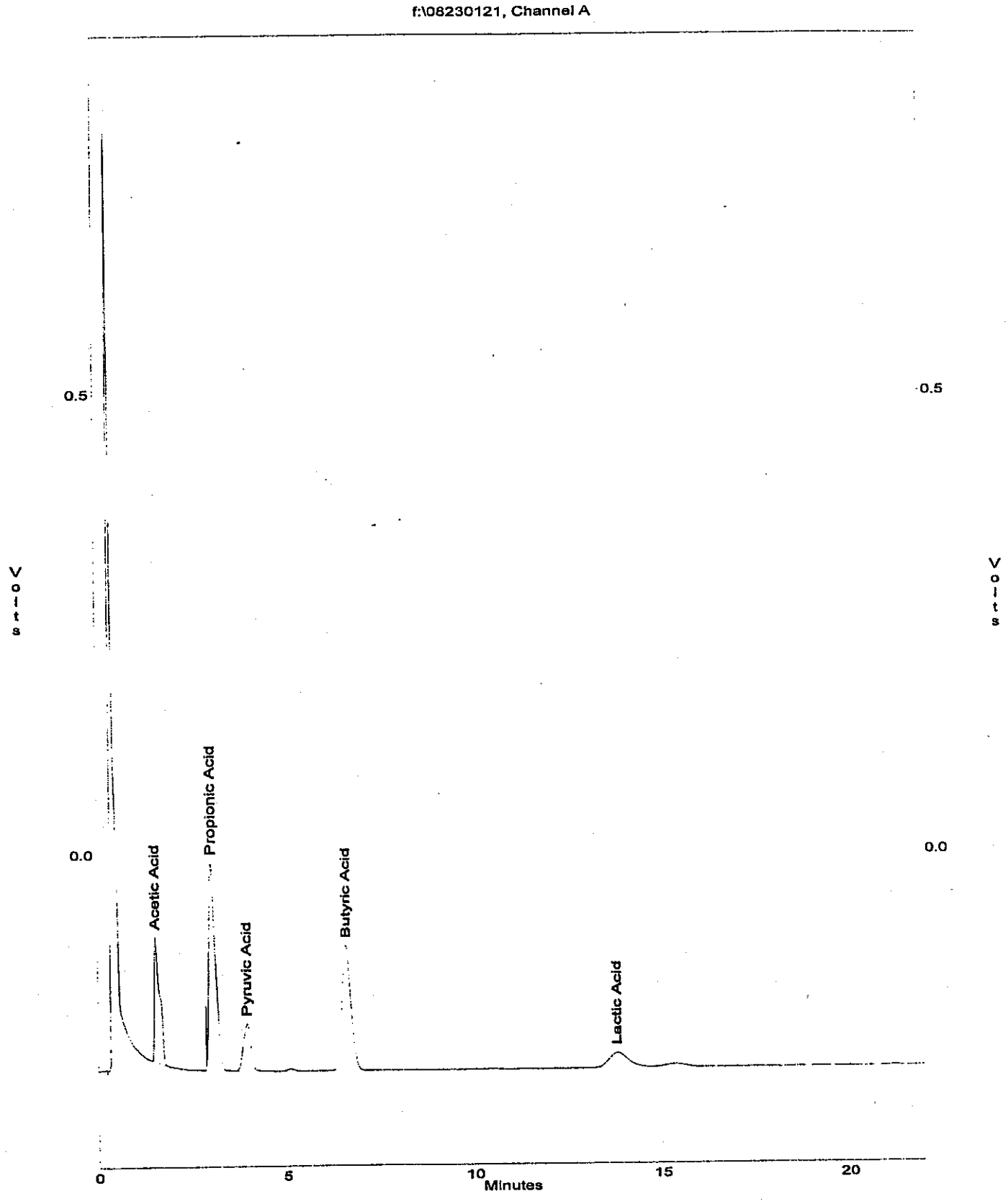
External Standard Report -- Channel A
File : f:\08230119
Method : f:\vfa.met
Sample ID : p108054-04a ms
Acquired : Aug 23, 2001 21:51:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	103.862 mg/l	1377426	140680
2	Propionic Acid	3.033	117.935 mg/l	2513625	233381
3	Pyruvic Acid	3.957	84.652 mg/l	699365	51568
4	Butyric Acid	6.613	91.380 mg/l	2353788	135118
5	Lactic Acid	13.805	89.444 mg/l	609154	16462
Totals			487.272	7553358	577209


f:\08230119, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

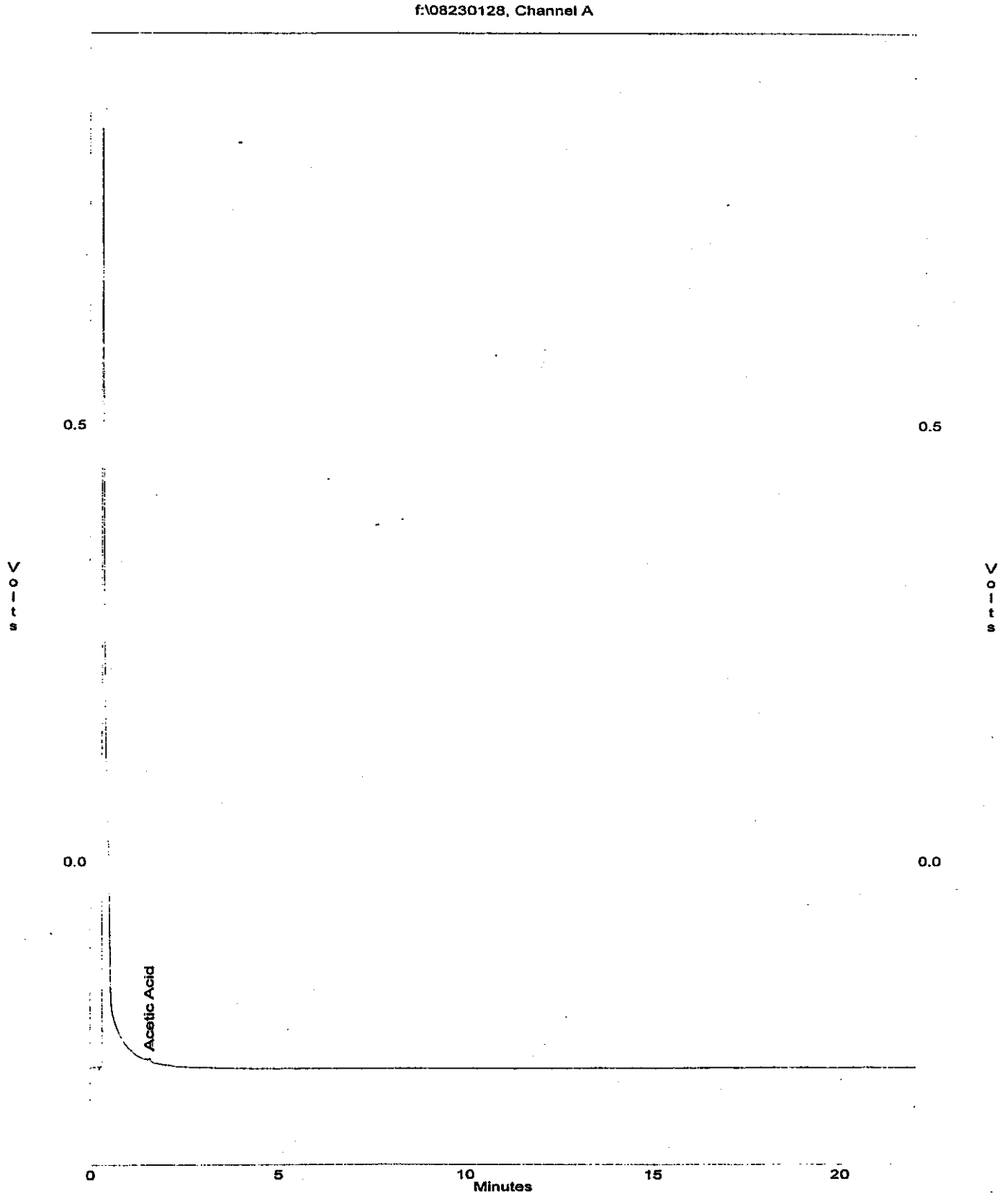
External Standard Report -- Channel A
File : f:\08230121
Method : f:\vfa.met
Sample ID : p108054-05a msd
Acquired : Aug 23, 2001 22:37:00
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	100.172 mg/l	1328822	135360
2	Propionic Acid	3.032	116.098 mg/l	2474611	225141
3	Pyruvic Acid	3.947	86.135 mg/l	711350	50682
4	Butyric Acid	6.613	91.324 mg/l	2352368	134672
5	Lactic Acid	13.795	87.455 mg/l	595219	16247
Totals			481.184	7462370	562102


f:\08230121, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

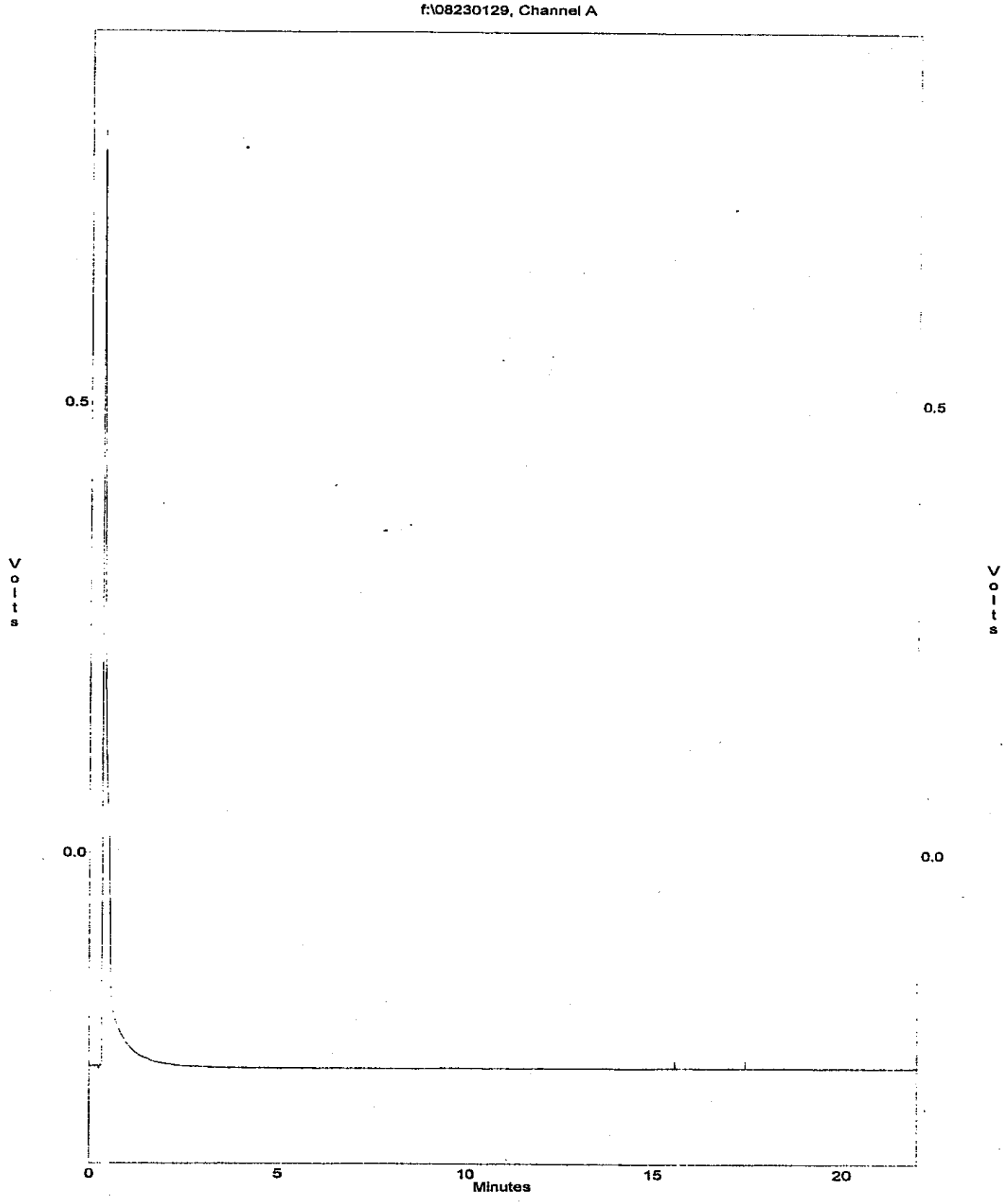
External Standard Report -- Channel A
File : f:\08230128
Method : f:\vfa.met
Sample ID : p108056-01a
Acquired : Aug 24, 2001 01:16:04
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.597	0.644 mg/l	17799	3426
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.644	17799	3426


f:\08230128, Channel A
0.5
0.0
Volts
Acetic Acid
0
5
10
15
20
Minutes

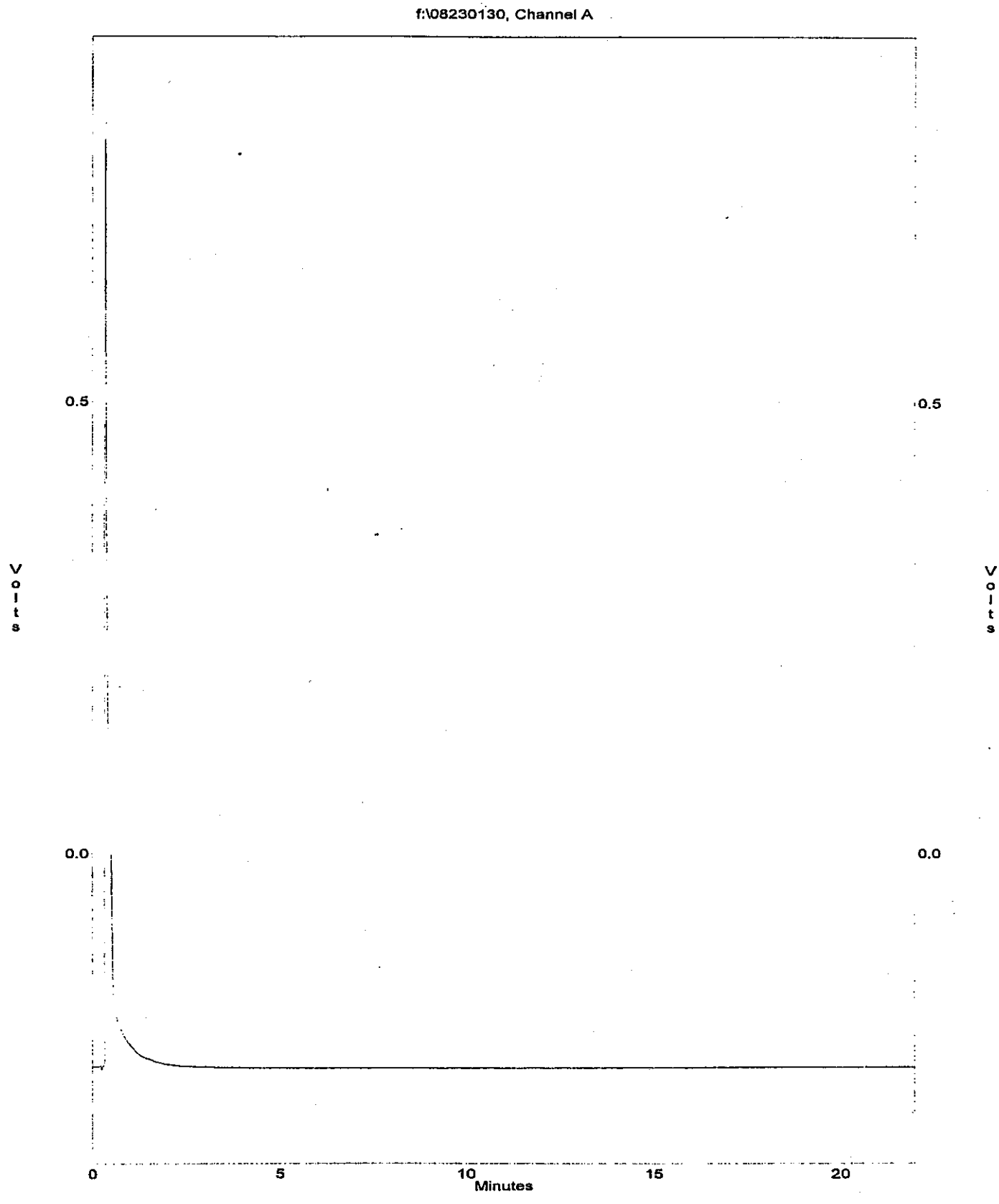
External Standard Report -- Channel A
File : f:\08230129
Method : f:\vfa.met
Sample ID : p108056-02a
Acquired : Aug 24, 2001 01:38:46
User : System

--- No Peaks Found.


f:\08230129, Channel A
0.5
0.0
Volts
0.5
0.0
Volts
0
5
10
15
20
Minutes

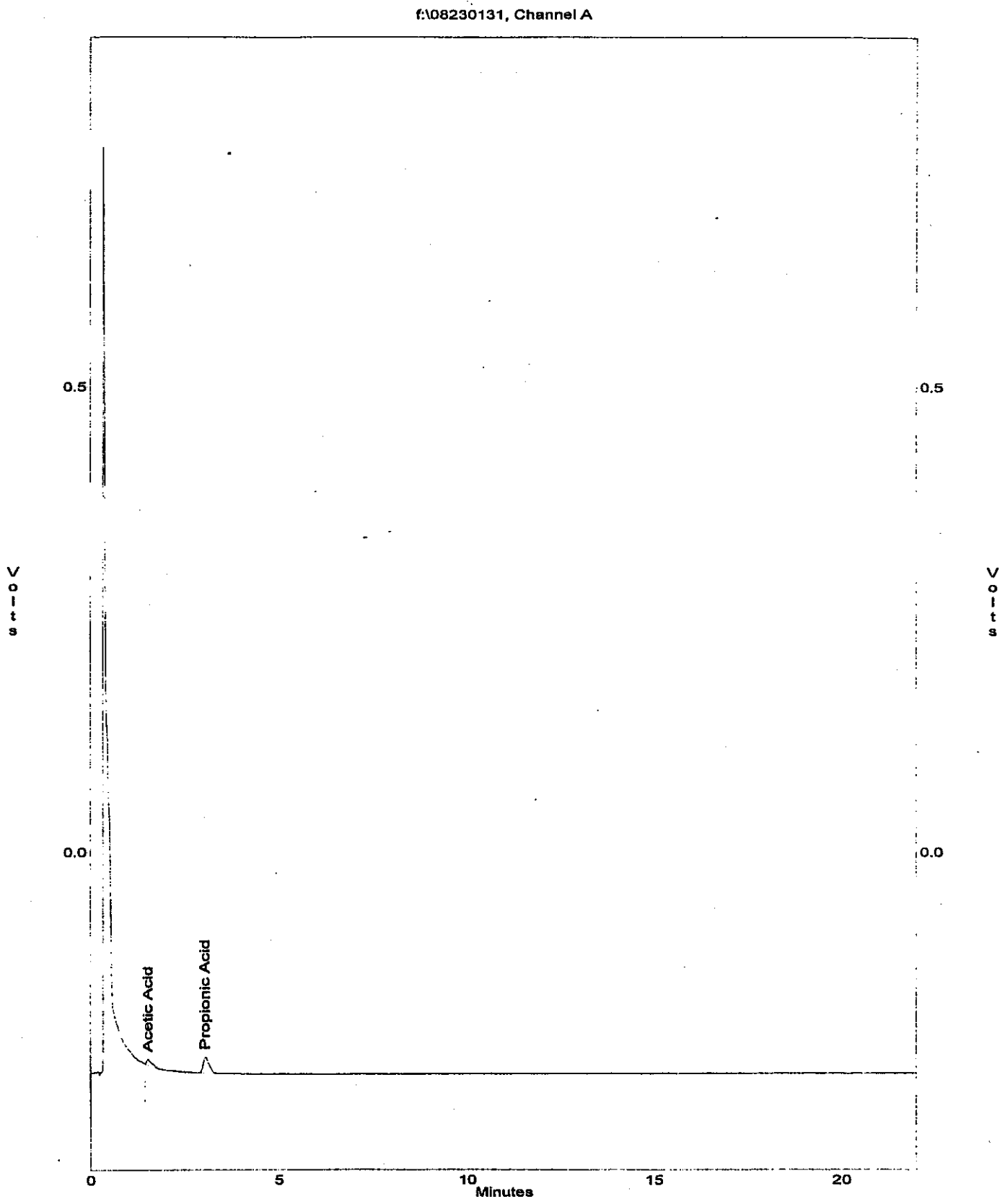
External Standard Report -- Channel A
File : f:\08230130
Method : f:\vfa.met
Sample ID : p108056-03a
Acquired : Aug 24, 2001 02:01:30
User : System

--- No Peaks Found.


f:\08230130, Channel A
0.5
0.5
Volts
Volts
0.0
0.0
0
5
10
15
20
Minutes

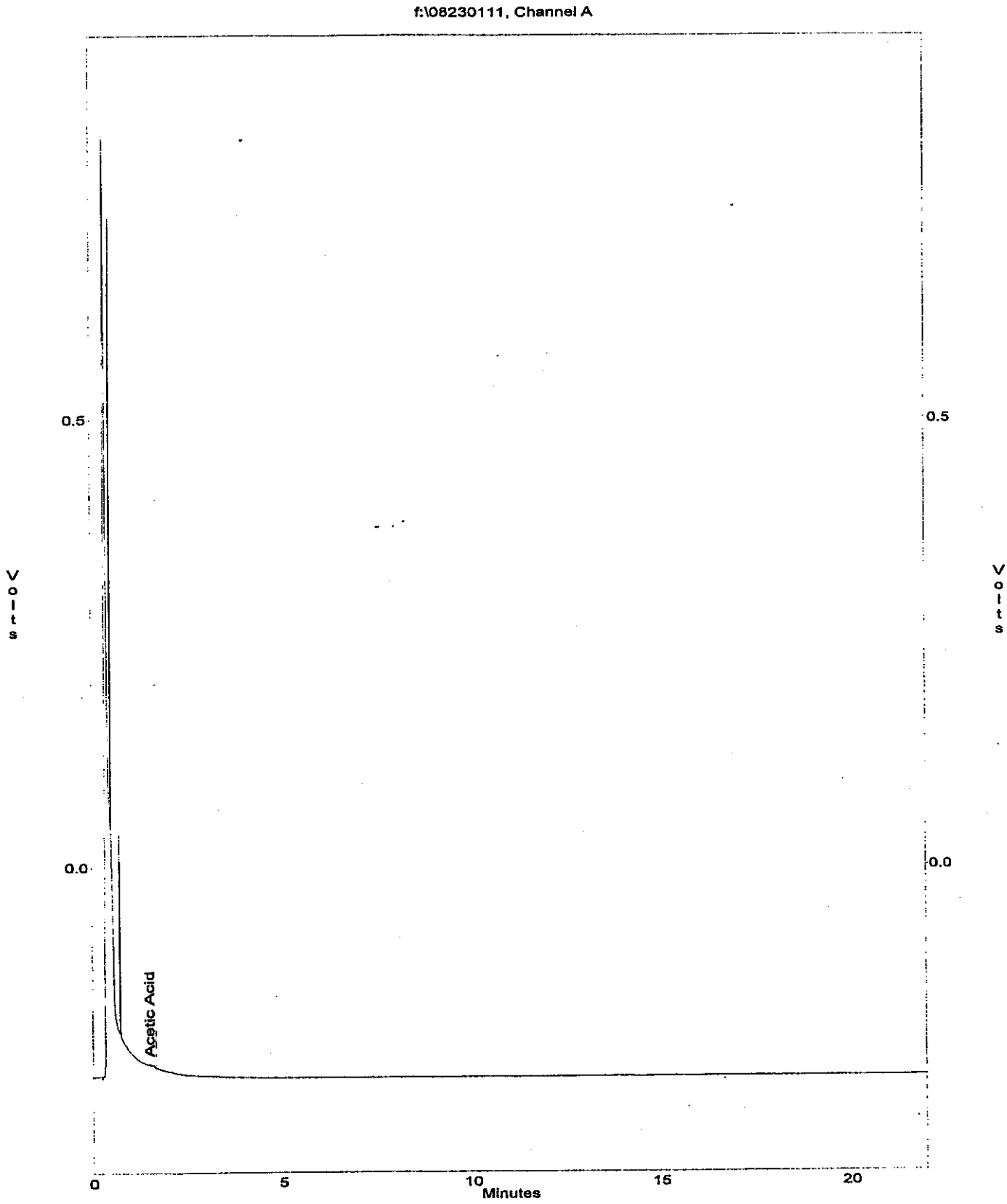
External Standard Report - Channel A
File : f:\08230131
Method : f:\vfa.met
Sample ID : p108056-04a
Acquired : Aug 24, 2001 02:24:12
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	3.640 mg/l	57260	6006
2	Propionic Acid	3.028	8.234 mg/l	184369	16906
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			11.874	241629	22912


f:\08230131, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

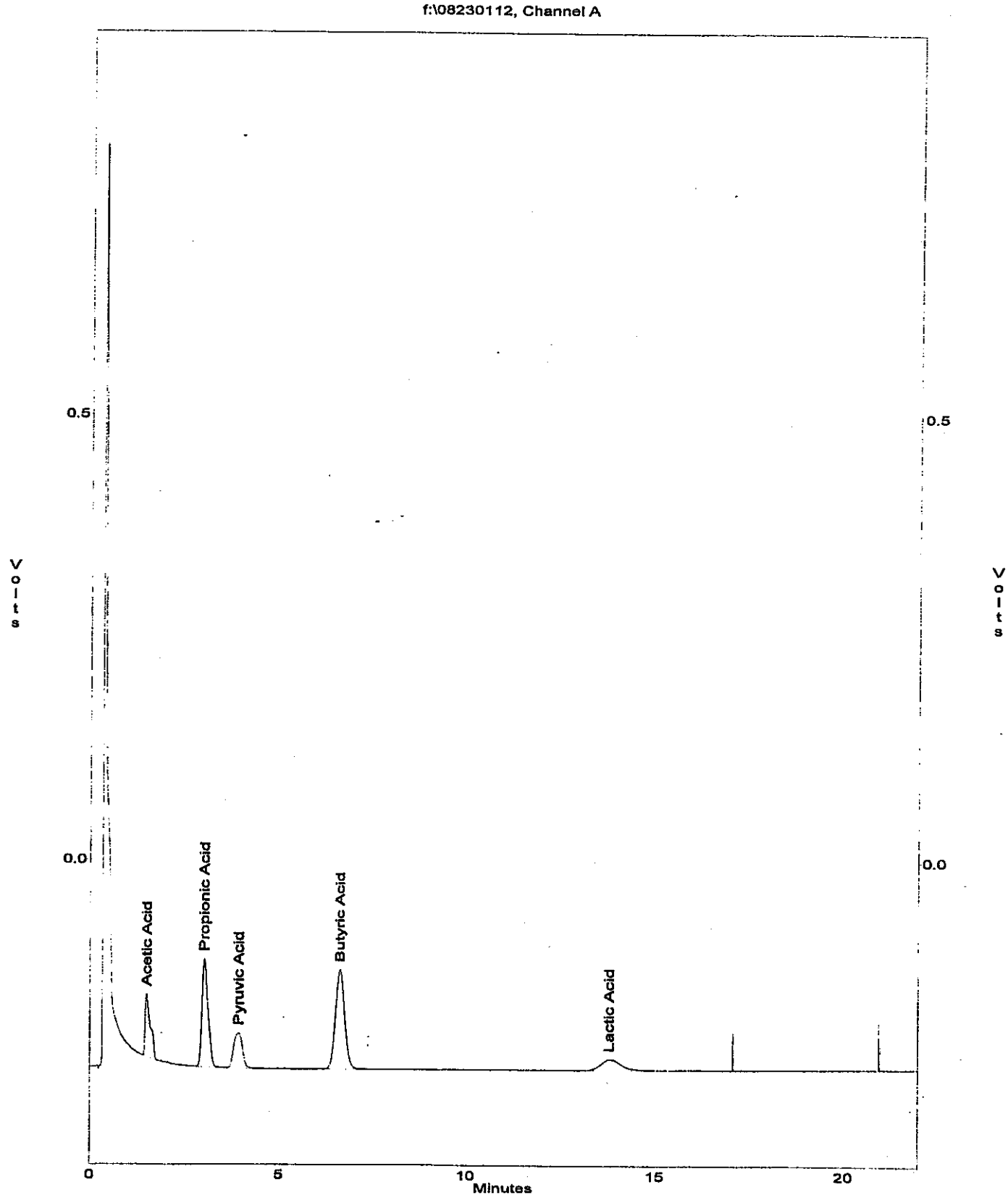
External Standard Report -- Channel A
File : f:\08230111
Method : f:\vfa.met
Sample ID : mb
Acquired : Aug 23, 2001 18:49:47
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.505	0.284 mg/l	13060	1624
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.284	13060	1624


f:\08230111, Channel A
0.5
0.0
Volts
Acetic Acid
0
5
10
15
20
Minutes

External Standard Report - Channel A
File : f:\08230112
Method : f:\vfa.met
Sample ID : lcsw 10x supelco
Acquired : Aug 23, 2001 19:12:32
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	49.564 mg/l	662192	70114
2	Propionic Acid	3.040	61.636 mg/l	1318241	120793
3	Pyruvic Acid	3.945	73.187 mg/l	606678	38618
4	Butyric Acid	6.628	75.894 mg/l	1956838	111103
5	Lactic Acid	13.795	68.873 mg/l	465008	12168
Totals			329.154	5008957	352796


f:\08230112, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

P0108056

----- BIOREM-2 -----
---- QUALITY CONTROL ----
----- ANALYSIS DATE: 08/16/01 -----
---- MATRIX: WATER ----

CONTINUING CALIBRATION STANDARDS

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 413	159.6	160.3	0.45
OXYGEN	X28 413	16.96	16.00	5.78
NITROGEN	X28 413	135.1	128.2	5.28
CARBON MONOXIDE	X28 413	14.55	13.85	4.91
METHANE (TCD)	X28 413	5.48	5.26	4.02
METHANE (FID)	X28 414	36.66	39.56	7.62
ETHANE	X28 414	23631	23652	0.09
ETHYLENE	X28 414	26522	26512	0.04
PROPANE	X28 414	33655	33521	0.40
PROPYLENE	X28 414	39153	39182	0.07
ISO-BUTANE	X28 414	42718	42576	0.33
N-BUTANE	X28 414	43297	43460	0.38
METHANE (FID) D	X28 414	36.66	39.16	6.61
ETHANE D	X28 414	23631	24191	2.34
ETHYLENE D	X28 414	26522	27365	3.13

METHOD BLANK

COMPOUND	FILE ID	DET. LIMIT	MEASURED
CARBON DIOXIDE	X28 416	0.60mg/l	ND
OXYGEN	X28 416	0.15mg/l	ND
NITROGEN	X28 416	0.40mg/l	ND
CARBON MONOXIDE	X28 416	0.40mg/l	ND
METHANE (TCD)	X28 416	0.07mg/l	ND
METHANE (FID)	X28 416	0.015ug/l	ND
ETHANE	X28 416	5ng/l	ND
ETHYLENE	X28 416	5ng/l	ND
PROPANE	X28 416	25ng/l	ND
PROPYLENE	X28 416	25ng/l	ND
ISO-BUTANE	X28 416	25ng/l	ND
N-BUTANE	X28 416	25ng/l	ND
METHANE (FID) D	X28 416	0.15ug/l	ND
ETHANE D	X28 416	50ng/l	ND
ETHYLENE D	X28 416	50ng/l	ND

CONTINUING CALIBRATION VERIFICATION STANDARD (LH012700)

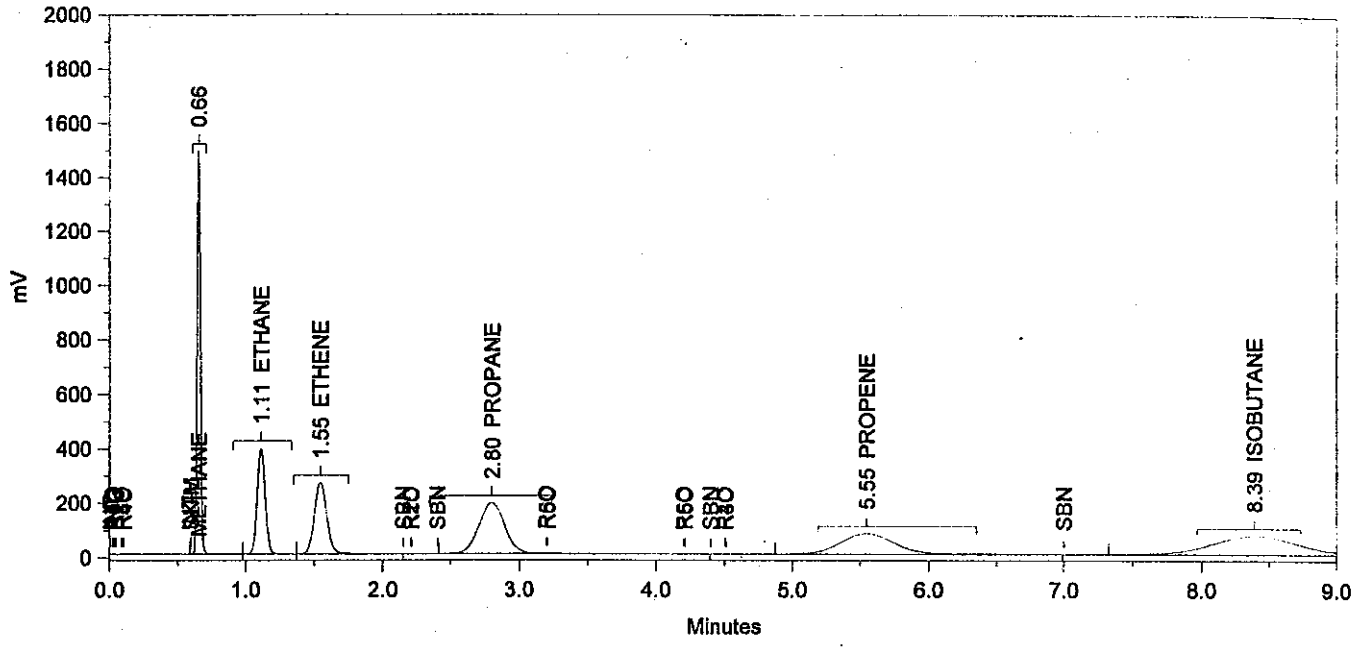
COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
CARBON DIOXIDE	X28 415	21.28	21.61	3.07
OXYGEN	X28 415	9.69	9.91	4.55
METHANE (FID)	X28 415	73.31	70.32	8.15
ETHANE	X28 415	47164	47061	0.44
ETHYLENE	X28 415	53282	52731	2.07

8056

ANALYST INITIALS RCW

REVIEW

LH081601A



Sample Name: **LH081601A**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:10:07am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.14R**
Date Stamp: 8/16/01 09:10:06am
Sequence File: X28A.SEQ #414
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

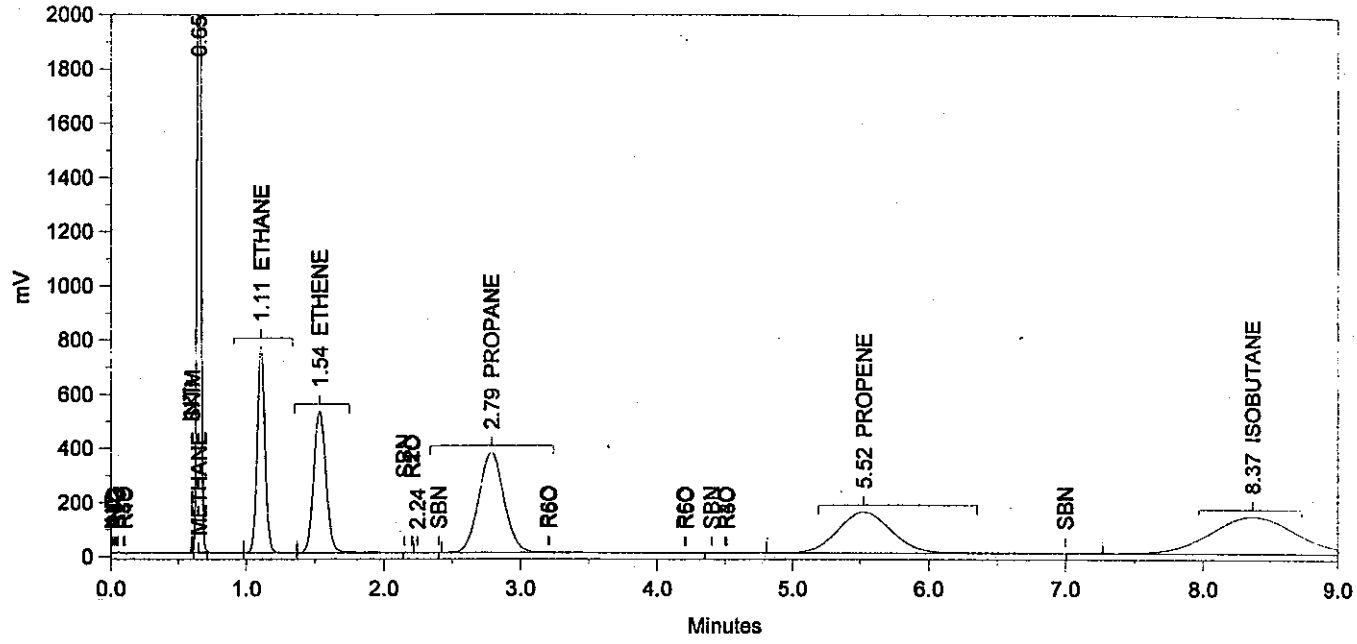
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.656	METHANE	~~39.7563~~	0.019	2627135.0	15.976	SBB	0.029	1489487.00	58.823
2	1.115	ETHANE	23652.4500	11.320	1583607.0	9.630	TVV	0.068	389650.40	15.388
3	1.545	ETHENE	26511.6400	12.688	1616468.0	9.830	TVB	0.103	262628.10	10.372
4	2.800	PROPANE	33520.6000	16.043	2431164.0	14.784	BB	0.218	185879.60	7.341
5	5.548	PROPENE	39183.2800	18.753	2085193.0	12.680	BB	0.457	76100.38	3.005
6	8.393	ISOBUTANE	42575.9400	20.377	3042361.0	18.501	BV	0.729	69546.25	2.747
7	9.850	N-BUTANE	43460.2100	20.800	3058649.0	18.600	VB	0.866	58851.51	2.324

ml. 11-28-01

Total Area = 16444580.0, Total Amount = 208943.9, Total Height = 2532143.0, Sample Units = ug/l, ng/l

11/28/20012:09:17 PMC:\CPWIN\X28\X28A4.15RCCV LH01270008-16-2001 09:24:50X28A_W2.MET

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:24:50am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.15R**
Date Stamp: 8/16/01 09:24:50am
Sequence File: X28A.SEQ #415
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

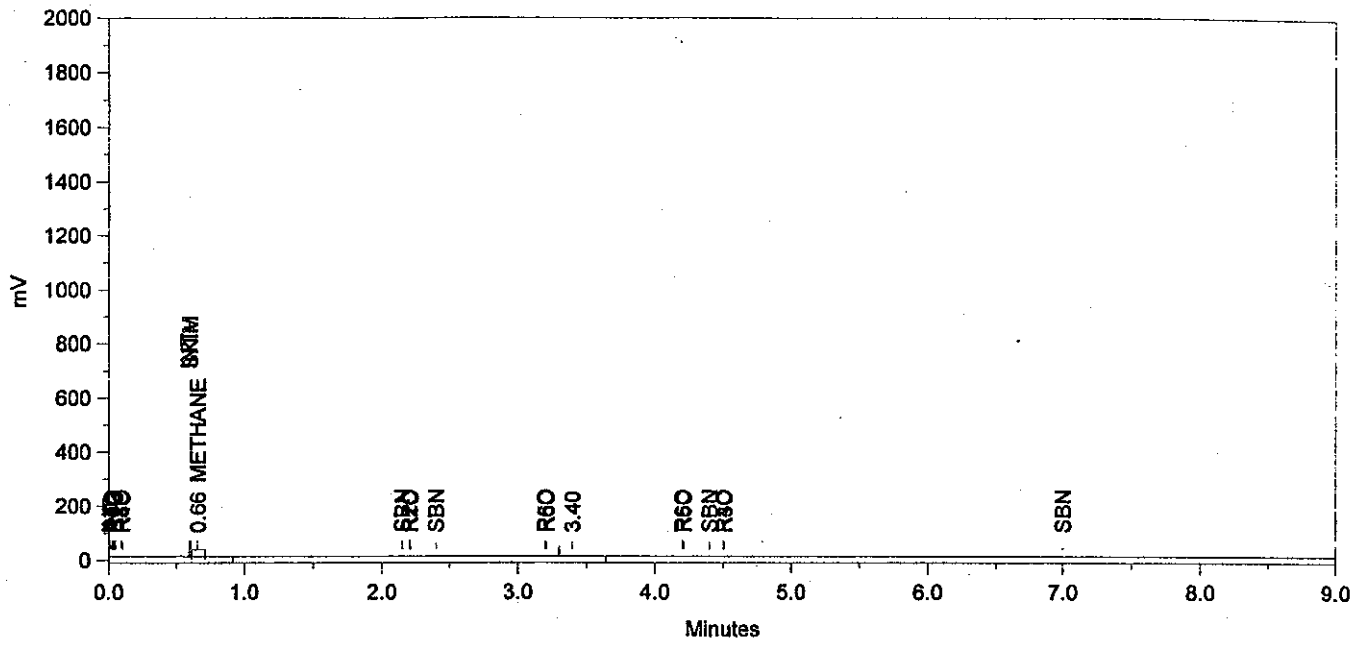
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.648	METHANE	~~70.3918~~	0.017	4651557.0	14.506	SBB	0.038	2014707.00	49.330
2	1.108	ETHANE	~~47060.7780~~	11.354	3150868.0	9.826	TVV	0.068	769232.10	18.835
3	1.536	ETHENE	~~52730.5100~~	12.721	3215086.0	10.026	TVB	0.102	524714.30	12.848
4	2.245		0.0692	0.000	4570.3	0.014	BB	0.098	776.92	0.019
5	2.787	PROPANE	66487.4600	16.040	4822165.0	15.038	BB	0.218	368764.50	9.029
6	5.524	PROPENE	77642.4900	18.731	4131854.0	12.885	BB	0.455	151445.80	3.708
7	8.368	ISOBUTANE	84321.5800	20.343	6025390.0	18.790	BV	0.729	137815.10	3.374
8	9.816	N-BUTANE	86189.2200	20.793	6065836.0	18.916	VB	0.867	116670.60	2.857

Total Area = 32067330.0, Total Amount = 414502.5, Total Height = 4084126.0, Sample Units = ug/l, ng/l

MB081601A



Sample Name: **MB081601A**
Acquired from Chrom1--FID via port 1 on 8/16/01 09:47:54am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.16R**
Date Stamp: 8/16/01 09:47:54am
Sequence File: X28A.SEQ #416
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

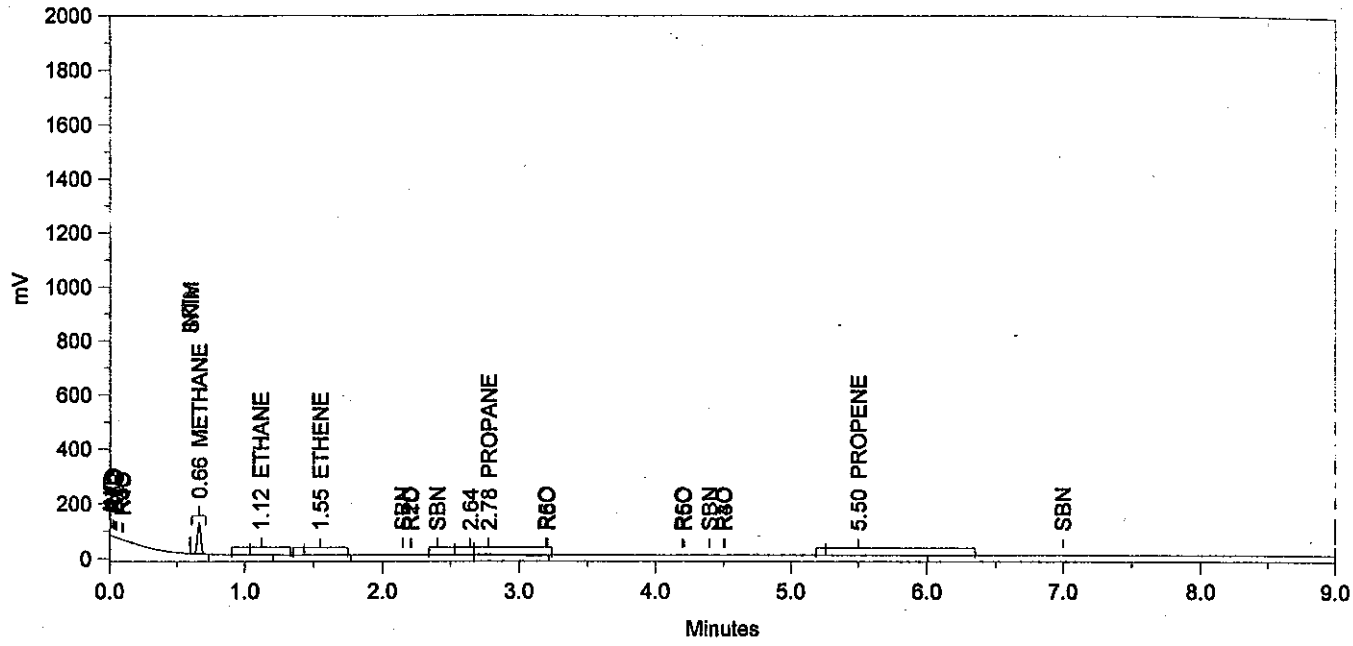
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.656	METHANE	~~0.015T~~	60.206	998.8	60.206	BB	0.137	121.51	62.567
2	3.396		0.0100	39.794	660.2	39.794	BB	0.151	72.70	37.433

Total Area = 1658.9, Total Amount = 0.025, Total Height = 194.21, Sample Units = ug/l, ng/l

11/28/20012:09:30 PMC:\CPWIN\X28\X28A4.20RP0108056-01A08-16-2001 10:30:01X28A_W2.MET

P0108056-01A



Sample Name: **P0108056-01A**
Acquired from Chrom1--FID via port 1 on 8/16/01 10:30:01am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.20R**
Date Stamp: 8/16/01 10:30:00am
Sequence File: X28A.SEQ #420
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

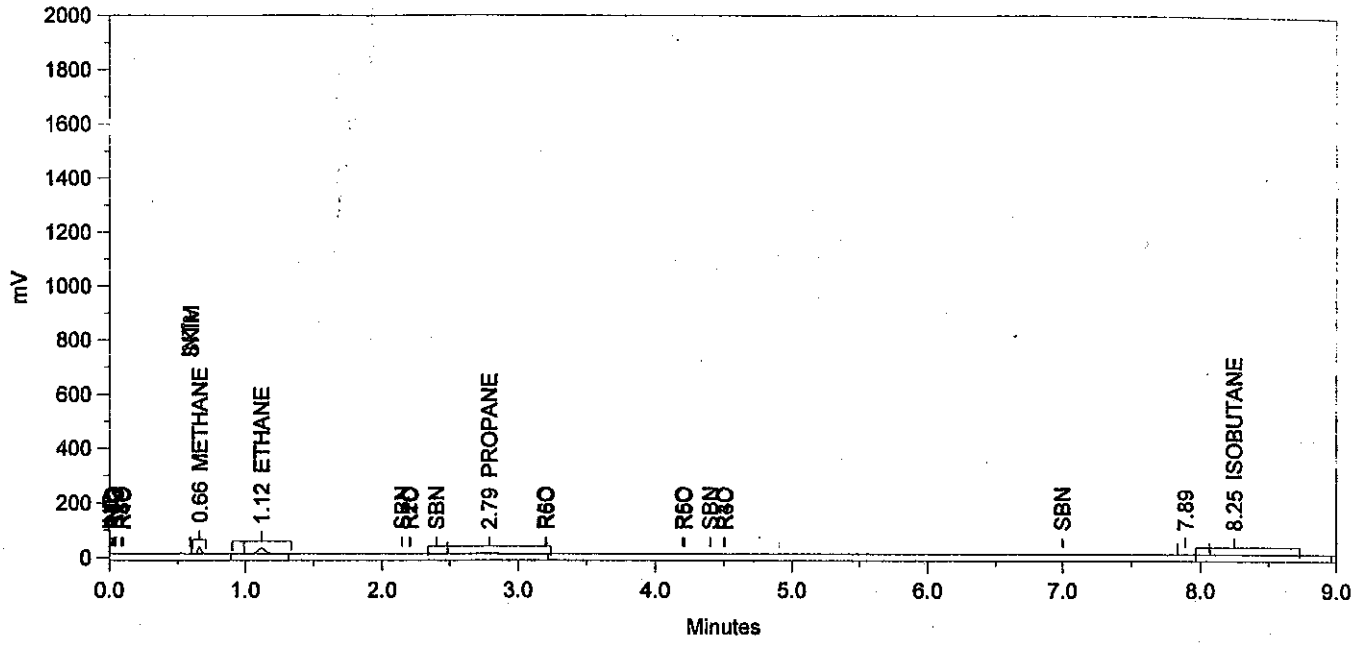
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.663	METHANE	2.8826	0.176	190483.3	61.015	BB	0.028	114678.10	94.520
2	1.116	ETHANE	101.4592	6.179	6793.0	2.176	BB	0.065	1741.84	1.436
3	1.550	ETHENE	52.6437	3.206	3209.8	1.028	BB	0.105	507.23	0.418
4	2.644		0.0886	0.005	5857.2	1.876	BV	0.067	1449.14	1.194
5	2.778	PROPANE	1388.9270	84.585	100735.3	32.267	VB	0.618	2715.26	2.238
6	5.498	PROPENE	96.0479	5.849	5111.3	1.637	BB	0.362	235.34	0.194

Total Area = 312189.9, Total Amount = 1642.049, Total Height = 121326.9, Sample Units = ug/l, ng/l

11/28/20012:09:36 PMC:\CPWIN\X28\X28A4.21RP0108056-02A08-16-2001 10:39:29X28A_W2.MET

P0108056-02A



Sample Name: **P0108056-02A**
Acquired from Chrom1--FID via port 1 on 8/16/01 10:39:29am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.21R**
Date Stamp: 8/16/01 10:39:28am
Sequence File: X28A.SEQ #421
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.664	METHANE	~~0.6618~~ 0.619	0.029	43731.2	21.672	BB	0.028	25753.25	52.301
2	1.119	ETHANE	~~1199.2130~~ 1193	52.961	80291.1	39.790	BB	0.067	19925.30	40.466
3	2.790	PROPANE	931.2148	41.125	67538.6	33.471	BB	0.570	1975.45	4.012
4	7.890		0.0106	0.000	703.5	0.349	BV	0.010	1207.65	2.453
5	8.251	ISOBUTANE	133.2428	5.884	9521.2	4.718	VB	0.419	378.41	0.768

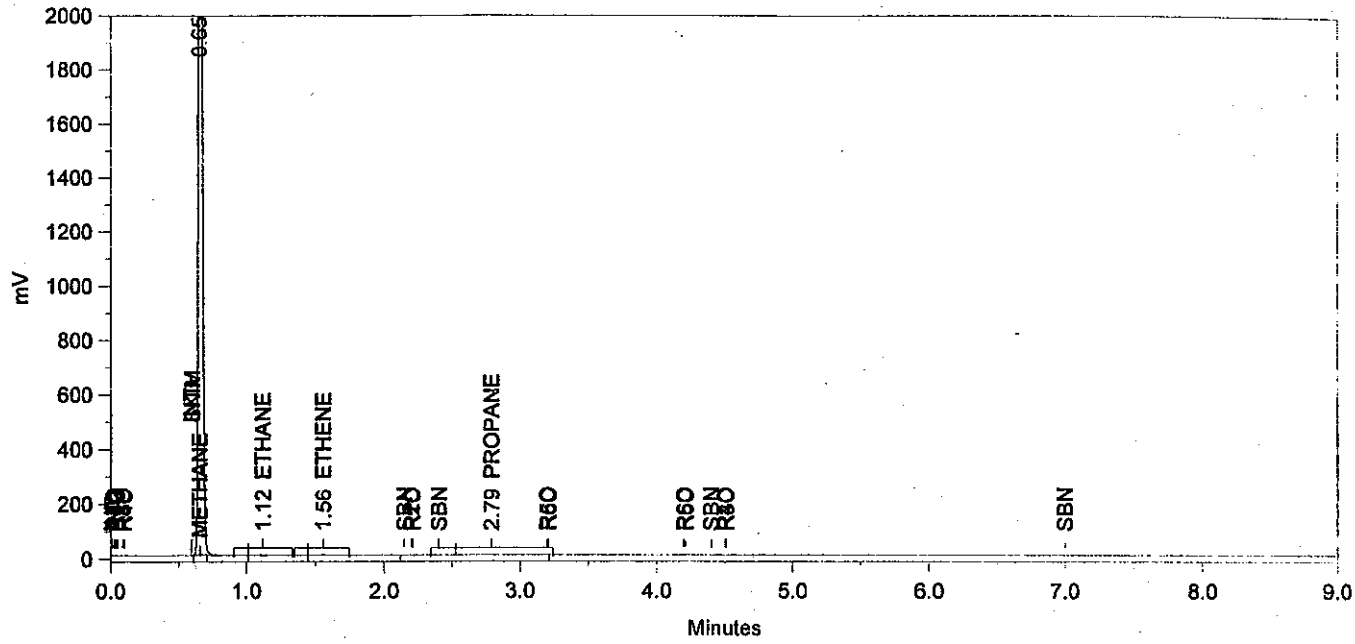
ML 11-28-01

Total Area = 201785.5, Total Amount = 2264.343, Total Height = 49240.07, Sample Units = ug/l, ng/l

Ethylene 13.85 (manual integration)

11/28/20012:09:43 PMC:\CPWIN\X28\X28A4.22RP0108056-03A08-16-2001 10:50:47X28A_W2.MET

P0108056-03A



Sample Name: **P0108056-03A**
Acquired from Chrom1--FID via port 1 on 8/16/01 10:50:47am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.22R**
Date Stamp: 8/16/01 10:50:46am
Sequence File: X28A.SEQ #422
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

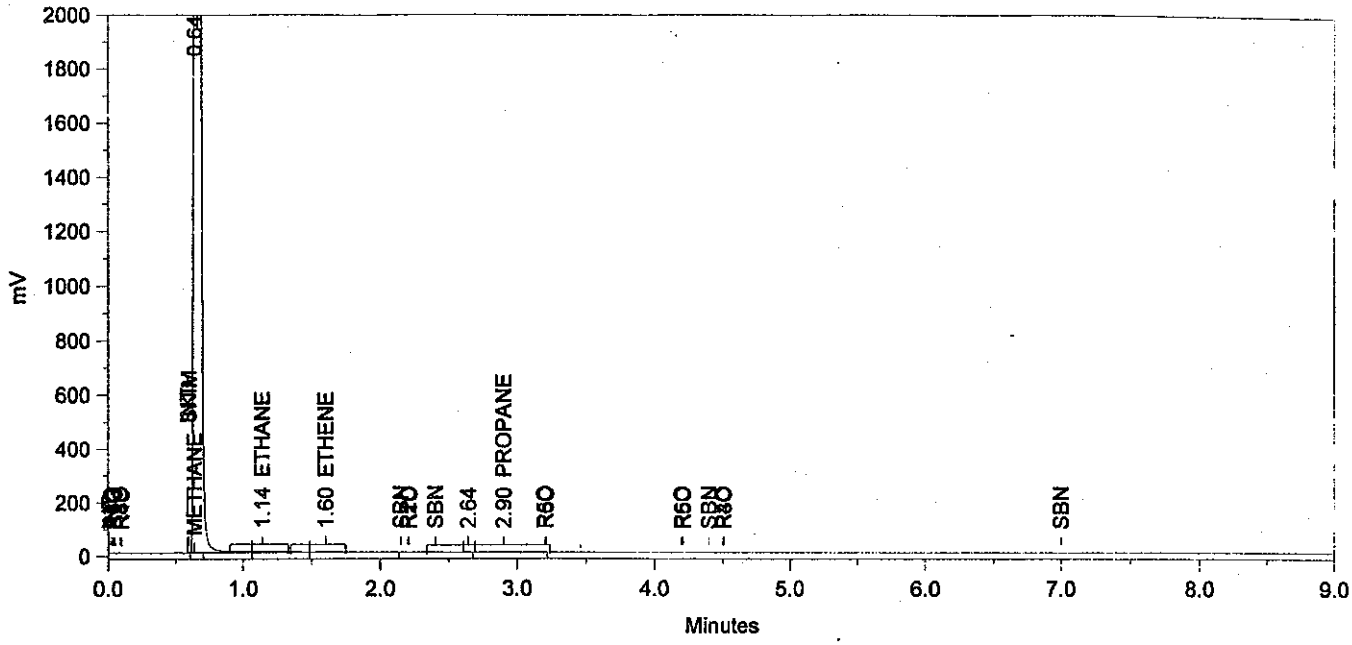
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name		Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.653	METHANE	SAP	~~78.6047~~	10.511	5194274.0	99.109	SBB	0.042	2058978.00	99.827
2	1.117	ETHANE		85.7041	11.460	5738.2	0.109	TVB	0.070	1363.40	0.066
3	1.558	ETHENE		118.3938	15.831	7218.7	0.138	TBB	0.115	1048.12	0.051
4	2.789	PROPANE		465.1577	62.198	33736.7	0.644	BB	0.484	1162.51	0.056

Total Area = 5240967.0, Total Amount = 747.86, Total Height = 2062552.0, Sample Units = ug/l, ng/l

11/28/20012:09:49 PMC:\CPWIN\X28\X28A4.23RP0108056-04A08-16-2001 11:07:10X28A_W2.MET

P0108056-04A



Sample Name: **P0108056-04A**
Acquired from Chrom1--FID via port 1 on 8/16/01 11:07:10am by RCW
FID

Data File: **C:\CPWIN\X28\X28A4.23R**
Date Stamp: 8/16/01 11:07:10am
Sequence File: X28A.SEQ #423
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

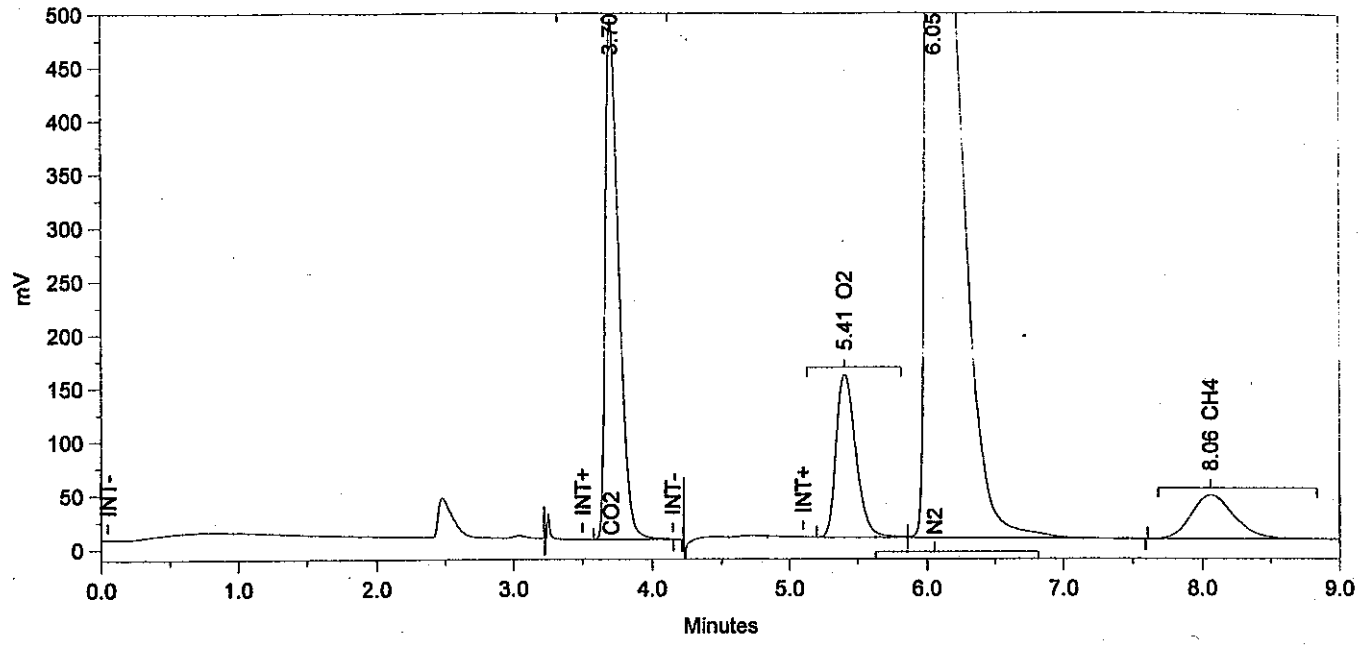
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.642	METHANE	~~136.3235~~	12.078	9008386.0	99.225	SBB	0.072	2074347.00	99.684
2	1.140	ETHANE	111.4365	9.873	7461.0	0.082	TVB	0.068	1827.45	0.088
3	1.602	ETHENE	210.0518	18.611	12807.3	0.141	TBB	0.111	1921.04	0.092
4	2.641		0.0215	0.002	1417.6	0.016	BB	0.024	975.02	0.047
5	2.899	PROPANE	670.8364	59.436	48654.0	0.536	BB	0.440	1844.46	0.089

Total Area = 9078726.0, Total Amount = 1128.67, Total Height = 2080915.0, Sample Units = ug/l, ng/l

11/28/20012:03:53 PMC:\CPWIN\X28\X28B4.13RPG081601A08-16-2001 08:51:30X28B_W2.MET

PG081601A



Sample Name: **PG081601A**
Acquired from Chrom1--TCD via port 2 on 8/16/01 08:51:30am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B4.13R**
Date Stamp: 8/16/01 08:51:30am
Sequence File: X28A.SEQ #413
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 11.1 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

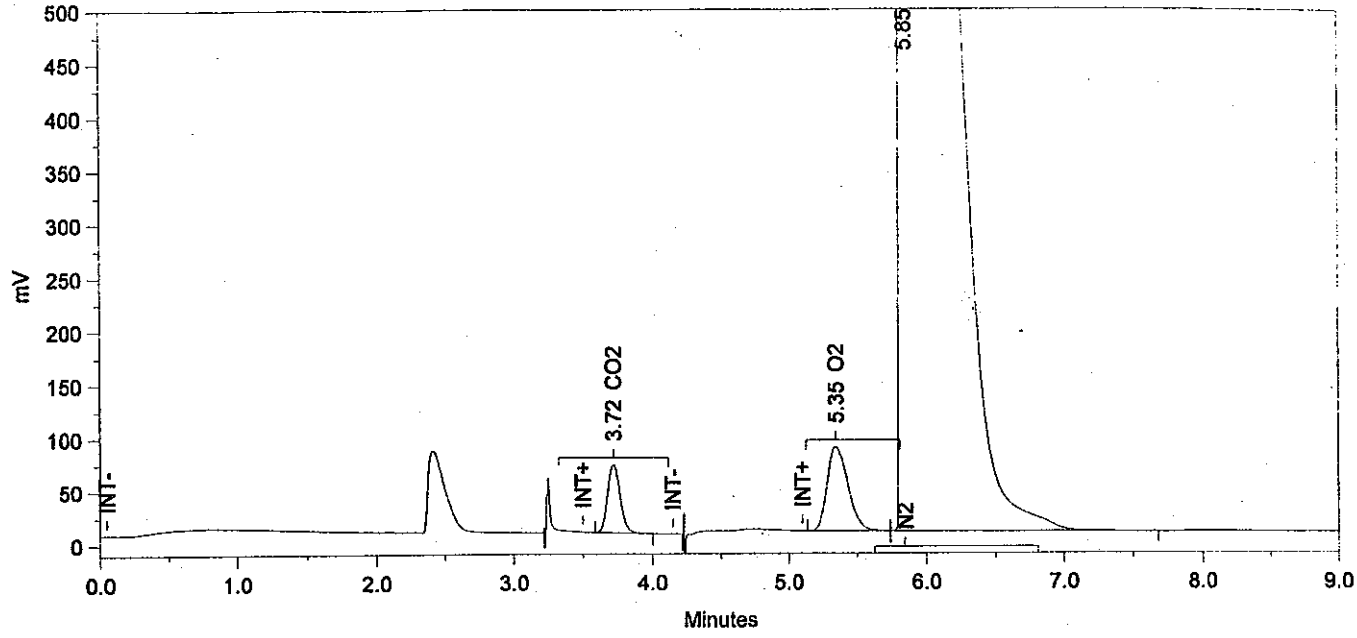
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.705	CO2	160.3446	49.541	3250620.0	14.875	BB	0.111	486444.90	27.789
2	5.406	O2	16.0038	4.945	1511323.0	6.916	BV	0.165	152250.70	8.697
3	6.053	N2	128.1932	39.607	14675360.0	67.156	VB	0.241	1014550.00	57.957
4	8.060	CH4	5.2643	1.626	890110.3	4.073	BB	0.364	40778.52	2.330
5	9.407	CO	13.8531	4.280	1525099.0	6.979	BB	0.450	56494.65	3.227

Total Area = 21852510.0, Total Amount = 323.659, Total Height = 1750519.0, Sample Units = mg/l

11/28/20012:03:59 PMC:\CPWIN\X28\X28B4.15RCCV LH01270008-16-2001 09:24:50X28B_W2.MET

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom1--TCD via port 2 on 8/16/01 09:24:50am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B4.15R**
Date Stamp: 8/16/01 09:24:50am
Sequence File: X28A.SEQ #415
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

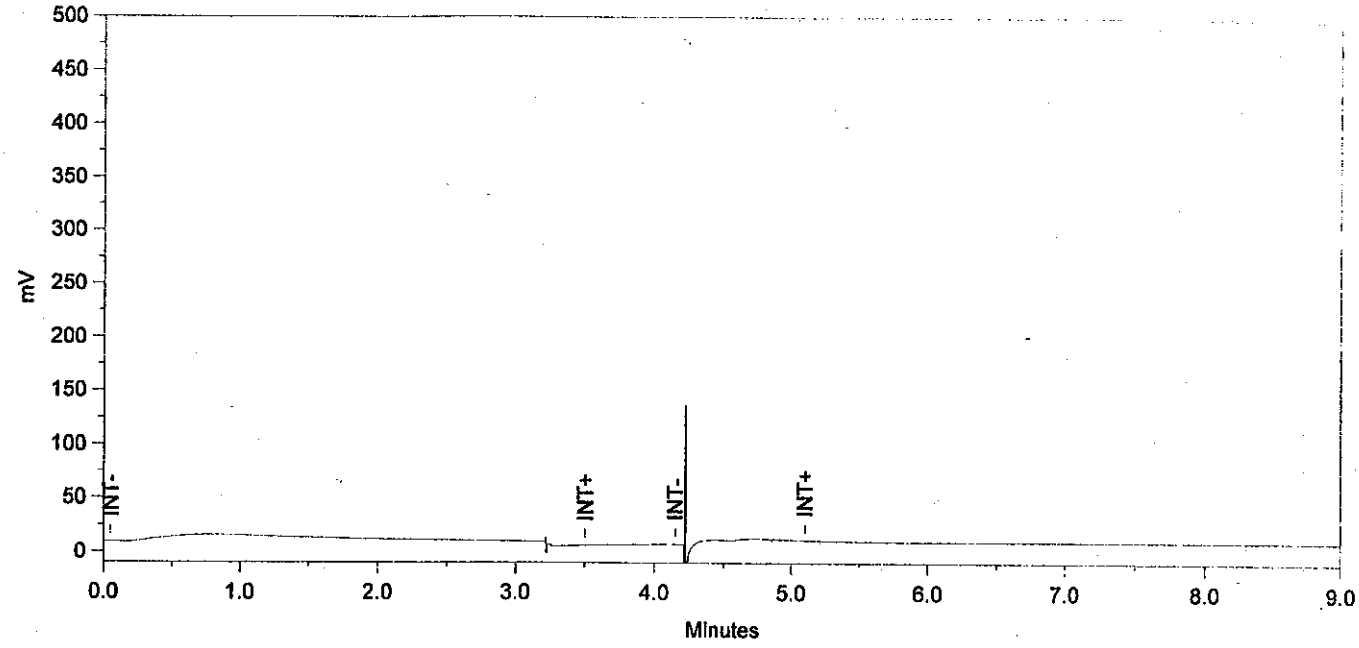
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name		Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.722	CO2	21.60	~~20.0451~~	5.161	406328.7	0.959	BB	0.105	64490.42	2.986
2	5.346	O2	9.91	~~8.9469~~	2.304	844907.0	1.993	BV	0.177	79524.80	3.682
3	5.848	N2		359.3623	92.535	41139220.0	97.048	VB	0.340	2015888.00	93.332

mb. 11-28-01

Total Area = 42390460.0, Total Amount = 388.352, Total Height = 2159903.0, Sample Units = mg/l

MB081601A



Sample Name: **MB081601A**
Acquired from Chrom1--TCD via port 2 on 8/16/01 09:47:54am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B4.16R**
Date Stamp: 8/16/01 09:47:54am
Sequence File: X28A.SEQ #416
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

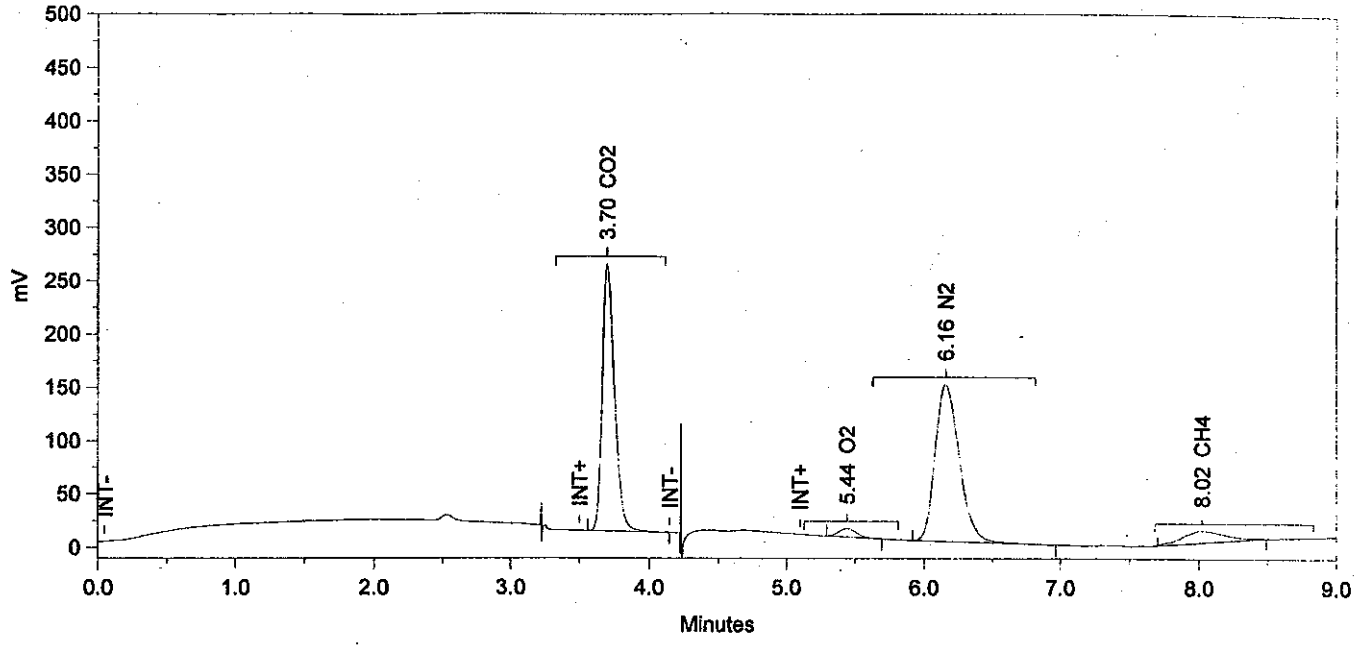
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = mg/l

11/28/20012:04:12 PMC:\CPWIN\X28\X28B4.23RP0108056-04A08-16-2001 11:07:10X28B_W2.MET

P0108056-04A



Sample Name: **P0108056-04A**
Acquired from Chrom1--TCD via port 2 on 8/16/01 11:07:10am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B4.23R**
Date Stamp: 8/16/01 11:07:10am
Sequence File: X28A.SEQ #423
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

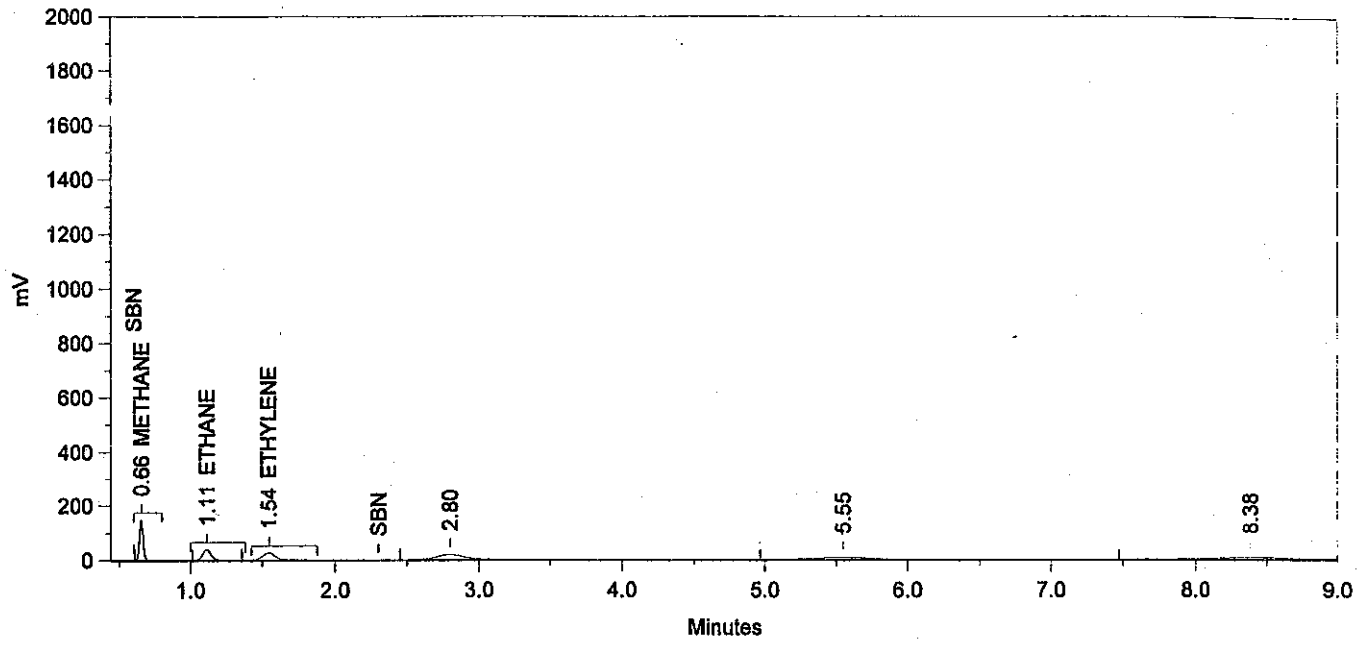
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.699	CO2	77.0634	81.199	1562283.0	42.567	BB	0.104	251145.10	60.049
2	5.441	O2	0.7575	0.798	71538.4	1.949	BB	0.146	8149.84	1.949
3	6.156	N2	15.6159	16.454	1787681.0	48.709	BB	0.202	147540.20	35.277
4	8.023	CH4	1.4706	1.549	248651.5	6.775	BB	0.364	11396.00	2.725

Total Area = 3670154.0, Total Amount = 94.907, Total Height = 418231.2, Sample Units = mg/l

11/28/20012:15:50 PMC:\CPWIN\X28\X28D4.14RLH081601A08-16-2001 09:10:07X28D_W2.MET

LH081601A



Sample Name: **LH081601A**
Acquired from Chrom2--FID 10X via port 4 on 8/16/01 09:10:07am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D4.14R**
Date Stamp: 8/16/01 09:10:06am
Sequence File: X28C.SEQ #414
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

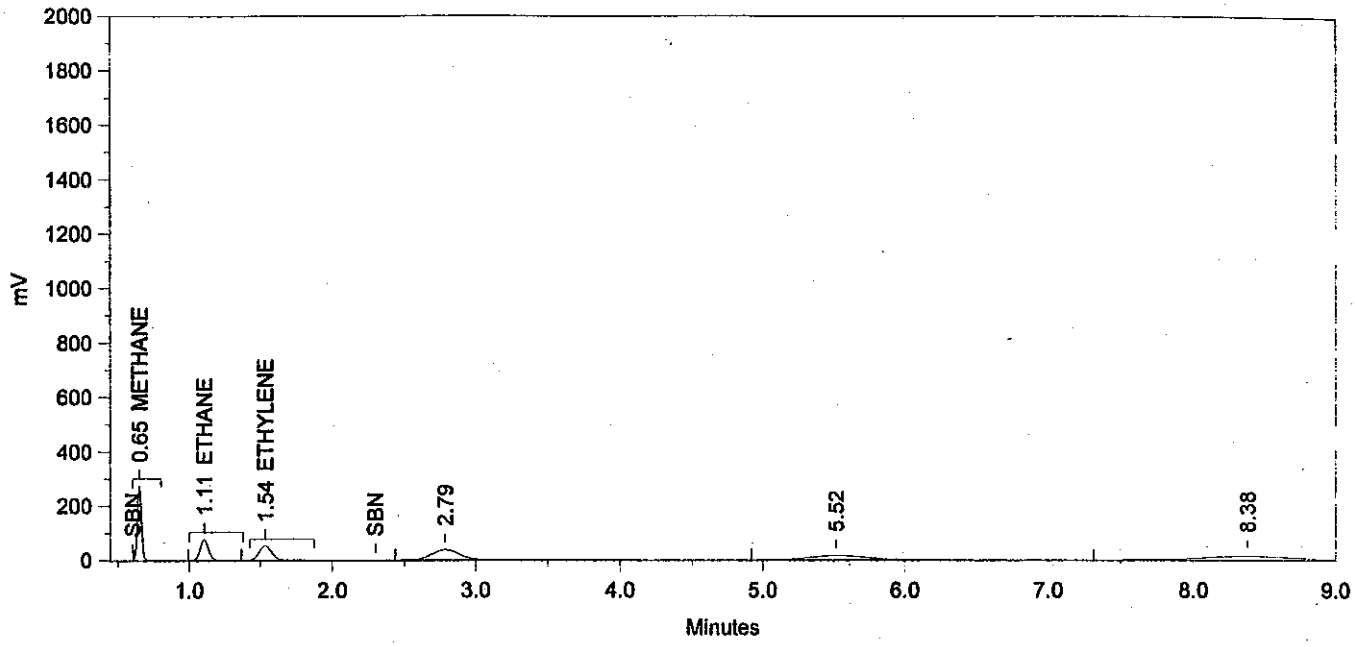
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.655	METHANE	39.1611	0.076	262094.5	15.885	BB	0.029	148767.70	58.770
2	1.114	ETHANE	24190.5700	46.741	158768.3	9.622	BV	0.068	38941.21	15.384
3	1.544	ETHYLENE	27364.9400	52.875	162621.8	9.856	VB	0.103	26216.17	10.357
4	2.800		36.4831	0.070	244171.4	14.798	BB	0.219	18623.37	7.357
5	5.546		31.4142	0.061	210246.9	12.742	BB	0.458	7656.52	3.025
6	8.385		45.6092	0.088	305250.0	18.500	BV	0.726	7004.16	2.767
7	9.870		45.8468	0.089	306840.2	18.596	VB	0.863	5926.52	2.341

Total Area = 1649993.0, Total Amount = 51754.03, Total Height = 253135.7, Sample Units = ug & ng/L

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom2--FID 10X via port 4 on 8/16/01 09:24:51am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D4.15R**
Date Stamp: 8/16/01 09:24:50am
Sequence File: X28C.SEQ #415
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

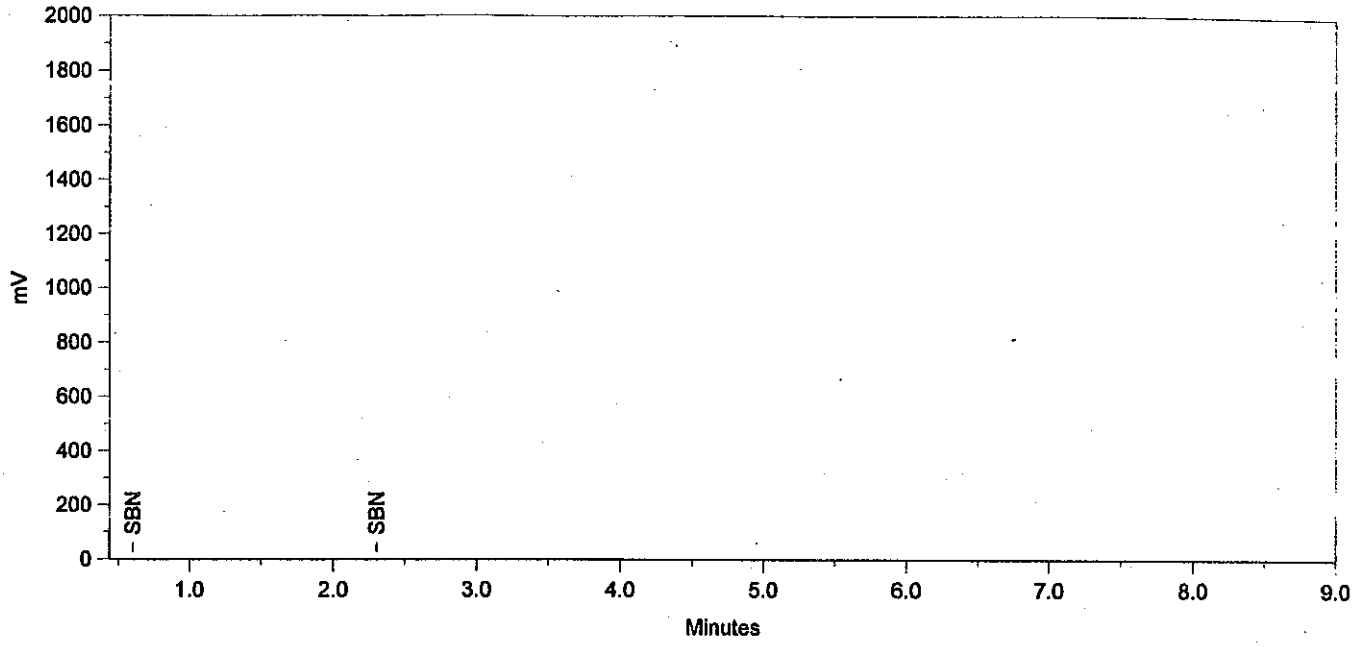
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.648	METHANE	78.1466	0.076	523013.9	16.017	BB	0.032	276293.60	57.193
2	1.107	ETHANE	48073.3300	46.790	315516.3	9.662	BV	0.068	76864.63	15.911
3	1.535	ETHYLENE	54277.8000	52.828	322557.1	9.878	VB	0.103	52433.97	10.854
4	2.786		72.0503	0.070	482213.0	14.767	BB	0.218	36834.06	7.625
5	5.516		61.7954	0.060	413579.8	12.665	BB	0.455	15148.63	3.136
6	8.380		90.3902	0.088	604957.3	18.526	BV	0.730	13807.61	2.858
7	9.825		90.1864	0.088	603593.1	18.484	VB	0.859	11706.82	2.423

Total Area = 3265431.0, Total Amount = 102743.7, Total Height = 483089.3, Sample Units = ug & ng/L

MB081601A



Sample Name: **MB081601A**
Acquired from Chrom2--FID 10X via port 4 on 8/16/01 09:47:54am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D4.16R**
Date Stamp: 8/16/01 09:47:54am
Sequence File: X28C.SEQ #416
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

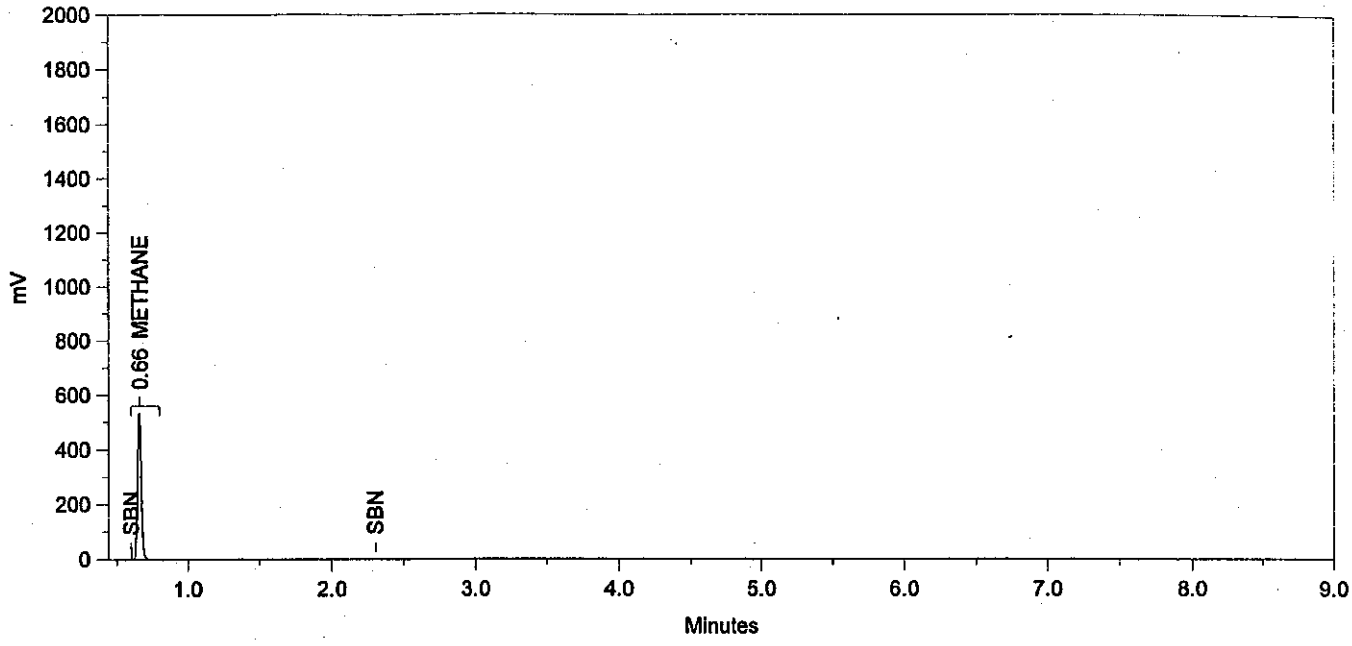
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

P0108056-03A



Sample Name: **P0108056-03A**
Acquired from Chrom2--FID 10X via port 4 on 8/16/01 10:50:48am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D4.22R**
Date Stamp: 8/16/01 10:50:48am
Sequence File: X28C.SEQ #422
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.660	METHANE	131.6967	100.000	881410.6	100.000	BB	0.028	532586.50	100.000

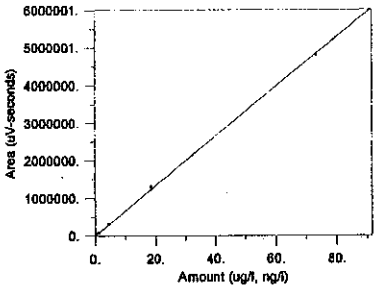
Total Area = 881410.6, Total Amount = 131.697, Total Height = 532586.5, Sample Units = ug & ng/L

Calibration File Name: **C:\CPWIN\X28\X28A_W2.CAL** Version = 10
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/l, ng/l
7 components with 5 levels each

1 METHANE

Retention time = 0.660 min., Search window = 0.050 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.286	21080.0	73706.29	Manual	8/9/2001 12:56:5
2	1.145	79029.0	69020.96	Manual	8/9/2001 12:56:5
3	4.582	322352.0	70351.81	Manual	8/9/2001 12:56:5
4	18.328	1310364.0	71495.2	Manual	8/9/2001 12:56:5
5	73.312	4818435.0	65725.05	Manual	8/9/2001 11:54:5

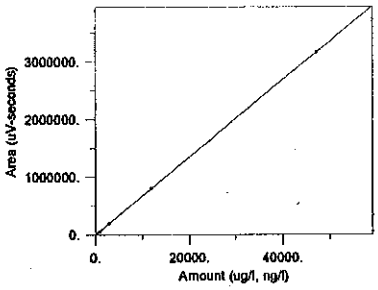


Calibration formula: Y = 66080.96 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9993, Average error = 6.24%
Average CF = 70059.8700 with RSD = 4.24%

2 ETHANE

Retention time = 1.120 min., Search window = 0.216 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

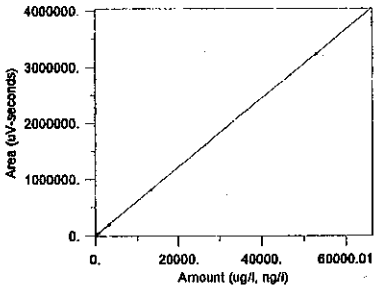
Level	Amount	Area	Area/Amt	Source	Date and time
1	184.620	12078.0	65.42087	Manual	8/9/2001 12:56:5
2	738.500	46884.0	63.48544	Manual	8/9/2001 12:56:5
3	2963.900	193947.0	65.43642	Manual	8/9/2001 12:56:5
4	11816.000	800624.0	67.75761	Manual	8/9/2001 12:56:5
5	47263.000	3162355.0	66.90974	Manual	8/9/2001 11:54:5



Calibration formula: Y = 66.953 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.20%
Average CF = 65.8020 with RSD = 2.49%

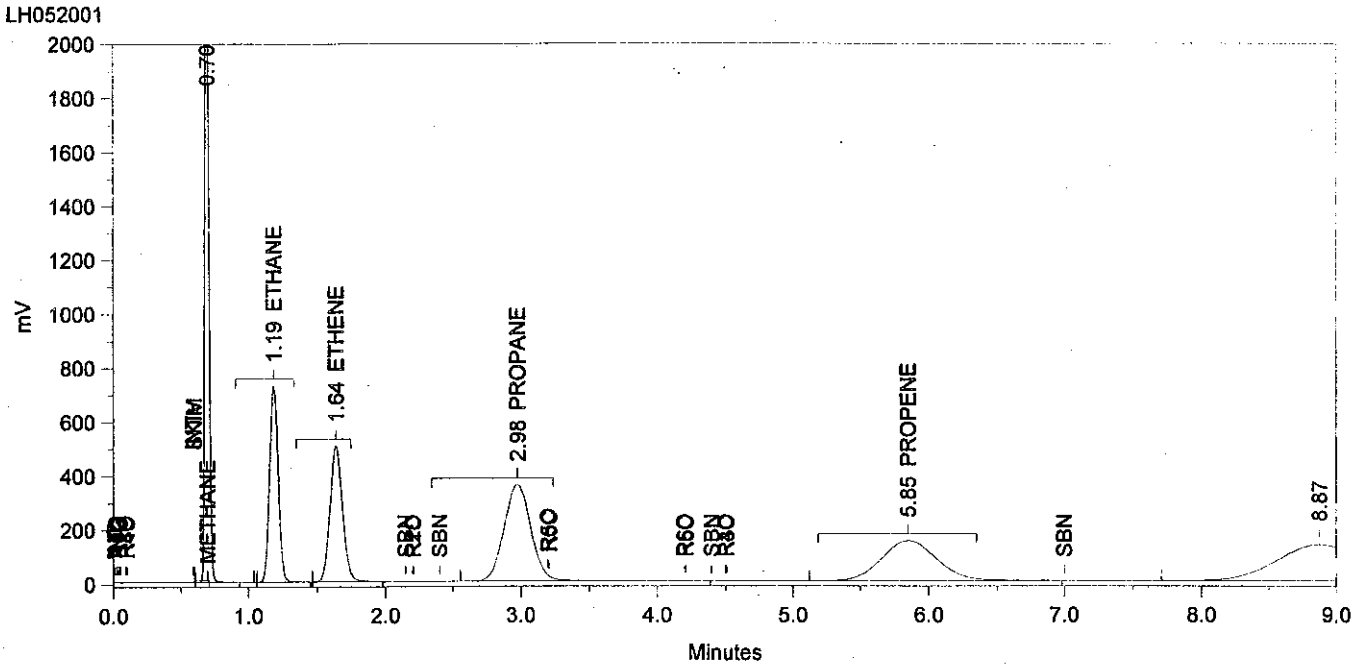
3 ETHENE
Retention time = 1.550 min., Search window = 0.198 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	207.200	12219.0	58.97201	Manual	8/9/2001 12:56:5
2	828.800	48069.0	57.99831	Manual	8/9/2001 12:56:5
3	3315.300	198195.0	59.78192	Manual	8/9/2001 12:56:5
4	13261.000	817807.0	61.67009	Manual	8/9/2001 12:56:5
5	53044.000	3232173.0	60.93381	Manual	8/9/2001 11:54:5



Calibration formula: Y = 60.972 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.26%
Average CF = 59.8712 with RSD = 2.46%

11/28/20012:37:30 PMC:\CPWIN\X28\X28A1.08RLH05200108-9-2001 11:44:20X28A_W1.MET



Sample Name: **LH052001**
Acquired from Chrom1--FID via port 1 on 8/9/01 11:44:20am by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.08R**
Date Stamp: 8/9/01 11:44:20am
Sequence File: X28A.SEQ #108
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

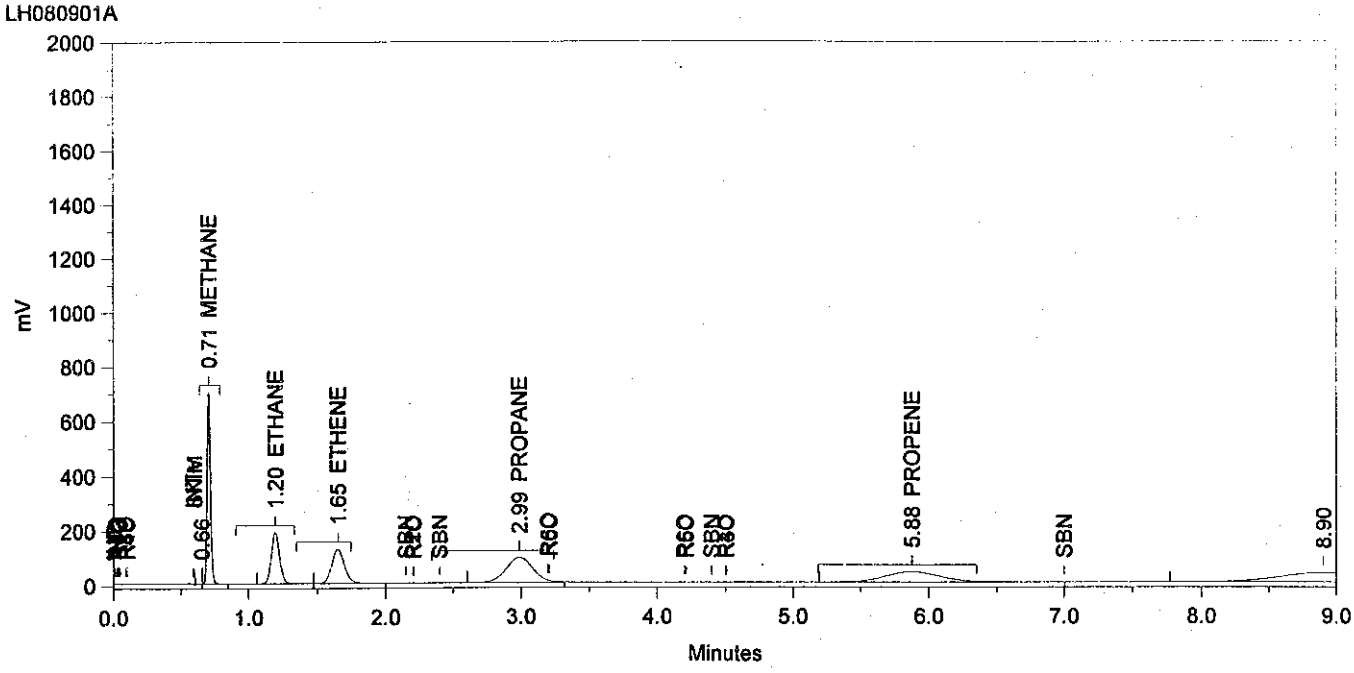
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
2	0.697	METHANE	72.7923	0.022	~~4810182.0~~	14.845	BB	0.040	2017059.00	50.424
4	1.188	ETHANE	47196.8800	14.217	~~3159981.0~~	9.752	BB	0.072	728084.90	18.201
6	1.641	ETHENE	52747.1300	15.889	~~3216180.0~~	9.925	BB	0.107	502220.50	12.555
7	2.976	PROPANE	67067.5500	20.203	4864237.0	15.012	BB	0.228	356087.60	8.902
8	5.850	PROPENE	78248.9100	23.571	4164125.0	12.851	BB	0.468	148285.10	3.707
9	8.875		92.2733	0.028	6097512.0	18.818	BV	0.755	134683.80	3.367
10	10.402	N-BUTANE	86549.9100	26.071	6091221.0	18.798	VB	0.893	113745.00	2.844

ML 11-28-01

Total Area = 32403360.0, Total Amount = 331975.4, Total Height = 4000165.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

4818435 - Manual integration
3162355
3232173

11/28/20012:30:04 PMC:\CPWIN\X28\X28A1.09RLH080901A08-9-2001 12:01:13X28A_W1.MET



Sample Name: **LH080901A**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:01:13pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.09R**
Date Stamp: 8/9/01 12:01:12pm
Sequence File: X28A.SEQ #109
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

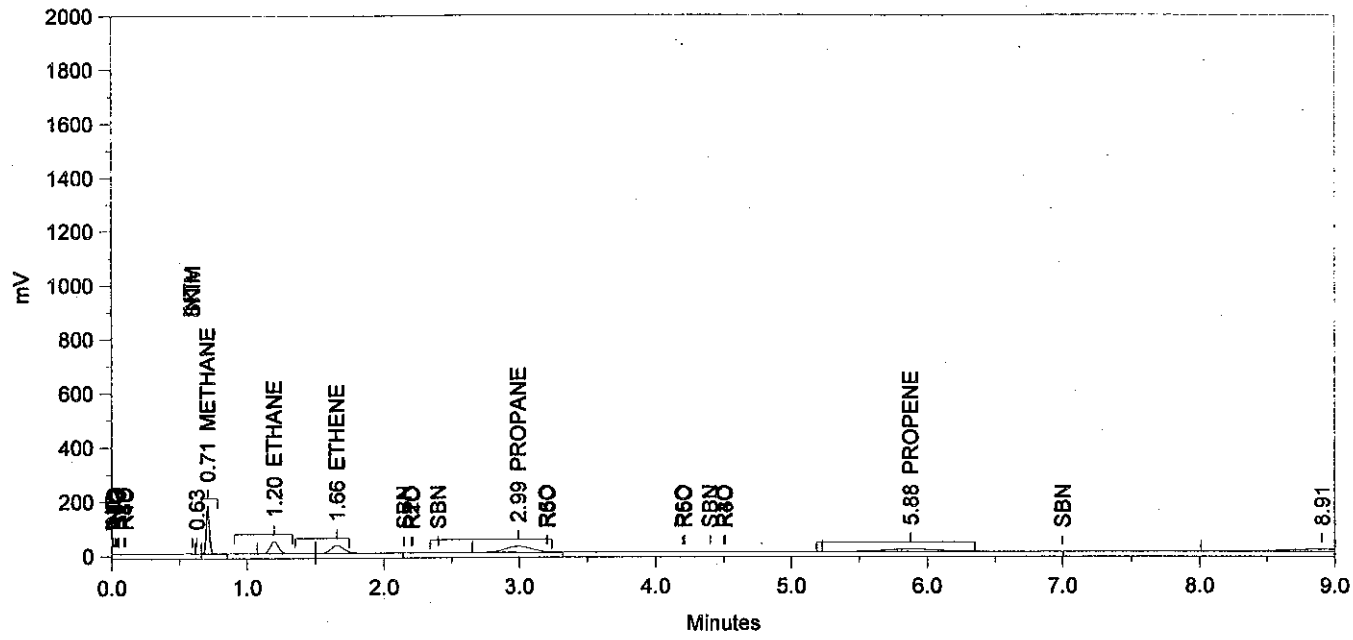
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.655		0.0408	0.000	2696.0	0.032	BB	-9.030	- 4.98	0.000
3	0.707	METHANE	19.7319	0.023	~~1303983.0~~ 1310364	15.591	BB	0.031	709411.60	58.434
4	1.197	ETHANE	11957.9700	14.098	~~800624.1~~ 800624 OK	9.573	BV	0.072	186458.80	15.359
5	1.652	ETHENE	13412.8200	15.813	~~817806.6~~ 817807 OK	9.779	VB	0.108	125821.40	10.364
6	2.988	PROPANE	17697.0100	20.864	1283519.0	15.348	BB	0.233	91820.16	7.563
7	5.878	PROPENE	19831.7300	23.381	1055374.0	12.620	BB	0.471	37359.21	3.077
8	8.905		23.5972	0.028	1559328.0	18.646	BV	0.756	34397.29	2.833
9	10.431	N-BUTANE	21878.3200	25.793	1539755.0	18.412	VB	0.892	28767.65	2.370

11-28-01

Total Area = 8363006.0, Total Amount = 84821.22, Total Height = 1214031.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

1310364
800624
817807

LH080901B



Sample Name: **LH080901B**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:18:41pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.10R**
Date Stamp: 8/9/01 12:18:40pm
Sequence File: X28A.SEQ #110
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.627		0.0451	0.000	2978.6	0.145	BB	0.025	1979.10	0.656
2	0.711	METHANE	4.8264	0.023	~~318951.6~~	15.573	BB	0.030	177730.10	58.895
3	1.200	ETHANE	2894.7060	13.881	~~193809.8~~	9.463	BV	0.071	45247.19	14.994
4	1.658	ETHENE	3237.3020	15.524	~~197384.9~~	9.638	VB	0.110	29796.34	9.874
5	2.993	PROPANE	4641.3790	22.256	336627.3	16.437	BB	0.245	22919.16	7.595
6	5.880	PROPENE	4811.4800	23.072	256049.6	12.502	BB	0.478	8924.94	2.957
7	8.909		5.6318	0.027	372153.7	18.171	BV	0.752	8244.18	2.732
8	10.453	N-BUTANE	5258.7300	25.217	370099.6	18.071	VB	0.890	6932.33	2.297

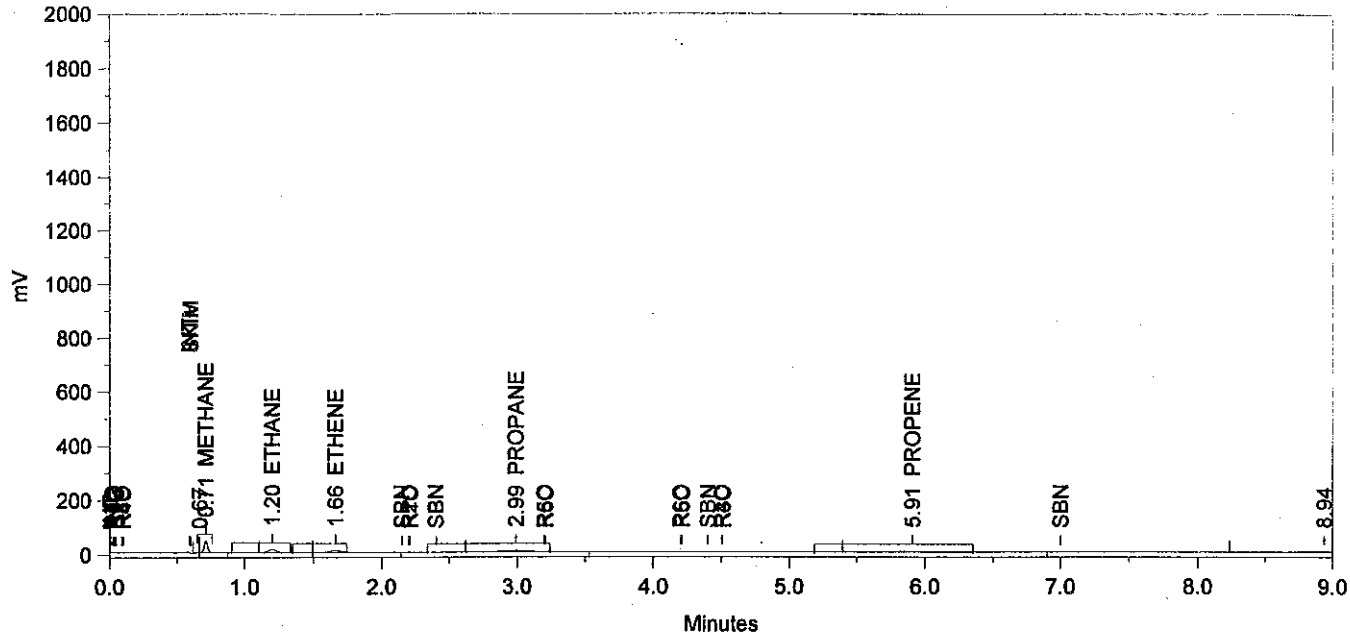
Total Area = 2048035.0, Total Amount = 20854.1, Total Height = 301773.4, Sample Units = ug/l, ng/l

* Some peaks have been manually integrated,

322352
193947
198195

11/28/20012:33:09 PMC:\CPWIN\X28\X28A1.11RLH080901C08-9-2001 12:32:22X28A_W1.MET

LH080901C



Sample Name: **LH080901C**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:32:22pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.11R**
Date Stamp: 8/9/01 12:32:22pm
Sequence File: X28A.SEQ #111
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.665		0.0448	0.001	2957.4	0.624	BB	0.800	61.65	0.085
2	0.713	METHANE	1.1826	0.025	~~78145.2~~	16.479	BB	0.030	43650.26	60.179
3	1.202	ETHANE	697.6604	14.472	~~46710.6~~	9.850	BV	0.071	10914.30	15.047
4	1.661	ETHENE	782.4048	16.230	~~47704.8~~	10.060	VB	0.114	6997.36	9.647
5	2.992	PROPANE	998.7422	20.718	72436.2	15.275	BB	0.230	5253.38	7.243
6	5.909	PROPENE	1136.0750	23.566	60457.8	12.749	BB	0.478	2108.59	2.907
7	8.939		1.2275	0.025	81117.5	17.105	BV	0.712	1899.76	2.619
8	10.450	N-BUTANE	1203.4090	24.963	84693.7	17.859	VB	0.856	1648.76	2.273

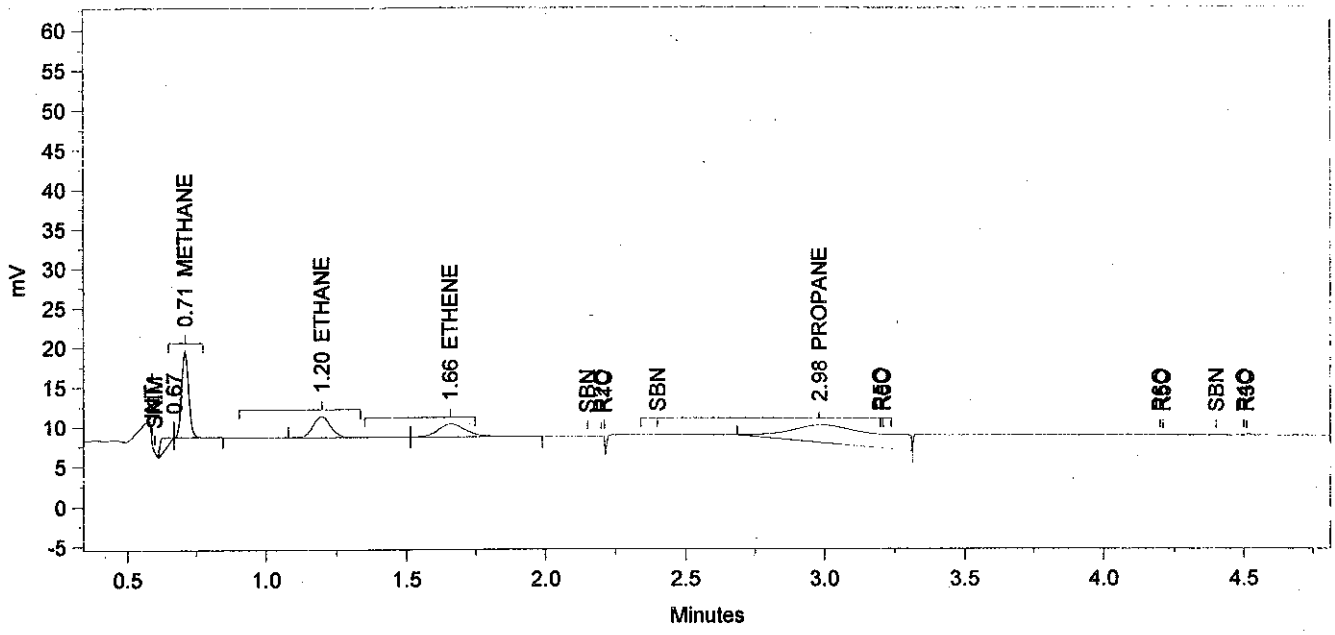
Total Area = 474223.2, Total Amount = 4820.745, Total Height = 72534.06, Sample Units = ug/l, ng/l

* Some peaks have been manually integrated,

79029
46884
48069

11/28/20012:33:57 PMC:\CPWIN\X28\X28A1.12RLH080901D08-9-2001 12:45:16X28A_W1.MET

LH080901D



Sample Name: **LH080901D**
Acquired from Chrom1--FID via port 1 on 8/9/01 12:45:16pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.12R**
Date Stamp: 8/9/01 12:45:16pm
Sequence File: X28A.SEQ #112
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

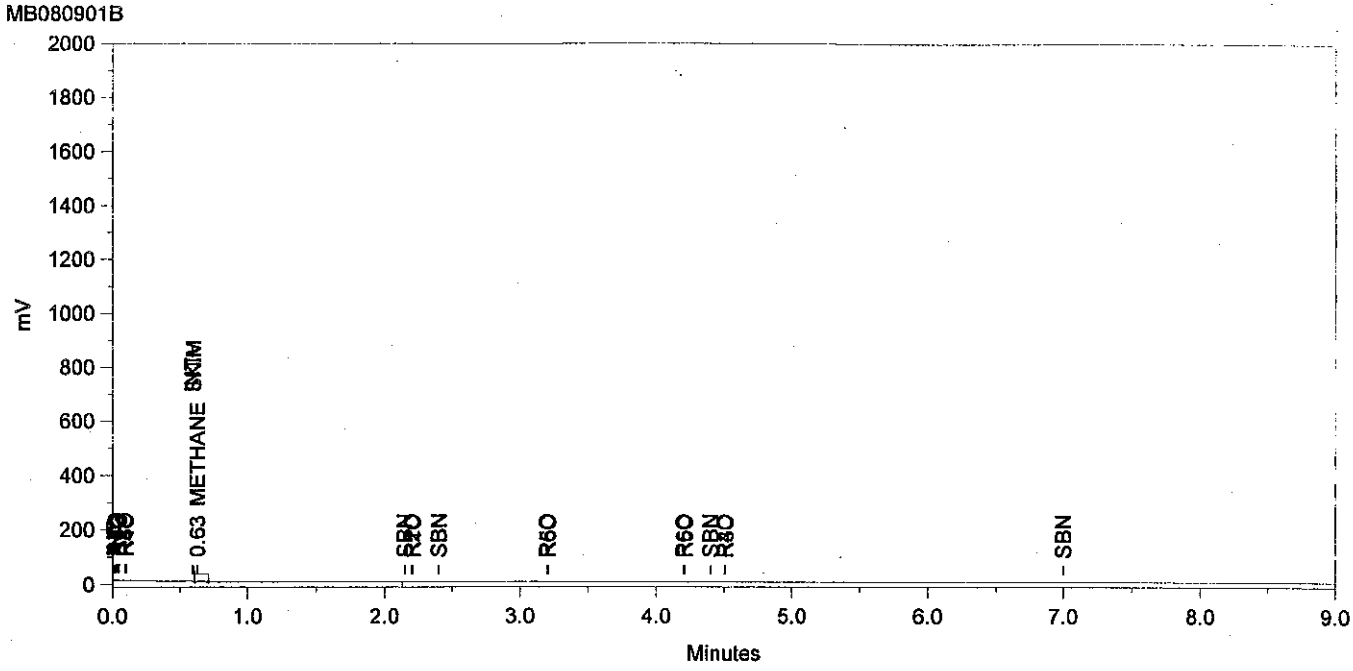
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.670		0.0594	0.004	3928.1	2.512	BB	2.480	26.40	0.139
2	0.710	METHANE	0.2934	0.017	~~19386.0~~	12.398	BB	0.029	10996.82	57.715
3	1.199	ETHANE	180.3965	10.641	12078.1 ok	7.724	BV	0.075	2674.16	14.035
4	1.658	ETHENE	200.3987	11.820	12218.7 ok	7.814	VB	0.121	1676.48	8.799
5	2.981	PROPANE	760.3850	44.851	55148.8	35.270	BB	0.409	2245.13	11.783
6	5.893	PROPENE	291.2432	17.179	15498.9	9.912	BB	0.484	533.95	2.802
7	8.965		0.2973	0.018	19645.3	12.564	BV	0.687	476.81	2.502
8	10.440	N-BUTANE	262.2778	15.470	18458.6	11.805	VB	0.726	423.82	2.224

MV 11-28-01

Total Area = 156362.6, Total Amount = 1695.351, Total Height = 19053.55, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

210830

11/28/20012:35:44 PMC:\CPWIN\X28\X28A1.14RMB080901B08-9-2001 13:15:13X28A_W1.MET



Sample Name: **MB080901B**
Acquired from Chrom1--FID via port 1 on 8/9/01 01:15:13pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.14R**
Date Stamp: 8/9/01 01:15:12pm
Sequence File: X28A.SEQ #114
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

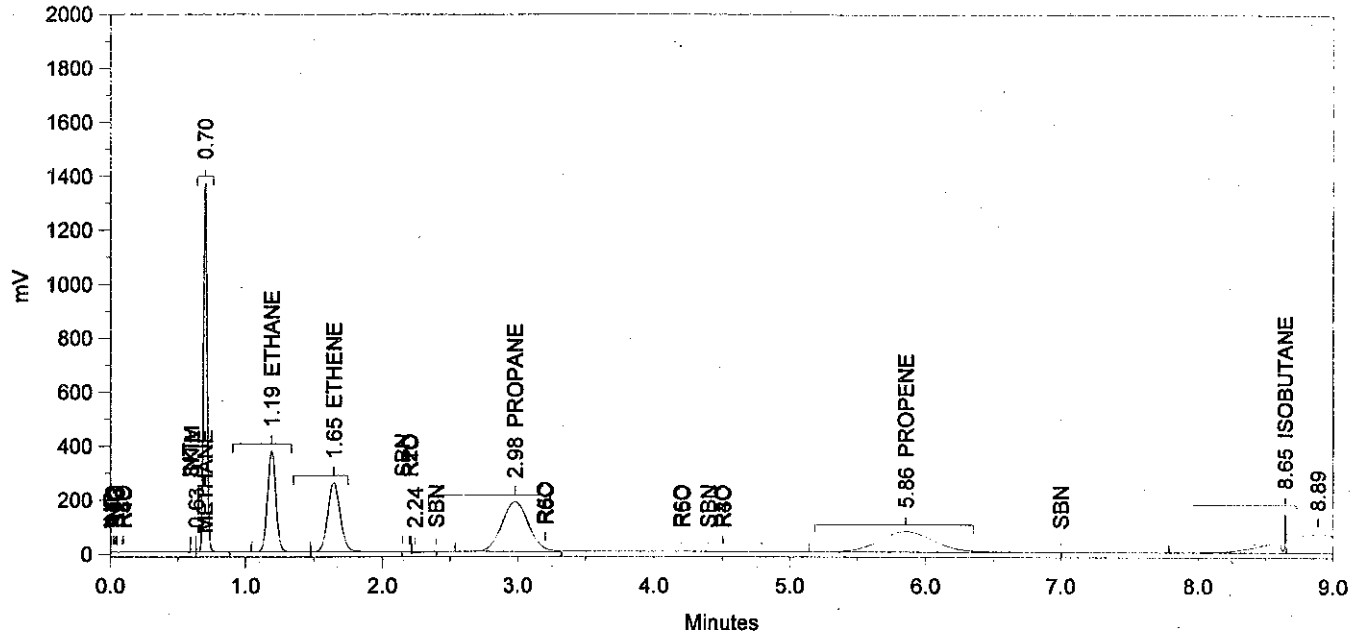
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.627	METHANE	~~1.4529~~	100.000	96009.6	100.000	BB	0.579	2762.81	100.000

Total Area = 96009.6, Total Amount = 1.453, Total Height = 2762.81, Sample Units = ug/l, ng/l

valve switch

11/28/20012:36:34 PMC:\CPWIN\X28\X28A1.15RLH080901E08-9-2001 13:30:08X28A_W2.MET

LH080901E



Sample Name: **LH080901E**
Acquired from Chrom1--FID via port 1 on 8/9/01 01:30:08pm by RCW
FID

Data File: **C:\CPWIN\X28\X28A1.15R**
Date Stamp: 8/9/01 01:30:08pm
Sequence File: X28A.SEQ #115
Method File: C:\CPWIN\X28\X28A_W2.MET
Version 24. Date Stamp: 8/16/01 10:14:42am
Calibration File: C:\CPWIN\X28\X28A_W2.CAL
Version 10. Date Stamp: 8/11/01 11:26:20am

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.635		0.0212	0.000	1402.3	0.008	BB	0.456	51.21	0.002
2	0.703	METHANE	39.8373	0.022	2632490.0	15.691	BB	0.032	1381689.00	54.019
3	1.193	ETHANE	24144.4400	13.455	1616547.0	9.635	BV	0.072	375539.50	14.682
4	1.646	ETHENE	27033.8200	15.066	1648307.0	9.825	VB	0.107	256447.80	10.026
5	2.243		0.4631	0.000	30601.3	0.182	BB	0.109	4662.65	0.182
6	2.982	PROPANE	35216.1900	19.626	2554140.0	15.224	BB	0.231	184276.50	7.205
7	5.858	PROPENE	39986.8900	22.284	2127959.0	12.684	BB	0.468	75773.94	2.962
8	8.645	ISOBUTANE	8627.8270	4.808	616521.0	3.675	BV	0.068	151537.10	5.925
9	8.889		36.7373	0.020	2427638.0	14.470	VV	0.583	69366.02	2.712
10	10.410	N-BUTANE	44354.3700	24.718	3121578.0	18.606	VB	0.890	58449.66	2.285

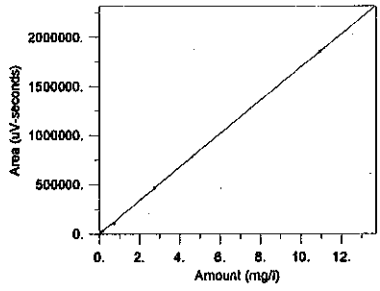
Total Area = 16777180.0, Total Amount = 179440.6, Total Height = 2557793.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

Calibration File Name: **C:\CPWIN\X28\X28B_W2.CAL** Version = 7
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 1000
Amount units = mg/l
5 components with 5 levels each

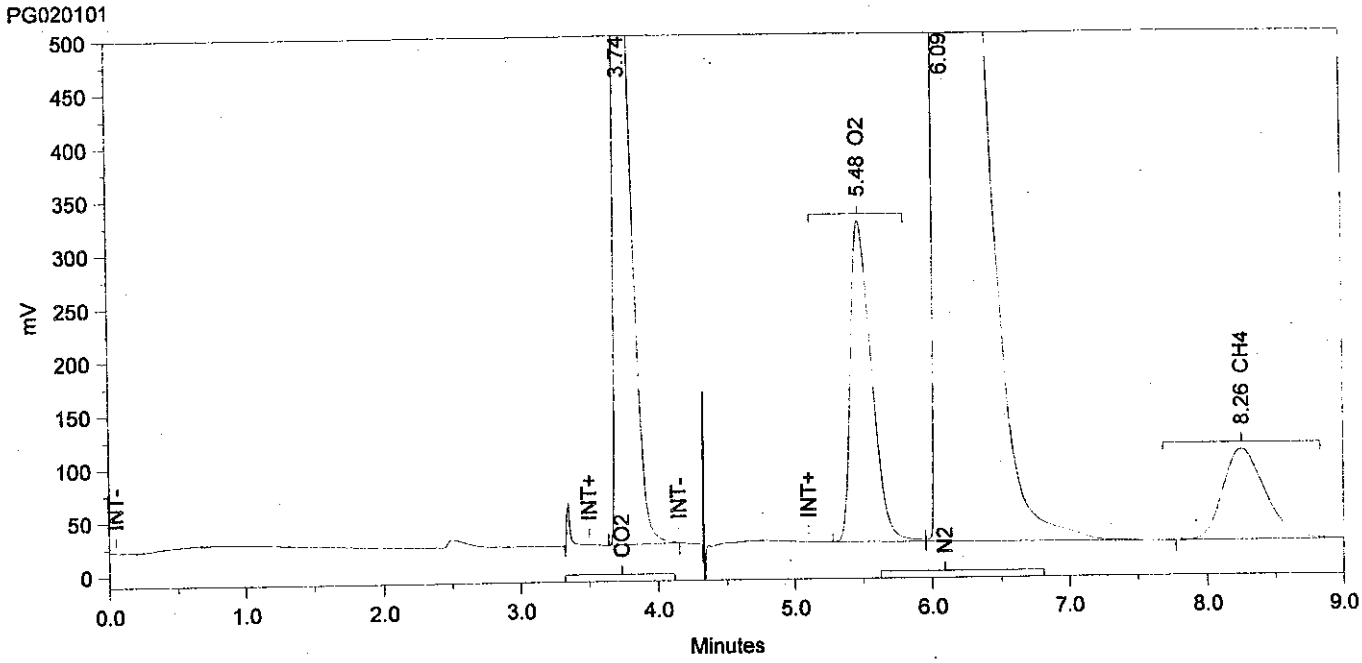
4 CH4

Retention time = 8.260 min., Search window = 0.575 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.043	9898.0	231261.7	Manual	8/9/2001 10:10:4
2	0.171	28107.0	164080.6	Manual	8/9/2001 10:10:4
3	0.685	105855.0	154532.8	Manual	8/9/2001 10:10:4
4	2.740	464408.0	169485.8	Manual	8/9/2001 10:10:4
5	10.960	1853512.0	169116.1	Manual	8/9/2001 10:10:4



Calibration formula: Y = 169084.1 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 9.72%
Average CF = 177695.4000 with RSD = 17.19%



Sample Name: **PG020101**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:12:38am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.00R**
Date Stamp: 8/9/01 09:12:38am
Sequence File: X28A.SEQ #100
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

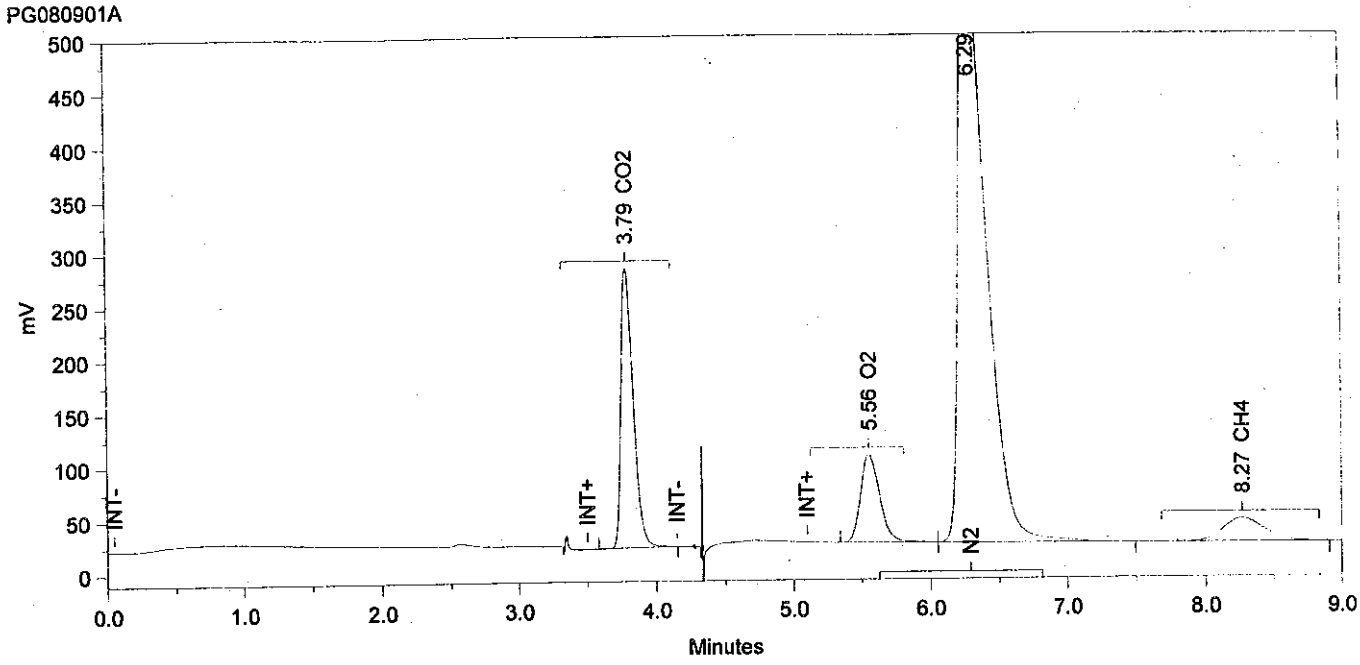
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.736	CO2	318.2950	48.040	6452702.0	14.134	BB	0.119	907161.30	28.765
2	5.482	O2	33.9174	5.119	3203000.0	7.016	BV	0.177	300877.80	9.540
3	6.088	N2	270.2144	40.783	30933720.0	67.755	VB	0.296	1741891.00	55.232
4	8.255	CH4	10.9621	1.654	1853512.0	4.060	BV	0.362	85364.38	2.707
5	9.677	CO	29.1763	4.404	3212042.0	7.035	VB	0.452	118448.30	3.756

Total Area = 45654970.0, Total Amount = 662.565, Total Height = 3153743.0, Sample Units = mg/l

11/28/20013:32:51 PMC:\CPWIN\X28\X28B1.01RPG080901A08-9-2001 09:28:56X28B_W2.MET



Sample Name: **PG080901A**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:28:56am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.01R**
Date Stamp: 8/9/01 09:28:56am
Sequence File: X28A.SEQ #101
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

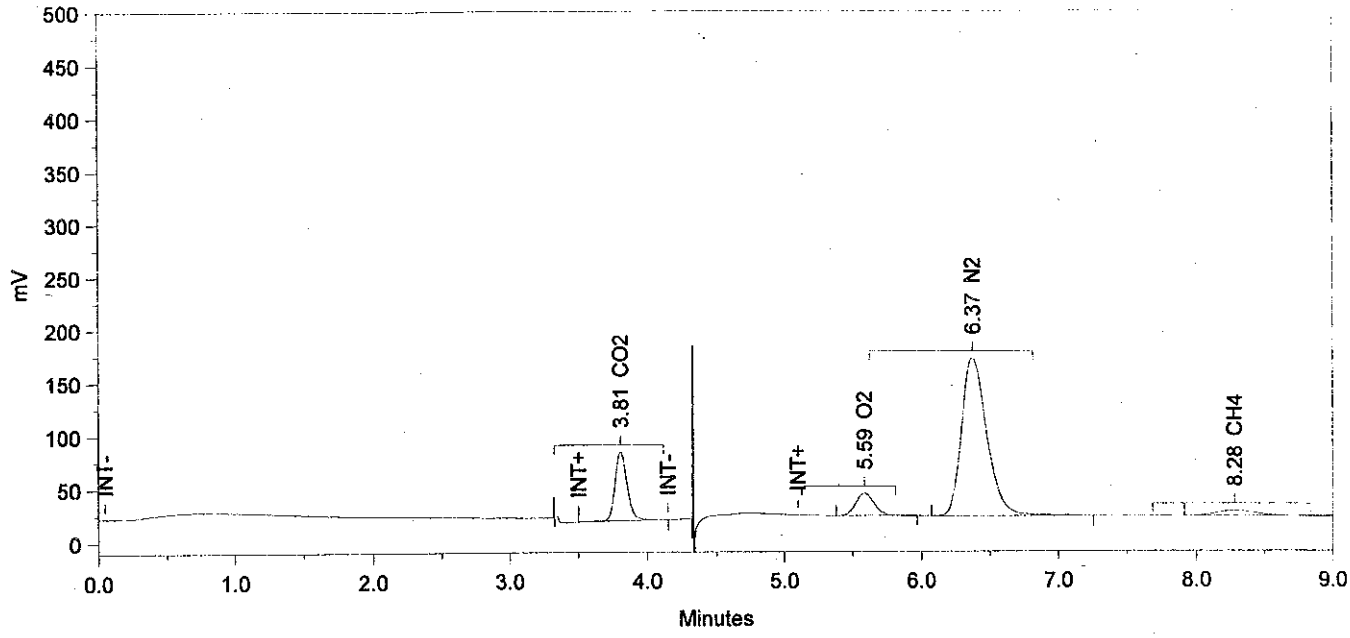
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.790	CO2	79.5234	47.976	1612155.0	14.101	BB	0.102	262420.30	26.841
2	5.557	O2	8.4631	5.106	799218.7	6.991	BV	0.162	82439.20	8.432
3	6.290	N2	67.8886	40.957	7771783.0	67.977	VB	0.222	583600.40	59.692
4	8.270	CH4	2.7466	1.657	464408.3	4.062	BB	0.356	21764.68	2.226
5	9.771	CO	7.1334	4.304	785323.3	6.869	BB	0.477	27454.77	2.808

Total Area = 11432890.0, Total Amount = 165.755, Total Height = 977679.3, Sample Units = mg/l

11/28/20013:35:16 PMC:\CPWIN\X28\X28B1.02RPG080901B08-9-2001 09:41:53X28B_W2.MET

PG080901B



Sample Name: **PG080901B**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:41:53am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.02R**
Date Stamp: 8/9/01 09:41:52am
Sequence File: X28A.SEQ #102
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

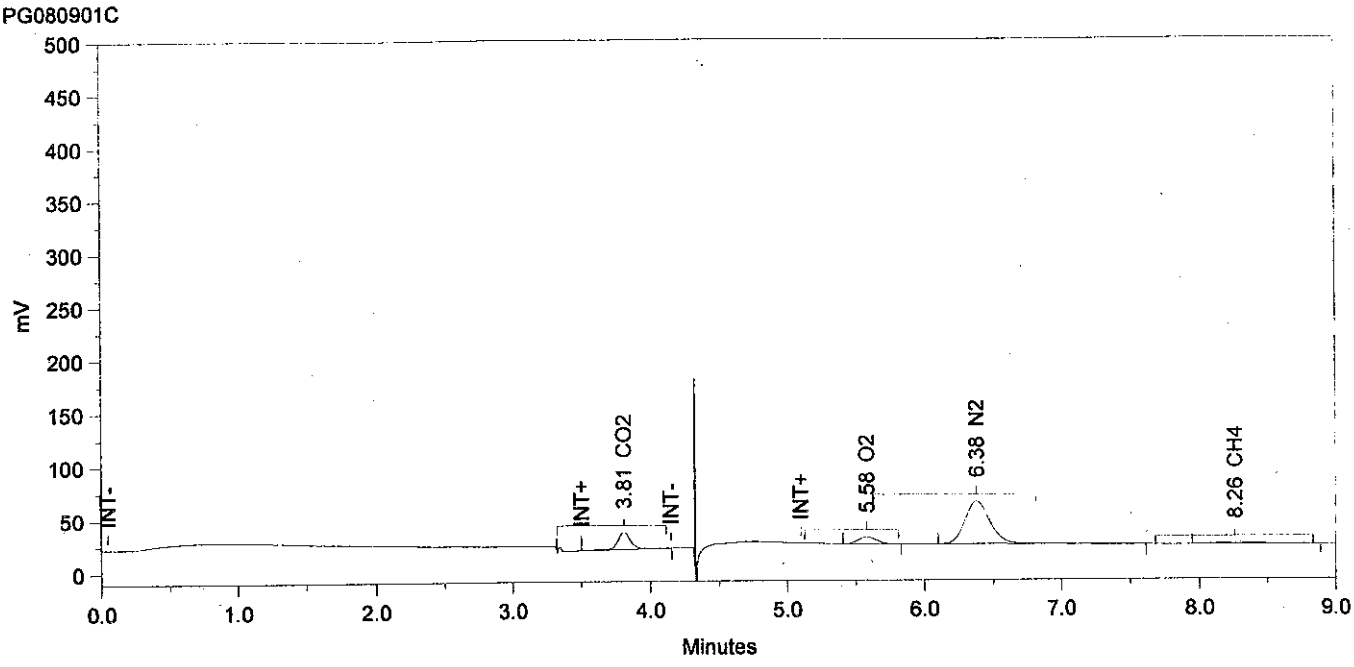
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.807	CO2	19.5772	48.869	396883.1	14.541	BB	0.102	64621.47	26.552
2	5.586	O2	2.0611	5.145	194638.8	7.131	BB	0.155	20963.07	8.613
3	6.373	N2	16.5811	41.390	1898173.0	69.547	BB	0.213	148729.10	61.110
4	8.277	CH4	0.6260	1.563	105854.8	3.878	BB	0.347	5079.11	2.087
5	10.019	CO	1.2154	3.034	133807.4	4.903	BB	0.559	3987.26	1.638

Total Area = 2729357.0, Total Amount = 40.061, Total Height = 243380.0, Sample Units = mg/l

11/28/20013:36:21 PMC:\CPWIN\X28\X28B1.03RPG080901C08-9-2001 09:55:14X28B_W2.MET



Sample Name: **PG080901C**
Acquired from Chrom1--TCD via port 2 on 8/9/01 09:55:14am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.03R**
Date Stamp: 8/9/01 09:55:14am
Sequence File: X28A.SEQ #103
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

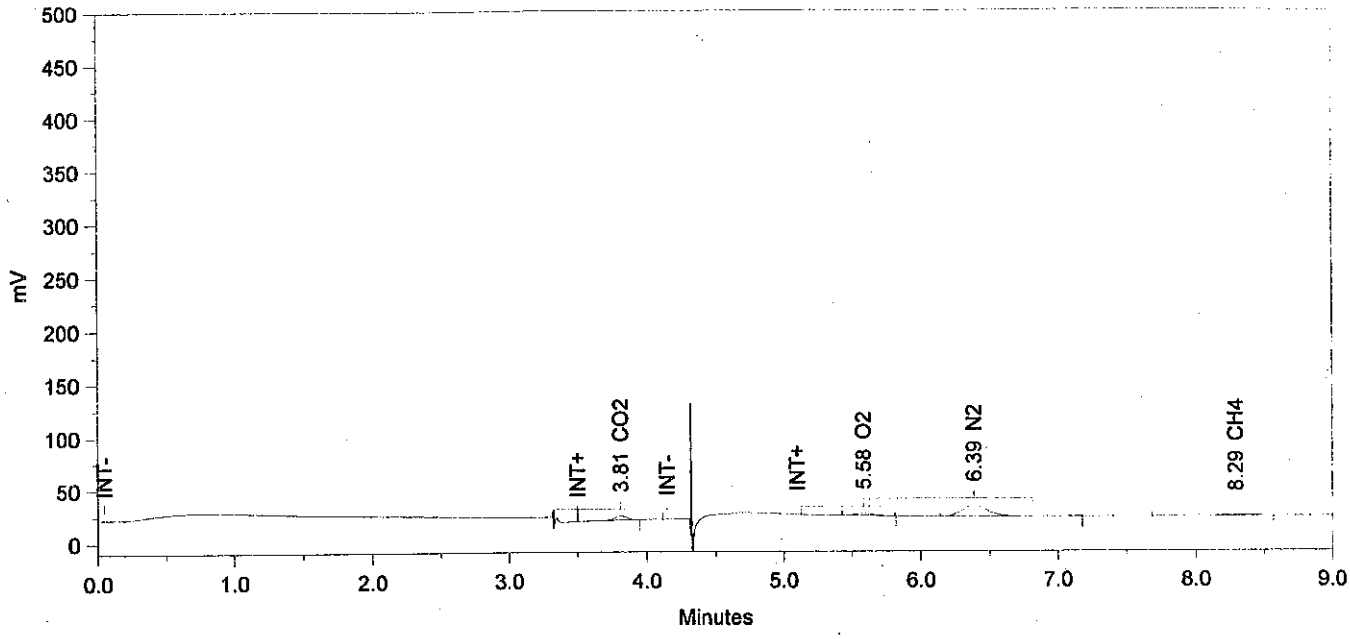
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.809	CO2	5.3306	47.318	108065.4	14.895	BB	0.112	16092.98	24.607
2	5.581	O2	0.6395	5.677	60391.4	8.324	BB	0.148	6812.38	10.417
3	6.377	N2	4.5109	40.042	516405.0	71.179	BB	0.212	40575.29	62.043
4	8.260	CH4	0.1662	1.476	28106.9	3.874	BB	0.346	1352.39	2.068
5	10.625		0.6183	5.488	12534.8	1.728	BB	0.369	565.83	0.865

Total Area = 725503.5, Total Amount = 11.266, Total Height = 65398.87, Sample Units = mg/l

11/28/20013:37:42 PMC:\CPWIN\X28\X28B1.04RPG080901D08-9-2001 10:07:57X28B_W2.MET

PG080901D



Sample Name: **PG080901D**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:07:57am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.04R**
Date Stamp: 8/9/01 10:07:56am
Sequence File: X28A.SEQ #104
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

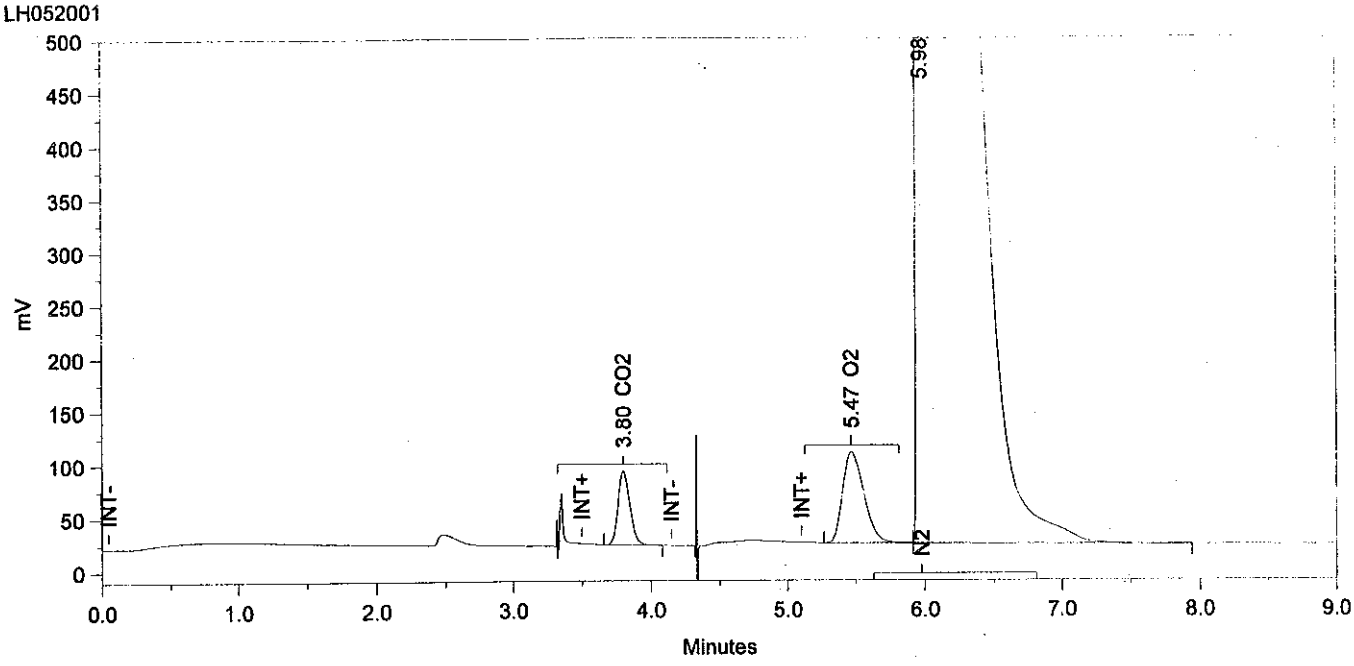
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.812	CO2	1.3203	47.541	26766.6	13.936	BB	0.113	3960.25	23.211
2	5.584	O2	0.2001	7.207	18901.1	9.841	BB	0.148	2129.57	12.482
3	6.385	N2	1.2106	43.588	138583.3	72.154	BB	0.219	10531.39	61.725
4	8.291	CH4	0.0462	1.664	~~7815.5~~	4.069	BB	0.296	440.46	2.582

11-28-01

Total Area = 192066.6, Total Amount = 2.777, Total Height = 17061.68, Sample Units = mg/l
* Some peaks have been manually integrated,

11/28/20013:39:07 PMC:\CPWIN\X28\X28B1.05RLH05200108-9-2001 10:23:30X28B_W2.MET



Sample Name: **LH052001** (LCS)
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:23:30am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.05R**
Date Stamp: 8/9/01 10:23:30am
Sequence File: X28A.SEQ #105
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

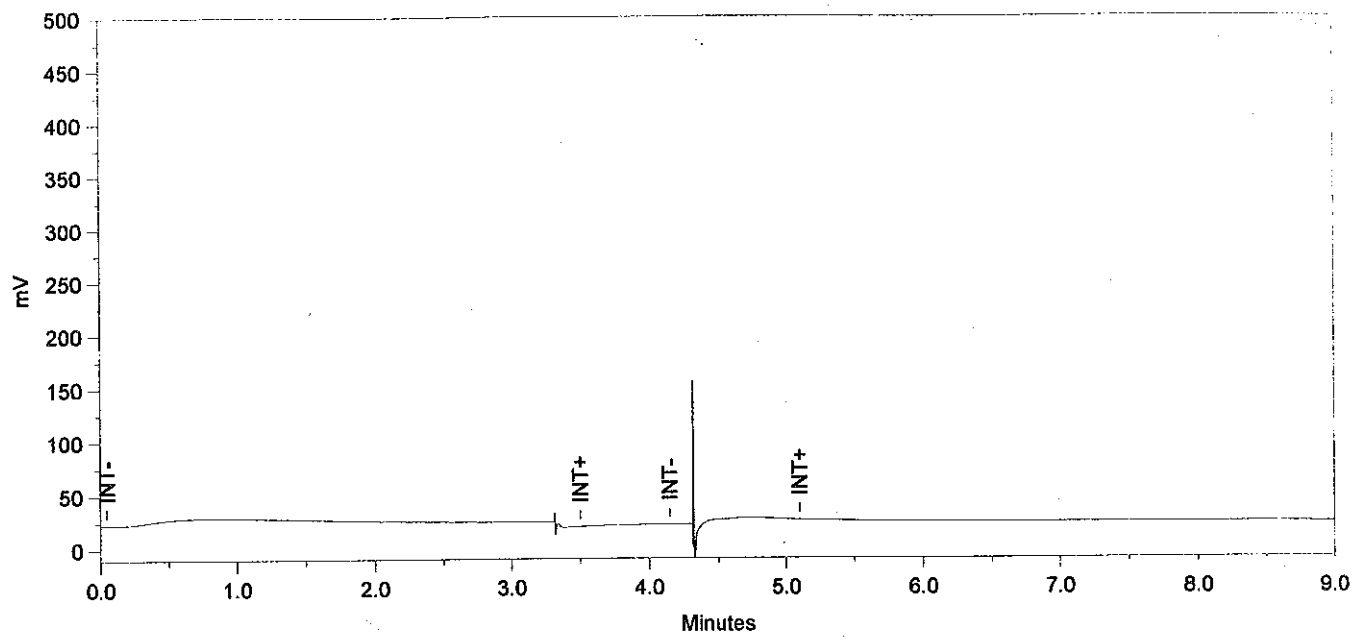
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.804	CO2	20.7142	4.977	419932.5	0.923	BB	0.101	69318.63	3.216
2	5.468	O2	9.8680	2.371	931885.4	2.048	BV	0.181	85720.55	3.978
3	5.977	N2	385.6486	92.653	44148430.0	97.029	VB	0.368	2000071.00	92.806

Total Area = 45500250.0, Total Amount = 416.231, Total Height = 2155110.0, Sample Units = mg/l

11/28/20013:39:30 PMC:\CPWIN\X28\X28B1.06RMB080901A08-9-2001 10:36:54X28B_W2.MET

MB080901A



Sample Name: **MB080901A**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:36:54am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.06R**
Date Stamp: 8/9/01 10:36:54am
Sequence File: X28A.SEQ #106
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

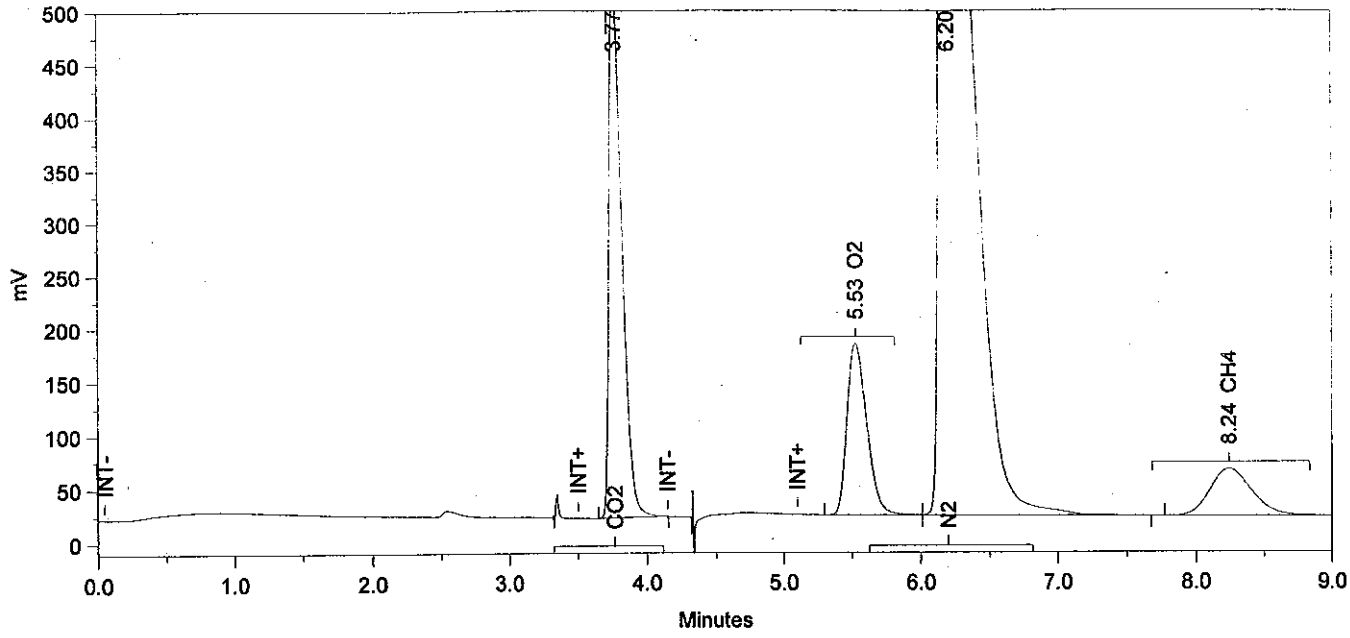
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = mg/l

11/28/20013:40:13 PMC:\CPWIN\X28\X28B1.07RPG080901E08-9-2001 10:50:19X28B_W2.MET

PG080901E



Sample Name: **PG080901E**
Acquired from Chrom1--TCD via port 2 on 8/9/01 10:50:19am by RCW
TCD

Data File: **C:\CPWIN\X28\X28B1.07R**
Date Stamp: 8/9/01 10:50:18am
Sequence File: X28A.SEQ #107
Method File: C:\CPWIN\X28\X28B_W2.MET
Version 17. Date Stamp: 8/15/01 09:05:58am
Calibration File: C:\CPWIN\X28\X28B_W2.CAL
Version 7. Date Stamp: 8/11/01 12:54:52pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.767	CO2	161.6964	48.241	3278024.0	14.230	BB	0.107	510420.10	27.771
2	5.528	O2	16.9347	5.052	1599237.0	6.942	BV	0.166	160107.50	8.711
3	6.200	N2	136.4208	40.700	15617240.0	67.794	VB	0.245	1064492.00	57.917
4	8.241	CH4	5.5102	1.644	931692.9	4.044	BB	0.357	43508.10	2.367
5	9.672	CO	14.6248	4.363	1610056.0	6.989	BB	0.452	59422.16	3.233

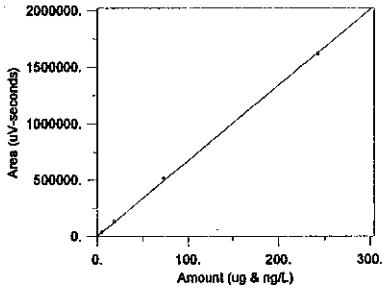
Total Area = 23036250.0, Total Amount = 335.187, Total Height = 1837950.0, Sample Units = mg/l

Calibration File Name: **C:\CPWIN\X28\X28D_W2.CAL** Version = 6
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug & ng/L
3 components with 4 levels each

1 METHANE

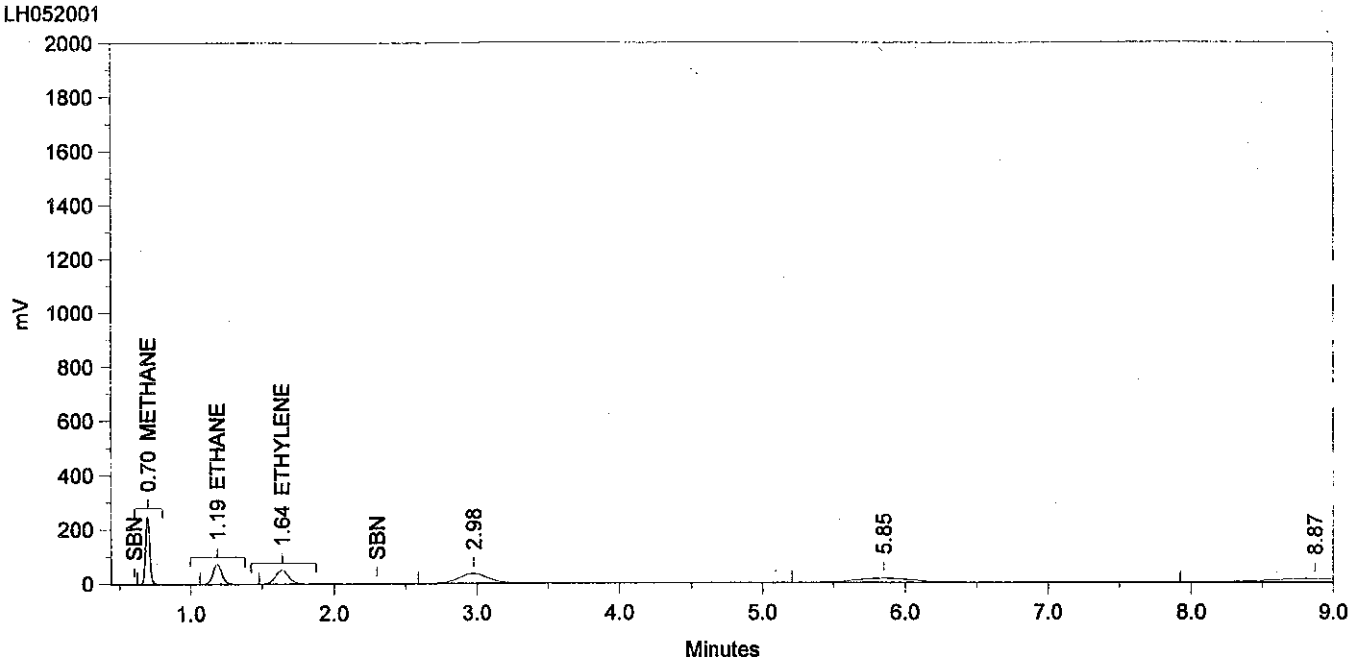
Retention time = 0.700 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	4.582	36568.0	7980.795	Manual	8/9/2001 12:22:3
2	18.328	133880.0	7304.671	Manual	8/9/2001 12:08:1
3	73.312	520300.0	7097.065	Manual	8/9/2001 1:04:58
4	243.600	1620473.0	6652.188	Manual	8/9/2001 1:04:58



Calibration formula: Y = 6692.729 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9993, Average error = 8.76%
Average CF = 7258.6800 with RSD = 7.62%

11/28/20013:43:00 PMC:\CPWIN\X28\X28D1.08RLH05200108-9-2001 11:44:20X28D_W1.MET



Sample Name: **LH052001**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 11:44:20am by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.08R**
Date Stamp: 8/9/01 11:44:20am
Sequence File: X28C.SEQ #108
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

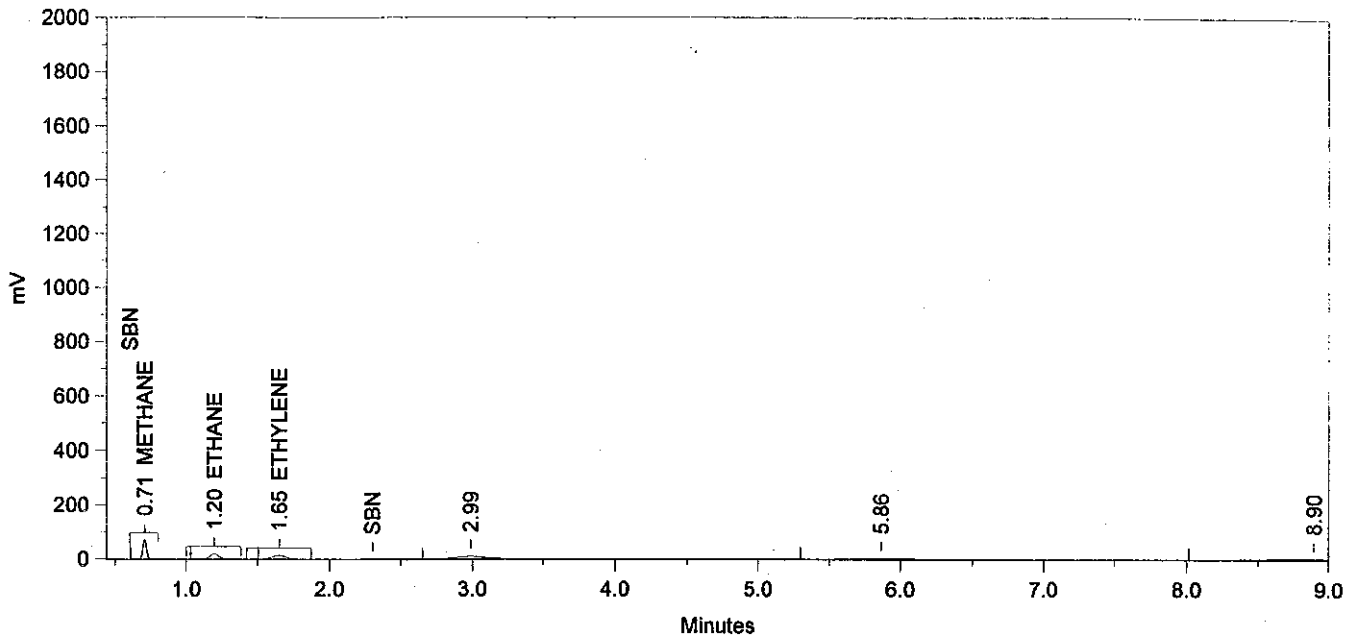
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.696	METHANE	77.7411	0.075	520300.1	15.758	BB	0.034	253347.10	56.048
2	1.187	ETHANE	48281.6600	46.875	316883.6	9.597	BV	0.073	72811.77	16.108
3	1.640	ETHYLENE	54322.1800	52.739	322820.8	9.777	VB	0.107	50169.88	11.099
4	2.978		73.5928	0.071	492536.5	14.917	BB	0.229	35805.89	7.921
5	5.851		63.4467	0.062	424631.7	12.861	BB	0.475	14903.30	3.297
6	8.870		91.3153	0.089	611148.5	18.510	BV	0.753	13520.23	2.991
7	10.411		91.6566	0.089	613433.2	18.579	VB	0.892	11458.80	2.535

Total Area = 3301755.0, Total Amount = 103001.6, Total Height = 452017.0, Sample Units = ug & ng/L

11/28/20013:41:52 PMC:\CPWIN\X28\X28D1.09RLH080901A08-9-2001 12:01:14X28D_W1.MET

LH080901A



Sample Name: **LH080901A**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 12:01:14pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.09R**
Date Stamp: 8/9/01 12:01:14pm
Sequence File: X28C.SEQ #109
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

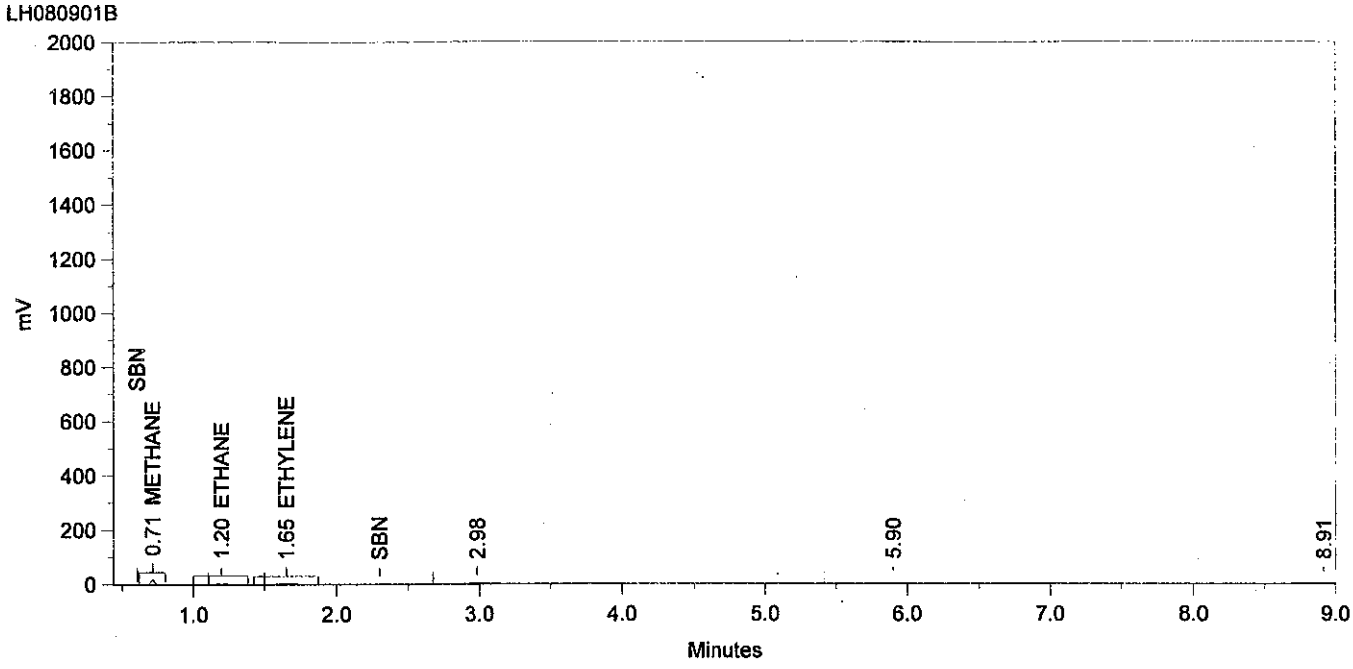
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.706	METHANE	20.0038	0.076	133880.3	15.573	BB	0.031	71148.94	58.248
2	1.196	ETHANE	12339.7900	46.693	80988.9	9.421	BB	0.072	18727.82	15.332
3	1.653	ETHYLENE	13983.9600	52.914	83102.6	9.667	BB	0.110	12598.14	10.314
4	2.990		19.7410	0.075	132121.5	15.369	BB	0.237	9308.29	7.620
5	5.865		16.5458	0.063	110736.6	12.881	BB	0.478	3862.40	3.162
6	8.896		23.7480	0.090	158938.7	18.488	BV	0.752	3523.61	2.885
7	10.435		23.8944	0.090	159918.5	18.602	VB	0.894	2980.02	2.440

Total Area = 859686.9, Total Amount = 26427.68, Total Height = 122149.2, Sample Units = ug & ng/L

11/28/20013:44:21 PMC:\CPWIN\X28\X28D1.10RLH080901B08-9-2001 12:18:41X28D_W1.MET



Sample Name: **LH080901B**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 12:18:41pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.10R**
Date Stamp: 8/9/01 12:18:40pm
Sequence File: X28C.SEQ #110
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

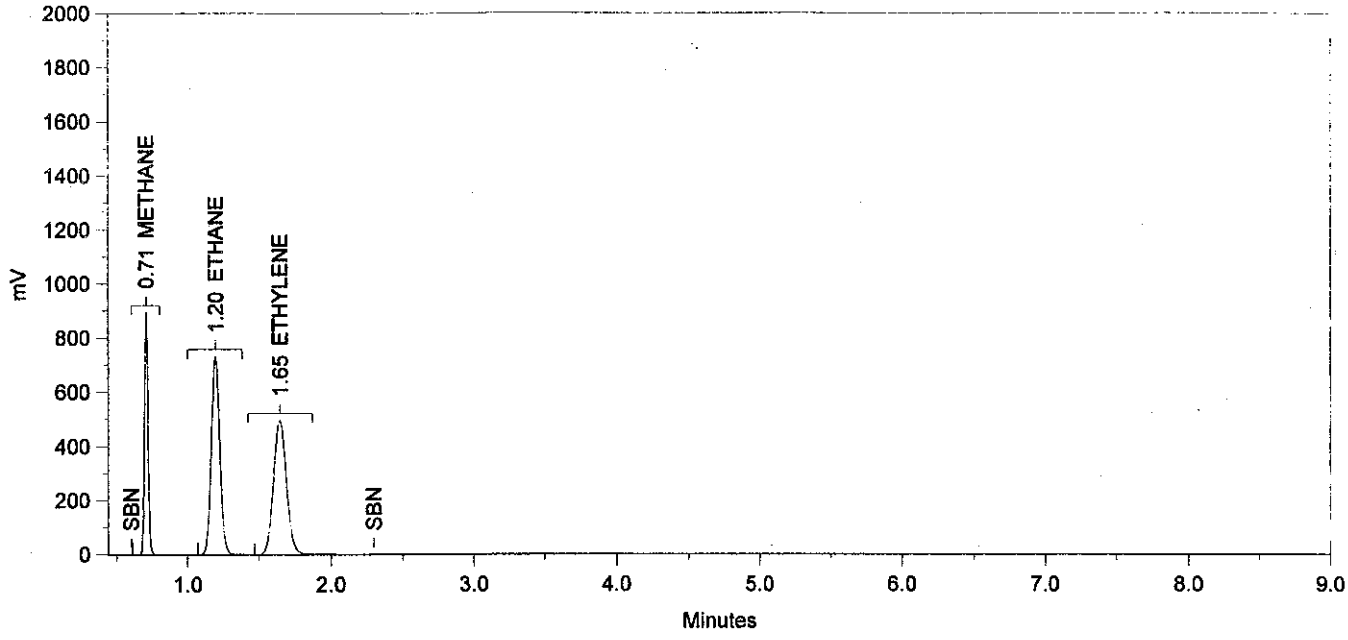
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.711	METHANE	5.4639	0.080	36568.4	16.591	BB	0.034	17949.27	58.435
2	1.199	ETHANE	3141.5740	45.736	20618.9	9.355	BV	0.076	4532.11	14.755
3	1.652	ETHYLENE	3700.7530	53.877	21992.5	9.978	VB	0.119	3070.65	9.997
4	2.984		6.2048	0.090	41527.1	18.841	BB	0.274	2522.47	8.212
5	5.900		4.0684	0.059	27229.0	12.354	BB	0.452	1004.03	3.269
6	8.915		5.0761	0.074	33973.0	15.413	BV	0.657	861.76	2.805
7	10.405		5.7529	0.084	38502.8	17.469	VB	0.827	776.42	2.528

Total Area = 220411.6, Total Amount = 6868.893, Total Height = 30716.72, Sample Units = ug & ng/L

11/28/20013:45:20 PMC:\CPWIN\X28\X28D1.13RSTD 216 10X08-9-2001 13:00:38X28D_W1.MET

STD 216 10X



Sample Name: **STD 216 10X**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:00:38pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.13R**
Date Stamp: 8/9/01 01:00:38pm
Sequence File: X28C.SEQ #113
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

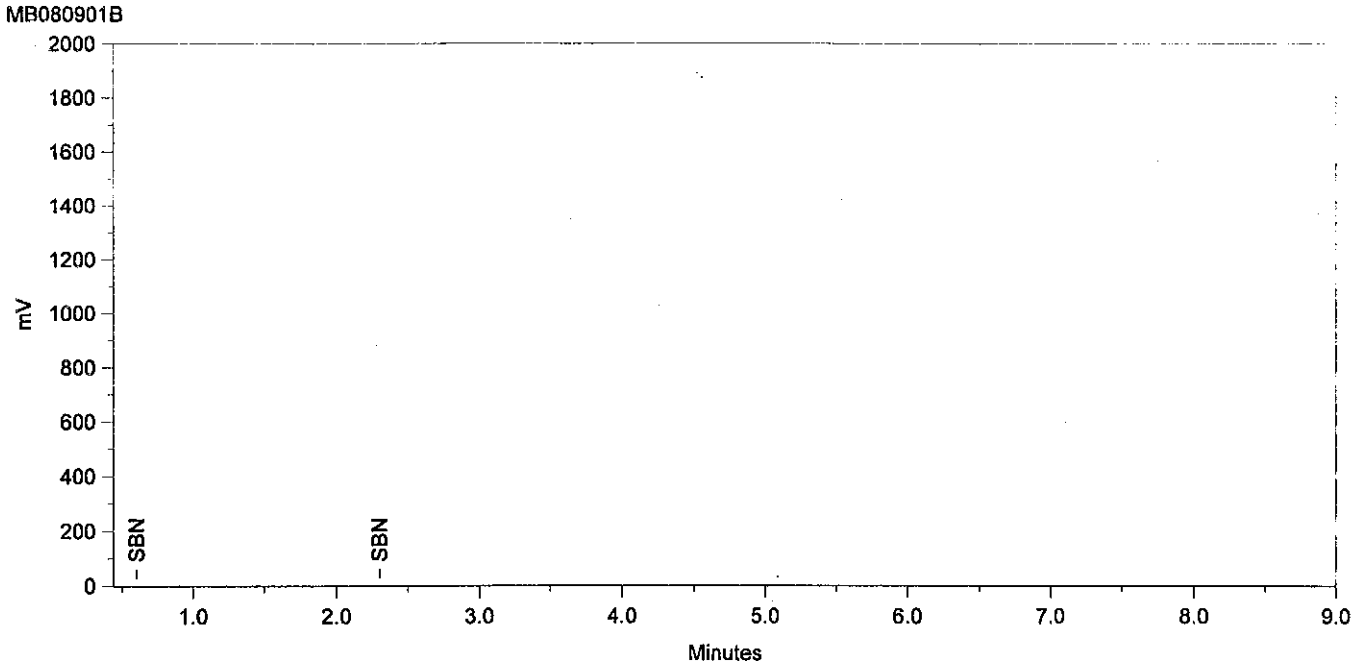
Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.707	METHANE	242.1243	0.024	1620473.0	20.665	BB	0.030	902603.30	42.410
2	1.195	ETHANE	472483.8000	47.354	3101020.0	39.545	BV	0.071	730637.10	34.330
3	1.647	ETHYLENE	525050.2000	52.622	3120220.0	39.790	VB	0.105	495050.90	23.260

Total Area = 7841712.0, Total Amount = 997776.1, Total Height = 2128291.0, Sample Units = ug & ng/L

11/28/20013:46:15 PMC:\CPWIN\X28\X28D1.14RMB080901B08-9-2001 13:15:13X28D_W1.MET



Sample Name: **MB080901B**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:15:13pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.14R**
Date Stamp: 8/9/01 01:15:12pm
Sequence File: X28C.SEQ #114
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

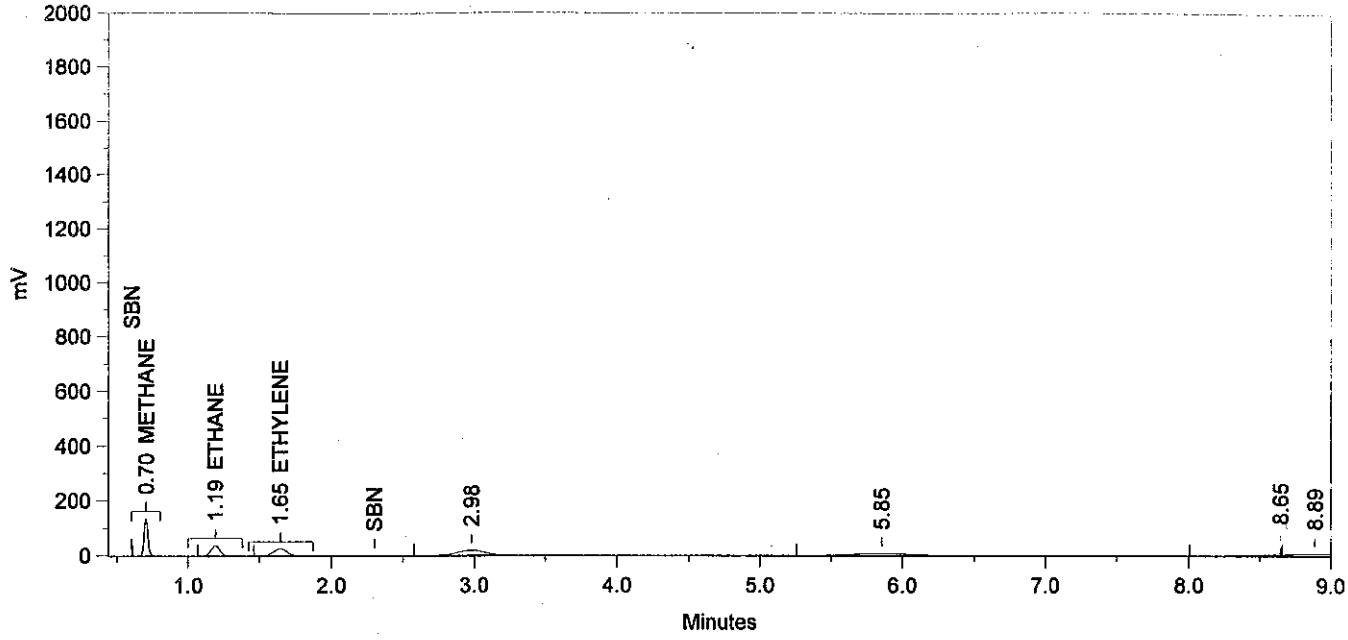
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

11/28/20013:46:41 PMC:\CPWIN\X28\X28D1.15RLH080901E08-9-2001 13:30:08X28D_W2.MET

LH080901E



Sample Name: **LH080901E**
Acquired from Chrom2--FID 10X via port 4 on 8/9/01 01:30:08pm by RCW
FID 10X

Data File: **C:\CPWIN\X28\X28D1.15R**
Date Stamp: 8/9/01 01:30:08pm
Sequence File: X28C.SEQ #115
Method File: C:\CPWIN\X28\X28D_W2.MET
Version 14. Date Stamp: 8/15/01 09:06:14am
Calibration File: C:\CPWIN\X28\X28D_W2.CAL
Version 6. Date Stamp: 8/9/01 01:04:58pm

Run Time = 12.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

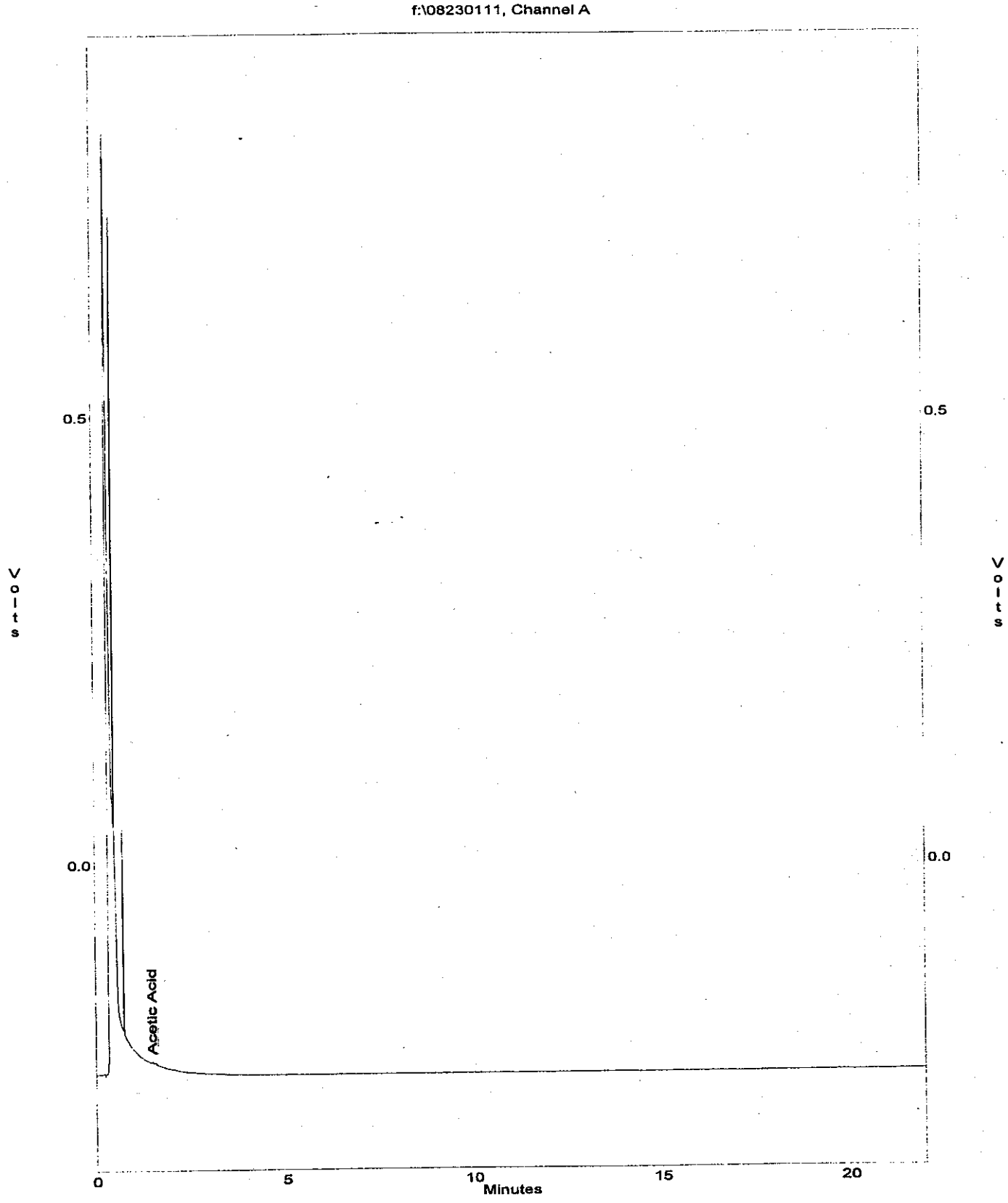
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.702	METHANE	39.5448	0.074	264662.4	15.604	BB	0.032	138105.30	51.697
2	1.192	ETHANE	24794.3900	46.269	162731.3	9.594	BV	0.072	37497.26	14.036
3	1.645	ETHYLENE	28588.9400	53.350	169895.7	10.017	VB	0.110	25775.91	9.649
4	2.980		37.7734	0.070	252807.4	14.905	BV	0.230	18319.00	6.857
5	5.855		32.7526	0.061	219204.3	12.924	VV	0.474	7710.33	2.886
6	8.645		10.0960	0.019	67569.6	3.984	VV	0.042	26775.24	10.023
7	8.887		37.2436	0.070	249261.3	14.696	VV	0.589	7048.28	2.638
8	10.394		46.3149	0.086	309973.3	18.276	VB	0.874	5912.69	2.213

Total Area = 1696106.0, Total Amount = 53587.05, Total Height = 267144.0, Sample Units = ug & ng/L

External Standard Report -- Channel A
File : f:\08230111
Method : f:\vfa.met
Sample ID : mb
Acquired : Aug 23, 2001 18:49:47
User : System

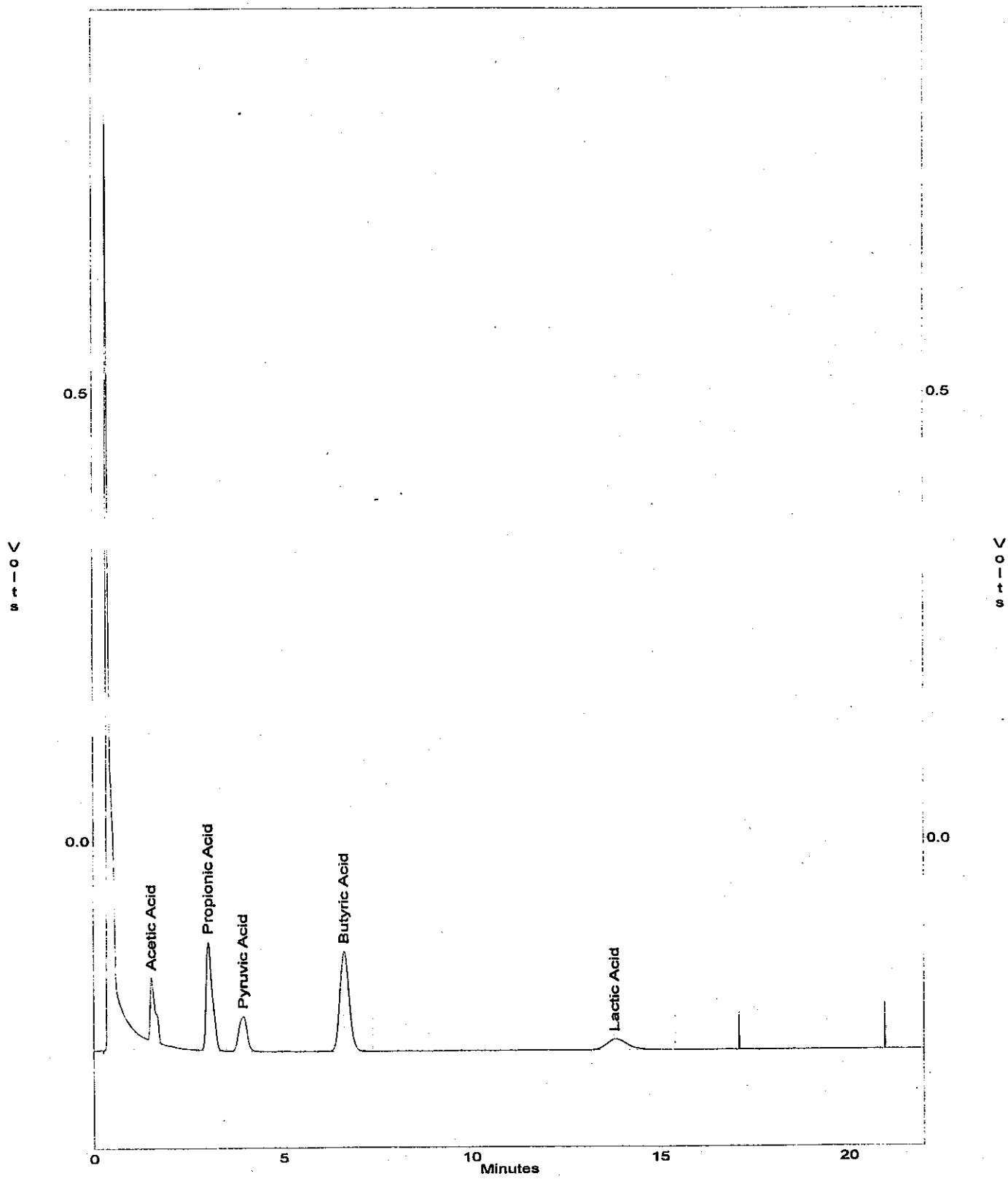
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.505	0.284 mg/l	13060	1624
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.284	13060	1624


f:\08230111, Channel A
0.5
0.0
Volts
Acetic Acid
0
5
10
15
20
Minutes

External Standard Report - Channel A
File : f:\08230112
Method : f:\vfa.met
Sample ID : lcsw 10x supelco
Acquired : Aug 23, 2001 19:12:32
User : System

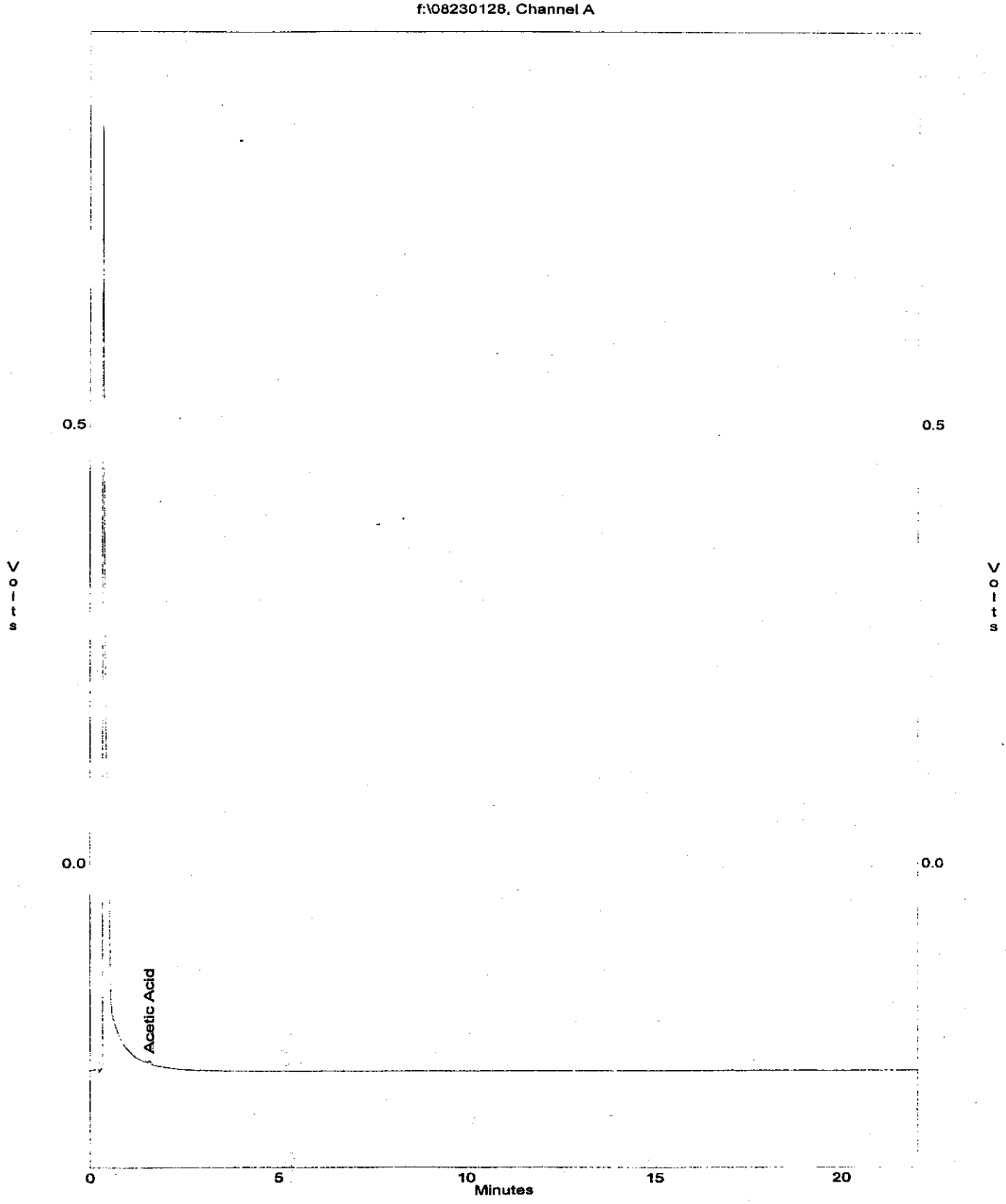
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	49.564 mg/l	662192	70114
2	Propionic Acid	3.040	61.636 mg/l	1318241	120793
3	Pyruvic Acid	3.945	73.187 mg/l	606678	38618
4	Butyric Acid	6.628	75.894 mg/l	1956838	111103
5	Lactic Acid	13.795	68.873 mg/l	465008	12168
Totals			329.154	5008957	352796

f:\08230112, Channel A



External Standard Report -- Channel A
File : f:\08230128
Method : f:\vfa.met
Sample ID : p108056-01a
Acquired : Aug 24, 2001 01:16:04
User : System

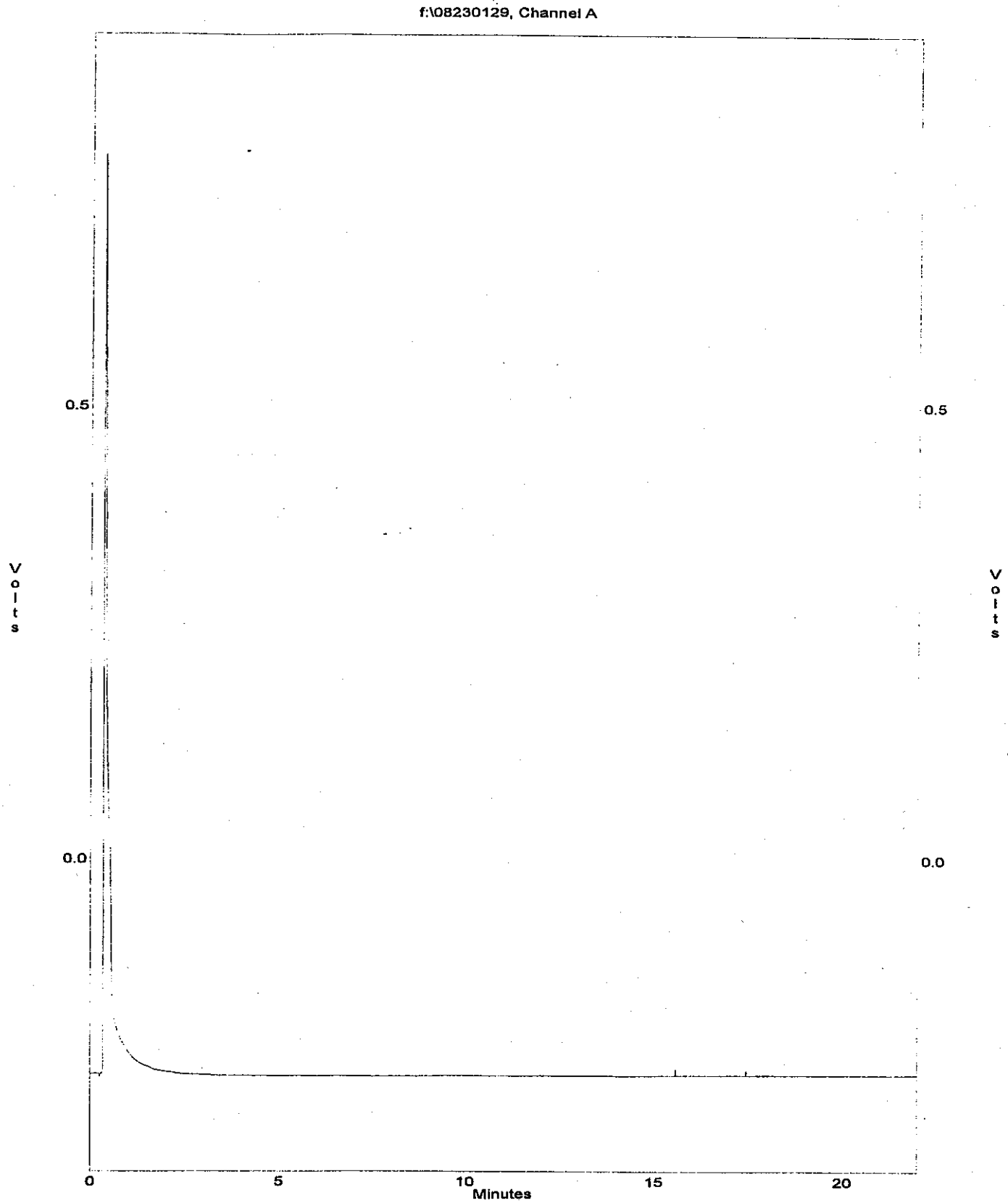
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.597	0.644 mg/l	17799	3426
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.644	17799	3426


f:\08230128, Channel A
0.5
0.5
Volts
Volts
0.0
0.0
Acetic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\08230129
Method : f:\vfa.met
Sample ID : p108056-02a
Acquired : Aug 24, 2001 01:38:46
User : System

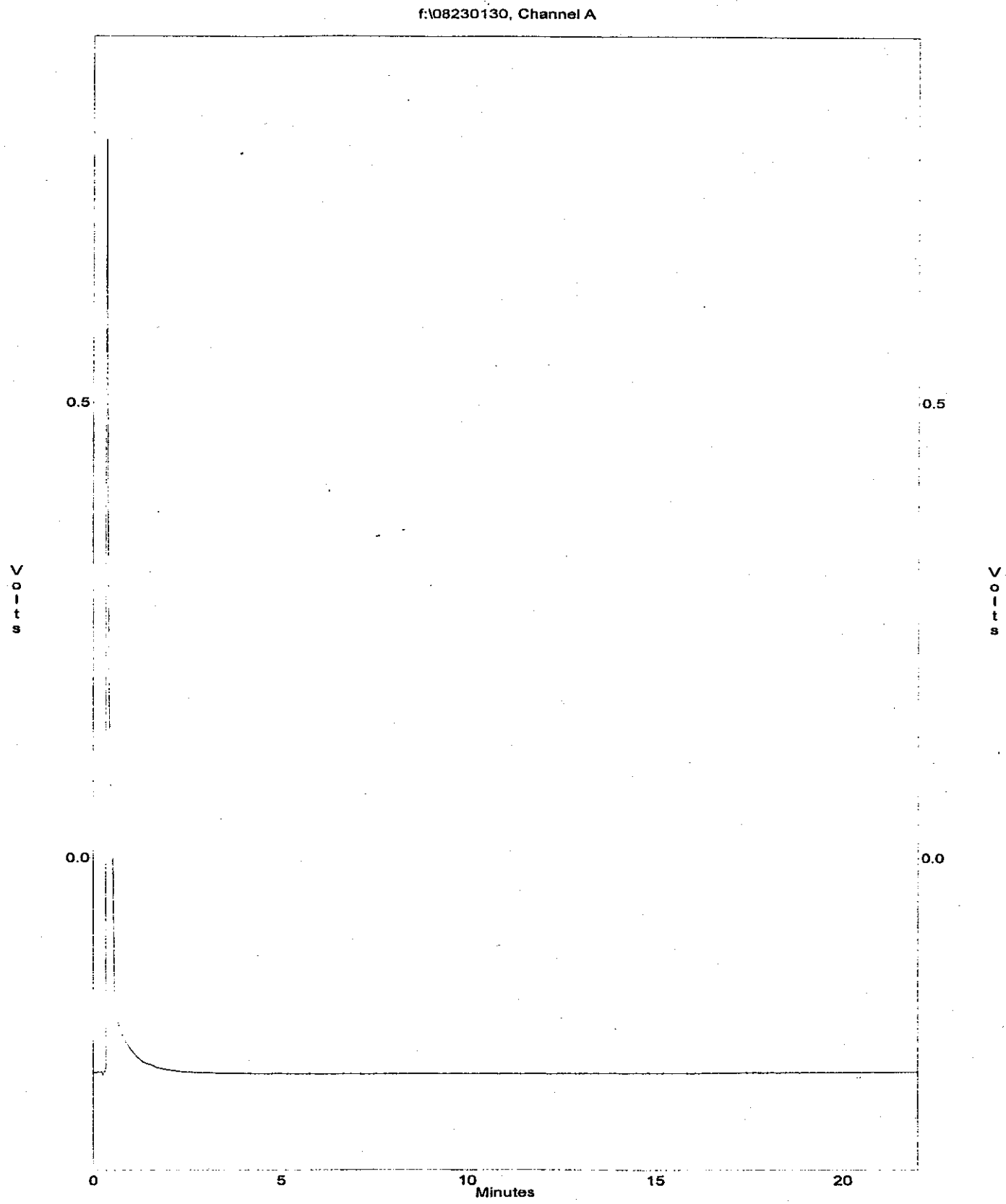
==========

--- No Peaks Found.


f:\08230129, Channel A
0.5
0.0
Volts
0.5
0.0
Volts
0
5
10
15
20
Minutes

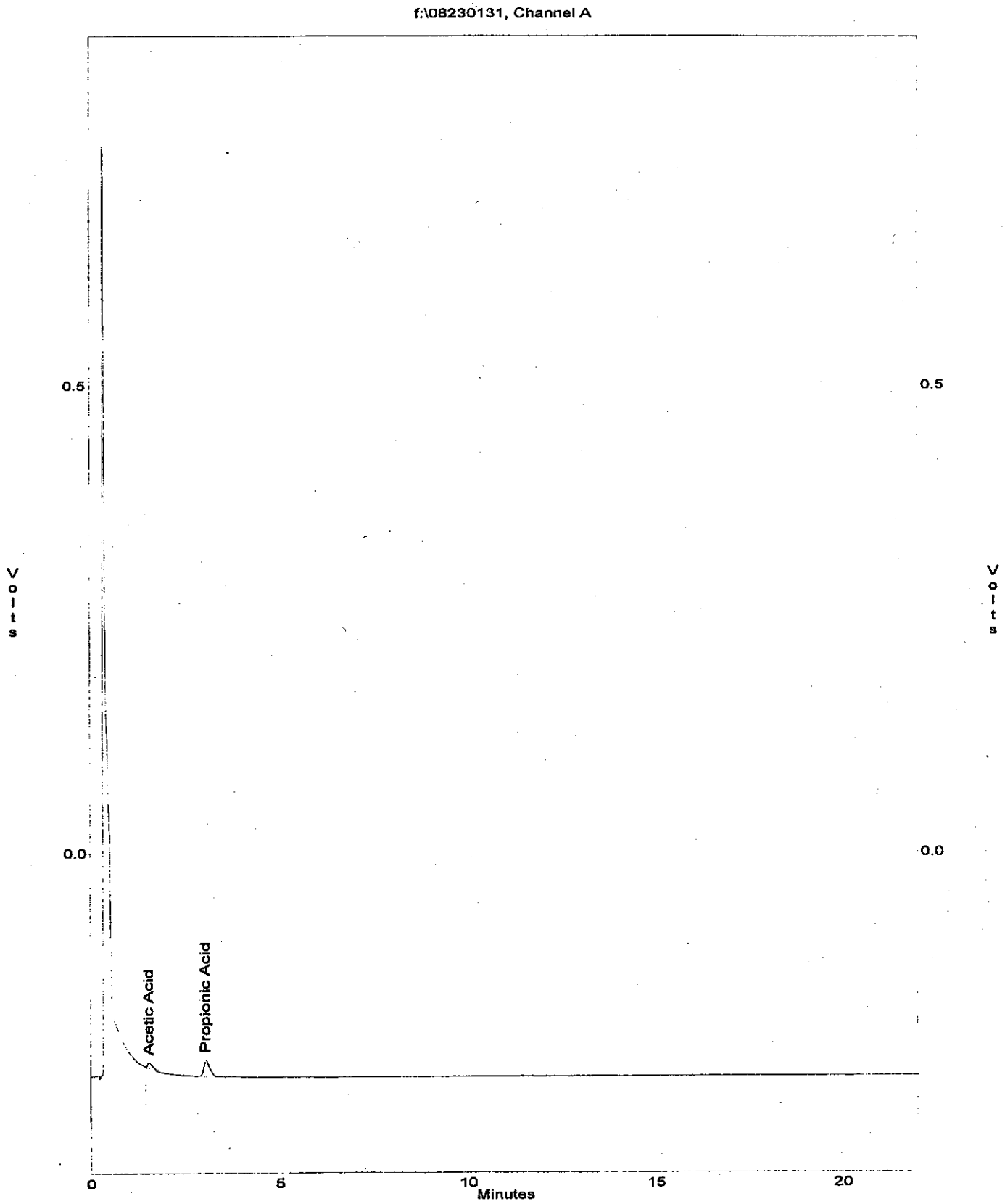
External Standard Report -- Channel A
File : f:\08230130
Method : f:\vfa.met
Sample ID : p108056-03a
Acquired : Aug 24, 2001 02:01:30
User : System

--- No Peaks Found.


f:\08230130, Channel A
0.5
0.0
Volts
0.5
0.0
Volts
0
5
10
15
20
Minutes

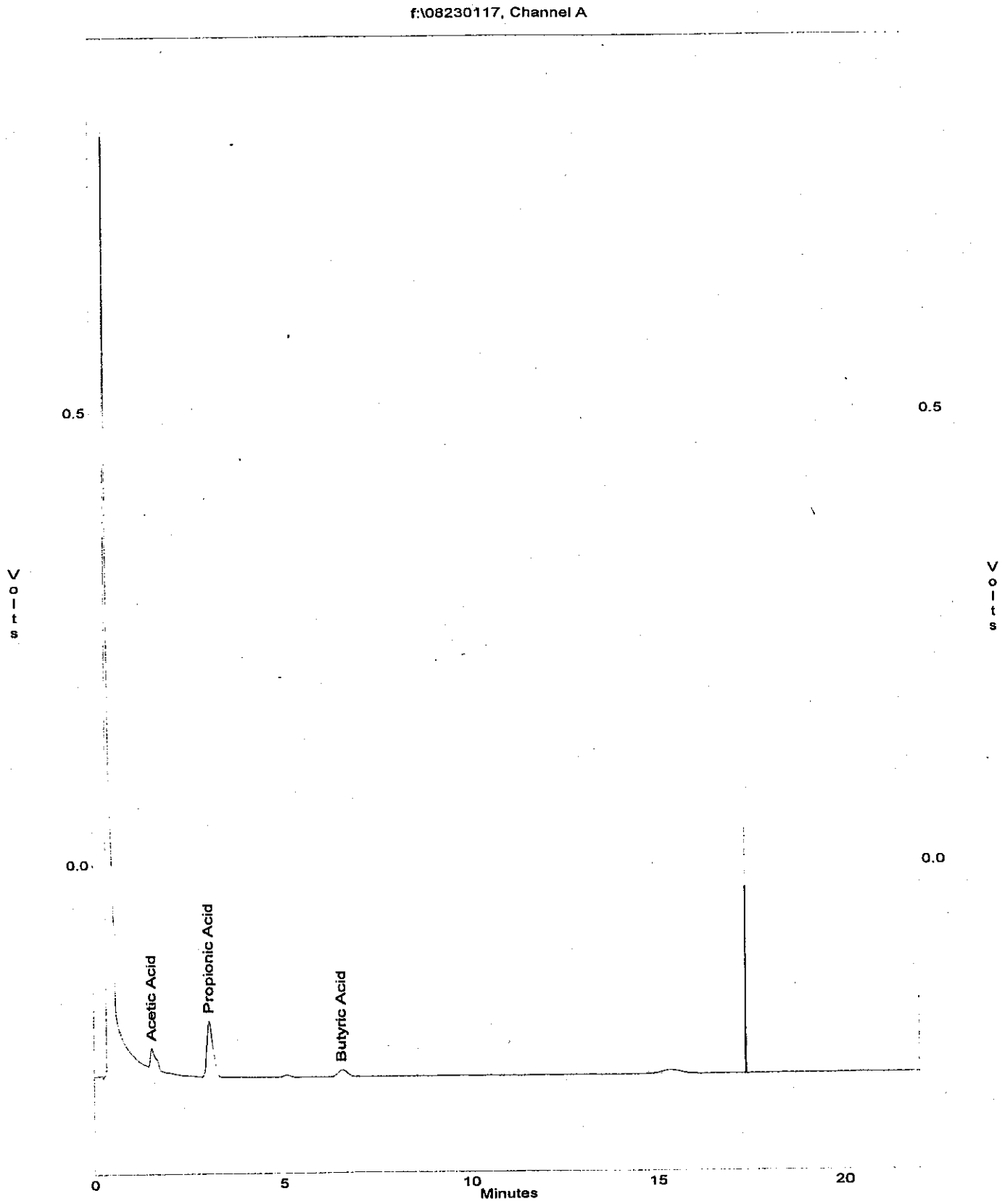
External Standard Report - Channel A
File : f:\08230131
Method : f:\vfa.met
Sample ID : p108056-04a
Acquired : Aug 24, 2001 02:24:12
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	3.640 mg/l	57260	6006
2	Propionic Acid	3.028	8.234 mg/l	184369	16906
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			11.874	241629	22912


f:\08230131, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

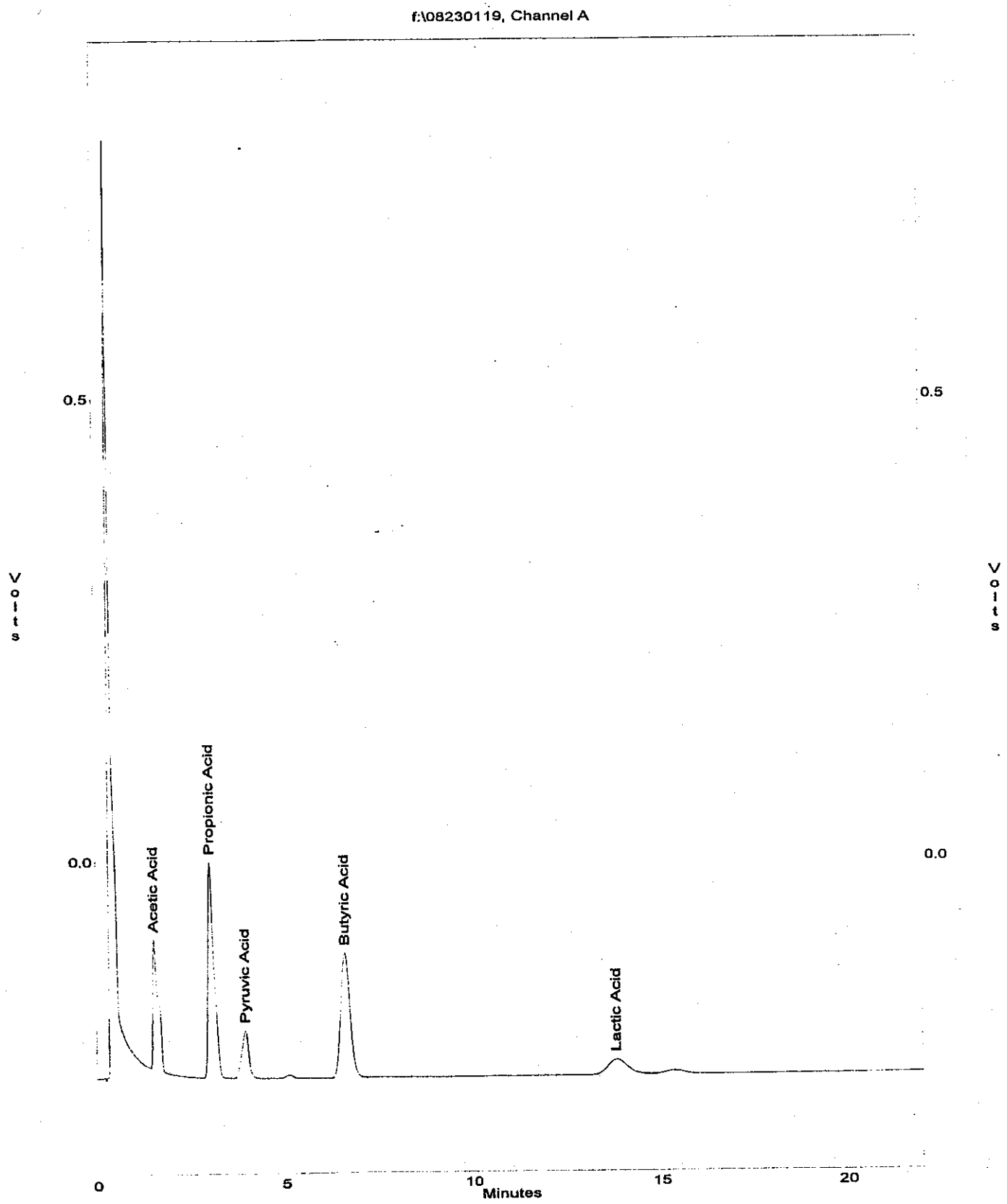
External Standard Report - Channel A
File : f:\08230117
Method : f:\vfa.met
Sample ID : p108054-03a
Acquired : Aug 23, 2001 21:06:07
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.535	14.946 mg/l	206184	21103
2	Propionic Acid	3.035	31.199 mg/l	671966	61150
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	6.588	4.593 mg/l	129141	7312
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			50.737	1007291	89565


f:\08230117, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Butyric Acid
0
5
10
15
20
Minutes

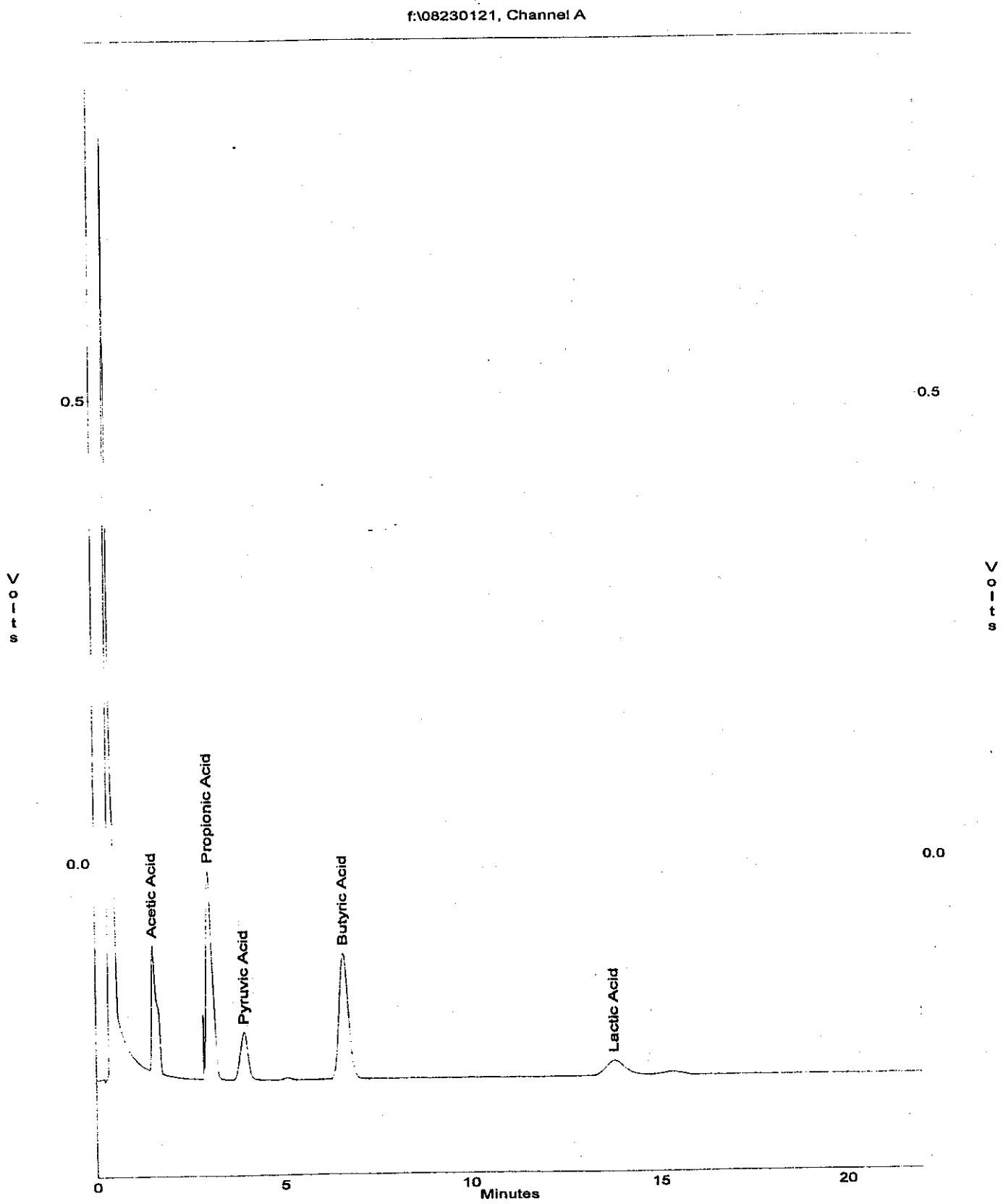
External Standard Report -- Channel A
File : f:\08230119
Method : f:\vfa.met
Sample ID : p108054-04a ms
Acquired : Aug 23, 2001 21:51:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	103.862 mg/l	1377426	140680
2	Propionic Acid	3.033	117.935 mg/l	2513625	233381
3	Pyruvic Acid	3.957	84.652 mg/l	699365	51568
4	Butyric Acid	6.613	91.380 mg/l	2353788	135118
5	Lactic Acid	13.805	89.444 mg/l	609154	16462
Totals			487.272	7553358	577209


f:\08230119, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report - Channel A
File : f:\08230121
Method : f:\vfa.met
Sample ID : p108054-05a msd
Acquired : Aug 23, 2001 22:37:00
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	100.172 mg/l	1328822	135360
2	Propionic Acid	3.032	116.098 mg/l	2474611	225141
3	Pyruvic Acid	3.947	86.135 mg/l	711350	50682
4	Butyric Acid	6.613	91.324 mg/l	2352368	134672
5	Lactic Acid	13.795	87.455 mg/l	595219	16247
Totals			481.184	7462370	562102


f:\08230121, Channel A
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Acetic Acid

* - Replicate Not Used

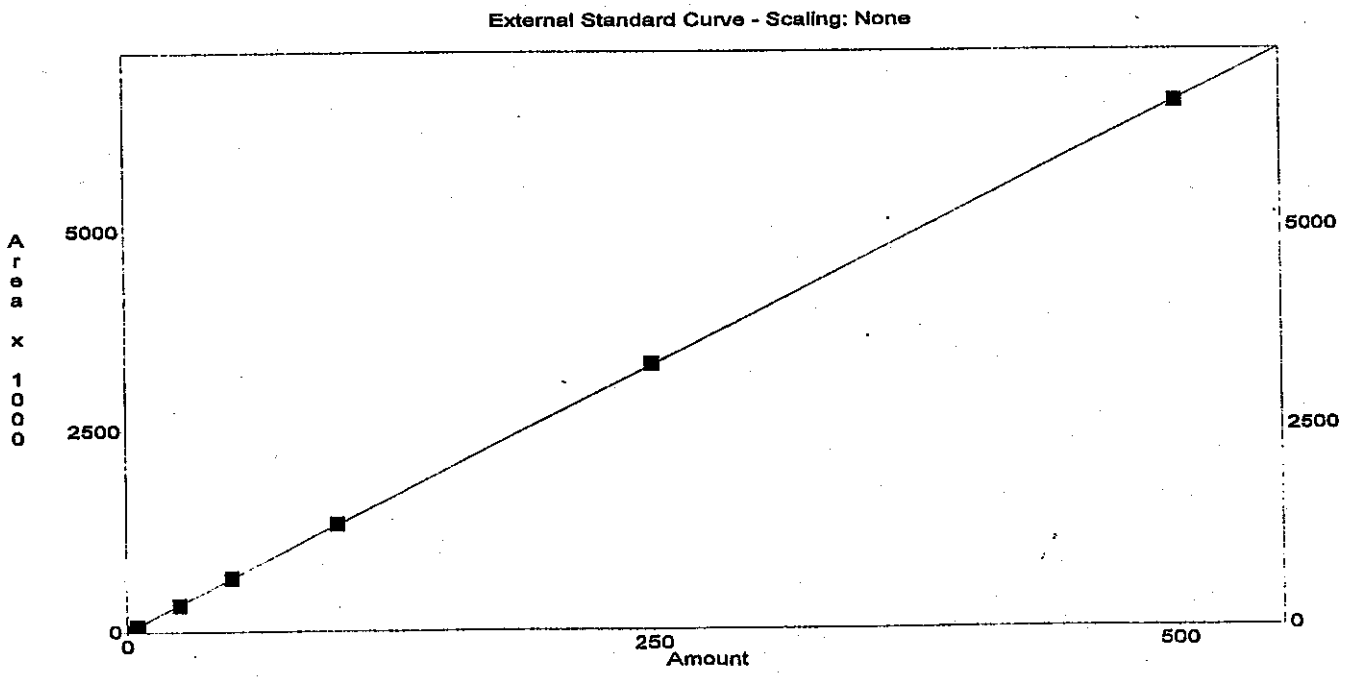
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	64973	5	12994.60	64973							0
2	328479	25	13139.16	328479							0
3	671882	50	13437.64	671882							0
4	1336454	100	13364.54	1336454							0
5	3319178	250	13276.71	3319178							0
6	6585289	500	13170.58	6585289							0

Calib Flag: Replace

Average RF: 13230.5
RF StdDev: 161.612
RF %RSD: 1.222

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.5916e-005 x Area - 0.707003
R^2 = 0.999978



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Propionic Acid

* - Replicate Not Used

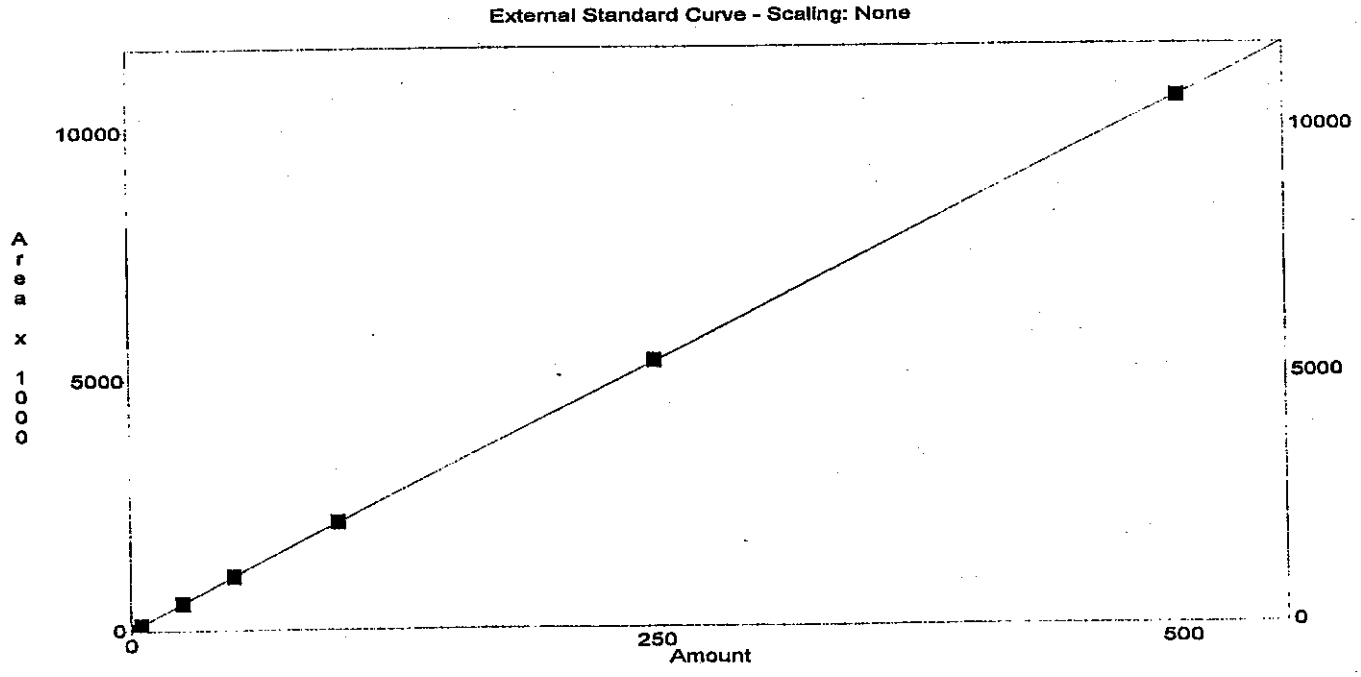
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	103918	5	20783.60	103918							0
2	540311	25	21612.44	540311							0
3	1064175	50	21283.50	1064175							0
4	2140226	100	21402.26	2140226							0
5	5342047	250	21368.19	5342047							0
6	10613017	500	21226.03	10613017							0

Calib Flag: Replace

Average RF: 21279.3
RF StdDev: 276.614
RF %RSD: 1.300

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 4.70969e-005 x Area - 0.448899
R^2 = 0.999988



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Pyruvic Acid

* - Replicate Not Used

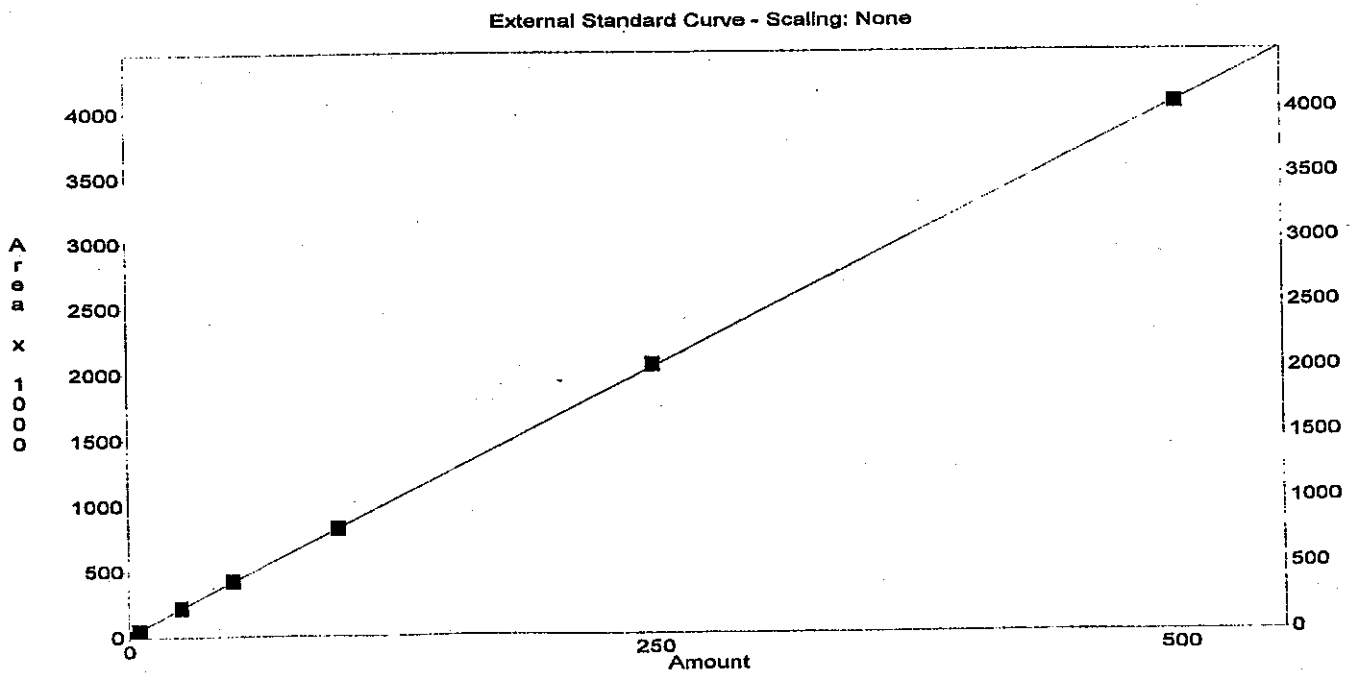
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	47890	5	9578.00	47890							0
2	217373	25	8694.92	217373							0
3	420757	50	8415.14	420757							0
4	819086	100	8190.86	819086							0
5	2055064	250	8220.26	2055064							0
6	4048118	500	8096.24	4048118							0

Calib Flag: Replace

Average RF: 8532.57
RF StdDev: 554.575
RF %RSD: 6.500

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 0.000123703 x Area - 1.86123
R^2 = 0.999956



Method : f:\vfa.met
Printed : Aug 24, 2001 09:13:29
Channel : A
Peak : Butyric Acid

* - Replicate Not Used

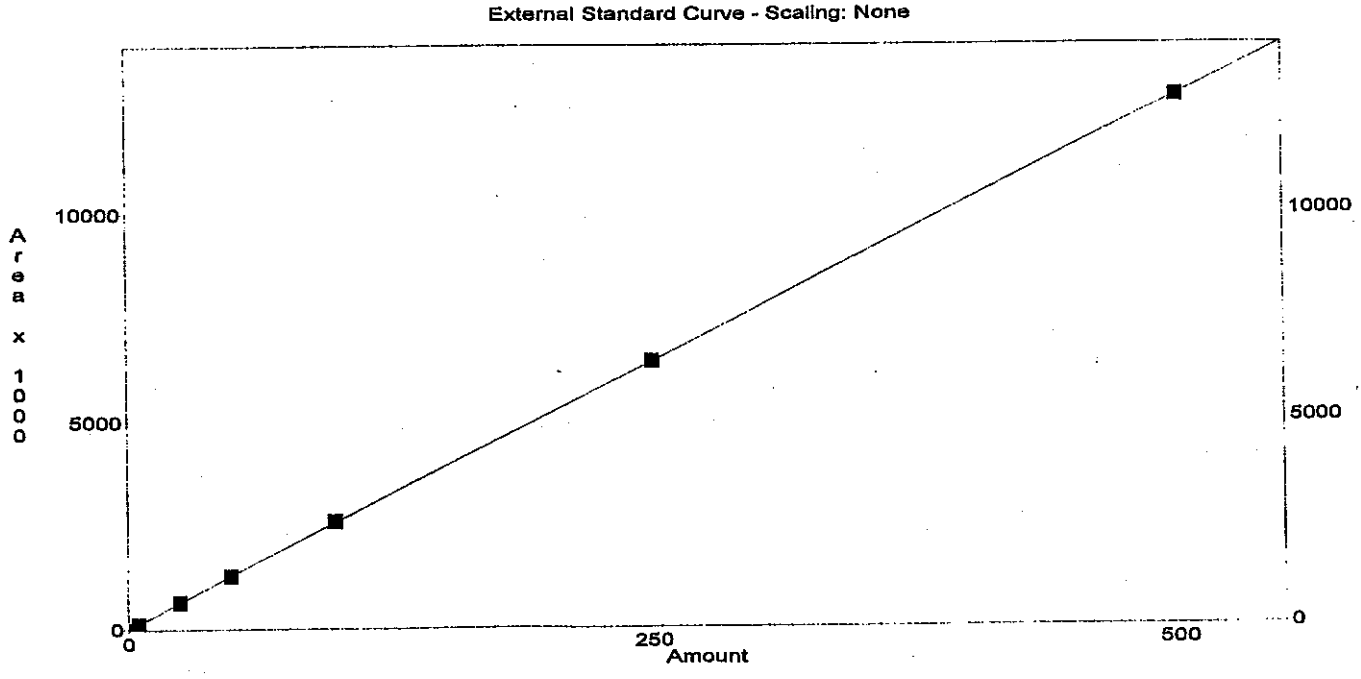
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	127856	5	25571.20	127856							0
2	653670	25	26146.80	653670							0
3	1278518	50	25570.36	1278518							0
4	2597429	100	25974.29	2597429							0
5	6430390	250	25721.56	6430390							0
6	12819739	500	25639.48	12819739							0

Calib Flag: Replace

Average RF: 25770.6
RF StdDev: 237.685
RF %RSD: 0.922

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.90115e-005 x Area - 0.445063
R^2 = 0.999991



Method : f:\vfa.met
Printed : Aug 24, 2001 09:23:34
Channel : A
Peak : Lactic Acid

* - Replicate Not Used

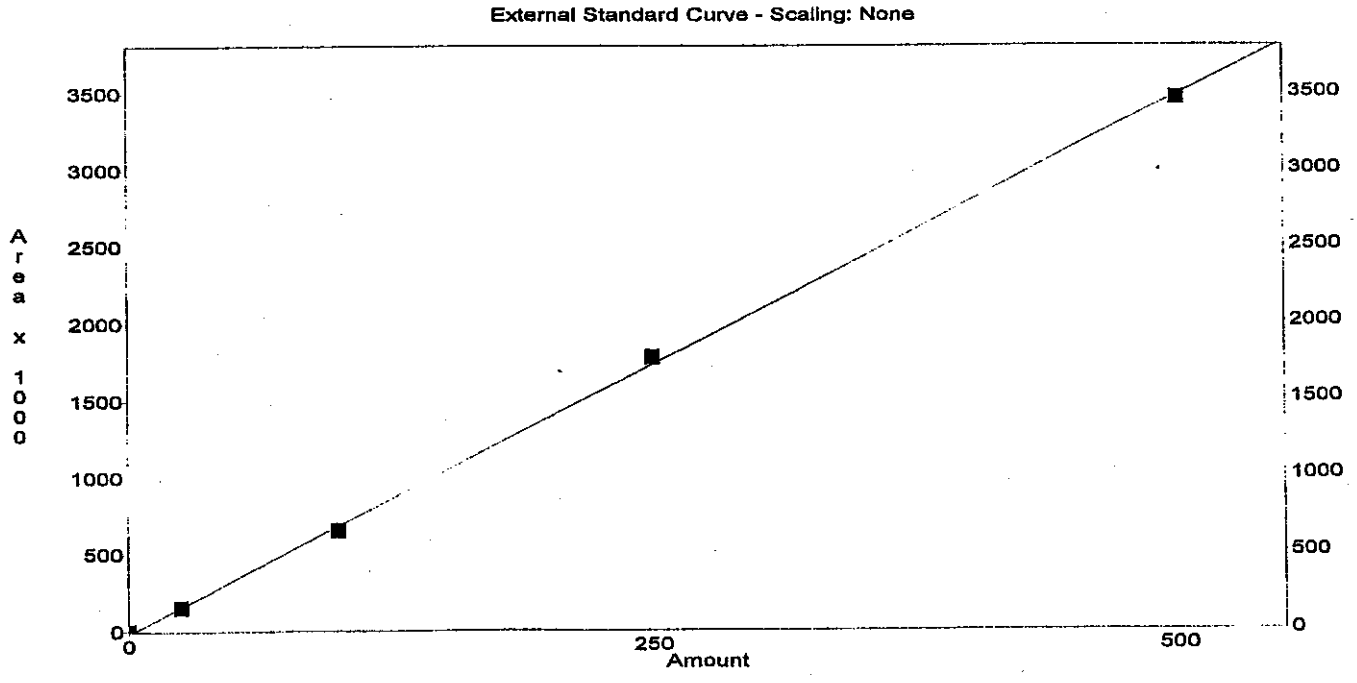
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
2	156235	25	6249.40	156235							0
3	356722	50	7134.44	356722*							0
4	655586	100	6555.86	655586							0
5	1782842	250	7131.37	1782842							0
6	3466346	500	6932.69	3466346							0

Calib Flag: Replace

Average RF: 6717.33
RF StdDev: 392.785
RF %RSD: 5.847

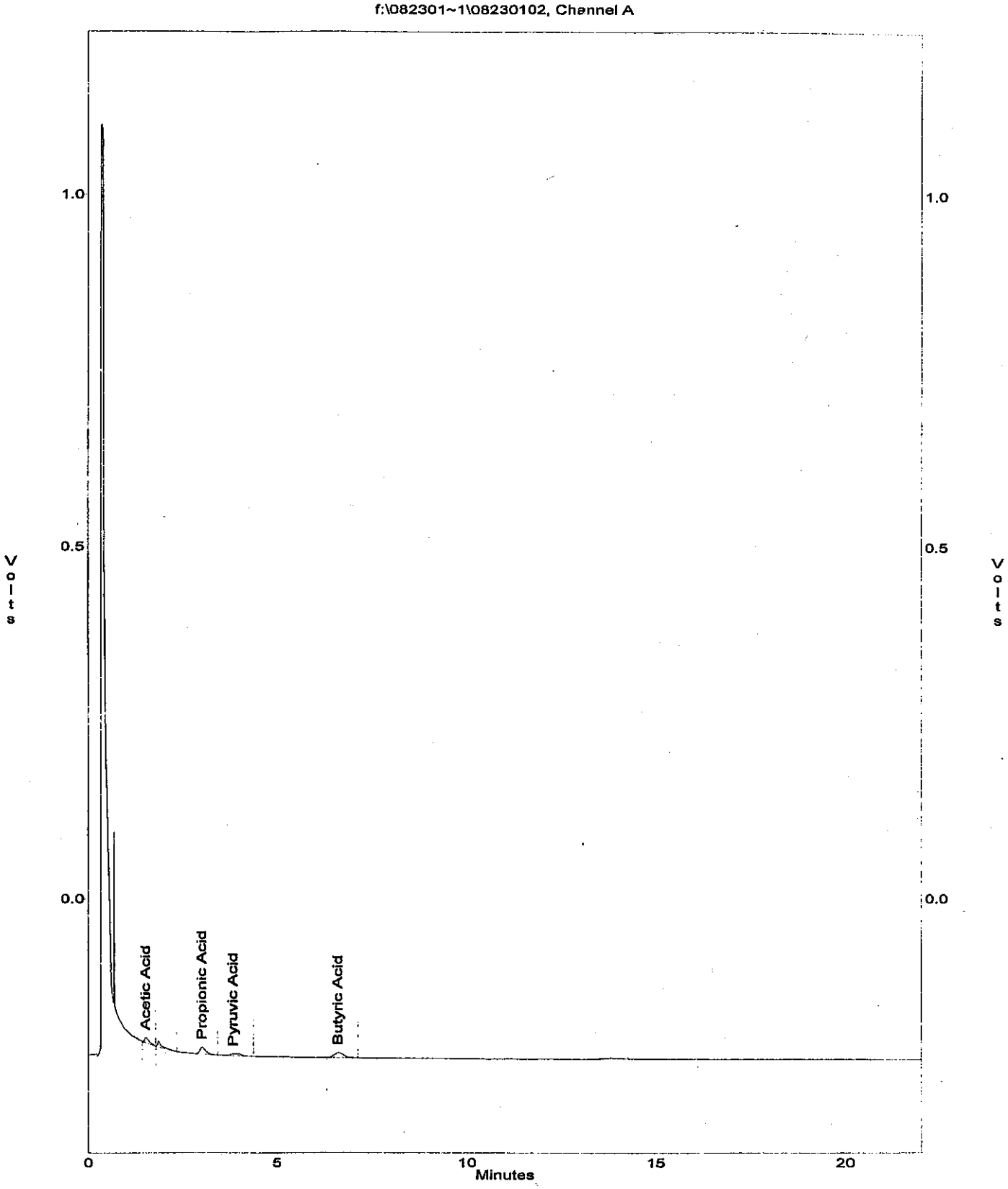
RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 0.000142707 x Area + 2.51341
R^2 = 0.999457



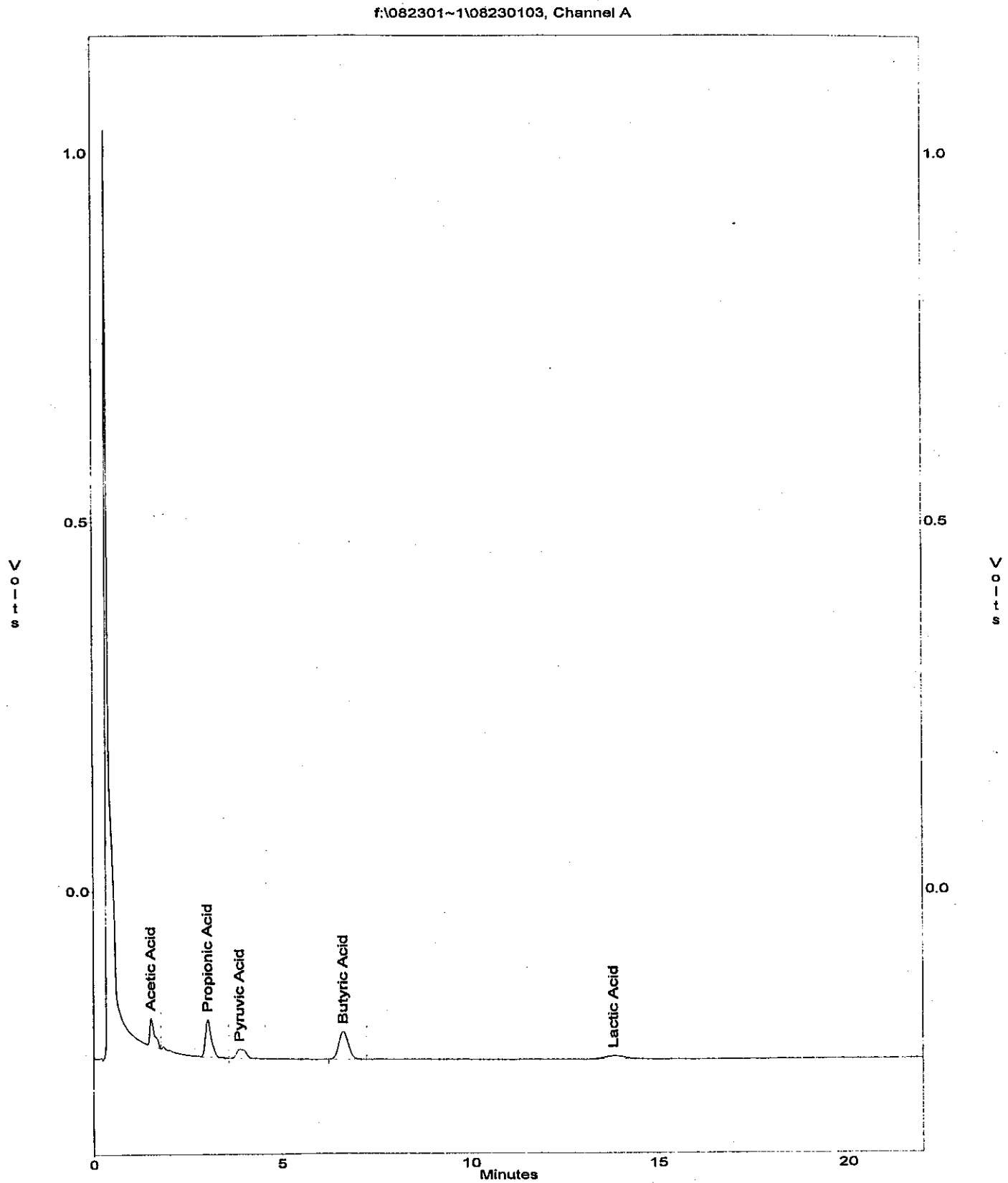
External Standard Report -- Channel A
File : f:\082301~1\08230102
Method : f:\vfa.met
Sample ID : 5 ppm
Acquired : Aug 23, 2001 15:25:19
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.537	3.521 mg/l	64973	7444
2	Propionic Acid	3.035	3.803 mg/l	103918	9927
3	Pyruvic Acid	3.845	4.758 mg/l	47890	2359
4	Butyric Acid	6.618	3.290 mg/l	127856	7234
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			15.372	344637	26964


f:\082301~1\08230102, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
0
5
10
15
20
Minutes

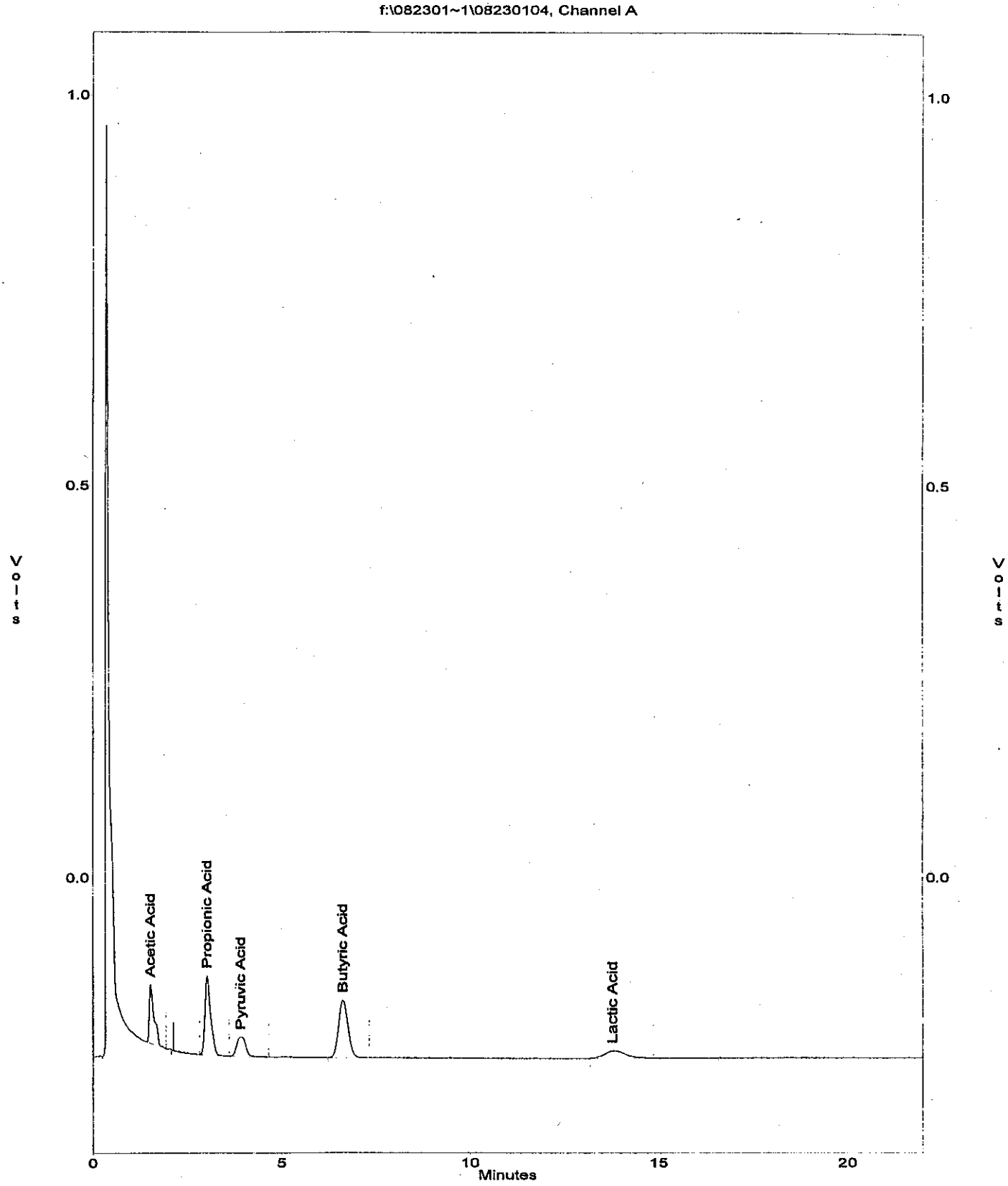
External Standard Report -- Channel A
File : f:\082301~1\08230103
Method : f:\vfa.met
Sample ID : 25 ppm
Acquired : Aug 23, 2001 15:48:01
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.543	23.028 mg/l	328479	37237
2	Propionic Acid	3.043	23.785 mg/l	540311	50313
3	Pyruvic Acid	3.878	24.117 mg/l	217373	12019
4	Butyric Acid	6.628	23.358 mg/l	653670	36846
5	Lactic Acid	13.815	43.692 mg/l	156235	4499
Totals			137.979	1896068	140914


f:\082301~1\08230103, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

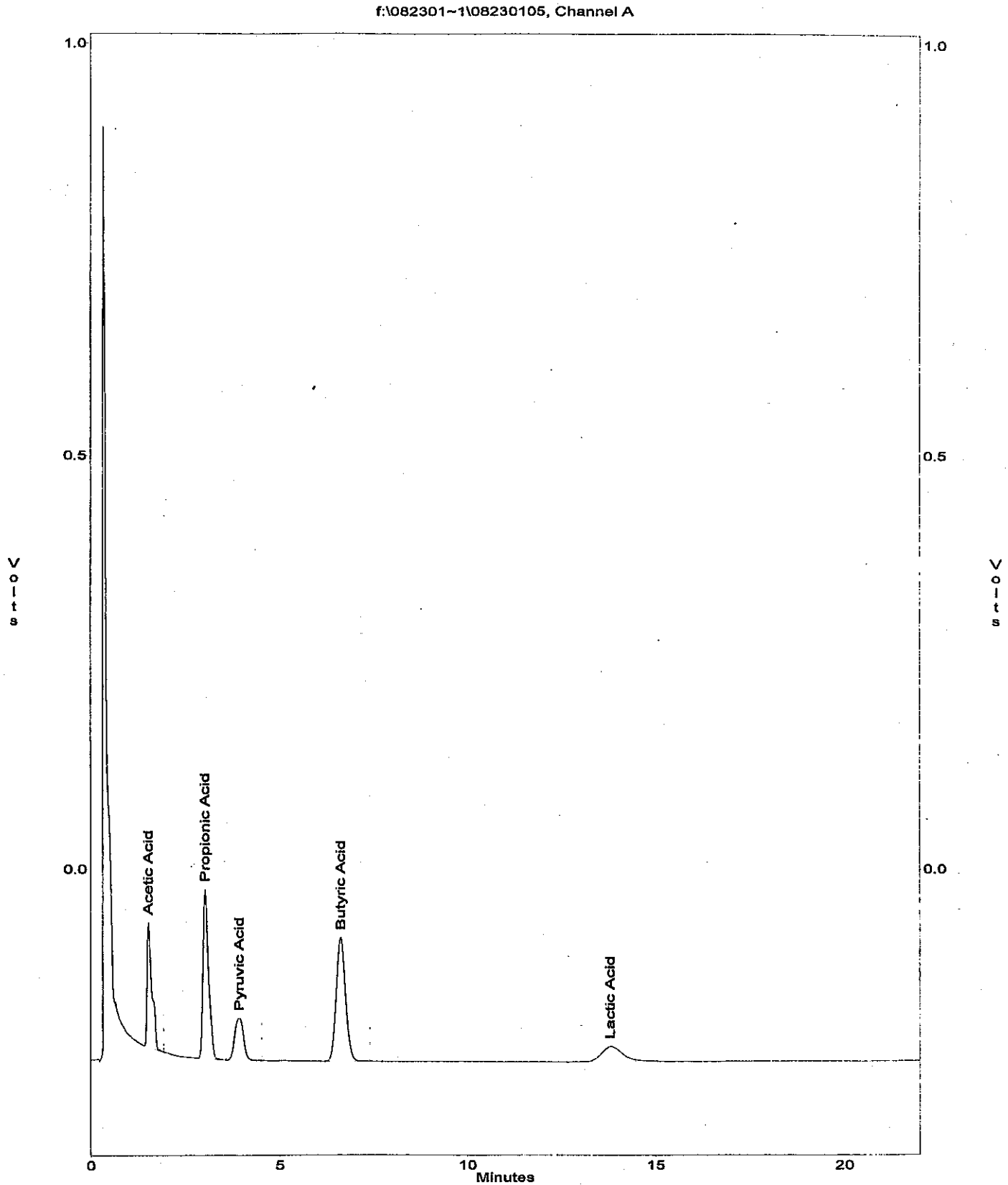
External Standard Report -- Channel A
File : f:\082301~1\08230104
Method : f:\vfa.met
Sample ID : 50 ppm
Acquired : Aug 23, 2001 16:10:46
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	48.451 mg/l	671882	75113
2	Propionic Acid	3.038	47.771 mg/l	1064175	100470
3	Pyruvic Acid	3.917	47.349 mg/l	420757	24485
4	Butyric Acid	6.628	47.205 mg/l	1278518	72992
5	Lactic Acid	13.795	68.754 mg/l	356722	9234
Totals			259.529	3792054	282294


f:\082301~1\08230104, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

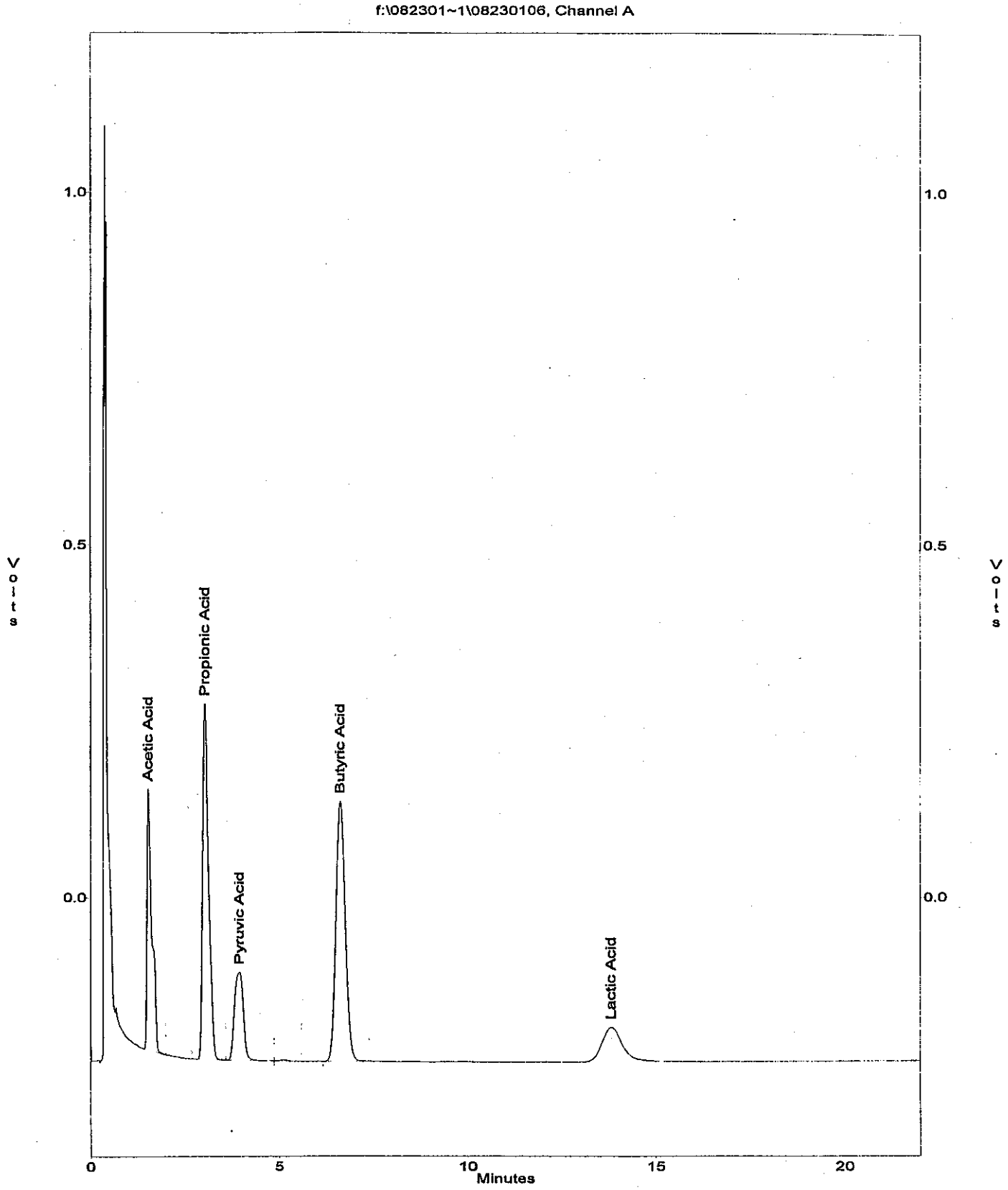
External Standard Report -- Channel A
File : f:\082301~1\08230105
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Aug 23, 2001 16:33:28
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.542	97.650 mg/l	1336454	150056
2	Propionic Acid	3.038	97.040 mg/l	2140226	203541
3	Pyruvic Acid	3.935	92.848 mg/l	819086	49995
4	Butyric Acid	6.632	97.541 mg/l	2597429	148670
5	Lactic Acid	13.808	106.115 mg/l	655586	17872
Totals			491.193	7548781	570134


f:\082301~1\08230105, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

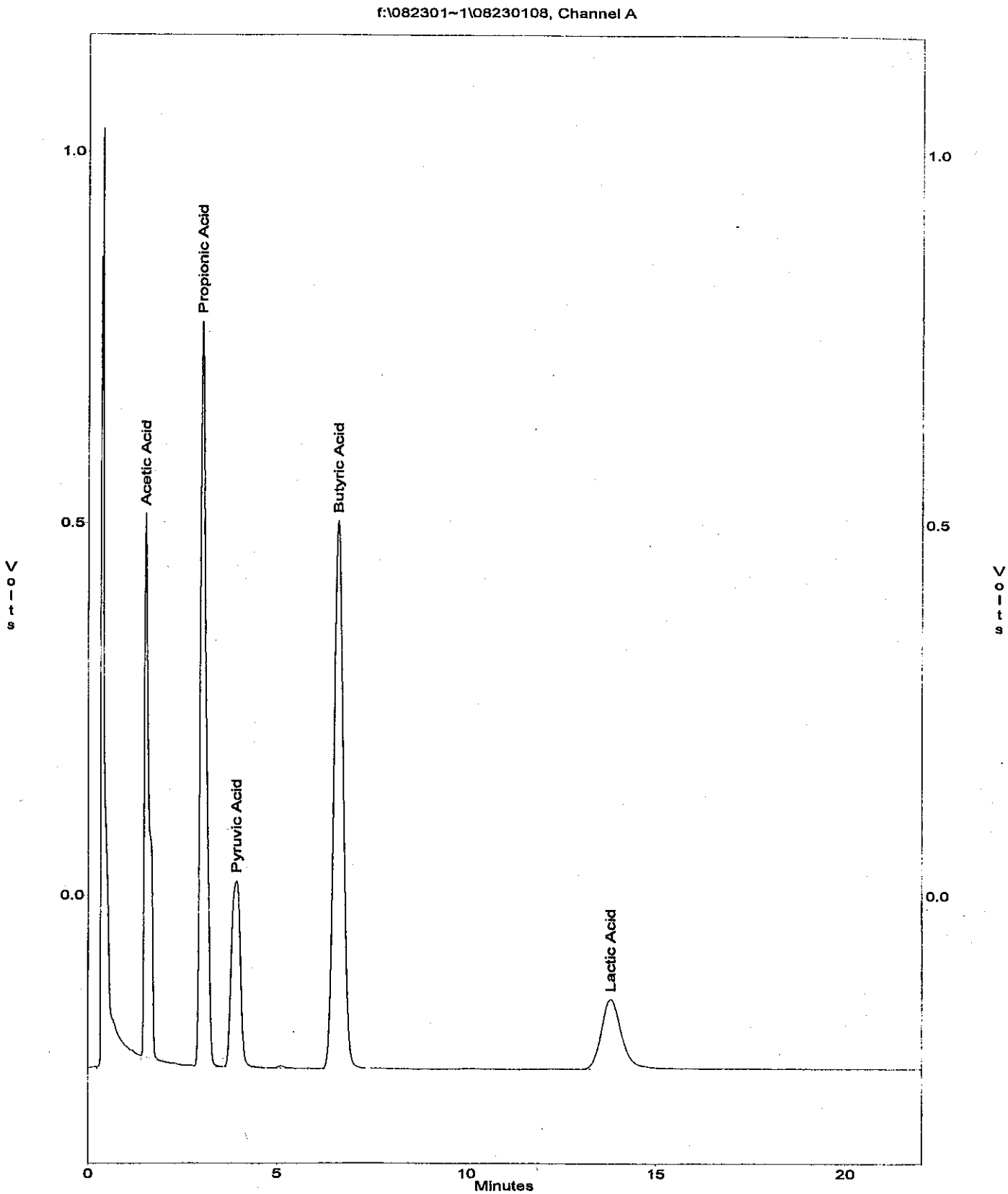
External Standard Report -- Channel A
File : f:\082301~1\08230106
Method : f:\vfa.met
Sample ID : 250 ppm
Acquired : Aug 23, 2001 16:56:12
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.540	244.433 mg/l	3319178	370391
2	Propionic Acid	3.040	243.643 mg/l	5342047	503771
3	Pyruvic Acid	3.945	234.028 mg/l	2055064	123733
4	Butyric Acid	6.630	243.825 mg/l	6430390	368581
5	Lactic Acid	13.813	247.031 mg/l	1782842	47962
Totals			1212.959	18929522	1414438


f:\082301~1\08230106, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

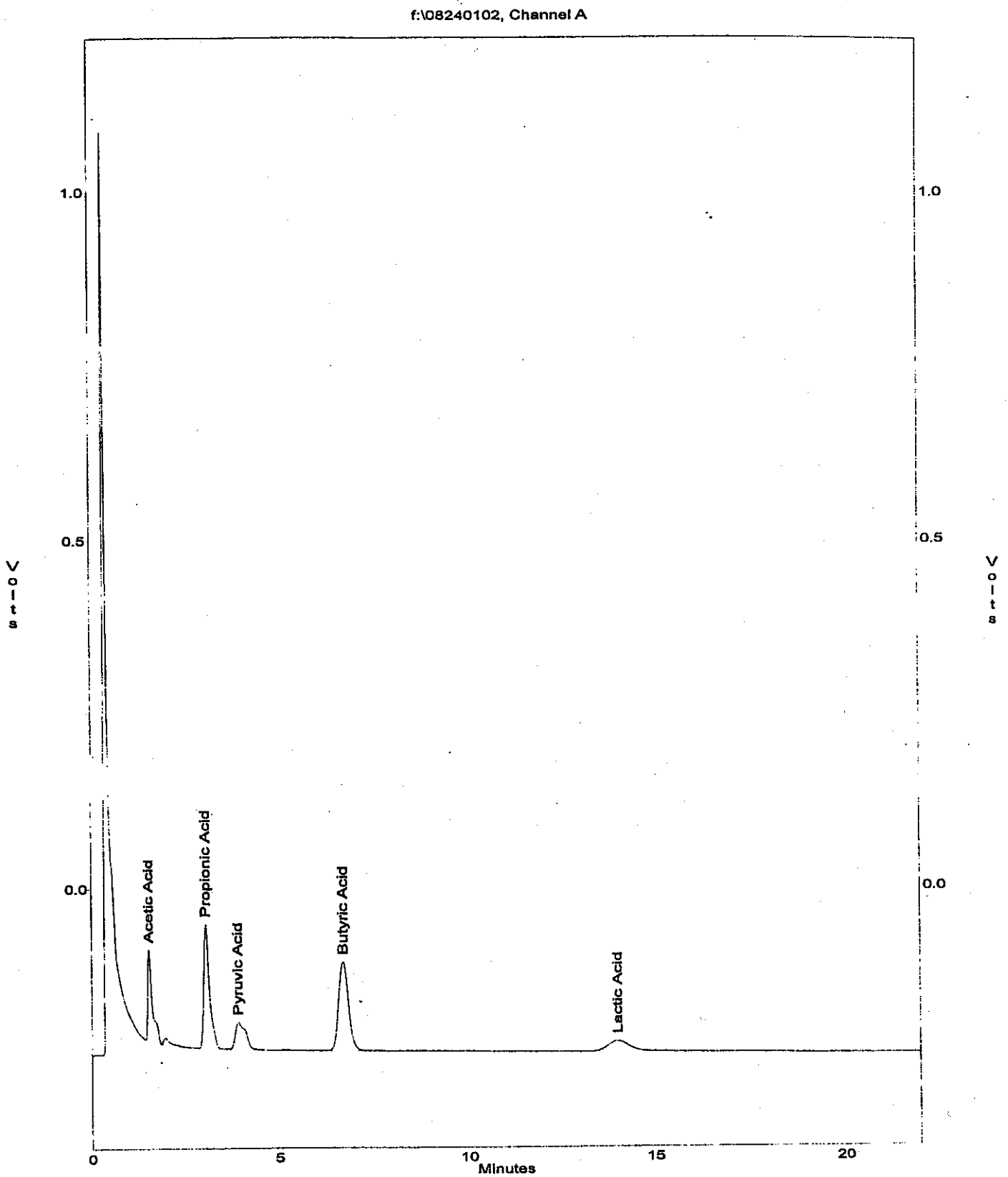
External Standard Report -- Channel A
File : f:\082301~1\08230108
Method : f:\vfa.met
Sample ID : 500 ppm
Acquired : Aug 23, 2001 17:41:39
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.542	486.226 mg/l	6585289	731615
2	Propionic Acid	3.040	484.986 mg/l	10613017	1000535
3	Pyruvic Acid	3.940	461.686 mg/l	4048118	250330
4	Butyric Acid	6.630	487.673 mg/l	12819739	736579
5	Lactic Acid	13.810	457.483 mg/l	3466346	94209
Totals			2378.054	37532512	2813268


f:\082301~1\08230108, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

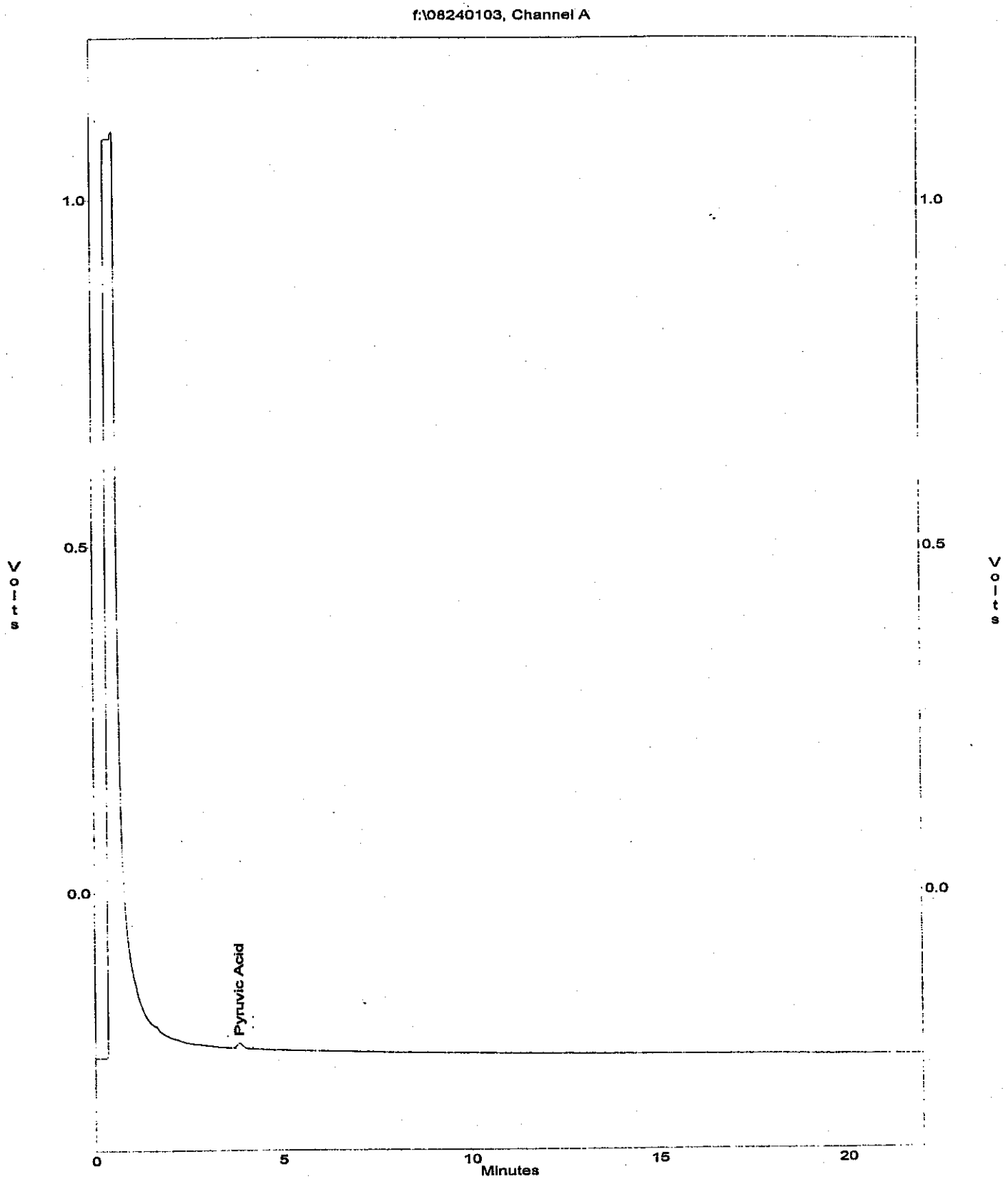
External Standard Report -- Channel A
File : f:\08240102
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Aug 24, 2001 15:08:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.563	85.381 mg/l	1133990	130263
2	Propionic Acid	3.072	87.962 mg/l	1877211	177000
3	Pyruvic Acid	3.923	88.916 mg/l	733834	38771
4	Butyric Acid	6.693	87.940 mg/l	2265614	126925
5	Lactic Acid	14.017	83.895 mg/l	570270	14747
Totals			434.094	6580919	487706


f:\08240102, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\08240103
Method : f:\vfa.met
Sample ID : ib
Acquired : Aug 24, 2001 15:48:58
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	3.845	8.575 mg/l	84368	7319
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			8.575	84368	7319


f:\08240103, Channel A
1.0
0.5
0.0
Volts
Pyruvic Acid
0
5
10
15
20
Minutes

Accura Analytical Laboratories

Telephone Log

From Desk of Kelly Clemons, Quality Assurance Manager

Date/Time: 11/27/01 @1603	Project: 28508/SA39-CTO17 for CC1
Company: Microseeps	Contact:
Telephone #: 412-826-5245	Left Msg (Y) / N / NA

Notes:

Microseeps Proj# P0108056

Debbie - Hallo is out sick today

talked w/ Becky - don't know where data is

~840 11/28/01 - Debbie unsure when we will get data - I said I wanted to talk w/ a mnger she said Frank or Mark will call me back today

1546 11/28/01 ⇒ Debbie w/ MicroSeeps in mail (fedex) tomorrow for Friday delivery

1647 11/28/01 ⇒ Debbie has all data & should have tomorrow

CC: Shaker David Fuller Diana John Migdalia Duane Mike Phil

Email: kelly@accura.com Telephone: (770) 449-8800 ext. 205

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28512

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 08/0101 at 094

Client I.D.	Laboratory I.D.
017-OLD-36-27A-Q3-01	AC17883
017-OLD-36-FD1-Q3-01	AC17884
017-OLD-36-31C-Q3-01	AC17885
017-OLD-36-30C-Q3-01	AC17888
017-OLD-36-TB2-Q3-01	AC17889
017-OLD-36-07A-Q3-01	AC17890
017-OLD-36-09C-Q3-01	AC17891

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The following analyses were performed by subcontract laboratories:

Chloride-EPA-300	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	Nitrate Nitrogen-EPA-300.0
Nitrite Nitrogen-EPA-300.0	TOC-SW-846-9060
VFA's (W) Microseeps-AM21G	

4. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding and the results for those samples should be considered estimated.

6. The pH of the samples was 1.0 for the VOC analysis.

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A2LA Accredited-ID: 120261 •Certificate #-1365.1•Exp 7/31/02 Effective 8/14/00•Scope: Testing Technologies
Potable & Non-potable Water-Solid/Hazardous Waste

7. The following samples required dilution due to high analyte concentration or possible matrix interference, resulting in elevated detection limits:

   VOC-SW-846-8260B
   017-OLD-36-31CMS-Q3-01
   017-OLD-36-31CMSD-Q3-01
   017-OLD-36-09C-Q3-01 (Trichloroethylene)

8. The detection limits were elevated for the following samples due to limited sample volume:

   FLA-PRO
   017-OLD-36-27A-Q3-01
   017-OLD-36-09C-Q3-01

9. The following surrogate was outside the method specified limit for all samples and quality control analyzed for this project, as indicated by the "Z" qualifier:

   FLA-PRO
   o-Terphenyl

   The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

10. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified limit for the following analysis:

    FLA-PRO

    The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

11. Batch QC for the FLA-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume.

12. Tentatively Identified Compounds were reported as quantitative estimates.

13. Batch QC is reported for the FLA-PRO, Chloride, TOC, Nitrate Nitrogen, Nitrite Nitrogen, and Alkalinity analyses.

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ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

The following item was noted for the Methane analysis by the subcontract laboratory:

14. Methane had no spike recoveries reported due to the sample concentration being 100 times greater than the spiking concentration.

Approved for Quality Assurance Release By:

Camden Robinson — Date: 9/5/01
Quality Assurance Officer

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ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC17883 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-27A-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	140		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	13.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	32		5.0
Ethene	95		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	650		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	1.26		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	310	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	31		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	3.4		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	8.4		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	23		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	0.55	J	7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	14		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	84		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	117		
4-Bromofluorobenzene (80-120)	111		
Toluene-d8 (80-119)	107		

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LABORATORY REPORT

Accura Sample ID #: **AC17884** **Accura Project #:** **28512**

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FD1-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	25		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	78		5.0
Ethene	260		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	93		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	98	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	8		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	4.6		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.64	J	6.5
cis-1,2-Dichloroethene	14		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	19		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	49		
o-Terphenyl (Range 82-142)	54	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	119		
4-Bromofluorobenzene (80-120)	114		
Toluene-d8 (80-119)	105		

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LABORATORY REPORT

Accura Sample ID #: AC17885 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-31C-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	1.0		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	5.4		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	44		5.0
Ethene	260		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2300		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	3.2		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	120	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	31		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	15		1.0
Butyric Acid	4.6		1.0
Lactic Acid	<RL		25
Propionic Acid	31		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.59	J	6.5
cis-1,2-Dichloroethene	17		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.5	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	34		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	78		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	122		
4-Bromofluorobenzene (80-120)	112		
Toluene-d8 (80-119)	109		

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LABORATORY REPORT

Accura Sample ID #: **AC17888** **Accura Project #:** **28512**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-30C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	20		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.4		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	92		5.0
Ethene	300		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	90		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	92	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	8		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	3.8		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	14		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.1	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	18		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	87		
o-Terphenyl (Range 82-142)	51	Z	

ANALYSIS: X_VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	123		
4-Bromofluorobenzene (80-120)	108		
Toluene-d8 (80-119)	102		

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LABORATORY REPORT

Accura Sample ID #: **AC17889** **Accura Project #:** **28512**

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-TB2-Q3-01**

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	10		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	0.57	J	4
Vinyl chloride	<RL		5.5

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	125		
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	100		

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LABORATORY REPORT

Accura Sample ID #: AC17890 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-07A-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	13		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	3.2		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	110		5.0
Ethene	77		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.50		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	120	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	10		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	4.7		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	0.78	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.1	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	11		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	97		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	114		
4-Bromofluorobenzene (80-120)	101		
Toluene-d8 (80-119)	94		

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LABORATORY REPORT

Accura Sample ID #: **AC17891** **Accura Project #:** **28512**

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-09C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	180		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.3		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	160		5.0
Ethene	430		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	290	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	29		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	4.3		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	8.7		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	27		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	140		50
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	60		
o-Terphenyl (Range 82-142)	63	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	124		
4-Bromofluorobenzene (80-120)	107		
Toluene-d8 (80-119)	105		

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LABORATORY REPORT

Accura Sample ID #: AC17892 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL		5.0
Ethene	<RL		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	1.26		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	56		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	103		

PROJECT QUALITY CONTROL RESULTS

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limit	
		MS	MSD	MS	MS	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviat	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS -- Not Specified
NA -- Not Applicable

PROJECT QUALITY CONTROL RESULTS

8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA			NA	NA
	PETROLEUM HYDROCARBONS					%	%			%	%			%	%			%	%
FL-PRO	TPH	63	70			75-125	30-170	11%	#DIV/0!	<30	<50			75-125	70-130			<50	<75
310.1	Alkalinity	91	92		N/A	70-130	1	<30	97	70-130	N/A	<30	N/A		N/A				

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS Not Specified
NA Not Applicable

AN# 20012

CHAIN-OF-CUSTODY RECORD

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

[1] COC NUMBER: 0731-3

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOL. FATTY ACIDS	METHANE, ETHANE, ETHENE	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-27A-Q3-01		W	7-31-01	0930	III	14	2	2			AC-17883
2	017-OLD-36-FD1-Q3-01				—			2	2			17884
3	017-OLD-36-31C-Q3-01				1130			2	2			17885
4	017-OLD-36-31C NS-Q3-01				1130			2	2			17886
5	017-OLD-36-31C NSD-Q3-01				1130			2	2			17887
6	017-OLD-36-30C-Q3-01				1120			2	2			17888
7	017-OLD-36-07A-Q3-01				1520			2	2			17890
8	017-OLD-36-09C-Q3-01		↓	↓	1550	↓	↓	2	2			17891
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print)
ISAAC LYNCH / CARLTON ENVIRO

[30] COURIER AND SHIPPING NUMBER:
FedEx to Accra 822041481319

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Isaac Lynch	7-31-01	1730	Printed Name and Signature: FED EX		
Printed Name and Signature: FED EX	8-1-01	0945	Printed Name and Signature: Arnold Blunt	0-8-01	0945
Printed Name and Signature: Arnold Blunt	8-1-01	1600	Printed Name and Signature: U.P.S.	0-8-01	1600

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

AHLTA 2801L 1954/LC

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0731-1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	ACCURA / BONNIE HOGUE	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs 8260B	NO_3 NO_2	CHLORIDE TDS, ALKALINITY	FL-PRO	TOC	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AC
1	017-OLD-36-27A-Q3-01		W	7-31-01	0930	III	14	3	1	1	1	2	1				17883
2	017-OLD-36-FD1-Q3-01		W	7-31-01	—			3	1	1	1	2	1				84
3	017-OLD-36-31C-Q3-01		W	7-31-01	1130			3	1	1	1	2	1				85
4	017-OLD-36-31C MS-Q3-01		W	7-31-01	1130			3	1	1	1	2	1				86
5	017-OLD-36-31C MSD-Q3-01		W	7-31-01	1130			3	1	1	1	2	1				87
6	017-OLD-36-30C-Q3-01		W	7-31-01	1120			3	1	1	1	2	1				88
7	017-OLD-36-TB2-Q3-01		W	7-31-01	—			3									89
8	017-OLD-36-07A-Q3-01		W	7-31-01	1520			3	1	1	1	2	1				90
9	017-OLD-36-09C-Q3-01		W	7-31-01	1550			3	1	1	1	2	1				91
10																	

[29] SAMPLER(S) AND COMPANY: (please print)
ISAAC LYNCH /Tetra Tech Ewpy

[30] COURIER AND SHIPPING NUMBER:
fed Ex 828041481319

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Isaac Lynch	7-31-01	1730	Printed Name and Signature: FED EX		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: FED EX	8-1-01	0945	Printed Name and Signature: Arnold B Knight	8-1-01	0945

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 5 Client Code: 0397-07 AAL Project Mg: B.J.H.

Client Project Name: CTO 17-TNTC ORLAND. STUDY AREA 36 ACCURA Lab Project#: 28512

Are there EnCores, tests with < 48Hr hold times, or RUSH TAT's requested? YES (NO)

If YES, you must communicate RUSH analyses to the appropriate analyst(s) immediately!!! / or preserve EnCores (see #16 below)!!!

Preliminary Examination: Initials: ABC Date received: 8-1-01 Date cooler was opened: 8-1-01

1.	Did cooler/package come with a shipping slip (airbill, Etc.)? If YES, enter carrier name and airbill number here: FED EX SEE REVERSE Describe type of packing in cooler: ICE ****If cooler was hand delivered, CIRCLE HERE, skip to item #5****	(YES)		NO
2.	Were custody seals on outside of cooler? If YES, how many: 2 seal dated: 7-31-01 seal name: ILLEGABLE	(YES)		NO
3.	Were custody seals unbroken and intact at the date and time of arrival?	(YES)	N/A	NO
4.	Were custody papers sealed in a plastic bag to prevent damage to chain of custody?	(YES)		NO
5.	If required, was enough ice used? (Internal cooler temperature, 2°C)	(YES)	N/A	NO
6.	Did you sign custody papers in the appropriate place?	(YES)		NO
7.	Was project identifiable from custody papers? If YES, enter project name at the top.	(YES)		NO

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8.	Did all containers arrive unbroken and were labels in good condition?	(YES)		NO
9.	Were custody papers filled out properly and did all labels agree with custody papers?	YES		(NO)
10.	Were correct containers and sufficient amount of sample sent for the test indicated?	(YES)		NO
11.	All samples collected within three days of date received for these analyses **(Reactive Cn & S, Solids in H2O, Sulfide, Sulfite, !ALL! Extractable Organic Waters)?** If NO, coordinate with the project manager to ensure that no samples go out of hold!!!	(YES)	N/A	NO
12.	No residual chlorine found in waters for these analyses: **(Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)?** Checked by: _____ (Initials)	YES	(N/A)	NO
13.	Were samples properly chemically preserved, if required, upon receipt? **(For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)** Preservation checked by: _____ (Initials)	(YES)	N/A	NO
14.	Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? If NO, list ID # on back and label vials with "Do Not Use Until Notified By Management".	(YES)	N/A	NO
15.	If there are samples for dissolved metals, were they field filtered? If NO, list date and time samples were filtered and preserved in lab: _____	YES	(N/A)	NO
16.	Were Encore samplers included? If YES, date and time preserved with $NaHSO_4$: _____ By whom: _____	YES		(NO)
17.	Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? If YES, vials weighed by and entered into vial database by: _____	YES		(NO)
18.	Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: _____			

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.

Final check and samples logged to locations by: ABC (Initials)

19.	Was it necessary to call the assigned project manager in order to proceed with login? If YES, give details on the back of this form.	YES		(NO)
20.	Who was called? _____ By whom? _____ Date/Time: _____			

Project Mgr. Review: _____ (Initials) 8/2/01 (Date)

ACCURA ANALYTICAL LABORATORY, INC.
SAMPLE RECEIPT VARIANCE FORM

Item #	Discrepancies Noted:
1	4 COOLERS RECVD TRACK#'S AND COOLER TEMPS ARE AS FOLLOWS 8289 4567 8866 (2°C) 8289 4567 8888 (2°C) 8289 4567 8877 (2°C) 824041481319 (2°C) ALL COOLER'S RECVD WITH 2 CUSTODY SEALS UNBROKEN DATED 7-31-01 ~~7W~~
9.	COC's paper said Aust 3 x 40ml vials (017-01D-36-TB2-03-01), But 2x 40ml vials Received..

Item #	Actions Taken:
9	OK - noted

Project Mgr. Review: [signature] (Initials) 8/2/01 (Date)

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **141418**

Project: Project#28512

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue

August 13, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Kathryn Smith
Project Manager

Christy D. Glidden
Quality Assurance

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ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-1**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17883, 07/31/2001, 09:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	31	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	13.0	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	1.26	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-2**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17884, 07/31/2001, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	8	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.1	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-3**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17885, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	31	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.4	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-4**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17886, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	33	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.1	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-5**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17887, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	30	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.2	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
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Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-6**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17888, 07/31/2001, 11:20, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	8	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.4	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-7**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17890, 07/31/2001, 15:20, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	10	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	3.2	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	0.50	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-8**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17891, 07/31/2001, 15:50, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	29	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	8.3	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 70228 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	93	94	1	75 - 125	0 - 10
Chloride	91	91	0	75 - 125	0 - 10
Fluoride	90	88	2	75 - 125	0 - 10
Nitrate-Nitrogen	92	92	0	75 - 125	0 - 10
Nitrite-Nitrogen	99	99	0	75 - 125	0 - 10
Sulfate	94	95	1	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	94	94	0	75 - 125	0 - 10
Chloride	92	93	1	75 - 125	0 - 10
Fluoride	90	92	2	75 - 125	0 - 10
Nitrate-Nitrogen	91	91	0	75 - 125	0 - 10
Nitrite-Nitrogen	97	98	1	75 - 125	0 - 10
Sulfate	95	95	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 70228 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0

Blank Results Information

Batch # 70228 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 70228 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70228BLK	08/01/01	1600	AMC/BAF		08/02/01	0130	AMC/BAF	IC
70228CALHIGH	08/01/01	1600	AMC/BAF		08/02/01	0150	AMC/BAF	IC
70228CALMID	08/01/01	1600	AMC/BAF		08/02/01	0211	AMC/BAF	IC
70228CALLOW	08/01/01	1600	AMC/BAF		08/02/01	0231	AMC/BAF	IC
70228LCS	08/01/01	1600	AMC/BAF		08/02/01	0251	AMC/BAF	IC
70228LCSD	08/01/01	1600	AMC/BAF		08/02/01	0312	AMC/BAF	IC
141427-2	08/01/01	1730	AMC/BAF		08/02/01	0332	AMC/BAF	IC
141427-3	08/01/01	1730	AMC/BAF		08/02/01	0352	AMC/BAF	IC
141427-4	08/01/01	1730	AMC/BAF		08/02/01	0412	AMC/BAF	IC
141427-5	08/01/01	1730	AMC/BAF		08/02/01	0433	AMC/BAF	IC
141427-6	08/01/01	1730	AMC/BAF		08/02/01	0453	AMC/BAF	IC
141427-7	08/01/01	1730	AMC/BAF		08/02/01	0513	AMC/BAF	IC
141427-8	08/01/01	1730	AMC/BAF		08/02/01	0534	AMC/BAF	IC
141427-8DUP	08/01/01	1730	AMC/BAF		08/02/01	0554	AMC/BAF	IC
141427-9	08/01/01	1730	AMC/BAF		08/02/01	0614	AMC/BAF	IC
141427-9DUP	08/01/01	1730	AMC/BAF		08/02/01	0634	AMC/BAF	IC
141427-10	08/01/01	1730	AMC/BAF		08/02/01	0655	AMC/BAF	IC
141408-1	08/01/01	1730	AMC/BAF		08/02/01	0715	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/02/01	0735	AMC/BAF	IC
141427-1	08/01/01	1825	AMC/BAF		08/02/01	0836	AMC/BAF	IC
141252-22	08/01/01	1825	AMC/BAF		08/02/01	0857	AMC/BAF	IC
141103-1	08/01/01	1825	AMC/BAF		08/02/01	0917	AMC/BAF	IC
141418-3	08/01/01	1825	AMC/BAF		08/02/01	0937	AMC/BAF	IC
141418-2	08/01/01	1825	AMC/BAF		08/02/01	0957	AMC/BAF	IC
141418-8	08/01/01	1825	AMC/BAF		08/02/01	1018	AMC/BAF	IC
141418-4	08/01/01	1825	AMC/BAF		08/02/01	1038	AMC/BAF	IC
141418-5	08/01/01	1825	AMC/BAF		08/02/01	1058	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/02/01	1139	AMC/BAF	IC
DBL8/2	/ /				08/03/01	1216	AMC/BAF	IC
141418-7	08/01/01	1825	AMC/BAF		08/03/01	1418	AMC/BAF	IC
DBL8/11	08/11/01	1200	AMC/BAF		08/11/01	2234	AMC/BAF	IC
141427-8MS	08/11/01	1230	AMC/BAF		08/11/01	2355	AMC/BAF	IC
141427-8MSD	08/11/01	1230	AMC/BAF		08/12/01	0015	AMC/BAF	IC
DBL8/11	08/11/01	1200	AMC/BAF		08/12/01	0156	AMC/BAF	IC

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 70293 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	94	95	1	75 - 125	0 - 10
Chloride	94	94	0	75 - 125	0 - 10
Fluoride	87	88	1	75 - 125	0 - 10
Nitrate-Nitrogen	93	93	0	75 - 125	0 - 10
Nitrite-Nitrogen	102	102	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	91	90	1	75 - 125	0 - 10
Chloride	89	90	1	75 - 125	0 - 10
Fluoride	80	82	2	75 - 125	0 - 10
Nitrate-Nitrogen	89	89	0	75 - 125	0 - 10
Nitrite-Nitrogen	95	95	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0

Surrogate Recovery

Batch # 70293 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0

Blank Results Information

Batch # 70293 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 70293 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70293BLK	08/02/01	1700	AC/BF		08/03/01	1216	AMC/BAF	IC
70293CALHIGH	08/02/01	1700	AC/BF		08/03/01	1236	AMC/BAF	IC
70293CALMID	08/02/01	1700	AC/BF		08/03/01	1257	AMC/BAF	IC
70293CALLOW	08/02/01	1700	AC/BF		08/03/01	1317	AMC/BAF	IC
70293LCS	08/02/01	1700	AC/BF		08/03/01	1337	AMC/BAF	IC
70293LCSD	08/02/01	1700	AC/BF		08/03/01	1358	AMC/BAF	IC
141418-1	08/01/01	1825	AC/BF		08/03/01	1438	AMC/BAF	IC
141418-6	08/01/01	1825	AC/BF		08/03/01	1459	AMC/BAF	IC
141500-1	08/02/01	2000	AC/BF		08/03/01	1519	AMC/BAF	IC
141500-1DUP	08/02/01	2000	AC/BF		08/03/01	1539	AMC/BAF	IC
141503-1	08/02/01	2000	AC/BF		08/03/01	1600	AMC/BAF	IC
141503-1DUP	08/02/01	2000	AC/BF		08/03/01	1620	AMC/BAF	IC
141503-2	08/02/01	2000	AC/BF		08/03/01	1640	AMC/BAF	IC
141503-3	08/02/01	2000	AC/BF		08/03/01	1700	AMC/BAF	IC
141503-4	08/02/01	2000	AC/BF		08/03/01	1721	AMC/BAF	IC
141503-5	08/02/01	2000	AC/BF		08/03/01	1741	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	1/100	08/03/01	1800	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	10/100	08/03/01	1822	AMC/BAF	IC
140420-1	08/03/01	1600	AC/BF		08/03/01	1842	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	1/100	08/03/01	1902	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	10/100	08/03/01	1922	AMC/BAF	IC
140420-2	08/03/01	1600	AC/BF		08/03/01	1943	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	1/100	08/03/01	2003	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	10/100	08/03/01	2023	AMC/BAF	IC
140420-3	08/03/01	1600	AC/BF		08/03/01	2044	AMC/BAF	IC
141503-6	08/02/01	2000	AC/BF		08/03/01	2104	AMC/BAF	IC
141503-7	08/02/01	2000	AC/BF		08/03/01	2124	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2144	AMC/BAF	IC
141478-1	08/02/01	2000	AC/BF		08/03/01	2225	AMC/BAF	IC
141440-1	08/02/01	2000	AC/BF		08/03/01	2245	AMC/BAF	IC
141440-4	08/02/01	2000	AC/BF		08/03/01	2306	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2326	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1126	AMC/BAF	IC
141507-3	08/03/01	1840	AC/BF	2/100	08/04/01	1244	AMC/BAF	IC
141507-6	08/03/01	1840	AC/BF	2/100	08/04/01	1305	AMC/BAF	IC
141507-9	08/03/01	1840	AC/BF	2/100	08/04/01	1325	AMC/BAF	IC
141507-12	08/03/01	1840	AC/BF	2/100	08/04/01	1345	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1406	AMC/BAF	IC

Single Analyte Data

Blank Results Information

Batch Number	Analyte	Analysis Method	Preparation Method	Blank Result	Matrix
70318	TOC	EPA 9060		< 1.0000	Aqueous

Lab Control Information

Batch Number	Analyte	Analysis Method	LC % Rec.	LCD % Rec.	LC/LCD RPD	%Recovery Range	RPD Range
70318	TOC	EPA 9060	104	103	1	80 - 120	0 - 20

Matrix Spike Information

Batch Number	Analyte	Analysis Method	MS % Rec.	MSD % Rec.	MS/MSD RPD	%Recovery Range	RPD Range
70318	TOC	EPA 9060	94	100	6	89 - 125	0 - 11

Unspiked Sample Duplicate Information

Batch Number	Analyte	Analysis Method	Sample 1 RPD	Sample 2 RPD	RPD Range
70318	TOC	EPA 9060	4	9	0 - 11

Single Analyte Data
Sample Batch Information
Analysis : TOC

Batch # 70318 ***Matrix : Aqueous***

		Preparation				Analysis			
Sample ID	Tag	Date	Time	By	Notes	Date	Time	By	Inst
70319BLK		/ /				08/03/01	2100	DJ	ASTRO
70319LCS		/ /				08/03/01	2100	DJ	ASTRO
70319LCSD		/ /				08/03/01	2100	DJ	ASTRO
70319CALCHK		/ /				08/03/01	2100	DJ	ASTRO
141163-1MS		/ /				08/03/01	2100	DJ	ASTRO
141163-1MSD		/ /				08/03/01	2100	DJ	ASTRO
141163-1		/ /				08/03/01	2100	DJ	ASTRO
141163-1DUP		/ /				08/03/01	2100	DJ	ASTRO
141092-6RR		/ /			DOC	08/03/01	2100	DJ	ASTRO
141092-6RR		/ /			TOC	08/03/01	2100	DJ	ASTRO
141099-4		/ /			DOC	08/03/01	2100	DJ	ASTRO
141099-4		/ /			TOC	08/03/01	2100	DJ	ASTRO
141199-5		/ /			DOC	08/03/01	2100	DJ	ASTRO
141199-5		/ /			TOC	08/03/01	2100	DJ	ASTRO
141351-1		/ /				08/03/01	2100	DJ	ASTRO
141351-2		/ /				08/03/01	2100	DJ	ASTRO
141351-3		/ /				08/03/01	2100	DJ	ASTRO
141351-4		/ /				08/03/01	2100	DJ	ASTRO
141163-2		/ /				08/03/01	2100	DJ	ASTRO
141163-2DUP		/ /				08/03/01	2100	DJ	ASTRO
141418-1		/ /				08/03/01	2100	DJ	ASTRO
141418-2		/ /				08/03/01	2100	DJ	ASTRO
141418-3		/ /				08/03/01	2100	DJ	ASTRO
141418-4		/ /				08/03/01	2100	DJ	ASTRO
141418-5		/ /				08/03/01	2100	DJ	ASTRO
141418-6		/ /				08/03/01	2100	DJ	ASTRO
141418-7		/ /				08/03/01	2100	DJ	ASTRO
141418-8		/ /				08/03/01	2100	DJ	ASTRO

A4

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: A S I

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: **Bonnie J. Hogue**

Contact Phone # (770) 449 - 8800, **ext. 216**

Fax Number: (770) 449 - 5477

AAL PROJECT # 28512

For Laboratory Use Only

Custody Seal: Y (N) Page 1 OF 1

QC Level: N 1 2 3 4 Init/Temp: 2°C @ 1625

Entered into LIMS: KAO LAB Project # 141418

Sample Condition: g

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	NO_3	NO_2	Chloride 300.0	TOC (9060)					Remarks	LAB #
AC 17883	7-31-01/0930			W			3	✓	✓	✓	✓						-1
AC 84				W			3	✓	✓	✓	✓						-2
AC 85	1130			W			3	✓	✓	✓	✓						-3
AC 86	1130			W			3	✓	✓	✓	✓						-4
AC 87	1130			W			3	✓	✓	✓	✓						-5
AC 88	1120			W			3	✓	✓	✓	✓						-6
AC				W			3	✓	✓	✓	✓					8/01/01	
AC 17890	1520			W			3	✓	✓	✓	✓						-7
AC 91	1550															run NO_2, NO_3, Cl + Toc per phone conv. w/ Bonnie 8/2 KB	-8
AC																	

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
		BAM	8/1@1625	**PLEASE FAX RESULTS!!**
Relinquished By:	Date / Time	Received By:	Date / Time	Turnaround Time Requested:
	8/1/01/1625			ASAP!

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

MICROSEEPS

28512

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Page: Page 1 of 13
Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108054-01	AC17883
P0108054-02	AC17884
P0108054-03	AC17885
P0108054-04	AC17886MS
P0108054-05	AC17887MSD
P0108054-06	AC17888
P0108054-07	AC17890
P0108054-08	AC17891

Approved By: Debbie Hall

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17883	Water	31 Jul. 01 9:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	3.4	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	32	5.0	ng/L	AM18
Ethene	95	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	650	0.015	ug/L	AM20GAX
Propionic acid	8.4	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17884	Water	31 Jul. 01 9:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	78	5.0	ng/L	AM18
Ethene	260	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	93	0.015	ug/L	AM20GAX
Propionic acid	4.6	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17885	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	15	1.0	mg/L	AM21G
Butyric acid	4.6	1.0	mg/L	
Ethane	44	5.0	ng/L	AM18
Ethene	260	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	31	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-04

Sample Description	Matrix	Sampled Date/Time	Received
AC17886MS	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	100	1.0	mg/L	AM21G
Butyric acid	91	1.0	mg/L	
Ethane	38000	5.0	ng/L	AM18
Ethene	37000	5.0	ng/L	
Lactic Acid	89	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	120	1.0	mg/L	AM21G
Pyruvic acid	85	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-05

Sample Description	Matrix	Sampled Date/Time	Received
AC17887MSD	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	100	1.0	mg/L	AM21G
Butyric acid	91	1.0	mg/L	
Ethane	38000	5.0	ng/L	AM18
Ethene	36000	5.0	ng/L	
Lactic Acid	87	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	120	1.0	mg/L	AM21G
Pyruvic acid	86	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-06

Sample Description	Matrix	Sampled Date/Time	Received
AC17888	Water	31 Jul. 01 11:20	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	92	5.0	ng/L	AM18
Ethene	300	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	90	0.015	ug/L	AM20GAX
Propionic acid	3.8	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-07

Sample Description	Matrix	Sampled Date/Time	Received
AC17890	Water	31 Jul. 01 15:20	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	110	5.0	ng/L	AM18
Ethene	77	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1700	0.015	ug/L	AM20GAX
Propionic acid	4.7	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-08

Sample Description	Matrix	Sampled Date/Time	Received
AC17891	Water	31 Jul. 01 15:50	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	4.3	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	160	5.0	ng/L	AM18
Ethene	430	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1700	0.015	ug/L	AM20GAX
Propionic acid	8.7	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M010816007-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M010816007-LCS

	%Recovery	Ctl Limits
Ethene	99	89 - 115
Ethane	100	89 - 113

P0108054-03A-MS

	%Recovery	Ctl Limits
Ethene	96	70 - 130
Ethane	93	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	94	70 - 130	2.74	0 - 20
Ethane	93	70 - 130	0.00	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M010816025-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M010816025-LCS

	%Recovery	Ctl Limits
Methane	95	90 - 108

P0108054-03A-MS

	%Recovery	Ctl Limits
Methane	0	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	0	70 - 130	0.00	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M010823004-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M010823004-LCS

	%Recovery	Ctl Limits
Acetic Acid	83	70 - 130
Propionic acid	84	70 - 130
Butyric acid	86	70 - 130
Lactic Acid	77	70 - 130
Pyruvic acid	83	70 - 130

P0108054-03A-MS

	%Recovery	Ctl Limits
Acetic Acid	85	70 - 130
Propionic acid	89	70 - 130
Butyric acid	86	70 - 130
Lactic Acid	89	70 - 130
Pyruvic acid	85	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	85	70 - 130	0.00	0 - 20
Propionic acid	89	70 - 130	0.00	0 - 20
Butyric acid	86	70 - 130	0.00	0 - 20
Lactic Acid	87	70 - 130	2.27	0 - 20
Pyruvic acid	86	70 - 130	1.17	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Case Narrative:Methane had no recovery due to the sample concentration being 100 times greater then the spiking concentration.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

PO108054

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: MICROSEEPS

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: **Bonnie J. Hogue**

Contact Phone # (770) 449 - 8800, **ext. 216**

Fax Number: (770) 449 - 5477

AAL PROJECT # 28512

For Laboratory Use Only

Custody Seal: Y N Page 1 OF 1

QC Level: N 1 2 3 4 Init/Temp:

Entered into LIMS: LAB Project #

Sample Condition:

CH2M HILL

-NTC ORLANDO PROJECT.

	AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	MEE	VPH	Remarks	LAB #
01	AC 17883	7-31-01/0930			W			4	✓	✓	-PLEASE FOLLOW	
02	AC 84				W			4	✓	✓	THEIR LEVEL	
03	AC 85	1130			W			4	✓	✓	OF QC REQUIREMENTS.	
04	AC 86	1130			W			4	✓	✓		
05	AC 87	1130			W			4	✓	✓		
06	AC ✓ 88	✓ 1120			W			4	✓	✓		
	AC				W			4	✓	✓	12d/8/01/01.	
07	AC 17890	7-31-01 1520			W			4	✓	✓		
08	AC ✓ 91	✓ 1550										
	AC											

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
Amanda Taylor	8-1-01 1600	UPS	8-1-01	**PLEASE FAX RESULTS!!**
Relinquished By:	**Date / Time**	**Received By:**	**Date / Time**	**Turnaround Time Requested**
		[illegible]	8/2/01 13:32	

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

SubCOC-MEVPH

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28512 **Test Performed:** Alkalinity Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? Y If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? _____
   Reason for dilution. _____
4. Duplicate AAL sample number 17920
   Is the RPD acceptable? Y If not, what is the reason? _____
5. MS/MSD AAL sample number 17920
   Are the recoveries acceptable? Y If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? yes
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. yes

Analyst entering results in Labworks. AS Date: 08-10-01

Peer Reviewer. [signature] Date: 8/29/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01

Analyst: AS

Time Started: 11:30 / 15:40

Lot #'s: 0.02N H_2SO_4: 1046

Phenolphthalein Indicator: —

	AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
								mg/L as $CaCO_3$			
	BLANK	50mL				0.05-0.10	0				4.5 / 4.2 endpt
	LCS	50+5mL	spike Na_2CO_3			12.90	2580				lot% 97.3%
1	17883	50mL				6.93	138.6				
2	17884					1.25	25				
3	17885					0.05	1				pH = 4.55
4	17886					0.05	1				pH = 4.55
5	17887					0.20	4				
6	17888					1.00	20				
7	17890					0.65	13				
8	17891					9.00	180				
9	17919					0.50	10				
10	17920					4.15	83				
11	17921					4.15	83				
12	17922					1.05	21				
13	17923					0.60	12				
14	17924					0.57	11.4				
15	1925					0.78	15.6				
16	17926					1.10	22				
	7934					3.35	67				
18	7978					0.70	14				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{mL\ sample}$

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

Where: A = mL acid used

N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Cont on page 95

Reviewed By: _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01

Analyst: AS

Time Started: 11:30/15:40

Lot #'s: 0.02N H_2SO_4: 1046

Phenolphthalein Indicator:

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
						mg/L as $CaCO_3$				
17979	50				0.43	8.6				
17982	1				0.10	2				
17920 D					4.10	82				2.49% RPD
17920MS	+5mL				16.27	2440				91% rec.
17920 MSD	+5 spike				16.40	2450				92.4%

Calculation: Alkalinity, mg $CaCO_3/L = \frac{A \times N \times 50000}{mL\ sample}$

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

where: A = mL acid used

N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By:

Wet Chemistry Checklist

Project #: 28512 **Test Performed:** TDS Project Manager: BJH

Analyst Questions:

1. **Is the Blank <1/2 RDL?** Yes **If not, has the RDL been raised or the samples reanalyzed?** _____
2. **Are the LCS/LCSD within limits?** — **If not, why? Are the samples being reanalyzed?** _____
3. **Sample numbers requiring dilution?** — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
4. **Duplicate AAL sample number** 17885
   Is the RPD acceptable? No **If not, what is the reason?** ~~RPD~~ DO RPD > 20%
5. **MS/MSD AAL sample number** —
   Are the recoveries acceptable? — **If not, what is the reason?** _____
6. **Are all special requirements on project sheet completed?** _____ **If not, has the project manager been notified.** _____
7. **Any additional comments.** _____

Reviewer Questions:

8. **Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)?** —
9. **For titration tests, are the titration ratios acceptable?** —
10. **For meter or balance tests, was the meter or balance calibrated for the day analyzed?** ✓
11. **Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc.** ✓

Analyst entering results in Labworks. Debra Dann **Date:** 8/20/01

Peer Reviewer. ID **Date:** 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
~~7/24/01~~	~~DG~~	~~6:30~~	~~13:30~~ 7/25/01	~~17088 DUP~~	~~3~~	~~54.2323~~	~~100 mL~~	54.2319	54.2313		< DL	DATA NOT REPORTED per BJH
8-13-01	AS	11:00		Blank	1	71.7586		71.7582	71.7585		< DL	
				17839	2	72.6436		72.6422	72.6426		< DL	
				17840	3	54.2289		54.2279	54.2284		< DL	
				17841	4	70.3683		70.3772	70.3764	70.3769	86	
				17842	5	71.0181		71.0399	71.0374	71.0365	184	
				17841D	6	73.4836		73.4916	73.4925 AS	73.4911	75	
~~8-15-01~~	AS	15:45	15:45 AS	17841	7	54.830		54.839	54.842 AS		10	
				17841	8	57.566		57.575	57.576		10	
8/14/01	DG	6:45	14:30	Blank	4	70.3712	100 mL	70.3707	70.3708		~~306~~ < DL	
				17883	X	72.3853		72.4159	72.4165		306	
				17884	1	71.7601		71.7699	71.7699		98	
				17885	5	71.0156		71.0276	71.0278		120	
				17885D	6	73.4829		73.4922	73.4927		93	
				17886	13	69.0235		69.0315	69.0320		80	
				17887	7	69.5653		69.5700	69.5703		47	
				17888	14	61.3834		61.3926	61.3933		92	
				17890	8	56.7423		56.7543	56.7549		120	
				17891	9	65.5823		65.6113	65.6113		290	
				17978	21	53.8425	100 mL	53.9120	53.9123		695	
				17979	2	72.6462		72.6499	72.6492		37	

TDS = (Final wt - Tare wt) in mg
sample volume in L

Reviewed By:_____

SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 28512	METHOD: FL-PRO
MATRIX: water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
Are multicomponent patterns resolvable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst:	BP
Date: 8/9/01	Time: 09:05

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer:	RL
Date: 8/10/01	Time: 10:28

Analytical Laboratory, Inc.
Environmental Analytical Services
601 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: SV 0108004

Reported By: Prashant Bongale Date Reported: 8/9/01

Department: SVOC Project(s): 28507 28512 PM: BJH

Discrepancy:

On FL-PRO Analysis: LCS & LCSD rec (63% & 70% respectively) meet method limits (55-118%) but not the navy limits (75-125%).

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Report Results

Resolution recorded by: DMB Date: 08.09.01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

File name: Lab quality communication form... Date: 03/22/01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 8/6/01 **Batch ID:** DROW 79 **Matrix:** Water

Ext. Method: 3520 **MS ID:** LCS **MSD ID:** LCSD

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1	28507	17839	8/6/01	FL-Pro
2		17840		
3		17841		
4		17842		
5	28516	17883		
6		17884		
7		17885		
8		17886		
9		17887		
10		17888		
11		17890		
12		17891		
13	28530	17978	8/8/01	
14		17979		
15		17982		
16				
17				
18				
19				
20				

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

FL PN

ANALYSIS: (DRO) / PAH

DATE/TIME: 8/16/01 8:00 a.m.

MATRIX: WATER

ANALYST: LL

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0ml	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QEW0880601-1	1L	<2	LL		1.0mL	BLK
QEW0880601-2				LL		LCS
QEW0880601-3				LL		LCSD
17839						Strong odor
17840	910mL					
17841	1L					very dirty
17842	1					1
17883	920mL					
17884	1L					
17885						
17886						
17887						
17888						very dirty
17890						1
17891	940mL					

LL 8/17/01 5:00pm

START TIME: ~~2:00pm 8/16~~ 4:15pm STOP TIME: ~~12:00pm 8/16~~ SOLVENT ID #: EX0127

SURROGATE I.D.: FL01E115 / FL01E134 / B01E136 CONC.: 300ppm 300ppm 50ppm INITAL: LL

SURROGATE I.D.: FL01E122 CONC.: 300ppm INITAL: LL

SPIKE I.D.: FL01E135 CONC.: 250ppm INITIAL: LL

SPIKE I.D.: — CONC.: — INITIAL: —

EXTRACT STORAGE: REFRIG.# 5, BOX #: D-196 / D-197 RapidVap TEMP.: 45°C

Spike with 5's

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Instrument DRO-A

Sequence Date: 8/8/01

Analyst Initials: BP

Run Method: PFW 0727

Quant Method: ↓

	Sample	Blank/LCS
Water OTP/C39 Limits	82-142/42-193	82-142/42-193
Soil OTP/C39 Limits	82-109/60-118	82-109/60-118

Compound: FL-PRO

Date: 07/27/01

BP 8/8/01

Vial Position	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C39 Recovery	DRO Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solv Blank	NA	Med.	1x	NA →			✓	
2	4250 ppm PRO ccv	↓	Std		123/98	111	015V167		
3	QFW080601	8/6/01	Water		62/56				
	QFW080602				65/48	63			
5	QFW080603				68/57	70			
	17839 W				67/78				
7	17840 W				65/70				
8	17841 W				56/54				
9	17842 W				50/63				
	17883 W				62/84				
	17884 W				54/49				
12	17885 W	↓	↓		62/78				
1	Solv Blank	NA	Med.		NA →				
2	4250 ppm PRO ccv	↓	Std		114/98	110	015V167		
13	17886 W	8/6/01	Water		59/73				
14	17887 W				60/103				
15	17888 W			✓	51/87				Rerun w/o dilution
16	17890 W			5x	61/59				↓
17	17891 W			↓	64/41				
18	17890 W			1x	62/97				
	17891 W	↓	↓		63/60				
1	Solv Blank	NA	Med.		NA →				
2	4250 ppm PRO ccv	↓	Std	↓	120/95	115	015V167	↓	

Initials / Date: BP 8/9/01

SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: 7/27/01 HP 600	METHOD: 8000
MATRIX: FL-PRO DCAL	

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: [illegible]	Reviewer: RL
Date: 7/30/01 Time: 12:45	Date: 7/30/01 Time: 15:01

FL-PRO Initial Calibration

Date: 7/27/01
Method: FL-PRO
Instrume HPGCO; Front Column
Analyst: BP
ICAL ID: PRO0727

Concentration (PPM)	Area	RF
850	104812006	123308.2
2550	190903019	74863.9
4250	293463899	69050.3
5950	367696358	61797.7
7692	447686810	58201.6

Average RF: 77444.4

Response Factor Report HPGCO

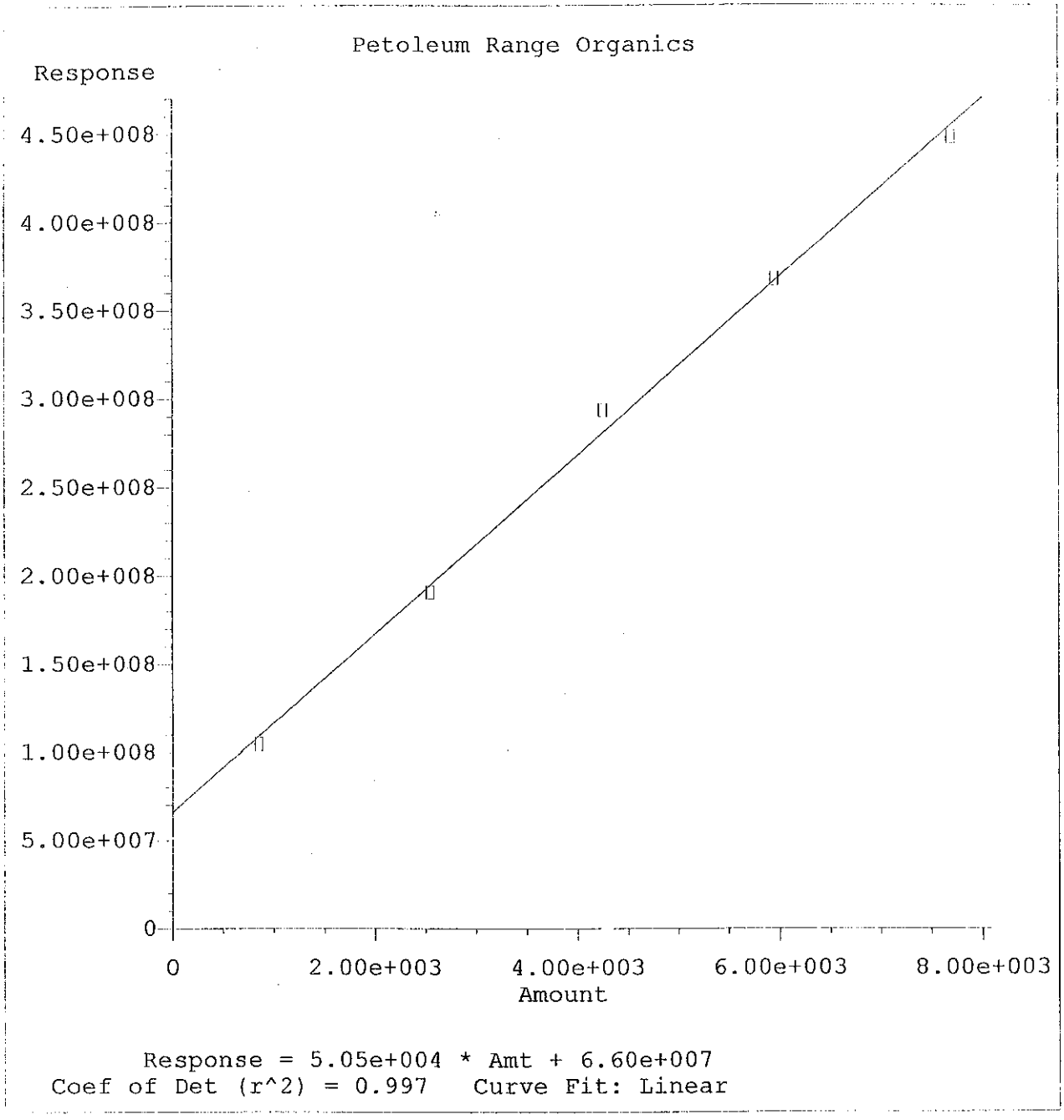
Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:43:25 2001

Calibration Files
1 =07270102.D 2 =07270103.D 3 =07270104.D
4 =07270105.D 5 =07270106.D

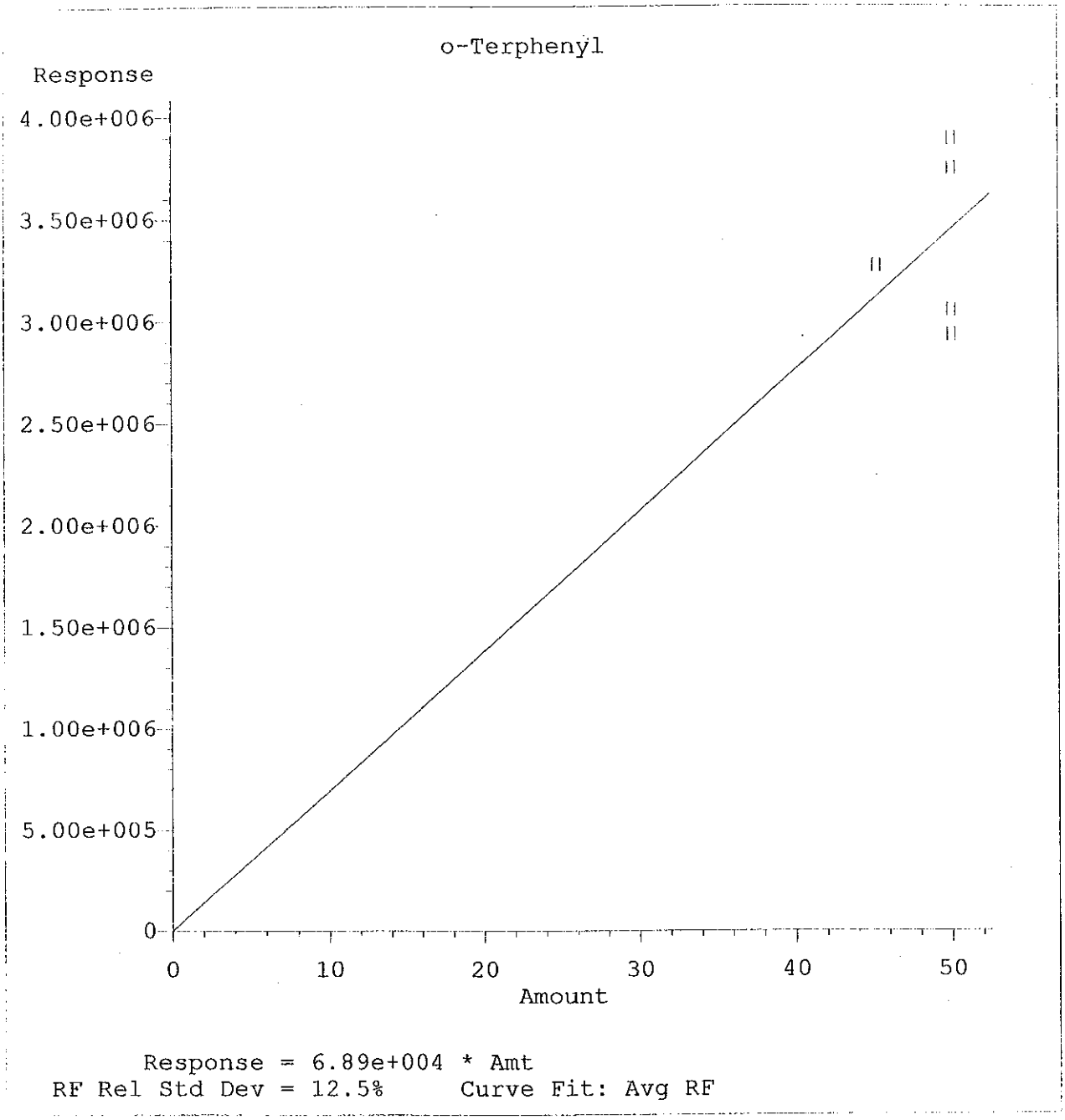
	Compound	1	2	3	4	5	Avg		%RSD
1) HM	Petoleum Range Organi	1.233	0.749	0.691	0.618	0.582	0.774	E5	34.14
2) SC	o-Terphenyl	5.855	6.098	7.782	7.485	7.231	6.890	E4	12.49
3) SC	C(39)	4.031	4.077	3.915	3.187	2.728	3.587	E4	16.74

(*) = Out of Range

PRO0727.M Mon Jul 30 12:23:29 2001

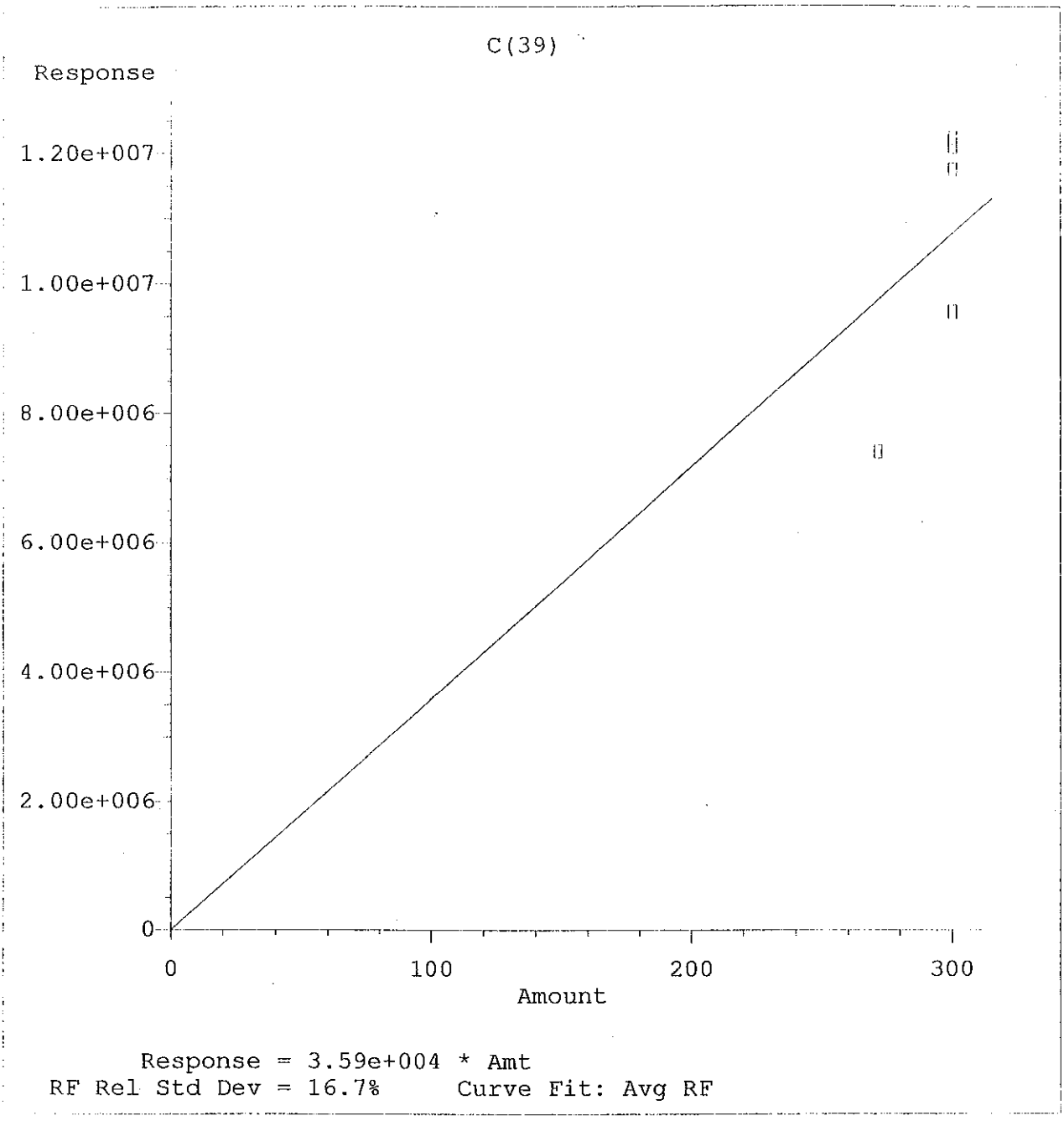


Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001



Response = 6.89e+004 * Amt
RF Rel Std Dev = 12.5% Curve Fit: Avg RF

Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0727.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001

Sequence Date: 7/27/01
Analyst Initials: BP
Run Method: PBa 0727
Quant Method: ↓

	Sample	Blank/LCS
Water OTP/Limits C39	62-162/42-193	62-164/42-193
Soil OTP/Limits C39	62-159/60-118	62-159/60-118

Compound: TPH-PBa
Date: 07/27/01

BP 7/30/01 PBa

Vial	AAL Sample I.D. #	Extraction Date	Matrix	Dilution Factor	OTP/C39 Recovery	~~DRO~~ PBa Spike Recovery	AAL Std. I.D. #	Status	Comments
1	Solv. Blank	NA	Med.	1x				✓	
	500 ppm PBa ICAL		Std				01V165		
	2552						166		
4	42450						167		
5	57950						168		
6	1692						169		
	Solv Blank		Med.						
7	400 ppm PBa ICV		Std		104/106	99	01V170		

BP 7/30/01

Initials / Date: BP 7/30/01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270102.D Vial: 2
Acq On : 07/27/01 13:17 Operator: BP
Sample : 850 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:41 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	2927738	1580.699 ug/mlm
Spiked Amount 50.000	Recovery = 3161.40%		
3) SC C(39)	38.72	12092728	1664.284 ug/mlm
Spiked Amount 150.000	Recovery = 1109.52%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	104812006	901.622 ug/ml

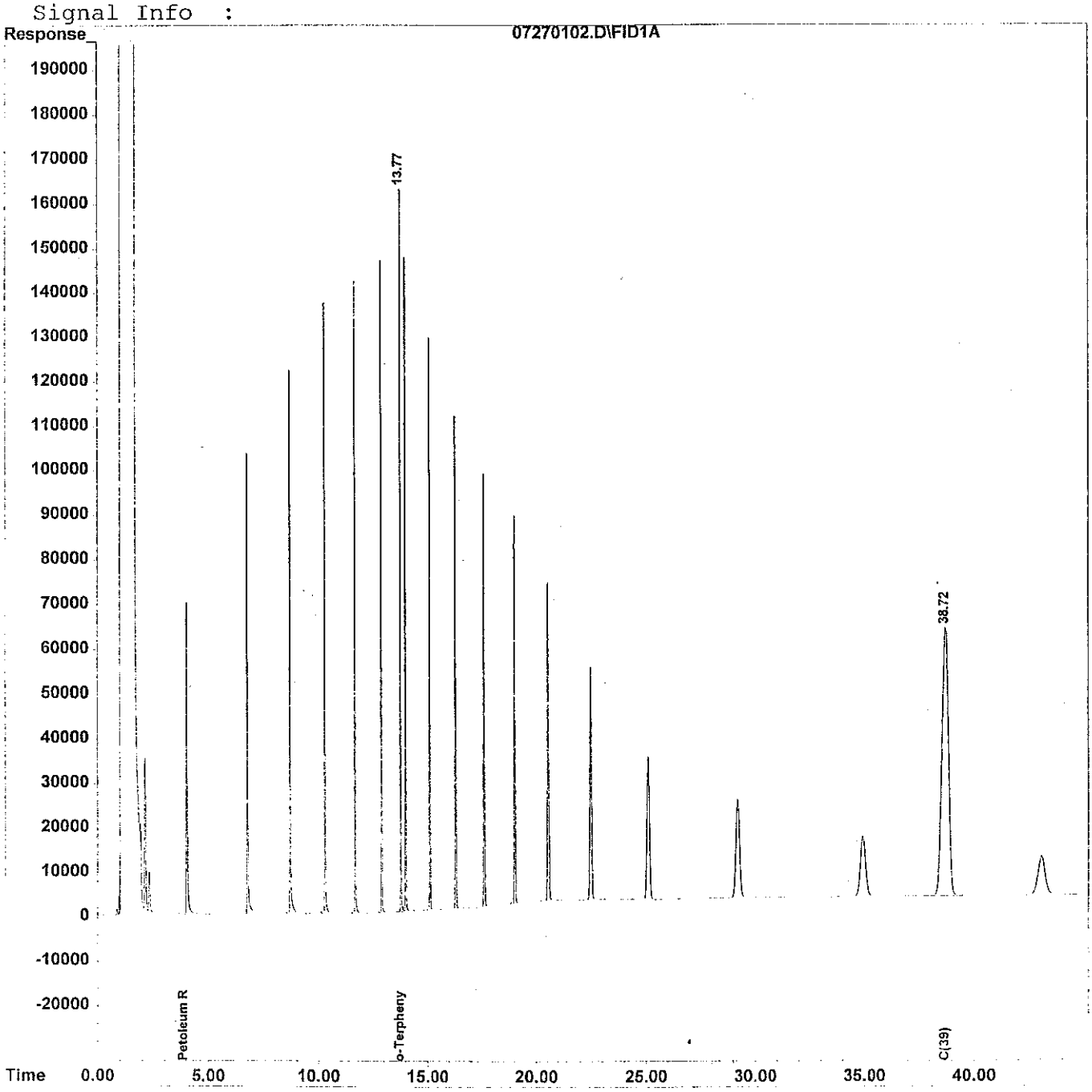
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270102.D Vial: 2
Acq On : 07/27/01 13:17 Operator: BP
Sample : 850 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:41 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270103.D Vial: 3
Acq On : 07/27/01 14:12 Operator: BP
Sample : 2550 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:36 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3049123	885.005 ug/mlm
Spiked Amount 50.000	Recovery = 1770.01%		
3) SC C(39)	38.73	12229892	858.924 ug/mlm
Spiked Amount 150.000	Recovery = 572.62%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	190903019	1550.334 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

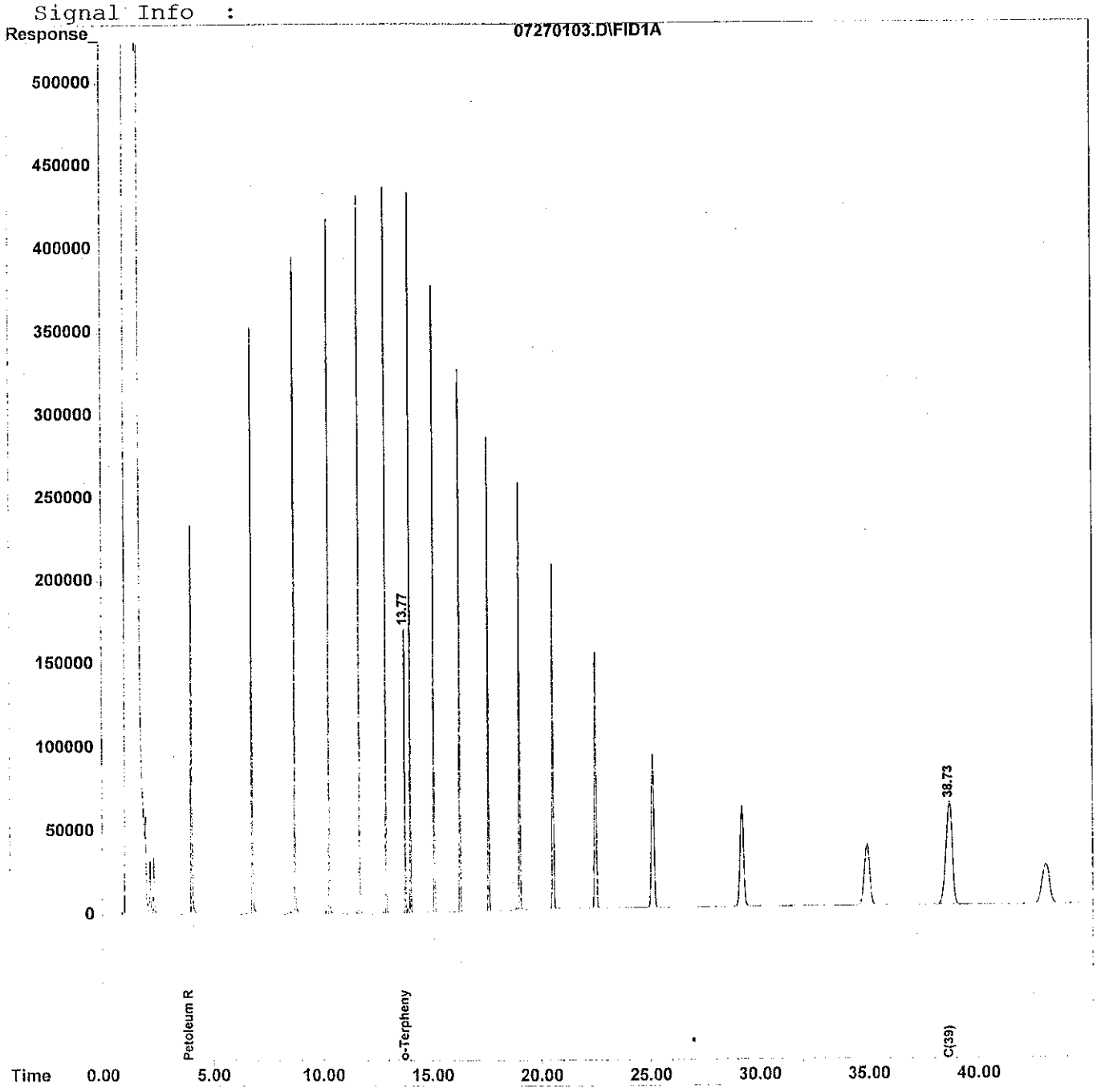
Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270103.D
Acq On : 07/27/01 14:12
Sample : 2550 PPM PRO ICAL
Misc :
IntFile : PRO0914.e
Quant Time: Jul 27 16:36 2001 Quant Results File: PRO0727.RES

Vial: 3
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Single Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270104.D Vial: 4
Acq On : 07/27/01 15:07 Operator: BP
Sample : 4250 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) SC o-Terphenyl	13.77	3890822	1676.699	ug/mlm
Spiked Amount 50.000	Recovery = 3353.40%			
3) SC C(39)	38.70	11744517	1234.014	ug/mlm
Spiked Amount 150.000	Recovery = 822.68%			
Target Compounds				
1) HM Petoleum Range Organics	3.93	293463899	4571.798	ug/ml

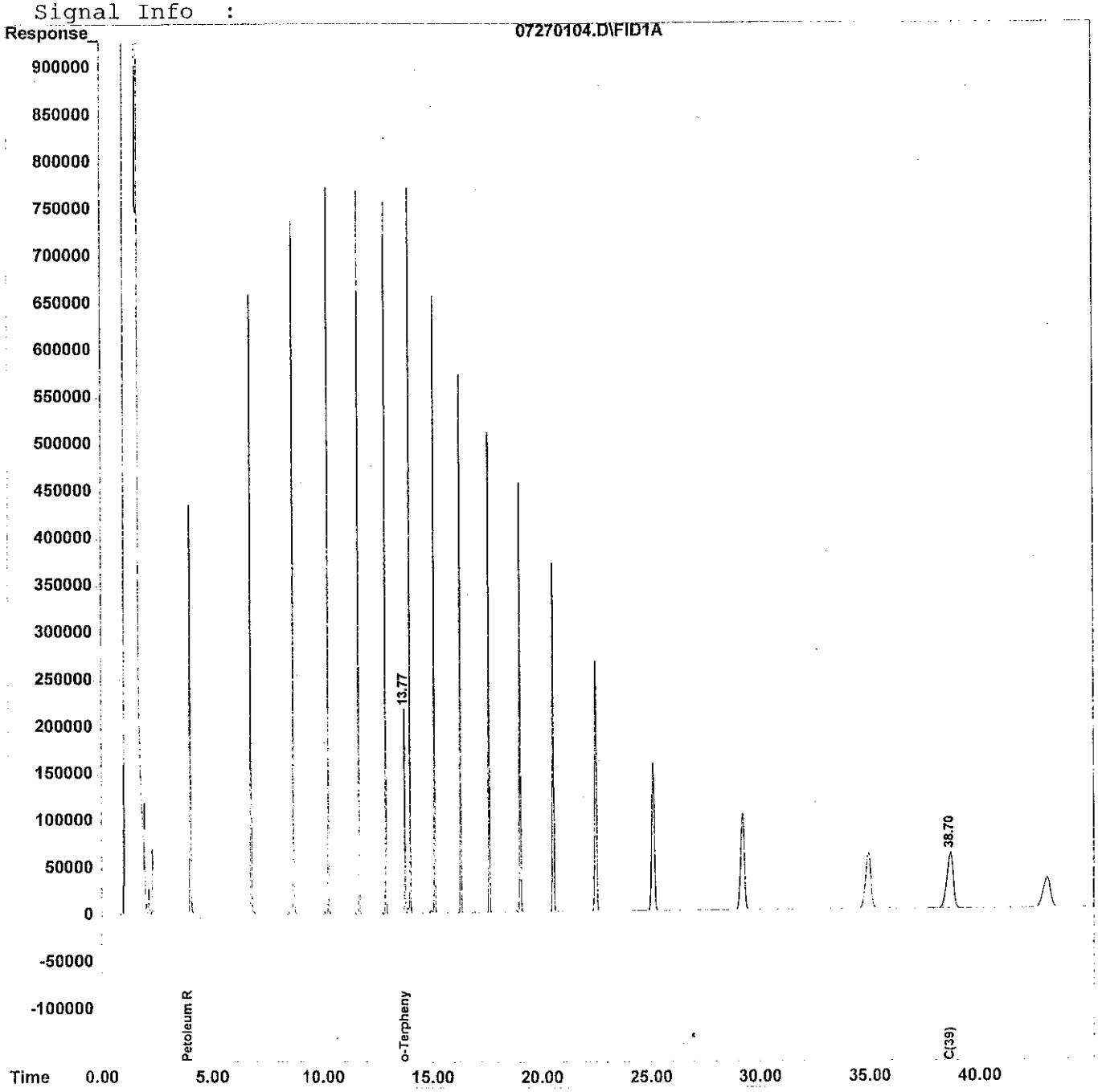
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270104.D Vial: 4
Acq On : 07/27/01 15:07 Operator: BP
Sample : 4250 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270105.D Vial: 5
Acq On : 07/27/01 16:01 Operator: BP
Sample : 5950 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:48 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3742546	2020.951 ug/mlm
Spiked Amount 50.000	Recovery = 4041.90%		
3) SC C(39)	38.64	9559750	1316.396 ug/mlm
Spiked Amount 150.000	Recovery = 877.60%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	367696358	5637.335 ug/ml

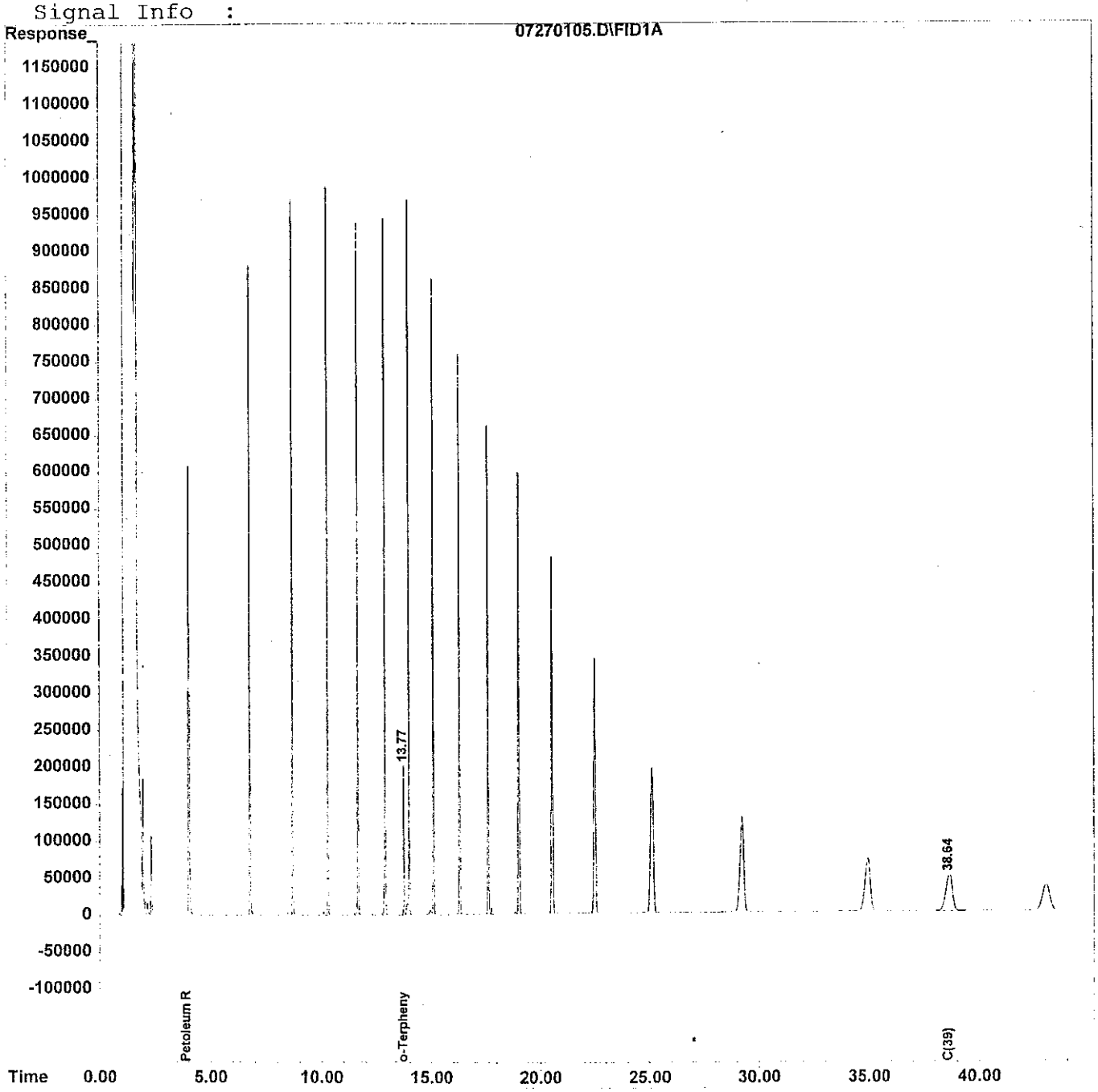
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270105.D Vial: 5
Acq On : 07/27/01 16:01 Operator: BP
Sample : 5950 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 16:48 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 16:34:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270106.D Vial: 6
Acq On : 07/27/01 16:56 Operator: BP
Sample : 7692 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 17:42 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:02:04 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3268474	48.030 ug/mlm
Spiked Amount 50.000	Recovery = 96.06%		
3) SC C(39)	38.65	7406144	194.784 ug/mlm
Spiked Amount 150.000	Recovery = 129.86%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	447686810	7376.549 ug/ml

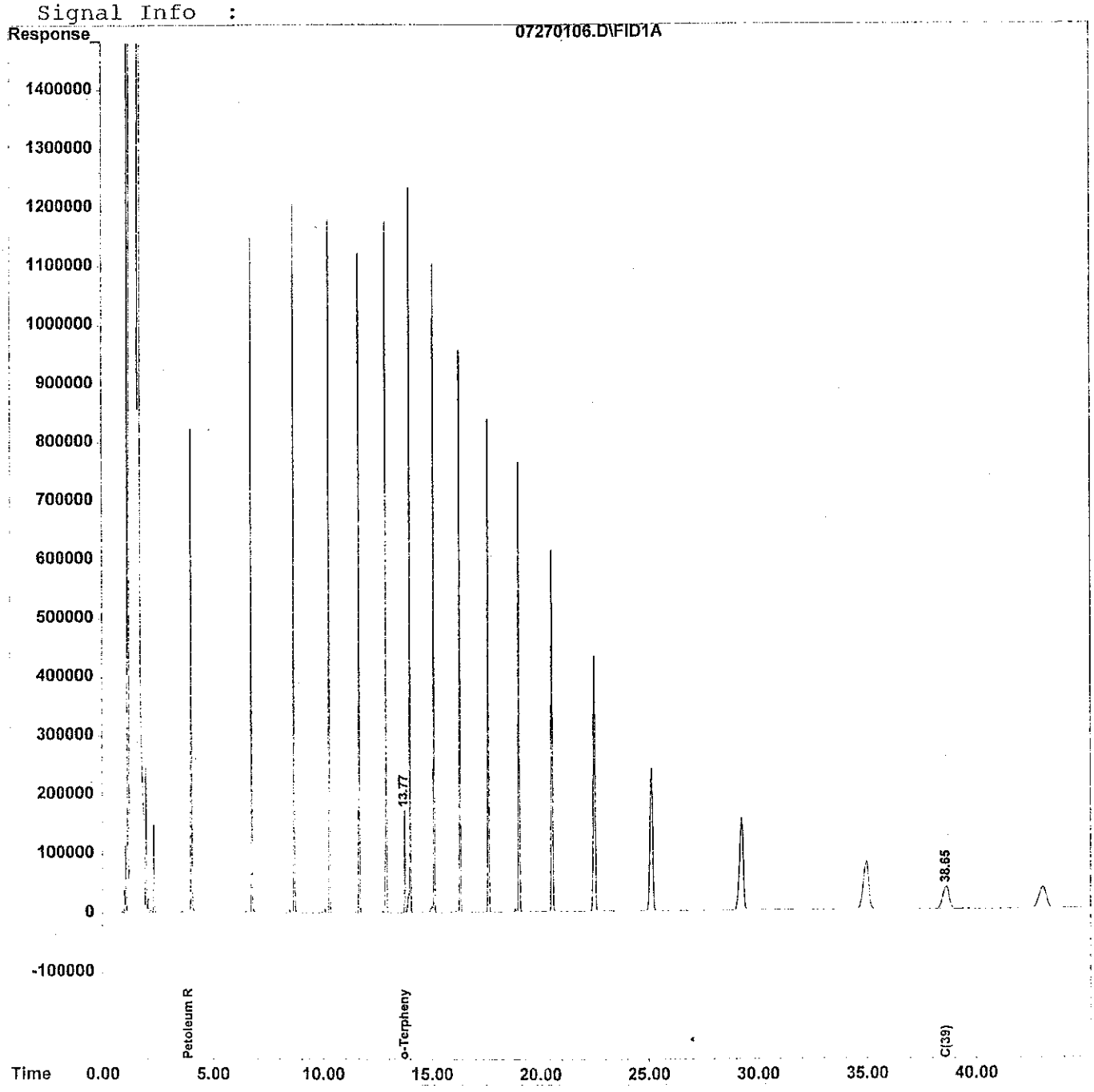
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072701\07270106.D Vial: 6
Acq On : 07/27/01 16:56 Operator: BP
Sample : 7692 PPM PRO ICAL Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 27 17:42 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 17:02:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072701\07270108.D Vial: 7
Acq On : 07/27/01 18:45 Operator: BP
Sample : 4250 PPM PRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Jul 28 10:43 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	3584180	52.018 ug/mlm
Spiked Amount 50.000	Recovery = 104.04%		
3) SC C(39)	38.66	11386090	317.394 ug/mlm
Spiked Amount 300.000	Recovery = 105.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	277671058	4194.188 ug/ml

$\frac{4194.188}{4250} = 99\%$

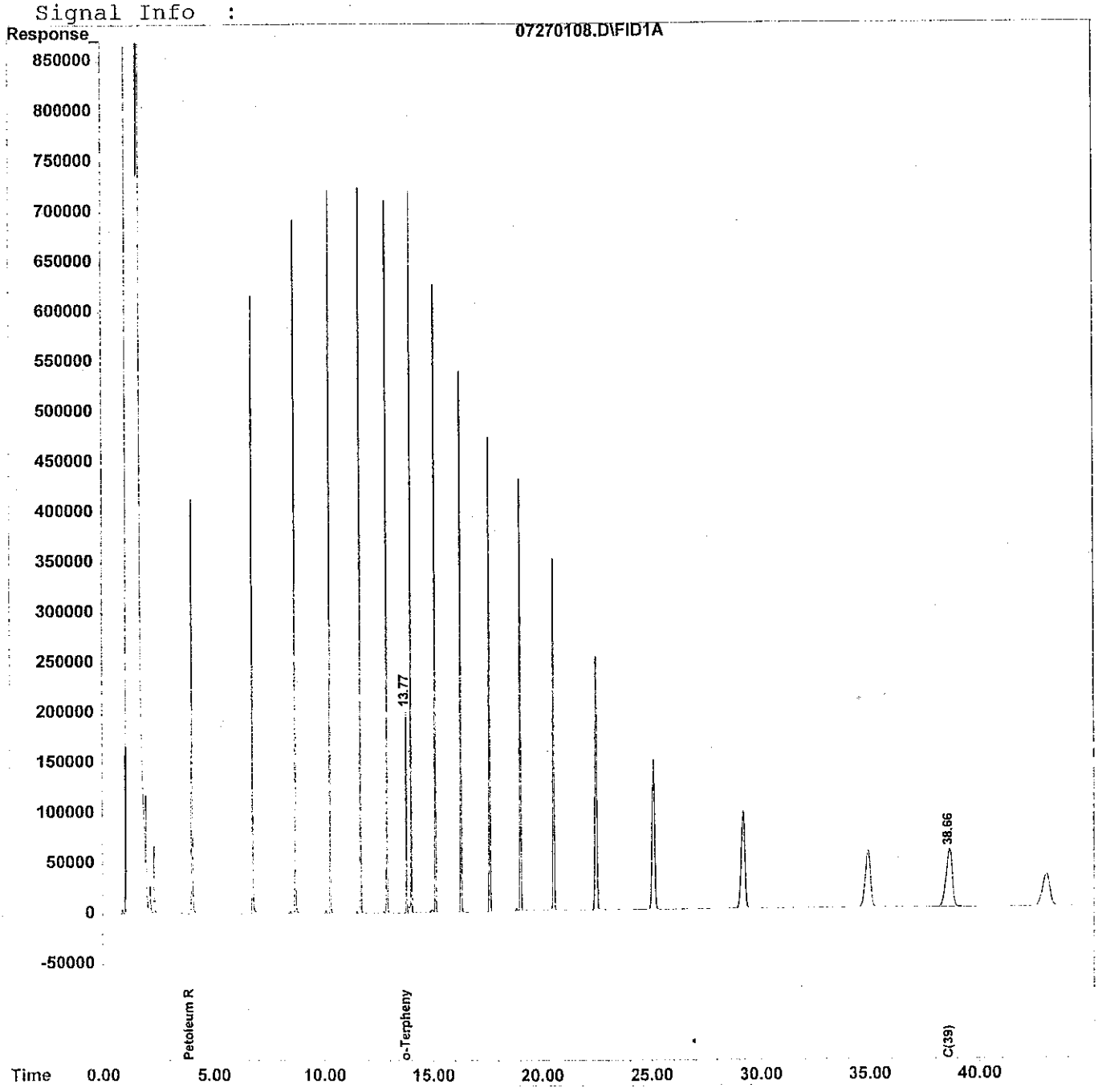
(f)=RT Delta > 1/2 W[illegible] (m)=manual int.

Data File : C:\HPCHEM\1\DATA\072701\07270108.D
Acq On : 07/27/01 18:45
Sample : 4250 PPM PRO ICV
Misc :
IntFile : PRO0914.e
Quant Time: Jul 28 10:43 2001 Quant Results File: PRO0727.RES

Vial: 7
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. :
Signal Phase :
Signal Info :



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL Pro ICAL
Lab Standard ID#: 015V165 - 169
Prepared By: AP

Date Made: 6/26/01
Expire Date: 12/26/01
Matrix: Meth

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL-Pro Std	Ex01254-1,-2	500 PPM	100 ml	850 PHS
			300 ml	2550
			500 ml	4250
			700 ml	5950
			1000 ml	7692
OTP	Ex99102-10	10,000 PPM	5.0 ml	50 PPM
C(39)	S01A104	3,000 PPM	100ml	300 PPM
Meth	Ex01241	—	to dilute to 1000ml	(except 015V169).
OTP & C39 Conc. in	015V169 is	45.2 & 27	1.5 PPM	respectively.
	AP 6/26/01			

Standard Name: FL Pro ICV
Lab Standard ID#: 015V170
Prepared By: AP

Date Made: 6/26/01
Expire Date: 12/26/01
Matrix: Meth

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc.
FL Pro Std	S01A106	500 PPM	500 ml	4250 PPM
OTP	Ex01203	10,000 PPM	5 ml	50 PPM
C(39)	Ex01216-5	3,000 PPM	100 ml	300 PPM
Make-up to a	final vol.	of 1000 ml	with Meth	(Ex01241)
		AP 6/26/01		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080102.D Vial: 2
Acq On : 08/08/01 09:32 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 10:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.77	4221075	61.261 ug/ml
Spiked Amount 50.000	Recovery =		122.52%
3) SC C(39)	38.52f	10590323	295.212 ug/ml
Spiked Amount 300.000	Recovery =		98.40%
Target Compounds			
1) HM Petoleum Range Organics	3.93	305098843	4737.540 ug/ml

$\frac{4737.540}{4250} = 111\%$

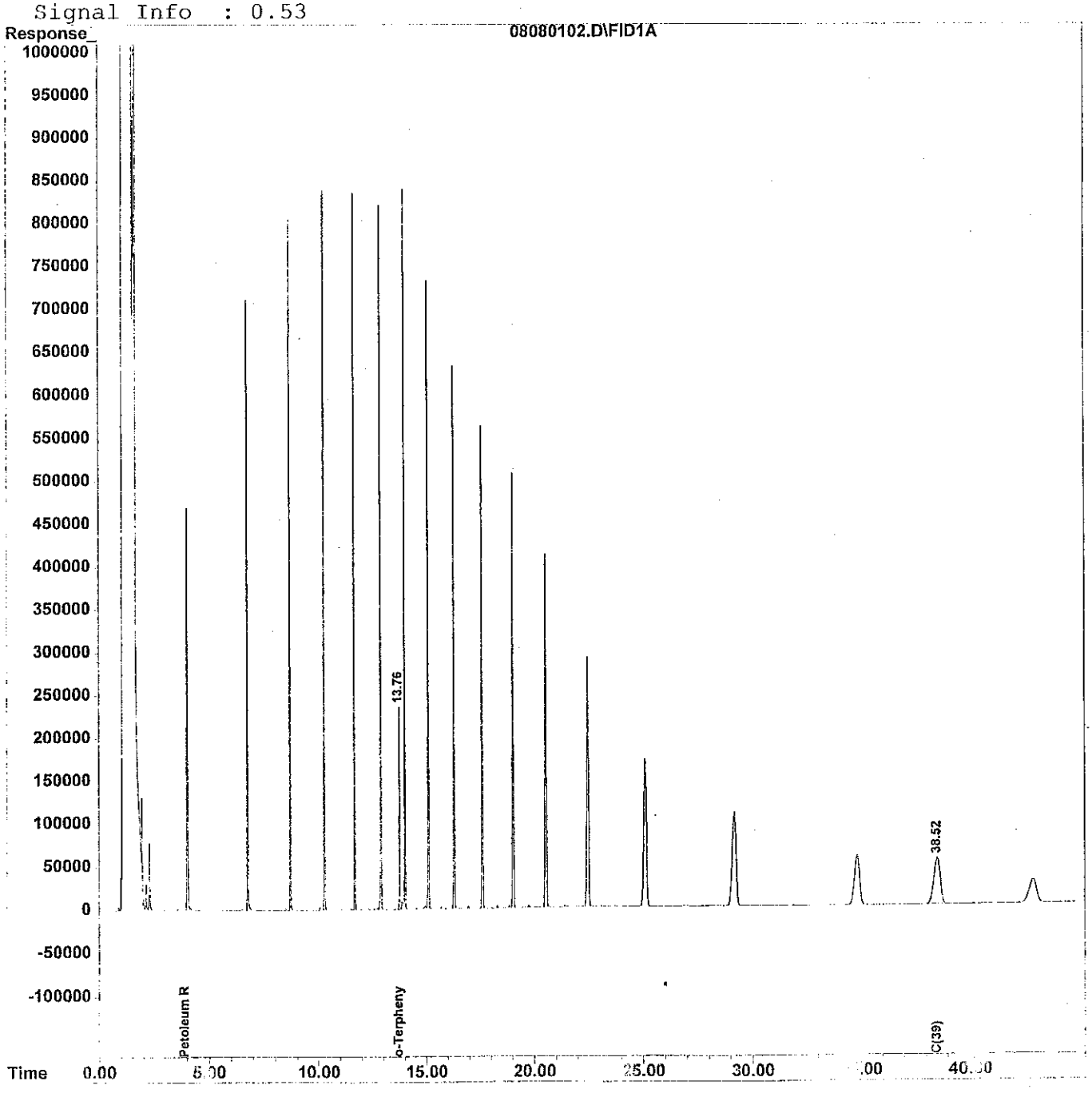
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080102.D Vial: 2
Acq On : 08/08/01 09:32 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 10:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080114.D Vial: 2
Acq On : 08/08/01 21:35 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:10 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	3930227	57.040 ug/ml
Spiked Amount 50.000	Recovery = 114.08%		
3) SC C(39)	38.36f	10524994	293.391 ug/mlm
Spiked Amount 300.000	Recovery = 97.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	301949910	4675.158 ug/ml

$\frac{4675.158}{4250} = 110\%$

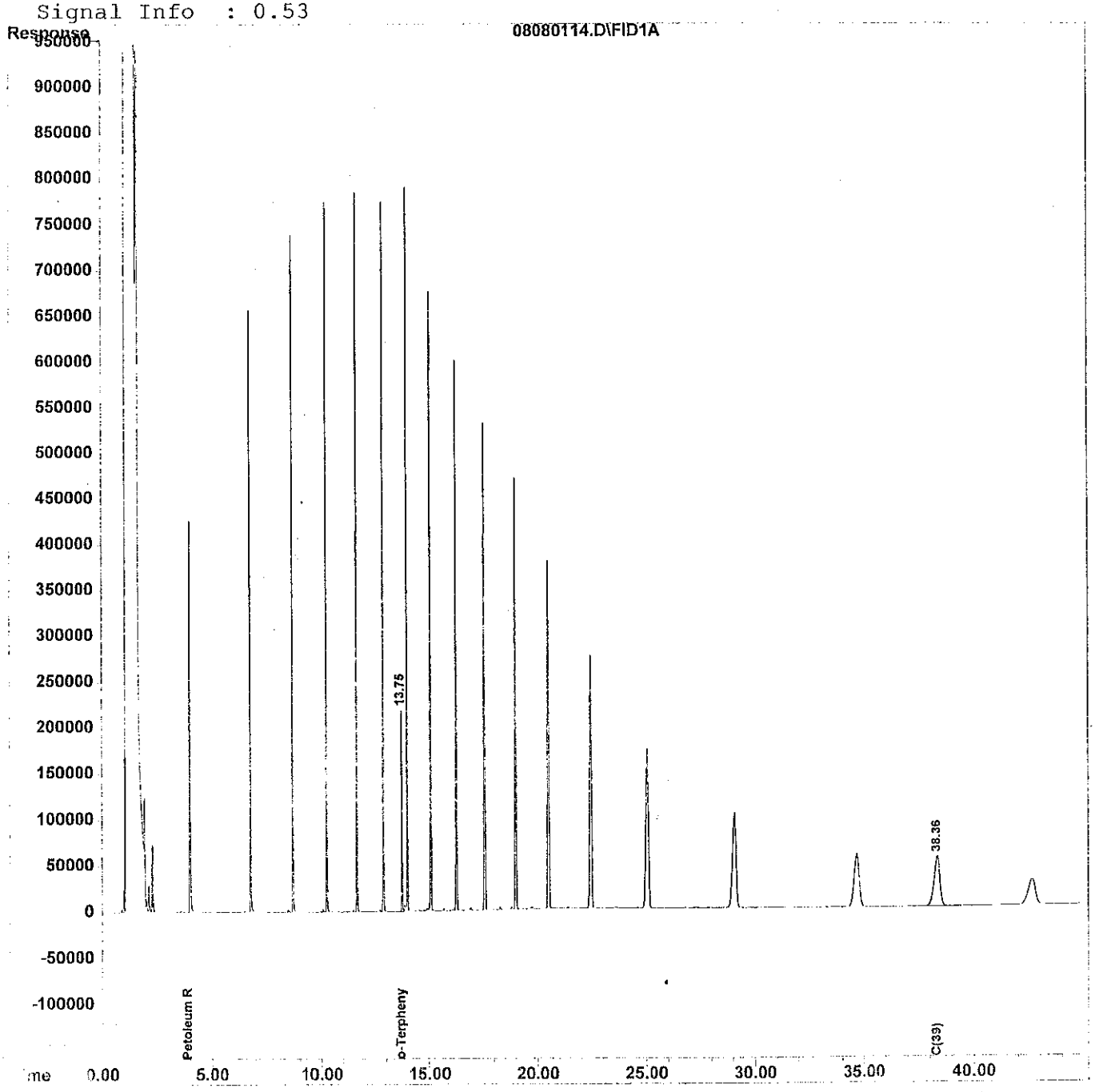
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080114.D Vial: 2
Acq On : 08/08/01 21:35 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:10 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080123.D Vial: 2
Acq On : 08/09/01 05:48 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:11 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	4136595	60.035 ug/ml
Spiked Amount 50.000	Recovery = 120.07%		
3) SC C(39)	38.45f	10250849	285.749 ug/mlm
Spiked Amount 300.000	Recovery = 95.25%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	312828452	4890.665 ug/ml

$\frac{4890.665}{4250} = 115\%$

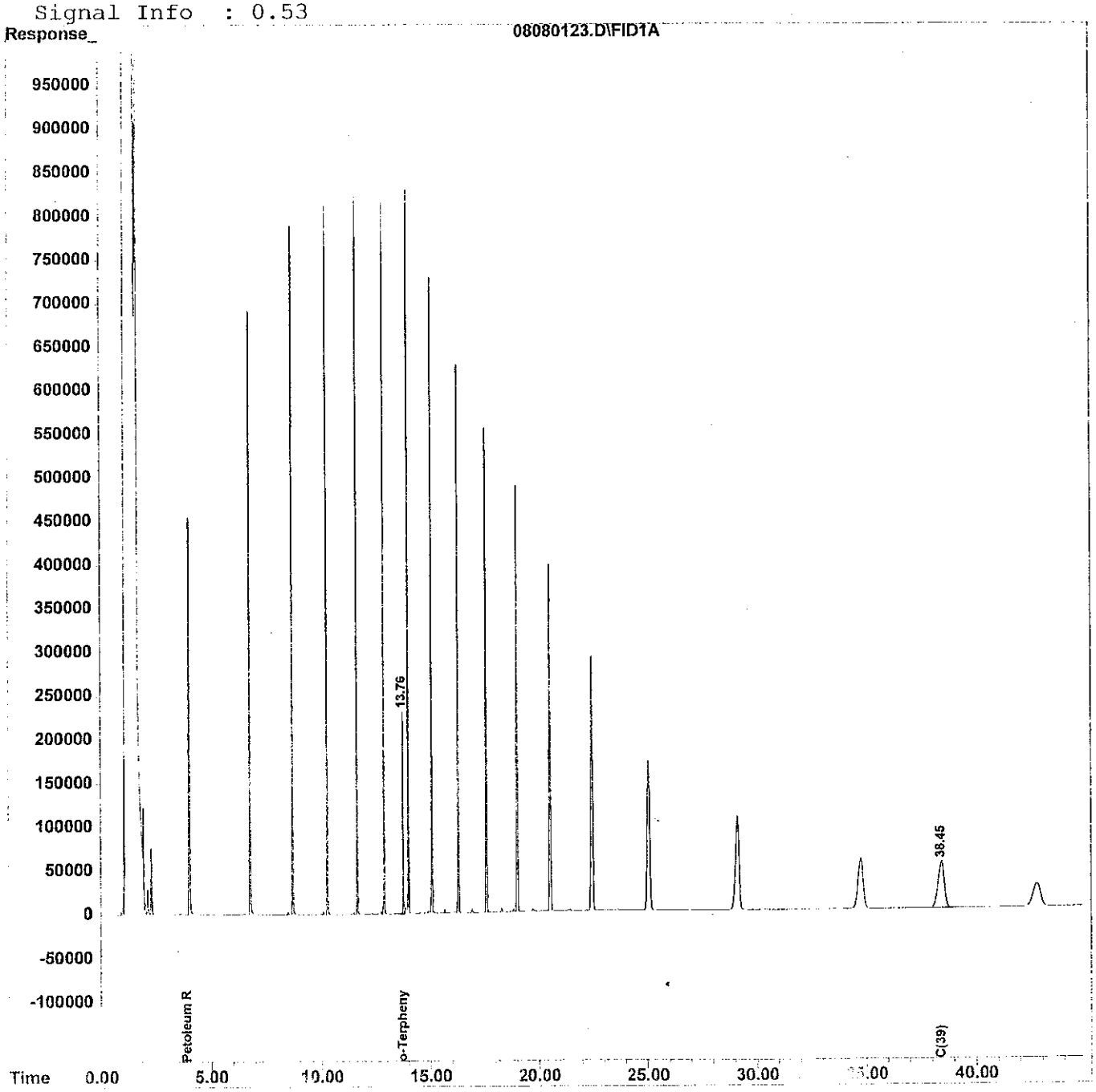
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080123.D Vial: 2
Acq On : 08/09/01 05:48 Operator: BP
Sample : 4250 PPM PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 7:11 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080110.D Vial: 10
Acq On : 08/08/01 17:56 Operator: BP
Sample : 17883 W Inst : HPGCO
Misc : 920 ml Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:12 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	2129647	30.908 ug/ml
Spiked Amount 50.000	Recovery = 61.82%		
3) SC C(39)	38.29f	9052250	252.337 ug/mlm
Spiked Amount 300.000	Recovery = 84.11%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	67936037	39.281 ug/ml

FL

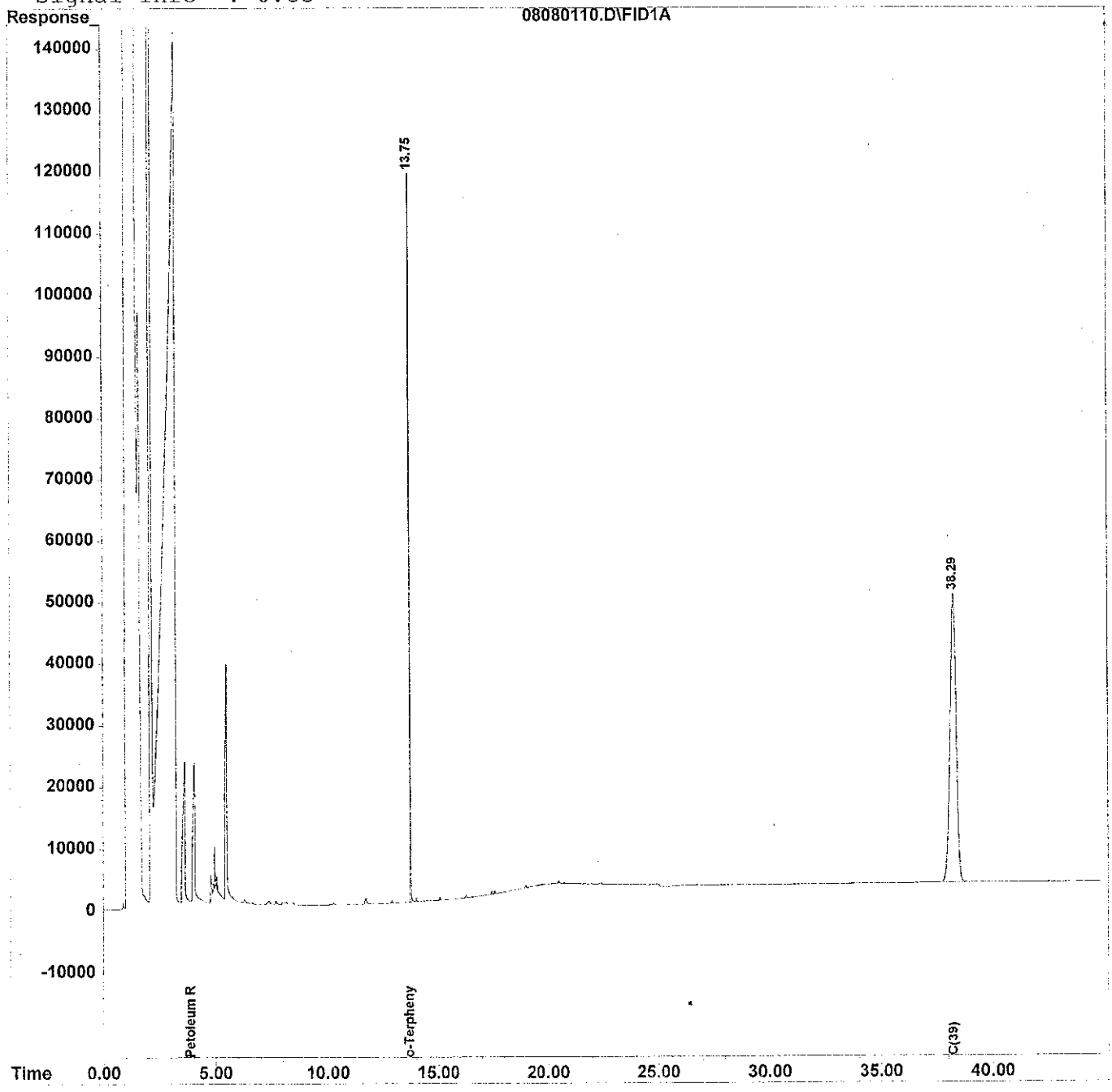
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080110.D Vial: 10
Acq On : 08/08/01 17:56 Operator: BP
Sample : 17883 W Inst : HPGCO
Misc : 920 ml Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:12 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080111.D Vial: 11
Acq On : 08/08/01 18:51 Operator: BP
Sample : 17884 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:13 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	1867455	27.103 ug/mlm
Spiked Amount 50.000	Recovery = 54.21%		
3) SC C(39)	38.25f	5225577	145.666 ug/mlm
Spiked Amount 300.000	Recovery = 48.56%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	62616991	N.D. ug/ml

RL

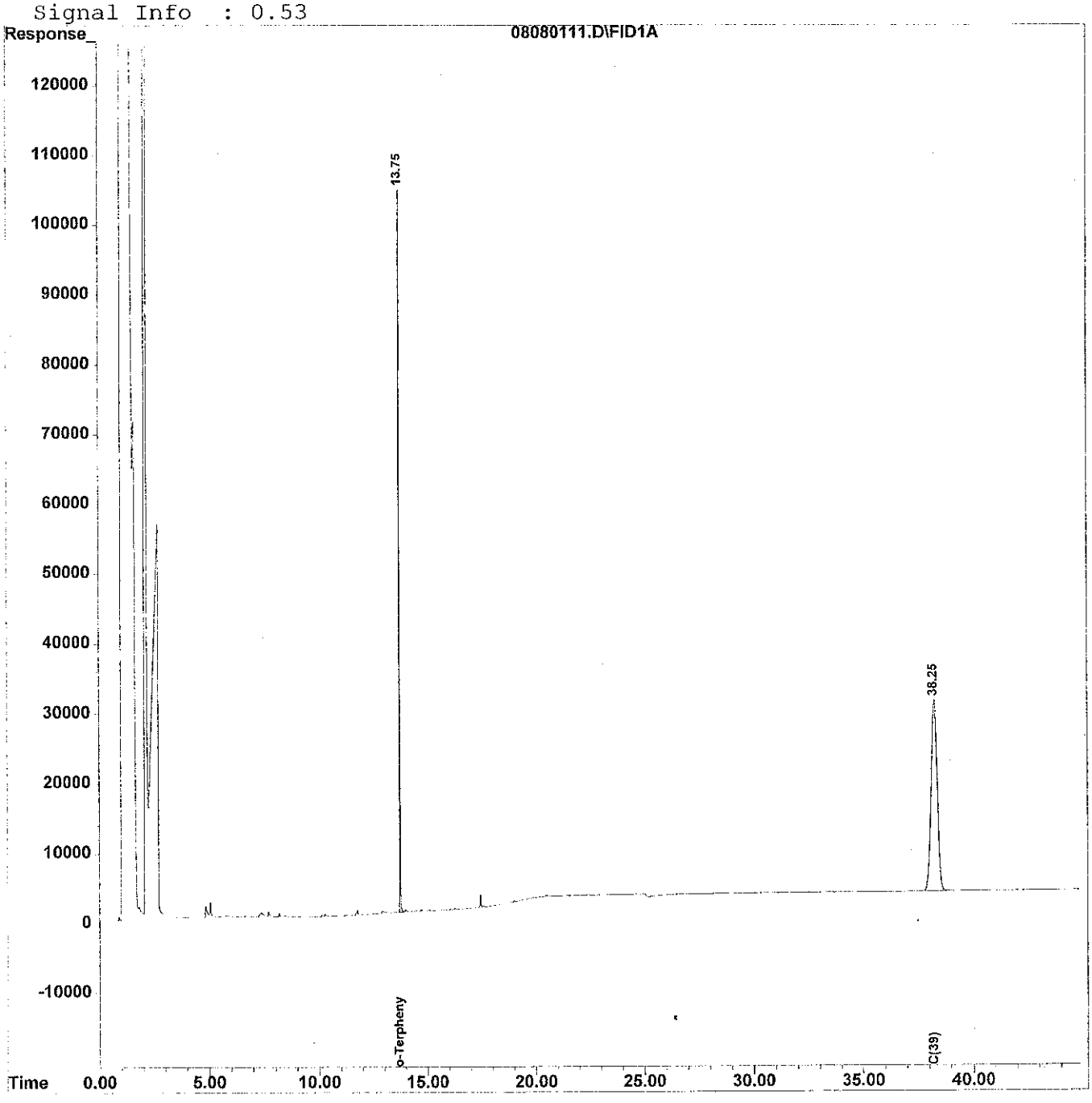
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080111.D Vial: 11
Acq On : 08/08/01 18:51 Operator: BP
Sample : 17884 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:13 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080112.D Vial: 12
Acq On : 08/08/01 19:46 Operator: BP
Sample : 17885 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:14 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	2131886	30.940 ug/ml
Spiked Amount 50.000	Recovery = 61.88%		
3) SC C(39)	38.30f	8378823	233.565 ug/mlm
Spiked Amount 300.000	Recovery = 77.85%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	226519225	3180.856 ug/ml

$\frac{3180.856}{1000} = 3.2$

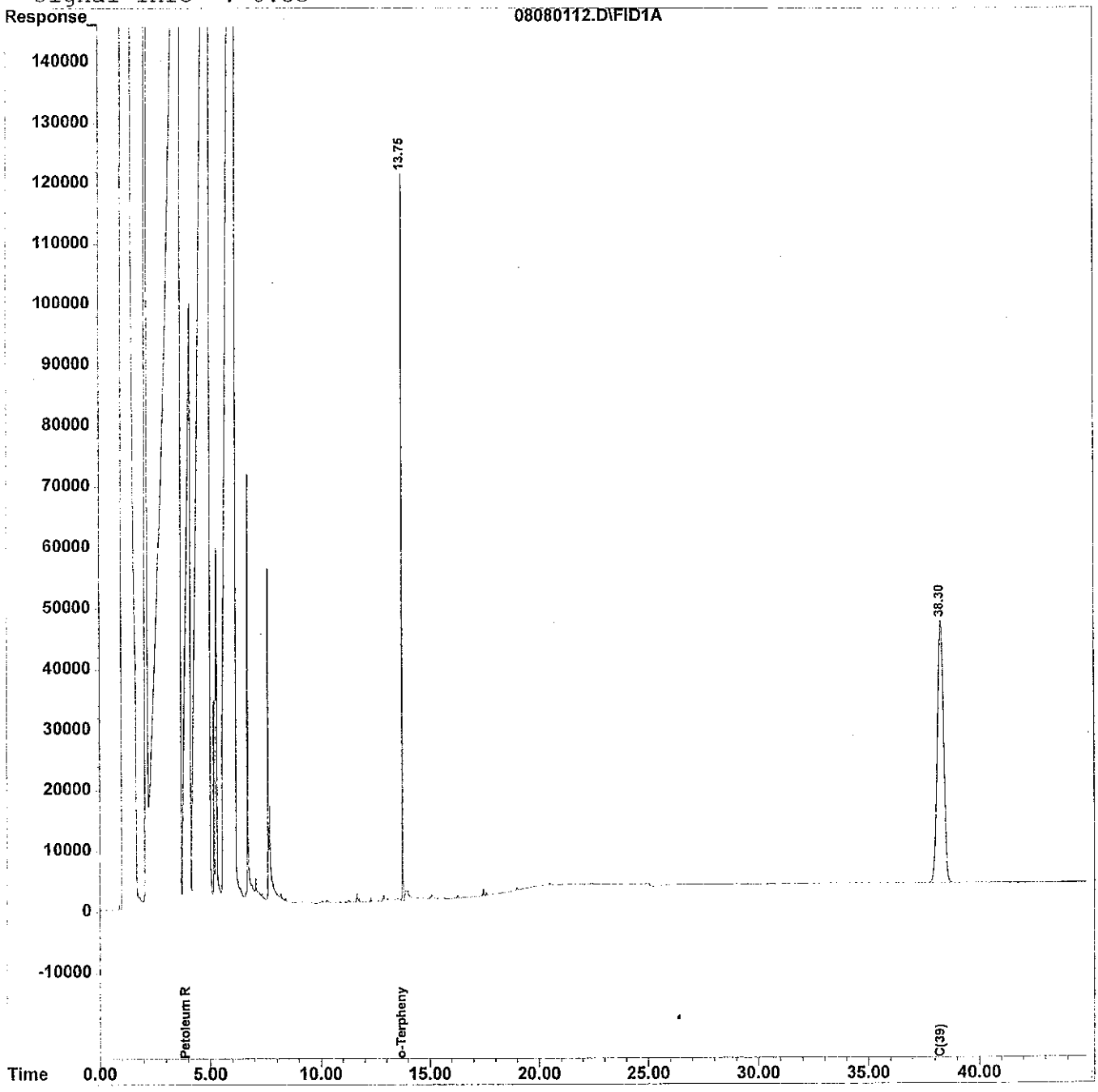
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080112.D Vial: 12
Acq On : 08/08/01 19:46 Operator: BP
Sample : 17885 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:14 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080115.D Vial: 13
Acq On : 08/08/01 22:30 Operator: BP
Sample : 17886 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:16 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	2025324	29.394 ug/mlm
Spiked Amount 50.000	Recovery = 58.79%		
3) SC C(39)	38.33f	7848615	218.785 ug/mlm
Spiked Amount 300.000	Recovery = 72.93%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	208054634	2815.068 ug/ml

$\frac{2815.068}{1000} = 2.8$

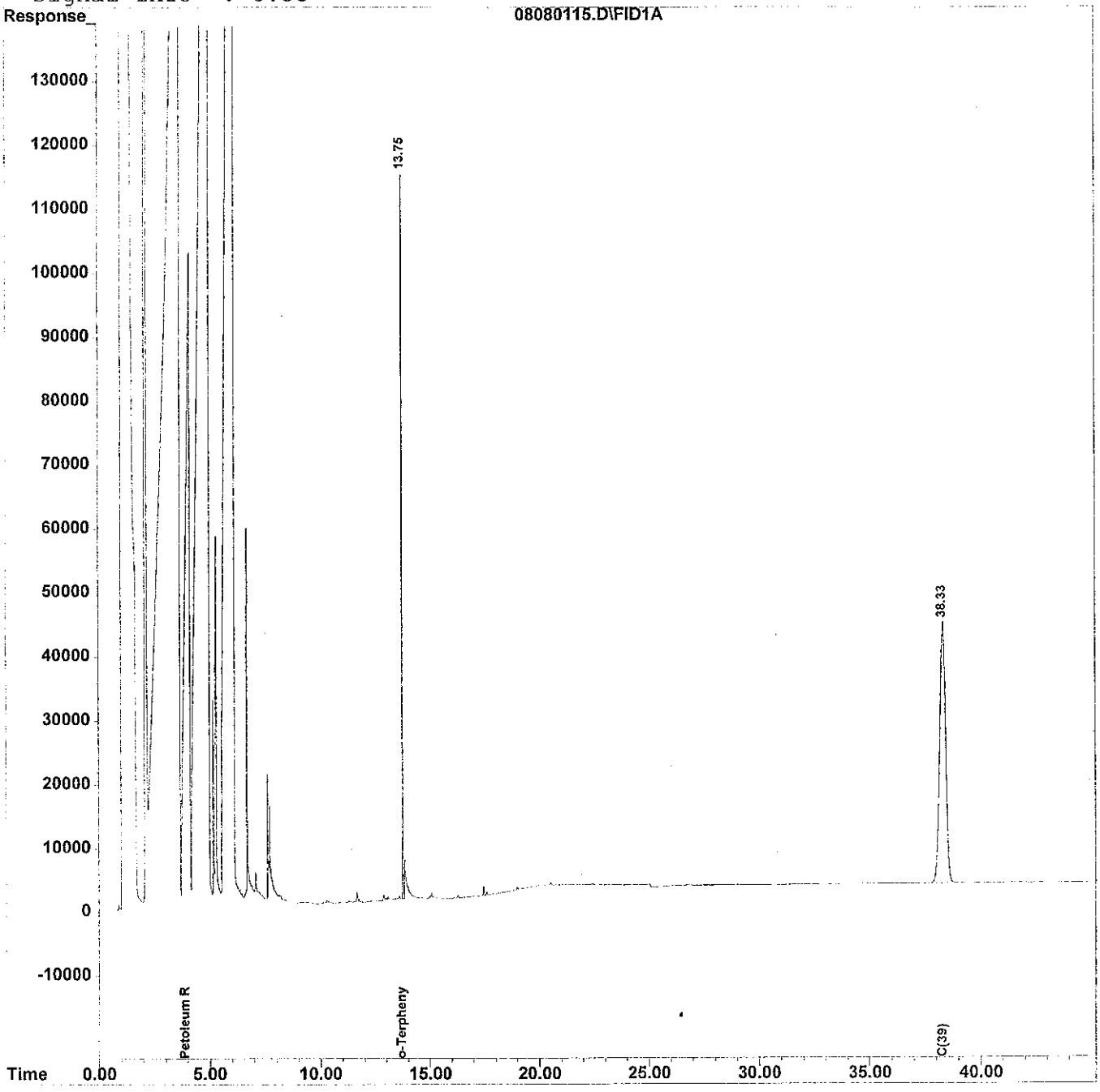
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080115.D Vial: 13
Acq On : 08/08/01 22:30 Operator: BP
Sample : 17886 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:16 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080116.D Vial: 14
Acq On : 08/08/01 23:25 Operator: BP
Sample : 17887 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:18 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	2061109	29.913 ug/mlm
Spiked Amount 50.000	Recovery = 59.83%		
3) SC C(39)	38.38f	11038988	307.719 ug/mlm
Spiked Amount 300.000	Recovery = 102.57%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	200613728	2667.662 ug/ml

$\frac{2667.662}{1000} = 2.7$

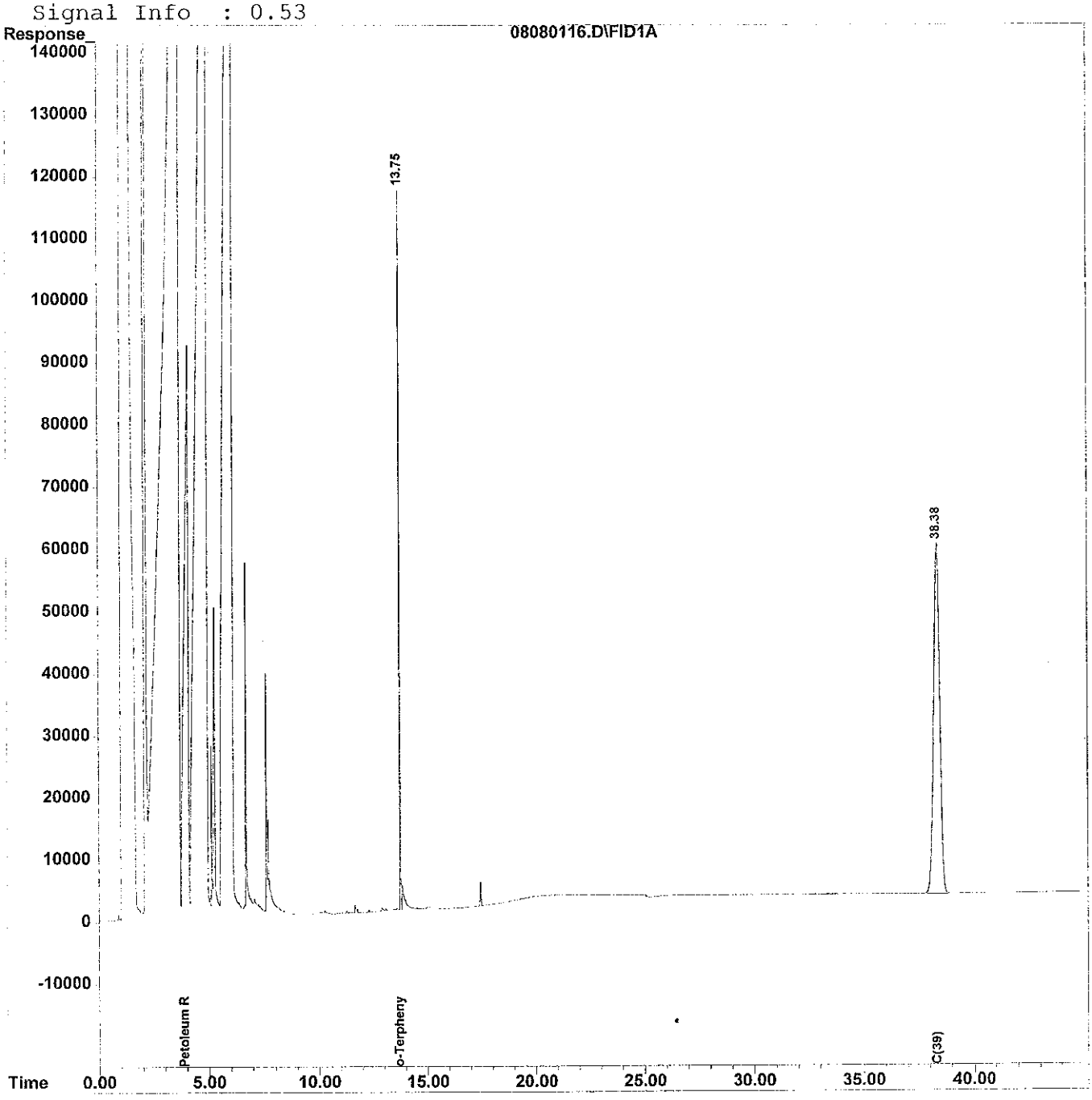
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080116.D Vial: 14
Acq On : 08/08/01 23:25 Operator: BP
Sample : 17887 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:18 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080117.D Vial: 15
Acq On : 08/09/01 00:20 Operator: BP
Sample : 17888 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:19 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.75	1751303	25.417 ug/ml
Spiked Amount 50.000	Recovery = 50.83%		
3) SC C(39)	38.39f	9343544	260.457 ug/mlm
Spiked Amount 300.000	Recovery = 86.82%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	65375669	N.D. ug/ml

< RL

(f)=RT Delta > 1/2 Window (m)=manual int.

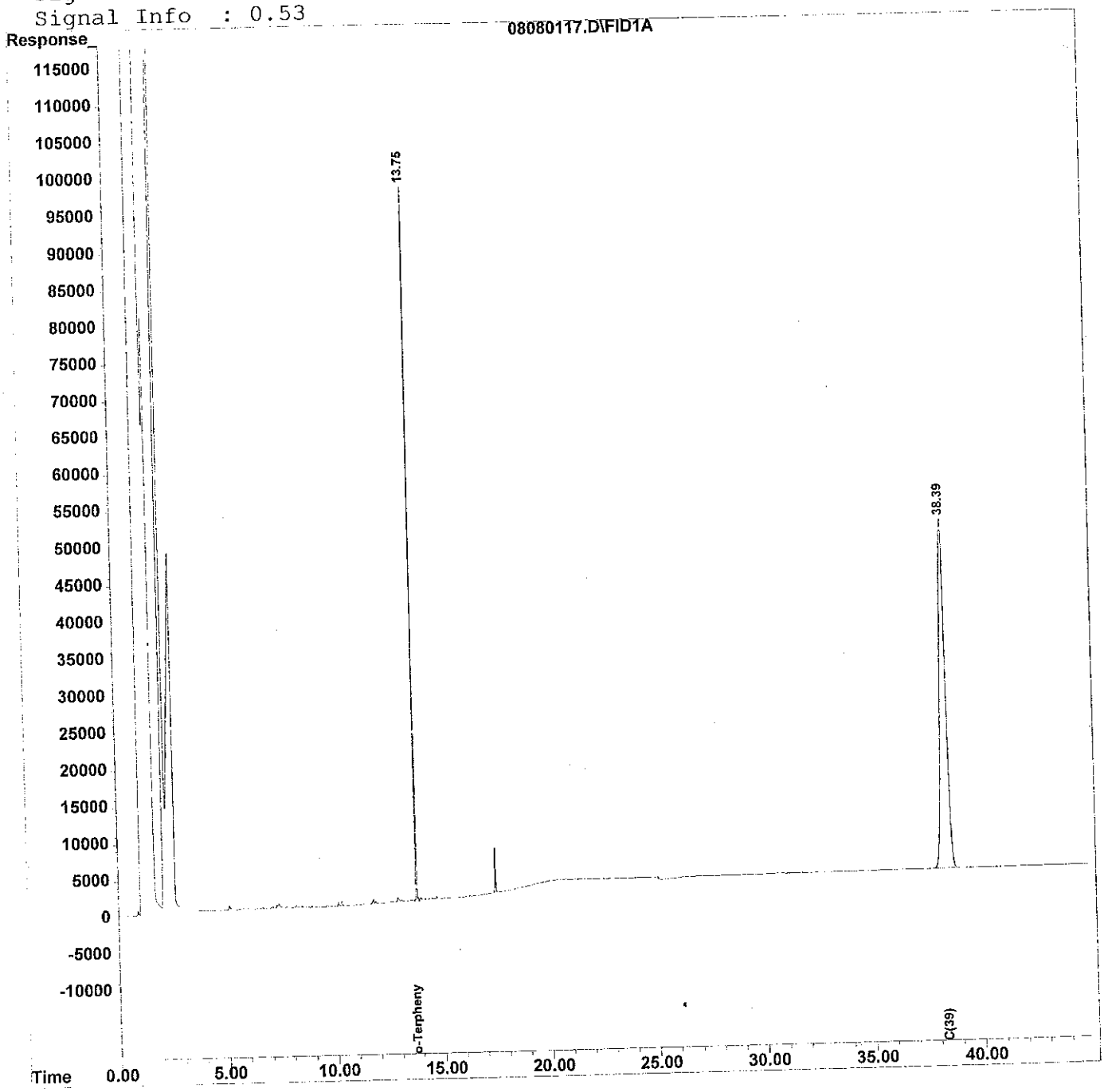
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080117.D
Acq On : 08/09/01 00:20
Sample : 17888 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 9 8:19 2001 Quant Results File: PRO0727.RES

Vial: 15
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080120.D Vial: 18
Acq On : 08/09/01 03:04 Operator: BP
Sample : 17890 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2121310	30.787 ug/ml
Spiked Amount 50.000	Recovery = 61.57%		
3) SC C(39)	38.41f	10424682	290.594 ug/mlm
Spiked Amount 300.000	Recovery = 96.86%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	69703535	74.296 ug/ml

< RL

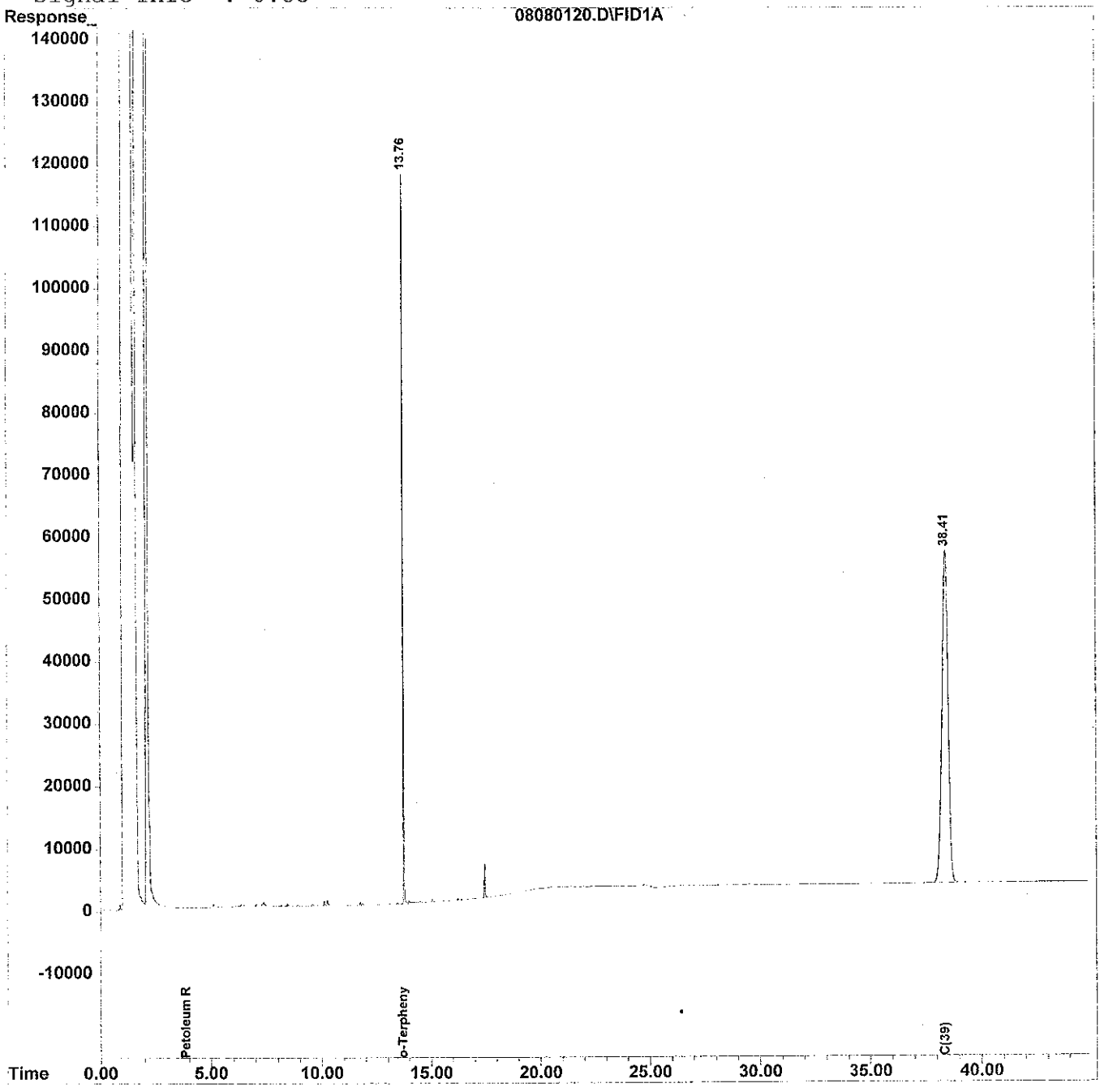
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080120.D Vial: 18
Acq On : 08/09/01 03:04 Operator: BP
Sample : 17890 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080118.D Vial: 16
Acq On : 08/09/01 01:15 Operator: BP
Sample : 17890 W 5X Inst : HPGCO
Misc : Multiplr: 5.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:20 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	419464	30.439 ug/mlm
Spiked Amount 50.000	Recovery = 60.88%		
3) SC C(39)	38.30f	1266750	176.557 ug/mlm
Spiked Amount 300.000	Recovery = 58.85%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	56998662	N.D. ug/ml

File only

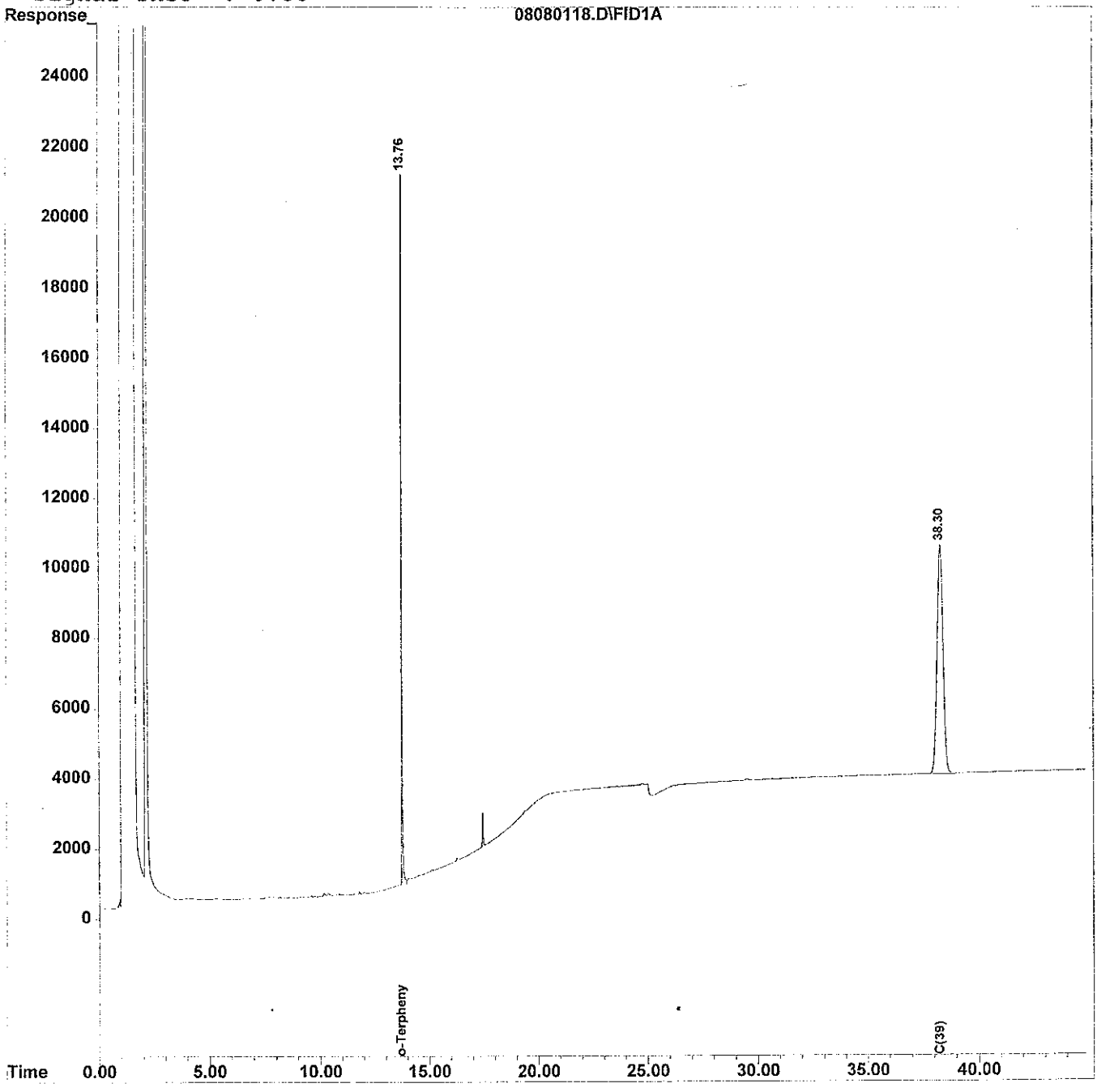
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080118.D Vial: 16
Acq On : 08/09/01 01:15 Operator: BP
Sample : 17890 W 5X Inst : HPGCO
Misc : Multiplr: 5.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:20 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080121.D Vial: 19
Acq On : 08/09/01 03:59 Operator: BP
Sample : 17891 W Inst : HPGCO
Misc : 940 ml Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:24 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2165031	31.421 ug/mlm
Spiked Amount 50.000	Recovery = 62.84%		
3) SC C(39)	38.40f	6429575	179.228 ug/mlm
Spiked Amount 300.000	Recovery = 59.74%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	80759450	293.316 ug/ml

293.316 / 940 = 0.31 J

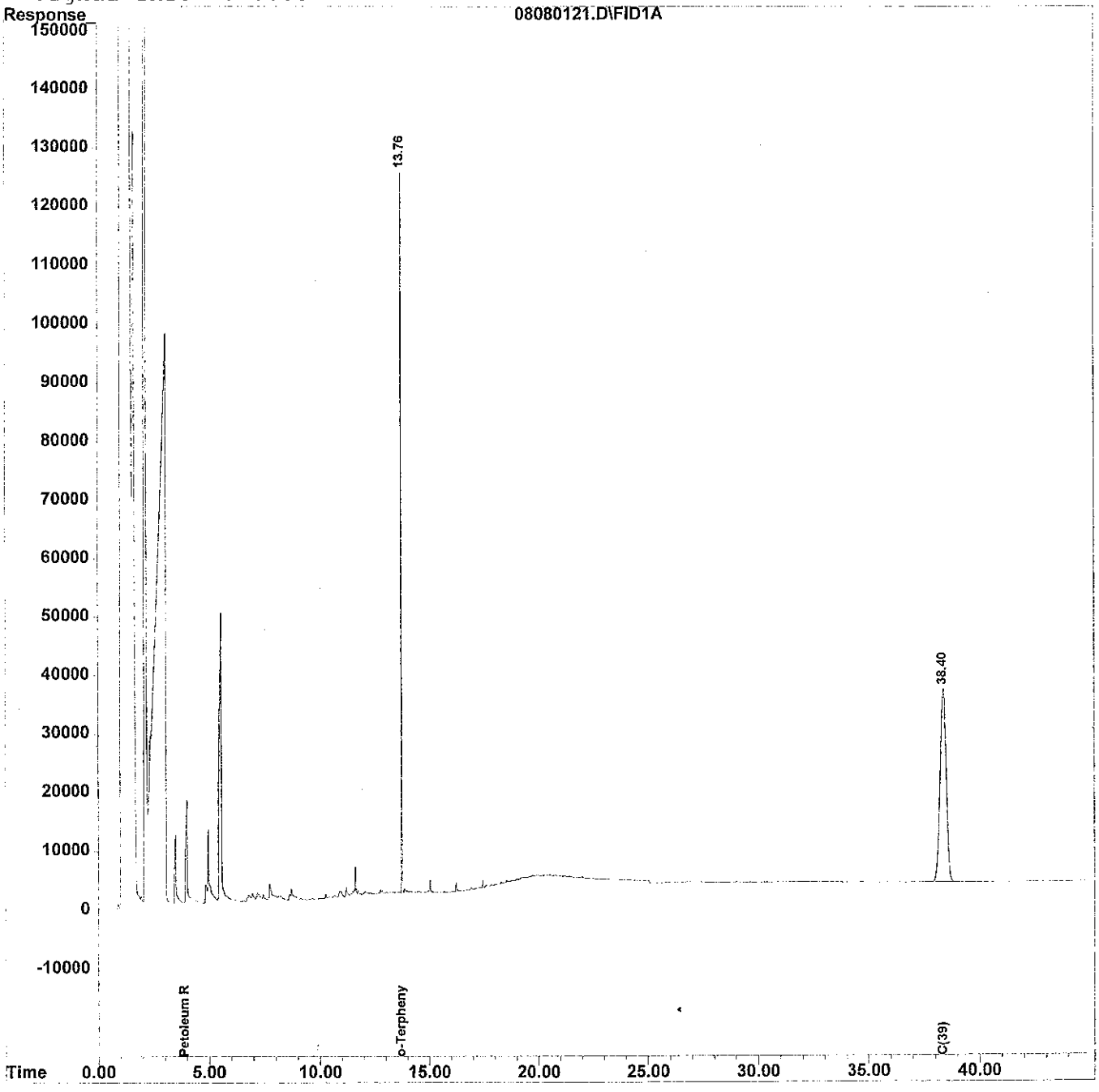
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080121.D Vial: 19
Acq On : 08/09/01 03:59 Operator: BP
Sample : 17891 W Inst : HPGCO
Misc : 940 ml Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:24 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080119.D Vial: 17
Acq On : 08/09/01 02:09 Operator: BP
Sample : 17891 W 5X Inst : HPGCO
Misc : 940 ml Multiplr: 5.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:21 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	438302	31.806 ug/mlm
Spiked Amount 50.000	Recovery =		63.61%
3) SC C(39)	38.31f	878908	122.500 ug/mlm
Spiked Amount 300.000	Recovery =		40.83%
Target Compounds			
1) HM Petoleum Range Organics	3.93	54945263	N.D. ug/ml

File only

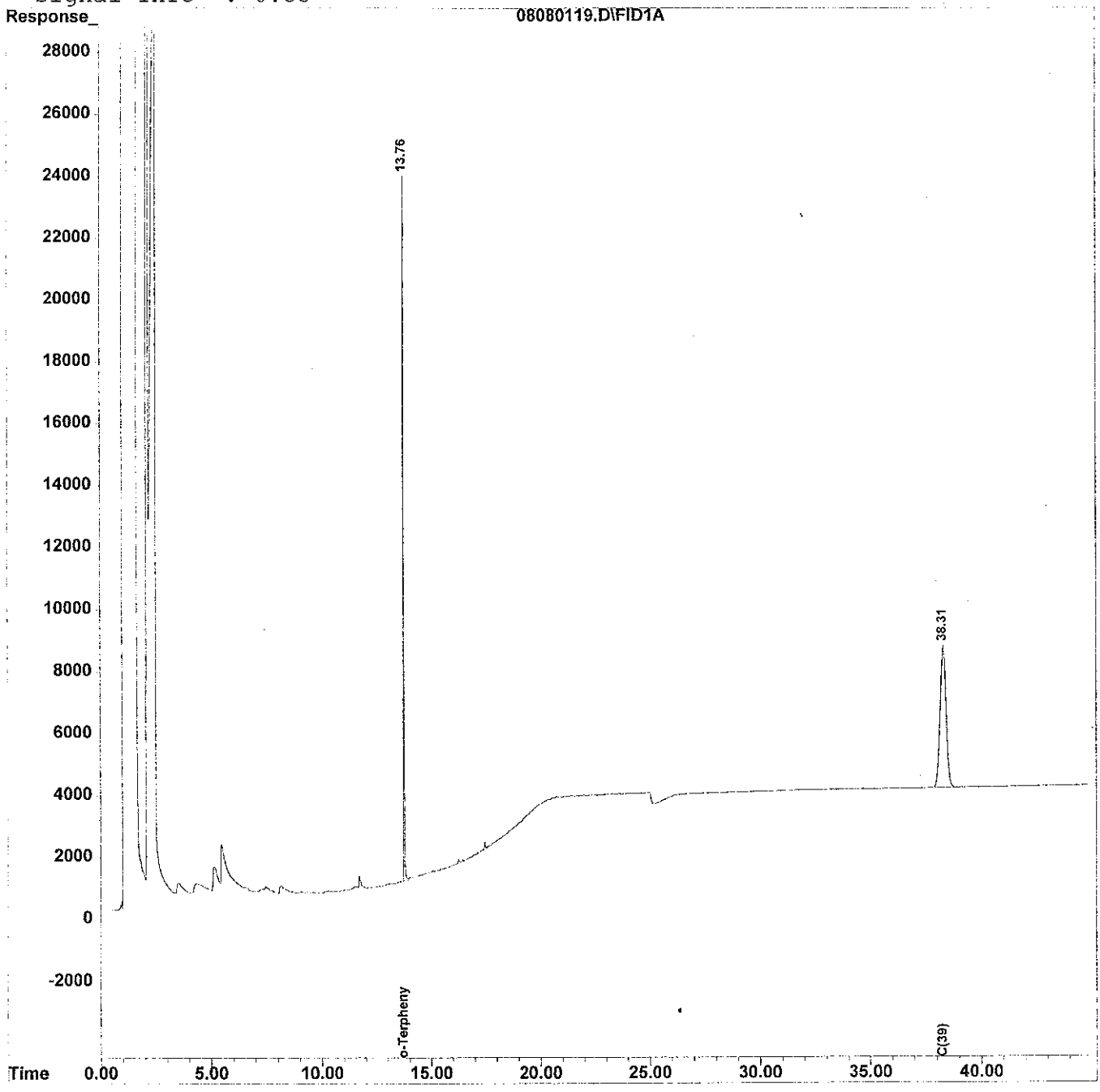
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080119.D Vial: 17
Acq On : 08/09/01 02:09 Operator: BP
Sample : 17891 W 5X Inst : HPGCO
Misc : 940 ml Multiplr: 5.00
IntFile : PRO0914.e
Quant Time: Aug 9 8:21 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2147752	31.171 ug/mlm
Spiked Amount 50.000	Recovery =		62.34%
3) SC C(39)	38.44f	6004297	167.373 ug/mlm
Spiked Amount 300.000	Recovery =		55.79%
Target Compounds			
1) HM Petoleum Range Organics	3.93	64544071	N.D. ug/ml

ZI/2RL

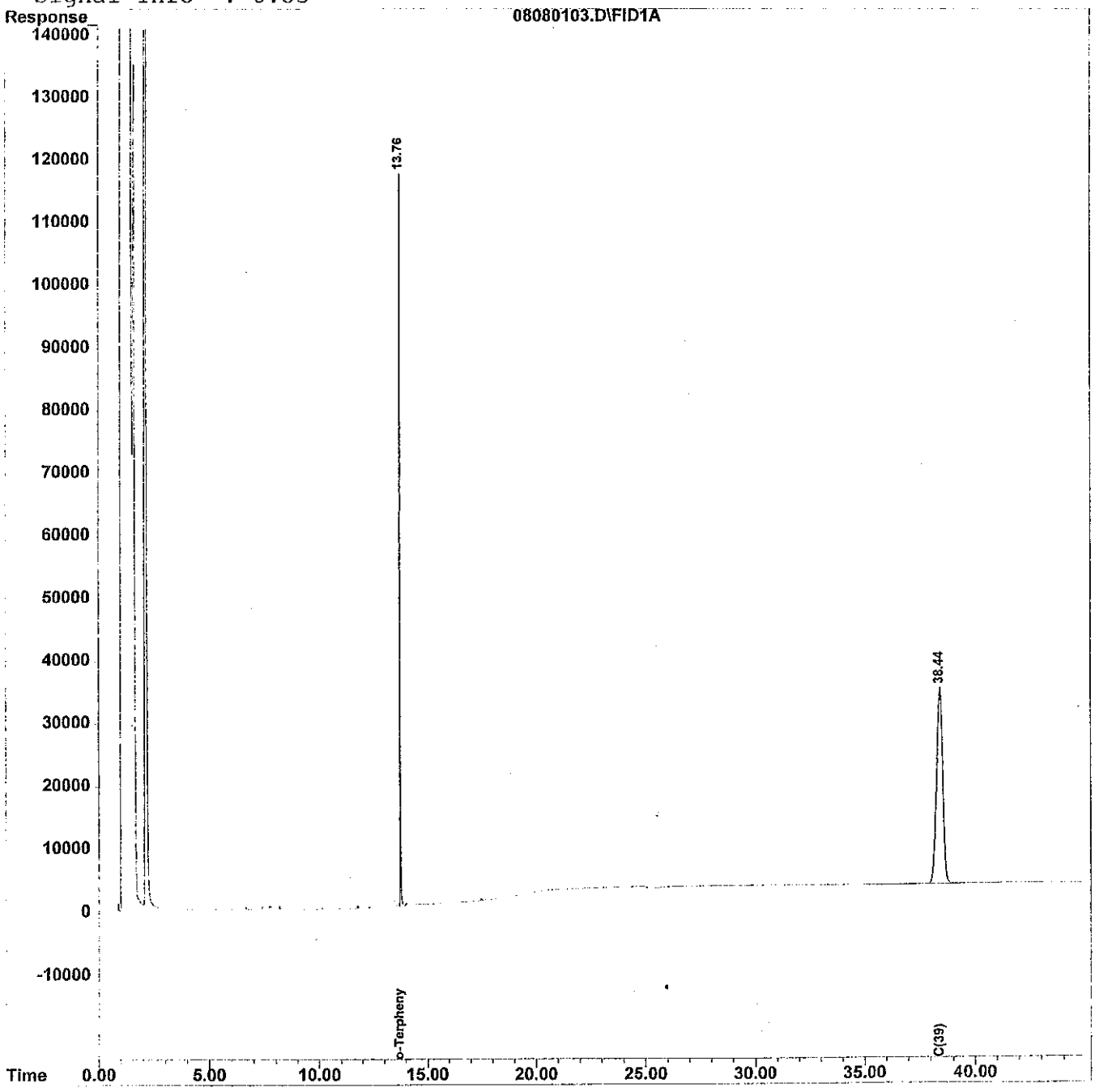
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2228791	32.347 ug/ml
Spiked Amount 50.000		Recovery =	64.69%
3) SC C(39)	38.40f	5171113	144.148 ug/mlm
Spiked Amount 300.000		Recovery =	48.05%
Target Compounds			
1) HM Petoleum Range Organics	3.93	202074040	2696.591 ug/ml

$\frac{2696.591}{4250} = 63\%$

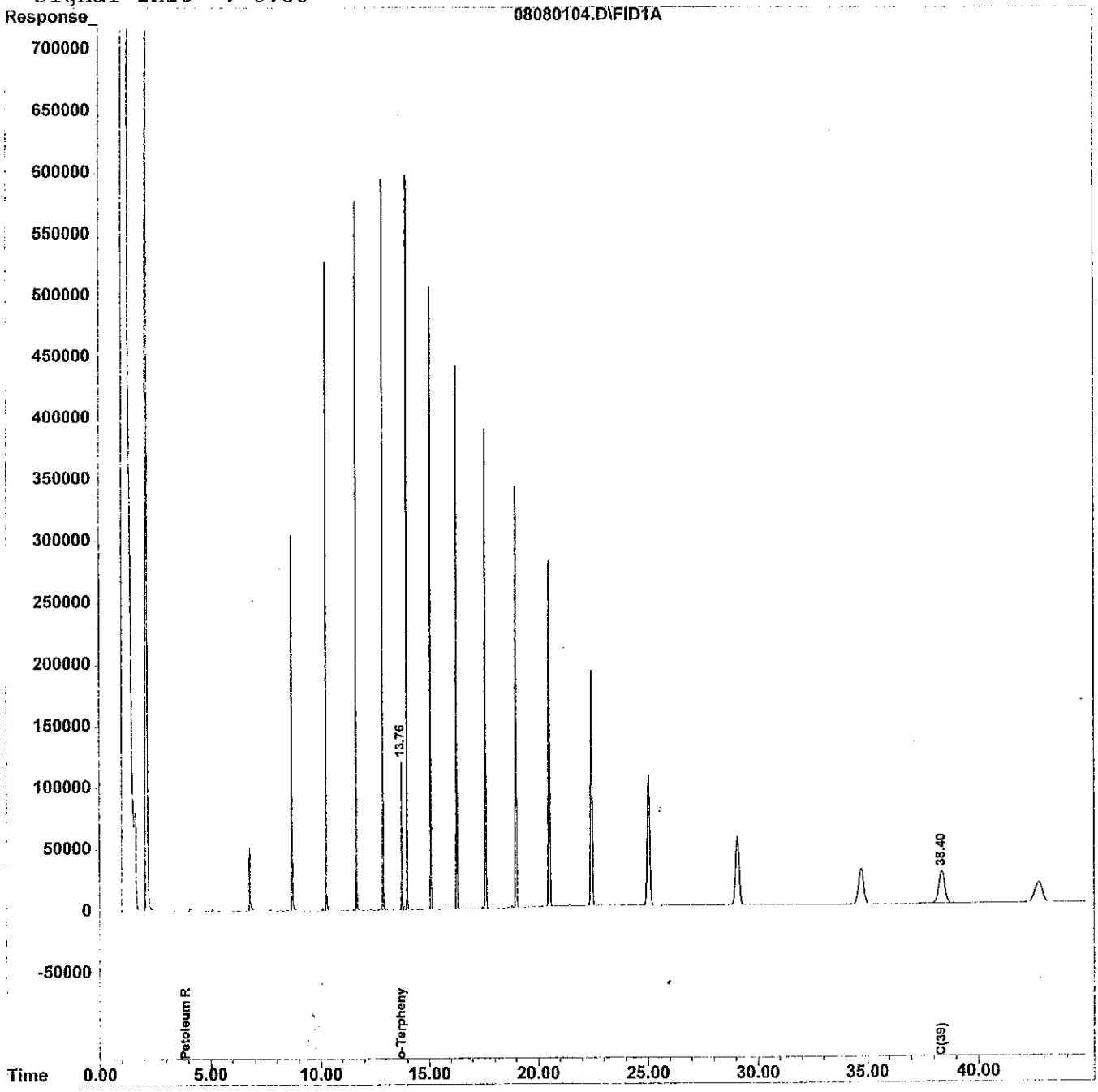
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080105.D Vial: 5
Acq On : 08/08/01 12:16 Operator: BP
Sample : QFW0806013 Inst : HPGCO
Misc : PRO WATER LCSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2328552	33.795 ug/ml
Spiked Amount 50.000	Recovery = 67.59%		
3) SC C(39)	38.37f	6107448	170.249 ug/mlm
Spiked Amount 300.000	Recovery = 56.75%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	216443050	2981.245 ug/ml

$\frac{2981}{4250} = 70\%$

(f)=RT Delta > 1/2 Window (m)=manual int.

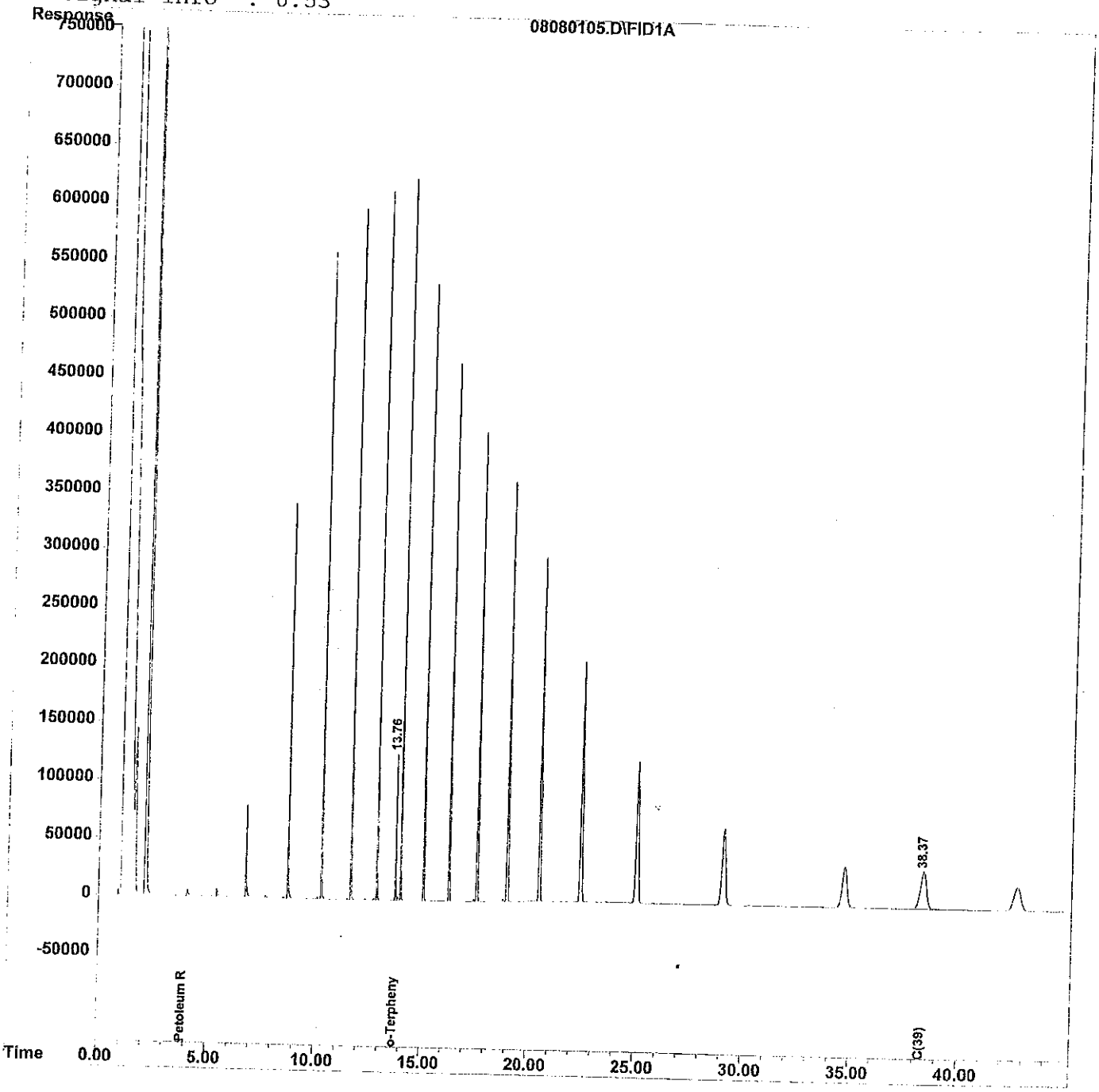
Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080105.D
Acq On : 08/08/01 12:16
Sample : QFW0806013
Misc : PRO WATER LCSD
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Vial: 5
Operator: BP
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



VOA GC/MS DATA CHECKLIST
SW-846-8260B

PROJECT #: 28512	METHOD: 8260B
MATRIX: WATER	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	Y	N	NA
Are all SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	Y	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	Y	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS?	Y	N	NA
If all spike recoveries were not acceptable, was a Quality Notice Form completed?	Y	N	~~NA~~
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	Y	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	~~NA~~
Were sample analyses performed within holding times?	Y	N	NA
If sample analyses were not performed within holding times, was a Quality Notice Form completed?	Y	N	~~NA~~
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	~~NA~~
Was the Modified 5035 method used? Was a Temporary Method Deviation form completed?	Y	N	~~NA~~
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	Y	N	~~NA~~
Are pHs recorded for all water samples?	Y	N	NA
Have the samples been reviewed, and all false positives deleted?	Y	N	NA
Are all samples and supporting data (QNF, QC Charts, Runlog and Batchbook Copies) in the folder?	Y	N	NA

Analyst:	VRR
Date: 8-9-01	Time: 9:50

PEER REVIEW

Are Tuning results compliant with method?	(Y)	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all sample Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all blank and QC results acceptable?	(Y)	N	NA
Are all surrogate standard recoveries acceptable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all calculations correct and reported in the proper units?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Is the run log completely filled out (including review signature/date)?	(Y)	N	NA
Are pHs recorded for all water samples?	(Y)	N	NA
Are all applicable runlog sheets signed, dated, and included?	(Y)	N	NA
Have all samples and supporting data been included in the folder?	(Y)	N	NA
Have all LIMS entries been checked for accuracy?	(Y)	N	NA

Reviewer:	DAT
Date: 8-9-01	Time: 13:50

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8·7·01
Calib. Method: 080601W·M
ACQ. Method: 080701W·M
BFB Std.ID #: VC1081
IS/Surr Std. ID # VC1070/VC1071

	CCV IS RT	CCV IS AREAS
#1	6.70	219634
#2	12·08	255172
#3	15·31	126943
#4		

MS Conditions
EMV: 1906
Tune File: BFB01·U
Solvent Delay: 0·5 min

Std. Mix	Conc.	AAL #
8260 CCV	50 ppm	VC1083
8260 Add Mix	50 ppm	VC1073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JCC856	BFB 50ng	—	—	2 ml	—	—	—	—	1013	
JCC857	CCV 10PPb	—	W	25 ml	1	1	—	-	1035	
JCC858	IJ080701MB	—			1	2	—	-	1115	
JCC859	IJ080701LCS	—			1	3	—	—	1151	
JCC860	28512 AC17885	—		12·5 ml	2	4	1	x	1225	
JCC861	AC17886MS	—			2	5	1	x	1258	
JCC862	AC17887MSD	—			2	6	1	x	1324	
JCC863	BLANK	—			2	7	—	—	1350	
JCC864	28507 AC17843	—		25 ml	1	8	1	x	1416	
JCC865	AC17841	—		5 ml	5	9	1	x	1442	
JCC866	AC17842	—		25 ml	1	10	1	x	1508	
JCC867	28512 AC17888	—			1	11	1	x	1534	
JCC868	AC17890	—			1	12	1	x	1600	
JCC869	AC17891	—			1	13	1	x	1626	NDIL 1:10
JCC870	AC17889	—			1	14	1	x	1652	NRI to confirm Toluene
JCC871	28518 AC17926	—			1	15	1	x	1718	
JCC872	28530 AC17980	—			1	16	1	x	1745	
JCC873	AC17982	—			1	1	1	x	1811	
JCC874	28518 AC17919	—			1	2	1	x	1838	RI
JCC875	AC17920	—			1	3	1	x	1905	RI
JCC876	AC17921	—			1	4	1	x	1931	NDIL 1:2
JCC877	AC17922	—			1	5	1	x	1958	RI to confirm TCE
JCC878	AC17923	—			1	6	1	x	2025	RI
JCC879	AC17924	—			1	7	1	x	2051	RI
JCC880	AC17925	—			1	8	1	x	2118	
JCC881	28530 AC17978	—			1	9	1	x	2144	

Analyst/Date: VRR 8·8·01
Reviewer/Date:

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 080601
Calib. Method: 080601W.M
ACQ. Method: 080601W.M
BFB Std.ID #: V010181
IS/Surr Std. ID # V010170/V010171

	CCV IS RT	CCV IS AREAS
#1	6.71	201922
#2	12.08	235398
#3	15.31	118033
#4		

MS Conditions
EMV: 1906
Tune File: BFB01.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 ICAL mix	50 ppm	V01C53
8260 ICV Mix	50 ppm	V01C52
8260 Add Mix	50 ppm	V01C73
8260		

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
J00836	BFB 50ng	—	—	2ul	—	—	—	—	9:57	
J00837	ICAL 1ppb	—	W	25ml	1	1	—	—	10:22	
J00838	ICAL 4ppb	—			1	2	—	—	10:48	
J00839	ICAL 10ppb	—			1	3	—	—	11:13	
J00840	ICAL 20ppb	—			1	4	—	—	11:39	
J00841	ICAL 30ppb	—			1	5	—	—	12:05	
J00842	ICAL 40ppb	—			1	6	—	—	12:30	
J00843	ICAL 1ppb	—			1	7	—	—	15:31	
J00844	ICV 10ppb	—			1	8	—	—	16:13	
J00845	1J080601MB	—			1	9	—	—	16:55	
J00846	1J080601LCS	—			1	10	—	—	1729	
J00847	BLANK	—			1	11	—	—	1755	
J00848	28507 AC17837	—			1	12	1	X	1821	
J00849	↓ AC17840	—			1	13	1	X	1847	
J00850	AC17843	—			1	14	1	X	1913	NRI TO CONFIRM TOLUENE
J00851	AC17841	—			1	15	1	X	1939	NDIL 1:5
J00852	↓ AC17842	—			1	16	1	X	2004	NRI TO CONFIRM TCE W.T
J00853	28512 AC17833	—			1	1	1	X	2030	
J00854	↓ AC17884	—			1	2	1	X	2055	
J00855	↓ AC17885	—	↓	↓	1	3	1	X	2121	

Analyst/Date: VRR 8.7.01

Reviewer/Date: _____

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8·3·01
Calib. Method: 08C8C1W.M
ACQ. Method: 08C8C1W.M
BFB Std.ID #: VC1081
IS/Surr Std. ID # VC1C76/VC1071

	CCV IS RT	CCV IS AREAS
#1	6·70	200 339
#2	12·08	224653
#3	15·31	113619
#4		

MS Conditions
EMV: 1906
Tune File: BFB01U
Solvent Delay: 0·5 min

Std. Mix	Conc.	AAL #
8260 CCV	50ppm	VC1C83
8260 Add Mix	50ppm	VC1C73

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JCC882	BFB 50ng	—	—	—	—	—	—	-	9:17	
JCC883	CCV 50 ppb	—	W	25 ml	1	1	—	—	939	
JCC884	IJC8C8C1 MB	—			1	2	—	—	1020	
JCC885	IJC8C8C1 MB	—			1	2	-	-	1047	
JCC886	IJC8C8C1LCS	—			1	3	—	-	1117	
JCC887	25530 AC17973MS	—			1	4	1	X	1149	
JCC888	AC17973MSD	—			1	5	1	X	1215	
JCC889	28498 AC17786	—			1	6	1	X	1241	NDIL 1:5
JCC890	28512 AC17889	—		↓	1	7	1	X	1307	
JCC891	AC17891	—		2·5 ml	10	8	1	X	1333	
JCC892	28515 AC17926	—		25 ml	1	9	1	X	1359	
JCC893	AC17919	—			1	10	1	X	1426	
JCC894	AC17920	—		↓	1	11	1	X	1452	
JCC895	AC17921	—		12·5ml	2	12	1	X	1519	
JCC896	AC17922	—		25 ml	1	13	1	X	1545	
JCC897	AC17923	—			1	14	1	X	1612	
JCC898	AC17924	—			1	15	1	X	1638	
JCC899	28530 AC17979	—			1	16	1	X	1705	
JCC900	AC17981	—			1	1	1	X	1732	
JCC901	AC17980	—			1	2	1	X	1758	
JCC902	AC17982	—		↓	1	3	1	X	1825	
JCC903	28498 AC17786	—		5 ml	5	4	1	X	1851	
JCC904	28515 AC17920	—		12·5ml	2	5	1	X	1918	

Analyst/Date: VRR 8·9·01 Reviewer/Date: _____

Batch ID: W 080601 A Instrument ID: HP MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28507 AC17837	8·6·01		8·8·01	25 ml Purge
AC17840				
AC17841		NDIL 1:5		
AC17842		NRI		
AC17843		NRI		
28512 AC17883				
AC17884				
AC17885				
AC17888	8·7·01			
AC17889				
AC17890				
AC17891				
28518 AC17919		NRI		
AC17920		NRI		
AC17921		NRI		
AC17922		NRI		
AC17923		NRI		
AC17924		NRI		
AC17925				
AC17926		NRI		
AC17886 MS				
AC17887 MSD				
DUP				

Batch ID: W 080701 A Instrument ID: HP-MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28530 AC17978	8·7·01		8·8·01	25 ml Purge
AC17979	8·8·01			
AC17980	8·7·01			
AC17981	8·8·01			
AC17982	8·7·01			
28478 AC17786	88.01			
AC17978 MS	8·8·01		8·8·01	
AC17978 MSD				
DUP				

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00853.D Vial: 1
Acq On : 08/06/01 20:30 Operator:
Sample : AC17883 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:36 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	153254	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	181907	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	78982	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	75687	11.74	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 117.40%			
46) Toluene-d8	10.03	98	284320	10.67	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 106.70%#			
66) Bromofluorobenzene	13.73	95	97728	11.12	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.20%#			
Target Compounds						Qvalue
14) Carbon Disulfide	3.24	76	12335	0.61	ug\L	95
23) cis-1,2-Dichloroethene	5.79	96	166167	23.22	ug\L	85
24) 2-Butanone	5.89	72	1340	9.19	ug\L #	100
37) Trichloroethene	8.23	95	122701	14.19	ug\L	99
47) Toluene	10.12	92	17358	1.01	ug\L	99
51) Tetrachloroethene	10.88	164	4115	0.55	ug\L	98

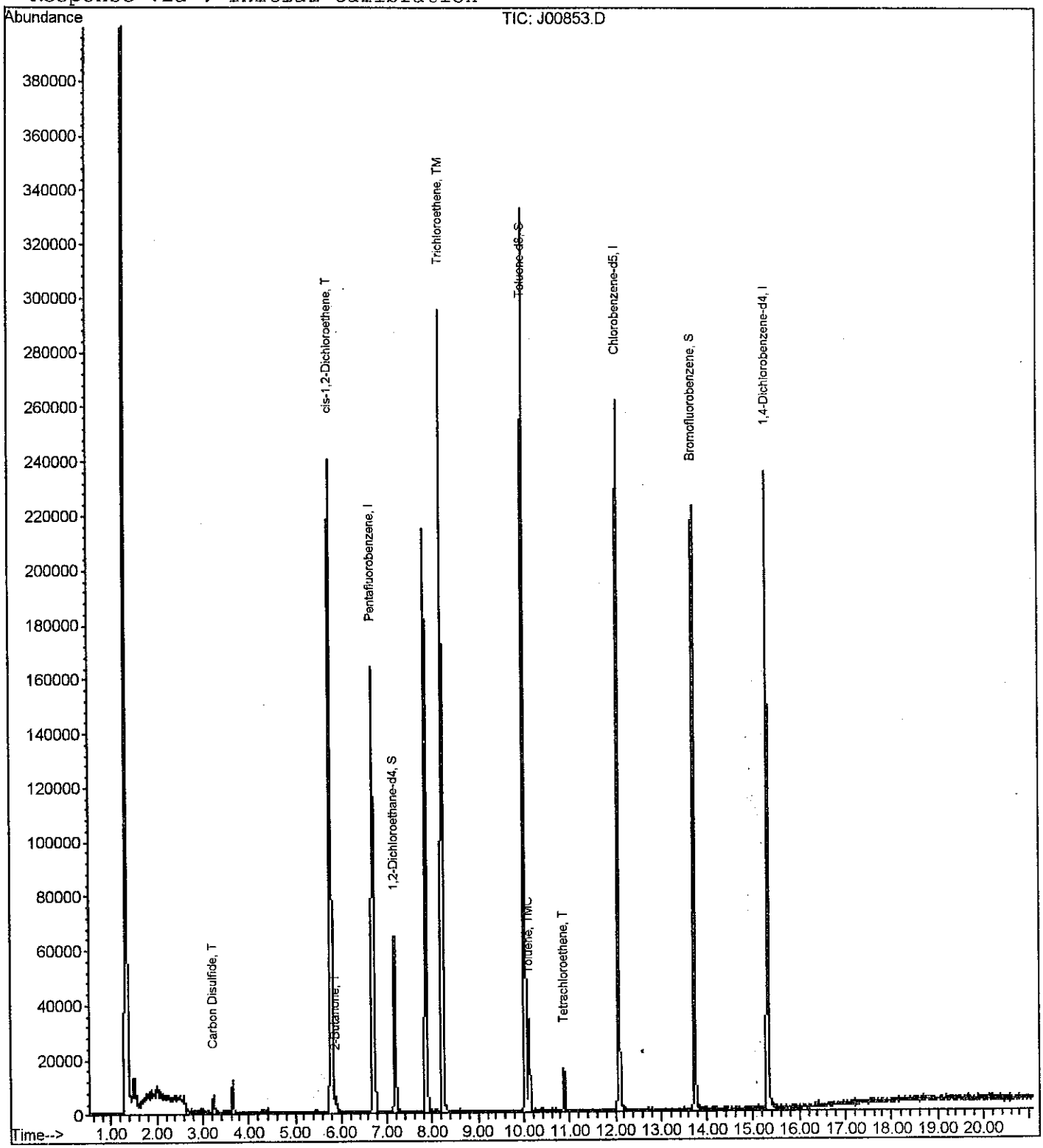
VRA
8.7.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00853.D Vial: 1
Acq On : 08/06/01 20:30 Operator:
Sample : AC17883 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:36 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00853.D Vial: 1
Acq On : 08/06/01 20:30 Operator:
Sample : AC17883 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

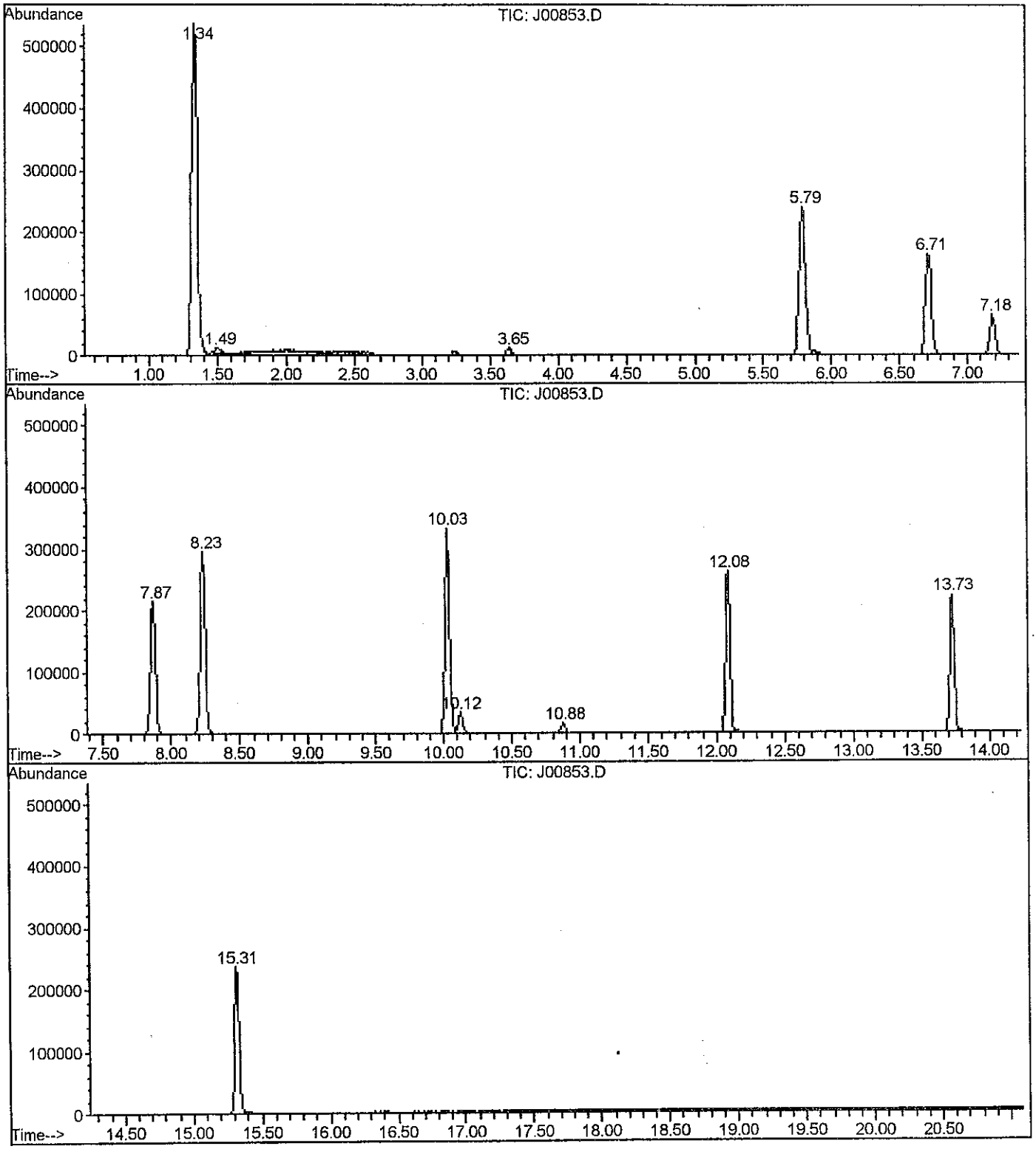
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.336	124	136	149	rBV	535432	1515609	100.00%	22.115%
2	1.493	158	162	175	rVB	9852	30002	1.98%	0.438%
3	3.646	512	520	530	rVB	12108	30205	1.99%	0.441%
4	5.787	863	876	888	rBV2	240600	774835	51.12%	11.306%
5	6.707	1016	1029	1043	rBV2	163889	507736	33.50%	7.409%
6	7.182	1098	1108	1122	rBV2	64628	184153	12.15%	2.687%
7	7.868	1209	1222	1233	rBV	214765	553372	36.51%	8.074%
8	8.235	1272	1283	1295	rBV	294862	745915	49.22%	10.884%
9	10.027	1571	1581	1590	rBV	332900	771147	50.88%	11.252%
10	10.117	1590	1596	1609	rVB	33757	82528	5.45%	1.204%
11	10.881	1712	1723	1731	rVB5	15781	37283	2.46%	0.544%
12	12.084	1913	1923	1933	rBV2	261675	599977	39.59%	8.754%
13	13.726	2184	2196	2206	rBV3	222556	493529	32.56%	7.201%
14	15.313	2449	2460	2474	rBV	235124	527098	34.78%	7.691%

Sum of corrected areas: 6853389

J00853.D 08060125.M Tue Aug 07 08:42:36 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00853.D
Operator :
Acquired : 6 Aug 2001 20:30 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17883 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 1
Quant File :08060125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 20:30
Data File: C:\HPCHEM\1\DATA\1J080601\J00853.D
Name: AC17883 25ml DF=1
Misc: 28512/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00853.D 08060125.M Tue Aug 07 08:42:37 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00854.D Vial: 2
Acq On : 08/06/01 20:55 Operator:
Sample : AC17884 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:37 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	153025	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	181767	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	78848	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	76801	11.93	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 119.30%			
46) Toluene-d8	10.03	98	278041	10.45	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.50%#			
66) Bromofluorobenzene	13.72	95	99769	11.37	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 113.70%#			
Target Compounds						Qvalue
3) Chloromethane	1.66	50	3697	0.64	ug\L	96
14) Carbon Disulfide	3.24	76	15674	0.78	ug\L	98
23) cis-1,2-Dichloroethene	5.79	96	97856	13.70	ug\L	86
37) Trichloroethene	8.23	95	166993	19.34	ug\L	97
47) Toluene	10.12	92	20270	1.18	ug\L	99

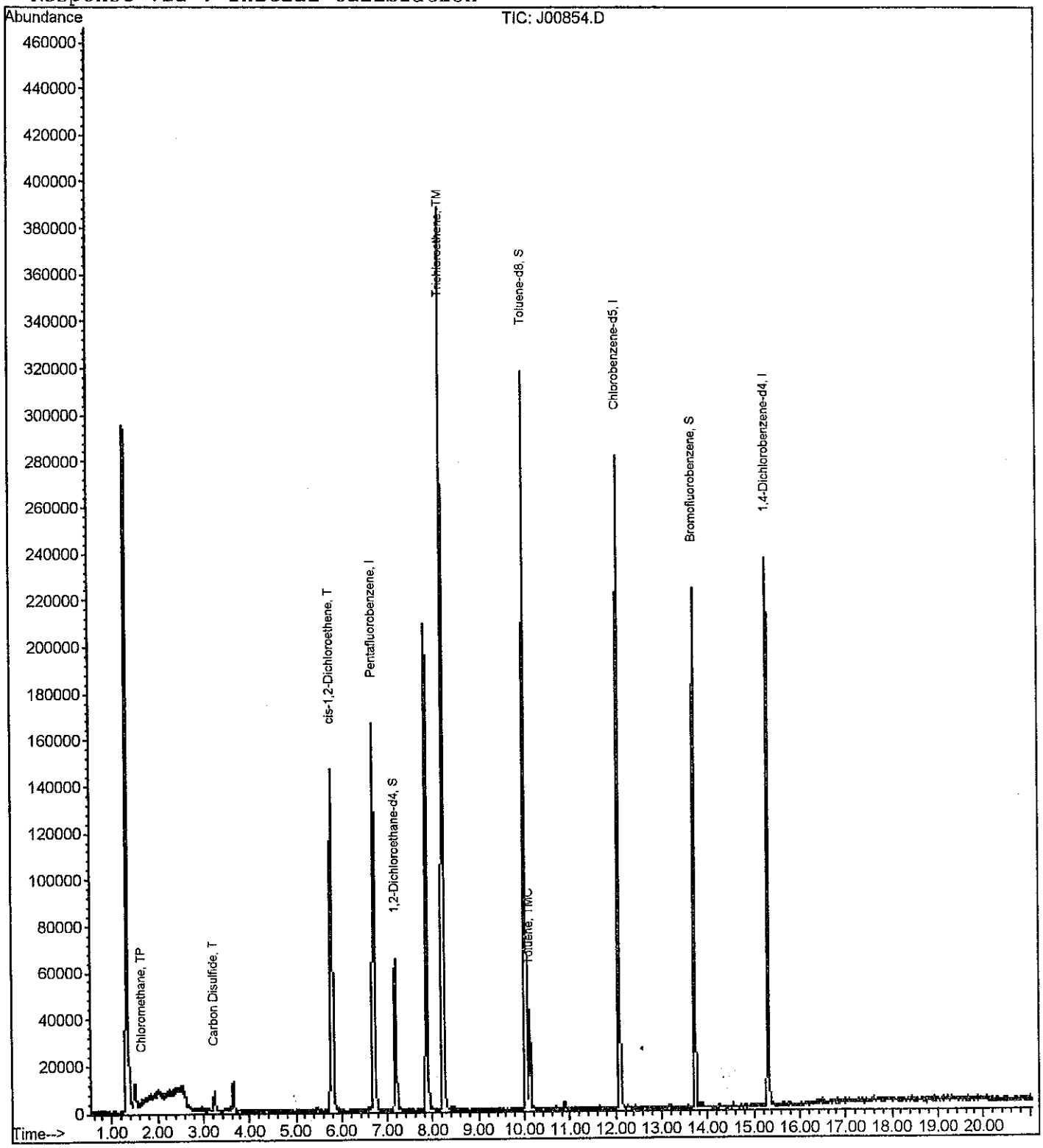
VRA
8-7-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00854.D Vial: 2
Acq On : 08/06/01 20:55 Operator:
Sample : AC17884 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:37 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00854.D Vial: 2
Acq On : 08/06/01 20:55 Operator:
Sample : AC17884 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

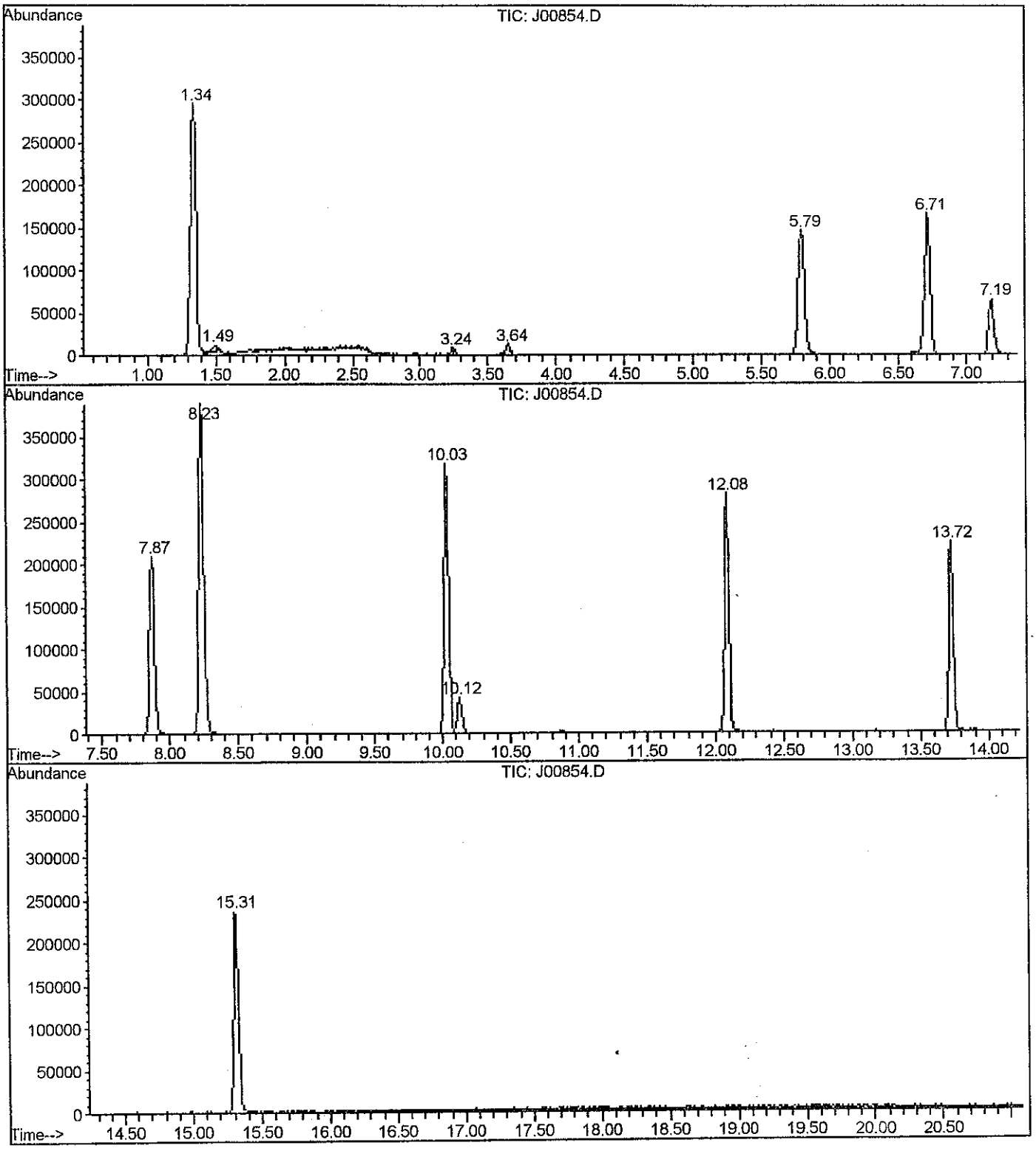
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.335	120	135	149	rBV	295033	848281	84.98%	13.915%
2	1.486	155	160	163	rBV	8412	17179	1.72%	0.282%
3	3.236	444	451	452	rBV2	8056	12042	1.21%	0.198%
4	3.645	510	519	528	rVB4	12569	34789	3.48%	0.571%
5	5.792	863	876	889	rBV3	146503	461074	46.19%	7.563%
6	6.712	1017	1029	1043	rVB	165588	495095	49.60%	8.121%
7	7.187	1096	1108	1117	rBV3	65239	186393	18.67%	3.058%
8	7.867	1211	1221	1236	rBV	208686	554346	55.53%	9.093%
9	8.234	1269	1282	1297	rBV2	388395	998253	100.00%	16.375%
10	10.032	1571	1581	1590	rBV	318267	742577	74.39%	12.181%
11	10.122	1590	1596	1605	rVB	42073	93998	9.42%	1.542%
12	12.083	1913	1922	1932	rBV	281669	618504	61.96%	10.146%
13	13.725	2187	2195	2207	rBV	223714	495443	49.63%	8.127%
14	15.312	2450	2459	2474	rBV2	236057	538217	53.92%	8.829%

Sum of corrected areas: 6096191

J00854.D 08060125.M Tue Aug 07 08:43:06 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00854.D
Operator :
Acquired : 6 Aug 2001 20:55 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17884 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 2
Quant File :08060125.RES (RTE Integrator)



J00854.D 08060125.M Tue Aug 07 08:43:06 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00854.D Vial: 2
Acq On : 08/06/01 20:55 Operator:
Sample : AC17884 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

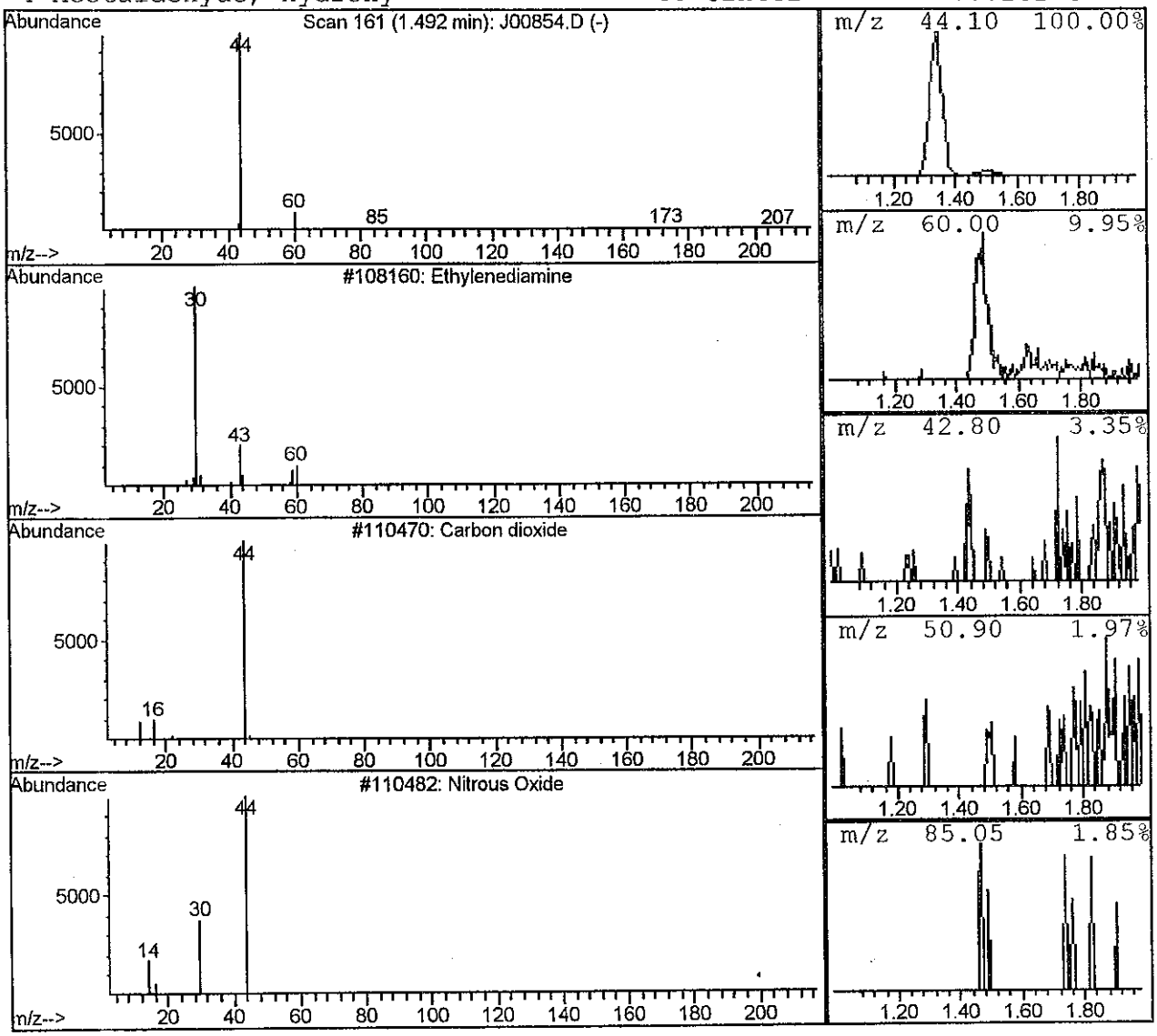
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Ethylenediamine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.49	171790.00 ug\L	17179	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylenediamine	60	C2H8N2	000107-15-3	2
2	Carbon dioxide	44	CO2	000124-38-9	2
3	Nitrous Oxide	44	N2O	010024-97-2	2
4	Acetaldehyde, hydroxy-	60	C2H4O2	000141-46-8	2



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 20:55
Data File: C:\HPCHEM\1\DATA\1J080601\J00854.D
Name: AC17884 25ml DF=1
Misc: 28512/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethylenediamine	1.49	171790.0	ug\L	17179	ISTD01	0.00	1	10.0

J00854.D 08060125.M Tue Aug 07 08:43:07 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00855.D Vial: 3
Acq On : 08/06/01 21:21 Operator:
Sample : AC17885 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:38 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	145935	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	172174	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	76315	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	75010	12.21	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.10%#			
46) Toluene-d8	10.03	98	275003	10.91	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 109.10%#			
66) Bromofluorobenzene	13.72	95	95377	11.23	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 112.30%#			
Target Compounds						Qvalue
3) Chloromethane	1.67	50	3275	0.59	ug\L	97
14) Carbon Disulfide	3.24	76	40622	2.11	ug\L	99
23) cis-1,2-Dichloroethene	5.79	96	118551	17.40	ug\L	87
24) 2-Butanone	5.89	72	2409	16.19	ug\L #	100
37) Trichloroethene	8.23	95	283853	34.48	ug\L	97
47) Toluene	10.12	92	40098	2.46	ug\L	97

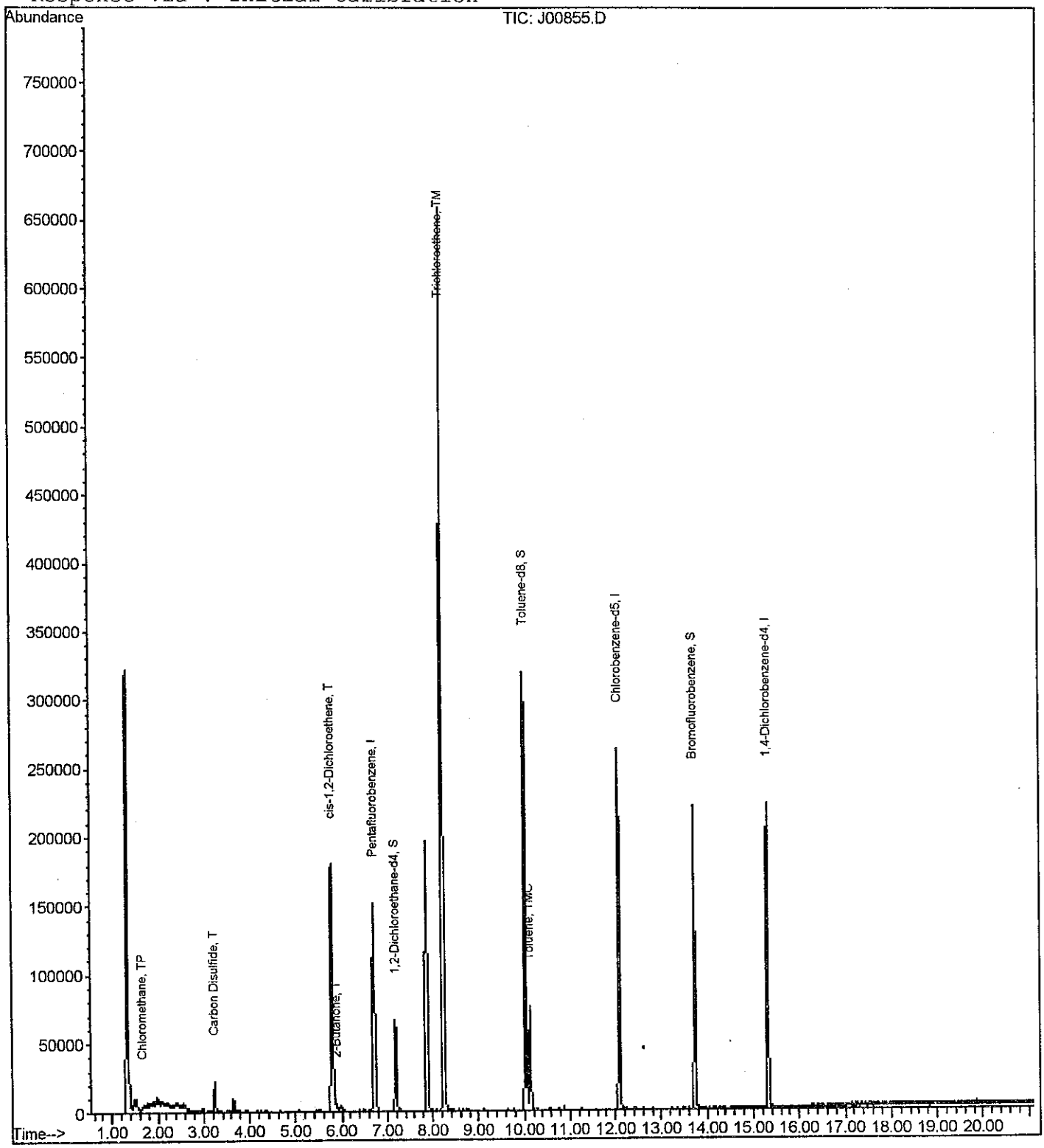
VRR
8-7-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00855.D Vial: 3
Acq On : 08/06/01 21:21 Operator:
Sample : AC17885 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:38 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00855.D Vial: 3
Acq On : 08/06/01 21:21 Operator:
Sample : AC17885 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

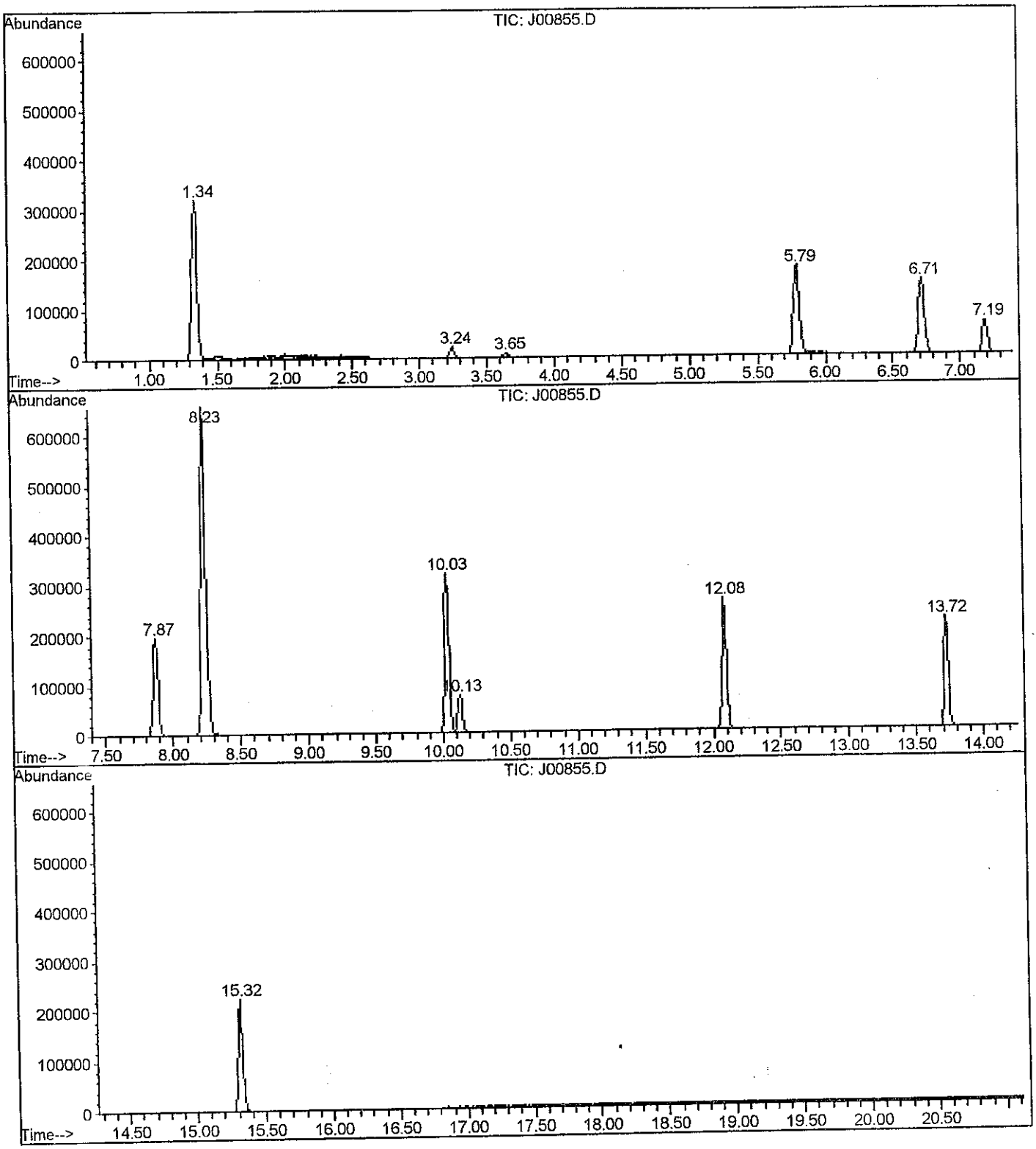
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.342	120	136	148	rBV	321535	912229	54.14%	13.215%
2	3.242	443	452	461	rBV	21994	54343	3.23%	0.787%
3	3.645	511	519	529	rVB3	9368	24690	1.47%	0.358%
4	5.792	864	876	887	rBV2	179831	563178	33.43%	8.158%
5	6.712	1017	1029	1045	rVB3	151617	478009	28.37%	6.924%
6	7.187	1096	1108	1119	rBV2	66590	182268	10.82%	2.640%
7	7.873	1211	1222	1233	rBV2	197056	519053	30.81%	7.519%
8	8.234	1269	1282	1296	rBV	658756	1684882	100.00%	24.407%
9	10.032	1571	1581	1589	rBV	319785	736547	43.72%	10.670%
10	10.128	1589	1597	1604	rVB	74297	178385	10.59%	2.584%
11	12.083	1913	1922	1934	rBV	263237	576991	34.25%	8.358%
12	13.725	2186	2195	2206	rBV	221479	485155	28.79%	7.028%
13	15.319	2451	2460	2471	rBV	221844	507474	30.12%	7.351%

Sum of corrected areas: 6903204

J00855.D 08060125.M Tue Aug 07 08:43:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00855.D
Operator :
Acquired : 6 Aug 2001 21:21 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: AC17885 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 3
Quant File :08060125.RES (RTE Integrator)



J00855.D 08060125.M Tue Aug 07 08:43:36 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 21:21
Data File: C:\HPCHEM\1\DATA\1J080601\J00855.D
Name: AC17885 25ml DF=1
Misc: 28512/W080601A
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00855.D 08060125.M Tue Aug 07 08:43:36 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	212050	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	233454	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	94056	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	87082	9.76	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
46) Toluene-d8	10.02	98	340265	9.95	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.72	95	117121	11.19	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.90%#			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	75959	7.67	ug\L	84
24) 2-Butanone	5.86	72	1645	8.31	ug\L #	100
37) Trichloroethene	8.22	95	150129	12.55	ug\L	97
47) Toluene	10.11	92	16822	0.76	ug\L	97

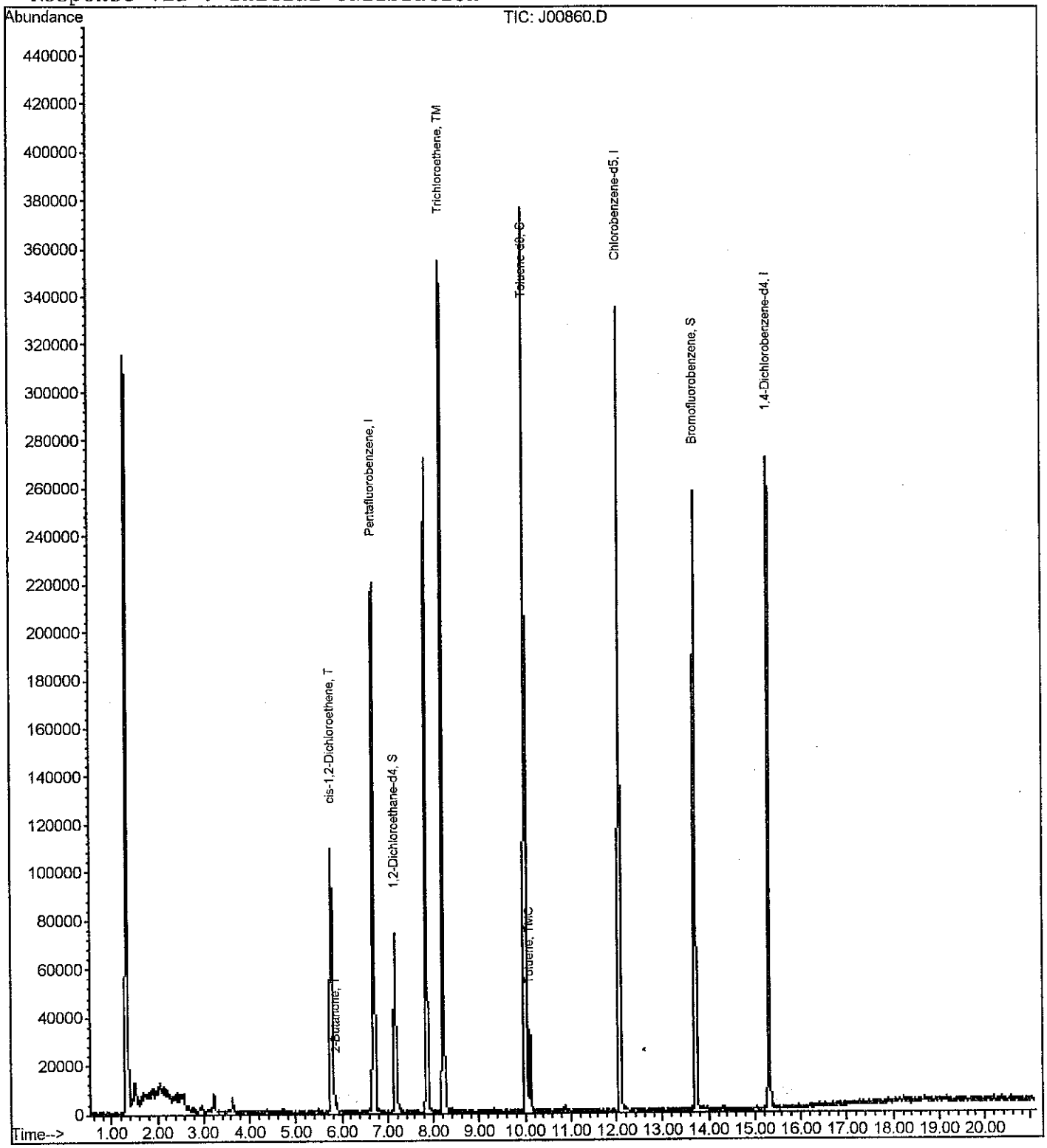
VRR
8.8.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	202248	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	227865	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	111231	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	40	10.00	ug\L	-0.21
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	87638	10.30	ug\L	-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.00%			
46) Toluene-d8	10.02	98	352305	10.56	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#			
66) Bromofluorobenzene	13.71	95	122910	9.93	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	156222	10.11	ug\L	99
3) Chloromethane	1.66	50	71750	9.36	ug\L	95
4) Vinyl Chloride	1.74	62	103462	9.80	ug\L	98
5) Bromomethane	2.04	94	22924	7.21	ug\L	97
6) Chloroethane	2.13	64	59474	10.51	ug\L	99
7) Trichlorofluoromethane	2.38	101	211774	10.91	ug\L #	100
8) Acrolein	2.90	56	4511	17.69	ug\L #	98
9) Acrylonitrile	4.04	53	12554	20.58	ug\L	99
10) 1,1-Dichloroethene	2.96	96	93911	10.18	ug\L	97
11) Acetone	3.09	58	2220	13.95	ug\L	65
12) Iodomethane	3.17	142	104709	8.48	ug\L	98
13) Allylchloride	3.43	39	115927	10.44	ug\L	97
14) Carbon Disulfide	3.23	76	272562	10.24	ug\L	99
15) Acetonitrile	3.43	41	119904	101.34	ug\L	97
16) Methylene Chloride	3.62	86	53631	9.47	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	104205	10.52	ug\L	98
18) MethylTertButylEther	3.97	73	127788	10.74	ug\L	100
19) 1,1-Dichloroethane	4.68	63	150494	10.13	ug\L	98
20) Isopropyl Ether	4.78	45	6944	4.48	ug\L #	1
21) Vinyl Acetate	4.80	43	72069	9.69	ug\L	99
22) 2,2-Dichloropropane	5.71	77	183928	10.49	ug\L	96
23) cis-1,2-Dichloroethene	5.77	96	176243	18.66	ug\L	91
24) 2-Butanone	5.86	72	4422	21.01	ug\L #	100
25) Propionitrile	6.02	54	21644	106.24	ug\L	97
26) Methacrylonitrile	6.23	41	126992	106.64	ug\L	99
27) Bromochloromethane	6.20	128	33669	9.85	ug\L	96
28) Chloroform	6.36	83	190452	10.46	ug\L #	1
29) 1,1,1-Trichloroethane	6.56	97	217255	10.35	ug\L	97

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Carbon Tetrachloride	6.81	119	207456	10.55	ug\L		98
31)	1,4-Dioxane	8.84	88	4630	218.74	ug\L	#	71
32)	1,1-Dichloropropene	6.85	77	42753	10.17	ug\L		94
34)	Benzene	7.19	78	332053	10.24	ug\L		100
35)	Isobutyl alcohol	7.33	43	11269	199.29	ug\L		94
36)	1,2-Dichloroethane	7.29	62	102517	10.57	ug\L		100
37)	Trichloroethene	8.22	95	270042	23.67	ug\L		99
38)	1,2-Dichloropropane	8.58	63	59524	9.82	ug\L		100
39)	Dibromomethane	8.78	93	36773	10.28	ug\L		98
40)	Methylmethacrylate	8.80	69	17398	10.77	ug\L		96
41)	Bromodichloromethane	9.04	83	118963	10.22	ug\L		97
42)	2-Chloroethyl-vinyl ether	9.68	63	879m	0.79	ug\L		
43)	cis-1,3-Dichloropropene	9.68	75	106543	9.83	ug\L		94
44)	4-Methyl-2-Pentanone	9.91	85	3584	8.26	ug\L	#	1
47)	Toluene	10.11	92	246948	11.46	ug\L		98
48)	trans-1,3-Dichloropropene	10.50	75	82676	10.39	ug\L		96
49)	Ethylmethacrylate	10.61	69	39761	10.63	ug\L		97
50)	1,1,2-Trichloroethane	10.76	83	34110	10.84	ug\L		96
51)	Tetrachloroethene	10.87	164	100215	10.70	ug\L		98
52)	1,3-Dichloropropane	10.99	76	71370	10.69	ug\L		98
53)	2-Hexanone	11.11	43	12670	10.61	ug\L		97
54)	Dibromochloromethane	11.31	129	70870	10.95	ug\L		98
55)	1,2-Dibromoethane	11.45	107	44016	10.80	ug\L	#	98
56)	Chlorobenzene	12.11	112	239157	10.02	ug\L		99
57)	1,1,1,2-Tetrachloroethane	12.24	131	93703	10.47	ug\L		98
58)	Ethylbenzene	12.25	91	482734	10.40	ug\L		99
59)	total-Xylene	12.41	106	487840m	30.23	ug\L	#	
60)	Styrene	13.00	104	234905	9.96	ug\L		99
62)	Bromoform	13.30	173	31799	9.90	ug\L		97
63)	Isopropylbenzene	13.47	105	458364	9.65	ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.64	53	12592	9.94	ug\L	#	1
65)	trans-1,4-dichloro-2-Buten	14.04	53	13331	9.87	ug\L	#	48
67)	Bromobenzene	13.92	156	89661	9.86	ug\L		96
68)	1,1,2,2-Tetrachloroethane	13.97	83	36789	10.51	ug\L		97
69)	1,2,3-Trichloropropane	14.02	75	43546	9.86	ug\L	#	3
70)	n-Propylbenzene	14.04	91	556765	9.80	ug\L		99
71)	2-Chlorotoluene	14.17	91	332066	9.93	ug\L		98
72)	4-Chlorotoluene	14.32	91	393994	10.14	ug\L	#	94
73)	1,3,5-Trimethylbenzene	14.28	105	421385	9.88	ug\L		100
74)	Pentachloroethane	14.80	167	59546	10.09	ug\L		97
75)	tert-Butylbenzene	14.73	119	355028	9.86	ug\L		100
76)	1,2,4-Trimethylbenzene	14.80	105	426238	10.11	ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

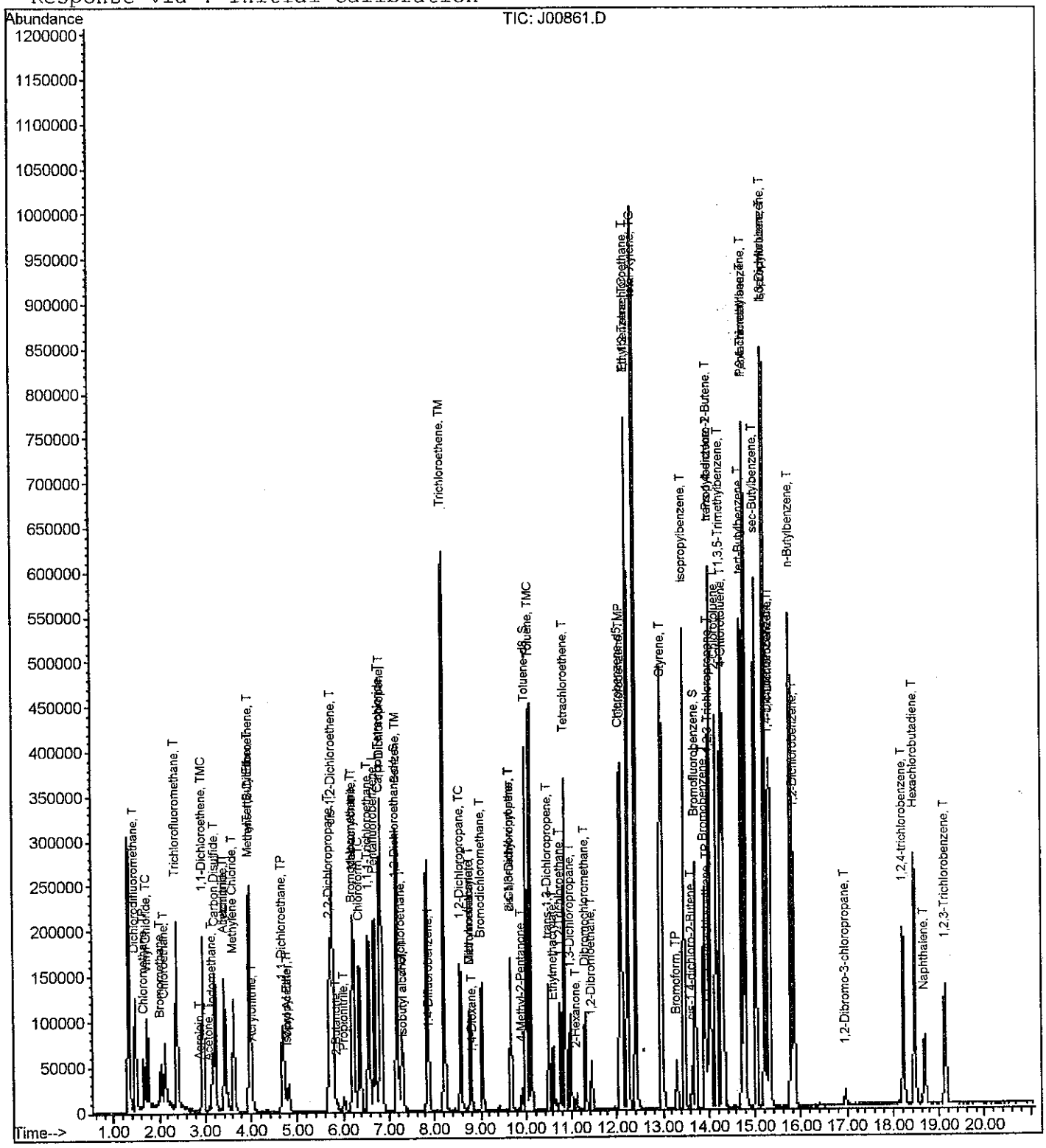
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	529227	9.92 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	188305	10.08 ug\L	96
79) Isopropyltoluene	15.22	119	438717	10.06 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182541	9.72 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	144855	9.96 ug\L	98
82) n-Butylbenzene	15.79	91	409848	10.19 ug\L	98
83) 1,2-Dibromo-3-chloropropan	16.96	75	7140	10.15 ug\L	97
84) 1,2,4-trichlorobenzene	18.22	180	100229	9.84 ug\L	100
85) Hexachlorobutadiene	18.47	225	95255	10.41 ug\L	100
86) Naphthalene	18.68	128	104589	9.48 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	73120	9.71 ug\L	98

8.8.01

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	183834	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.07	117	217739	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110646	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	36	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	78377	10.13	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
46) Toluene-d8	10.02	98	305449	9.58	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.80%				
66) Bromofluorobenzene	13.71	95	117358	9.53	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	153366	10.92	ug\L		99
3) Chloromethane	1.66	50	75425	10.83	ug\L		99
4) Vinyl Chloride	1.74	62	105657	11.01	ug\L		98
5) Bromomethane	2.04	94	24355	8.43	ug\L		100
6) Chloroethane	2.14	64	57992	11.28	ug\L		100
7) Trichlorofluoromethane	2.38	101	204134	11.57	ug\L	#	100
8) Acrolein	2.90	56	4476	19.31	ug\L	#	100
9) Acrylonitrile	4.05	53	13301	23.98	ug\L		93
10) 1,1-Dichloroethene	2.96	96	92544	11.04	ug\L		100
11) Acetone	3.10	58	1980	13.68	ug\L		76
12) Iodomethane	3.17	142	121782	10.85	ug\L		97
13) Allylchloride	3.44	39	112947	11.19	ug\L		98
14) Carbon Disulfide	3.23	76	286931	11.85	ug\L		99
15) Acetonitrile	3.44	41	118800	110.46	ug\L		98
16) Methylene Chloride	3.63	86	52464	10.34	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	98330	10.92	ug\L		99
18) MethylTertButylEther	3.98	73	123505	11.42	ug\L		97
19) 1,1-Dichloroethane	4.69	63	143212	10.60	ug\L		99
20) Isopropyl Ether	4.77	45	14945	10.61	ug\L	#	40
21) Vinyl Acetate	4.81	43	74279	10.99	ug\L		100
22) 2,2-Dichloropropane	5.72	77	161472	10.14	ug\L		94
23) cis-1,2-Dichloroethene	5.77	96	150416	17.52	ug\L		92
24) 2-Butanone	5.87	72	3543	18.68	ug\L	#	100
25) Propionitrile	6.03	54	18863	101.86	ug\L		96
26) Methacrylonitrile	6.24	41	110888	102.45	ug\L		98
27) Bromochloromethane	6.20	128	30061	9.68	ug\L		98
28) Chloroform	6.36	83	166307	10.05	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	196523	10.30	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	181785	10.17 ug\L	100
31) 1,4-Dioxane	8.84	88	3946	205.10 ug\L #	69
32) 1,1-Dichloropropene	6.85	77	37700	9.86 ug\L	92
34) Benzene	7.19	78	283089	9.60 ug\L	100
35) Isobutyl alcohol	7.32	43	6493	130.79 ug\L #	43
36) 1,2-Dichloroethane	7.29	62	91197	10.34 ug\L	98
37) Trichloroethene	8.22	95	237729	22.92 ug\L	99
38) 1,2-Dichloropropane	8.59	63	53873	9.78 ug\L	99
39) Dibromomethane	8.79	93	34490	10.61 ug\L	98
40) Methylmethacrylate	8.81	69	15018	10.23 ug\L	95
41) Bromodichloromethane	9.05	83	107526	10.16 ug\L	99
43) cis-1,3-Dichloropropene	9.68	75	97558	9.90 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4271	10.82 ug\L #	1
47) Toluene	10.11	92	219601	10.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	75360	9.91 ug\L	94
49) Ethylmethacrylate	10.62	69	37921	10.61 ug\L	99
50) 1,1,2-Trichloroethane	10.77	83	31235	10.39 ug\L	100
51) Tetrachloroethene	10.87	164	89335	9.98 ug\L	99
52) 1,3-Dichloropropane	10.99	76	65387	10.25 ug\L	98
53) 2-Hexanone	11.12	43	11187	9.81 ug\L #	96
54) Dibromochloromethane	11.31	129	63983	10.34 ug\L	100
55) 1,2-Dibromoethane	11.45	107	40652	10.44 ug\L	95
56) Chlorobenzene	12.11	112	223966	9.82 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	87064	10.18 ug\L	99
58) Ethylbenzene	12.25	91	449902	10.14 ug\L	99
59) total-Xylene	12.41	106	465165m	30.17 ug\L #	
60) Styrene	13.00	104	233935	10.38 ug\L	99
62) Bromoform	13.30	173	30781	9.63 ug\L	98
63) Isopropylbenzene	13.47	105	459964	9.74 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	13490	10.70 ug\L	98
65) trans-1,4-dichloro-2-Buten	14.04	53	13490	10.05 ug\L #	51
67) Bromobenzene	13.92	156	86867	9.60 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.97	83	35543	10.21 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	44500	10.13 ug\L	100
70) n-Propylbenzene	14.04	91	548557	9.71 ug\L	100
71) 2-Chlorotoluene	14.17	91	322494	9.70 ug\L	97
72) 4-Chlorotoluene	14.33	91	385414	9.98 ug\L #	96
73) 1,3,5-Trimethylbenzene	14.29	105	421279	9.93 ug\L	100
74) Pentachloroethane	14.80	167	58121	9.90 ug\L	97
75) tert-Butylbenzene	14.73	119	349688	9.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	418742	9.99 ug\L	100
77) sec-Butylbenzene	15.03	105	524525	9.88 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

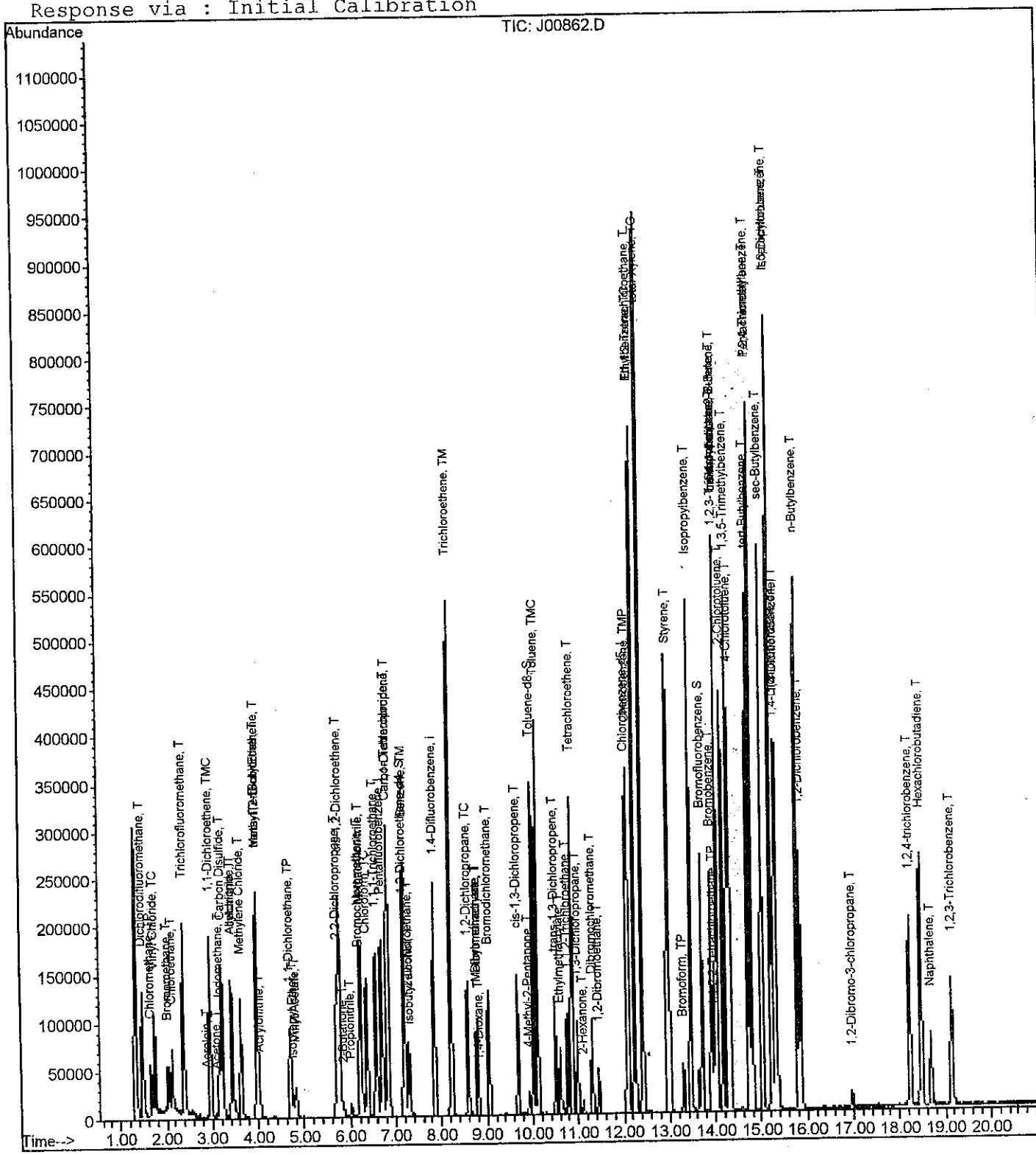
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.22	146	183210	9.86 ug\L	96
79) Isopropyltoluene	15.22	119	439765	10.14 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182089	9.75 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	145629	10.06 ug\L	100
82) n-Butylbenzene	15.79	91	406100	10.15 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	6949	9.93 ug\L	92
84) 1,2,4-trichlorobenzene	18.22	180	99005	9.77 ug\L	100
85) Hexachlorobutadiene	18.47	225	90935	9.99 ug\L	100
86) Naphthalene	18.69	128	110664	10.08 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	75678	10.10 ug\L	98

VGK
8-8-01

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00867.D Vial: 11
Acq On : 08/07/01 15:34 Operator:
Sample : AC17888 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:44 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	150061	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	179256	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.31	152	83229	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	77708	12.31	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.10%#			
46) Toluene-d8	10.02	98	266615	10.16	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.60%			
66) Bromofluorobenzene	13.72	95	100197	10.82	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 108.20%			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	95870	13.68	ug\L	86
37) Trichloroethene	8.22	95	150405	17.77	ug\L	97
47) Toluene	10.11	92	18788	1.11	ug\L	99

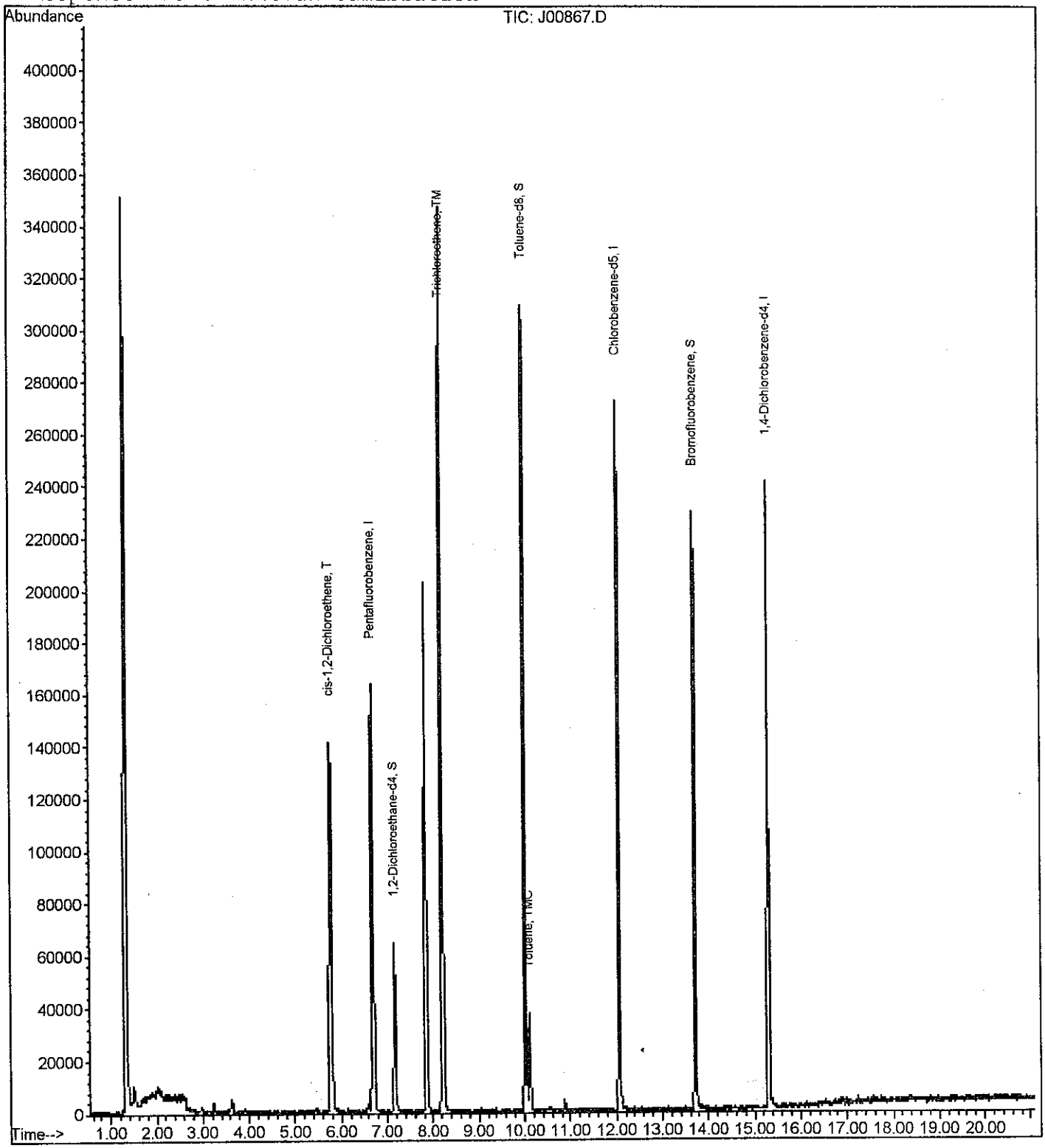
JRR
8.8.01

(#) = qualifier out of range (m) = manual integration
J00867.D 08070125.M Wed Aug 08 09:19:49 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00867.D Vial: 11
Acq On : 08/07/01 15:34 Operator:
Sample : AC17888 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:44 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00867.D Vial: 11
Acq On : 08/07/01 15:34 Operator:
Sample : AC17888 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

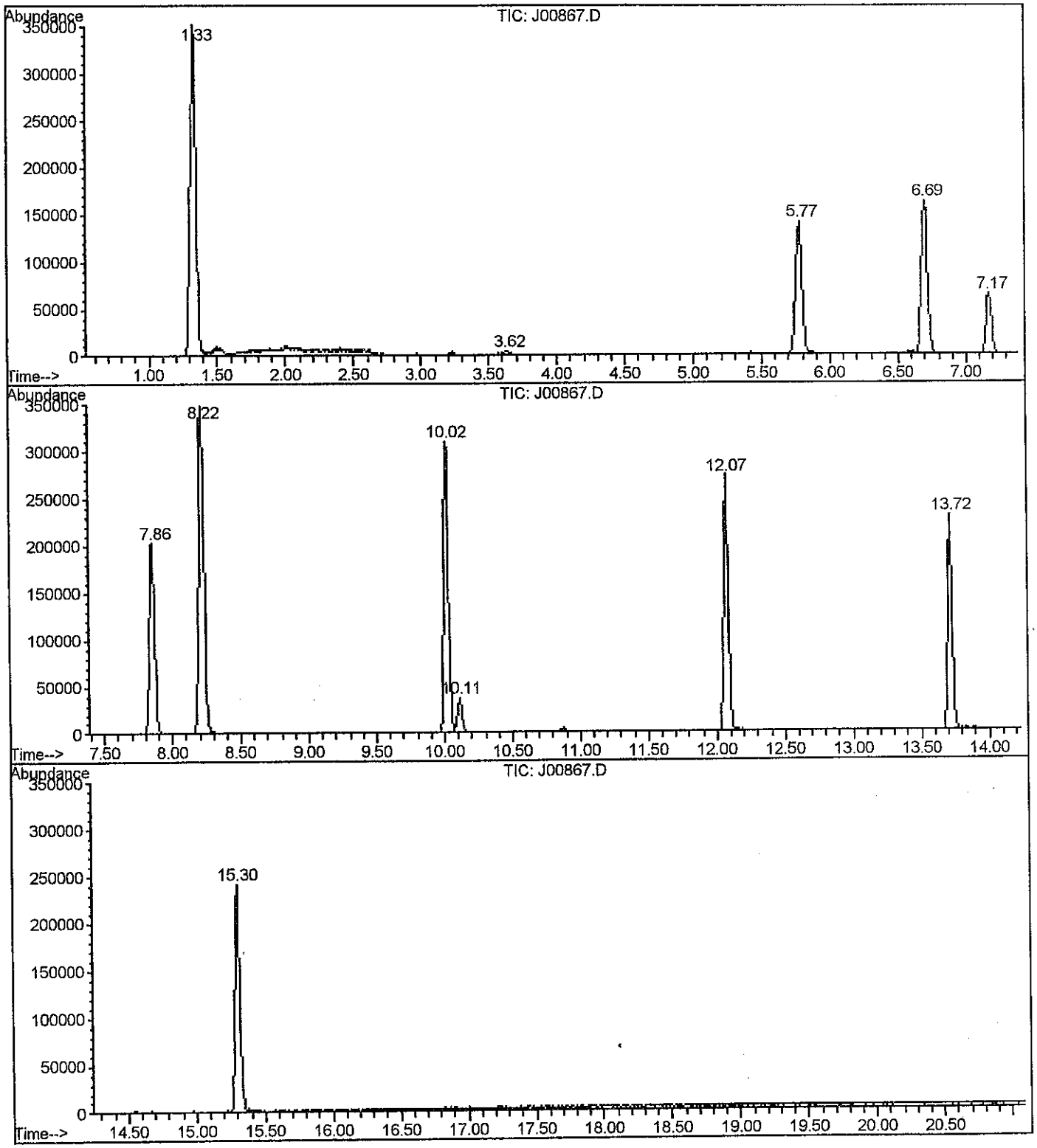
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.332	117	134	147	rBV	350810	1020760	100.00%	16.707%
2	3.623	509	515	524	rVB5	4618	12863	1.26%	0.211%
3	5.770	859	872	891	rBV2	141622	460739	45.14%	7.541%
4	6.690	1014	1025	1040	rVB	162907	499796	48.96%	8.180%
5	7.166	1091	1104	1116	rBV2	64475	185415	18.16%	3.035%
6	7.857	1209	1219	1232	rVB	202046	541388	53.04%	8.861%
7	8.218	1266	1279	1290	rBV2	347200	904771	88.64%	14.809%
8	10.016	1569	1578	1587	rBV2	309336	720947	70.63%	11.800%
9	10.112	1588	1594	1603	rVB	36817	85774	8.40%	1.404%
10	12.067	1911	1919	1931	rBV	272304	607774	59.54%	9.948%
11	13.715	2184	2193	2205	rBV	229515	512939	50.25%	8.395%
12	15.303	2447	2457	2468	rBV	240800	556599	54.53%	9.110%

Sum of corrected areas: 6109765

J00867.D 08070125.M Wed Aug 08 09:20:16 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00867.D
Operator :
Acquired : 7 Aug 2001 15:34 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17888 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 11
Quant File :08070125.RES (RTE Integrator)



J00867.D 08070125.M Wed Aug 08 09:20:16 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 15:34
Data File: C:\HPCHEM\1\DATA\1J080701\J00867.D
Name: AC17888 25ml DF=1
Misc: 28512/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00867.D 08070125.M Wed Aug 08 09:20:16 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00870.D Vial: 14
Acq On : 08/07/01 16:52 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:25 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	146050	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	182092	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	86633	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76564	12.46	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.60%#			
46) Toluene-d8	10.02	98	265370	9.95	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.72	95	101169	10.49	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.90%			
Target Compounds						Qvalue
7) Trichlorofluoromethane	2.38	101	8060	0.57	ug\L #	100
47) Toluene	10.11	92	180369	10.47	ug\L	100

VRR
8-8-01

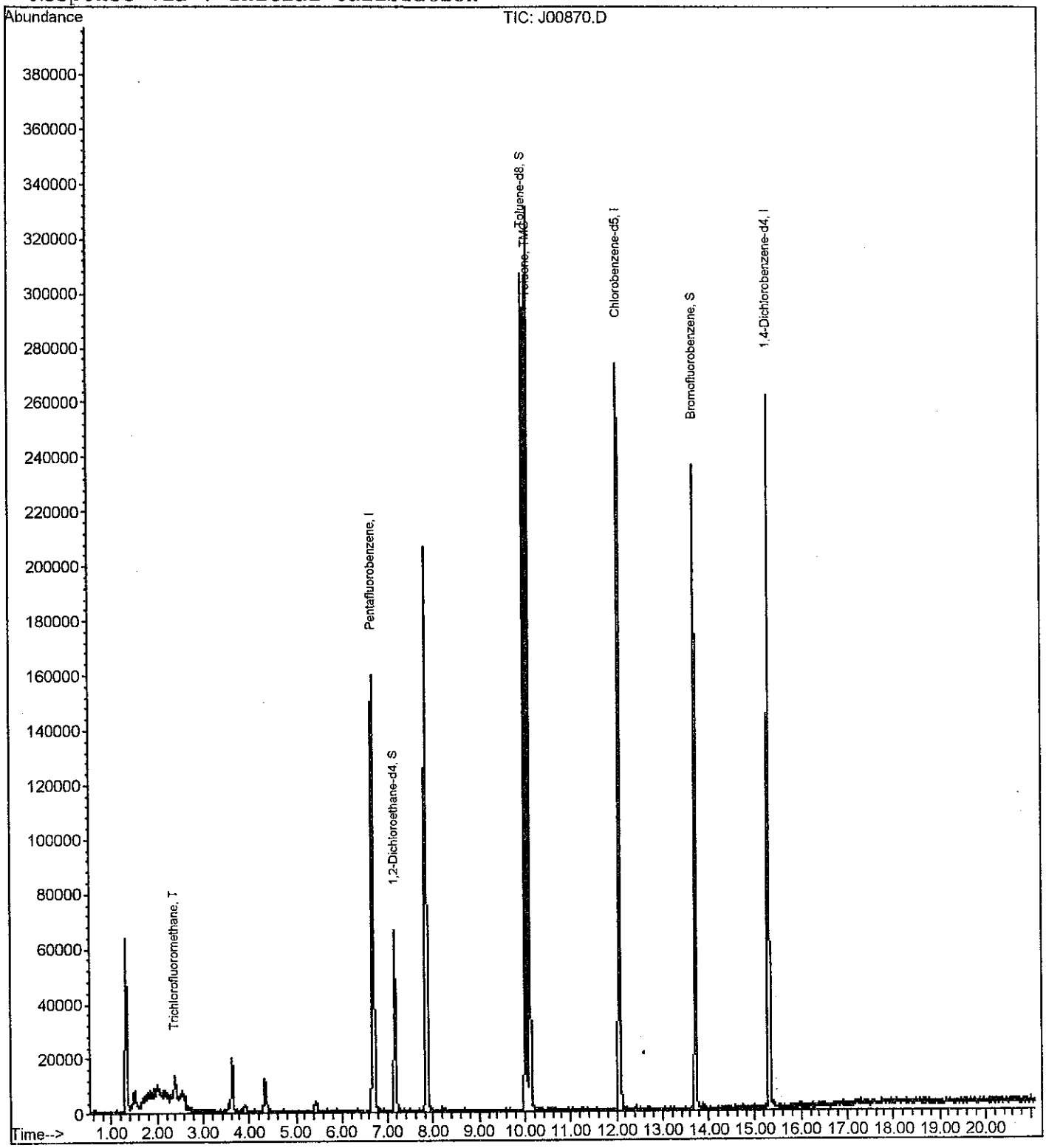
NRJ to confirm Toluene hit Confirmed with J00890

(#) = qualifier out of range (m) = manual integration
J00870.D 08070125.M Wed Aug 08 09:21:00 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00870.D Vial: 14
Acq On : 08/07/01 16:52 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:25 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00870.D Vial: 14
Acq On : 08/07/01 16:52 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

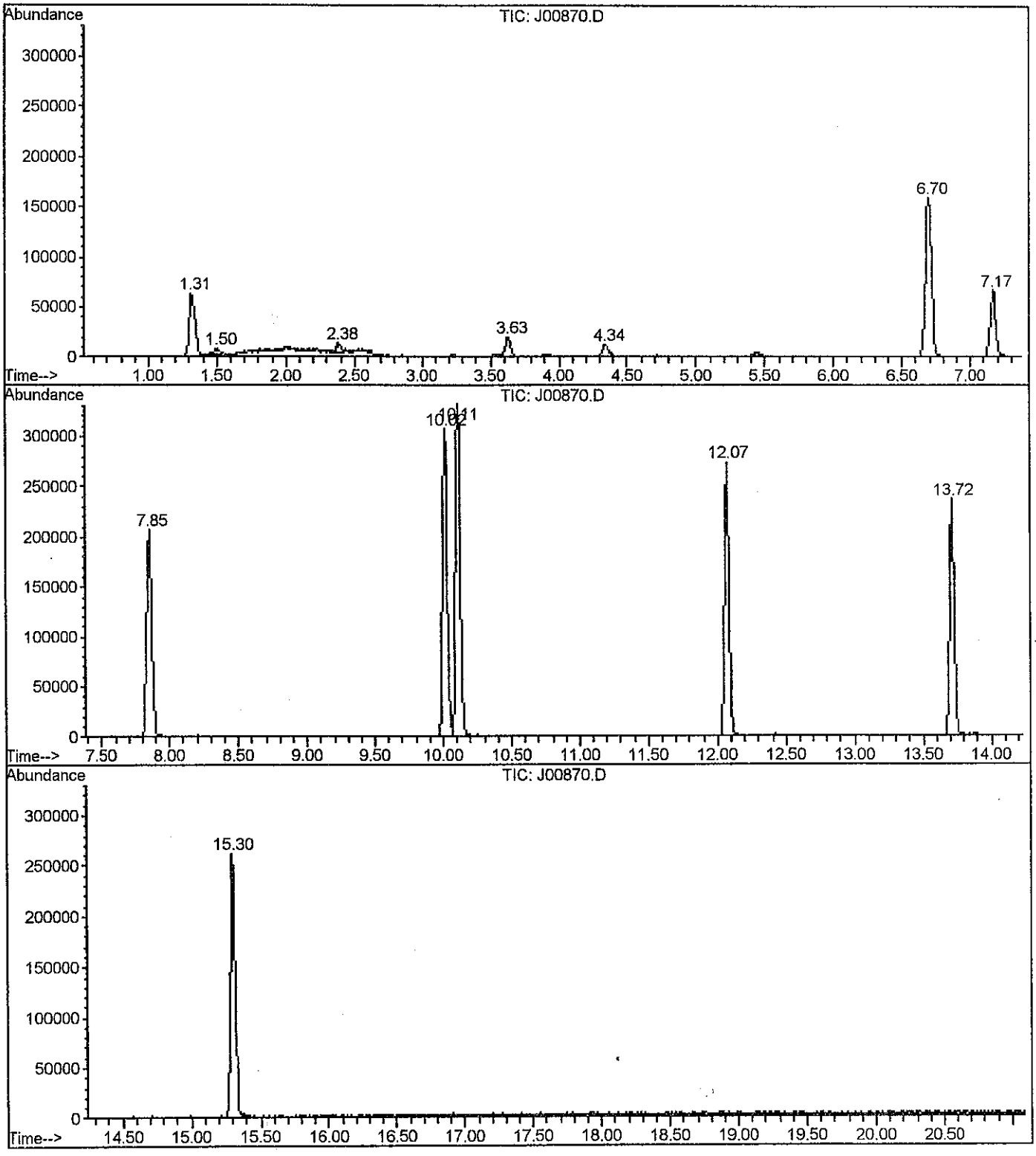
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.314	118	132	145	rBV	63439	194966	24.29%	4.063%
2	1.500	156	163	167	rBV	5058	10733	1.34%	0.224%
3	2.384	305	310	317	rBV4	8463	19950	2.49%	0.416%
4	3.629	509	517	527	rVB4	19031	54458	6.78%	1.135%
5	4.339	624	635	648	rVB4	12087	39979	4.98%	0.833%
6	6.696	1014	1027	1041	rBV	159301	487936	60.78%	10.167%
7	7.166	1093	1105	1121	rBV2	66100	189881	23.65%	3.957%
8	7.851	1208	1219	1231	rBV2	206783	551206	68.66%	11.486%
9	10.016	1569	1579	1587	rBV	306390	719785	89.66%	14.998%
10	10.107	1587	1594	1608	rVB	330006	802762	100.00%	16.727%
11	12.073	1909	1921	1935	rBV	273827	628811	78.33%	13.103%
12	13.715	2184	2194	2208	rBV2	236271	518690	64.61%	10.808%
13	15.303	2449	2458	2469	rBV2	261092	579971	72.25%	12.085%

Sum of corrected areas: 4799128

J00870.D 08070125.M Wed Aug 08 09:21:32 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00870.D
Operator :
Acquired : 7 Aug 2001 16:52 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17889 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 14
Quant File :08070125.RES (RTE Integrator)



J00870.D 08070125.M Wed Aug 08 09:21:33 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00870.D Vial: 14
Acq On : 08/07/01 16:52 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

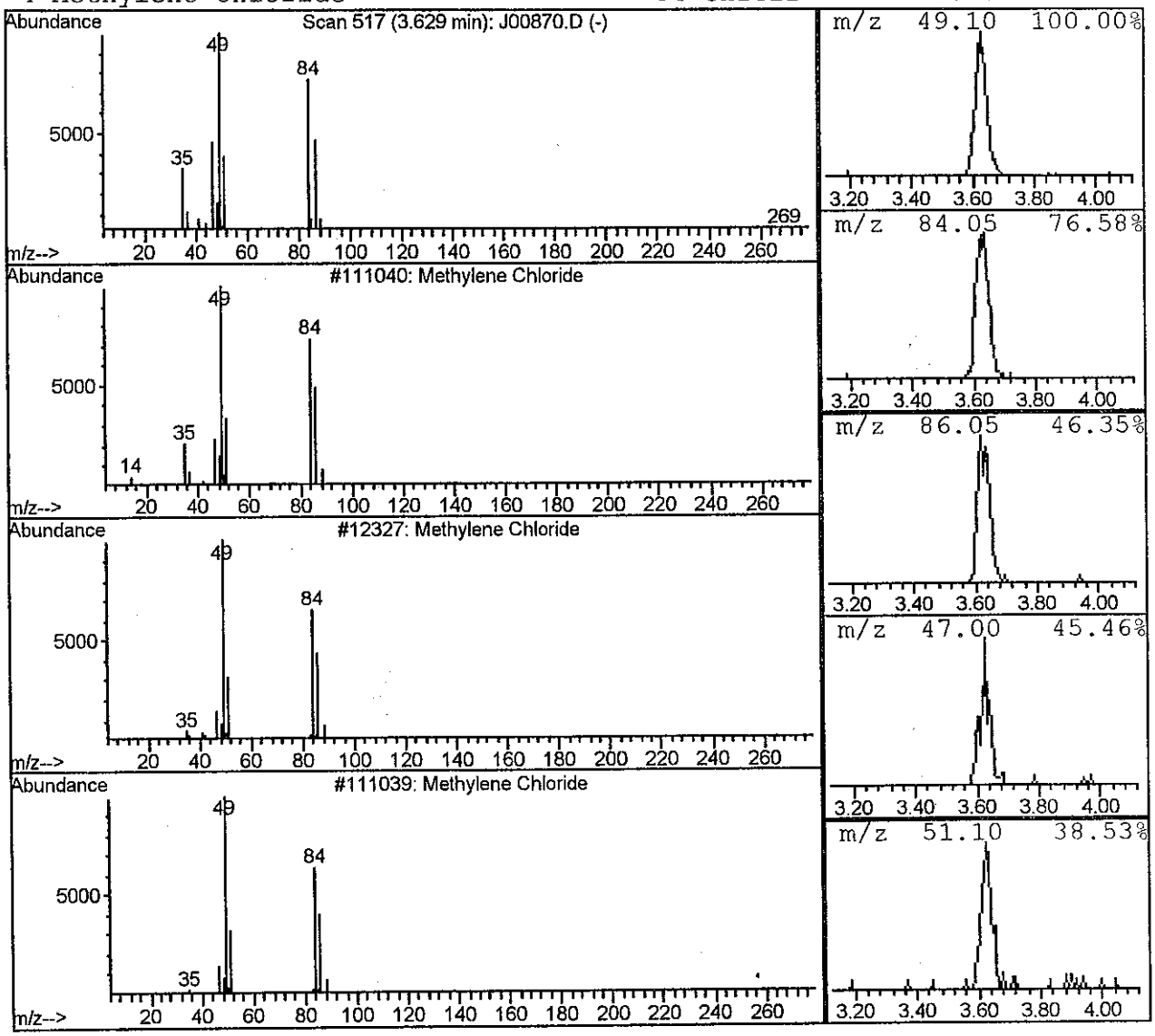
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Methylene Chloride Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.63	1.12 ug\L	54458	Pentafluorobenzene	6.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methylene Chloride	84	CH2Cl2	000075-09-2	91
2	Methylene Chloride	84	CH2Cl2	000075-09-2	76
3	Methylene Chloride	84	CH2Cl2	000075-09-2	68
4	Methylene Chloride	84	CH2Cl2	000075-09-2	64



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 16:52
Data File: C:\HPCHEM\1\DATA\1J080701\J00870.D
Name: AC17889 25ml DF=1
Misc: 28512/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Methylene Chloride	3.63	1.1	ug\L	54458	ISTD02	6.69	487936	10.0

J00870.D 08070125.M Wed Aug 08 09:21:33 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00890.D Vial: 7
Acq On : 08/08/01 13:07 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 13:36 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	220886	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	253222	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	114033	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	89079	9.58	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.80%			
46) Toluene-d8	10.02	98	368496	9.94	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.40%			
66) Bromofluorobenzene	13.71	95	128851	10.15	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.50%			
Target Compounds						Qvalue
47) Toluene	10.12	92	231694	9.67	ug\L	100

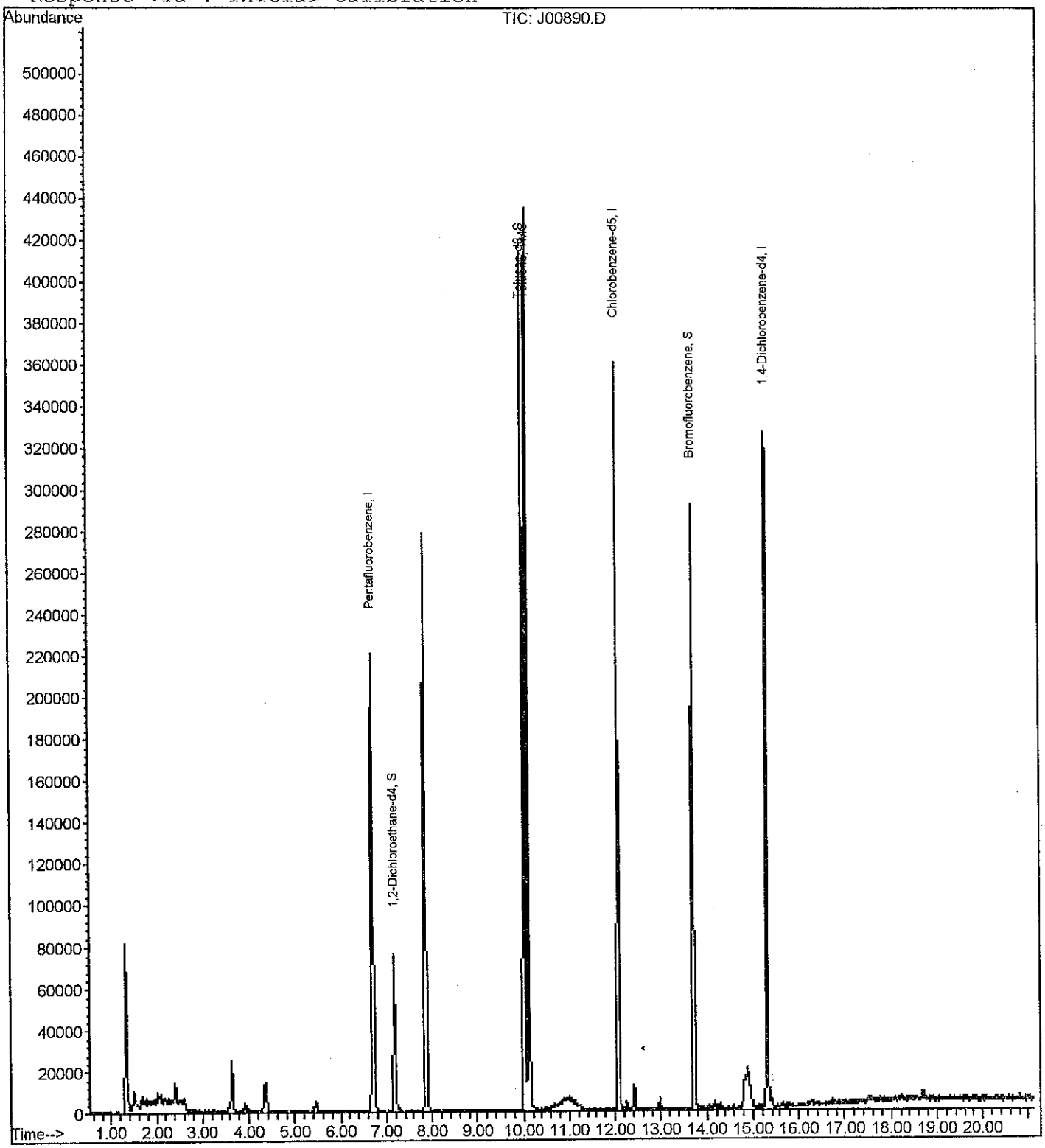
VKK
8.8.01

(#) = qualifier out of range (m) = manual integration
J00890.D 08080125.M Wed Aug 08 14:54:33 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00890.D Vial: 7
Acq On : 08/08/01 13:07 Operator:
Sample : AC17889 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 13:36 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00868.D Vial: 12
Acq On : 08/07/01 16:00 Operator:
Sample : AC17890 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	159717	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	193697	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	90544	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76457	11.38	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.80%			
46) Toluene-d8	10.02	98	267382	9.43	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.30%			
66) Bromofluorobenzene	13.71	95	101354	10.06	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.60%			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.78	96	5797	0.78	ug\L	86
24) 2-Butanone	5.89	72	618	4.80	ug\L #	100
37) Trichloroethene	8.22	95	101712	11.29	ug\L	98
47) Toluene	10.11	92	20620	1.13	ug\L	99

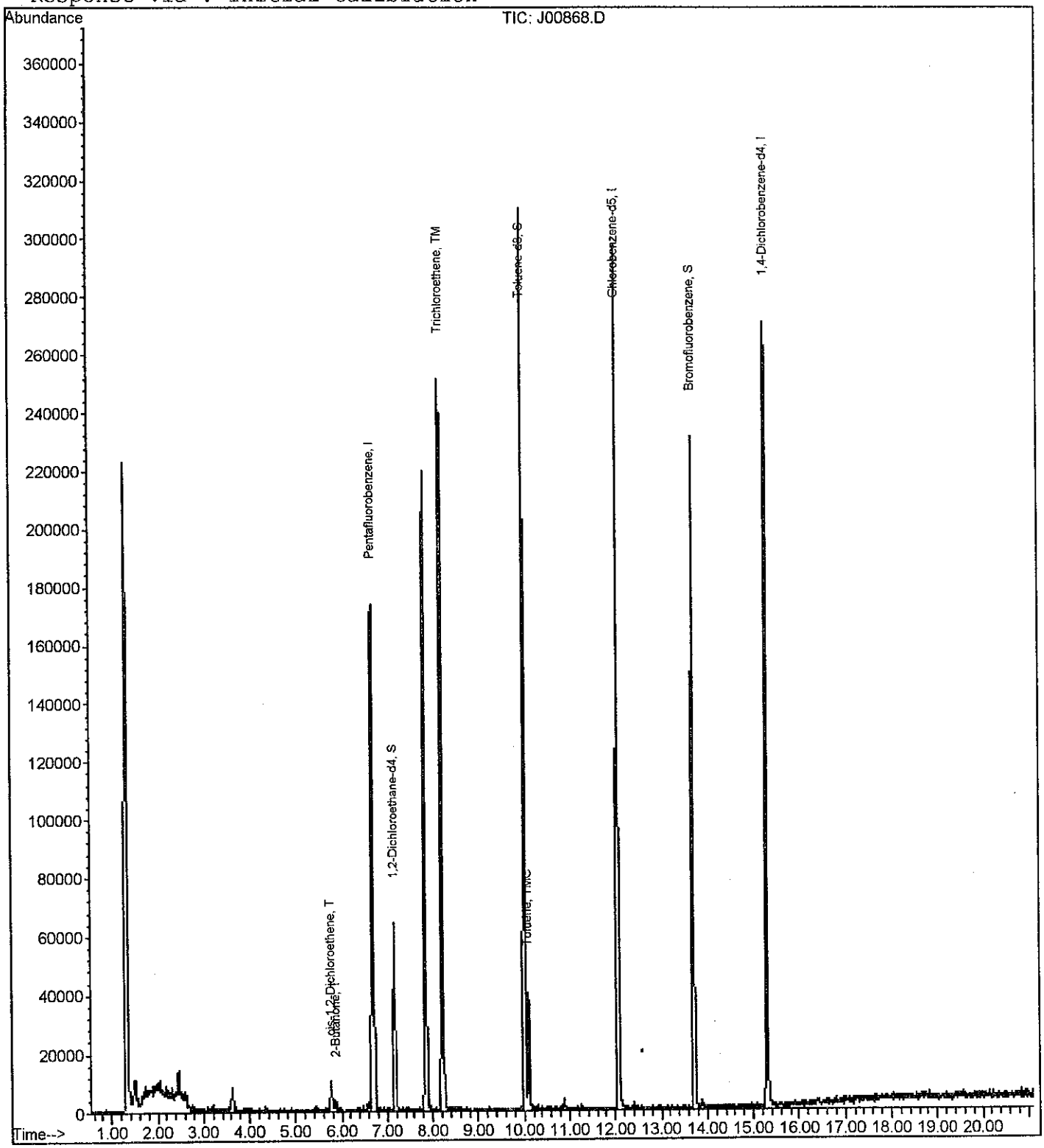
V RF
8-8-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00868.D Vial: 12
Acq On : 08/07/01 16:00 Operator:
Sample : AC17890 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:45 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00868.D Vial: 12
Acq On : 08/07/01 16:00 Operator:
Sample : AC17890 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

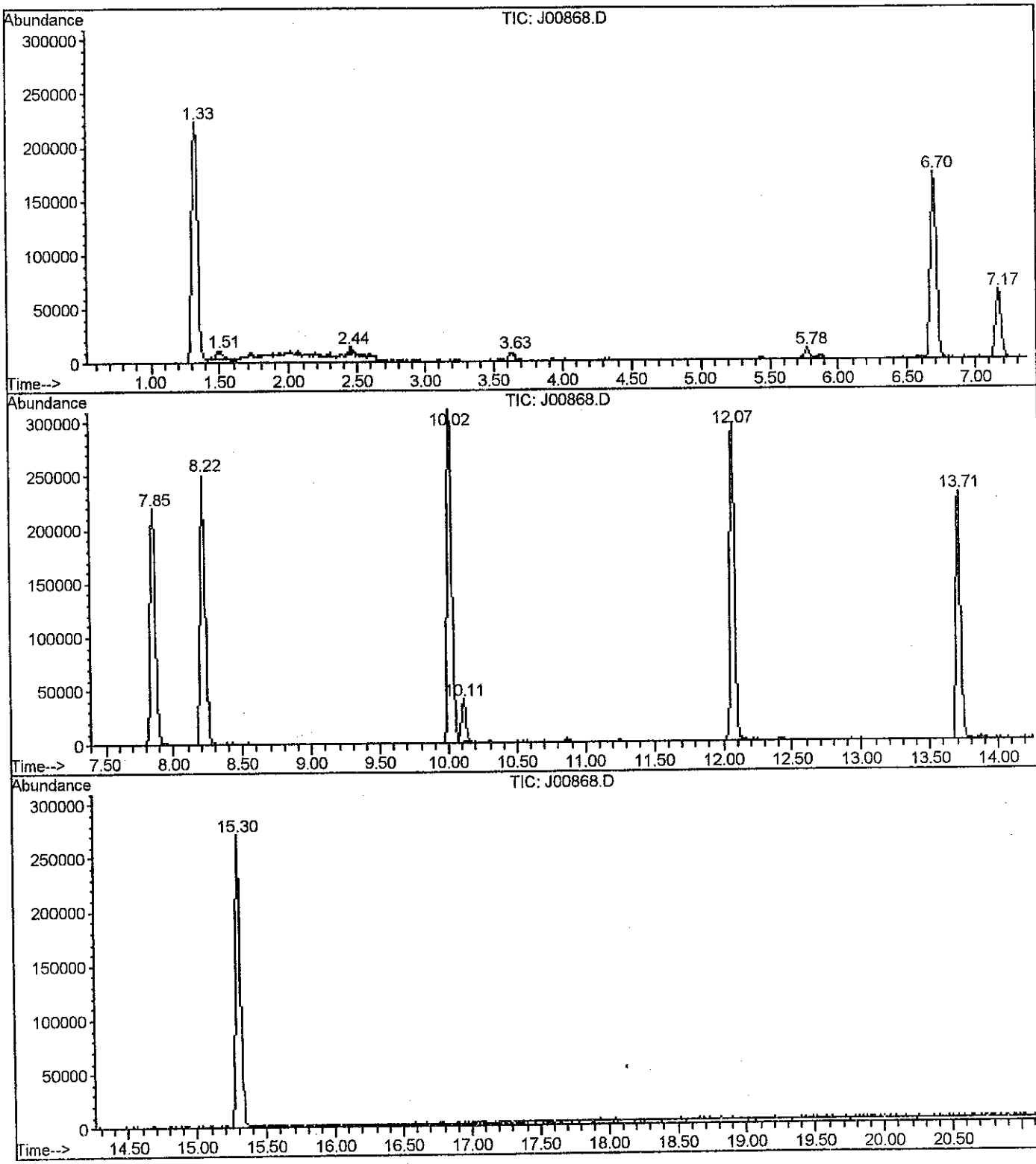
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.331	120	134	148	rBV	222330	676684	92.43%	12.803%
2	1.505	155	163	168	rBV	7306	20732	2.83%	0.392%
3	2.443	315	319	320	rBV2	7265	7449	1.02%	0.141%
4	3.628	508	516	524	rVB4	7538	20271	2.77%	0.384%
5	5.775	865	873	879	rBV2	9245	21833	2.98%	0.413%
6	6.696	1013	1026	1039	rBV	173062	531345	72.58%	10.053%
7	7.171	1094	1105	1117	rBV	63679	183801	25.11%	3.478%
8	7.850	1205	1218	1230	rBV	219706	581130	79.38%	10.995%
9	8.217	1268	1279	1292	rBV	251373	632346	86.38%	11.964%
10	10.015	1566	1578	1587	rBV	310041	732084	100.00%	13.851%
11	10.106	1587	1593	1601	rVB3	38936	91699	12.53%	1.735%
12	12.072	1911	1920	1932	rBV	297185	661276	90.33%	12.511%
13	13.714	2184	2193	2204	rBV2	230471	513504	70.14%	9.716%
14	15.302	2445	2457	2468	rBV2	270421	611252	83.49%	11.565%

Sum of corrected areas: 5285406

J00868.D 08070125.M Wed Aug 08 09:22:25 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00868.D
Operator :
Acquired : 7 Aug 2001 16:00 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17890 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 12
Quant File :08070125.RES (RTE Integrator)



J00868.D 08070125.M Wed Aug 08 09:22:25 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00868.D Vial: 12
Acq On : 08/07/01 16:00 Operator:
Sample : AC17890 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

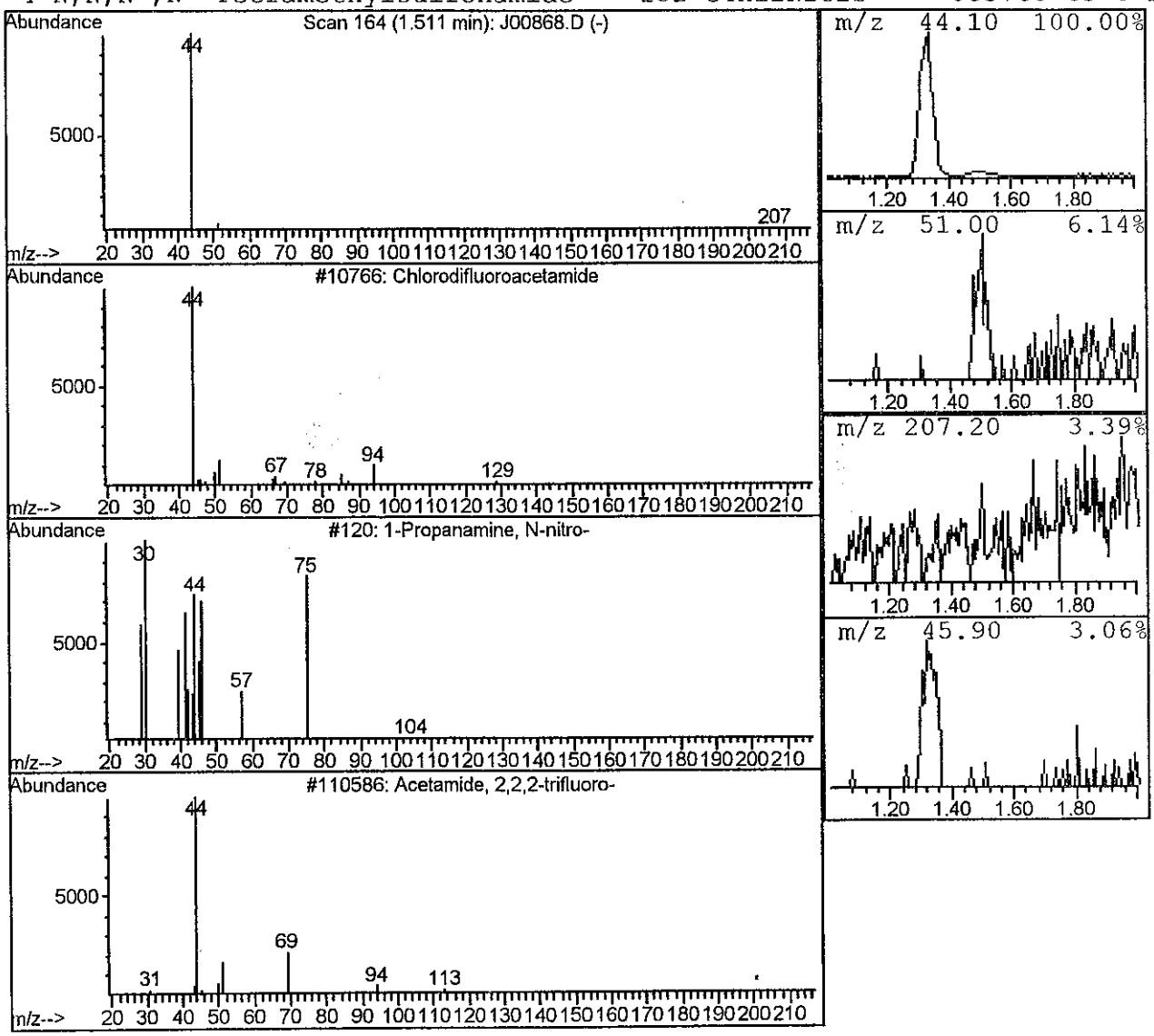
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Chlorodifluoroacetamide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.51	207320.00 ug\L	20732	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Chlorodifluoroacetamide	129	C2H2ClF2NO	000354-28-9	4
2	1-Propanamine, N-nitro-	104	C3H8N2O2	000627-07-6	3
3	Acetamide, 2,2,2-trifluoro-	113	C2H2F3NO	000354-38-1	2
4	N,N,N',N'-Tetramethylsulfonamide	152	C4H12N2O2S	003768-63-6	2



Data File : C:\HPCHEM\1\DATA\1J080701\J00868.D Vial: 12
Acq On : 08/07/01 16:00 Operator:
Sample : AC17890 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

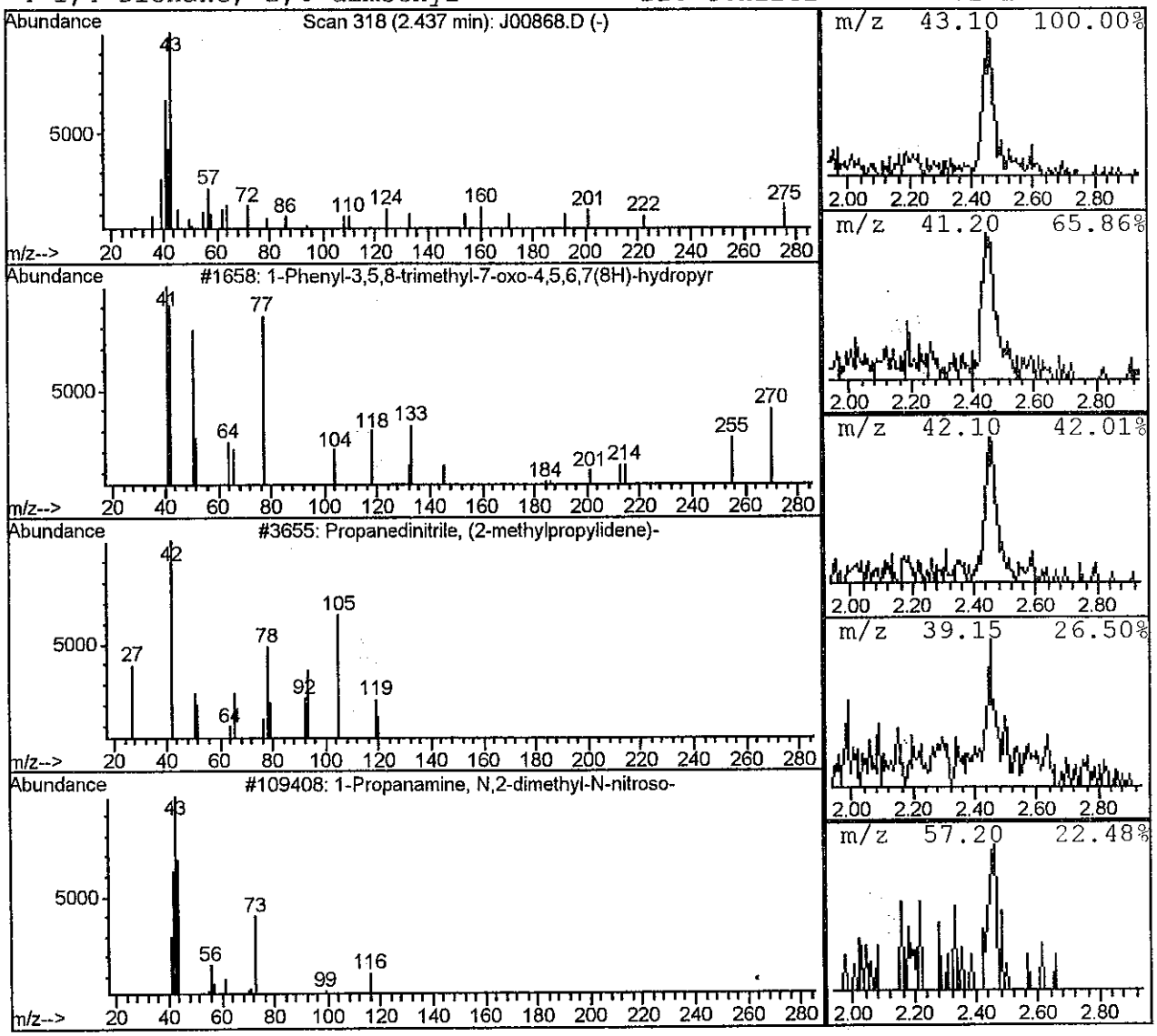
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 1-Phenyl-3,5,8-trimethyl-7-oxo Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.44	74490.00 ug\L	7449	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenyl-3,5,8-trimethyl-7-oxo-4,5,	270	C15H18N4O	1000143-30-9	17
2	Propanedinitrile, (2-methylpropylid	120	C7H8N2	013134-03-7	17
3	1-Propanamine, N,2-dimethyl-N-nitro	116	C5H12N2O	034419-76-6	9
4	1,4-Dioxane, 2,6-dimethyl-	116	C6H12O2	010138-17-7	9



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 16:00
Data File: C:\HPCHEM\1\DATA\1J080701\J00868.D
Name: AC17890 25ml DF=1
Misc: 28512/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Chlorodifluoroacetam	1.51	207320.0	ug\L	20732	ISTD01	0.00	1	10.0
1-Phenyl-3,5,8-trime	2.44	74490.0	ug\L	7449	ISTD01	0.00	1	10.0

J00868.D 08070125.M Wed Aug 08 09:22:27 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00869.D Vial: 13
Acq On : 08/07/01 16:26 Operator:
Sample : AC17891 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:48 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	145283	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	176981	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.30	152	83397	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76061	12.44	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.40%#			
46) Toluene-d8	10.02	98	271744	10.48	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.80%#			
66) Bromofluorobenzene	13.71	95	98944	10.66	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 106.60%			
Target Compounds						Qvalue
11) Acetone	3.09	58	4258	37.24	ug\L	75
14) Carbon Disulfide	3.23	76	14245	0.74	ug\L #	92
23) cis-1,2-Dichloroethene	5.76	96	181689	26.78	ug\L	87
24) 2-Butanone	5.87	72	8522	54.15	ug\L #	100
37) Trichloroethene	8.22	95	1370772	167.24	ug\L	97
47) Toluene	10.11	92	20579	1.23	ug\L	98

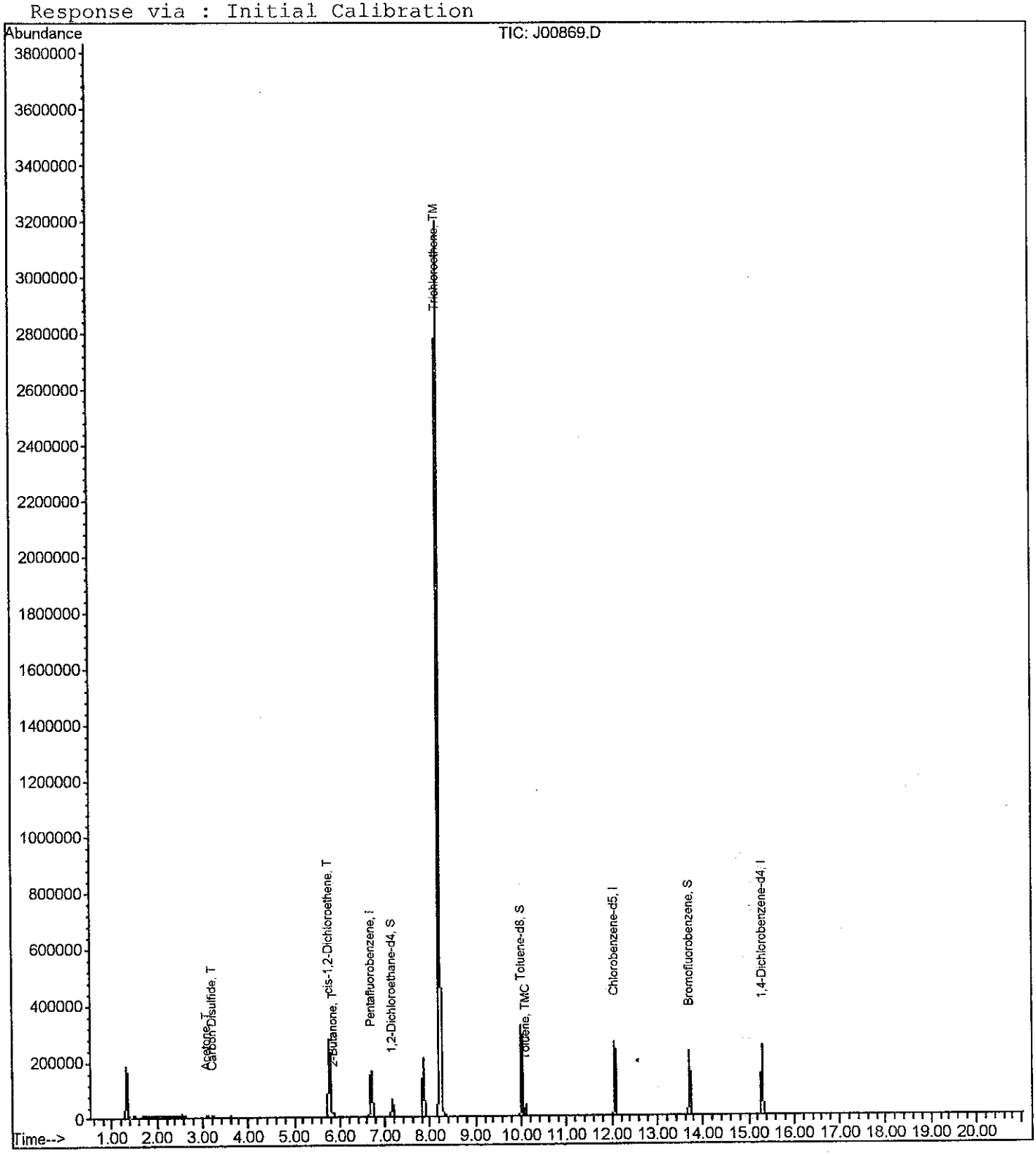
VRB
8/8/01

NOK 1:10

(#) = qualifier out of range (m) = manual integration
J00869.D 08070125.M Wed Aug 08 09:23:02 2001 Page 1

Data File : C:\HPCHEM\1\DATA\1J080701\J00869.D Vial: 13
Acq On : 08/07/01 16:26 Operator:
Sample : AC17891 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:48 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00869.D Vial: 13
Acq On : 08/07/01 16:26 Operator:
Sample : AC17891 25ml DF=1 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

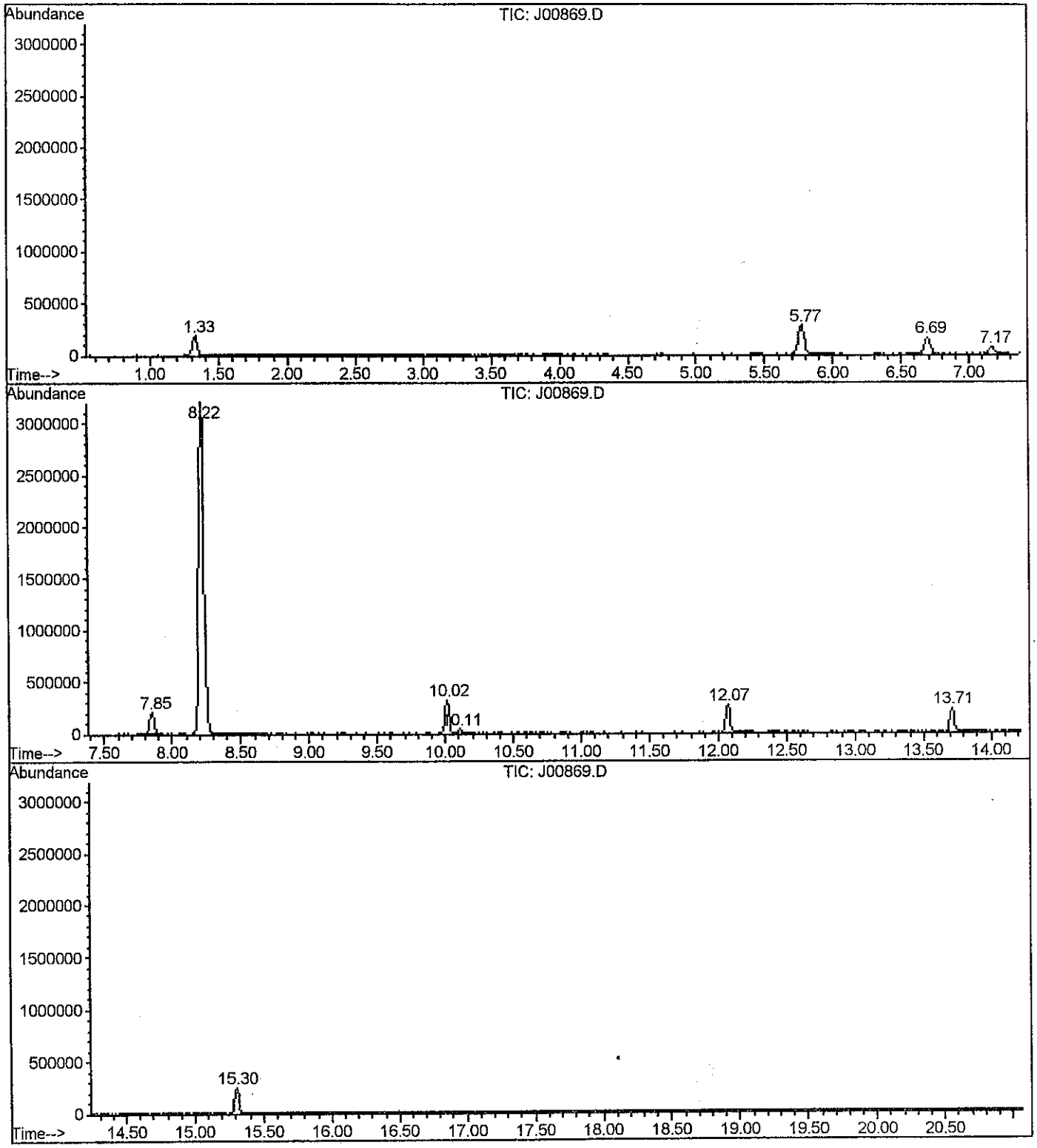
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.331	122	135	147	rBV	185127	532837	6.48%	3.993%
2	5.770	858	873	883	rBV2	277447	879324	10.70%	6.589%
3	6.690	1016	1026	1042	rVB2	159215	487223	5.93%	3.651%
4	7.165	1093	1105	1116	rBV2	65530	189201	2.30%	1.418%
5	7.851	1209	1219	1231	rBV	206328	536644	6.53%	4.021%
6	8.218	1268	1280	1297	rBV	3197605	8219750	100.00%	61.593%
7	10.016	1569	1579	1589	rBV	320747	735777	8.95%	5.513%
8	10.112	1589	1595	1604	rVB	39046	91303	1.11%	0.684%
9	12.067	1912	1920	1931	rBV	265692	604024	7.35%	4.526%
10	13.709	2184	2193	2209	rVB	227520	508891	6.19%	3.813%
11	15.302	2447	2458	2468	rBV	249684	560333	6.82%	4.199%

Sum of corrected areas: 13345307

J00869.D 08070125.M Wed Aug 08 09:23:21 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00869.D
Operator :
Acquired : 7 Aug 2001 16:26 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17891 25ml DF=1
Misc Info : 28512/W080601A
Vial Number: 13
Quant File :08070125.RES (RTE Integrator)



J00869.D 08070125.M Wed Aug 08 09:23:22 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 16:26
Data File: C:\HPCHEM\1\DATA\1J080701\J00869.D
Name: AC17891 25ml DF=1
Misc: 28512/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00869.D 08070125.M Wed Aug 08 09:23:22 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00891.D Vial: 8
Acq On : 08/08/01 13:33 Operator:
Sample : AC17891 2.5ml DF=10 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:55 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	204823	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	229837	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	105522	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	90744	10.53	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 105.30%			
46) Toluene-d8	10.02	98	341381	10.14	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.40%			
66) Bromofluorobenzene	13.72	95	122352	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			
Target Compounds						Qvalue
11) Acetone	3.09	58	529	3.28	ug\L	90
23) cis-1,2-Dichloroethene	5.78	96	21405	2.24	ug\L	87
24) 2-Butanone	5.88	72	799	4.83	ug\L #	100
37) Trichloroethene	8.22	95	164267	14.22	ug\L	99

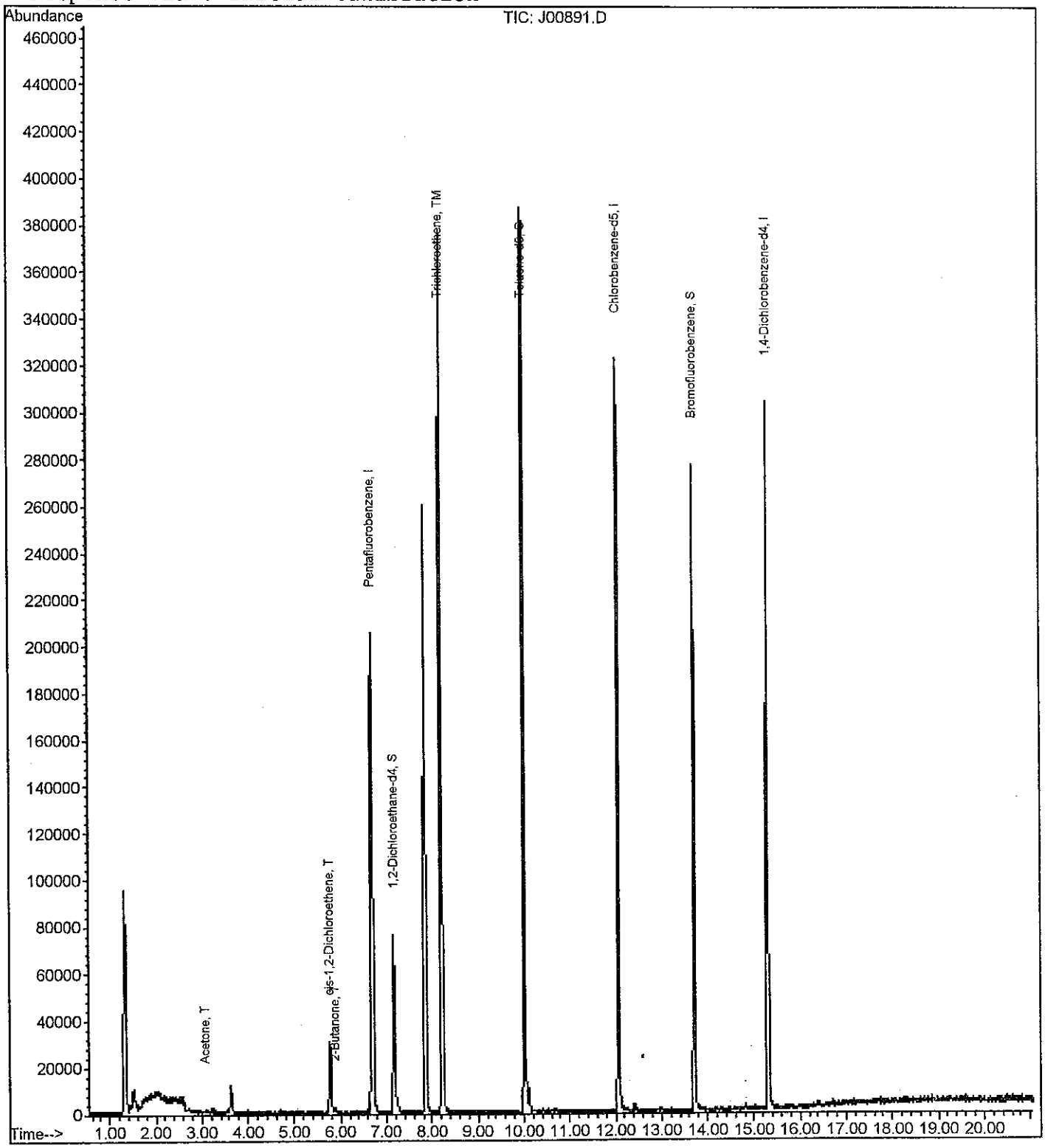
VRR
8-8-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00891.D Vial: 8
Acq On : 08/08/01 13:33 Operator:
Sample : AC17891 2.5ml DF=10 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:55 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001, Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

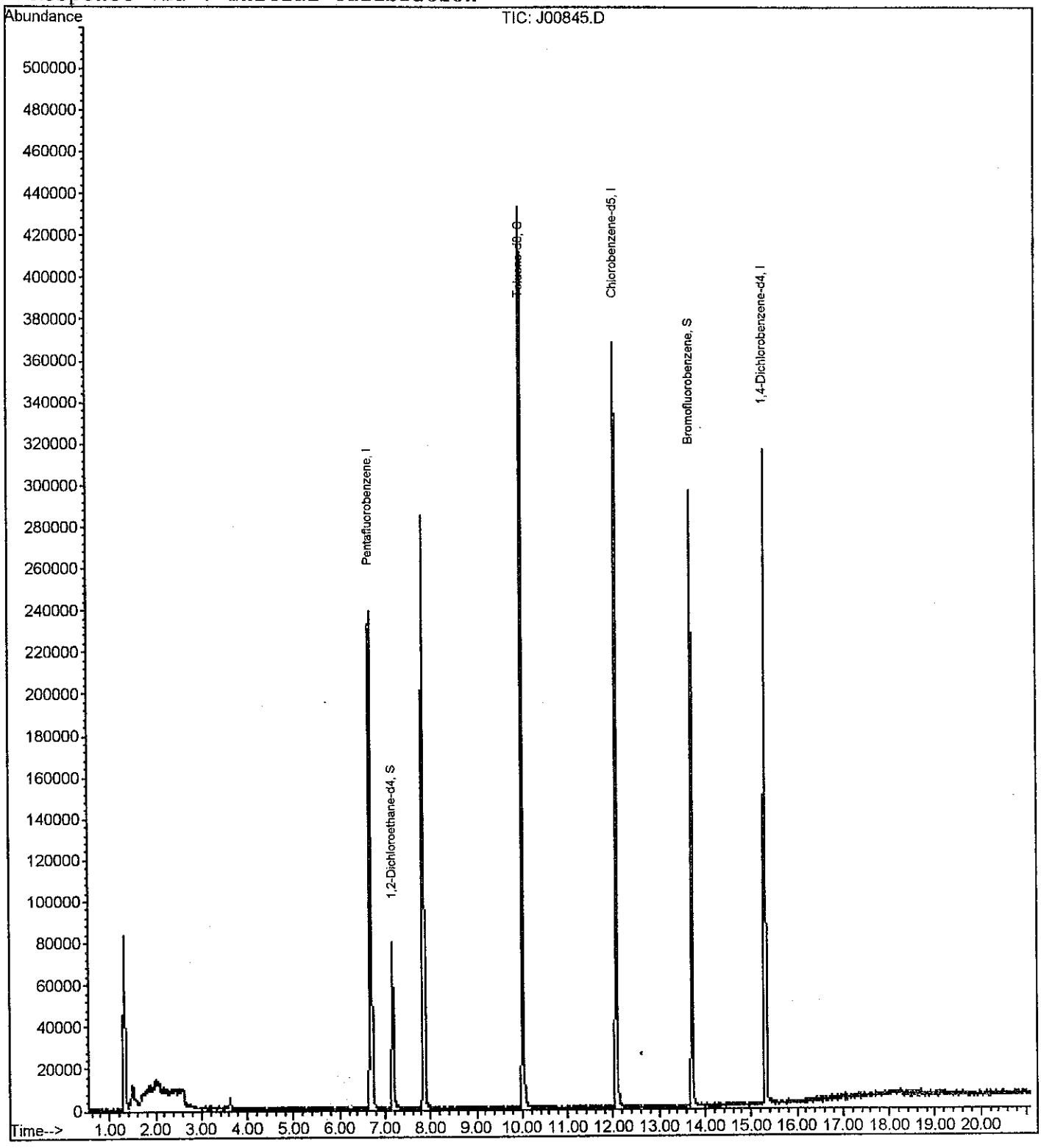
Target Compounds Qvalue

VRB
8/7/01

(#) = qualifier out of range (m) = manual integration
J00845.D 08060125.M Tue Aug 07 08:38:52 2001 Page 1

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

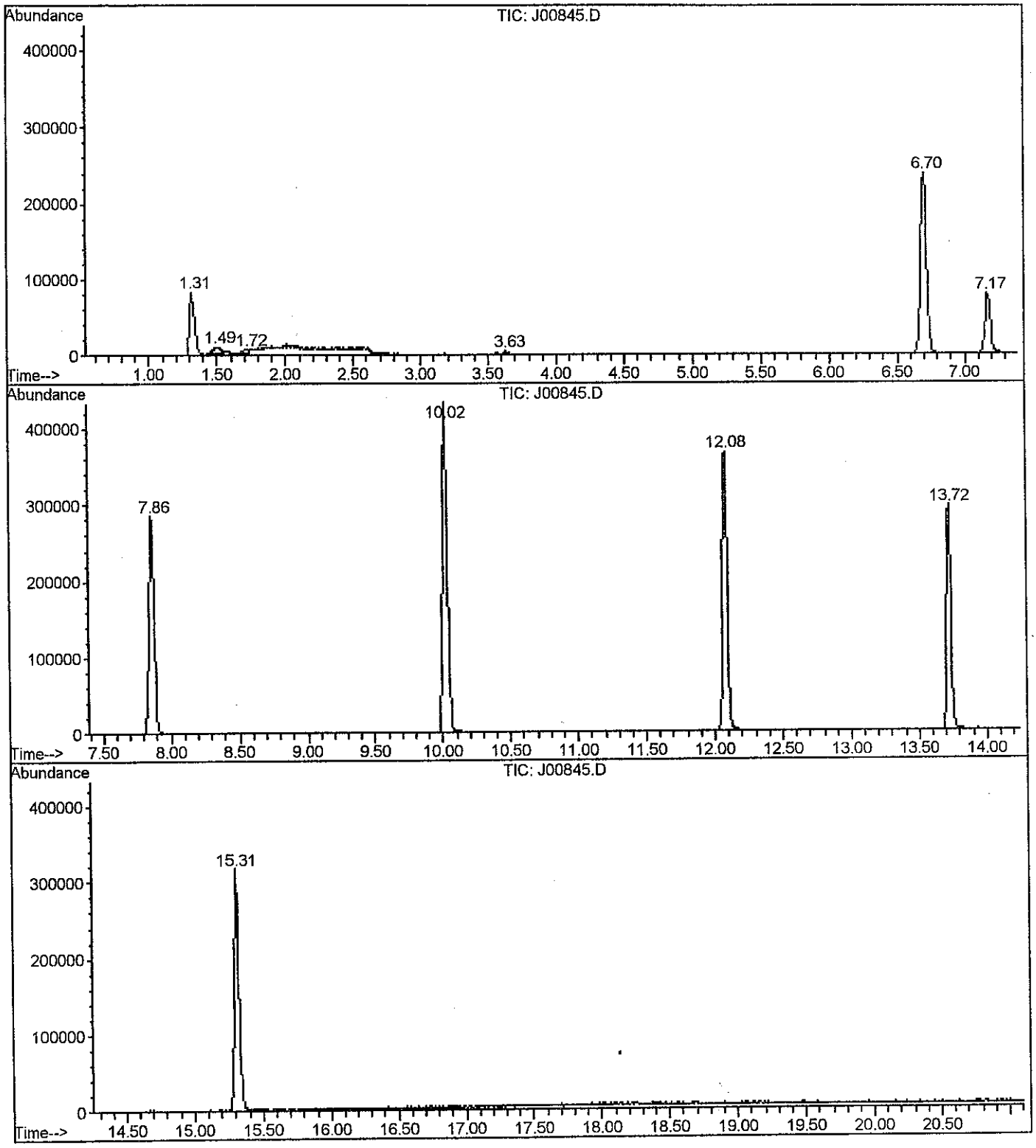
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.314	122	131	148	rBV	82888	227478	22.29%	4.336%
2	1.494	155	161	170	rBV	7277	24015	2.35%	0.458%
3	1.723	189	199	200	rBV4	4996	13179	1.29%	0.251%
4	3.629	510	516	524	rVB4	4983	11207	1.10%	0.214%
5	6.697	1013	1026	1039	rBV2	238572	745736	73.07%	14.215%
6	7.166	1095	1104	1115	rBV2	79309	233256	22.86%	4.446%
7	7.857	1207	1219	1236	rBV	285399	784391	76.86%	14.952%
8	10.023	1568	1579	1591	rBV	432721	1020509	100.00%	19.452%
9	12.079	1911	1921	1934	rBV	367299	812530	79.62%	15.488%
10	13.721	2184	2194	2208	rBV	296996	656057	64.29%	12.505%
11	15.309	2448	2458	2470	rBV	315489	717860	70.34%	13.683%

Sum of corrected areas: 5246218

J00845.D 08060125.M Tue Aug 07 08:38:59 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080601\J00845.D
Operator :
Acquired : 6 Aug 2001 16:55 using AcqMethod 08060125
Instrument : HP-MSJ
Sample Name: 1J080601MB
Misc Info : WATER 25ml
Vial Number: 9
Quant File :08060125.RES (RTE Integrator)



J00845.D 08060125.M Tue Aug 07 08:38:59 2001

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

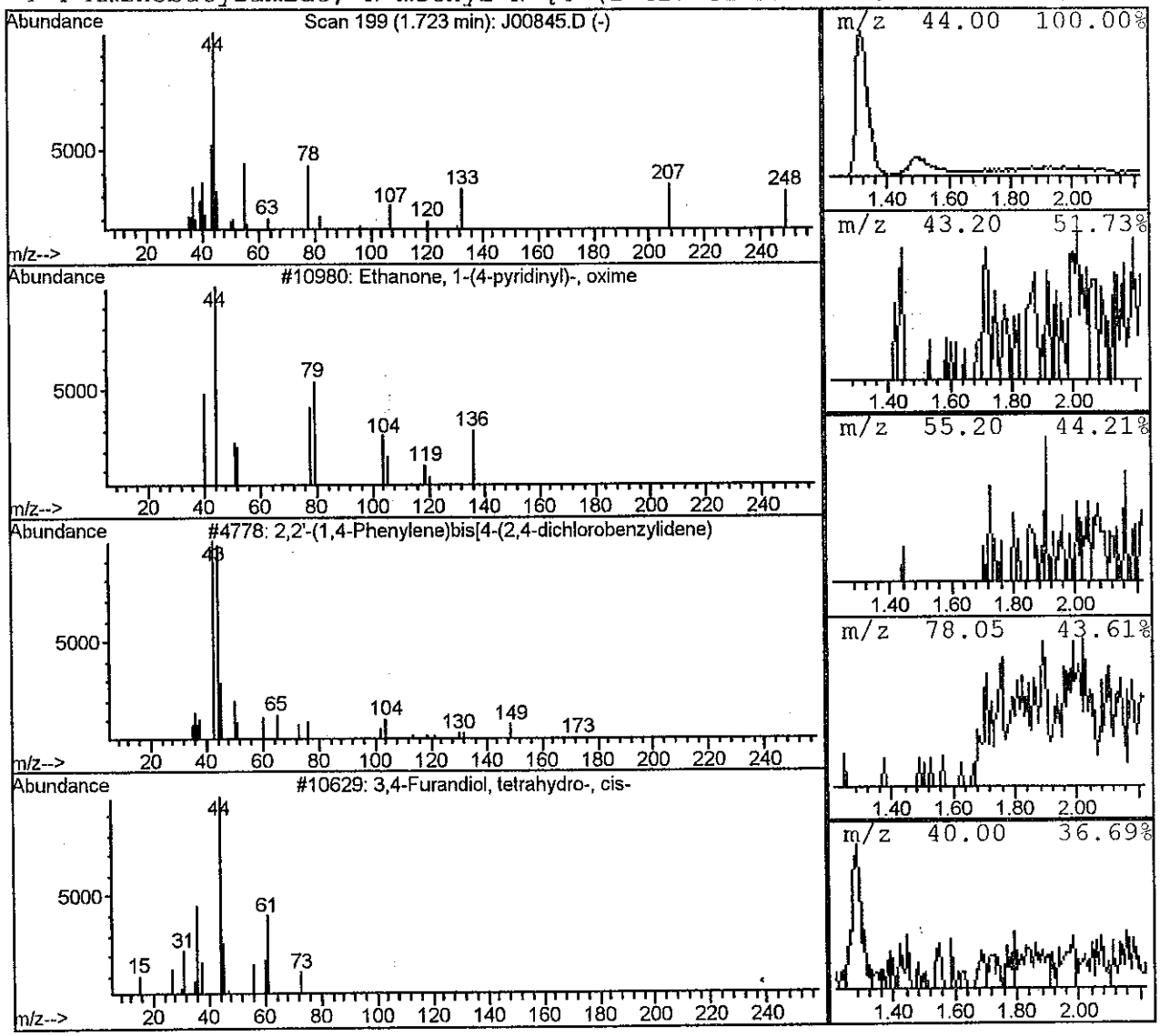
Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Ethanone, 1-(4-pyridinyl)-, ox Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.72	131790.00 ug\L	13179	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanone, 1-(4-pyridinyl)-, oxime	136	C7H8N2O	001194-99-6	25
2	2,2'-(1,4-Phenylene)bis[4-(2,4-dich	556	C26H12Cl4N2O4	1000223-06-6	9
3	3,4-Furandiol, tetrahydro-, cis-	104	C4H8O3	004358-64-9	9
4	4-Aminobutyramide, N-methyl-N-[4-(1	429	C17H21F6N3O3	1000124-10-5	9



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 6 Aug 2001 16:55
Data File: C:\HPCHEM\1\DATA\1J080601\J00845.D
Name: 1J080601MB
Misc: WATER 25ml
Method: c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethanone, 1-(4-pyrid	1.72	131790.0	ug\L	13179	ISTD01	0.00	1	10.0

J00845.D 08060125.M Tue Aug 07 08:39:00 2001

Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			

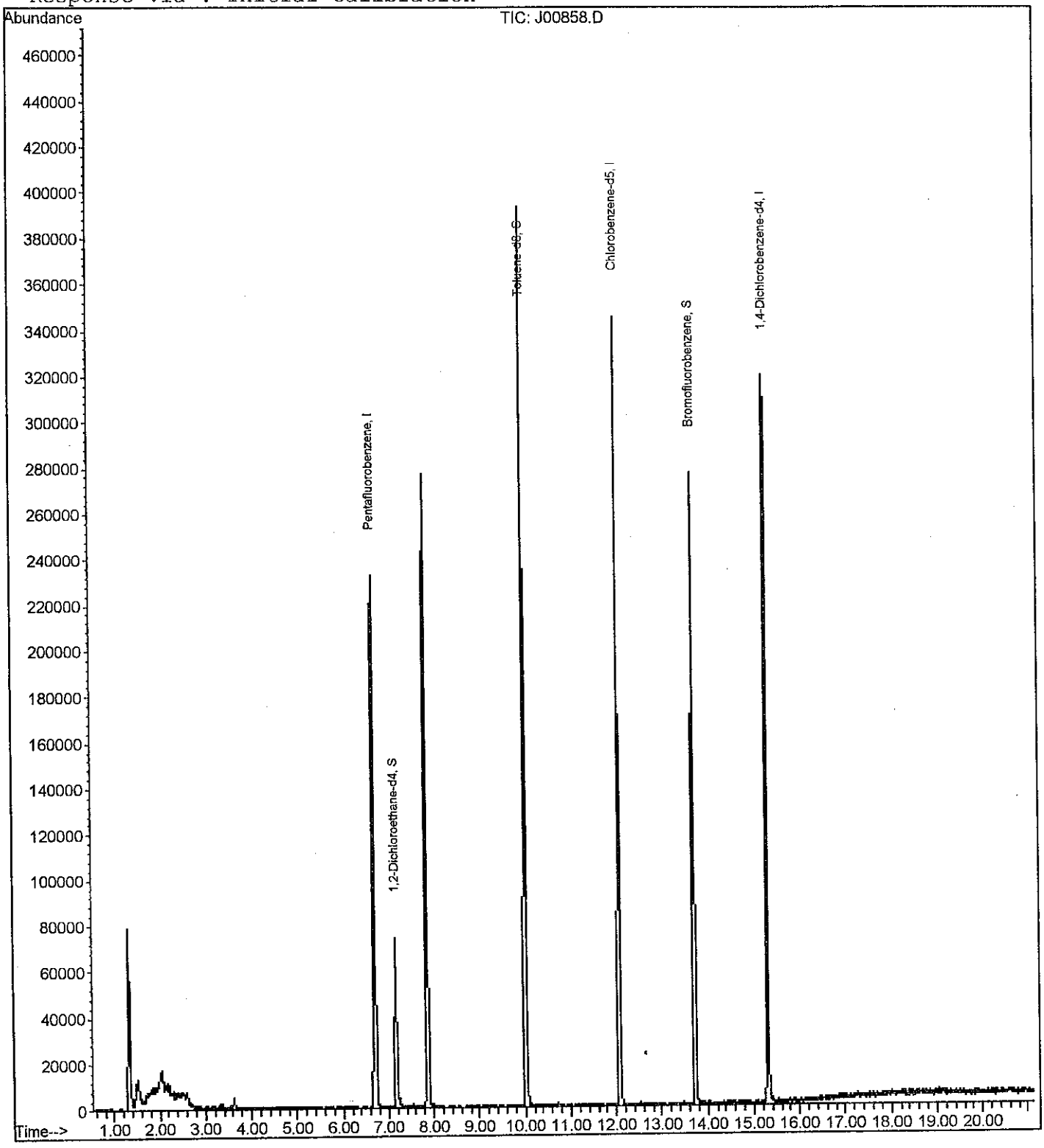
Target Compounds Qvalue

VRA
8.8.01

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

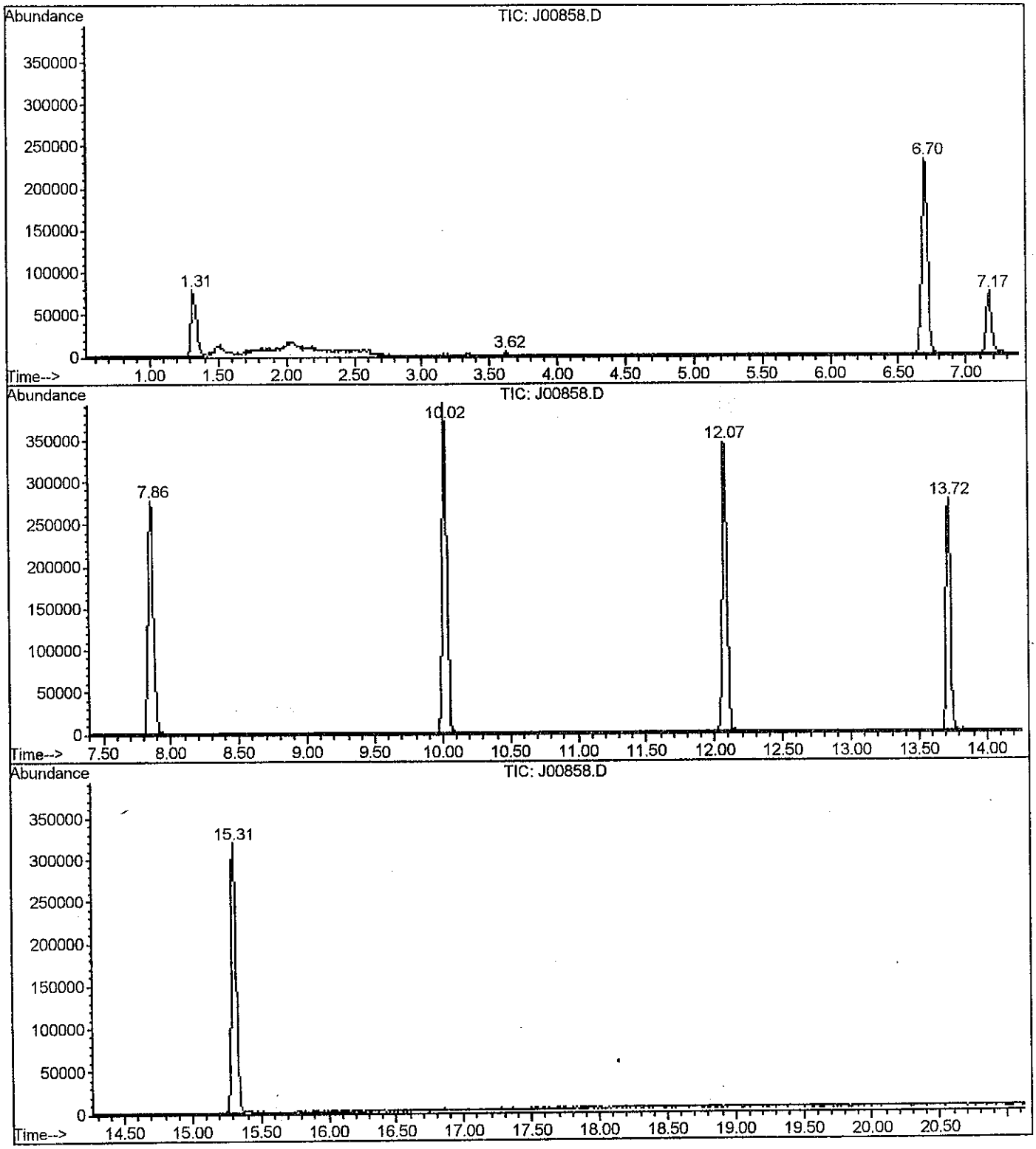
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 09:24:02 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



J00858.D 08070125.M Wed Aug 08 09:24:03 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 09:24:03 2001

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 8/6/2001/HP-MS5	METHOD: 8260B
MATRIX: WATER - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	~~Y~~ ✓	N	NA
Are Tuning results compliant with method?	~~Y~~ ✓	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	~~N~~ ✓	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	~~Y~~ ✓	N	NA

Methylene chloride — linear

2-Butanone — linear

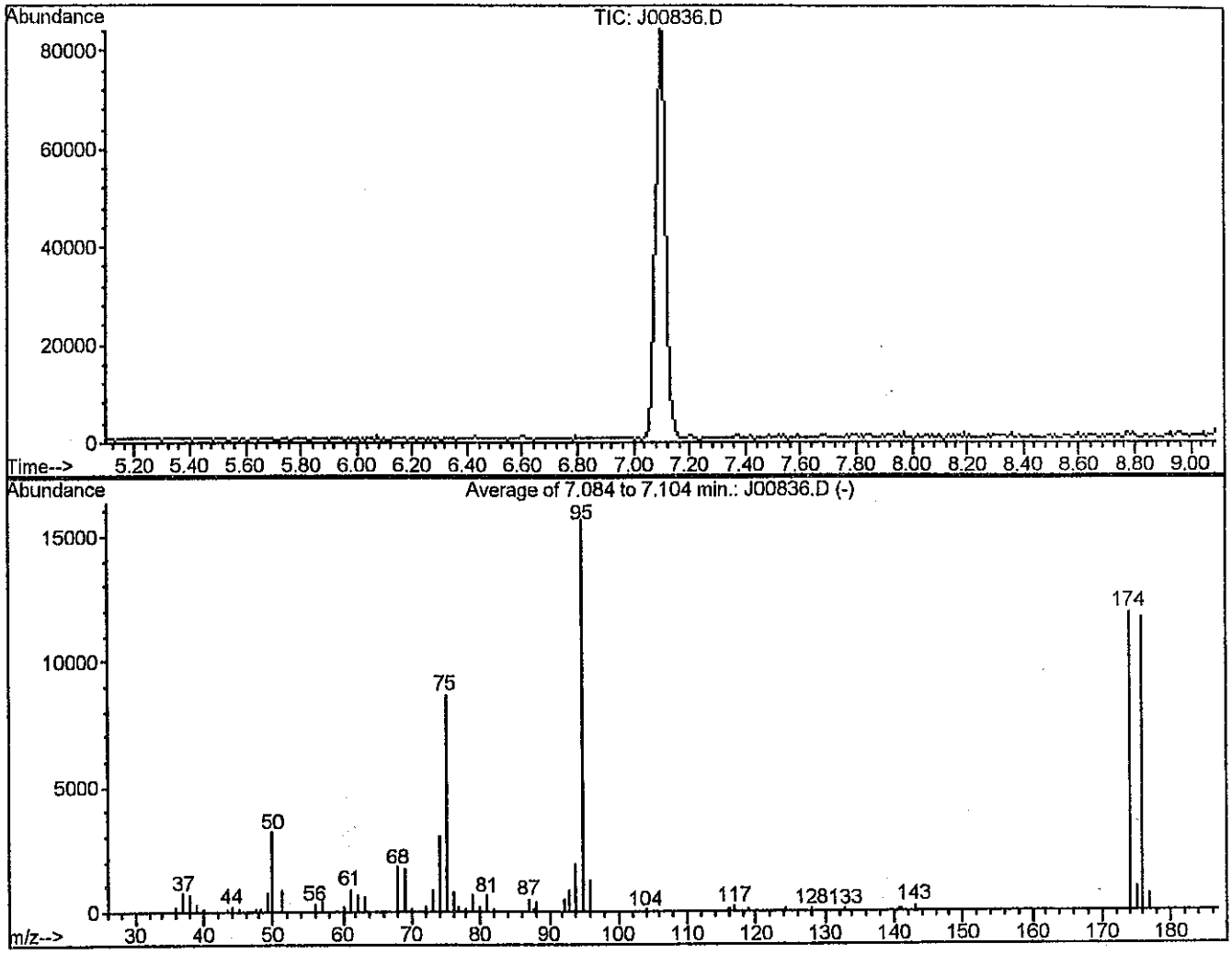
Isobutyl alcohol — linear

Is the runlog completely filled out (including review signature/date)?	~~Y~~ ✓	N	NA
Are all mistakes single lined, initialled, and dated?	~~Y~~ ✓	N	NA

Analyst: VRR	Reviewer: JJ
Date: 8-6-01 Time: 16:50	Date: 08.07.2001 Time: 1025

BFB

Data File : C:\HPCHEM\1\DATA\1J080601\J00836.D Vial: 1
Acq On : 08/06/01 09:57 Operator: JP/VRR/DAT
Sample : BFB 50ng Inst : HP-MSJ
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	3141	PASS
75	95	30	60	55.4	8663	PASS
95	95	100	100	100.0	15641	PASS
96	95	5	9	7.5	1166	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.4	11953	PASS
175	174	5	9	8.0	959	PASS
176	174	95	101	97.8	11692	PASS
177	176	5	9	5.9	685	PASS

J00836.D 08060125.M Mon Aug 06 16:42:05 2001

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluoromet	0.850	0.776	0.740	0.768	0.718	0.731	0.764	6.23
3)	TP	Chloromethane	0.487	0.379	0.372	0.361	0.345	0.329	0.379	14.78
4)	TC	Vinyl Chloride	0.594	0.530	0.509	0.510	0.493	0.494	0.522	7.27
5)	T	Bromomethane	0.203	0.140	0.155	0.149	0.150	0.147	0.157	14.60
6)	T	Chloroethane	0.300	0.283	0.285	0.281	0.266	0.263	0.280	4.83
7)	T	Trichlorofluorometh	0.931	1.028	0.984	0.984	0.939	0.893	0.960	5.03
8)	T	Acrolein	0.016	0.012	0.011	0.012	0.012	0.012	0.013	12.38
9)	T	Acrylonitrile	0.028	0.032	0.029	0.032	0.030	0.030	0.030	5.51
10)	TMC	1,1-Dichloroethene	0.511	0.452	0.447	0.453	0.441	0.432	0.456	6.13
11)	T	Acetone		0.009	0.008	0.009	0.007	0.007	0.008	10.18
12)	T	Iodomethane	0.465	0.586	0.628	0.694	0.643	0.646	0.610	12.96
13)	T	Allylchloride	0.525	0.556	0.560	0.564	0.546	0.543	0.549	2.60
14)	T	Carbon Disulfide	1.602	1.239	1.242	1.323	1.250	1.244	1.317	10.91
15)	T	Acetonitrile	0.057	0.060	0.060	0.060	0.058	0.057	0.059	2.64
16)	T	Methylene Chloride	0.376	0.422	0.286	0.253	0.245	0.244	0.304	25.06
17)	T	trans-1,2-Dichloroe	0.541	0.470	0.490	0.493	0.479	0.465	0.490	5.59
18)	T	MethylTertButylEthe	0.608	0.560	0.588	0.586	0.594	0.595	0.589	2.71
19)	TP	1,1-Dichloroethane	0.757	0.729	0.729	0.742	0.731	0.721	0.735	1.75
20)	T	Isopropyl Ether	0.081	0.074	0.075	0.074	0.078	0.079	0.077	3.66
21)	T	Vinyl Acetate	0.364	0.345	0.352	0.386	0.376	0.384	0.368	4.64
22)	T	2,2-Dichloropropane	0.924	0.862	0.875	0.871	0.849	0.820	0.867	3.96
23)	T	cis-1,2-Dichloroeth	0.489	0.471	0.460	0.471	0.457	0.454	0.467	2.75
24)	T	2-Butanone	0.010	0.007	0.008	0.010	0.011	0.011	0.010	16.34
25)	T	Propionitrile	0.009	0.010	0.010	0.010	0.011	0.011	0.010	5.58
26)	T	Methacrylonitrile	0.059	0.058	0.060	0.059	0.058	0.059	0.059	1.26
27)	T	Bromochloromethane	0.171	0.171	0.167	0.171	0.171	0.163	0.169	1.97
28)	TC	Chloroform	0.890	0.903	0.920	0.917	0.898	0.874	0.900	1.92
29)	T	1,1,1-Trichloroetha	1.021	1.050	1.056	1.062	1.029	1.009	1.038	2.04
30)	T	Carbon Tetrachlorid	0.961	0.984	0.981	1.000	0.964	0.945	0.973	2.03
31)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	5.94
32)	T	1,1-Dichloropropene	0.197	0.204	0.216	0.217	0.208	0.206	0.208	3.56
33)	S	1,2-Dichloroethane-	0.433	0.405	0.421	0.436	0.423	0.407	0.421	3.06
34)	TM	Benzene	1.571	1.605	1.603	1.640	1.609	1.597	1.604	1.40
35)	T	Isobutyl alcohol	0.002	0.002	0.003	0.003	0.003	0.003	0.003	17.98
36)	T	1,2-Dichloroethane	0.486	0.472	0.489	0.488	0.469	0.474	0.480	1.86
37)	TM	Trichloroethene	0.558	0.547	0.565	0.582	0.570	0.562	0.564	2.04
38)	TC	1,2-Dichloropropane	0.287	0.301	0.296	0.307	0.306	0.301	0.300	2.46
39)	T	Dibromomethane	0.164	0.176	0.182	0.181	0.179	0.178	0.177	3.62
40)	T	Methylmethacrylate	0.070	0.072	0.079	0.083	0.087	0.088	0.080	9.75
41)	T	Bromodichloromethan	0.561	0.547	0.582	0.593	0.582	0.589	0.576	3.09
42)	T	2-Chloroethyl-vinyl	0.059	0.049	0.052	0.059	0.057	0.054	0.055	7.05
43)	T	cis-1,3-Dichloropro	0.498	0.500	0.546	0.561	0.551	0.559	0.536	5.39
44)	T	4-Methyl-2-Pentanon	0.024	0.019	0.019	0.022	0.023	0.023	0.021	10.53

#) = Out of Range

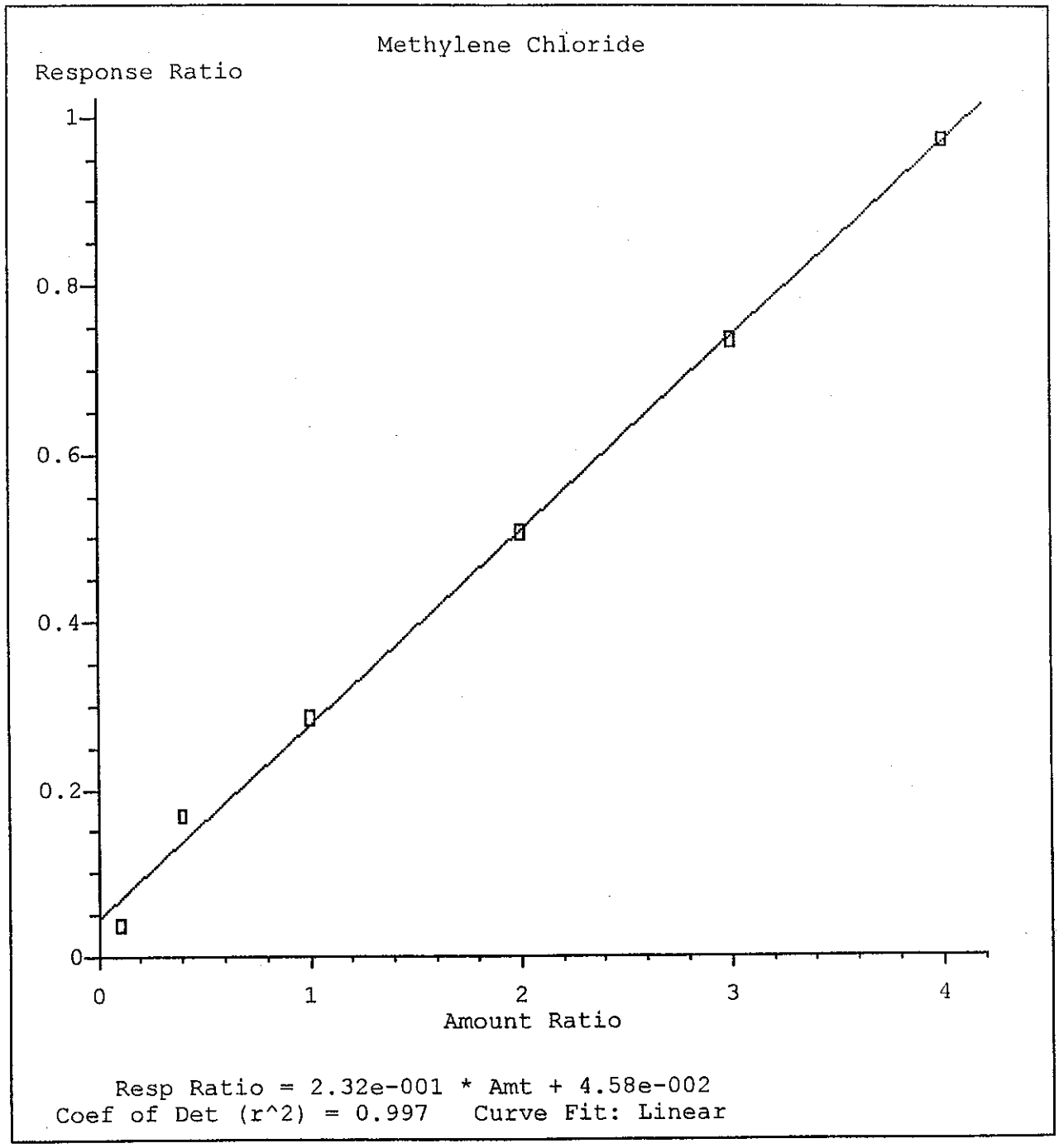
Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

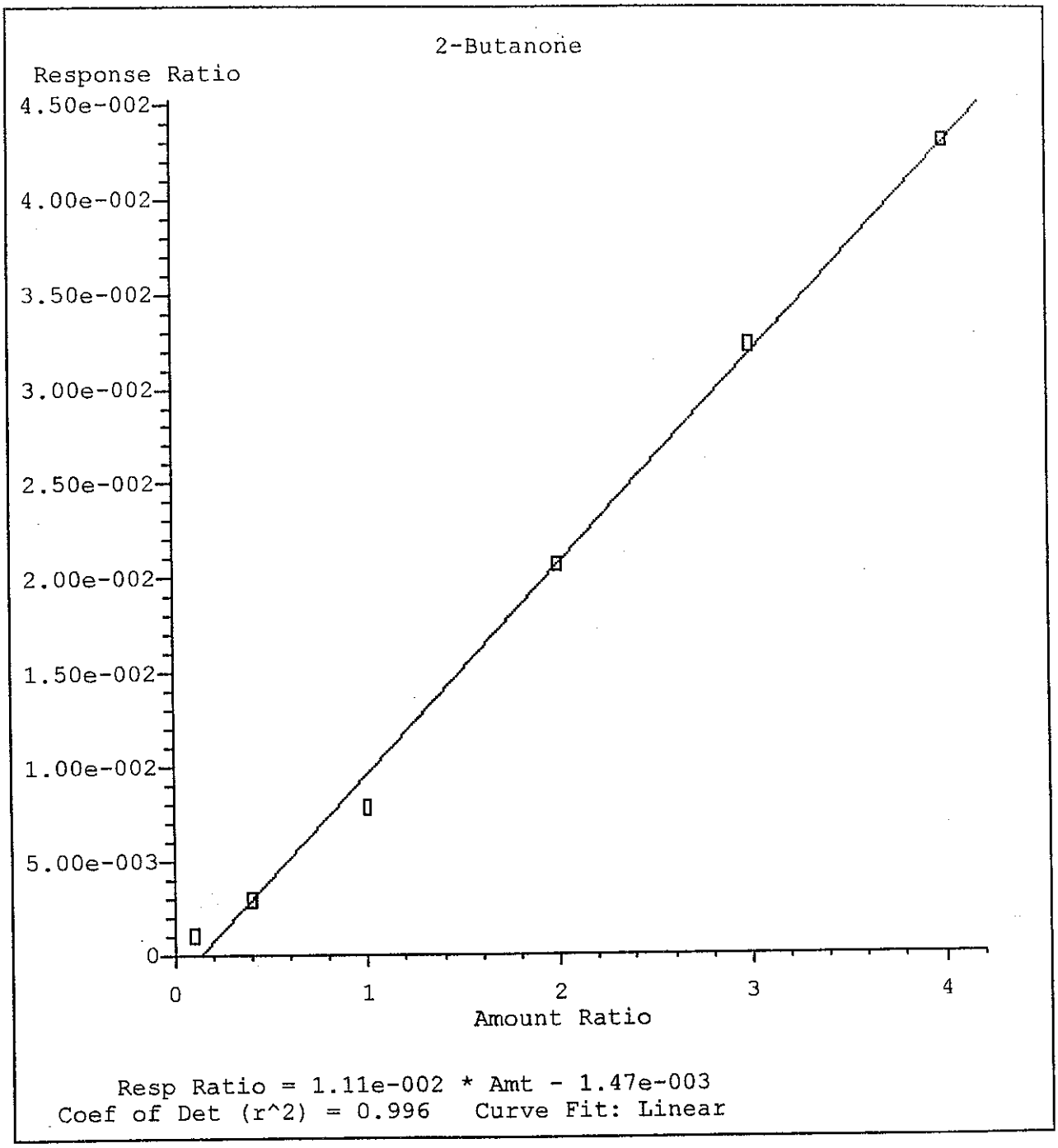
Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	----------ISTD----------							
46)	S	Toluene-d8	1.453	1.476	1.482	1.505	1.448	1.424	1.464	1.97
47)	TMC	Toluene	0.922	0.953	0.970	0.969	0.936	0.926	0.946	2.23
48)	T	trans-1,3-Dichlorop	0.327	0.326	0.363	0.362	0.356	0.360	0.349	4.99
49)	T	Ethylmethacrylate	0.139	0.152	0.169	0.170	0.174	0.182	0.164	9.69
50)	T	1,1,2-Trichloroetha	0.149	0.127	0.139	0.140	0.135	0.138	0.138	5.09
51)	T	Tetrachloroethene	0.407	0.426	0.425	0.416	0.396	0.396	0.411	3.23
52)	T	1,3-Dichloropropane	0.285	0.295	0.295	0.297	0.288	0.297	0.293	1.74
53)	T	2-Hexanone	0.060	0.046	0.047	0.054	0.054	0.054	0.052	9.83
54)	T	Dibromochloromethan	0.254	0.268	0.289	0.301	0.295	0.299	0.284	6.67
55)	T	1,2-Dibromoethane	0.172	0.171	0.184	0.180	0.182	0.184	0.179	3.34
56)	TMP	Chlorobenzene	1.051	1.072	1.057	1.060	1.037	1.009	1.048	2.11
57)	T	1,1,1,2-Tetrachloro	0.369	0.395	0.411	0.406	0.387	0.388	0.393	3.81
58)	TC	Ethylbenzene	1.976	2.058	2.088	2.097	2.034	1.969	2.037	2.69
59)	TG	total-Xylene	0.698	0.714	0.736	0.727	0.705	0.670	0.708	3.31
60)	T	Styrene	0.915	1.047	1.092	1.099	1.087	0.970	1.035	7.34
61)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
62)	TP	Bromoform	0.266	0.267	0.280	0.305	0.305	0.310	0.289	7.08
63)	T	Isopropylbenzene	4.169	4.354	4.285	4.391	4.260	4.155	4.269	2.24
64)	T	cis-1,4-dichloro-2-	0.101	0.105	0.118	0.118	0.121	0.120	0.114	7.73
65)	T	trans-1,4-dichloro-	0.106	0.120	0.121	0.128	0.128	0.125	0.121	6.77
66)	S	Bromofluorobenzene	1.099	1.140	1.113	1.163	1.112	1.050	1.113	3.47
67)	T	Bromobenzene	0.777	0.791	0.839	0.865	0.826	0.808	0.818	3.95
68)	TP	1,1,2,2-Tetrachloro	0.285	0.308	0.321	0.334	0.323	0.317	0.315	5.39
69)	T	1,2,3-Trichloroprop	0.403	0.378	0.391	0.408	0.404	0.400	0.397	2.77
70)	T	n-Propylbenzene	4.992	5.107	5.154	5.275	5.139	4.967	5.106	2.22
71)	T	2-Chlorotoluene	3.003	2.992	3.066	3.083	2.987	2.905	3.006	2.11
72)	T	4-Chlorotoluene	3.493	3.463	3.549	3.615	3.490	3.340	3.492	2.64
73)	T	1,3,5-Trimethylbenz	3.695	3.845	3.903	3.989	3.880	3.702	3.836	3.03
74)	T	Pentachloroethane	0.500	0.519	0.557	0.550	0.541	0.517	0.531	4.21
75)	T	tert-Butylbenzene	3.163	3.274	3.276	3.336	3.262	3.110	3.237	2.58
76)	T	1,2,4-Trimethylbenz	3.767	3.815	3.845	3.908	3.770	3.635	3.790	2.43
77)	T	sec-Butylbenzene	4.777	4.769	4.841	4.966	4.807	4.631	4.798	2.27
78)	T	1,3-Dichlorobenzene	1.606	1.696	1.729	1.725	1.697	1.622	1.679	3.14
79)	T	Isopropyltoluene	3.826	3.977	3.957	4.065	3.925	3.778	3.921	2.66
80)	T	1,4-Dichlorobenzene	1.830	1.685	1.677	1.684	1.641	1.612	1.688	4.45
81)	T	1,2-Dichlorobenzene	1.324	1.297	1.317	1.321	1.304	1.284	1.308	1.20
82)	T	n-Butylbenzene	3.461	3.581	3.660	3.768	3.673	3.555	3.616	2.96
83)	T	1,2-Dibromo-3-chlor	0.080	0.065	0.060	0.058	0.057	0.060	0.063	13.68
84)	T	1,2,4-trichlorobenz	0.916	0.899	0.937	0.953	0.897	0.895	0.916	2.62
85)	T	Hexachlorobutadiene	0.799	0.902	0.855	0.858	0.774	0.749	0.823	7.05
86)	T	Naphthalene	0.888	0.886	0.993	1.067	1.059	1.058	0.992	8.62
87)	T	1,2,3-Trichlorobenz	0.684	0.659	0.683	0.700	0.679	0.658	0.677	2.39

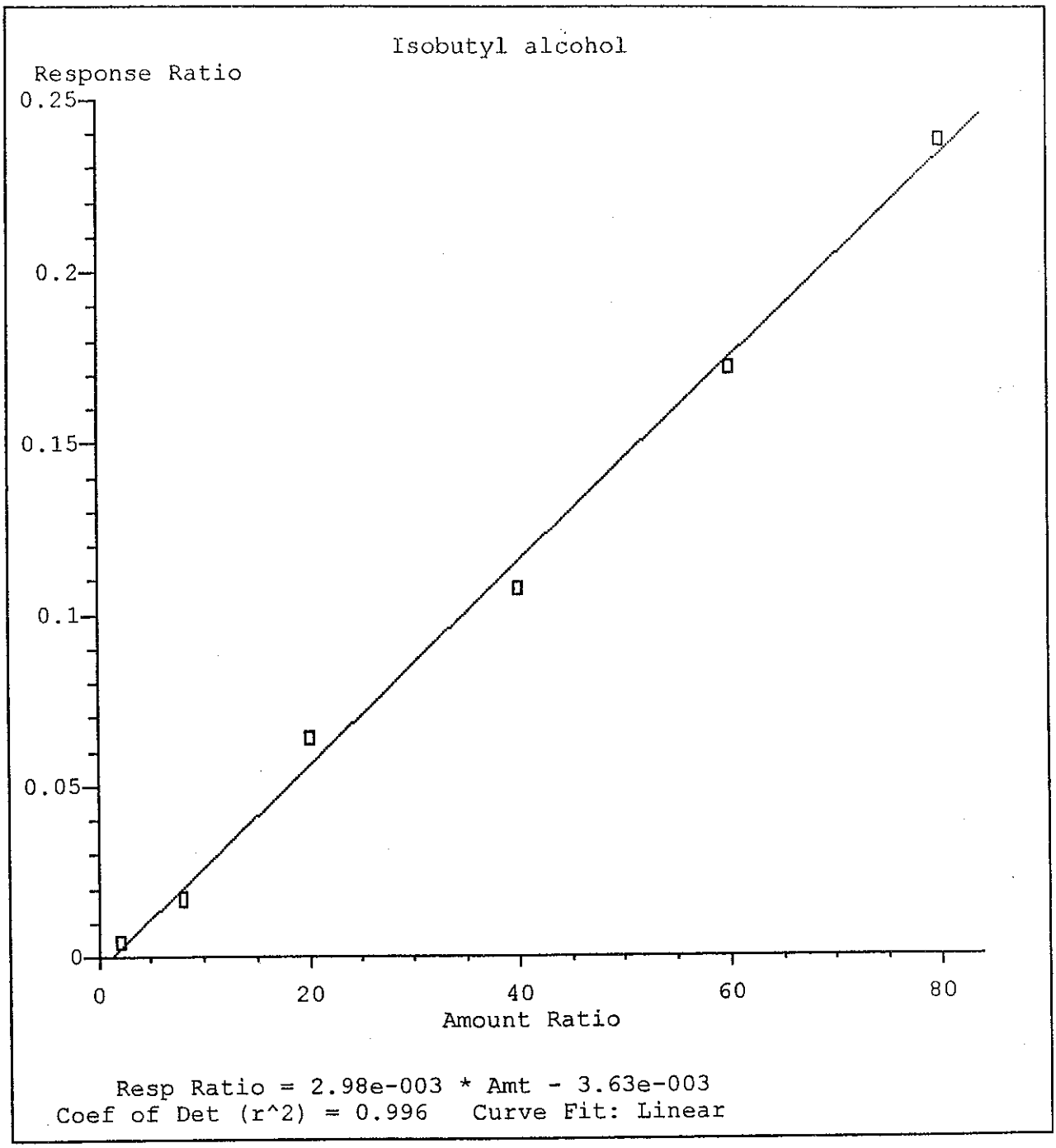
(#) = Out of Range



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236236	10.00 ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	265458	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	125288	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.06	116	42	10.00 ug\L	-0.05
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.17	65	10238	1.03 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.30%#		
46) Toluene-d8	10.02	98	38560	0.99 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.90%#		
66) Bromofluorobenzene	13.72	95	13775	0.99 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.90%#		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	20075	1.11 ug\L	100
3) Chloromethane	1.66	50	11509	1.29 ug\L	97
4) Vinyl Chloride	1.74	62	14039	1.14 ug\L	100
5) Bromomethane	2.03	94	4797	1.29 ug\L	96
6) Chloroethane	2.13	64	7091	1.07 ug\L	94
7) Trichlorofluoromethane	2.38	101	21987	0.97 ug\L #	100
8) Acrolein	2.92	56	281	0.94 ug\L #	10
9) Acrylonitrile	4.04	53	1321	1.85 ug\L #	82
10) 1,1-Dichloroethene	2.96	96	12069	1.12 ug\L	94
12) Iodomethane	3.17	142	10991	0.76 ug\L #	95
13) Allylchloride	3.43	39	12393	0.96 ug\L #	96
14) Carbon Disulfide	3.22	76	37856	1.22 ug\L #	95
15) Acetonitrile	3.43	41	13403	9.70 ug\L	98
17) trans-1,2-Dichloroethene	3.98	96	12780	1.10 ug\L	98
18) MethylTertButylEther	3.98	73	14359	1.03 ug\L	99
19) 1,1-Dichloroethane	4.70	63	17891	1.03 ug\L #	97
21) Vinyl Acetate	4.82	43	8589	0.99 ug\L #	83
22) 2,2-Dichloropropane	5.72	77	21820	1.07 ug\L	94
23) cis-1,2-Dichloroethene	5.77	96	11543	1.05 ug\L #	77
24) 2-Butanone	5.89	72	56	1.53 ug\L #	100
25) Propionitrile	6.03	54	2152	9.04 ug\L #	71
26) Methacrylonitrile	6.23	41	13877	9.98 ug\L	98
27) Bromochloromethane	6.21	128	2139	0.54 ug\L #	1
28) Chloroform	6.37	83	21019	0.99 ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	24120	0.98 ug\L	97
30) Carbon Tetrachloride	6.82	119	22706	0.99 ug\L	100
31) 1,4-Dioxane	8.86	88	477	19.29 ug\L #	53
32) 1,1-Dichloropropene	6.84	77	4654	0.95 ug\L	84

(#) = qualifier out of range (m) = manual int[illegible]

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) Benzene	7.20	78	37103	0.98 ug\L	100
35) Isobutyl alcohol	7.32	43	432	18.34 ug\L	89
36) 1,2-Dichloroethane	7.30	62	11470	1.01 ug\L	98
37) Trichloroethene	8.21	95	13181	0.99 ug\L	98
38) 1,2-Dichloropropane	8.59	63	6782	0.96 ug\L	100
39) Dibromomethane	8.79	93	3883	0.93 ug\L	95
40) Methylmethacrylate	8.80	69	1647	0.87 ug\L	90
41) Bromodichloromethane	9.04	83	13242	0.97 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.49	63	1387	1.07 ug\L #	84
43) cis-1,3-Dichloropropene	9.68	75	11774	0.93 ug\L	98
44) 4-Methyl-2-Pentanone	9.92	85	567	1.12 ug\L #	1
47) Toluene	10.11	92	24466	0.97 ug\L	100
48) trans-1,3-Dichloropropene	10.50	75	8693	0.94 ug\L	92
49) Ethylmethacrylate	10.63	69	3679	0.84 ug\L #	55
50) 1,1,2-Trichloroethane	10.77	83	3953	1.08 ug\L	90
51) Tetrachloroethene	10.87	164	10796	0.99 ug\L	96
52) 1,3-Dichloropropane	10.99	76	7576	0.97 ug\L	95
53) 2-Hexanone	11.11	43	1588	1.14 ug\L #	87
54) Dibromochloromethane	11.31	129	6744	0.89 ug\L	99
55) 1,2-Dibromoethane	11.46	107	4555	0.96 ug\L #	95
56) Chlorobenzene	12.12	112	27897	1.00 ug\L	92
57) 1,1,1,2-Tetrachloroethane	12.25	131	9807	0.94 ug\L	100
58) Ethylbenzene	12.26	91	52447	0.97 ug\L	98
59) total-Xylene	12.42	106	55563m	2.96 ug\L #	
60) Styrene	13.00	104	24291	0.88 ug\L	93
62) Bromoform	13.31	173	3328	0.92 ug\L	99
63) Isopropylbenzene	13.48	105	52230	0.98 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	1265	0.89 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.03	53	1331	0.88 ug\L #	53
67) Bromobenzene	13.92	156	9730	0.95 ug\L #	1
68) 1,1,2,2-Tetrachloroethane	13.98	83	3567	0.90 ug\L #	77
69) 1,2,3-Trichloropropane	14.02	75	5044	1.01 ug\L	89
70) n-Propylbenzene	14.04	91	62542	0.98 ug\L	98
71) 2-Chlorotoluene	14.17	91	37629	1.00 ug\L	100
72) 4-Chlorotoluene	14.33	91	43767	1.00 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	46293	0.96 ug\L	97
74) Pentachloroethane	14.80	167	6260	0.94 ug\L #	89
75) tert-Butylbenzene	14.73	119	39625	0.98 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	47202	0.99 ug\L	98
77) sec-Butylbenzene	15.03	105	59844	1.00 ug\L	98
78) 1,3-Dichlorobenzene	15.21	146	20116	0.96 ug\L	97
79) Isopropyltoluene	15.23	119	47931	0.98 ug\L	100

(# = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

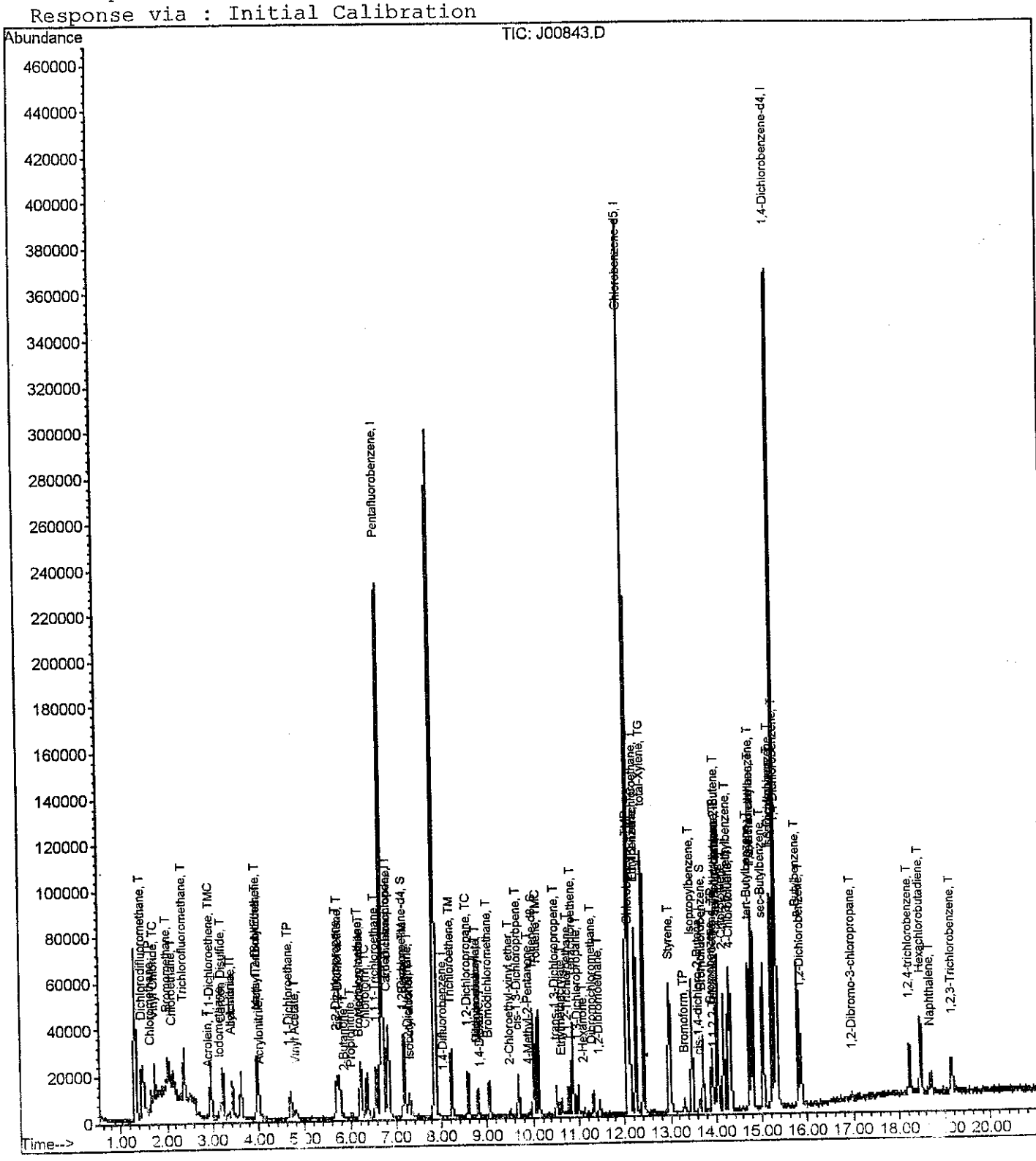
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	15.34	146	22924	1.08 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	16585	1.01 ug\L	100
82) n-Butylbenzene	15.79	91	43358	0.96 ug\L	97
83) 1,2-Dibromo-3-chloropropan	16.98	75	602	0.76 ug\L #	42
84) 1,2,4-trichlorobenzene	18.23	180	11481	1.00 ug\L	100
85) Hexachlorobutadiene	18.48	225	10015	0.97 ug\L	100
86) Naphthalene	18.68	128	11121	0.89 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	8565	1.01 ug\L #	58

(#) = qualifier out of range (m) = manual integration
J00843.D 080601 S... Mon Aug 06 16:41:23 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.72	168	214177	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.09	117	246940	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	120687	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.15	116	40	10.00	ug\L		0.05
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.19	65	34711	3.85	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 38.50%#				
46) Toluene-d8	10.03	98	145804	4.03	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 40.30%#				
66) Bromofluorobenzene	13.73	95	55048	4.10	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 41.00%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.48	85	66483	4.06	ug\L		99
3) Chloromethane	1.67	50	31236	3.85	ug\L		97
4) Vinyl Chloride	1.75	62	44864	4.01	ug\L		98
5) Bromomethane	2.05	94	11228	3.34	ug\L		98
6) Chloroethane	2.14	64	24269	4.05	ug\L		98
7) Trichlorofluoromethane	2.39	101	88083	4.28	ug\L	#	100
8) Acrolein	2.92	56	2077	7.69	ug\L	#	97
9) Acrylonitrile	4.05	53	3196	4.95	ug\L	#	34
10) 1,1-Dichloroethene	2.97	96	38500	3.94	ug\L		99
11) Acetone	3.11	58	737	4.37	ug\L		100
12) Iodomethane	3.18	142	50205	3.84	ug\L		98
13) Allylchloride	3.45	39	47661	4.05	ug\L		99
14) Carbon Disulfide	3.24	76	106125	3.76	ug\L		100
15) Acetonitrile	3.45	41	51351	40.98	ug\L		99
16) Methylene Chloride	3.64	86	36126	5.30	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	40296	3.84	ug\L		93
18) MethylTertButylEther	3.99	73	47960	3.80	ug\L		99
19) 1,1-Dichloroethane	4.72	63	62447	3.97	ug\L		98
20) Isopropyl Ether	4.78	45	4368	2.66	ug\L	#	44
21) Vinyl Acetate	4.84	43	29528	3.75	ug\L		99
22) 2,2-Dichloropropane	5.73	77	73807	3.98	ug\L	#	78
23) cis-1,2-Dichloroethene	5.79	96	39985	4.00	ug\L		97
24) 2-Butanone	5.87	72	272	2.46	ug\L	#	100
25) Propionitrile	6.04	54	8412	38.99	ug\L	#	91
26) Methacrylonitrile	6.26	41	49603	39.33	ug\L		99
27) Bromochloromethane	6.21	128	14655	4.05	ug\L		96
28) Chloroform	6.38	83	77385	4.01	ug\L	#	1
29) 1,1,1-Trichloroethane	6.59	97	89991	4.05	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.85	119	84332	4.05 ug\L	99
31) 1,4-Dioxane	8.85	88	1706	76.11 ug\L #	66
32) 1,1-Dichloropropene	6.86	77	17476	3.92 ug\L	91
34) Benzene	7.21	78	137459	4.00 ug\L	100
35) Isobutyl alcohol	7.33	43	3593	68.53 ug\L #	82
36) 1,2-Dichloroethane	7.32	62	40434	3.94 ug\L	97
37) Trichloroethene	8.24	95	46901	3.88 ug\L	99
38) 1,2-Dichloropropane	8.61	63	25753	4.01 ug\L	98
39) Dibromomethane	8.80	93	15107	3.99 ug\L	98
40) Methylmethacrylate	8.82	69	6162	3.60 ug\L	95
41) Bromodichloromethane	9.07	83	46904	3.80 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	4216	3.58 ug\L #	89
43) cis-1,3-Dichloropropene	9.70	75	42870	3.73 ug\L	96
44) 4-Methyl-2-Pentanone	9.94	85	1616	3.51 ug\L #	1
47) Toluene	10.13	92	94191	4.03 ug\L	98
48) trans-1,3-Dichloropropene	10.52	75	32229	3.74 ug\L	98
49) Ethylmethacrylate	10.62	69	14996	3.70 ug\L	96
50) 1,1,2-Trichloroethane	10.79	83	12589	3.69 ug\L	95
51) Tetrachloroethene	10.88	164	42091	4.15 ug\L	97
52) 1,3-Dichloropropane	11.00	76	29182	4.03 ug\L	98
53) 2-Hexanone	11.12	43	4582	3.54 ug\L #	93
54) Dibromochloromethane	11.33	129	26470	3.77 ug\L	97
55) 1,2-Dibromoethane	11.46	107	16892	3.83 ug\L	99
56) Chlorobenzene	12.13	112	105929	4.09 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.26	131	39031	4.02 ug\L	97
58) Ethylbenzene	12.26	91	203401	4.04 ug\L	99
59) total-Xylene	12.43	106	210562m	12.04 ug\L #	
60) Styrene	13.02	104	103434	4.05 ug\L	99
62) Bromoform	13.32	173	12883	3.70 ug\L	100
63) Isopropylbenzene	13.49	105	210207	4.08 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	5802	4.22 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.05	53	5802	3.96 ug\L #	43
67) Bromobenzene	13.94	156	38184	3.87 ug\L #	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	14885	3.92 ug\L #	96
69) 1,2,3-Trichloropropane	14.05	75	18240	3.81 ug\L	98
70) n-Propylbenzene	14.05	91	246544	4.00 ug\L	99
71) 2-Chlorotoluene	14.18	91	142919	3.94 ug\L	98
72) 4-Chlorotoluene	14.34	91	167739	3.98 ug\L	99
73) 1,3,5-Trimethylbenzene	14.30	105	185633	4.01 ug\L	99
74) Pentachloroethane	14.81	167	25034	3.91 ug\L	95
75) tert-Butylbenzene	14.74	119	158062	4.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	184177	4.03 ug\L	98

= qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	230202	3.98 ug\L	99
78) 1,3-Dichlorobenzene	15.23	146	81524	4.02 ug\L	96
79) Isopropyltoluene	15.24	119	191984	4.06 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	81338	3.99 ug\L	97
81) 1,2-Dichlorobenzene	15.87	146	62621	3.97 ug\L	99
82) n-Butylbenzene	15.81	91	172874	3.96 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.99	75	3119	4.09 ug\L	93
84) 1,2,4-trichlorobenzene	18.24	180	43387	3.92 ug\L	100
85) Hexachlorobutadiene	18.49	225	43531	4.38 ug\L	100
86) Naphthalene	18.71	128	42263	3.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	31804	3.89 ug\L	99

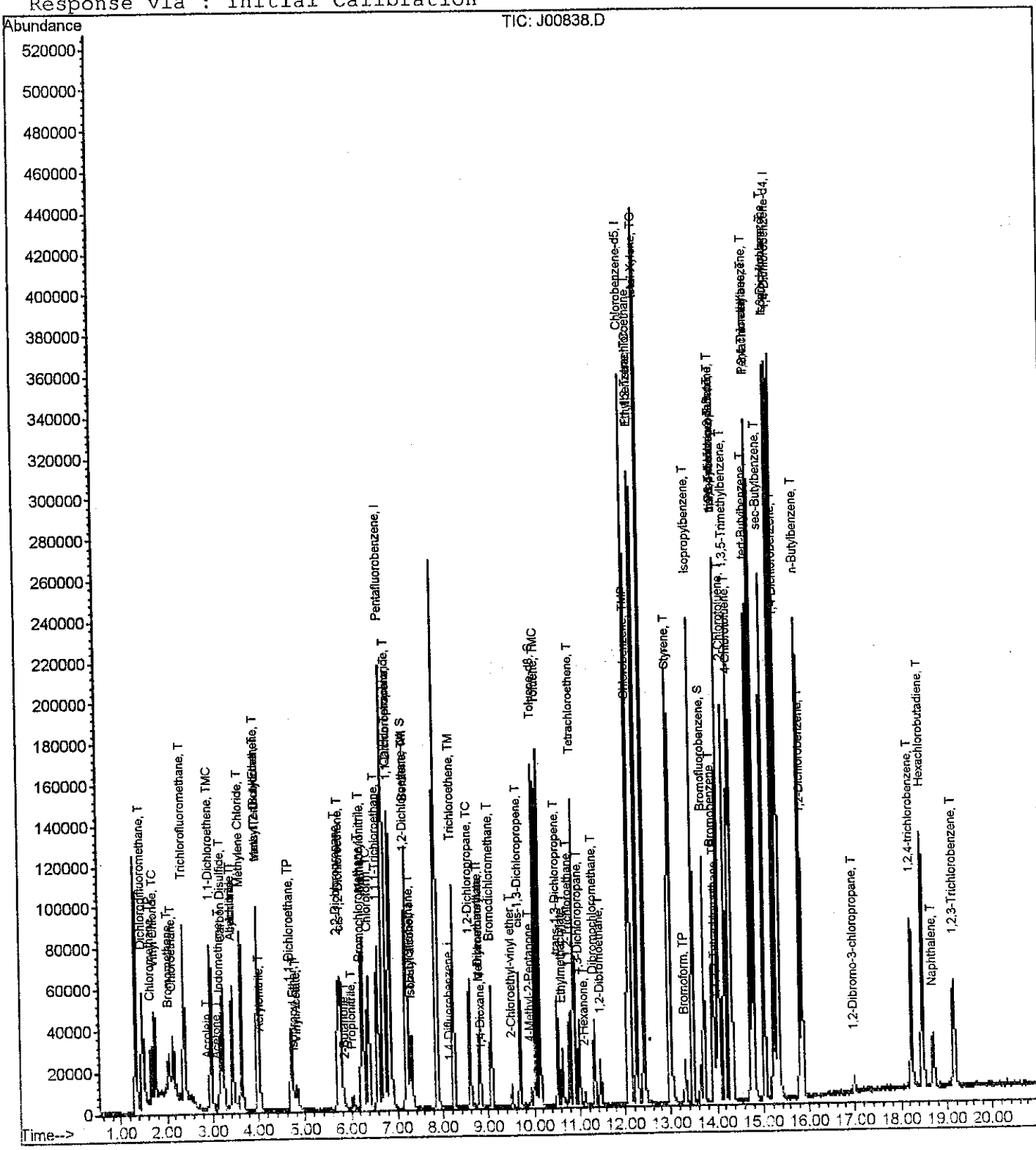
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D
Acq On : 08/06/01 10:48
Sample : ICAL 4 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 2
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	201922	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	235398	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	118033	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	474	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	85055	10.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.10%			
46) Toluene-d8	10.03	98	348457	10.11	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.10%			
66) Bromofluorobenzene	13.73	95	131369	10.00	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	149435	9.69	ug\L	100
3) Chloromethane	1.67	50	73080	9.55	ug\L	98
4) Vinyl Chloride	1.75	62	102684	9.75	ug\L	100
5) Bromomethane	2.05	94	31233	9.84	ug\L	100
6) Chloroethane	2.15	64	57448	10.17	ug\L	100
7) Trichlorofluoromethane	2.40	101	198768	10.25	ug\L #	100
8) Acrolein	2.92	56	4604	18.08	ug\L #	100
9) Acrylonitrile	4.06	53	11794	19.36	ug\L	100
10) 1,1-Dichloroethene	2.98	96	90313	9.81	ug\L	100
11) Acetone	3.10	58	1481	9.32	ug\L	93
12) Iodomethane	3.18	142	126707	10.28	ug\L	100
13) Allylchloride	3.44	39	112982	10.20	ug\L	100
14) Carbon Disulfide	3.24	76	250721	9.43	ug\L	100
15) Acetonitrile	3.45	41	120839	102.29	ug\L	100
16) Methylene Chloride	3.64	86	57706	10.35	ug\L	100
17) trans-1,2-Dichloroethene	4.00	96	99024	10.02	ug\L	100
18) MethylTertButylEther	4.00	73	118748	9.99	ug\L	100
19) 1,1-Dichloroethane	4.71	63	147096	9.91	ug\L	100
20) Isopropyl Ether	4.79	45	15229	9.84	ug\L #	100
21) Vinyl Acetate	4.83	43	70469	9.49	ug\L	100
22) 2,2-Dichloropropane	5.73	77	176710	10.10	ug\L	100
23) cis-1,2-Dichloroethene	5.80	96	92802	9.84	ug\L	100
24) 2-Butanone	5.87	72	1578	8.36	ug\L #	100
25) Propionitrile	6.04	54	20397	100.28	ug\L	100
26) Methacrylonitrile	6.25	41	121263	102.00	ug\L	100
27) Bromochloromethane	6.22	128	33773	9.90	ug\L	100
28) Chloroform	6.38	83	185348	10.20	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	213173	10.17	ug\L	100

(#) = qualifier out of range (m) = manual integration
J00839.D 08060125.M Mon Aug 06 16:40:44 2001 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	198115	10.09 ug\L	100
31) 1,4-Dioxane	8.86	88	3882	183.70 ug\L #	100
32) 1,1-Dichloropropene	6.86	77	43542	10.37 ug\L	100
34) Benzene	7.21	78	323624	9.99 ug\L	100
35) Isobutyl alcohol	7.33	43	10273	183.03 ug\L #	78
36) 1,2-Dichloroethane	7.31	62	98830	10.20 ug\L	100
37) Trichloroethene	8.24	95	114163	10.02 ug\L	100
38) 1,2-Dichloropropane	8.60	63	59552	9.84 ug\L	100
39) Dibromomethane	8.80	93	36760	10.29 ug\L	100
40) Methylmethacrylate	8.82	69	15930	9.88 ug\L	100
41) Bromodichloromethane	9.06	83	117560	10.11 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.51	63	10536	9.49 ug\L	100
43) cis-1,3-Dichloropropene	9.70	75	110210	10.18 ug\L	100
44) 4-Methyl-2-Pentanone	9.93	85	3749	8.65 ug\L #	1
47) Toluene	10.13	92	228147	10.24 ug\L	100
48) trans-1,3-Dichloropropene	10.52	75	85376	10.39 ug\L	100
49) Ethylmethacrylate	10.62	69	39820	10.30 ug\L	100
50) 1,1,2-Trichloroethane	10.78	83	32796	10.09 ug\L	100
51) Tetrachloroethene	10.88	164	99814	10.32 ug\L	100
52) 1,3-Dichloropropane	11.00	76	69262	10.05 ug\L	100
53) 2-Hexanone	11.13	43	10780	8.74 ug\L	99
54) Dibromochloromethane	11.33	129	67859	10.15 ug\L	100
55) 1,2-Dibromoethane	11.46	107	43281	10.28 ug\L	100
56) Chlorobenzene	12.13	112	248499	10.08 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.25	131	96633	10.45 ug\L	100
58) Ethylbenzene	12.27	91	490838	10.24 ug\L	100
59) total-Xylene	12.43	106	518556m	31.11 ug\L #	
60) Styrene	13.02	104	256776	10.54 ug\L	100
62) Bromoform	13.32	173	33018	9.69 ug\L	100
63) Isopropylbenzene	13.48	105	505825	10.04 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	14277	10.62 ug\L	97
65) trans-1,4-dichloro-2-Buten	14.05	53	14277	9.97 ug\L #	48
67) Bromobenzene	13.93	156	99049	10.26 ug\L	100
68) 1,1,2,2-Tetrachloroethane	13.99	83	37851	10.19 ug\L	100
69) 1,2,3-Trichloropropane	14.04	75	46157	9.85 ug\L	100
70) n-Propylbenzene	14.05	91	608339	10.09 ug\L	100
71) 2-Chlorotoluene	14.18	91	358416	10.10 ug\L	99
72) 4-Chlorotoluene	14.34	91	419438	10.18 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	460711	10.18 ug\L	100
74) Pentachloroethane	14.81	167	65795	10.50 ug\L	100
75) tert-Butylbenzene	14.74	119	386667	10.12 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	453819	10.14 ug\L	100

(# = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D
Acq On : 08/06/01 11:13
Sample : ICAL 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 3
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

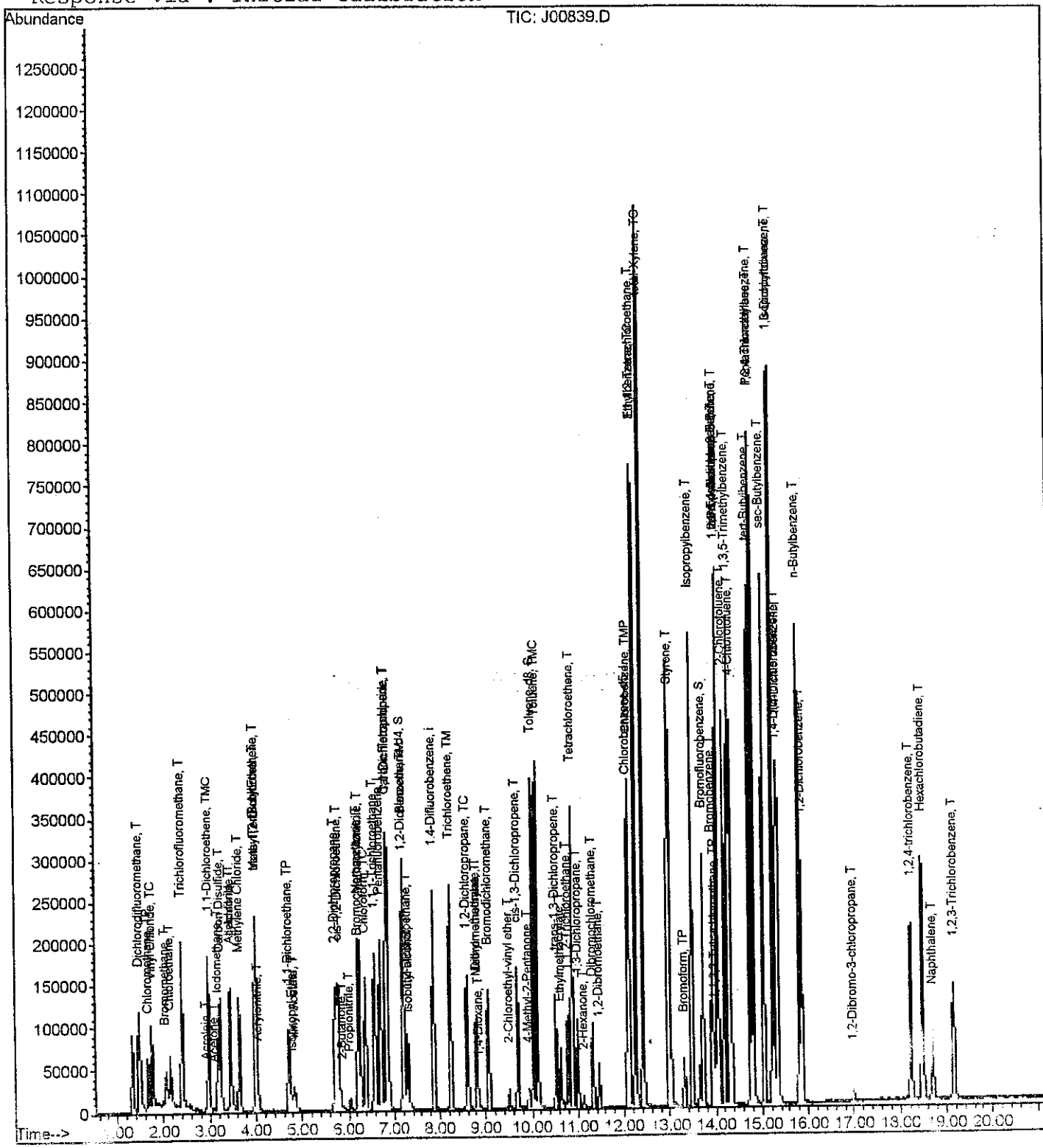
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	571426	10.09 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	204190	10.30 ug\L	98
79) Isopropyltoluene	15.24	119	467090	10.09 ug\L	100
80) 1,4-Dichlorobenzene	15.35	146	197999	9.94 ug\L	100
81) 1,2-Dichlorobenzene	15.87	146	155458	10.07 ug\L	100
82) n-Butylbenzene	15.80	91	431971	10.12 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7080	9.49 ug\L	100
84) 1,2,4-trichlorobenzene	18.24	180	110590	10.23 ug\L	100
85) Hexachlorobutadiene	18.48	225	100900	10.39 ug\L	100
86) Naphthalene	18.70	128	117222	10.01 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	80572	10.08 ug\L	100

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	209421	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.09	117	250420	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	122077	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	281	10.00	ug\L	-0.22
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	182510	20.71	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 207.10%#			
46) Toluene-d8	10.03	98	753850	20.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 205.60%#			
66) Bromofluorobenzene	13.73	95	283929	20.90	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 209.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	321467	20.10	ug\L	100
3) Chloromethane	1.66	50	151083	19.04	ug\L	98
4) Vinyl Chloride	1.75	62	213735	19.56	ug\L	98
5) Bromomethane	2.05	94	62319	18.93	ug\L	99
6) Chloroethane	2.14	64	117818	20.11	ug\L	97
7) Trichlorofluoromethane	2.40	101	412252	20.51	ug\L #	100
8) Acrolein	2.91	56	10150	38.43	ug\L #	86
9) Acrylonitrile	4.05	53	26956	42.67	ug\L	94
10) 1,1-Dichloroethene	2.97	96	189664	19.86	ug\L	99
11) Acetone	3.11	58	3685	22.36	ug\L	68
12) Iodomethane	3.18	142	290779	22.75	ug\L	99
13) Allylchloride	3.45	39	236060	20.54	ug\L	98
14) Carbon Disulfide	3.24	76	554079	20.09	ug\L	99
15) Acetonitrile	3.45	41	250033	204.08	ug\L	99
16) Methylene Chloride	3.64	86	106099	19.88	ug\L	99
17) trans-1,2-Dichloroethene	4.00	96	206306	20.12	ug\L	98
18) MethylTertButylEther	3.99	73	245575	19.92	ug\L	99
19) 1,1-Dichloroethane	4.71	63	310774	20.19	ug\L	99
20) Isopropyl Ether	4.79	45	30842	19.21	ug\L #	74
21) Vinyl Acetate	4.83	43	161546	20.98	ug\L	99
22) 2,2-Dichloropropane	5.73	77	364651	20.09	ug\L	99
23) cis-1,2-Dichloroethene	5.79	96	197233	20.17	ug\L	97
24) 2-Butanone	5.87	72	4331	19.94	ug\L #	100
25) Propionitrile	6.03	54	42719	202.50	ug\L	96
26) Methacrylonitrile	6.25	41	248316	201.38	ug\L	98
27) Bromochloromethane	6.22	128	71482	20.20	ug\L	98
28) Chloroform	6.38	83	384187	20.38	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	444851	20.46	ug\L	99

(#) = qua... ...t of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	418970	20.57 ug\L	100
31) 1,4-Dioxane	8.85	88	8937	407.77 ug\L #	75
32) 1,1-Dichloropropene	6.86	77	90753	20.84 ug\L	97
34) Benzene	7.21	78	686987	20.45 ug\L	100
35) Isobutyl alcohol	7.33	43	22547	373.71 ug\L #	92
36) 1,2-Dichloroethane	7.31	62	204333	20.34 ug\L	99
37) Trichloroethene	8.24	95	243596	20.62 ug\L	99
38) 1,2-Dichloropropane	8.60	63	128532	20.48 ug\L	99
39) Dibromomethane	8.80	93	75637	20.42 ug\L	96
40) Methylmethacrylate	8.81	69	34722	20.77 ug\L	94
41) Bromodichloromethane	9.06	83	248414	20.61 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	24543	21.31 ug\L	99
43) cis-1,3-Dichloropropene	9.69	75	235018	20.94 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	9097	20.24 ug\L #	1
47) Toluene	10.13	92	485146	20.48 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	181095	20.72 ug\L	98
49) Ethylmethacrylate	10.62	69	84910	20.65 ug\L	98
50) 1,1,2-Trichloroethane	10.78	83	70117	20.27 ug\L	97
51) Tetrachloroethene	10.88	164	208383	20.25 ug\L	98
52) 1,3-Dichloropropane	11.00	76	148746	20.28 ug\L	99
53) 2-Hexanone	11.12	43	26850	20.47 ug\L	97
54) Dibromochloromethane	11.33	129	150637	21.17 ug\L	100
55) 1,2-Dibromoethane	11.46	107	90388	20.19 ug\L	99
56) Chlorobenzene	12.12	112	530931	20.24 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	203444	20.69 ug\L	99
58) Ethylbenzene	12.26	91	1050268	20.59 ug\L	100
59) total-Xylene	12.43	106	1092314m	61.59 ug\L #	
60) Styrene	13.02	104	550566	21.24 ug\L	100
62) Bromoform	13.32	173	74458	21.12 ug\L	99
63) Isopropylbenzene	13.48	105	1072114	20.57 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	31295	22.50 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.05	53	31295	21.12 ug\L #	45
67) Bromobenzene	13.93	156	211098	21.15 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.99	83	81628	21.25 ug\L	97
69) 1,2,3-Trichloropropane	14.03	75	99589	20.54 ug\L	99
70) n-Propylbenzene	14.05	91	1287982	20.66 ug\L	100
71) 2-Chlorotoluene	14.18	91	752694	20.51 ug\L	98
72) 4-Chlorotoluene	14.34	91	882636	20.71 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	973868	20.80 ug\L	100
74) Pentachloroethane	14.81	167	134377	20.74 ug\L	97
75) tert-Butylbenzene	14.74	119	814484	20.61 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	954111	20.62 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00840.D 08060125.M Mon Aug 06 16:55:53 2001 Page

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	1212451	20.70 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	421222	20.55 ug\L	96
79) Isopropyltoluene	15.24	119	992368	20.73 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	411156	19.95 ug\L	99
81) 1,2-Dichlorobenzene	15.87	146	322633	20.21 ug\L	98
82) n-Butylbenzene	15.80	91	919856	20.84 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	14260	18.47 ug\L	86
84) 1,2,4-trichlorobenzene	18.24	180	232595	20.80 ug\L	100
85) Hexachlorobutadiene	18.48	225	209391	20.85 ug\L	100
86) Naphthalene	18.70	128	260452	21.51 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	171000	20.68 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00840.D 08060125.M Mon Aug 06 16:40:55 2001

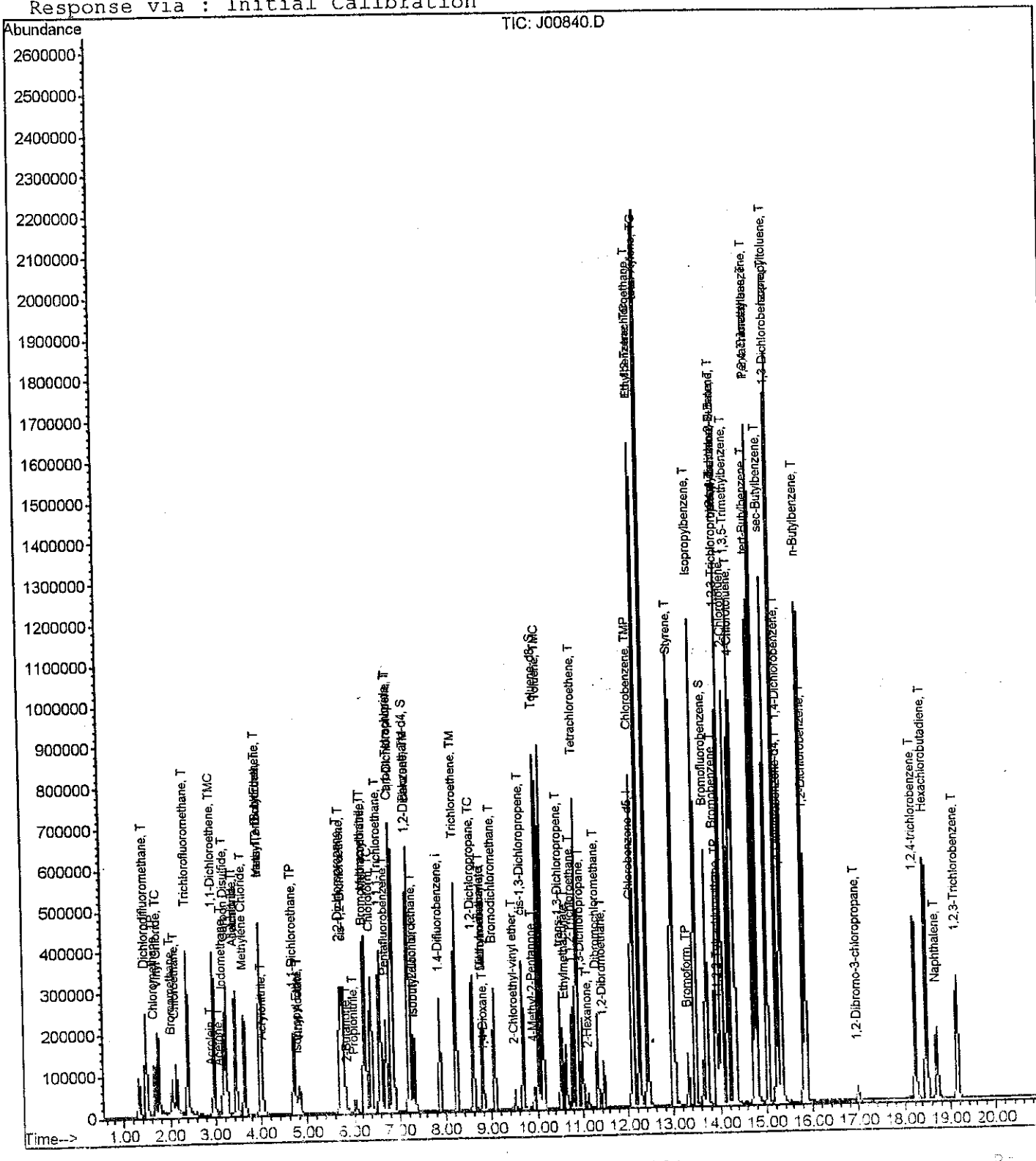
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D
Acq On : 08/06/01 11:39
Sample : ICAL 20 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 4
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	228150	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	275102	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	132491	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	421	10.00	ug\L	-0.23
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	289312	30.13	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 301.30%#			
46) Toluene-d8	10.03	98	1195016	29.66	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.60%#			
66) Bromofluorobenzene	13.72	95	441958	29.97	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 299.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	491561	28.21	ug\L	100
3) Chloromethane	1.67	50	236367	27.34	ug\L	98
4) Vinyl Chloride	1.74	62	337526	28.35	ug\L	99
5) Bromomethane	2.04	94	102458	28.57	ug\L	83
6) Chloroethane	2.15	64	182075	28.53	ug\L	98
7) Trichlorofluoromethane	2.39	101	642815	29.35	ug\L #	100
8) Acrolein	2.91	56	16595	57.68	ug\L #	90
9) Acrylonitrile	4.05	53	40878	59.39	ug\L	99
10) 1,1-Dichloroethene	2.98	96	301695	29.00	ug\L	99
11) Acetone	3.10	58	5047	28.10	ug\L	97
12) Iodomethane	3.18	142	440095	31.61	ug\L	96
13) Allylchloride	3.45	39	373603	29.84	ug\L	99
14) Carbon Disulfide	3.24	76	855766	28.49	ug\L	100
15) Acetonitrile	3.45	41	397963	298.16	ug\L	99
16) Methylene Chloride	3.64	86	167807	29.76	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	327745	29.34	ug\L	99
18) MethylTertButylEther	3.99	73	406778	30.29	ug\L	100
19) 1,1-Dichloroethane	4.70	63	500096	29.83	ug\L	99
20) Isopropyl Ether	4.78	45	53169	30.40	ug\L #	23
21) Vinyl Acetate	4.83	43	257631	30.71	ug\L	100
22) 2,2-Dichloropropane	5.73	77	581182	29.39	ug\L	97
23) cis-1,2-Dichloroethene	5.79	96	312550	29.34	ug\L	97
24) 2-Butanone	5.88	72	7372	30.42	ug\L #	100
25) Propionitrile	6.04	54	72946	317.40	ug\L	98
26) Methacrylonitrile	6.25	41	399632	297.49	ug\L	98
27) Bromochloromethane	6.22	128	116884	30.32	ug\L	94
28) Chloroform	6.38	83	614493	29.92	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	704600	29.75	ug\L	99

#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D
Acq On : 08/06/01 12:05
Sample : ICAL 30 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 5
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	659615	29.73 ug\L	98
31) 1,4-Dioxane	8.85	88	15503	649.28 ug\L #	67
32) 1,1-Dichloropropene	6.86	77	142531	30.05 ug\L	95
34) Benzene	7.21	78	1101272	30.09 ug\L	100
35) Isobutyl alcohol	7.33	43	39294	590.50 ug\L	88
36) 1,2-Dichloroethane	7.31	62	321030	29.33 ug\L	100
37) Trichloroethene	8.23	95	390312	30.32 ug\L	99
38) 1,2-Dichloropropane	8.60	63	209691	30.67 ug\L	99
39) Dibromomethane	8.80	93	122706	30.41 ug\L	98
40) Methylmethacrylate	8.82	69	59735	32.79 ug\L	98
41) Bromodichloromethane	9.06	83	398143	30.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	39267	31.30 ug\L	98
43) cis-1,3-Dichloropropene	9.70	75	377356	30.86 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	15406	31.46 ug\L #	1
47) Toluene	10.13	92	772677	29.69 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	294117	30.63 ug\L	98
49) Ethylmethacrylate	10.62	69	143762	31.83 ug\L	99
50) 1,1,2-Trichloroethane	10.78	83	111359	29.31 ug\L	96
51) Tetrachloroethene	10.89	164	327047	28.93 ug\L	99
52) 1,3-Dichloropropane	11.00	76	237454	29.47 ug\L	100
53) 2-Hexanone	11.12	43	44352	30.78 ug\L	98
54) Dibromochloromethane	11.32	129	243349	31.13 ug\L	100
55) 1,2-Dibromoethane	11.46	107	150308	30.56 ug\L	97
56) Chlorobenzene	12.12	112	855952	29.70 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	319261	29.55 ug\L	97
58) Ethylbenzene	12.26	91	1678406	29.95 ug\L	100
59) total-Xylene	12.43	106	1744747m	89.55 ug\L #	
60) Styrene	13.01	104	897316	31.51 ug\L	98
62) Bromoform	13.32	173	121354	31.72 ug\L	99
63) Isopropylbenzene	13.48	105	1693119	29.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	51009	33.79 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.05	53	51009	31.72 ug\L #	39
67) Bromobenzene	13.93	156	328377	30.31 ug\L	96
68) 1,1,2,2-Tetrachloroethane	13.98	83	128342	30.78 ug\L	95
69) 1,2,3-Trichloropropane	14.04	75	160548	30.51 ug\L	95
70) n-Propylbenzene	14.05	91	2042742	30.20 ug\L	100
71) 2-Chlorotoluene	14.19	91	1187401	29.81 ug\L	98
72) 4-Chlorotoluene	14.34	91	1387227	29.99 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	1542146	30.35 ug\L	100
74) Pentachloroethane	14.81	167	215082	30.59 ug\L	97
75) tert-Butylbenzene	1 .74	119	1296474	30.23 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	1498427	29.84 ug\L	99

(#) = qua fier t of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

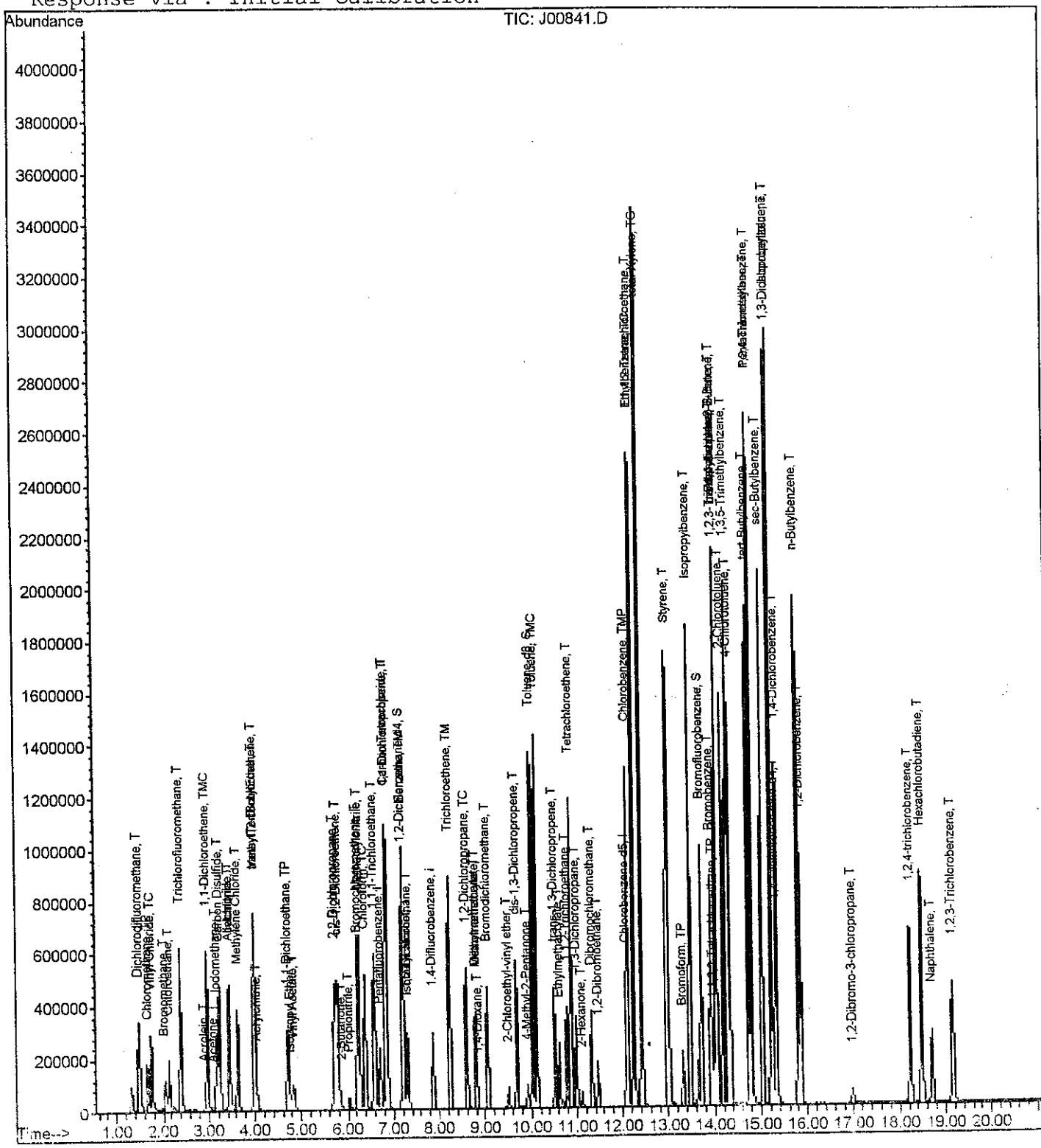
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.04	105	1910656	30.05	ug\L		100
78) 1,3-Dichlorobenzene	15.22	146	674357	30.32	ug\L		98
79) Isopropyltoluene	15.24	119	1560231	30.03	ug\L		100
80) 1,4-Dichlorobenzene	15.35	146	652092	29.16	ug\L		98
81) 1,2-Dichlorobenzene	15.87	146	518139	29.90	ug\L		99
82) n-Butylbenzene	15.81	91	1460079	30.47	ug\L		100
83) 1,2-Dibromo-3-chloropropan	16.98	75	22579	26.95	ug\L	#	82
84) 1,2,4-trichlorobenzene	18.24	180	356537	29.37	ug\L		100
85) Hexachlorobutadiene	18.48	225	307516	28.21	ug\L		100
86) Naphthalene	18.70	128	420803	32.02	ug\L		100
87) 1,2,3-Trichlorobenzene	19.16	180	270049	30.10	ug\L		99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	236977	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.10	117	283507	10.00	ug\L	0.01
61) 1,4-Dichlorobenzene-d4	15.33	152	126023	10.00	ug\L	0.02
88) 1.4-Difluorobenzene	7.87	116	380	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	385440	38.65	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 386.50%#			
46) Toluene-d8	10.05	98	1614379	38.88	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 388.80%#			
66) Bromofluorobenzene	13.74	95	529059	37.72	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 377.20%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	692564	38.27	ug\L	99
3) Chloromethane	1.66	50	312292	34.78	ug\L	94
4) Vinyl Chloride	1.75	62	468705	37.90	ug\L	99
5) Bromomethane	2.05	94	138965	37.31	ug\L	85
6) Chloroethane	2.14	64	249551	37.64	ug\L	99
7) Trichlorofluoromethane	2.39	101	846276	37.20	ug\L #	100
8) Acrolein	2.91	56	22585	75.58	ug\L #	89
9) Acrylonitrile	4.05	53	56343	78.81	ug\L #	94
10) 1,1-Dichloroethene	2.97	96	409885	37.93	ug\L	100
11) Acetone	3.11	58	6573	35.24	ug\L	95
12) Iodomethane	3.18	142	612141	42.33	ug\L	96
13) Allylchloride	3.44	39	514739	39.58	ug\L	98
14) Carbon Disulfide	3.24	76	1179036	37.79	ug\L	99
15) Acetonitrile	3.45	41	537021	387.36	ug\L	97
16) Methylene Chloride	3.64	86	230823	40.05	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	440624	37.97	ug\L	97
18) MethylTertButylEther	3.98	73	563877	40.43	ug\L	99
19) 1,1-Dichloroethane	4.71	63	683438	39.24	ug\L	99
20) Isopropyl Ether	4.78	45	74635	41.09	ug\L #	27
21) Vinyl Acetate	4.83	43	364053	41.77	ug\L	99
22) 2,2-Dichloropropane	5.73	77	776884	37.83	ug\L	96
23) cis-1,2-Dichloroethene	5.79	96	430587	38.92	ug\L	97
24) 2-Butanone	5.88	72	10204	40.10	ug\L #	100
25) Propionitrile	6.05	54	100038	419.07	ug\L	98
26) Methacrylonitrile	6.25	41	558385	400.19	ug\L	97
27) Bromochloromethane	6.22	128	154414	38.56	ug\L	98
28) Chloroform	6.39	83	828379	38.83	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	956613	38.89	ug\L	99

(#) = qualifier out of range (m) = manual integratio

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	895735	38.86 ug\L	100
31) 1,4-Dioxane	8.86	88	20699	834.61 ug\L #	68
32) 1,1-Dichloropropene	6.87	77	195288	39.63 ug\L	95
34) Benzene	7.21	78	1513451	39.82 ug\L	100
35) Isobutyl alcohol	7.33	43	56629	814.58 ug\L	95
36) 1,2-Dichloroethane	7.32	62	449661	39.56 ug\L	100
37) Trichloroethene	8.25	95	533085	39.87 ug\L	99
38) 1,2-Dichloropropane	8.62	63	285359	40.18 ug\L	99
39) Dibromomethane	8.82	93	169143	40.36 ug\L	99
40) Methylmethacrylate	8.83	69	83734	44.26 ug\L	97
41) Bromodichloromethane	9.07	83	558222	40.92 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	51039	39.17 ug\L	95
43) cis-1,3-Dichloropropene	9.70	75	529866	41.71 ug\L	99
44) 4-Methyl-2-Pentanone	9.95	85	21934	43.12 ug\L #	1
47) Toluene	10.14	92	1050622	39.17 ug\L	100
48) trans-1,3-Dichloropropene	10.53	75	408043	41.23 ug\L	99
49) Ethylmethacrylate	10.64	69	205861	44.23 ug\L	98
50) 1,1,2-Trichloroethane	10.79	83	156378	39.94 ug\L	97
51) Tetrachloroethene	10.90	164	449566	38.58 ug\L	98
52) 1,3-Dichloropropane	11.02	76	337307	40.62 ug\L	98
53) 2-Hexanone	11.14	43	61503	41.41 ug\L	99
54) Dibromochloromethane	11.34	129	338783	42.05 ug\L	98
55) 1,2-Dibromoethane	11.48	107	208182	41.07 ug\L	98
56) Chlorobenzene	12.14	112	1144230	38.52 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.27	131	439758	39.50 ug\L	99
58) Ethylbenzene	12.28	91	2233211	38.67 ug\L	100
59) total-Xylene	12.44	106	2279293m	113.52 ug\L #	
60) Styrene	13.03	104	1100246	37.49 ug\L	97
62) Bromoform	13.33	173	156316	42.95 ug\L	99
63) Isopropylbenzene	13.50	105	2094320	38.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.06	53	62865	43.78 ug\L	91
65) trans-1,4-dichloro-2-Buten	14.06	53	62865	41.10 ug\L #	39
67) Bromobenzene	13.94	156	407509	39.55 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.00	83	159651	40.25 ug\L	96
69) 1,2,3-Trichloropropane	14.05	75	201442	40.25 ug\L	93
70) n-Propylbenzene	14.06	91	2503911	38.91 ug\L	100
71) 2-Chlorotoluene	14.20	91	1464559	38.66 ug\L	98
72) 4-Chlorotoluene	14.35	91	1683484	38.26 ug\L	99
73) 1,3,5-Trimethylbenzene	14.31	105	1866159	38.61 ug\L	100
74) Pentachloroethane	14.82	167	260835	39.00 ug\L	98
75) tert-Butylbenzene	14.76	119	1567887	38.44 ug\L	100
76) 1,2,4-Trimethylbenzene	14.83	105	1832348	38.36 ug\L	100

(#) = qualifier out of range (m) = manual integration
J00842.D 08060125.M Mo[illegible] 16:[illegible] 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

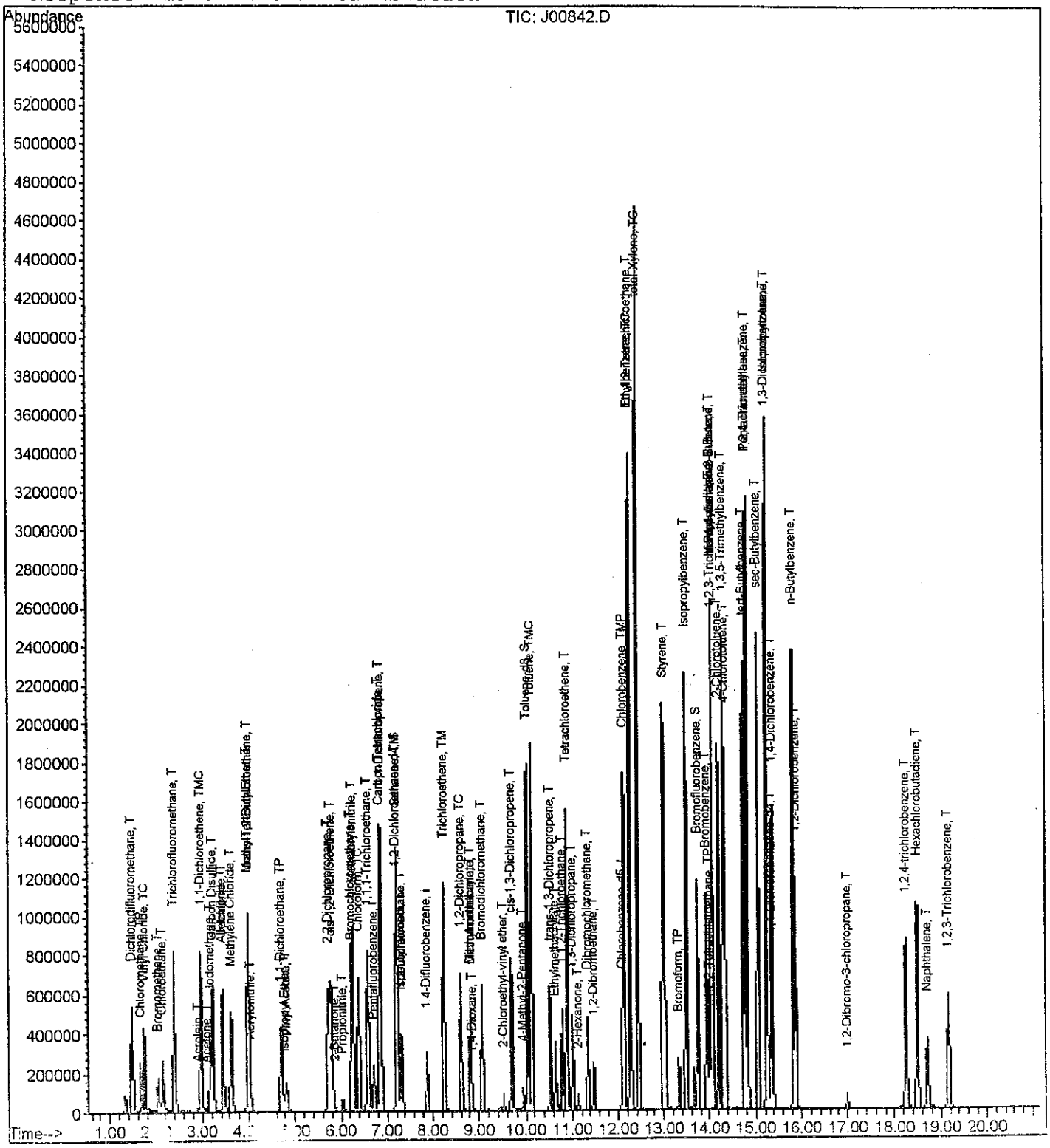
Compound	R.T.	QIon	Response	Conc Unit		Qvalue
77) sec-Butylbenzene	15.06	105	2334501	38.61 ug\L		99
78) 1,3-Dichlorobenzene	15.24	146	817537	38.64 ug\L		97
79) Isopropyltoluene	15.26	119	1904586	38.54 ug\L		99
80) 1,4-Dichlorobenzene	15.36	146	812646	38.20 ug\L		99
81) 1,2-Dichlorobenzene	15.89	146	647087	39.26 ug\L		99
82) n-Butylbenzene	15.82	91	1791846	39.32 ug\L		99
83) 1,2-Dibromo-3-chloropropan	16.99	75	29998	37.65 ug\L	#	84
84) 1,2,4-trichlorobenzene	18.25	180	451116	39.07 ug\L		100
85) Hexachlorobutadiene	18.50	225	377795	36.44 ug\L		100
86) Naphthalene	18.71	128	533546	42.69 ug\L		100
87) 1,2,3-Trichlorobenzene	19.18	180	331858	38.89 ug\L		99

(#) qualifier out of range (m) = manual integration
J00842.D 08060125.M Mon Aug 06 16:41:14 2001 Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	236749	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.08	117	271920	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	136085	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	46	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	102936	10.33	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.30%				
46) Toluene-d8	10.02	98	402158	10.10	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.00%				
66) Bromofluorobenzene	13.72	95	149700	9.88	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	185478	10.26	ug\L		99
3) Chloromethane	1.66	50	89700	10.00	ug\L		97
4) Vinyl Chloride	1.74	62	126218	10.22	ug\L		100
5) Bromomethane	2.04	94	30971m	8.32	ug\L		
6) Chloroethane	2.13	64	67507	10.19	ug\L		100
7) Trichlorofluoromethane	2.38	101	221851	9.76	ug\L	#	100
8) Acrolein	2.90	56	5935	19.88	ug\L	#	90
9) Acrylonitrile	4.03	53	15303	21.43	ug\L		95
10) 1,1-Dichloroethene	2.96	96	110481	10.23	ug\L		95
11) Acetone	3.10	58	2424	13.01	ug\L	#	59
12) Iodomethane	3.17	142	144562	10.01	ug\L		97
13) Allylchloride	3.43	39	128977	9.93	ug\L		100
14) Carbon Disulfide	3.22	76	306632	9.84	ug\L		100
15) Acetonitrile	3.43	41	138391	99.92	ug\L		99
16) Methylene Chloride	3.63	86	61183	9.17	ug\L		98
17) trans-1,2-Dichloroethene	3.98	96	117661	10.15	ug\L		99
18) MethylTertButylEther	3.97	73	149459	10.73	ug\L		100
19) 1,1-Dichloroethane	4.70	63	170375	9.79	ug\L		99
20) Isopropyl Ether	4.77	45	18664m	10.28	ug\L		
21) Vinyl Acetate	4.80	43	89745	10.31	ug\L		97
22) 2,2-Dichloropropane	5.71	77	204482	9.97	ug\L		99
23) cis-1,2-Dichloroethene	5.77	96	110680	10.01	ug\L		97
24) 2-Butanone	5.86	72	2653m	11.41	ug\L		
25) Propionitrile	6.01	54	26079	109.35	ug\L		97
26) Methacrylonitrile	6.22	41	146128	104.83	ug\L		98
27) Bromochloromethane	6.20	128	41465	10.36	ug\L		98
28) Chloroform	6.36	83	214507	10.06	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	241792	9.84	ug\L		98

(#) = qualifier out of range (m) = manual integratio

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	226500	9.84 ug\L	99
31) 1,4-Dioxane	8.84	88	5614	226.58 ug\L #	72
32) 1,1-Dichloropropene	6.85	77	48923	9.94 ug\L	93
34) Benzene	7.19	78	380136	10.01 ug\L	100
35) Isobutyl alcohol	7.31	43	13593	204.98 ug\L #	85
36) 1,2-Dichloroethane	7.29	62	117398	10.34 ug\L	99
37) Trichloroethene	8.22	95	131207	9.82 ug\L	99
38) 1,2-Dichloropropane	8.58	63	67927	9.57 ug\L	99
39) Dibromomethane	8.79	93	41892	10.01 ug\L	95
40) Methylmethacrylate	8.80	69	20795	11.00 ug\L	98
41) Bromodichloromethane	9.04	83	139253	10.22 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.50	63	13572	10.43 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	127539	10.05 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4814	9.47 ug\L #	1
47) Toluene	10.11	92	254492	9.89 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	98236	10.35 ug\L	97
49) Ethylmethacrylate	10.61	69	46882	10.50 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	39079	10.41 ug\L	97
51) Tetrachloroethene	10.87	164	112026	10.02 ug\L	99
52) 1,3-Dichloropropane	10.99	76	83613	10.50 ug\L	97
53) 2-Hexanone	11.11	43	14740	10.35 ug\L	98
54) Dibromochloromethane	11.32	129	82748	10.71 ug\L	98
55) 1,2-Dibromoethane	11.45	107	51404	10.57 ug\L	97
56) Chlorobenzene	12.11	112	285350	10.02 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.24	131	110222	10.32 ug\L	99
58) Ethylbenzene	12.25	91	557285	10.06 ug\L	99
59) total-Xylene	12.42	106	572541m	29.73 ug\L #	
60) Styrene	13.01	104	292603	10.40 ug\L	99
62) Bromoform	13.31	173	38751	9.86 ug\L	99
63) Isopropylbenzene	13.47	105	568522	9.79 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	16816	10.85 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	16816	10.18 ug\L #	44
67) Bromobenzene	13.92	156	111009	9.98 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.98	83	44964	10.50 ug\L	98
69) 1,2,3-Trichloropropane	14.02	75	55094	10.19 ug\L	96
70) n-Propylbenzene	14.04	91	672093	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	393728	9.62 ug\L	99
72) 4-Chlorotoluene	14.33	91	468656	9.86 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	500390	9.59 ug\L	99
74) Pentachloroethane	14.80	167	73416	10.16 ug\L	99
75) tert-Butylbenzene	14.73	119	427537	9.71 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	508226	9.85 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

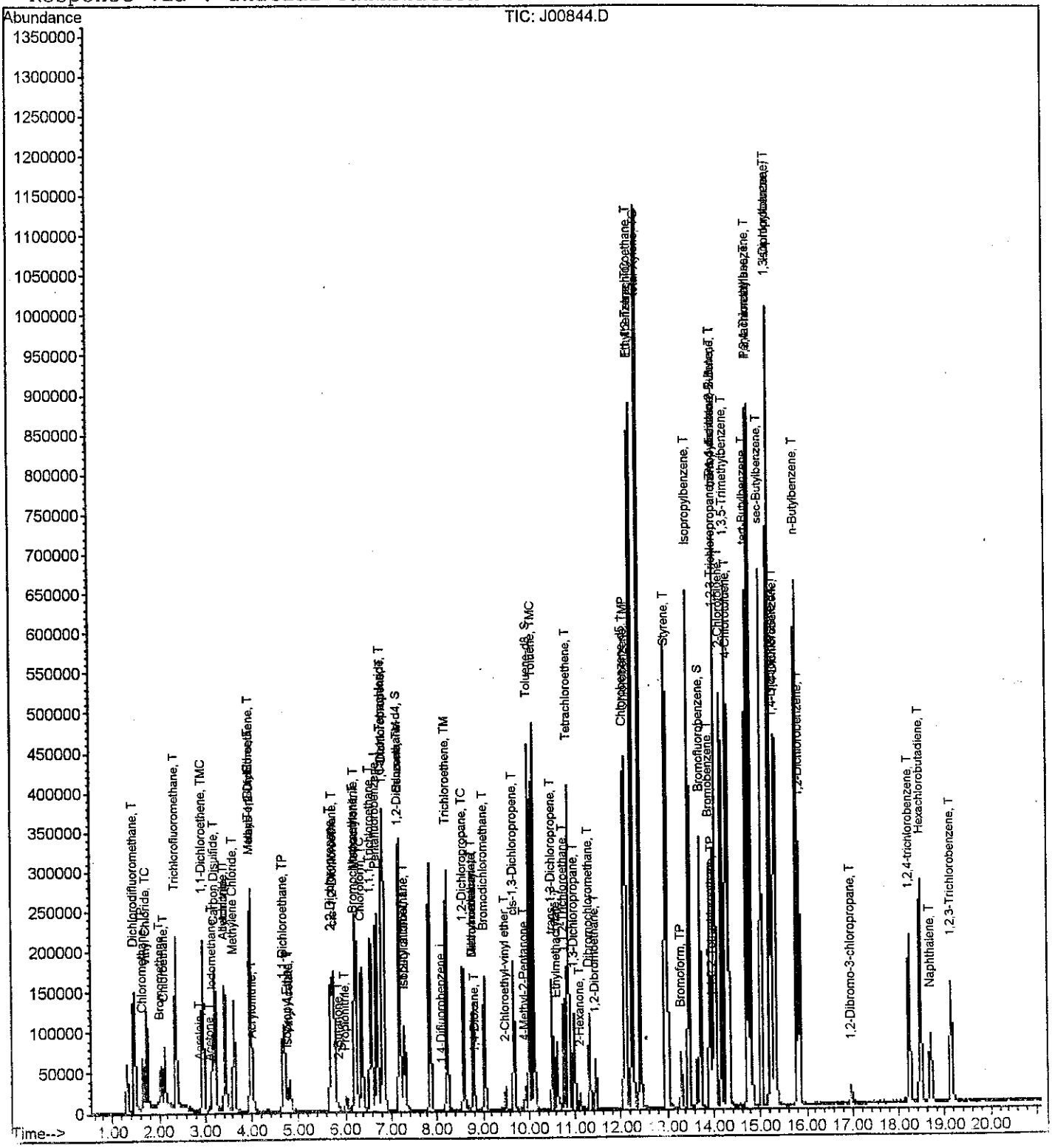
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	635434	9.73 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	227582	9.96 ug\L	98
79) Isopropyltoluene	15.23	119	521726	9.78 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	224040	9.75 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	176920	9.94 ug\L	99
82) n-Butylbenzene	15.80	91	488303	9.92 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7984	9.28 ug\L	89
84) 1,2,4-trichlorobenzene	18.23	180	112061	8.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	97843	8.74 ug\L	100
86) Naphthalene	18.69	128	121746	9.02 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	83493	9.06 ug\L	98

(#) = qualifier out of range (m) = manual integration
J00844.D 08060125.M Mon Aug 06 16:44:20 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	117	-0.02
2	T	Dichlorodifluoromethane	0.764	0.783	-2.5	124	0.00
3	TP	Chloromethane	0.379	0.379	0.0	119	0.00
4	TC	Vinyl Chloride	0.522	0.533	-2.1	123	0.00
5	T	Bromomethane	0.157	0.131	16.6	99	0.00
6	T	Chloroethane	0.280	0.285	-1.8	118	-0.02
7	T	Trichlorofluoromethane	0.960	0.937	2.4	112	-0.02
8	T	Acrolein	0.013	0.013	0.0	129	-0.02
9	T	Acrylonitrile	0.030	0.032	-6.7	130	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.467	-2.4	122	-0.02
11	T	Acetone	0.008	0.010	-25.0	157#	0.00
12	T	Iodomethane	0.610	0.611	-0.2	114	-0.01
13	T	Allylchloride	0.549	0.545	0.7	114	0.00
14	T	Carbon Disulfide	1.317	1.295	1.7	122	-0.02
15	T	Acetonitrile	0.059	0.058	1.7	115	-0.02
16	T	Methylene Chloride	0.304	0.258	15.1	106	-0.02
17	T	trans-1,2-Dichloroethene	0.490	0.497	-1.4	119	-0.02
18	T	MethylTertButylEther	0.589	0.631	-7.1	126	-0.03
19	TP	1,1-Dichloroethane	0.735	0.720	2.0	116	-0.02
20	T	Isopropyl Ether	0.077	0.079	-2.6	123	-0.02
21	T	Vinyl Acetate	0.368	0.379	-3.0	126	-0.02
22	T	2,2-Dichloropropane	0.867	0.864	0.3	116	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.467	0.0	119	-0.03
24	T	2-Butanone	0.010	0.011	-10.0	168#	0.00
25	T	Propionitrile	0.010	0.011	-10.0	128	-0.03
26	T	Methacrylonitrile	0.059	0.062	-5.1	121	-0.02
27	T	Bromochloromethane	0.169	0.175	-3.6	123	-0.02
28	TC	Chloroform	0.900	0.906	-0.7	115	-0.02
29	T	1,1,1-Trichloroethane	1.038	1.021	1.6	113	-0.02
30	T	Carbon Tetrachloride	0.973	0.957	1.6	114	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	145	-0.02
32	T	1,1-Dichloropropene	0.208	0.207	0.5	112	-0.02
33	S	1,2-Dichloroethane-d4	0.421	0.435	-3.3	121	-0.02
34	TM	Benzene	1.604	1.606	-0.1	117	-0.02
35	T	Isobutyl alcohol	0.003	0.003	0.0	105	-0.03
36	T	1,2-Dichloroethane	0.480	0.496	-3.3	119	-0.02
37	TM	Trichloroethene	0.564	0.554	1.8	115	-0.02
38	TC	1,2-Dichloropropane	0.300	0.287	4.3	114	-0.02
39	T	Dibromomethane	0.177	0.177	0.0	114	0.00
40	T	Methylmethacrylate	0.080	0.088	-10.0	131	-0.02
41	T	Bromodichloromethane	0.576	0.588	-2.1	118	-0.02
42	T	2-Chloroethyl-vinyl ether	0.055	0.057	-3.6	129	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.539	-0.6	116	-0.02
44	T	4-Methyl-2-Pentanone	0.021	0.020	4.8	128	-0.01
45	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
46	S	Toluene-d8	1.464	1.479	-1.0	115	-0.02
47	TMC	Toluene	0.946	0.936	1.1	112	-0.02
48	T	trans-1,3-Dichloropropene	0.349	0.361	-3.4	115	-0.02
49	T	Ethylmethacrylate	0.164	0.172	-4.9	118	0.00
50	T	1,1,2-Trichloroethane	0.138	0.144	-4.3	119	0.00
51	T	Tetrachloroethene	0.411	0.412	-0.2	112	0.00
52	T	1,3-Dichloropropane	0.293	0.307	-4.8	121	0.00
53	T	2-Hexanone	0.052	0.054	-3.8	135	-0.02
54	T	Dibromochloromethane	0.284	0.304	-7.0	122	0.00
55	T	1,2-Dibromoethane	0.179	0.189	-5.6	119	0.00
56	TMP	Chlorobenzene	1.048	1.049	-0.1	115	-0.02
57	T	1,1,1,2-Tetrachloroethane	0.393	0.405	-3.1	114	0.00
58	TC	Ethylbenzene	2.037	2.049	-0.6	114	-0.02
59	TG	total-Xylene	0.708	0.702	0.8	110	0.00
60	T	Styrene	1.035	1.076	-4.0	114	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00
62	TP	Bromoform	0.289	0.285	1.4	117	0.00
63	T	Isopropylbenzene	4.269	4.178	2.1	112	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.124	-8.8	120	0.39
65	T	trans-1,4-dichloro-2-Butene	0.121	0.124	-2.5	118	0.00
66	S	Bromofluorobenzene	1.113	1.100	1.2	114	0.00
67	T	Bromobenzene	0.818	0.816	0.2	112	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.330	-4.8	119	0.00
69	T	1,2,3-Trichloropropane	0.397	0.405	-2.0	119	-0.02
70	T	n-Propylbenzene	5.106	4.939	3.3	110	0.00
71	T	2-Chlorotoluene	3.006	2.893	3.8	109	0.00
72	T	4-Chlorotoluene	3.492	3.444	1.4	112	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.677	4.1	109	0.00
74	T	Pentachloroethane	0.531	0.539	-1.5	112	0.00
75	T	tert-Butylbenzene	3.237	3.142	2.9	111	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.735	1.5	112	0.00
77	T	sec-Butylbenzene	4.798	4.669	2.7	111	0.00
78	T	1,3-Dichlorobenzene	1.679	1.672	0.4	112	0.00
79	T	Isopropyltoluene	3.921	3.834	2.2	112	-0.02
80	T	1,4-Dichlorobenzene	1.688	1.646	2.5	113	0.00
81	T	1,2-Dichlorobenzene	1.308	1.300	0.6	114	0.00
82	T	n-Butylbenzene	3.616	3.588	0.8	113	0.00

(# = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.059	6.3	113	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.823	10.2	101	0.00
85	T	Hexachlorobutadiene	0.823	0.719	12.6	97	0.00
86	T	Naphthalene	0.992	0.895	9.8	104	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.614	9.3	104	-0.02
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

Target Compounds Qvalue

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8.7.01

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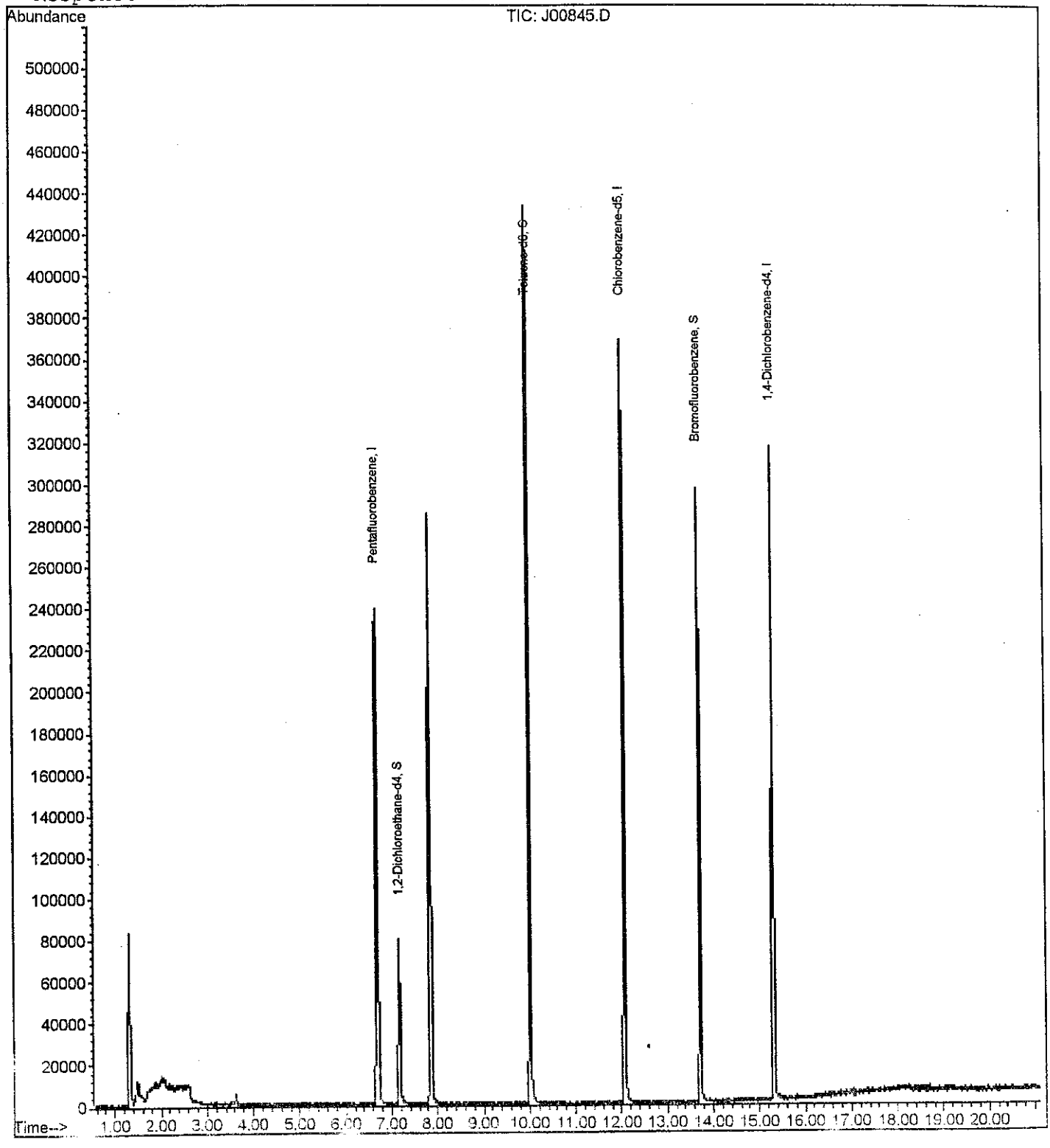
08060125.M Tue Aug 07 08:26:5 20

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	233724	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	266294	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	121257	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	113	10.00	ug\L	-0.22
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	91814	9.34	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.40%			
46) Toluene-d8	10.02	98	372739	9.56	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%			
66) Bromofluorobenzene	13.72	95	126712	9.39	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	188464	10.56	ug\L	99
3) Chloromethane	1.65	50	87742	9.91	ug\L	99
4) Vinyl Chloride	1.74	62	125026	10.25	ug\L	100
5) Bromomethane	2.03	94	28499	7.76	ug\L	98
6) Chloroethane	2.13	64	67434	10.31	ug\L	100
7) Trichlorofluoromethane	2.38	101	225117	10.03	ug\L #	100
8) Acrolein	2.91	56	4757	16.14	ug\L #	10
9) Acrylonitrile	4.03	53	14090	19.98	ug\L	91
10) 1,1-Dichloroethene	2.96	96	105707	9.92	ug\L	98
11) Acetone	3.11	58	1826	9.93	ug\L	80
12) Iodomethane	3.17	142	124388	8.72	ug\L	97
13) Allylchloride	3.43	39	120530	9.40	ug\L	98
14) Carbon Disulfide	3.22	76	283366	9.21	ug\L	100
15) Acetonitrile	3.43	41	130302	95.30	ug\L	99
16) Methylene Chloride	3.63	86	75684	12.00	ug\L	98
17) trans-1,2-Dichloroethene	3.99	96	111235	9.72	ug\L	98
18) MethylTertButylEther	3.97	73	134807	9.80	ug\L	100
19) 1,1-Dichloroethane	4.69	63	163981	9.55	ug\L	98
20) Isopropyl Ether	4.77	45	17504	9.77	ug\L #	25
21) Vinyl Acetate	4.81	43	75311	8.76	ug\L	100
22) 2,2-Dichloropropane	5.71	77	205722	10.16	ug\L	98
23) cis-1,2-Dichloroethene	5.77	96	103481	9.48	ug\L	99
24) 2-Butanone	5.86	72	2439	10.72	ug\L #	100
25) Propionitrile	6.03	54	22045	93.63	ug\L #	94
26) Methacrylonitrile	6.24	41	131276	95.39	ug\L	98
27) Bromochloromethane	6.20	128	35746	9.05	ug\L	98
28) Chloroform	6.37	83	201405	9.57	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	236941	9.77	ug\L	98

(#) = q[illegible] ge (m) = manual integration
[illegible] ue Aug 07 08:28:15 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	225318	9.91 ug\L	99
31) 1,4-Dioxane	8.83	88	4486	183.40 ug\L #	86
32) 1,1-Dichloropropene	6.84	77	46863	9.64 ug\L	88
34) Benzene	7.20	78	359692	9.59 ug\L	100
35) Isobutyl alcohol	7.32	43	11073	171.28 ug\L #	79
36) 1,2-Dichloroethane	7.30	62	105472	9.41 ug\L	99
37) Trichloroethene	8.23	95	125618	9.53 ug\L	99
38) 1,2-Dichloropropane	8.59	63	62462	8.92 ug\L	98
39) Dibromomethane	8.79	93	39746	9.62 ug\L	99
40) Methylmethacrylate	8.80	69	16703	8.95 ug\L	91
41) Bromodichloromethane	9.05	83	124715	9.27 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	10629	8.27 ug\L	94
43) cis-1,3-Dichloropropene	9.68	75	118981	9.50 ug\L	99
44) 4-Methyl-2-Pentanone	9.92	85	4319	8.61 ug\L #	1
47) Toluene	10.11	92	243381	9.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	91973	9.89 ug\L	99
49) Ethylmethacrylate	10.61	69	44341	10.14 ug\L	96
50) 1,1,2-Trichloroethane	10.77	83	34382	9.35 ug\L	95
51) Tetrachloroethene	10.87	164	107565	9.83 ug\L	98
52) 1,3-Dichloropropane	10.99	76	74731	9.58 ug\L	99
53) 2-Hexanone	11.12	43	12235	8.77 ug\L	93
54) Dibromochloromethane	11.32	129	74174	9.80 ug\L	100
55) 1,2-Dibromoethane	11.45	107	44624	9.37 ug\L	98
56) Chlorobenzene	12.12	112	258236	9.26 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.24	131	101990	9.75 ug\L	99
58) Ethylbenzene	12.26	91	525598	9.69 ug\L	99
59) total-Xylene	12.42	106	539877m	28.63 ug\L #	
60) Styrene	13.01	104	263629	9.56 ug\L	99
62) Bromoform	13.31	173	31938	9.12 ug\L	100
63) Isopropylbenzene	13.48	105	494223	9.55 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	13626	9.86 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	13626	9.26 ug\L #	56
67) Bromobenzene	13.92	156	93327	9.41 ug\L	94
68) 1,1,2,2-Tetrachloroethane	13.98	83	36078	9.45 ug\L	96
69) 1,2,3-Trichloropropane	14.03	75	45379	9.42 ug\L	97
70) n-Propylbenzene	14.04	91	598888	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	346083	9.49 ug\L	99
72) 4-Chlorotoluene	14.33	91	411375	9.72 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	445948	9.59 ug\L	100
74) Pentachloroethane	14.80	167	63083	9.80 ug\L	98
75) tert-Butylbenzene	14.73	119	371461	9.46 ug\L	100
76) 1,2,4-Trimethylbenzene	14.81	105	443984	9.66 ug\L	99

(# = qualifier out of range (m) = manual integration
J:\...\08060125.M Tue Aug 07 08:28:16 2001 Page

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	557935	9.59 ug\L	99
78) 1,3-Dichlorobenzene	15.21	146	196156	9.64 ug\L	97
79) Isopropyltoluene	15.23	119	459077	9.65 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	187744	9.17 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	147798	9.32 ug\L	97
82) n-Butylbenzene	15.80	91	435909	9.94 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	6442	8.40 ug\L #	84
84) 1,2,4-trichlorobenzene	18.23	180	102453	9.22 ug\L	100
85) Hexachlorobutadiene	18.48	225	97686	9.79 ug\L	100
86) Naphthalene	18.68	128	106590	8.86 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	74972	9.13 ug\L	99

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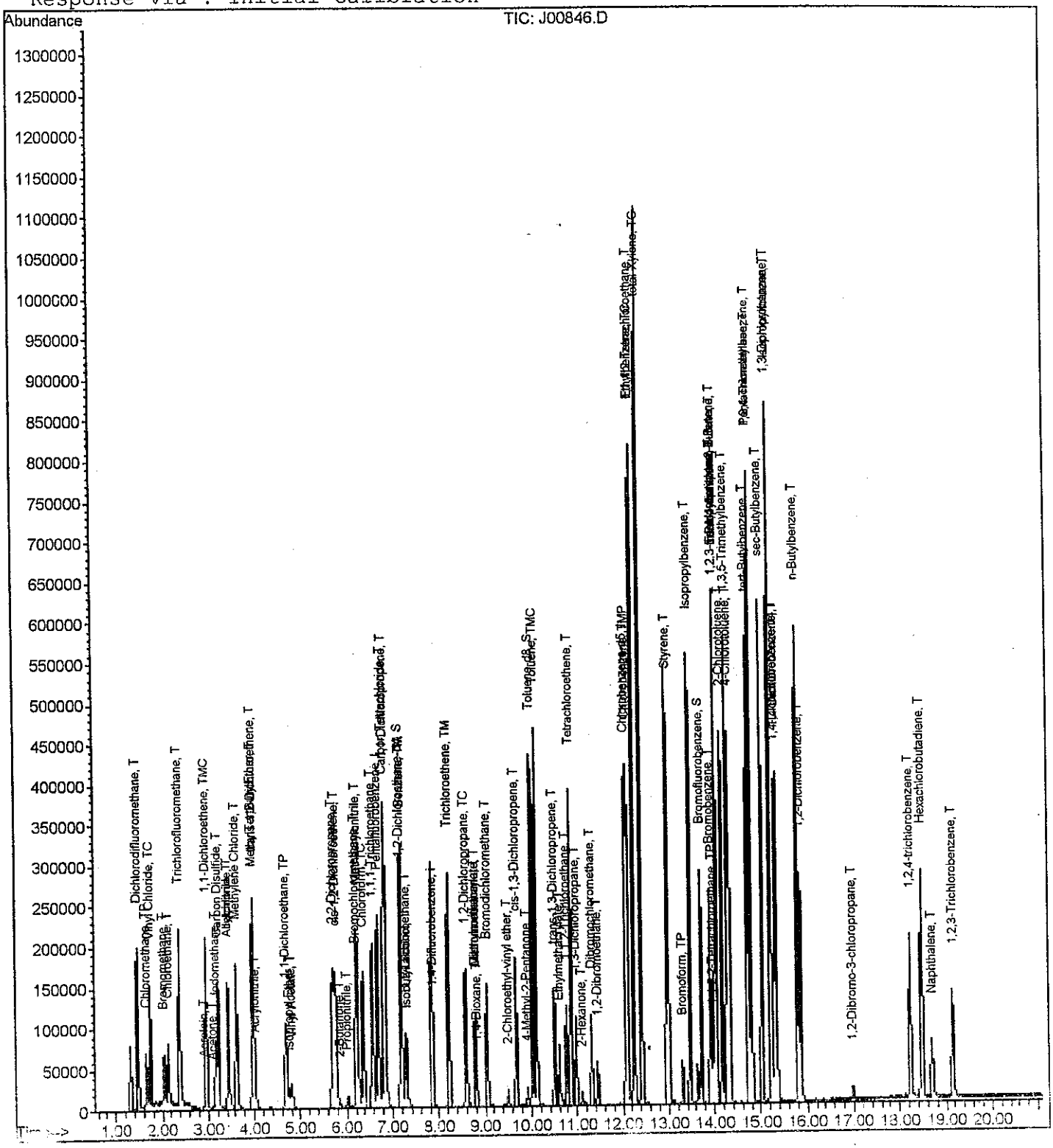
(#) = qualifier out of range (m) = manual integration
J00846.D 08060125.M Tue Aug [illegible] 15:29:16 2001 Page [illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

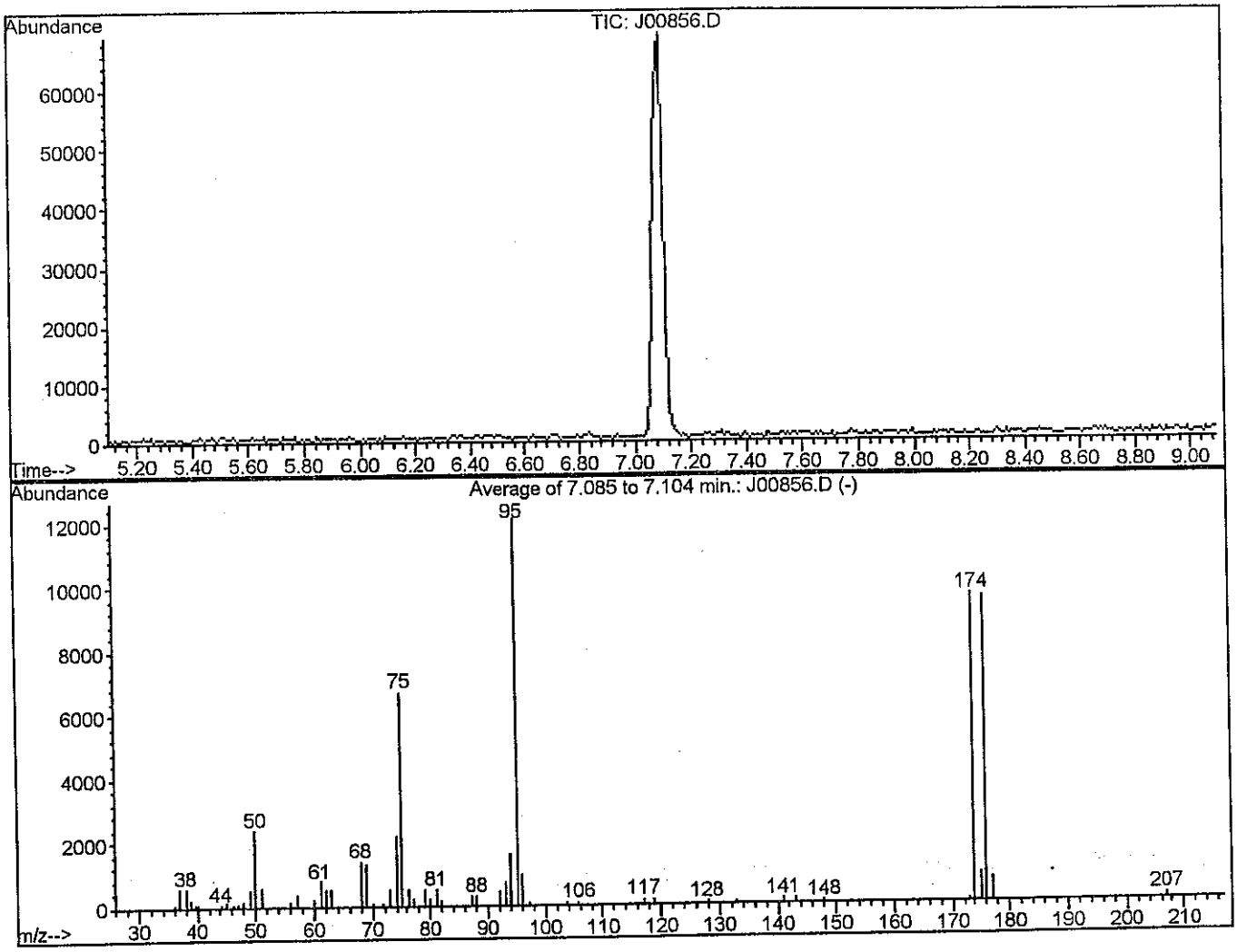
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\1J080701\J00856.D
Acq On : 08/07/01 10:13
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 587

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2364	PASS
75	95	30	60	55.4	6714	PASS
95	95	100	100	100.0	12123	PASS
96	95	5	9	7.7	934	PASS
173	174	0.00	2	0.6	61	PASS
174	95	50	100	79.7	9656	PASS
175	174	5	9	8.7	838	PASS
176	174	95	101	99.3	9587	PASS
177	176	5	9	7.2	693	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	219634	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	255172	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	126943	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	588	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	92347	9.99	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.02	98	388775	10.40	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	138775	9.82	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	175386	10.46	ug\L	100
3) Chloromethane	1.67	50	86062	10.34	ug\L	98
4) Vinyl Chloride	1.74	62	119953	10.47	ug\L	98
5) Bromomethane	2.04	94	28706	8.31	ug\L	100
6) Chloroethane	2.14	64	64895	10.56	ug\L	99
7) Trichlorofluoromethane	2.38	101	222834	10.57	ug\L #	100
8) Acrolein	2.91	56	5167	18.66	ug\L #	86
9) Acrylonitrile	4.05	53	14875	22.45	ug\L	90
10) 1,1-Dichloroethene	2.96	96	106094	10.59	ug\L	97
11) Acetone	3.12	58	1727	9.99	ug\L	98
12) Iodomethane	3.17	142	118706m	8.86	ug\L	
13) Allylchloride	3.43	39	127546	10.58	ug\L	95
14) Carbon Disulfide	3.23	76	270288	9.35	ug\L	99
15) Acetonitrile	3.44	41	128237	99.80	ug\L	94
16) Methylene Chloride	3.63	86	55710	8.97	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	111612	10.38	ug\L	99
18) MethylTertButylEther	3.97	73	132630	10.26	ug\L	100
19) 1,1-Dichloroethane	4.69	63	166500	10.32	ug\L	99
20) Isopropyl Ether	4.77	45	17628	10.47	ug\L #	93
21) Vinyl Acetate	4.82	43	72146	8.93	ug\L	99
22) 2,2-Dichloropropane	5.72	77	199606	10.49	ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	104605	10.20	ug\L	96
24) 2-Butanone	5.85	72	1966m	9.38	ug\L	
25) Propionitrile	6.02	54	21955	99.23	ug\L	98
26) Methacrylonitrile	6.24	41	131016	101.31	ug\L	98
27) Bromochloromethane	6.20	128	36255	9.77	ug\L	99
28) Chloroform	6.37	83	204983	10.37	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	234352	10.28	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	220780	10.34	ug\L		99
31) 1,4-Dioxane	8.84	88	4740	206.21	ug\L	#	89
32) 1,1-Dichloropropene	6.85	77	48571	10.64	ug\L		99
34) Benzene	7.20	78	355362	10.09	ug\L		100
35) Isobutyl alcohol	7.32	43	11065m	181.36	ug\L		
36) 1,2-Dichloroethane	7.30	62	105489	10.01	ug\L		100
37) Trichloroethene	8.22	95	124564	10.05	ug\L		98
38) 1,2-Dichloropropane	8.59	63	65410	9.94	ug\L		100
39) Dibromomethane	8.79	93	38221	9.84	ug\L		96
40) Methylmethacrylate	8.81	69	17553	10.01	ug\L		95
41) Bromodichloromethane	9.05	83	126490	10.00	ug\L		99
42) 2-Chloroethyl-vinyl ether	9.50	63	8646	7.16	ug\L		98
43) cis-1,3-Dichloropropene	9.69	75	115842	9.84	ug\L		96
44) 4-Methyl-2-Pentanone	9.92	85	4050	8.59	ug\L	#	1
47) Toluene	10.12	92	248251	10.28	ug\L		99
48) trans-1,3-Dichloropropene	10.51	75	88881	9.98	ug\L		95
49) Ethylmethacrylate	10.62	69	42447	10.13	ug\L		97
50) 1,1,2-Trichloroethane	10.77	83	36640	10.40	ug\L		99
51) Tetrachloroethene	10.87	164	111457	10.63	ug\L		98
52) 1,3-Dichloropropane	10.99	76	77373	10.35	ug\L		98
53) 2-Hexanone	11.12	43	11508	8.61	ug\L		100
54) Dibromochloromethane	11.32	129	75098	10.36	ug\L		96
55) 1,2-Dibromoethane	11.45	107	46761	10.25	ug\L		96
56) Chlorobenzene	12.11	112	266716	9.98	ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.25	131	104648	10.44	ug\L		98
58) Ethylbenzene	12.25	91	543669	10.46	ug\L		98
59) total-Xylene	12.42	106	571672m	31.63	ug\L	#	
60) Styrene	13.00	104	279291	10.57	ug\L		98
62) Bromoform	13.31	173	35042	9.56	ug\L		99
63) Isopropylbenzene	13.47	105	539808	9.96	ug\L		99
64) cis-1,4-dichloro-2-Butene	14.04	53	16330	11.29	ug\L		90
65) trans-1,4-dichloro-2-Buten	14.04	53	16330	10.60	ug\L	#	42
67) Bromobenzene	13.93	156	104972	10.11	ug\L	#	96
68) 1,1,2,2-Tetrachloroethane	13.97	83	41310	10.34	ug\L		99
69) 1,2,3-Trichloropropane	14.03	75	50023	9.92	ug\L		100
70) n-Propylbenzene	14.05	91	659930	10.18	ug\L		99
71) 2-Chlorotoluene	14.18	91	386840	10.14	ug\L		99
72) 4-Chlorotoluene	14.33	91	453510	10.23	ug\L		99
73) 1,3,5-Trimethylbenzene	14.29	105	496120	10.19	ug\L		99
74) Pentachloroethane	14.80	167	67695	10.05	ug\L		97
75) tert-Butylbenzene	14.73	119	412220	10.03	ug\L		98
76) 1,2,4-Trimethylbenzene	14.80	105	494364	10.28	ug		100

(#) = qualifier out of range (m) = manual integration
J00857.D 08070125.M Wed Aug 08 09:10:32 2001 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

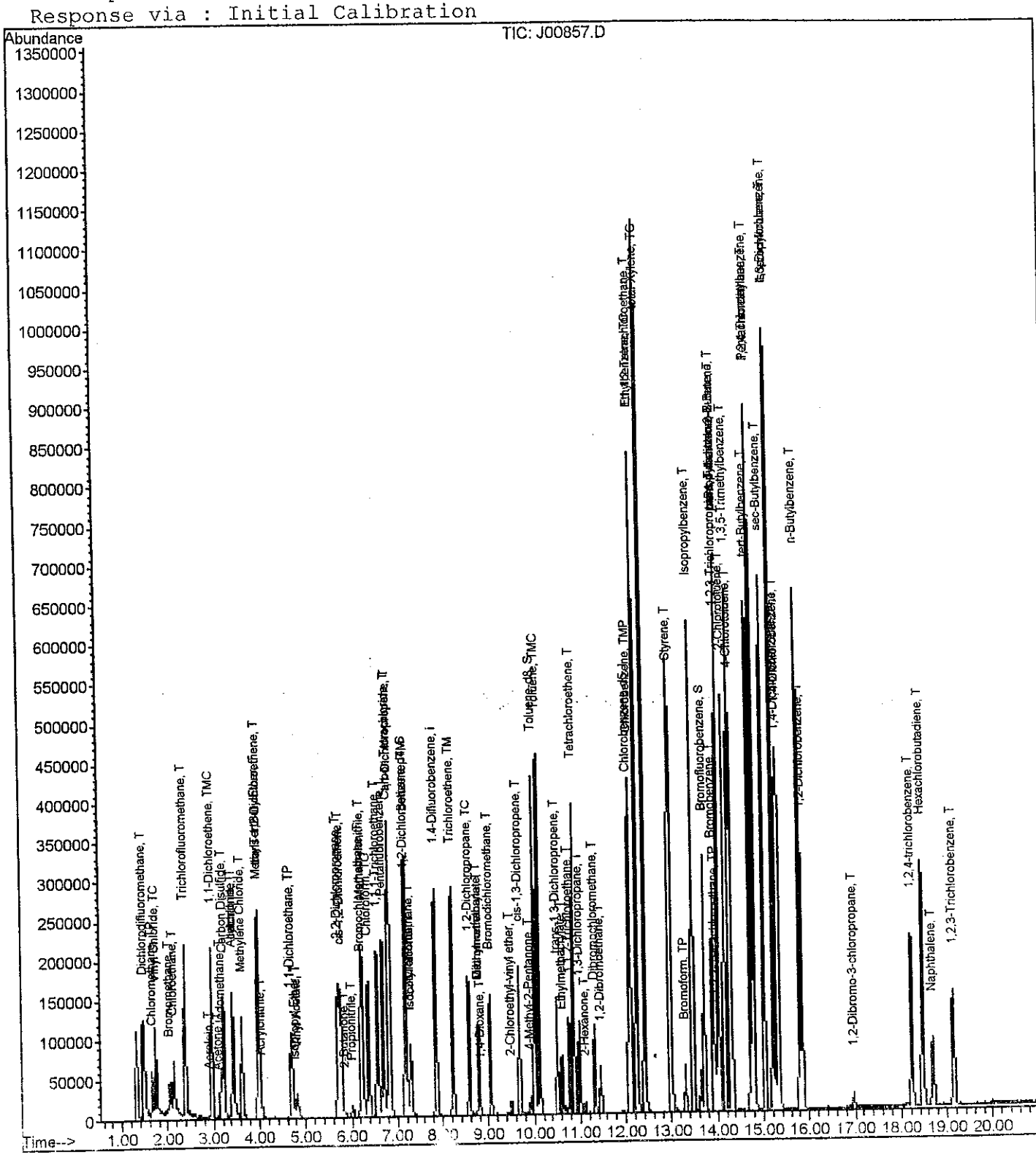
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	614818	10.09	ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	220497	10.35	ug\L	97
79) Isopropyltoluene	15.23	119	512085	10.29	ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	208898	9.75	ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	170639	10.28	ug\L	98
82) n-Butylbenzene	15.80	91	478982	10.43	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	7651	9.53	ug\L	96
84) 1,2,4-trichlorobenzene	18.23	180	116183	9.99	ug\L	100
85) Hexachlorobutadiene	18.48	225	113430	10.86	ug\L	100
86) Naphthalene	18.69	128	123765	9.83	ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	87823	10.22	ug\L	98

(#) = qualifier out of range (m) = manual integration
J00857.D 08070125.M Wed Aug 08 09:10:23 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	-0.01
2	T	Dichlorodifluoromethane	0.764	0.799	-4.6	117	0.00
3	TP	Chloromethane	0.379	0.392	-3.4	115	0.00
4	TC	Vinyl Chloride	0.522	0.546	-4.6	117	0.00
5	T	Bromomethane	0.157	0.131	16.6	92	0.00
6	T	Chloroethane	0.280	0.295	-5.4	113	-0.01
7	T	Trichlorofluoromethane	0.960	1.015	-5.7	112	-0.01
8	T	Acrolein	0.013	0.012	7.7	112	0.00
9	T	Acrylonitrile	0.030	0.034	-13.3	126	0.00
10	TMC	1,1-Dichloroethene	0.456	0.483	-5.9	117	-0.02
11	T	Acetone	0.008	0.008	0.0	112	0.02
12	T	Iodomethane	0.610	0.540	11.5	94	-0.01
13	T	Allylchloride	0.549	0.581	-5.8	113	-0.01
14	T	Carbon Disulfide	1.317	1.231	6.5	108	-0.01
15	T	Acetonitrile	0.059	0.058	1.7	106	-0.01
16	T	Methylene Chloride	0.304	0.254	16.4	97	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.508	-3.7	113	-0.01
18	T	MethylTertButylEther	0.589	0.604	-2.5	112	-0.03
19	TP	1,1-Dichloroethane	0.735	0.758	-3.1	113	-0.02
20	T	Isopropyl Ether	0.077	0.080	-3.9	116	-0.02
21	T	Vinyl Acetate	0.368	0.328	10.9	101	0.00
22	T	2,2-Dichloropropane	0.867	0.909	-4.8	113	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.476	-1.9	113	-0.02
24	T	2-Butanone	0.010	0.009	10.0	125	-0.02
25	T	Propionitrile	0.010	0.010	0.0	108	-0.02
26	T	Methacrylonitrile	0.059	0.060	-1.7	108	0.00
27	T	Bromochloromethane	0.169	0.165	2.4	107	-0.02
28	TC	Chloroform	0.900	0.933	-3.7	110	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.067	-2.8	110	-0.01
30	T	Carbon Tetrachloride	0.973	1.005	-3.3	111	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	122	-0.02
32	T	1,1-Dichloropropene	0.208	0.221	-6.3	112	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.420	0.2	109	-0.02
34	TM	Benzene	1.604	1.618	-0.9	110	-0.01
35	T	Isobutyl alcohol	0.003	0.003	0.0	86	-0.02
36	T	1,2-Dichloroethane	0.480	0.480	0.0	107	-0.01
37	TM	Trichloroethene	0.564	0.567	-0.5	109	-0.01
38	TC	1,2-Dichloropropane	0.300	0.298	0.7	109	-0.01
39	T	Dibromomethane	0.177	0.174	1.7	104	-0.01
40	T	Methylmethacrylate	0.080	0.080	0.0	110	-0.01
41	T	Bromodichloromethane	0.576	0.576	0.0	108	-0.01
42	T	2-Chloroethyl-vinyl ether	0.055	0.039	29.1#	82	0.00

#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.527	1.7	105	-0.01
44	T	4-Methyl-2-Pentanone	0.021	0.018	14.3	108	-0.01
45	I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
46	S	Toluene-d8	1.464	1.524	-4.1	112	-0.01
47	TMC	Toluene	0.946	0.973	-2.9	109	-0.01
48	T	trans-1,3-Dichloropropene	0.349	0.348	0.3	104	-0.01
49	T	Ethylmethacrylate	0.164	0.166	-1.2	107	0.00
50	T	1,1,2-Trichloroethane	0.138	0.144	-4.3	112	0.00
51	T	Tetrachloroethene	0.411	0.437	-6.3	112	-0.01
52	T	1,3-Dichloropropane	0.293	0.303	-3.4	112	-0.01
53	T	2-Hexanone	0.052	0.045	13.5	105	0.00
54	T	Dibromochloromethane	0.284	0.294	-3.5	111	0.00
55	T	1,2-Dibromoethane	0.179	0.183	-2.2	108	0.00
56	TMP	Chlorobenzene	1.048	1.045	0.3	107	-0.01
57	T	1,1,1,2-Tetrachloroethane	0.393	0.410	-4.3	108	0.00
58	TC	Ethylbenzene	2.037	2.131	-4.6	111	-0.01
59	TG	total-Xylene	0.708	0.747	-5.5	110	0.00
60	T	Styrene	1.035	1.095	-5.8	109	-0.01
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
62	TP	Bromoform	0.289	0.276	4.5	106	-0.01
63	T	Isopropylbenzene	4.269	4.252	0.4	107	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.129	-13.2	117	0.39
65	T	trans-1,4-dichloro-2-Butene	0.121	0.129	-6.6	115	-0.01
66	S	Bromofluorobenzene	1.113	1.093	1.8	106	0.00
67	T	Bromobenzene	0.818	0.827	-1.1	106	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.325	-3.2	109	-0.01
69	T	1,2,3-Trichloropropane	0.397	0.394	0.8	108	-0.01
70	T	n-Propylbenzene	5.106	5.199	-1.8	108	0.00
71	T	2-Chlorotoluene	3.006	3.047	-1.4	107	0.00
72	T	4-Chlorotoluene	3.492	3.573	-2.3	108	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.908	-1.9	108	0.00
74	T	Pentachloroethane	0.531	0.533	-0.4	103	0.00
75	T	tert-Butylbenzene	3.237	3.247	-0.3	107	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.894	-2.7	109	-0.01
77	T	sec-Butylbenzene	4.798	4.843	-0.9	108	0.00
78	T	1,3-Dichlorobenzene	1.679	1.737	-3.5	108	0.00
79	T	Isopropyltoluene	3.921	4.034	-2.9	110	-0.01
80	T	1,4-Dichlorobenzene	1.688	1.646	2.5	106	0.00
81	T	1,2-Dichlorobenzene	1.308	1.344	-2.8	110	0.00
82	T	n-Butylbenzene	3.616	3.773	-4.3	111	0.00

(#) = Out of Range
J00857.D 08070125.M Wed Aug 08 09:10:35 2001

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.060	4.8	108	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.915	0.1	105	-0.02
85	T	Hexachlorobutadiene	0.823	0.894	-8.6	112	0.00
86	T	Naphthalene	0.992	0.975	1.7	106	-0.01
87	T	1,2,3-Trichlorobenzene	0.677	0.692	-2.2	109	-0.01
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.26

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

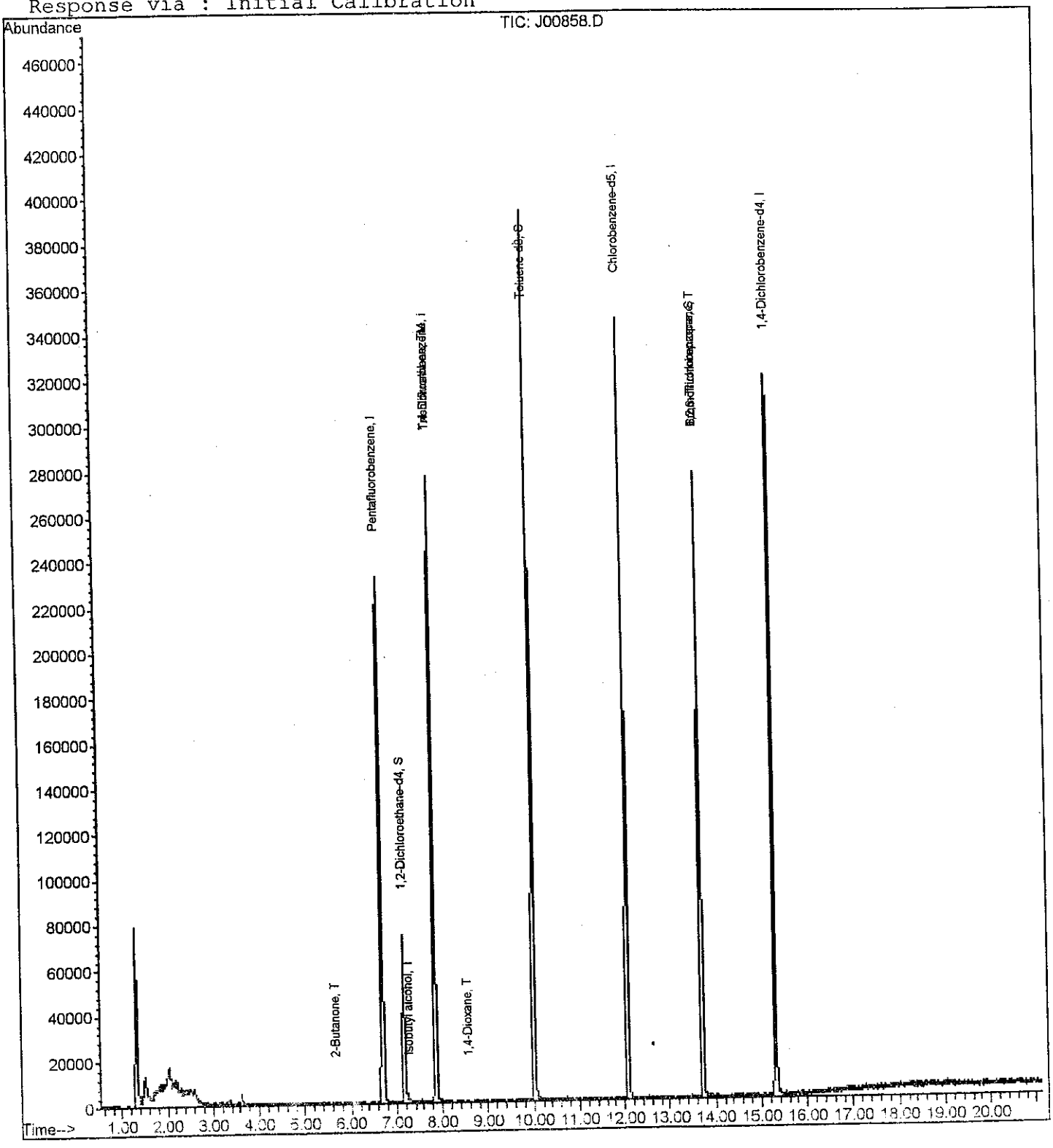
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	607	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			
Target Compounds						Qvalue
16) Methylene Chloride	3.62	86	1699	-1.65	ug\L	90
24) 2-Butanone	5.68	72	38	1.47	ug\L #	100
31) 1,4-Dioxane	8.57	88	39	1.65	ug\L #	53
35) Isobutyl alcohol	7.29	43	45	12.86	ug\L #	13
37) Trichloroethene	7.86	95	10670	0.84	ug\L #	6
69) 1,2,3-Trichloropropane	13.72	75	72268	16.50	ug\L #	4

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Wed Aug 08 [illegible] 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Acq On : 08/07/01 11:15
Sample : 1J080701MB
Misc : WATER 25ml
MS Integration Params: LSCINT.P

Vial: 2
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

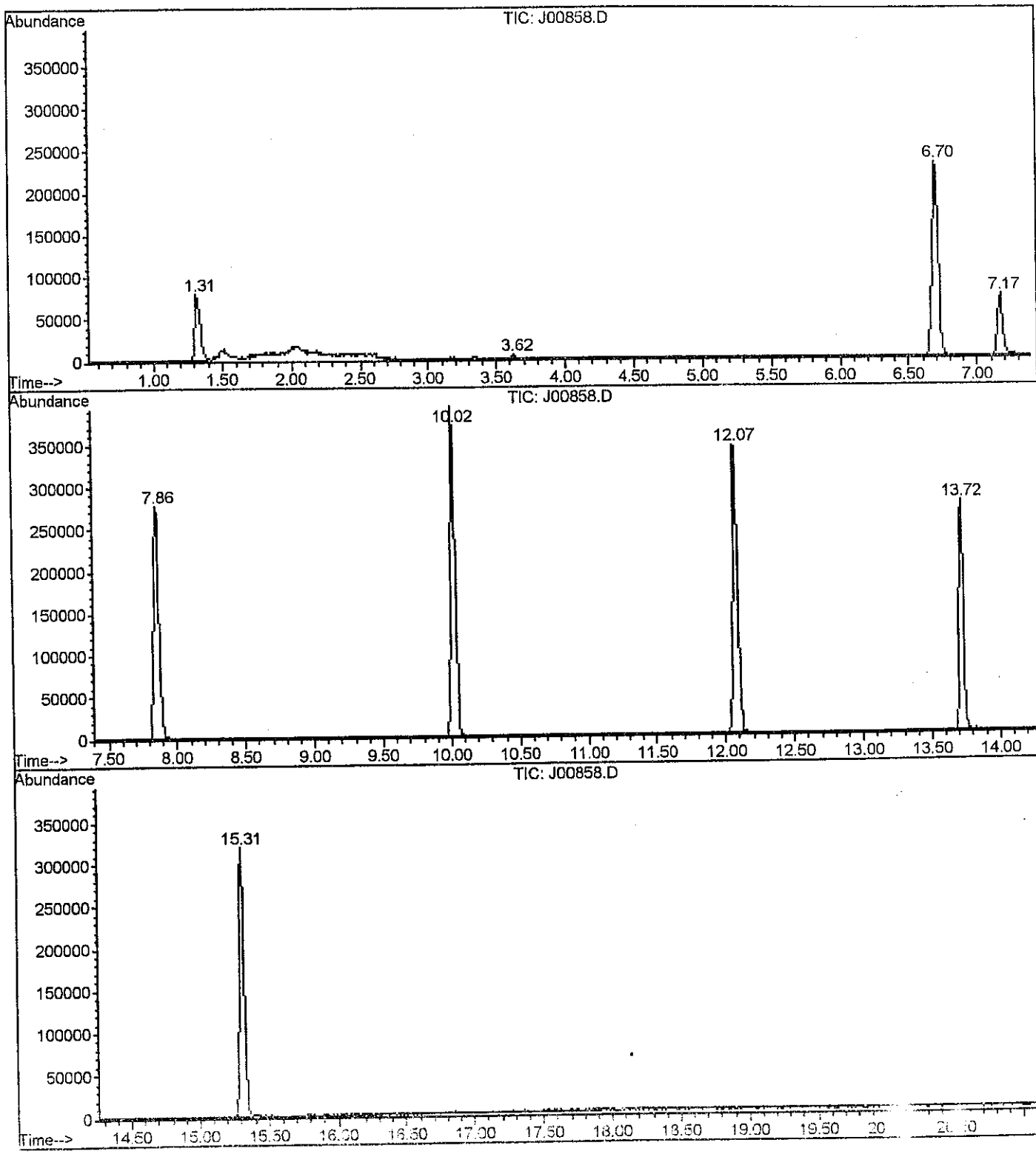
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 09:11:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 09:11:36 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

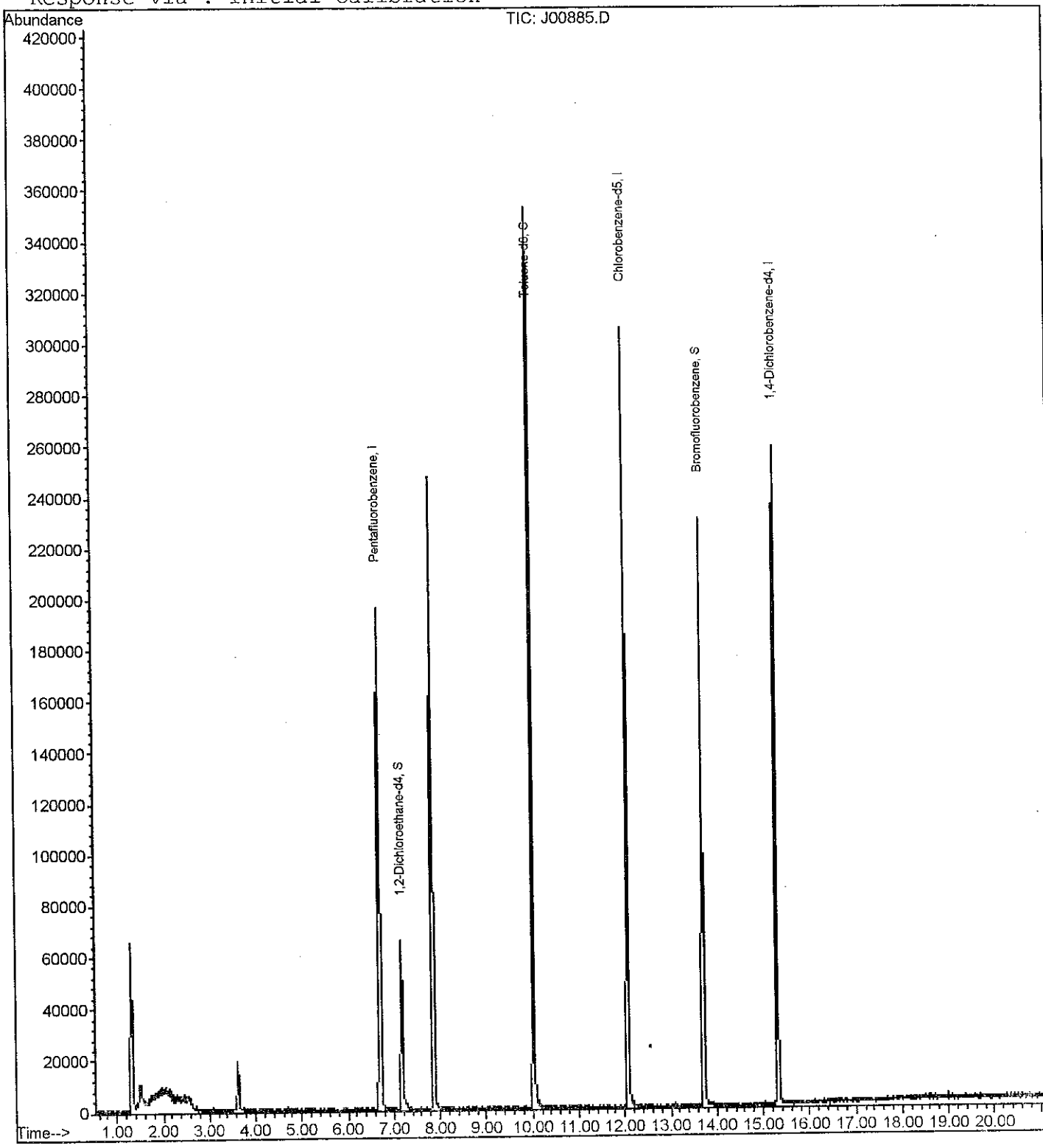
Target Compounds Qvalue

VKP
8-9-01

(#) = qualifier out of range (m) = manual integration
J00885.D 08080125.M Thu Aug 09 07:41:29 2001

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

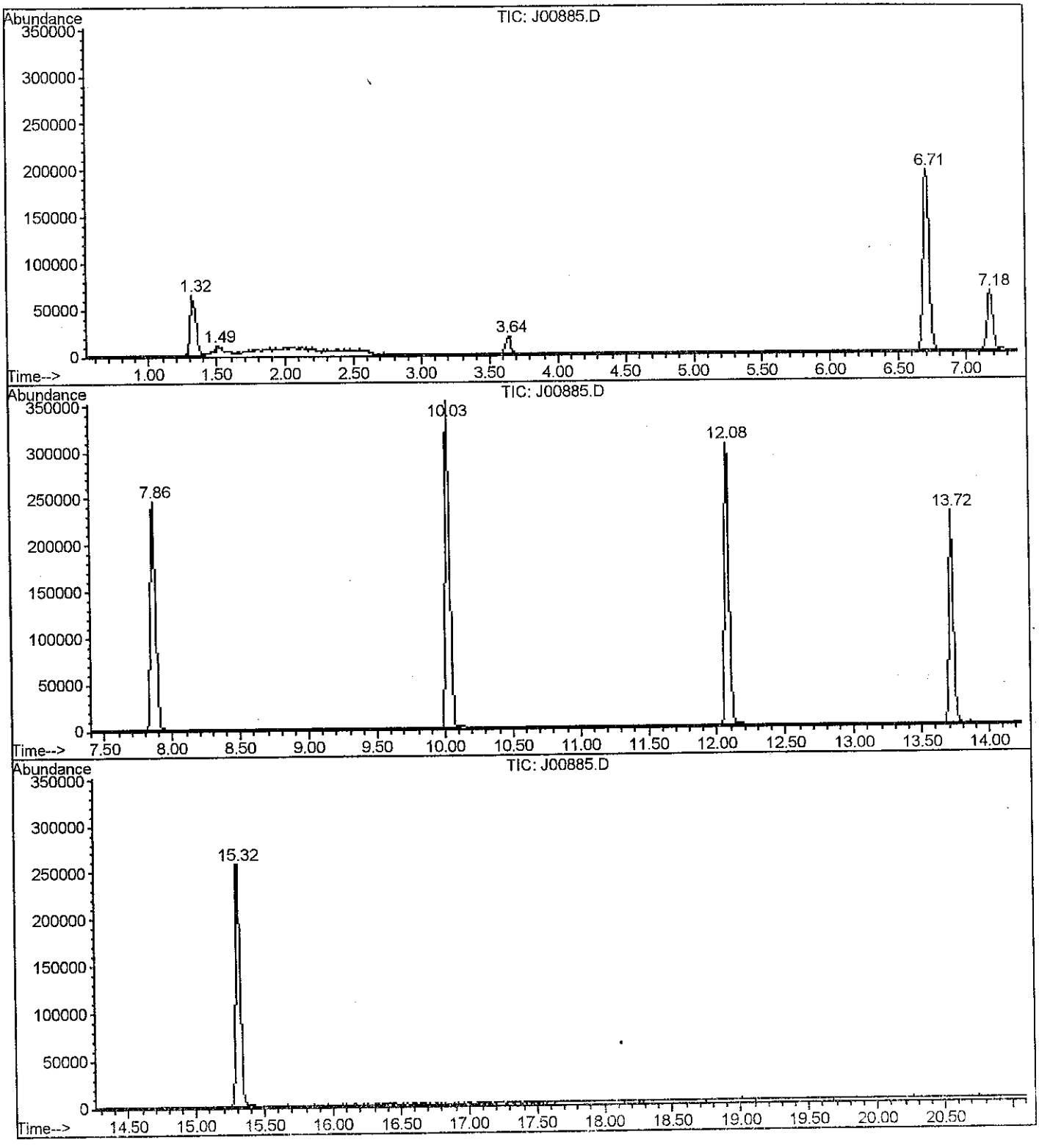
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.320	120	132	147	rBV	65651	207230	24.67%	4.755%
2	1.494	156	161	162	rBV	6999	8704	1.04%	0.200%
3	3.636	506	517	530	rVB4	18731	50613	6.03%	1.161%
4	6.709	1015	1028	1042	rBV2	196229	626496	74.58%	14.374%
5	7.184	1096	1107	1118	rBV2	65157	191906	22.84%	4.403%
6	7.864	1210	1220	1237	rBV	246881	651774	77.59%	14.954%
7	10.029	1570	1580	1593	rBV	352692	840039	100.00%	19.274%
8	12.079	1912	1921	1931	rBV	305069	676065	80.48%	15.512%
9	13.721	2185	2194	2205	rBV2	229631	512598	61.02%	11.761%
10	15.315	2450	2459	2469	rBV2	258140	592975	70.59%	13.605%

Sum of corrected areas: 4358400

J00885.D 08080125.M Thu Aug 09 07:41:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00885.D
Operator :
Acquired : 8 Aug 2001 10:47 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: 1J080801MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08080125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 10:47
Data File: C:\HPCHEM\1\DATA\1J080801\J00885.D
Name: 1J080801MB
Misc: WATER 25ml
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00885.D 08080125.M Thu Aug 09 07:41:36 2001

PROJECT QUALITY CONTROL RESULTS

Method No[1]	Analyte / Component	Project Control Rec. MS Water	Project Control Rec. MSD Water	Project Control Rec. MS Soil[2]	Project Control Rec. MSD Soil[2]	Accuracy Limits MS/MSD Recoveries Water	Accuracy Limits MS/MSD Recoveries Soil[2]	Project Control MS/MSD % Deviation Water	Project Control MS/MSD % Deviation Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Project Control Recoveries LCS Water	Project Control Recoveries LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Accuracy Limits LCS Recoveries Soil[2]	Project Control Field Dup % Deviation Water	Project Control Field Dup % Deviation Soil[2]	Precision Limit Field Dup Deviati Water	Precision Limit Field Dup Deviati Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75

Notes:
1 SW-846 Methods unless otherwise noted
2 Includes sediments, waste, solids

PROJECT QUALITY CONTROL RESULTS

8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA			NA	NA
PETROLEUM HYDROCARBONS						%	%			%	%			%	%			%	%
FL-PRO	TPH					50-150	30-170	#DIV/0!	#DIV/0!	<30	<50			75-125	70-130			<50	<75

Notes:
1.) SW-846 Methods unless otherwise noted
2.) Includes Sediments, Waste, Solids

NA = Not Specified

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.02	98	326206	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.71	95	120738	9.39	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06	ug\L		100
3) Chloromethane	1.66	50	70978	9.43	ug\L		96
4) Vinyl Chloride	1.74	62	103810	10.02	ug\L		99
5) Bromomethane	2.03	94	23858	7.64	ug\L		95
6) Chloroethane	2.14	64	59738	10.75	ug\L		99
7) Trichlorofluoromethane	2.38	101	205122	10.76	ug\L	#	100
8) Acrolein	2.90	56	4262	17.02	ug\L	#	98
9) Acrylonitrile	4.05	53	12105	20.21	ug\L		96
10) 1,1-Dichloroethene	2.96	96	94103	10.39	ug\L		96
11) Acetone	3.09	58	1463	9.36	ug\L		96
12) Iodomethane	3.17	142	108723	8.97	ug\L		99
13) Allylchloride	3.43	39	111544	10.24	ug\L		98
14) Carbon Disulfide	3.23	76	260882	9.98	ug\L		99
15) Acetonitrile	3.43	41	117249	100.94	ug\L		98
16) Methylene Chloride	3.62	86	50301	8.96	ug\L		97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26	ug\L		100
18) MethylTertButylEther	3.98	73	121538	10.40	ug\L	#	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09	ug\L		99
20) Isopropyl Ether	4.78	45	14585	9.58	ug\L	#	98
21) Vinyl Acetate	4.81	43	73102	10.01	ug\L		98
22) 2,2-Dichloropropane	5.72	77	182353	10.60	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27	ug\L		95
24) 2-Butanone	5.87	72	989	5.81	ug\L	#	100
25) Propionitrile	6.01	54	20647	103.23	ug\L	#	93
26) Methacrylonitrile	6.23	41	119238	102.00	ug\L		98
27) Bromochloromethane	6.21	128	34868	10.39	ug\L		97
28) Chloroform	6.37	83	186427	10.43	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L	97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L #	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L	100
34) Benzene	7.19	78	320799	10.07 ug\L	100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L #	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L	100
37) Trichloroethene	8.22	95	110904	9.90 ug\L	99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L	97
39) Dibromomethane	8.79	93	36266	10.33 ug\L	97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L	96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L #	1
47) Toluene	10.11	92	221665	10.06 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L	96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L	98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L	98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L	99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L	94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L	100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L #	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L	100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L	99
59) total-Xylene	12.42	106	505157m	30.63 ug\L #	
60) Styrene	13.00	104	245510	10.18 ug\L	97
62) Bromoform	13.31	173	34658	10.39 ug\L	95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L #	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L	95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L	95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L	99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L	99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L	99
74) Pentachloroethane	14.80	167	62015	10.11 ug\L	98
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

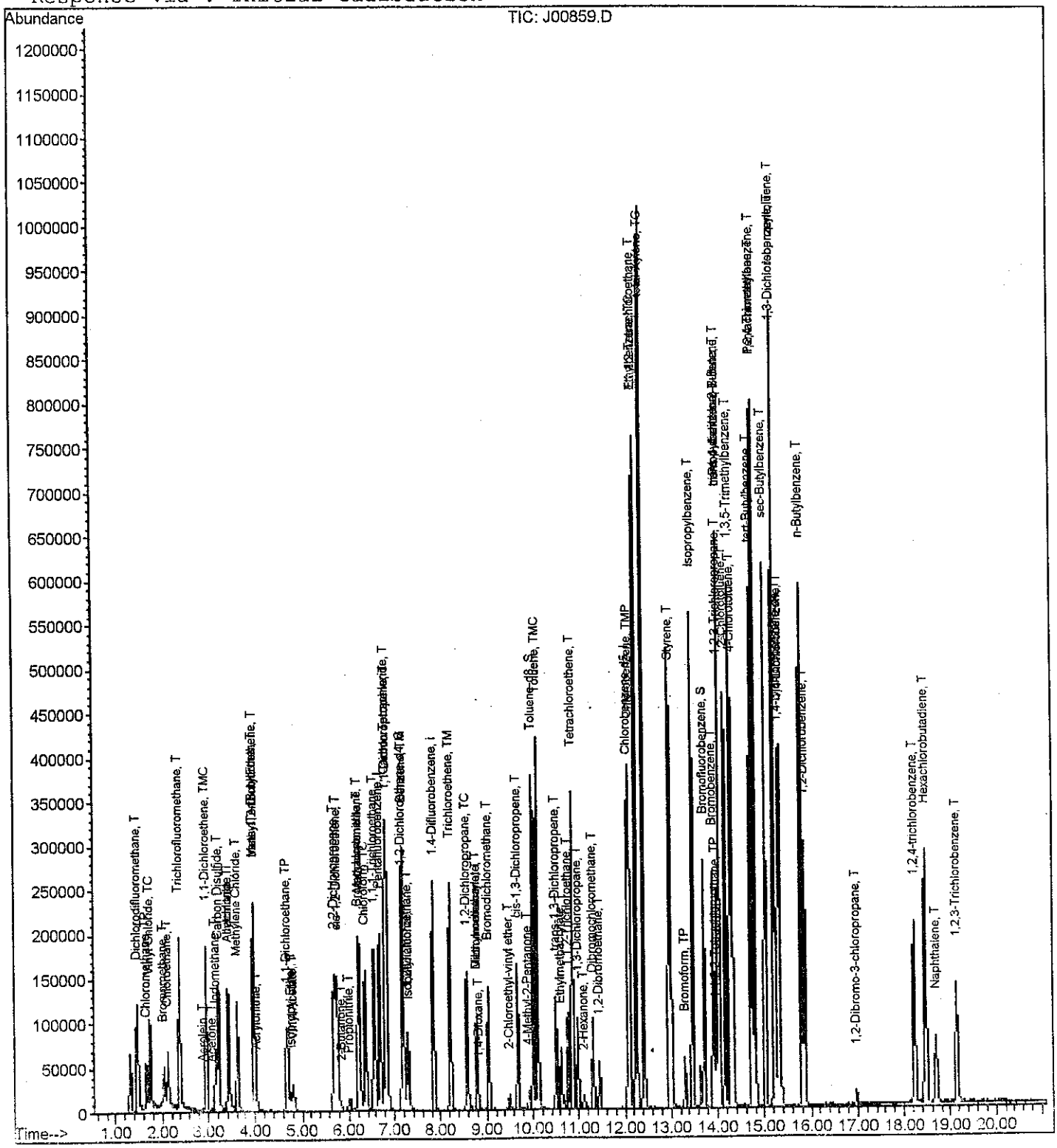
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03	ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22	ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03	ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91	ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22	ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68	ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96	ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71	ug\L	100
86) Naphthalene	18.69	128	109386	9.55	ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77	ug\L	96

(#) = qualifier out of range (m) = manual integration
J00859.D 08070125.M Wed Aug 08 09:11:48 2001 Page: 3

Quantitation Report

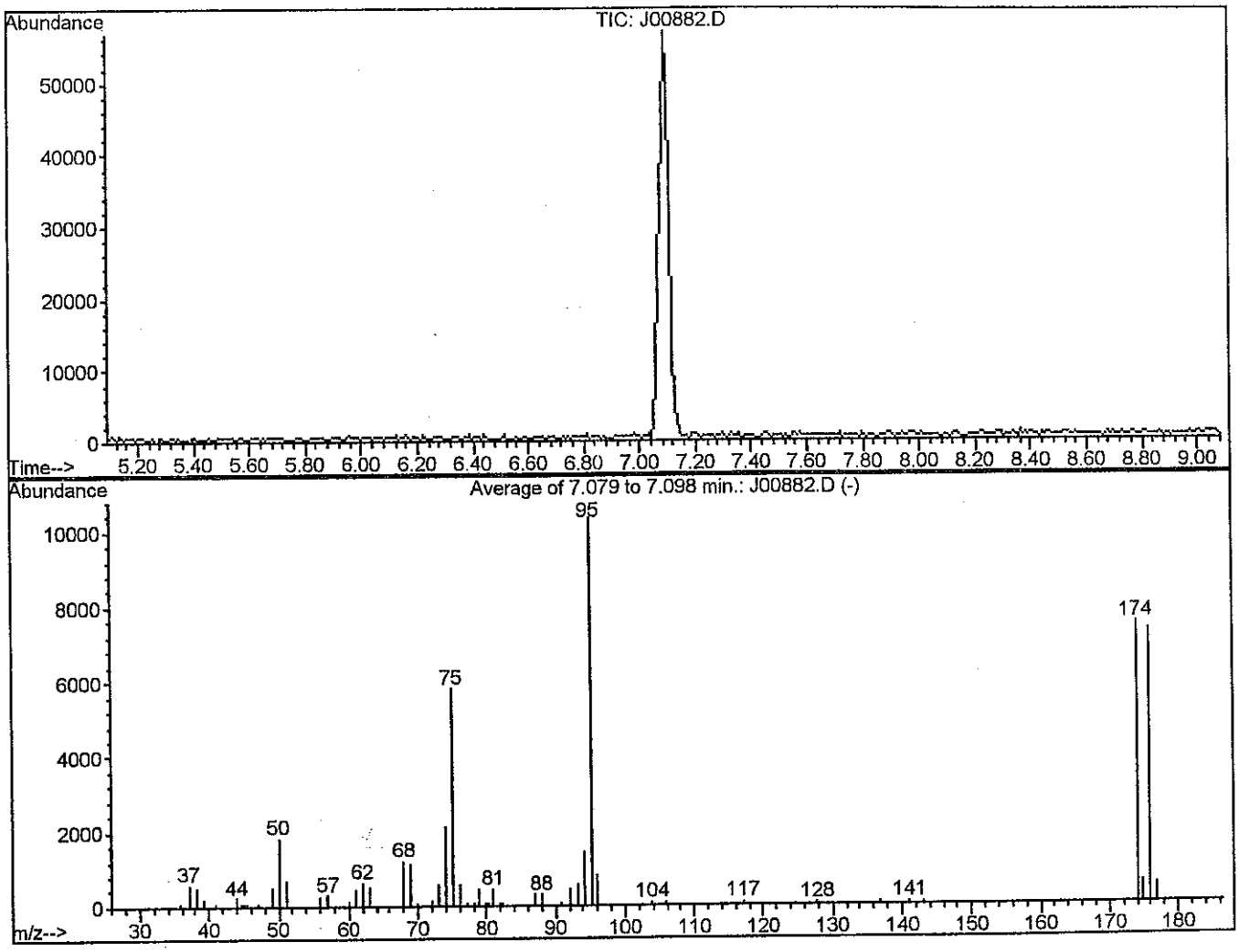
Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\1J080801\J00882.D Vial: 1
Acq On : 08/08/01 09:17 Operator:
Sample : BFB 50ng Inst : HP-MSJ
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER



AutoFind: Scans 594, 595, 596; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	1823	PASS
75	95	30	60	56.1	5800	PASS
95	95	100	100	100.0	10336	PASS
96	95	5	9	7.7	800	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.5	7494	PASS
175	174	5	9	7.5	565	PASS
176	174	95	101	97.9	7336	PASS
177	176	5	9	7.0	512	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	200339	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.08	117	224653	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	113619	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.86	116	358	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.18	65	83004	9.85	ug\L		-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%				
46) Toluene-d8	10.02	98	334344	10.16	ug\L		-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.60%				
66) Bromofluorobenzene	13.72	95	123547	9.77	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	142707	9.33	ug\L		99
3) Chloromethane	1.66	50	66652	8.78	ug\L		99
4) Vinyl Chloride	1.74	62	100904	9.65	ug\L		98
5) Bromomethane	2.04	94	19980m	6.34	ug\L		
6) Chloroethane	2.14	64	58555	10.45	ug\L		99
7) Trichlorofluoromethane	2.38	101	206052	10.71	ug\L	#	100
8) Acrolein	2.89	56	4051	16.03	ug\L	#	86
9) Acrylonitrile	4.04	53	10698	17.70	ug\L		95
10) 1,1-Dichloroethene	2.97	96	88424	9.68	ug\L		97
11) Acetone	3.10	58	1691	10.72	ug\L		70
12) Iodomethane	3.18	142	101162	8.27	ug\L		99
13) Allylchloride	3.44	39	106304	9.67	ug\L		97
14) Carbon Disulfide	3.23	76	261033	9.90	ug\L		100
15) Acetonitrile	3.43	41	108396	92.49	ug\L		96
16) Methylene Chloride	3.63	86	47078	8.16	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	94798	9.66	ug\L		97
18) MethylTertButylEther	3.98	73	104047	8.82	ug\L		98
19) 1,1-Dichloroethane	4.70	63	141802	9.63	ug\L		98
20) Isopropyl Ether	4.79	45	12379	8.06	ug\L	#	24
21) Vinyl Acetate	4.81	43	61643	8.37	ug\L		100
22) 2,2-Dichloropropane	5.72	77	164987	9.50	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	86121	9.21	ug\L		99
24) 2-Butanone	5.87	72	1457m	7.87	ug\L		
25) Propionitrile	6.02	54	17526	86.84	ug\L	#	90
26) Methacrylonitrile	6.24	41	106597	90.37	ug\L		97
27) Bromochloromethane	6.21	128	32491	9.60	ug\L		97
28) Chloroform	6.37	83	177754	9.86	ug\L	#	1
29) 1,1,1-Trichloroethane	6.58	97	202759	9.75	ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	193833	9.95 ug\L	98
31) 1,4-Dioxane	8.82	88	3877	184.91 ug\L #	91
32) 1,1-Dichloropropene	6.85	77	40995	9.84 ug\L	96
34) Benzene	7.20	78	304120	9.46 ug\L	100
35) Isobutyl alcohol	7.32	43	8105	148.04 ug\L #	82
36) 1,2-Dichloroethane	7.30	62	92546	9.63 ug\L	100
37) Trichloroethene	8.22	95	107272	9.49 ug\L	98
38) 1,2-Dichloropropane	8.60	63	53476	8.91 ug\L	100
39) Dibromomethane	8.80	93	33687	9.51 ug\L	99
40) Methylmethacrylate	8.81	69	13058	8.16 ug\L	89
41) Bromodichloromethane	9.05	83	107847	9.35 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	7476m	6.79 ug\L	
43) cis-1,3-Dichloropropene	9.68	75	96130	8.95 ug\L	94
44) 4-Methyl-2-Pentanone	9.93	85	3628	8.44 ug\L #	1
47) Toluene	10.12	92	208951	9.83 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	73935	9.43 ug\L	95
49) Ethylmethacrylate	10.62	69	33315	9.03 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	29798	9.60 ug\L	97
51) Tetrachloroethene	10.88	164	94228	10.21 ug\L	99
52) 1,3-Dichloropropane	10.99	76	62807	9.54 ug\L	99
53) 2-Hexanone	11.12	43	10389m	8.83 ug\L	
54) Dibromochloromethane	11.32	129	63167	9.90 ug\L	99
55) 1,2-Dibromoethane	11.45	107	38914	9.69 ug\L	98
56) Chlorobenzene	12.12	112	227259	9.66 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.25	131	87480	9.92 ug\L	97
58) Ethylbenzene	12.26	91	453331	9.91 ug\L	98
59) total-Xylene	12.42	106	468877m	29.47 ug\L #	
60) Styrene	13.01	104	235237	10.12 ug\L	100
62) Bromoform	13.32	173	29520	9.00 ug\L	100
63) Isopropylbenzene	13.48	105	473249	9.76 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	11931	9.22 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.05	53	13414	9.73 ug\L #	49
67) Bromobenzene	13.93	156	90492	9.74 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.98	83	34165	9.55 ug\L #	98
69) 1,2,3-Trichloropropane	14.03	75	43010	9.53 ug\L	99
70) n-Propylbenzene	14.05	91	566528	9.77 ug\L	98
71) 2-Chlorotoluene	14.18	91	339230	9.93 ug\L	99
72) 4-Chlorotoluene	14.33	91	403465	10.17 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	434619	9.97 ug\L	97
74) Pentachloroethane	14.81	167	86207	9.32 ug\L	94
75) ert-Butylbenzene	14.74	119	360123	9.79 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	419170	9.73 ug\L	100

(#) = qualifier out of range (m) = manual integrati

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

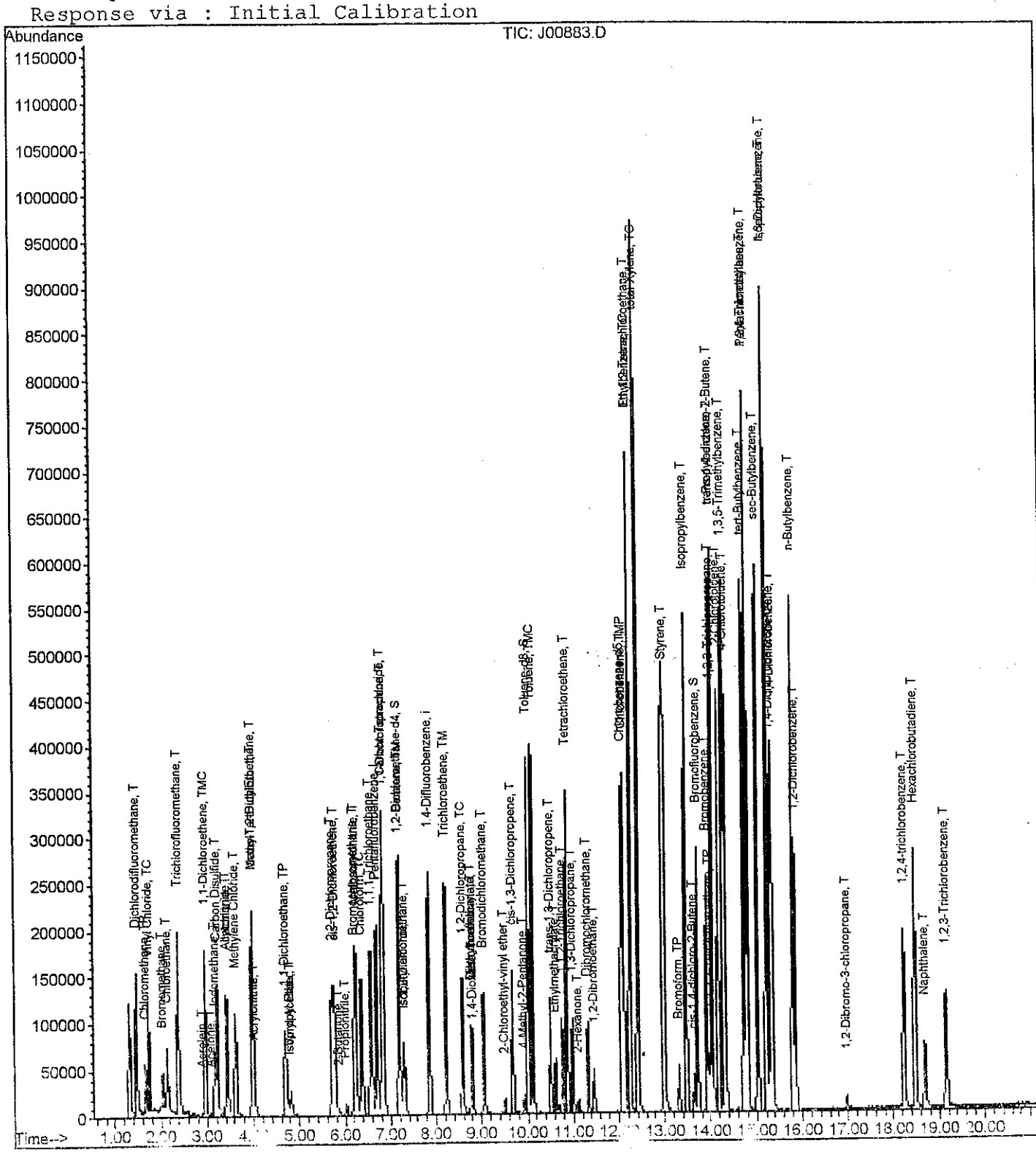
Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	536826	9.85 ug\L	99
78) 1,3-Dichlorobenzene	15.22	146	189842	9.95 ug\L	94
79) Isopropyltoluene	15.23	119	442621	9.93 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	182592	9.52 ug\L	98
81) 1,2-Dichlorobenzene	15.87	146	142719	9.60 ug\L	98
82) n-Butylbenzene	15.80	91	416863	10.15 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	5974	8.32 ug\L	94
84) 1,2,4-trichlorobenzene	18.24	180	98239	9.44 ug\L	100
85) Hexachlorobutadiene	18.48	225	94657	10.13 ug\L	100
86) Naphthalene	18.69	128	102140	9.06 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	71648	9.31 ug\L	97

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	-0.01
2	T	Dichlorodifluoromethane	0.764	0.712	6.8	95	0.00
3	TP	Chloromethane	0.379	0.333	12.1	89	0.00
4	TC	Vinyl Chloride	0.522	0.504	3.4	98	0.00
5	T	Bromomethane	0.157	0.100	36.3#	64	0.00
6	T	Chloroethane	0.280	0.292	-4.3	102	-0.01
7	T	Trichlorofluoromethane	0.960	1.029	-7.2	104	-0.01
8	T	Acrolein	0.013	0.010	23.1	88	-0.02
9	T	Acrylonitrile	0.030	0.027	10.0	91	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.441	3.3	98	-0.01
11	T	Acetone	0.008	0.008	0.0	110	0.00
12	T	Iodomethane	0.610	0.505	17.2	80	0.00
13	T	Allylchloride	0.549	0.531	3.3	94	0.00
14	T	Carbon Disulfide	1.317	1.303	1.1	104	-0.01
15	T	Acetonitrile	0.059	0.054	8.5	90	-0.02
16	T	Methylene Chloride	0.304	0.235	22.7	82	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.473	3.5	96	0.00
18	T	MethylTertButylEther	0.589	0.519	11.9	88	-0.02
19	TP	1,1-Dichloroethane	0.735	0.708	3.7	96	-0.01
20	T	Isopropyl Ether	0.077	0.062	19.5	81	0.00
21	T	Vinyl Acetate	0.368	0.308	16.3	87	-0.01
22	T	2,2-Dichloropropane	0.867	0.824	5.0	93	-0.01
23	T	cis-1,2-Dichloroethene	0.467	0.430	7.9	93	-0.02
24	T	2-Butanone	0.010	0.007	30.0#	92	0.00
25	T	Propionitrile	0.010	0.009	10.0	86	-0.02
26	T	Methacrylonitrile	0.059	0.053	10.2	88	0.00
27	T	Bromochloromethane	0.169	0.162	4.1	96	-0.01
28	TC	Chloroform	0.900	0.887	1.4	96	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.012	2.5	95	-0.01
30	T	Carbon Tetrachloride	0.973	0.968	0.5	98	-0.01
31	T	1,4-Dioxane	0.001	0.001	0.0	100	-0.04
32	T	1,1-Dichloropropene	0.208	0.205	1.4	94	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.414	1.7	98	-0.01
34	TM	Benzene	1.604	1.518	5.4	94	0.00
35	T	Isobutyl alcohol	0.003	0.002	33.3#	63	-0.02
36	T	1,2-Dichloroethane	0.480	0.462	3.7	94	-0.01
37	TM	Trichloroethene	0.564	0.535	5.1	94	-0.01
38	TC	1,2-Dichloropropane	0.300	0.267	11.0	89	0.00
39	T	Dibromomethane	0.177	0.168	5.1	92	0.00
40	T	Methylmethacrylate	0.080	0.065	18.8	82	-0.01
41	T	Bromodichloromethane	0.576	0.538	6.6	92	0.00
42	T	2-Chloroethyl-vinyl ether	0.055	0.037	32.7#	71	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.480	10.4	87	-0.01
44	T	4-Methyl-2-Pentanone	0.021	0.018	14.3	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
46	S	Toluene-d8	1.464	1.488	-1.6	96	-0.01
47	TMC	Toluene	0.946	0.930	1.7	92	-0.01
48	T	trans-1,3-Dichloropropene	0.349	0.329	5.7	87	-0.01
49	T	Ethylmethacrylate	0.164	0.148	9.8	84	0.00
50	T	1,1,2-Trichloroethane	0.138	0.133	3.6	91	0.00
51	T	Tetrachloroethene	0.411	0.419	-1.9	94	0.00
52	T	1,3-Dichloropropane	0.293	0.280	4.4	91	-0.01
53	T	2-Hexanone	0.052	0.046	11.5	95	-0.01
54	T	Dibromochloromethane	0.284	0.281	1.1	93	0.00
55	T	1,2-Dibromoethane	0.179	0.173	3.4	90	0.00
56	TMP	Chlorobenzene	1.048	1.012	3.4	91	0.00
57	T	1,1,1,2-Tetrachloroethane	0.393	0.389	1.0	91	0.00
58	TC	Ethylbenzene	2.037	2.018	0.9	92	0.00
59	TG	total-Xylene	0.708	0.696	1.7	90	0.00
60	T	Styrene	1.035	1.047	-1.2	92	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
62	TP	Bromoform	0.289	0.260	10.0	89	0.00
63	T	Isopropylbenzene	4.269	4.165	2.4	94	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.105	7.9	85	0.00
65	T	trans-1,4-dichloro-2-Butene	0.121	0.118	2.5	94	0.00
66	S	Bromofluorobenzene	1.113	1.087	2.3	94	0.00
67	T	Bromobenzene	0.818	0.796	2.7	91	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.301	4.4	90	0.00
69	T	1,2,3-Trichloropropane	0.397	0.379	4.5	93	-0.01
70	T	n-Propylbenzene	5.106	4.986	2.4	93	0.00
71	T	2-Chlorotoluene	3.006	2.986	0.7	94	0.00
72	T	4-Chlorotoluene	3.492	3.551	-1.7	96	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.825	0.3	94	0.00
74	T	Pentachloroethane	0.531	0.495	6.8	85	0.00
75	T	tert-Butylbenzene	3.237	3.170	2.1	93	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.689	2.7	92	0.00
77	T	sec-Butylbenzene	4.798	4.725	1.5	94	0.00
78	T	1,3-Dichlorobenzene	1.679	1.671	0.5	93	0.00
79	T	Isopropyltoluene	3.921	3.896	0.6	95	-0.01
80	T	1,4-Dichlorobenzene	1.688	1.607	4.8	92	0.00
81	T	1,2-Dichlorobenzene	1.308	1.256	4.0	92	0.00
82	T	n-Butylbenzene	3.616	3.669	-1.5	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.053	15.9	84	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.865	5.6	89	0.00
85	T	Hexachlorobutadiene	0.823	0.833	-1.2	94	0.00
86	T	Naphthalene	0.992	0.899	9.4	87	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.631	6.8	89	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

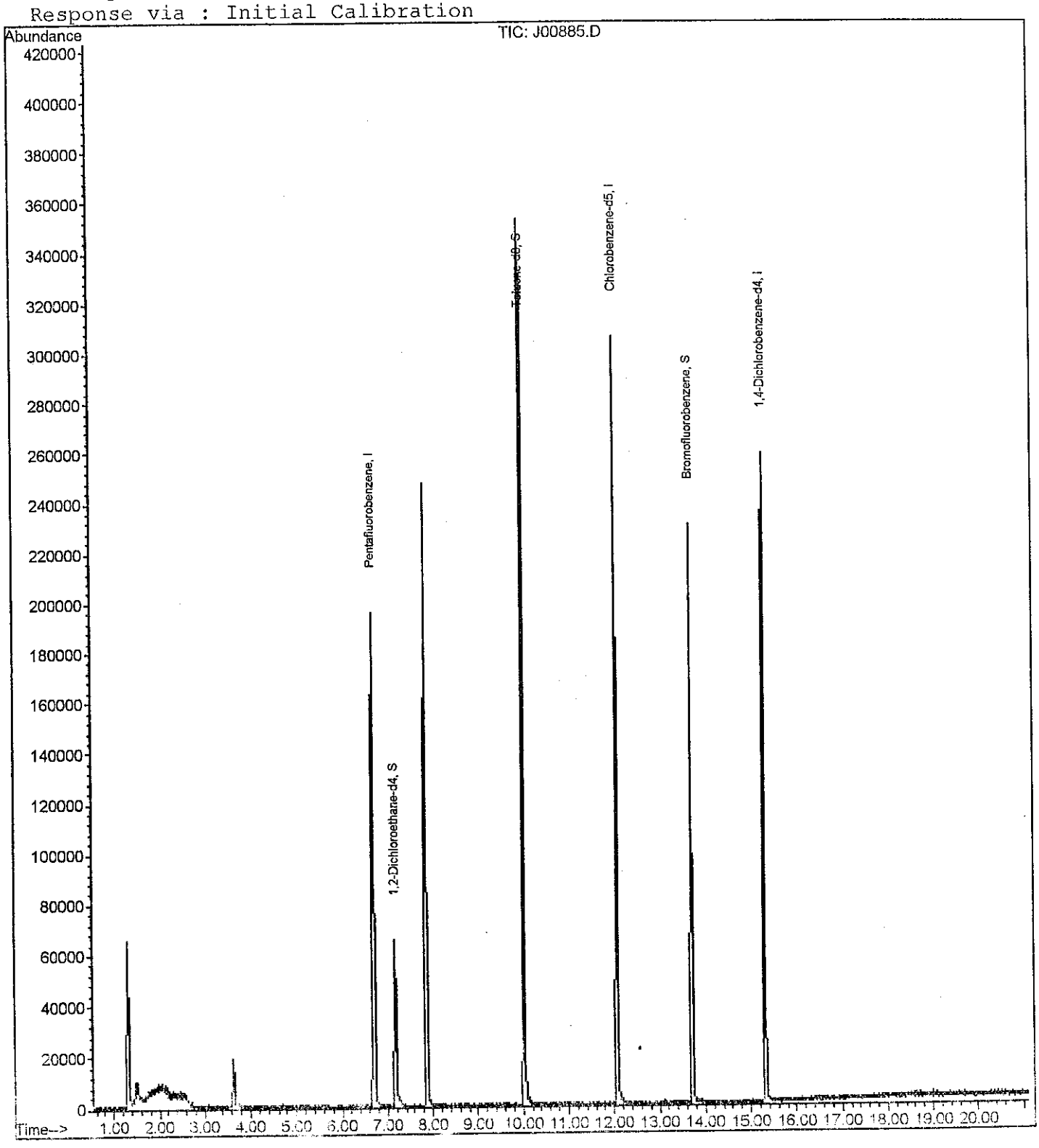
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

Target Compounds Qvalue

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	185530	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.08	117	215498	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	101260	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.08	116	52	10.00	ug\L		-0.02
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	77758	9.96	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%				
46) Toluene-d8	10.02	98	301381	9.55	ug\L		-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.50%				
66) Bromofluorobenzene	13.71	95	101839	9.04	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	119751	8.45	ug\L		99
3) Chloromethane	1.66	50	60165	8.56	ug\L		96
4) Vinyl Chloride	1.74	62	86256	8.91	ug\L		99
5) Bromomethane	2.04	94	21965m	7.53	ug\L		
6) Chloroethane	2.14	64	51218	9.87	ug\L		98
7) Trichlorofluoromethane	2.38	101	182119	10.23	ug\L	#	100
8) Acrolein	2.91	56	3492	14.93	ug\L	#	77
9) Acrylonitrile	4.04	53	10177	18.18	ug\L	#	85
10) 1,1-Dichloroethene	2.97	96	77128	9.12	ug\L		100
11) Acetone	3.09	58	1381	9.46	ug\L		97
12) Iodomethane	3.17	142	95863	8.47	ug\L		95
13) Allylchloride	3.44	39	95736	9.40	ug\L		97
14) Carbon Disulfide	3.23	76	244086	9.99	ug\L		99
15) Acetonitrile	3.43	41	98594	90.84	ug\L		97
16) Methylene Chloride	3.63	86	49627	9.57	ug\L		99
17) trans-1,2-Dichloroethene	3.98	96	84503	9.30	ug\L		98
18) MethylTertButylEther	3.97	73	99020	9.07	ug\L		99
19) 1,1-Dichloroethane	4.69	63	123741	9.08	ug\L		99
20) Isopropyl Ether	4.77	45	12594	8.86	ug\L	#	96
21) Vinyl Acetate	4.82	43	60243	8.83	ug\L		98
22) 2,2-Dichloropropane	5.71	77	153055	9.52	ug\L		100
23) cis-1,2-Dichloroethene	5.77	96	77800	8.98	ug\L		98
24) 2-Butanone	5.87	72	1637	9.27	ug\L	#	100
25) Propionitrile	6.02	54	16808	89.93	ug\L		98
26) Methacrylonitrile	6.23	41	100066	91.60	ug\L		96
27) Bromochloromethane	6.20	128	28244	9.01	ug\L		99
28) Chloroform	6.37	83	159190	9.53	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	185783	9.65	ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	172459	9.56 ug\L	99
31) 1,4-Dioxane	8.85	88	3520	181.29 ug\L #	78
32) 1,1-Dichloropropene	6.85	77	35933	9.31 ug\L	97
34) Benzene	7.19	78	266061	8.94 ug\L	100
35) Isobutyl alcohol	7.33	43	8578	167.44 ug\L #	54
36) 1,2-Dichloroethane	7.30	62	85183	9.57 ug\L	97
37) Trichloroethene	8.22	95	97369	9.30 ug\L	97
38) 1,2-Dichloropropane	8.59	63	49360	8.88 ug\L	99
39) Dibromomethane	8.79	93	29831	9.09 ug\L	96
40) Methylmethacrylate	8.80	69	12332	8.33 ug\L	86
41) Bromodichloromethane	9.05	83	99426	9.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	7014	6.88 ug\L	97
43) cis-1,3-Dichloropropene	9.68	75	89900	9.04 ug\L	97
44) 4-Methyl-2-Pentanone	9.93	85	3554	8.92 ug\L #	1
47) Toluene	10.12	92	183768	9.01 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	67139	8.92 ug\L	96
49) Ethylmethacrylate	10.62	69	29375	8.30 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	26870	9.03 ug\L	97
51) Tetrachloroethene	10.88	164	81681	9.22 ug\L	97
52) 1,3-Dichloropropane	11.00	76	58440	9.26 ug\L	100
53) 2-Hexanone	11.12	43	10528	9.33 ug\L #	95
54) Dibromochloromethane	11.32	129	58157	9.50 ug\L	100
55) 1,2-Dibromoethane	11.45	107	34304	8.90 ug\L #	96
56) Chlorobenzene	12.11	112	199707	8.85 ug\L	97
57) 1,1,1,2-Tetrachloroethane	12.25	131	80287	9.49 ug\L	98
58) Ethylbenzene	12.25	91	406711	9.27 ug\L	98
59) total-Xylene	12.42	106	403328m	26.43 ug\L #	
60) Styrene	13.00	104	191660	8.59 ug\L	98
62) Bromoform	13.31	173	24544	8.39 ug\L	99
63) Isopropylbenzene	13.47	105	378065	8.75 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	9475	8.21 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.04	53	12425	10.11 ug\L #	33
67) Bromobenzene	13.92	156	74945	9.05 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.97	83	29259	9.18 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	36025	8.96 ug\L	97
70) n-Propylbenzene	14.04	91	457624	8.85 ug\L	98
71) 2-Chlorotoluene	14.18	91	269928	8.87 ug\L	98
72) 4-Chlorotoluene	14.33	91	321503	9.09 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	350144	9.01 ug\L	99
74) Pentachloroethane	14.80	167	46526	8.66 ug\L	94
75) tert-Butylbenzene	14.73	119	287278	8.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.81	105	353106	9.20 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00886.D 08080125.M Wed Aug 08 14:41:54 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

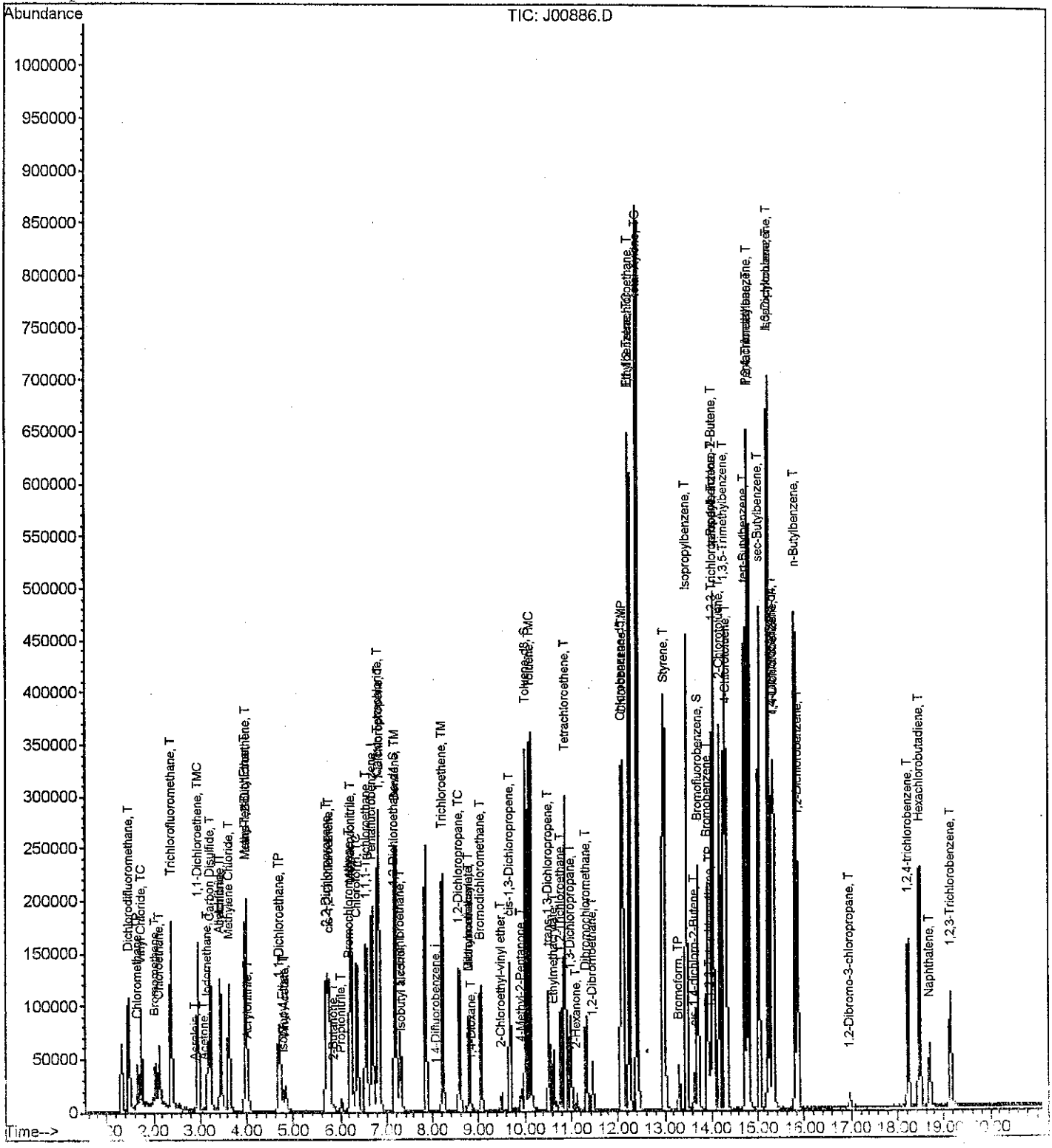
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	433111	8.91 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	155778	9.16 ug\L	98
79) Isopropyltoluene	15.23	119	356770	8.98 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	150532	8.81 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	118648	8.96 ug\L	97
82) n-Butylbenzene	15.80	91	334729	9.14 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	5521	8.62 ug\L	98
84) 1,2,4-trichlorobenzene	18.23	180	79236	8.54 ug\L	100
85) Hexachlorobutadiene	18.48	225	78318	9.40 ug\L	100
86) Naphthalene	18.69	128	81597	8.12 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	56886	8.30 ug\L	94

(#) = qualifier out of range (m) = manual integration
J00886.D 08080125.M Wed Aug 08 11:[illegible] 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.02	98	326206	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.71	95	120738	9.39	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06	ug\L		100
3) Chloromethane	1.66	50	70978	9.43	ug\L		96
4) Vinyl Chloride	1.74	62	103810	10.02	ug\L		99
5) Bromomethane	2.03	94	23858	7.64	ug\L		95
6) Chloroethane	2.14	64	59738	10.75	ug\L		99
7) Trichlorofluoromethane	2.38	101	205122	10.76	ug\L	#	100
8) Acrolein	2.90	56	4262	17.02	ug\L	#	98
9) Acrylonitrile	4.05	53	12105	20.21	ug\L		96
10) 1,1-Dichloroethene	2.96	96	94103	10.39	ug\L		96
11) Acetone	3.09	58	1463	9.36	ug\L		96
12) Iodomethane	3.17	142	108723	8.97	ug\L		99
13) Allylchloride	3.43	39	111544	10.24	ug\L		98
14) Carbon Disulfide	3.23	76	260882	9.98	ug\L		99
15) Acetonitrile	3.43	41	117249	100.94	ug\L		98
16) Methylene Chloride	3.62	86	50301	8.96	ug\L		97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26	ug\L		100
18) MethylTertButylEther	3.98	73	121538	10.40	ug\L	#	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09	ug\L		99
20) Isopropyl Ether	4.78	45	14585	9.58	ug\L	#	98
21) Vinyl Acetate	4.81	43	73102	10.01	ug\L		98
22) 2,2-Dichloropropane	5.72	77	182353	10.60	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27	ug\L		95
24) 2-Butanone	5.87	72	989	5.81	ug\L	#	100
25) Propionitrile	6.01	54	20647	103.23	ug\L	#	93
26) Methacrylonitrile	6.23	41	119238	102.00	ug\L		98
27) Bromochloromethane	6.21	128	34868	10.39	ug\L		97
28) Chloroform	6.37	83	186427	10.43	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L		97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L	#	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L		100
34) Benzene	7.19	78	320799	10.07 ug\L		100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L	#	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L		100
37) Trichloroethene	8.22	95	110904	9.90 ug\L		99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L		97
39) Dibromomethane	8.79	93	36266	10.33 ug\L		97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L		96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L		99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L		96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L		97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L	#	1
47) Toluene	10.11	92	221665	10.06 ug\L		100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L		96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L		98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L		98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L		98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L		99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L		94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L		100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L	#	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L		100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L		99
59) total-Xylene	12.42	106	505157m	30.63 ug\L	#	
60) Styrene	13.00	104	245510	10.18 ug\L		97
62) Bromoform	13.31	173	34658	10.39 ug\L		95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L		99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L		93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L	#	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L		92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L		95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L		95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L		99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L		99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L		100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L		99
74) Pentachloroethane	14.80	167	62015	1 11 ug\L		9
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L		
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11 ug\L		100

(#) = qualifier out of range (m) = manual integration
J00859.D 08070125.M Wed Aug 08 [illegible] 2001 [illegible]

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

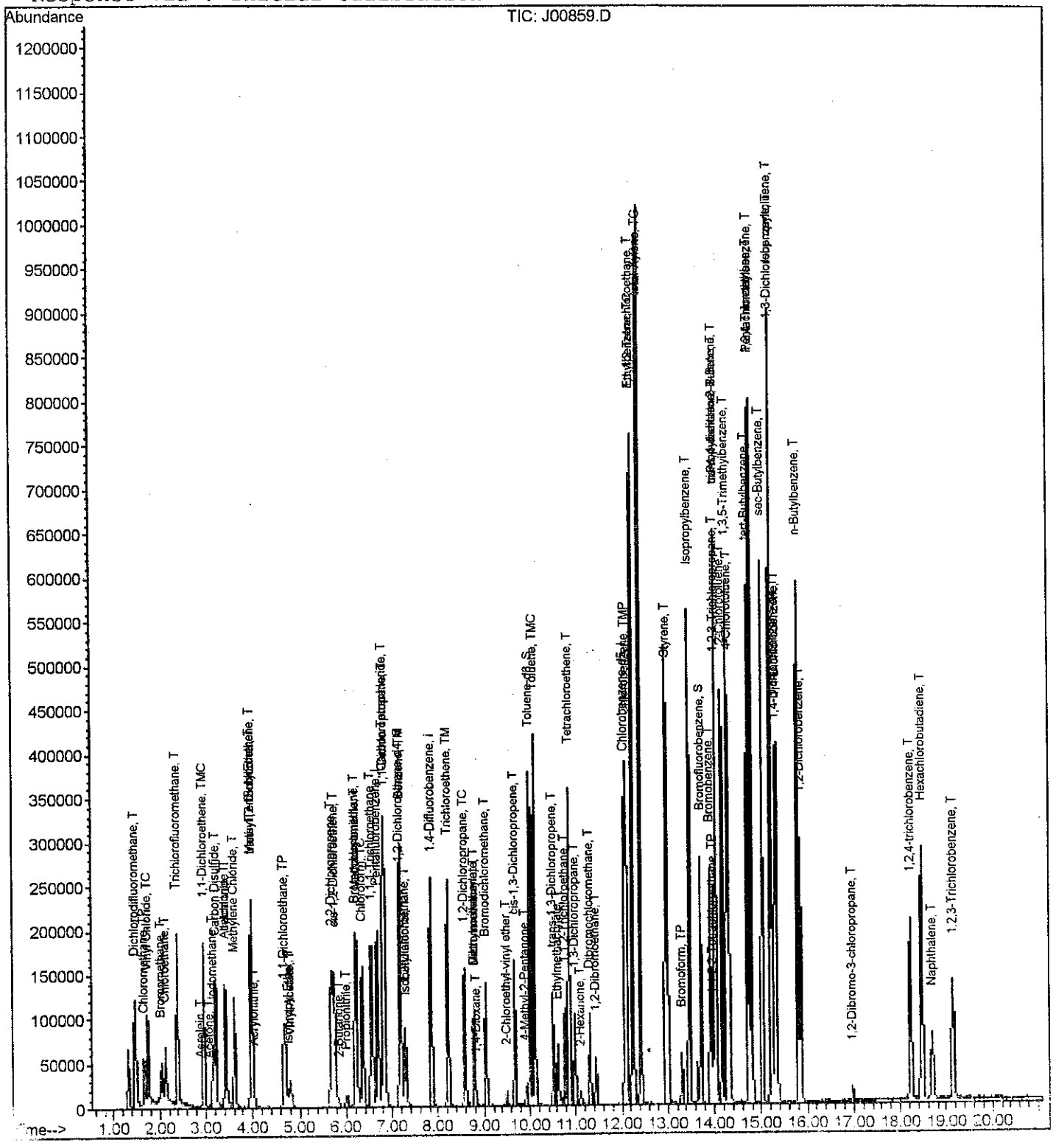
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22 ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91 ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22 ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68 ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96 ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71 ug\L	100
86) Naphthalene	18.69	128	109386	9.55 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77 ug\L	96

(#) = qualifier out of range (m) = manual integration
J00859.D 08070125.M Wed Aug 08 [illegible] 2001 Pa[illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

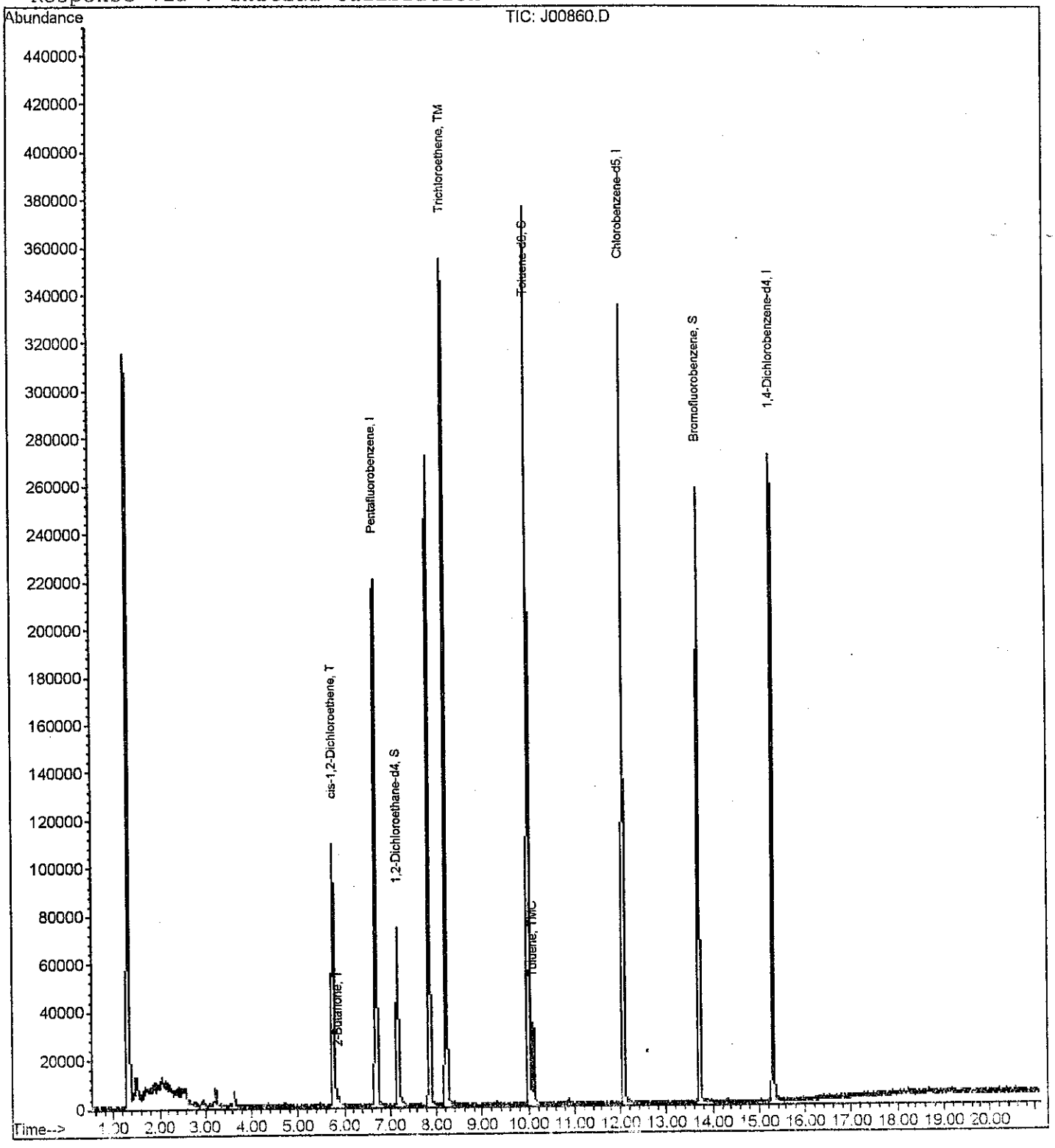
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	212050	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	233454	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	94056	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	87082	9.76	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
46) Toluene-d8	10.02	98	340265	9.95	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.72	95	117121	11.19	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.90%#			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	75959	7.67	ug\L	84
24) 2-Butanone	5.86	72	1645	8.31	ug\L #	100
37) Trichloroethene	8.22	95	150129	12.55	ug\L	97
47) Toluene	10.11	92	16822	0.76	ug\L	97

(#) = qualifier out of range (m) = manual integration
[illegible] 08070125.M Wed Aug 08 09:12:07 2001 Page: 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



J00860.D 08070125.M Wed Aug 08 [illegible]:12:07 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	202248	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	227865	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	111231	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	40	10.00	ug\L		-0.21
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	87638	10.30	ug\L		-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.00%				
46) Toluene-d8	10.02	98	352305	10.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#				
66) Bromofluorobenzene	13.71	95	122910	9.93	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	156222	10.11	ug\L		99
3) Chloromethane	1.66	50	71750	9.36	ug\L		95
4) Vinyl Chloride	1.74	62	103462	9.80	ug\L		98
5) Bromomethane	2.04	94	22924	7.21	ug\L		97
6) Chloroethane	2.13	64	59474	10.51	ug\L		99
7) Trichlorofluoromethane	2.38	101	211774	10.91	ug\L	#	100
8) Acrolein	2.90	56	4511	17.69	ug\L	#	98
9) Acrylonitrile	4.04	53	12554	20.58	ug\L		99
10) 1,1-Dichloroethene	2.96	96	93911	10.18	ug\L		97
11) Acetone	3.09	58	2220	13.95	ug\L		65
12) Iodomethane	3.17	142	104709	8.48	ug\L		98
13) Allylchloride	3.43	39	115927	10.44	ug\L		97
14) Carbon Disulfide	3.23	76	272562	10.24	ug\L		99
15) Acetonitrile	3.43	41	119904	101.34	ug\L		97
16) Methylene Chloride	3.62	86	53631	9.47	ug\L		99
17) trans-1,2-Dichloroethene	3.98	96	104205	10.52	ug\L		98
18) MethylTertButylEther	3.97	73	127788	10.74	ug\L		100
19) 1,1-Dichloroethane	4.68	63	150494	10.13	ug\L		98
20) Isopropyl Ether	4.78	45	6944	4.48	ug\L	#	1
21) Vinyl Acetate	4.80	43	72069	9.69	ug\L		99
22) 2,2-Dichloropropane	5.71	77	183928	10.49	ug\L		96
23) cis-1,2-Dichloroethene	5.77	96	176243	18.66	ug\L		91
24) 2-Butanone	5.86	72	4422	21.01	ug\L	#	100
25) Propionitrile	6.02	54	21644	106.24	ug\L		97
26) Methacrylonitrile	6.23	41	126992	106.64	ug\L		99
27) Bromochloromethane	6.20	128	33669	9.85	ug\L		96
28) Chloroform	6.36	83	190452	10.46	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	217255	10.35	ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Carbon Tetrachloride	6.81	119	207456	10.55 ug\L		98
31)	1,4-Dioxane	8.84	88	4630	218.74 ug\L	#	71
32)	1,1-Dichloropropene	6.85	77	42753	10.17 ug\L		94
34)	Benzene	7.19	78	332053	10.24 ug\L		100
35)	Isobutyl alcohol	7.33	43	11269	199.29 ug\L		94
36)	1,2-Dichloroethane	7.29	62	102517	10.57 ug\L		100
37)	Trichloroethene	8.22	95	270042	23.67 ug\L		99
38)	1,2-Dichloropropane	8.58	63	59524	9.82 ug\L		100
39)	Dibromomethane	8.78	93	36773	10.28 ug\L		98
40)	Methylmethacrylate	8.80	69	17398	10.77 ug\L		96
41)	Bromodichloromethane	9.04	83	118963	10.22 ug\L		97
42)	2-Chloroethyl-vinyl ether	9.68	63	879m	0.79 ug\L		
43)	cis-1,3-Dichloropropene	9.68	75	106543	9.83 ug\L		94
44)	4-Methyl-2-Pentanone	9.91	85	3584	8.26 ug\L	#	1
47)	Toluene	10.11	92	246948	11.46 ug\L		98
48)	trans-1,3-Dichloropropene	10.50	75	82676	10.39 ug\L		96
49)	Ethylmethacrylate	10.61	69	39761	10.63 ug\L		97
50)	1,1,2-Trichloroethane	10.76	83	34110	10.84 ug\L		96
51)	Tetrachloroethene	10.87	164	100215	10.70 ug\L		98
52)	1,3-Dichloropropane	10.99	76	71370	10.69 ug\L		98
53)	2-Hexanone	11.11	43	12670	10.61 ug\L		97
54)	Dibromochloromethane	11.31	129	70870	10.95 ug\L		98
55)	1,2-Dibromoethane	11.45	107	44016	10.80 ug\L	#	98
56)	Chlorobenzene	12.11	112	239157	10.02 ug\L		99
57)	1,1,1,2-Tetrachloroethane	12.24	131	93703	10.47 ug\L		98
58)	Ethylbenzene	12.25	91	482734	10.40 ug\L		99
59)	total-Xylene	12.41	106	487840m	30.23 ug\L	#	
60)	Styrene	13.00	104	234905	9.96 ug\L		99
62)	Bromoform	13.30	173	31799	9.90 ug\L		97
63)	Isopropylbenzene	13.47	105	458364	9.65 ug\L		99
64)	cis-1,4-dichloro-2-Butene	13.64	53	12592	9.94 ug\L	#	1
65)	trans-1,4-dichloro-2-Buten	14.04	53	13331	9.87 ug\L	#	48
67)	Bromobenzene	13.92	156	89661	9.86 ug\L		96
68)	1,1,2,2-Tetrachloroethane	13.97	83	36789	10.51 ug\L		97
69)	1,2,3-Trichloropropane	14.02	75	43546	9.86 ug\L	#	3
70)	n-Propylbenzene	14.04	91	556765	9.80 ug\L		99
71)	2-Chlorotoluene	14.17	91	332066	9.93 ug\L		98
72)	4-Chlorotoluene	14.32	91	393994	10.14 ug\L	#	94
73)	1,3,5-Trimethylbenzene	14.28	105	421385	9.88 ug\L		100
74)	Pentachloroethane	14.80	167	59546	10.09 ug\L		97
75)	tert-Butylbenzene	14.73	119	355028	9.86 ug\L		100
76)	1,2,4-Trimethylbenzene	14.80	105	426238	10.11 ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

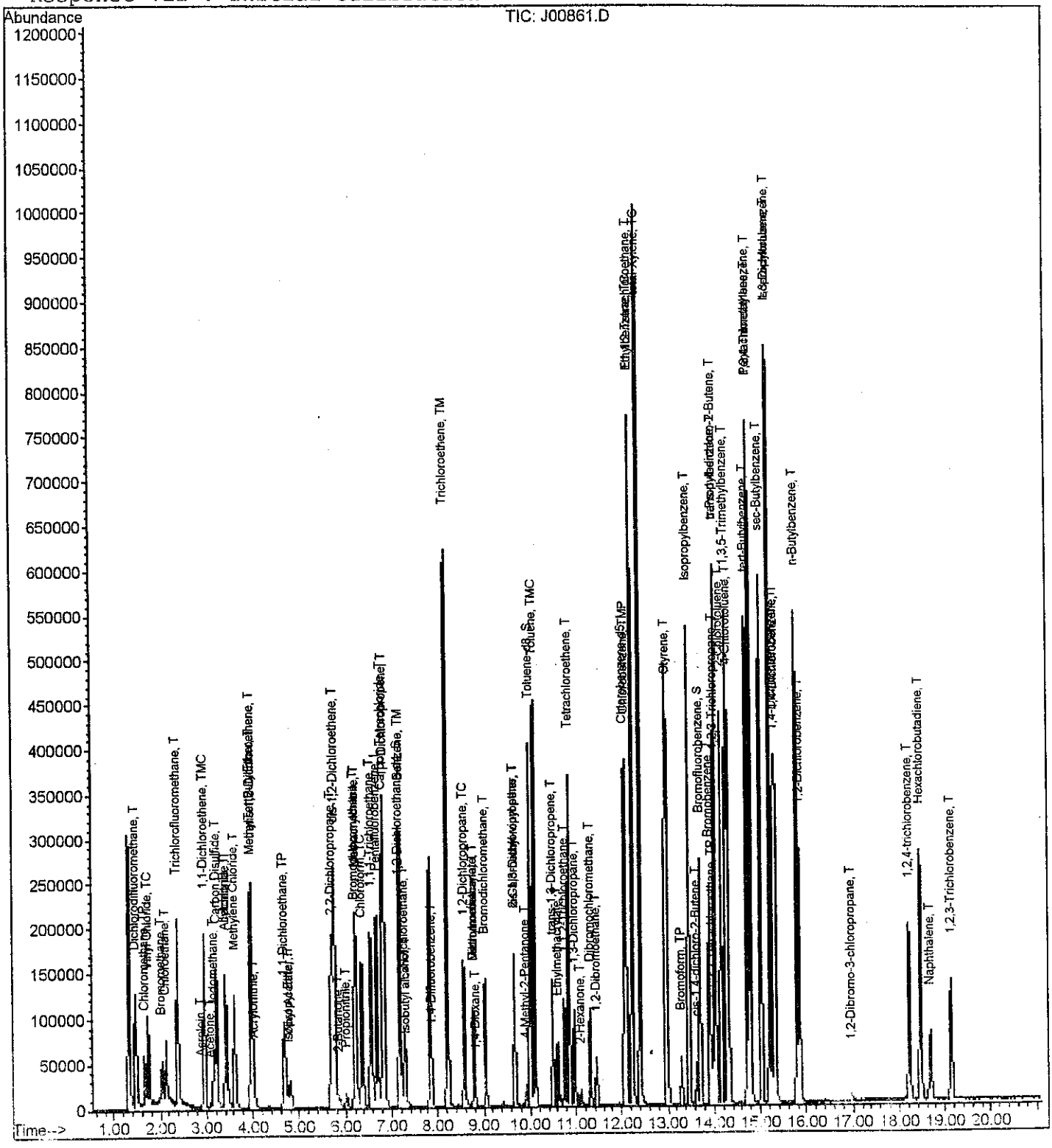
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.03	105	529227	9.92	ug\L	100
78)	1,3-Dichlorobenzene	15.21	146	188305	10.08	ug\L	96
79)	Isopropyltoluene	15.22	119	438717	10.06	ug\L	100
80)	1,4-Dichlorobenzene	15.34	146	182541	9.72	ug\L	98
81)	1,2-Dichlorobenzene	15.86	146	144855	9.96	ug\L	98
82)	n-Butylbenzene	15.79	91	409848	10.19	ug\L	98
83)	1,2-Dibromo-3-chloropropan	16.96	75	7140	10.15	ug\L	97
84)	1,2,4-trichlorobenzene	18.22	180	100229	9.84	ug\L	100
85)	Hexachlorobutadiene	18.47	225	95255	10.41	ug\L	100
86)	Naphthalene	18.68	128	104589	9.48	ug\L	100
87)	1,2,3-Trichlorobenzene	19.15	180	73120	9.71	ug\L	98

(#) = qualifier out of range (m) = manual integration
J00861.D 08070125.M Wed Aug 08 09:12:41 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	183834	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.07	117	217739	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110646	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	36	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	78377	10.13	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
46) Toluene-d8	10.02	98	305449	9.58	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.80%				
66) Bromofluorobenzene	13.71	95	117358	9.53	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	153366	10.92	ug\L		99
3) Chloromethane	1.66	50	75425	10.83	ug\L		99
4) Vinyl Chloride	1.74	62	105657	11.01	ug\L		98
5) Bromomethane	2.04	94	24355	8.43	ug\L		100
6) Chloroethane	2.14	64	57992	11.28	ug\L		100
7) Trichlorofluoromethane	2.38	101	204134	11.57	ug\L	#	100
8) Acrolein	2.90	56	4476	19.31	ug\L	#	100
9) Acrylonitrile	4.05	53	13301	23.98	ug\L		93
10) 1,1-Dichloroethene	2.96	96	92544	11.04	ug\L		100
11) Acetone	3.10	58	1980	13.68	ug\L		76
12) Iodomethane	3.17	142	121782	10.85	ug\L		97
13) Allylchloride	3.44	39	112947	11.19	ug\L		98
14) Carbon Disulfide	3.23	76	286931	11.85	ug\L		99
15) Acetonitrile	3.44	41	118800	110.46	ug\L		98
16) Methylene Chloride	3.63	86	52464	10.34	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	98330	10.92	ug\L		99
18) MethylTertButylEther	3.98	73	123505	11.42	ug\L		97
19) 1,1-Dichloroethane	4.69	63	143212	10.60	ug\L		99
20) Isopropyl Ether	4.77	45	14945	10.61	ug\L	#	40
21) Vinyl Acetate	4.81	43	74279	10.99	ug\L		100
22) 2,2-Dichloropropane	5.72	77	161472	10.14	ug\L		94
23) cis-1,2-Dichloroethene	5.77	96	150416	17.52	ug\L		92
24) 2-Butanone	5.87	72	3543	18.68	ug\L	#	100
25) Propionitrile	6.03	54	18863	101.86	ug\L		96
26) Methacrylonitrile	6.24	41	110888	102.45	ug\L		98
27) Bromochloromethane	6.20	128	30061	9.68	ug\L		98
28) Chloroform	6.36	83	166307	10.05	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	196523	10.30	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	181785	10.17 ug\L	100
31) 1,4-Dioxane	8.84	88	3946	205.10 ug\L #	69
32) 1,1-Dichloropropene	6.85	77	37700	9.86 ug\L	92
34) Benzene	7.19	78	283089	9.60 ug\L	100
35) Isobutyl alcohol	7.32	43	6493	130.79 ug\L #	43
36) 1,2-Dichloroethane	7.29	62	91197	10.34 ug\L	98
37) Trichloroethene	8.22	95	237729	22.92 ug\L	99
38) 1,2-Dichloropropane	8.59	63	53873	9.78 ug\L	99
39) Dibromomethane	8.79	93	34490	10.61 ug\L	98
40) Methylmethacrylate	8.81	69	15018	10.23 ug\L	95
41) Bromodichloromethane	9.05	83	107526	10.16 ug\L	99
43) cis-1,3-Dichloropropene	9.68	75	97558	9.90 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4271	10.82 ug\L #	1
47) Toluene	10.11	92	219601	10.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	75360	9.91 ug\L	94
49) Ethylmethacrylate	10.62	69	37921	10.61 ug\L	99
50) 1,1,2-Trichloroethane	10.77	83	31235	10.39 ug\L	100
51) Tetrachloroethene	10.87	164	89335	9.98 ug\L	99
52) 1,3-Dichloropropane	10.99	76	65387	10.25 ug\L	98
53) 2-Hexanone	11.12	43	11187	9.81 ug\L #	96
54) Dibromochloromethane	11.31	129	63983	10.34 ug\L	100
55) 1,2-Dibromoethane	11.45	107	40652	10.44 ug\L	95
56) Chlorobenzene	12.11	112	223966	9.82 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	87064	10.18 ug\L	99
58) Ethylbenzene	12.25	91	449902	10.14 ug\L	99
59) total-Xylene	12.41	106	465165m	30.17 ug\L #	
60) Styrene	13.00	104	233935	10.38 ug\L	99
62) Bromoform	13.30	173	30781	9.63 ug\L	98
63) Isopropylbenzene	13.47	105	459964	9.74 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	13490	10.70 ug\L	98
65) trans-1,4-dichloro-2-Buten	14.04	53	13490	10.05 ug\L #	51
67) Bromobenzene	13.92	156	86867	9.60 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.97	83	35543	10.21 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	44500	10.13 ug\L	100
70) n-Propylbenzene	14.04	91	548557	9.71 ug\L	100
71) 2-Chlorotoluene	14.17	91	322494	9.70 ug\L	97
72) 4-Chlorotoluene	14.33	91	385414	9.98 ug\L #	96
73) 1,3,5-Trimethylbenzene	14.29	105	421279	9.93 ug\L	100
74) Pentachloroethane	14.80	167	58121	9.90 ug\L	97
75) tert-Butylbenzene	14.73	119	349688	9.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	418742	9.99 ug\L	100
77) sec-Butylbenzene	15.03	105	524525	9.88 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00862.D 08070125.M Wed Aug 08 09:14:06 2001 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78)	1,3-Dichlorobenzene	15.22	146	183210	9.86	ug\L	96
79)	Isopropyltoluene	15.22	119	439765	10.14	ug\L	100
80)	1,4-Dichlorobenzene	15.34	146	182089	9.75	ug\L	98
81)	1,2-Dichlorobenzene	15.86	146	145629	10.06	ug\L	100
82)	n-Butylbenzene	15.79	91	406100	10.15	ug\L	100
83)	1,2-Dibromo-3-chloropropan	16.97	75	6949	9.93	ug\L	92
84)	1,2,4-trichlorobenzene	18.22	180	99005	9.77	ug\L	100
85)	Hexachlorobutadiene	18.47	225	90935	9.99	ug\L	100
86)	Naphthalene	18.69	128	110664	10.08	ug\L	100
87)	1,2,3-Trichlorobenzene	19.14	180	75678	10.10	ug\L	98

(#) = qualifier out of range (m) = manual integration
J00862.D 08070125 7 Aug 01 13:14:07 2001

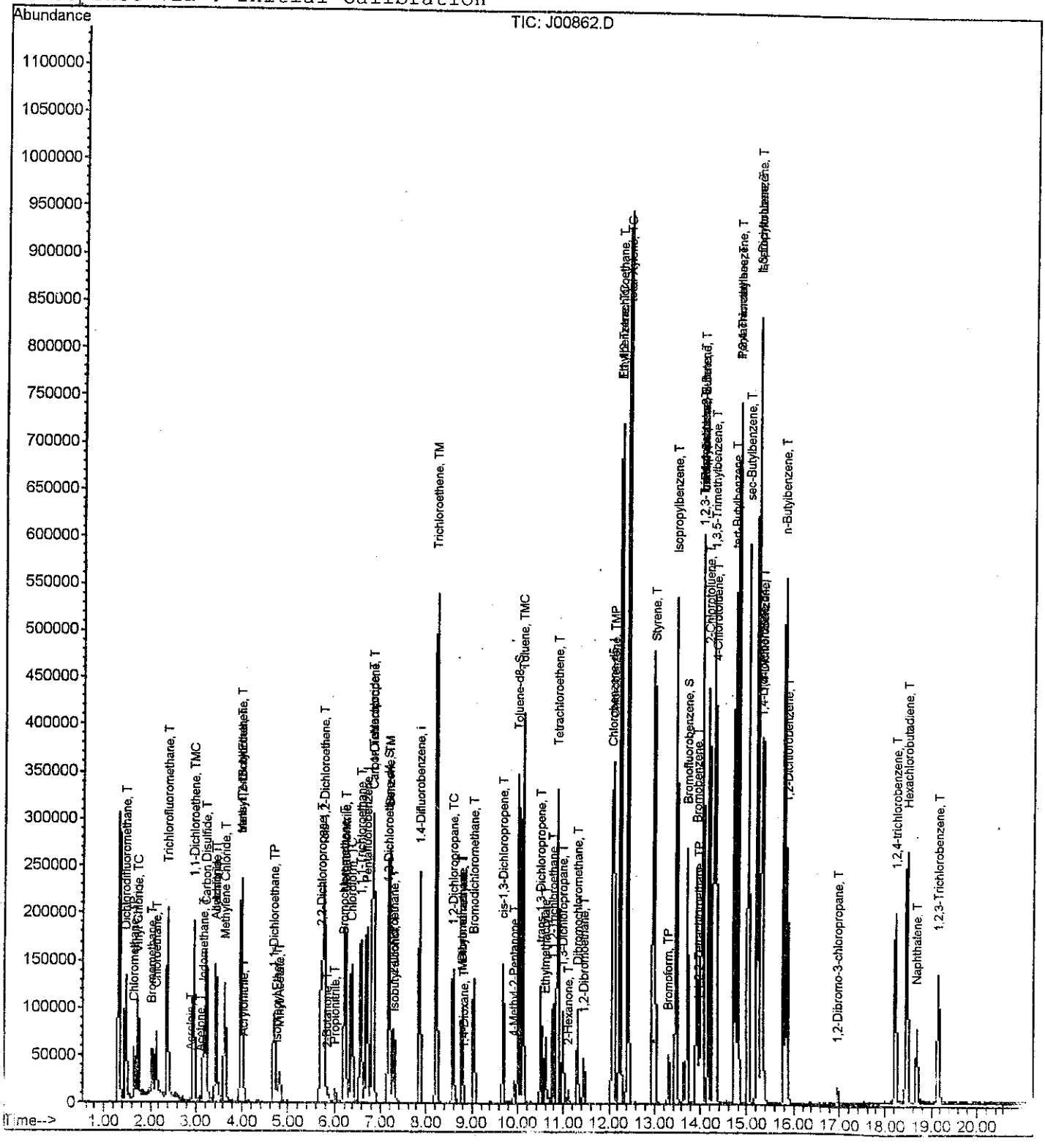
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D
Acq On : 08/07/01 13:24
Sample : AC17887MSD 12.5ml DF=2
Misc : 28512/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001

Vial: 6
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



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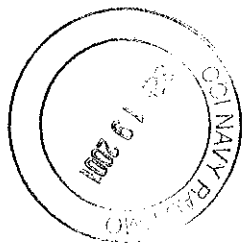
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28518



Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 08/02/01 at 0935:

Client I.D.	Laboratory I.D.
017-OLD-36-06A-Q3-01	AC17919
017-OLD-36-08B-Q3-01	AC17920
017-OLD-36-FD2-Q3-01	AC17921
017-OLD-36-10B-Q3-01	AC17922
017-OLD-36-11C-Q3-01	AC17923
017-OLD-36-32C-Q3-01	AC17924
017-OLD-36-26A-Q3-01	AC17925
017-OLD-36-TB3-Q3-01	AC17926

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The following analyses were performed by subcontract laboratories:

Chloride-EPA-300	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	Nitrate Nitrogen-EPA-300.0
Nitrite Nitrogen-EPA-300.0	TOC-SW-846-9060
VFA's (W) Microseeps-AM21G	

4. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding and the results for those samples should be considered estimated.

6. The pH of the samples was 1.0 for the VOC analysis.

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Potable & Non-potable Water-Solid/Hazardous Waste

7. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:

FLA-PRO	VOC-SW-846-8260B
017-OLD-36-08B-Q3-01	017-OLD-36-08B-Q3-01 (Trichloroethylene)
017-OLD-36-FD2-Q3-01	017-OLD-36-FD2-Q3-01 (Trichloroethylene)
017-OLD-36-26A-Q3-01	

8. The detection limits were elevated for the following samples due to limited sample volume:

FLA-PRO
017-OLD-36-08B-Q3-01
017-OLD-36-FD2-Q3-01
017-OLD-36-11C-Q3-01
017-OLD-36-32C-Q3-01

9. The following surrogate was outside the method specified limit due to matrix interference, as indicated by the "Z" qualifier:

VOC-SW-846-8260B

1,2-Dichloroethane-d4 -	017-OLD-36-32C-Q3-01

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10. The following surrogates were outside the method specified limit, as indicated by the "Z" qualifier:

FLA-PRO

C(39) -	017-OLD-36-06A-Q3-01
	017-OLD-36-08B-Q3-01
	017-OLD-36-FD2-Q3-01
	017-OLD-36-10B-Q3-01
	017-OLD-36-11C-Q3-01
	017-OLD-36-32C-Q3-01
	017-OLD-36-26A-Q3-01
	Method Blank
	Laboratory Control Sample
	Matrix Spike

o-Terphenyl -	017-OLD-36-06A-Q3-01
	017-OLD-36-08B-Q3-01
	017-OLD-36-FD2-Q3-01
	017-OLD-36-10B-Q3-01
	017-OLD-36-11C-Q3-01
	017-OLD-36-32C-Q3-01
	017-OLD-36-26A-Q3-01
	Method Blank
	Laboratory Control Sample
	Matrix Spike
	Matrix Spike Duplicate

The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

11. The laboratory control sample recovery (LCS) were outside the project specified limit for the following analysis:

FLA-PRO

The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

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6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

12 Tentatively Identified Compounds were reported as quantitative estimates.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/5/01
Date

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ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17919** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-06A-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	10		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	1.9		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	430		5.0
Ethene	360		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	69		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	2.98		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/24/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	190	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	14		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/24/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	34	Z	
o-Terphenyl (Range 82-142)	80	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	110		
4-Bromofluorobenzene (80-120)	104		
Toluene-d8 (80-119)	101		

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17920** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-08B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	83		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	900		5.0
Ethene	5600		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	8900		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	8.1		5.2

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	110	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	94		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	24		1.0
Butyric Acid	1.9		1.0
Lactic Acid	<RL		25
Propionic Acid	74		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.60	J	6.5
cis-1,2-Dichloroethene	17		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	0.88	J	6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	44		10
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X_PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	21	Z	
o-Terphenyl (Range 82-142)	68	Z	

ANALYSIS: X_VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	119		
4-Bromofluorobenzene (80-120)	103		
Toluene-d8 (80-119)	100		

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LABORATORY REPORT

Accura Sample ID #: **AC17921** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FD2-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	83		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	920		5.0
Ethene	4500		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	10000		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	8.0		5.2

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	220	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	95		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	21		1.0
Butyric Acid	2.1		1.0
Lactic Acid	<RL		25
Propionic Acid	69		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	23		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	0.65	J	6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	32		10
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	30	Z	
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	128		
4-Bromofluorobenzene (80-120)	98		
Toluene-d8 (80-119)	93		

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LABORATORY REPORT

Accura Sample ID #: **AC17922** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-10B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	21		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	62		5.0
Ethene	76		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	490		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	98	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	13		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.52	J	6.5
cis-1,2-Dichloroethene	8.5		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	8.2		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	38	Z	
o-Terphenyl (Range 82-142)	64	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	114		
4-Bromofluorobenzene (80-120)	103		
Toluene-d8 (80-119)	95		

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LABORATORY REPORT

Accura Sample ID #: **AC17923** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-11C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	12		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	4.3		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	28		5.0
Ethene	45		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	18		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	57	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	10		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.61	J	6.5
cis-1,2-Dichloroethene	5.0	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	1.9	J	7
Toluene	1.3	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	7.9		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42	Z	
o-Terphenyl (Range 82-142)	71	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	121		
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	96		

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LABORATORY REPORT

Accura Sample ID #: **AC17924** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-32C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	11		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	39		5.0
Ethene	42		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	5.7		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	59	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	6		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.68	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	0.69	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	20		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	22	Z	
o-Terphenyl (Range 82-142)	35	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	136	Z	
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	98		

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LABORATORY REPORT

Accura Sample ID #: **AC17925** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-26A-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	16		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	4.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	5200		5.0
Ethene	23000		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	22		10

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	94	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	76		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	16		1.0
Butyric Acid	4.6		1.0
Lactic Acid	<RL		25
Propionic Acid	24		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	0.66	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	6.3		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	39	Z	
o-Terphenyl (Range 82-142)	66	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	131		
4-Bromofluorobenzene (80-120)	97		
Toluene-d8 (80-119)	94		

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LABORATORY REPORT

Accura Sample ID #: **AC17926** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-TB3-Q3-01**

ANALYSIS: **VOC's Navy (25 ml purge)** Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichlorocthane	<RL		4
1,1,2,2-Tetrachlorocthane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichlorocthane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chlorocthane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	9.9		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	0.54	J	4
Vinyl chloride	<RL		5.5

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	121		
4-Bromofluorobenzene (80-120)	112		
Toluene-d8 (80-119)	103		

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LABORATORY REPORT

Accura Sample ID #: **AC18129** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **METHOD BLANK**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL		5.0
Ethene	<RL		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	19	Z	
o-Terphenyl (Range 82-142)	71	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	89		
4-Bromofluorobenzene (81-118)	97		
Toluene-d8 (84-115)	100		

PROJECT QUALITY CONTROL RESULTS
AAL 28518

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%		
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108		
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135		
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135		
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135		
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135		
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135		
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147		
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145		
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135		
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137		
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135		
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135		
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135		
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135		
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135		
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135		
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135		
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135		
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135		
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135		
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135		
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135		
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135		
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135		
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135		
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135		
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135		
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135		
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135		
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135		
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135		
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137		
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135		
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135		
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135		
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135		

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS
AAL 28518

8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135	
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135	
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135	
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135	
8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135	
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135	
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135	
8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135	
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135	
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135	
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135	
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135	
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135	
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135	
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135	
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144	
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA	
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA	
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA	
PETROLEUM HYDROCARBONS						%	%			%	%			%	%	
FL-PRO	TPH	54	58			50-150	30-170	7%	#DIV/0!	<30	<50	55		75-125	70-130	

310.1	Alkalinity	91	92		N/A	70-130	1	<30	97	70-130	N/A	<30	N/A		N/A

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

AN#28518 RGH

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0801-1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	ACCURA / BONNIE HOGUE	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[35] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	NO3 NO2	CHLORIDE	TDS ALKALINITY	FL-PRO	TOC	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	II	14	3	1	1	1	2	1			AC47919
2	017-OLD-36-08B-Q3-01				0920			3	1	1	1	2	1			20
3	017-OLD-36-FD2-Q3-01				—			3	1	1	1	2	1			21
4	017-OLD-36-10B-Q3-01				1145			3	1	1	1	2	1			22
5	017-OLD-36-11C-Q3-01				1130			3	1	1	1	2	1			23
6	017-OLD-36-32C-Q3-01				1500			3	1	1	1	2	1			24
7	017-OLD-36-26A-Q3-01				1515			3	1	1	1	2	1			25
8	017-OLD-36-TB3-Q3-01				—			3								26
9																
10																

[29] SAMPLER(S) AND COMPANY: (please print)
I. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: I. Lynch	8-01-01	1730	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	08.02.01	0935	Printed Name and Signature: BRIAN BURNS	08.02.01	0935
Printed Name and Signature:			Printed Name and Signature:		

Form CCJ001, Rev 06/0

MALLE 28518

AVAL# 28518
MBL/2°C

CHAIN-OF-CUSTODY RECORD

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

[1] COC NUMBER: 0801-3

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	[25] ANALYSES REQUIRED (Include Method Numbers) VOC, FATTY ACIDS	METHANE ETHANE ETHENE	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS (MC ID#S)	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	III	14	2	2		AC17919	
2	017-OLD-36-08B-Q3-01				0920			2	2		AC17920	
3	017-OLD-36-FD2-Q3-01				—			2	2		AC17921	
4	017-OLD-36-10B-Q3-01				1145			2	2		AC17922	
	017-OLD-36-11C-Q3-01				1130			2	2		AC17923	
6	017-OLD-36-32C-Q3-01				1500			2	2		AC17924	
7	017-OLD-36-26A-Q3-01		↓	↓	1515	↓	↓	2	2		AC17925	
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print)
J. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
[signature]	8-01-01	1730	FEDEX		
Printed Name and Signature:			Printed Name and Signature:		
FEDEX	08-02-01	0935	[signature] / BRIAN BUENS	08-02-01	0935
Printed Name and Signature:			Printed Name and Signature:		
[signature] / BRIAN BUENS	08-02-01		UPS	08-02-01	

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

MAL# 28518

P010801693

LP 817101

CHAIN-OF-CUSTODY RECORD

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

[1] COC NUMBER: 0801-3

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC, FATTY ACIDS	METHANE/ETHANE/ETHENE								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS (MAL ID #S)	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	III	14	2	2										AC17919
2	017-OLD-36-08B-Q3-01				0920			2	2										AC17920
3	017-OLD-36-FD2-Q3-01				"			2	2										AC17921
4	017-OLD-36-10B-Q3-01				1145			2	2										AC17922
5	017-OLD-36-11C-Q3-01				1130			2	2										AC17923
6	017-OLD-36-32C-Q3-01				1500			2	2										AC17924
7	017-OLD-36-26A-Q3-01		↓	↓	1515	↓	↓	2	2										AC17925
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print)
I. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
[signature]	8-01-01	1730	FEDEX		
Printed Name and Signature:			Printed Name and Signature:		
FEDEX	08.02.01	0935	[signature] / BRIAN BURNS	08.02.01	0935
Printed Name and Signature:			Printed Name and Signature:		
[signature] / BRIAN BURNS	08.02.01		UPS Tracy L Day	08.02.01 8-4-01	1140

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 5 Client Code: 0397-07 AAL Project Mg: BJN

Client Project Name: CTO 17-NTC ORLANDO - STUDY AREA 36 ACCURA Lab Project#: 28513

Are there EnCores, tests with < 48Hr hold times, or RUSH TAT's requested? (YES) NO

If YES, you must communicate RUSH analyses to the appropriate analyst(s) immediately!!! / or preserve EnCores (see #16 below)!!!

Preliminary Examination: Initials: BJF Date received: 08-02-01 Date cooler was opened: 08-02-01

1. Did cooler/package come with a shipping slip (airbill, Etc.)? (YES) NO
   If YES, enter carrier name and airbill number here: See reverse
   Describe type of packing in cooler: _____
   ******If cooler was hand delivered, CIRCLE HERE, skip to item #5******
2. Were custody seals on outside of cooler? (YES) NO
   If YES, how many: 2 per cooler seal dated: 8/1/01 All Coolers seal name: ILLEGIBLE All Coolers
3. Were custody seals unbroken and intact at the date and time of arrival? (YES) N/A NO
4. Were custody papers sealed in a plastic bag to prevent damage to chain of custody? (YES) NO
5. If required, was enough ice used? **(Internal cooler temperature,** See reverse (YES) N/A NO
6. Did you sign custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
   If YES, enter project name at the top.

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8. Did all containers arrive unbroken and were labels in good condition? (YES) NO
9. Were custody papers filled out properly and did all labels agree with custody papers? (YES) NO
10. Were correct containers and sufficient amount of sample sent for the test indicated? (YES) NO
11. All samples collected within three days of date received for these analyses **(Reactive Cn & S, Solids in H2O, Sulfide, Sulfite, !ALL! Extractable Organic Waters)?** (YES) N/A NO
    If NO, coordinate with the project manager to ensure that no samples go out of hold!!!
12. No residual chlorine found in waters for these analyses: **(Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)?** YES (N/A) NO
    Checked by: _____ **(Initials)**
13. Were samples properly chemically preserved, if required, upon receipt? (YES) N/A NO
    (For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)
    Preservation checked by: ABC **(Initials)**
14. Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? (YES) N/A NO
    If NO, list ID # on back and label vials with "Do Not Use Until Notified By Management":
15. If there are samples for dissolved metals, were they field filtered? YES (N/A) NO
    If NO, list date and time samples were filtered and preserved in lab: _____
16. Were Encore samplers included? YES (NO)
    If YES, date and time preserved with $NaHSO_4$: _____ By whom: _____
17. Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? YES (NO)
    If YES, vials weighed by and entered into vial database by: _____
18. Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: ABC

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.
Final check and samples logged to locations by: _____ **(Initials)**

19. Was it necessary to call the assigned project manager in order to proceed with login? YES (NO)
    If YES, give details on the back of this form.
20. Who was called? _____ By whom? _____ Date Time: _____

Project Mgr. Review: _____ **(Initials)** 8/8/1 **(Date)**

Pa

MICROSEEPS

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108093-01	AC17919
P0108093-02	AC17920
P0108093-03	AC17921
P0108093-04	AC17922
P0108093-05	AC17923
P0108093-06	AC17924
P0108093-07	AC17925

Approved By: Rebecca J. Stamo

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17919	Water	01 Aug. 01 9:05	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	430	5.0	ng/L	AM18
Ethene	360	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	69	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17920	Water	01 Aug. 01 9:20	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	24	1.0	mg/L	AM21G
Butyric acid	1.9	1.0	mg/L	
Ethane	900	5.0	ng/L	AM18
Ethene	5600	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	8900	0.015	ug/L	AM20GAX
Propionic acid	74	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17921	Water	01 Aug. 01	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	21	1.0	mg/L	AM21G
Butyric acid	2.1	1.0	mg/L	
Ethane	920	5.0	ng/L	AM18
Ethene	4500	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	10000	0.015	ug/L	AM20GAX
Propionic acid	69	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-04

Sample Description	Matrix	Sampled Date/Time	Received
AC17922	Water	01 Aug. 01 11:45	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	62	5.0	ng/L	AM18
Ethene	76	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	490	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-05

Sample Description	Matrix	Sampled Date/Time	Received
AC17923	Water	01 Aug. 01 11:30	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	28	5.0	ng/L	AM18
Ethene	45	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	18	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-06

Sample Description	Matrix	Sampled Date/Time	Received
AC17924	Water	01 Aug. 01 15:00	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	39	5.0	ng/L	AM18
Ethene	42	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	5.7	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-07

Sample Description	Matrix	Sampled Date/Time	Received
AC17925	Water	01 Aug. 01 15:15	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	16	1.0	mg/L	AM21G
Butyric acid	4.6	1.0	mg/L	
Ethane	5200	5.0	ng/L	AM18
Ethene	23000	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2700	0.015	ug/L	AM20GAX
Propionic acid	24	1.0	mg/L	AM21G
Pyruvic acid	<10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M010820032-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M010820032-LCS

	%Recovery	Ctl Limits
Ethene	103	89 - 115
Ethane	104	89 - 113

P0108086-01A-MS

	%Recovery	Ctl Limits
Ethene	105	70 - 130
Ethane	100	70 - 130

P0108086-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	100	70 - 130	5.13	0 - 20
Ethane	98	70 - 130	2.47	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M010820034-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M010820034-LCS

	%Recovery	Ctl Limits
Methane	97	90 - 108

P0108086-01A-MS

	%Recovery	Ctl Limits
Methane	100	70 - 130

P0108086-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	100	70 - 130	0.00	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M010824018-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M010824018-LCS

	%Recovery	Ctl Limits
Acetic Acid	82	70 - 130
Propionic acid	86	70 - 130
Butyric acid	88	70 - 130
Lactic Acid	87	70 - 130
Pyruvic acid	91	70 - 130

P0108167-01A-MS

	%Recovery	Ctl Limits
Acetic Acid	84	70 - 130
Propionic acid	87	70 - 130
Butyric acid	87	70 - 130
Lactic Acid	95	70 - 130
Pyruvic acid	87	70 - 130

P0108167-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	85	70 - 130	1.18	0 - 20
Propionic acid	97	70 - 130	10.87	0 - 20
Butyric acid	87	70 - 130	0.00	0 - 20
Lactic Acid	91	70 - 130	4.30	0 - 20
Pyruvic acid	88	70 - 130	1.14	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Case Narrative:

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **141503**

Project: Project#28518

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue

August 13, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Kathryn Smith
Project Manager

Tonya Edwards
Quality Assurance

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ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-1**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17919, 08/01/2001, 09:05, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	14	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	1.9	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	2.98	0.01	mg/L

BDL - Below Detection Limit

ASI

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Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-2**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17920, 08/01/2001, 09:20, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	94	4	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.0	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-3**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17921, 08/01/2001, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	95	4	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.1	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-4**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17922, 08/01/2001, 11:45, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	13	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	8.1	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

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110 Technology Parkway Norcross, GA 30092
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Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-5**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28518, AC17923, 08/01/2001, 11:30, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	10	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	4.3	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-6**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17924, 08/01/2001, 15:00, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	6	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	6.0	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141503-7**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28518, AC17925, 08/01/2001, 15:15, received 08/02/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	76	4	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	4.1	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

Single Analyte Data
Sample Batch Information
Analysis : TOC

Batch # 70378 ***Matrix : Aqueous***

		Preparation				Analysis			
Sample ID	Tag	Date	Time	By	Notes	Date	Time	By	Inst
70378BLK		/ /				08/07/01	2100	DJ	ASTRO
70378LCS		/ /				08/07/01	2100	DJ	ASTRO
70378LCSD		/ /				08/07/01	2100	DJ	ASTRO
70378CALCHK		/ /				08/07/01	2100	DJ	ASTRO
WP-78MS		/ /				08/07/01	2100	DJ	ASTRO
WP-78MSD		/ /				08/07/01	2100	DJ	ASTRO
WP-78		/ /				08/07/01	2100	DJ	ASTRO
WP-78DUP		/ /				08/07/01	2100	DJ	ASTRO
WP-72		/ /				08/07/01	2100	DJ	ASTRO
WP-72DUP		/ /				08/07/01	2100	DJ	ASTRO
141358-1		/ /				08/07/01	2100	DJ	ASTRO
141358-2		/ /				08/07/01	2100	DJ	ASTRO
141358-3		/ /				08/07/01	2100	DJ	ASTRO
141358-4		/ /				08/07/01	2100	DJ	ASTRO
141503-1		/ /				08/07/01	2100	DJ	ASTRO
141503-2		/ /				08/07/01	2100	DJ	ASTRO
141503-3		/ /				08/07/01	2100	DJ	ASTRO
141503-4		/ /				08/07/01	2100	DJ	ASTRO
141503-5		/ /				08/07/01	2100	DJ	ASTRO
141503-6		/ /				08/07/01	2100	DJ	ASTRO
141503-7		/ /				08/07/01	2100	DJ	ASTRO
141503-8		/ /				08/07/01	2100	DJ	ASTRO
141545-1		/ /				08/07/01	2100	DJ	ASTRO
141545-2		/ /				08/07/01	2100	DJ	ASTRO
141545-3		/ /				08/07/01	2100	DJ	ASTRO

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 70293 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70293BLK	08/02/01	1700	AC/BF		08/03/01	1216	AMC/BAF	IC
70293CALHIGH	08/02/01	1700	AC/BF		08/03/01	1236	AMC/BAF	IC
70293CALMID	08/02/01	1700	AC/BF		08/03/01	1257	AMC/BAF	IC
70293CALLOW	08/02/01	1700	AC/BF		08/03/01	1317	AMC/BAF	IC
70293LCS	08/02/01	1700	AC/BF		08/03/01	1337	AMC/BAF	IC
70293LCSD	08/02/01	1700	AC/BF		08/03/01	1358	AMC/BAF	IC
141418-1	08/01/01	1825	AC/BF		08/03/01	1438	AMC/BAF	IC
141418-6	08/01/01	1825	AC/BF		08/03/01	1459	AMC/BAF	IC
141500-1	08/02/01	2000	AC/BF		08/03/01	1519	AMC/BAF	IC
141500-1DUP	08/02/01	2000	AC/BF		08/03/01	1539	AMC/BAF	IC
141503-1	08/02/01	2000	AC/BF		08/03/01	1600	AMC/BAF	IC
141503-1DUP	08/02/01	2000	AC/BF		08/03/01	1620	AMC/BAF	IC
141503-2	08/02/01	2000	AC/BF		08/03/01	1640	AMC/BAF	IC
141503-3	08/02/01	2000	AC/BF		08/03/01	1700	AMC/BAF	IC
141503-4	08/02/01	2000	AC/BF		08/03/01	1721	AMC/BAF	IC
141503-5	08/02/01	2000	AC/BF		08/03/01	1741	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	1/100	08/03/01	1800	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	10/100	08/03/01	1822	AMC/BAF	IC
140420-1	08/03/01	1600	AC/BF		08/03/01	1842	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	1/100	08/03/01	1902	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	10/100	08/03/01	1922	AMC/BAF	IC
140420-2	08/03/01	1600	AC/BF		08/03/01	1943	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	1/100	08/03/01	2003	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	10/100	08/03/01	2023	AMC/BAF	IC
140420-3	08/03/01	1600	AC/BF		08/03/01	2044	AMC/BAF	IC
141503-6	08/02/01	2000	AC/BF		08/03/01	2104	AMC/BAF	IC
141503-7	08/02/01	2000	AC/BF		08/03/01	2124	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2144	AMC/BAF	IC
141478-1	08/02/01	2000	AC/BF		08/03/01	2225	AMC/BAF	IC
141440-1	08/02/01	2000	AC/BF		08/03/01	2245	AMC/BAF	IC
141440-4	08/02/01	2000	AC/BF		08/03/01	2306	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2326	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1126	AMC/BAF	IC
141507-3	08/03/01	1840	AC/BF	2/100	08/04/01	1244	AMC/BAF	IC
141507-6	08/03/01	1840	AC/BF	2/100	08/04/01	1305	AMC/BAF	IC
141507-9	08/03/01	1840	AC/BF	2/100	08/04/01	1325	AMC/BAF	IC
141507-12	08/03/01	1840	AC/BF	2/100	08/04/01	1345	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1406	AMC/BAF	IC

Single Analyte Data

Blank Results Information

Batch Number	Analyte	Analysis Method	Preparation Method	Blank Result	Matrix
70378	TOC	EPA 9060		< 1.0000	Aqueous

Lab Control Information

Batch Number	Analyte	Analysis Method	LC % Rec.	LCD % Rec.	LC/LCD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	100	101	1	80 - 120	0 - 20

Matrix Spike Information

Batch Number	Analyte	Analysis Method	MS % Rec.	MSD % Rec.	MS/MSD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	95	94	1	89 - 125	0 - 11

Unspiked Sample Duplicate Information

Batch Number	Analyte	Analysis Method	Sample 1 RPD	Sample 2 RPD	RPD Range
70378	TOC	EPA 9060	1	1	0 - 11

Inorganic Anions by Method EPA 300.0

Spike Recovery

Batch # 70293 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	94	95	1	75 - 125	0 - 10
Chloride	94	94	0	75 - 125	0 - 10
Fluoride	87	88	1	75 - 125	0 - 10
Nitrate-Nitrogen	93	93	0	75 - 125	0 - 10
Nitrite-Nitrogen	102	102	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	91	90	1	75 - 125	0 - 10
Chloride	89	90	1	75 - 125	0 - 10
Fluoride	80	82	2	75 - 125	0 - 10
Nitrate-Nitrogen	89	89	0	75 - 125	0 - 10
Nitrite-Nitrogen	95	95	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 70293 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0
Blank Results Information

Batch # 70293 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrite Nitrogen	BDL	0.01
Nitrate Nitrogen	BDL	0.01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

DS 141503

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: AST

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: **Bonnie J. Hogue**

Contact Phone # (770) 449 - 8800, **ext. 216**

Fax Number: (770) 449 - 5477

AAL PROJECT # 28518

For Laboratory Use Only

Custody Seal: Y (N)

QC Level: N 1 2 3 4

Entered into LIMS:

Sample Condition: good

Page 1 OF 1

Init/Temp: 5°C @ 1637

LAB Project #

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	NO3 300.0 a	NO2 300.0 b	Chloride 300.0 c	TOC (9060)	Remarks	LAB #
AC 17919	8-1-01 / 0905			W			4	✓	✓	✓	✓		-1
AC 17920	0920			W			4	✓	✓	✓	✓	Report	-2
AC 17921	—			W			4	✓	✓	✓	✓	w/QC.	-3
AC 17922	1145			W			4	✓	✓	✓	✓		-4
AC 17923	1130			W			4	✓	✓	✓	✓		-5
AC 17924	1500			W			4	✓	✓	✓	✓		-6
AC 17925	↓ 1515			W			4	✓	✓	✓	✓		-7
AC ~~17926~~	ABL												
AC ~~17927~~													
AC													

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
				PLEASE FAX RESULTS!!
Relinquished By:	Date / Time	Received By:	Date / Time	Turnaround Time Requested:
	080202 / 1636		08/02 1630	ASAP.

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

ACCURATE ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28518 **Test Performed:** Alkalinity Project Manager: BT

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? Y If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? _____
   Reason for dilution. _____
4. Duplicate AAL sample number 17920
   Is the RPD acceptable? Y If not, what is the reason? _____
5. MS/MSD AAL sample number 17920
   Are the recoveries acceptable? Y If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? YES
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. YES

Analyst entering results in Labworks. AS Date: 08-10-01

Peer Reviewer. [signature] Date: 8/31/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01
Analyst: AS
Time Started: 11:30 / 15:40

Lot #'s: 0.02N H_2SO_4: 1046
Phenolphthalein Indicator: —

	AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^- mg/L as $CaCO_3$	CO_3^{-2} mg/L as $CaCO_3$	HCO_3^- mg/L as $CaCO_3$	Comments
	BLANK	50mL				0.05-0.10	0				4.5 / 4.2 endp
	LCS	50+5mL	spike Na_2CO_3			12.90	2580				~~101%~~ 97.3%
1	17883	50mL				6.93	138.6				
2	17884	↓				1.25	25				pH = 4.55
3	17885					0.05	1				pH = 4.55
4	17886					0.05	1				
5	17887					0.20	4				
6	17888					1.00	20				
7	17890					0.65	13				
8	17891					9.00	180				
9	17919					0.50	10 ✓				
10	17920					4.15	83 ✓				
11	17921					4.15	83 ✓				
12	17922					1.05	21 ✓				
13	17923					0.60	12 ✓				
14	17924					0.57	11.4 ✓				
15	17925					0.78	15.6 ✓				
16	17926					1.10	22 ✓				
17	17934					3.35	67				
18	17978	↓				0.70	14				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{mL\ sample}$

where: A = mL acid used
N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

P-alkalinity = phenolphthalein alkalinity
T-alkalinity = total alkalinity

Cont on Page 95

Reviewed By: _____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01

Analyst: AS

Time Started: 11:30/15:40

Lot #'s: 0.02N H_2SO_4: 1046

Phenolphthalein Indicator:

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^- mg/L as $CaCO_3$	CO_3^{-2} mg/L as $CaCO_3$	HCO_3^- mg/L as $CaCO_3$	Comments
17979	50				0.43	8.6				
17982	"				0.10	2				
17920 D					4.10	82				2.4% RPD
17920 MS	+5mL				16.27	2440				91% rec.
17920 MSD	+5 spike				16.40	2450				92.4%

MS: $\frac{(16.27 - 4.15)(0.02)(50000)}{50} = 242$

$\frac{242}{220.36} = 91$

MSD: $\frac{222.73}{240.91} = 92.4$

Calculation: Alkalinity, mg $CaCO_3/L = \frac{A \times N \times 50000}{mL\ sample}$

where: A = mL acid used

N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

Reviewed By:

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28518A MS Test Performed: TDS Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? _____ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? _____
   Reason for dilution. _____
4. Duplicate AAL sample number 184 17925 MS — use 1st set of data; second run data for places only
   Is the RPD acceptable? Y If not, what is the reason? _____
5. MS/MSD AAL sample number _____
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r>0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? NA
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. Y

Analyst entering results in Labwatch. AS Date: 08-21-01

Peer Reviewer. Kane Date: 8/29/01

Peer Reviewer is responsible for reviewing all above questions.

Kane 8/29/01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

DO NOT

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
8/16/01	DG	6:45	14:30	17982	3	54.2299	100 mL	54.2316	54.2319	17 06	17	
〃	〃	〃	〃	17934	11	79.2307	〃	79.5062	79.5064	2755	2755	
8/20/01	AS	15:55	15:30	Blank	B	71.785	100mL	71.787	71.788		30	
〃	〃	〃	8/21/01	17919	1	72.667	〃	72.685	72.684		170	
				17920	2	54.246		54.273	54.271		250	
				17921	3	72.410		72.423	72.423		130	
				17922	4	73.508		73.534	73.534		260	
				17923	5	70.391		70.400	70.401		100	
				17924	6	69.048		69.055	69.056		80	
				17925	7	69.584		69.593	69.594		100	CORRECTIONS to 7/23/01
〃	〃	〃	8/21/01 15:30 AS	17925D	8	71.043	〃	71.054	71.053		100	
8/21/01	AS			Blank	B		100mL					
				18858	1							
				18859	2							
				18860	3							
				18861	4							
				18862	5							
				18863	6							
				18864	7							
				18865	8							
			18867	~~18866~~ AS	9							
			18868	~~18867~~	10							

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
8.21-01	AS	17:50	15:57	18668	D	65.608	100 mL	65.608	65.608	AS 08-22-01	0	
8-23-01	AS				B	79.259						
					1	56.739						
					2	56.763						
					3	61.405						
					4	53.860						
					D							
8.23.01	AS	13:10	15:30/01	Blank	B	71.7615	100 ml	71.7613	71.7617		2 ✓	Temp.
				17919	1	56.7216		56.7424	56.7409	56.7409	193	26°C @ 23
				17920	2	56.7439		56.7548	56.7547		108 ✓	27°C @ 23
				17921	3	61.3831		61.4048	61.4035	61.4048	217 ✓	29°C 17922
				17922	4	53.8421		53.8513	53.8519		98 ✓	17924
				17923	5	70.3693		70.3749	70.3750		57 ✓	
				17924	6	72.6482		72.6538	72.6541		59 ✓	
				17925	7	73.4857		73.4956	73.4939	73.4951	~~82~~	94 ✓
				18858	8	54.2278		54.2303	54.2306		26	
				18859	9	57.5467		57.5477	57.5473		6	
				18860	10	54.8128		54.8150	54.8153		25	
				18861	11	69.5591		69.5625	69.5611	69.5610	19	
				18862	12	72.3875		72.3903	72.3891	72.3894	19	
				18863	13	69.0226		69.0256	69.0249	69.0259	33	
	AS			18864	14	71.0189		71.0201	71.0189	71.0181	—	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	Final wt. (g) 2	Final wt. (g) 3	TDS (mg/L)	Comments
8.23.01	AS	13:10	18:30	18865	15	79.2327	100 mL	79.2326	79.2356	79.2357	30	
			8/27/01 AS	18866	16	99.3138		99.3154	99.3183	99.3181	43	
				18867	17	56.0902		56.0916	56.0911	56.0912	10	
				17925	D1	65.5835		65.5943	65.5956	65.5956	121	RPD 25%
				18867	D2	68.7359		68.7358	68.7361		2	RPD N/A
8.29.01	AS	13:00		Blank	B	71.7547	100 mL					
				18869	1	X 56.7163						
				18870	2	56.7403						
				18871	3	62.0211						
				18872	4	53.8408						
				17936	5	65.5815						
	AS			18869	D	72.3843						

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [4] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: WCH010826S AS

Reported By: Andrea Sutton Date Reported: 8/29/01

Department: Wet Chem Project(s): 28518, 28641 PM: BJH

Discrepancy:

1) Samples analyzed out of hold time. Analyzed on 8.20.01
Reanalyzed due to balance decimal discrepancy
on 8.27.01

Resolution Assigned to (circle one): **Bonnie Hogue** **Michael Trinidad** **Christelle Newsome** **Kelly Clemons**
Malla Pollana **Diana Burdette** **John Peterson** **David Fuller** **Duane J**

Resolution:

① Note in Case Narrative

Resolution recorded by: KMC **Date:** 8/29/01

Copied to (circle one): **Bonnie Hogue** **Michael Trinidad** **David Fuller** **Kelly Clemons**

QA Comments

: report as ostinded

QA Review by: C. L. K Date: 9/4/01

Original to QA copy in the QCF Book, copy in the project folder, copy to PM. QA will forward completed book to department to be inserted into QM.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
8.21-01	AS	17:50	15:51	18668	D	65.608	100 mL	65.608	65.608	AS 08-22-01	0	
8.23.01	AS				B	79.259						
					1	56.739						
					2	54.763						
					3	61.405						
					4	53.860						
					D							
8.23.01	AS	13:10		Blank	B	71.7615	100 ml	71.7613	71.7617		2	26°C
				17919	1	56.7216		56.7424	56.7409	56.409		27°C
				17920	2	56.7439		56.7548	56.7547		108	29°C
				17921	3	61.3836		61.4048	61.4035	61.4048		
				17922	4	53.8421		53.8518	53.8519			
				17923	5	70.3693		70.3749	70.3750		57	
				17924	6	72.6482		72.6538	72.6541		59	
				17925	7	73.4857		73.4956	73.4939	73.4951	~~82~~ BD	
				18858	8	54.2278	80	54.2303	54.2306		26	
				18859	9	57.5467		57.5477	57.5473		6	
				18860	10	54.8128		54.8150	54.8153		25	
				18861	11	69.5591		69.5625	69.5611			
				18862	12	72.3875		72.3908	72.3891	72.3894		
				18863	13	69.0226		69.0256	69.0249	69.0259		
	AS			18864	14	71.0189		71.0201	71.0189			

TDS = (Final wt - Tare wt) in mg / sample volume in L

80

Reviewed By:_____

SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 28518	METHOD: FL-PRO
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
Are multicomponent patterns resolvable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: RPS	
Date: 05/27/01	Time: 1445

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL	
Date: 8/28/01	Time: 1130

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

FL Pro

ANALYSIS (DRO) / PAH

DATE/TIME: 8/8/01 8:00 a.m

MATRIX: WATER

ANALYST: L-J

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QFW080801-1	1L	<2	LJ		1mL	BLK
QFW080801-2	↓			LJ		LCS
17919	↓					
17920	965mL					
17921	970mL					
17922	955mL					
17923	995mL					
17924	940mL					
17925	1L					
17978	↓					
17979	980mL					
17982	955mL	↓	↓		↓	low surrogate recovery ↓

A.H 8/10/01 4:45 pm

START TIME: ~~8:15 a.m.~~ 12:00 p.m. 8/9/01 STOP TIME: 8:30 a.m. SOLVENT ID #: EXO677

SURROGATE I.D. : FL01E137 CONC. : 300 ppm INITAL : LJ

SURROGATE I.D. : D01E136 CONC. : 50 ppm INITAL : LJ

SPIKE I.D. : FL01E135 CONC. : 250 ppm INITIAL : LJ

SPIKE I.D. : — CONC. : — INITIAL : —

EXTRACT STORAGE: REFRIG.# 5, BOX # : D-197 RapidVap TEMP.: 45°

Spike witness: DR

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 8/2/01 **Batch ID:** DROW78 **Matrix:** Water

Ext. Method: 3520 **MS ID:** 17736 **MSD ID:** 17736

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1	28497	17736	8/2/01	FL Pro
2		17737		
3		17739		
4		17740		
5		17741		
6		17742		
7		17745	8/3/01	
8		17746		
9		17747		
10		17749		
11		17750		
12		17751		
13		17752		
14	28518	17919	8/8/01	
15		17920		
16		17921		
17		17922		
18		17923		
19		17924		
20		17925		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080601\08060122.D Vial: 20
Acq On : 08/07/01 04:25 Operator: BP
Sample : 1064-50-50-1/2 MS Inst : HPGCO
Misc : 17736 W MS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:37 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.78	2074725	30.111 ug/ml
Spiked Amount 50.000	Recovery =		60.22%
3) SC C(39)	38.57f	3663602	102.125 ug/ml
Spiked Amount 300.000	Recovery =		34.04%
Target Compounds			
1) HM Petoleum Range Organics	3.93	181286533	2284.785 ug/ml

54 ^10

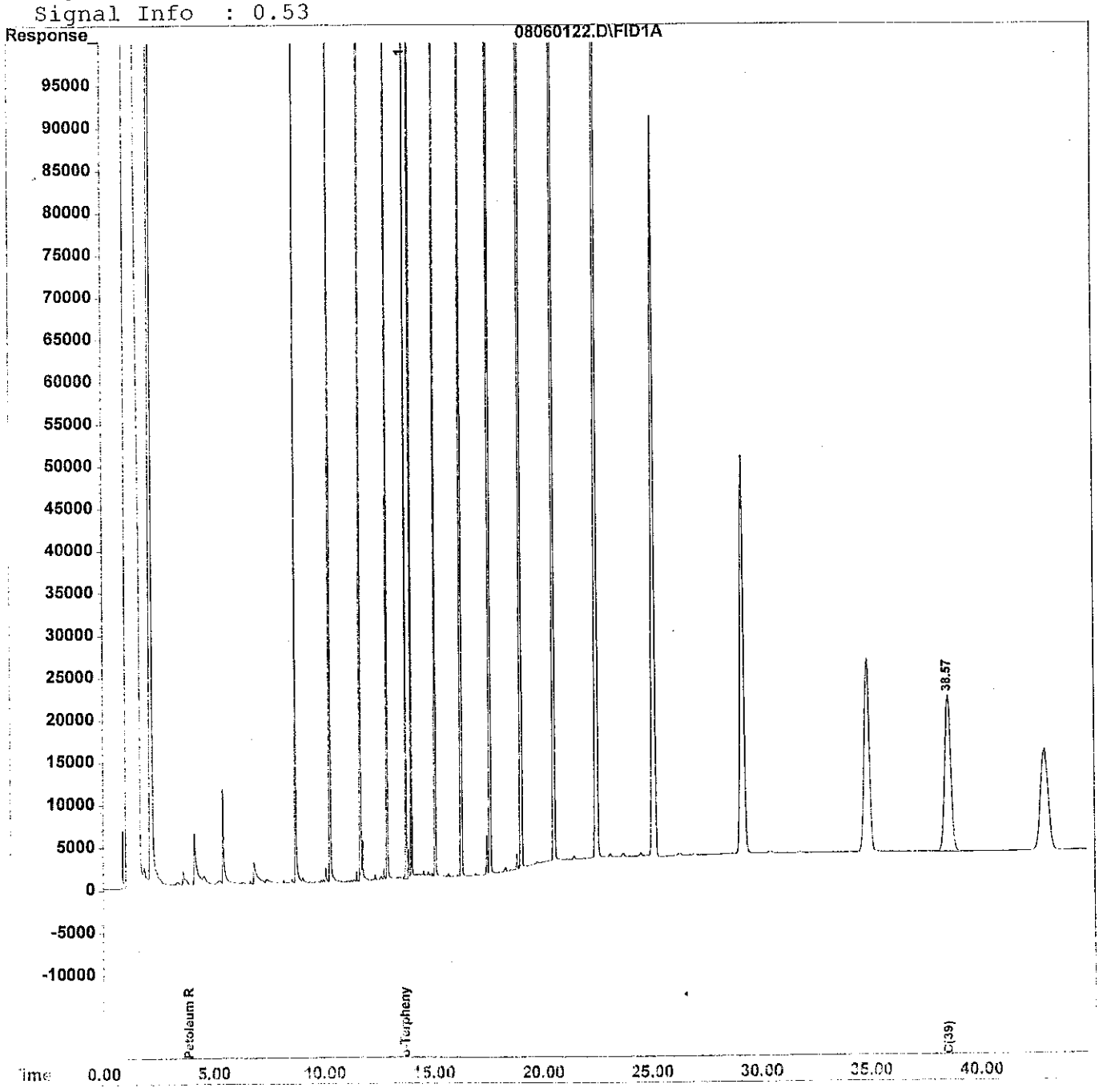
f =RT Delta > 1/2 Window m=manual int.
DS 60122.D PRO0727.M Fri Aug 10 10:14 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080601\08060122.D Vial: 20
Acq On : 08/07/01 04:25 Operator: BP
Sample : 1064-50-50-1/2 MS Inst : HPGCO
Misc : 17736 W MS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:37 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080601\08060123.D Vial: 21
Acq On : 08/07/01 05:19 Operator: BP
Sample : 1064-50-50-1/2 MSD Inst : HPGCO
Misc : 17736 W MSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.78	2102147	30.509 ug/ml
Spiked Amount 50.000	Recovery =		61.02%
3) SC C(39)	38.57f	5030598	140.231 ug/mlm
Spiked Amount 300.000	Recovery =		46.74%
Target Compounds			
1) HM Petoleum Range Organics	3.93	190873679	2474.709 ug/ml

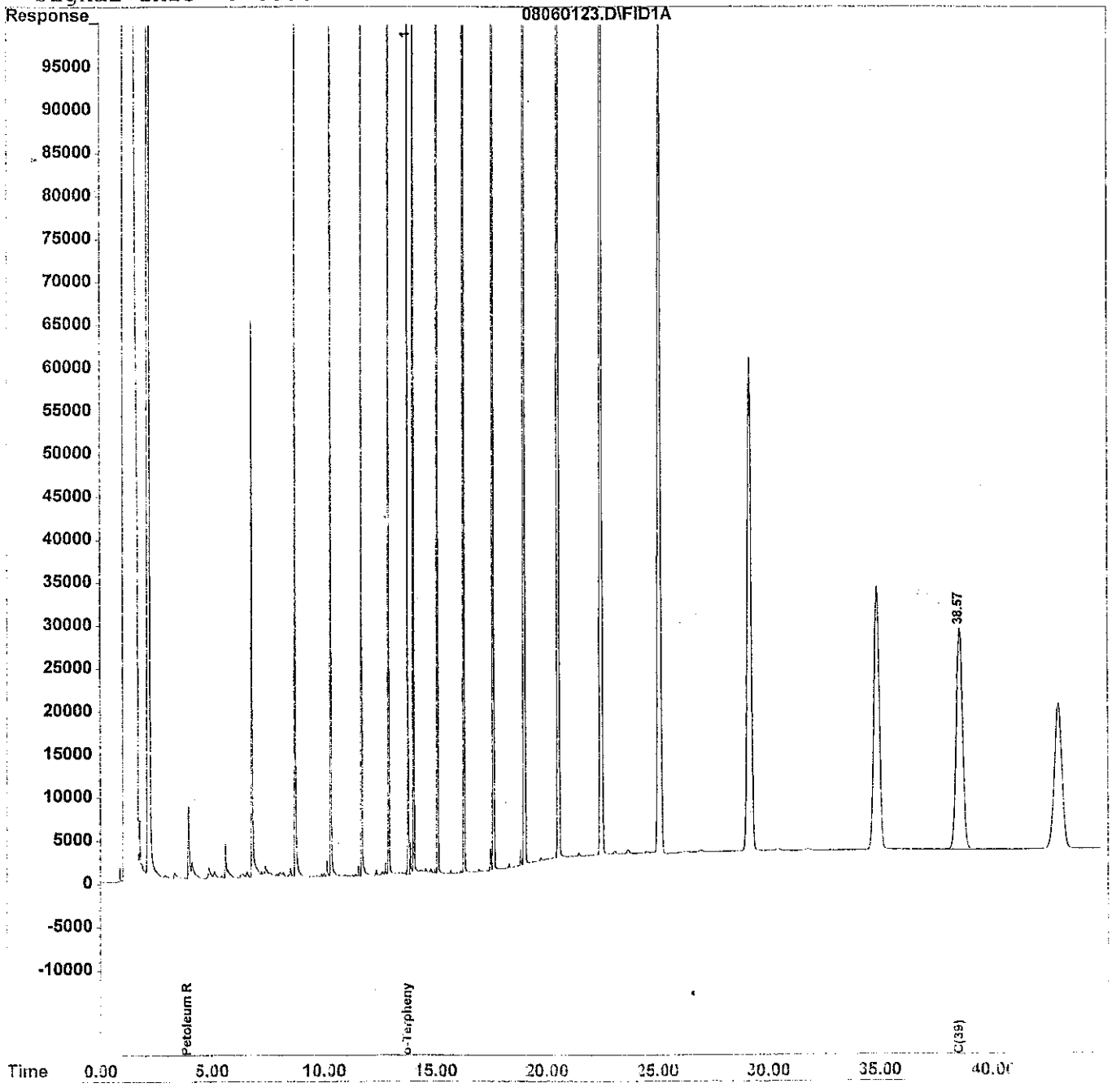
(m,=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080601\08060123.D Vial: 21
Acq On : 08/07/01 05:19 Operator: BP
Sample : 1064-50-50-1/2 MSD Inst : HPGCO
Misc : 17736 W MSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:39 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080601\08060124.D Vial: 22
Acq On : 08/07/01 06:13 Operator: BP
Sample : 1064-50-50-1/2 Inst : HPGCO
Misc : 17736 W Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:35 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

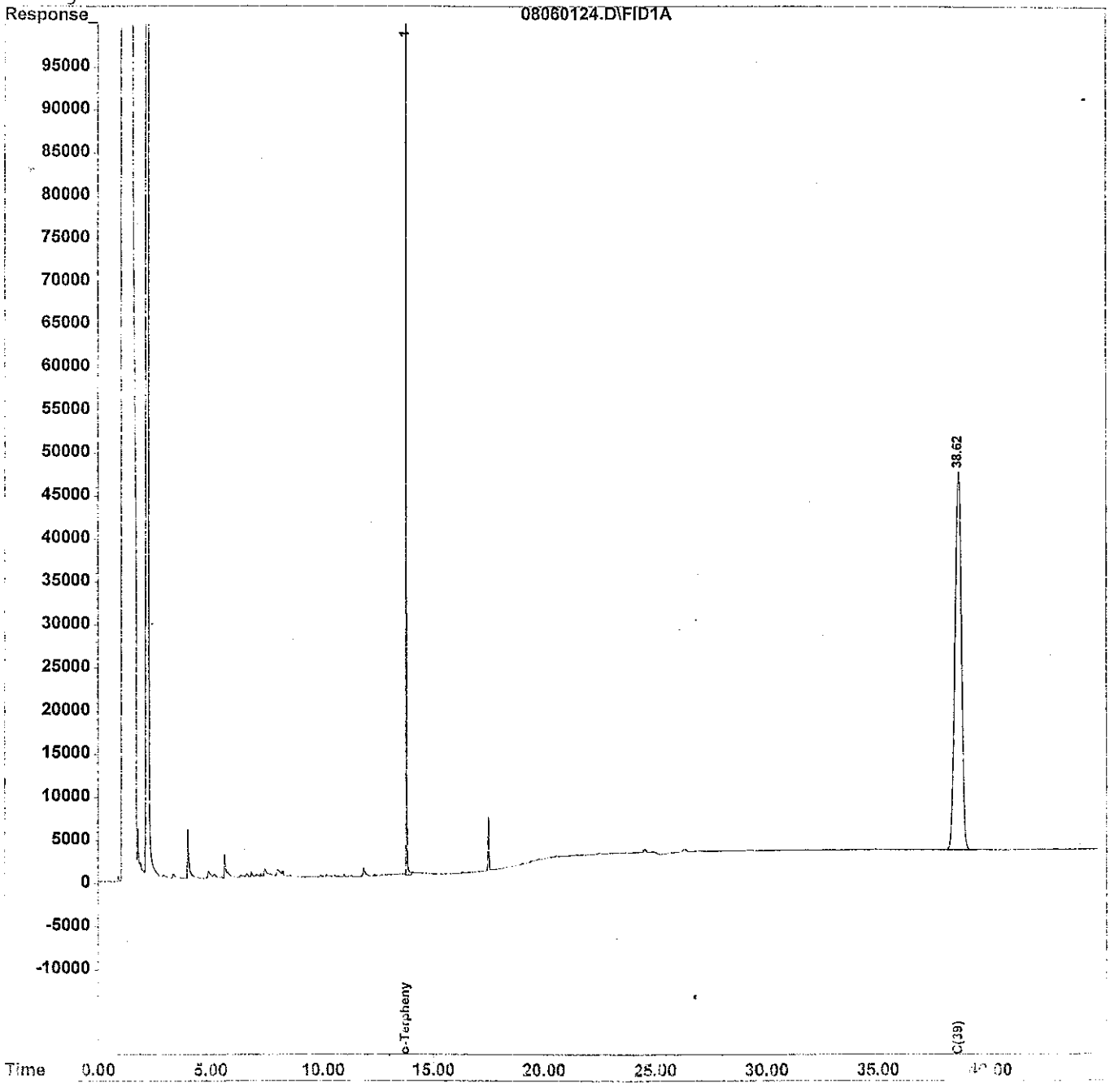
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.78	2051080	29.768 ug/ml
Spiked Amount 50.000		Recovery =	59.54%
3) SC C(39)	38.62	8709396	242.780 ug/ml
Spiked Amount 300.000		Recovery =	80.93%
Target Compounds			
1) HM Petoleum Range Organics	3.93	54958555	N.D. ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080601\08060124.D Vial: 22
Acq On : 08/07/01 06:13 Operator: BP
Sample : 1064-50-50-1/2 Inst : HPGCO
Misc : 17736 W Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 7 7:35 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: HPGC O I RL 8/31/01	METHOD: 8000
MATRIX: FL-PRO ICAL 8/27/01	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: RPS	Reviewer: RL
Date: 8/29/01 Time: 12:45	Date: 8/29/01 Time: 8:19

Response Factor Report HPGC0

Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001

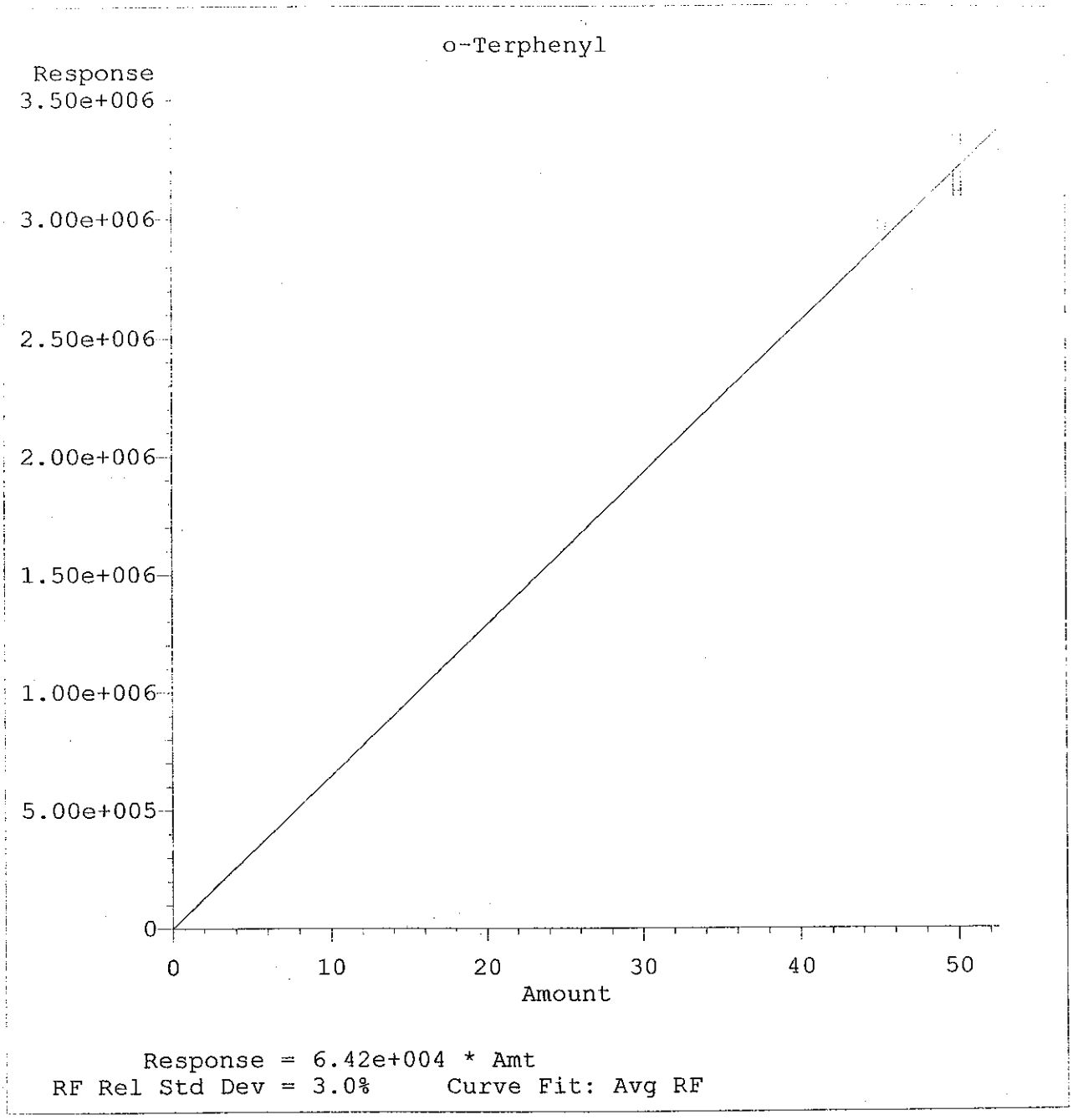
Calibration Files
1 =P00028.D 2 =P00029.D 3 =P00030.D
4 =P00031.D 5 =P00032.D

	Compound	1	2	3	4	5	Avg	%RSD
1) HM	Petoleum Range Organi	2.335	1.129	0.934	0.778	0.740	1.183 E5	55.93*
2) SC	o-Terphenyl	6.245	6.284	6.672	6.330	6.579	6.422 E4	2.98
3) SC	C(39)	3.971	4.353	4.655	4.275	3.908	4.232 E4	7.18

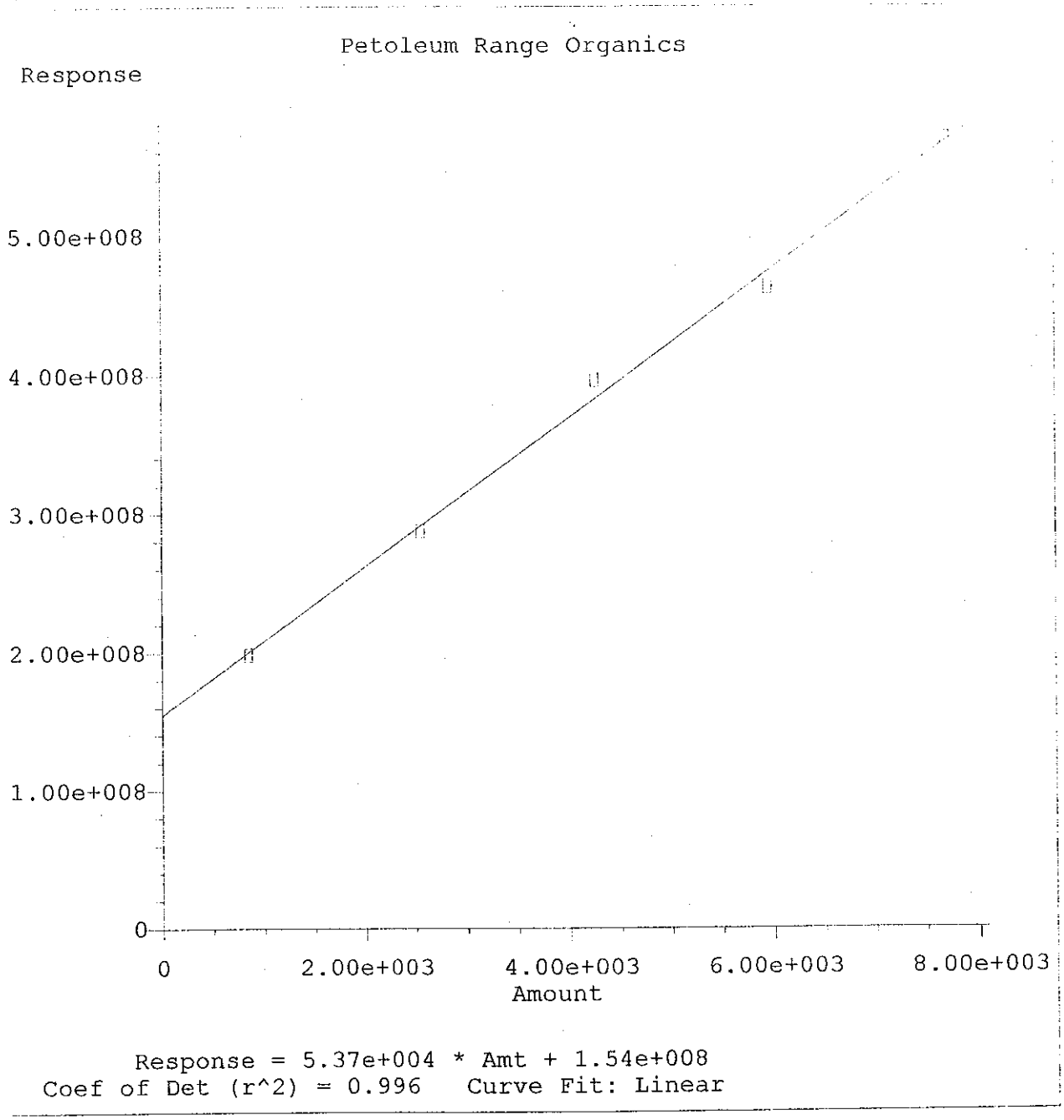
* see attached

(#) = Out of Range

PRO0821.M Thu Aug 23 07:26:29 2001

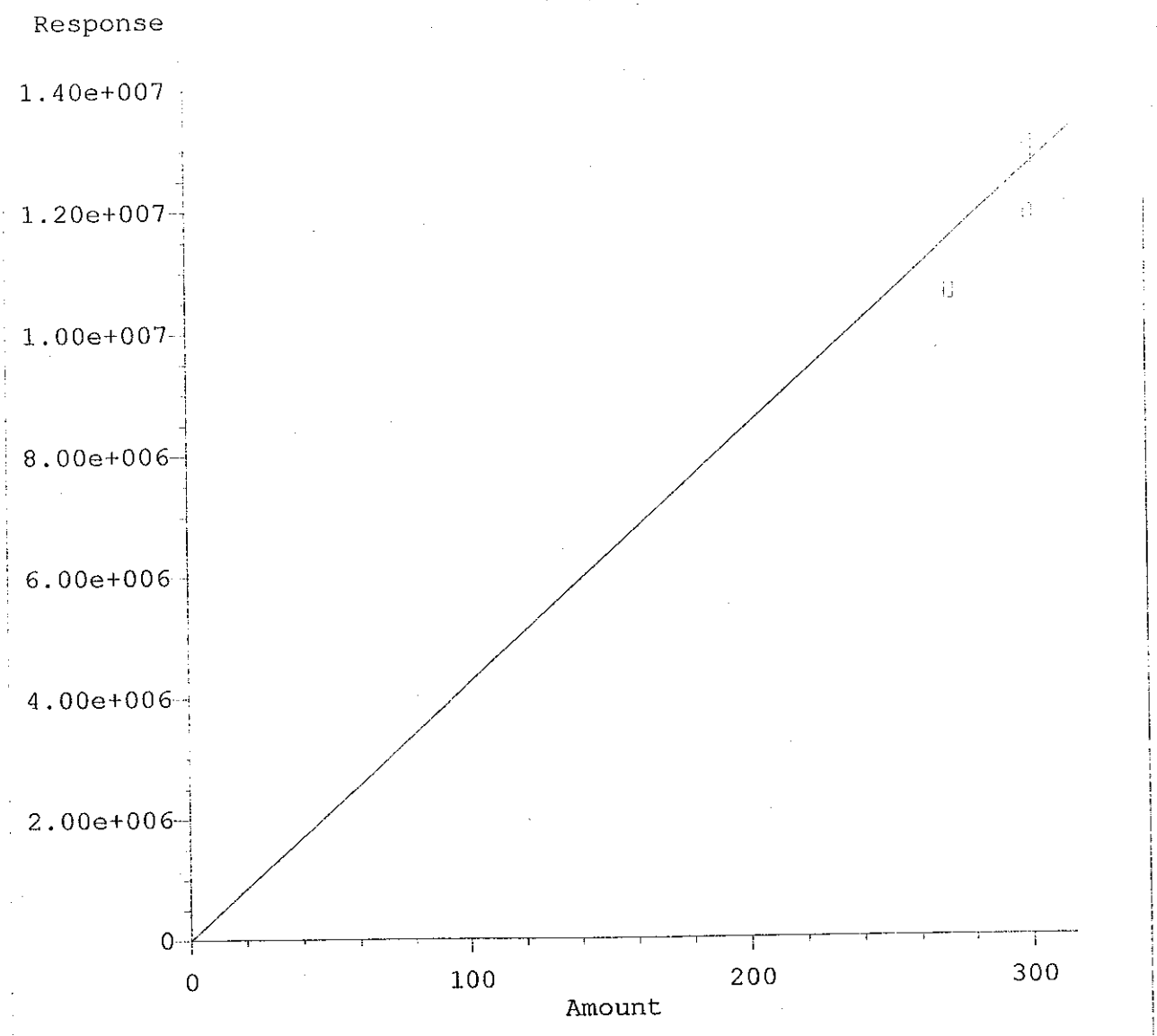


Method Name: C:\HPCHEM\1\METHODS\PRO0821.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0821.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001

C(39)



Response = 4.23e+004 * Amt
RF Rel Std Dev = 7.2% Curve Fit: Avg RF

Method Name: C:\HPCHEM\1\METHODS\PRO0821.M
Calibration Table Last Updated: Fri Jul 27 18:21:43 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\P00028.D Vial: 2
Acq On : 08/21/01 15:04 Operator:
Sample : 850PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:07 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.68	3122576	45.318 ug/mlm
Spiked Amount 50.000	Recovery =		90.64%
3) SC C(39)	37.25f	11911532	332.041 ug/mlm
Spiked Amount 300.000	Recovery =		110.68%
Target Compounds			
1) HM Petoleum Range Organics	3.93	198433059	2624.462 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

P00028.D PRO0727.M Thu Aug 23 07:54 2001 Page

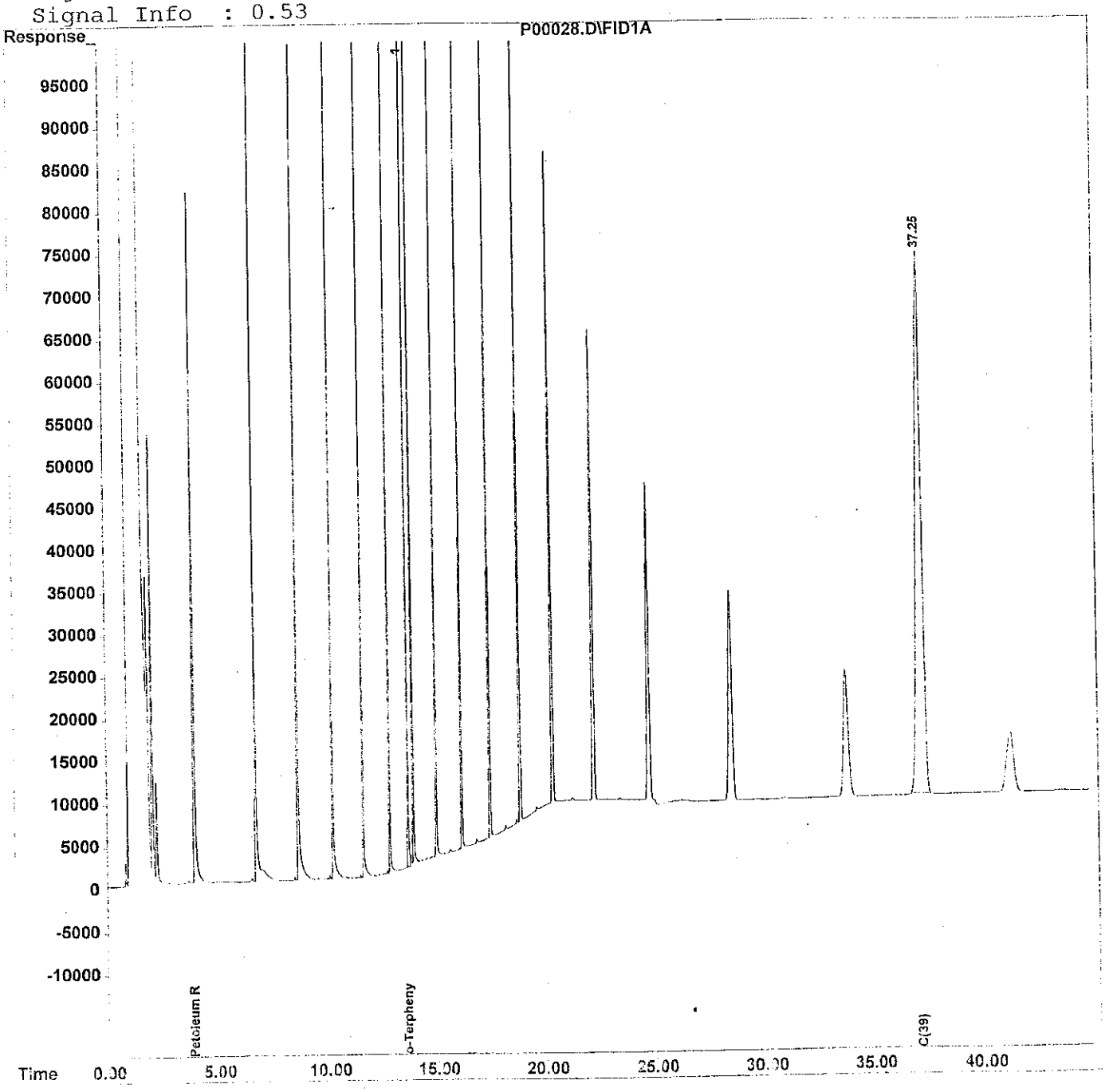
Quantitation Report

Data File : C:\HPCHEM\1\DATA\082101\P00028.D
Acq On : 08/21/01 15:04
Sample : 850PHS PRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 22 7:07 2001 Quant Results File: PRO0727.RES

Vial: 2
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



P00028.D PRO0727.M Thu Aug 23 07:25:55 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\P00029.D Vial: 3
Acq On : 08/21/01 15:59 Operator:
Sample : 2550PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:15 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.68	3142100	48.927 ug/ml
Spiked Amount 50.000	Recovery =		97.85%
3) SC C(39)	37.23	13059485	388.437 ug/ml
Spiked Amount 300.000	Recovery =		129.48%
Target Compounds			
1) HM Petoleum Range Organics	3.93	287894397	2951.053 ug/ml

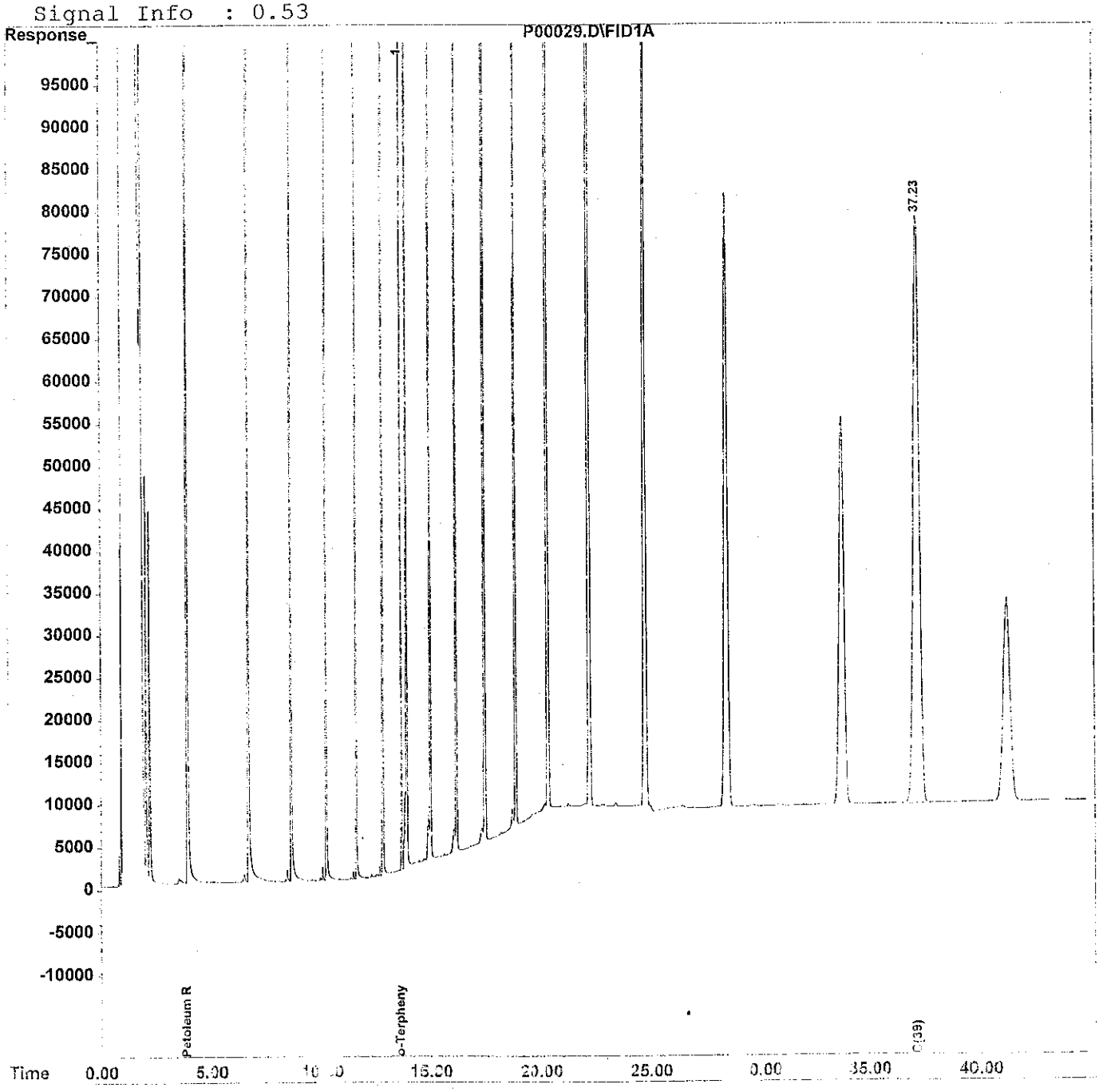
(f)=RT Delta > 1/2 Win. (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082101\P00029.D Vial: 3
Acq On : 08/21/01 15:59 Operator:
Sample : 2550PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:15 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\P00030.D Vial: 4
Acq On : 08/21/01 16:54 Operator:
Sample : 4250PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:08 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.68	3336064	48.417 ug/mlm
Spiked Amount 50.000	Recovery =		96.83%
3) SC C(39)	37.22f	13966039	389.312 ug/mlm
Spiked Amount 300.000	Recovery =		129.77%
Target Compounds			
1) HM Petoleum Range Organics	3.93	396768999	6553.550 ug/ml

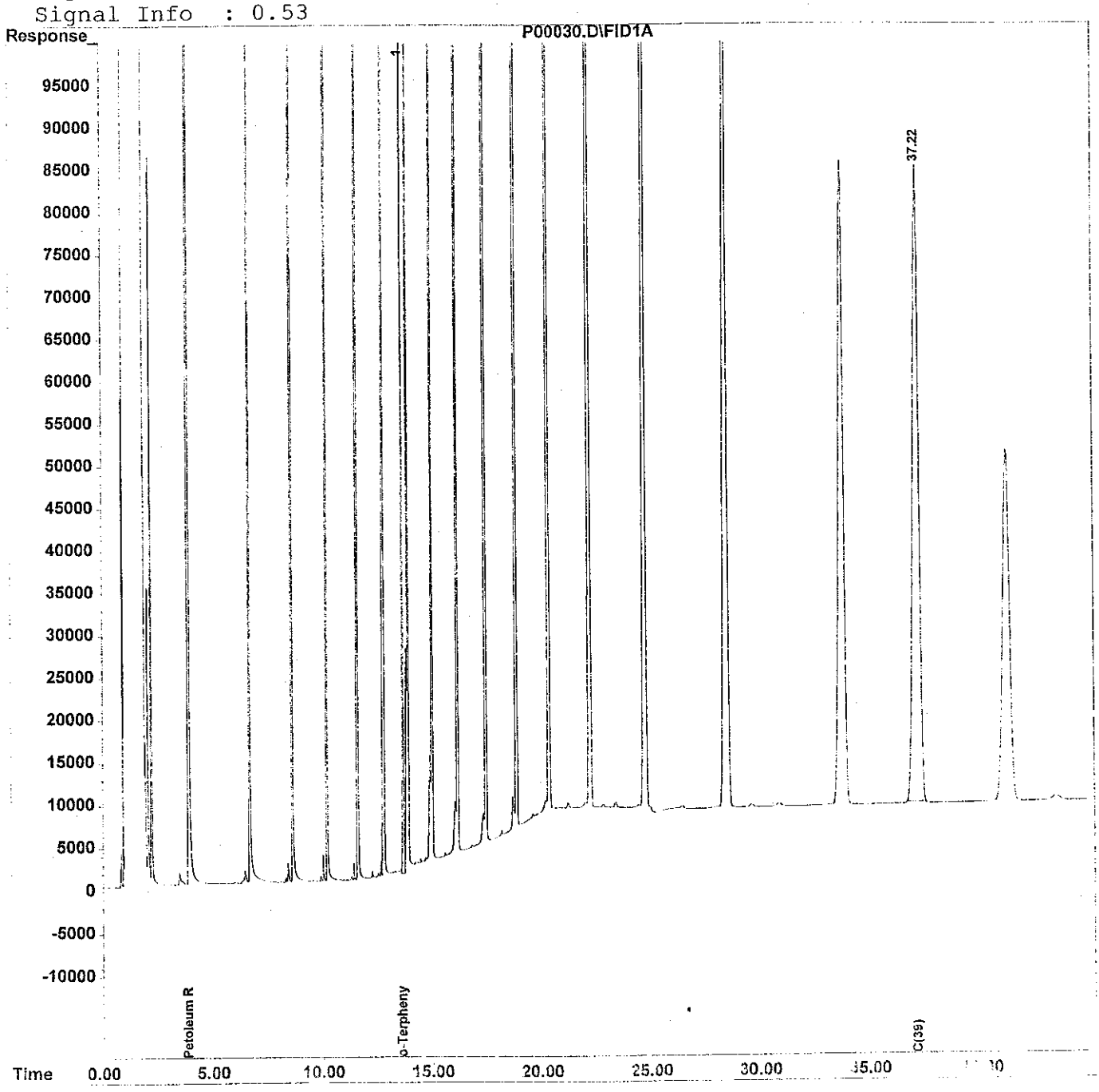
(f)=RT Delta > 1/2 Window (m)=manual int.
P00030.D PRO0727.M Mon Aug 27 07:25:39 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082101\P00030.D Vial: 4
Acq On : 08/21/01 16:54 Operator:
Sample : 4250PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:08 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



P00030.D PRO0727.M Thu Aug 23 07:26:00 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\P00031.D Vial: 5
Acq On : 08/21/01 17:49 Operator:
Sample : 5950PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:09 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.68	3164752	45.930 ug/mlm
Spiked Amount 50.000	Recovery = 91.86%		
3) SC C(39)	37.21f	12824042	357.478 ug/mlm
Spiked Amount 300.000	Recovery = 119.16%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	462710060	7859.860 ug/ml

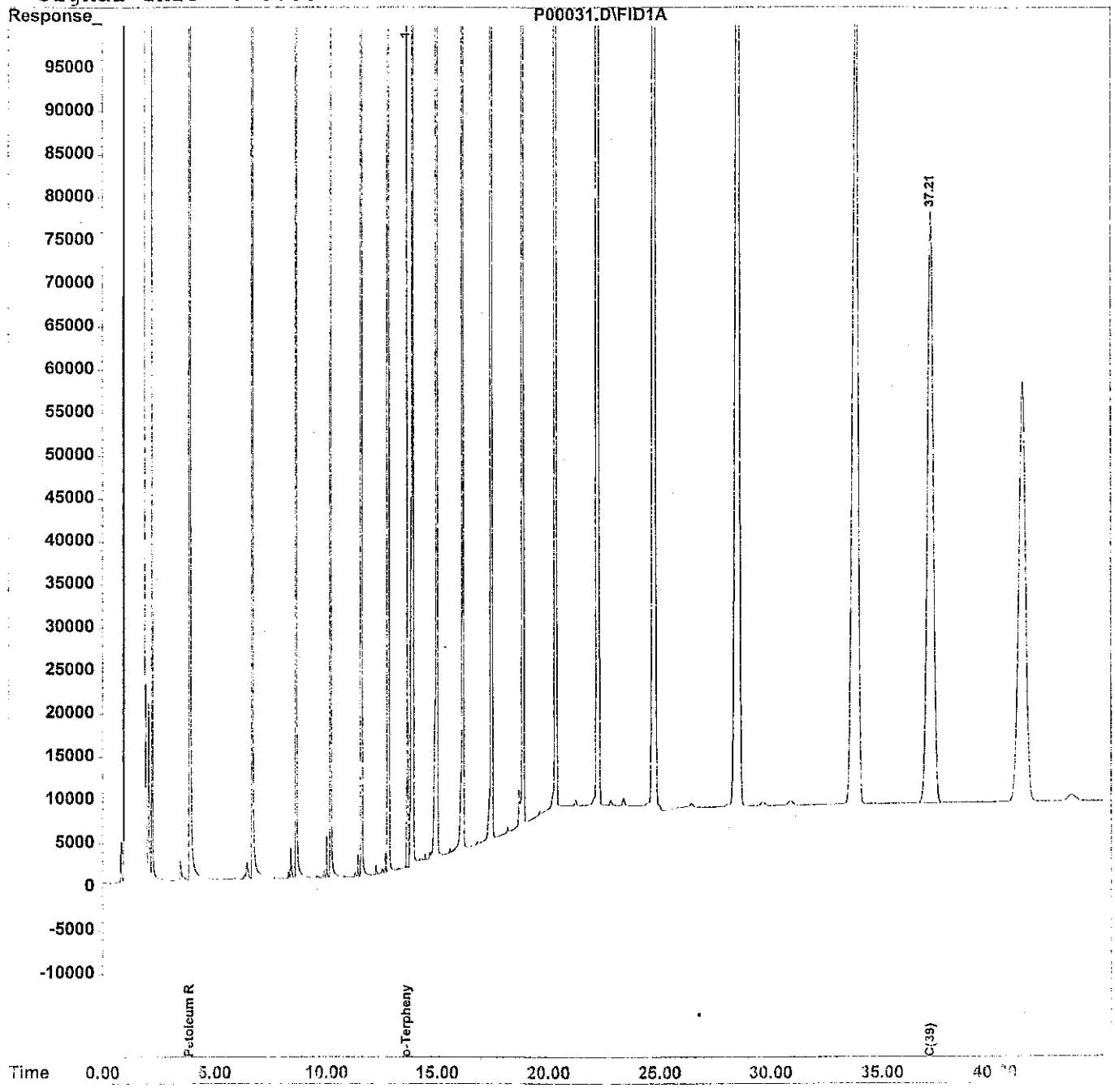
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082101\P00031.D Vial: 5
Acq On : 08/21/01 17:49 Operator:
Sample : 5950PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:09 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



1.0 PRO0727.M Thu Aug 23 07:26:02 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\P00032.D
Acq On : 08/21/01 18:44
Sample : 7692PHS PRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 22 7:10 2001 Quant Results File: PRO0727.RES

Vial: 6
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

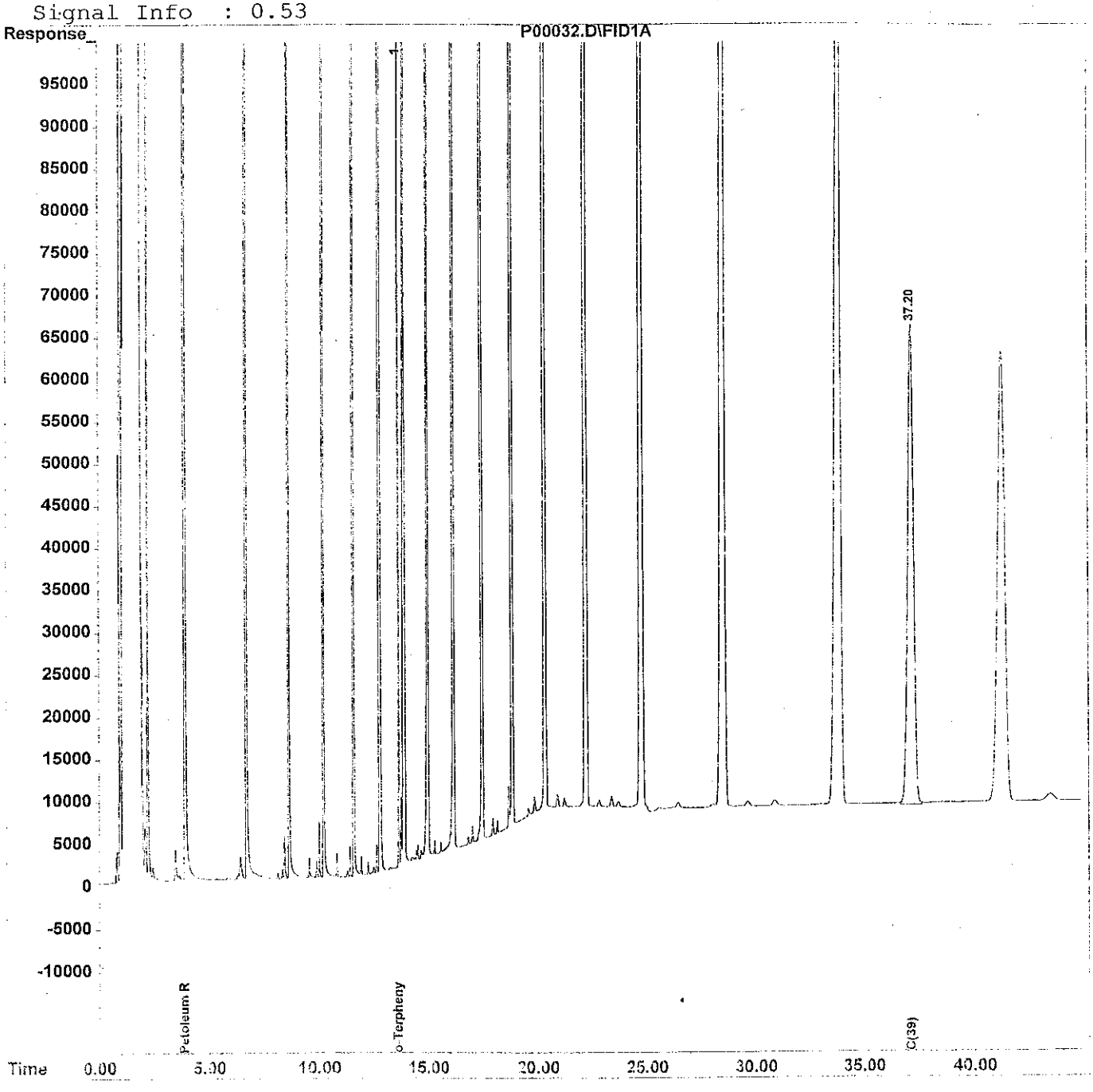
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.67	2973878	43.160 ug/mlm
Spiked Amount 50.000	Recovery =		86.32%
3) SC C(39)	37.20f	10610176	295.765 ug/mlm
Spiked Amount 300.000	Recovery =		98.59%
Target Compounds			
1) HM Petoleum Range Organics	3.93	569511527	9975.625 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082101\P00032.D Vial: 6
Acq On : 08/21/01 18:44 Operator:
Sample : 7692PHS PRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 22 7:10 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082201\P00041.D Vial: 2
Acq On : 08/22/01 09:44 Operator:
Sample : 4250PHS PRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:41 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.69	3601317	56.077 ug/ml
Spiked Amount 50.000	Recovery = 112.15%		
3) SC C(39)	37.37	13551466	320.189 ug/ml
Spiked Amount 300.000	Recovery = 106.73%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	398381788	4543.775 ug/ml

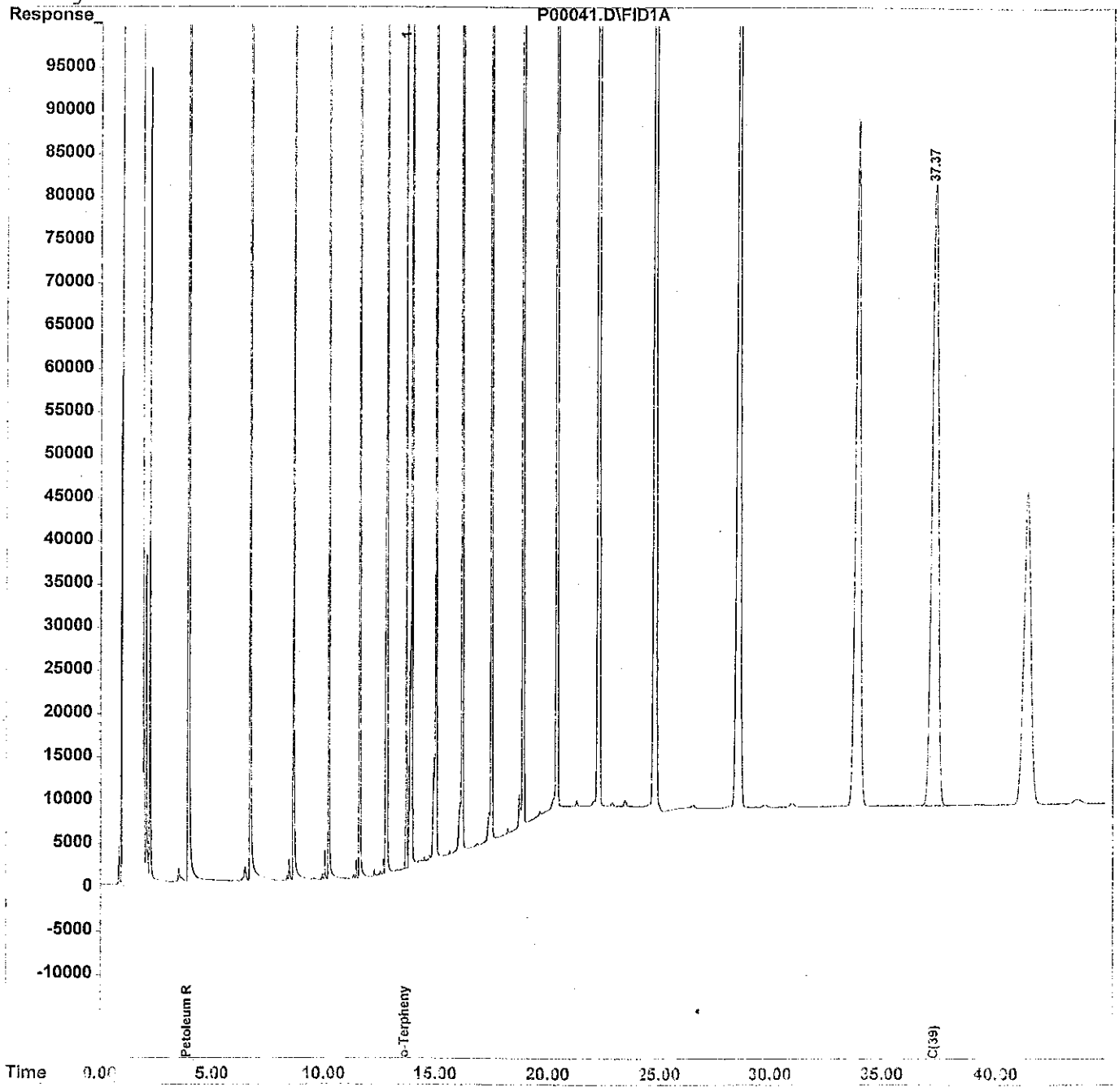
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082201\P00041.D Vial: 2
Acq On : 08/22/01 09:44 Operator:
Sample : 4250PHS PRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:41 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



P00041.D PRO[illegible] M Thu Aug 23 07:44:06 2001

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PRO ICAL
Lab Standard ID#: 015V194-98
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc
FL-PRO Std.	EX01254-1,23	500ppm	100ul	850PHS
			300ul	2550
			500ul	4250
			700ul	5950
			1000ul	7692
OTP	EX99102-10	10,000ppm	5.0ul	50ppm
C(39)	SO1A104	3,000PPM	100ul	300ppm
MeCl2	EX01277	100%	All diluted to 1000ul except 015V198	
015V198 & OTP = 45.7 + 0.39 =		271.5ppm	respectively	

Standard Name: FLPRO ICV
Lab Standard ID#: 015V199
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc
FLPRO ICV Std.	SO1A106	500ppm	500ul	4250PHS
OTP ICV	EX01203	10,000ppm	5ul	50PPM
C(39) ICV	EX01214-5	3,000PPM	100ul	300 PPM
MeCl2	EX01277	100%	Diluted to final volume of 1000ul	

RL 2/12/01

SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: HPGCO	METHOD: 8000
MATRIX: FL-PRO ICAL 8/16/01	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: RPS	Reviewer: RL
Date: 08/24/01 Time: 12:35	Date: 08/24/01 Time: 08:15

Response Factor Report HPGC0

Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001

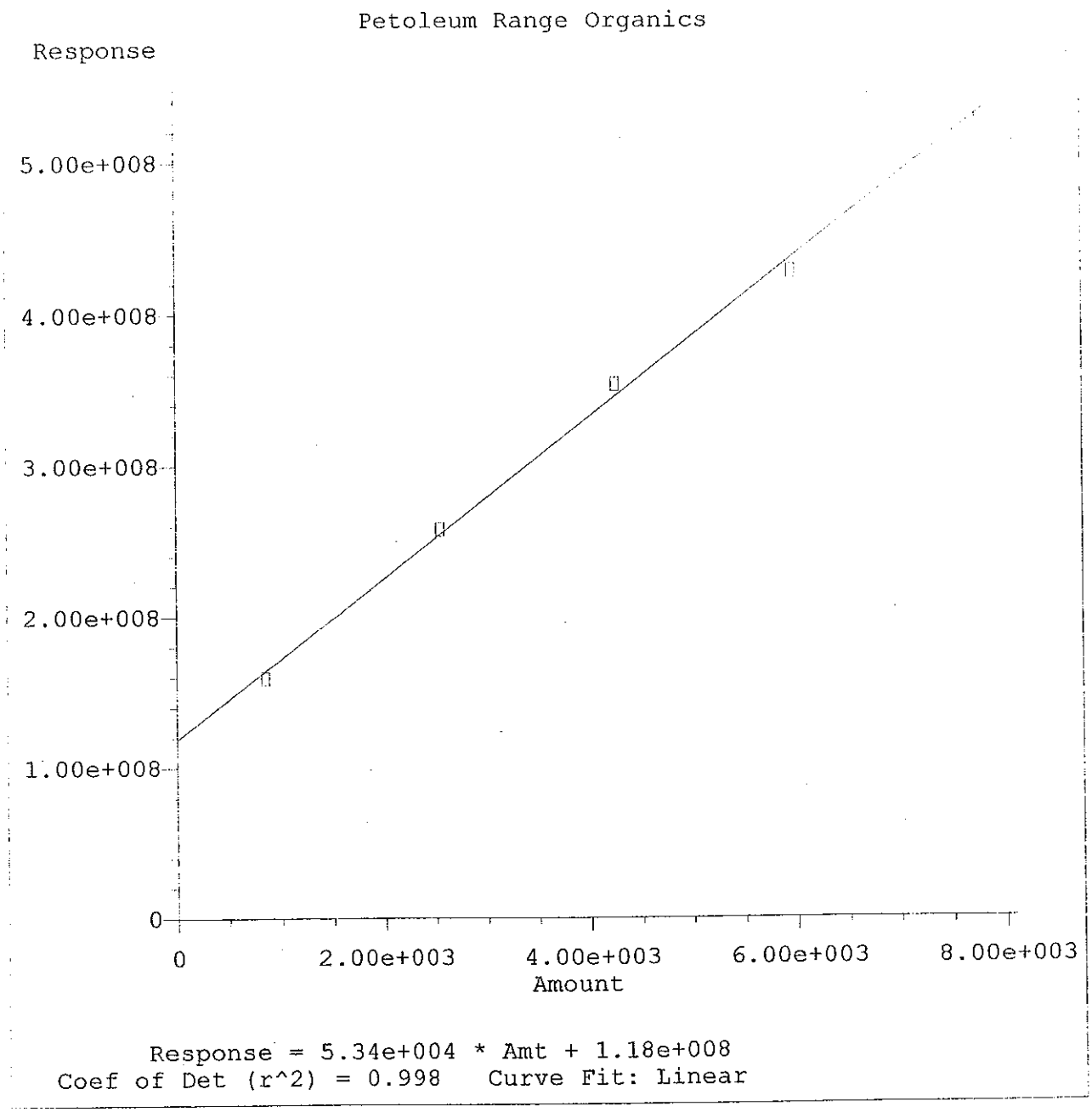
Calibration Files
1 =P00002.D 2 =P00003.D 3 =P00028.D
4 =P00005.D 5 =P00006.D

	Compound	1	2	3	4	5	Avg	%RSD
1) HM	Petoleum Range Organi	1.873	1.012	0.832	0.719	0.690	1.025 E5	47.84
2) TC	o-Terphenyl	6.059	6.608	6.937	6.381	6.748	6.547 E4	5.19
3) SC	C(39)	4.735	5.204	5.175	4.580	4.035	4.746 E4	10.14

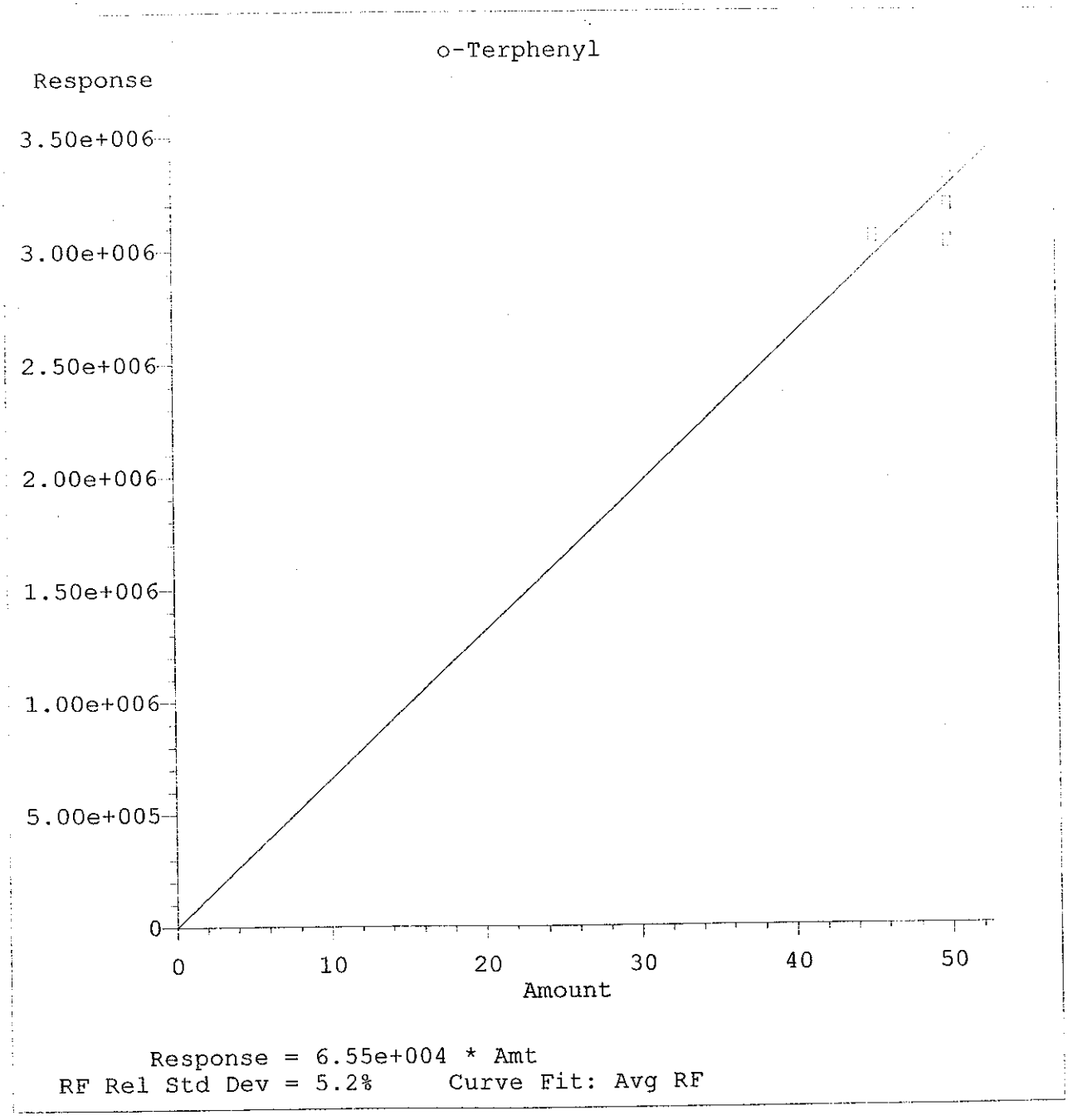
(#) Out of Range

PRO0816.M Thu Aug 23 07:31:01 2001

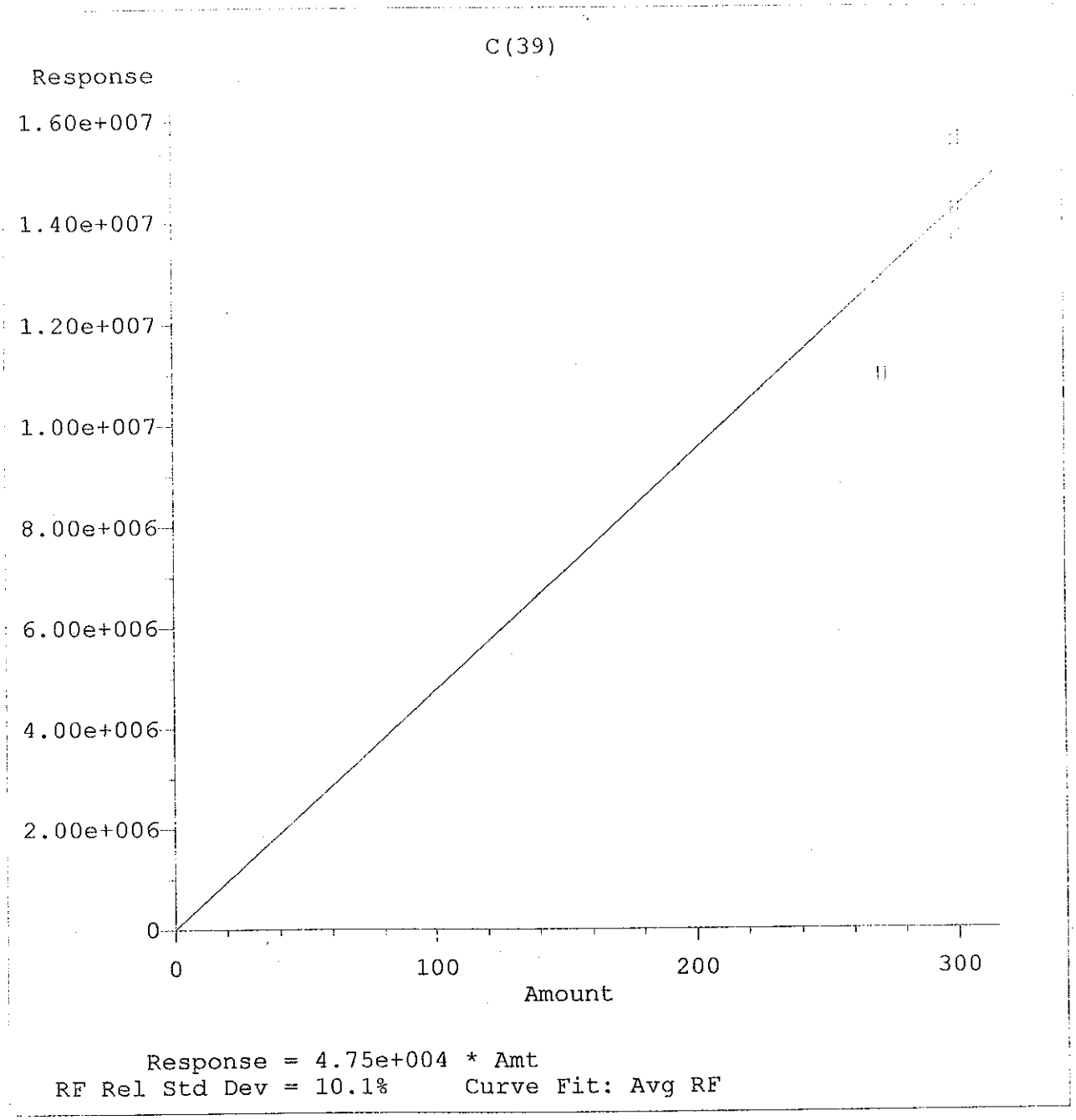
* See attached



Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00002.D Vial: 2
Acq On : 08/16/01 21:21 Operator:
Sample : 850 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:01 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3029633	43.969 ug/mlm
Spiked Amount 50.000	Recovery =		87.94%
3) SC C(39)	37.71f	14204058	395.947 ug/mlm
Spiked Amount 300.000	Recovery =		131.98%
Target Compounds			
1) HM Petoleum Range Organics	3.93	159170716	1846.664 ug/ml

(f)=RT Delta > 0.1 Window (m)=manual int

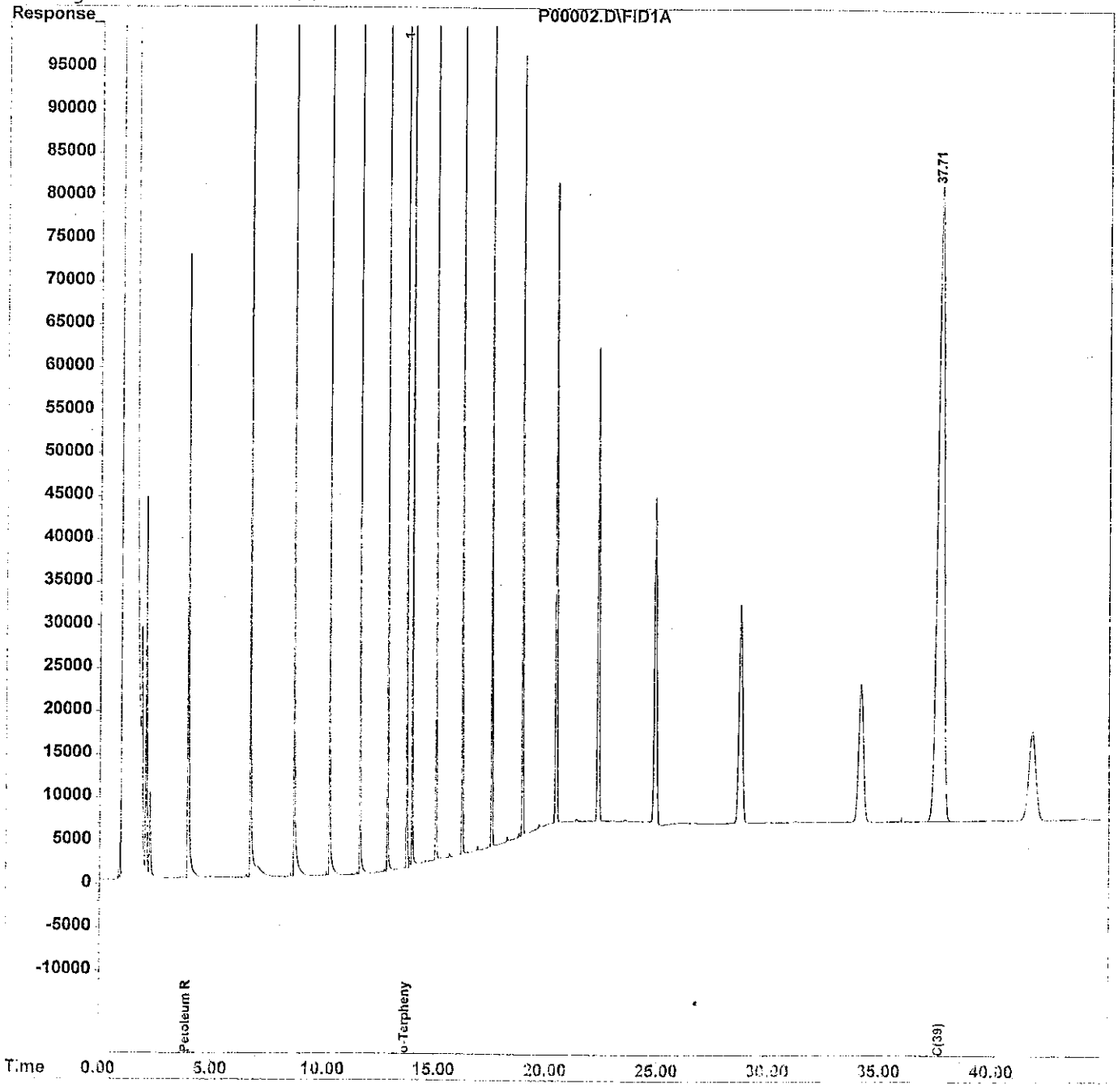
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00002.D
Acq On : 08/16/01 21:21
Sample : 850 PHS FLPRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 7:01 2001 Quant Results File: PRO0727.RES

Vial: 2
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00003.D Vial: 3
Acq On : 08/16/01 22:16 Operator:
Sample : 2550 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:07 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3303946	47.951 ug/ml
Spiked Amount 50.000	Recovery =		95.90%
3) SC C(39)	37.74f	15612724	435.214 ug/mlm
Spiked Amount 300.000	Recovery =		145.07%
Target Compounds			
1) HM Petoleum Range Organics	3.93	258056852	3805.625 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.
P00003.D PRO0727.M Tue 1 08:03:30 2001

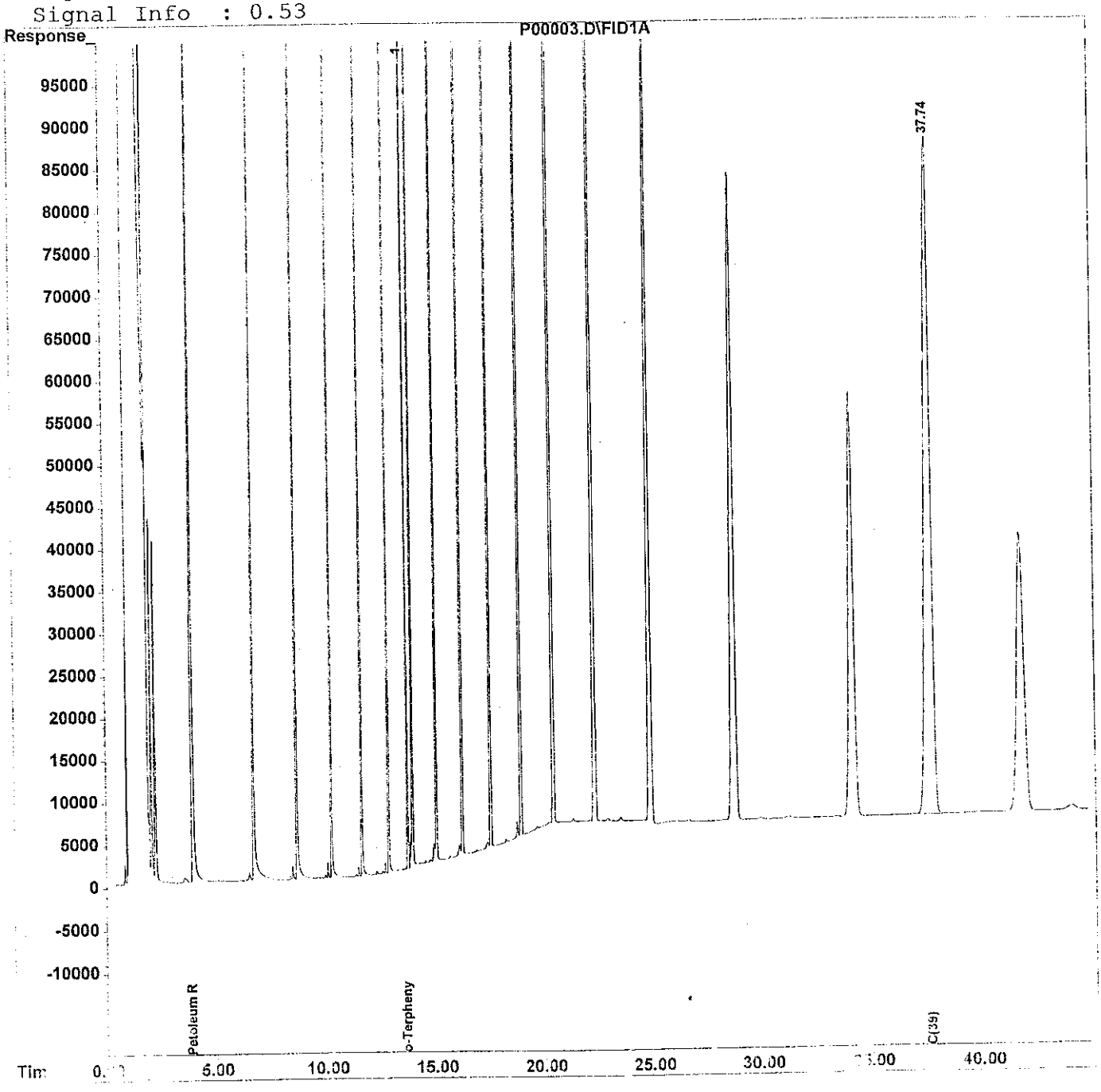
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00003.D
Acq On : 08/16/01 22:16
Sample : 2550 PHS FLPRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 7:07 2001 Quant Results File: PRO0727.RES

Vial: 3
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00004.D Vial: 4
Acq On : 08/16/01 23:11 Operator:
Sample : 4250 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:02 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3468746	50.342 ug/ml
Spiked Amount 50.000	Recovery = 100.68%		
3) SC C(39)	37.72f	15523893	432.738 ug/mlm
Spiked Amount 300.000	Recovery = 144.25%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	353672737	5699.801 ug/ml

(f)=RT Delta > 1/2 Win (m)=manual int

P00004.D PRO0727 27 Jul 01 18:32 2001

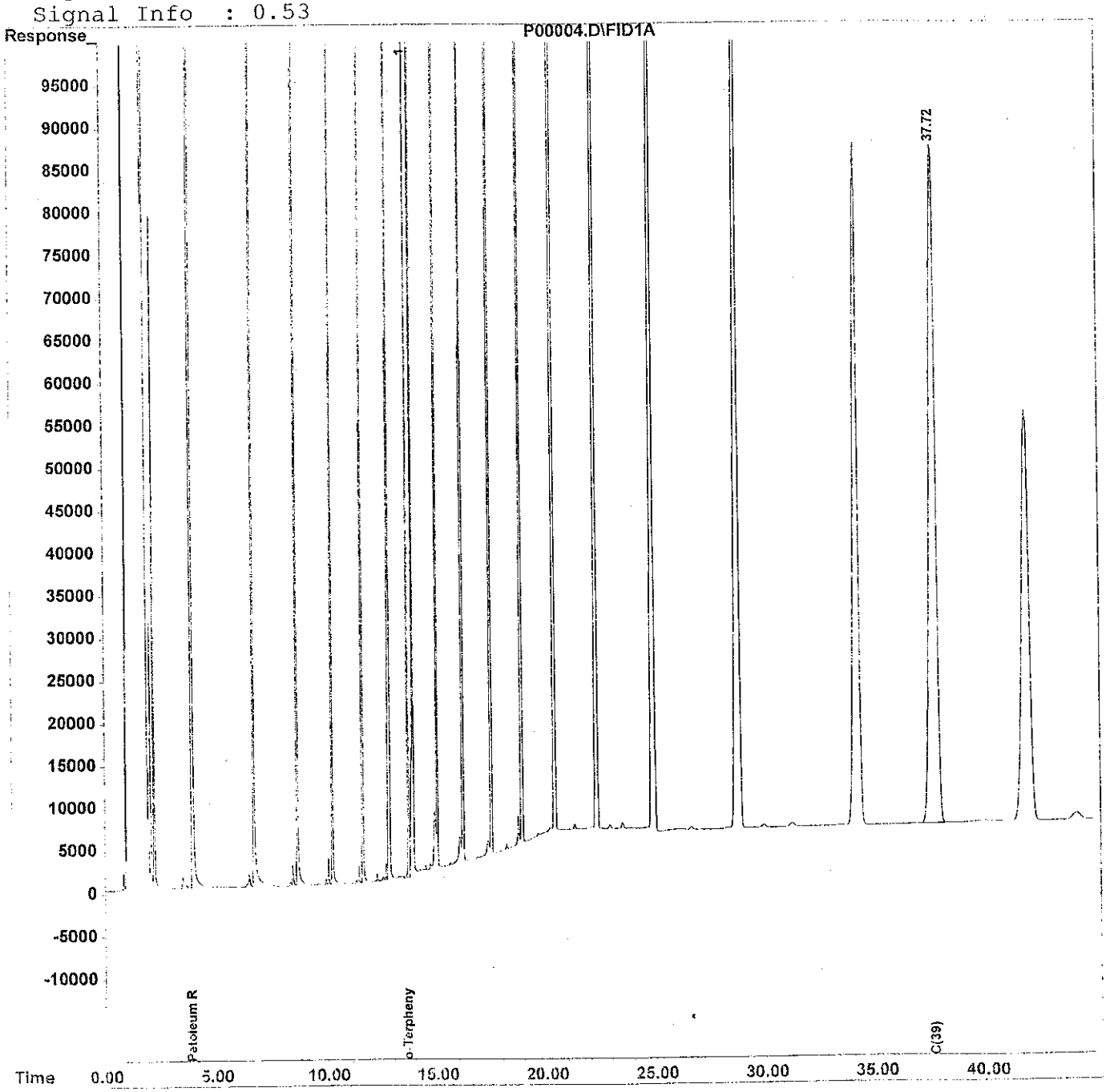
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00004.D
Acq On : 08/16/01 23:11
Sample : 4250 PHS FLPRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 7:02 2001 Quant Results File: PRO0727.RES

Vial: 4
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00005.D Vial: 5
Acq On : 08/17/01 00:05 Operator:
Sample : 5950 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:03 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3190581	46.305 ug/ml
Spiked Amount 50.000	Recovery =		92.61%
3) SC C(39)	37.74f	13738837	382.979 ug/mlm
Spiked Amount 300.000	Recovery =		127.66%
Target Compounds			
1) HM Petoleum Range Organics	3.93	427760586	7167.501 ug/ml

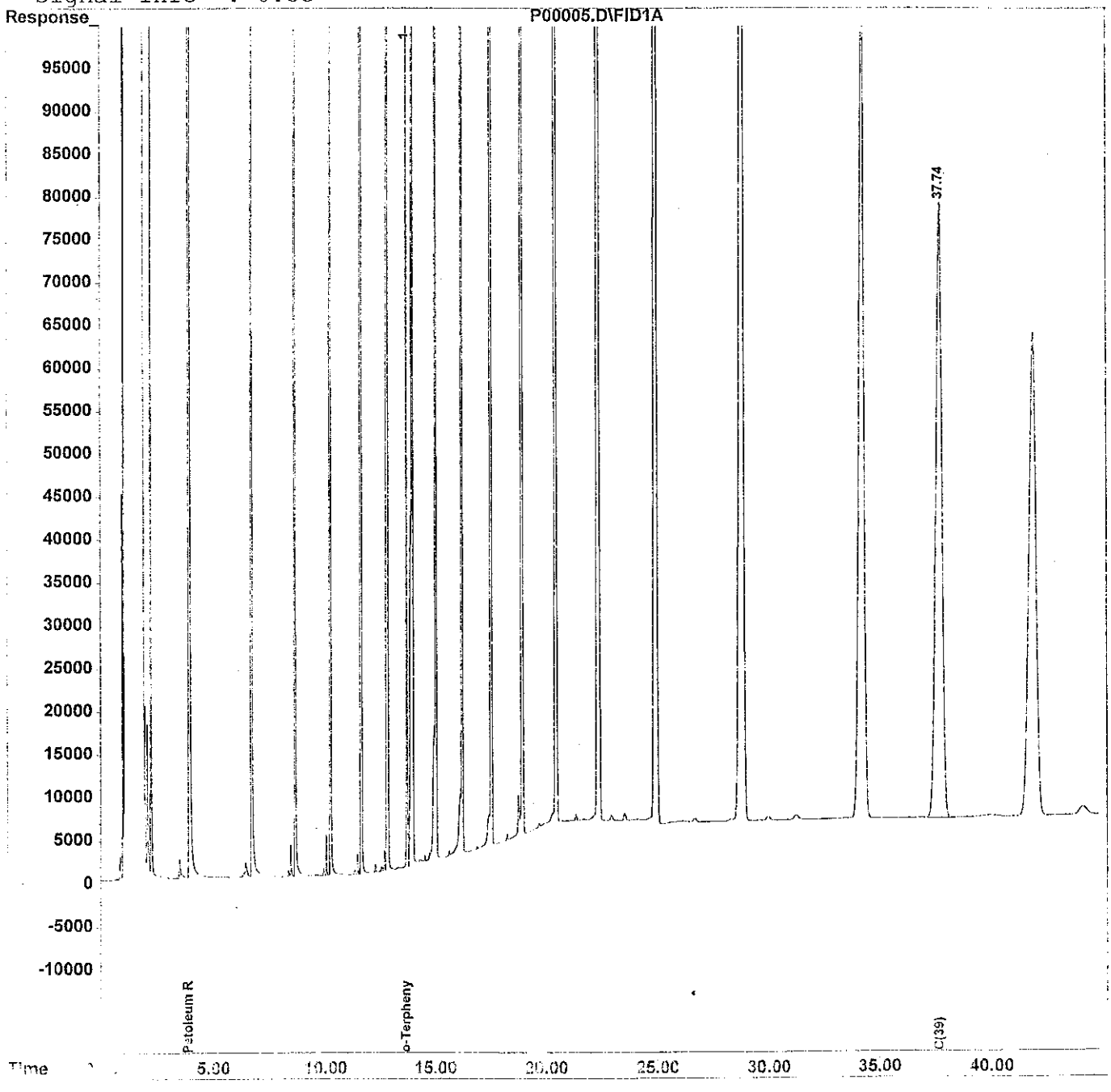
(f)=RT Delta > 1/2 W[illegible] (m)=manual in
[illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00005.D Vial: 5
Acq On : 08/17/01 00:05 Operator:
Sample : 5950 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:03 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00006.D Vial: 6
Acq On : 08/17/01 01:00 Operator:
Sample : 7692 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:04 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3050246	44.269 ug/ml
Spiked Amount 50.000	Recovery = 88.54%		
3) SC C(39)	37.70f	10955271	305.385 ug/mlm
Spiked Amount 300.000	Recovery = 101.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	530499415	9202.785 ug/ml

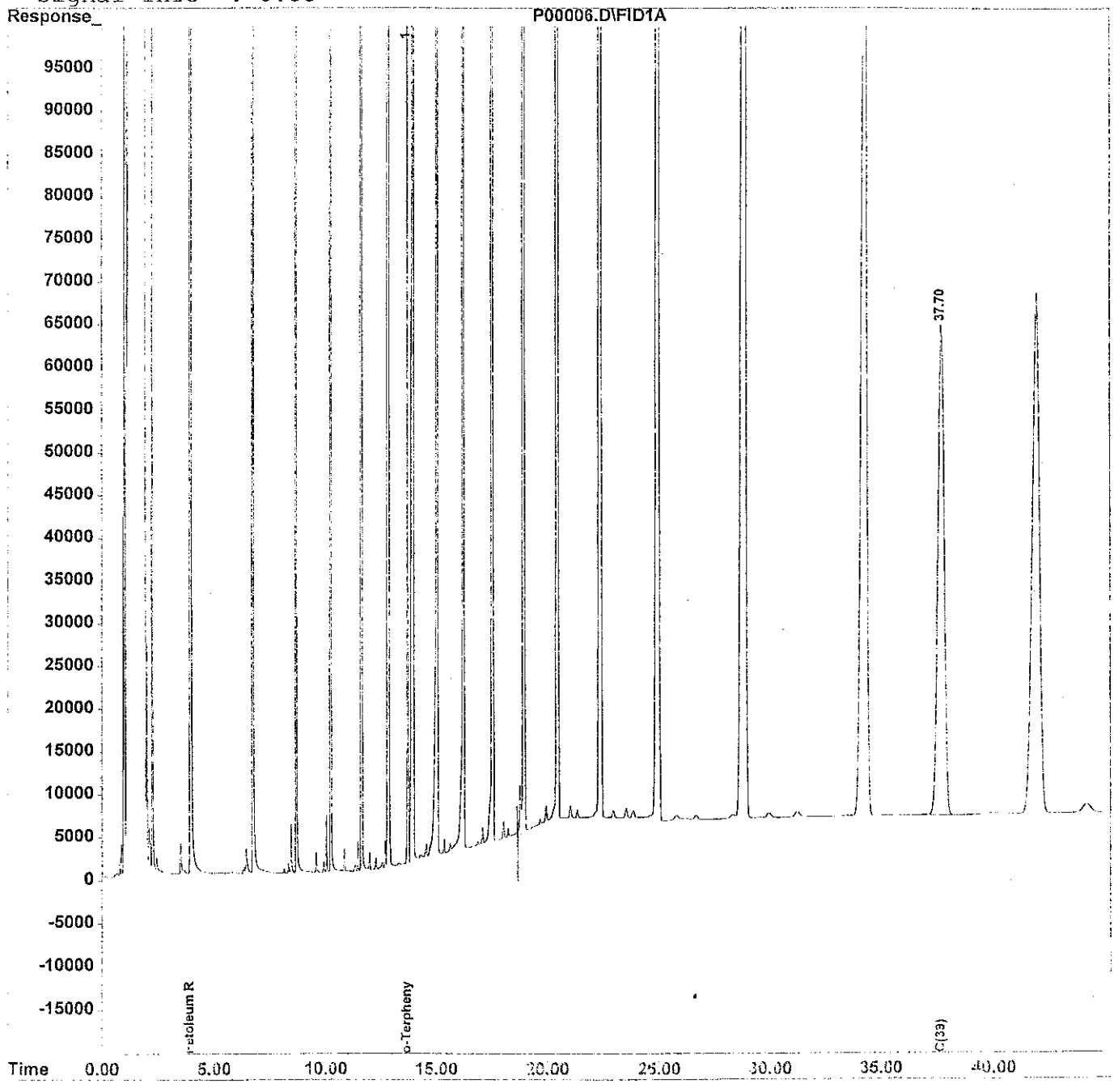
(f)=RT Delta > 1/2 (m)=manual int.
P0006.D PRO0727 e Fri Jul 27 13:43 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00006.D Vial: 6
Acq On : 08/17/01 01:00 Operator:
Sample : 7692 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:04 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00007.D Vial: 7
Acq On : 08/17/01 01:54 Operator:
Sample : 4250 PHS FLPRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 9:08 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 09:03:49 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3306040	50.498 ug/ml
Spiked Amount 50.000	Recovery = 101.00%		
3) SC C(39)	37.76	15168687	319.633 ug/mlm
Spiked Amount 300.000	Recovery = 106.54%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	345716891	4256.243 ug/ml

(m)=manual

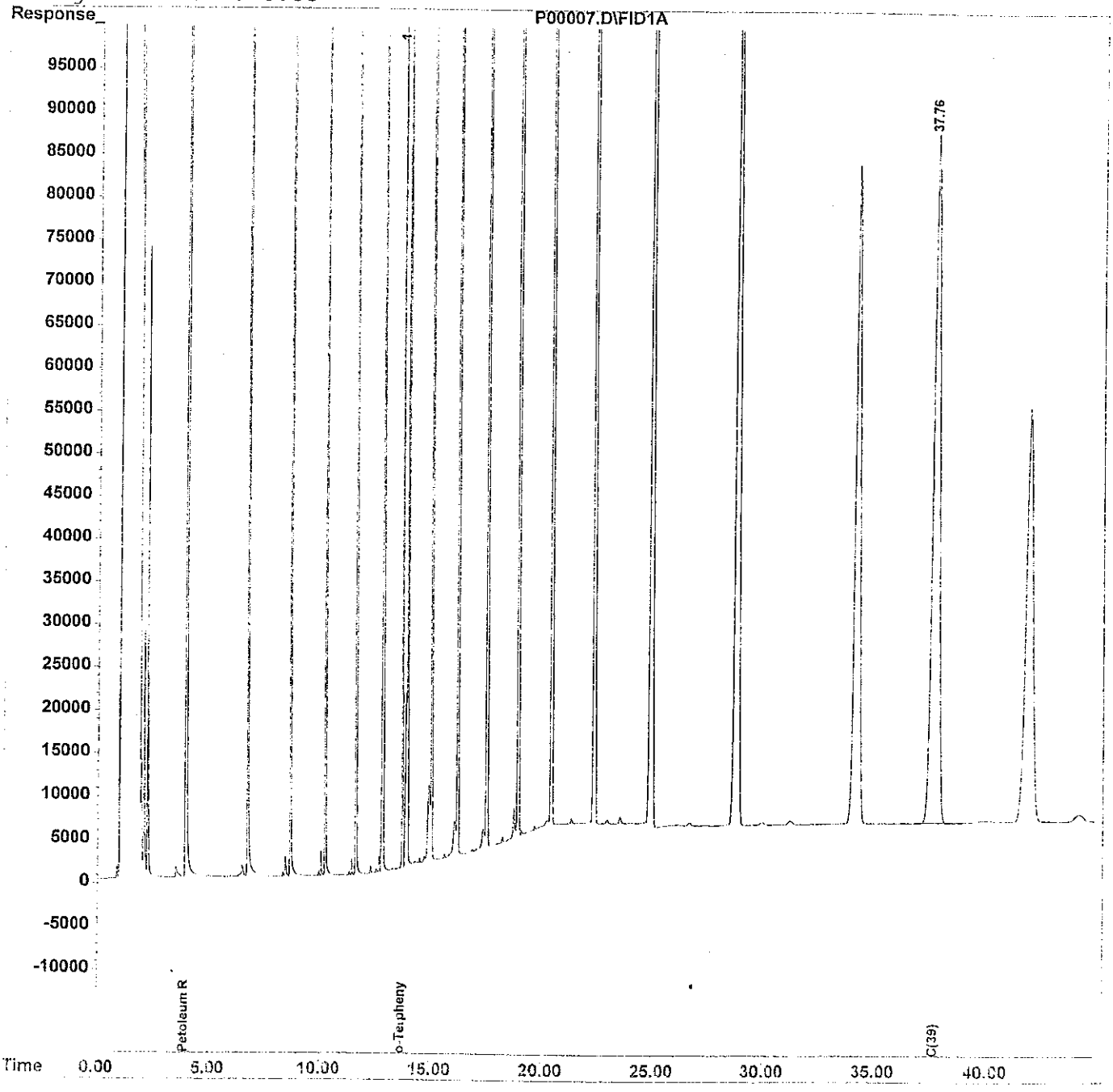
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00007.D
Acq On : 08/17/01 01:54
Sample : 4250 PHS FLPRO ICV
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 9:08 2001 Quant Results File: PRO0816.RES

Vial: 7
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 09:03:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PRO ICAL
Lab Standard ID# 015V194-98
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc
FL-PRO Std.	EX01254-123	500ppm	100ul	850 PHS
			300ul	2550
			500ul	4250
			700ul	5950
			1000ul	7692
OTP	EX99102-10	10,000ppm	5.0ul	50ppm
C(39)	501A104	3,000PPM	100ul	300ppm
MeCl2	EX01277	100%	All diluted to 100ml except 015V198	
015V198 & OTP=45.	2 + C39=	271.5ppm	respectively	

Standard Name: FLPRO ICV
Lab Standard ID# 015V199
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot/Lab ID#	Conc.	Amount Used	Final Conc
FLPRO ICV Std.	501A106	500ppm	500ul	4250 PHS
OTP ICV	EX01203	10,000ppm	5ul	50 PPM
C(39) ICV	EX01216-5	3,000PPM	100ul	300 PPM
MeCl2	EX01277	100%	Diluted to final volume of	
			1000ul	

RL 2/2/01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00018.D Vial: 18
Acq On : 08/17/01 11:51 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:38 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	2925454	44.685 ug/ml
Spiked Amount 50.000	Recovery = 89.37%		
3) SC C(39)	37.60f	13559226	285.719 ug/mlm
Spiked Amount 300.000	Recovery = 95.24%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	328617182	3936.062 ug/ml

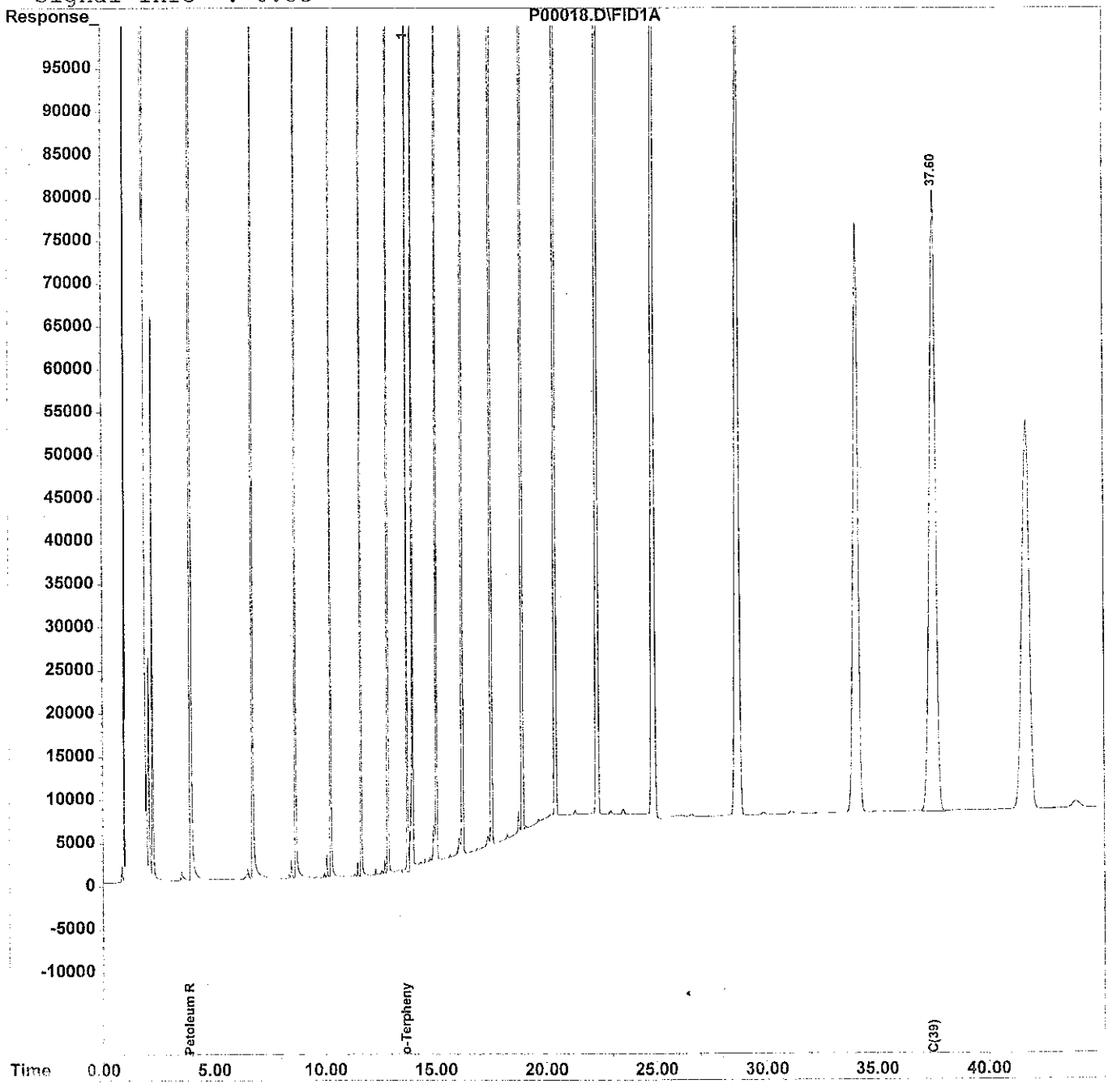
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00018.D Vial: 18
Acq On : 08/17/01 11:51 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:38 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:20 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	3390977	51.796 ug/ml
Spiked Amount 50.000	Recovery = 103.59%		
3) SC C(39)	37.54f	15723469	331.324 ug/mlm
Spiked Amount 300.000	Recovery = 110.44%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	390258502	5090.258 ug/ml

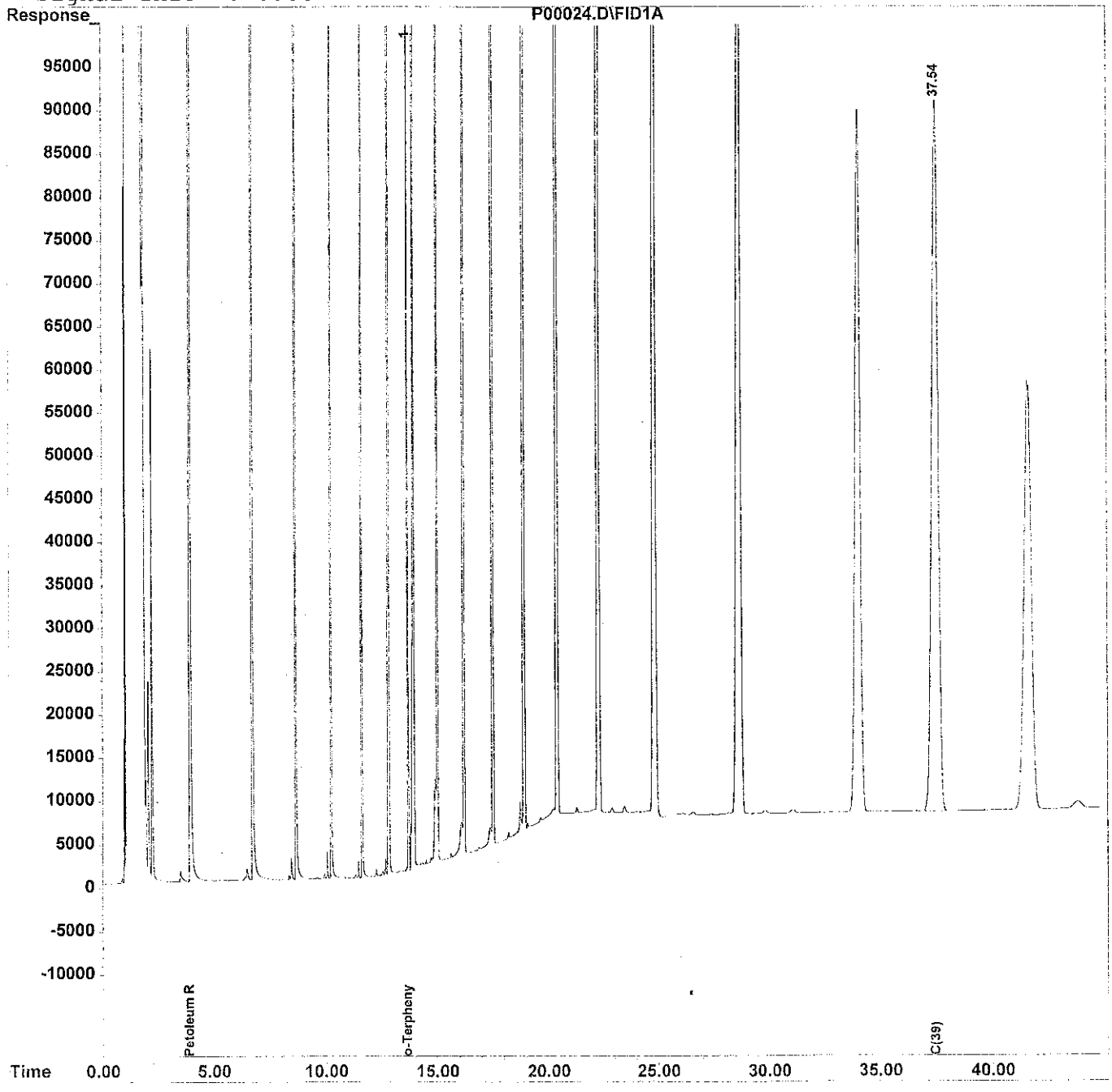
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:20 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082201\P00052.D Vial: 13
Acq On : 08/22/01 22:16 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:42 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.67	3655219	56.917 ug/ml
Spiked Amount 50.000	Recovery = 113.83%		
3) SC C(39)	37.16f	13687301	323.398 ug/mlm
Spiked Amount 300.000	Recovery = 107.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	421240362	4969.625 ug/ml

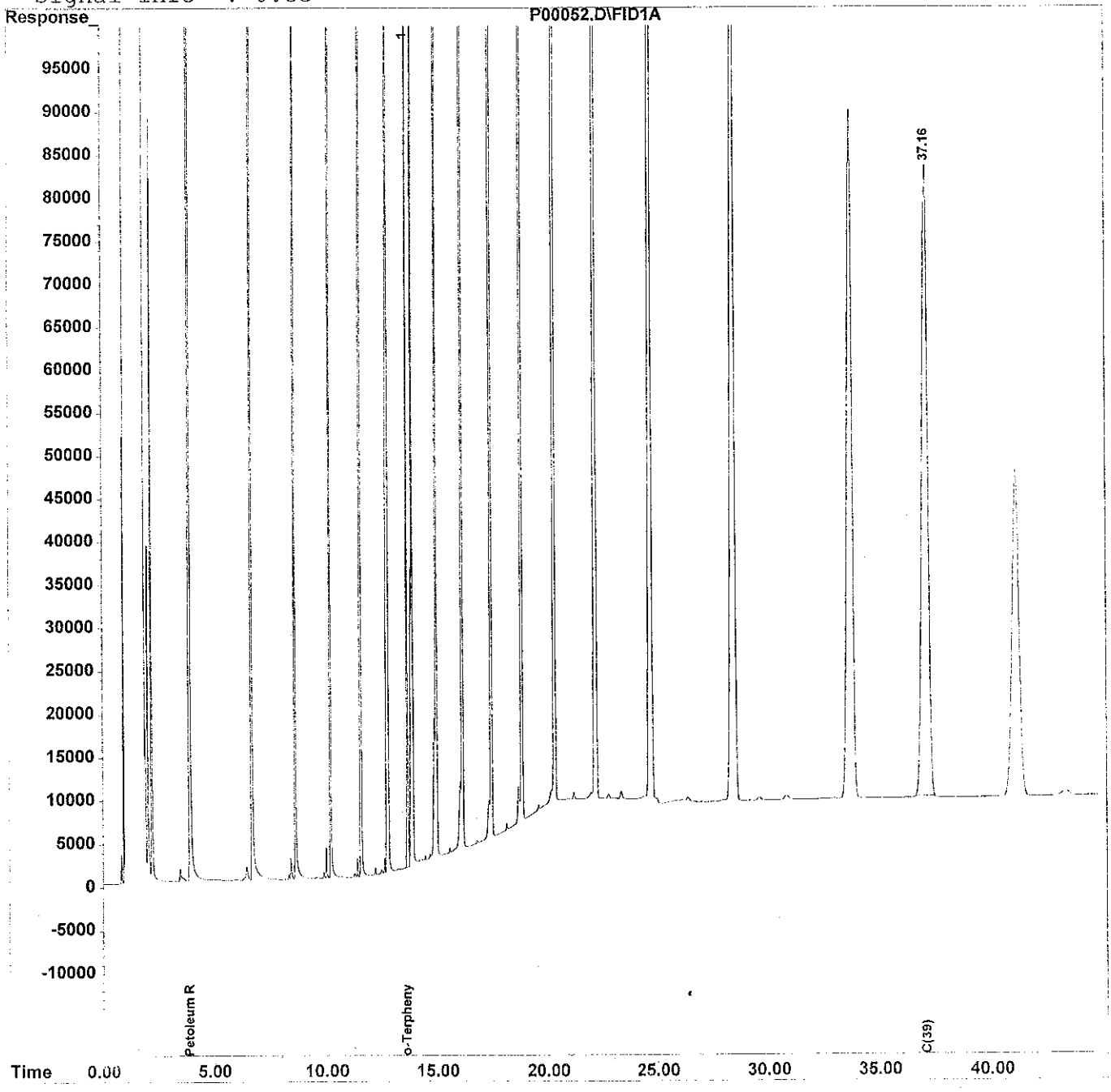
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082201\P00052.D Vial: 13
Acq On : 08/22/01 22:16 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:42 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082201\P00068.D Vial: 29
Acq On : 08/23/01 12:42 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 13:44 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.66	3910763	60.896 ug/ml
Spiked Amount 50.000	Recovery = 121.79%		
3) SC C(39)	37.03f	14272878	337.234 ug/mlm
Spiked Amount 300.000	Recovery = 112.41%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	422274292	4988.887 ug/ml

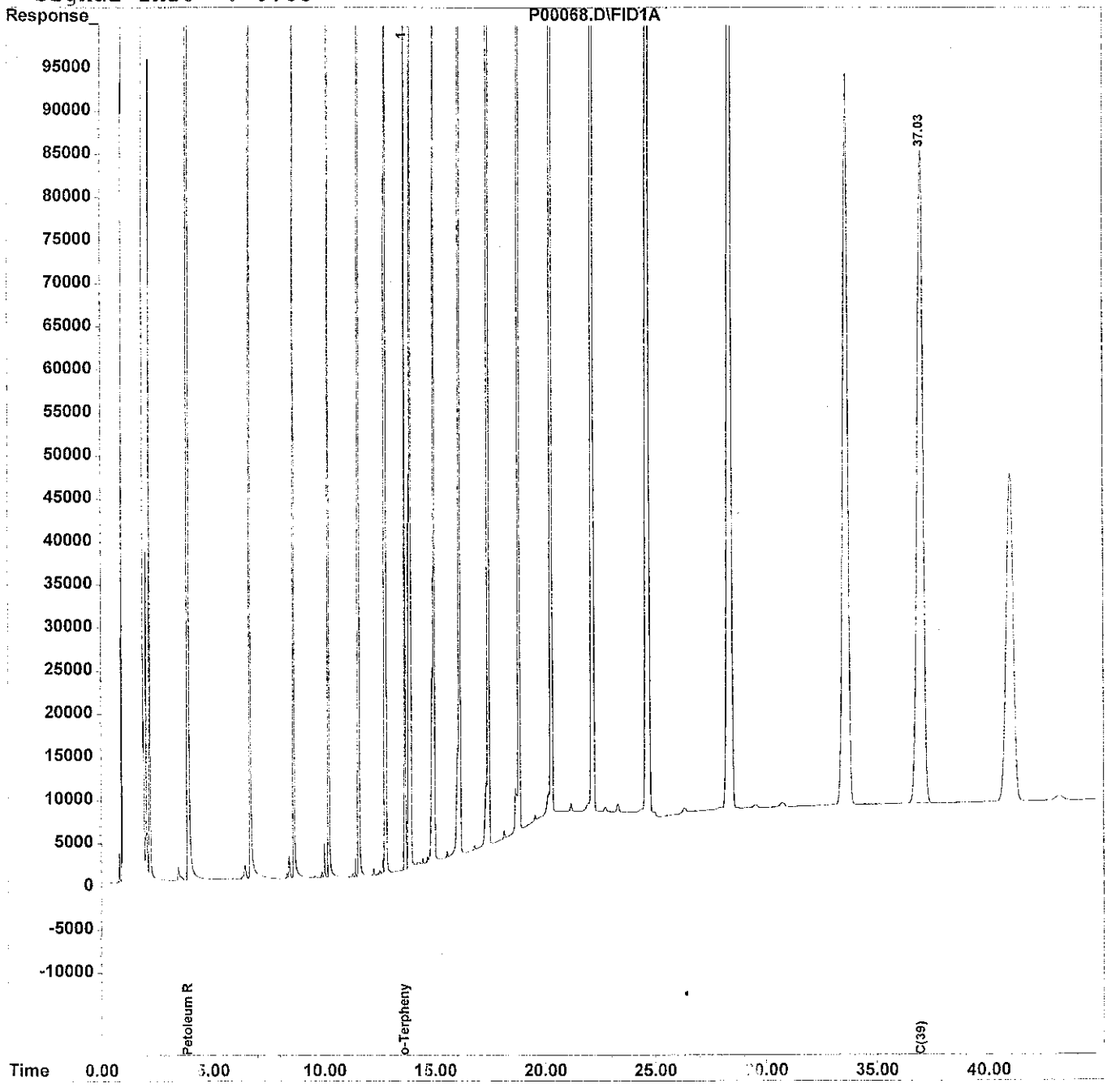
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082201\P00068.D Vial: 29
Acq On : 08/23/01 12:42 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 13:44 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082401\P00080.D Vial: 5
Acq On : 08/24/01 12:09 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:55 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0821.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.66	3093657	48.172 ug/ml
Spiked Amount 50.000	Recovery = 96.34%		
3) SC C(39)	37.00f	10898791	257.512 ug/mlm
Spiked Amount 300.000	Recovery = 85.84%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	376465470	4135.478 ug/ml

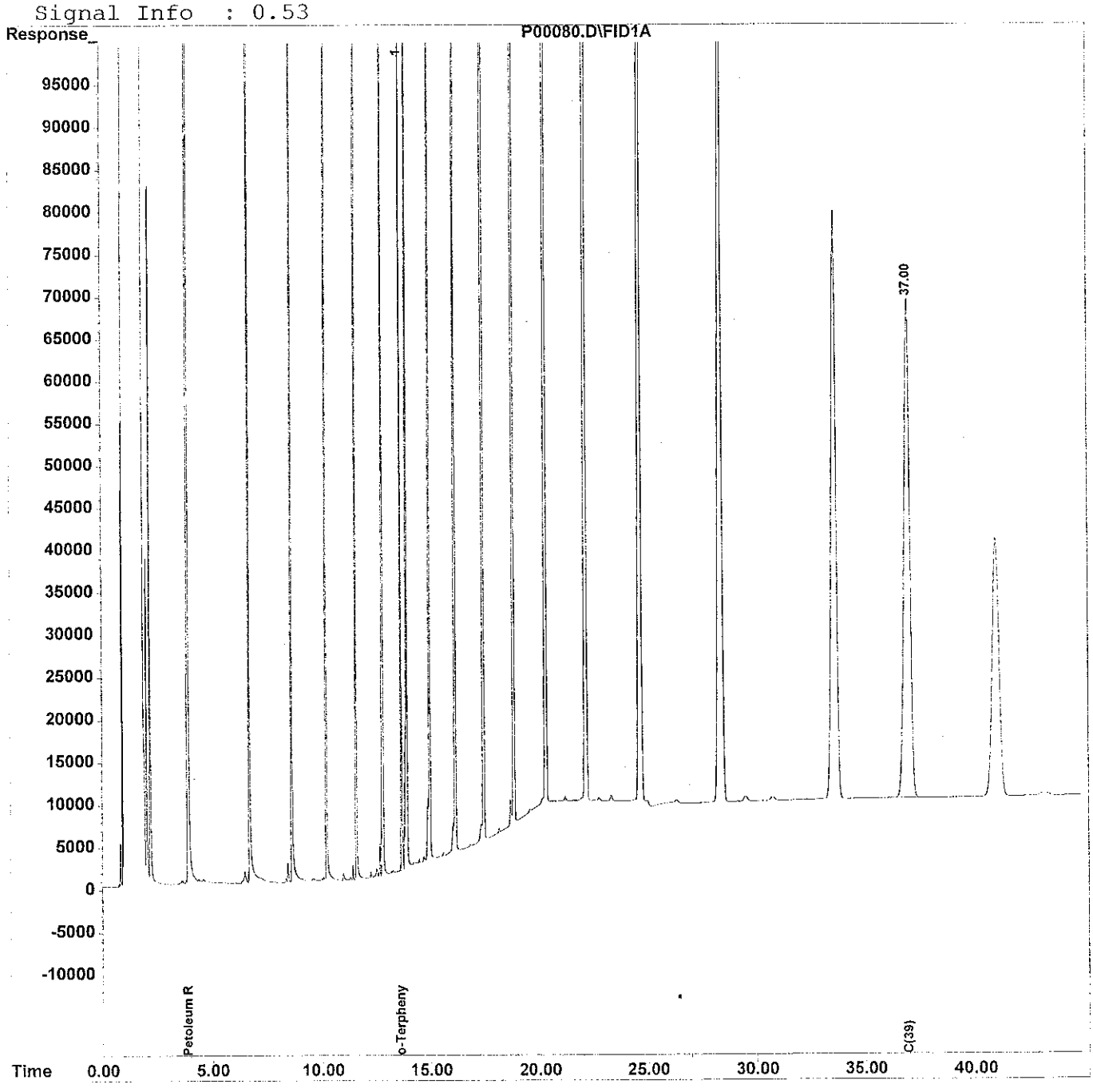
(f)=RT Delta 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082401\P00080.D Vial: 5
Acq On : 08/24/01 12:09 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:55 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0821.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 15:34 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	3297387	50.366 ug/mlm
Spiked Amount 50.000	Recovery = 100.73%		
3) SC C(39)	37.54f	15669117	330.178 ug/mlm
Spiked Amount 300.000	Recovery = 110.06%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	364558029	4609.032 ug/ml

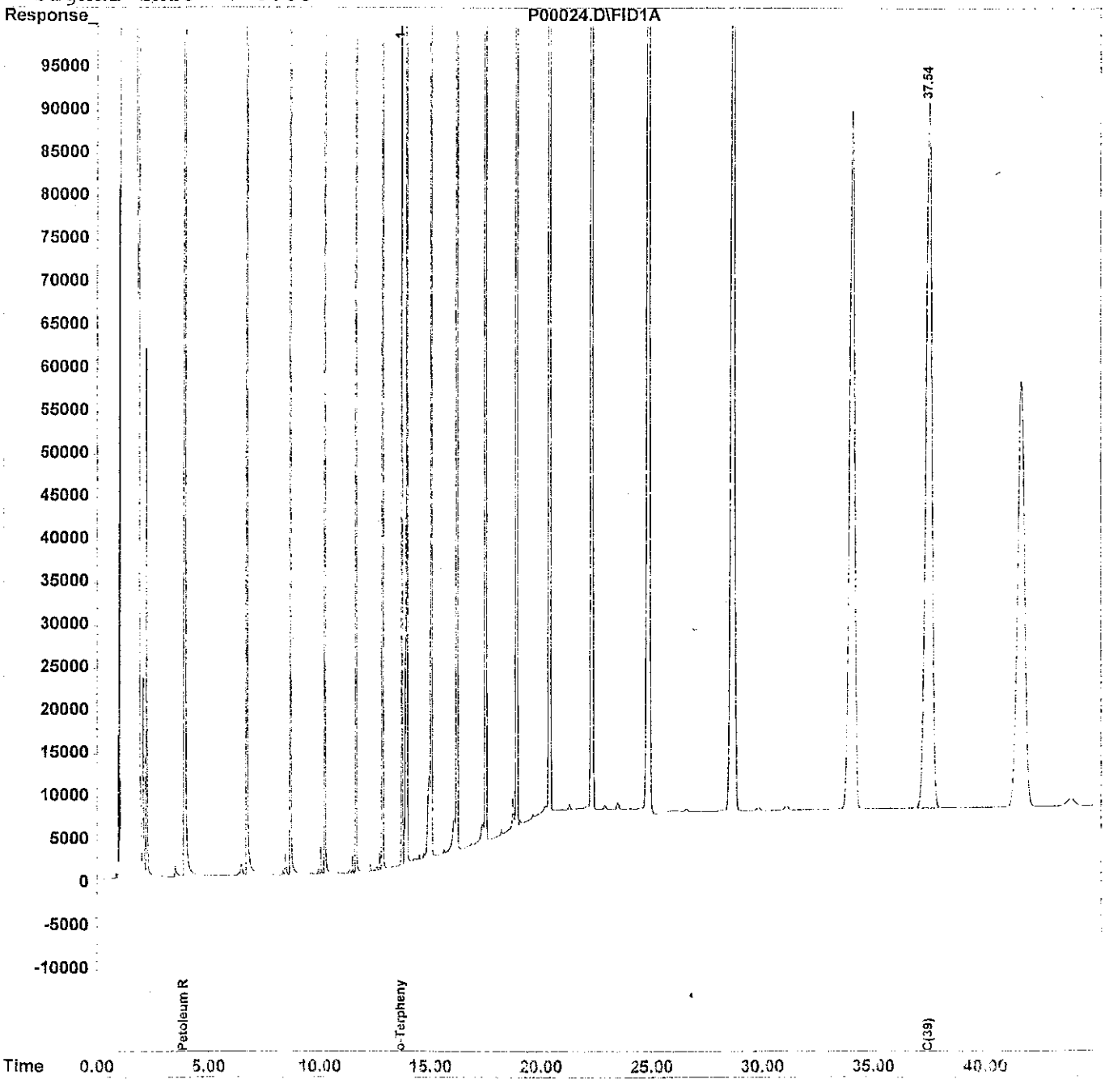
=RT Delta > .2 Window m\=manual

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:20 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082401\P00078.D Vial: 3
Acq On : 08/24/01 10:20 Operator:
Sample : 17919 W Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:20 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0821.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.66	2576643	40.122 ug/ml
Spiked Amount 50.000	Recovery = 80.24%		
3) SC C(39)	37.01f	4302677	101.662 ug/mlm
Spiked Amount 300.000	Recovery = 33.89%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	137761399	N.D. ug/ml

<DL

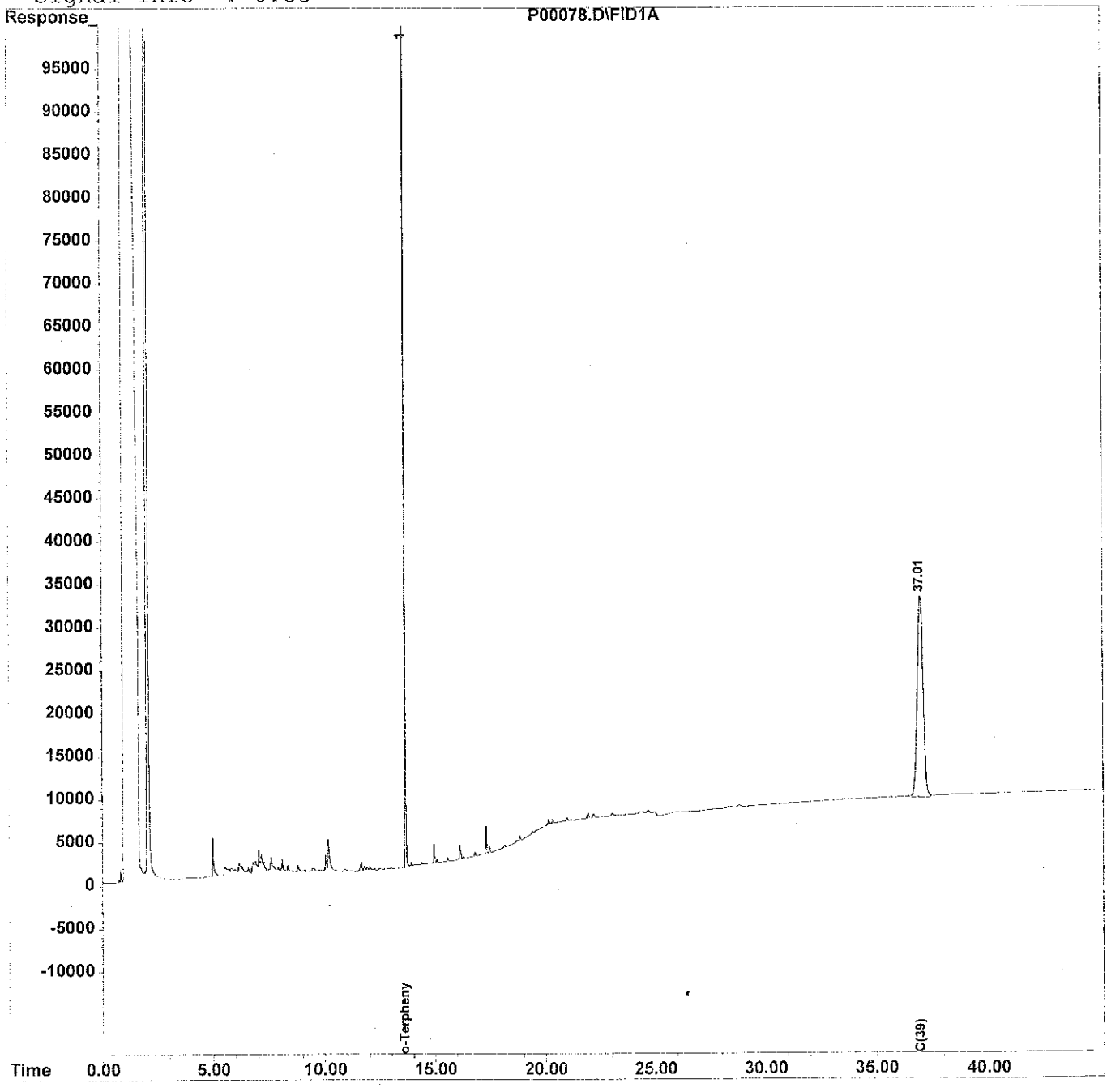
(f)=RT [> 1/2 ndow (m)=manual int.
P000?? 0821.? Fri Aug 24 12:20:24 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082401\P00078.D Vial: 3
Acq On : 08/24/01 10:20 Operator:
Sample : 17919 W Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:20 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0821.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00011.D Vial: 11
Acq On : 08/17/01 05:31 Operator:
Sample : 17919 W 10X Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:08 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.74	222122	3.393 ug/mlm
Spiked Amount 50.000	Recovery =		6.79%
3) SC C(39)	37.64	513424	10.819 ug/mlm
Spiked Amount 300.000	Recovery =		3.61%
Target Compounds			
1) HM Petoleum Range Organics	3.93	107570835	N.D. ug/ml

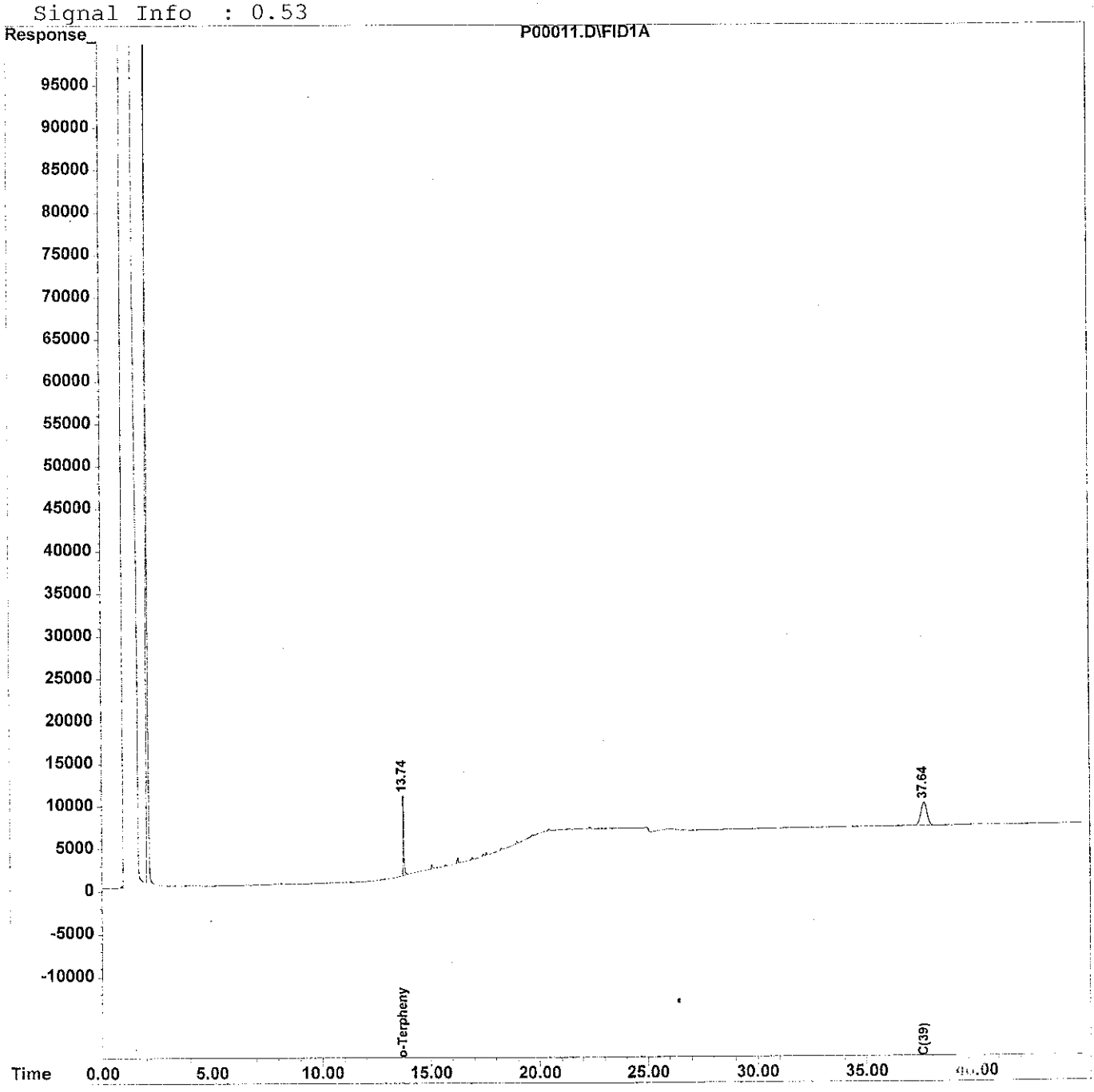
File only

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00011.D Vial: 11
Acq On : 08/17/01 05:31 Operator:
Sample : 17919 W 10X Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:08 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082201\P00042.D Vial: 3
Acq On : 08/22/01 12:31 Operator:
Sample : 17920 5X DL Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:27 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.69	433935	6.757 ug/mlm
Spiked Amount 50.000	Recovery =		13.51% 68%
3) SC C(39)	37.24	533700	12.610 ug/mlm
Spiked Amount 300.000	Recovery =		4.20% 21%
Target Compounds			
1) HM Petoleum Range Organics	3.93	238811981	1571.021 ug/ml x 1ml/965 x 5 = 8.14 ppm

RDL = 1.0 x 5 = 5.0 x L
RDL = 1000 x 5 x 1m/965 = 5.2

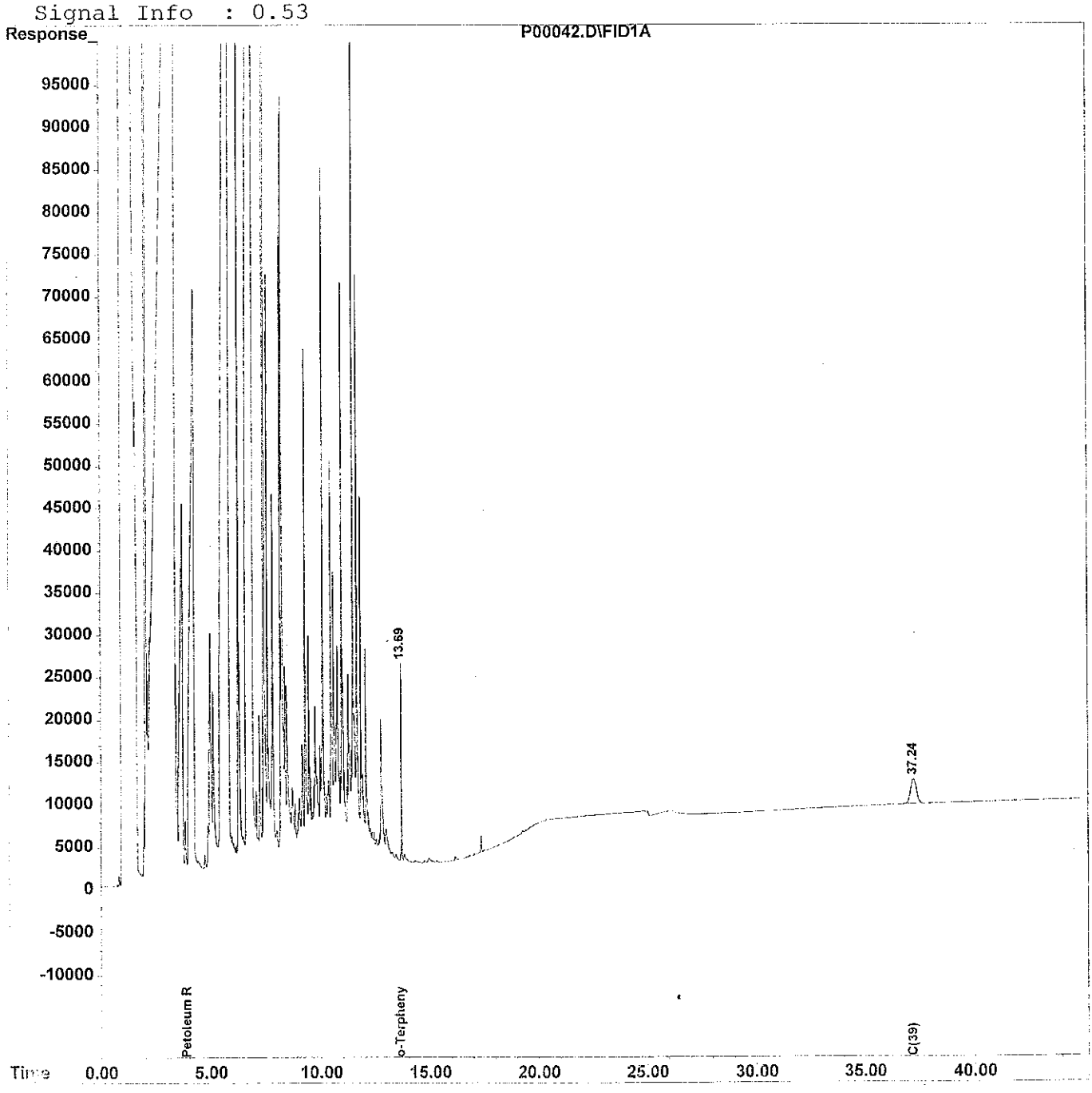
(m)=manual int

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082201\P00042.D Vial: 3
Acq On : 08/22/01 12:31 Operator:
Sample : 17920 5X DL Inst : HPGCO
Misc : PRO Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:27 2001 Quant Results File: PRO0821.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00012.D Vial: 12
Acq On : 08/17/01 06:25 Operator:
Sample : 17920 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:09 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	1868116	28.535 ug/mlm
Spiked Amount 50.000	Recovery =		57.07%
3) SC C(39)	37.68	6180814	130.242 ug/ml
Spiked Amount 300.000	Recovery =		43.41%
Target Compounds			
1) HM Petoleum Range Organics	3.93	826831518	13264.820 ug/ml

File only

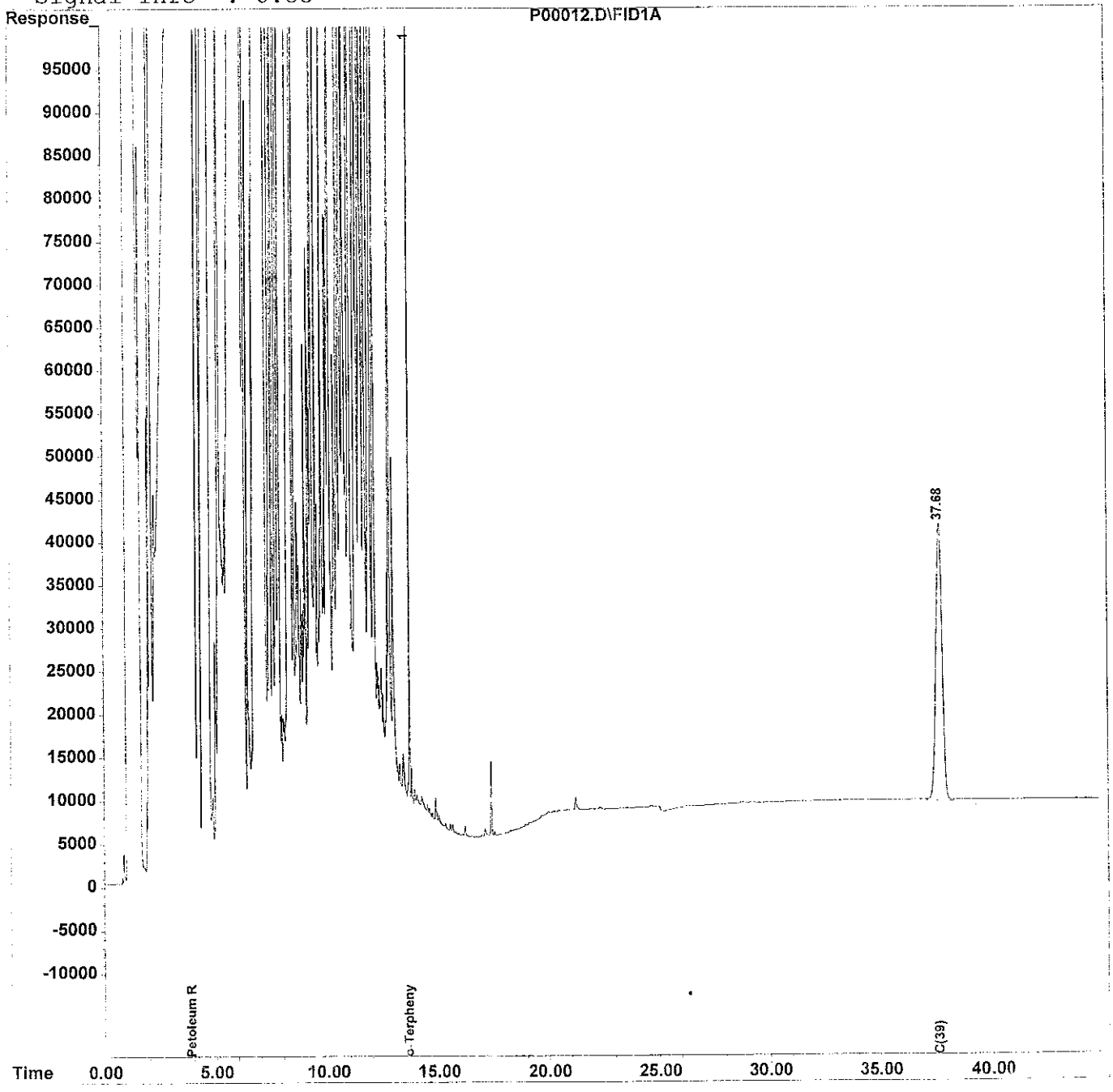
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00012.D Vial: 12
Acq On : 08/17/01 06:25 Operator:
Sample : 17920 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:09 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082201\P00043.D
Acq On : 08/22/01 13:26
Sample : 17921 5X DL
Misc : PRO
IntFile : PRO0914.e
Quant Time: Aug 23 7:28 2001 Quant Results File: PRO0821.RES

Vial: 4
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.68	394850	6.148 ug/mlm
Spiked Amount 50.000	Recovery =		12.30% 62
3) SC C(39)	37.12f	757473	17.897 ug/mlm
Spiked Amount 300.000	Recovery =		5.97% 30
Target Compounds			
1) HM Petoleum Range Organics	3.93	238246719	1560.491 ug/ml x 1ml/970 x5x = 8.0 PPM

BL=

RDL=1.0x5=5.0

RDL=1000x5x1ml/970=5.2

(f)=RT Delta > 1/2 Window (m)=manual int.

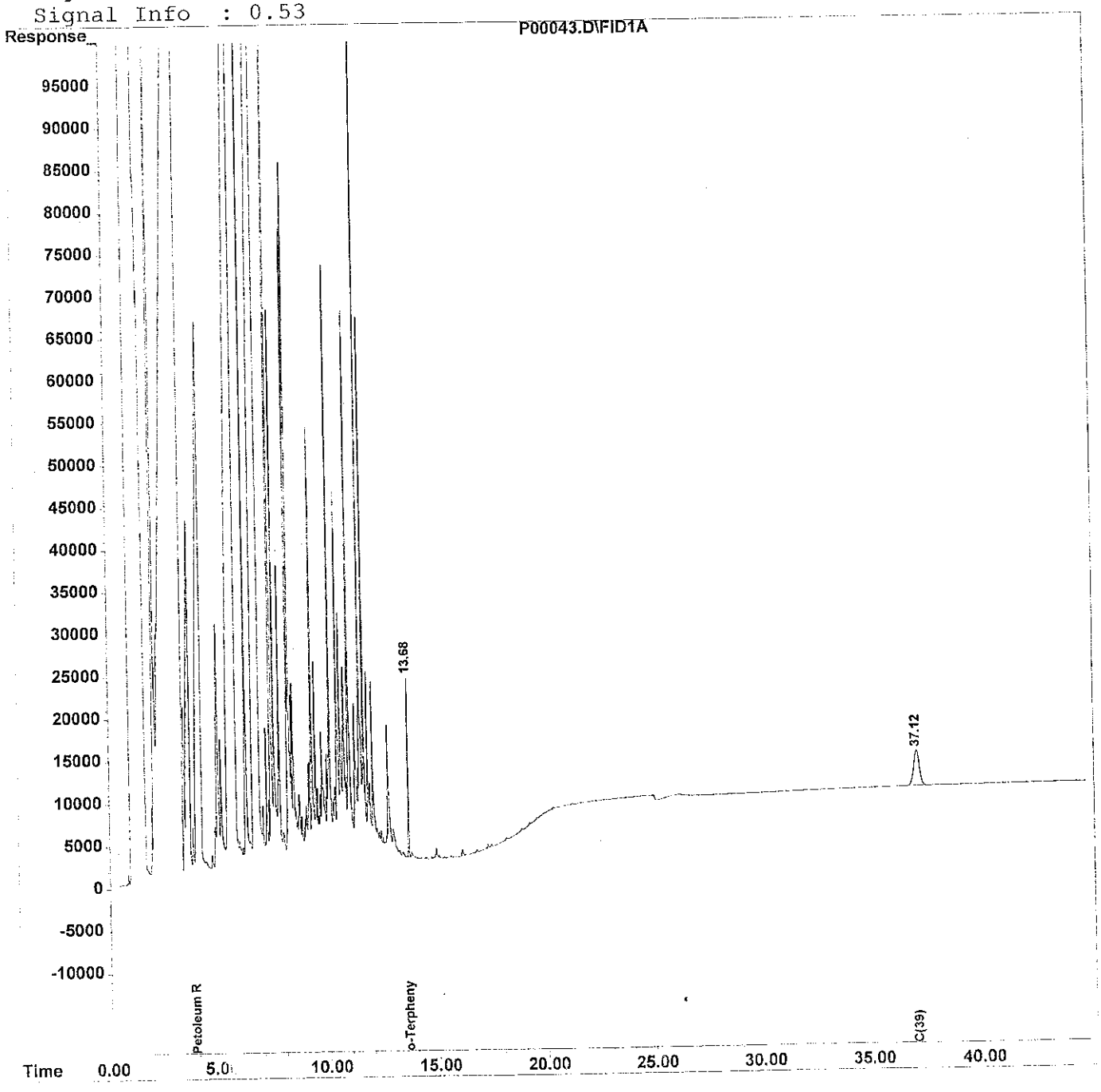
Quantitation Report

Data File : C:\HPCHEM\1\DATA\082201\P00043.D
Acq On : 08/22/01 13:26
Sample : 17921 5X DL
Misc : PRO
IntFile : PRO0914.e
Quant Time: Aug 23 7:28 2001 Quant Results File: PRO0821.RES

Vial: 4
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0821.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00013.D Vial: 13
Acq On : 08/17/01 07:19 Operator:
Sample : 17921 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:10 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	1666195	25.450 ug/mlm
Spiked Amount 50.000	Recovery = 50.90%		
3) SC C(39)	37.70	7100559	149.622 ug/mlm
Spiked Amount 300.000	Recovery = 49.87%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	729603791	11444.290 ug/ml

File only

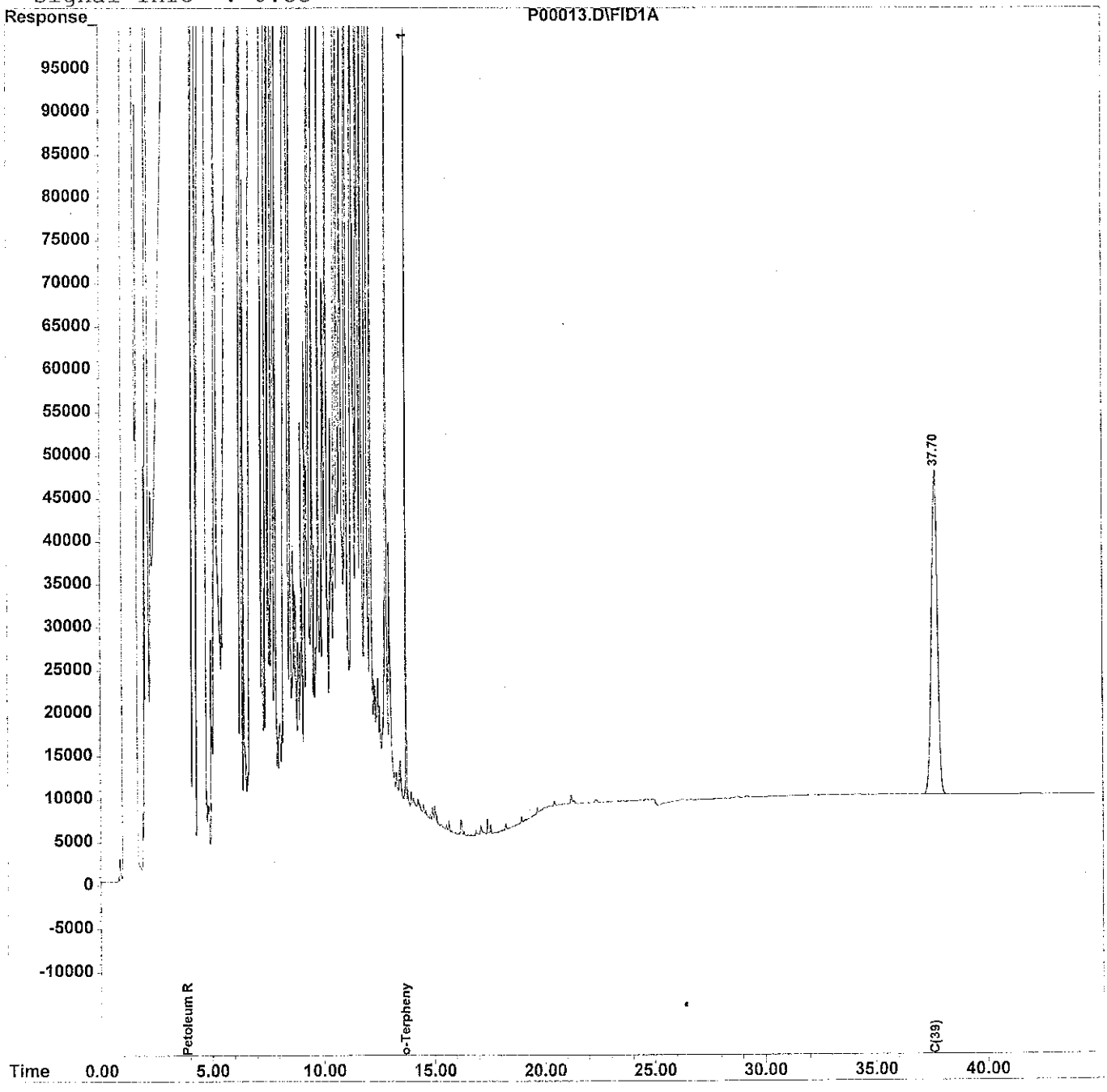
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00013.D Vial: 13
Acq On : 08/17/01 07:19 Operator:
Sample : 17921 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:10 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00014.D
Acq On : 08/17/01 08:13
Sample : 17922 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 21 8:11 2001 Quant Results File: PRO0816.RES

Vial: 14
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	2088969	31.908 ug/mlm
Spiked Amount 50.000	Recovery =		63.82%
3) SC C(39)	37.66	5390312	113.584 ug/mlm
Spiked Amount 300.000	Recovery =		37.86%
Target Compounds			
1) HM Petoleum Range Organics	3.93	139125548	387.947 ug/ml

$387.947\ \text{ug/ml} \times \frac{1\text{ml}}{955} = 0.41\ \text{ppm}$

$= < \text{DL}$

$= 0.4\text{KJ}$

$\text{RDL} = \frac{1000 \times 1\text{ml}}{955} = 1.047 = 1$

(f)=RT Delta > 1/2 Window
(m)=manual int.

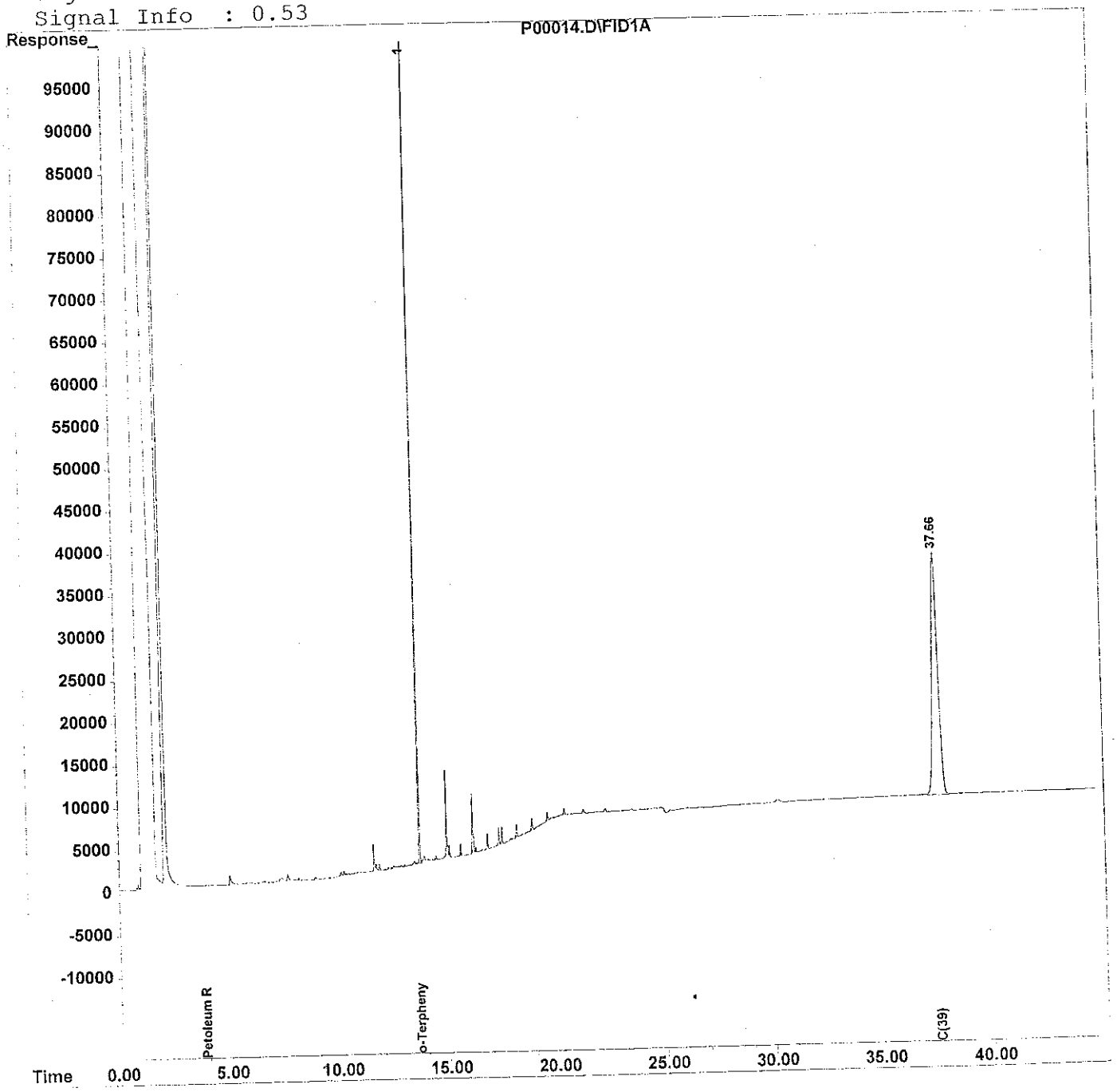
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00014.D
Acq On : 08/17/01 08:13
Sample : 17922 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 21 8:11 2001 Quant Results File: PRO0816.RES

Vial: 14
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00015.D Vial: 15
Acq On : 08/17/01 09:07 Operator:
Sample : 17923 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:13 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	2333420	35.642 ug/mlm
Spiked Amount 50.000	Recovery =		71.28%
3) SC C(39)	37.64f	6049063	127.465 ug/mlm
Spiked Amount 300.000	Recovery =		42.49%
Target Compounds			
1) HM Petoleum Range Organics	3.93	146259470	521.526 ug/ml

$521.526\ \text{ug/ml} \times \frac{1\text{ml}}{945} = 0.552\text{ppm} =$ 0.55J

$RDL = 1000 \times \frac{1\text{ml}}{946} = 1.1$

(f)=RT Delta > 1/2 Windo... ...n)=manual int.
P00015.D PRO0816.M Tue Aug 21 08:21:32 2001 Page 1

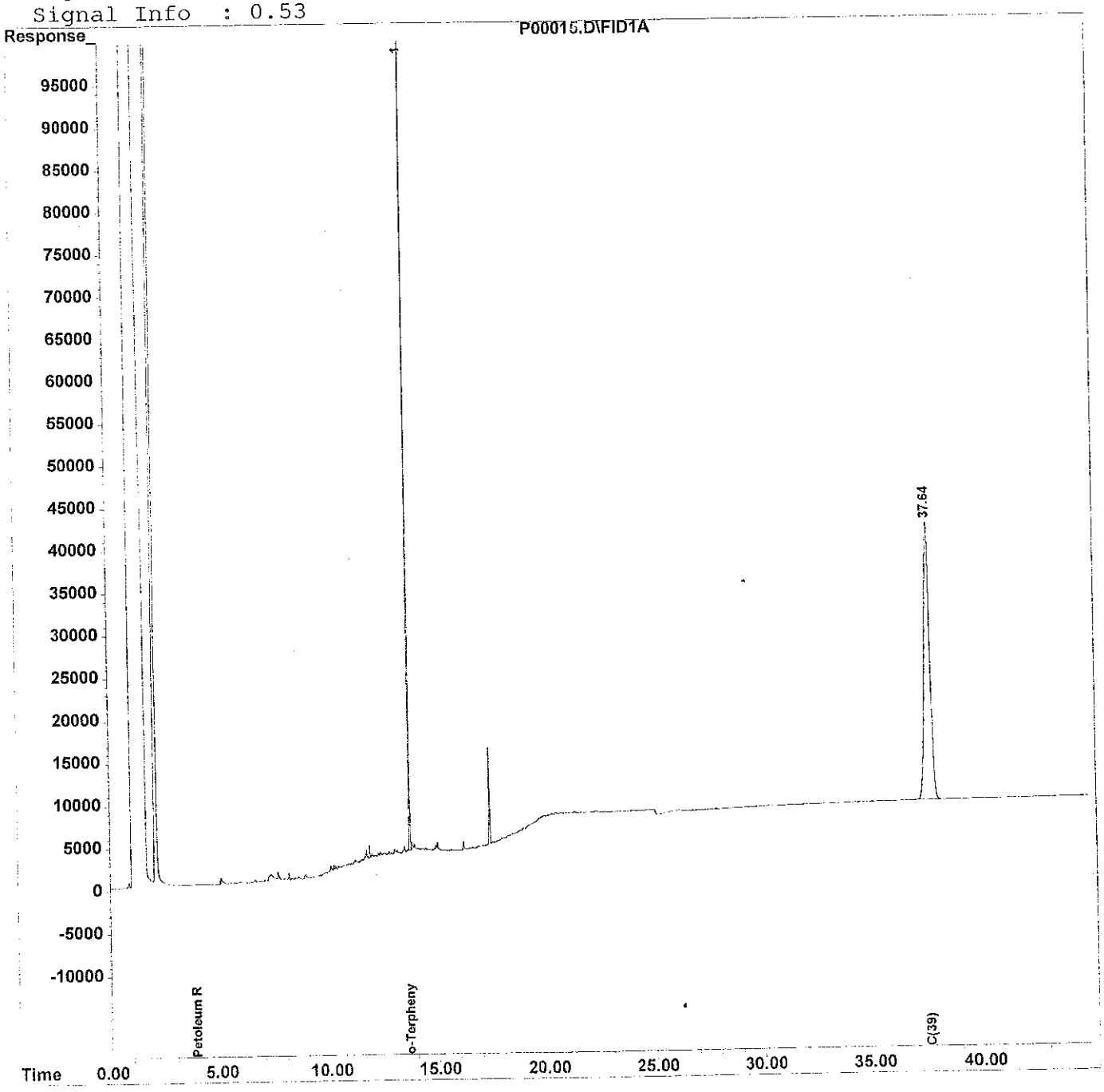
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00015.D
Acq On : 08/17/01 09:07
Sample : 17923 W
Misc :
IntFile : PRO0914.e
Quant Time: Aug 21 8:13 2001 Quant Results File: PRO0816.RES

Vial: 15
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00016.D Vial: 16
Acq On : 08/17/01 10:02 Operator:
Sample : 17924 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:14 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	1132448	17.298 ug/mlm
Spiked Amount 50.000	Recovery =		34.60%
3) SC C(39)	37.57f	3111309	65.561 ug/mlm
Spiked Amount 300.000	Recovery =		21.85%
Target Compounds			
1) HM Petoleum Range Organics	3.93	124915242	121.868 ug/ml

$\frac{1ml}{940} = 0.13 =$ <DL

ROL = $1000 \times \frac{1ml}{940} = 1.1$

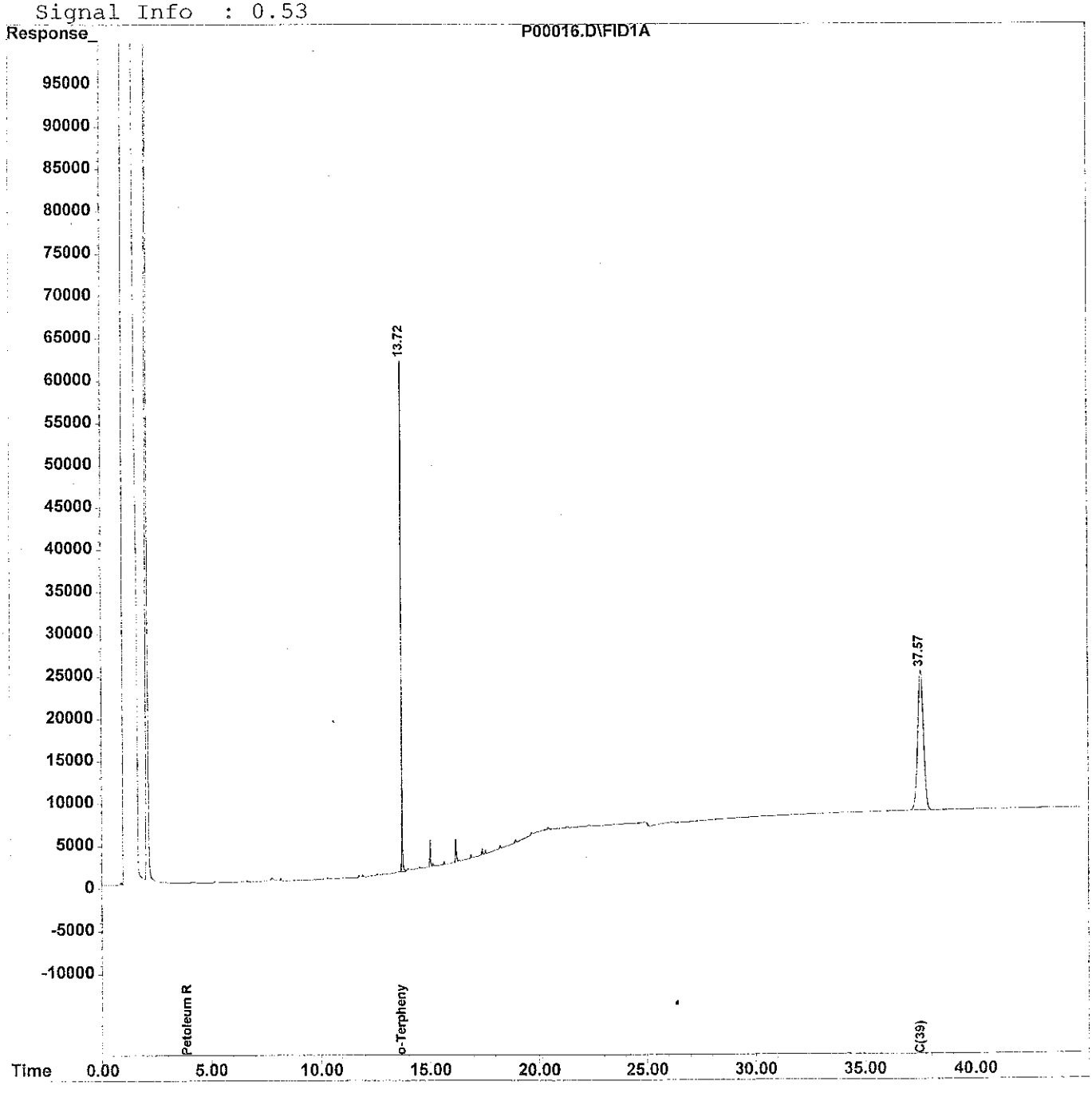
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00016.D Vial: 16
Acq On : 08/17/01 10:02 Operator:
Sample : 17924 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:14 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00019.D Vial: 19
Acq On : 08/17/01 12:46 Operator:
Sample : 17925 W 10X Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:16 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	216840	3.312 ug/mlm
Spiked Amount 50.000	Recovery =		6.62% 66
3) SC C(39)	37.45f	548913	11.567 ug/mlm
Spiked Amount 300.000	Recovery =		3.86% 39
Target Compounds			
1) HM Petoleum Range Organics	3.93	235860242	2199.245 ug/ml

$2199.245\ \text{ug/ml} \times \frac{1\text{ml}}{1000} = 2.2 \times 10^{}$

22 ppm

R-DL = 1x10 = 10 ppm.

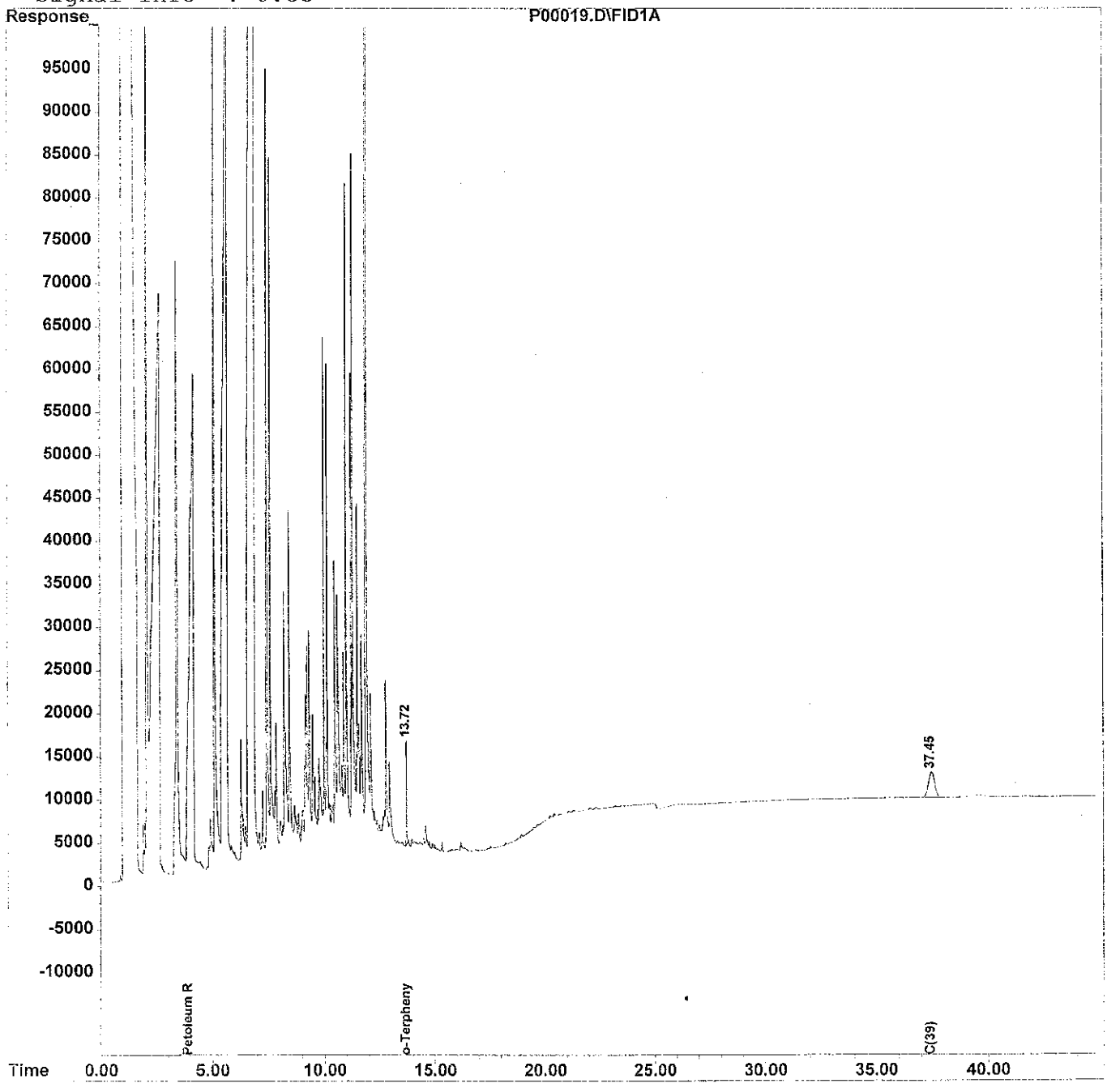
(f)=RT Delta > 1/2 Window (m)=manual in

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00019.D Vial: 19
Acq On : 08/17/01 12:46 Operator:
Sample : 17925 W 10X Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:16 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00009.D Vial: 9
Acq On : 08/17/01 03:42 Operator:
Sample : QFW080801-1 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 8:51 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.73	2312019	35.315 ug/ml
Spiked Amount 50.000	Recovery =		70.63%
3) SC C(39)	37.66	2681671	56.508 ug/ml
Spiked Amount 300.000	Recovery =		18.84%
Target Compounds			
1) HM Petoleum Range Organics	3.93	106731250	N.D. ug/ml = <ML

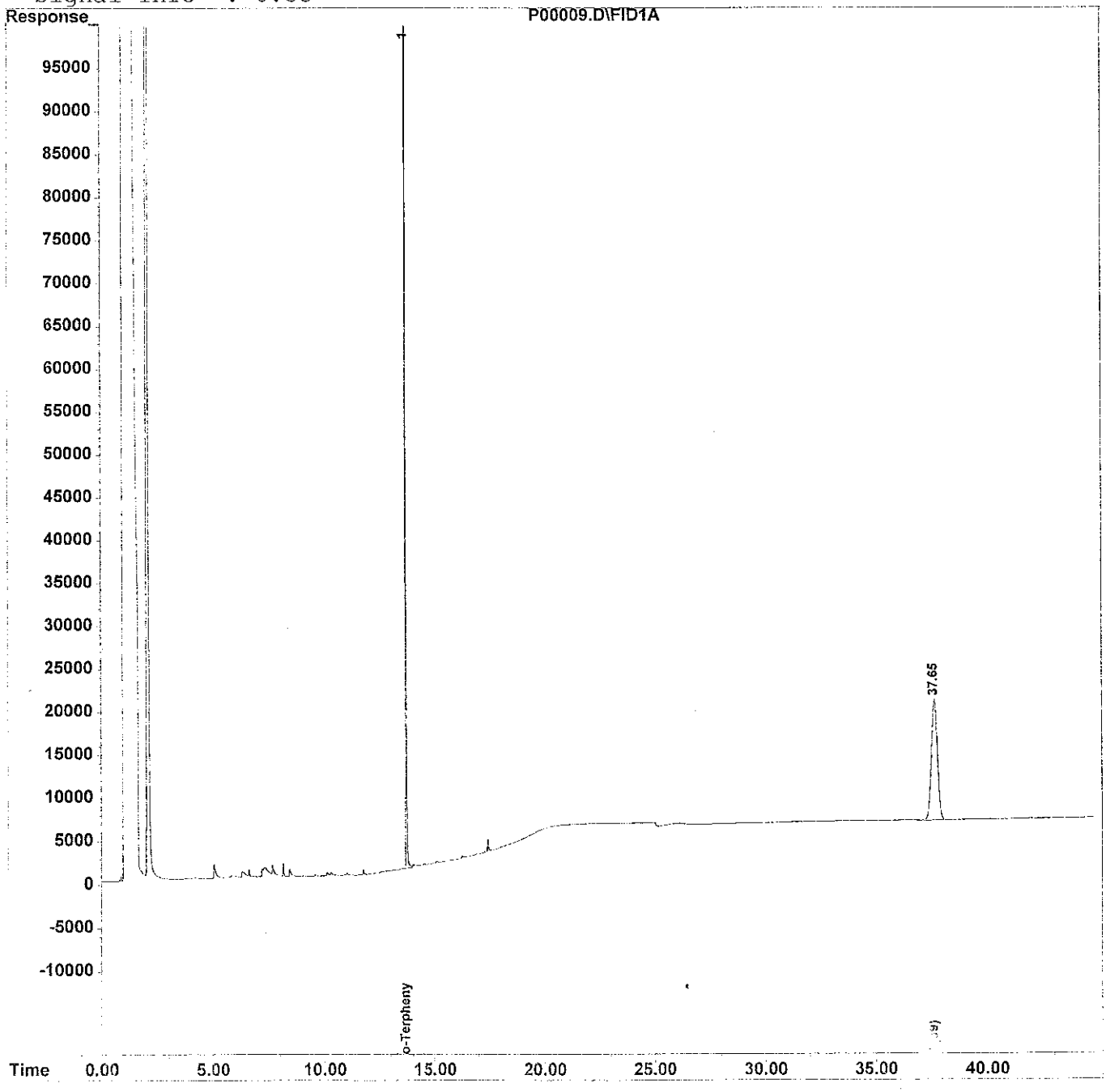
(f)=R 1/2 Window (m =manual int.
P0000 0816.M Tue Aug 21 08:21:13 001 age 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00009.D Vial: 9
Acq On : 08/17/01 03:42 Operator:
Sample : QFW080801-1 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 8:51 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00010.D Vial: 10
Acq On : 08/17/01 04:36 Operator:
Sample : QFW080801-2 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:06 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.73	1987959	30.365 ug/mlm
Spiked Amount 50.000		Recovery =	60.73% ✓
3) SC C(39)	37.67	3191566	67.252 ug/mlm
Spiked Amount 300.000		Recovery =	22.42% ✓
Target Compounds			
1) HM Petoleum Range Organics	3.93	243729173	2346.586 ug/ml

$2346.586 \text{ ug/ml} \times \frac{1\text{ml}}{1000} = 2.347$

55% Rec. ✓

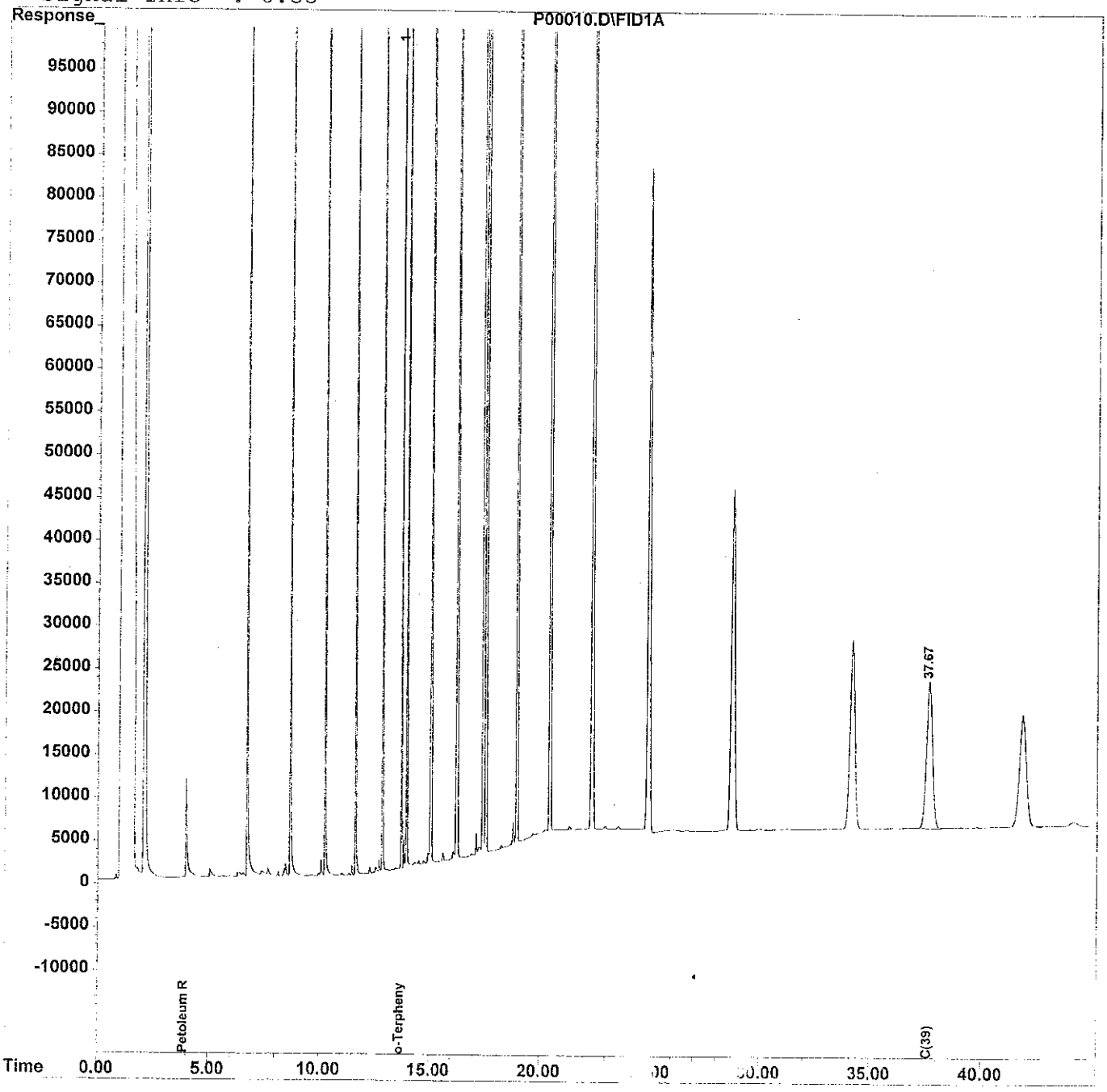
(f)= Delt (m)=m el int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00010.D
Acq On : 08/17/01 04:36
Sample : QFW080801-2
Misc :
IntFile : PRO0914.e
Vial: 10
Operator:
Inst : HPGCO
Multiplr: 1.00
Quant Time: Aug 21 8:06 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



VOA GC/MS DATA CHECKLIST
SW-846-8260B

PROJECT #: 28518	METHOD: 8260B
MATRIX: WATER	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	~~Y~~	N	NA
Are Tuning results compliant with method?	~~Y~~	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	~~Y~~	N	NA
Are all SPCC Response Factors acceptable for CCV?	~~Y~~	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	~~Y~~	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	~~Y~~	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	~~Y~~	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	~~Y~~	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	~~Y~~	N	NA
Are all spike recoveries acceptable for the LCS?	~~Y~~	N	NA
If all spike recoveries were not acceptable, was a Quality Notice Form completed?	Y	N	~~NA~~
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	~~Y~~	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	~~NA~~
Were sample analyses performed within holding times?	~~Y~~	N	NA
If sample analyses were not performed within holding times, was a Quality Notice Form completed?	Y	N	~~NA~~
Were analyses performed such that carryover was not a problem?	~~Y~~	N	NA
Are quantitations based on the latest acceptable initial calibration?	~~Y~~	N	NA
Are all requested analytes below the upper calibration limit?	~~Y~~	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	~~NA~~
Was the Modified 5035 method used? Was a Temporary Method Deviation form completed?	Y	N	~~NA~~
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	~~Y~~	N	~~NA~~ VRR
Are pHs recorded for all water samples?	~~Y~~	N	NA
Have the samples been reviewed, and **all** false positives deleted?	~~Y~~	N	NA
Are all samples and supporting data (QNF, QC Charts, Runlog and Batchbook Copies) in the folder?	~~Y~~	N	NA

Analyst: VRR	
Date: 8.9.01	Time: 13:20

PEER REVIEW

Are Tuning results compliant with method?	(Y)	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all sample Internal Standard areas and retention times within method limits?	(Y)	N	NA
Are all blank and QC results acceptable?	(Y)	N	NA
Are all surrogate standard recoveries acceptable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all calculations correct and reported in the proper units?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Is the run log completely filled out (including review signature/date)?	(Y)	N	NA
Are pHs recorded for all water samples?	(Y)	N	NA
Are all applicable runlog sheets signed, dated, and included?	(Y)	N	NA
Have all samples and supporting data been included in the folder?	(Y)	N	NA
Have all LIMS entries been checked for accuracy?	(Y)	N	NA

Reviewer: DAT	
Date: 9.9.01	Time: 13:30

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8·7·01
Calib. Method: 080601W.M
ACQ. Method: 080701W.M
BFB Std.ID #: V01081
IS/Surr Std. ID # V01076/V01071

	CCV IS RT	CCV IS AREAS
#1	6.70	219634
#2	12·08	255172
#3	15·31	126943
#4		

MS Conditions
EMV: 1906
Tune File: BFB01.U
Solvent Delay: 0·5 min

Std. Mix	Conc.	AAL #
8260 CCV	50 ppm	V01093
8260 Add Mix	50 ppm	V01073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
J00856	BFB 50ng	—	—	2 ml	—	—	—	—	1013	
J00857	CCV 10PPb	—	W	25 ml	1	1	—	-	1035	
J00858	IJ080701MB	—			1	2	—	-	1115	
J00859	IJ080701LCS	—			1	3	—	—	1151	
J00860	28512 AC17885	—		12.5 ml	2	4	1	X	1225	
J00861	AC17886ms	—			2	5	1	X	1259	
J00862	AC17886msd	—			2	6	1	X	1324	
J00863	BLANK	—			2	7	—	-	1350	
J00864	28507 AC17843	—		25 ml	1	8	1	X	1416	
J00865	AC17841	—		5 ml	5	9	1	X	1442	
J00866	AC17842	—		25 ml	1	10	1	X	1508	
J00867	28512 AC17888	—			1	11	1	X	1534	
J00868	AC17890	—			1	12	1	X	1600	
J00869	AC17891	—			1	13	1	X	1626	NDIL 1:10
J00870	AC17889	—			1	14	1	X	1652	NRI to confirm Toluene
J00871	28518 AC17926	—			1	15	1	X	1718	
J00872	28530 AC17780	—			1	16	1	X	1745	
J00873	AC17982	—			1	1	1	X	1811	
J00874	28518 AC17919	—			1	2	1	X	1838	RI
J00875	AC17920	—			1	3	1	X	1905	RI
J00876	AC17921	—			1	4	1	X	1931	NDIL 1:2
J00877	AC17922	—			1	5	1	X	1958	RI to confirm TCE
J00878	AC17923	—			1	6	1	X	2025	RI
J00879	AC17924	—			1	7	1	X	2051	RI
J00880	AC17925	—			1	8	1	X	2118	
J00881	28530 AC17978	—			1	9	1	X	2144	

Analyst/Date: VRR 8-8-01 Reviewer/Date:

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8-3-01
Calib. Method: C826C1W.M
ACQ. Method: C826C1W.M
BFB Std.ID #: VC1051
IS/Surr Std. ID # VC1C7C/VC1CTI

	CCV IS RT	CCV IS AREAS
#1	6.70	200 339
#2	12.08	224653
#3	15.31	113619
#4		

MS Conditions
EMV: 1906
Tune File: BFB01U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 CCV	50ppm	VC1083
8260 Add Mix	50ppm	VC1073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JCC882	BFB 50ng	—	--	—	—	—	—	-	9:17	
JCC883	CCV @ PPB	—	W	25 ml	1	1	—	—	939	
JCC884	IJC8C8C1 MB	—			1	2	—	—	1020	
JCC885	IJC8C8C1 MB	—			1	2	-	-	1047	
JCC886	IJC8C8C1 LCS	—			1	3	—	-	1117	
JCC887	28530 AC17973MS	—			1	4	1	X	1149	
JCC888	AC17975MSD	—			1	5	1	X	1215	
JCC889	28498 AC17736	—			1	6	1	X	1241	NDIL 1:5
JCC890	28512 AC17889	—			1	7	1	X	1307	
JCC891	AC17891	—		2.5 ml	10	8	1	X	1333	
JCC892	28518 AC17926	—		25 ml	1	9	1	X	1359	
JCC893	AC17919	—			1	10	1	X	1426	
JCC894	AC17920	—			1	11	1	X	1452	
JCC895	AC17921	—		12.5ml	2	12	1	X	1519	
JCC896	AC17922	—		25 ml	1	13	1	X	1545	
JCC897	AC17923	—			1	14	1	X	1612	
JCC898	AC17924	—			1	15	1	X	1638	
JCC899	25530 AC17979	—			1	16	1	X	1705	
JCC900	AC17931	—			1	1	1	X	1732	
JCC901	AC17980	—			1	2	1	X	1758	
JCC902	AC17982	—			1	3	1	X	1825	
JCC903	28498 AC17786	—		5 ml	5	4	1	X	1851	
JCC904	28518 AC17920	—		12.5ml	2	5	1	X	1918	

Analyst/Date: VRR 8-9-01
Reviewer/Date: _____

Logbook ID#: VOC-128

Batch ID: W 080601 A

Instrument ID: HP MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28521 AC17839	8·6·01		8·8·01	25 ml Purge
AC17840		NDIL 1:5		
AC17841		NRI		
AC17842		NRI		
AC17843				
28512 AC17883				
AC17884				
AC17885				
AC17888	8·7·01			
AC17889				
AC17890				
AC17891		NRI		
28518 AC17919		NAI		
AC17920		NRI		
AC17921		NRI		
AC17922		NRI		
AC17923		NRI		
AC17924				
AC17925		NRI		
AC17926				
AC17886 MS				
AC17887 MSD				
DUP				

Batch ID: W 080701 A

Instrument ID: HP-MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28530 AC17978	8·7·01		8·8·01	25ml Purge
AC17979	8·8·01			
AC17980	8·7·01			
AC17981	8·8·01			
AC17982	8·7·01			
28478 AC17786	8·8·01			
			8·8·01	
AC17978 MS	8·8·01			
AC17978 MSD				
DUP				

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00893.D Vial: 10
Acq On : 08/08/01 14:26 Operator:
Sample : AC17919 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 15:03 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	176698	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	200617	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	93278	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	81732	10.99	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 109.90%			
46) Toluene-d8	10.02	98	295566	10.06	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.60%			
66) Bromofluorobenzene	13.71	95	108269	10.43	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.30%			
Target Compounds						Qvalue
47) Toluene	10.11	92	22784	1.20	ug\L	99

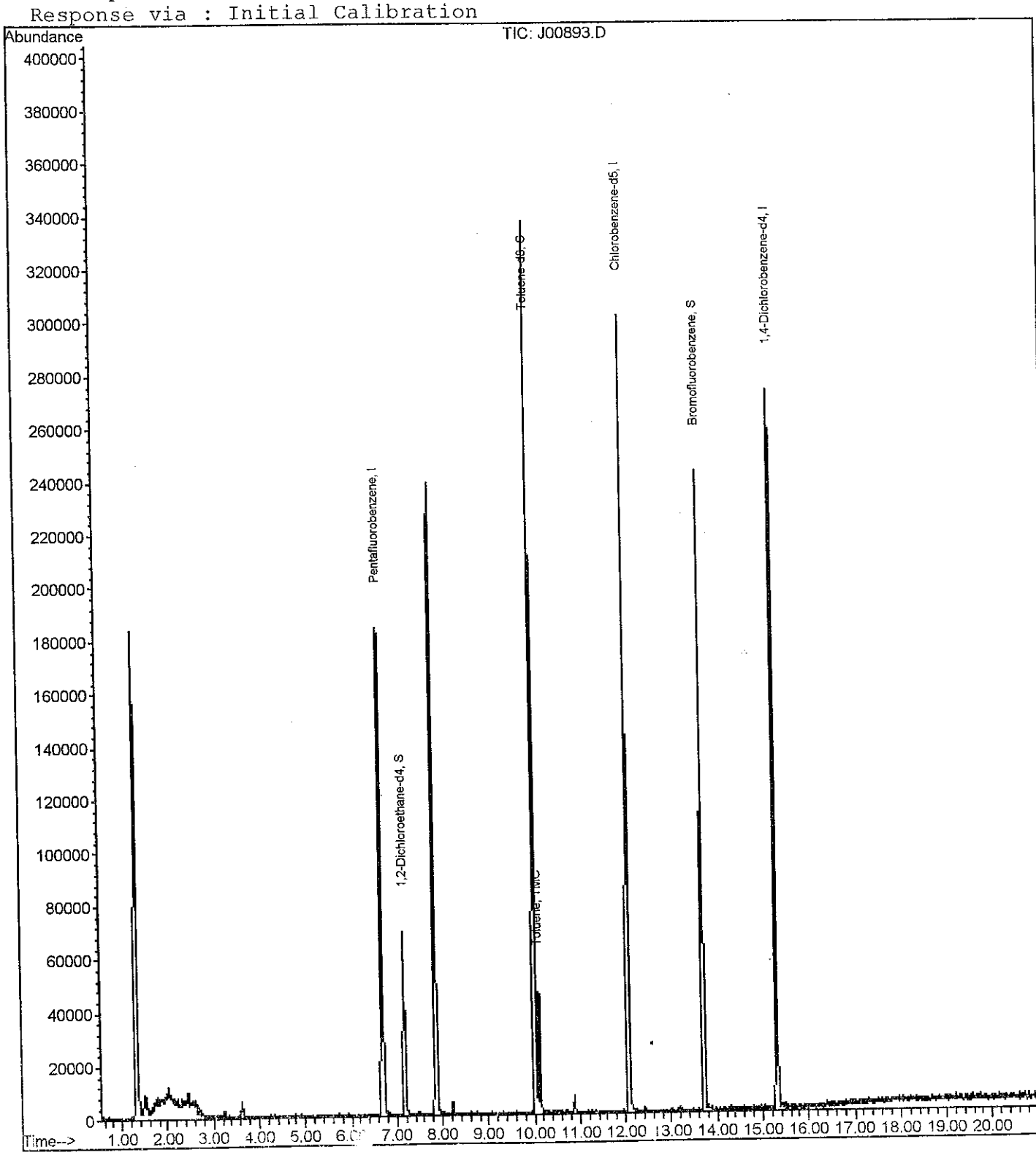
VRA
8-8-01

(#) qualifier out of range (m) = manual integration
J00893.D 08080125.M Wed Aug 08 15:03:12 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00893.D Vial: 10
Acq On : 08/08/01 14:26 Operator:
Sample : AC17919 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 15:03 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



J00893.D 08080125.M Wed Aug 08 15:03:13 2001 Pa

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00893.D Vial: 10
Acq On : 08/08/01 14:26 Operator:
Sample : AC17919 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

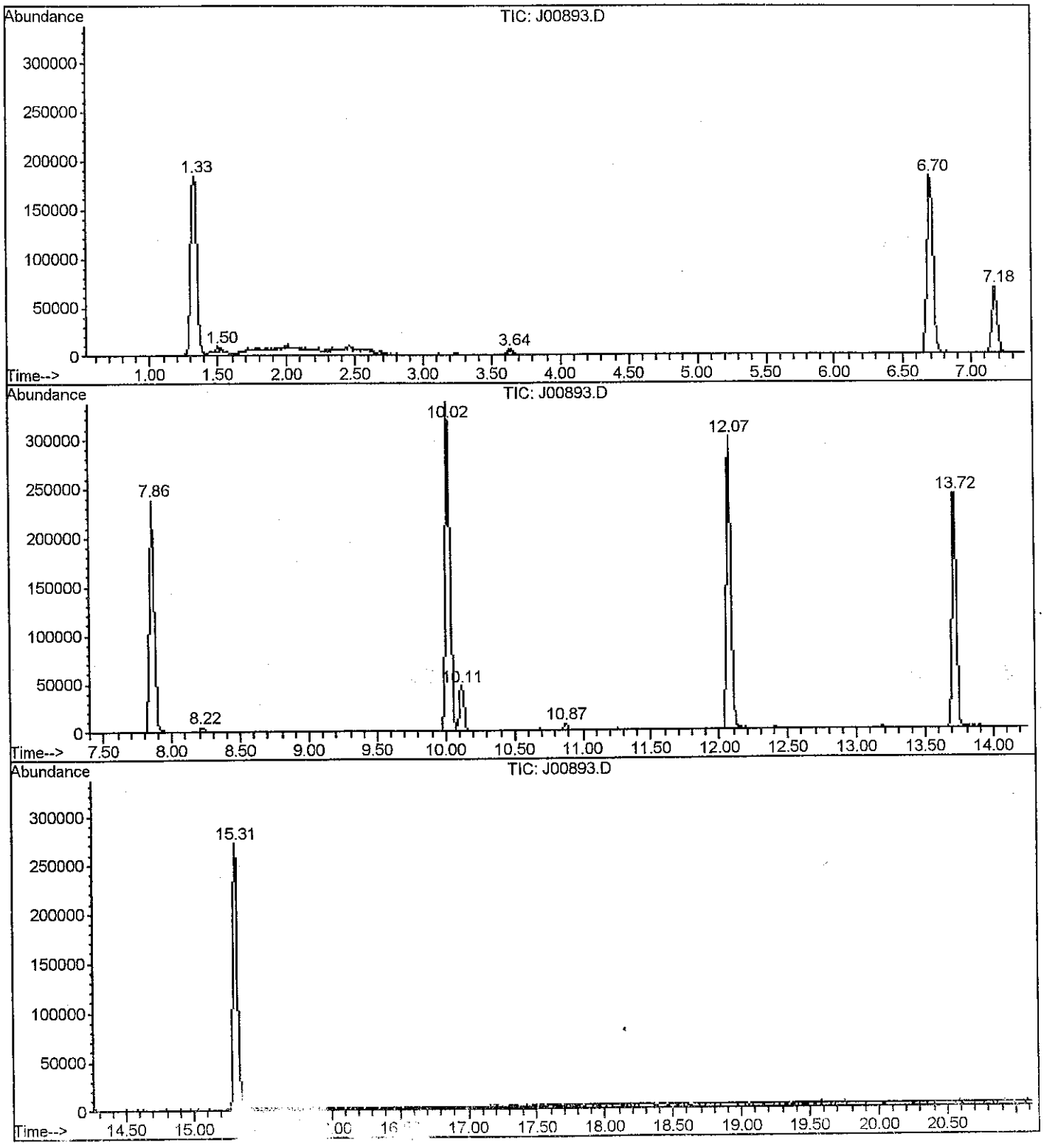
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.326	121	133	147	rBV	183378	572318	72.30%	12.082%
2	1.500	155	162	164	rBV	5413	10274	1.30%	0.217%
3	3.635	509	517	524	rVB4	5461	13321	1.68%	0.281%
4	6.696	1015	1026	1043	rBV	183186	572303	72.30%	12.081%
5	7.177	1096	1106	1119	rBV3	68152	191489	24.19%	4.042%
6	7.857	1207	1219	1233	rBV	238472	620202	78.35%	13.093%
7	8.218	1271	1279	1289	rVB3	4751	12106	1.53%	0.256%
8	10.022	1568	1579	1588	rBV	336806	791535	100.00%	16.709%
9	10.112	1588	1594	1604	rVB	44643	105022	13.27%	2.217%
10	10.870	1712	1720	1728	rVB4	7024	17237	2.18%	0.364%
11	12.073	1910	1920	1933	rBV	300848	681547	86.10%	14.388%
12	13.721	2185	2194	2204	rBV	241267	534887	67.58%	11.292%
13	15.309	2450	2458	2471	rBV	270986	614809	77.67%	12.979%

Sum of corrected areas: 4737050

J00893.D 08080125.M Wed Aug 08 15:03:34 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00893.D
Operator :
Acquired : 8 Aug 2001 14:26 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17919 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 10
Quant File :08080125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 14:26
Data File: C:\HPCHEM\1\DATA\1J080801\J00893.D
Name: AC17919 25ml DF=1
Misc: 28518/W080601A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00893.D 08080125.M Wed Aug 08 15:03:34 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00874.D Vial: 2
Acq On : 08/07/01 18:38 Operator:
Sample : AC17919 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:29 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	133250	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	173445	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	83305	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	77672	13.85	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 138.50%#			
46) Toluene-d8	10.02	98	255451	10.06	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.60%			
66) Bromofluorobenzene	13.72	95	96858	10.45	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.50%			
Target Compounds						Qvalue
3) Chloromethane	1.66	50	4693	0.93	ug\L	97
47) Toluene	10.11	92	23828	1.45	ug\L	100

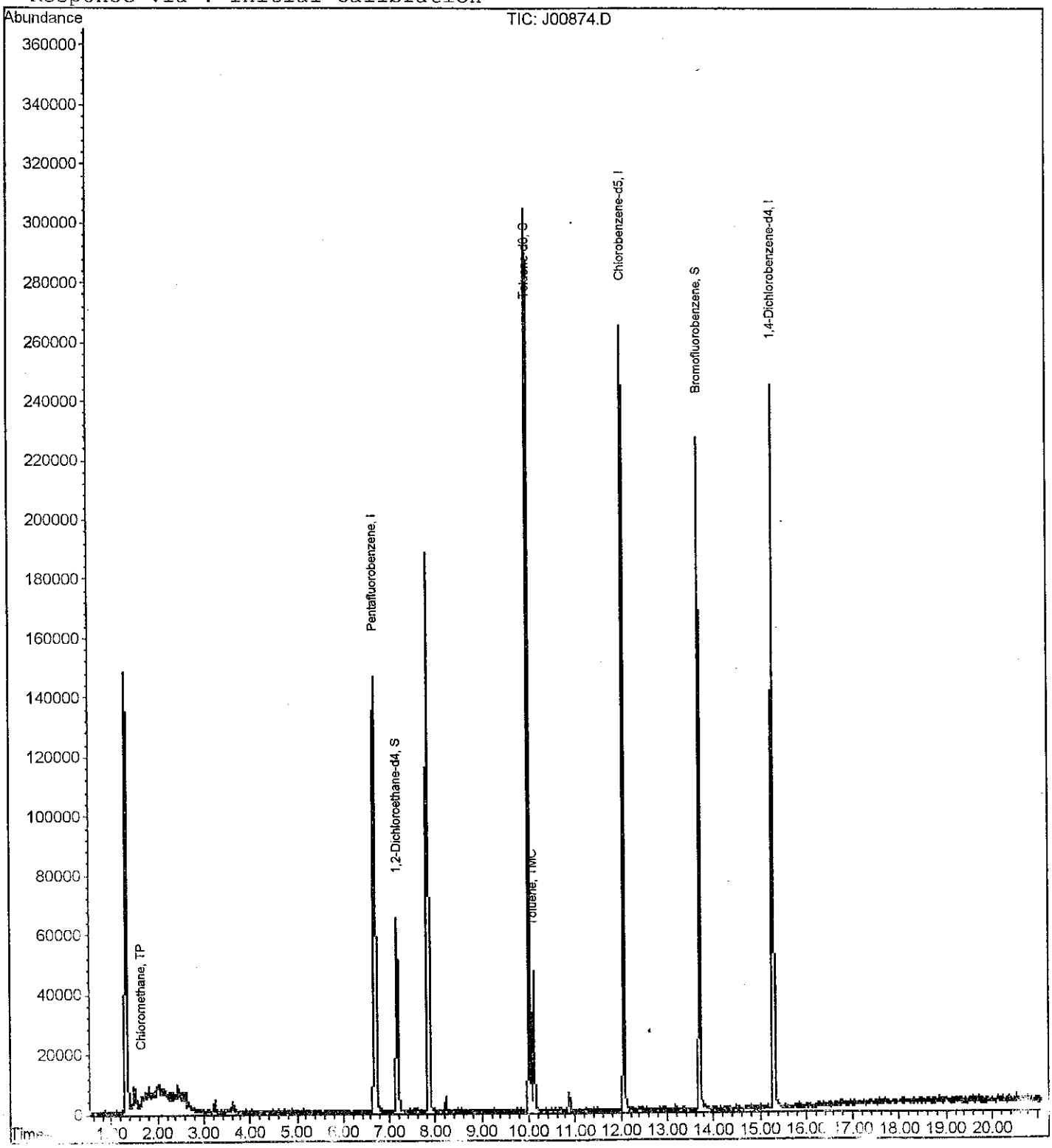
NRL

(#) = qualifier out of range (m) = manual integration
J00874.D 08070125.M Wed Aug 08 09:41:20 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00874.D Vial: 2
Acq On : 08/07/01 18:38 Operator:
Sample : AC17919 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:29 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D Vial: 11
Acq On : 08/08/01 14:52 Operator:
Sample : AC17920 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:35 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	163523	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	196177	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	92941	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	82150	11.94	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 119.40%			
46) Toluene-d8	10.02	98	286008	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	106979	10.34	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 103.40%			
Target Compounds						Qvalue
3) Chloromethane	1.66	50	3728	0.60	ug\L	98
11) Acetone	3.11	58	5419	42.10	ug\L	95
23) cis-1,2-Dichloroethene	5.77	96	126394	16.55	ug\L	86
24) 2-Butanone	5.86	72	30849	171.22	ug\L #	100
37) Trichloroethene	8.22	95	376706	40.83	ug\L	97
47) Toluene	10.12	92	18700	1.01	ug\L	99
53) 2-Hexanone	11.12	43	36699	35.71	ug\L	96
79) Isopropyltoluene	15.23	119	32137	0.88	ug\L	98

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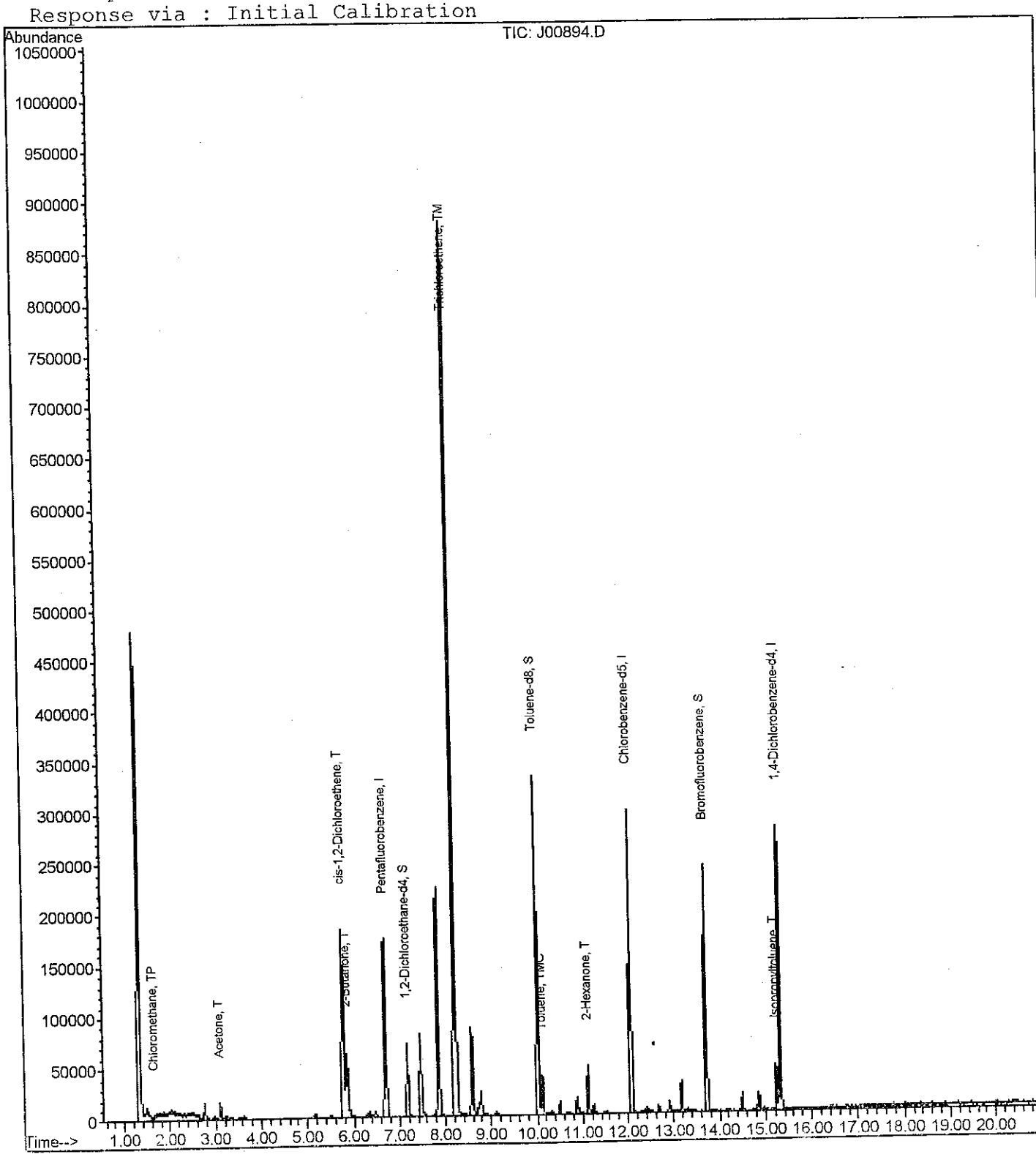
NDIL 1 2

(#) = qualifier out of range (m) = manual integration
J00894.D 08080125.M Wed Aug 08 16:35:26 2001 Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D Vial: 11
Acq On : 08/08/01 14:52 Operator:
Sample : AC17920 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:35 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Acq On : 08/08/01 14:52
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 11
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

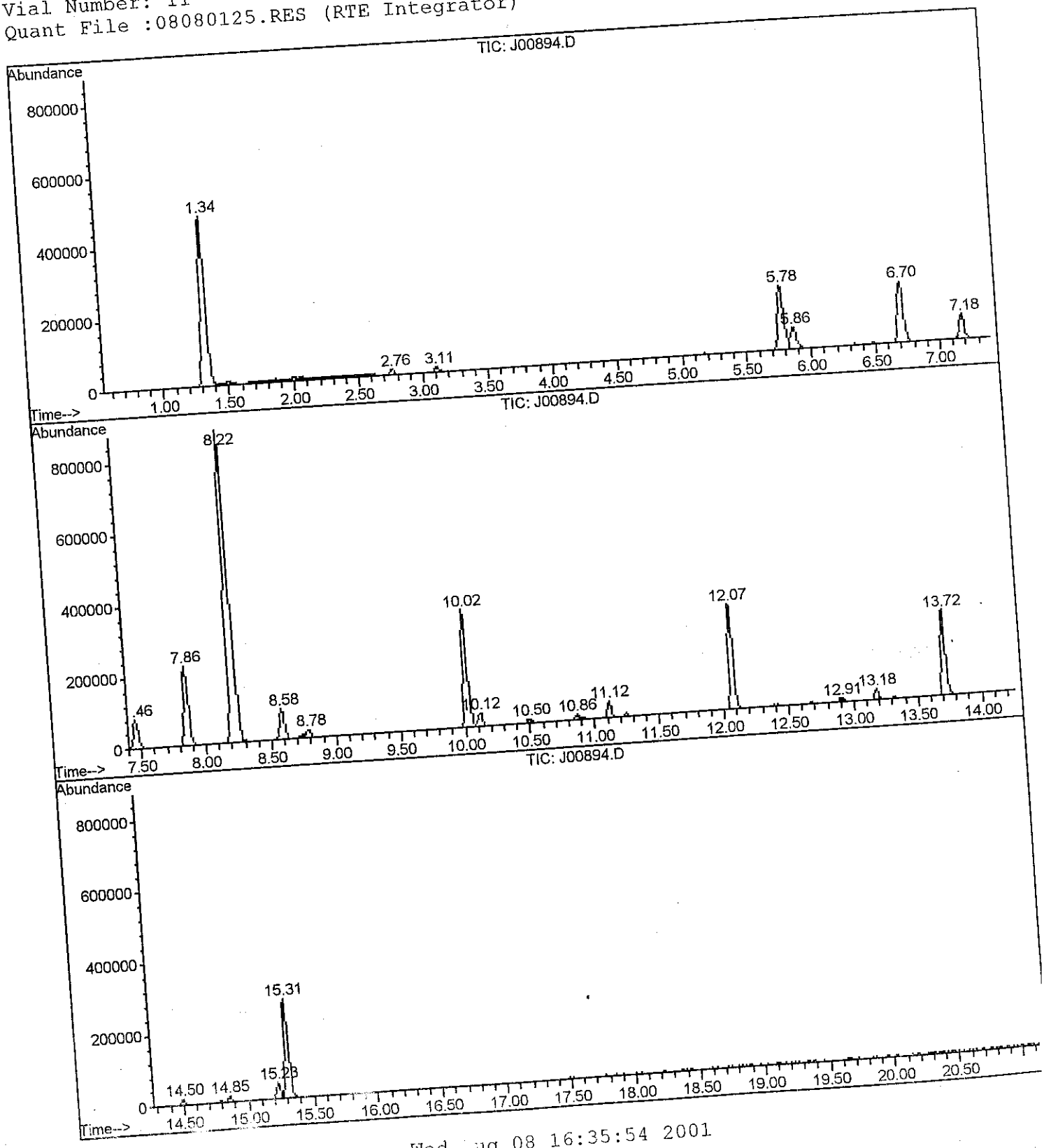
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.338	120	135	146	rBV	478265	1326167	57.94%	14.011%
2	2.763	363	372	384	rVB3	16196	42737	1.87%	0.452%
3	3.106	422	429	441	rVB2	16041	41424	1.81%	0.438%
4	5.776	860	873	882	rBV	184114	599426	26.19%	6.333%
5	5.860	882	887	901	rVB	62030	190801	8.34%	2.016%
6	6.702	1014	1027	1041	rBV2	173844	544324	23.78%	5.751%
7	7.177	1096	1106	1116	rBV	71235	193662	8.46%	2.046%
8	7.460	1140	1153	1165	rBV3	81783	240292	10.50%	2.539%
9	7.857	1208	1219	1230	rBV	223128	582607	25.45%	6.155%
10	8.224	1267	1280	1292	rBV	878700	2288805	100.00%	24.182%
11	8.585	1331	1340	1350	rBV3	86804	232413	10.15%	2.456%
12	8.783	1368	1373	1383	rVB	23104	58290	2.55%	0.616%
13	10.022	1568	1579	1588	rBV	331200	766621	33.49%	8.100%
14	10.118	1589	1595	1603	rVB2	37319	90128	3.94%	0.952%
15	10.503	1649	1659	1664	rBV3	12430	27140	1.19%	0.287%
16	10.864	1712	1719	1728	rBV4	16469	41875	1.83%	0.442%
17	11.117	1751	1761	1774	rBV2	46995	104146	4.55%	1.100%
18	12.073	1911	1920	1931	rBV	298023	662571	28.95%	7.000%
19	12.909	2052	2059	2066	rBV5	10771	27900	1.22%	0.295%
20	13.180	2095	2104	2113	rBV2	31605	71291	3.11%	0.753%
21	13.721	2185	2194	2207	rBV	241197	539427	23.57%	5.699%
22	14.503	2316	2324	2332	rVB3	17478	37059	1.62%	0.392%
23	14.851	2378	2382	2392	rVB2	17426	35414	1.55%	0.374%
24	15.230	2437	2445	2450	rBV2	45196	96568	4.22%	1.020%
25	15.309	2450	2458	2470	rVB2	277141	623821	27.26%	6.591%

Sum of corrected areas: 9464909

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Operator :
Acquired : 8 Aug 2001 14:52 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17920 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 11
Quant File :08080125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D Vial: 11
Acq On : 08/08/01 14:52 Operator:
Sample : AC17920 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

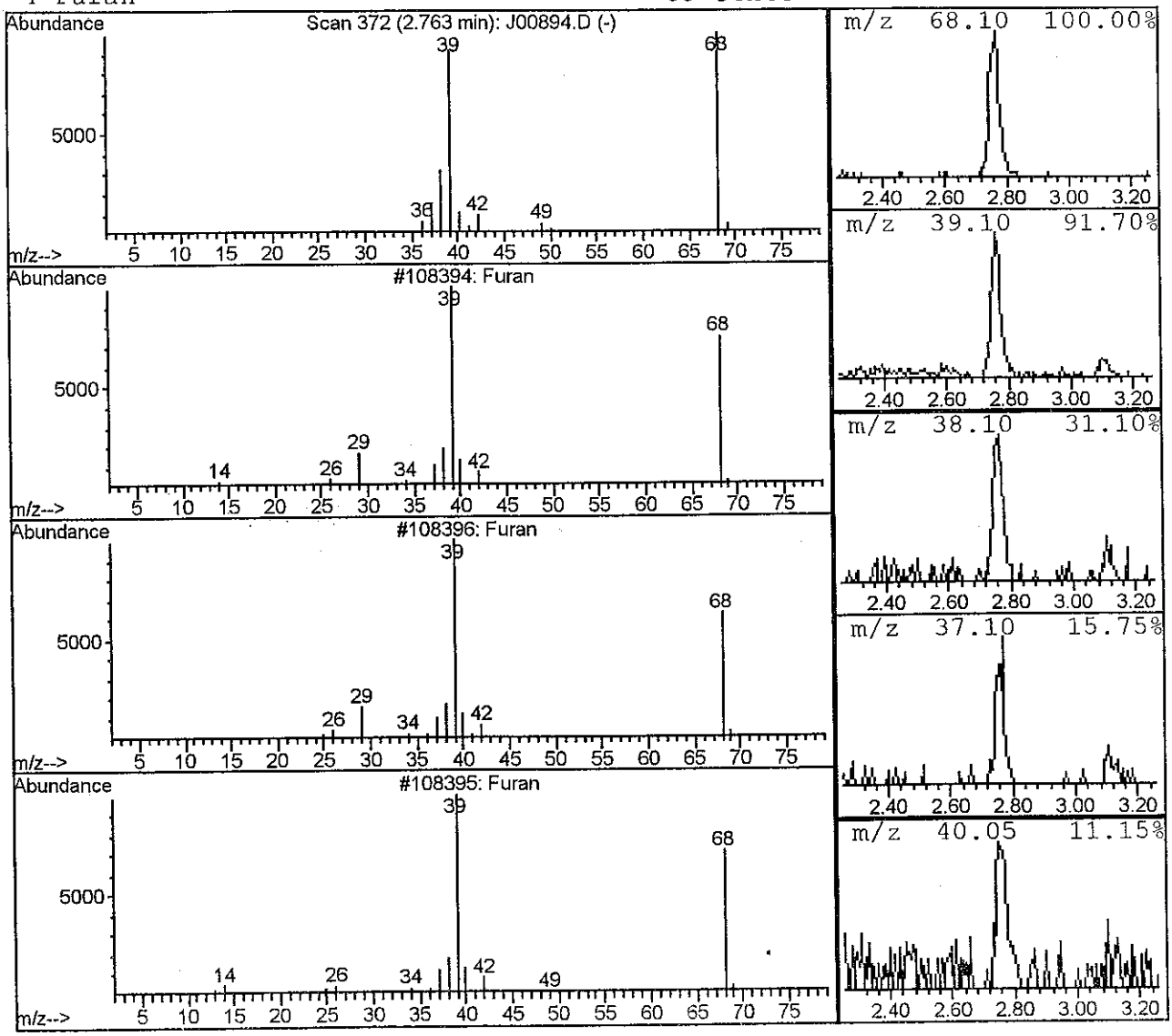
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Furan Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.76	427370.00 ug\L	42737	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan	68	C4H4O	000110-00-9	72
2	Furan	68	C4H4O	000110-00-9	72
3	Furan	68	C4H4O	000110-00-9	72
4	Furan	68	C4H4O	000110-00-9	64



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Acq On : 08/08/01 14:52
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 11
Operator:
Inst : HP-MSJ
Multiplr: 1.00

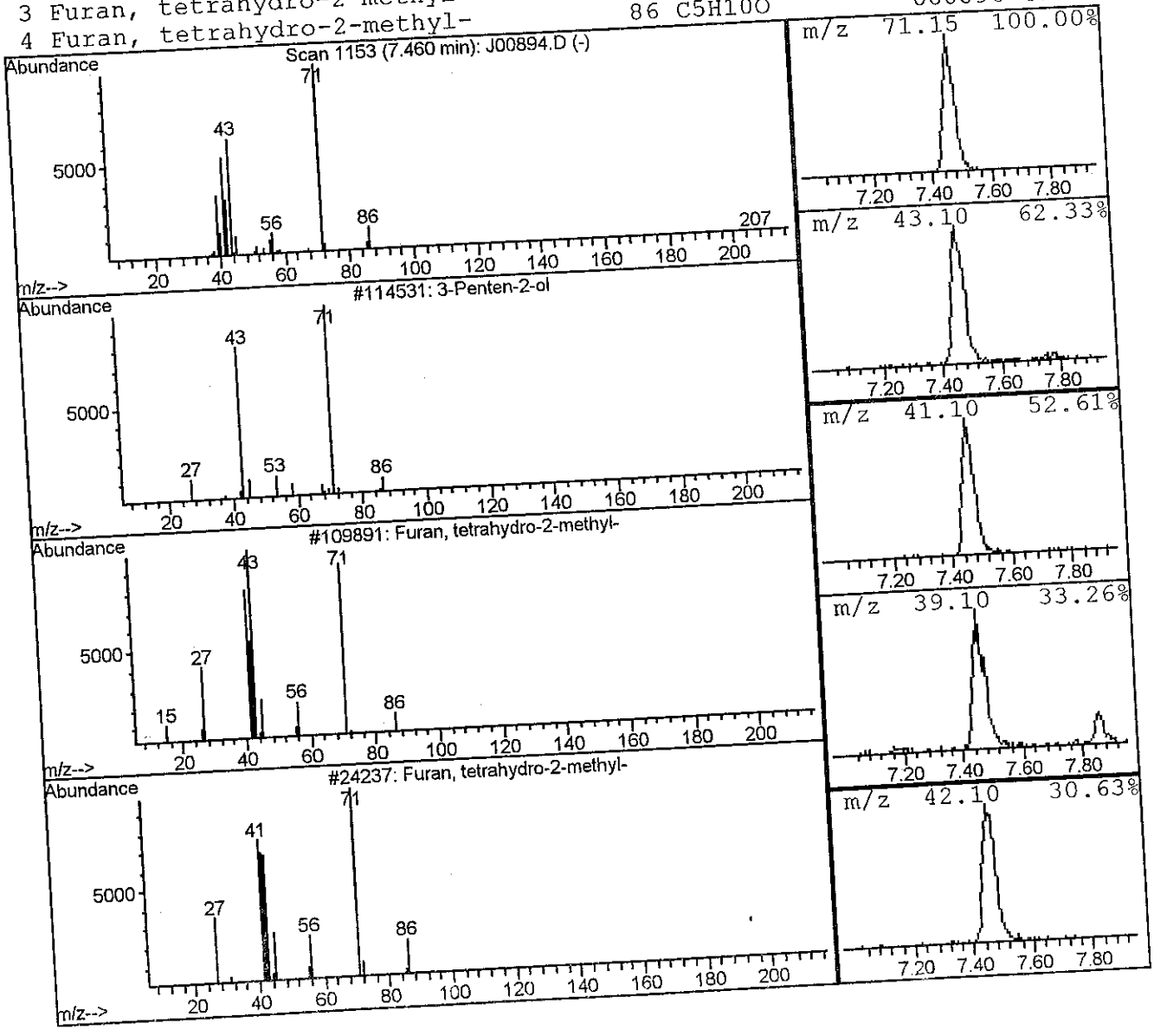
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 3-Penten-2-ol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.46	4.41 ug\L	240292	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-ol	86	C5H10O	001569-50-2	58
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	52
3	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	52
4	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	50



08 16:15:55 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Acq On : 08/08/01 14:52
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 11
Operator:
Inst : HP-MSJ
Multiplr: 1.00

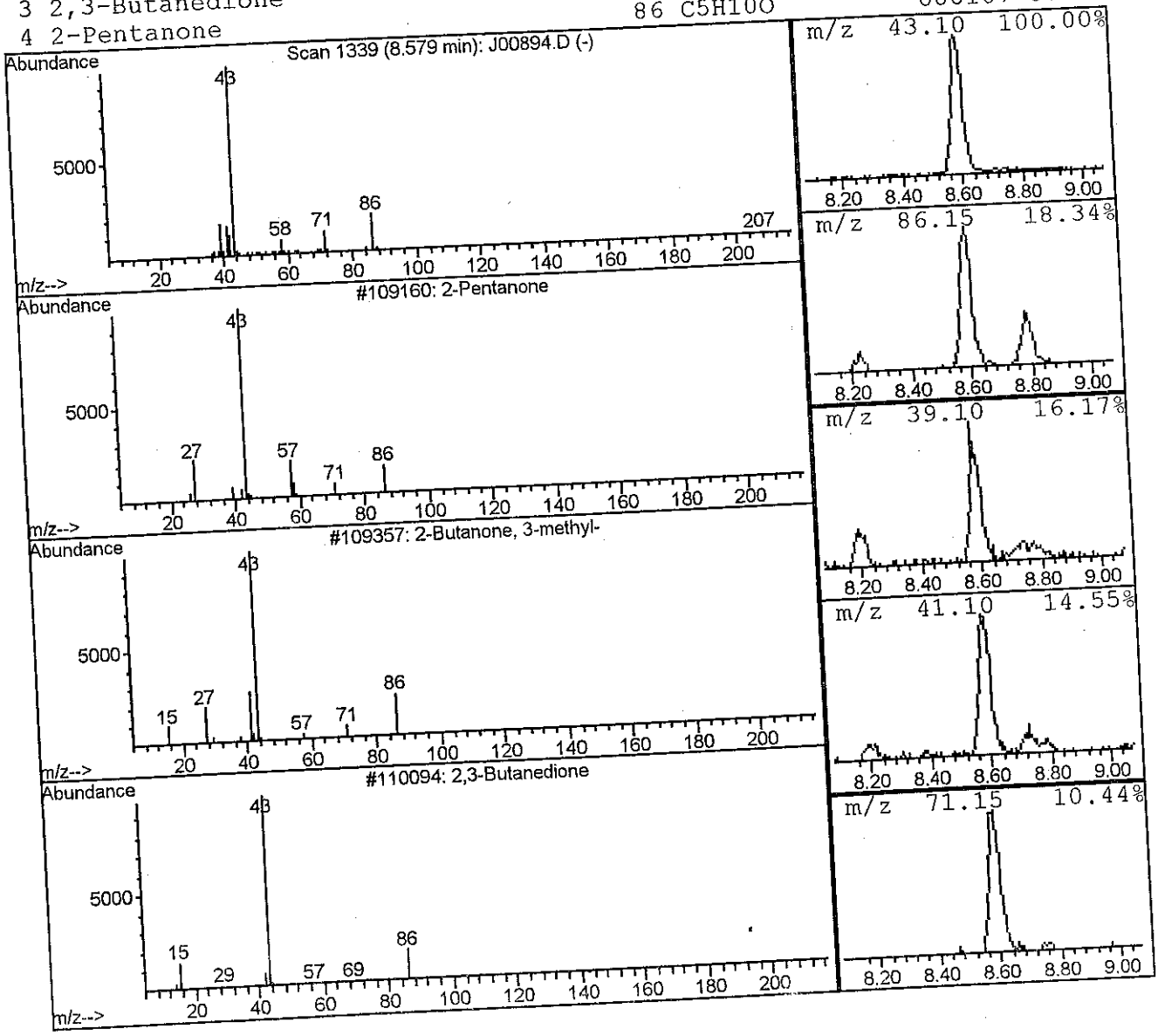
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 2-Pentanone — Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.58	4.27 ug\L	232413	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone	86	C5H10O	000107-87-9	64
2	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	50
3	2,3-Butanedione	86	C4H6O2	000431-03-8	49
4	2-Pentanone	86	C5H10O	000107-87-9	47



Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Acq On : 08/08/01 14:52
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 11
Operator:
Inst : HP-MSJ
Multiplr: 1.00

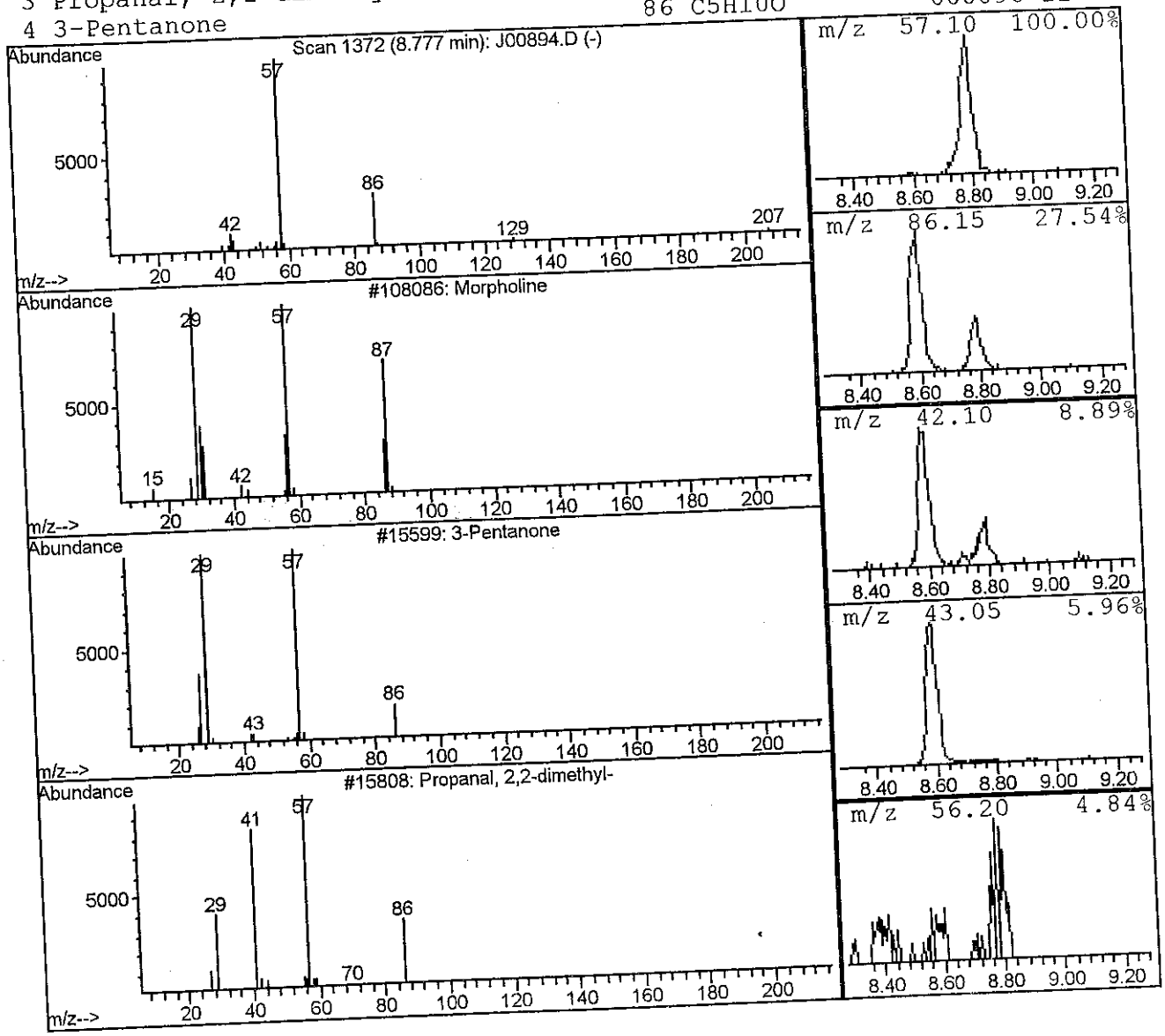
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Morpholine — Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.78	1.07 ug\L	58290	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Morpholine	87	C4H9NO	000110-91-8	9
2	3-Pentanone	86	C5H10O	000096-22-0	7
3	Propanal, 2,2-dimethyl-	86	C5H10O	000630-19-3	5
4	3-Pentanone	86	C5H10O	000096-22-0	5



Data File : C:\HPCHEM\1\DATA\1J080801\J00894.D
Acq On : 08/08/01 14:52
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 11
Operator:
Inst : HP-MSJ
Multiplr: 1.00

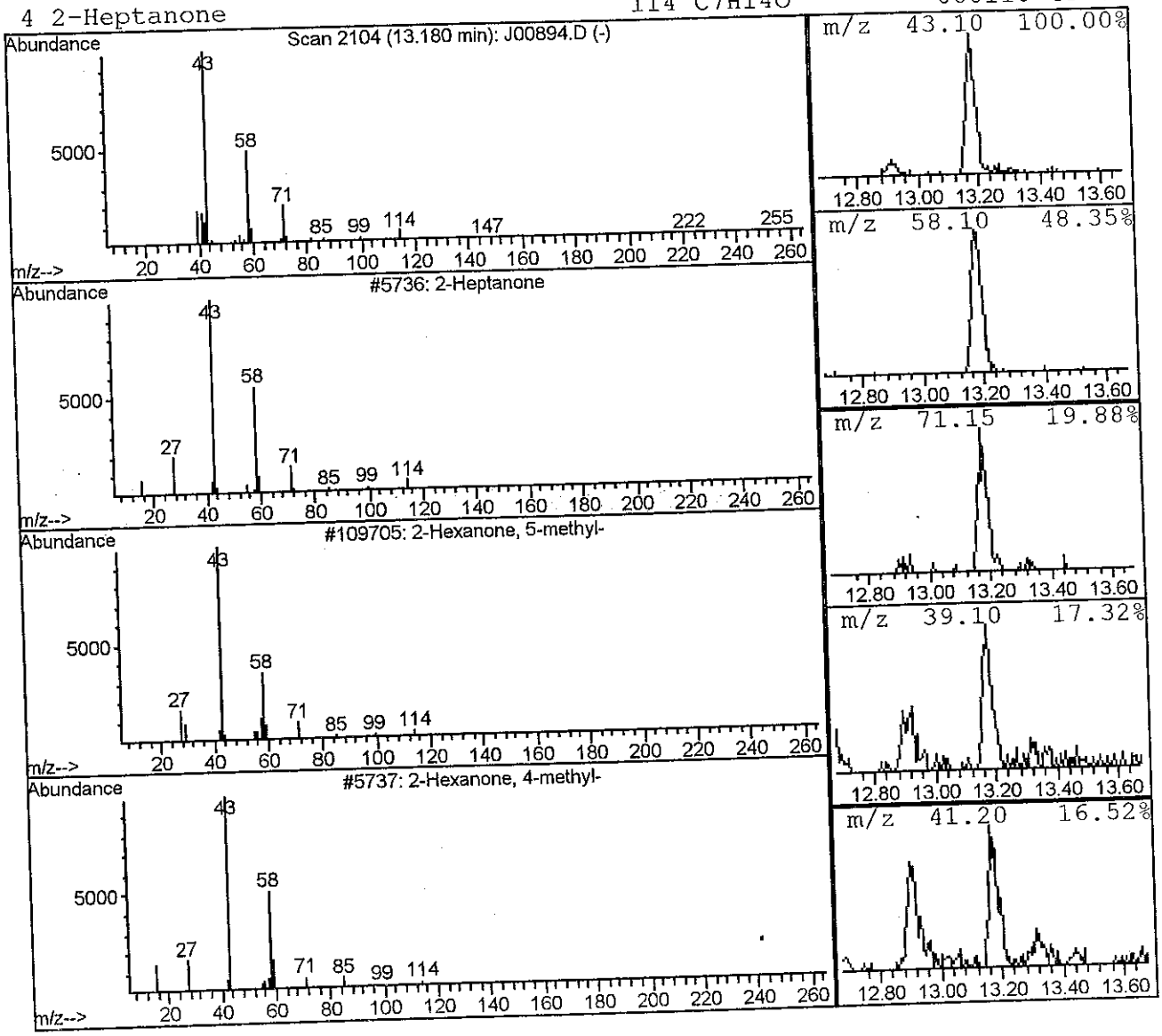
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 2-Heptanone — Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.18	1.08 ug\L	71291	Chlorobenzene-d5	12.08

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	72
2	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	53
3	2-Hexanone, 4-methyl-	114	C7H14O	000105-42-0	53
4	2-Heptanone	114	C7H14O	000110-43-0	53



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 14:52
Data File: C:\HPCHEM\1\DATA\1J080801\J00894.D
Name: AC17920 25ml DF=1
Misc: 28518/W080601A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan	2.76	427370.0	ug\L	42737	ISTD01	0.00	1	10.0
3-Penten-2-ol	7.46	4.4	ug\L	240292	ISTD02	6.70	544324	10.0
2-Pentanone	8.58	4.3	ug\L	232413	ISTD02	6.70	544324	10.0
Morpholine	8.78	1.1	ug\L	58290	ISTD02	6.70	544324	10.0
2-Heptanone	13.18	1.1	ug\L	71291	ISTD03	12.08	662571	10.0

J00894.D 08080125.M Wed Aug 08 16:35:56 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00904.D Vial: 5
Acq On : 08/08/01 19:18 Operator:
Sample : AC17920 12.5ml DF=2 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:35 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	175715	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	217712	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	103480	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	84003	11.36	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.60%			
46) Toluene-d8	10.02	98	300402	9.42	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.20%			
66) Bromofluorobenzene	13.72	95	117282	10.18	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.80%			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	62550	7.62	ug\L	87
37) Trichloroethene	8.22	95	217135	21.90	ug\L	97 44
47) Toluene	10.11	92	11005	0.53	ug\L	93

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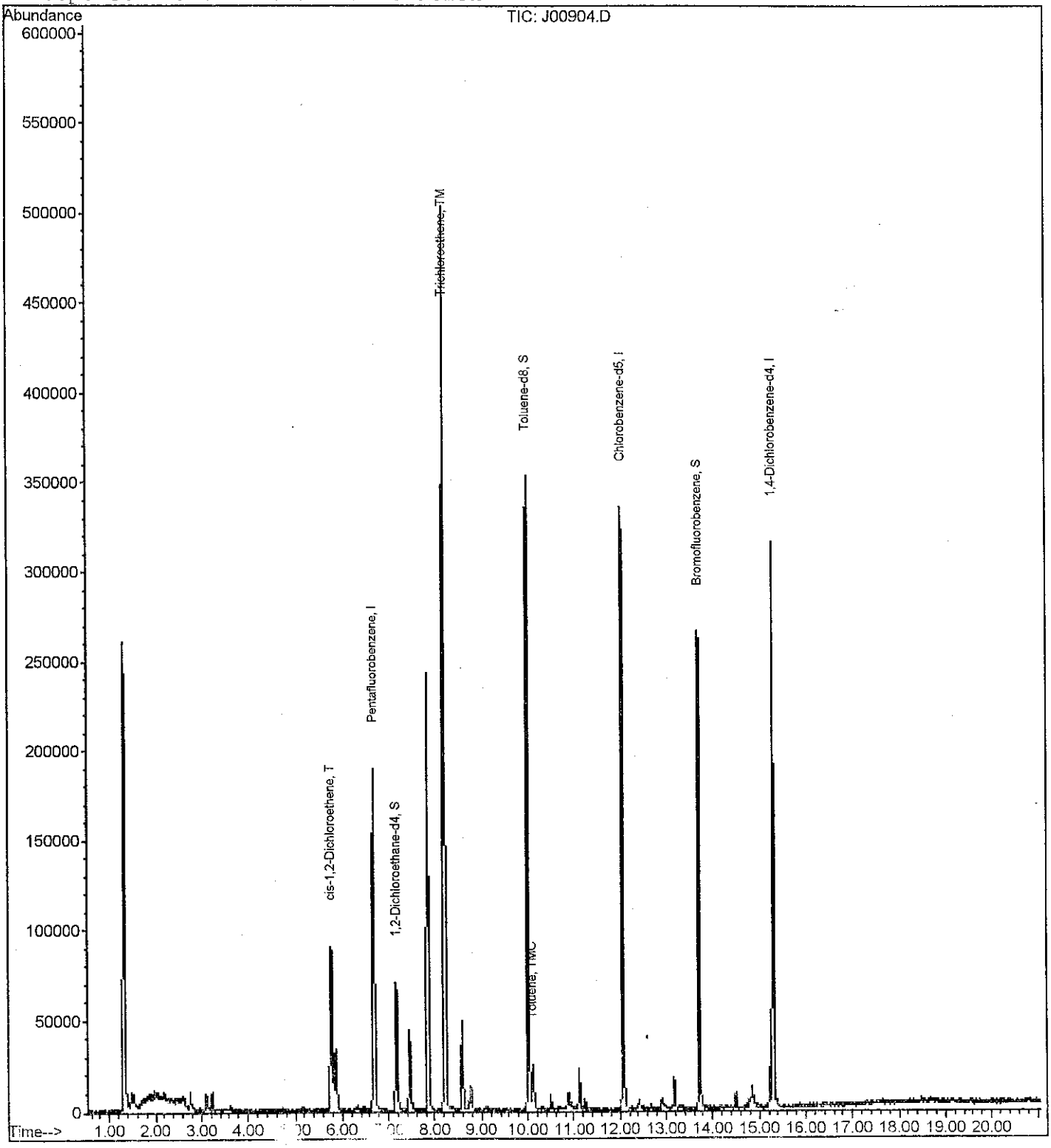
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080801\J00904.D Vial: 5
Acq On : 08/08/01 19:18 Operator:
Sample : AC17920 12.5ml DF=2 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:35 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00875.D
Acq On : 08/07/01 19:05
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 8 7:32 2001

Vial: 3
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

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Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	91837	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	127472	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	60912	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	56576	14.64	ug\L	-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 146.40%#			
46) Toluene-d8	10.02	98	182363	9.77	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.70%			
66) Bromofluorobenzene	13.72	95	74217	10.95	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 109.50%			
Target Compounds						Qvalue
3) Chloromethane	1.65	50	2409	0.69	ug\L	90
11) Acetone	3.11	58	3519	48.68	ug\L	99
14) Carbon Disulfide	3.23	76	11880	0.98	ug\L #	87
23) cis-1,2-Dichloroethene	5.77	96	236087	55.06	ug\L	88
24) 2-Butanone	5.86	72	16511	163.23	ug\L #	100
37) Trichloroethene	8.22	95	122184	23.58	ug\L	96
47) Toluene	10.11	92	12173	1.01	ug\L	98
53) 2-Hexanone	11.11	43	18616	27.88	ug\L	96
79) Isopropyltoluene	15.22	119	13386	0.56	ug\L	97

RI

(#) = qualifier out of range (m) = manual integration
J00875.D 08070125.M Wed Aug 08 09:30:30 2001

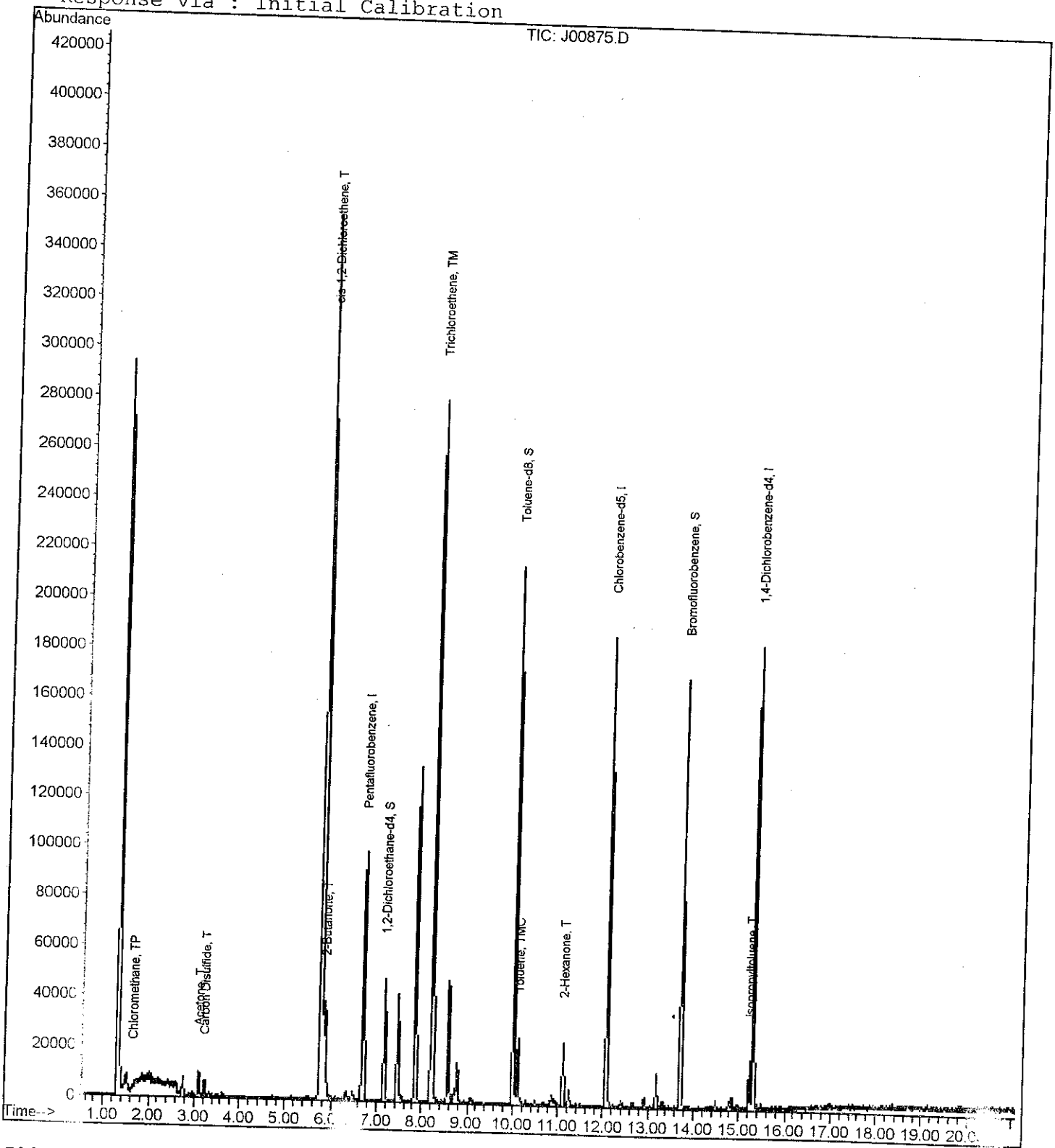
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00875.D
Acq On : 08/07/01 19:05
Sample : AC17920 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 8 7:32 2001

Vial: 3
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D Vial: 4
Acq On : 08/07/01 19:31 Operator:
Sample : AC17921 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:34 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	142282	10.00	ug\L	-0.02
45)' Chlorobenzene-d5	12.07	117	191485	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	95846	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76309	12.75	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.50%#			
46) Toluene-d8	10.02	98	261852	9.34	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.40%			
66) Bromofluorobenzene	13.71	95	104809	9.83	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.30%			
Target Compounds						Qvalue
11) Acetone	3.09	58	5971	53.32	ug\L	83
14) Carbon Disulfide	3.23	76	32432	1.73	ug\L	100
23) cis-1,2-Dichloroethene	5.78	96	152167	22.91	ug\L	87
24) 2-Butanone	5.86	72	27588	175.94	ug\L #	100
37) Trichloroethene	8.22	95	336535	41.92	ug\L	96
47) Toluene	10.11	92	20950	1.16	ug\L	98
53) 2-Hexanone	11.12	43	37448	37.33	ug\L	93
79) Isopropyltoluene	15.23	119	24480	0.65	ug\L	100

JRR
8.8.01

NDiL 1:2

(#) = qualifier out of range (m) = manual integration
J00876.D 08070125 Wed Aug 08 09:41:40 2001 Page 1

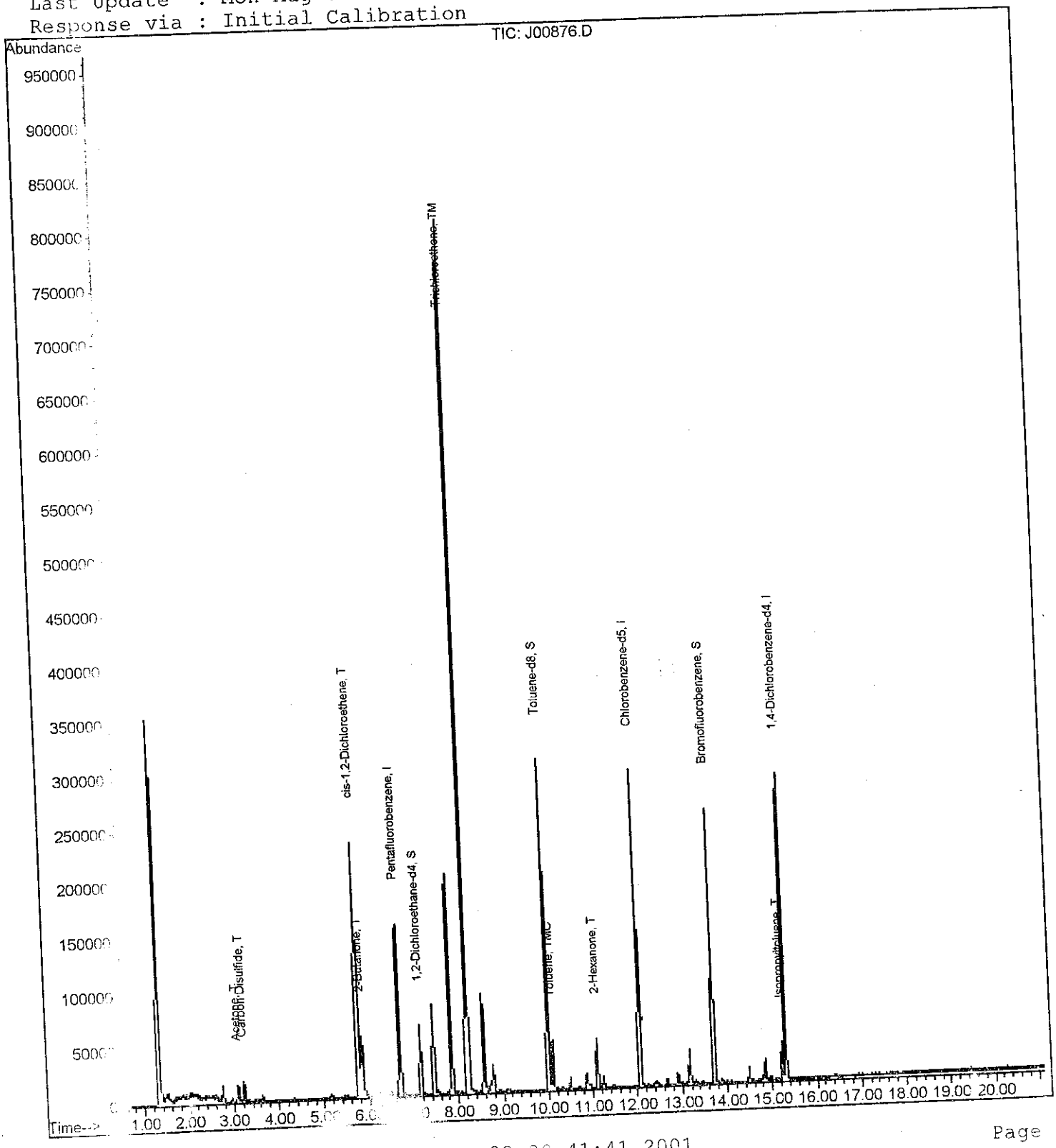
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Acq On : 08/07/01 19:31
Sample : AC17921 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 8 7:34 2001

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Acq On : 08/07/01 19:31
Sample : AC17921 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

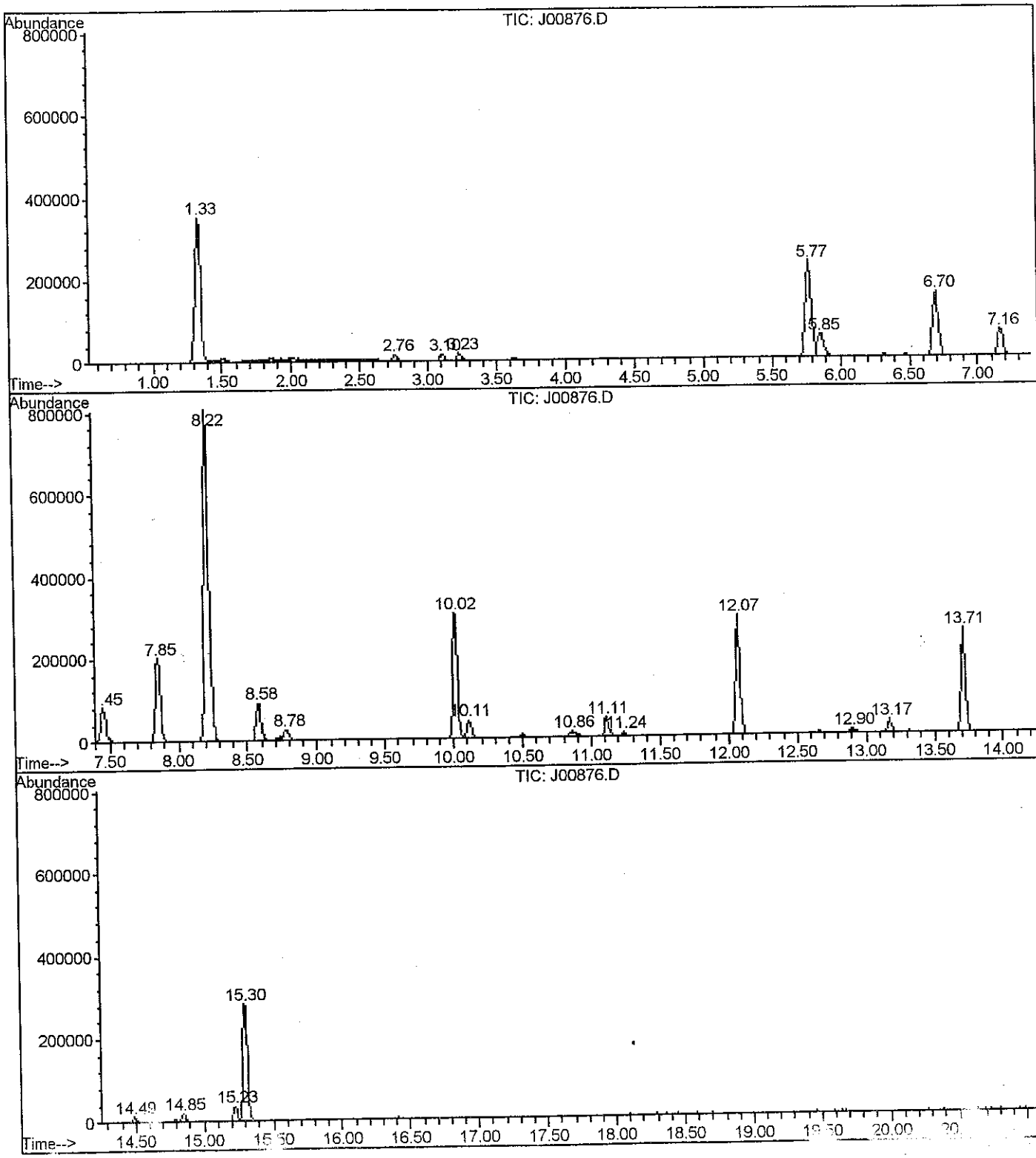
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.331	117	134	148	rBV	353168	960444	46.48%	10.855%
2	2.756	364	371	380	rVB3	15116	37104	1.80%	0.419%
3	3.099	420	428	437	rBV2	15572	40697	1.97%	0.460%
4	3.226	443	449	458	rVB	18193	41564	2.01%	0.470%
5	5.770	860	872	881	rBV	234433	737569	35.70%	8.336%
6	5.854	881	886	900	rVB2	53934	175824	8.51%	1.987%
7	6.696	1014	1026	1040	rVB2	157240	474053	22.94%	5.358%
8	7.165	1093	1104	1115	rBV2	63757	187958	9.10%	2.124%
9	7.453	1139	1152	1162	rBV2	83440	240922	11.66%	2.723%
10	7.850	1208	1218	1229	rBV	201636	535206	25.90%	6.049%
11	8.217	1266	1279	1292	rBV	805734	2066205	100.00%	23.353%
12	8.578	1331	1339	1354	rBV3	90151	234200	11.33%	2.647%
13	8.777	1366	1372	1381	rVB	24577	64653	3.13%	0.731%
14	10.016	1568	1578	1586	rBV	304903	711495	34.43%	8.042%
15	10.112	1588	1594	1604	rVB2	44192	106484	5.15%	1.204%
16	10.864	1709	1719	1725	rBV5	13444	36712	1.78%	0.415%
17	11.110	1752	1760	1770	rBV	45903	104338	5.05%	1.179%
18	11.242	1773	1782	1788	rBV5	9695	21262	1.03%	0.240%
19	12.072	1910	1920	1930	rBV	291067	646740	31.30%	7.310%
20	12.902	2051	2058	2066	rBV6	10386	27942	1.35%	0.316%
21	13.173	2096	2103	2111	rBV3	31146	64272	3.11%	0.726%
22	13.714	2182	2193	2202	rBV	252775	543345	26.30%	6.141%
23	14.490	2316	2322	2330	rVB4	12984	28372	1.37%	0.321%
24	14.851	2376	2382	2390	rVB2	19248	40485	1.96%	0.458%
25	15.230	2437	2445	2449	rBV2	35010	76283	3.69%	0.862%
26	15.302	2449	2457	2470	rVB	280754	643465	31.14%	7.273%

Sum of corrected areas: 8847594

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Operator :
Acquired : 7 Aug 2001 19:31 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17921 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 4
Quant File :08070125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Acq On : 08/07/01 19:31
Sample : AC17921 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

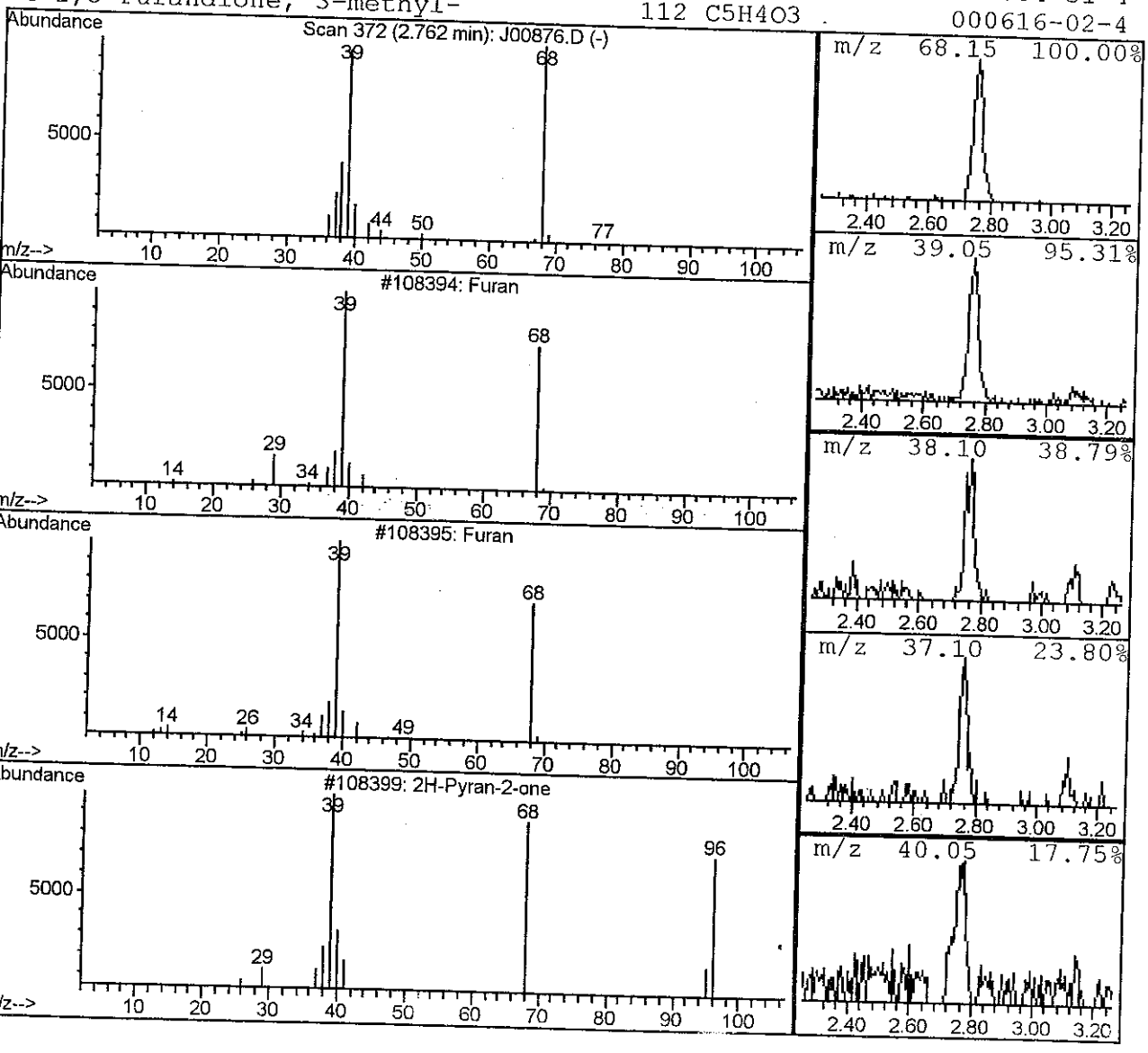
****

Peak Number 1 Furan

Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.76	371040.00 ug\L	37104	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan	68	C4H4O	000110-00-9	86
2	Furan	68	C4H4O	000110-00-9	78
3	2H-Pyran-2-one	96	C5H4O2	000504-31-4	43
4	2,5-Furandione, 3-methyl-	112	C5H4O3	000616-02-4	43



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Acq On : 08/07/01 19:31
Sample : AC17921 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

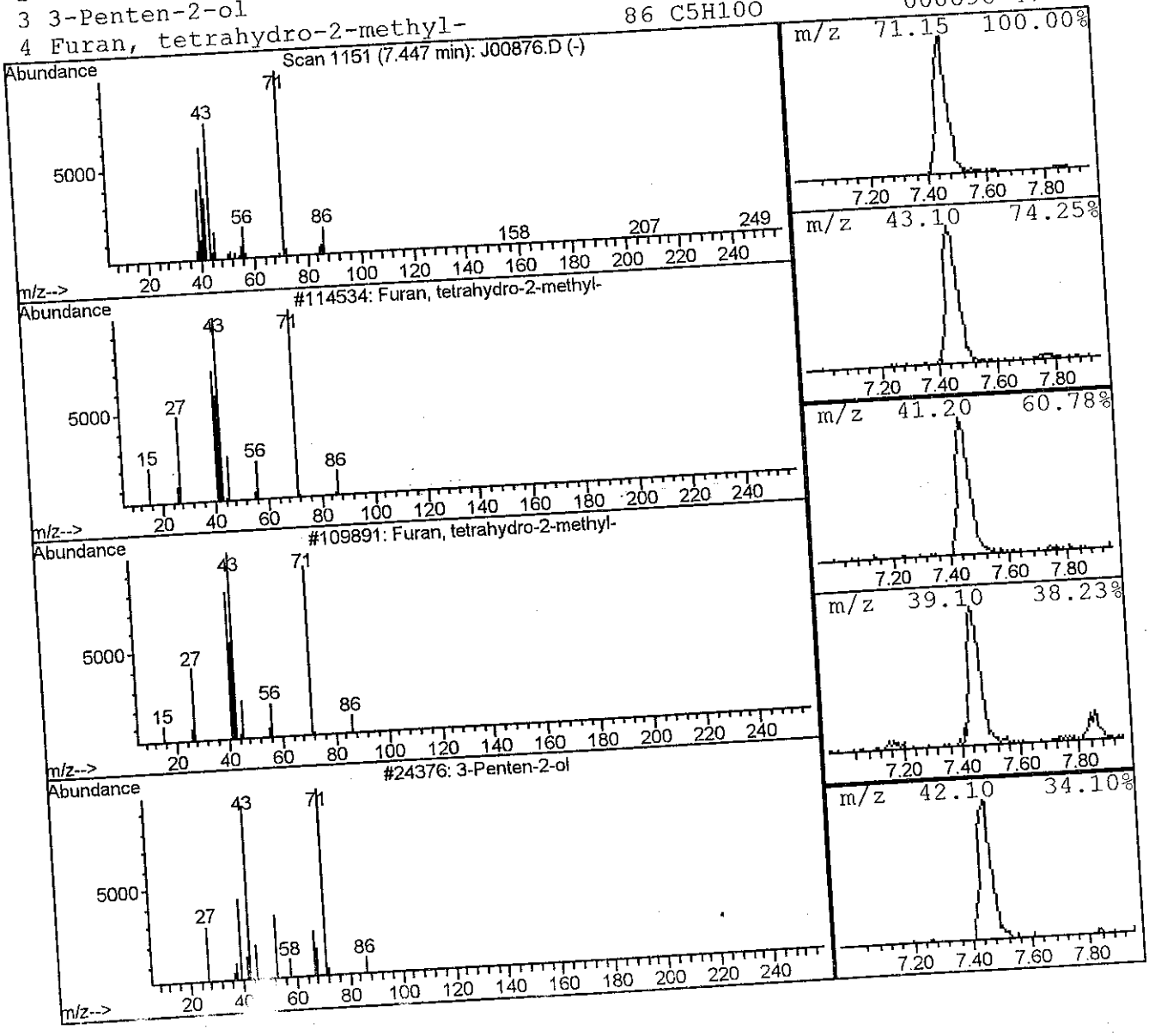
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Furan, tetrahydro-2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.45	5.08 ug\L	240922	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	64
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	64
3	3-Penten-2-ol	86	C5H10O	001569-50-2	64
4	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	64



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D
Acq On : 08/07/01 19:31
Sample : AC17921 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 4
Operator:
Inst : HP-MSJ
Multiplr: 1.00

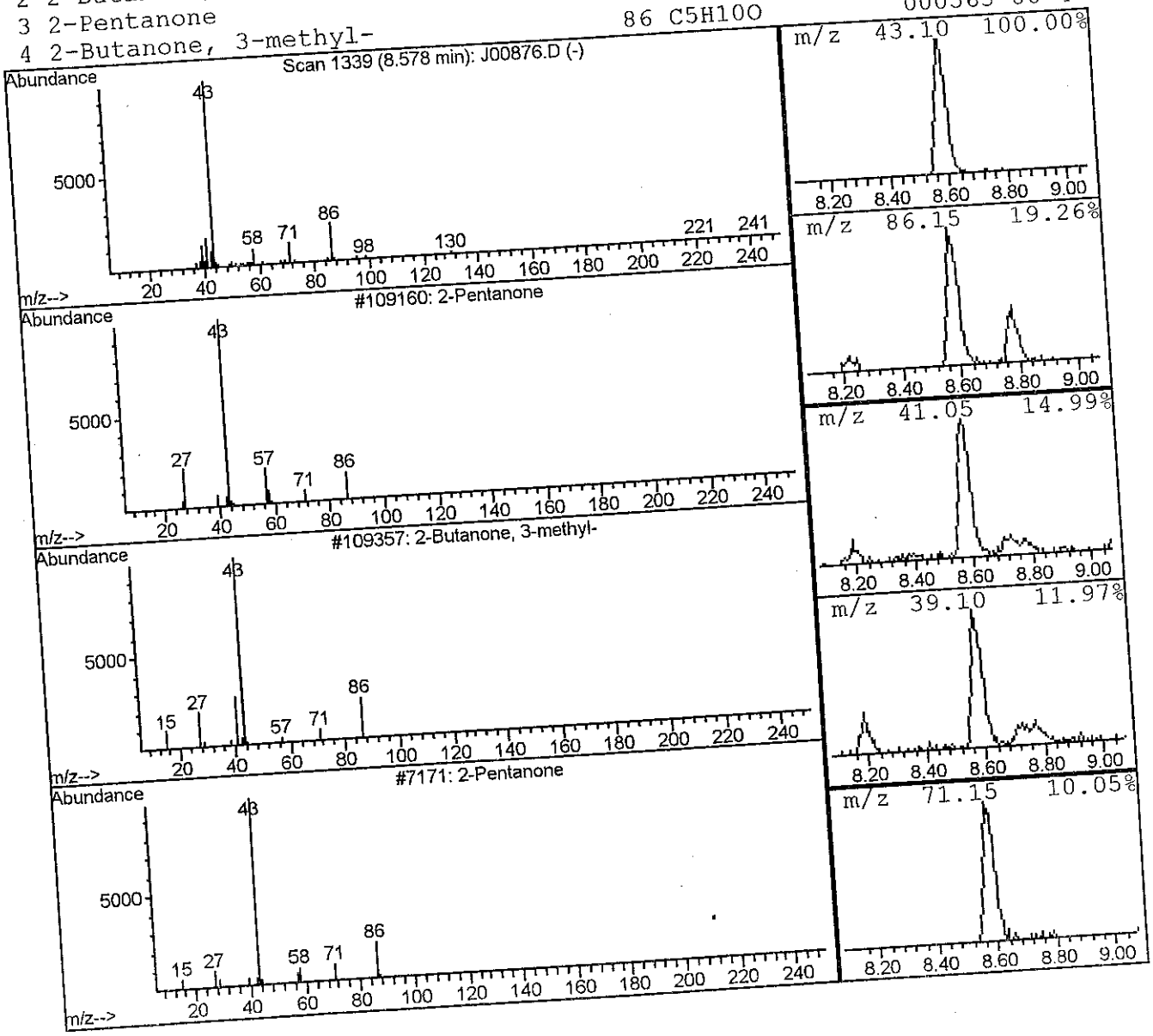
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 2-Pentanone Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.58	4.94 ug\L	234200	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone	86	C5H10O	000107-87-9	64
2	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	64
3	2-Pentanone	86	C5H10O	000107-87-9	64
4	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	59



Data File : C:\HPCHEM\1\DATA\1J080701\J00876.D Vial: 4
Acq On : 08/07/01 19:31 Operator:
Sample : AC17921 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

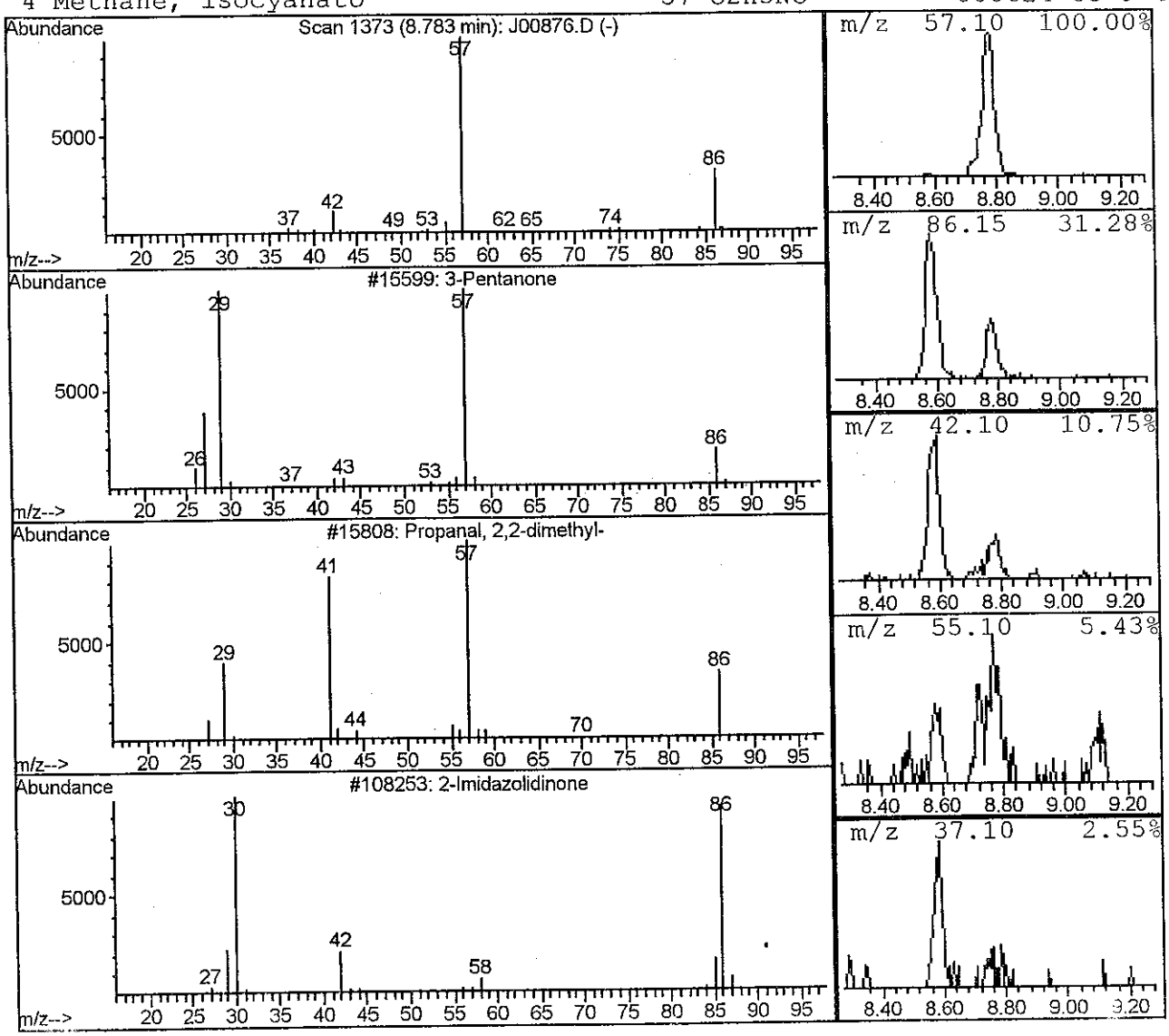
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 3-Pentanone Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.78	1.36 ug\L	64653	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pentanone	86	C5H10O	000096-22-0	28
2	Propanal, 2,2-dimethyl-	86	C5H10O	000630-19-3	9
3	2-Imidazolidinone	86	C3H6N2O	000120-93-4	7
4	Methane, isocyanato-	57	C2H3NO	000624-83-9	4



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 19:31
Data File: C:\HPCHEM\1\DATA\1J080701\J00876.D
Name: AC17921 25ml DF=1
Misc: 28518/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan	2.76	371040.0	ug\L	37104	ISTD01	0.00	1	10.0
Furan, tetrahydro-2-	7.45	5.1	ug\L	240922	ISTD02	6.70	474053	10.0
2-Pentanone	8.58	4.9	ug\L	234200	ISTD02	6.70	474053	10.0
3-Pentanone	8.78	1.4	ug\L	64653	ISTD02	6.70	474053	10.0

J00876.D 08070125.M Wed Aug 08 10:48:57 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00895.D Vial: 12
Acq On : 08/08/01 15:19 Operator:
Sample : AC17921 12.5ml DF=2 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:36 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

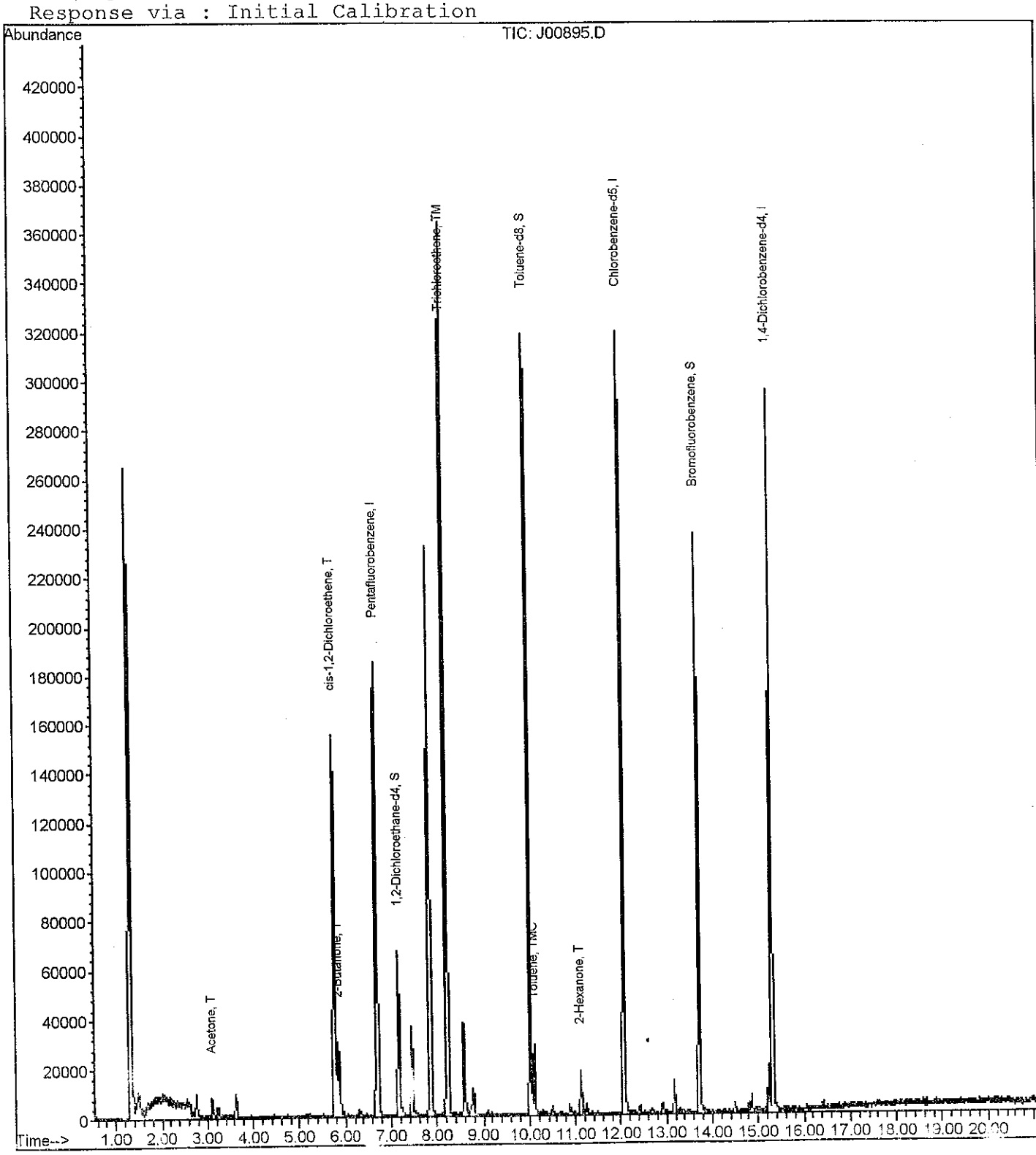
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	173316	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	209528	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	96351	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76147	10.44	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 104.40%			
46) Toluene-d8	10.02	98	280505	9.14	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 91.40%			
66) Bromofluorobenzene	13.72	95	102274	9.54	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.40%			
Target Compounds						Qvalue
11) Acetone	3.10	58	3079	22.57	ug\L	86
23) cis-1,2-Dichloroethene	5.78	96	106657	13.18	ug\L	84
24) 2-Butanone	5.87	72	13678	72.39	ug\L #	100
37) Trichloroethene	8.22	95	157912	16.15	ug\L	98
47) Toluene	10.11	92	13527	0.68	ug\L	98
53) 2-Hexanone	11.12	43	15855	14.45	ug\L #	89

32

VRR
8.9.01

Data File : C:\HPCHEM\1\DATA\1J080801\J00895.D Vial: 12
Acq On : 08/08/01 15:19 Operator:
Sample : AC17921 12.5ml DF=2 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:36 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D Vial: 13
Acq On : 08/08/01 15:45 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	165955	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	196612	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	90271	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	79300	11.36	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.60%			
46) Toluene-d8	10.02	98	273569	9.50	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.00%			
66) Bromofluorobenzene	13.72	95	103694	10.32	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 103.20%			
Target Compounds						Qvalue
3) Chloromethane	1.65	50	3294	0.52	ug\L	96
15) Acetonitrile	3.49	41	1139	1.17	ug\L #	78
23) cis-1,2-Dichloroethene	5.78	96	65920	8.51	ug\L	86
37) Trichloroethene	8.23	95	76711	8.19	ug\L	98
47) Toluene	10.11	92	18552	1.00	ug\L	99

VRR 8.9.01

(#) = qualifier out of range (m) = manual integration

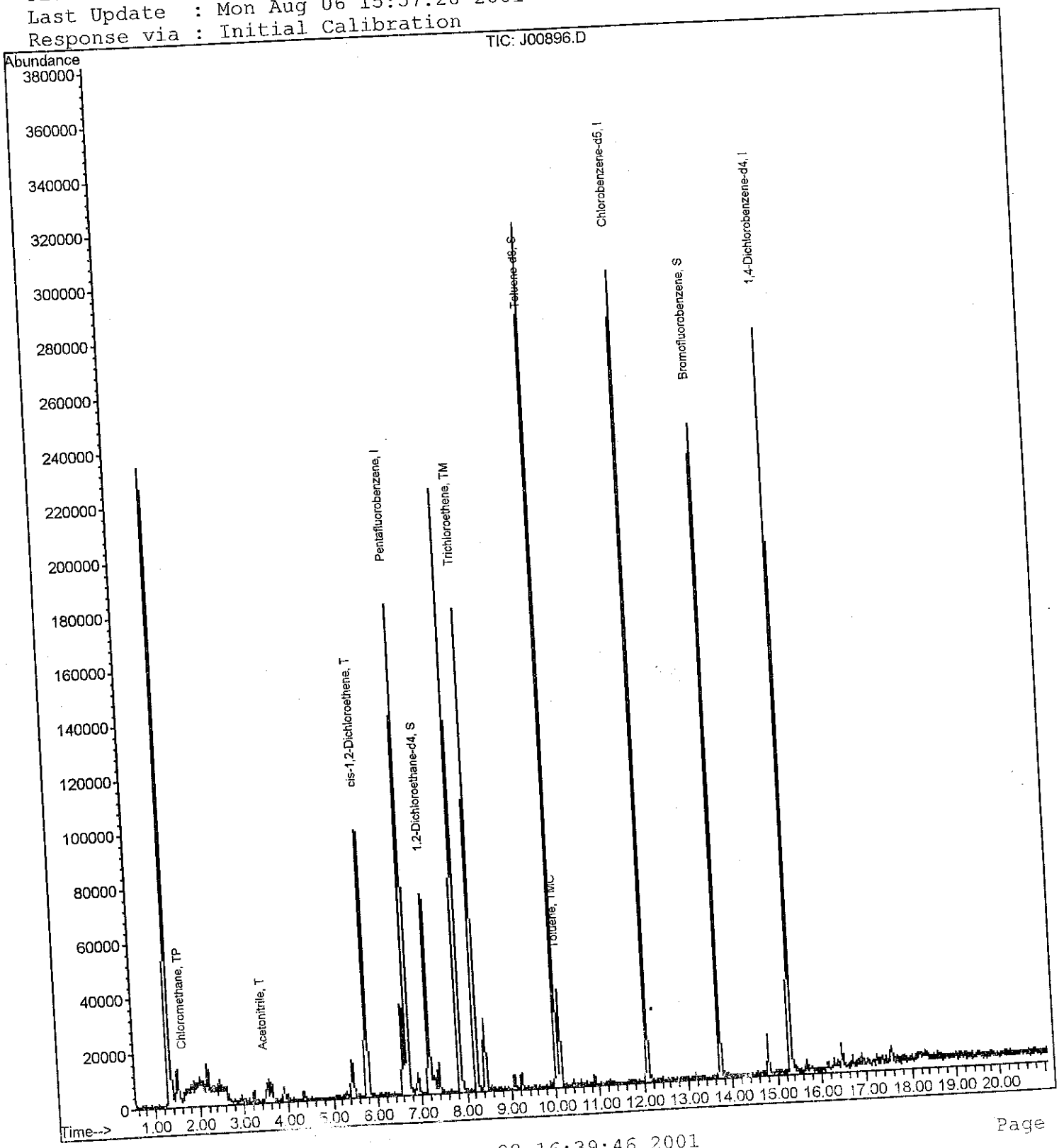
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D
Acq On : 08/08/01 15:45
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 8 16:39 2001

Vial: 13
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



D 0808012 Wed Aug 08 16:39:46 2001

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D Vial: 13
Acq On : 08/08/01 15:45 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

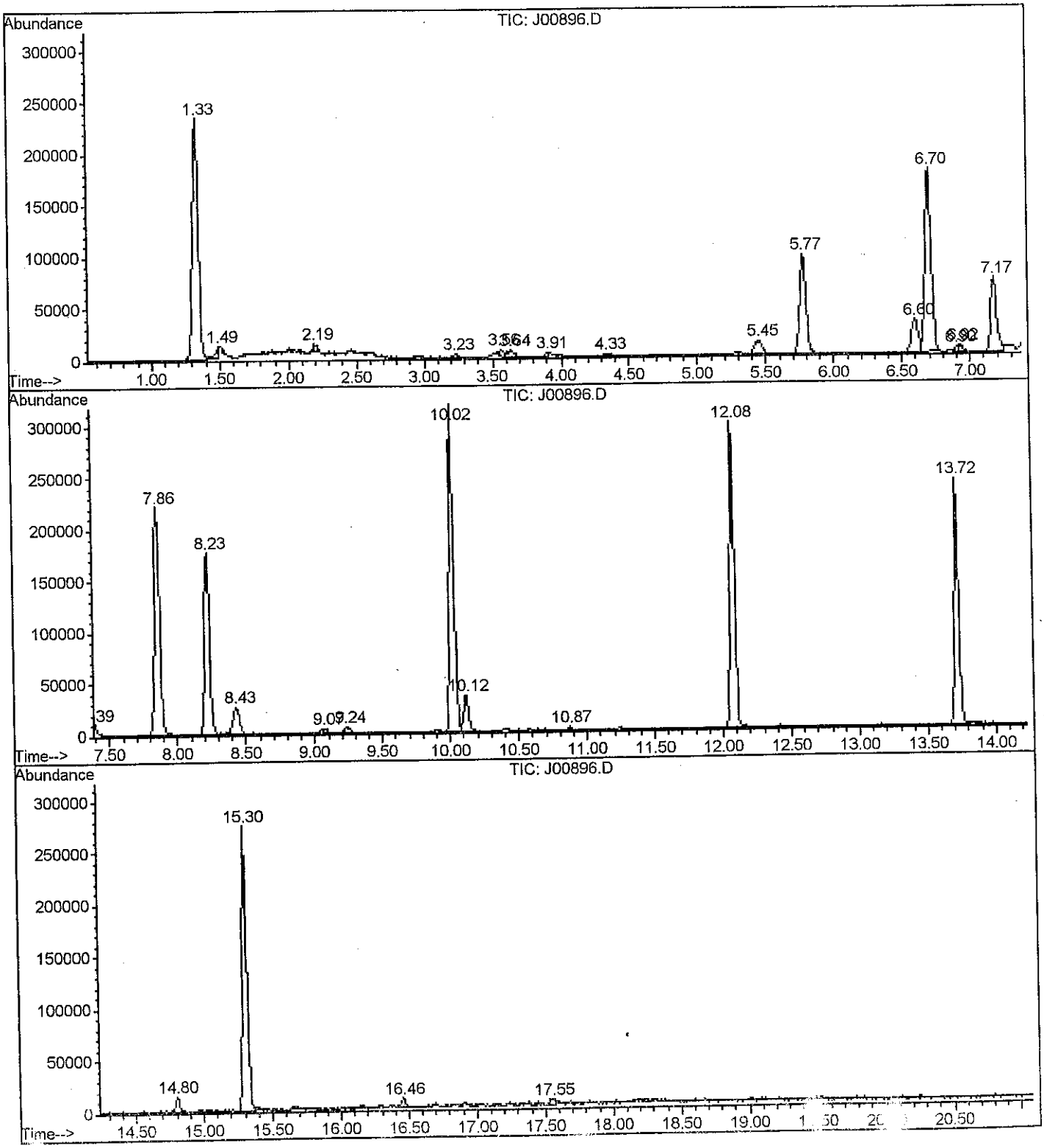
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.334	120	135	146	rBV	234735	679179	92.12%	11.381%
2	1.490	150	161	162	rBV	10694	18769	2.55%	0.315%
3	2.188	275	277	282	rVV5	7400	11460	1.55%	0.192%
4	3.228	445	450	457	rBV2	3507	7624	1.03%	0.128%
5	3.559	503	505	511	rVV5	6692	11900	1.61%	0.199%
6	3.637	511	518	529	rVB6	7250	25043	3.40%	0.420%
7	3.908	553	563	564	rBV5	5016	9844	1.34%	0.165%
8	4.335	627	634	643	rBV6	3016	10338	1.40%	0.173%
9	5.448	808	819	833	rVB4	13985	52581	7.13%	0.881%
10	5.772	860	873	885	rBV2	97435	314998	42.73%	5.278%
11	6.596	997	1010	1017	rBV4	32903	121911	16.54%	2.043%
12	6.699	1017	1027	1038	rVB	177971	551164	74.76%	9.236%
13	6.903	1055	1061	1062	rVV4	5498	9689	1.31%	0.162%
14	6.915	1062	1063	1072	rVB4	7207	13583	1.84%	0.228%
15	7.174	1096	1106	1118	rBV2	72667	230014	31.20%	3.854%
16	7.390	1135	1142	1154	rVB5	10969	32651	4.43%	0.547%
17	7.859	1209	1220	1232	rBV	221834	591761	80.27%	9.916%
18	8.226	1269	1281	1294	rBV2	176650	458359	62.17%	7.681%
19	8.431	1303	1315	1327	rVB6	25904	84111	11.41%	1.409%
20	9.074	1420	1422	1430	rVB5	4863	9395	1.27%	0.157%
21	9.236	1438	1449	1457	rBV6	6313	19162	2.60%	0.321%
22	10.024	1570	1580	1589	rBV	317933	737256	100.00%	12.354%
23	10.121	1589	1596	1604	rVB2	35000	86531	11.74%	1.450%
24	10.872	1713	1721	1727	rBV5	3812	9311	1.26%	0.156%
25	12.075	1909	1921	1933	rBV	298828	665282	90.24%	11.148%
26	13.717	2183	2194	2204	rBV2	241281	517105	70.14%	8.665%
27	14.800	2368	2374	2381	rBV3	14934	33293	4.52%	0.558%
28	15.305	2449	2458	2469	rBV	273913	617045	83.69%	10.340%
29	16.460	2642	2650	2657	rBV7	8969	23296	3.16%	0.390%
30	17.554	2823	2832	2834	rBV4	5782	15167	2.06%	0.254%

Sum of corrected areas: 596782

J00896.D 08080125.M Wed Aug 08 16:40:24 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00896.D
Operator :
Acquired : 8 Aug 2001 15:45 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17922 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 13
Quant File :08080125.RES (RTE Integrator)



J00896 D 08080125.M Wed Aug 08 16:

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D Vial: 13
Acq On : 08/08/01 15:45 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

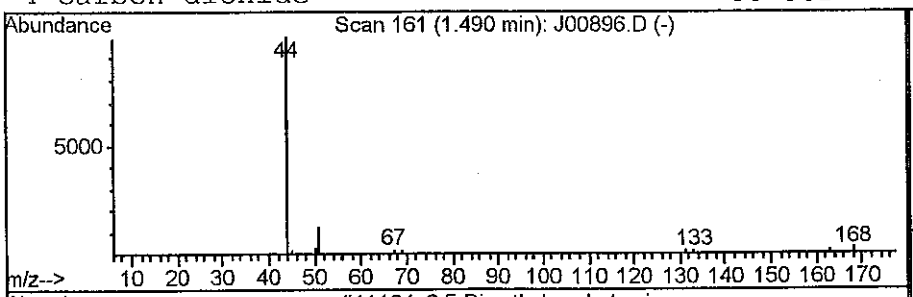
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

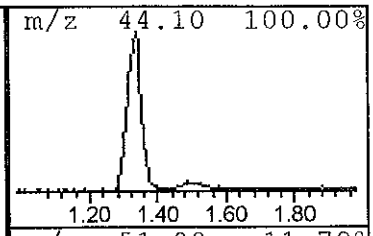
****

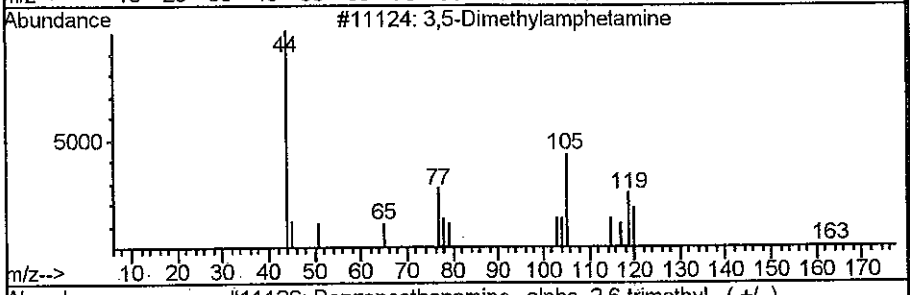
Peak Number 1 3,5-Dimethylamphetamine Concentration Rank 2

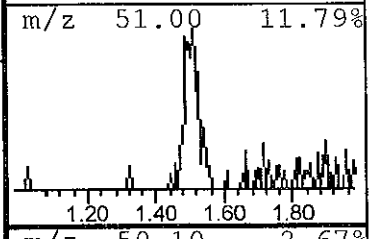
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.49	187690.00 ug\L	18769	1.4-Difluorobenzene	0.00

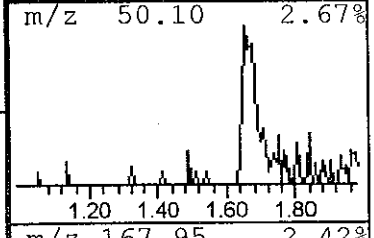
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,5-Dimethylamphetamine	163	C11H17N	075659-63-1	5
2	Benzeneethanamine, .alpha.,2,6-trim	163	C11H17N	057204-69-0	5
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Carbon dioxide	44	CO2	000124-38-9	3

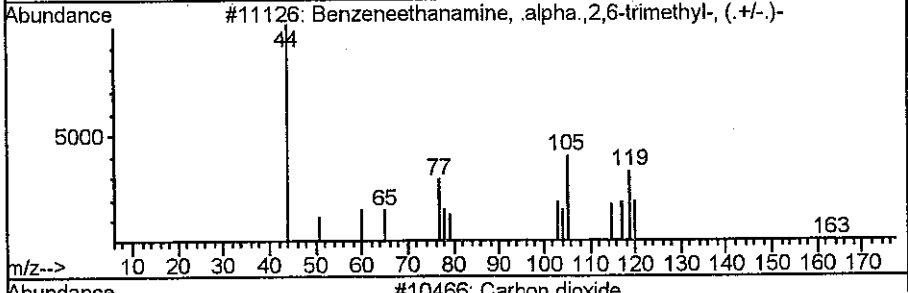


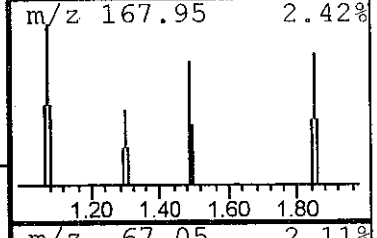


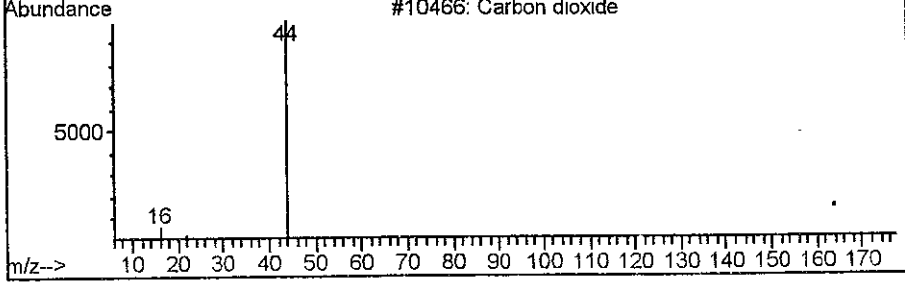


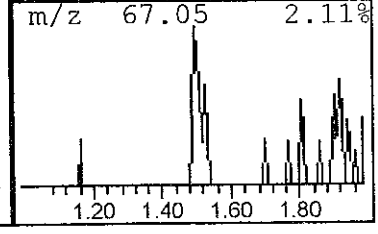












Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D
Acq On : 08/08/01 15:45
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 13
Operator:
Inst : HP-MSJ
Multiplr: 1.00

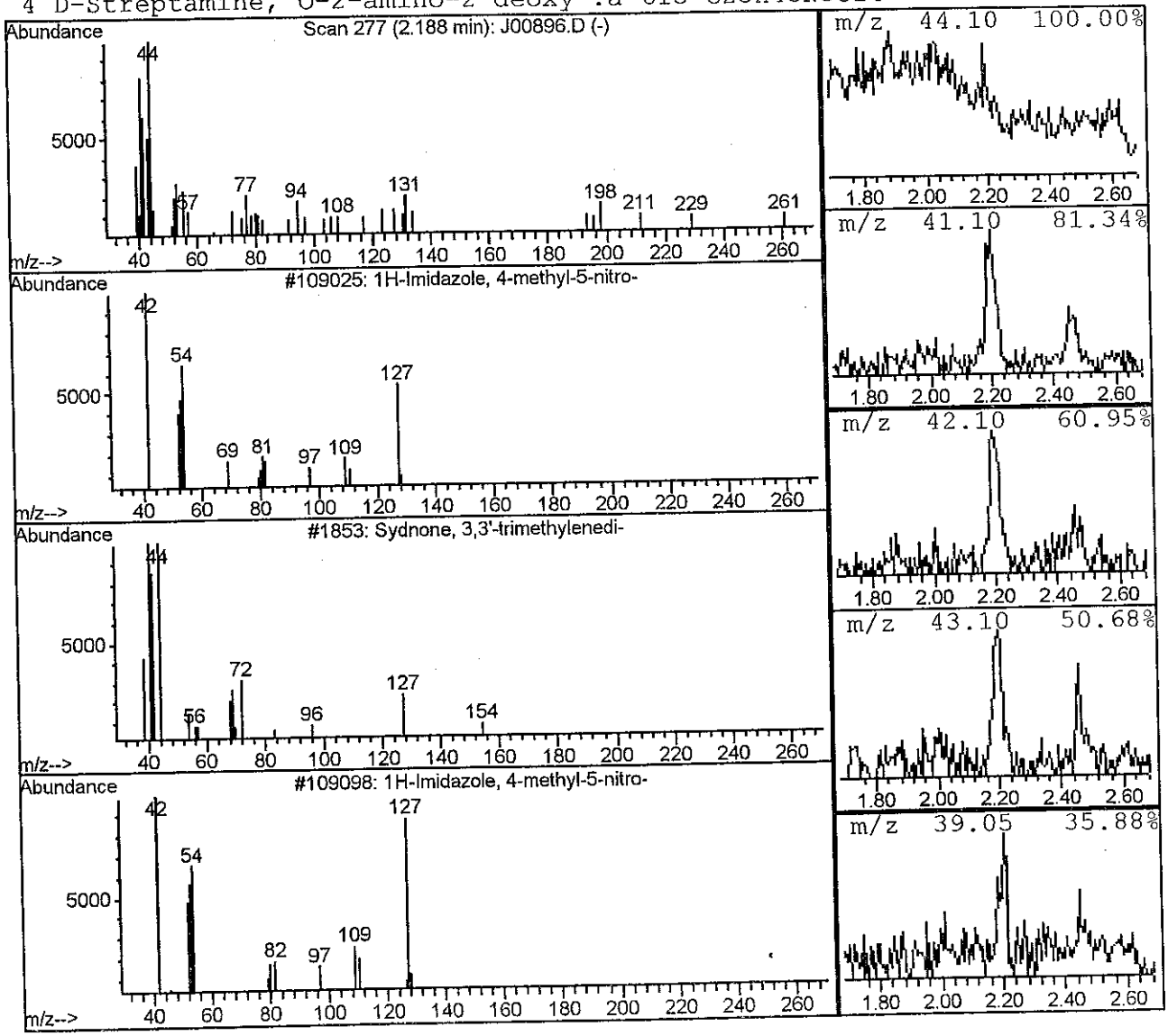
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 1H-Imidazole, 4-methyl-5-nitro Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.19	114600.00 ug\L	11460	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Imidazole, 4-methyl-5-nitro-	127	C4H5N3O2	014003-66-8	17
2	Sydnone, 3,3'-trimethylenedi-	212	C7H8N4O4	026574-33-4	16
3	1H-Imidazole, 4-methyl-5-nitro-	127	C4H5N3O2	014003-66-8	16
4	D-Streptamine, O-2-amino-2-deoxy-.a	615	C23H45N5O14	007542-37-2	12



Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D
Acq On : 08/08/01 15:45
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 13
Operator:
Inst : HP-MSJ
Multiplr: 1.00

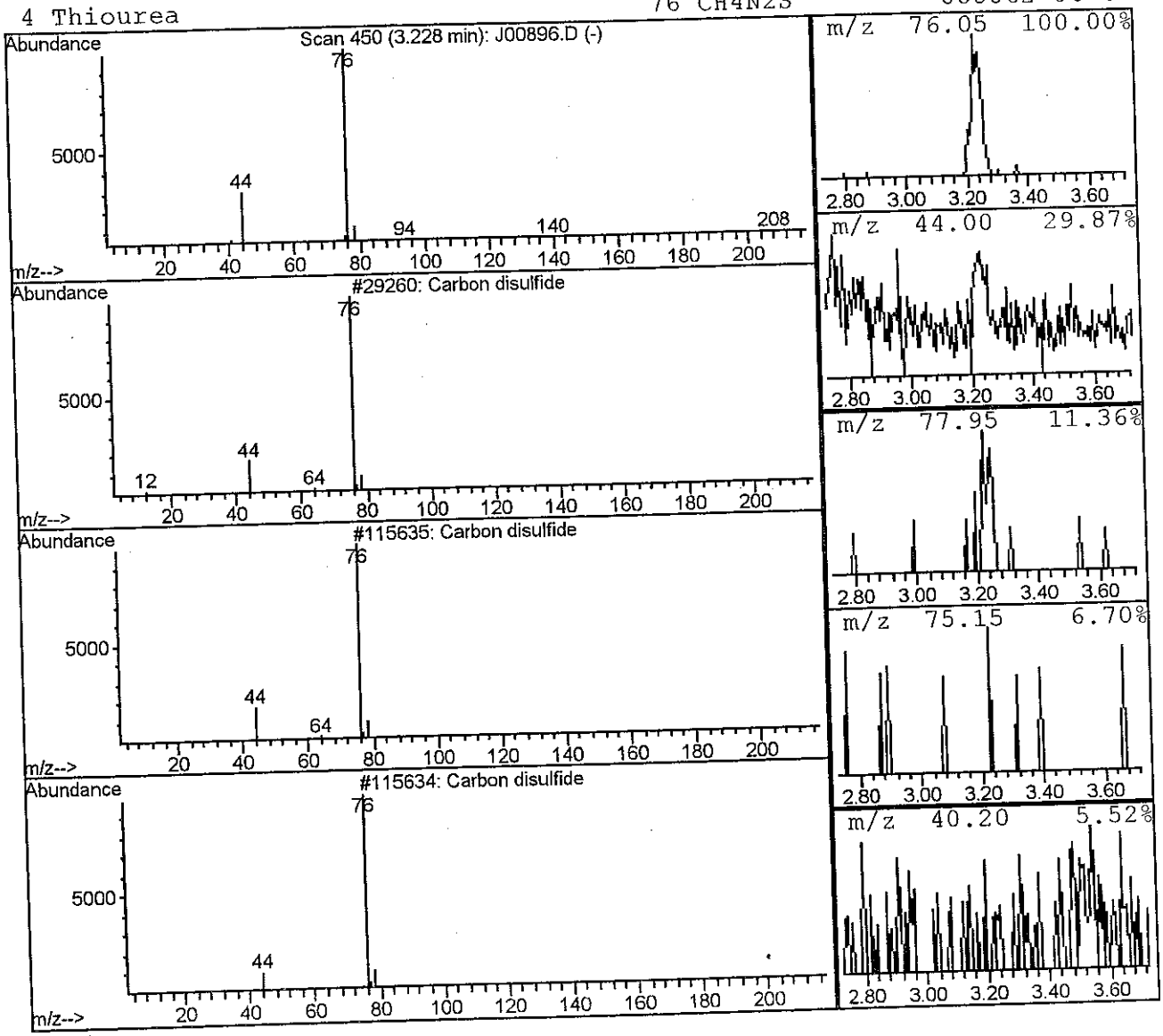
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Carbon disulfide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	76240.00 ug\L	7624	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	4
2	Carbon disulfide	76	CS2	000075-15-0	4
3	Carbon disulfide	76	CS2	000075-15-0	4
4	Thiourea	76	CH4N2S	000062-56-6	4



Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D Vial: 13
Acq On : 08/08/01 15:45 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

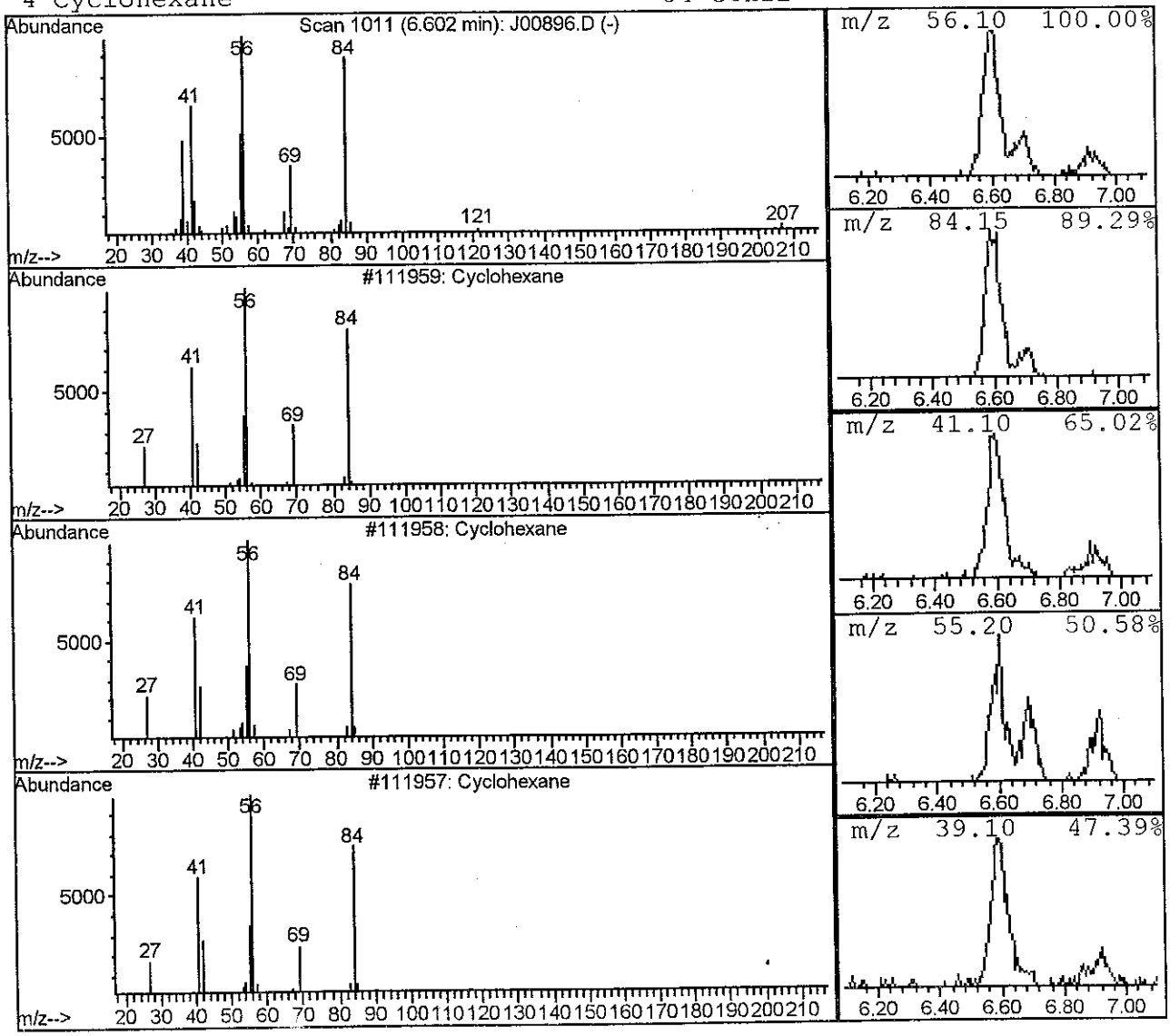
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Cyclohexane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.60	2.21 ug\L	121911	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	81
2	Cyclohexane	84	C6H12	000110-82-7	81
3	Cyclohexane	84	C6H12	000110-82-7	76
4	Cyclohexane	84	C6H12	000110-82-7	68



Data File : C:\HPCHEM\1\DATA\1J080801\J00896.D Vial: 13
Acq On : 08/08/01 15:45 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

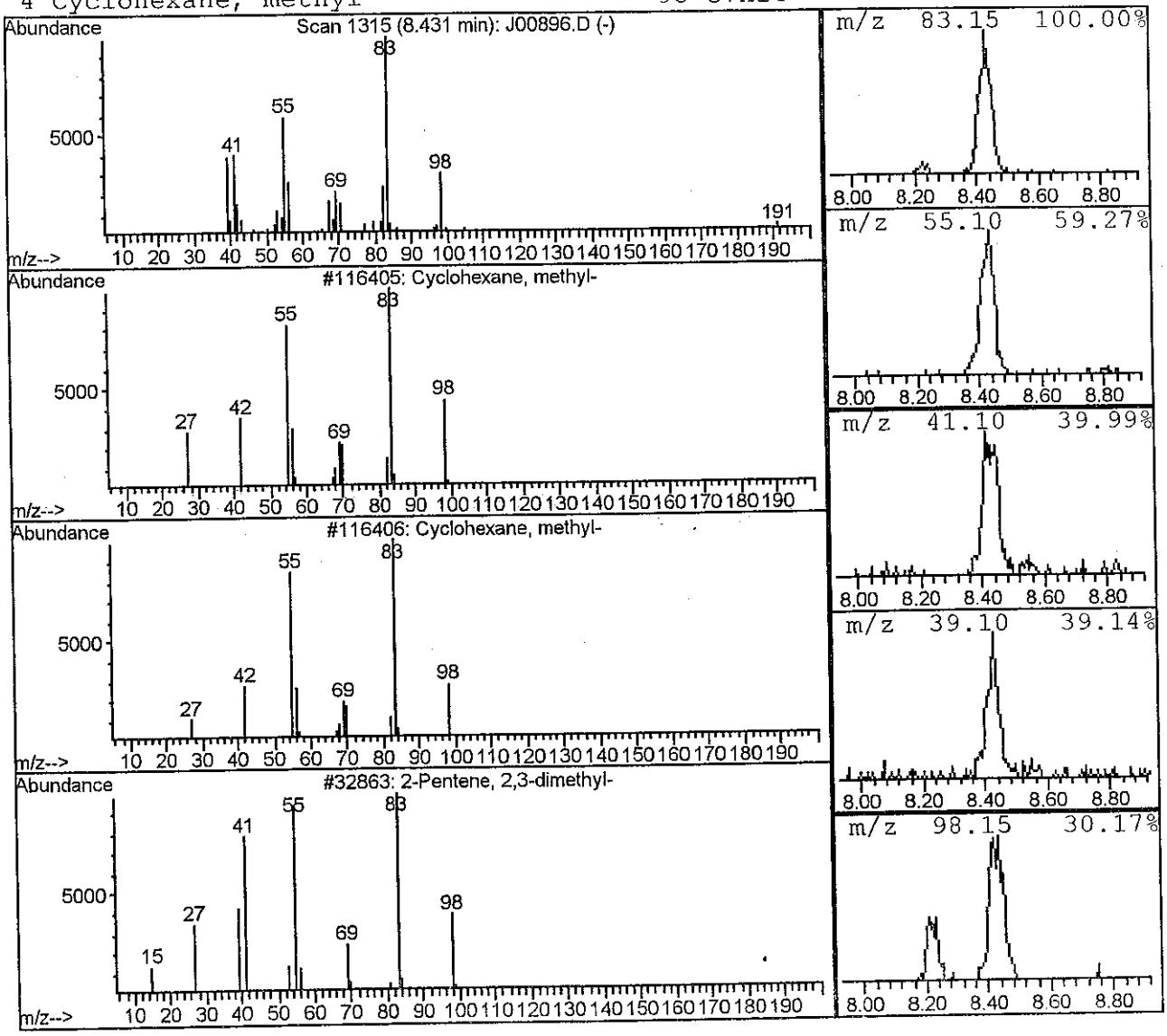
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Cyclohexane, methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.43	1.53 ug\L	84111	Pentafluorobenzene	6.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	62
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	58
3	2-Pentene, 2,3-dimethyl-	98	C7H14	010574-37-5	53
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	52



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 15:45
Data File: C:\HPCHEM\1\DATA\1J080801\J00896.D
Name: AC17922 25ml DF=1
Misc: 28518/W080601A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3,5-Dimethylamphetam	1.49	187690.0	ug\L	18769	ISTD01	0.00	1	10.0
1H-Imidazole, 4-meth	2.19	114600.0	ug\L	11460	ISTD01	0.00	1	10.0
Carbon disulfide	3.23	76240.0	ug\L	7624	ISTD01	0.00	1	10.0
Cyclohexane	6.60	2.2	ug\L	121911	ISTD02	6.70	551164	10.0
Cyclohexane, methyl-	8.43	1.5	ug\L	84111	ISTD02	6.70	551164	10.0

J00896.D 08080125.M Wed Aug 08 16:40:28 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D Vial: 5
Acq On : 08/07/01 19:58 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:36 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Filecopy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	135817	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	171837	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.31	152	81932	10.00	ug\L	0.00
88) 1,4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	74605	13.05	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.50%#			
46) Toluene-d8	10.01	98	253703	10.08	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.80%			
66) Bromofluorobenzene	13.71	95	97599	10.70	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 107.00%			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	63951	10.08	ug\L	82
37) Trichloroethene	8.21	95	71718	9.36	ug\L	98
47) Toluene	10.12	92	12684	0.78	ug\L	98

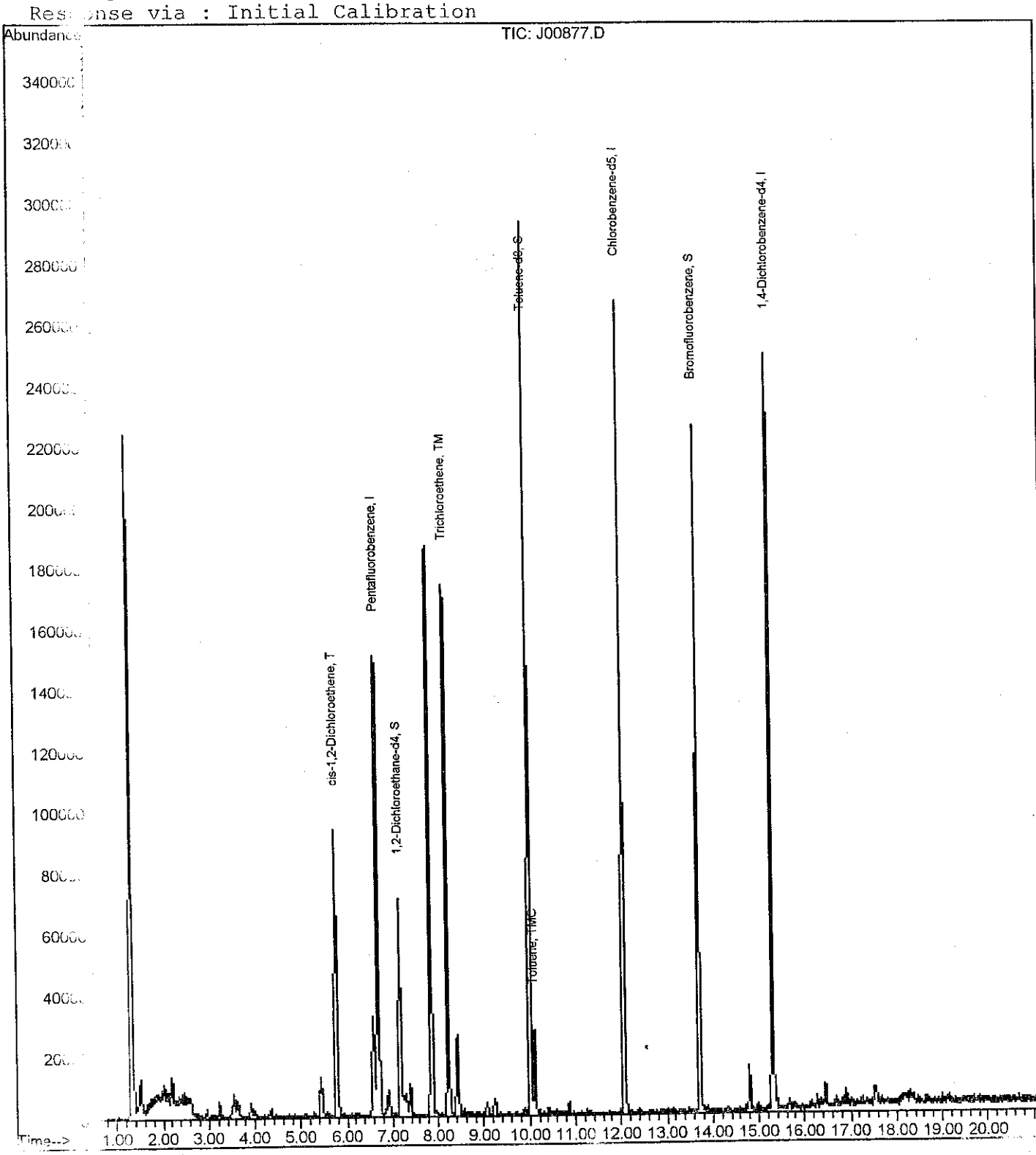
JRR
8-8-01

NAI for TCE

(#) = Qualifier out of range = manual integration
J00877.D 08070125.M Wed Aug 08 07:41:50 2001

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D Vial: 5
Acq On : 08/07/01 19:58 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:36 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D
Acq On : 08/07/01 19:58
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 5
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

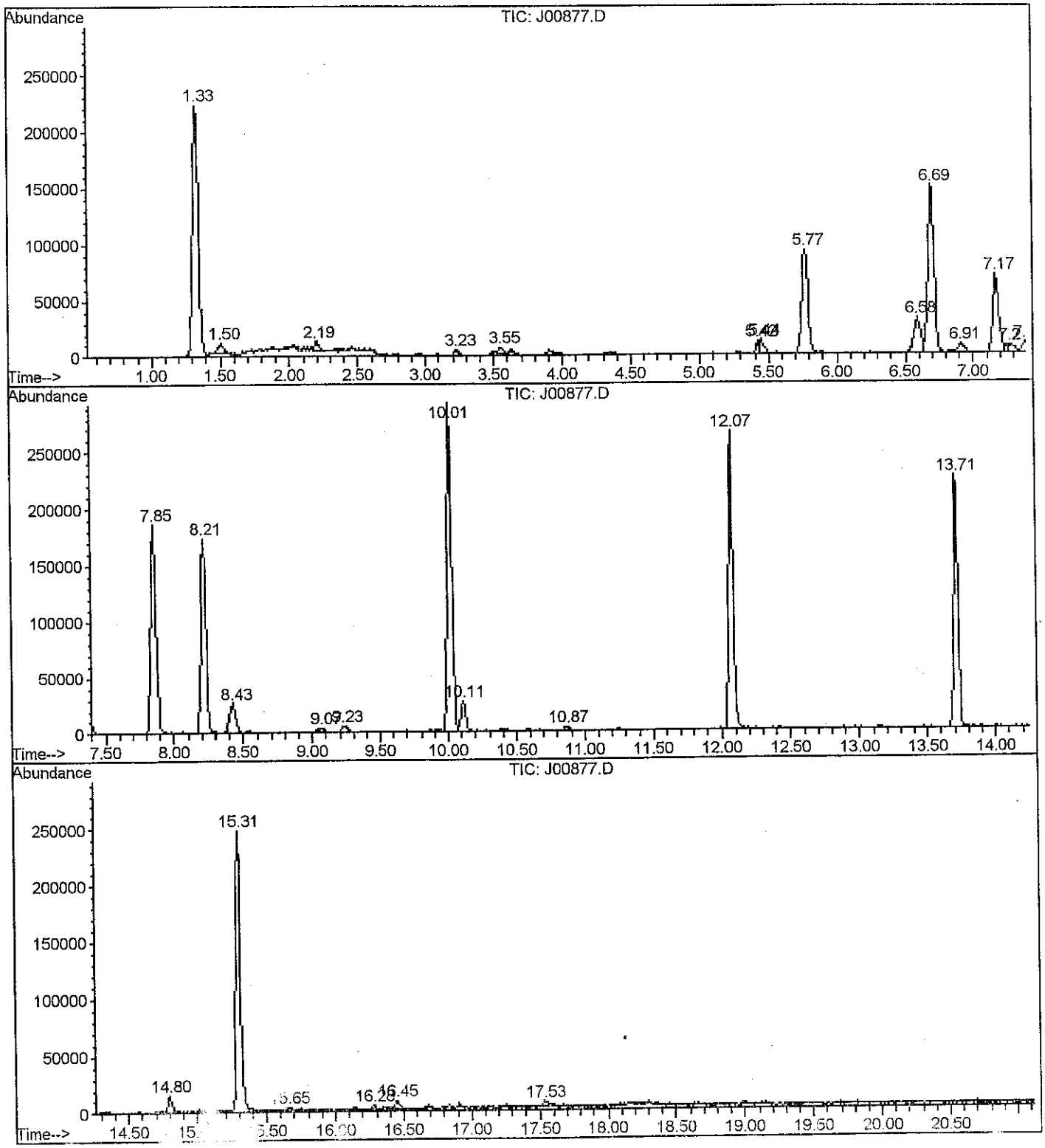
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.328	120	134	145	rBV	224092	652226	95.19%	11.933%
2	1.503	155	163	168	rBV	9514	24502	3.58%	0.448%
3	2.189	274	277	285	rVB6	8223	19441	2.84%	0.356%
4	3.229	442	450	457	rBV2	5189	11240	1.64%	0.206%
5	3.554	500	504	510	rVB5	5587	12214	1.78%	0.223%
6	5.424	807	815	816	rBV3	11608	19502	2.85%	0.357%
7	5.442	816	818	831	rVB6	12766	27884	4.07%	0.510%
8	5.767	860	872	888	rBV2	93391	298106	43.51%	5.454%
9	6.585	997	1008	1016	rBV4	31993	112990	16.49%	2.067%
10	6.693	1016	1026	1041	rVB	149925	474547	69.26%	8.682%
11	6.910	1055	1062	1076	rVB5	8631	26729	3.90%	0.489%
12	7.168	1094	1105	1116	rBV2	70515	218928	31.95%	4.005%
13	7.277	1121	1123	1133	rVV7	6839	18877	2.76%	0.345%
14	7.385	1133	1141	1149	rVB8	9424	27694	4.04%	0.507%
15	7.854	1207	1219	1230	rBV2	186652	506807	73.97%	9.272%
16	8.215	1266	1279	1290	rBV	173705	434060	63.35%	7.941%
17	8.425	1303	1314	1325	rVB3	25898	80743	11.78%	1.477%
18	9.075	1419	1422	1429	rVB3	4029	7905	1.15%	0.145%
19	9.231	1439	1448	1454	rBV6	5280	15270	2.23%	0.279%
20	10.013	1568	1578	1588	rBV	293006	685175	100.00%	12.536%
21	10.109	1588	1594	1604	rVB	27053	64045	9.35%	1.172%
22	10.867	1715	1720	1728	rVB7	3949	8904	1.30%	0.163%
23	12.070	1911	1920	1934	rBV	266635	587321	85.72%	10.745%
24	13.712	2182	2193	2204	rBV2	226025	500447	73.04%	9.156%
25	14.800	2368	2374	2382	rVV2	14550	31232	4.56%	0.571%
26	15.305	2448	2458	2469	rBV	248153	560409	81.79%	10.253%
27	15.654	2515	2516	2526	rVB5	3439	7655	1.12%	0.140%
28	16.280	2614	2620	2624	rBV4	3945	6891	1.01%	0.126%
29	16.44[illegible]	2644	2648	2656	rVB6	7237	15854	2.31%	0.290%
30	17.5[illegible]	2824	2828	2832	rBV5	4616	8270	1.21%	0.151%

Sum of corrected areas: 5465868

J00877.D 08070125.M Wed Aug 08 10:50:39 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00877.D
Operator :
Acquired : 7 Aug 2001 19:58 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17922 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 5
Quant File :08070125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D
Acq On : 08/07/01 19:58
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 5
Operator:
Inst : HP-MSJ
Multiplr: 1.00

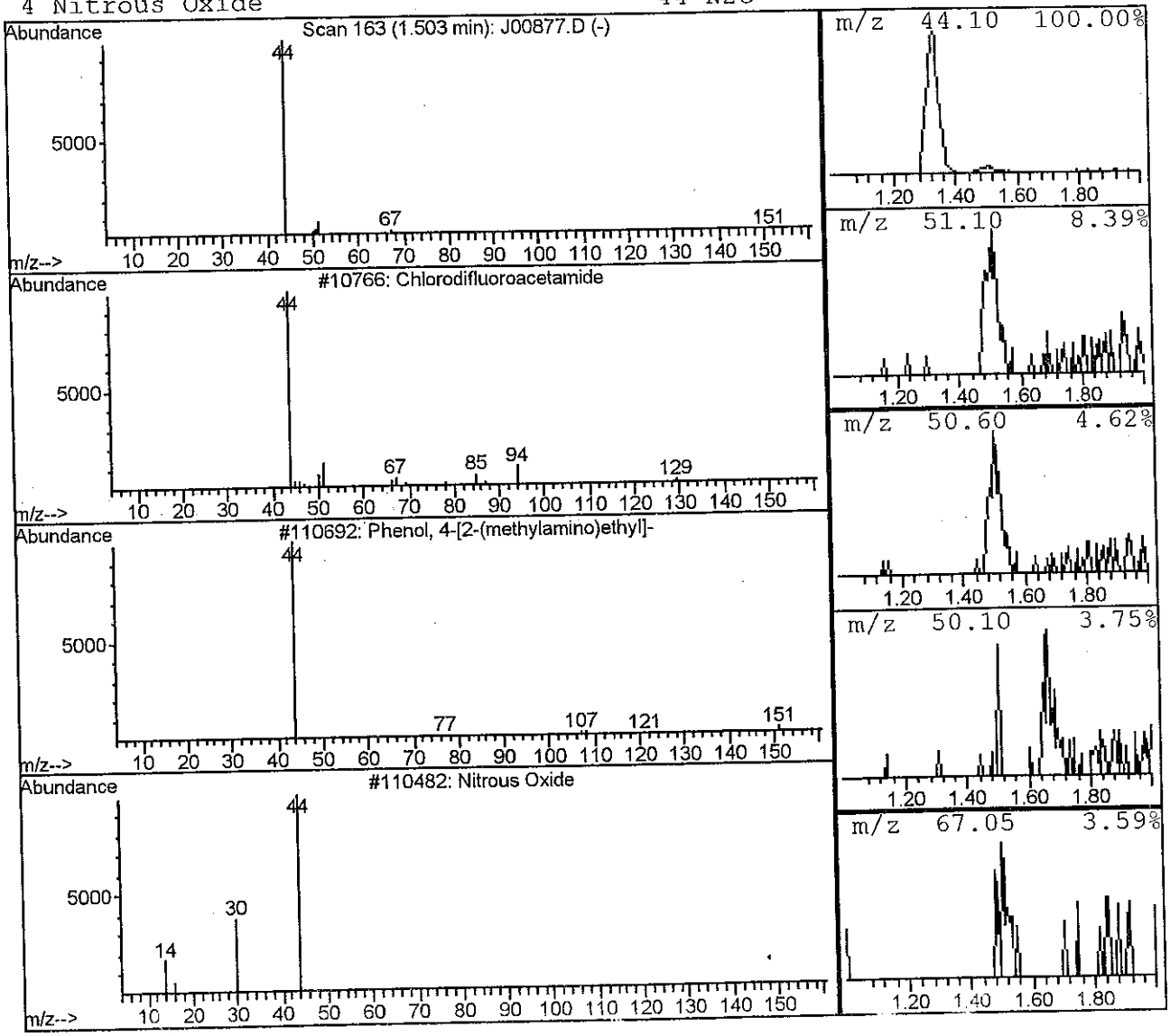
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Chlorodifluoroacetamide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.50	245020.00 ug\L	24502	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Chlorodifluoroacetamide	129	C2H2ClF2NO	000354-28-9	4
2	Phenol, 4-[2-(methylamino)ethyl]-	151	C9H13NO	000370-98-9	3
3	Nitrous Oxide	44	N2O	010024-97-2	2
4	Nitrous Oxide	44	N2O	010024-97-2	2



Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D Vial: 5
Acq On : 08/07/01 19:58 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

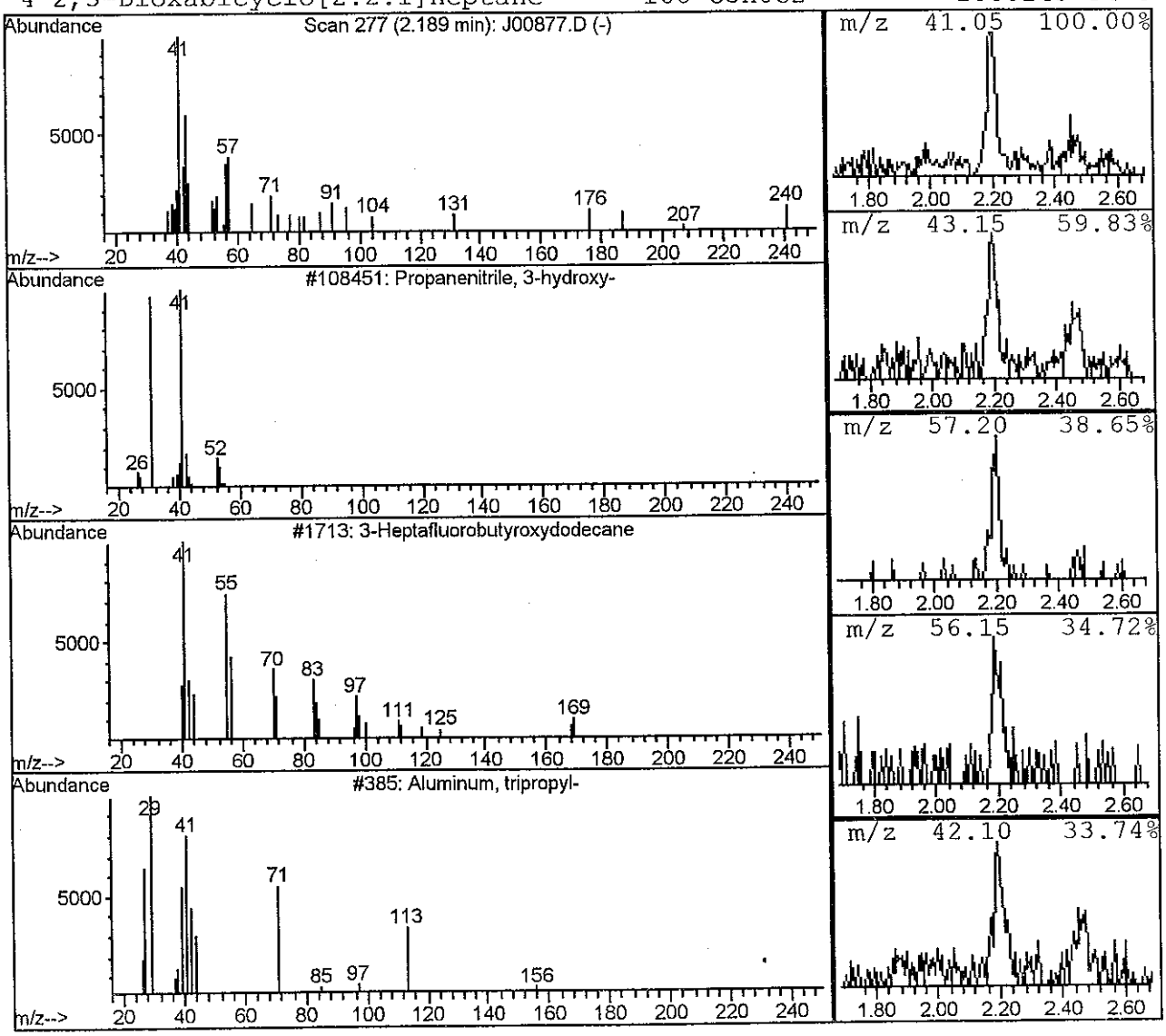
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Propanenitrile, 3-hydroxy- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.19	194410.00 ug\L	19441	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanenitrile, 3-hydroxy-	71	C3H5NO	000109-78-4	10
2	3-Heptafluorobutyroxydodecane	382	C16H25F7O2	1000245-49-3	10
3	Aluminum, tripropyl-	156	C9H21Al	000102-67-0	9
4	2,3-Dioxabicyclo[2.2.1]heptane	100	C5H8O2	1000143-34-5	9



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D
Acq On : 08/07/01 19:58
Sample : AC17922 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: LSCINT.P

Vial: 5
Operator:
Inst : HP-MSJ
Multiplr: 1.00

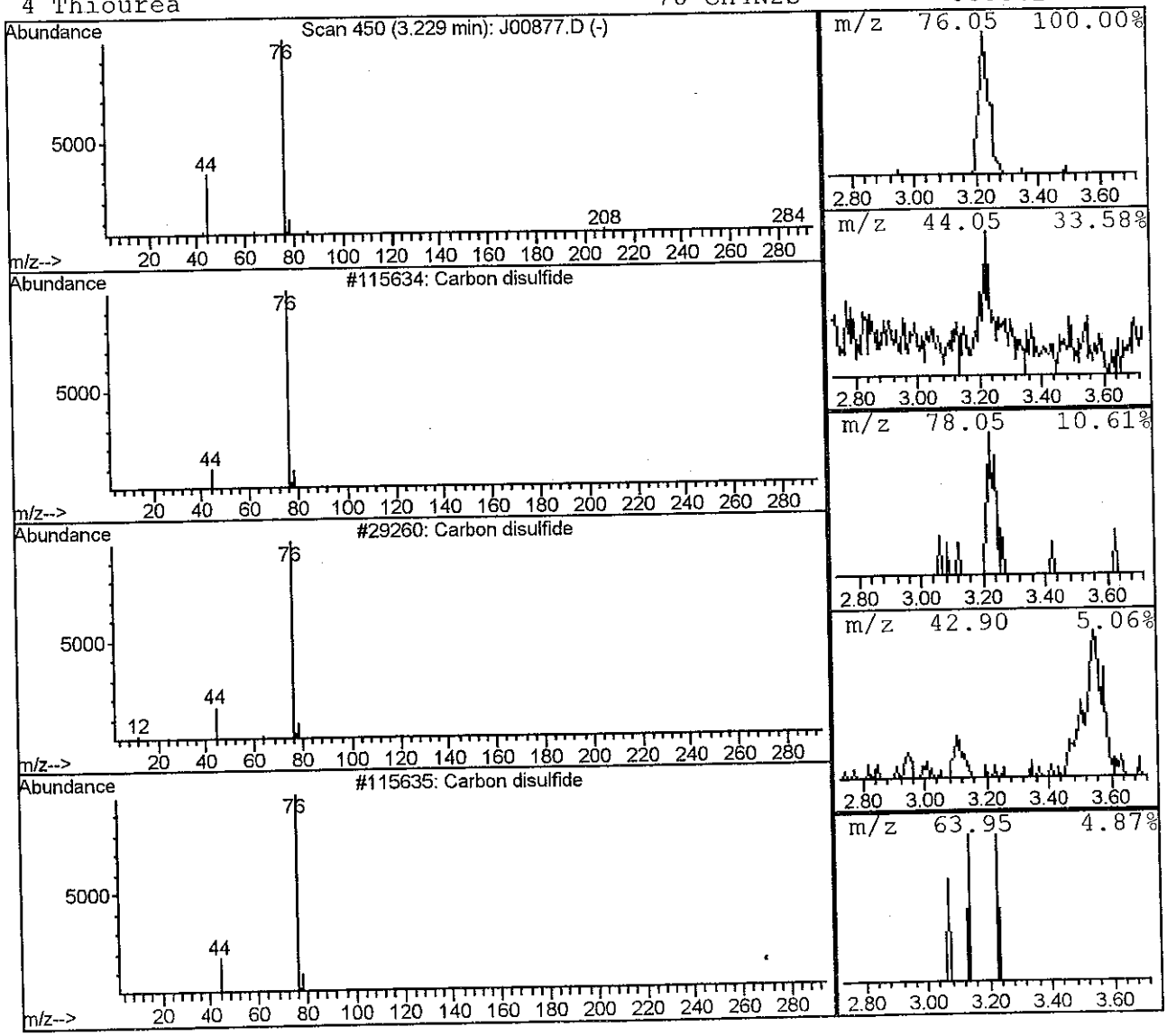
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Carbon disulfide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	112400.00 ug\L	11240	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	5
2	Carbon disulfide	76	CS2	000075-15-0	5
3	Carbon disulfide	76	CS2	000075-15-0	5
4	Thiourea	76	CH4N2S	000062-56-6	4



Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D Vial: 5
Acq On : 08/07/01 19:58 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

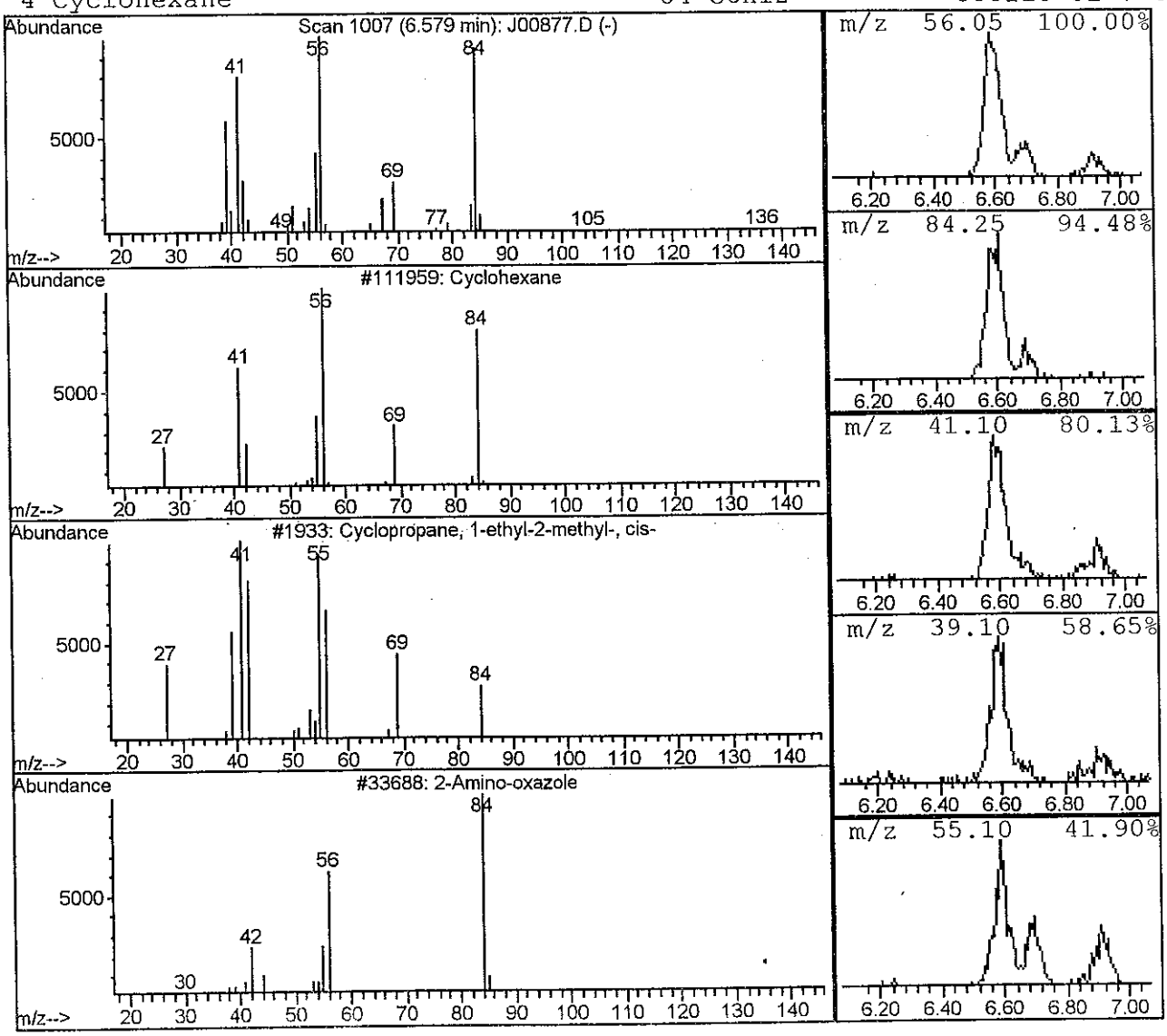
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Cyclohexane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.58	2.38 ug\L	112990	Pentafluorobenzene	6.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	81
2	Cyclopropane, 1-ethyl-2-methyl-, ci	84	C6H12	019781-68-1	80
3	2-Amino-oxazole	84	C3H4N2O	1000144-64-0	72
4	Cyclohexane	84	C6H12	000110-82-7	68



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00877.D Vial: 5
Acq On : 08/07/01 19:58 Operator:
Sample : AC17922 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

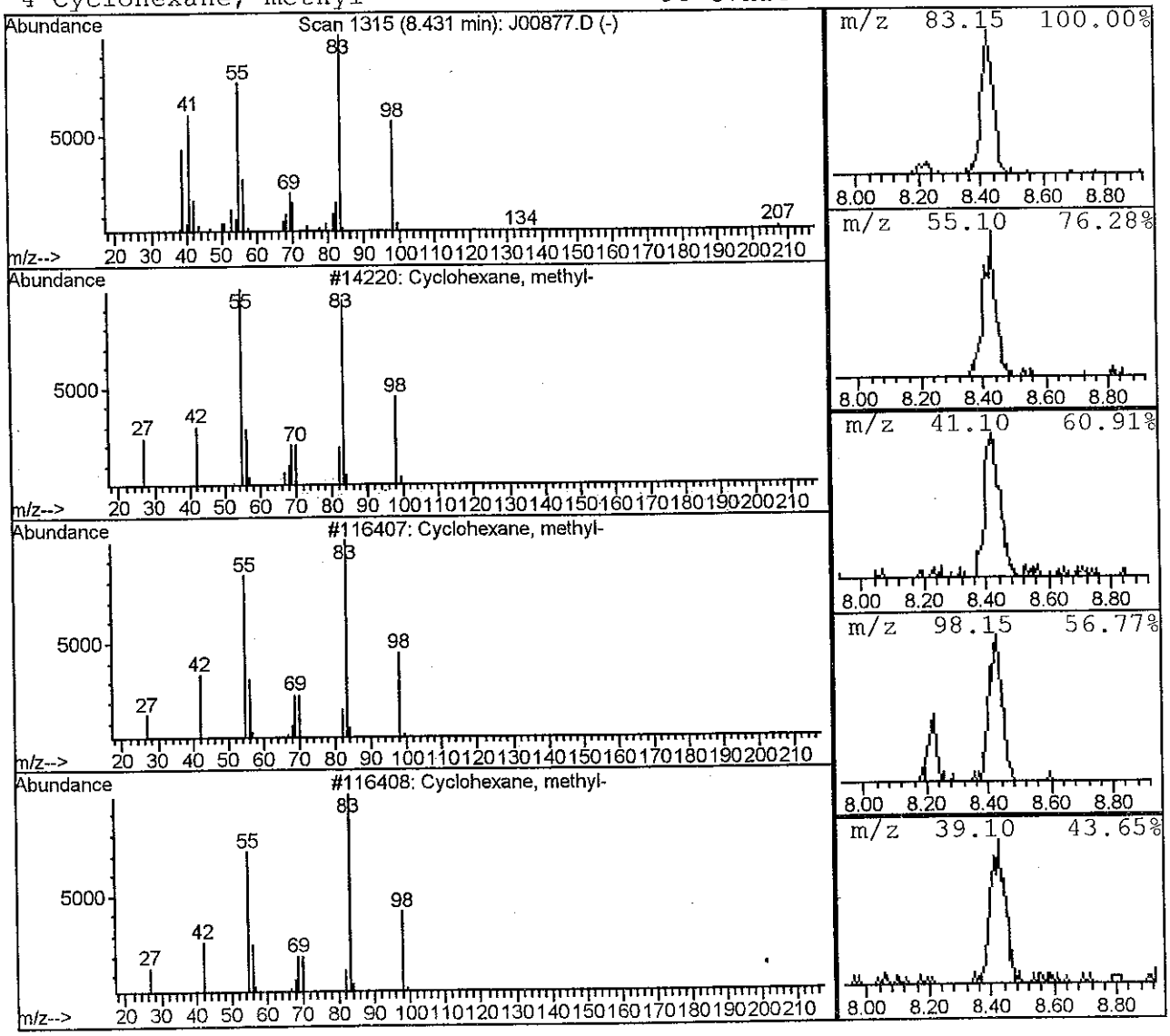
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Cyclohexane, methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.43	1.70 ug\L	80743	Pentafluorobenzene	6.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	93
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	81
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	81
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	81



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 19:58
Data File: C:\HPCHEM\1\DATA\1J080701\J00877.D
Name: AC17922 25ml DF=1
Misc: 28518/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Chlorodifluoroacetam	1.50	245020.0	ug\L	24502	ISTD01	0.00	1	10.0
Propanenitrile, 3-hy	2.19	194410.0	ug\L	19441	ISTD01	0.00	1	10.0
Carbon disulfide	3.23	112400.0	ug\L	11240	ISTD01	0.00	1	10.0
Cyclohexane	6.58	2.4	ug\L	112990	ISTD02	6.69	474547	10.0
Cyclohexane, methyl-	8.43	1.7	ug\L	80743	ISTD02	6.69	474547	10.0

J00877.D 08070125.M Wed Aug 08 10:50:42 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00897.D Vial: 14
Acq On : 08/08/01 16:12 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:41 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

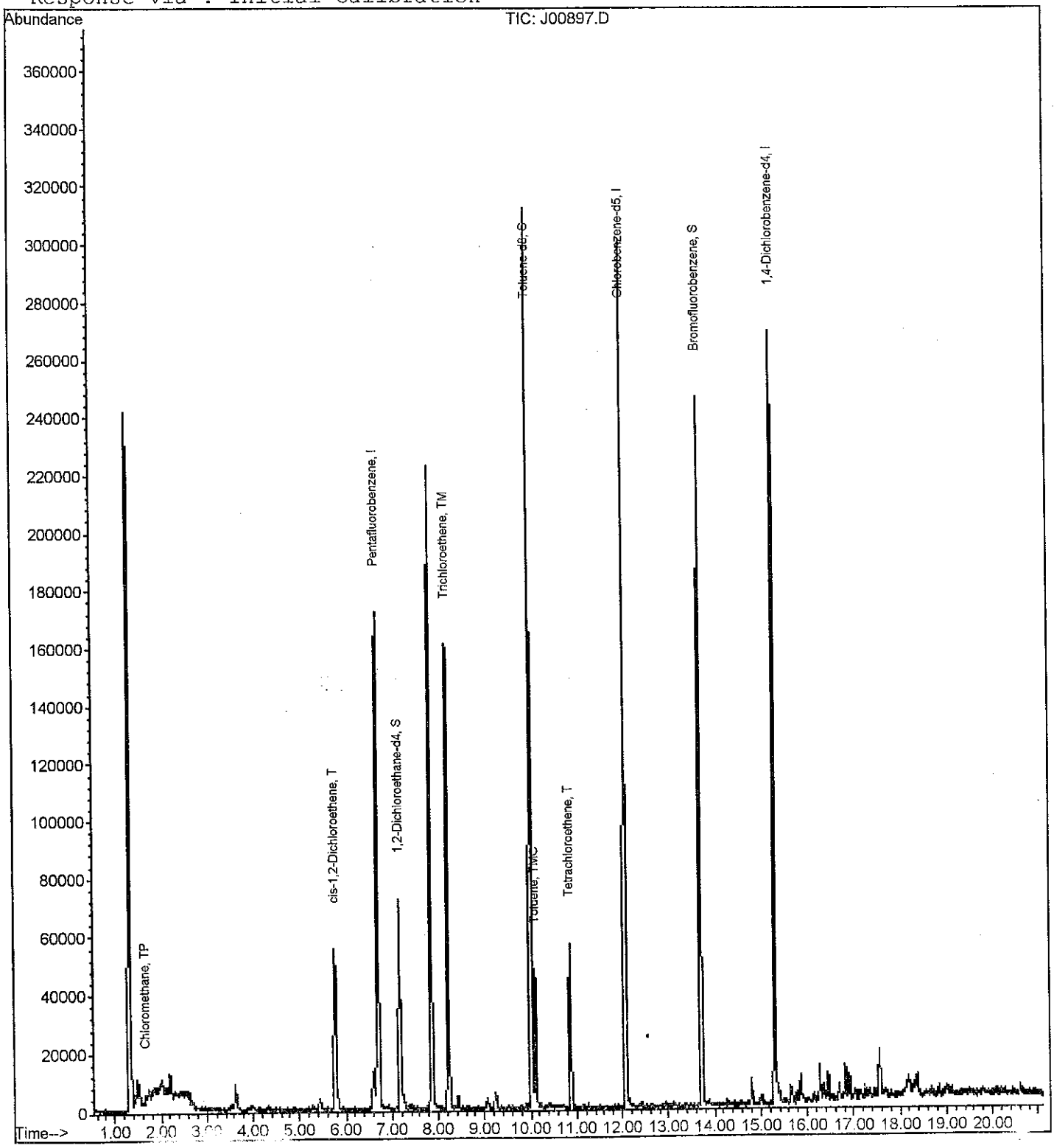
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	155936	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	193639	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	91245	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	79231	12.07	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.70%#			
46) Toluene-d8	10.02	98	272743	9.62	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.20%			
66) Bromofluorobenzene	13.72	95	106184	10.46	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.60%			
Target Compounds						Qvalue
3) Chloromethane	1.67	50	3607	0.61	ug\L	97
23) cis-1,2-Dichloroethene	5.78	96	36574	5.02	ug\L	87
37) Trichloroethene	8.22	95	69101	7.85	ug\L	97
47) Toluene	10.11	92	22833	1.25	ug\L	98
51) Tetrachloroethene	10.87	164	14684	1.85	ug\L	95

VRR
8-9-01

(#) = qualifier ou of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080801\J00897.D Vial: 14
Acq On : 08/08/01 16:12 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 16:41 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00897.D Vial: 14
Acq On : 08/08/01 16:12 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

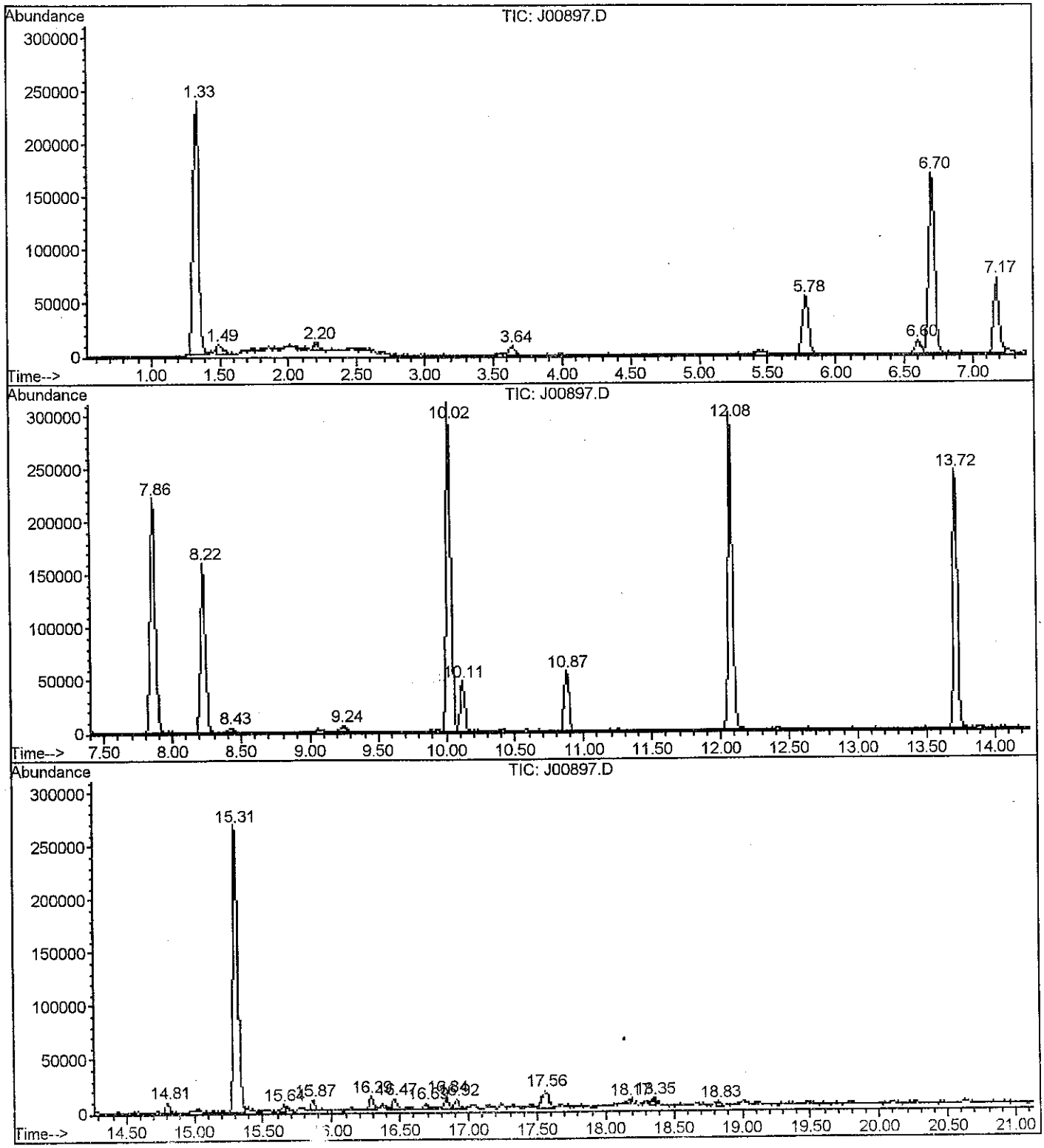
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.334	124	135	149	rVB	239496	671103	90.60%	11.768%
2	1.491	159	161	176	rVB	8182	23124	3.12%	0.405%
3	2.200	273	279	285	rBV6	6251	14617	1.97%	0.256%
4	3.638	511	518	527	rVB6	7921	21280	2.87%	0.373%
5	5.779	863	874	890	rBV2	54850	178340	24.08%	3.127%
6	6.597	1000	1010	1017	rBV6	12117	38852	5.25%	0.681%
7	6.699	1017	1027	1042	rVB2	171718	526173	71.03%	9.227%
8	7.174	1096	1106	1116	rBV	72459	200865	27.12%	3.522%
9	7.860	1210	1220	1234	rBV	222483	571501	77.15%	10.021%
10	8.221	1271	1280	1291	rBV	160275	412414	55.68%	7.232%
11	8.431	1307	1315	1322	rVB7	4657	13731	1.85%	0.241%
12	9.243	1441	1450	1458	rBV7	5940	18406	2.48%	0.323%
13	10.025	1568	1580	1589	rBV	311857	740735	100.00%	12.989%
14	10.115	1589	1595	1605	rVB	47127	108150	14.60%	1.896%
15	10.873	1713	1721	1732	rBV3	56881	131077	17.70%	2.298%
16	12.076	1912	1921	1936	rBV2	300911	657791	88.80%	11.534%
17	13.718	2186	2194	2206	rBV2	245502	528555	71.36%	9.268%
18	14.812	2370	2376	2383	rVB4	9263	18930	2.56%	0.332%
19	15.305	2449	2458	2469	rBV2	267955	613178	82.78%	10.752%
20	15.642	2509	2514	2516	rBV4	5571	7467	1.01%	0.131%
21	15.871	2545	2552	2556	rVB3	8874	20006	2.70%	0.351%
22	16.286	2615	2621	2629	rVB3	11668	23414	3.16%	0.411%
23	16.466	2645	2651	2658	rVB6	9794	23814	3.21%	0.418%
24	16.695	2680	2689	2694	rBV4	5849	12700	1.71%	0.223%
25	16.839	2707	2713	2720	rVB3	11266	23179	3.13%	0.406%
26	16.917	2720	2726	2732	rVB5	8698	19973	2.70%	0.350%
27	17.561	2824	2833	2845	rBV6	16049	54186	7.32%	0.950%
28	18.174	2924	2935	2937	rBV10	4696	12282	1.66%	0.215%
29	18.354	2961	2965	2966	rVV4	6051	7835	1.06%	0.137%
30	18.830	3040	3044	3051	rVB10	4364	9159	1.24%	0.161%

Sum of corrected areas: 5702837

J00897.D 08080125.M Wed Aug 08 16:41:57 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00897.D
Operator :
Acquired : 8 Aug 2001 16:12 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17923 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 14
Quant File :08080125.RES (RTE Integrator)



Data File : C:\HPCHEM\1\DATA\1J080801\J00897.D Vial: 14
Acq On : 08/08/01 16:12 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

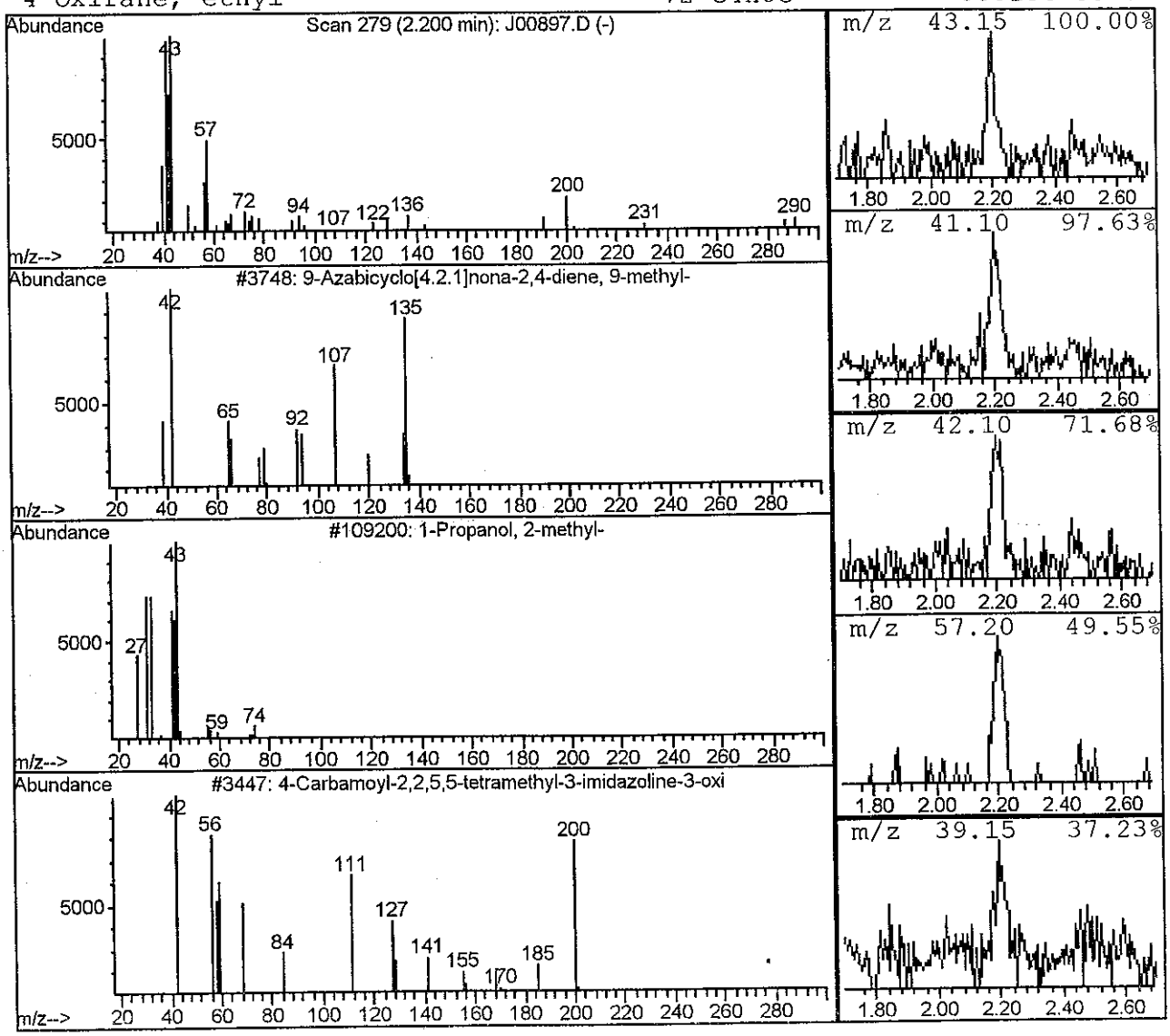
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 9-Azabicyclo[4.2.1]nona-2,4-di Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.20	146170.00 ug\L	14617	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Azabicyclo[4.2.1]nona-2,4-diene,	135	C9H13N	034668-45-6	25
2	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	9
3	4-Carbamoyl-2,2,5,5-tetramethyl-3-i	200	C8H14N3O3	069826-43-3	9
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	9



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 16:12
Data File: C:\HPCHEM\1\DATA\1J080801\J00897.D
Name: AC17923 25ml DF=1
Misc: 28518/W080601A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
9-Azabicyclo[4.2.1]n	2.20	146170.0	ug\L	14617	ISTD01	0.00	1	10.0

J00897.D 08080125.M Wed Aug 08 16:41:58 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00878.D Vial: 6
Acq On : 08/07/01 20:25 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:37 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
Data Acq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	128818	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	166543	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	79969	10.00	ug\L	-0.01
88) 1,4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	75663	13.96	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 139.60%#			
46) Toluene-d8	10.02	98	249038	10.21	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.10%			
66) Bromofluorobenzene	13.71	95	94987	10.67	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 106.70%			
Target Compounds						Qvalue
14 Carbon Disulfide	3.23	76	18387	1.08	ug\L #	93
23 cis-1,2-Dichloroethene	5.78	96	33085	5.50	ug\L	85
37) Trichloroethene	8.21	95	59927	8.25	ug\L	96
47) Toluene	10.11	92	21990	1.40	ug\L	96
51) Tetrachloroethene	10.86	164	11996	1.75	ug\L	97

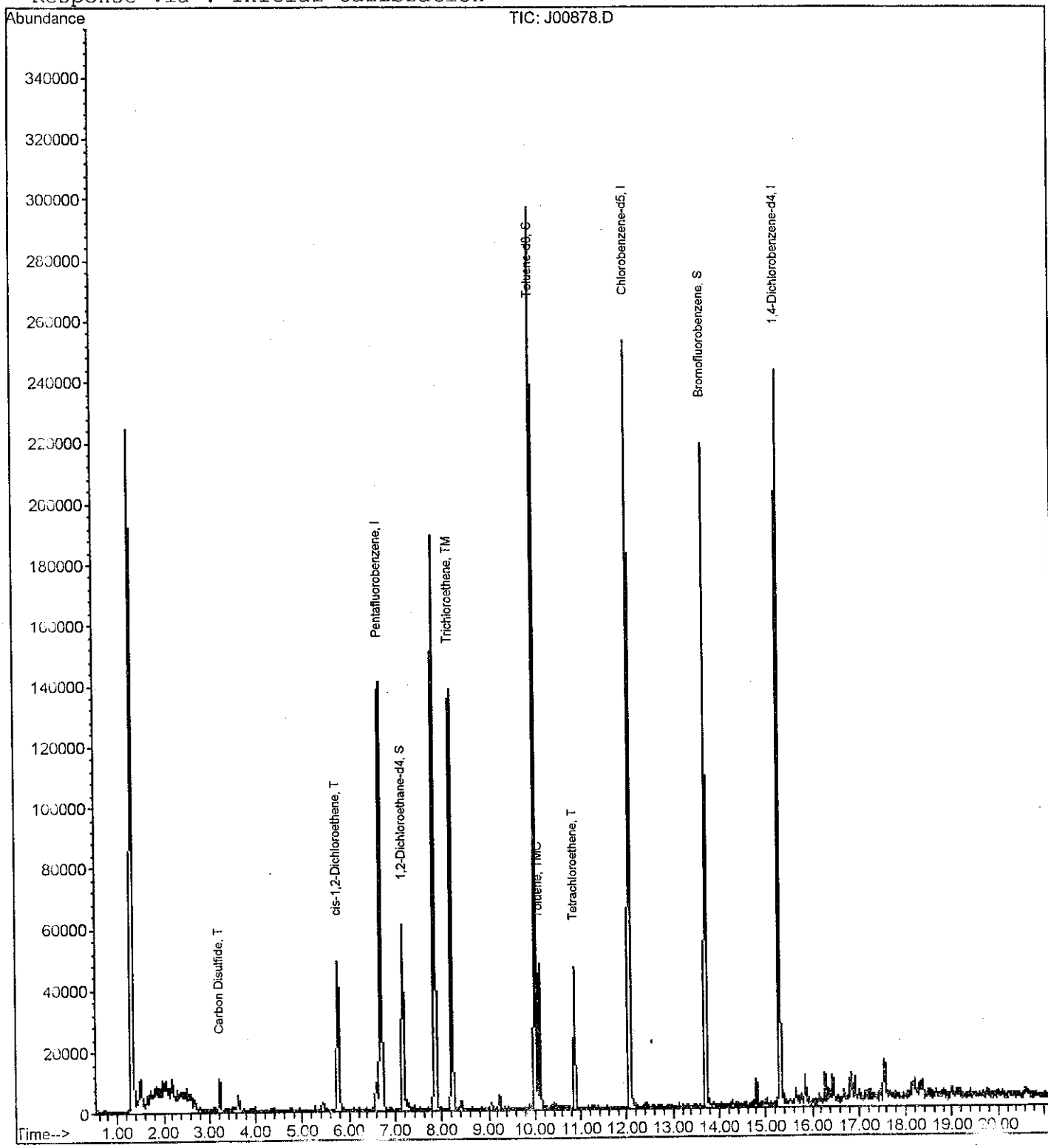
VRR

NRI

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00878.D Vial: 6
Acq On : 08/07/01 20:25 Operator:
Sample : AC17923 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:37 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00879.D Vial: 7
Acq On : 08/07/01 20:51 Operator:
Sample : AC17924 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:38 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

COPY AT 8.9.01

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	127678	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	171074	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	82723	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	73140	13.61	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 136.10%#			
46) Toluene-d8	10.02	98	246482	9.84	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 98.40%			
66) Bromofluorobenzene	13.71	95	96269	10.46	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.60%			
Target Compounds						Qvalue
3) Chloromethane	1.65	50	3279	0.68	ug\L	100
37) Trichloroethene	8.22	95	142810	19.83	ug\L	97
47) Toluene	10.11	92	11238	0.69	ug\L	98

VRA 8.8.01

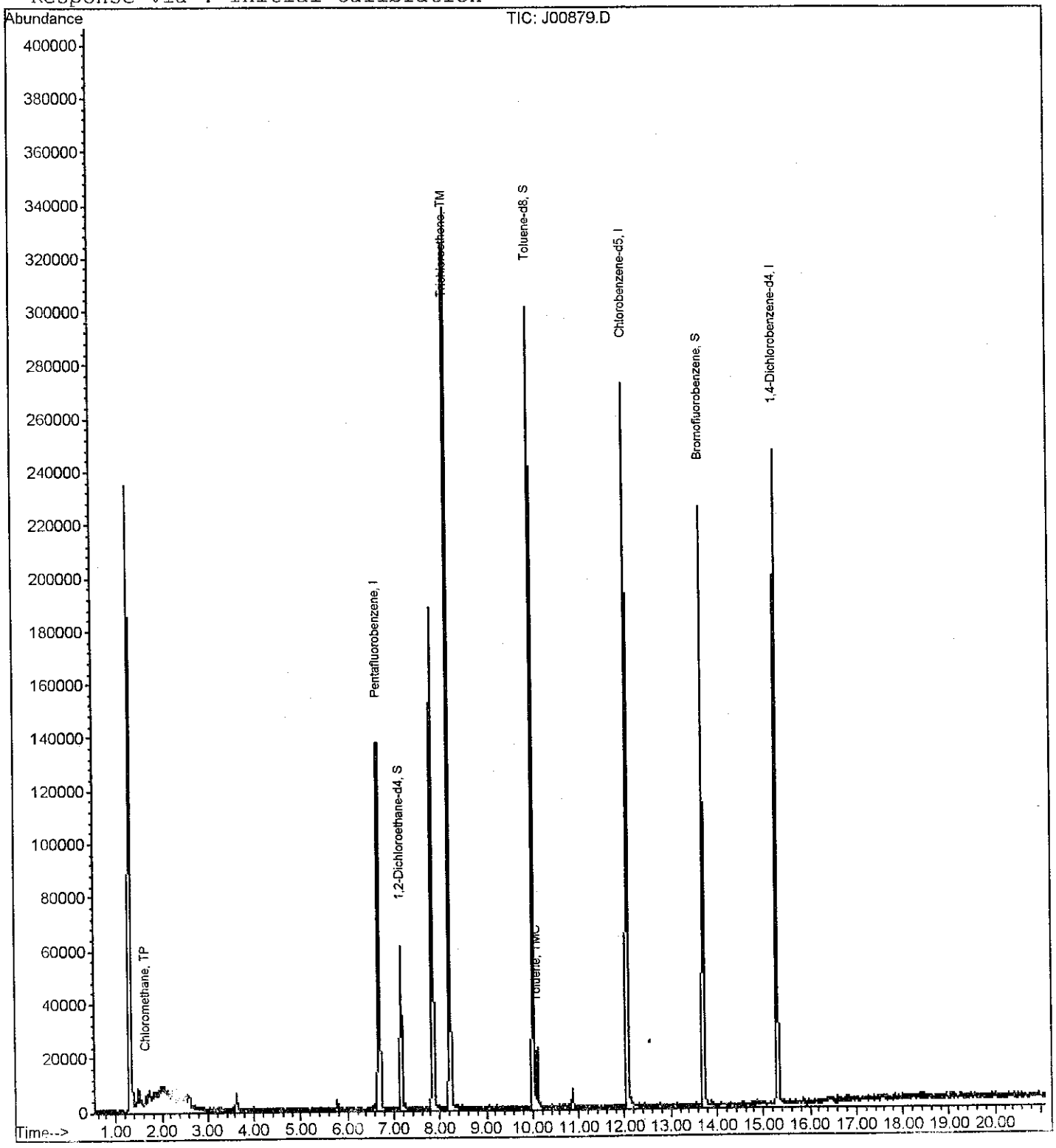
NRI to confirm MI

confirmed MI (with J00878)

(# = qualifier out of range (m) = manual integration
J00879.D 08070125.M Wed Aug 08 07:38:08 2001 Page 1

Data File : C:\HPCHEM\1\DATA\1J080701\J00879.D Vial: 7
Acq On : 08/07/01 20:51 Operator:
Sample : AC17924 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:38 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00879.D Vial: 7
Acq On : 08/07/01 20:51 Operator:
Sample : AC17924 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

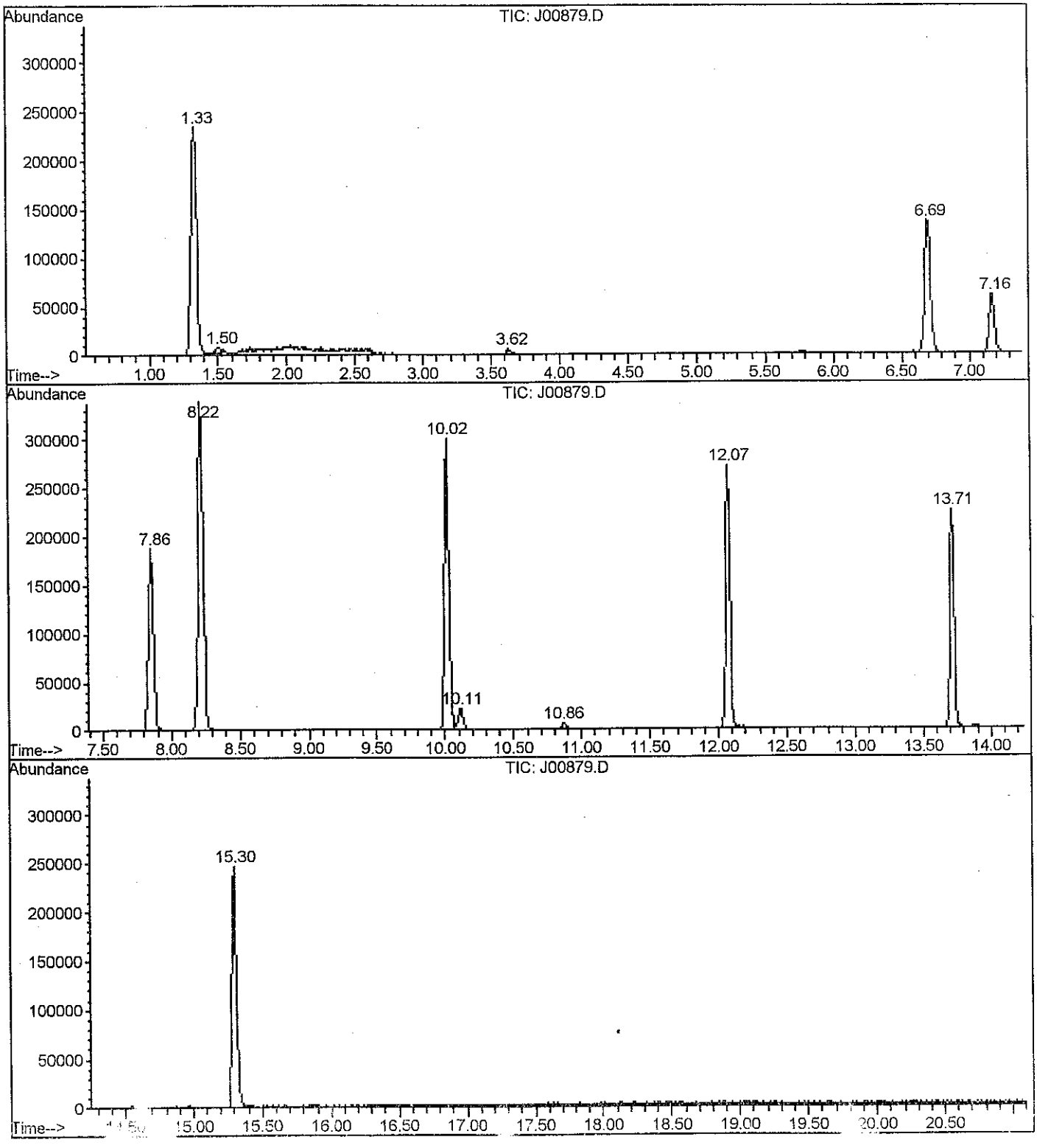
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.325	120	133	145	rBV	234344	676461	78.73%	13.412%
2	1.500	156	162	165	rBV	5590	12040	1.40%	0.239%
3	3.623	506	515	523	rBV4	6634	17274	2.01%	0.342%
4	6.690	1012	1025	1038	rBV2	136829	422864	49.21%	8.384%
5	7.165	1094	1104	1119	rBV2	60855	173991	20.25%	3.450%
6	7.857	1208	1219	1228	rBV2	187616	487530	56.74%	9.666%
7	8.217	1268	1279	1292	rBV2	338183	859218	100.00%	17.036%
8	10.016	1569	1578	1587	rBV	301243	670834	78.07%	13.301%
9	10.112	1587	1594	1603	rVB3	22367	55621	6.47%	1.103%
10	10.858	1713	1718	1726	rBV4	7175	16120	1.88%	0.320%
11	12.073	1911	1920	1932	rBV	271876	589648	68.63%	11.691%
12	13.714	2183	2193	2206	rBV	225640	499333	58.11%	9.901%
13	15.302	2448	2457	2467	rBV2	246553	562578	65.48%	11.154%

Sum of corrected areas: 5043512

J00879.D 08070125.M Thu Aug 09 10:45:25 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00879.D
Operator :
Acquired : 7 Aug 2001 20:51 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17924 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 7
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 20:51
Data File: C:\HPCHEM\1\DATA\1J080701\J00879.D
Name: AC17924 25ml DF=1
Misc: 28518/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00879.D 08070125.M Thu Aug 09 10:45:26 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00898.D Vial: 15
Acq On : 08/08/01 16:38 Operator:
Sample : AC17924 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 17:02 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	141077	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	183867	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	86065	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	80610	13.58	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 135.80%#			
46) Toluene-d8	10.03	98	259683	9.64	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.40%			
66) Bromofluorobenzene	13.72	95	101331	10.58	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 105.80%			
Target Compounds						Qvalue
37) Trichloroethene	8.22	95	130214	16.36	ug\L	98
47) Toluene	10.12	92	19052	1.10	ug\L	96

VRR
8.9.01

confirmed MI

(#) = qualifier out of range (m) = manual integration

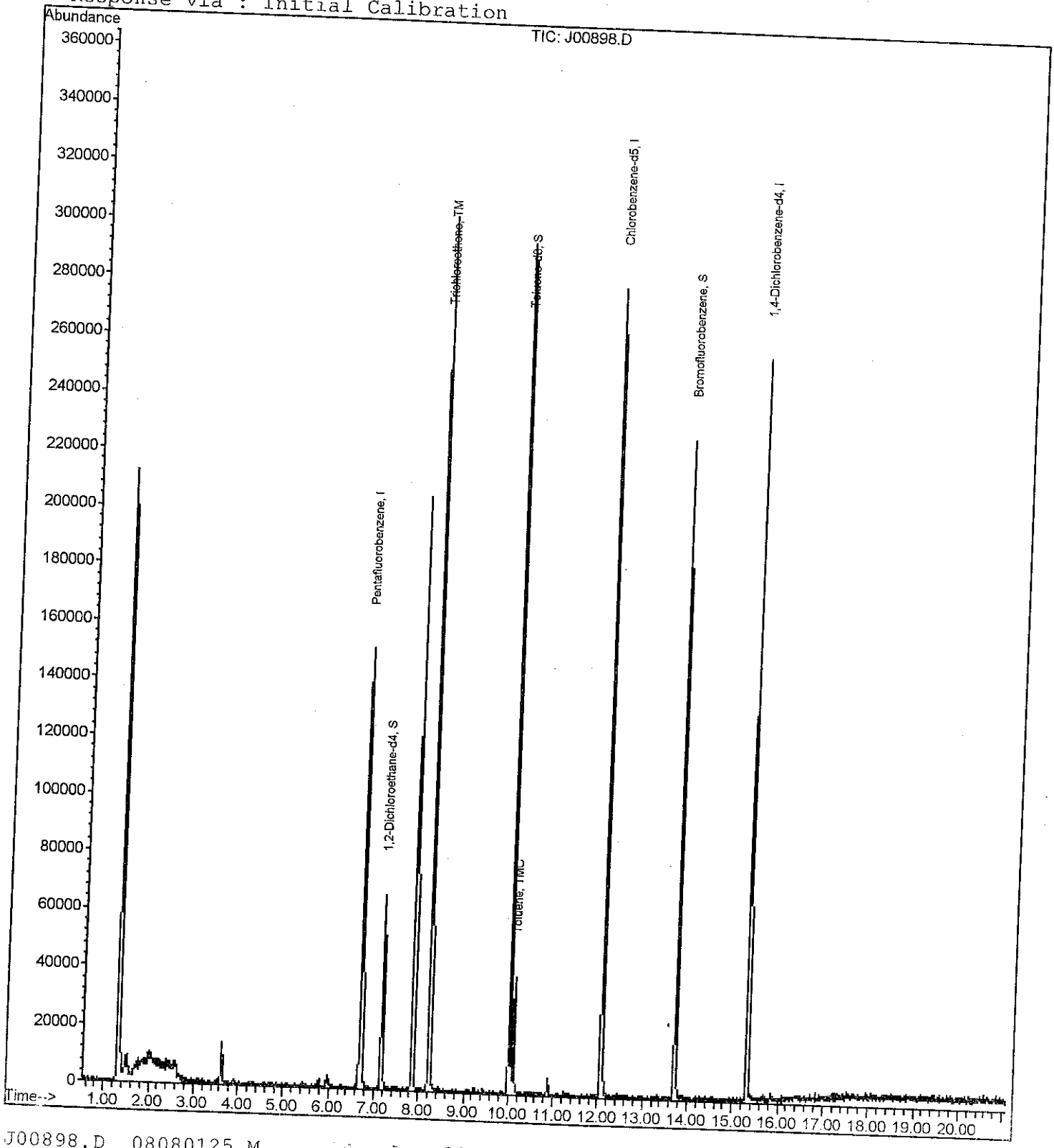
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00898.D
Acq On : 08/08/01 16:38
Sample : AC17924 25ml DF=1
Misc : 28518/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 8 17:02 2001

Vial: 15
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:40 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	131282	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	178424	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.30	152	97891	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	72399	13.11	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 131.10%#			
46) Toluene-d8	10.02	98	245458	9.39	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 93.90%			
66) Bromofluorobenzene	13.71	95	105923	9.72	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.20%			
Target Compounds						Qvalue
11) Acetone	3.11	58	5454	52.78	ug\L	84
14) Carbon Disulfide	3.23	76	14056	0.81	ug\L	96
24) 2-Butanone	5.87	72	5600	39.74	ug\L #	100
37) Trichloroethene	8.22	95	46784	6.32	ug\L	93
47) Toluene	10.11	92	11061	0.66	ug\L	97
53) 2-Hexanone	11.10	43	36609	39.17	ug\L	92

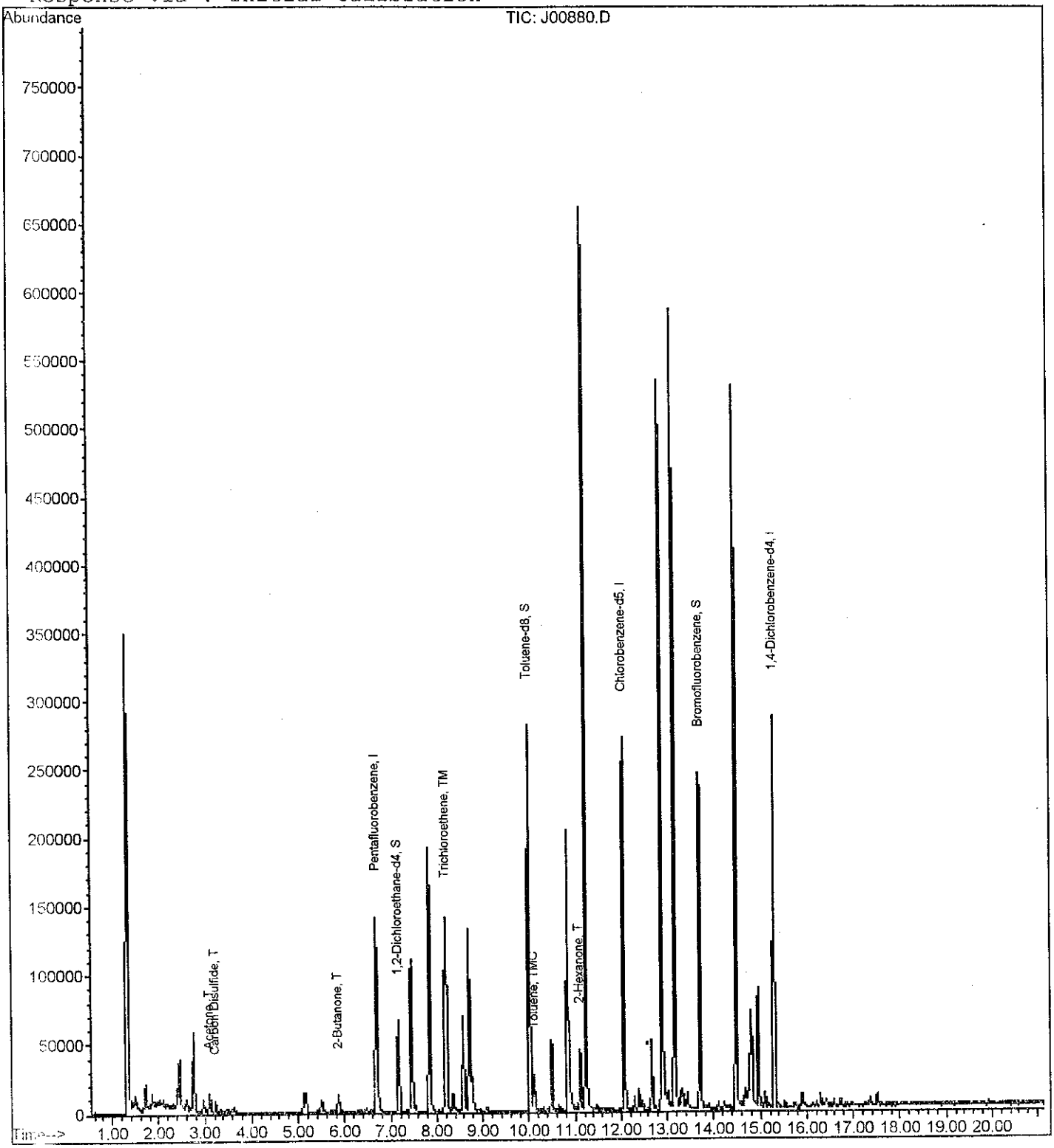
VRB
8.8.01

(#) = qualifier out of range (m) = manual integration
J00880.D 08070125.M Wed Aug 08 09:42:18 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:40 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.332	122	134	147	rBV	348783	984775	66.71%	7.552%
2	1.717	192	198	205	rBV3	17409	31456	2.13%	0.241%
3	2.396	304	311	316	rBV4	13695	32401	2.19%	0.248%
4	2.456	316	321	329	rVB3	33009	71822	4.87%	0.551%
5	2.607	343	346	354	rVB5	8166	16217	1.10%	0.124%
6	2.757	364	371	384	rVB3	57873	139881	9.48%	1.073%
7	2.974	399	407	414	rBV2	9803	21972	1.49%	0.168%
8	3.106	421	429	442	rVV2	12887	38709	2.62%	0.297%
9	3.226	442	449	457	rVB	8798	19804	1.34%	0.152%
10	5.139	755	767	770	rBV6	14242	46920	3.18%	0.360%
11	5.499	818	827	834	rVB3	7835	23543	1.59%	0.181%
12	5.860	878	887	896	rBV2	11910	34244	2.32%	0.263%
13	6.696	1015	1026	1040	rBV2	140836	432653	29.31%	3.318%
14	7.165	1094	1104	1118	rVB	66000	188997	12.80%	1.449%
15	7.448	1141	1151	1165	rBV2	110917	317863	21.53%	2.438%
16	7.851	1207	1218	1228	rBV	191901	487231	33.01%	3.736%
17	8.206	1264	1277	1290	rBV5	141924	491772	33.31%	3.771%
18	8.350	1294	1301	1308	rBV6	12889	37336	2.53%	0.286%
19	8.573	1330	1338	1351	rBV2	68960	179542	12.16%	1.377%
20	8.711	1351	1361	1369	rBV	131525	337754	22.88%	2.590%
21	10.016	1567	1578	1587	rBV	281986	673248	45.61%	5.163%
22	10.112	1587	1594	1603	rVB2	26169	68270	4.62%	0.524%
23	10.491	1649	1657	1666	rBV	50702	111485	7.55%	0.855%
24	10.840	1707	1715	1740	rBV	204244	511104	34.62%	3.919%
25	11.105	1751	1759	1769	rBV2	42954	101148	6.85%	0.776%
26	11.237	1772	1781	1800	rVV2	659432	1476132	100.00%	11.320%
27	12.067	1908	1919	1932	rBV	272134	610062	41.33%	4.678%
28	12.290	1950	1956	1965	rVB2	9811	21468	1.45%	0.165%
29	12.386	1965	1972	1979	rBV2	14882	37623	2.55%	0.289%
30	12.458	1979	1984	1992	rVB	6674	14775	1.00%	0.113%
31	12.668	2010	2019	2026	rBV	51652	110506	7.49%	0.847%
32	12.885	2046	2055	2072	rBV	533999	1232765	83.51%	9.454%

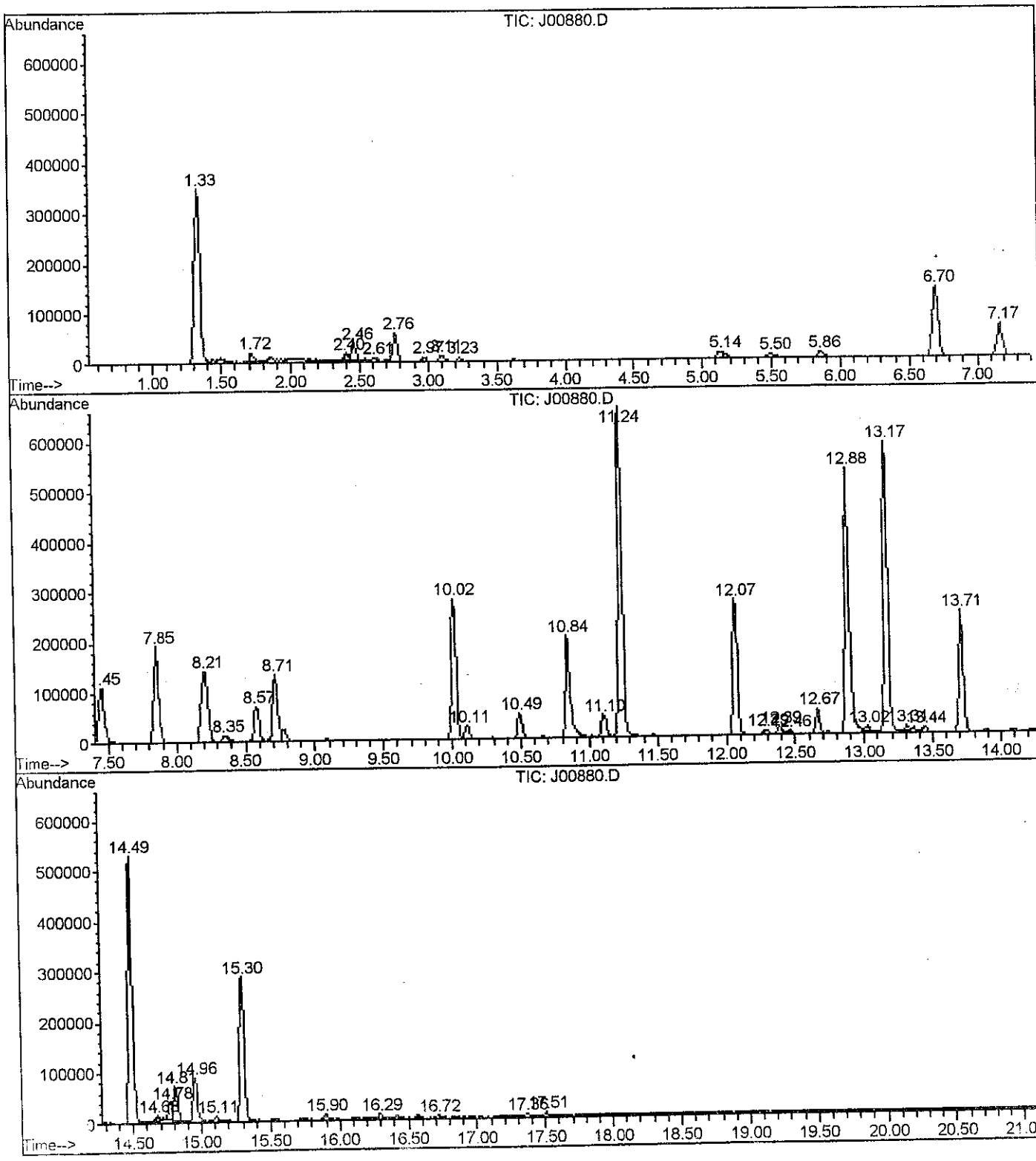
33	13.023	2074	2078	2083	rVB4	9511	18372	1.24%	0.141%
34	13.168	2093	2102	2117	rVB	584749	1255698	85.07%	9.629%
35	13.306	2119	2125	2130	rBV4	11445	25226	1.71%	0.193%
36	13.438	2142	2147	2154	rVB4	11158	23647	1.60%	0.181%
37	13.709	2183	2192	2203	rBV2	244564	534282	36.19%	4.097%
38	14.491	2312	2322	2331	rBV	529455	1094342	74.14%	8.392%
39	14.677	2346	2353	2356	rBV6	11804	24717	1.67%	0.190%
40	14.779	2363	2370	2371	rBV3	31401	61276	4.15%	0.470%
41	14.809	2371	2375	2386	rVB3	67442	149735	10.14%	1.148%
42	14.960	2392	2400	2409	rVB2	86341	189187	12.82%	1.451%
43	15.110	2420	2425	2431	rVB4	10986	23506	1.59%	0.180%
44	15.303	2448	2457	2467	rVB	284828	639586	43.33%	4.905%
45	15.898	2544	2556	2559	rBV5	11137	26682	1.81%	0.205%
46	16.295	2616	2622	2628	rBV6	9865	20230	1.37%	0.155%
47	16.716	2685	2692	2699	rBV9	5762	14898	1.01%	0.114%
48	17.359	2791	2799	2806	rVB7	6219	15294	1.04%	0.117%
49	17.510	2817	2824	2830	rBV2	8587	20126	1.36%	0.154%

Sum of corrected areas: 13040282

J00880.D 08070125.M Wed Aug 08 09:43:27 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00880.D
Operator :
Acquired : 7 Aug 2001 21:18 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17925 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 8
Quant File :08070125.RES (RTE Integrator)



08070 25.M We g 08 09:43:27 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

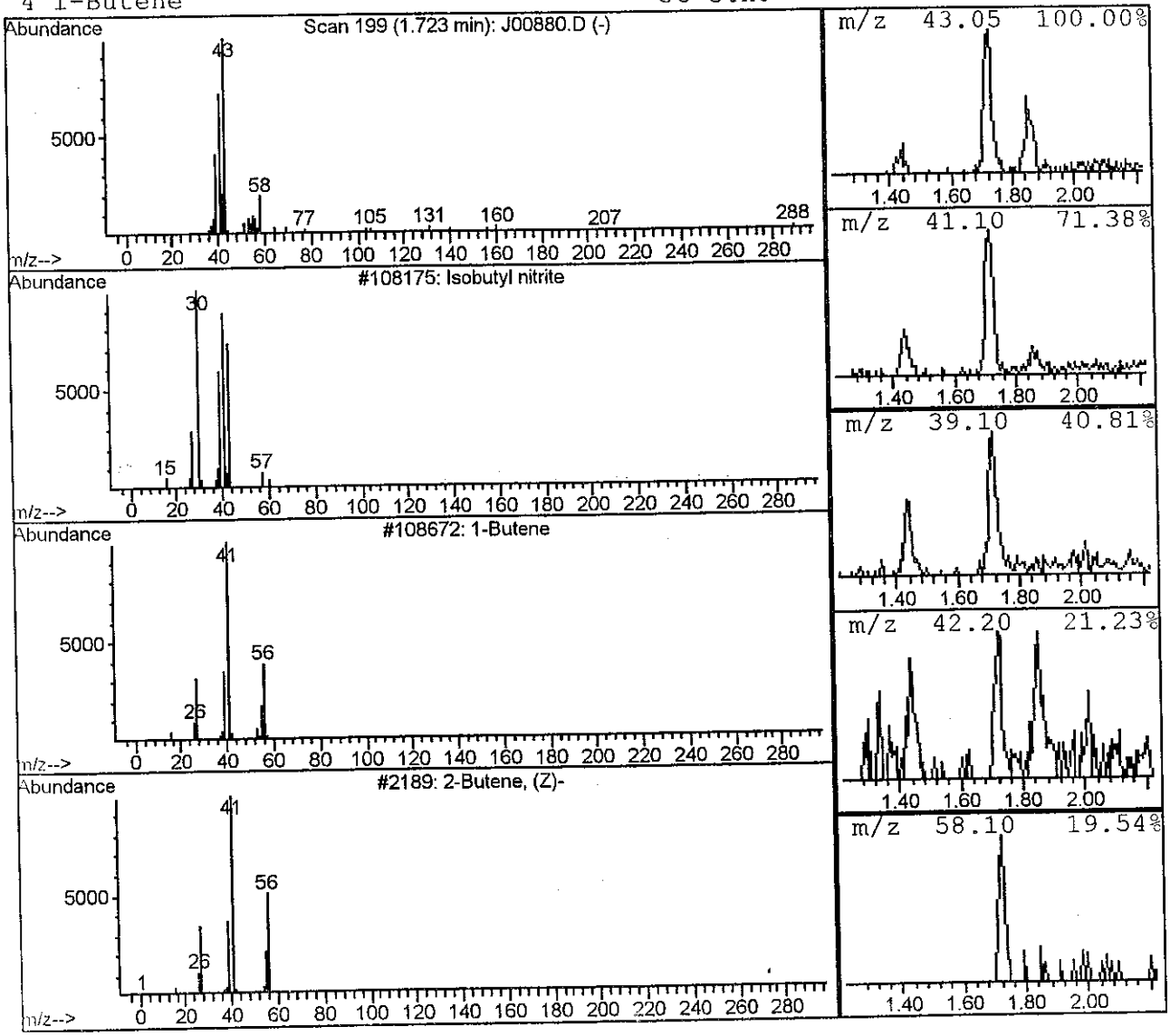
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Isobutyl nitrite Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.72	314560.00 ug\L	31456	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutyl nitrite	103	C4H9NO2	000542-56-3	23
2	1-Butene	56	C4H8	000106-98-9	9
3	2-Butene, (Z)-	56	C4H8	000590-18-1	9
4	1-Butene	56	C4H8	000106-98-9	9



Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

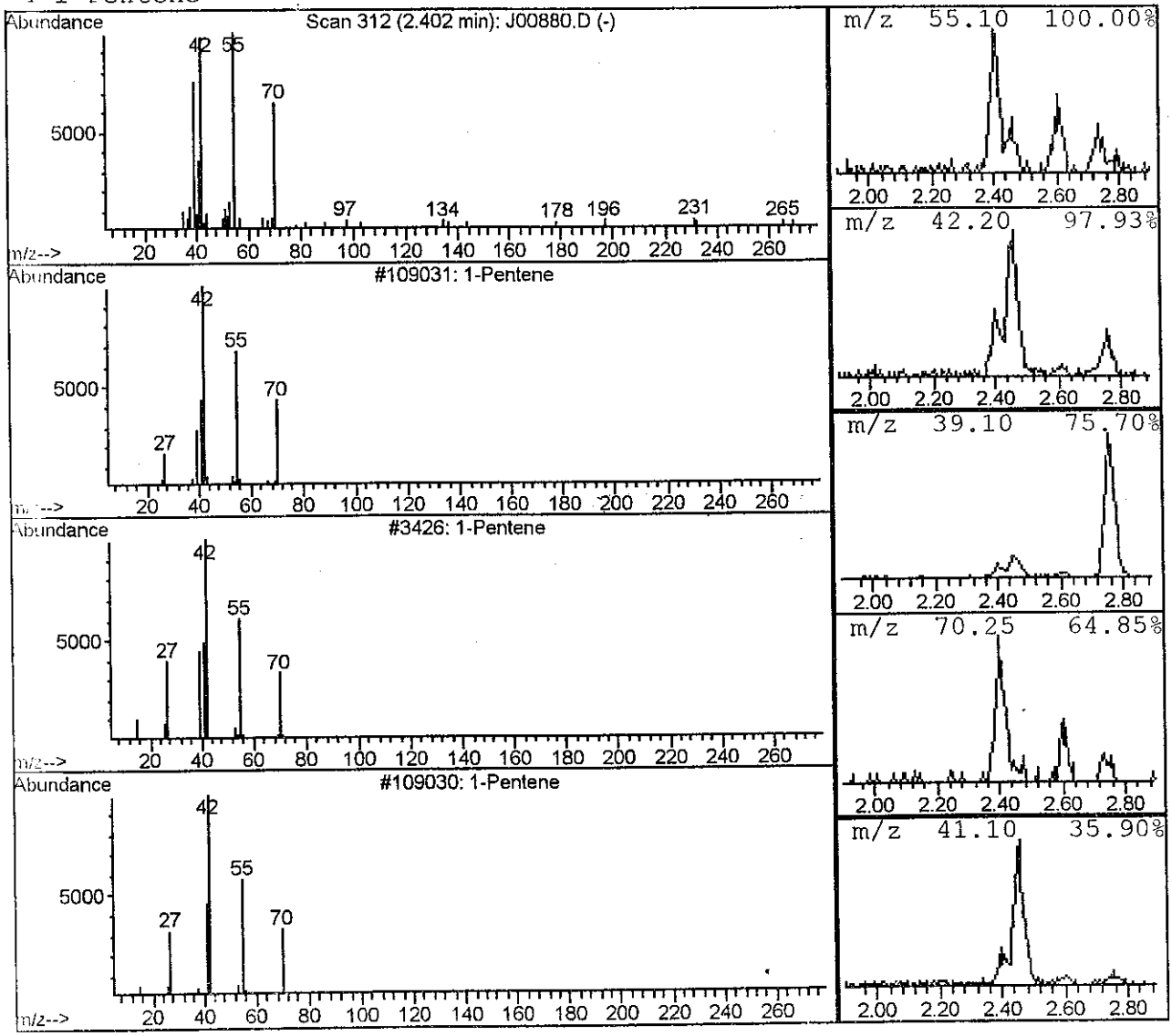
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 1-Pentene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.40	324010.00 ug\L	32401	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	58
2	1-Pentene	70	C5H10	000109-67-1	58
3	1-Pentene	70	C5H10	000109-67-1	53
4	1-Pentene	70	C5H10	000109-67-1	53



Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

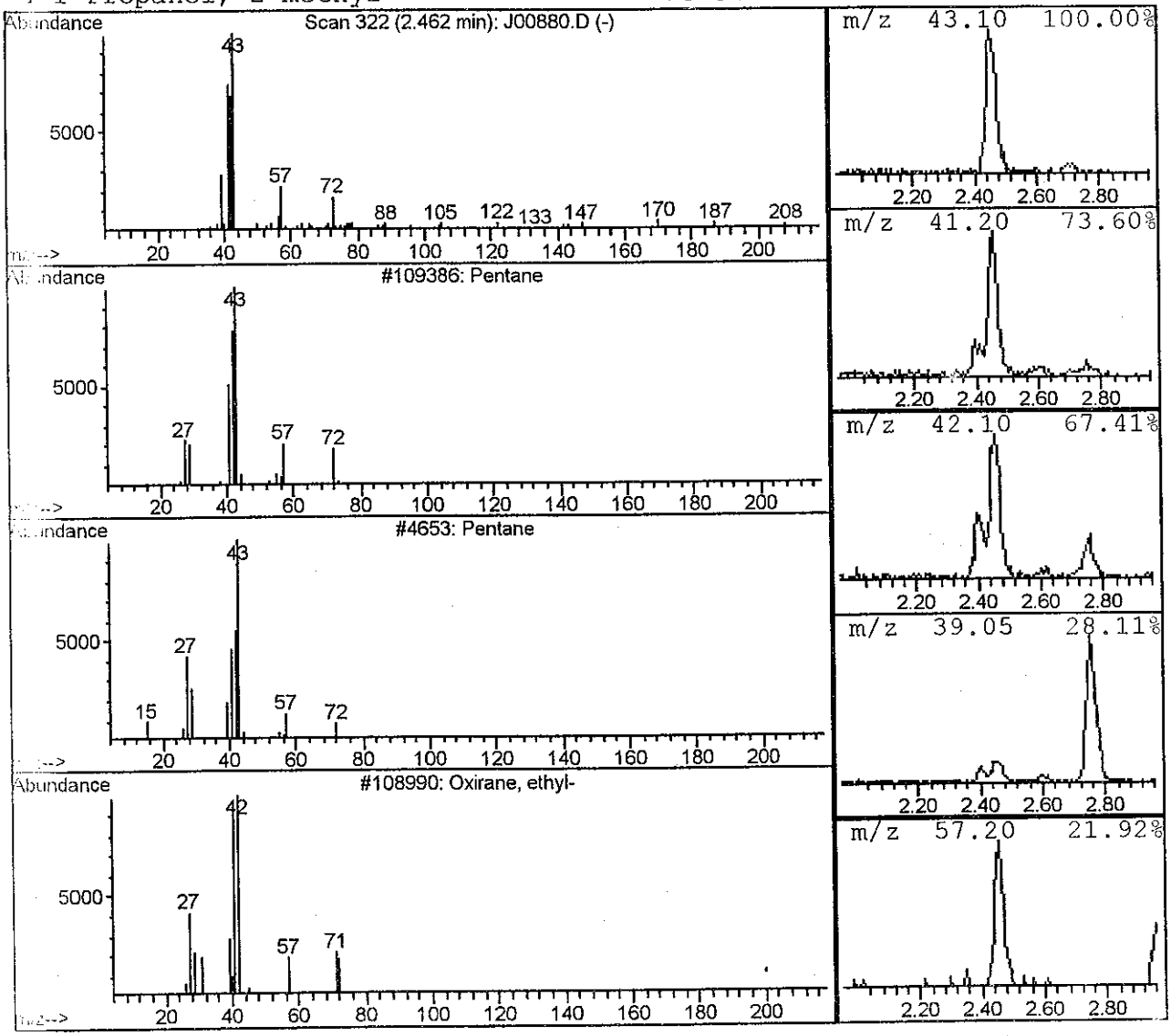
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Pentane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.46	718220.00 ug\L	71822	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	64
2	Pentane	72	C5H12	000109-66-0	59
3	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
4	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	40



Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

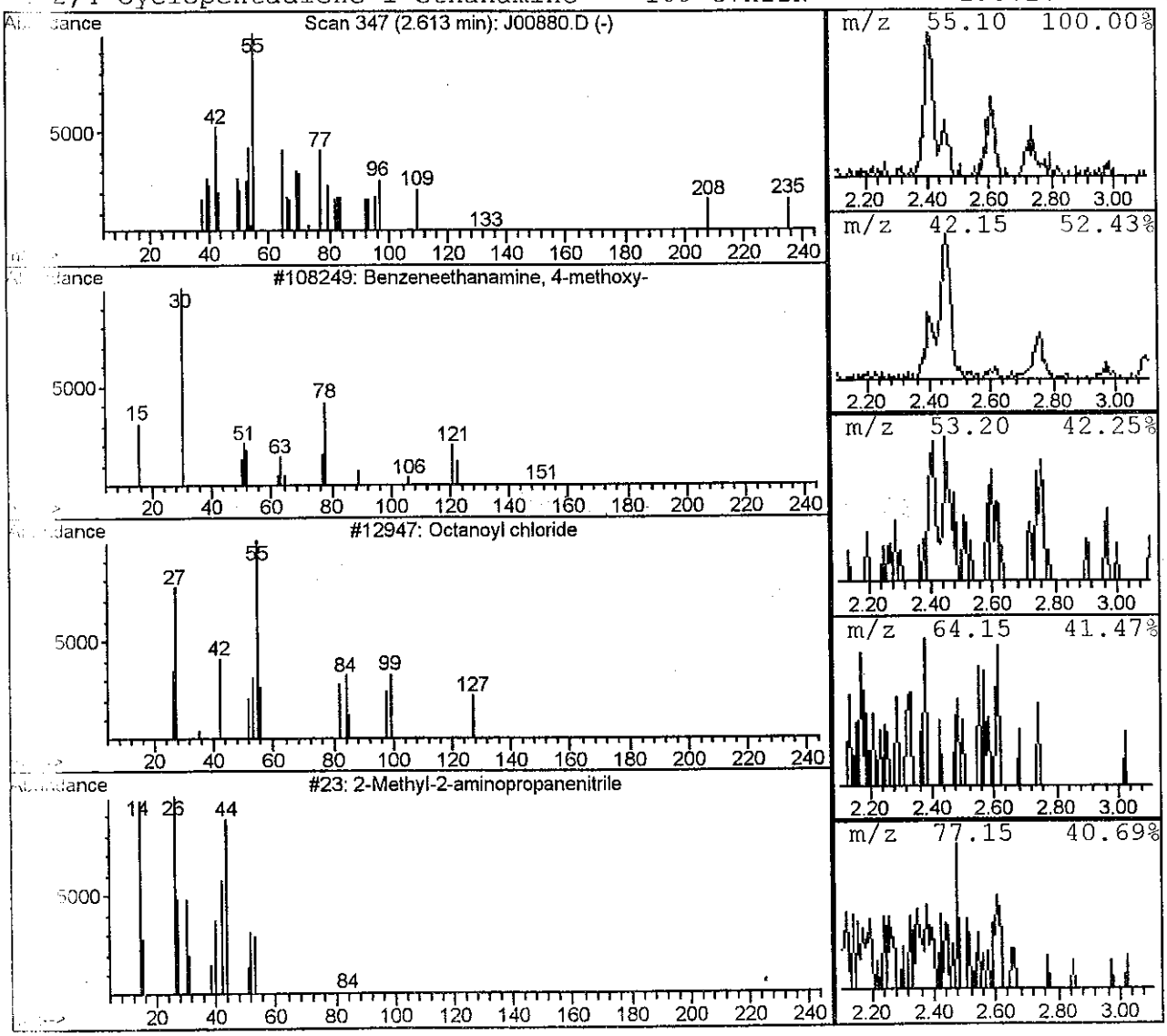
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Benzeneethanamine, 4-methoxy- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.61	162170.00 ug\L	16217	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, 4-methoxy-	151	C9H13NO	000055-81-2	2
2	Octanoyl chloride	162	C8H15ClO	000111-64-8	1
3	2-Methyl-2-aminopropanenitrile	84	C4H8N2	1000139-41-9	1
4	2,4-Cyclopentadiene-1-ethanamine	109	C7H11N	138816-65-6	1



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08/07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

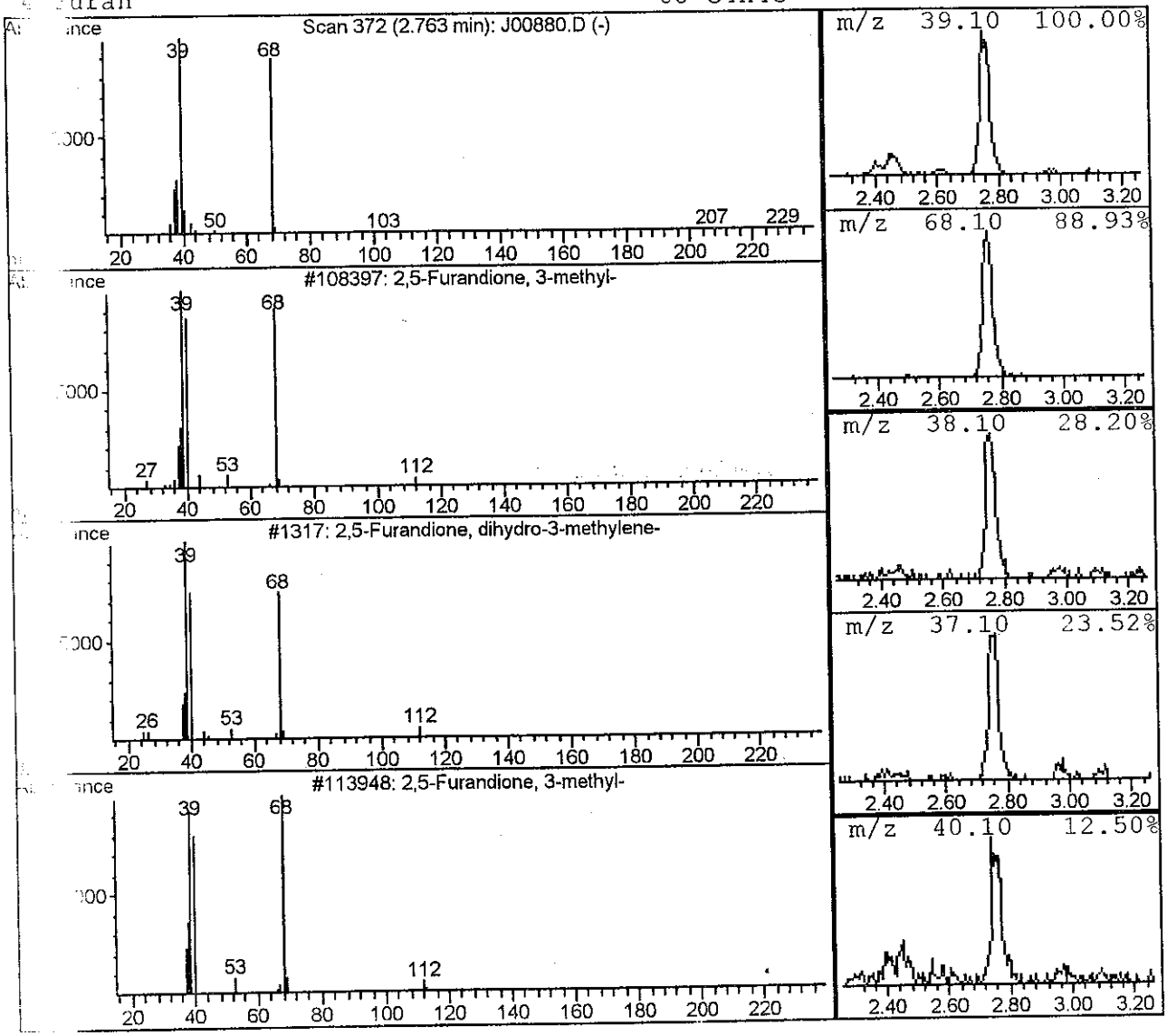
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 2,5-Furandione, 3-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.76	1398810.00 ug\L	139881	1.4-Difluorobenzene	0.00

# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,5-Furandione, 3-methyl-	112	C5H4O3	000616-02-4	83
2	2,5-Furandione, dihydro-3-methylene	112	C5H4O3	002170-03-8	74
3	2,5-Furandione, 3-methyl-	112	C5H4O3	000616-02-4	64
4	Furan	68	C4H4O	000110-00-9	58



ta File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
q On : 08/07/01 21:18 Operator:
mple : AC17925 25ml DF=1 Inst : HP-MSJ
sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

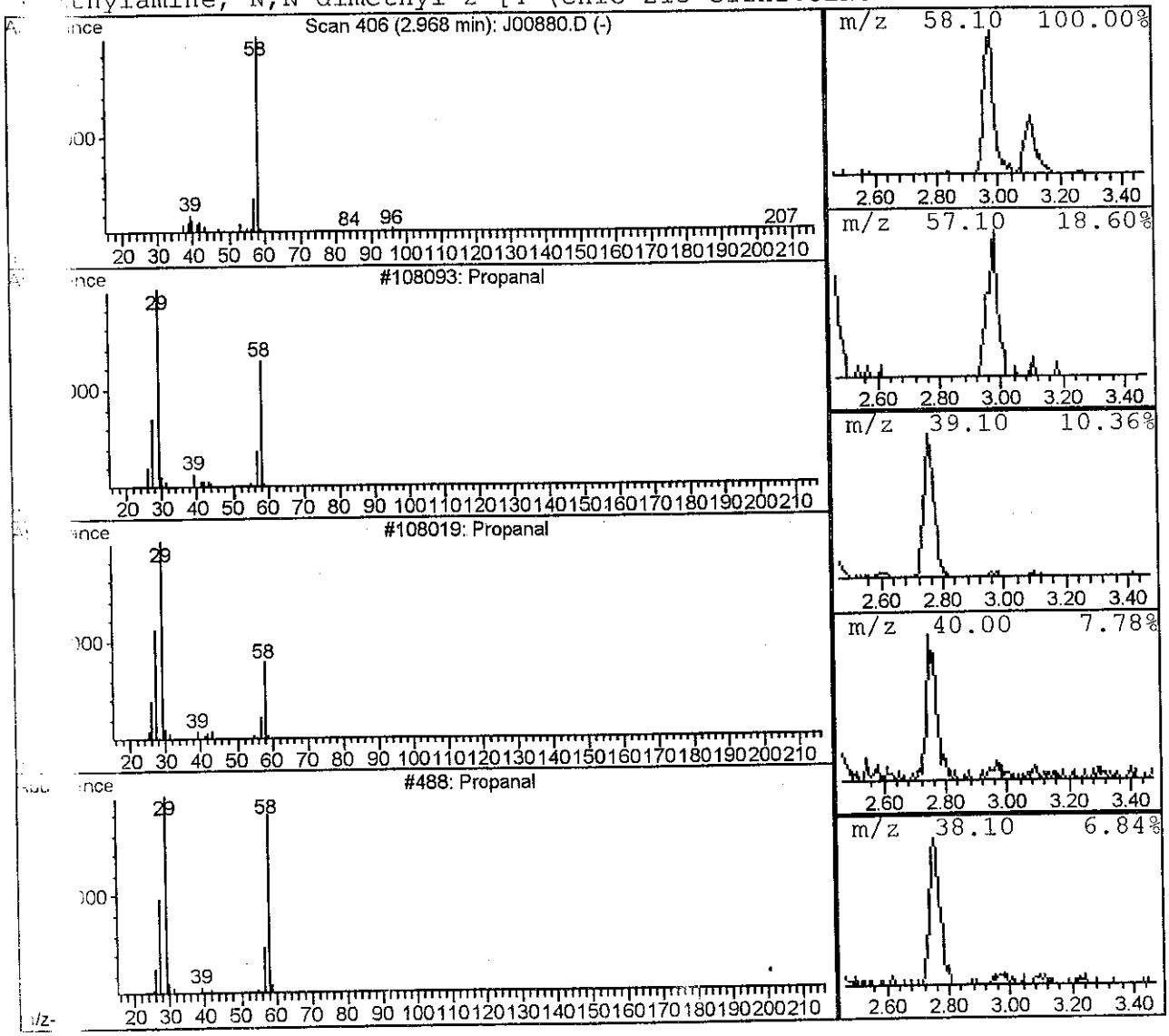
ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
brary : C:\DATABASE\NIST98.L

****

Number 6 Propanal Concentration Rank 6

.T.	EstConc	Area	Relative to ISTD	R.T.
.97	219720.00 ug\L	21972	1.4-Difluorobenzene	0.00

# of 5	Tentative ID	MW	MolForm	CAS#	Qual
	ropanal	58	C3H6O	000123-38-6	38
2	Propanal	58	C3H6O	000123-38-6	38
3	Propanal	58	C3H6O	000123-38-6	37
	thylamine, N,N-dimethyl-2-[4-(chlo	213	C11H16ClNO	1000137-94-3	33



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sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

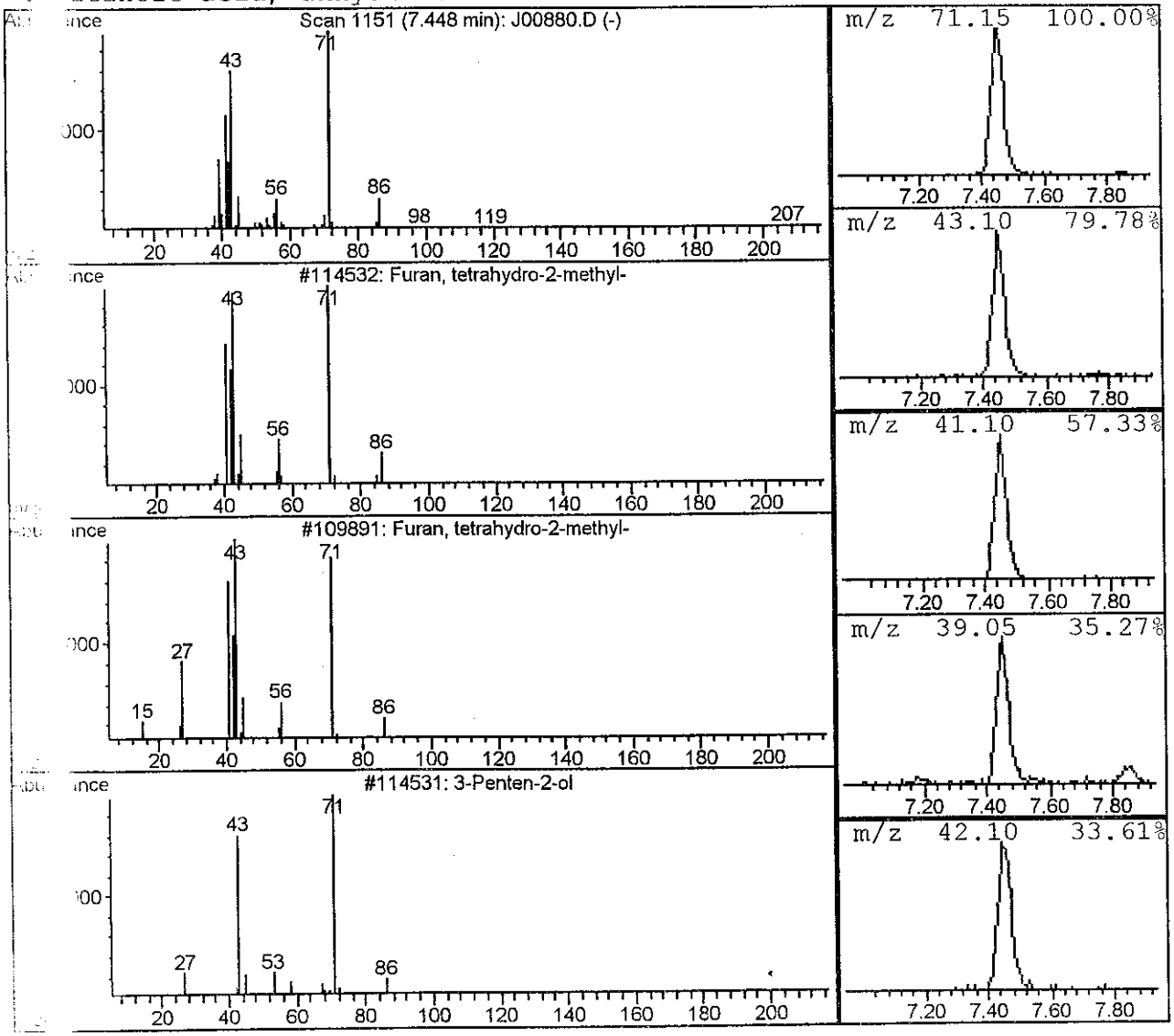
ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
brary : C:\DATABASE\NIST98.L

****

Pe : Number 7 Furan, tetrahydro-2-methyl- Concentration Rank 15

.T.	EstConc	Area	Relative to ISTD	R.T.
45	7.35 ug\L	317863	Pentafluorobenzene	6.70

# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	70
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	70
3	3-Penten-2-ol	86	C5H10O	001569-50-2	64
4	Butanoic acid, anhydride	158	C8H14O3	000106-31-0	59



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sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
brary : C:\DATABASE\NIST98.L

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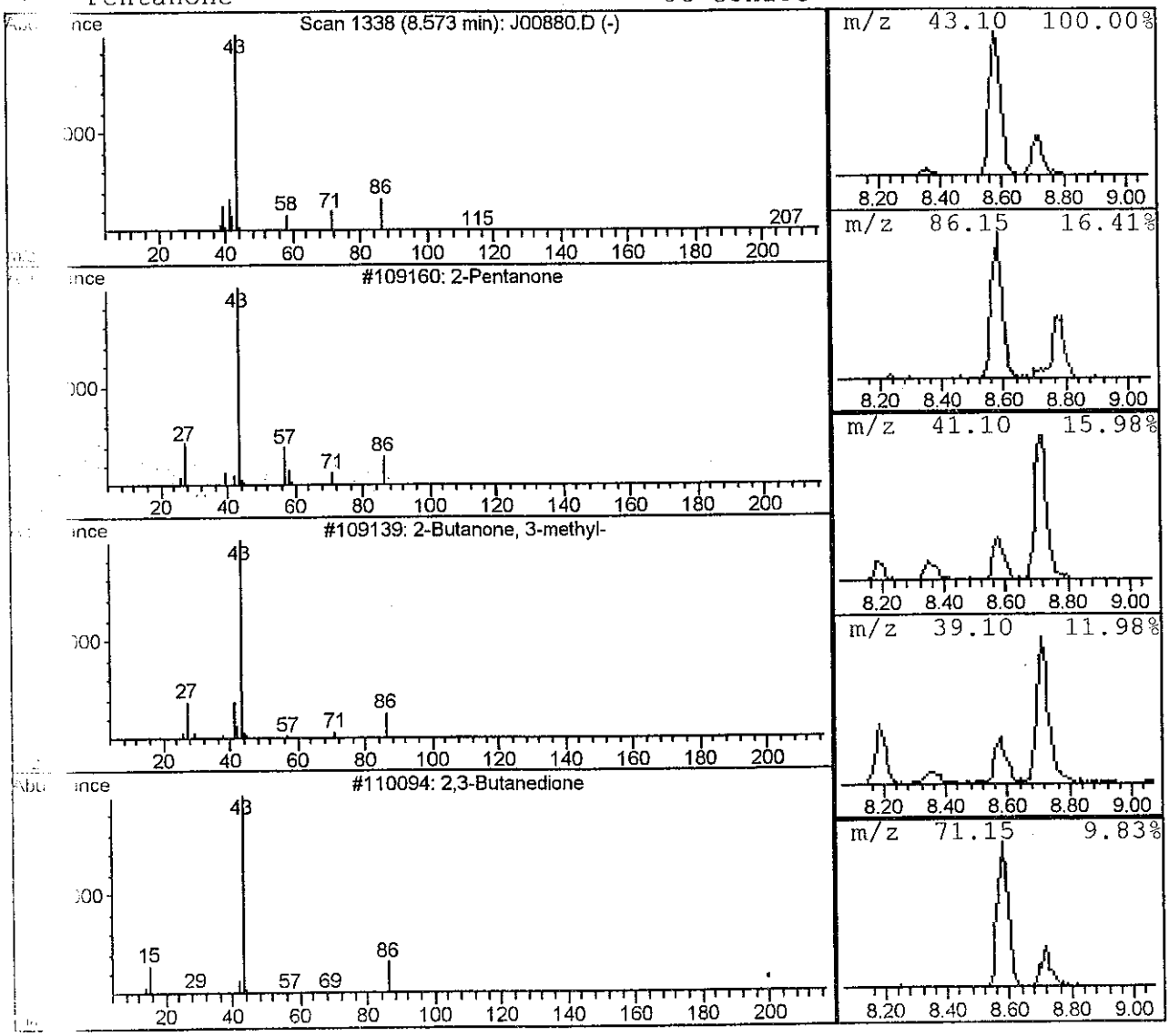
Peak Number 8 2-Pentanone Concentration Rank 16

.T.	EstConc	Area	Relative to ISTD	R.T.
.57	4.15 ug\L	179542	Pentafluorobenzene	6.70

# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	-Pentanone	86	C5H10O	000107-87-9	64
2	-Butanone, 3-methyl-	86	C5H10O	000563-80-4	53
3	,3-Butanedione	86	C4H6O2	000431-03-8	43
4	-Pentanone	86	C5H10O	000107-87-9	40



ta File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
q On : 08/07/01 21:18 Operator:
mple : AC17925 25ml DF=1 Inst : HP-MSJ
sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
brary : C:\DATABASE\NIST98.L

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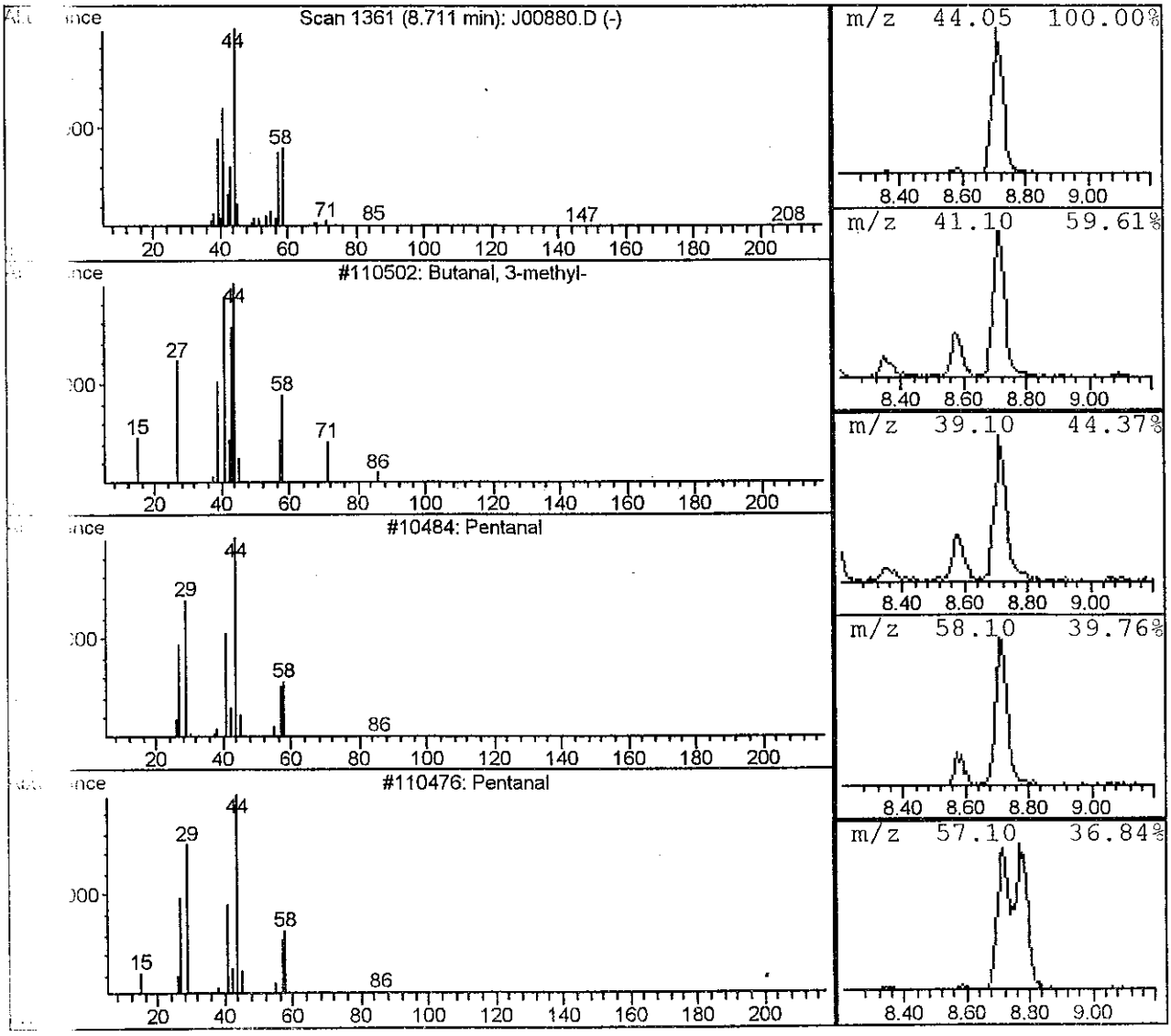
Pe : Number 9 Butanal, 3-methyl- Concentration Rank 14

.T.	EstConc	Area	Relative to ISTD	R.T.
.71	7.81 ug\L	337754	Pentafluorobenzene	6.70

#	# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		utanal, 3-methyl-	86	C5H10O	000590-86-3	78
2		entanal	86	C5H10O	000110-62-3	68
3		entanal	86	C5H10O	000110-62-3	64
4		entanal	86	C5H10O	000110-62-3	64



ta File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
q On : 08/07/01 21:18 Operator:
mple : AC17925 25ml DF=1 Inst : HP-MSJ
sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
orary : C:\DATABASE\NIST98.L

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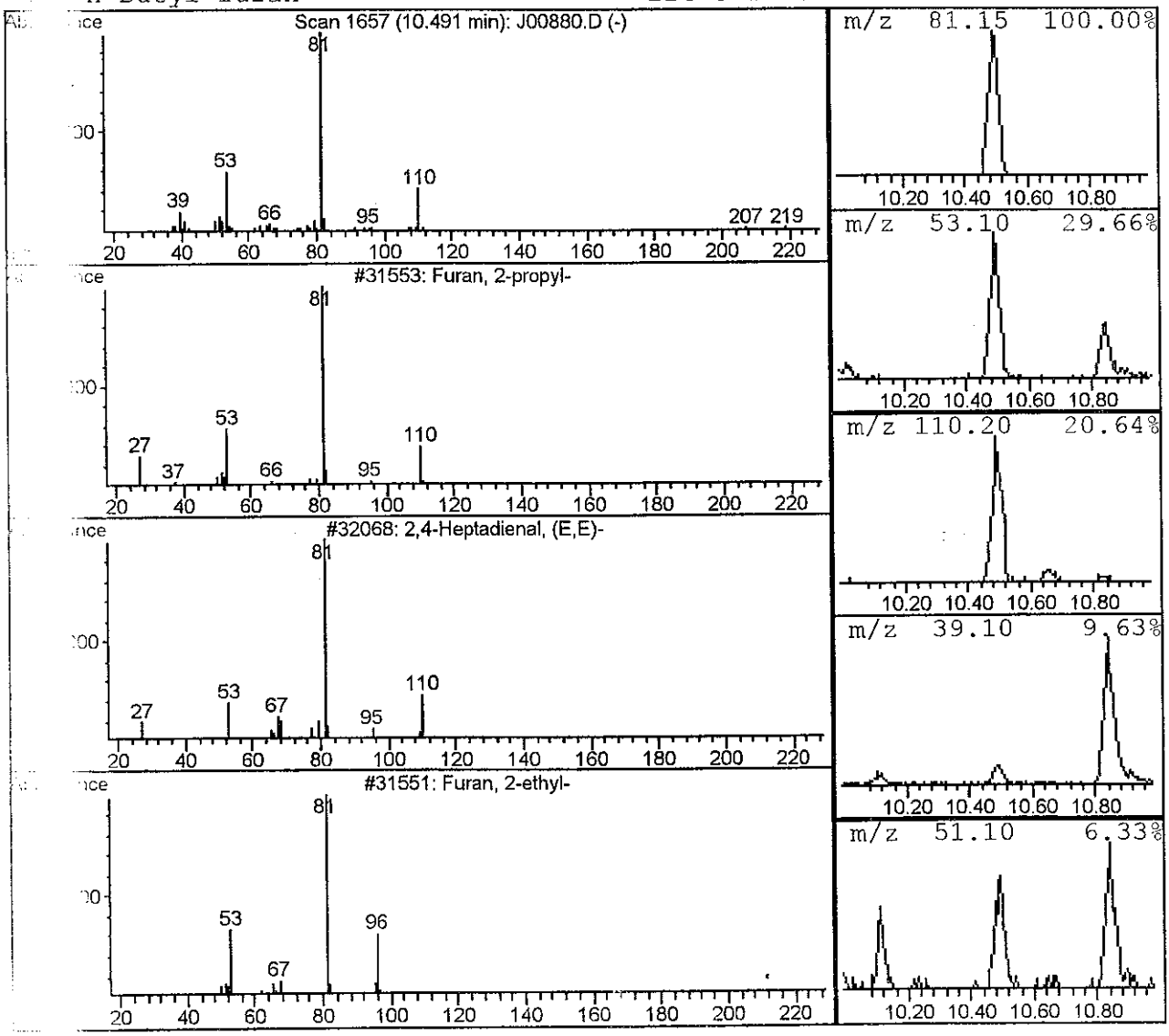
Number 10 Furan, 2-propyl- Concentration Rank 19

T.	EstConc	Area	Relative to ISTD	R.T.
49	1.83 ug\L	111485	Chlorobenzene-d5	12.07

# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	uran, 2-propyl-	110	C7H10O	004229-91-8	87
2	,4-Heptadienal, (E,E)-	110	C7H10O	004313-03-5	56
3	uran, 2-ethyl-	96	C6H8O	003208-16-0	45
4	-n-Butyl furan	124	C8H12O	004466-24-4	42



ta File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
q On : 08/07/01 21:18 Operator:
mple : AC17925 25ml DF=1 Inst : HP-MSJ
sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

ant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
tle : 8260 CALIBRATION FOR 25ML WATER
brary : C:\DATABASE\NIST98.L

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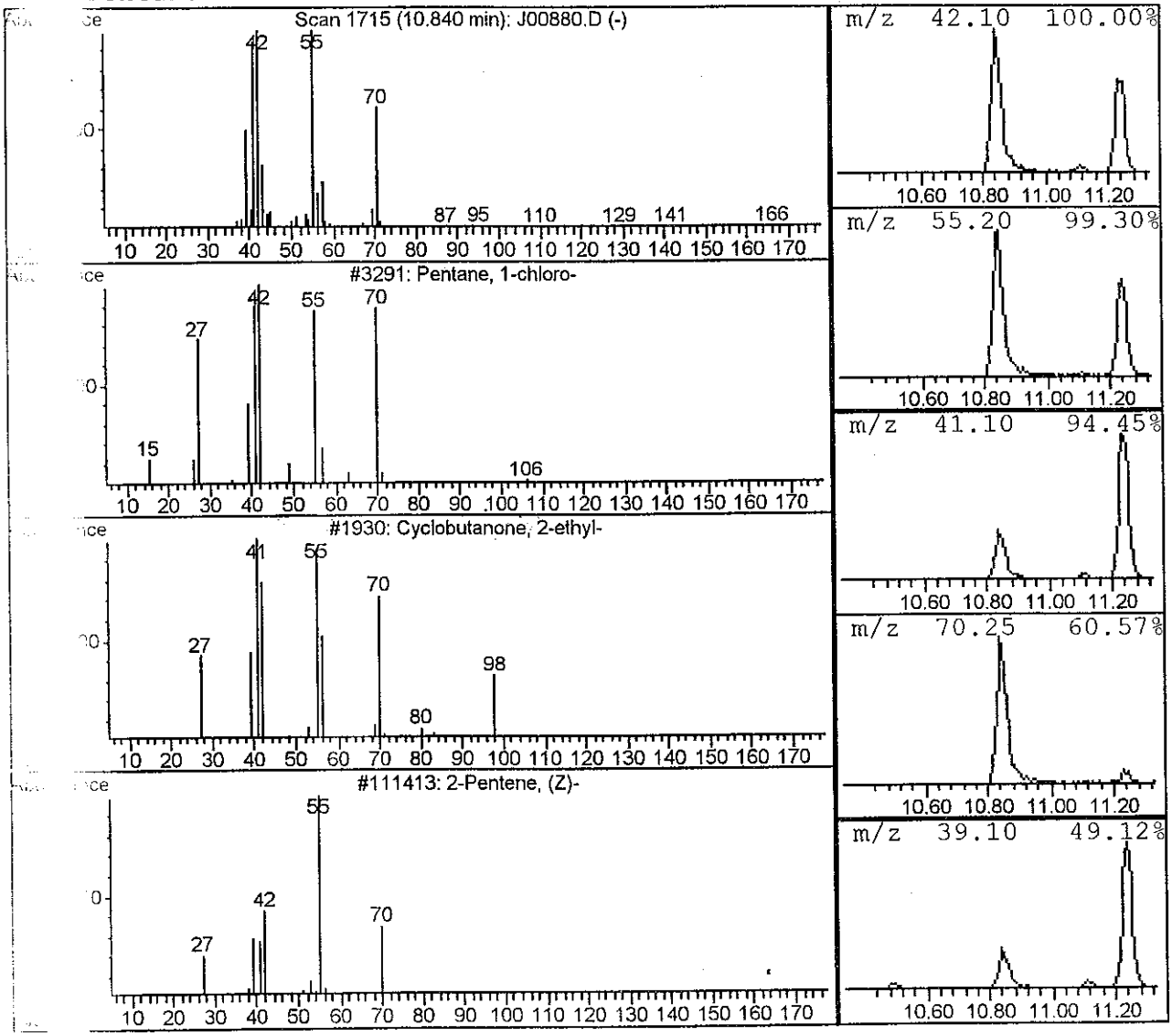
Number 11 Pentane, 1-chloro- Concentration Rank 13

.T.	EstConc	Area	Relative to ISTD	R.T.
4	8.38 ug\L	511104	Chlorobenzene-d5	12.07

of 5	Tentative ID	MW	MolForm	CAS#	Qual
	ntane, 1-chloro-	106	C5H11Cl	000543-59-9	72
2	yclobutanone, 2-ethyl-	98	C6H10O	010374-14-8	64
3	-Pentene, (Z)-	70	C5H10	000627-20-3	64
	-Pentanol	88	C5H12O	000071-41-0	64



a File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
On : 08/07/01 21:18 Operator:
ple : AC17925 25ml DF=1 Inst : HP-MSJ
sc : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

nt Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
le : 8260 CALIBRATION FOR 25ML WATER
rary : C:\DATABASE\NIST98.L

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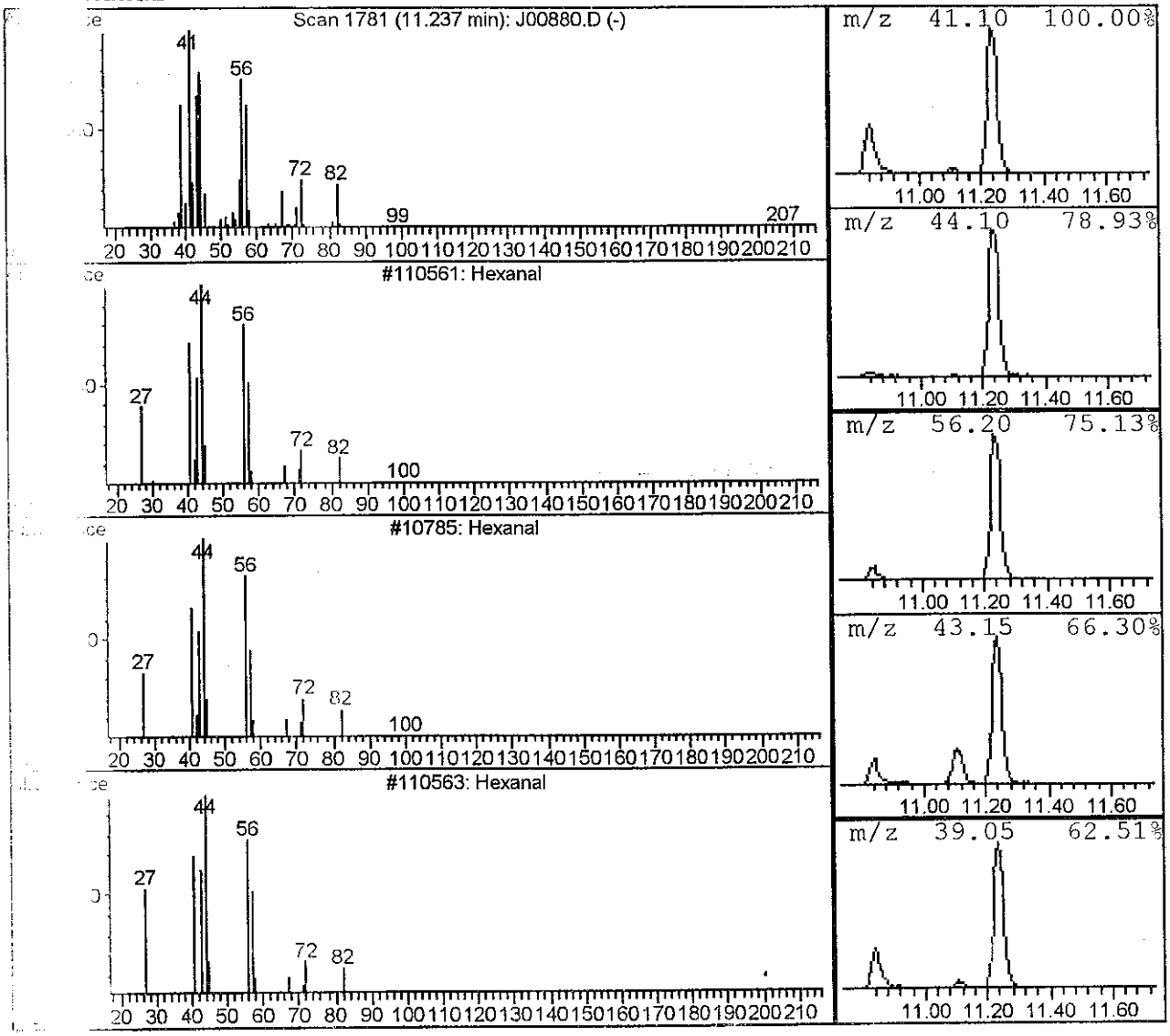
Number 12 Hexanal Concentration Rank 8

	EstConc	Area	Relative to ISTD	R.T.
M	24.20 ug\L	1476130	Chlorobenzene-d5	12.07

of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	xanal	100	C6H12O	000066-25-1	59
2	xanal	100	C6H12O	000066-25-1	53
3	xanal	100	C6H12O	000066-25-1	53
4	xanal	100	C6H12O	000066-25-1	45



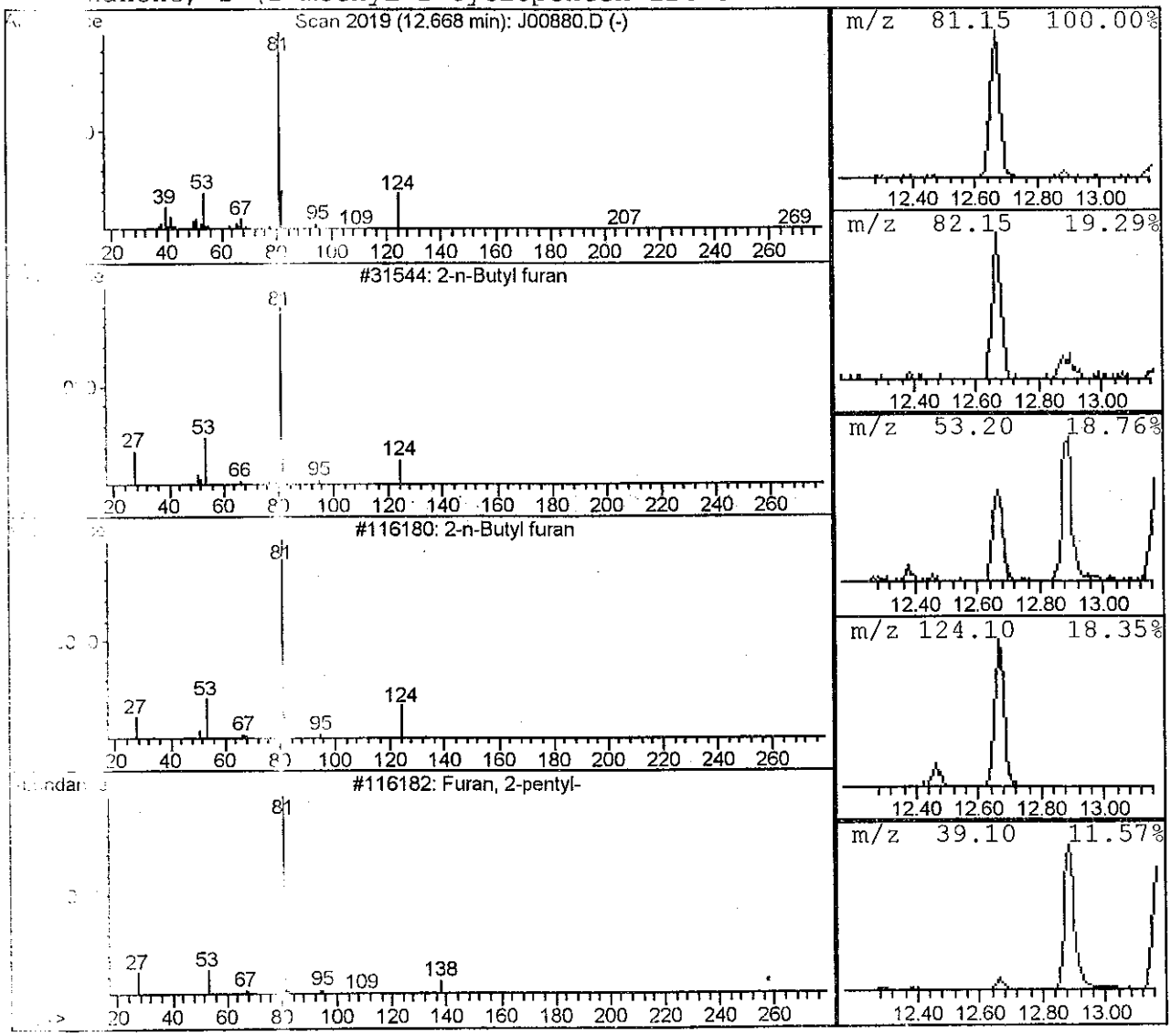
a File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
On : 08/07/01 21:18 Operator:
ple : AC17925 25ml DF=1 Inst : HP-MSJ
c : 28518/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

nt Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
le : 8260 CALIBRATION FOR 25ML WATER
rary : C:\DATABASE\NIST98.L

Number 13 2-n-Butyl furan Concentration Rank 20

.	EstConc	Area	Relative to ISTD	R.T.
7	1.81 ug\L	110506	Chlorobenzene-d5	12.07

of 5	Tentative ID	MW	MolForm	CAS#	Qual
	n-Butyl furan	124	C8H12O	004466-24-4	78
	n-Butyl furan	124	C8H12O	004466-24-4	64
3	ran, 2-pentyl-	138	C9H14O	003777-69-3	56
	hanone, 1-(2-methyl-2-cyclopenten	124	C8H12O	001767-84-6	50



Data File : C:\HPCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08 07/01 21:18 Operator:
Sample : ACI7925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Current Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

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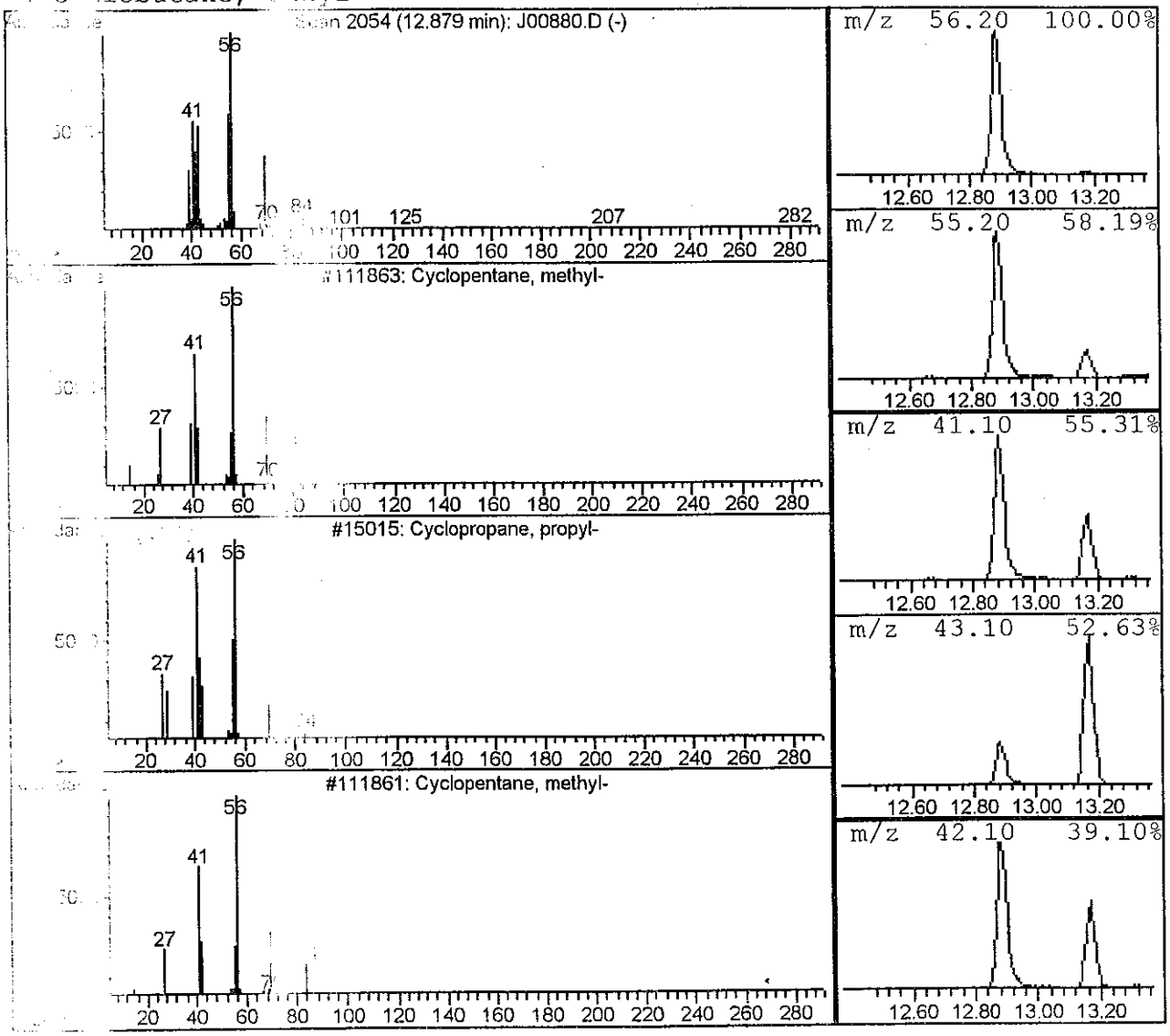
Peak Number 14 Cyclopentane, methyl- Concentration Rank 10

A.T.	EstConc	Area	Relative to ISTD	R.T.
1	20.21 ug\L	1232770	Chlorobenzene-d5	12.07

Top of 5 Tentative ID

	MW	MolForm	CAS#	Qual
1 Cyclopentane, methyl-	84	C6H12	000096-37-7	86
2 Cyclopropane, propyl-	84	C6H12	002415-72-7	80
3 Cyclopentane, methyl-	84	C6H12	000096-37-7	78
4 Cyclobutane, ethyl-	84	C6H12	004806-61-5	72



Library Search Compound Report

Data File : C: .PCHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08 07/01 21:18 Operator:
Sample : AC17925 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

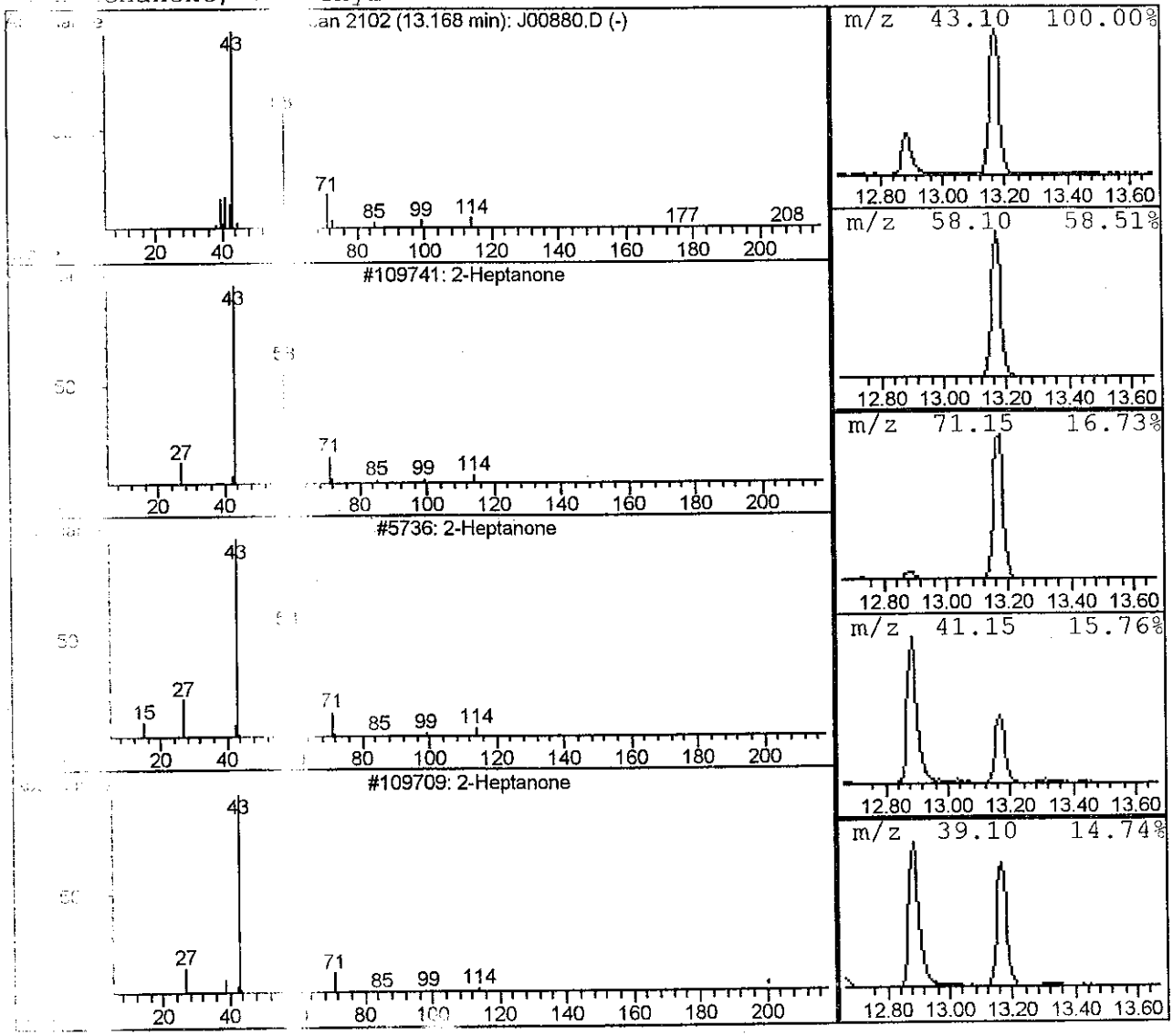
Quant Method : :\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 60 CALIBRATION FOR 25ML WATER
Library : :\DATABASE\NIST98.L

Unknown Number 15 2-Heptanone Concentration Rank 9

	EstConc	Area	Relative to ISTD	R.T.
	20.58 u	1255700	Chlorobenzene-d5	12.07

Hit 1 of 5 Search Negative ID

		MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	91
2	2-Heptanone	114	C7H14O	000110-43-0	91
3	2-Heptanone	114	C7H14O	000110-43-0	72
4	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	72



Library Search Compound Report

Data File : C: :CHEM\1\DATA\1J080701\J00880.D Vial: 8
Acq On : 08 7/01 21:18 Operator:
Sample : AC 925 25ml DF=1 Inst : HP-MSJ
Misc : 28 8/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

RTE Integrator Method : :\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 60 CALIBRATION FOR 25ML WATER
Library : :\DATABASE\NIST98.L

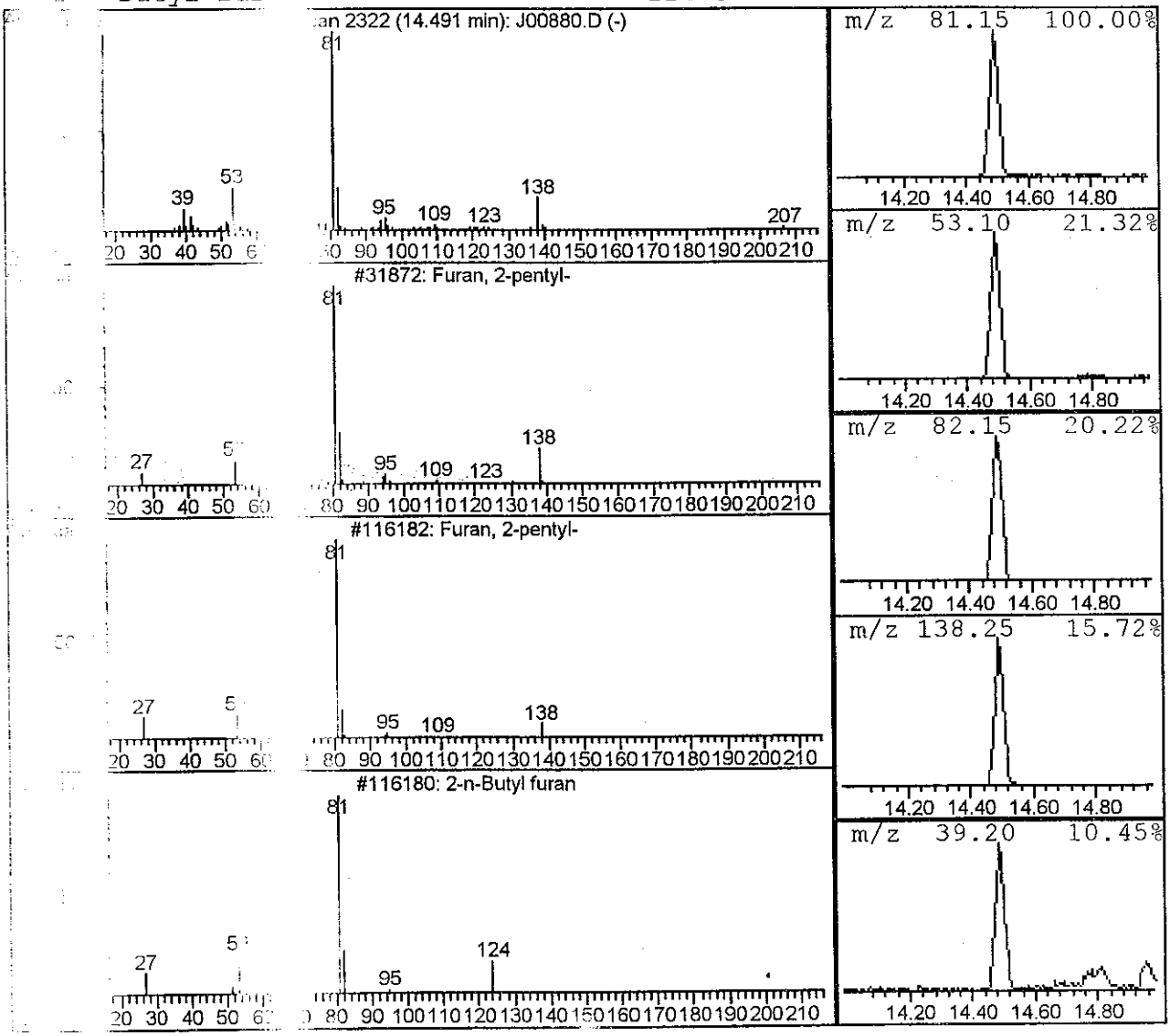
********** **********

Unknown Number 16 ran, 2-pentyl- Concentration Rank 11

Est.RT	EstConc	Area	Relative to ISTD	R.T.
14.49	17.11 u	1094340	1,4-Dichlorobenzene-d4	15.30

Hit 1 of 5 Cumulative ID MW MolForm CAS# Qual

1	an, 2-pent -	138	C9H14O	003777-69-3	90
2	an, 2-pent -	138	C9H14O	003777-69-3	87
3	2- n-Butyl fur	124	C8H12O	004466-24-4	72
4	2- n-Butyl fur	124	C8H12O	004466-24-4	64



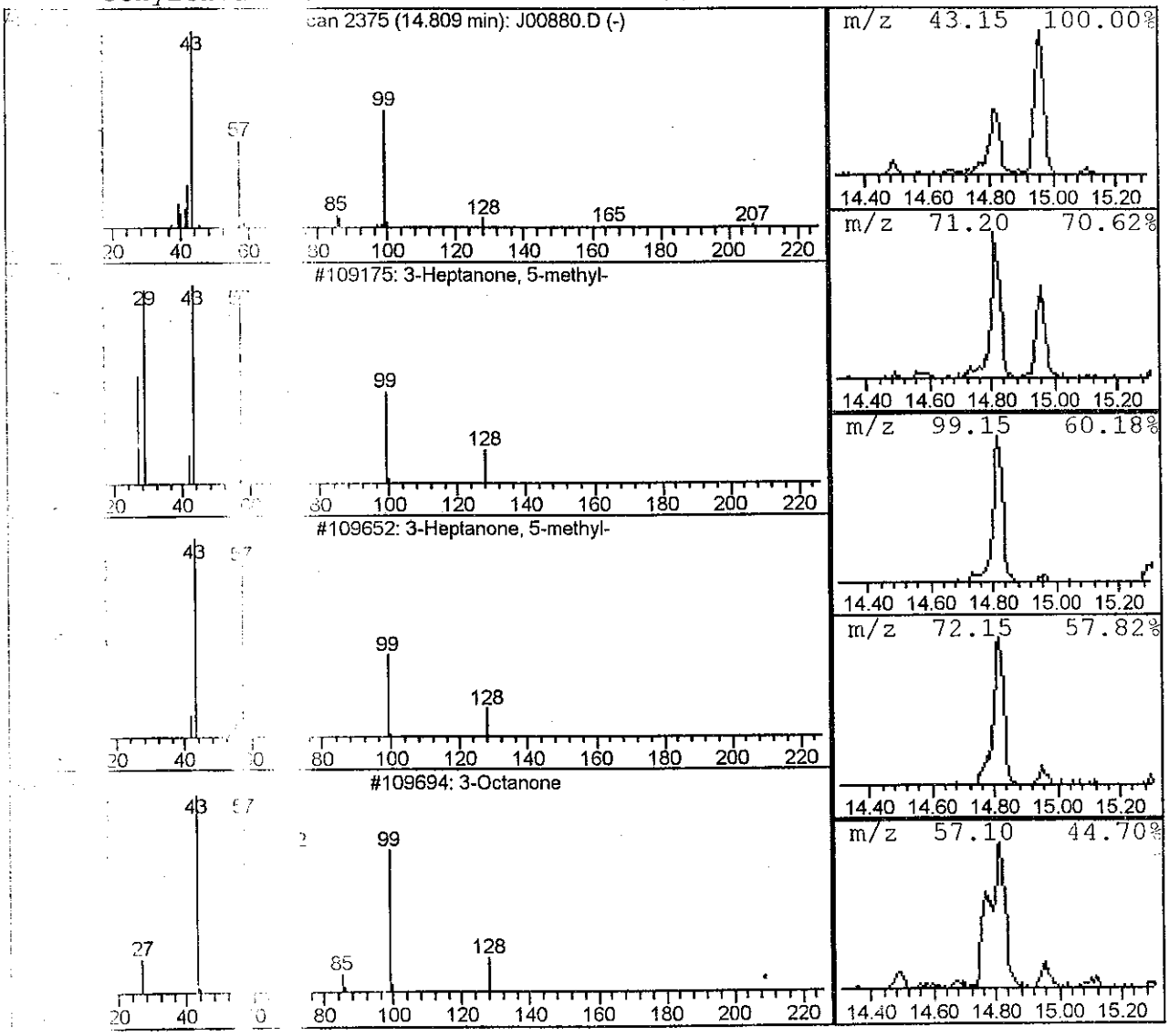
File : :CHEM\1\DATA\1J080701\J00880.D Vial: 8
On : 7/01 21:18 Operator:
le : 925 25ml DF=1 Inst : HP-MSJ
: 8/W080601A Multiplr: 1.00
ntegration arams: LSCINT.P

t Method : :\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
e : 260 CALIBRATION FOR 25ML WATER
ary : :\DATABASE\NIST98.L

umber 17 Heptanone, 5-methyl- Concentration Rank 18

EstConc	Area	Relative to ISTD	R.T.
2.34 u L	149735	1,4-Dichlorobenzene-d4	15.30

of 5	ative ID	MW	MolForm	CAS#	Qual
eptanone,	methyl-	128	C8H16O	000541-85-5	45
eptanone,	methyl-	128	C8H16O	000541-85-5	38
ctanone		128	C8H16O	000106-68-3	38
ethylthia	e	99	C4H5NS	000693-95-8	38



File : PCHEM\1\DATA\1J080701\J00880.D Vial: 8
On : 7/01 21:18 Operator:
Sample : 925 25ml DF=1 Inst : HP-MSJ
Misc : 8/W080601A Multiplr: 1.00
Integration Params: LSCINT.P

Method : :\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 260 CALIBRATION FOR 25ML WATER
Library : :\DATABASE\NIST98.L

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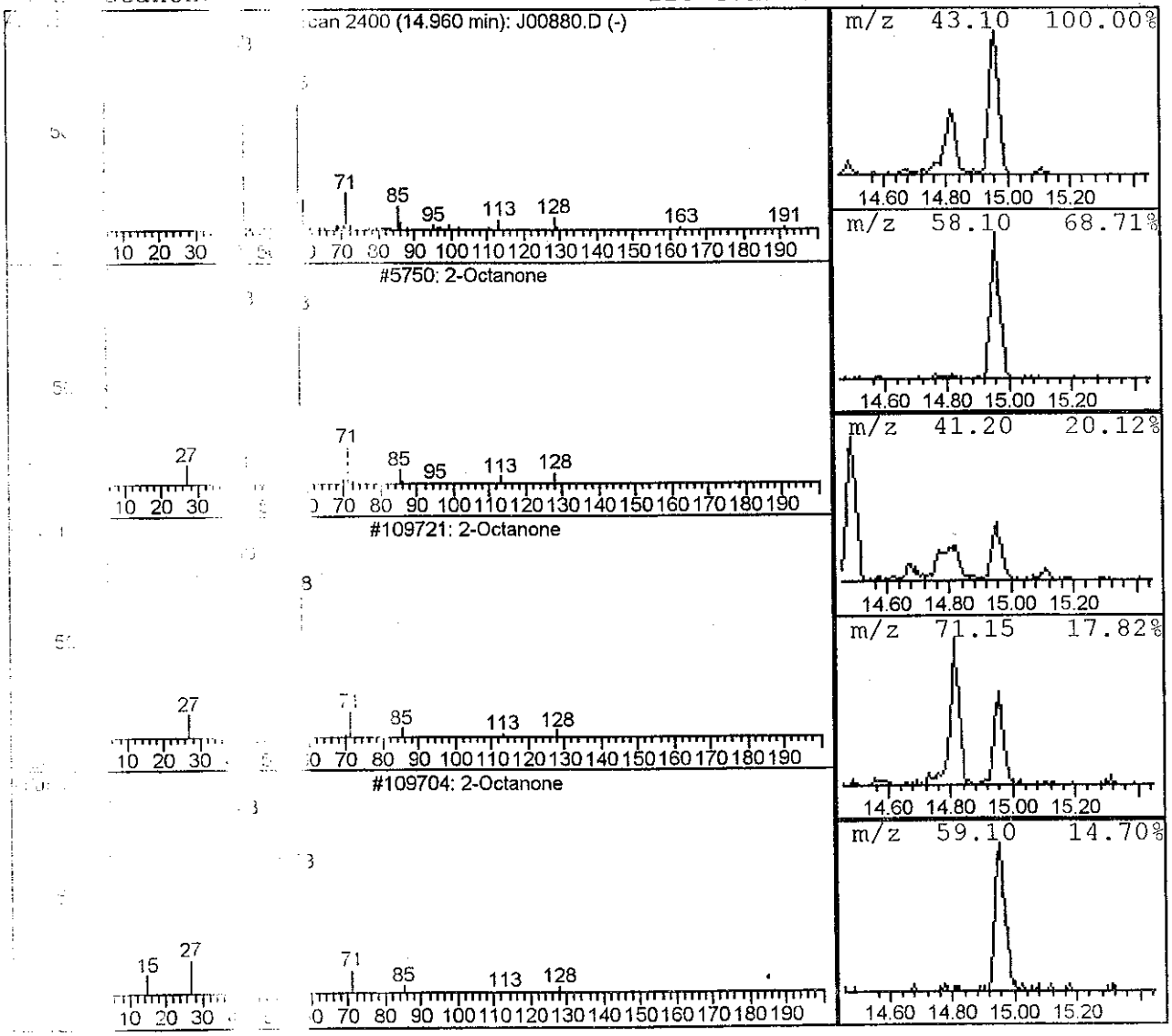
Number 18 2-Octanone Concentration Rank 17

	EstConc		Area	Relative to ISTD	R.T.
	2.9	u	189187	1,4-Dichlorobenzene-d4	15.30

	of 5	Qualitative ID	MW	MolForm	CAS#	Qual
1	2	ctanone	128	C8H16O	000111-13-7	93
2	2	ctanone	128	C8H16O	000111-13-7	90
3	2	ctanone	128	C8H16O	000111-13-7	86
4	2	ctanone	128	C8H16O	000111-13-7	86



T[illegible]vely Identified Compound (LSC) summary

Oper[illegible]D: [illegible]e Acquired: 7 Aug 2001 21:18
Data[illegible] C:\HPC[illegible]\DATA\1J080701\J00880.D
Name: [illegible]925 [illegible]l DF=1
Misc: [illegible]8/W0806 [illegible]A
Meth[illegible]: [illegible]\HPCHEM\[illegible]TA\1J080701\08070125.M (RTE Integrator)
Titl[illegible]: [illegible]0 CALIB[illegible]N FOR 25ML WATER
Libr[illegible]arched: [illegible]ATABASE\NIST98.L

TI[illegible]	Hit nam[illegible]	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Isob[illegible]	itrite	1.72	314560.0	ug\L	31456	ISTD01	0.00	1	10.0
1-Pe[illegible]		2.40	324010.0	ug\L	32401	ISTD01	0.00	1	10.0
Pent[illegible]		2.46	718220.0	ug\L	71822	ISTD01	0.00	1	10.0
Benz[illegible]	anamine	2.61	162170.0	ug\L	16217	ISTD01	0.00	1	10.0
2,5-[illegible]	ione, [illegible]	2.76	1398810.0	ug\L	139881	ISTD01	0.00	1	10.0
Prop[illegible]		2.97	219720.0	ug\L	21972	ISTD01	0.00	1	10.0
Fura[illegible], [illegible]	rahydr[illegible]	7.45	7.3	ug\L	317863	ISTD02	6.70	432653	10.0
2-Pe[illegible]	e	8.57	4.1	ug\L	179542	ISTD02	6.70	432653	10.0
Buta[illegible],	-methyl	8.71	7.8	ug\L	337754	ISTD02	6.70	432653	10.0
Fura[illegible]	ropyl-	10.49	1.8	ug\L	111485	ISTD03	12.07	610062	10.0
Pent[illegible],	-chloro	10.84	8.4	ug\L	511104	ISTD03	12.07	610062	10.0
Hexa[illegible]		11.24	24.2	ug\L	1476130	ISTD03	12.07	610062	10.0
2-n-[illegible]	furan	12.67	1.8	ug\L	110506	ISTD03	12.07	610062	10.0
Cycl[illegible]	ne, met[illegible]l	12.88	20.2	ug\L	1232770	ISTD03	12.07	610062	10.0
2-He[illegible]	e	13.17	20.6	ug\L	1255700	ISTD03	12.07	610062	10.0
Fura[illegible]	entyl-	14.49	17.1	ug\L	1094340	ISTD04	15.30	639586	10.0
3-He[illegible]	e, 5-m[illegible]	[illegible].81	2.3	ug\L	149735	ISTD04	15.30	639586	10.0
2-Oc[illegible]		[illegible].96	3.0	ug\L	189187	ISTD04	15.30	639586	10.0

J[illegible] 0807[illegible] [illegible] Wed Aug 08 09:43:36 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00871.D Vial: 15
Acq On : 08/07/01 17:18 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:26 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	139846	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	175391	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	77977	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	71028	12.07	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.70%#			
46) Toluene-d8	10.02	98	264738	10.31	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.10%			
66) Bromofluorobenzene	13.71	95	97186	11.20	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 112.00%#			
Target Compounds						Qvalue
7) Trichlorofluoromethane	2.38	101	7204	0.54	ug\L #	100
47) Toluene	10.11	92	164685	9.92	ug\L	99

VRR
8.8.01

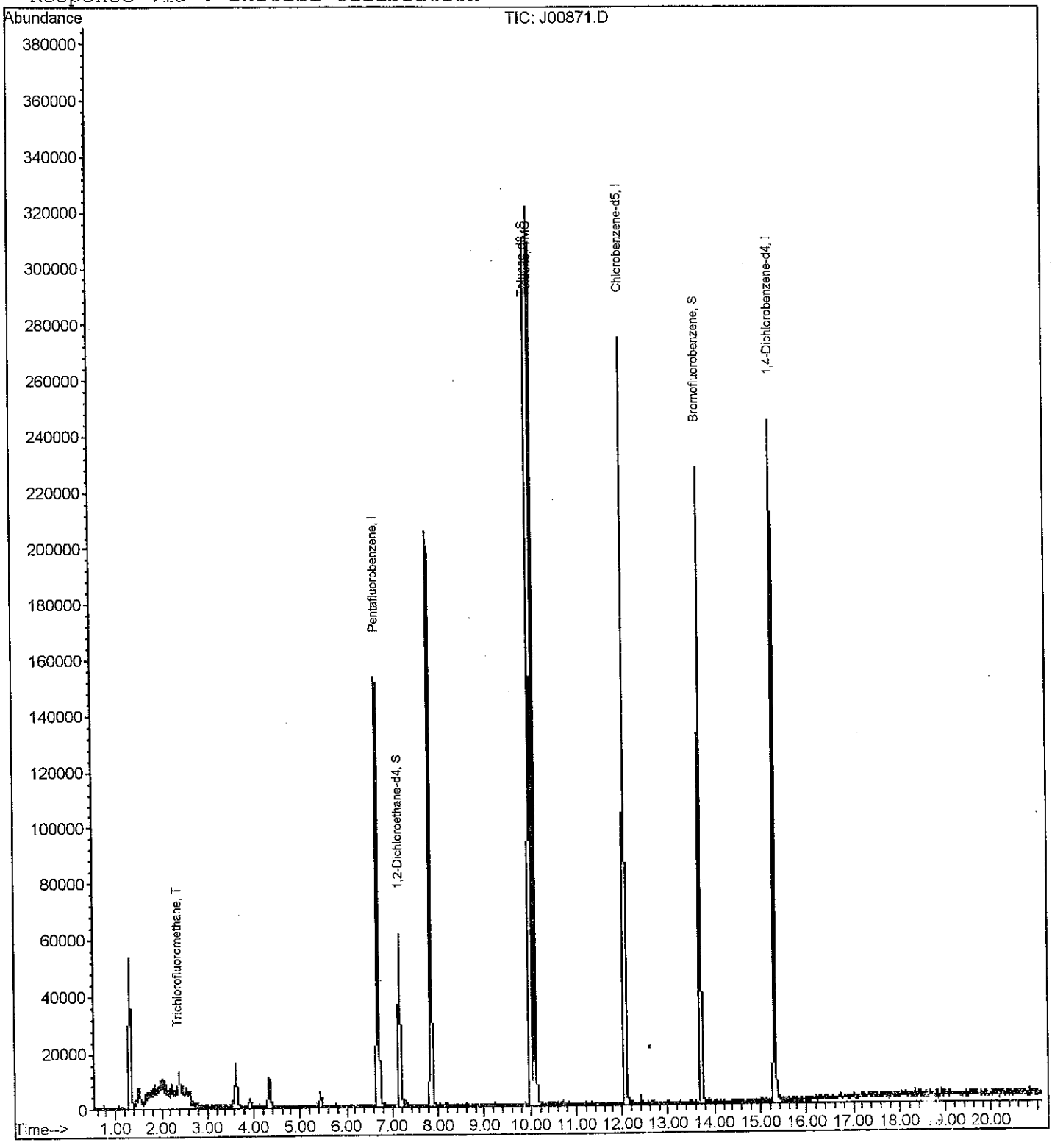
(Confirmed with J00892)

NRI to confirm Toluene.

(#) = qualifier out of range (m) = manual integration
J00871.D 08070125.M Wed Aug 08 10:19:21 2001 Page 1

Data File : C:\HPCHEM\1\DATA\1J080701\J00871.D Vial: 15
Acq On : 08/07/01 17:18 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:26 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00871.D Vial: 15
Acq On : 08/07/01 17:18 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

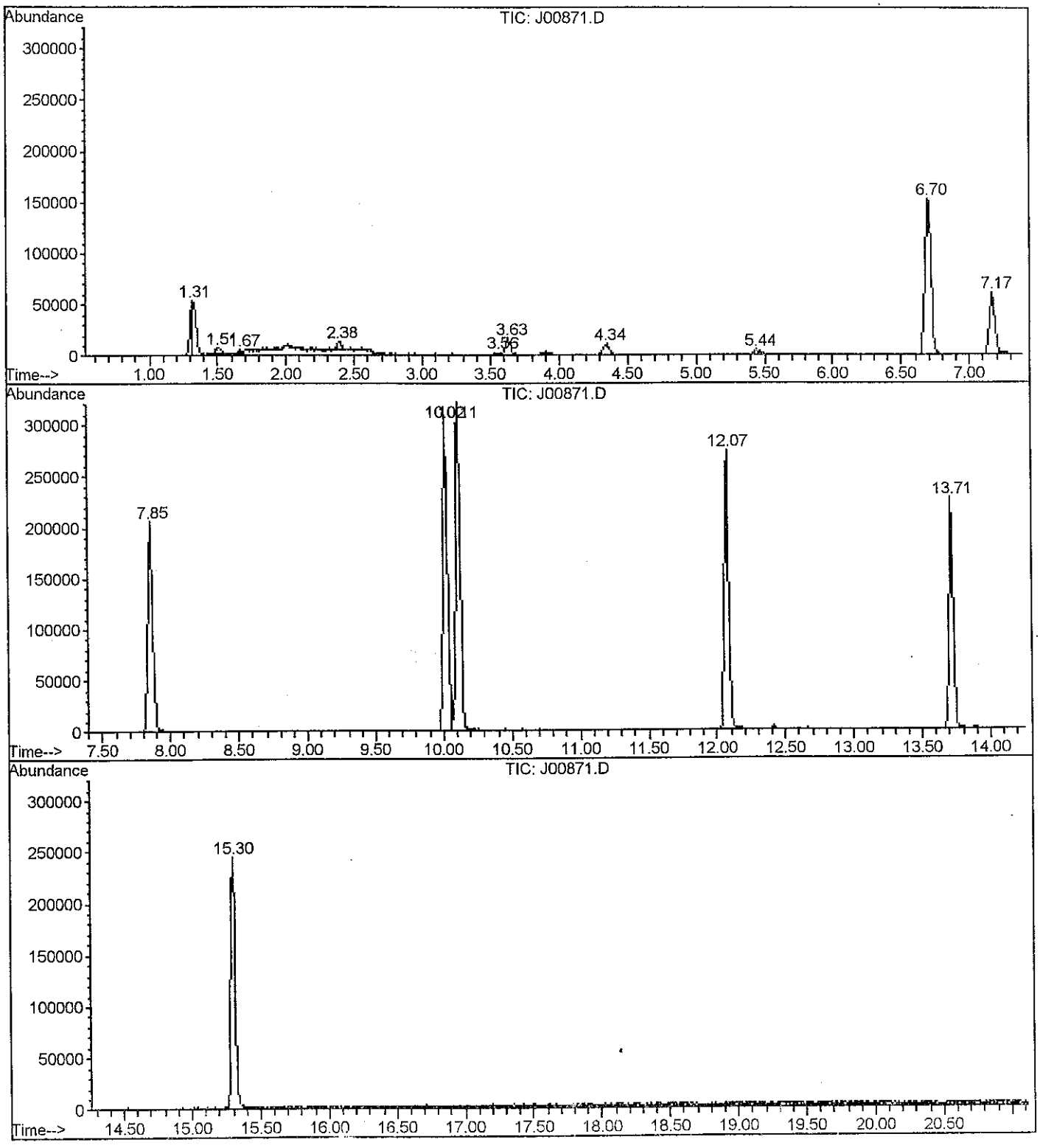
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.307	120	130	132	rBV	53256	85787	11.79%	1.924%
2	1.505	157	163	174	rVB	5210	15664	2.15%	0.351%
3	1.668	185	190	194	rBV4	3731	8070	1.11%	0.181%
4	2.383	303	309	317	rBV4	7276	16963	2.33%	0.380%
5	3.562	496	505	508	rBV4	2980	8472	1.16%	0.190%
6	3.628	508	516	526	rVB4	15675	41137	5.65%	0.922%
7	4.344	623	635	646	rBV7	10841	35437	4.87%	0.795%
8	5.439	808	817	818	rBV4	4749	8175	1.12%	0.183%
9	6.696	1014	1026	1038	rBV	152499	468217	64.35%	10.499%
10	7.171	1094	1105	1119	rBV3	60851	175086	24.06%	3.926%
11	7.850	1207	1218	1230	rBV	205580	520320	71.51%	11.667%
12	10.015	1567	1578	1586	rBV	309906	720713	99.05%	16.161%
13	10.112	1586	1594	1607	rVB	320434	727628	100.00%	16.316%
14	12.072	1910	1920	1931	rBV	274184	592242	81.39%	13.280%
15	13.714	2183	2193	2203	rBV2	227082	491255	67.51%	11.016%
16	15.302	2448	2457	2472	rBV	243564	544416	74.82%	12.208%

Sum of corrected areas: 4459582

J00871.D 08070125.M Wed Aug 08 10:19:26 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00871.D
Operator :
Acquired : 7 Aug 2001 17:18 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17926 25ml DF=1
Misc Info : 28518/W080601A
Vial Number: 15
Quant File :08070125.RES (RTE Integrator)



Data File : C:\HPCHEM\1\DATA\1J080701\J00871.D Vial: 15
Acq On : 08/07/01 17:18 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

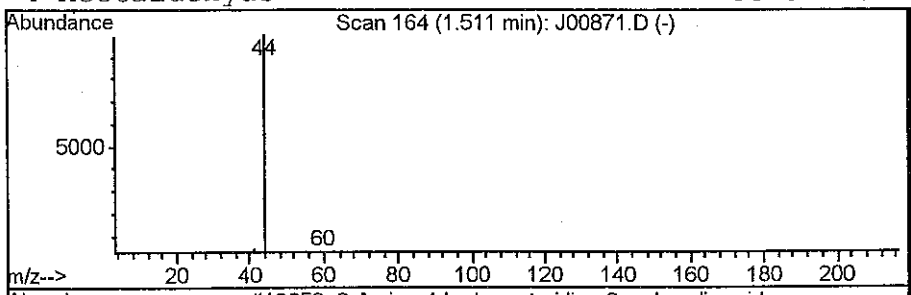
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

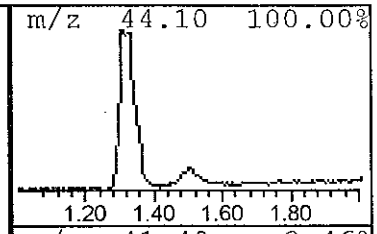
****

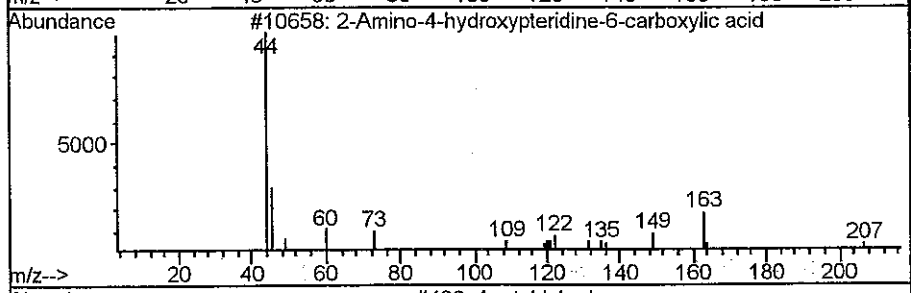
Peak Number 1 2-Amino-4-hydroxypteridine-6-c Concentration Rank 2

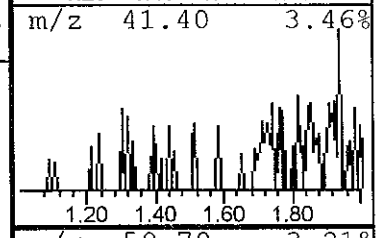
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.51	156640.00 ug\L	15664	1.4-Difluorobenzene	0.00

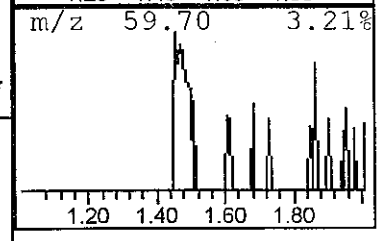
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Amino-4-hydroxypteridine-6-carbox	207	C7H5N5O3	1000127-36-3	4
2	Acetaldehyde	44	C2H4O	000075-07-0	3
3	Acetaldehyde	44	C2H4O	000075-07-0	3
4	Acetaldehyde	44	C2H4O	000075-07-0	2

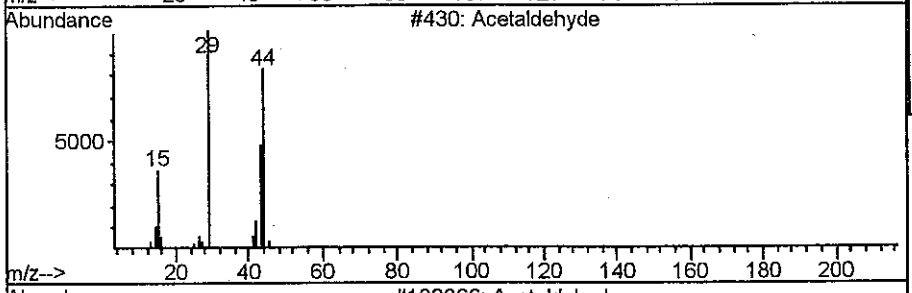


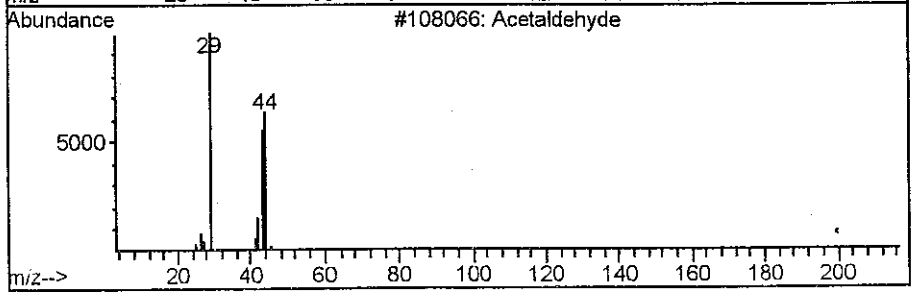












Data File : C:\HPCHEM\1\DATA\1J080701\J00871.D Vial: 15
Acq On : 08/07/01 17:18 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: LSCINT.P

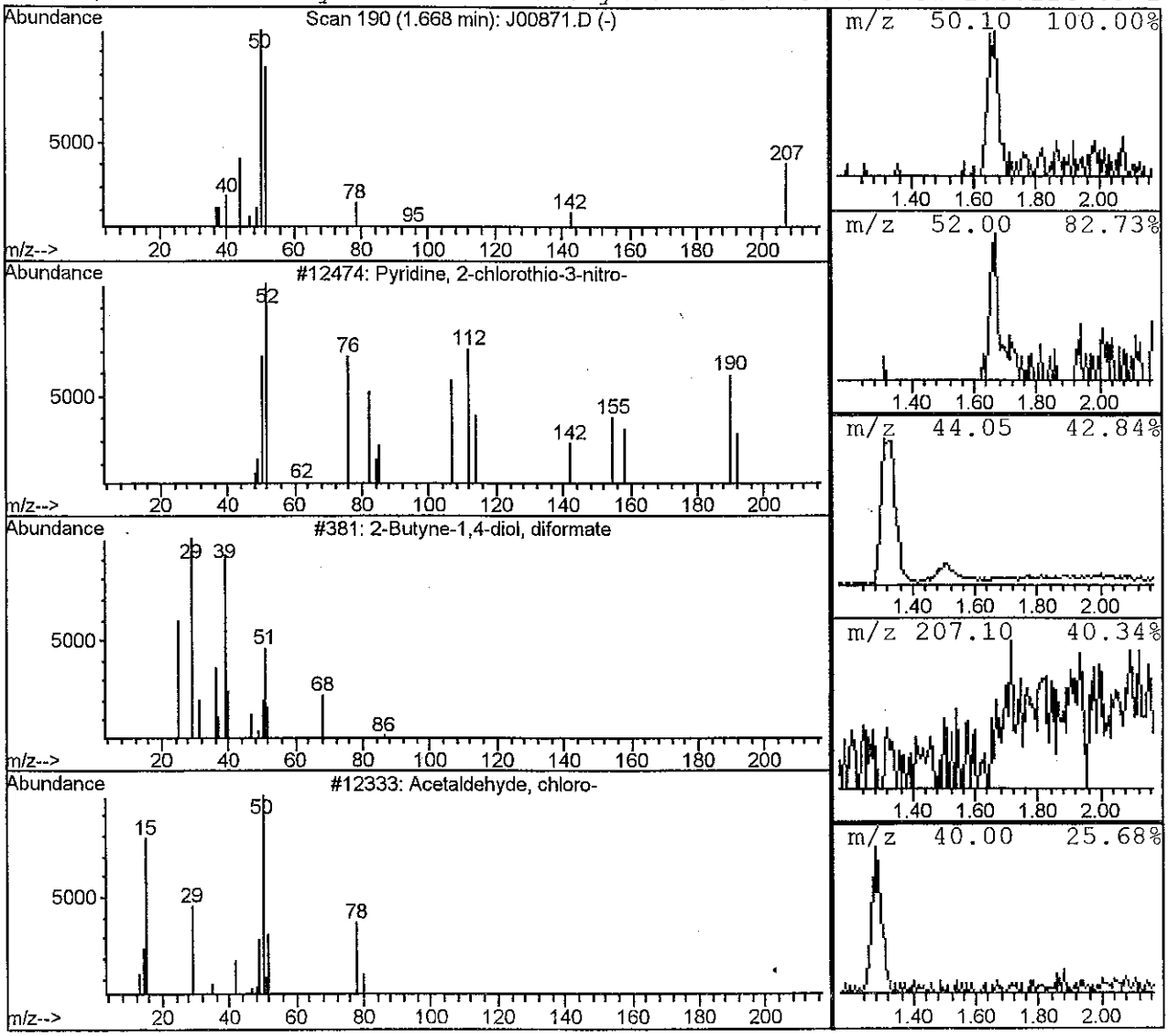
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Pyridine, 2-chlorothio-3-nitro Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.67	80700.00 ug\L	8070	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyridine, 2-chlorothio-3-nitro-	190	C5H3ClN2O2S	1000125-85-8	9
2	2-Butyne-1,4-diol, diformate	142	C6H6O4	036677-73-3	9
3	Acetaldehyde, chloro-	78	C2H3ClO	000107-20-0	5
4	N-(6-Aminosulfonyl-2-benzothiazolyl	401	C14H9Cl2N3O3S2	1000224-09-1	4



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 17:18
Data File: C:\HPCHEM\1\DATA\1J080701\J00871.D
Name: AC17926 25ml DF=1
Misc: 28518/W080601A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Amino-4-hydroxypte	1.51	156640.0	ug\L	15664	ISTD01	0.00	1	10.0
Pyridine, 2-chloroth	1.67	80700.0	ug\L	8070	ISTD01	0.00	1	10.0

J00871.D 08070125.M Wed Aug 08 10:19:27 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00892.D
Acq On : 08/08/01 13:59 Vial: 9
Sample : AC17926 25ml DF=1 Operator:
Misc : 28518/W080601A Inst : HP-MSJ
MS Integration Params: rteint.p Multiplr: 1.00
Quant Time: Aug 8 14:56 2001

Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

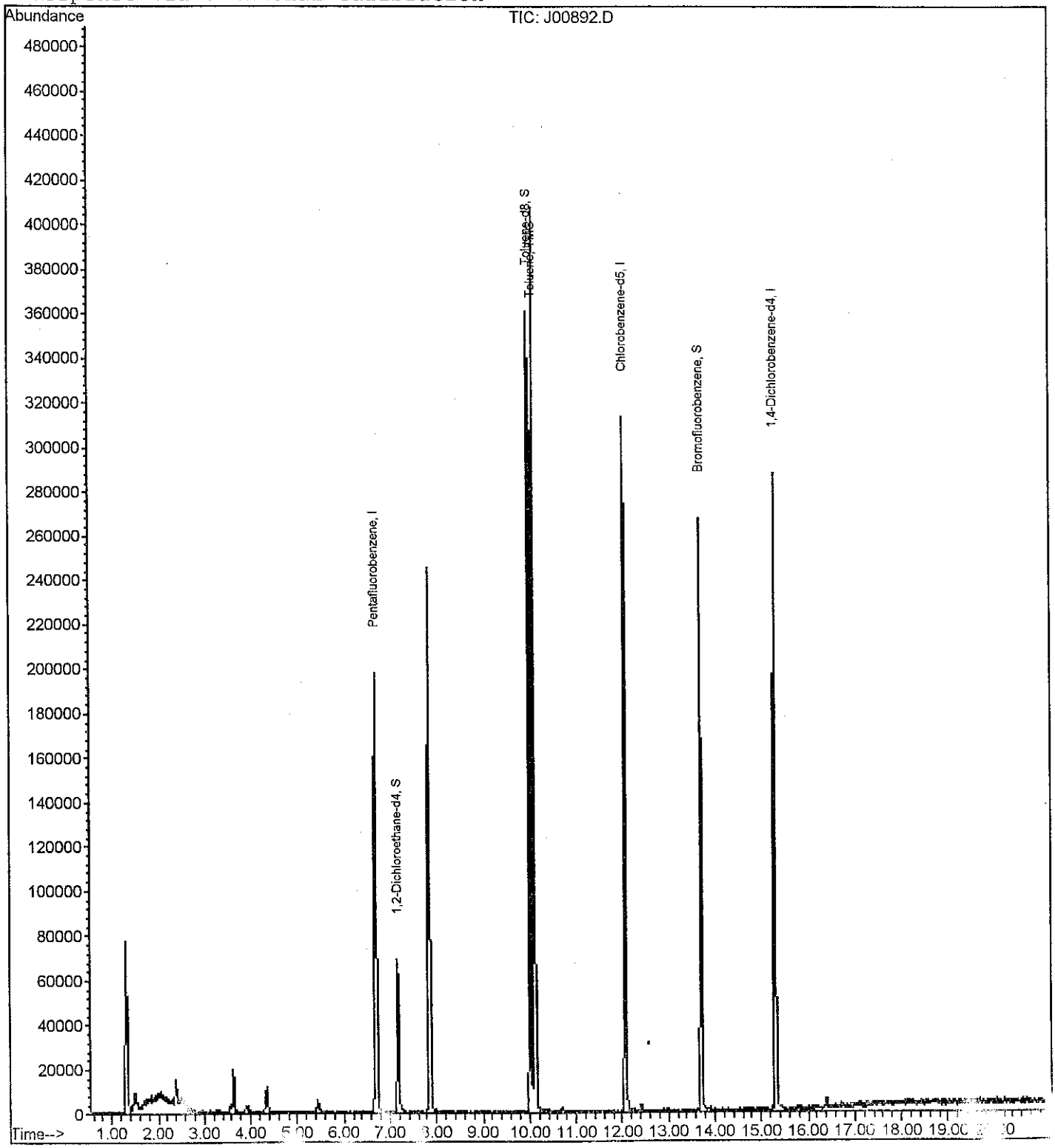
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	187008	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	218280	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	99257	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	82861	10.53	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 105.30%			
46) Toluene-d8	10.02	98	319673	10.00	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 100.00%			
66) Bromofluorobenzene	13.72	95	113288	10.26	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.60%			
Target Compounds						Qvalue
47) Toluene	10.12	92	219005	10.60	ug\L	100

VRK
8-8-01

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00892.D Vial: 9
Acq On : 08/08/01 13:59 Operator:
Sample : AC17926 25ml DF=1 Inst : HP-MSJ
Misc : 28518/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:56 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			

Target Compounds Qvalue

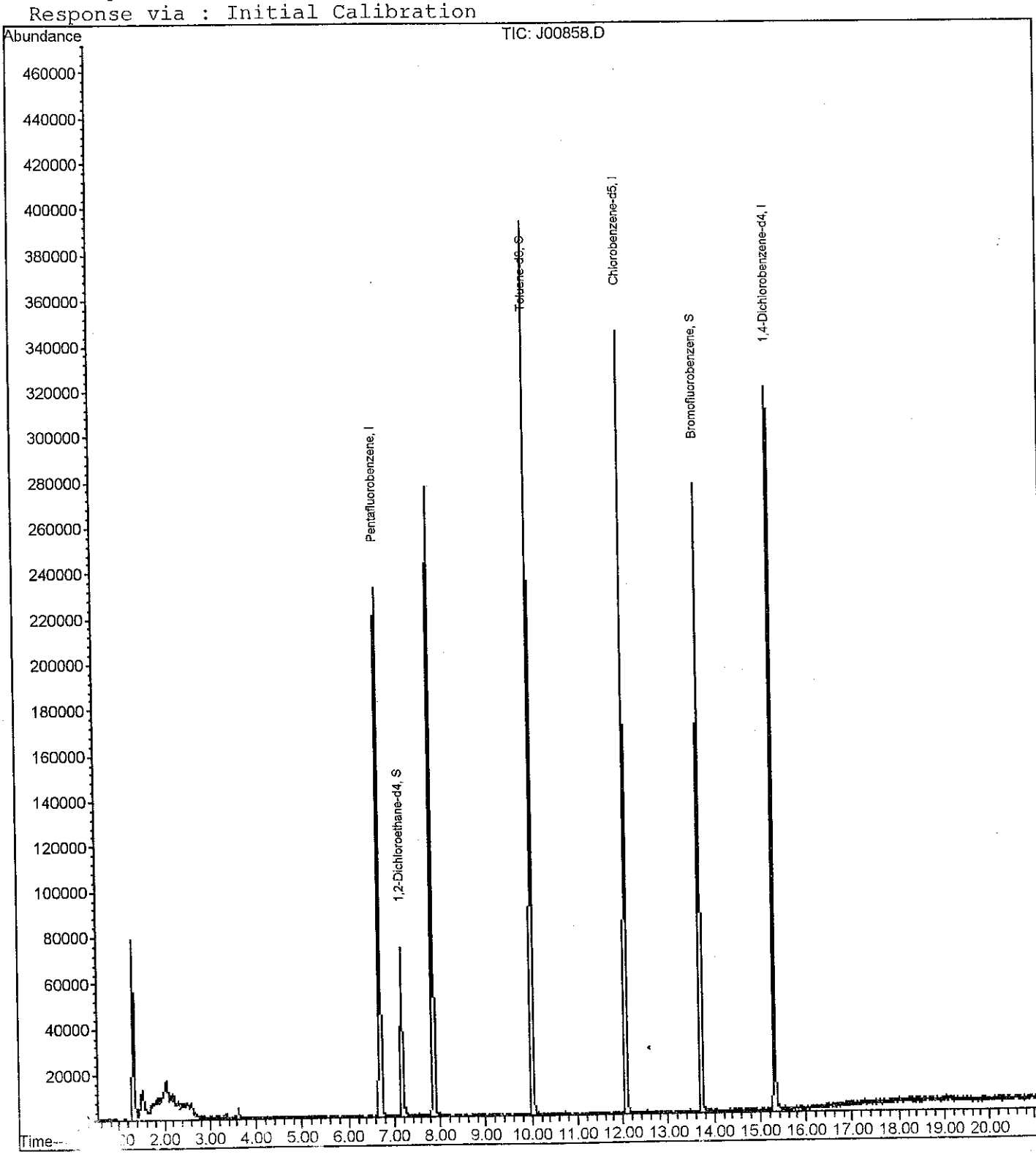
VRR 8.8.01

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Wed Aug 08 10:20:30 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

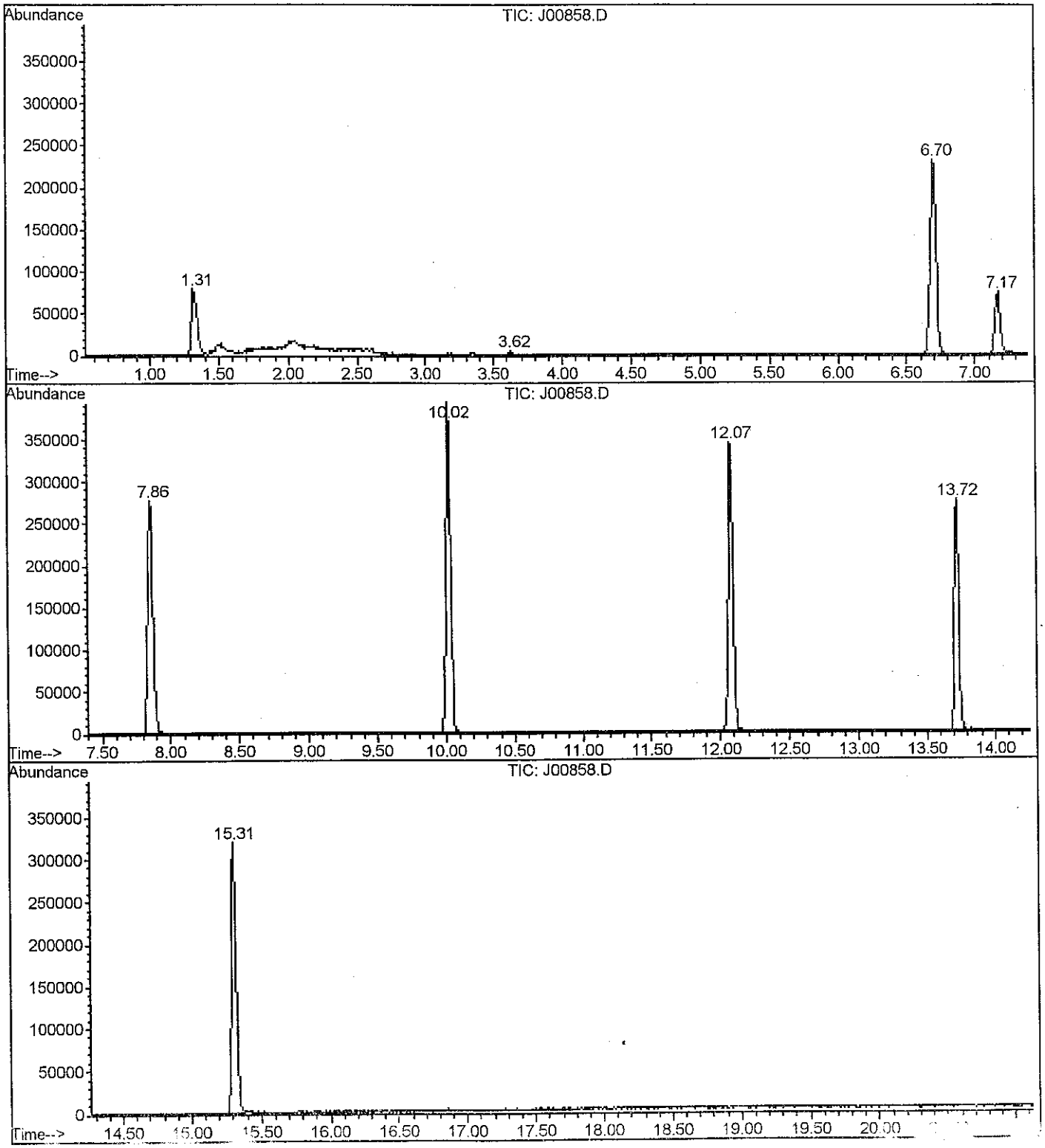
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 10:20:55 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 10:20:56 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

Target Compounds Qvalue

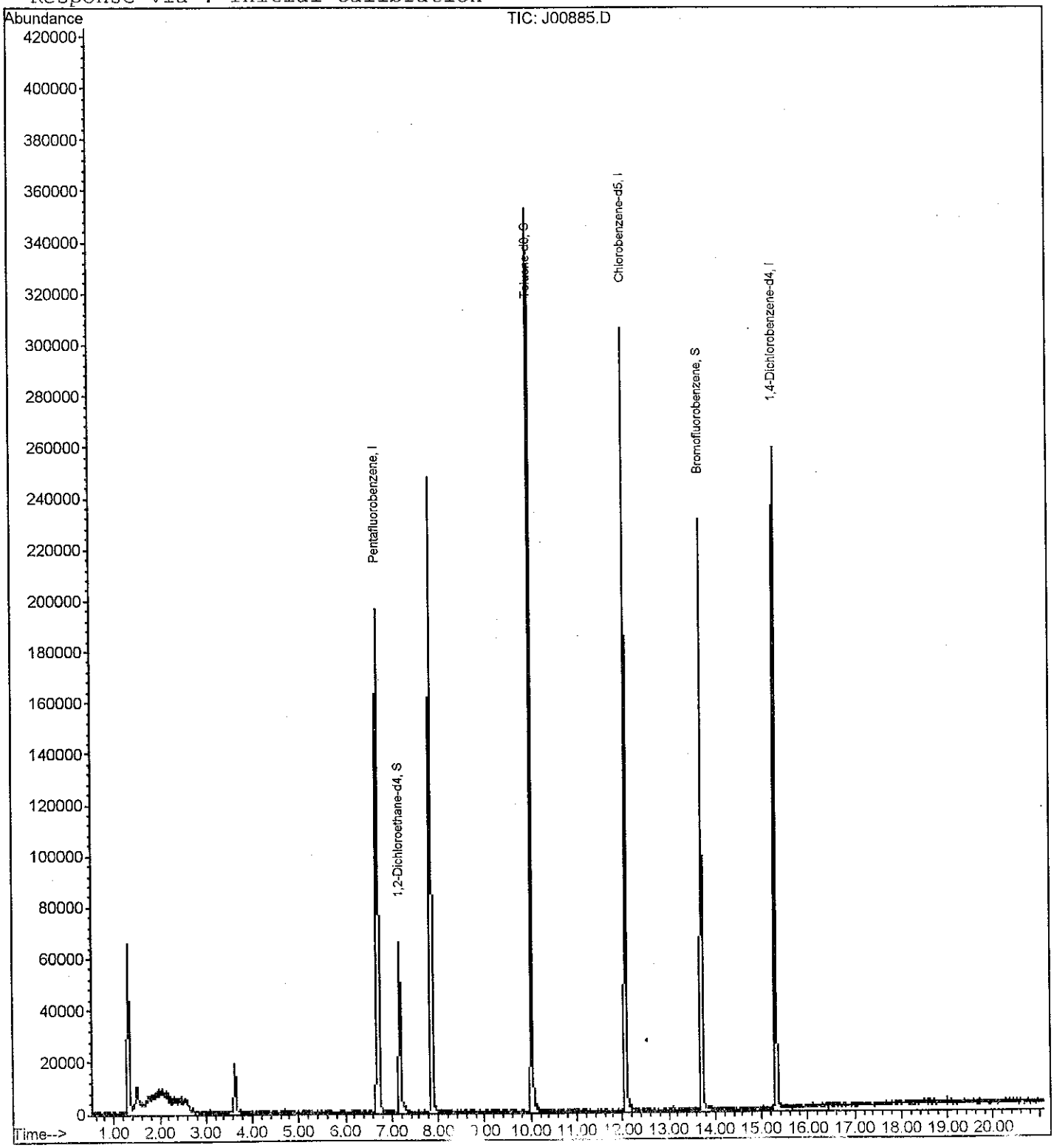
VLK
8.9.01

(#) = qualifier out of range (m) = manual integration
[illegible] Thu Aug 09 07:36:31 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

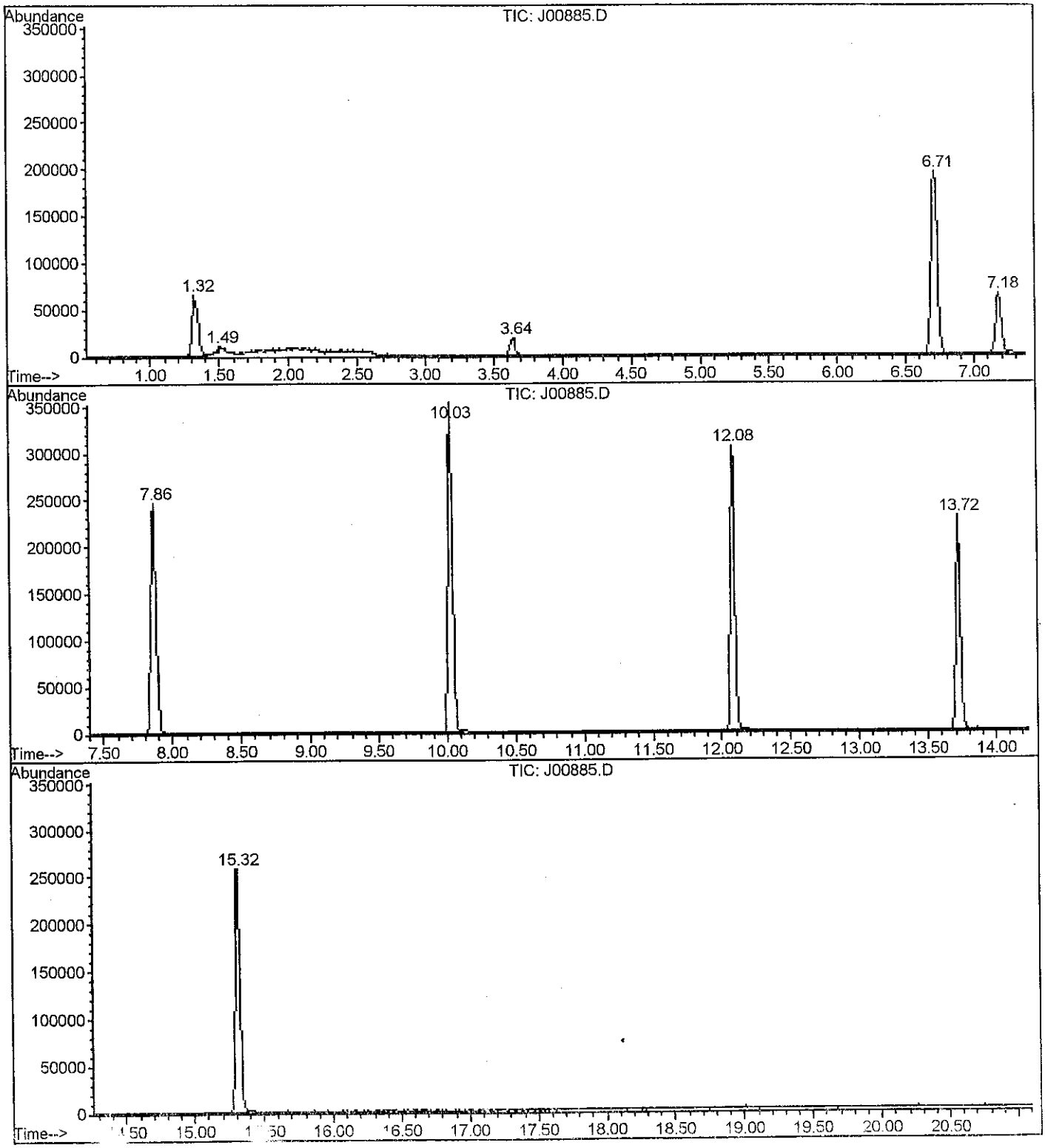
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.320	120	132	147	rBV	65651	207230	24.67%	4.755%
2	1.494	156	161	162	rBV	6999	8704	1.04%	0.200%
3	3.636	506	517	530	rVB4	18731	50613	6.03%	1.161%
4	6.709	1015	1028	1042	rBV2	196229	626496	74.58%	14.374%
5	7.184	1096	1107	1118	rBV2	65157	191906	22.84%	4.403%
6	7.864	1210	1220	1237	rBV	246881	651774	77.59%	14.954%
7	10.029	1570	1580	1593	rBV	352692	840039	100.00%	19.274%
8	12.079	1912	1921	1931	rBV	305069	676065	80.48%	15.512%
9	13.721	2185	2194	2205	rBV2	229631	512598	61.02%	11.761%
10	15.315	2450	2459	2469	rBV2	258140	592975	70.59%	13.605%

Sum of corrected areas: 4358400

J00885.D 08080125.M Thu Aug 09 07:40:41 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00885.D
Operator :
Acquired : 8 Aug 2001 10:47 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: 1J080801MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08080125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 10:47
Data File: C:\HPCHEM\1\DATA\1J080801\J00885.D
Name: 1J080801MB
Misc: WATER 25ml
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00885.D 08080125.M Thu Aug 09 07:40:42 2001

VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 8/6/2001/HP-MS3	METHOD: 8260B
MATRIX: WATER - 25 ml	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds?	Y	N	NA
If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below)	Y	N	NA

Methylene chloride — Linear

2-Butanone — Linear

Isobutyl alcohol — Linear

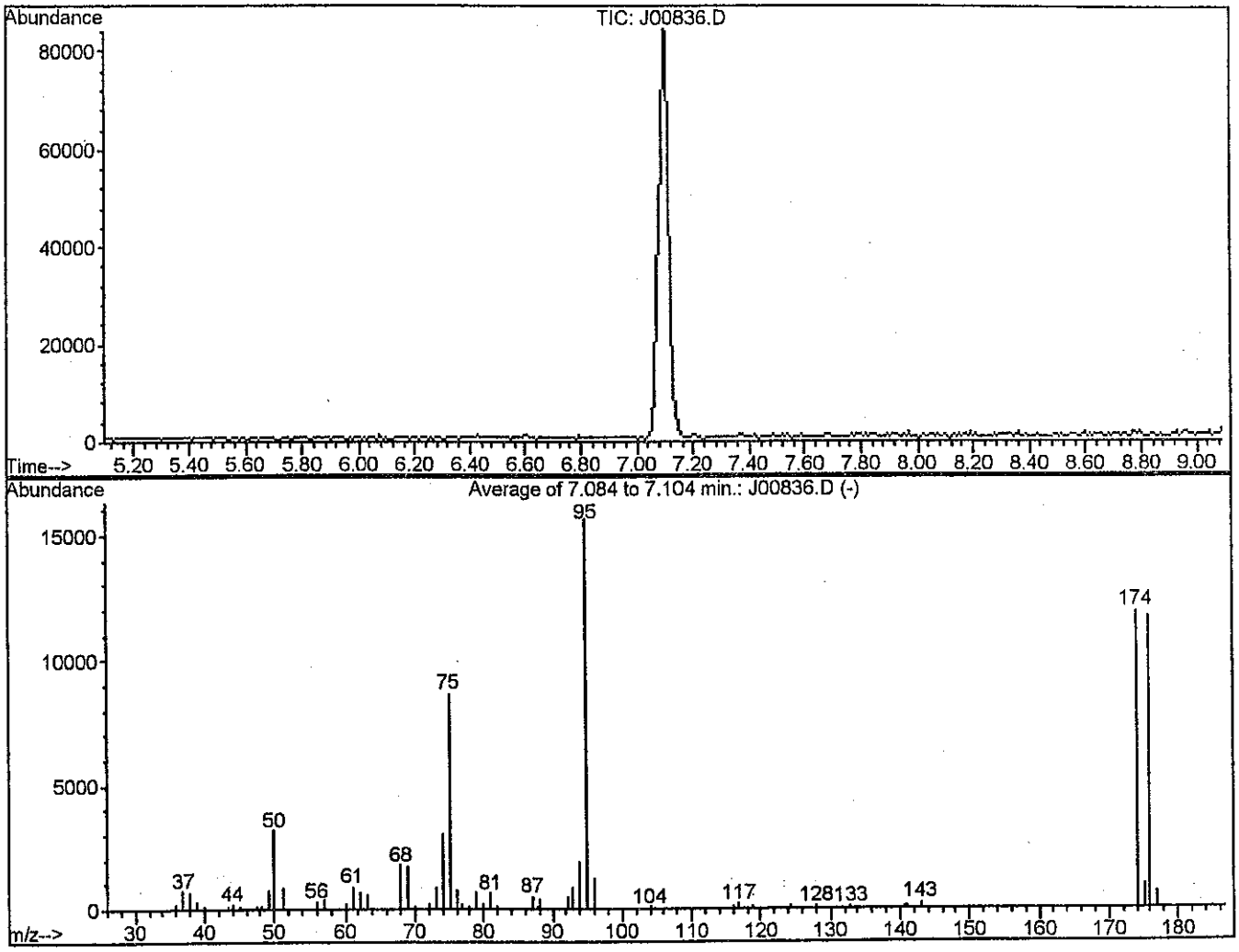
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: VRH	Reviewer:
Date: 8-6-01 Time: 16:50	Date: 08.07.2001 Time: 1025

BFB

Data File : C:\HPCHEM\1\DATA\1J080601\J00836.D
Acq On : 08/06/01 09:57
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER

Vial: 1
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	3141	PASS
75	95	30	60	55.4	8663	PASS
95	95	100	100	100.0	15641	PASS
96	95	5	9	7.5	1166	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.4	11953	PASS
175	174	5	9	8.0	959	PASS
176	174	95	101	97.8	11692	PASS
177	176	5	9	5.9	685	PASS

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD							
2)	T	Dichlorodifluoromet	0.850	0.776	0.740	0.768	0.718	0.731	0.764	6.23
3)	TP	Chloromethane	0.487	0.379	0.372	0.361	0.345	0.329	0.379	14.78
4)	TC	Vinyl Chloride	0.594	0.530	0.509	0.510	0.493	0.494	0.522	7.27
5)	T	Bromomethane	0.203	0.140	0.155	0.149	0.150	0.147	0.157	14.60
6)	T	Chloroethane	0.300	0.283	0.285	0.281	0.266	0.263	0.280	4.83
7)	T	Trichlorofluorometh	0.931	1.028	0.984	0.984	0.939	0.893	0.960	5.03
8)	T	Acrolein	0.016	0.012	0.011	0.012	0.012	0.012	0.013	12.38
9)	T	Acrylonitrile	0.028	0.032	0.029	0.032	0.030	0.030	0.030	5.51
10)	TMC	1,1-Dichloroethene	0.511	0.452	0.447	0.453	0.441	0.432	0.456	6.13
11)	T	Acetone		0.009	0.008	0.009	0.007	0.007	0.008	10.18
12)	T	Iodomethane	0.465	0.586	0.628	0.694	0.643	0.646	0.610	12.96
13)	T	Allylchloride	0.525	0.556	0.560	0.564	0.546	0.543	0.549	2.60
14)	T	Carbon Disulfide	1.602	1.239	1.242	1.323	1.250	1.244	1.317	10.91
15)	T	Acetonitrile	0.057	0.060	0.060	0.060	0.058	0.057	0.059	2.64
16)	T	Methylene Chloride	0.376	0.422	0.286	0.253	0.245	0.244	0.304	25.06
17)	T	trans-1,2-Dichloroe	0.541	0.470	0.490	0.493	0.479	0.465	0.490	5.59
18)	T	MethylTertButylEthe	0.608	0.560	0.588	0.586	0.594	0.595	0.589	2.71
19)	TP	1,1-Dichloroethane	0.757	0.729	0.729	0.742	0.731	0.721	0.735	1.75
20)	T	Isopropyl Ether	0.081	0.074	0.075	0.074	0.078	0.079	0.077	3.66
21)	T	Vinyl Acetate	0.364	0.345	0.352	0.386	0.376	0.384	0.368	4.64
22)	T	2,2-Dichloropropane	0.924	0.862	0.875	0.871	0.849	0.820	0.867	3.96
23)	T	cis-1,2-Dichloroeth	0.489	0.471	0.460	0.471	0.457	0.454	0.467	2.75
24)	T	2-Butanone	0.010	0.007	0.008	0.010	0.011	0.011	0.010	16.34
25)	T	Propionitrile	0.009	0.010	0.010	0.010	0.011	0.011	0.010	5.58
26)	T	Methacrylonitrile	0.059	0.058	0.060	0.059	0.058	0.059	0.059	1.26
27)	T	Bromochloromethane	0.171	0.171	0.167	0.171	0.171	0.163	0.169	1.97
28)	TC	Chloroform	0.890	0.903	0.920	0.917	0.898	0.874	0.900	1.92
29)	T	1,1,1-Trichloroetha	1.021	1.050	1.056	1.062	1.029	1.009	1.038	2.04
30)	T	Carbon Tetrachlorid	0.961	0.984	0.981	1.000	0.964	0.945	0.973	2.03
31)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	5.94
32)	T	1,1-Dichloropropene	0.197	0.204	0.216	0.217	0.208	0.206	0.208	3.56
33)	S	1,2-Dichloroethane-	0.433	0.405	0.421	0.436	0.423	0.407	0.421	3.06
34)	TM	Benzene	1.571	1.605	1.603	1.640	1.609	1.597	1.604	1.40
35)	T	Isobutyl alcohol	0.002	0.002	0.003	0.003	0.003	0.003	0.003	17.98
36)	T	1,2-Dichloroethane	0.486	0.472	0.489	0.488	0.469	0.474	0.480	1.86
37)	TM	Trichloroethene	0.558	0.547	0.565	0.582	0.570	0.562	0.564	2.04
38)	TC	1,2-Dichloropropane	0.287	0.301	0.296	0.307	0.306	0.301	0.300	2.46
39)	T	Dibromomethane	0.164	0.176	0.182	0.181	0.179	0.178	0.177	3.62
40)	T	Methylmethacrylate	0.070	0.072	0.079	0.083	0.087	0.088	0.080	9.75
41)	T	Bromodichloromethan	0.561	0.547	0.582	0.593	0.582	0.589	0.576	3.09
42)	T	2-Chloroethyl-vinyl	0.059	0.049	0.052	0.059	0.057	0.054	0.055	7.05
43)	T	cis-1,3-Dichloropro	0.498	0.500	0.546	0.561	0.551	0.559	0.536	5.39
44)	T	4-Methyl-2-Pentanon	0.024	0.019	0.019	0.022	0.023	0.023	0.021	10.53

4) = Out of Range

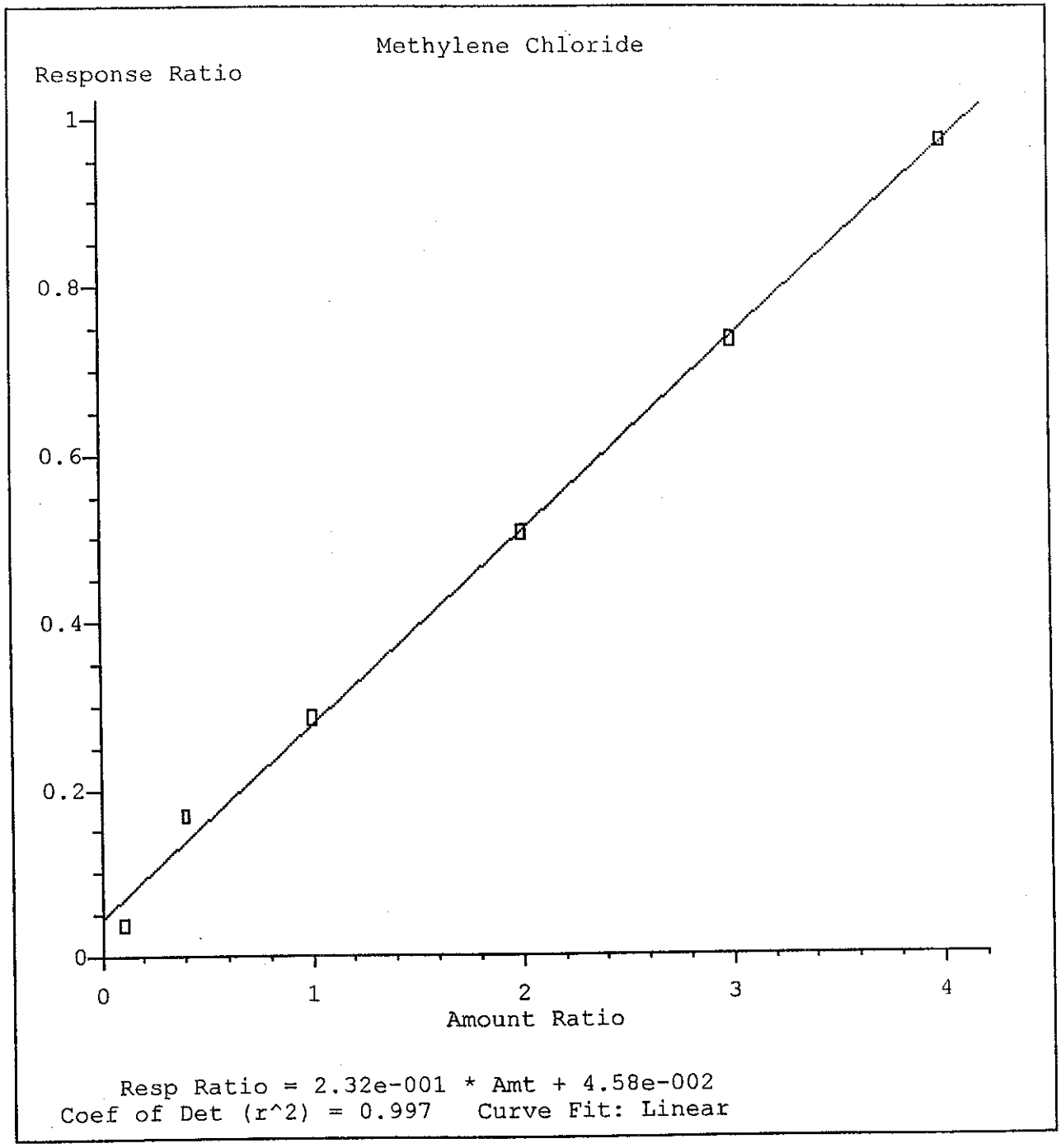
Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

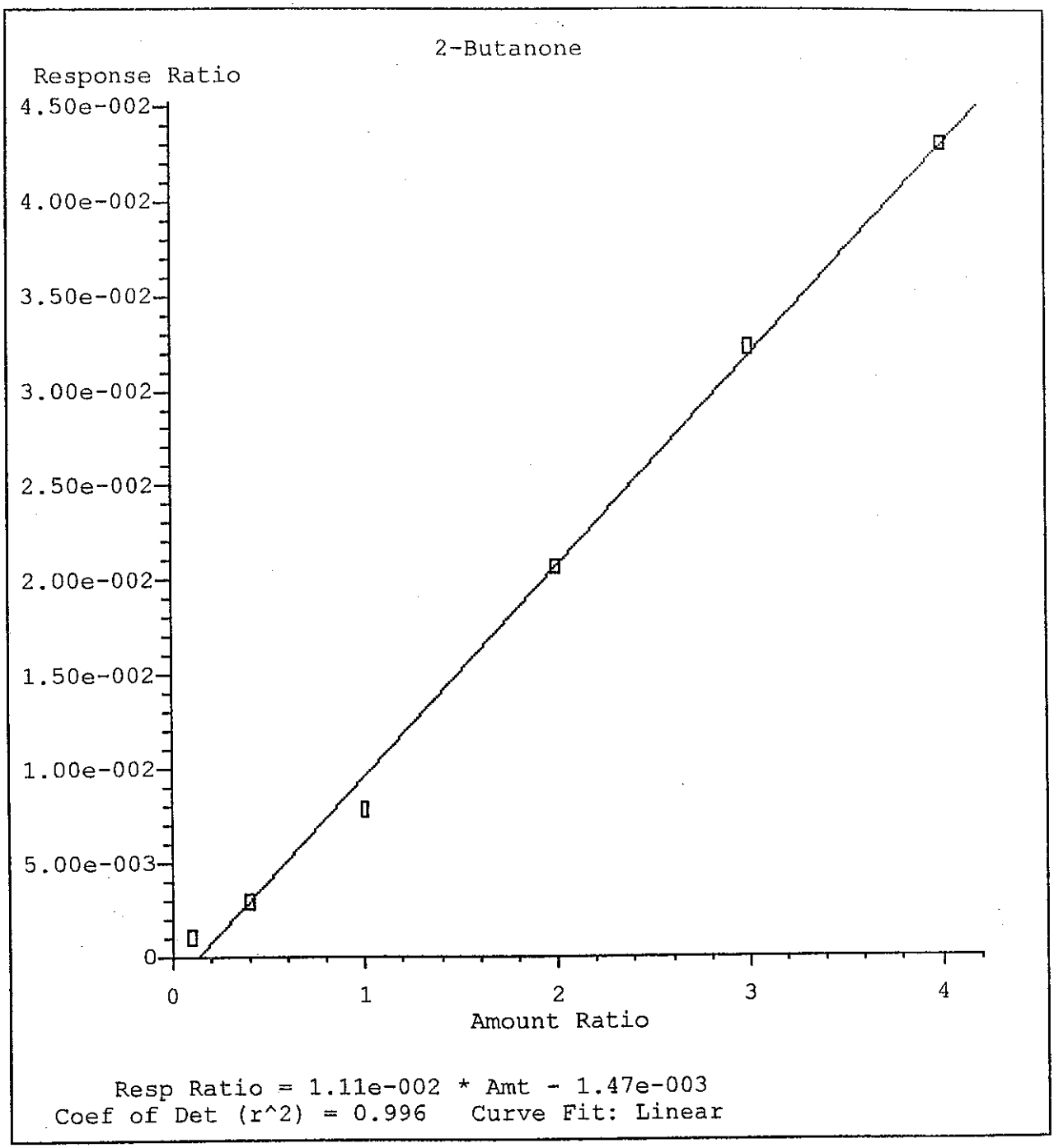
Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	ISTD							
46)	S	Toluene-d8	1.453	1.476	1.482	1.505	1.448	1.424	1.464	1.97
47)	TMC	Toluene	0.922	0.953	0.970	0.969	0.936	0.926	0.946	2.23
48)	T	trans-1,3-Dichlorop	0.327	0.326	0.363	0.362	0.356	0.360	0.349	4.99
49)	T	Ethylmethacrylate	0.139	0.152	0.169	0.170	0.174	0.182	0.164	9.69
50)	T	1,1,2-Trichloroetha	0.149	0.127	0.139	0.140	0.135	0.138	0.138	5.09
51)	T	Tetrachloroethene	0.407	0.426	0.425	0.416	0.396	0.396	0.411	3.23
52)	T	1,3-Dichloropropane	0.285	0.295	0.295	0.297	0.288	0.297	0.293	1.74
53)	T	2-Hexanone	0.060	0.046	0.047	0.054	0.054	0.054	0.052	9.83
54)	T	Dibromochloromethan	0.254	0.268	0.289	0.301	0.295	0.299	0.284	6.67
55)	T	1,2-Dibromoethane	0.172	0.171	0.184	0.180	0.182	0.184	0.179	3.34
56)	TMP	Chlorobenzene	1.051	1.072	1.057	1.060	1.037	1.009	1.048	2.11
57)	T	1,1,1,2-Tetrachloro	0.369	0.395	0.411	0.406	0.387	0.388	0.393	3.81
58)	TC	Ethylbenzene	1.976	2.058	2.088	2.097	2.034	1.969	2.037	2.69
59)	TG	total-Xylene	0.698	0.714	0.736	0.727	0.705	0.670	0.708	3.31
60)	T	Styrene	0.915	1.047	1.092	1.099	1.087	0.970	1.035	7.34
61)	I	1,4-Dichlorobenzene-d	ISTD							
62)	TP	Bromoform	0.266	0.267	0.280	0.305	0.305	0.310	0.289	7.08
63)	T	Isopropylbenzene	4.169	4.354	4.285	4.391	4.260	4.155	4.269	2.24
64)	T	cis-1,4-dichloro-2-	0.101	0.105	0.118	0.118	0.121	0.120	0.114	7.73
65)	T	trans-1,4-dichloro-	0.106	0.120	0.121	0.128	0.128	0.125	0.121	6.77
66)	S	Bromofluorobenzene	1.099	1.140	1.113	1.163	1.112	1.050	1.113	3.47
67)	T	Bromobenzene	0.777	0.791	0.839	0.865	0.826	0.808	0.818	3.95
68)	TP	1,1,2,2-Tetrachloro	0.285	0.308	0.321	0.334	0.323	0.317	0.315	5.39
69)	T	1,2,3-Trichloroprop	0.403	0.378	0.391	0.408	0.404	0.400	0.397	2.77
70)	T	n-Propylbenzene	4.992	5.107	5.154	5.275	5.139	4.967	5.106	2.22
71)	T	2-Chlorotoluene	3.003	2.992	3.066	3.083	2.987	2.905	3.006	2.11
72)	T	4-Chlorotoluene	3.493	3.463	3.549	3.615	3.490	3.340	3.492	2.64
73)	T	1,3,5-Trimethylbenz	3.695	3.845	3.903	3.989	3.880	3.702	3.836	3.03
74)	T	Pentachloroethane	0.500	0.519	0.557	0.550	0.541	0.517	0.531	4.21
75)	T	tert-Butylbenzene	3.163	3.274	3.276	3.336	3.262	3.110	3.237	2.58
76)	T	1,2,4-Trimethylbenz	3.767	3.815	3.845	3.908	3.770	3.635	3.790	2.43
77)	T	sec-Butylbenzene	4.777	4.769	4.841	4.966	4.807	4.631	4.798	2.27
78)	T	1,3-Dichlorobenzene	1.606	1.696	1.729	1.725	1.697	1.622	1.679	3.14
79)	T	Isopropyltoluene	3.826	3.977	3.957	4.065	3.925	3.778	3.921	2.66
80)	T	1,4-Dichlorobenzene	1.830	1.685	1.677	1.684	1.641	1.612	1.688	4.45
81)	T	1,2-Dichlorobenzene	1.324	1.297	1.317	1.321	1.304	1.284	1.308	1.20
82)	T	n-Butylbenzene	3.461	3.581	3.660	3.768	3.673	3.555	3.616	2.96
83)	T	1,2-Dibromo-3-chlor	0.080	0.065	0.060	0.058	0.057	0.060	0.063	13.68
84)	T	1,2,4-trichlorobenz	0.916	0.899	0.937	0.953	0.897	0.895	0.916	2.62
85)	T	Hexachlorobutadiene	0.799	0.902	0.855	0.858	0.774	0.749	0.823	7.05
86)	T	Naphthalene	0.888	0.886	0.993	1.067	1.059	1.058	0.992	8.62
87)	T	1,2,3-Trichlorobenz	0.684	0.659	0.68	0.700	0.679	0.658	0.677	2.39

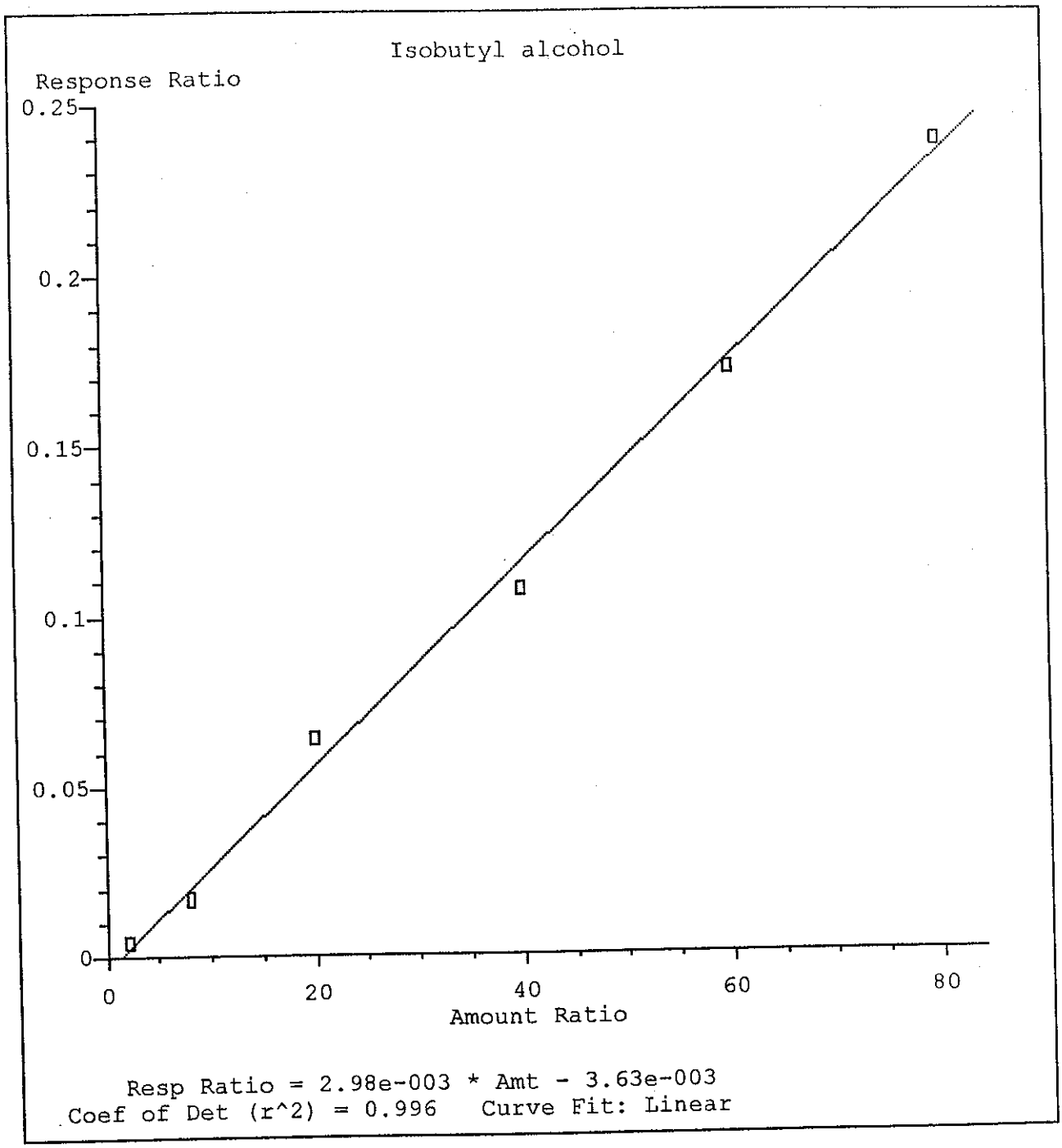
(#) = Out of Range



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236236	10.00 ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	265458	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	125288	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.06	116	42	10.00 ug\L	-0.05
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.17	65	10238	1.03 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.30%#		
46) Toluene-d8	10.02	98	38560	0.99 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.90%#		
66) Bromofluorobenzene	13.72	95	13775	0.99 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.90%#		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	20075	1.11 ug\L	100
3) Chloromethane	1.66	50	11509	1.29 ug\L	97
4) Vinyl Chloride	1.74	62	14039	1.14 ug\L	100
5) Bromomethane	2.03	94	4797	1.29 ug\L	96
6) Chloroethane	2.13	64	7091	1.07 ug\L	94
7) Trichlorofluoromethane	2.38	101	21987	0.97 ug\L #	100
8) Acrolein	2.92	56	281	0.94 ug\L #	10
9) Acrylonitrile	4.04	53	1321	1.85 ug\L #	82
10) 1,1-Dichloroethene	2.96	96	12069	1.12 ug\L	94
12) Iodomethane	3.17	142	10991	0.76 ug\L #	95
13) Allylchloride	3.43	39	12393	0.96 ug\L #	96
14) Carbon Disulfide	3.22	76	37856	1.22 ug\L #	95
15) Acetonitrile	3.43	41	13403	9.70 ug\L	98
17) trans-1,2-Dichloroethene	3.98	96	12780	1.10 ug\L	98
18) MethylTertButylEther	3.98	73	14359	1.03 ug\L	99
19) 1,1-Dichloroethane	4.70	63	17891	1.03 ug\L #	97
21) Vinyl Acetate	4.82	43	8589	0.99 ug\L #	83
22) 2,2-Dichloropropane	5.72	77	21820	1.07 ug\L	94
23) cis-1,2-Dichloroethene	5.77	96	11543	1.05 ug\L #	77
24) 2-Butanone	5.89	72	56	1.53 ug\L #	100
25) Propionitrile	6.03	54	2152	9.04 ug\L #	71
26) Methacrylonitrile	6.23	41	13877	9.98 ug\L	98
27) Bromochloromethane	6.21	128	2139	0.54 ug\L #	1
28) Chloroform	6.37	83	21019	0.99 ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	24120	0.98 ug\L	97
30) Carbon Tetrachloride	6.82	119	22706	0.99 ug\L	100
31) 1,4-Dioxane	8.86	88	477	19.29 ug\L #	53
32) 1,1-Dichloropropene	6.84	77	4654	0.95 ug\L	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) Benzene	7.20	78	37103	0.98 ug\L	100
35) Isobutyl alcohol	7.32	43	432	18.34 ug\L	89
36) 1,2-Dichloroethane	7.30	62	11470	1.01 ug\L	98
37) Trichloroethene	8.21	95	13181	0.99 ug\L	98
38) 1,2-Dichloropropane	8.59	63	6782	0.96 ug\L	100
39) Dibromomethane	8.79	93	3883	0.93 ug\L	95
40) Methylmethacrylate	8.80	69	1647	0.87 ug\L	90
41) Bromodichloromethane	9.04	83	13242	0.97 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.49	63	1387	1.07 ug\L #	84
43) cis-1,3-Dichloropropene	9.68	75	11774	0.93 ug\L	98
44) 4-Methyl-2-Pentanone	9.92	85	567	1.12 ug\L #	1
47) Toluene	10.11	92	24466	0.97 ug\L	100
48) trans-1,3-Dichloropropene	10.50	75	8693	0.94 ug\L	92
49) Ethylmethacrylate	10.63	69	3679	0.84 ug\L #	55
50) 1,1,2-Trichloroethane	10.77	83	3953	1.08 ug\L	90
51) Tetrachloroethene	10.87	164	10796	0.99 ug\L	96
52) 1,3-Dichloropropane	10.99	76	7576	0.97 ug\L	95
53) 2-Hexanone	11.11	43	1588	1.14 ug\L #	87
54) Dibromochloromethane	11.31	129	6744	0.89 ug\L	99
55) 1,2-Dibromoethane	11.46	107	4555	0.96 ug\L #	95
56) Chlorobenzene	12.12	112	27897	1.00 ug\L	92
57) 1,1,1,2-Tetrachloroethane	12.25	131	9807	0.94 ug\L	100
58) Ethylbenzene	12.26	91	52447	0.97 ug\L	98
59) total-Xylene	12.42	106	55563m	2.96 ug\L #	
60) Styrene	13.00	104	24291	0.88 ug\L	93
62) Bromoform	13.31	173	3328	0.92 ug\L	99
63) Isopropylbenzene	13.48	105	52230	0.98 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	1265	0.89 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.03	53	1331	0.88 ug\L #	53
67) Bromobenzene	13.92	156	9730	0.95 ug\L #	1
68) 1,1,2,2-Tetrachloroethane	13.98	83	3567	0.90 ug\L #	77
69) 1,2,3-Trichloropropane	14.02	75	5044	1.01 ug\L	89
70) n-Propylbenzene	14.04	91	62542	0.98 ug\L	98
71) 2-Chlorotoluene	14.17	91	37629	1.00 ug\L	100
72) 4-Chlorotoluene	14.33	91	43767	1.00 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	46293	0.96 ug\L	97
74) Pentachloroethane	14.80	167	6260	0.94 ug\L #	89
75) tert-Butylbenzene	14.73	119	39625	0.98 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	47202	0.99 ug\L	98
77) sec-Butylbenzene	15.03	105	59844	1.00 ug\L	98
78) 1,3-Dichlorobenzene	15.21	146	20116	0.96 ug\L	97
79) Isopropyltoluene	15.23	119	47931	0.98 ug\L	100

(#) = qualifier out of range (m) = manual integration
08060125.M Mon Aug 06 16:41:23 2001 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

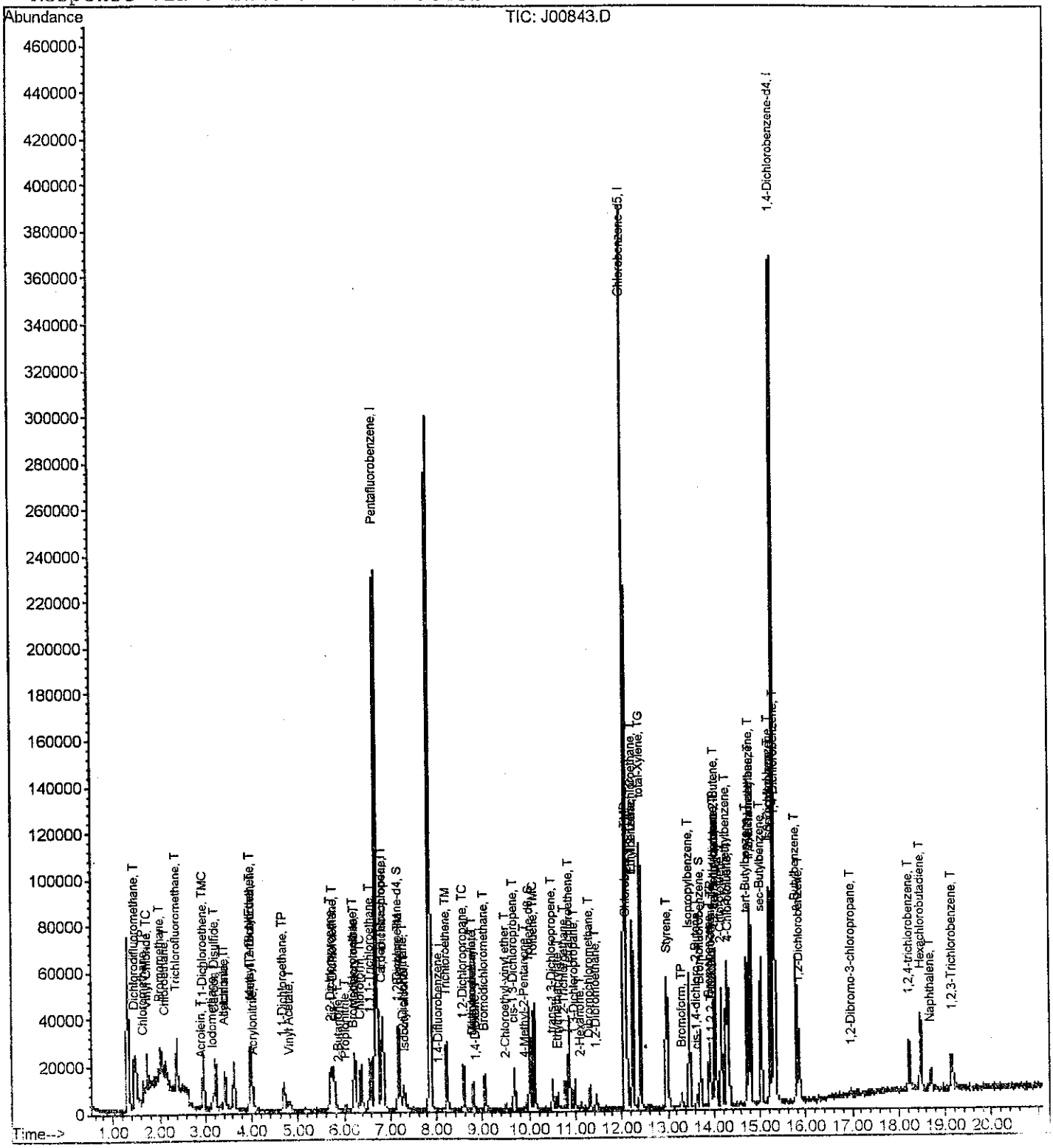
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	15.34	146	22924	1.08 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	16585	1.01 ug\L	100
82) n-Butylbenzene	15.79	91	43358	0.96 ug\L	97
83) 1,2-Dibromo-3-chloropropan	16.98	75	602	0.76 ug\L #	42
84) 1,2,4-trichlorobenzene	18.23	180	11481	1.00 ug\L	100
85) Hexachlorobutadiene	18.48	225	10015	0.97 ug\L	100
86) Naphthalene	18.68	128	11121	0.89 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	8565	1.01 ug\L #	58

(#) = qualifier out of range = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	214177	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.09	117	246940	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	120687	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	8.15	116	40	10.00 ug\L	0.05
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.19	65	34711	3.85 ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery =	38.50%#	
46) Toluene-d8	10.03	98	145804	4.03 ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery =	40.30%#	
66) Bromofluorobenzene	13.73	95	55048	4.10 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery =	41.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.48	85	66483	4.06 ug\L	99
3) Chloromethane	1.67	50	31236	3.85 ug\L	97
4) Vinyl Chloride	1.75	62	44864	4.01 ug\L	98
5) Bromomethane	2.05	94	11228	3.34 ug\L	98
6) Chloroethane	2.14	64	24269	4.05 ug\L	98
7) Trichlorofluoromethane	2.39	101	88083	4.28 ug\L #	100
8) Acrolein	2.92	56	2077	7.69 ug\L #	97
9) Acrylonitrile	4.05	53	3196	4.95 ug\L #	34
10) 1,1-Dichloroethene	2.97	96	38500	3.94 ug\L	99
11) Acetone	3.11	58	737	4.37 ug\L	100
12) Iodomethane	3.18	142	50205	3.84 ug\L	98
13) Allylchloride	3.45	39	47661	4.05 ug\L	99
14) Carbon Disulfide	3.24	76	106125	3.76 ug\L	100
15) Acetonitrile	3.45	41	51351	40.98 ug\L	99
16) Methylene Chloride	3.64	86	36126	5.30 ug\L	99
17) trans-1,2-Dichloroethene	4.00	96	40296	3.84 ug\L	93
18) MethylTertButylEther	3.99	73	47960	3.80 ug\L	99
19) 1,1-Dichloroethane	4.72	63	62447	3.97 ug\L	98
20) Isopropyl Ether	4.78	45	4368	2.66 ug\L #	44
21) Vinyl Acetate	4.84	43	29528	3.75 ug\L	99
22) 2,2-Dichloropropane	5.73	77	73807	3.98 ug\L #	78
23) cis-1,2-Dichloroethene	5.79	96	39985	4.00 ug\L	97
24) 2-Butanone	5.87	72	272	2.46 ug\L #	100
25) Propionitrile	6.04	54	8412	38.99 ug\L #	91
26) Methacrylonitrile	6.26	41	49603	39.33 ug\L	99
27) Bromochloromethane	6.21	128	14655	4.05 ug\L	96
28) Chloroform	6.38	83	77385	4.01 ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	89991	4.05 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.85	119	84332	4.05 ug\L	99
31) 1,4-Dioxane	8.85	88	1706	76.11 ug\L #	66
32) 1,1-Dichloropropene	6.86	77	17476	3.92 ug\L	91
34) Benzene	7.21	78	137459	4.00 ug\L	100
35) Isobutyl alcohol	7.33	43	3593	68.53 ug\L #	82
36) 1,2-Dichloroethane	7.32	62	40434	3.94 ug\L	97
37) Trichloroethene	8.24	95	46901	3.88 ug\L	99
38) 1,2-Dichloropropane	8.61	63	25753	4.01 ug\L	98
39) Dibromomethane	8.80	93	15107	3.99 ug\L	98
40) Methylmethacrylate	8.82	69	6162	3.60 ug\L	95
41) Bromodichloromethane	9.07	83	46904	3.80 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	4216	3.58 ug\L #	89
43) cis-1,3-Dichloropropene	9.70	75	42870	3.73 ug\L	96
44) 4-Methyl-2-Pentanone	9.94	85	1616	3.51 ug\L #	1
47) Toluene	10.13	92	94191	4.03 ug\L	98
48) trans-1,3-Dichloropropene	10.52	75	32229	3.74 ug\L	98
49) Ethylmethacrylate	10.62	69	14996	3.70 ug\L	96
50) 1,1,2-Trichloroethane	10.79	83	12589	3.69 ug\L	95
51) Tetrachloroethene	10.88	164	42091	4.15 ug\L	97
52) 1,3-Dichloropropane	11.00	76	29182	4.03 ug\L	98
53) 2-Hexanone	11.12	43	4582	3.54 ug\L #	93
54) Dibromochloromethane	11.33	129	26470	3.77 ug\L	97
55) 1,2-Dibromoethane	11.46	107	16892	3.83 ug\L	99
56) Chlorobenzene	12.13	112	105929	4.09 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.26	131	39031	4.02 ug\L	97
58) Ethylbenzene	12.26	91	203401	4.04 ug\L	99
59) total-Xylene	12.43	106	210562m	12.04 ug\L #	
60) Styrene	13.02	104	103434	4.05 ug\L	99
62) Bromoform	13.32	173	12883	3.70 ug\L	100
63) Isopropylbenzene	13.49	105	210207	4.08 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	5802	4.22 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.05	53	5802	3.96 ug\L #	43
67) Bromobenzene	13.94	156	38184	3.87 ug\L #	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	14885	3.92 ug\L #	96
69) 1,2,3-Trichloropropane	14.05	75	18240	3.81 ug\L	98
70) n-Propylbenzene	14.05	91	246544	4.00 ug\L	99
71) 2-Chlorotoluene	14.18	91	142919	3.94 ug\L	98
72) 4-Chlorotoluene	14.34	91	167739	3.98 ug\L	99
73) 1,3,5-Trimethylbenzene	14.30	105	185633	4.01 ug\L	99
74) Pentachloroethane	14.81	167	25034	3.91 ug\L	95
75) tert-Butylbenzene	14.74	119	158062	4.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	184177	4.03 ug\L	98

(#) = qualifier out of range (m) = manual integration
J00838.D 08060125.M Mon [illegible] 20

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	230202	3.98 ug\L	99
78) 1,3-Dichlorobenzene	15.23	146	81524	4.02 ug\L	96
79) Isopropyltoluene	15.24	119	191984	4.06 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	81338	3.99 ug\L	97
81) 1,2-Dichlorobenzene	15.87	146	62621	3.97 ug\L	99
82) n-Butylbenzene	15.81	91	172874	3.96 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.99	75	3119	4.09 ug\L	93
84) 1,2,4-trichlorobenzene	18.24	180	43387	3.92 ug\L	100
85) Hexachlorobutadiene	18.49	225	43531	4.38 ug\L	100
86) Naphthalene	18.71	128	42263	3.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	31804	3.89 ug\L	99

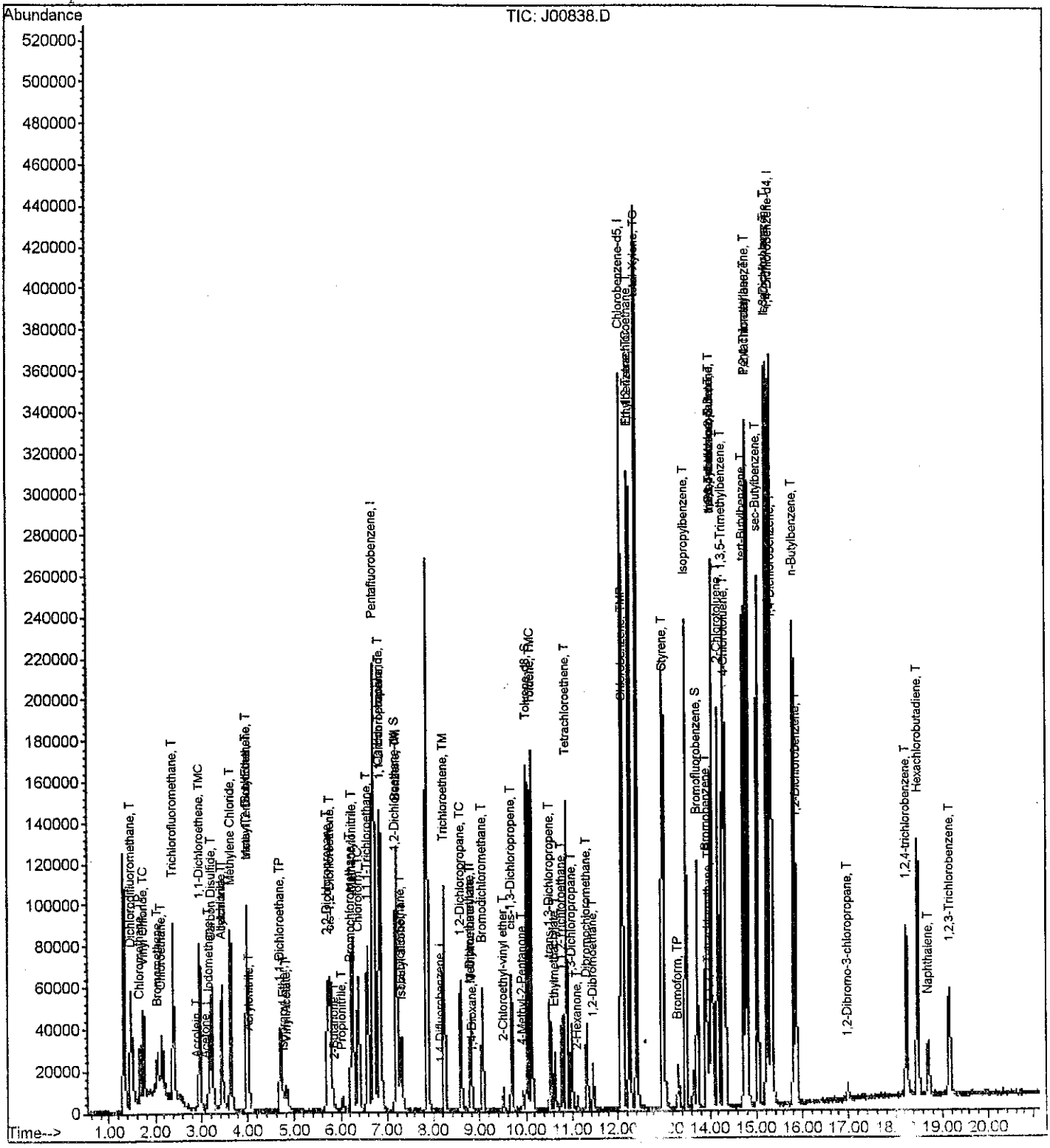
(#) = qualifier out of range (m) = manual integration
J00838 Data: Mon Aug 06 15:40:35 2001 Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D
Acq On : 08/06/01 10:48
Sample : ICAL 4 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001

Vial: 2
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00
Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	201922	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	235398	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	118033	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	474	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	85055	10.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.10%			
46) Toluene-d8	10.03	98	348457	10.11	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.10%			
66) Bromofluorobenzene	13.73	95	131369	10.00	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	149435	9.69	ug\L	100
3) Chloromethane	1.67	50	73080	9.55	ug\L	98
4) Vinyl Chloride	1.75	62	102684	9.75	ug\L	100
5) Bromomethane	2.05	94	31233	9.84	ug\L	100
6) Chloroethane	2.15	64	57448	10.17	ug\L	100
7) Trichlorofluoromethane	2.40	101	198768	10.25	ug\L #	100
8) Acrolein	2.92	56	4604	18.08	ug\L #	100
9) Acrylonitrile	4.06	53	11794	19.36	ug\L	100
10) 1,1-Dichloroethene	2.98	96	90313	9.81	ug\L	100
11) Acetone	3.10	58	1481	9.32	ug\L	93
12) Iodomethane	3.18	142	126707	10.28	ug\L	100
13) Allylchloride	3.44	39	112982	10.20	ug\L	100
14) Carbon Disulfide	3.24	76	250721	9.43	ug\L	100
15) Acetonitrile	3.45	41	120839	102.29	ug\L	100
16) Methylene Chloride	3.64	86	57706	10.35	ug\L	100
17) trans-1,2-Dichloroethene	4.00	96	99024	10.02	ug\L	100
18) MethylTertButylEther	4.00	73	118748	9.99	ug\L	100
19) 1,1-Dichloroethane	4.71	63	147096	9.91	ug\L	100
20) Isopropyl Ether	4.79	45	15229	9.84	ug\L #	100
21) Vinyl Acetate	4.83	43	70469	9.49	ug\L	100
22) 2,2-Dichloropropane	5.73	77	176710	10.10	ug\L	100
23) cis-1,2-Dichloroethene	5.80	96	92802	9.84	ug\L	100
24) 2-Butanone	5.87	72	1578	8.36	ug\L #	100
25) Propionitrile	6.04	54	20397	100.28	ug\L	100
26) Methacrylonitrile	6.25	41	121263	102.00	ug\L	100
27) Bromochloromethane	6.22	128	33773	9.90	ug\L	100
28) Chloroform	6.38	83	185348	10.20	ug\L #	
29) 1,1,1-Trichloroethane	6.59	97	213173	10.17	ug\L	10

(#) = qualifier out of range (m) = manual integration
J00839.D 08060125.M Mon Aug 06 16:40:44 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	198115	10.09 ug\L	100
31) 1,4-Dioxane	8.86	88	3882	183.70 ug\L #	100
32) 1,1-Dichloropropene	6.86	77	43542	10.37 ug\L	100
34) Benzene	7.21	78	323624	9.99 ug\L	100
35) Isobutyl alcohol	7.33	43	10273	183.03 ug\L #	78
36) 1,2-Dichloroethane	7.31	62	98830	10.20 ug\L	100
37) Trichloroethene	8.24	95	114163	10.02 ug\L	100
38) 1,2-Dichloropropane	8.60	63	59552	9.84 ug\L	100
39) Dibromomethane	8.80	93	36760	10.29 ug\L	100
40) Methylmethacrylate	8.82	69	15930	9.88 ug\L	100
41) Bromodichloromethane	9.06	83	117560	10.11 ug\L	100
42) 2-Chloroethyl-vinyl ether	9.51	63	10536	9.49 ug\L	100
43) cis-1,3-Dichloropropene	9.70	75	110210	10.18 ug\L	100
44) 4-Methyl-2-Pentanone	9.93	85	3749	8.65 ug\L #	1
47) Toluene	10.13	92	228147	10.24 ug\L	100
48) trans-1,3-Dichloropropene	10.52	75	85376	10.39 ug\L	100
49) Ethylmethacrylate	10.62	69	39820	10.30 ug\L	100
50) 1,1,2-Trichloroethane	10.78	83	32796	10.09 ug\L	100
51) Tetrachloroethene	10.88	164	99814	10.32 ug\L	100
52) 1,3-Dichloropropane	11.00	76	69262	10.05 ug\L	100
53) 2-Hexanone	11.13	43	10780	8.74 ug\L	99
54) Dibromochloromethane	11.33	129	67859	10.15 ug\L	100
55) 1,2-Dibromoethane	11.46	107	43281	10.28 ug\L	100
56) Chlorobenzene	12.13	112	248499	10.08 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.25	131	96633	10.45 ug\L	100
58) Ethylbenzene	12.27	91	490838	10.24 ug\L	100
59) total-Xylene	12.43	106	518556m	31.11 ug\L #	
60) Styrene	13.02	104	256776	10.54 ug\L	100
62) Bromoform	13.32	173	33018	9.69 ug\L	100
63) Isopropylbenzene	13.48	105	505825	10.04 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	14277	10.62 ug\L	97
65) trans-1,4-dichloro-2-Buten	14.05	53	14277	9.97 ug\L #	48
67) Bromobenzene	13.93	156	99049	10.26 ug\L	100
68) 1,1,2,2-Tetrachloroethane	13.99	83	37851	10.19 ug\L	100
69) 1,2,3-Trichloropropane	14.04	75	46157	9.85 ug\L	100
70) n-Propylbenzene	14.05	91	608339	10.09 ug\L	100
71) 2-Chlorotoluene	14.18	91	358416	10.10 ug\L	99
72) 4-Chlorotoluene	14.34	91	419438	10.18 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	460711	10.18 ug\L	100
74) Pentachloroethane	14.81	167	65795	10.50 ug\L	100
75) tert-Butylbenzene	14.74	119	386667	10.12 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	453819	10.14 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

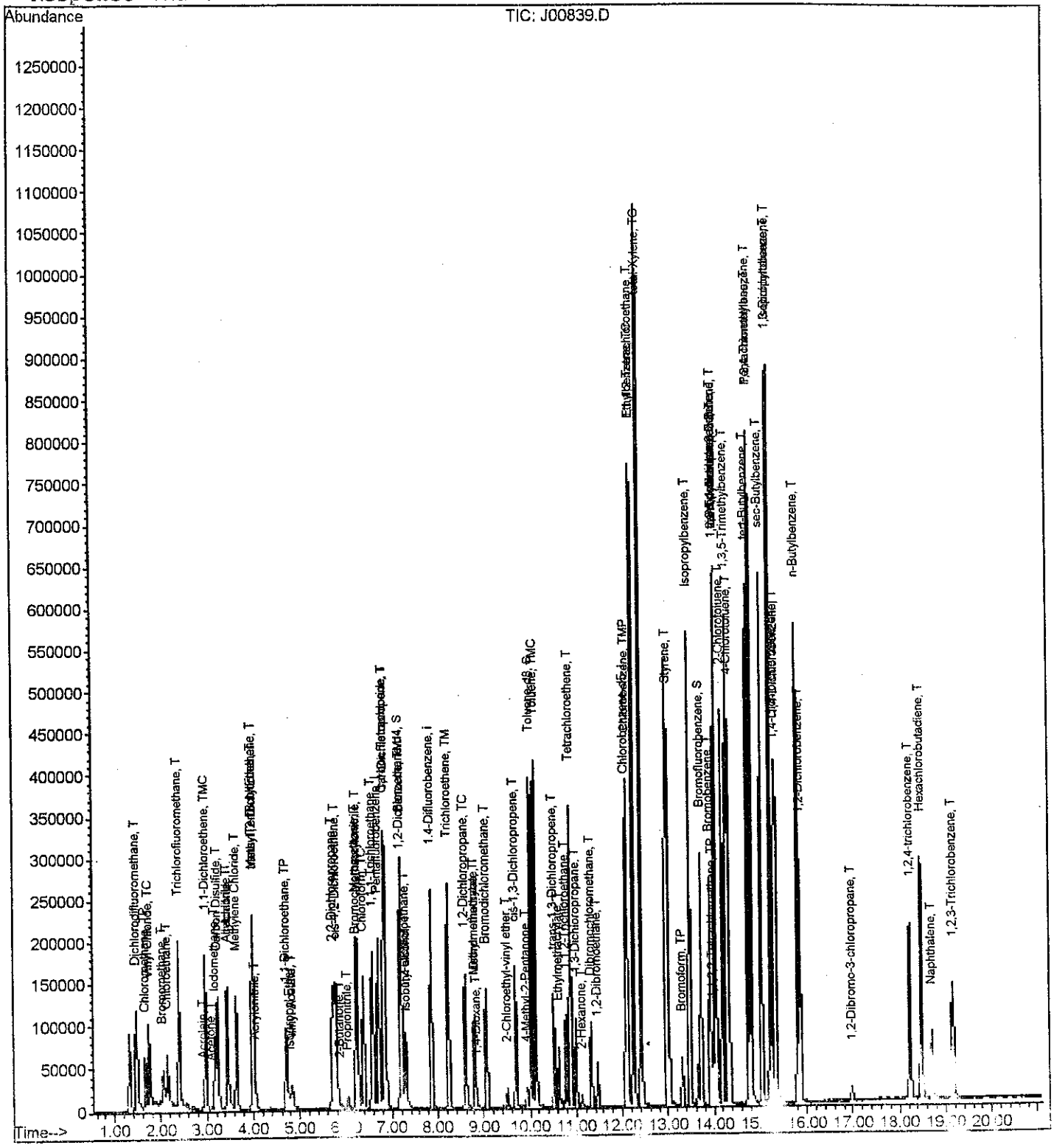
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	571426	10.09 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	204190	10.30 ug\L	98
79) Isopropyltoluene	15.24	119	467090	10.09 ug\L	100
80) 1,4-Dichlorobenzene	15.35	146	197999	9.94 ug\L	100
81) 1,2-Dichlorobenzene	15.87	146	155458	10.07 ug\L	100
82) n-Butylbenzene	15.80	91	431971	10.12 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7080	9.49 ug\L	100
84) 1,2,4-trichlorobenzene	18.24	180	110590	10.23 ug\L	100
85) Hexachlorobutadiene	18.48	225	100900	10.39 ug\L	100
86) Naphthalene	18.70	128	117222	10.01 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	80572	10.08 ug\L	100

(#) = qualifier out of range (m) = manual integration
[illegible] 08060125.M Mon Aug [illegible] 45 2 01

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.71	168	209421	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.09	117	250420	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	122077	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	281	10.00	ug\L		-0.22
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.19	65	182510	20.71	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 207.10%#				
46) Toluene-d8	10.03	98	753850	20.56	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 205.60%#				
66) Bromofluorobenzene	13.73	95	283929	20.90	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 209.00%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.48	85	321467	20.10	ug\L		100
3) Chloromethane	1.66	50	151083	19.04	ug\L		98
4) Vinyl Chloride	1.75	62	213735	19.56	ug\L		98
5) Bromomethane	2.05	94	62319	18.93	ug\L		99
6) Chloroethane	2.14	64	117818	20.11	ug\L		97
7) Trichlorofluoromethane	2.40	101	412252	20.51	ug\L	#	100
8) Acrolein	2.91	56	10150	38.43	ug\L	#	86
9) Acrylonitrile	4.05	53	26956	42.67	ug\L		94
10) 1,1-Dichloroethene	2.97	96	189664	19.86	ug\L		99
11) Acetone	3.11	58	3685	22.36	ug\L		68
12) Iodomethane	3.18	142	290779	22.75	ug\L		99
13) Allylchloride	3.45	39	236060	20.54	ug\L		98
14) Carbon Disulfide	3.24	76	554079	20.09	ug\L		99
15) Acetonitrile	3.45	41	250033	204.08	ug\L		99
16) Methylene Chloride	3.64	86	106099	19.88	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	206306	20.12	ug\L		98
18) MethylTertButylEther	3.99	73	245575	19.92	ug\L		99
19) 1,1-Dichloroethane	4.71	63	310774	20.19	ug\L		99
20) Isopropyl Ether	4.79	45	30842	19.21	ug\L	#	74
21) Vinyl Acetate	4.83	43	161546	20.98	ug\L		99
22) 2,2-Dichloropropane	5.73	77	364651	20.09	ug\L		99
23) cis-1,2-Dichloroethene	5.79	96	197233	20.17	ug\L		97
24) 2-Butanone	5.87	72	4331	19.94	ug\L	#	100
25) Propionitrile	6.03	54	42719	202.50	ug\L		96
26) Methacrylonitrile	6.25	41	248316	201.38	ug\L		98
27) Bromochloromethane	6.22	128	71482	20.20	ug\L		98
28) Chloroform	6.38	83	384187	20.38	ug\L	#	1
29) 1,1,1-Trichloroethane	6.58	97	444851	20.46	ug\L		99

#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	418970	20.57 ug\L	100
31) 1,4-Dioxane	8.85	88	8937	407.77 ug\L #	75
32) 1,1-Dichloropropene	6.86	77	90753	20.84 ug\L	97
34) Benzene	7.21	78	686987	20.45 ug\L	100
35) Isobutyl alcohol	7.33	43	22547	373.71 ug\L #	92
36) 1,2-Dichloroethane	7.31	62	204333	20.34 ug\L	99
37) Trichloroethene	8.24	95	243596	20.62 ug\L	99
38) 1,2-Dichloropropane	8.60	63	128532	20.48 ug\L	99
39) Dibromomethane	8.80	93	75637	20.42 ug\L	96
40) Methylmethacrylate	8.81	69	34722	20.77 ug\L	94
41) Bromodichloromethane	9.06	83	248414	20.61 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	24543	21.31 ug\L	99
43) cis-1,3-Dichloropropene	9.69	75	235018	20.94 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	9097	20.24 ug\L #	1
47) Toluene	10.13	92	485146	20.48 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	181095	20.72 ug\L	98
49) Ethylmethacrylate	10.62	69	84910	20.65 ug\L	98
50) 1,1,2-Trichloroethane	10.78	83	70117	20.27 ug\L	97
51) Tetrachloroethene	10.88	164	208383	20.25 ug\L	98
52) 1,3-Dichloropropane	11.00	76	148746	20.28 ug\L	99
53) 2-Hexanone	11.12	43	26850	20.47 ug\L	97
54) Dibromochloromethane	11.33	129	150637	21.17 ug\L	100
55) 1,2-Dibromoethane	11.46	107	90388	20.19 ug\L	99
56) Chlorobenzene	12.12	112	530931	20.24 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	203444	20.69 ug\L	99
58) Ethylbenzene	12.26	91	1050268	20.59 ug\L	100
59) total-Xylene	12.43	106	1092314m	61.59 ug\L #	
60) Styrene	13.02	104	550566	21.24 ug\L	100
62) Bromoform	13.32	173	74458	21.12 ug\L	99
63) Isopropylbenzene	13.48	105	1072114	20.57 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	31295	22.50 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.05	53	31295	21.12 ug\L #	45
67) Bromobenzene	13.93	156	211098	21.15 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.99	83	81628	21.25 ug\L	97
69) 1,2,3-Trichloropropane	14.03	75	99589	20.54 ug\L	99
70) n-Propylbenzene	14.05	91	1287982	20.66 ug\L	100
71) 2-Chlorotoluene	14.18	91	752694	20.51 ug\L	98
72) 4-Chlorotoluene	14.34	91	882636	20.71 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	973868	20.80 ug\L	100
74) Pentachloroethane	14.81	167	134377	20.74 ug\L	97
75) tert-Butylbenzene	14.74	119	814484	20.61 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	954111	20.62 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00840.D 08060125.M Mon Aug 06 16:

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

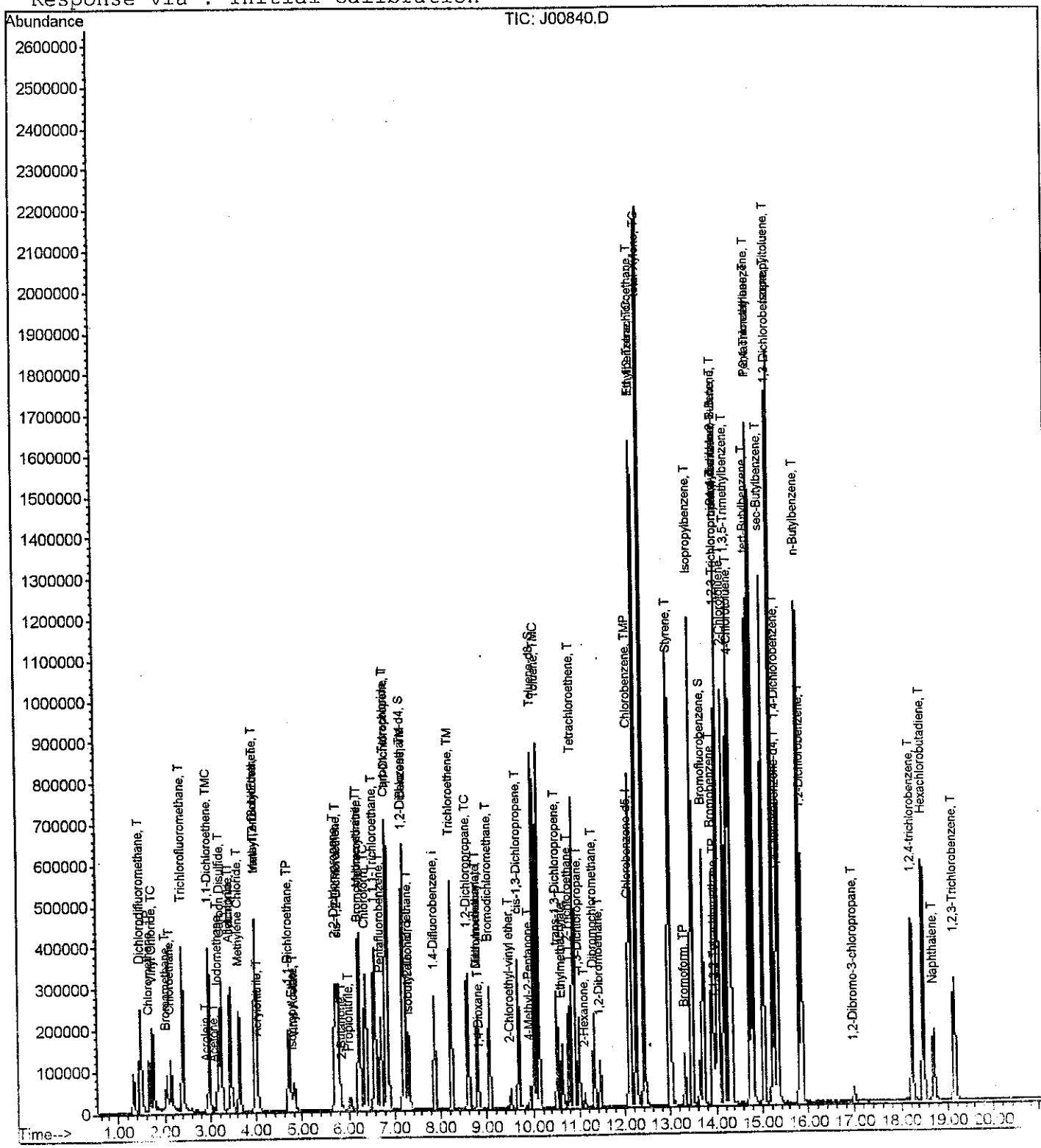
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.04	105	1212451	20.70	ug\L	100
78)	1,3-Dichlorobenzene	15.22	146	421222	20.55	ug\L	96
79)	Isopropyltoluene	15.24	119	992368	20.73	ug\L	99
80)	1,4-Dichlorobenzene	15.35	146	411156	19.95	ug\L	99
81)	1,2-Dichlorobenzene	15.87	146	322633	20.21	ug\L	98
82)	n-Butylbenzene	15.80	91	919856	20.84	ug\L	100
83)	1,2-Dibromo-3-chloropropan	16.98	75	14260	18.47	ug\L	86
84)	1,2,4-trichlorobenzene	18.24	180	232595	20.80	ug\L	100
85)	Hexachlorobutadiene	18.48	225	209391	20.85	ug\L	100
86)	Naphthalene	18.70	128	260452	21.51	ug\L	100
87)	1,2,3-Trichlorobenzene	19.16	180	171000	20.68	ug\L	99

(#) = qualifier out of rang (*) = manual integration
J00840.D 08060125.M Mon [illegible] 16:40:55 2001 Page

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	228150	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	275102	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	132491	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	421	10.00	ug\L	-0.23
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	289312	30.13	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 301.30%#			
46) Toluene-d8	10.03	98	1195016	29.66	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.60%#			
66) Bromofluorobenzene	13.72	95	441958	29.97	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 299.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	491561	28.21	ug\L	100
3) Chloromethane	1.67	50	236367	27.34	ug\L	98
4) Vinyl Chloride	1.74	62	337526	28.35	ug\L	99
5) Bromomethane	2.04	94	102458	28.57	ug\L	83
6) Chloroethane	2.15	64	182075	28.53	ug\L	98
7) Trichlorofluoromethane	2.39	101	642815	29.35	ug\L #	100
8) Acrolein	2.91	56	16595	57.68	ug\L #	90
9) Acrylonitrile	4.05	53	40878	59.39	ug\L	99
10) 1,1-Dichloroethene	2.98	96	301695	29.00	ug\L	99
11) Acetone	3.10	58	5047	28.10	ug\L	97
12) Iodomethane	3.18	142	440095	31.61	ug\L	96
13) Allylchloride	3.45	39	373603	29.84	ug\L	99
14) Carbon Disulfide	3.24	76	855766	28.49	ug\L	100
15) Acetonitrile	3.45	41	397963	298.16	ug\L	99
16) Methylene Chloride	3.64	86	167807	29.76	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	327745	29.34	ug\L	99
18) MethylTertButylEther	3.99	73	406778	30.29	ug\L	100
19) 1,1-Dichloroethane	4.70	63	500096	29.83	ug\L	99
20) Isopropyl Ether	4.78	45	53169	30.40	ug\L #	23
21) Vinyl Acetate	4.83	43	257631	30.71	ug\L	100
22) 2,2-Dichloropropane	5.73	77	581182	29.39	ug\L	97
23) cis-1,2-Dichloroethene	5.79	96	312550	29.34	ug\L	97
24) 2-Butanone	5.88	72	7372	30.42	ug\L #	100
25) Propionitrile	6.04	54	72946	317.40	ug\L	98
26) Methacrylonitrile	6.25	41	399632	297.49	ug\L	98
27) Bromochloromethane	6.22	128	116884	30.32	ug\L	94
28) Chloroform	6.38	83	614493	29.92	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	704600	29.75	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	659615	29.73 ug\L	98
31) 1,4-Dioxane	8.85	88	15503	649.28 ug\L #	67
32) 1,1-Dichloropropene	6.86	77	142531	30.05 ug\L	95
34) Benzene	7.21	78	1101272	30.09 ug\L	100
35) Isobutyl alcohol	7.33	43	39294	590.50 ug\L	88
36) 1,2-Dichloroethane	7.31	62	321030	29.33 ug\L	100
37) Trichloroethene	8.23	95	390312	30.32 ug\L	99
38) 1,2-Dichloropropane	8.60	63	209691	30.67 ug\L	99
39) Dibromomethane	8.80	93	122706	30.41 ug\L	98
40) Methylmethacrylate	8.82	69	59735	32.79 ug\L	98
41) Bromodichloromethane	9.06	83	398143	30.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	39267	31.30 ug\L	98
43) cis-1,3-Dichloropropene	9.70	75	377356	30.86 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	15406	31.46 ug\L #	1
47) Toluene	10.13	92	772677	29.69 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	294117	30.63 ug\L	98
49) Ethylmethacrylate	10.62	69	143762	31.83 ug\L	99
50) 1,1,2-Trichloroethane	10.78	83	111359	29.31 ug\L	96
51) Tetrachloroethene	10.89	164	327047	28.93 ug\L	99
52) 1,3-Dichloropropane	11.00	76	237454	29.47 ug\L	100
53) 2-Hexanone	11.12	43	44352	30.78 ug\L	98
54) Dibromochloromethane	11.32	129	243349	31.13 ug\L	100
55) 1,2-Dibromoethane	11.46	107	150308	30.56 ug\L	97
56) Chlorobenzene	12.12	112	855952	29.70 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	319261	29.55 ug\L	97
58) Ethylbenzene	12.26	91	1678406	29.95 ug\L	100
59) total-Xylene	12.43	106	1744747m	89.55 ug\L #	
60) Styrene	13.01	104	897316	31.51 ug\L	98
62) Bromoform	13.32	173	121354	31.72 ug\L	99
63) Isopropylbenzene	13.48	105	1693119	29.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	51009	33.79 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.05	53	51009	31.72 ug\L #	39
67) Bromobenzene	13.93	156	328377	30.31 ug\L	96
68) 1,1,2,2-Tetrachloroethane	13.98	83	128342	30.78 ug\L	95
69) 1,2,3-Trichloropropane	14.04	75	160548	30.51 ug\L	95
70) n-Propylbenzene	14.05	91	2042742	30.20 ug\L	100
71) 2-Chlorotoluene	14.19	91	1187401	29.81 ug\L	98
72) 4-Chlorotoluene	14.34	91	1387227	29.99 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	1542146	30.35 ug\L	100
74) Pentachloroethane	14.81	167	215082	30.59 ug\L	97
75) tert-Butylbenzene	14.74	119	1296474	30.23 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	1498427	29.84 ug\L	99

(#) = qualifier out of [illegible]e (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

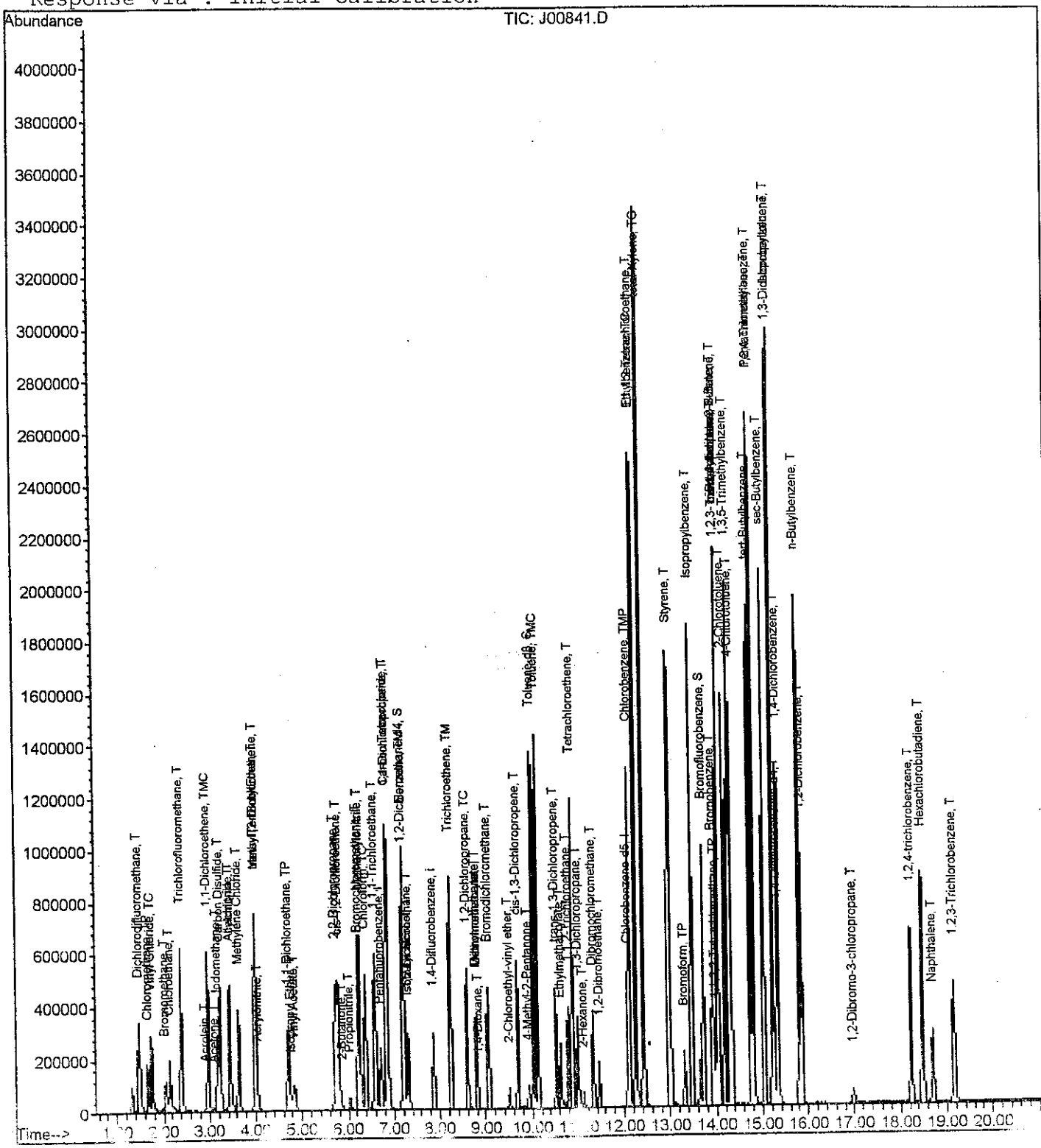
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.04	105	1910656	30.05	ug\L		100
78) 1,3-Dichlorobenzene	15.22	146	674357	30.32	ug\L		98
79) Isopropyltoluene	15.24	119	1560231	30.03	ug\L		100
80) 1,4-Dichlorobenzene	15.35	146	652092	29.16	ug\L		98
81) 1,2-Dichlorobenzene	15.87	146	518139	29.90	ug\L		99
82) n-Butylbenzene	15.81	91	1460079	30.47	ug\L		100
83) 1,2-Dibromo-3-chloropropan	16.98	75	22579	26.95	ug\L	#	82
84) 1,2,4-trichlorobenzene	18.24	180	356537	29.37	ug\L		100
85) Hexachlorobutadiene	18.48	225	307516	28.21	ug\L		100
86) Naphthalene	18.70	128	420803	32.02	ug\L		100
87) 1,2,3-Trichlorobenzene	19.16	180	270049	30.10	ug\L		99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	236977	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.10	117	283507	10.00	ug\L	0.01
61) 1,4-Dichlorobenzene-d4	15.33	152	126023	10.00	ug\L	0.02
88) 1.4-Difluorobenzene	7.87	116	380	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	385440	38.65	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 386.50%#			
46) Toluene-d8	10.05	98	1614379	38.88	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 388.80%#			
66) Bromofluorobenzene	13.74	95	529059	37.72	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 377.20%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	692564	38.27	ug\L	99
3) Chloromethane	1.66	50	312292	34.78	ug\L	94
4) Vinyl Chloride	1.75	62	468705	37.90	ug\L	99
5) Bromomethane	2.05	94	138965	37.31	ug\L	85
6) Chloroethane	2.14	64	249551	37.64	ug\L	99
7) Trichlorofluoromethane	2.39	101	846276	37.20	ug\L #	100
8) Acrolein	2.91	56	22585	75.58	ug\L #	89
9) Acrylonitrile	4.05	53	56343	78.81	ug\L #	94
10) 1,1-Dichloroethene	2.97	96	409885	37.93	ug\L	100
11) Acetone	3.11	58	6573	35.24	ug\L	95
12) Iodomethane	3.18	142	612141	42.33	ug\L	96
13) Allylchloride	3.44	39	514739	39.58	ug\L	98
14) Carbon Disulfide	3.24	76	1179036	37.79	ug\L	99
15) Acetonitrile	3.45	41	537021	387.36	ug\L	97
16) Methylene Chloride	3.64	86	230823	40.05	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	440624	37.97	ug\L	97
18) MethylTertButylEther	3.98	73	563877	40.43	ug\L	99
19) 1,1-Dichloroethane	4.71	63	683438	39.24	ug\L	99
20) Isopropyl Ether	4.78	45	74635	41.09	ug\L #	27
21) Vinyl Acetate	4.83	43	364053	41.77	ug\L	99
22) 2,2-Dichloropropane	5.73	77	776884	37.83	ug\L	96
23) cis-1,2-Dichloroethene	5.79	96	430587	38.92	ug\L	97
24) 2-Butanone	5.88	72	10204	40.10	ug\L #	100
25) Propionitrile	6.05	54	100038	419.07	ug\L	98
26) Methacrylonitrile	6.25	41	558385	400.19	ug\L	97
27) Bromochloromethane	6.22	128	154414	38.56	ug\L	98
28) Chloroform	6.39	83	828379	38.83	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	956613	38.89	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	895735	38.86 ug\L	100
31) 1,4-Dioxane	8.86	88	20699	834.61 ug\L #	68
32) 1,1-Dichloropropene	6.87	77	195288	39.63 ug\L	95
34) Benzene	7.21	78	1513451	39.82 ug\L	100
35) Isobutyl alcohol	7.33	43	56629	814.58 ug\L	95
36) 1,2-Dichloroethane	7.32	62	449661	39.56 ug\L	100
37) Trichloroethene	8.25	95	533085	39.87 ug\L	99
38) 1,2-Dichloropropane	8.62	63	285359	40.18 ug\L	99
39) Dibromomethane	8.82	93	169143	40.36 ug\L	99
40) Methylmethacrylate	8.83	69	83734	44.26 ug\L	97
41) Bromodichloromethane	9.07	83	558222	40.92 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	51039	39.17 ug\L	95
43) cis-1,3-Dichloropropene	9.70	75	529866	41.71 ug\L	99
44) 4-Methyl-2-Pentanone	9.95	85	21934	43.12 ug\L #	1
47) Toluene	10.14	92	1050622	39.17 ug\L	100
48) trans-1,3-Dichloropropene	10.53	75	408043	41.23 ug\L	99
49) Ethylmethacrylate	10.64	69	205861	44.23 ug\L	98
50) 1,1,2-Trichloroethane	10.79	83	156378	39.94 ug\L	97
51) Tetrachloroethene	10.90	164	449566	38.58 ug\L	98
52) 1,3-Dichloropropane	11.02	76	337307	40.62 ug\L	98
53) 2-Hexanone	11.14	43	61503	41.41 ug\L	99
54) Dibromochloromethane	11.34	129	338783	42.05 ug\L	98
55) 1,2-Dibromoethane	11.48	107	208182	41.07 ug\L	98
56) Chlorobenzene	12.14	112	1144230	38.52 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.27	131	439758	39.50 ug\L	99
58) Ethylbenzene	12.28	91	2233211	38.67 ug\L	100
59) total-Xylene	12.44	106	2279293m	113.52 ug\L #	
60) Styrene	13.03	104	1100246	37.49 ug\L	97
62) Bromoform	13.33	173	156316	42.95 ug\L	99
63) Isopropylbenzene	13.50	105	2094320	38.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.06	53	62865	43.78 ug\L	91
65) trans-1,4-dichloro-2-Buten	14.06	53	62865	41.10 ug\L #	39
67) Bromobenzene	13.94	156	407509	39.55 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.00	83	159651	40.25 ug\L	96
69) 1,2,3-Trichloropropane	14.05	75	201442	40.25 ug\L	93
70) n-Propylbenzene	14.06	91	2503911	38.91 ug\L	100
71) 2-Chlorotoluene	14.20	91	1464559	38.66 ug\L	98
72) 4-Chlorotoluene	14.35	91	1683484	38.26 ug\L	99
73) 1,3,5-Trimethylbenzene	14.31	105	1866159	38.61 ug\L	100
74) Pentachloroethane	14.82	167	260835	39.00 ug\L	98
75) tert-Butylbenzene	14.76	119	1567887	38.44 ug\L	100
76) 1,2,4-Trimethylbenzene	14.83	105	1832348	38.36 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

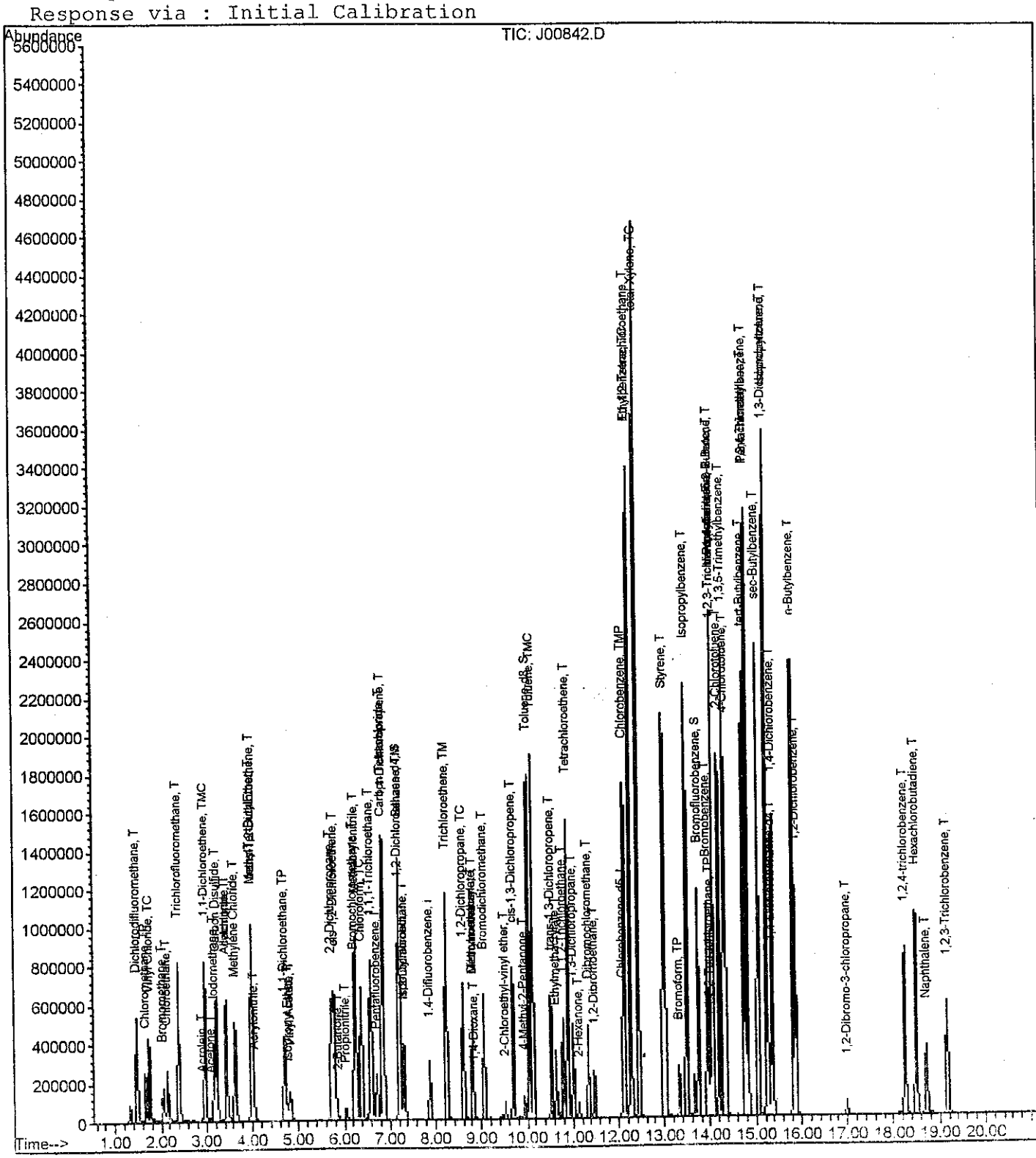
Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.06	105	2334501	38.61 ug\L	99
78) 1,3-Dichlorobenzene	15.24	146	817537	38.64 ug\L	97
79) Isopropyltoluene	15.26	119	1904586	38.54 ug\L	99
80) 1,4-Dichlorobenzene	15.36	146	812646	38.20 ug\L	99
81) 1,2-Dichlorobenzene	15.89	146	647087	39.26 ug\L	99
82) n-Butylbenzene	15.82	91	1791846	39.32 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.99	75	29998	37.65 ug\L #	84
84) 1,2,4-trichlorobenzene	18.25	180	451116	39.07 ug\L	100
85) Hexachlorobutadiene	18.50	225	377795	36.44 ug\L	100
86) Naphthalene	18.71	128	533546	42.69 ug\L	100
87) 1,2,3-Trichlorobenzene	19.18	180	331858	38.89 ug\L	99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	236749	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	271920	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	136085	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.11	116	46	10.00	ug\L	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	102936	10.33	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.30%			
46) Toluene-d8	10.02	98	402158	10.10	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.00%			
66) Bromofluorobenzene	13.72	95	149700	9.88	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	185478	10.26	ug\L	99
3) Chloromethane	1.66	50	89700	10.00	ug\L	97
4) Vinyl Chloride	1.74	62	126218	10.22	ug\L	100
5) Bromomethane	2.04	94	30971m	8.32	ug\L	
6) Chloroethane	2.13	64	67507	10.19	ug\L	100
7) Trichlorofluoromethane	2.38	101	221851	9.76	ug\L #	100
8) Acrolein	2.90	56	5935	19.88	ug\L #	90
9) Acrylonitrile	4.03	53	15303	21.43	ug\L	95
10) 1,1-Dichloroethene	2.96	96	110481	10.23	ug\L	95
11) Acetone	3.10	58	2424	13.01	ug\L #	59
12) Iodomethane	3.17	142	144562	10.01	ug\L	97
13) Allylchloride	3.43	39	128977	9.93	ug\L	100
14) Carbon Disulfide	3.22	76	306632	9.84	ug\L	100
15) Acetonitrile	3.43	41	138391	99.92	ug\L	99
16) Methylene Chloride	3.63	86	61183	9.17	ug\L	98
17) trans-1,2-Dichloroethene	3.98	96	117661	10.15	ug\L	99
18) MethylTertButylEther	3.97	73	149459	10.73	ug\L	100
19) 1,1-Dichloroethane	4.70	63	170375	9.79	ug\L	99
20) Isopropyl Ether	4.77	45	18664m	10.28	ug\L	
21) Vinyl Acetate	4.80	43	89745	10.31	ug\L	97
22) 2,2-Dichloropropane	5.71	77	204482	9.97	ug\L	99
23) cis-1,2-Dichloroethene	5.77	96	110680	10.01	ug\L	97
24) 2-Butanone	5.86	72	2653m	11.41	ug\L	
25) Propionitrile	6.01	54	26079	109.35	ug\L	97
26) Methacrylonitrile	6.22	41	146128	104.83	ug\L	98
27) Bromochloromethane	6.20	128	41465	10.36	ug\L	98
28) Chloroform	6.36	83	214507	10.06	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	241792	9.84	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	226500	9.84 ug\L	99
31) 1,4-Dioxane	8.84	88	5614	226.58 ug\L #	72
32) 1,1-Dichloropropene	6.85	77	48923	9.94 ug\L	93
34) Benzene	7.19	78	380136	10.01 ug\L	100
35) Isobutyl alcohol	7.31	43	13593	204.98 ug\L #	85
36) 1,2-Dichloroethane	7.29	62	117398	10.34 ug\L	99
37) Trichloroethene	8.22	95	131207	9.82 ug\L	99
38) 1,2-Dichloropropane	8.58	63	67927	9.57 ug\L	99
39) Dibromomethane	8.79	93	41892	10.01 ug\L	95
40) Methylmethacrylate	8.80	69	20795	11.00 ug\L	98
41) Bromodichloromethane	9.04	83	139253	10.22 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.50	63	13572	10.43 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	127539	10.05 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4814	9.47 ug\L #	1
47) Toluene	10.11	92	254492	9.89 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	98236	10.35 ug\L	97
49) Ethylmethacrylate	10.61	69	46882	10.50 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	39079	10.41 ug\L	97
51) Tetrachloroethene	10.87	164	112026	10.02 ug\L	99
52) 1,3-Dichloropropane	10.99	76	83613	10.50 ug\L	97
53) 2-Hexanone	11.11	43	14740	10.35 ug\L	98
54) Dibromochloromethane	11.32	129	82748	10.71 ug\L	98
55) 1,2-Dibromoethane	11.45	107	51404	10.57 ug\L	97
56) Chlorobenzene	12.11	112	285350	10.02 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.24	131	110222	10.32 ug\L	99
58) Ethylbenzene	12.25	91	557285	10.06 ug\L	99
59) total-Xylene	12.42	106	572541m	29.73 ug\L #	
60) Styrene	13.01	104	292603	10.40 ug\L	99
62) Bromoform	13.31	173	38751	9.86 ug\L	99
63) Isopropylbenzene	13.47	105	568522	9.79 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	16816	10.85 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	16816	10.18 ug\L #	44
67) Bromobenzene	13.92	156	111009	9.98 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.98	83	44964	10.50 ug\L	98
69) 1,2,3-Trichloropropane	14.02	75	55094	10.19 ug\L	96
70) n-Propylbenzene	14.04	91	672093	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	393728	9.62 ug\L	99
72) 4-Chlorotoluene	14.33	91	468656	9.86 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	500390	9.59 ug\L	99
74) Pentachloroethane	14.80	167	73416	10.16 ug\L	99
75) tert-Butylbenzene	14.73	119	427537	9.71 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	508226	9.85 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00844.D 08060125.M Mon Aug 06 16:44:[illegible] 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

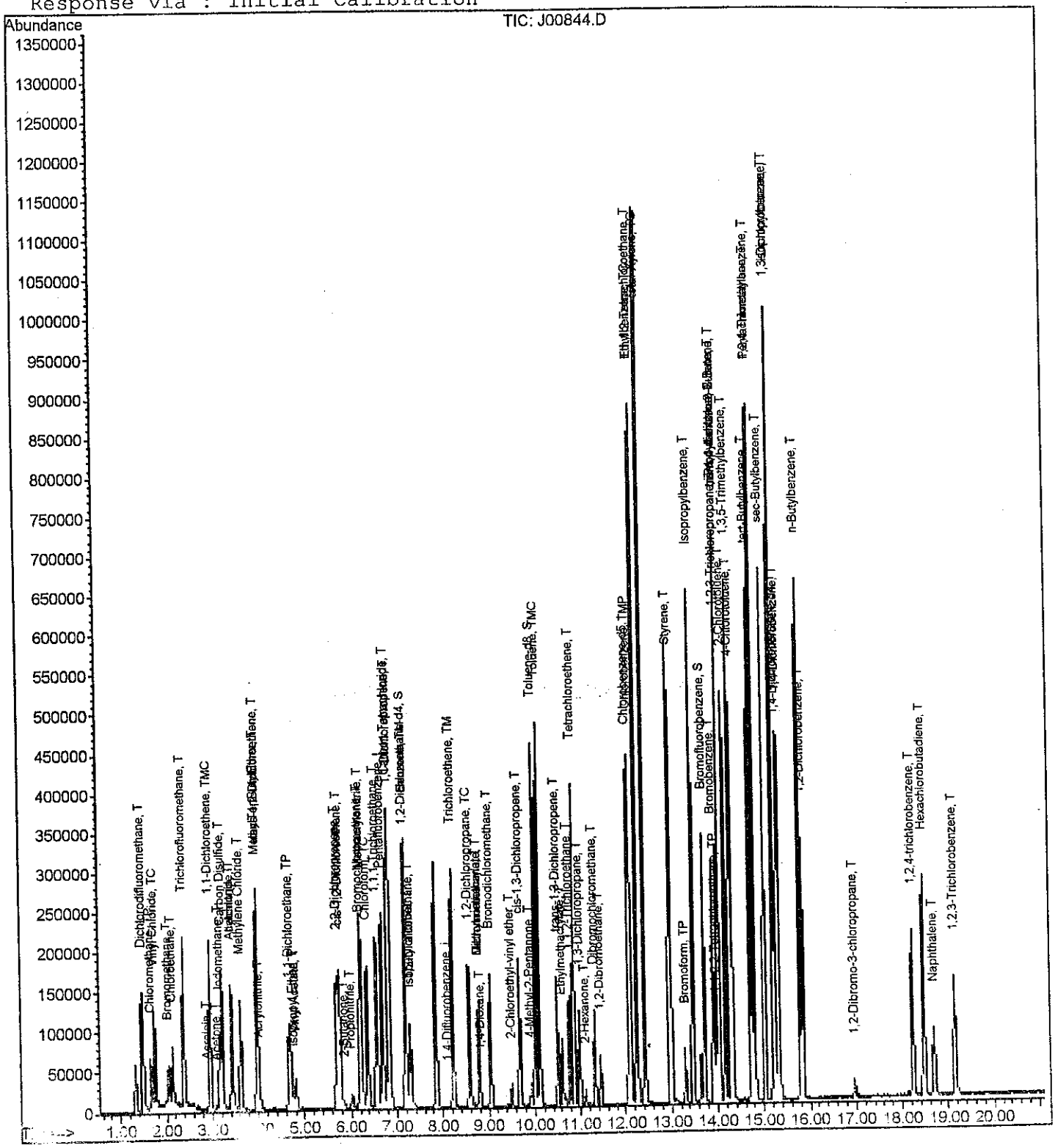
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	635434	9.73 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	227582	9.96 ug\L	98
79) Isopropyltoluene	15.23	119	521726	9.78 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	224040	9.75 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	176920	9.94 ug\L	99
82) n-Butylbenzene	15.80	91	488303	9.92 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7984	9.28 ug\L	89
84) 1,2,4-trichlorobenzene	18.23	180	112061	8.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	97843	8.74 ug\L	100
86) Naphthalene	18.69	128	121746	9.02 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	83493	9.06 ug\L	98

= qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	117	-0.02
2	T	Dichlorodifluoromethane	0.764	0.783	-2.5	124	0.00
3	TP	Chloromethane	0.379	0.379	0.0	119	0.00
4	TC	Vinyl Chloride	0.522	0.533	-2.1	123	0.00
5	T	Bromomethane	0.157	0.131	16.6	99	0.00
6	T	Chloroethane	0.280	0.285	-1.8	118	-0.02
7	T	Trichlorofluoromethane	0.960	0.937	2.4	112	-0.02
8	T	Acrolein	0.013	0.013	0.0	129	-0.02
9	T	Acrylonitrile	0.030	0.032	-6.7	130	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.467	-2.4	122	-0.02
11	T	Acetone	0.008	0.010	-25.0	157#	0.00
12	T	Iodomethane	0.610	0.611	-0.2	114	-0.01
13	T	Allylchloride	0.549	0.545	0.7	114	0.00
14	T	Carbon Disulfide	1.317	1.295	1.7	122	-0.02
15	T	Acetonitrile	0.059	0.058	1.7	115	-0.02
16	T	Methylene Chloride	0.304	0.258	15.1	106	-0.02
17	T	trans-1,2-Dichloroethene	0.490	0.497	-1.4	119	-0.02
18	T	MethylTertButylEther	0.589	0.631	-7.1	126	-0.03
19	TP	1,1-Dichloroethane	0.735	0.720	2.0	116	-0.02
20	T	Isopropyl Ether	0.077	0.079	-2.6	123	-0.02
21	T	Vinyl Acetate	0.368	0.379	-3.0	126	-0.02
22	T	2,2-Dichloropropane	0.867	0.864	0.3	116	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.467	0.0	119	-0.03
24	T	2-Butanone	0.010	0.011	-10.0	168#	0.00
25	T	Propionitrile	0.010	0.011	-10.0	128	-0.03
26	T	Methacrylonitrile	0.059	0.062	-5.1	121	-0.02
27	T	Bromochloromethane	0.169	0.175	-3.6	123	-0.02
28	TC	Chloroform	0.900	0.906	-0.7	115	-0.02
29	T	1,1,1-Trichloroethane	1.038	1.021	1.6	113	-0.02
30	T	Carbon Tetrachloride	0.973	0.957	1.6	114	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	145	-0.02
32	T	1,1-Dichloropropene	0.208	0.207	0.5	112	-0.02
33	S	1,2-Dichloroethane-d4	0.421	0.435	-3.3	121	-0.02
34	TM	Benzene	1.604	1.606	-0.1	117	-0.02
35	T	Isobutyl alcohol	0.003	0.003	0.0	105	-0.03
36	T	1,2-Dichloroethane	0.480	0.496	-3.3	119	-0.02
37	TM	Trichloroethene	0.564	0.554	1.8	115	-0.02
38	TC	1,2-Dichloropropane	0.300	0.287	4.3	114	-0.02
39	T	Dibromomethane	0.177	0.177	0.0	114	0.00
40	T	Methylmethacrylate	0.080	0.088	-10.0	131	-0.02
41	T	Bromodichloromethane	0.576	0.588	-2.1	118	-0.02
42	T	2-Chloroethyl-vinyl ether	0.055	0.057	-3.6	129	0.00

= Outside Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.539	-0.6	116	-0.02
44	T	4-Methyl-2-Pentanone	0.021	0.020	4.8	128	-0.01
45	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
46	S	Toluene-d8	1.464	1.479	-1.0	115	-0.02
47	TMC	Toluene	0.946	0.936	1.1	112	-0.02
48	T	trans-1,3-Dichloropropene	0.349	0.361	-3.4	115	-0.02
49	T	Ethylmethacrylate	0.164	0.172	-4.9	118	0.00
50	T	1,1,2-Trichloroethane	0.138	0.144	-4.3	119	0.00
51	T	Tetrachloroethene	0.411	0.412	-0.2	112	0.00
52	T	1,3-Dichloropropane	0.293	0.307	-4.8	121	0.00
53	T	2-Hexanone	0.052	0.054	-3.8	135	-0.02
54	T	Dibromochloromethane	0.284	0.304	-7.0	122	0.00
55	T	1,2-Dibromoethane	0.179	0.189	-5.6	119	0.00
56	TMP	Chlorobenzene	1.048	1.049	-0.1	115	-0.02
57	T	1,1,1,2-Tetrachloroethane	0.393	0.405	-3.1	114	0.00
58	TC	Ethylbenzene	2.037	2.049	-0.6	114	-0.02
59	TG	total-Xylene	0.708	0.702	0.8	110	0.00
60	T	Styrene	1.035	1.076	-4.0	114	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00
62	TP	Bromoform	0.289	0.285	1.4	117	0.00
63	T	Isopropylbenzene	4.269	4.178	2.1	112	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.124	-8.8	120	0.39
65	T	trans-1,4-dichloro-2-Butene	0.121	0.124	-2.5	118	0.00
66	S	Bromofluorobenzene	1.113	1.100	1.2	114	0.00
67	T	Bromobenzene	0.818	0.816	0.2	112	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.330	-4.8	119	0.00
69	T	1,2,3-Trichloropropane	0.397	0.405	-2.0	119	-0.02
70	T	n-Propylbenzene	5.106	4.939	3.3	110	0.00
71	T	2-Chlorotoluene	3.006	2.893	3.8	109	0.00
72	T	4-Chlorotoluene	3.492	3.444	1.4	112	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.677	4.1	109	0.00
74	T	Pentachloroethane	0.531	0.539	-1.5	112	0.00
75	T	tert-Butylbenzene	3.237	3.142	2.9	111	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.735	1.5	112	0.00
77	T	sec-Butylbenzene	4.798	4.669	2.7	111	0.00
78	T	1,3-Dichlorobenzene	1.679	1.672	0.4	112	0.00
79	T	Isopropyltoluene	3.921	3.834	2.2	112	-0.02
80	T	1,4-Dichlorobenzene	1.688	1.646	2.5	113	0.00
81	T	1,2-Dichlorobenzene	1.308	1.300	0.6	114	0.00
82	T	n-Butylbenzene	3.616	3.588	0.8	113	0.00

(#) = Out of Rang

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.059	6.3	113	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.823	10.2	101	0.00
85	T	Hexachlorobutadiene	0.823	0.719	12.6	97	0.00
86	T	Naphthalene	0.992	0.895	9.8	104	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.614	9.3	104	-0.02
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

Target Compounds Qvalue

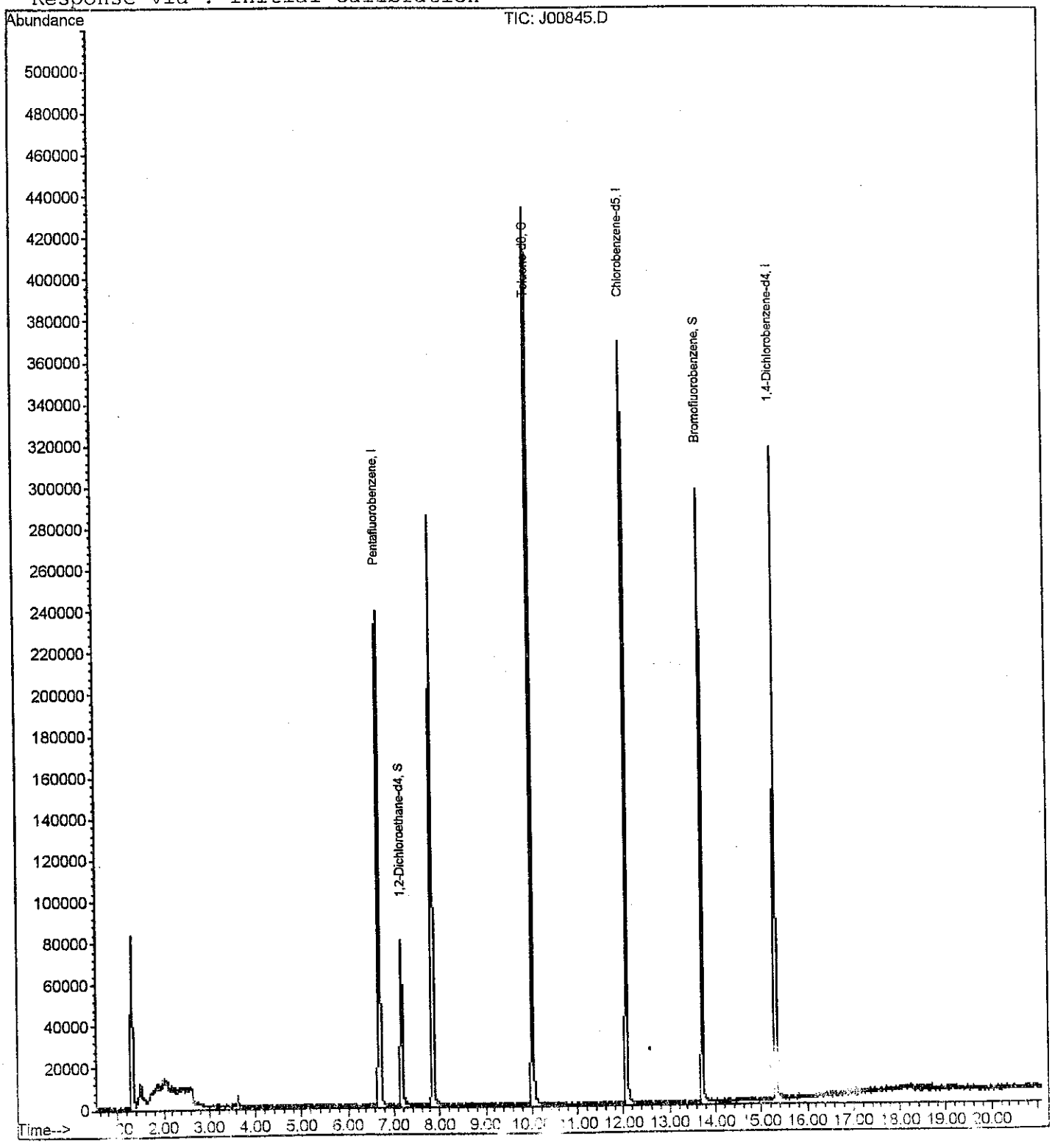
VLR
8-7-01

(# = qualifier out of range (m) = manual integration
J[illegible]5.D 08060125.M Tue Aug 07 [illegible] 17 2001 Page [illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	233724	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.08	117	266294	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	121257	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	113	10.00	ug\L		-0.22
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	91814	9.34	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.40%				
46) Toluene-d8	10.02	98	372739	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.72	95	126712	9.39	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	188464	10.56	ug\L		99
3) Chloromethane	1.65	50	87742	9.91	ug\L		99
4) Vinyl Chloride	1.74	62	125026	10.25	ug\L		100
5) Bromomethane	2.03	94	28499	7.76	ug\L		98
6) Chloroethane	2.13	64	67434	10.31	ug\L		100
7) Trichlorofluoromethane	2.38	101	225117	10.03	ug\L	#	100
8) Acrolein	2.91	56	4757	16.14	ug\L	#	10
9) Acrylonitrile	4.03	53	14090	19.98	ug\L		91
10) 1,1-Dichloroethene	2.96	96	105707	9.92	ug\L		98
11) Acetone	3.11	58	1826	9.93	ug\L		80
12) Iodomethane	3.17	142	124388	8.72	ug\L		97
13) Allylchloride	3.43	39	120530	9.40	ug\L		98
14) Carbon Disulfide	3.22	76	283366	9.21	ug\L		100
15) Acetonitrile	3.43	41	130302	95.30	ug\L		99
16) Methylene Chloride	3.63	86	75684	12.00	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	111235	9.72	ug\L		98
18) MethylTertButylEther	3.97	73	134807	9.80	ug\L		100
19) 1,1-Dichloroethane	4.69	63	163981	9.55	ug\L		98
20) Isopropyl Ether	4.77	45	17504	9.77	ug\L	#	25
21) Vinyl Acetate	4.81	43	75311	8.76	ug\L		100
22) 2,2-Dichloropropane	5.71	77	205722	10.16	ug\L		98
23) cis-1,2-Dichloroethene	5.77	96	103481	9.48	ug\L		99
24) 2-Butanone	5.86	72	2439	10.72	ug\L	#	100
25) Propionitrile	6.03	54	22045	93.63	ug\L	#	94
26) Methacrylonitrile	6.24	41	131276	95.39	ug\L		98
27) Bromochloromethane	6.20	128	35746	9.05	ug\L		98
28) Chloroform	6.37	83	201405	9.57	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	236941	9.77	ug\L		98

(#) = Qualifier out of range (m) = manual integration
08060125.M Tue Aug 07 08:13:15 2001 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	225318	9.91 ug\L	99
31) 1,4-Dioxane	8.83	88	4486	183.40 ug\L #	86
32) 1,1-Dichloropropene	6.84	77	46863	9.64 ug\L	88
34) Benzene	7.20	78	359692	9.59 ug\L	100
35) Isobutyl alcohol	7.32	43	11073	171.28 ug\L #	79
36) 1,2-Dichloroethane	7.30	62	105472	9.41 ug\L	99
37) Trichloroethene	8.23	95	125618	9.53 ug\L	99
38) 1,2-Dichloropropane	8.59	63	62462	8.92 ug\L	98
39) Dibromomethane	8.79	93	39746	9.62 ug\L	99
40) Methylmethacrylate	8.80	69	16703	8.95 ug\L	91
41) Bromodichloromethane	9.05	83	124715	9.27 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	10629	8.27 ug\L	94
43) cis-1,3-Dichloropropene	9.68	75	118981	9.50 ug\L	99
44) 4-Methyl-2-Pentanone	9.92	85	4319	8.61 ug\L #	1
47) Toluene	10.11	92	243381	9.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	91973	9.89 ug\L	99
49) Ethylmethacrylate	10.61	69	44341	10.14 ug\L	96
50) 1,1,2-Trichloroethane	10.77	83	34382	9.35 ug\L	95
51) Tetrachloroethene	10.87	164	107565	9.83 ug\L	98
52) 1,3-Dichloropropane	10.99	76	74731	9.58 ug\L	99
53) 2-Hexanone	11.12	43	12235	8.77 ug\L	93
54) Dibromochloromethane	11.32	129	74174	9.80 ug\L	100
55) 1,2-Dibromoethane	11.45	107	44624	9.37 ug\L	98
56) Chlorobenzene	12.12	112	258236	9.26 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.24	131	101990	9.75 ug\L	99
58) Ethylbenzene	12.26	91	525598	9.69 ug\L	99
59) total-Xylene	12.42	106	539877m	28.63 ug\L #	
60) Styrene	13.01	104	263629	9.56 ug\L	99
62) Bromoform	13.31	173	31938	9.12 ug\L	100
63) Isopropylbenzene	13.48	105	494223	9.55 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	13626	9.86 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	13626	9.26 ug\L #	56
67) Bromobenzene	13.92	156	93327	9.41 ug\L	94
68) 1,1,2,2-Tetrachloroethane	13.98	83	36078	9.45 ug\L	96
69) 1,2,3-Trichloropropane	14.03	75	45379	9.42 ug\L	97
70) n-Propylbenzene	14.04	91	598888	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	346083	9.49 ug\L	99
72) 4-Chlorotoluene	14.33	91	411375	9.72 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	445948	9.59 ug\L	100
74) Pentachloroethane	14.80	167	63083	9.80 ug\L	98
75) tert-Butylbenzene	14.73	119	371461	9.46 ug\L	100
76) 1,2,4-Trimethylbenzene	14.81	105	443984	9.66 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00846.D 08060125.M [illegible] 07 08:38:16 2001 Page

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.03	105	557935	9.59	ug\L		99
78) 1,3-Dichlorobenzene	15.21	146	196156	9.64	ug\L		97
79) Isopropyltoluene	15.23	119	459077	9.65	ug\L		99
80) 1,4-Dichlorobenzene	15.34	146	187744	9.17	ug\L		99
81) 1,2-Dichlorobenzene	15.86	146	147798	9.32	ug\L		97
82) n-Butylbenzene	15.80	91	435909	9.94	ug\L		99
83) 1,2-Dibromo-3-chloropropan	16.98	75	6442	8.40	ug\L	#	84
84) 1,2,4-trichlorobenzene	18.23	180	102453	9.22	ug\L		100
85) Hexachlorobutadiene	18.48	225	97686	9.79	ug\L		100
86) Naphthalene	18.68	128	106590	8.86	ug\L		100
87) 1,2,3-Trichlorobenzene	19.15	180	74972	9.13	ug\L		99

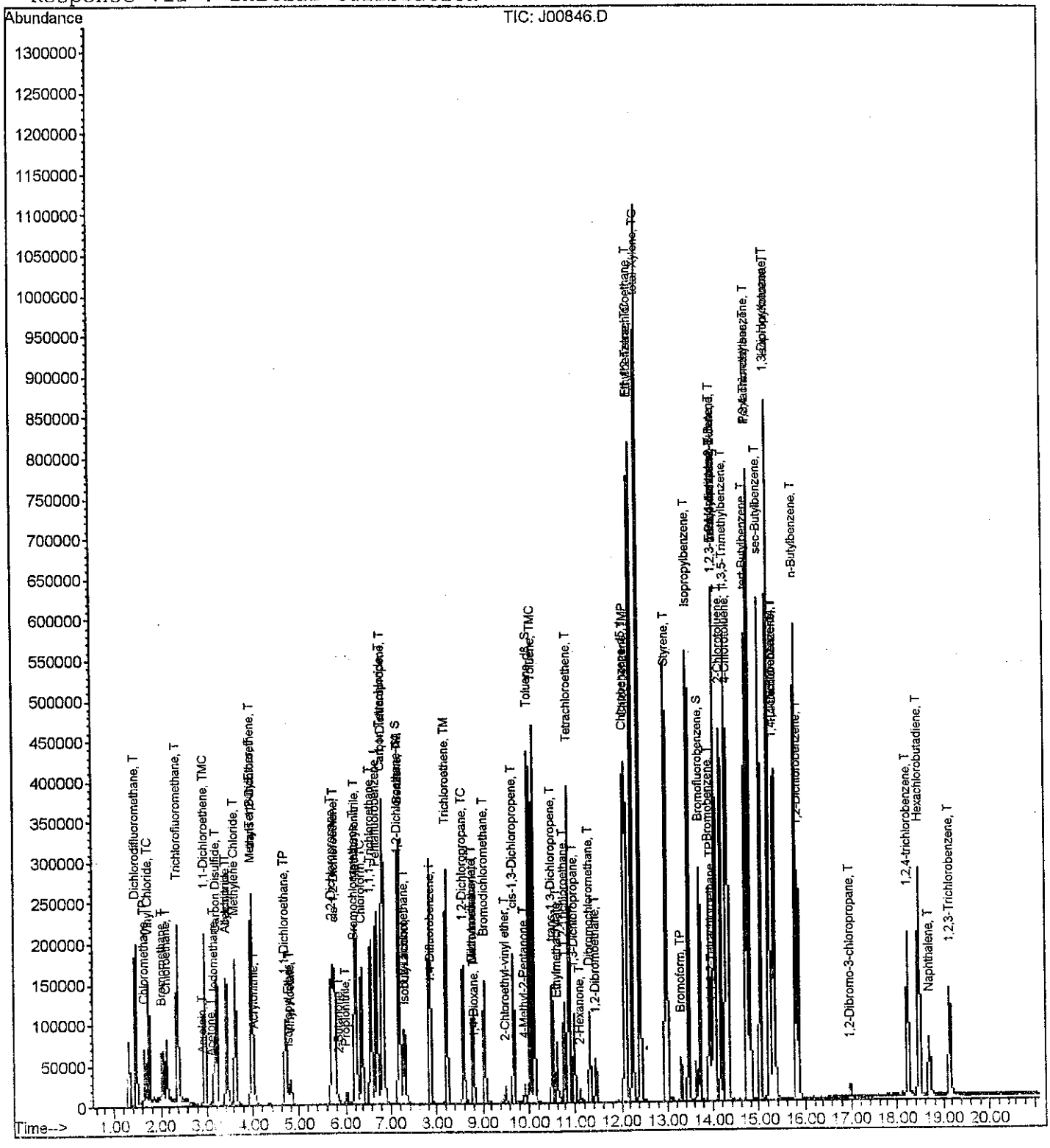
VRA 8.7.01

(#) = qualifier out of range (m) = manual integration
J00846.D 08060125.M Tue Aug 07 08:18:16 2001

Quantitation Report

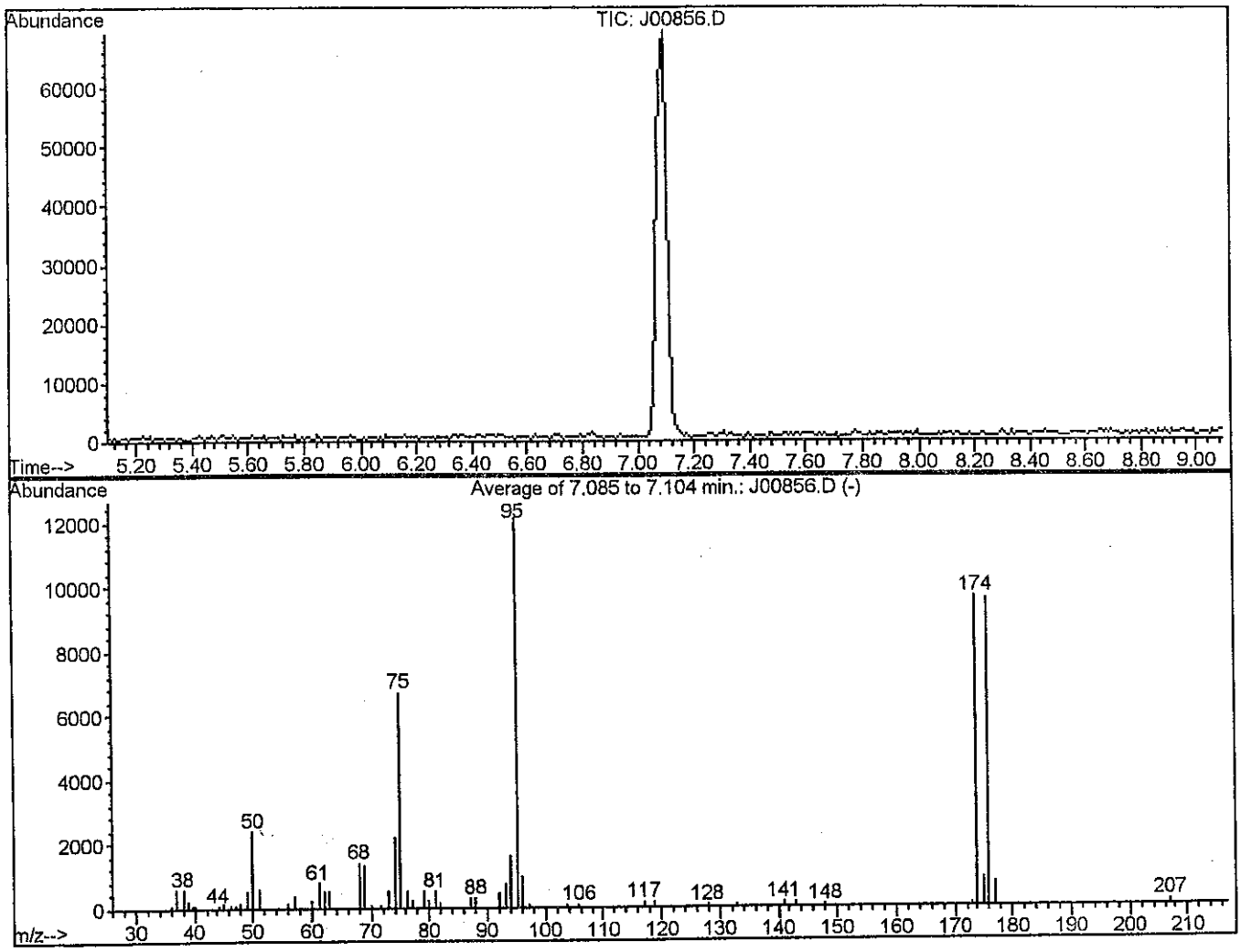
Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\1J080701\J00856.D Vial: 1
Acq On : 08/07/01 10:13 Operator:
Sample : BFB 50ng Inst : HP-MSJ
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 587

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2364	PASS
75	95	30	60	55.4	6714	PASS
95	95	100	100	100.0	12123	PASS
96	95	5	9	7.7	934	PASS
173	174	0.00	2	0.6	61	PASS
174	95	50	100	79.7	9656	PASS
175	174	5	9	8.7	838	PASS
176	174	95	101	99.3	9587	PASS
177	176	5	9	7.2	693	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	219634	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	255172	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	126943	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	588	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	92347	9.99	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.02	98	388775	10.40	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	138775	9.82	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	175386	10.46	ug\L	100
3) Chloromethane	1.67	50	86062	10.34	ug\L	98
4) Vinyl Chloride	1.74	62	119953	10.47	ug\L	98
5) Bromomethane	2.04	94	28706	8.31	ug\L	100
6) Chloroethane	2.14	64	64895	10.56	ug\L	99
7) Trichlorofluoromethane	2.38	101	222834	10.57	ug\L #	100
8) Acrolein	2.91	56	5167	18.66	ug\L #	86
9) Acrylonitrile	4.05	53	14875	22.45	ug\L	90
10) 1,1-Dichloroethene	2.96	96	106094	10.59	ug\L	97
11) Acetone	3.12	58	1727	9.99	ug\L	98
12) Iodomethane	3.17	142	118706m	8.86	ug\L	
13) Allylchloride	3.43	39	127546	10.58	ug\L	95
14) Carbon Disulfide	3.23	76	270288	9.35	ug\L	99
15) Acetonitrile	3.44	41	128237	99.80	ug\L	94
16) Methylene Chloride	3.63	86	55710	8.97	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	111612	10.38	ug\L	99
18) MethylTertButylEther	3.97	73	132630	10.26	ug\L	100
19) 1,1-Dichloroethane	4.69	63	166500	10.32	ug\L	99
20) Isopropyl Ether	4.77	45	17628	10.47	ug\L #	93
21) Vinyl Acetate	4.82	43	72146	8.93	ug\L	99
22) 2,2-Dichloropropane	5.72	77	199606	10.49	ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	104605	10.20	ug\L	96
24) 2-Butanone	5.85	72	1966m	9.38	ug\L	
25) Propionitrile	6.02	54	21955	99.23	ug\L	98
26) Methacrylonitrile	6.24	41	131016	101.31	ug\L	98
27) Bromochloromethane	6.20	128	36255	9.77	ug\L	99
28) Chloroform	6.37	83	204983	10.37	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	234352	10.[illegible]	ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	220780	10.34 ug\L	99
31) 1,4-Dioxane	8.84	88	4740	206.21 ug\L #	89
32) 1,1-Dichloropropene	6.85	77	48571	10.64 ug\L	99
34) Benzene	7.20	78	355362	10.09 ug\L	100
35) Isobutyl alcohol	7.32	43	11065m	181.36 ug\L	
36) 1,2-Dichloroethane	7.30	62	105489	10.01 ug\L	100
37) Trichloroethene	8.22	95	124564	10.05 ug\L	98
38) 1,2-Dichloropropane	8.59	63	65410	9.94 ug\L	100
39) Dibromomethane	8.79	93	38221	9.84 ug\L	96
40) Methylmethacrylate	8.81	69	17553	10.01 ug\L	95
41) Bromodichloromethane	9.05	83	126490	10.00 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	8646	7.16 ug\L	98
43) cis-1,3-Dichloropropene	9.69	75	115842	9.84 ug\L	96
44) 4-Methyl-2-Pentanone	9.92	85	4050	8.59 ug\L #	1
47) Toluene	10.12	92	248251	10.28 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	88881	9.98 ug\L	95
49) Ethylmethacrylate	10.62	69	42447	10.13 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	36640	10.40 ug\L	99
51) Tetrachloroethene	10.87	164	111457	10.63 ug\L	98
52) 1,3-Dichloropropane	10.99	76	77373	10.35 ug\L	98
53) 2-Hexanone	11.12	43	11508	8.61 ug\L	100
54) Dibromochloromethane	11.32	129	75098	10.36 ug\L	96
55) 1,2-Dibromoethane	11.45	107	46761	10.25 ug\L	96
56) Chlorobenzene	12.11	112	266716	9.98 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	104648	10.44 ug\L	98
58) Ethylbenzene	12.25	91	543669	10.46 ug\L	98
59) total-Xylene	12.42	106	571672m	31.63 ug\L #	
60) Styrene	13.00	104	279291	10.57 ug\L	98
62) Bromoform	13.31	173	35042	9.56 ug\L	99
63) Isopropylbenzene	13.47	105	539808	9.96 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	16330	11.29 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.04	53	16330	10.60 ug\L #	42
67) Bromobenzene	13.93	156	104972	10.11 ug\L #	96
68) 1,1,2,2-Tetrachloroethane	13.97	83	41310	10.34 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	50023	9.92 ug\L	100
70) n-Propylbenzene	14.05	91	659930	10.18 ug\L	99
71) 2-Chlorotoluene	14.18	91	386840	10.14 ug\L	99
72) 4-Chlorotoluene	14.33	91	453510	10.23 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	496120	10.19 ug\L	99
74) Pentachloroethane	14.80	167	67695	10.05 ug\L	97
75) tert-Butylbenzene	14.73	119	412220	10.03 ug\L	98
76) 1,2,4-Trimethylbenzene	14.80	105	494364	10.28 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

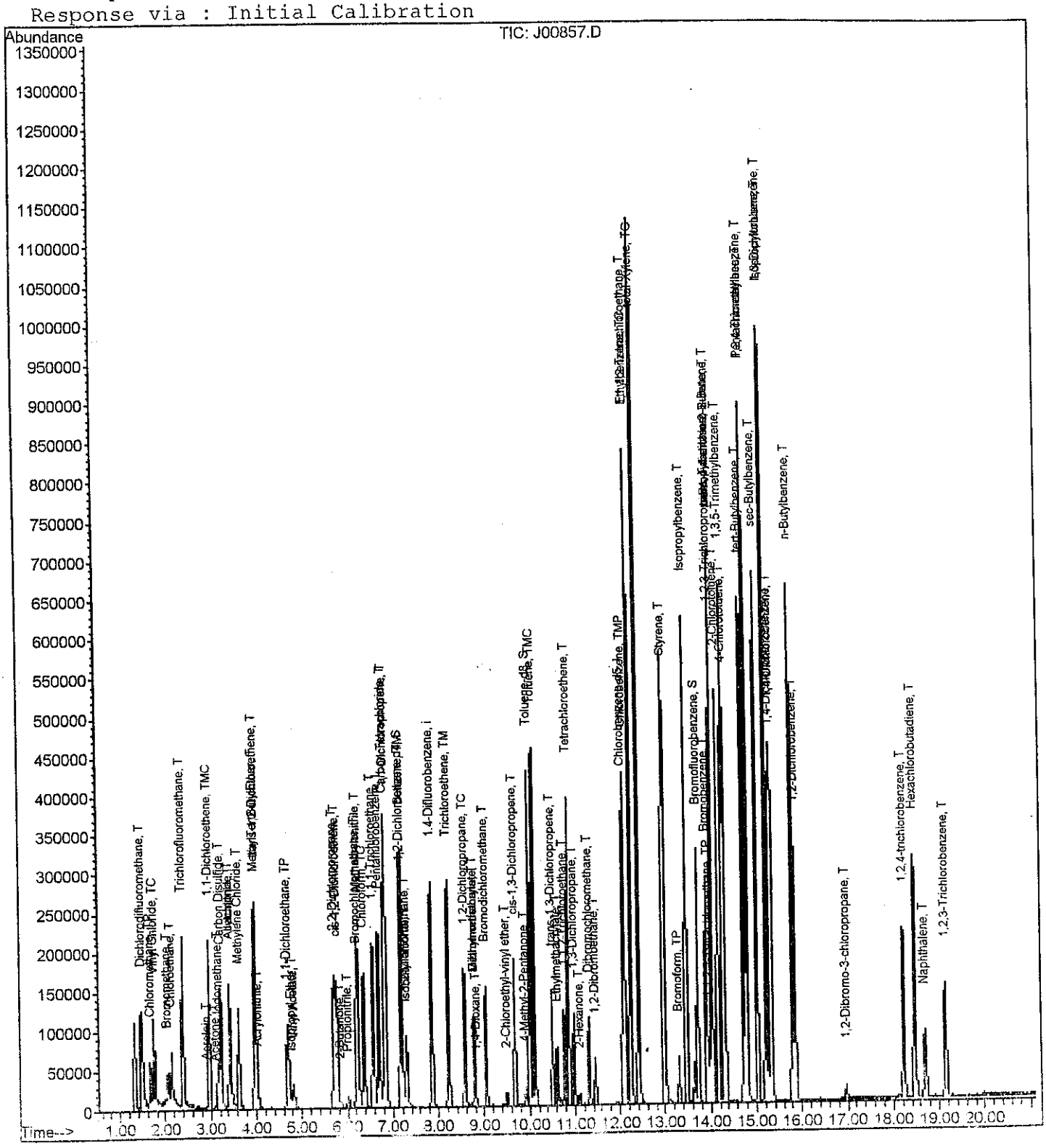
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	614818	10.09	ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	220497	10.35	ug\L	97
79) Isopropyltoluene	15.23	119	512085	10.29	ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	208898	9.75	ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	170639	10.28	ug\L	98
82) n-Butylbenzene	15.80	91	478982	10.43	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	7651	9.53	ug\L	96
84) 1,2,4-trichlorobenzene	18.23	180	116183	9.99	ug\L	100
85) Hexachlorobutadiene	18.48	225	113430	10.86	ug\L	100
86) Naphthalene	18.69	128	123765	9.83	ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	87823	10.22	ug\L	98

(#) = qualifier out of range (m) = manual integration
[illegible] 08070125.M Wed Aug 08 09:10:23 2001 Page [illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	-0.01
2	T	Dichlorodifluoromethane	0.764	0.799	-4.6	117	0.00
3	TP	Chloromethane	0.379	0.392	-3.4	115	0.00
4	TC	Vinyl Chloride	0.522	0.546	-4.6	117	0.00
5	T	Bromomethane	0.157	0.131	16.6	92	0.00
6	T	Chloroethane	0.280	0.295	-5.4	113	-0.01
7	T	Trichlorofluoromethane	0.960	1.015	-5.7	112	-0.01
8	T	Acrolein	0.013	0.012	7.7	112	0.00
9	T	Acrylonitrile	0.030	0.034	-13.3	126	0.00
10	TMC	1,1-Dichloroethene	0.456	0.483	-5.9	117	-0.02
11	T	Acetone	0.008	0.008	0.0	112	0.02
12	T	Iodomethane	0.610	0.540	11.5	94	-0.01
13	T	Allylchloride	0.549	0.581	-5.8	113	-0.01
14	T	Carbon Disulfide	1.317	1.231	6.5	108	-0.01
15	T	Acetonitrile	0.059	0.058	1.7	106	-0.01
16	T	Methylene Chloride	0.304	0.254	16.4	97	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.508	-3.7	113	-0.01
18	T	MethylTertButylEther	0.589	0.604	-2.5	112	-0.03
19	TP	1,1-Dichloroethane	0.735	0.758	-3.1	113	-0.02
20	T	Isopropyl Ether	0.077	0.080	-3.9	116	-0.02
21	T	Vinyl Acetate	0.368	0.328	10.9	101	0.00
22	T	2,2-Dichloropropane	0.867	0.909	-4.8	113	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.476	-1.9	113	-0.02
24	T	2-Butanone	0.010	0.009	10.0	125	-0.02
25	T	Propionitrile	0.010	0.010	0.0	108	-0.02
26	T	Methacrylonitrile	0.059	0.060	-1.7	108	0.00
27	T	Bromochloromethane	0.169	0.165	2.4	107	-0.02
28	TC	Chloroform	0.900	0.933	-3.7	110	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.067	-2.8	110	-0.01
30	T	Carbon Tetrachloride	0.973	1.005	-3.3	111	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	122	-0.02
32	T	1,1-Dichloropropene	0.208	0.221	-6.3	112	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.420	0.2	109	-0.02
34	TM	Benzene	1.604	1.618	-0.9	110	-0.01
35	T	Isobutyl alcohol	0.003	0.003	0.0	86	-0.02
36	T	1,2-Dichloroethane	0.480	0.480	0.0	107	-0.01
37	TM	Trichloroethene	0.564	0.567	-0.5	109	-0.01
38	TC	1,2-Dichloropropane	0.300	0.298	0.7	109	-0.01
39	T	Dibromomethane	0.177	0.174	1.7	104	-0.01
40	T	Methylmethacrylate	0.080	0.080	0.0	110	-0.01
41	T	Bromodichloromethane	0.576	0.576	0.0	108	-0.01
42	T	2-Chloroethyl-vinyl ether	0.055	0.039	29.1#	82	0.00

= Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 T	cis-1,3-Dichloropropene	0.536	0.527	1.7	105	-0.01
44 T	4-Methyl-2-Pentanone	0.021	0.018	14.3	108	-0.01
45 I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
46 S	Toluene-d8	1.464	1.524	-4.1	112	-0.01
47 TMC	Toluene	0.946	0.973	-2.9	109	-0.01
48 T	trans-1,3-Dichloropropene	0.349	0.348	0.3	104	-0.01
49 T	Ethylmethacrylate	0.164	0.166	-1.2	107	0.00
50 T	1,1,2-Trichloroethane	0.138	0.144	-4.3	112	0.00
51 T	Tetrachloroethene	0.411	0.437	-6.3	112	-0.01
52 T	1,3-Dichloropropane	0.293	0.303	-3.4	112	-0.01
53 T	2-Hexanone	0.052	0.045	13.5	105	0.00
54 T	Dibromochloromethane	0.284	0.294	-3.5	111	0.00
55 T	1,2-Dibromoethane	0.179	0.183	-2.2	108	0.00
56 TMP	Chlorobenzene	1.048	1.045	0.3	107	-0.01
57 T	1,1,1,2-Tetrachloroethane	0.393	0.410	-4.3	108	0.00
58 TC	Ethylbenzene	2.037	2.131	-4.6	111	-0.01
59 TG	total-Xylene	0.708	0.747	-5.5	110	0.00
60 T	Styrene	1.035	1.095	-5.8	109	-0.01
61 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
62 TP	Bromoform	0.289	0.276	4.5	106	-0.01
63 T	Isopropylbenzene	4.269	4.252	0.4	107	0.00
64 T	cis-1,4-dichloro-2-Butene	0.114	0.129	-13.2	117	0.39
65 T	trans-1,4-dichloro-2-Butene	0.121	0.129	-6.6	115	-0.01
66 S	Bromofluorobenzene	1.113	1.093	1.8	106	0.00
67 T	Bromobenzene	0.818	0.827	-1.1	106	0.00
68 TP	1,1,2,2-Tetrachloroethane	0.315	0.325	-3.2	109	-0.01
69 T	1,2,3-Trichloropropane	0.397	0.394	0.8	108	-0.01
70 T	n-Propylbenzene	5.106	5.199	-1.8	108	0.00
71 T	2-Chlorotoluene	3.006	3.047	-1.4	107	0.00
72 T	4-Chlorotoluene	3.492	3.573	-2.3	108	0.00
73 T	1,3,5-Trimethylbenzene	3.836	3.908	-1.9	108	0.00
74 T	Pentachloroethane	0.531	0.533	-0.4	103	0.00
75 T	tert-Butylbenzene	3.237	3.247	-0.3	107	0.00
76 T	1,2,4-Trimethylbenzene	3.790	3.894	-2.7	109	-0.01
77 T	sec-Butylbenzene	4.798	4.843	-0.9	108	0.00
78 T	1,3-Dichlorobenzene	1.679	1.737	-3.5	108	0.00
79 T	Isopropyltoluene	3.921	4.034	-2.9	110	-0.01
80 T	1,4-Dichlorobenzene	1.688	1.646	2.5	106	0.00
81 T	1,2-Dichlorobenzene	1.308	1.344	-2.8	110	0.00
82 T	n-Butylbenzene	3.616	3.773	-4.3	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.060	4.8	108	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.915	0.1	105	-0.02
85	T	Hexachlorobutadiene	0.823	0.894	-8.6	112	0.00
86	T	Naphthalene	0.992	0.975	1.7	106	-0.01
87	T	1,2,3-Trichlorobenzene	0.677	0.692	-2.2	109	-0.01
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.26

(#) = Out of Range CCC's out = 0 CCC's out = 0
J00857.D 08070125.M Wed [illegible] 8 09:10:36 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

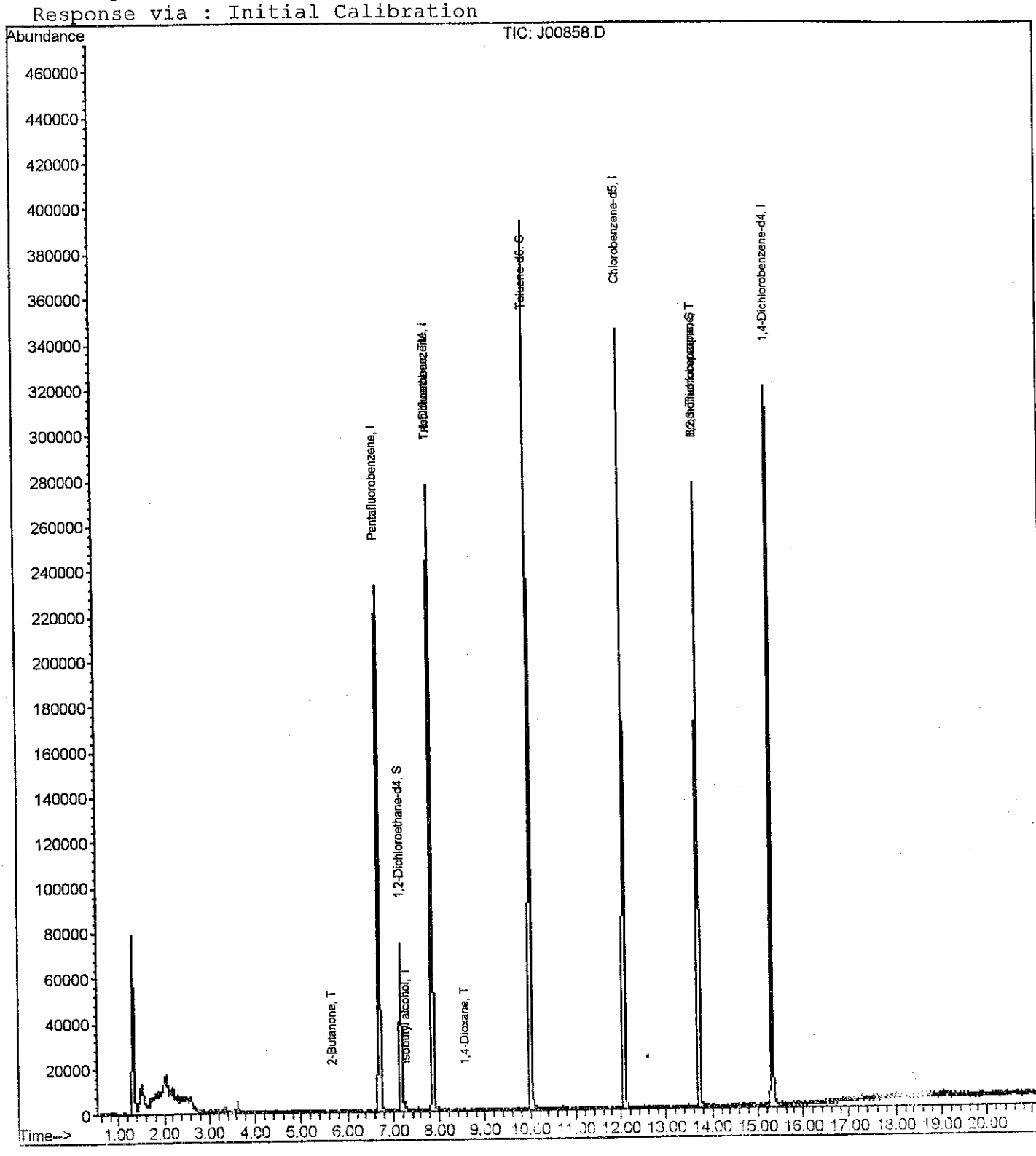
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	607	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			
Target Compounds						Qvalue
16) Methylene Chloride	3.62	86	1699	-1.65	ug\L	90
24) 2-Butanone	5.68	72	38	1.47	ug\L #	100
31) 1,4-Dioxane	8.57	88	39	1.65	ug\L #	53
35) Isobutyl alcohol	7.29	43	45	12.86	ug\L #	13
37) Trichloroethene	7.86	95	10670	0.84	ug\L #	6
69) 1,2,3-Trichloropropane	13.72	75	72268	16.50	ug\L #	4

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:36 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

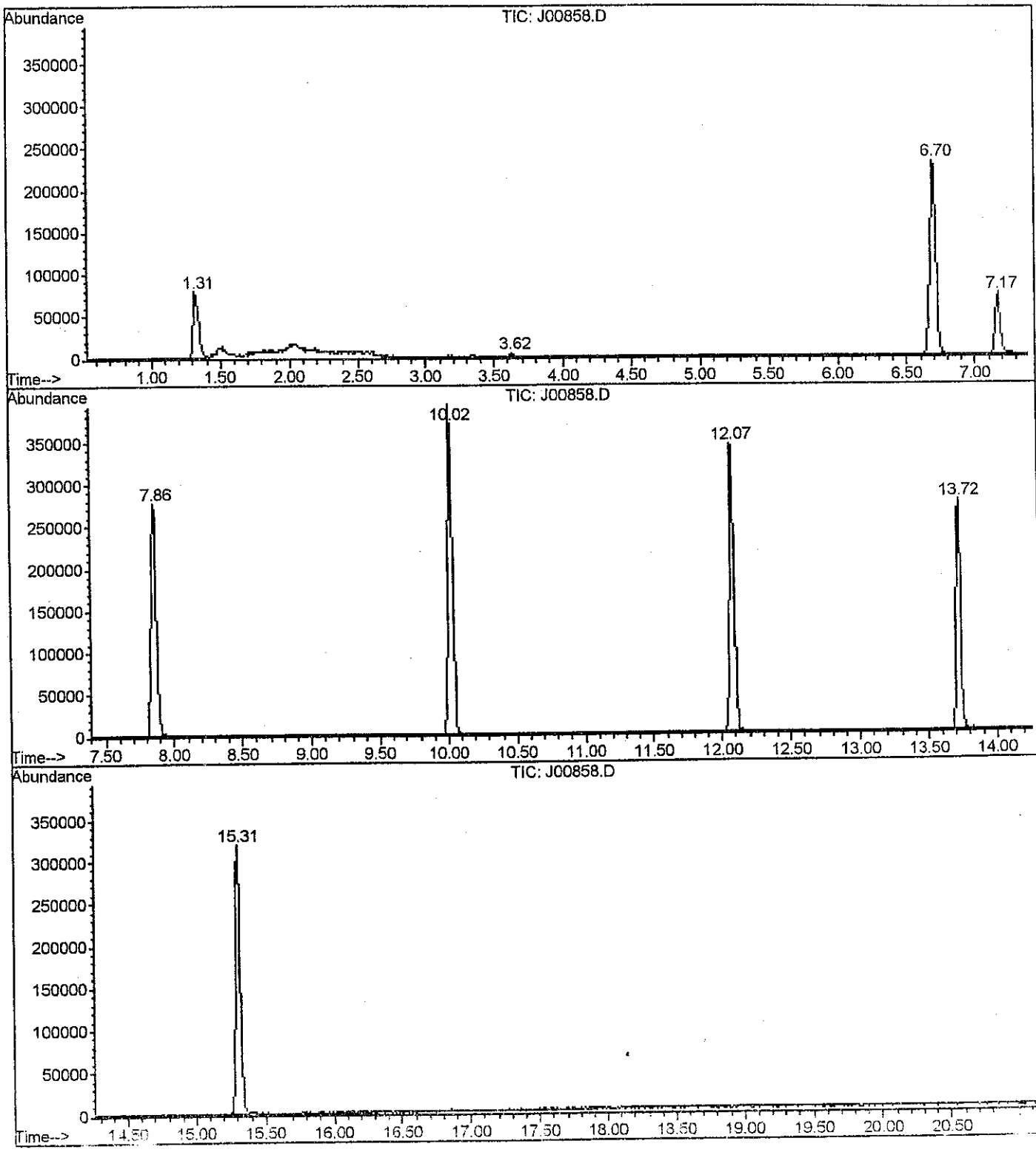
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 09:11:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

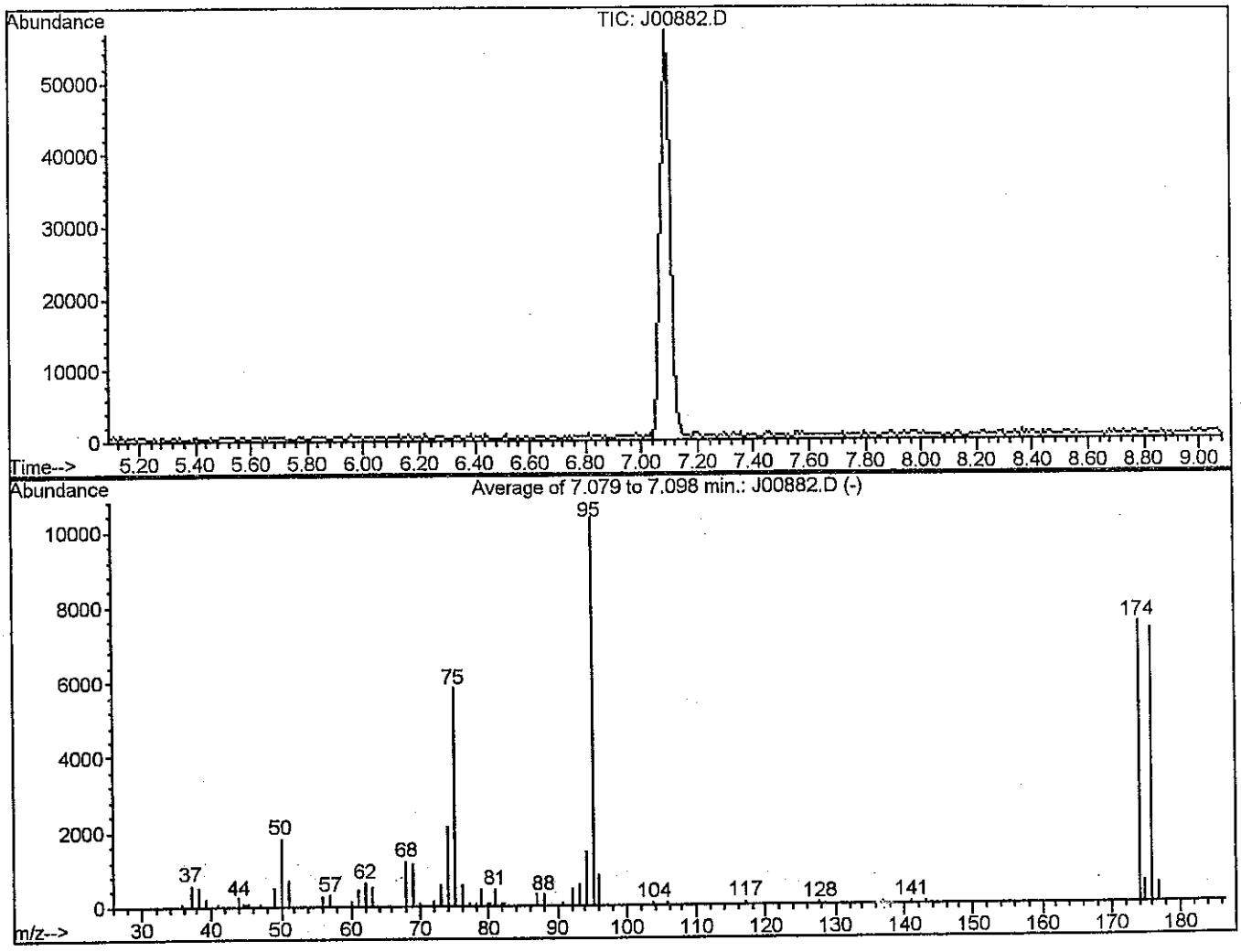
Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 09:11:36 2001

BFB

Data File : C:\HPCHEM\1\DATA\1J080801\J00882.D Vial: 1
Acq On : 08/08/01 09:17 Operator:
Sample : BFB 50ng Inst : HP-MSJ
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER



AutoFind: Scans 594, 595, 596; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	1823	PASS
75	95	30	60	56.1	5800	PASS
95	95	100	100	100.0	10336	PASS
96	95	5	9	7.7	800	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.5	7494	PASS
175	174	5	9	7.5	565	PASS
176	174	95	101	97.9	7336	PASS
177	176	5	9	7.0	512	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	200339	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.08	117	224653	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	113619	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.86	116	358	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.18	65	83004	9.85	ug\L		-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%				
46) Toluene-d8	10.02	98	334344	10.16	ug\L		-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.60%				
66) Bromofluorobenzene	13.72	95	123547	9.77	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	142707	9.33	ug\L		99
3) Chloromethane	1.66	50	66652	8.78	ug\L		99
4) Vinyl Chloride	1.74	62	100904	9.65	ug\L		98
5) Bromomethane	2.04	94	19980m	6.34	ug\L		
6) Chloroethane	2.14	64	58555	10.45	ug\L		99
7) Trichlorofluoromethane	2.38	101	206052	10.71	ug\L	#	100
8) Acrolein	2.89	56	4051	16.03	ug\L	#	86
9) Acrylonitrile	4.04	53	10698	17.70	ug\L		95
10) 1,1-Dichloroethene	2.97	96	88424	9.68	ug\L		97
11) Acetone	3.10	58	1691	10.72	ug\L		70
12) Iodomethane	3.18	142	101162	8.27	ug\L		99
13) Allylchloride	3.44	39	106304	9.67	ug\L		97
14) Carbon Disulfide	3.23	76	261033	9.90	ug\L		100
15) Acetonitrile	3.43	41	108396	92.49	ug\L		96
16) Methylene Chloride	3.63	86	47078	8.16	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	94798	9.66	ug\L		97
18) MethylTertButylEther	3.98	73	104047	8.82	ug\L		98
19) 1,1-Dichloroethane	4.70	63	141802	9.63	ug\L		98
20) Isopropyl Ether	4.79	45	12379	8.06	ug\L	#	24
21) Vinyl Acetate	4.81	43	61643	8.37	ug\L		100
22) 2,2-Dichloropropane	5.72	77	164987	9.50	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	86121	9.21	ug\L		99
24) 2-Butanone	5.87	72	1457m	7.87	ug\L		
25) Propionitrile	6.02	54	17526	86.84	ug\L	#	90
26) Methacrylonitrile	6.24	41	106597	90.37	ug\L		97
27) Bromochloromethane	6.21	128	32491	9.60	ug\L		97
28) Chloroform	6.37	83	177754	9.86	ug\L	#	1
29) 1,1,1-Trichloroethane	6.58	97	202759	9.75	ug\L		97

(#) = qualifier out of range (m) = manual integration
J00883.D 08080125.M Wed Aug 08 10:05:40 2001 Page 1

Data File : C:\HPCHEM\...\30701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001. Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	202248	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	227865	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	111231	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	40	10.00	ug\L		-0.21
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	87638	10.30	ug\L		-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.00%				
46) Toluene-d8	10.02	98	352305	10.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#				
66) Bromofluorobenzene	13.71	95	122910	9.93	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	156222	10.11	ug\L		99
3) Chloromethane	1.66	50	71750	9.36	ug\L		95
4) Vinyl Chloride	1.74	62	103462	9.80	ug\L		98
5) Bromomethane	2.04	94	22924	7.21	ug\L		97
6) Chloroethane	2.13	64	59474	10.51	ug\L		99
7) Trichlorofluoromethane	2.38	101	211774	10.91	ug\L	#	100
8) Acrolein	2.90	56	4511	17.69	ug\L	#	98
9) Acrylonitrile	4.04	53	12554	20.58	ug\L		99
10) 1,1-Dichloroethene	2.96	96	93911	10.18	ug\L		97
11) Acetone	3.09	58	2220	13.95	ug\L		65
12) Iodomethane	3.17	142	104709	8.48	ug\L		98
13) Allylchloride	3.43	39	115927	10.44	ug\L		97
14) Carbon Disulfide	3.23	76	272562	10.24	ug\L		99
15) Acetonitrile	3.43	41	119904	101.34	ug\L		97
16) Methylene Chloride	3.62	86	53631	9.47	ug\L		99
17) trans-1,2-Dichloroethene	3.98	96	104205	10.52	ug\L		98
18) MethylTertButylEther	3.97	73	127788	10.74	ug\L		100
19) 1,1-Dichloroethane	4.68	63	150494	10.13	ug\L		98
20) Isopropyl Ether	4.78	45	6944	4.48	ug\L	#	1
21) Vinyl Acetate	4.80	43	72069	9.69	ug\L		99
22) 2,2-Dichloropropane	5.71	77	183928	10.49	ug\L		96
23) cis-1,2-Dichloroethene	5.77	96	176243	18.66	ug\L		91
24) 2-Butanone	5.86	72	4422	21.01	ug\L	#	100
25) Propionitrile	6.02	54	21644	106.24	ug\L		97
26) Methacrylonitrile	6.23	41	126992	106.64	ug\L		99
27) Bromochloromethane	6.20	128	33669	9.85	ug\L		96
28) Chloroform	6.36	83	190452	10.46	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	217255	10.35	ug\L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	6.81	119	207456	10.55 ug\L		98
31) 1,4-Dioxane	8.84	88	4630	218.74 ug\L	#	71
32) 1,1-Dichloropropene	6.85	77	42753	10.17 ug\L		94
34) Benzene	7.19	78	332053	10.24 ug\L		100
35) Isobutyl alcohol	7.33	43	11269	199.29 ug\L		94
36) 1,2-Dichloroethane	7.29	62	102517	10.57 ug\L		100
37) Trichloroethene	8.22	95	270042	23.67 ug\L		99
38) 1,2-Dichloropropane	8.58	63	59524	9.82 ug\L		100
39) Dibromomethane	8.78	93	36773	10.28 ug\L		98
40) Methylmethacrylate	8.80	69	17398	10.77 ug\L		96
41) Bromodichloromethane	9.04	83	118963	10.22 ug\L		97
42) 2-Chloroethyl-vinyl ether	9.68	63	879m	0.79 ug\L		
43) cis-1,3-Dichloropropene	9.68	75	106543	9.83 ug\L		94
44) 4-Methyl-2-Pentanone	9.91	85	3584	8.26 ug\L	#	1
47) Toluene	10.11	92	246948	11.46 ug\L		98
48) trans-1,3-Dichloropropene	10.50	75	82676	10.39 ug\L		96
49) Ethylmethacrylate	10.61	69	39761	10.63 ug\L		97
50) 1,1,2-Trichloroethane	10.76	83	34110	10.84 ug\L		96
51) Tetrachloroethene	10.87	164	100215	10.70 ug\L		98
52) 1,3-Dichloropropane	10.99	76	71370	10.69 ug\L		98
53) 2-Hexanone	11.11	43	12670	10.61 ug\L		97
54) Dibromochloromethane	11.31	129	70870	10.95 ug\L		98
55) 1,2-Dibromoethane	11.45	107	44016	10.80 ug\L	#	98
56) Chlorobenzene	12.11	112	239157	10.02 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.24	131	93703	10.47 ug\L		98
58) Ethylbenzene	12.25	91	482734	10.40 ug\L		99
59) total-Xylene	12.41	106	487840m	30.23 ug\L	#	
60) Styrene	13.00	104	234905	9.96 ug\L		99
62) Bromoform	13.30	173	31799	9.90 ug\L		97
63) Isopropylbenzene	13.47	105	458364	9.65 ug\L		99
64) cis-1,4-dichloro-2-Butene	13.64	53	12592	9.94 ug\L	#	1
65) trans-1,4-dichloro-2-Buten	14.04	53	13331	9.87 ug\L	#	48
67) Bromobenzene	13.92	156	89661	9.86 ug\L		96
68) 1,1,2,2-Tetrachloroethane	13.97	83	36789	10.51 ug\L		97
69) 1,2,3-Trichloropropane	14.02	75	43546	9.86 ug\L	#	3
70) n-Propylbenzene	14.04	91	556765	9.80 ug\L		99
71) 2-Chlorotoluene	14.17	91	332066	9.93 ug\L		98
72) 4-Chlorotoluene	14.32	91	393994	10.14 ug\L	#	94
73) 1,3,5-Trimethylbenzene	14.28	105	421385	9.88 ug\L		100
74) Pentachloroethane	14.80	167	59546	10.09 ug\L		97
75) tert-Butylbenzene	14.73	119	355028	9.86 ug\L		100
76) 1,2,4-Trimethylbenzene	14.80	105	426238	10.11 ug\L		98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\[illegible]0861.D Vial: 5
Acq On : 8/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

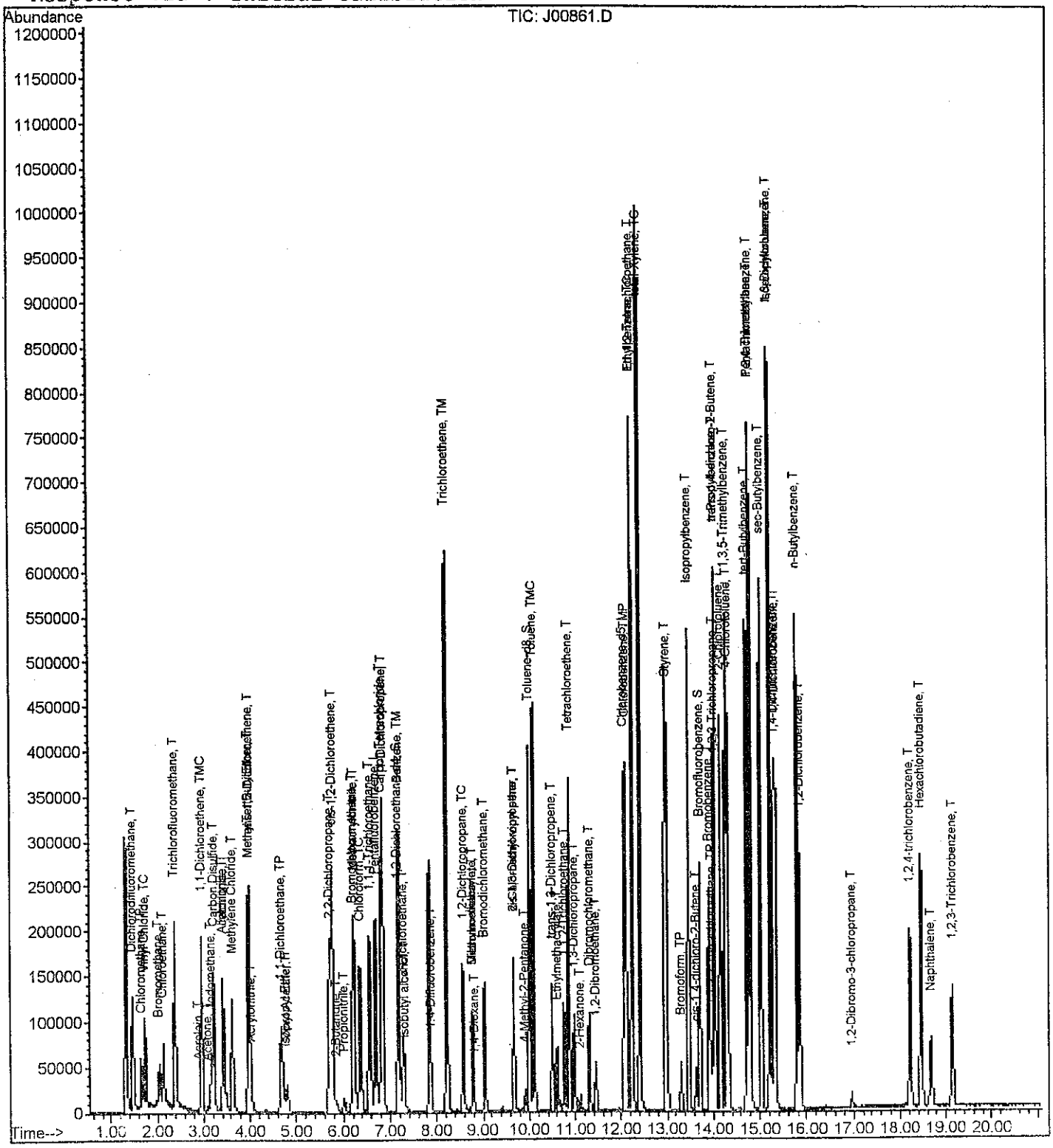
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	529227	9.92	ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	188305	10.08	ug\L	96
79) Isopropyltoluene	15.22	119	438717	10.06	ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182541	9.72	ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	144855	9.96	ug\L	98
82) n-Butylbenzene	15.79	91	409848	10.19	ug\L	98
83) 1,2-Dibromo-3-chloropropan	16.96	75	7140	10.15	ug\L	97
84) 1,2,4-trichlorobenzene	18.22	180	100229	9.84	ug\L	100
85) Hexachlorobutadiene	18.47	225	95255	10.41	ug\L	100
86) Naphthalene	18.68	128	104589	9.48	ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	73120	9.71	ug\L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPC \DATA\1J080701\J00861.D Vial: 5
Acq n : 08/07 :58 Operator:
Sample : AC17 MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 5
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	183834	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.07	117	217739	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110646	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	36	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	78377	10.13	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
46) Toluene-d8	10.02	98	305449	9.58	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.80%				
66) Bromofluorobenzene	13.71	95	117358	9.53	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	153366	10.92	ug\L		99
3) Chloromethane	1.66	50	75425	10.83	ug\L		99
4) Vinyl Chloride	1.74	62	105657	11.01	ug\L		98
5) Bromomethane	2.04	94	24355	8.43	ug\L		100
6) Chloroethane	2.14	64	57992	11.28	ug\L		100
7) Trichlorofluoromethane	2.38	101	204134	11.57	ug\L	#	100
8) Acrolein	2.90	56	4476	19.31	ug\L	#	100
9) Acrylonitrile	4.05	53	13301	23.98	ug\L		93
10) 1,1-Dichloroethene	2.96	96	92544	11.04	ug\L		100
11) Acetone	3.10	58	1980	13.68	ug\L		76
12) Iodomethane	3.17	142	121782	10.85	ug\L		97
13) Allylchloride	3.44	39	112947	11.19	ug\L		98
14) Carbon Disulfide	3.23	76	286931	11.85	ug\L		99
15) Acetonitrile	3.44	41	118800	110.46	ug\L		98
16) Methylene Chloride	3.63	86	52464	10.34	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	98330	10.92	ug\L		99
18) MethylTertButylEther	3.98	73	123505	11.42	ug\L		97
19) 1,1-Dichloroethane	4.69	63	143212	10.60	ug\L		99
20) Isopropyl Ether	4.77	45	14945	10.61	ug\L	#	40
21) Vinyl Acetate	4.81	43	74279	10.99	ug\L		100
22) 2,2-Dichloropropane	5.72	77	161472	10.14	ug\L		94
23) cis-1,2-Dichloroethene	5.77	96	150416	17.52	ug\L		92
24) 2-Butanone	5.87	72	3543	18.68	ug\L	#	100
25) Propionitrile	6.03	54	18863	101.86	ug\L		96
26) Methacrylonitrile	6.24	41	110888	102.45	ug\L		98
27) Bromochloromethane	6.20	128	30061	9.68	ug\L		98
28) Chloroform	6.36	83	166307	10.05	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	196523	10.30	ug\L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 8/07/01 13:24 Operator:
Sample : AC17887MSD 12.5 1 DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	181785	10.17 ug\L		100
31) 1,4-Dioxane	8.84	88	3946	205.10 ug\L	#	69
32) 1,1-Dichloropropene	6.85	77	37700	9.86 ug\L		92
34) Benzene	7.19	78	283089	9.60 ug\L		100
35) Isobutyl alcohol	7.32	43	6493	130.79 ug\L	#	43
36) 1,2-Dichloroethane	7.29	62	91197	10.34 ug\L		98
37) Trichloroethene	8.22	95	237729	22.92 ug\L		99
38) 1,2-Dichloropropane	8.59	63	53873	9.78 ug\L		99
39) Dibromomethane	8.79	93	34490	10.61 ug\L		98
40) Methylmethacrylate	8.81	69	15018	10.23 ug\L		95
41) Bromodichloromethane	9.05	83	107526	10.16 ug\L		99
43) cis-1,3-Dichloropropene	9.68	75	97558	9.90 ug\L		97
44) 4-Methyl-2-Pentanone	9.92	85	4271	10.82 ug\L	#	1
47) Toluene	10.11	92	219601	10.66 ug\L		99
48) trans-1,3-Dichloropropene	10.51	75	75360	9.91 ug\L		94
49) Ethylmethacrylate	10.62	69	37921	10.61 ug\L		99
50) 1,1,2-Trichloroethane	10.77	83	31235	10.39 ug\L		100
51) Tetrachloroethene	10.87	164	89335	9.98 ug\L		99
52) 1,3-Dichloropropane	10.99	76	65387	10.25 ug\L		98
53) 2-Hexanone	11.12	43	11187	9.81 ug\L	#	96
54) Dibromochloromethane	11.31	129	63983	10.34 ug\L		100
55) 1,2-Dibromoethane	11.45	107	40652	10.44 ug\L		95
56) Chlorobenzene	12.11	112	223966	9.82 ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.25	131	87064	10.18 ug\L		99
58) Ethylbenzene	12.25	91	449902	10.14 ug\L		99
59) total-Xylene	12.41	106	465165m	30.17 ug\L	#	
60) Styrene	13.00	104	233935	10.38 ug\L		99
62) Bromoform	13.30	173	30781	9.63 ug\L		98
63) Isopropylbenzene	13.47	105	459964	9.74 ug\L		99
64) cis-1,4-dichloro-2-Butene	14.04	53	13490	10.70 ug\L		98
65) trans-1,4-dichloro-2-Buten	14.04	53	13490	10.05 ug\L	#	51
67) Bromobenzene	13.92	156	86867	9.60 ug\L		92
68) 1,1,2,2-Tetrachloroethane	13.97	83	35543	10.21 ug\L		99
69) 1,2,3-Trichloropropane	14.03	75	44500	10.13 ug\L		100
70) n-Propylbenzene	14.04	91	548557	9.71 ug\L		100
71) 2-Chlorotoluene	14.17	91	322494	9.70 ug\L		97
72) 4-Chlorotoluene	14.33	91	385414	9.98 ug\L	#	96
73) 1,3,5-Trimethylbenzene	14.29	105	421279	9.93 ug\L		100
74) Pentachloroethane	14.80	167	58121	9.90 ug\L		97
75) tert-Butylbenzene	14.73	119	349688	9.76 ug\L		100
76) 1,2,4-Trimethylbenzene	14.80	105	418742	9.99 ug\L		100
77) sec-Butylbenzene	15.03	105	524525	9.88 ug\L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.22	146	183210	9.86 ug\L	96
79) Isopropyltoluene	15.22	119	439765	10.14 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182089	9.75 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	145629	10.06 ug\L	100
82) n-Butylbenzene	15.79	91	406100	10.15 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	6949	9.93 ug\L	92
84) 1,2,4-trichlorobenzene	18.22	180	99005	9.77 ug\L	100
85) Hexachlorobutadiene	18.47	225	90935	9.99 ug\L	100
86) Naphthalene	18.69	128	110664	10.08 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	75678	10.10 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	193833	9.95 ug\L	98
31) 1,4-Dioxane	8.82	88	3877	184.91 ug\L #	91
32) 1,1-Dichloropropene	6.85	77	40995	9.84 ug\L	96
34) Benzene	7.20	78	304120	9.46 ug\L	100
35) Isobutyl alcohol	7.32	43	8105	148.04 ug\L #	82
36) 1,2-Dichloroethane	7.30	62	92546	9.63 ug\L	100
37) Trichloroethene	8.22	95	107272	9.49 ug\L	98
38) 1,2-Dichloropropane	8.60	63	53476	8.91 ug\L	100
39) Dibromomethane	8.80	93	33687	9.51 ug\L	99
40) Methylmethacrylate	8.81	69	13058	8.16 ug\L	89
41) Bromodichloromethane	9.05	83	107847	9.35 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	7476m	6.79 ug\L	
43) cis-1,3-Dichloropropene	9.68	75	96130	8.95 ug\L	94
44) 4-Methyl-2-Pentanone	9.93	85	3628	8.44 ug\L #	1
47) Toluene	10.12	92	208951	9.83 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	73935	9.43 ug\L	95
49) Ethylmethacrylate	10.62	69	33315	9.03 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	29798	9.60 ug\L	97
51) Tetrachloroethene	10.88	164	94228	10.21 ug\L	99
52) 1,3-Dichloropropane	10.99	76	62807	9.54 ug\L	99
53) 2-Hexanone	11.12	43	10389m	8.83 ug\L	
54) Dibromochloromethane	11.32	129	63167	9.90 ug\L	99
55) 1,2-Dibromoethane	11.45	107	38914	9.69 ug\L	98
56) Chlorobenzene	12.12	112	227259	9.66 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.25	131	87480	9.92 ug\L	97
58) Ethylbenzene	12.26	91	453331	9.91 ug\L	98
59) total-Xylene	12.42	106	468877m	29.47 ug\L #	
60) Styrene	13.01	104	235237	10.12 ug\L	100
62) Bromoform	13.32	173	29520	9.00 ug\L	100
63) Isopropylbenzene	13.48	105	473249	9.76 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	11931	9.22 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.05	53	13414	9.73 ug\L #	49
67) Bromobenzene	13.93	156	90492	9.74 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.98	83	34165	9.55 ug\L #	98
69) 1,2,3-Trichloropropane	14.03	75	43010	9.53 ug\L	99
70) n-Propylbenzene	14.05	91	566528	9.77 ug\L	98
71) 2-Chlorotoluene	14.18	91	339230	9.93 ug\L	99
72) 4-Chlorotoluene	14.33	91	403465	10.17 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	434619	9.97 ug\L	97
74) Pentachloroethane	14.81	167	56207	9.32 ug\L	94
75) tert-Butylbenzene	14.74	119	360123	9.79 ug\L	99
76) 1,2,4-Trimethylbenzen	14.81	105	419170	9.73 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

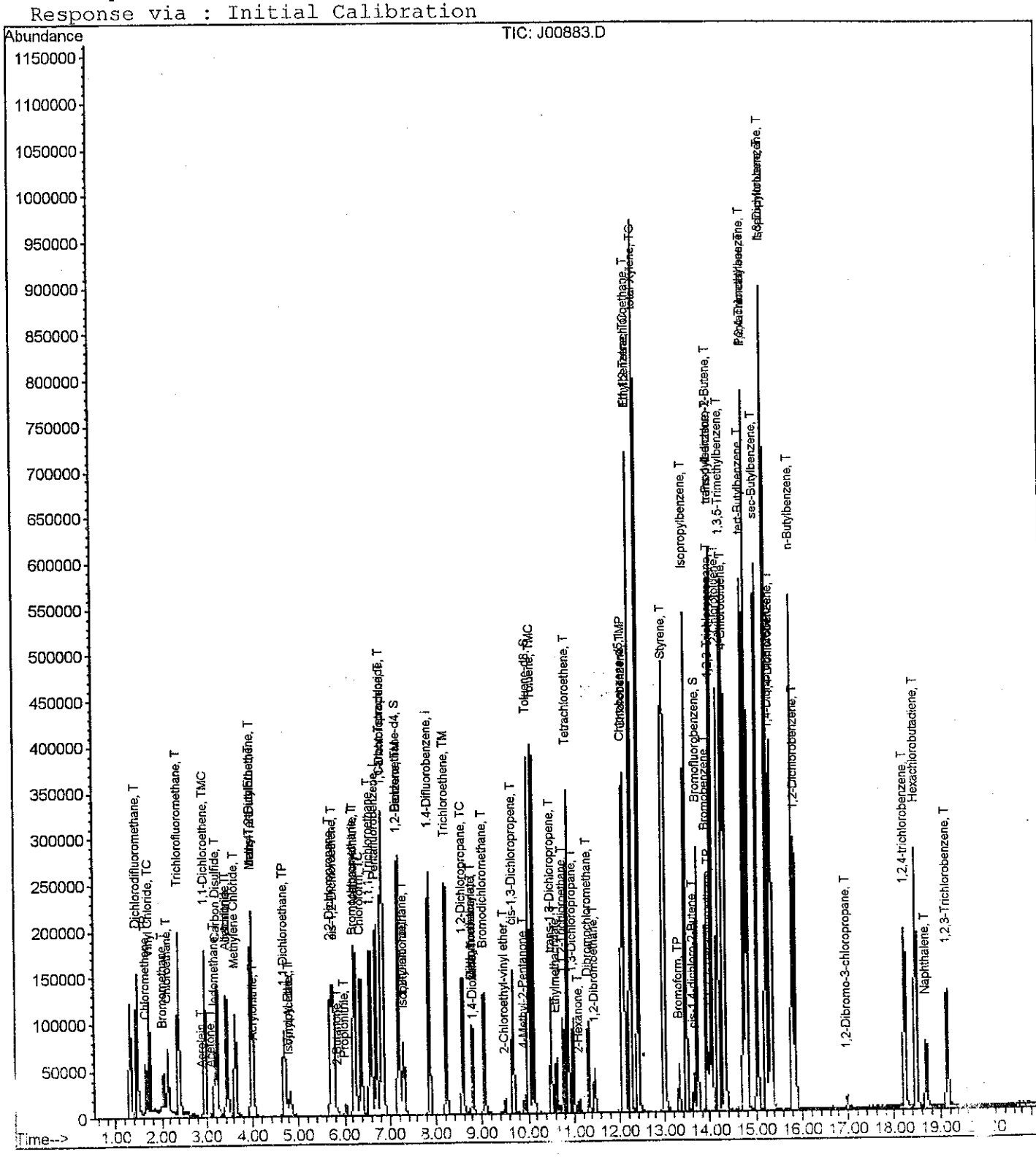
Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	536826	9.85 ug\L	99
78) 1,3-Dichlorobenzene	15.22	146	189842	9.95 ug\L	94
79) Isopropyltoluene	15.23	119	442621	9.93 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	182592	9.52 ug\L	98
81) 1,2-Dichlorobenzene	15.87	146	142719	9.60 ug\L	98
82) n-Butylbenzene	15.80	91	416863	10.15 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	5974	8.32 ug\L	94
84) 1,2,4-trichlorobenzene	18.24	180	98239	9.44 ug\L	100
85) Hexachlorobutadiene	18.48	225	94657	10.13 ug\L	100
86) Naphthalene	18.69	128	102140	9.06 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	71648	9.31 ug\L	97

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	-0.01
2	T	Dichlorodifluoromethane	0.764	0.712	6.8	95	0.00
3	TP	Chloromethane	0.379	0.333	12.1	89	0.00
4	TC	Vinyl Chloride	0.522	0.504	3.4	98	0.00
5	T	Bromomethane	0.157	0.100	36.3#	64	0.00
6	T	Chloroethane	0.280	0.292	-4.3	102	-0.01
7	T	Trichlorofluoromethane	0.960	1.029	-7.2	104	-0.01
8	T	Acrolein	0.013	0.010	23.1	88	-0.02
9	T	Acrylonitrile	0.030	0.027	10.0	91	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.441	3.3	98	-0.01
11	T	Acetone	0.008	0.008	0.0	110	0.00
12	T	Iodomethane	0.610	0.505	17.2	80	0.00
13	T	Allylchloride	0.549	0.531	3.3	94	0.00
14	T	Carbon Disulfide	1.317	1.303	1.1	104	-0.01
15	T	Acetonitrile	0.059	0.054	8.5	90	-0.02
16	T	Methylene Chloride	0.304	0.235	22.7	82	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.473	3.5	96	0.00
18	T	MethylTertButylEther	0.589	0.519	11.9	88	-0.02
19	TP	1,1-Dichloroethane	0.735	0.708	3.7	96	-0.01
20	T	Isopropyl Ether	0.077	0.062	19.5	81	0.00
21	T	Vinyl Acetate	0.368	0.308	16.3	87	-0.01
22	T	2,2-Dichloropropane	0.867	0.824	5.0	93	-0.01
23	T	cis-1,2-Dichloroethene	0.467	0.430	7.9	93	-0.02
24	T	2-Butanone	0.010	0.007	30.0#	92	0.00
25	T	Propionitrile	0.010	0.009	10.0	86	-0.02
26	T	Methacrylonitrile	0.059	0.053	10.2	88	0.00
27	T	Bromochloromethane	0.169	0.162	4.1	96	-0.01
28	TC	Chloroform	0.900	0.887	1.4	96	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.012	2.5	95	-0.01
30	T	Carbon Tetrachloride	0.973	0.968	0.5	98	-0.01
31	T	1,4-Dioxane	0.001	0.001	0.0	100	-0.04
32	T	1,1-Dichloropropene	0.208	0.205	1.4	94	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.414	1.7	98	-0.01
34	TM	Benzene	1.604	1.518	5.4	94	0.00
35	T	Isobutyl alcohol	0.003	0.002	33.3#	63	-0.02
36	T	1,2-Dichloroethane	0.480	0.462	3.7	94	-0.01
37	TM	Trichloroethene	0.564	0.535	5.1	94	-0.01
38	TC	1,2-Dichloropropane	0.300	0.267	11.0	89	0.00
39	T	Dibromomethane	0.177	0.168	5.1	92	0.00
40	T	Methylmethacrylate	0.080	0.065	18.8	82	-0.01
41	T	Bromodichloromethane	0.576	0.538	6.6	92	0.00
42	T	2-Chloroethyl-vinyl ether	0.055	0.037	32.7#	71	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.480	10.4	87	-0.01
44	T	4-Methyl-2-Pentanone	0.021	0.018	14.3	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
46	S	Toluene-d8	1.464	1.488	-1.6	96	-0.01
47	TMC	Toluene	0.946	0.930	1.7	92	-0.01
48	T	trans-1,3-Dichloropropene	0.349	0.329	5.7	87	-0.01
49	T	Ethylmethacrylate	0.164	0.148	9.8	84	0.00
50	T	1,1,2-Trichloroethane	0.138	0.133	3.6	91	0.00
51	T	Tetrachloroethene	0.411	0.419	-1.9	94	0.00
52	T	1,3-Dichloropropane	0.293	0.280	4.4	91	-0.01
53	T	2-Hexanone	0.052	0.046	11.5	95	-0.01
54	T	Dibromochloromethane	0.284	0.281	1.1	93	0.00
55	T	1,2-Dibromoethane	0.179	0.173	3.4	90	0.00
56	TMP	Chlorobenzene	1.048	1.012	3.4	91	0.00
57	T	1,1,1,2-Tetrachloroethane	0.393	0.389	1.0	91	0.00
58	TC	Ethylbenzene	2.037	2.018	0.9	92	0.00
59	TG	total-Xylene	0.708	0.696	1.7	90	0.00
60	T	Styrene	1.035	1.047	-1.2	92	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
62	TP	Bromoform	0.289	0.260	10.0	89	0.00
63	T	Isopropylbenzene	4.269	4.165	2.4	94	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.105	7.9	85	0.00
65	T	trans-1,4-dichloro-2-Butene	0.121	0.118	2.5	94	0.00
66	S	Bromofluorobenzene	1.113	1.087	2.3	94	0.00
67	T	Bromobenzene	0.818	0.796	2.7	91	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.301	4.4	90	0.00
69	T	1,2,3-Trichloropropane	0.397	0.379	4.5	93	-0.01
70	T	n-Propylbenzene	5.106	4.986	2.4	93	0.00
71	T	2-Chlorotoluene	3.006	2.986	0.7	94	0.00
72	T	4-Chlorotoluene	3.492	3.551	-1.7	96	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.825	0.3	94	0.00
74	T	Pentachloroethane	0.531	0.495	6.8	85	0.00
75	T	tert-Butylbenzene	3.237	3.170	2.1	93	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.689	2.7	92	0.00
77	T	sec-Butylbenzene	4.798	4.725	1.5	94	0.00
78	T	1,3-Dichlorobenzene	1.679	1.671	0.5	93	0.00
79	T	Isopropyltoluene	3.921	3.896	0.6	95	-0.01
80	T	1,4-Dichlorobenzene	1.688	1.607	4.8	92	0.00
81	T	1,2-Dichlorobenzene	1.308	1.256	4.0	92	0.00
82	T	n-Butylbenzene	3.616	3.669	-1.5	97	0.00

= Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.053	15.9	84	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.865	5.6	89	0.00
85	T	Hexachlorobutadiene	0.823	0.833	-1.2	94	0.00
86	T	Naphthalene	0.992	0.899	9.4	87	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.631	6.8	89	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

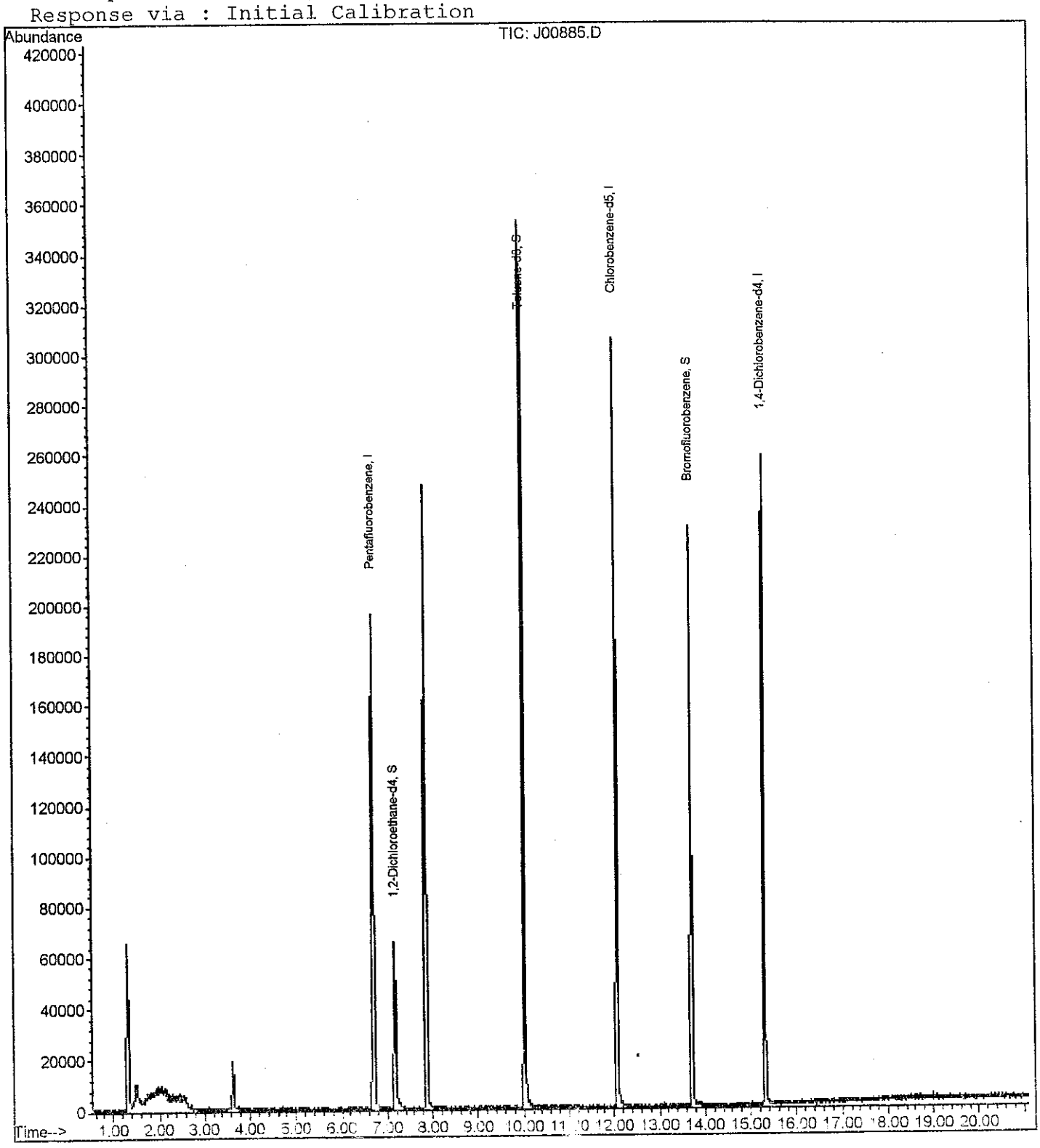
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	185530	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.08	117	215498	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	101260	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.08	116	52	10.00	ug\L		-0.02
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	77758	9.96	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%				
46) Toluene-d8	10.02	98	301381	9.55	ug\L		-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.50%				
66) Bromofluorobenzene	13.71	95	101839	9.04	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	119751	8.45	ug\L		99
3) Chloromethane	1.66	50	60165	8.56	ug\L		96
4) Vinyl Chloride	1.74	62	86256	8.91	ug\L		99
5) Bromomethane	2.04	94	21965m	7.53	ug\L		
6) Chloroethane	2.14	64	51218	9.87	ug\L		98
7) Trichlorofluoromethane	2.38	101	182119	10.23	ug\L	#	100
8) Acrolein	2.91	56	3492	14.93	ug\L	#	77
9) Acrylonitrile	4.04	53	10177	18.18	ug\L	#	85
10) 1,1-Dichloroethene	2.97	96	77128	9.12	ug\L		100
11) Acetone	3.09	58	1381	9.46	ug\L		97
12) Iodomethane	3.17	142	95863	8.47	ug\L		95
13) Allylchloride	3.44	39	95736	9.40	ug\L		97
14) Carbon Disulfide	3.23	76	244086	9.99	ug\L		99
15) Acetonitrile	3.43	41	98594	90.84	ug\L		97
16) Methylene Chloride	3.63	86	49627	9.57	ug\L		99
17) trans-1,2-Dichloroethene	3.98	96	84503	9.30	ug\L		98
18) MethylTertButylEther	3.97	73	99020	9.07	ug\L		99
19) 1,1-Dichloroethane	4.69	63	123741	9.08	ug\L		99
20) Isopropyl Ether	4.77	45	12594	8.86	ug\L	#	96
21) Vinyl Acetate	4.82	43	60243	8.83	ug\L		98
22) 2,2-Dichloropropane	5.71	77	153055	9.52	ug\L		100
23) cis-1,2-Dichloroethene	5.77	96	77800	8.98	ug\L		98
24) 2-Butanone	5.87	72	1637	9.27	ug\L	#	100
25) Propionitrile	6.02	54	16808	89.93	ug\L		98
26) Methacrylonitrile	6.23	41	100066	91.60	ug\L		96
27) Bromochloromethane	6.20	128	28244	9.01	ug\L		99
28) Chloroform	6.37	83	159190	9.53	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	185783	9.65	ug\L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	172459	9.56 ug\L		99
31) 1,4-Dioxane	8.85	88	3520	181.29 ug\L	#	78
32) 1,1-Dichloropropene	6.85	77	35933	9.31 ug\L		97
34) Benzene	7.19	78	266061	8.94 ug\L		100
35) Isobutyl alcohol	7.33	43	8578	167.44 ug\L	#	54
36) 1,2-Dichloroethane	7.30	62	85183	9.57 ug\L		97
37) Trichloroethene	8.22	95	97369	9.30 ug\L		97
38) 1,2-Dichloropropane	8.59	63	49360	8.88 ug\L		99
39) Dibromomethane	8.79	93	29831	9.09 ug\L		96
40) Methylmethacrylate	8.80	69	12332	8.33 ug\L		86
41) Bromodichloromethane	9.05	83	99426	9.31 ug\L		99
42) 2-Chloroethyl-vinyl ether	9.50	63	7014	6.88 ug\L		97
43) cis-1,3-Dichloropropene	9.68	75	89900	9.04 ug\L		97
44) 4-Methyl-2-Pentanone	9.93	85	3554	8.92 ug\L	#	1
47) Toluene	10.12	92	183768	9.01 ug\L		99
48) trans-1,3-Dichloropropene	10.51	75	67139	8.92 ug\L		96
49) Ethylmethacrylate	10.62	69	29375	8.30 ug\L		97
50) 1,1,2-Trichloroethane	10.77	83	26870	9.03 ug\L		97
51) Tetrachloroethene	10.88	164	81681	9.22 ug\L		97
52) 1,3-Dichloropropane	11.00	76	58440	9.26 ug\L		100
53) 2-Hexanone	11.12	43	10528	9.33 ug\L	#	95
54) Dibromochloromethane	11.32	129	58157	9.50 ug\L		100
55) 1,2-Dibromoethane	11.45	107	34304	8.90 ug\L	#	96
56) Chlorobenzene	12.11	112	199707	8.85 ug\L		97
57) 1,1,1,2-Tetrachloroethane	12.25	131	80287	9.49 ug\L		98
58) Ethylbenzene	12.25	91	406711	9.27 ug\L		98
59) total-Xylene	12.42	106	403328m	26.43 ug\L	#	
60) Styrene	13.00	104	191660	8.59 ug\L		98
62) Bromoform	13.31	173	24544	8.39 ug\L		99
63) Isopropylbenzene	13.47	105	378065	8.75 ug\L		99
64) cis-1,4-dichloro-2-Butene	13.64	53	9475	8.21 ug\L	#	1
65) trans-1,4-dichloro-2-Buten	14.04	53	12425	10.11 ug\L	#	33
67) Bromobenzene	13.92	156	74945	9.05 ug\L		98
68) 1,1,2,2-Tetrachloroethane	13.97	83	29259	9.18 ug\L		99
69) 1,2,3-Trichloropropane	14.03	75	36025	8.96 ug\L		97
70) n-Propylbenzene	14.04	91	457624	8.85 ug\L		98
71) 2-Chlorotoluene	14.18	91	269928	8.87 ug\L		98
72) 4-Chlorotoluene	14.33	91	321503	9.09 ug\L		100
73) 1,3,5-Trimethylbenzene	14.29	105	350144	9.01 ug\L		99
74) Pentachloroethane	14.80	167	46526	8.66 ug\L		94
75) tert-Butylbenzene	14.7[illegible]	119	287278	8.76 ug\L		100
76) 1,2,4-Trimethylbenzene	14.81	105	353106	9.20 ug\L		99

(#) = qualifier out of range (m) = manual integration
J00886.D 08080125.M Wed Aug [illegible] 14:41:54 2001 Pa[illegible]

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

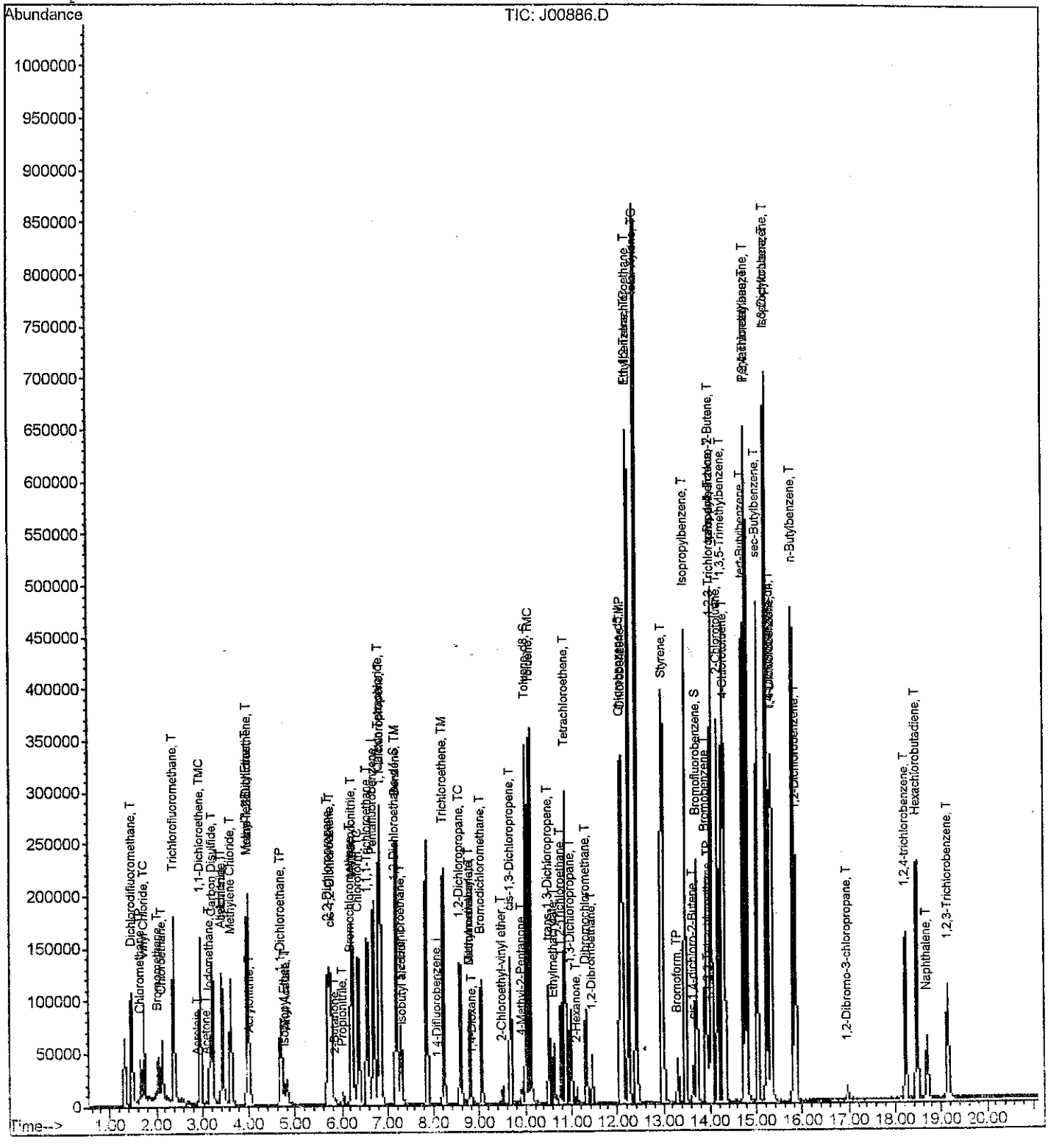
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	433111	8.91 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	155778	9.16 ug\L	98
79) Isopropyltoluene	15.23	119	356770	8.98 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	150532	8.81 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	118648	8.96 ug\L	97
82) n-Butylbenzene	15.80	91	334729	9.14 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	5521	8.62 ug\L	98
84) 1,2,4-trichlorobenzene	18.23	180	79236	8.54 ug\L	100
85) Hexachlorobutadiene	18.48	225	78318	9.40 ug\L	100
86) Naphthalene	18.69	128	81597	8.12 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	56886	8.30 ug\L	94

(#) = qualifier out of range (m) = manual integration
J00886.D 8080125.M Wed Aug 08 14:41:5 2001 Page 7

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



PROJECT QUALITY CONTROL RESULTS

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MS	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	93	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75

Notes
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste solids

NS - Not Specified

PROJECT QUALITY CONTROL RESULTS

8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA			NA	NA

Notes
1) SW-846 Methods unless otherwise noted
2) Including additional analytes

Quantitation Report (Not Reviewed

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial:
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.02	98	326206	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.71	95	120738	9.39	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06	ug\L		100
3) Chloromethane	1.66	50	70978	9.43	ug\L		96
4) Vinyl Chloride	1.74	62	103810	10.02	ug\L		99
5) Bromomethane	2.03	94	23858	7.64	ug\L		95
6) Chloroethane	2.14	64	59738	10.75	ug\L		99
7) Trichlorofluoromethane	2.38	101	205122	10.76	ug\L	#	100
8) Acrolein	2.90	56	4262	17.02	ug\L	#	98
9) Acrylonitrile	4.05	53	12105	20.21	ug\L		96
10) 1,1-Dichloroethene	2.96	96	94103	10.39	ug\L		96
11) Acetone	3.09	58	1463	9.36	ug\L		96
12) Iodomethane	3.17	142	108723	8.97	ug\L		99
13) Allylchloride	3.43	39	111544	10.24	ug\L		98
14) Carbon Disulfide	3.23	76	260882	9.98	ug\L		99
15) Acetonitrile	3.43	41	117249	100.94	ug\L		98
16) Methylene Chloride	3.62	86	50301	8.96	ug\L		97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26	ug\L		100
18) MethylTertButylEther	3.98	73	121538	10.40	ug\L	#	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09	ug\L		99
20) Isopropyl Ether	4.78	45	14585	9.58	ug\L	#	98
21) Vinyl Acetate	4.81	43	73102	10.01	ug\L		98
22) 2,2-Dichloropropane	5.72	77	182353	10.60	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27	ug\L		95
24) 2-Butanone	5.87	72	989	5.81	ug\L	#	100
25) Propionitrile	6.01	54	20647	103.23	ug\L	#	93
26) Methacrylonitrile	6.23	41	119238	102.00	ug\L		98
27) Bromochloromethane	6.21	128	34868	10.39	ug\L		97
28) Chloroform	6.37	83	186427	10.43	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25	ug\L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00659.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001. Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41	ug\L		97
31) 1,4-Dioxane	8.84	88	4277	205.83	ug\L	#	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45	ug\L		100
34) Benzene	7.19	78	320799	10.07	ug\L		100
35) Isobutyl alcohol	7.31	43	10435	188.67	ug\L	#	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21	ug\L		100
37) Trichloroethene	8.22	95	110904	9.90	ug\L		99
38) 1,2-Dichloropropane	8.58	63	58669	9.86	ug\L		97
39) Dibromomethane	8.79	93	36266	10.33	ug\L		97
40) Methylmethacrylate	8.80	69	15949	10.06	ug\L		96
41) Bromodichloromethane	9.05	83	116029	10.15	ug\L		99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44	ug\L		96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20	ug\L		97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78	ug\L	#	1
47) Toluene	10.11	92	221665	10.06	ug\L		100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83	ug\L		96
49) Ethylmethacrylate	10.62	69	37424	9.79	ug\L		98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03	ug\L		98
51) Tetrachloroethene	10.87	164	97943	10.23	ug\L		98
52) 1,3-Dichloropropane	10.99	76	69643	10.21	ug\L		99
53) 2-Hexanone	11.11	43	12002	9.84	ug\L		94
54) Dibromochloromethane	11.32	129	68054	10.28	ug\L		100
55) 1,2-Dibromoethane	11.45	107	41326	9.92	ug\L	#	99
56) Chlorobenzene	12.11	112	242461	9.94	ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30	ug\L		100
58) Ethylbenzene	12.25	91	481905	10.16	ug\L		99
59) total-Xylene	12.42	106	505157m	30.63	ug\L	#	
60) Styrene	13.00	104	245510	10.18	ug\L		97
62) Bromoform	13.31	173	34658	10.39	ug\L		95
63) Isopropylbenzene	13.47	105	494898	10.04	ug\L		99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11	ug\L		93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43	ug\L	#	41
67) Bromobenzene	13.92	156	93256	9.87	ug\L		92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25	ug\L		95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21	ug\L		95
70) n-Propylbenzene	14.04	91	595125	10.09	ug\L		99
71) 2-Chlorotoluene	14.18	91	345537	9.95	ug\L		99
72) 4-Chlorotoluene	14.33	91	408683	10.13	ug\L		100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06	ug\L		99
74) Pentachloroethane	14.80	167	62015	10.11	ug\L		98
75) tert-Butylbenzene	14.73	119	375964	10.05	ug\L		99
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11	ug\L		100

(#) = qualifier out of range (m) = manual integration

Data File : PCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 01/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001. Quant Results File: 08070125.RES

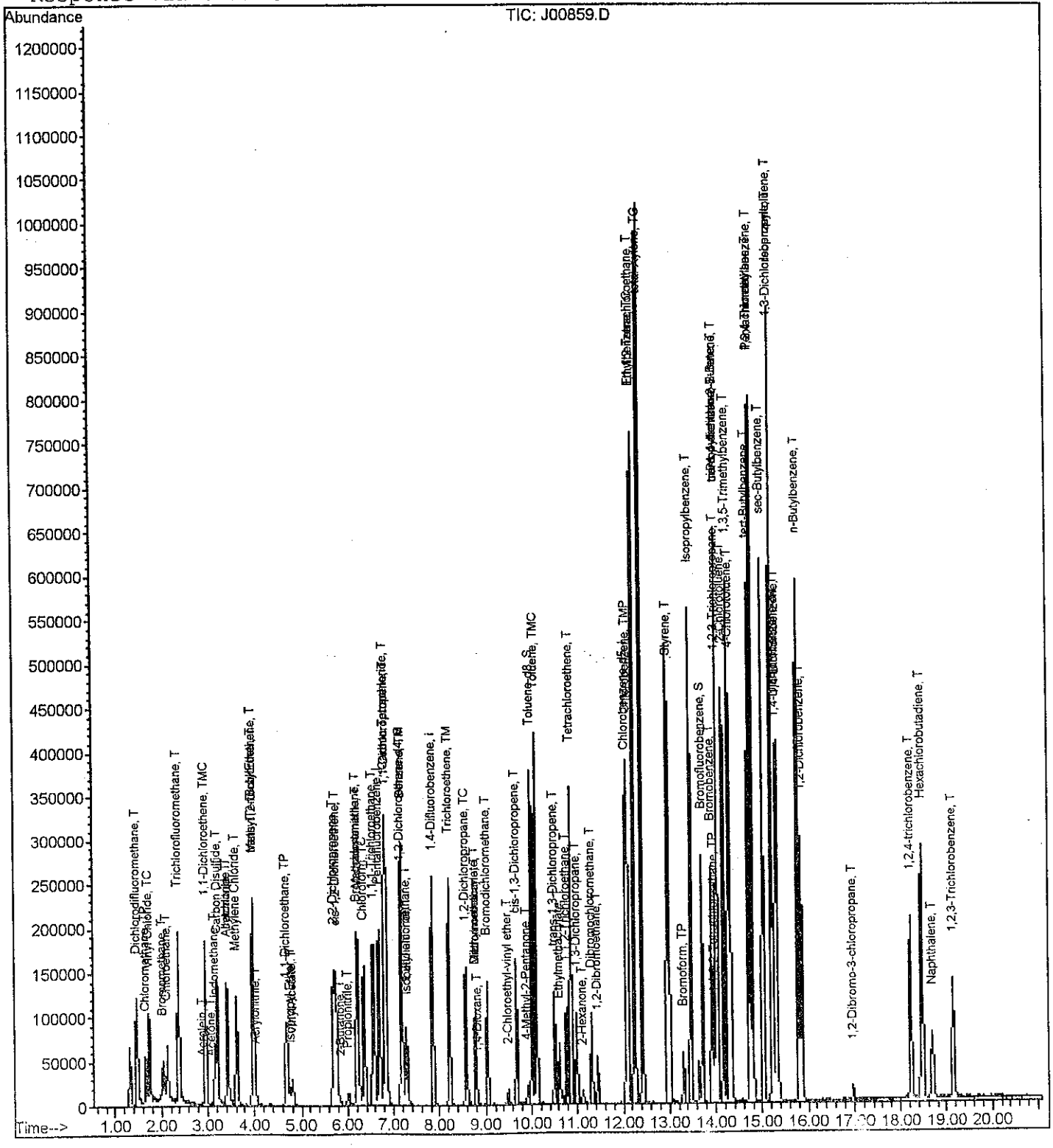
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22 ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91 ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22 ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68 ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96 ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71 ug\L	100
86) Naphthalene	18.69	128	109386	9.55 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77 ug\L	96

(# = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001. Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001. Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.02	98	326206	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.71	95	120738	9.39	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06	ug\L		100
3) Chloromethane	1.66	50	70978	9.43	ug\L		96
4) Vinyl Chloride	1.74	62	103810	10.02	ug\L		99
5) Bromomethane	2.03	94	23858	7.64	ug\L		95
6) Chloroethane	2.14	64	59738	10.75	ug\L		99
7) Trichlorofluoromethane	2.38	101	205122	10.76	ug\L	#	100
8) Acrolein	2.90	56	4262	17.02	ug\L	#	98
9) Acrylonitrile	4.05	53	12105	20.21	ug\L		96
10) 1,1-Dichloroethene	2.96	96	94103	10.39	ug\L		96
11) Acetone	3.09	58	1463	9.36	ug\L		96
12) Iodomethane	3.17	142	108723	8.97	ug\L		99
13) Allylchloride	3.43	39	111544	10.24	ug\L		98
14) Carbon Disulfide	3.23	76	260882	9.98	ug\L		99
15) Acetonitrile	3.43	41	117249	100.94	ug\L		98
16) Methylene Chloride	3.62	86	50301	8.96	ug\L		97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26	ug\L		100
18) MethylTertButylEther	3.98	73	121538	10.40	ug\L	#	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09	ug\L		99
20) Isopropyl Ether	4.78	45	14585	9.58	ug\L	#	98
21) Vinyl Acetate	4.81	43	73102	10.01	ug\L		98
22) 2,2-Dichloropropane	5.72	77	182353	10.60	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27	ug\L		95
24) 2-Butanone	5.87	72	989	5.81	ug\L	#	100
25) Propionitrile	6.01	54	20647	103.23	ug\L	#	93
26) Methacrylonitrile	6.23	41	119238	102.00	ug\L		98
27) Bromochloromethane	6.21	128	34868	10.39	ug\L		97
28) Chloroform	6.37	83	186427	10.43	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25	ug\L		99

(#) = qualifier cut of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L	97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L #	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L	100
34) Benzene	7.19	78	320799	10.07 ug\L	100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L #	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L	100
37) Trichloroethene	8.22	95	110904	9.90 ug\L	99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L	97
39) Dibromomethane	8.79	93	36266	10.33 ug\L	97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L	96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L #	1
47) Toluene	10.11	92	221665	10.06 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L	96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L	98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L	98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L	99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L	94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L	100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L #	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L	100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L	99
59) total-Xylene	12.42	106	505157m	30.63 ug\L #	
60) Styrene	13.00	104	245510	10.18 ug\L	97
62) Bromoform	13.31	173	34658	10.39 ug\L	95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L #	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L	95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L	95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L	99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L	99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L	99
74) Pentachloroethane	14.80	167	62015	10.11 ug\L	98
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11 ug\L	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

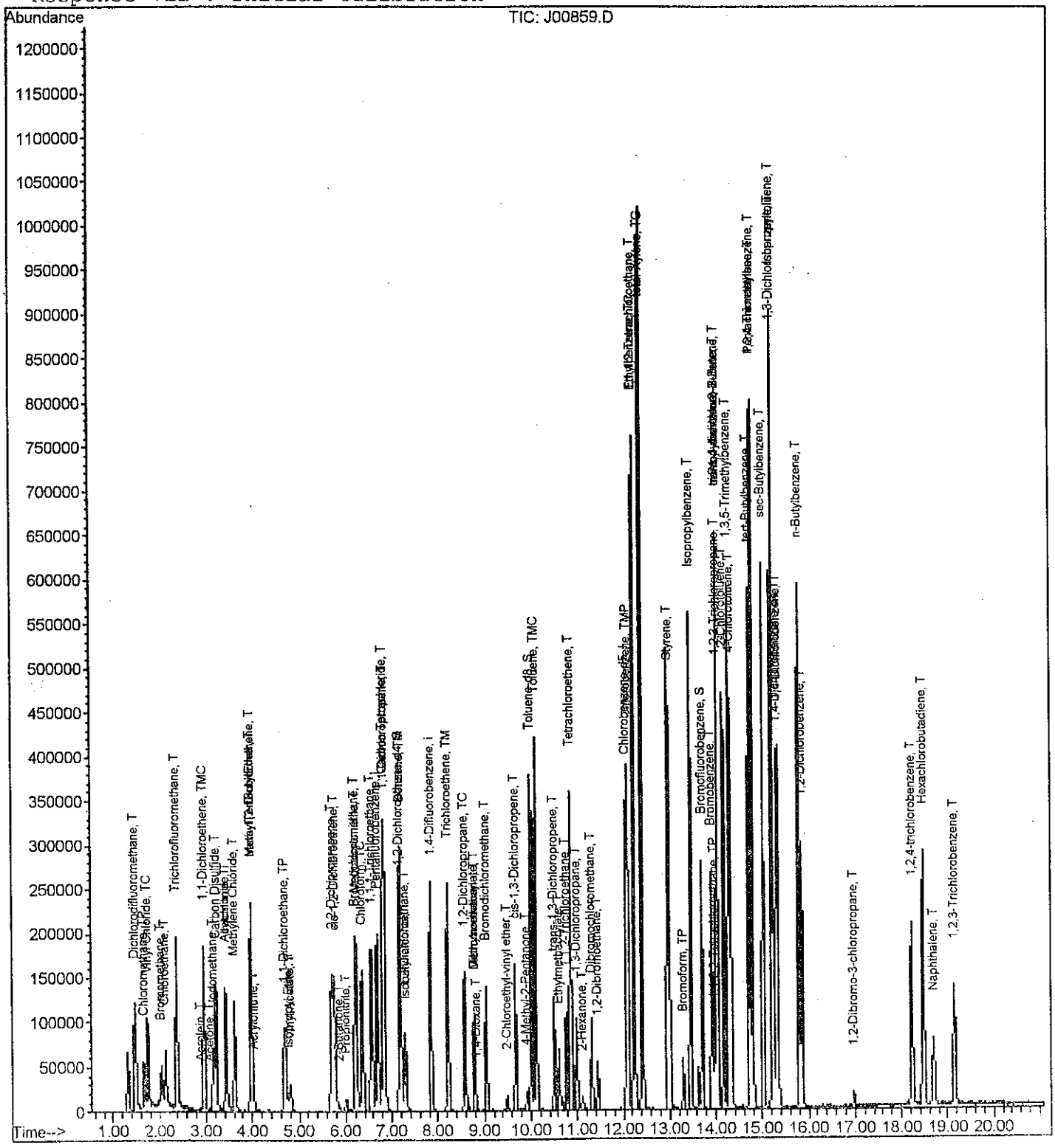
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	sec-Butylbenzene	15.03	105	556049	10.03	ug\L	100
78)	1,3-Dichlorobenzene	15.21	146	198219	10.22	ug\L	97
79)	Isopropyltoluene	15.23	119	454257	10.03	ug\L	99
80)	1,4-Dichlorobenzene	15.34	146	193320	9.91	ug\L	100
81)	1,2-Dichlorobenzene	15.86	146	154411	10.22	ug\L	98
82)	n-Butylbenzene	15.80	91	421701	10.09	ug\L	99
83)	1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68	ug\L	97
84)	1,2,4-trichlorobenzene	18.23	180	105443	9.96	ug\L	100
85)	Hexachlorobutadiene	18.48	225	101754	10.71	ug\L	100
86)	Naphthalene	18.69	128	109386	9.55	ug\L	100
87)	1,2,3-Trichlorobenzene	19.14	180	76434	9.77	ug\L	96

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 8/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001 Quant Results File: 08070125.RES

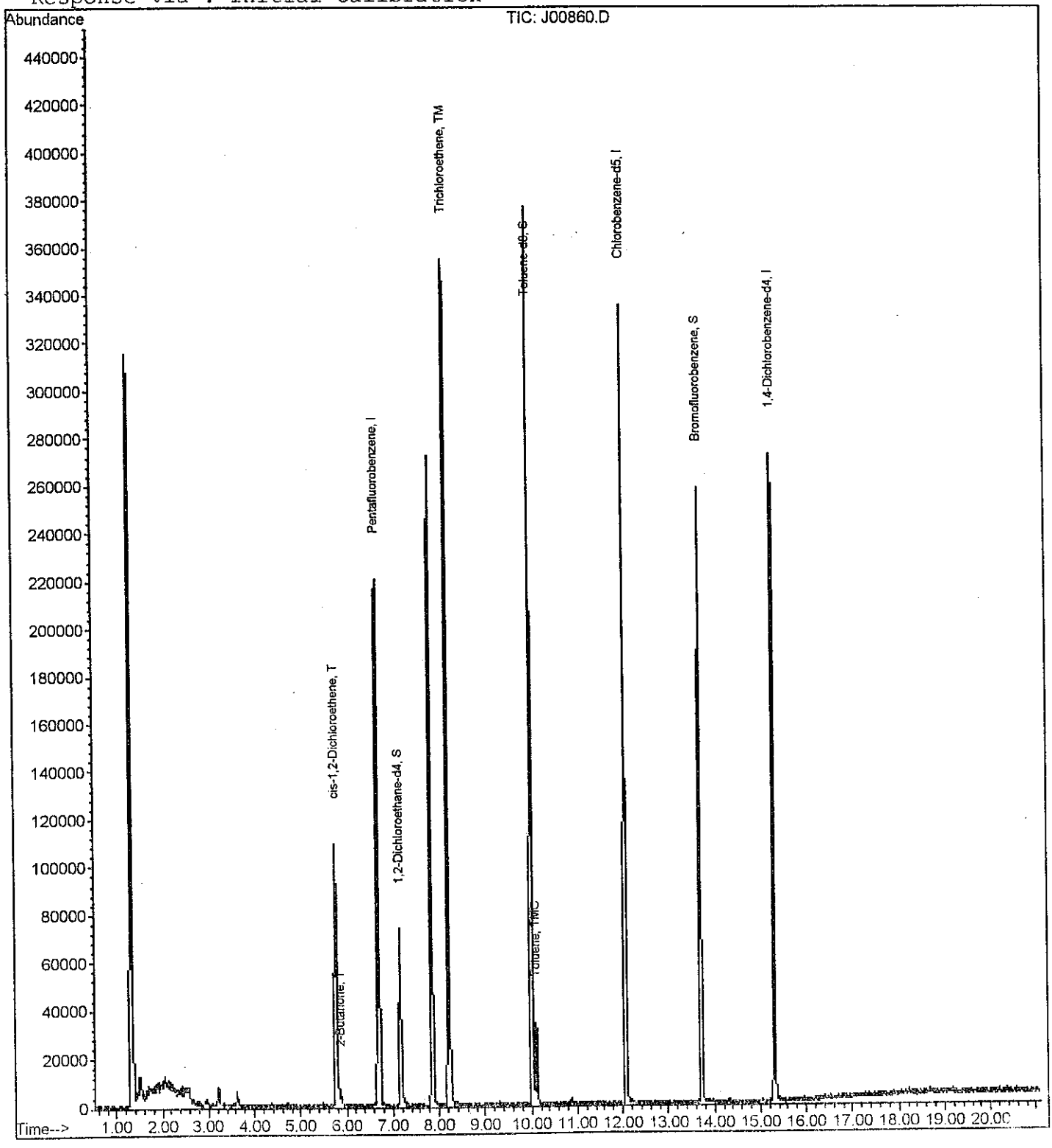
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	212050	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	233454	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	94056	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	87082	9.76	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
46) Toluene-d8	10.02	98	340265	9.95	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.50%			
66) Bromofluorobenzene	13.72	95	117121	11.19	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 111.90%#			
Target Compounds						Qvalue
23) cis-1,2-Dichloroethene	5.77	96	75959	7.67	ug\L	84
24) 2-Butanone	5.86	72	1645	8.31	ug\L #	100
37) Trichloroethene	8.22	95	150129	12.55	ug\L	97
47) Toluene	10.11	92	16822	0.76	ug\L	97

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J0807..1\J00860.D Vial: 4
Acq On : 08/07/01 12:25 Operator:
Sample : AC17885 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:39 2001. Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Data File : C:\HPCHEM... ...30701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	202248	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	227865	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	111231	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.89	116	40	10.00	ug\L		-0.21
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	87638	10.30	ug\L		-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.00%				
46) Toluene-d8	10.02	98	352305	10.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 105.60%#				
66) Bromofluorobenzene	13.71	95	122910	9.93	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 99.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	156222	10.11	ug\L		99
3) Chloromethane	1.66	50	71750	9.36	ug\L		95
4) Vinyl Chloride	1.74	62	103462	9.80	ug\L		98
5) Bromomethane	2.04	94	22924	7.21	ug\L		97
6) Chloroethane	2.13	64	59474	10.51	ug\L		99
7) Trichlorofluoromethane	2.38	101	211774	10.91	ug\L	#	100
8) Acrolein	2.90	56	4511	17.69	ug\L	#	98
9) Acrylonitrile	4.04	53	12554	20.58	ug\L		99
10) 1,1-Dichloroethene	2.96	96	93911	10.18	ug\L		97
11) Acetone	3.09	58	2220	13.95	ug\L		65
12) Iodomethane	3.17	142	104709	8.48	ug\L		98
13) Allylchloride	3.43	39	115927	10.44	ug\L		97
14) Carbon Disulfide	3.23	76	272562	10.24	ug\L		99
15) Acetonitrile	3.43	41	119904	101.34	ug\L		97
16) Methylene Chloride	3.62	86	53631	9.47	ug\L		99
17) trans-1,2-Dichloroethene	3.98	96	104205	10.52	ug\L		98
18) MethylTertButylEther	3.97	73	127788	10.74	ug\L		100
19) 1,1-Dichloroethane	4.68	63	150494	10.13	ug\L		98
20) Isopropyl Ether	4.78	45	6944	4.48	ug\L	#	1
21) Vinyl Acetate	4.80	43	72069	9.69	ug\L		99
22) 2,2-Dichloropropane	5.71	77	183928	10.49	ug\L		96
23) cis-1,2-Dichloroethene	5.77	96	176243	18.66	ug\L		91
24) 2-Butanone	5.86	72	4422	21.01	ug\L	#	100
25) Propionitrile	6.02	54	21644	106.24	ug\L		97
26) Methacrylonitrile	6.23	41	126992	106.64	ug\L		99
27) Bromochloromethane	6.20	128	33669	9.85	ug\L		96
28) Chloroform	6.36	83	190452	10.46	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	217255	10.35	ug\L		97

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30) Carbon Tetrachloride	6.81	119	207456	10.55	ug\L		98
31) 1,4-Dioxane	8.84	88	4630	218.74	ug\L	#	71
32) 1,1-Dichloropropene	6.85	77	42753	10.17	ug\L		94
34) Benzene	7.19	78	332053	10.24	ug\L		100
35) Isobutyl alcohol	7.33	43	11269	199.29	ug\L		94
36) 1,2-Dichloroethane	7.29	62	102517	10.57	ug\L		100
37) Trichloroethene	8.22	95	270042	23.67	ug\L		99
38) 1,2-Dichloropropane	8.58	63	59524	9.82	ug\L		100
39) Dibromomethane	8.78	93	36773	10.28	ug\L		98
40) Methylmethacrylate	8.80	69	17398	10.77	ug\L		96
41) Bromodichloromethane	9.04	83	118963	10.22	ug\L		97
42) 2-Chloroethyl-vinyl ether	9.68	63	879m	0.79	ug\L		
43) cis-1,3-Dichloropropene	9.68	75	106543	9.83	ug\L		94
44) 4-Methyl-2-Pentanone	9.91	85	3584	8.26	ug\L	#	1
47) Toluene	10.11	92	246948	11.46	ug\L		98
48) trans-1,3-Dichloropropene	10.50	75	82676	10.39	ug\L		96
49) Ethylmethacrylate	10.61	69	39761	10.63	ug\L		97
50) 1,1,2-Trichloroethane	10.76	83	34110	10.84	ug\L		96
51) Tetrachloroethene	10.87	164	100215	10.70	ug\L		98
52) 1,3-Dichloropropane	10.99	76	71370	10.69	ug\L		98
53) 2-Hexanone	11.11	43	12670	10.61	ug\L		97
54) Dibromochloromethane	11.31	129	70870	10.95	ug\L		98
55) 1,2-Dibromoethane	11.45	107	44016	10.80	ug\L	#	98
56) Chlorobenzene	12.11	112	239157	10.02	ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.24	131	93703	10.47	ug\L		98
58) Ethylbenzene	12.25	91	482734	10.40	ug\L		99
59) total-Xylene	12.41	106	487840m	30.23	ug\L	#	
60) Styrene	13.00	104	234905	9.96	ug\L		99
62) Bromoform	13.30	173	31799	9.90	ug\L		97
63) Isopropylbenzene	13.47	105	458364	9.65	ug\L		99
64) cis-1,4-dichloro-2-Butene	13.64	53	12592	9.94	ug\L	#	1
65) trans-1,4-dichloro-2-Buten	14.04	53	13331	9.87	ug\L	#	48
67) Bromobenzene	13.92	156	89661	9.86	ug\L		96
68) 1,1,2,2-Tetrachloroethane	13.97	83	36789	10.51	ug\L		97
69) 1,2,3-Trichloropropane	14.02	75	43546	9.86	ug\L	#	3
70) n-Propylbenzene	14.04	91	556765	9.80	ug\L		99
71) 2-Chlorotoluene	14.17	91	332066	9.93	ug\L		98
72) 4-Chlorotoluene	14.32	91	393994	10.14	ug\L	#	94
73) 1,3,5-Trimethylbenzene	14.28	105	421385	9.88	ug\L		100
74) Pentachloroethane	14.80	167	59546	10.09	ug\L		97
75) tert-Butylbenzene	14.73	119	355028	9.86	ug\L		100
76) 1,2,4-Trimethylbenzene	14.80	105	426238	10.11	ug\L		98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\[illegible]0861.D Vial: 5
Acq On : 8/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001. Quant Results File: 08070125.RES

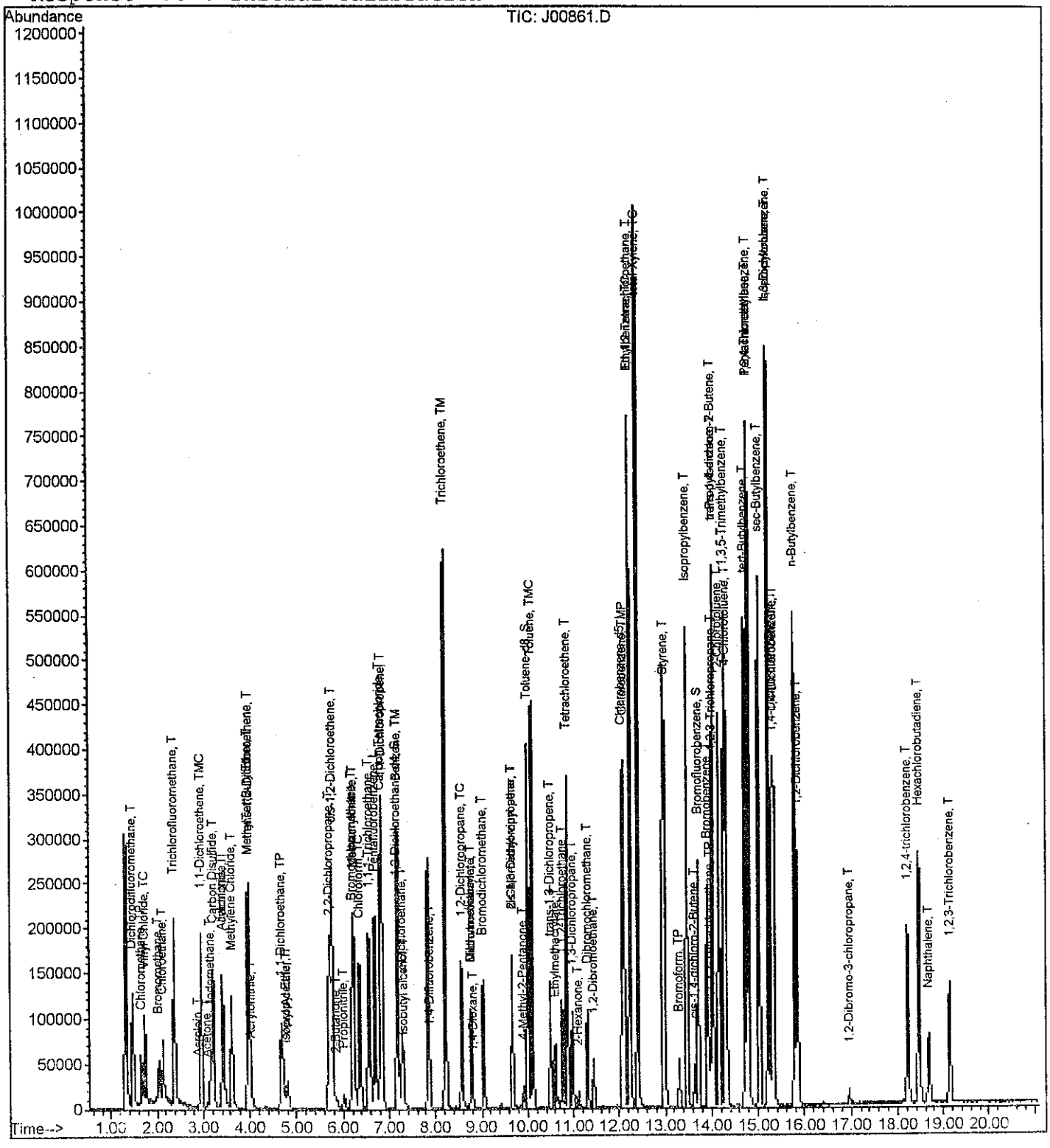
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	sec-Butylbenzene	15.03	105	529227	9.92 ug\L	100
78)	1,3-Dichlorobenzene	15.21	146	188305	10.08 ug\L	96
79)	Isopropyltoluene	15.22	119	438717	10.06 ug\L	100
80)	1,4-Dichlorobenzene	15.34	146	182541	9.72 ug\L	98
81)	1,2-Dichlorobenzene	15.86	146	144855	9.96 ug\L	98
82)	n-Butylbenzene	15.79	91	409848	10.19 ug\L	98
83)	1,2-Dibromo-3-chloropropan	16.96	75	7140	10.15 ug\L	97
84)	1,2,4-trichlorobenzene	18.22	180	100229	9.84 ug\L	100
85)	Hexachlorobutadiene	18.47	225	95255	10.41 ug\L	100
86)	Naphthalene	18.68	128	104589	9.48 ug\L	100
87)	1,2,3-Trichlorobenzene	19.15	180	73120	9.71 ug\L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPC \DATA\1J080701\J00861.D Vial: 5
Acq n : 06/07 :58 Operator:
Sample : AC17 MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 16:40 2001, Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 5
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	183834	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.07	117	217739	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110646	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	36	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.16	65	78377	10.13	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
46) Toluene-d8	10.02	98	305449	9.58	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.80%				
66) Bromofluorobenzene	13.71	95	117358	9.53	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 95.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	153366	10.92	ug\L		99
3) Chloromethane	1.66	50	75425	10.83	ug\L		99
4) Vinyl Chloride	1.74	62	105657	11.01	ug\L		98
5) Bromomethane	2.04	94	24355	8.43	ug\L		100
6) Chloroethane	2.14	64	57992	11.28	ug\L		100
7) Trichlorofluoromethane	2.38	101	204134	11.57	ug\L	#	100
8) Acrolein	2.90	56	4476	19.31	ug\L	#	100
9) Acrylonitrile	4.05	53	13301	23.98	ug\L		93
10) 1,1-Dichloroethene	2.96	96	92544	11.04	ug\L		100
11) Acetone	3.10	58	1980	13.68	ug\L		76
12) Iodomethane	3.17	142	121782	10.85	ug\L		97
13) Allylchloride	3.44	39	112947	11.19	ug\L		98
14) Carbon Disulfide	3.23	76	286931	11.85	ug\L		99
15) Acetonitrile	3.44	41	118800	110.46	ug\L		98
16) Methylene Chloride	3.63	86	52464	10.34	ug\L		98
17) trans-1,2-Dichloroethene	3.99	96	98330	10.92	ug\L		99
18) MethylTertButylEther	3.98	73	123505	11.42	ug\L		97
19) 1,1-Dichloroethane	4.69	63	143212	10.60	ug\L		99
20) Isopropyl Ether	4.77	45	14945	10.61	ug\L	#	40
21) Vinyl Acetate	4.81	43	74279	10.99	ug\L		100
22) 2,2-Dichloropropane	5.72	77	161472	10.14	ug\L		94
23) cis-1,2-Dichloroethene	5.77	96	150416	17.52	ug\L		92
24) 2-Butanone	5.87	72	3543	18.68	ug\L	#	100
25) Propionitrile	6.03	54	18863	101.86	ug\L		96
26) Methacrylonitrile	6.24	41	110888	102.45	ug\L		98
27) Bromochloromethane	6.20	128	30061	9.68	ug\L		98
28) Chloroform	6.36	83	166307	10.05	ug\L	#	1
29) 1,1,1-Trichloroethane	6.56	97	196523	10.30	ug\L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 8/07/01 13:24 Operator:
Sample : AC17887MSD 12.5 1 DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	181785	10.17 ug\L	100
31) 1,4-Dioxane	8.84	88	3946	205.10 ug\L #	69
32) 1,1-Dichloropropene	6.85	77	37700	9.86 ug\L	92
34) Benzene	7.19	78	283089	9.60 ug\L	100
35) Isobutyl alcohol	7.32	43	6493	130.79 ug\L #	43
36) 1,2-Dichloroethane	7.29	62	91197	10.34 ug\L	98
37) Trichloroethene	8.22	95	237729	22.92 ug\L	99
38) 1,2-Dichloropropane	8.59	63	53873	9.78 ug\L	99
39) Dibromomethane	8.79	93	34490	10.61 ug\L	98
40) Methylmethacrylate	8.81	69	15018	10.23 ug\L	95
41) Bromodichloromethane	9.05	83	107526	10.16 ug\L	99
43) cis-1,3-Dichloropropene	9.68	75	97558	9.90 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4271	10.82 ug\L #	1
47) Toluene	10.11	92	219601	10.66 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	75360	9.91 ug\L	94
49) Ethylmethacrylate	10.62	69	37921	10.61 ug\L	99
50) 1,1,2-Trichloroethane	10.77	83	31235	10.39 ug\L	100
51) Tetrachloroethene	10.87	164	89335	9.98 ug\L	99
52) 1,3-Dichloropropane	10.99	76	65387	10.25 ug\L	98
53) 2-Hexanone	11.12	43	11187	9.81 ug\L #	96
54) Dibromochloromethane	11.31	129	63983	10.34 ug\L	100
55) 1,2-Dibromoethane	11.45	107	40652	10.44 ug\L	95
56) Chlorobenzene	12.11	112	223966	9.82 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	87064	10.18 ug\L	99
58) Ethylbenzene	12.25	91	449902	10.14 ug\L	99
59) total-Xylene	12.41	106	465165m	30.17 ug\L #	
60) Styrene	13.00	104	233935	10.38 ug\L	99
62) Bromoform	13.30	173	30781	9.63 ug\L	98
63) Isopropylbenzene	13.47	105	459964	9.74 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	13490	10.70 ug\L	98
65) trans-1,4-dichloro-2-Buten	14.04	53	13490	10.05 ug\L #	51
67) Bromobenzene	13.92	156	86867	9.60 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.97	83	35543	10.21 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	44500	10.13 ug\L	100
70) n-Propylbenzene	14.04	91	548557	9.71 ug\L	100
71) 2-Chlorotoluene	14.17	91	322494	9.70 ug\L	97
72) 4-Chlorotoluene	14.33	91	385414	9.98 ug\L #	96
73) 1,3,5-Trimethylbenzene	14.29	105	421279	9.93 ug\L	100
74) Pentachloroethane	14.80	167	58121	9.90 ug\L	97
75) tert-Butylbenzene	14.73	119	349688	9.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	418742	9.99 ug\L	100
77) sec-Butylbenzene	15.03	105	524525	9.88 ug\L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: 08070125.RES
Quant Time: Aug 7 13:45 2001

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

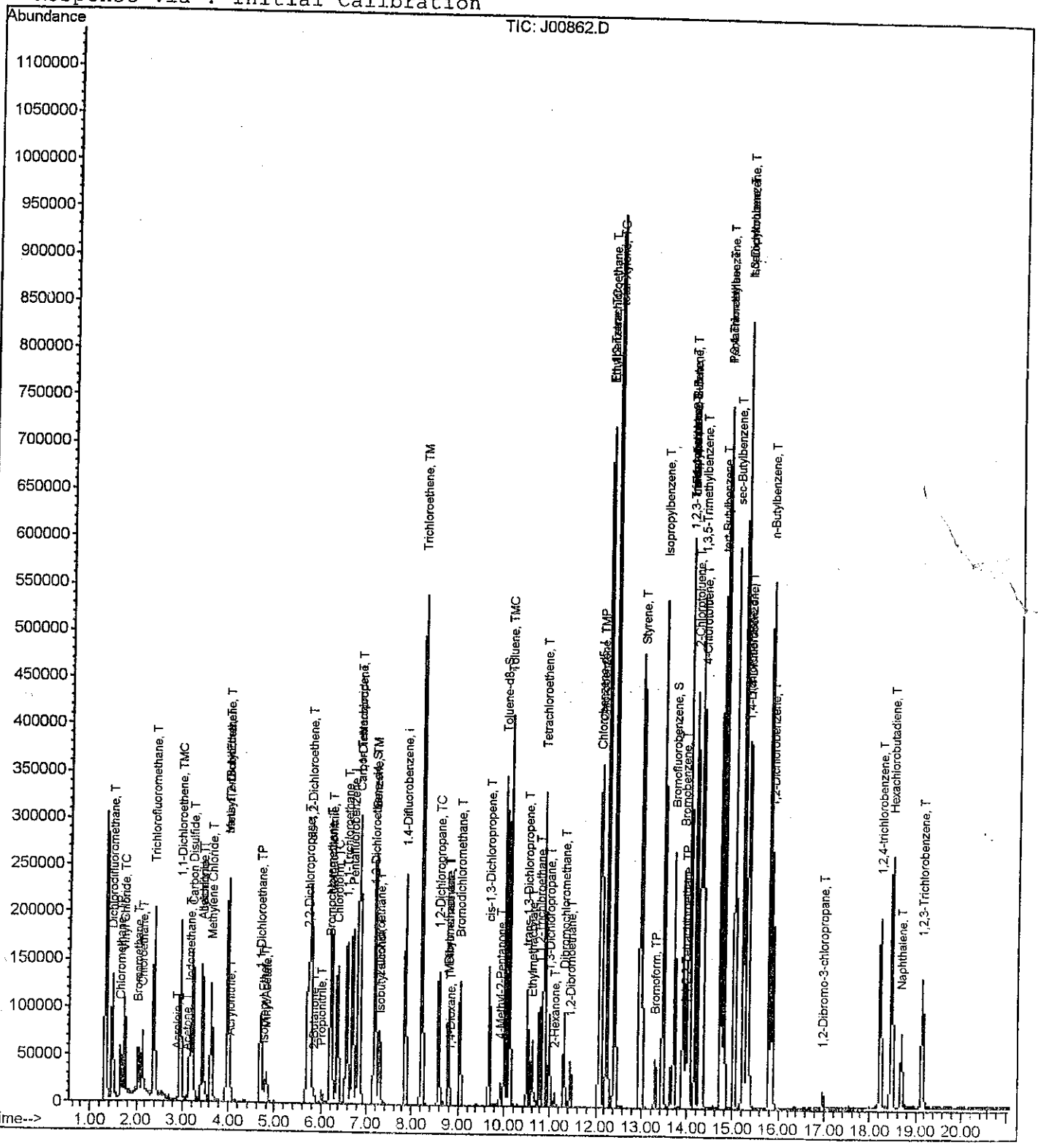
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.22	146	183210	9.86 ug\L	96
79) Isopropyltoluene	15.22	119	439765	10.14 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	182089	9.75 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	145629	10.06 ug\L	100
82) n-Butylbenzene	15.79	91	406100	10.15 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	6949	9.93 ug\L	92
84) 1,2,4-trichlorobenzene	18.22	180	99005	9.77 ug\L	100
85) Hexachlorobutadiene	18.47	225	90935	9.99 ug\L	100
86) Naphthalene	18.69	128	110664	10.08 ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	75678	10.10 ug\L	98

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D
Acq On : 08/07/01 13:14
Sample : AC17887MSD 12.5ml DF=2
Misc : 28512/W080601A
MS Integration Params: rteint.p
Quant Time: Aug 7 13:45 2001

Vial: 6
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



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LABORATORY REPORT

Accura Sample ID #: AC17919 **Accura Project #:** 28518

Client: CH2M HILL - CCI Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-06A-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	10		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	1.9		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	430		5.0
Ethene	360		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	69		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	2.98		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/24/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	190		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	14		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/24/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	34	Z	
o-Terphenyl (Range 82-142)	80	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	110		
4-Bromofluorobenzene (80-120)	104		
Toluene-d8 (80-119)	101		

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LABORATORY REPORT

Accura Sample ID #: **AC17920** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-08B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	83		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	900		5.0
Ethene	5600		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	8900		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	8.1		5.2

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	110	~~X~~ J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	94		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	24		1.0
Butyric Acid	1.9		1.0
Lactic Acid	<RL		25
Propionic Acid	74		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.60	J	6.5
cis-1,2-Dichloroethene	17		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	0.88	J	6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	44		10
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	21	Z	
o-Terphenyl (Range 82-142)	68	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	119		
4-Bromofluorobenzene (80-120)	103		
Toluene-d8 (80-119)	100		

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LABORATORY REPORT

Accura Sample ID #: **AC17921** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FD2-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	83		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	920		5.0
Ethene	4500		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	10000		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 u

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 u

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	8.0		5.2

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	220	J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	95		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	21		1.0
Butyric Acid	2.1		1.0
Lactic Acid	<RL	u	25
Propionic Acid	69		1.0
Pyruvic Acid	<RL	u	10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL	U	2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5 U
Chloromethane	<RL		6.5 U
cis-1,2-Dichloroethene	23		6
cis-1,3-Dichloropropene	<RL		5 U
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	0.65	J	6
Sec-Butylbenzene	<RL		6.5 U
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5 U
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	32		10
Trichlorofluoromethane	<RL		4 U
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/22/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	30	Z	
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	128		
4-Bromofluorobenzene (80-120)	98		
Toluene-d8 (80-119)	93		

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LABORATORY REPORT

Accura Sample ID #: **AC17922** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-10B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	21		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	62		5.0
Ethene	76		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	490		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0 U

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	98	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	13		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.52	J	6.5
cis-1,2-Dichloroethene	8.5		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	8.2		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	38	Z	
o-Terphenyl (Range 82-142)	64	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	114		
4-Bromofluorobenzene (80-120)	103		
Toluene-d8 (80-119)	95		

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LABORATORY REPORT

Accura Sample ID #: **AC17923** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-11C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	12		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	4.3		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	28		5.0
Ethene	45		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	18		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1 U

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	57	Y3	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	10		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0 U
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 U
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5	U
Chloromethane	0.61	J	6.5	
cis-1,2-Dichloroethene	5.0	J	6	
cis-1,3-Dichloropropene	<RL		5	U
Dibromochloromethane	<RL		2.5	
Dibromomethane	<RL		12	
Dichlorodifluoromethane	<RL		5	
Ethylbenzene	<RL		3	
Hexachlorobutadiene	<RL		5.5	
Isopropylbenzene	<RL		2.5	
Methylene chloride	<RL		1.5	
Naphthalene	<RL		2	
n-Butylbenzene	<RL		5.5	
n-Propylbenzene	<RL		2	
p-Isopropyltoluene	<RL		6	
Sec-Butylbenzene	<RL		6.5	
Styrene	<RL		2	
Tert-Butylbenzene	<RL		7	
Tetrachloroethylene	1.9	J	7	
Toluene	1.3	J	5.5	
Total Xylenes	<RL		5	U
trans-1,2-Dichloroethene	<RL		3	
trans-1,3-Dichloropropene	<RL		5	
Trichloroethylene	7.9		5	
Trichlorofluoromethane	<RL		4	
Vinyl chloride	<RL		5.5	U

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42	Z	
o-Terphenyl (Range 82-142)	71	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	121		
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	96		

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LABORATORY REPORT

Accura Sample ID #: **AC17924** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-32C-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	11		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	6.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	39		5.0
Ethene	42		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	5.7		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1 U

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	59	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	6		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

U

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

U

Chloroform	<RL		1.5
Chloromethane	0.68	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	0.69	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	20		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	22	Z	
o-Terphenyl (Range 82-142)	35	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	136	Z	
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	98		

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LABORATORY REPORT

Accura Sample ID #: **AC17925** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-26A-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	16		1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	4.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	5200		5.0
Ethene	23000		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	22		10

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	94	X J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	76		4

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	16		1.0
Butyric Acid	4.6		1.0
Lactic Acid	<RL		25 U
Propionic Acid	24		1.0
Pyruvic Acid	<RL		10 U

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 U
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5	U
Chloromethane	<RL		6.5	
cis-1,2-Dichloroethene	<RL		6	
cis-1,3-Dichloropropene	<RL		5	
Dibromochloromethane	<RL		2.5	
Dibromomethane	<RL		12	
Dichlorodifluoromethane	<RL		5	
Ethylbenzene	<RL		3	
Hexachlorobutadiene	<RL		5.5	
Isopropylbenzene	<RL		2.5	
Methylene chloride	<RL		1.5	
Naphthalene	<RL		2	
n-Butylbenzene	<RL		5.5	
n-Propylbenzene	<RL		2	
p-Isopropyltoluene	<RL		6	
Sec-Butylbenzene	<RL		6.5	
Styrene	<RL		2	
Tert-Butylbenzene	<RL		7	
Tetrachloroethylene	<RL		7	
Toluene	0.66	J	5.5	
Total Xylenes	<RL		5	U
trans-1,2-Dichloroethene	<RL		3	
trans-1,3-Dichloropropene	<RL		5	
Trichloroethylene	6.3		5	
Trichlorofluoromethane	<RL		4	U
Vinyl chloride	<RL		5.5	

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	39	Z	
o-Terphenyl (Range 82-142)	66	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	131		
4-Bromofluorobenzene (80-120)	97		
Toluene-d8 (80-119)	94		

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30071, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17926** **Accura Project #:** **28518**

Client: **CH2M HILL - CCI** Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-TB3-Q3-01**

ANALYSIS: **VOC's Navy (25 ml purge)** Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL		12	U
Dichlorodifluoromethane	<RL		5	
Ethylbenzene	<RL		3	
Hexachlorobutadiene	<RL		5.5	
Isopropylbenzene	<RL		2.5	
Methylene chloride	<RL		1.5	
Naphthalene	<RL		2	
n-Butylbenzene	<RL		5.5	
n-Propylbenzene	<RL		2	
p-Isopropyltoluene	<RL		6	
Sec-Butylbenzene	<RL		6.5	
Styrene	<RL		2	
Tert-Butylbenzene	<RL		7	
Tetrachloroethylene	<RL		7	
Toluene	9.9		5.5	
Total Xylenes	<RL		5	U
trans-1,2-Dichloroethene	<RL		3	
trans-1,3-Dichloropropene	<RL		5	
Trichloroethylene	<RL		5	
Trichlorofluoromethane	0.54	J	4	
Vinyl chloride	<RL		5.5	U

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	121		
4-Bromofluorobenzene (80-120)	112		
Toluene-d8 (80-119)	103		

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC18129 **Accura Project #:** 28518

Client: CH2M HILL - CCI Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/2/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL	U	1

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL	U	0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL	U	5.0
Ethene	<RL	U	5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL	U	0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL	U	0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/2/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL	U	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL	U	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/23/01 Date Analyzed: 8/27/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL	U	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL	U	1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL	U	1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL	U	2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Client Sample ID: METHOD BLANK AALSample ID #: AC18129 Accura Project #: 28518

Chloroform	<RL	U	1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	19	Z	
o-Terphenyl (Range 82-142)	71	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	89		
4-Bromofluorobenzene (81-118)	97		
Toluene-d8 (84-115)	100		

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

AN #28518 RGH

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0801-1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	ACCURA / BONNIE HOGUE	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	NO3 NO2	CHLORIDE	TDS ALKALINITY	FL-PRO	TOC	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	III	14	3	1	1	1	2	1			AC17919
2	017-OLD-36-08B-Q3-01		"	"	0920	"	"	3	1	1	1	2	1			20
3	017-OLD-36-FD2-Q3-01		"	"	—	"	"	3	1	1	1	2	1			21
4	017-OLD-36-10B-Q3-01		"	"	1145	"	"	3	1	1	1	2	1			22
5	017-OLD-36-11C-Q3-01		"	"	1130	"	"	3	1	1	1	2	1			23
6	017-OLD-36-32C-Q3-01		"	"	1500	"	"	3	1	1	1	2	1			24
7	017-OLD-36-26A-Q3-01		"	"	1515	"	"	3	1	1	1	2	1			25
8	017-OLD-36-TB3-Q3-01		"	"	—	"	"	3								26
9																
10																

[29] SAMPLER(S) AND COMPANY: (please print)
I. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
[signature]	8-01-01	1730	FEDEX		
Printed Name and Signature:			Printed Name and Signature:		
FEDEX	08.02.01	0935	[signature] / BRIAN BURNS	08.02.01	0935
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/0

MALF 28518

MALF# 28518
ABL/2°C

CHAIN-OF-CUSTODY RECORD

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

[1] COC NUMBER: 0801-3

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOL. FATTY ACIDS	METHANE ETHANE ETHENE							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS (ML ID #S)	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	II	14	2	2								AC17919	
2	017-OLD-36-08B-Q3-01				0920			2	2								AC17920	
3	017-OLD-36-FD2-Q3-01				—			2	2								AC17921	
4	017-OLD-36-10B-Q3-01				1145			2	2								AC17922	
5	017-OLD-36-11C-Q3-01				1130			2	2								AC17923	
6	017-OLD-36-32C-Q3-01				1500			2	2								AC17924	
7	017-OLD-36-26A-Q3-01		↓	↓	1515	↓	↓	2	2								AC17925	
8																		
9																		
10																		

[29] SAMPLER(S) AND COMPANY: (please print)
J. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Name and Signature:	8-01-01	1730	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	08.02.01	0935	Printed Name and Signature: BRIAN BURNS	08.02.01	0935
Printed Name and Signature: BRIAN BURNS	08.02.01		Printed Name and Signature: UPS	08.02.01	

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28518

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 08/02/01 at 0935:

Client I.D.	Laboratory I.D.
017-OLD-36-06A-Q3-01	AC17919
017-OLD-36-08B-Q3-01	AC17920
017-OLD-36-FD2-Q3-01	AC17921
017-OLD-36-10B-Q3-01	AC17922
017-OLD-36-11C-Q3-01	AC17923
017-OLD-36-32C-Q3-01	AC17924
017-OLD-36-26A-Q3-01	AC17925
017-OLD-36-TB3-Q3-01	AC17926

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The following analyses were performed by subcontract laboratories:

Chloride-EPA-300	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	Nitrate Nitrogen-EPA-300.0
Nitrite Nitrogen-EPA-300.0	TOC-SW-846-9060
VFA's (W) Microseeps-AM21G	

4. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding and the results for those samples should be considered estimated.

6. The pH of the samples was 1.0 for the VOC analysis.

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7. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:

FLA-PRO	VOC-SW-846-8260B
017-OLD-36-08B-Q3-01	017-OLD-36-08B-Q3-01 (Trichloroethylene)
017-OLD-36-FD2-Q3-01	017-OLD-36-FD2-Q3-01 (Trichloroethylene)
017-OLD-36-26A-Q3-01	

8. The detection limits were elevated for the following samples due to limited sample volume:

FLA-PRO
017-OLD-36-08B-Q3-01
017-OLD-36-FD2-Q3-01
017-OLD-36-11C-Q3-01
017-OLD-36-32C-Q3-01

9. The following surrogate was outside the method specified limit due to matrix interference, as indicated by the "Z" qualifier:

VOC-SW-846-8260B	
1,2-Dichloroethane-d4 -	017-OLD-36-32C-Q3-01

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10. The following surrogates were outside the method specified limit, as indicated by the "Z" qualifier:

FLA-PRO

C(39) - 017-OLD-36-06A-Q3-01
017-OLD-36-08B-Q3-01
017-OLD-36-FD2-Q3-01
017-OLD-36-10B-Q3-01
017-OLD-36-11C-Q3-01
017-OLD-36-32C-Q3-01
017-OLD-36-26A-Q3-01
Method Blank
Laboratory Control Sample
Matrix Spike

o-Terphenyl - 017-OLD-36-06A-Q3-01
017-OLD-36-08B-Q3-01
017-OLD-36-FD2-Q3-01
017-OLD-36-10B-Q3-01
017-OLD-36-11C-Q3-01
017-OLD-36-32C-Q3-01
017-OLD-36-26A-Q3-01
Method Blank
Laboratory Control Sample
Matrix Spike
Matrix Spike Duplicate

The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

11. The laboratory control sample recovery (LCS) were outside the project specified limit for the following analysis:

FLA-PRO

The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

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Case Narrative

12 Tentatively Identified Compounds were reported as quantitative estimates.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/5/01
Date

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28512

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC17883 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-27A-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	140		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	13.0		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	32		5.0
Ethene	95		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	650		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	1.26		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1 U

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	310		5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	31		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	3.4		1.0
Butyric Acid	<RL		1.0u
Lactic Acid	<RL		25u
Propionic Acid	8.4		1.0
Pyruvic Acid	<RL		10u

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5 U
Chloromethane	<RL		6.5 U
cis-1,2-Dichloroethene	23		6
cis-1,3-Dichloropropene	<RL		5 U
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	0.55	J	7
Toluene	1.0	J	5.5
Total Xylenes	<RL		5 U
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	14		5
Trichlorofluoromethane	<RL		4 U
Vinyl chloride	<RL		5.5 U

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	84		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	117		
4-Bromofluorobenzene (80-120)	111		
Toluene-d8 (80-119)	107		

- ur associated results. cv

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LABORATORY REPORT

Accura Sample ID #: **AC17884** **Accura Project #:** **28512**

Client: **CH2M HILL - CCI** Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-FD1-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	25		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.1		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	78		5.0
Ethene	260		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	93		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0 UR

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	98	J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	8		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	4.6		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.64	J	6.5
cis-1,2-Dichloroethene	14		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	19		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	49		
o-Terphenyl (Range 82-142)	54	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	119		
4-Bromofluorobenzene (80-120)	114		
Toluene-d8 (80-119)	105		

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LABORATORY REPORT

Accura Sample ID #: AC17885 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-31C-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	1.0		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	5.4		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	44		5.0
Ethene	260		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	2300		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	3.2		1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	120	Y J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	31		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	15		1.0
Butyric Acid	4.6		1.0
Lactic Acid	<RL		25 u
Propionic Acid	31		1.0
Pyruvic Acid	<RL		10 u

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 u
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	0.59	J	6.5
cis-1,2-Dichloroethene	17		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	2.5	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	34		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	78		
o-Terphenyl (Range 82-142)	62		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	122		
4-Bromofluorobenzene (80-120)	112		
Toluene-d8 (80-119)	109		

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LABORATORY REPORT

Accura Sample ID #: AC17888 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-30C-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	20		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	7.4		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	92		5.0
Ethene	300		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	90		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL		0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0 UR

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	92	X	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	8		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0 u
Butyric Acid	<RL		1.0 u
Lactic Acid	<RL		25 u
Propionic Acid	3.8		1.0
Pyruvic Acid	<RL		10 u

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 u
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5	U
Chloromethane	<RL		6.5	U
cis-1,2-Dichloroethene	14		6	
cis-1,3-Dichloropropene	<RL		5	U
Dibromochloromethane	<RL		2.5	
Dibromomethane	<RL		12	
Dichlorodifluoromethane	<RL		5	
Ethylbenzene	<RL		3	
Hexachlorobutadiene	<RL		5.5	
Isopropylbenzene	<RL		2.5	
Methylene chloride	<RL		1.5	
Naphthalene	<RL		2	
n-Butylbenzene	<RL		5.5	
n-Propylbenzene	<RL		2	
p-Isopropyltoluene	<RL		6	
Sec-Butylbenzene	<RL		6.5	
Styrene	<RL		2	
Tert-Butylbenzene	<RL		7	
Tetrachloroethylene	<RL		7	
Toluene	1.1	J	5.5	
Total Xylenes	<RL		5	U
trans-1,2-Dichloroethene	<RL		3	
trans-1,3-Dichloropropene	<RL		5	
Trichloroethylene	18		5	
Trichlorofluoromethane	<RL		4	
Vinyl chloride	<RL		5.5	

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	87		
o-Terphenyl (Range 82-142)	51	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	123		
4-Bromofluorobenzene (80-120)	108		
Toluene-d8 (80-119)	102		

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LABORATORY REPORT

Accura Sample ID #: AC17889 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB2-Q3-01

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5

Dibromomethane	<RL		12	U
Dichlorodifluoromethane	<RL		5	
Ethylbenzene	<RL		3	
Hexachlorobutadiene	<RL		5.5	
Isopropylbenzene	<RL		2.5	
Methylene chloride	<RL		1.5	
Naphthalene	<RL		2	
n-Butylbenzene	<RL		5.5	
n-Propylbenzene	<RL		2	
p-Isopropyltoluene	<RL		6	
Sec-Butylbenzene	<RL		6.5	
Styrene	<RL		2	
Tert-Butylbenzene	<RL		7	
Tetrachloroethylene	<RL		7	
Toluene	10		5.5	
Total Xylenes	<RL		5	
trans-1,2-Dichloroethene	<RL		3	
trans-1,3-Dichloropropene	<RL		5	
Trichloroethylene	<RL		5	
Trichlorofluoromethane	0.57	J	4	
Vinyl chloride	<RL		5.5	U

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	125		
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	100		

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LABORATORY REPORT

Accura Sample ID #: AC17890 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-07A-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	13		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	3.2		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	110		5.0
Ethene	77		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	0.50		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0 U R

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	120	X J	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	10		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0 u
Butyric Acid	<RL		1.0 u
Lactic Acid	<RL		25 u
Propionic Acid	4.7		1.0
Pyruvic Acid	<RL		10 u

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 u
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	0.78	J	6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.1	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	11		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	97		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	114		
4-Bromofluorobenzene (80-120)	101		
Toluene-d8 (80-119)	94		

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LABORATORY REPORT

Accura Sample ID #: AC17891 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 7/31/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-09C-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	180		1.0

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	8.3		0.1

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	160		5.0
Ethene	430		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1700		0.015

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	<RL	U	0.01 U

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL	U	0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1 UR

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	290	Y	5.0

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	29		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	4.3		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	8.7		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	27		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	140		50
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/9/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	60		
o-Terphenyl (Range 82-142)	63		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	124		
4-Bromofluorobenzene (80-120)	107		
Toluene-d8 (80-119)	105		

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC17892 **Accura Project #:** 28512

Client: CH2M HILL - CCI Date Sampled: 8/1/01

Client Contact: J. WILMOTH Date Received: 8/1/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/5/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1.0 U

ANALYSIS: Chloride Method Ref: EPA 300

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride	<RL		0.1 U

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL		5.0 U
Ethene	<RL		5.0 U

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL		0.015 U

ANALYSIS: Nitrate Nitrogen EPA 300.0 Method Ref: EPA 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrate Nitrogen	1.26		0.01

ANALYSIS: Nitrite Nitrogen (300.0) Method Ref: 300.0

Date Ext/Dig/Prep: 8/1/01 Date Analyzed: 8/2/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Nitrite Nitrogen	<RL		0.01 U

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0 U

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0 U

ANALYSIS: TOC (Total Organic Carbon) Method Ref: 9060

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1 U

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0 U
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5 U
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5

Client Sample ID: METHOD BLANK AALSample ID #: AC17892 Accura Project #: 28512

Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	56		
o-Terphenyl (Range 82-142)	62	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/6/01 Date Analyzed: 8/6/01 Result Units: %

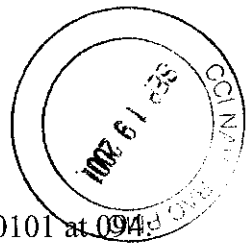
Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	94		
4-Bromofluorobenzene (81-118)	104		
Toluene-d8 (84-115)	103		

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28512

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth



The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 08/0101 at 094

Client I.D.	Laboratory I.D.
017-OLD-36-27A-Q3-01	AC17883
017-OLD-36-FD1-Q3-01	AC17884
017-OLD-36-31C-Q3-01	AC17885
017-OLD-36-30C-Q3-01	AC17888
017-OLD-36-TB2-Q3-01	AC17889
017-OLD-36-07A-Q3-01	AC17890
017-OLD-36-09C-Q3-01	AC17891

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. The following analyses were performed by subcontract laboratories:

Chloride-EPA-300	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	Nitrate Nitrogen-EPA-300.0
Nitrite Nitrogen-EPA-300.0	TOC-SW-846-9060
VFA's (W) Microseeps-AM21G	

4. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "Y" values noted for the TDS analysis indicate that the samples were analyzed outside the EPA recommended holding and the results for those samples should be considered estimated.

6. The pH of the samples was 1.0 for the VOC analysis.

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Potable & Non-potable Water-Solid/Hazardous Waste

7. The following samples required dilution due to high analyte concentration or possible matrix interference, resulting in elevated detection limits:

   VOC-SW-846-8260B
   017-OLD-36-31CMS-Q3-01
   017-OLD-36-31CMSD-Q3-01
   017-OLD-36-09C-Q3-01 (Trichloroethylene)

8. The detection limits were elevated for the following samples due to limited sample volume:

   FLA-PRO
   017-OLD-36-27A-Q3-01
   017-OLD-36-09C-Q3-01

9. The following surrogate was outside the method specified limit for all samples and quality control analyzed for this project, as indicated by the "Z" qualifier:

   FLA-PRO
   o-Terphenyl

   The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

10. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified limit for the following analysis:

    FLA-PRO

    The recoveries were within in-house limits established at the laboratory; therefore the data was accepted.

11. Batch QC for the FLA-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume.

12. Tentatively Identified Compounds were reported as quantitative estimates.

13. Batch QC is reported for the FLA-PRO, Chloride, TOC, Nitrate Nitrogen, Nitrite Nitrogen, and Alkalinity analyses.

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The following item was noted for the Methane analysis by the subcontract laboratory:

14. Methane had no spike recoveries reported due to the sample concentration being 100 times greater than the spiking concentration.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/5/01
Date

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PROJECT QUALITY CONTROL RESULTS

		Project Control Rec.				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limit	
		MS	MSD	MS	MS	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviat	
Method No[1]	Analyte / Component	Water		Soil[2]		Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]	Water	Soil[2]
	VOLATILES BY GC/MS					%	%			%	%			%	%			%	%
8260B	1,1,1,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		62-108	62-108			<50	<75
8260B	1,1,1-Trichloroethane	104	103			60-140	20-150	0%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	1,1,2,2-Tetrachloroethane	105	102			60-140	20-150	3%	#VALUE!	<30	<50	103		64-135	64-135			<50	<75
8260B	1,1,2-Trichloroethane	108	104			60-140	20-150	4%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	1,1-Dichloroethane	101	106			60-140	20-150	5%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,1-Dichloroethene	102	110			60-140	20-150	8%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	1,2,3-Trichlorobenzene	97	101			60-140	20-150	4%	#VALUE!	<30	<50	98		65-147	65-147			<50	<75
8260B	1,2,3-Trichloropropane	99	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2,4-Trichlorobenzene	98	98			60-140	20-150	1%	#VALUE!	<30	<50	100		65-145	65-145			<50	<75
8260B	1,2,4-Trimethylbenzene	101	100			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	1,2-Dichloroethane	106	103			60-140	20-150	2%	#VALUE!	<30	<50	102		58-137	58-137			<50	<75
8260B	1,2-Dichlorobenzene	100	101			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,2-Dibromo-3-chloropropane	102	99			60-140	20-150	2%	#VALUE!	<30	<50	97		49-135	49-135			<50	<75
8260B	1,2-Dichloropropane	98	98			60-140	20-150	0%	#VALUE!	<30	<50	99		60-135	60-135			<50	<75
8260B	1,2-Ethylene Dibromide	108	104			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	1,3,5-Trimethylbenzene	99	99			60-140	20-150	1%	#VALUE!	<30	<50	101		62-135	62-135			<50	<75
8260B	1,3-Dichlorobenzene	101	99			60-140	20-150	2%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,3-Dichloropropane	107	103			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	1,4-Dichlorobenzene	97	98			60-140	20-150	0%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	2,2-Dichloropropane	105	101			60-140	20-150	3%	#VALUE!	<30	<50	106		65-135	65-135			<50	<75
8260B	2-Chlorotoluene	99	97			60-140	20-150	2%	#VALUE!	<30	<50	100		63-135	63-135			<50	<75
8260B	4-Chlorotoluene	101	100			60-140	20-150	2%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Benzene	102	96			60-140	20-150	6%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Bromobenzene	99	96			60-140	20-150	3%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Bromochloromethane	99	97			60-140	20-150	2%	#VALUE!	<30	<50	104		63-135	63-135			<50	<75
8260B	Bromodichloromethane	102	102			60-140	20-150	1%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Bromoform	99	96			60-140	20-150	3%	#VALUE!	<30	<50	104		65-135	65-135			<50	<75
8260B	Bromomethane	72	84			60-140	20-150	16%	#VALUE!	<30	<50	76		62-135	62-135			<50	<75
8260B	Carbon Tetrachloride	106	102			60-140	20-150	4%	#VALUE!	<30	<50	104		52-135	52-135			<50	<75
8260B	Chlorobenzene	100	98			60-140	20-150	2%	#VALUE!	<30	<50	99		65-135	65-135			<50	<75
8260B	Chloroethane	105	113			60-140	20-150	7%	#VALUE!	<30	<50	108		55-135	55-135			<50	<75
8260B	Chloroform	105	101			60-140	20-150	4%	#VALUE!	<30	<50	104		64-135	64-135			<50	<75
8260B	Chloromethane	94	108			60-140	20-150	15%	#VALUE!	<30	<50	94		65-135	65-135			<50	<75
8260B	Cis-1,2-Dichloroethene	110	99			60-140	20-150	11%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Cis-1,3-Dichloropropene	98	99			60-140	20-150	1%	#VALUE!	<30	<50	102		64-135	64-135			<50	<75
8260B	Dibromochloromethane	110	103			60-140	20-150	6%	#VALUE!	<30	<50	103		63-135	63-135			<50	<75
8260B	Dibromomethane	103	106			60-140	20-150	3%	#VALUE!	<30	<50	103		59-137	59-137			<50	<75
8260B	Dichlorodifluoromethane	101	109			60-140	20-150	8%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Ethylbenzene	104	101			60-140	20-150	3%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Hexachlorobutadiene	104	100			60-140	20-150	4%	#VALUE!	<30	<50	107		65-135	65-135			<50	<75
8260B	Isopropylbenzene	97	97			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	total-Xylene	101	101			60-140	20-150	0%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Methylene Chloride	95	103			60-140	20-150	9%	#VALUE!	<30	<50	90		65-135	65-135			<50	<75
8260B	n-Butylbenzene	102	102			60-140	20-150	0%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	n-Propylbenzene	98	97			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

PROJECT QUALITY CONTROL RESULTS

8260B	Naphthalene	95	101			60-140	20-150	6%	#VALUE!	<30	<50	96		65-135	65-135			<50	<75
8260B	p-Isopropyltoluene	101	101			60-140	20-150	1%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Sec-Butylbenzene	99	99			60-140	20-150	0%	#VALUE!	<30	<50	100		65-135	65-135			<50	<75
8260B	Styrene	100	104			60-140	20-150	4%	#VALUE!	<30	<50	102		65-135	65-135			<50	<75
8260B	Trichloroethylene	111	104			60-140	20-150	7%	#VALUE!	<30	<50	99		61-135	61-135			<50	<75
8260B	Tert-Butylbenzene	99	98			60-140	20-150	1%	#VALUE!	<30	<50	101		65-135	65-135			<50	<75
8260B	Tetrachloroethylene	107	100			60-140	20-150	7%	#VALUE!	<30	<50	102		61-135	61-135			<50	<75
8260B	Toluene	107	99			60-140	20-150	8%	#VALUE!	<30	<50	101		64-135	64-135			<50	<75
8260B	Trans-1,2-Dichloroethene	105	109			60-140	20-150	4%	#VALUE!	<30	<50	103		65-135	65-135			<50	<75
8260B	Trans-1,3-Dichloropropene	104	99			60-140	20-150	5%	#VALUE!	<30	<50	98		56-135	56-135			<50	<75
8260B	Trichlorofluoromethane	109	116			60-140	20-150	6%	#VALUE!	<30	<50	108		57-135	57-135			<50	<75
8260B	Vinyl Chloride	98	110			60-140	20-150	12%	#VALUE!	<30	<50	100		36-144	36-144			<50	<75
8260B	Toluene-d8 (surr)	106	96			75-125	65-135	10%	#VALUE!	NA	NA	96		NA	NA			NA	NA
8260B	4-Bromofluorobenzene (surr)	99	95			75-1225	65-135	4%	#VALUE!	NA	NA	94		NA	NA			NA	NA
8260B	1,2-Dichloroethane-d4 (surr)	103	101			62-139	52-149	2%	#VALUE!	NA	NA	100		NA	NA			NA	NA
PETROLEUM HYDROCARBONS						%	%			%	%			%	%			%	%
FL-PRO	TPH	63	70			75-125	30-170	11%	#DIV/0!	<30	<50			75-125	70-130			<50	<75

310.1	Alkalinity	91	92		N/A	70-130	1	<30	97	70-130	N/A	<30	N/A		N/A

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS Not Specified
N/A Not Applicable

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0731-3

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOL. FATTY ACIDS	METHANE, ETHANE, ETHENE	[25] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-27A-Q3-01		W	7-31-01	0930	III	14	2	2			AG17883
2	017-OLD-36-FD1-Q3-01		↓	↓	—	↓	↓	2	2			17884
3	017-OLD-36-31C-Q3-01				1130			2	2			17885
4	017-OLD-36-31C NS-Q3-01				1130			2	2			17886
5	017-OLD-36-31C NSD-Q3-01				1130			2	2			17887
6	017-OLD-36-30C-Q3-01				1120			2	2			17888
7	017-OLD-36-07A-Q3-01				1520			2	2			17890
8	017-OLD-36-09C-Q3-01		↓	↓	1550	↓	↓	2	2			17891
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print)
ISAAC LYNCH / CARLTON ENVIRO

[30] COURIER AND SHIPPING NUMBER:
FedEx + ACCURA 828041481319

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Isaac Lynch	7-31-01	1730	Printed Name and Signature: FED EX		
Printed Name and Signature: FED EX	8-1-01	0945	Printed Name and Signature: Arnold Black	0-8-01	0945
Printed Name and Signature: Arnold Black	8-1-01	1600	Printed Name and Signature: U.P.S.	0-8-01	1600

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0731-1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	ACCURA / BONNIE HOGUE	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs 624MS	NO3 NO2	CHLORIDE	TDS, ALKALINITY	FL-PRO	TOC	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use) AC
1	017-OLD-36-27A-Q3-01		W	7-31-01	0930	III	14	3	1	1	1	2	1			17883
2	017-OLD-36-FD1-Q3-01		W	7-31-01	—			3	1	1	1	2	1			84
3	017-OLD-36-31C-Q3-01		W	7-31-01	1130			3	1	1	1	2	1			85
4	017-OLD-36-31C MS-Q3-01		W	7-31-01	1130			3	1	1	1	2	1			86
5	017-OLD-36-31C MSD-Q3-01		W	7-31-01	1130			3	1	1	1	2	1			87
6	017-OLD-36-30C-Q3-01		W	7-31-01	1120			3	1	1	1	2	1			88
7	017-OLD-36-TB2-Q3-01		W	7-31-01	—			3								89
8	017-OLD-36-07A-Q3-01		W	7-31-01	1520			3	1	1	1	2	1			90
9	017-OLD-36-09C-Q3-01		W	7-31-01	1550			3	1	1	1	2	1			91
10																

[29] SAMPLER(S) AND COMPANY: (please print)
ISAAC LYNCH /Tetra Tech Ewpy

[30] COURIER AND SHIPPING NUMBER:
Fed Ex 828049481319

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:	7-31-01	1730	Printed Name and Signature: FED EX		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature: FED EX	8-1-01	0945	Printed Name and Signature: Arnold B Knight	8-1-01	0945

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CC1001, Rev 06/00

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 5 Client Code: 0397-07 AAL Project Mg: B.J.H.

Client Project Name: CTO 17-TNTC ORLAND STUDY AREA 36 ACCURA Lab Project#: 28512

Are there EnCores, tests with < 48Hr hold times, or RUSH TAT's requested? YES (NO)
If YES, you must communicate RUSH analyses to the appropriate analyst(s) immediately!!! / or preserve EnCores (see #16 below)!!!
Preliminary Examination: Initials: ABC Date received: 8-1-01 Date cooler was opened: 8-1-01

1.	Did cooler/package come with a shipping slip (airbill, Etc.)? If YES, enter carrier name and airbill number here: FED EX SEE REVERSE Describe type of packing in cooler: ICE ****If cooler was hand delivered, CIRCLE HERE, skip to item #5****	(YES)		NO
2.	Were custody seals on outside of cooler? If YES, how many: 2 seal dated: 7-31-01 seal name: ILLEGABLE	(YES)		NO
3.	Were custody seals unbroken and intact at the date and time of arrival?	(YES)	N/A	NO
4.	Were custody papers sealed in a plastic bag to prevent damage to chain of custody?	(YES)		NO
5.	If required, was enough ice used? (Internal cooler temperature, 2°C)	(YES)	N/A	NO
6.	Did you sign custody papers in the appropriate place?	(YES)		NO
7.	Was project identifiable from custody papers? If YES, enter project name at the top.	(YES)		NO

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8.	Did all containers arrive unbroken and were labels in good condition?	(YES)		NO
9.	Were custody papers filled out properly and did all labels agree with custody papers?	YES		(NO)
10.	Were correct containers and sufficient amount of sample sent for the test indicated?	(YES)		NO
11.	All samples collected within three days of date received for these analyses **(Reactive Cn & S, Solids in H2O, Sulfide, Sulfite, !ALL! Extractable Organic Waters)?** If NO, coordinate with the project manager to ensure that no samples go out of hold!!!	(YES)	N/A	NO
12.	No residual chlorine found in waters for these analyses: **(Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)?** Checked by: _____ (Initials)	YES	(N/A)	NO
13.	Were samples properly chemically preserved, if required, upon receipt? **(For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)** Preservation checked by: _____ (Initials)	(YES)	N/A	NO
14.	Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? If NO, list ID # on back and label vials with "Do Not Use Until Notified By Management":	(YES)	N/A	NO
15.	If there are samples for dissolved metals, were they field filtered? If NO, list date and time samples were filtered and preserved in lab: _____	YES	(N/A)	NO

16.	Were Encore samplers included? If YES, date and time preserved with $NaHSO_4$: _____ By whom: _____	YES	(NO)
17.	Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? If YES, vials weighed by and entered into vial database by: _____	YES	(NO)
18.	Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: BH		

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.
Final check and samples logged to locations by: ABC (Initials)

19.	Was it necessary to call the assigned project manager in order to proceed with login? If YES, give details on the back of this form.	YES	(NO)
20.	Who was called? _____ By whom? _____ Date/Time: _____		

Project Mgr. Review: BJH (Initials) 8/2/01

ACCURA ANALYTICAL LABORATORY, INC.
SAMPLE RECEIPT VARIANCE FORM

Item #	Discrepancies Noted:
1	4 COOLERS RECVD TRACK#'S AND COOLER TEMPS ARE AS FOLLOWS 8289 4567 8866 (2°C) 8289 4567 8888 (2°C) 8289 4567 8877 (2°C) 824041481319 (2°C)
	ALL COOLER'S RECVD WITH 2 CUSTODY SEALS UNBROKEN DATED 7-31-01
	~~7W~~
9.	COC's noted said there 3 x 40ml vials (017-01D-36-TB2-03-01), But 2x 40ml vials Received..

Item #	Actions Taken:
9	OK - Noted

Project Mgr. Review: [signature] (Initials) 8/2/01 (Date)

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **141418**

Project: Project#28512

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue

August 13, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Kathryn Smith
Project Manager

Christy D. Sudden
Quality Assurance

Analytical Services Inc., Norcross Laboratory maintains the following certifications, approvals, and accreditations:
Georgia (812/351/1301); NELAC (E87315) scope: CWA, SDWA, RCRA expires July 1, 2002; NSF International (04180) scope: SDWA expires August 17, 2002; Alabama (41090); Arkansas; California (2290); Connecticut (PH-0250); Florida (E87315); Louisiana (A.I. 30742); Nebraska; North Carolina (381); North Dakota (R-116); Oklahoma (9907); Rhode Island (219); South Carolina (98011); Tennessee (02994); United States Army Corps of Engineers-MRD; USDA Soil Import License (S-36027); Virginia (00026). For more information visit our web site at: asi-lab.com

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ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-1**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17883, 07/31/2001, 09:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	31	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	13.0	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	1.26	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-2**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17884, 07/31/2001, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	8	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.1	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-3**

August 13, 2001

Sample Description

Accura Analytical Laboratory
Water, Project#28512, AC17885, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	31	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.4	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-4**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17886, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	33	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.1	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-5**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17887, 07/31/2001, 11:30, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	30	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	5.2	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI
ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-6**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17888, 07/31/2001, 11:20, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	8	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	7.4	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-7**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17890, 07/31/2001, 15:20, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	10	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	3.2	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	0.50	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie Hogue
Report No. **141418-8**

August 13, 2001

Sample Description
Accura Analytical Laboratory
Water, Project#28512, AC17891, 07/31/2001, 15:50, received 08/01/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	29	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	8.3	0.1	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

Inorganic Anions by Method EPA 300.0

Spike Recovery

Batch # 70228 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	93	94	1	75 - 125	0 - 10
Chloride	91	91	0	75 - 125	0 - 10
Fluoride	90	88	2	75 - 125	0 - 10
Nitrate-Nitrogen	92	92	0	75 - 125	0 - 10
Nitrite-Nitrogen	99	99	0	75 - 125	0 - 10
Sulfate	94	95	1	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	94	94	0	75 - 125	0 - 10
Chloride	92	93	1	75 - 125	0 - 10
Fluoride	90	92	2	75 - 125	0 - 10
Nitrate-Nitrogen	91	91	0	75 - 125	0 - 10
Nitrite-Nitrogen	97	98	1	75 - 125	0 - 10
Sulfate	95	95	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 70228 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0

Blank Results Information

Batch # 70228 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0

Sample Batch Information

Batch # 70228 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70228BLK	08/01/01	1600	AMC/BAF		08/02/01	0130	AMC/BAF	IC
70228CALHIGH	08/01/01	1600	AMC/BAF		08/02/01	0150	AMC/BAF	IC
70228CALMID	08/01/01	1600	AMC/BAF		08/02/01	0211	AMC/BAF	IC
70228CALLOW	08/01/01	1600	AMC/BAF		08/02/01	0231	AMC/BAF	IC
70228LCS	08/01/01	1600	AMC/BAF		08/02/01	0251	AMC/BAF	IC
70228LCSD	08/01/01	1600	AMC/BAF		08/02/01	0312	AMC/BAF	IC
141427-2	08/01/01	1730	AMC/BAF		08/02/01	0332	AMC/BAF	IC
141427-3	08/01/01	1730	AMC/BAF		08/02/01	0352	AMC/BAF	IC
141427-4	08/01/01	1730	AMC/BAF		08/02/01	0412	AMC/BAF	IC
141427-5	08/01/01	1730	AMC/BAF		08/02/01	0433	AMC/BAF	IC
141427-6	08/01/01	1730	AMC/BAF		08/02/01	0453	AMC/BAF	IC
141427-7	08/01/01	1730	AMC/BAF		08/02/01	0513	AMC/BAF	IC
141427-8	08/01/01	1730	AMC/BAF		08/02/01	0534	AMC/BAF	IC
141427-8DUP	08/01/01	1730	AMC/BAF		08/02/01	0554	AMC/BAF	IC
141427-9	08/01/01	1730	AMC/BAF		08/02/01	0614	AMC/BAF	IC
141427-9DUP	08/01/01	1730	AMC/BAF		08/02/01	0634	AMC/BAF	IC
141427-10	08/01/01	1730	AMC/BAF		08/02/01	0655	AMC/BAF	IC
141408-1	08/01/01	1730	AMC/BAF		08/02/01	0715	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/02/01	0735	AMC/BAF	IC
141427-1	08/01/01	1825	AMC/BAF		08/02/01	0836	AMC/BAF	IC
141252-22	08/01/01	1825	AMC/BAF		08/02/01	0857	AMC/BAF	IC
141103-1	08/01/01	1825	AMC/BAF		08/02/01	0917	AMC/BAF	IC
141418-3	08/01/01	1825	AMC/BAF		08/02/01	0937	AMC/BAF	IC
141418-2	08/01/01	1825	AMC/BAF		08/02/01	0957	AMC/BAF	IC
141418-8	08/01/01	1825	AMC/BAF		08/02/01	1018	AMC/BAF	IC
141418-4	08/01/01	1825	AMC/BAF		08/02/01	1038	AMC/BAF	IC
141418-5	08/01/01	1825	AMC/BAF		08/02/01	1058	AMC/BAF	IC
DBL8/1	08/01/01	1600	AMC/BAF		08/02/01	1139	AMC/BAF	IC
DBL8/2	/ /				08/03/01	1216	AMC/BAF	IC
141418-7	08/01/01	1825	AMC/BAF		08/03/01	1418	AMC/BAF	IC
DBL8/11	08/11/01	1200	AMC/BAF		08/11/01	2234	AMC/BAF	IC
141427-8MS	08/11/01	1230	AMC/BAF		08/11/01	2355	AMC/BAF	IC
141427-8MSD	08/11/01	1230	AMC/BAF		08/12/01	0015	AMC/BAF	IC
DBL8/11	08/11/01	1200	AMC/BAF		08/12/01	0156	AMC/BAF	IC

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 70293 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	94	95	1	75 - 125	0 - 10
Chloride	94	94	0	75 - 125	0 - 10
Fluoride	87	88	1	75 - 125	0 - 10
Nitrate-Nitrogen	93	93	0	75 - 125	0 - 10
Nitrite-Nitrogen	102	102	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	91	90	1	75 - 125	0 - 10
Chloride	89	90	1	75 - 125	0 - 10
Fluoride	80	82	2	75 - 125	0 - 10
Nitrate-Nitrogen	89	89	0	75 - 125	0 - 10
Nitrite-Nitrogen	95	95	0	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0

Surrogate Recovery

Batch # 70293 ***Matrix : Aqueous***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0
Blank Results Information

Batch # 70293 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrate Nitrogen	BDL	0.01
Nitrite Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 70293 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70293BLK	08/02/01	1700	AC/BF		08/03/01	1216	AMC/BAF	IC
70293CALHIGH	08/02/01	1700	AC/BF		08/03/01	1236	AMC/BAF	IC
70293CALMID	08/02/01	1700	AC/BF		08/03/01	1257	AMC/BAF	IC
70293CALLOW	08/02/01	1700	AC/BF		08/03/01	1317	AMC/BAF	IC
70293LCS	08/02/01	1700	AC/BF		08/03/01	1337	AMC/BAF	IC
70293LCSD	08/02/01	1700	AC/BF		08/03/01	1358	AMC/BAF	IC
141418-1	08/01/01	1825	AC/BF		08/03/01	1438	AMC/BAF	IC
141418-6	08/01/01	1825	AC/BF		08/03/01	1459	AMC/BAF	IC
141500-1	08/02/01	2000	AC/BF		08/03/01	1519	AMC/BAF	IC
141500-1DUP	08/02/01	2000	AC/BF		08/03/01	1539	AMC/BAF	IC
141503-1	08/02/01	2000	AC/BF		08/03/01	1600	AMC/BAF	IC
141503-1DUP	08/02/01	2000	AC/BF		08/03/01	1620	AMC/BAF	IC
141503-2	08/02/01	2000	AC/BF		08/03/01	1640	AMC/BAF	IC
141503-3	08/02/01	2000	AC/BF		08/03/01	1700	AMC/BAF	IC
141503-4	08/02/01	2000	AC/BF		08/03/01	1721	AMC/BAF	IC
141503-5	08/02/01	2000	AC/BF		08/03/01	1741	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	1/100	08/03/01	1800	AMC/BAF	IC
140420-1D	08/03/01	1600	AC/BF	10/100	08/03/01	1822	AMC/BAF	IC
140420-1	08/03/01	1600	AC/BF		08/03/01	1842	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	1/100	08/03/01	1902	AMC/BAF	IC
140420-2D	08/03/01	1600	AC/BF	10/100	08/03/01	1922	AMC/BAF	IC
140420-2	08/03/01	1600	AC/BF		08/03/01	1943	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	1/100	08/03/01	2003	AMC/BAF	IC
140420-3D	08/03/01	1600	AC/BF	10/100	08/03/01	2023	AMC/BAF	IC
140420-3	08/03/01	1600	AC/BF		08/03/01	2044	AMC/BAF	IC
141503-6	08/02/01	2000	AC/BF		08/03/01	2104	AMC/BAF	IC
141503-7	08/02/01	2000	AC/BF		08/03/01	2124	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2144	AMC/BAF	IC
141478-1	08/02/01	2000	AC/BF		08/03/01	2225	AMC/BAF	IC
141440-1	08/02/01	2000	AC/BF		08/03/01	2245	AMC/BAF	IC
141440-4	08/02/01	2000	AC/BF		08/03/01	2306	AMC/BAF	IC
DBL8/3	08/02/01	1700	AC/BF		08/03/01	2326	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1126	AMC/BAF	IC
141507-3	08/03/01	1840	AC/BF	2/100	08/04/01	1244	AMC/BAF	IC
141507-6	08/03/01	1840	AC/BF	2/100	08/04/01	1305	AMC/BAF	IC
141507-9	08/03/01	1840	AC/BF	2/100	08/04/01	1325	AMC/BAF	IC
141507-12	08/03/01	1840	AC/BF	2/100	08/04/01	1345	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/04/01	1406	AMC/BAF	IC

Single Analyte Data

Blank Results Information

Batch Number	Analyte	Analysis Method	Preparation Method	Blank Result	Matrix
70318	TOC	EPA 9060		< 1.0000	Aqueous

Lab Control Information

Batch Number	Analyte	Analysis Method	LC % Rec.	LCD % Rec.	LC/LCD RPD	%Recovery Range	RPD Range
70318	TOC	EPA 9060	104	103	1	80 - 120	0 - 20

Matrix Spike Information

Batch Number	Analyte	Analysis Method	MS % Rec.	MSD % Rec.	MS/MSD RPD	%Recovery Range	RPD Range
70318	TOC	EPA 9060	94	100	6	89 - 125	0 - 11

Unspiked Sample Duplicate Information

Batch Number	Analyte	Analysis Method	Sample 1 RPD	Sample 2 RPD	RPD Range
70318	TOC	EPA 9060	4	9	0 - 11

Single Analyte Data
Sample Batch Information
Analysis : TOC

Batch # 70318 ***Matrix : Aqueous***

		Preparation				Analysis			
Sample ID	Tag	Date	Time	By	Notes	Date	Time	By	Inst
70319BLK		/ /				08/03/01	2100	DJ	ASTRO
70319LCS		/ /				08/03/01	2100	DJ	ASTRO
70319LCSD		/ /				08/03/01	2100	DJ	ASTRO
70319CALCHK		/ /				08/03/01	2100	DJ	ASTRO
141163-1MS		/ /				08/03/01	2100	DJ	ASTRO
141163-1MSD		/ /				08/03/01	2100	DJ	ASTRO
141163-1		/ /				08/03/01	2100	DJ	ASTRO
141163-1DUP		/ /				08/03/01	2100	DJ	ASTRO
141092-6RR		/ /			DOC	08/03/01	2100	DJ	ASTRO
141092-6RR		/ /			TOC	08/03/01	2100	DJ	ASTRO
141099-4		/ /			DOC	08/03/01	2100	DJ	ASTRO
141099-4		/ /			TOC	08/03/01	2100	DJ	ASTRO
141199-5		/ /			DOC	08/03/01	2100	DJ	ASTRO
141199-5		/ /			TOC	08/03/01	2100	DJ	ASTRO
141351-1		/ /				08/03/01	2100	DJ	ASTRO
141351-2		/ /				08/03/01	2100	DJ	ASTRO
141351-3		/ /				08/03/01	2100	DJ	ASTRO
141351-4		/ /				08/03/01	2100	DJ	ASTRO
141163-2		/ /				08/03/01	2100	DJ	ASTRO
141163-2DUP		/ /				08/03/01	2100	DJ	ASTRO
141418-1		/ /				08/03/01	2100	DJ	ASTRO
141418-2		/ /				08/03/01	2100	DJ	ASTRO
141418-3		/ /				08/03/01	2100	DJ	ASTRO
141418-4		/ /				08/03/01	2100	DJ	ASTRO
141418-5		/ /				08/03/01	2100	DJ	ASTRO
141418-6		/ /				08/03/01	2100	DJ	ASTRO
141418-7		/ /				08/03/01	2100	DJ	ASTRO
141418-8		/ /				08/03/01	2100	DJ	ASTRO

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

A4

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: ASI

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC
Address: 6017 Financial Drive, Norcross, GA 30071
Accura Lab Contact Name: **Bonnie J. Hogue**
Contact Phone # (770) 449 - 8800, **ext. 216**
Fax Number: (770) 449 - 5477

AAL PROJECT # 28512

For Laboratory Use Only

Custody Seal: Y (N) Page 1 OF 1
QC Level: N 1 2 3 4 Init/Temp: 2°C @ 1625
Entered into LIMS: KO LAB Project # 141418
Sample Condition: g

AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	NO_3 300.0	NO_2 300.0	CHLORIDE 300.0	TOC (9060)						Remarks	LAB #
AC 17883	7-31-01 / 0930			W			3	✓	✓	✓	✓							-1
AC 84				W			3	✓	✓	✓	✓							-2
AC 85	1130			W			3	✓	✓	✓	✓							-3
AC 86	1130			W			3	✓	✓	✓	✓							-4
AC 87	1130			W			3	✓	✓	✓	✓							-5
AC 88	1120			W			3	✓	✓	✓	✓							-6
~~AC~~				~~W~~			~~3~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~						8/01/01	
AC 17890	1520			W			3	✓	✓	✓	✓							-7
AC 91	1550																run NO_2, NO_3, Cl + TOC per phone conv. w/ Bonnie 8/2 KB	-8
AC																		

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
		BAM	8/1 @ 1625	**PLEASE FAX RESULTS!!**
Relinquished By:	**Date / Time**	**Received By:**	**Date / Time**	**Turnaround Time Requested!**
BAM	8/01/01 / 1625			ASAP!

Matrix Guide: (S = Soil) (W = Water) ...

MICROSEEPS

28572

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Page: Page 1 of 13
Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108054-01	AC17883
P0108054-02	AC17884
P0108054-03	AC17885
P0108054-04	AC17886MS
P0108054-05	AC17887MSD
P0108054-06	AC17888
P0108054-07	AC17890
P0108054-08	AC17891

Approved By: Debbie Hall

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17883	Water	31 Jul. 01 9:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	3.4	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	32	5.0	ng/L	AM18
Ethene	95	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	650	0.015	ug/L	AM20GAX
Propionic acid	8.4	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17884	Water	31 Jul. 01 9:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	78	5.0	ng/L	AM18
Ethene	260	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	93	0.015	ug/L	AM20GAX
Propionic acid	4.6	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17885	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	15	1.0	mg/L	AM21G
Butyric acid	4.6	1.0	mg/L	
Ethane	44	5.0	ng/L	AM18
Ethene	260	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	31	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-04

Sample Description	Matrix	Sampled Date/Time	Received
AC17886MS	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	100	1.0	mg/L	AM21G
Butyric acid	91	1.0	mg/L	
Ethane	38000	5.0	ng/L	AM18
Ethene	37000	5.0	ng/L	
Lactic Acid	89	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	120	1.0	mg/L	AM21G
Pyruvic acid	85	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-05

Sample Description	Matrix	Sampled Date/Time	Received
AC17887MSD	Water	31 Jul. 01 11:30	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	100	1.0	mg/L	AM21G
Butyric acid	91	1.0	mg/L	
Ethane	38000	5.0	ng/L	AM18
Ethene	36000	5.0	ng/L	
Lactic Acid	87	25	mg/L	AM21G
Methane	2300	0.015	ug/L	AM20GAX
Propionic acid	120	1.0	mg/L	AM21G
Pyruvic acid	86	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-06

Sample Description	Matrix	Sampled Date/Time	Received
AC17888	Water	31 Jul. 01 11:20	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	92	5.0	ng/L	AM18
Ethene	300	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	90	0.015	ug/L	AM20GAX
Propionic acid	3.8	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-07

Sample Description	Matrix	Sampled Date/Time	Received
AC17890	Water	31 Jul. 01 15:20	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	110	5.0	ng/L	AM18
Ethene	77	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1700	0.015	ug/L	AM20GAX
Propionic acid	4.7	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108054-08

Sample Description	Matrix	Sampled Date/Time	Received
AC17891	Water	31 Jul. 01 15:50	03 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	4.3	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	160	5.0	ng/L	AM18
Ethene	430	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1700	0.015	ug/L	AM20GAX
Propionic acid	8.7	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M010816007-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M010816007-LCS

	%Recovery	Ctl Limits
Ethene	99	89 - 115
Ethane	100	89 - 113

P0108054-03A-MS

	%Recovery	Ctl Limits
Ethene	96	70 - 130
Ethane	93	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	94	70 - 130	2.74	0 - 20
Ethane	93	70 - 130	0.00	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M010816025-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M010816025-LCS

	%Recovery	Ctl Limits
Methane	95	90 - 108

P0108054-03A-MS

	%Recovery	Ctl Limits
Methane	0	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	0	70 - 130	0.00	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M010823004-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M010823004-LCS

	%Recovery	Ctl Limits
Acetic Acid	83	70 - 130
Propionic acid	84	70 - 130
Butyric acid	86	70 - 130
Lactic Acid	77	70 - 130
Pyruvic acid	83	70 - 130

P0108054-03A-MS

	%Recovery	Ctl Limits
Acetic Acid	85	70 - 130
Propionic acid	89	70 - 130
Butyric acid	86	70 - 130
Lactic Acid	89	70 - 130
Pyruvic acid	85	70 - 130

P0108054-03A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	85	70 - 130	0.00	0 - 20
Propionic acid	89	70 - 130	0.00	0 - 20
Butyric acid	86	70 - 130	0.00	0 - 20
Lactic Acid	87	70 - 130	2.27	0 - 20
Pyruvic acid	86	70 - 130	1.17	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108054
Report Date: 08/24/01
Client Proj Name: SA39,NTC Orlando
Client project #: CH2MHill project

Case Narrative:Methane had no recovery due to the sample concentration being 100 times greater then the spiking concentration.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

PO108054

SUBCONTRACTOR CHAIN OF CUSTODY

SUBCONTRACTED TO: MICROSEEPS

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC

Address: 6017 Financial Drive, Norcross, GA 30071

Accura Lab Contact Name: **Bonnie J. Hogue**

Contact Phone # (770) 449 - 8800, **ext. 216**

Fax Number: (770) 449 - 5477

AAL PROJECT # 28512

For Laboratory Use Only

Custody Seal: Y N

QC Level: N 1 2 3 4

Entered into LIMS:

Page 1 OF 1

Init/Temp:

LAB Project #

Sample Condition:

CH2M HILL

-NTC ORLANDO PROJECT

	AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	MEE	VPH	Remarks	LAB #
01	AC 17883	7-31-01 / 0930			W			4	✓	✓	-PLEASE FOLLOW	
02	AC 84				W			4	✓	✓	THEIR LEVEL	
03	AC 85	1130			W			4	✓	✓	OF QC REQUIREMENTS.	
04	AC 86	1130			W			4	✓	✓		
05	AC 87	1130			W			4	✓	✓		
06	AC ✓ 88	✓ 1120			W			4	✓	✓		
	AC				W			4	✓	✓	12d/8/01/07.	
07	AC 17890	7-31-01 1520			W			4	✓	✓		
08	AC ✓ 91	✓ 1550										
	AC											

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
Amanda Taylor	8-1-01 1600	UPS	8-1-01	**PLEASE FAX RESULTS!!**
Relinquished By:	**Date / Time**	**Received By:**	**Date / Time**	**Turnaround Time Requested:**
		Romayor	8/2/01 13:32	

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous) (D = Digestate)

Subcoc-01.xls

28512

Responses to October 9, 2001 Data Memo
CH2MHill Contractors Inc.

AAL Project#: 28368, 28507, 28508, (28512,) 28530, 28744, 28764

Has the laboratory demonstrated acceptable control or precision and accuracy results. (Both
(Y) N 1 laboratory control and matrix spike/duplicate samples fail bias low.)
Comments: See QA-011011

Does Case Narrative provide language towards steps taken by the laboratory to assure acceptable
(Y) N 2 recovery. (28512, 28744)
Comments: See QA-011011

Does laboratory provide acceptable surrogate recovery for FL-PRO analyses. (The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve
(Y) N 3 acceptable recovery.) (28512, 28744)
Comments: See QA-011018

Is this taken care of: The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND
(Y) N 4 below the reporting limit." (28744)
Comments: See QA-011025

N/A for project 28512

Is this taken care of: The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample
(Y) N 5 volume was due to multiple analyses. (28512, 28744)
Comments: See QA-011032

Y N 6 Total dissolved solid were analyzed outside holding time(28512)?
Comments: See QA-011039

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

AAL Project #: 28512

Client Project: CTO 17-NTC Orlando-Study Area 36 / 152044.32.12.01.08

CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received by Accura Analytical Laboratory on 08/0101 at 094:

Client I.D.	Laboratory I.D.
017-OLD-36-27A-Q3-01	AC17883
017-OLD-36-FD1-Q3-01	AC17884
017-OLD-36-31C-Q3-01	AC17885
017-OLD-36-30C-Q3-01	AC17888
017-OLD-36-TB2-Q3-01	AC17889
017-OLD-36-07A-Q3-01	AC17890
017-OLD-36-09C-Q3-01	AC17891

2. The sample cooler temperature was noted to be 2^0C upon receipt.

3. A subcontract laboratory completed the following analyses:

Chloride-EPA-300	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	Nitrate Nitrogen-EPA-300.0
Nitrite Nitrogen-EPA-300.0	TOC-SW-846-9060
VFA's (W) Microseeps-AM21G	

4. The "J" values noted for the VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

5. The "Y" flags for the TDS analysis indicate that analysis occurred outside the EPA recommended holding time.

6. The pH of the samples was 1.0 for the VOC analysis.

7. The following samples required dilution due to high analyte concentration or possible matrix interference, resulting in elevated detection limits:

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REVISED

VOC-SW-846-8260B
017-OLD-36-31CMS-Q3-01
017-OLD-36-31CMSD-Q3-01
017-OLD-36-09C-Q3-01 (Trichloroethylene)

8. The detection limits were elevated for the following samples due to limited sample volume received from the client, i.e. less than 1000ml:

   FLA-PRO
   017-OLD-36-27A-Q3-01
   017-OLD-36-09C-Q3-01

9. The following surrogate recovery did not meet the reported FLA-PRO recovery range as specified by the method for the samples and associated QC analyses: o-Terphenyl. This is indicated on the reports by the "Z" flag. Please note that some of the outlier recoveries met the following aqueous in-house established limits:

Sample:	Surrogate Compound	Recovery Range
	C-39	1-79
	o-Terphenyl	33-100
	Spike Compound	**Recovery Range**
	FL-PRO	20-113

Blank/LCS:	Surrogate Compound	Recovery Range
	C-39	0-131
	o-Terphenyl	51-115
	Spike Compound	**Recovery Range**
	FL-PRO	16-116

In addition, per the FL-PRO method developed by the State of Florida the following addresses outlier surrogate recoveries:

a. High recoveries may be due to a coeluting matrix interference or the presence of high molecular weight contaminants.
b. High recoveries may also be due to memory effects caused by poor sample volatility, backflash or carryover.
c. Low recoveries may be due to adsorption by the sample matrix.

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REVISED

d. Low recoveries may also be caused by incorrect integration. The chromatographic profile or motor oils does not give baseline resolution of all components, resulting in a characteristic rise in baseline underneath the resolved hydrocarbon components known as the "unresolved complex mixture".
e. If the surrogate recovery is outside of established limits, the results must be flagged and an explanation offered.

The following offers AAL's response to the method corrective measures concerning surrogates that fall outside the method specified limits:

a. The does not appear to be any chromatographic interference affecting the surrogate recoveries.
b. All FL-PRO analyses are <RL except for one sample. There does not appear to be carryover, etc.
c. This is possible perhaps and would constitute matrix interference.
d. The correct integration process is used for surrogates.

Since this process was observed in the samples and QC analyses, it is likely related to either of the following: the extraction process or the written method. It is inconclusive at this time what the reason is since it was learned via communications with Dr. Carl Kircher with the State of Florida that the FL-PRO method in general has created difficulty in achieving the method stated surrogate recoveries for laboratories who analyze via this method. Please note that Accura continues to evaluate the FL-PRO method internally.

10. The laboratory control sample and laboratory control sample duplicate recoveries were outside the project specified recovery range for the following analysis: FL-PRO. Please note that the outlier recoveries met the aqueous in-house established limits as stated in Comment #9 above.

11. Batch QC for the FL-PRO analysis consists of a laboratory control sample and a laboratory control sample duplicate due to limited sample volume received from the client.

12. Tentatively Identified Compounds are reported as quantitative estimates.

13. Batch QC is reported for the FL-PRO, Chloride, TOC, Nitrate Nitrogen, Nitrite Nitrogen, and Alkalinity analyses due to limited sample volume received from the client.

14. Total Xylenes are flagged with an "m" to indicate that the m,p-xylenes and o-xylene were calibrated for separately and manipulated automatically by the HP Chem Station Software to produce Total Xylenes.

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ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

15. Methane had no spike recoveries reported due to the sample concentration being 100 times greater than the spiking concentration as noted by the subcontract laboratory.

Approved for Quality Assurance Release By:

Kelly Clemons
Quality Assurance Manager

11/16/01
Date/Time

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Environmental Analytical Services
6017 Financial Drive
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Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111018

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not provide acceptable surrogate recovery for FL-PRO analyses. The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results. See revised case narrative attached to QA-0111011

Resolution recorded by: KMclemons Date: 11/16/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/16/01

QA Review by: KMclemons Date: 11/16/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

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Environmental Analytical Services
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111032

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
2. Include client project communication regarding inadequate sample volume available to meet contract quality control requirements.

#1: See Case Narrative attached to QA-0111011
#2: See the attached bottle request documentation

Resolution recorded by: KMClemons Date: 11/16/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KM Clemons 11/16/01

QA Review by: KMClemons Date: 11/16/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111011

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not demonstrate acceptable control or precision and accuracy results. Both laboratory control and matrix spike/duplicate samples fail bias low.
Case Narrative does not provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
Recovery limits specified do not reflect in-house performance. See revised case narrative

Resolution recorded by: KMclemons Date: 11/17/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Future tables will reflect laboratory limits.
KMC 11/17/01

QA Review by: KMclemons Date: 11/17/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111025

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Resubmit summary reports and EDD to reflect result equal to or above the associated MDL.

N/A for project 28512

Resolution recorded by: _____ Date: 11/19/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: 11/19/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111061

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Laboratory cannot report data less than their method detection limit. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01

Resubmit EDD to reflect result equal to or above the associated MDL.

N/A for project 28512

Resolution recorded by: _____ Date: 11/19/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

11/19/01

QA Review by: _____ Date: 11/19/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111068

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Associated data qualifier codes should be presented in specified column. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

EDD has been corrected

Resolution recorded by: _____ Date: 11/19/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

CL 11/19/01

QA Review by: _____ Date: 11/19/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111075

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Surrogate compounds for FL PRO are not identified in Method Blank. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

EDP has been corrected

Resolution recorded by: [signature] Date: 11/19/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

C.R 11/19/01

QA Review by: [signature] Date: 11/19/01

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FL-PRO CONTROL LIMITS

Updated on 7/12/01 Analyst:BP

	OTP		C39		Spike Rec% (LCS Only)	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
SOIL (Blank & LCS)	38	131	0	53	26	104
WATER (Blank & LCS)	51	115	0	131	16	116

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, GA 30071
Phone: 770-449-8800 / FAX: 770-449-5477

REQUEST FOR CONTAINERS

Client: CH2M Hill-CCI Date / Time: 7/24 / ____

Ship to: Caretaker Site Office
1060 Warehouse Rd., Orlando FL 32803

Contact Name: Gareth Bands / Craig Haas (407)-709-2346

Project Name: SA36, NTC Orlando

Ship by: / Date: 7/24 Time: ____
UPS / (X) UPS Next Day Air / ___ Fed-Ex / ___ Airborne / ___ Pick Up / ___ Courier / ___

Chain of Custody(s) ✓ Labels ? ✓ Coolers ? ✓ Level 3 w/ certs + MSDS
Custody Seals ? ✓ Labels put on container ? NO
Preservatives ? ✓ Pre-Label w/ test? ✓ Bubble-wrapped ? ✓

Number	Sample Type	Type of Container	Preservative	Pres. Lot #	Analysis(Test) Requested
24	G-W	(3)40ml vials	HCl		VOC
~~24~~ 23		16oz. NOPE	—		NO_3, NO_2 —
~~23~~		16oz 8oz.	—		Chloride —
~~23~~		16oz	—		TDS, AlK —
~~23~~		16oz 8oz. NOPE	H_2SO_4	EX01202	TOC —
~~52~~	↓	1L Amber	HCl	1332767	FL-PRO*
~~24~~		(2)40ml vials (Amber)	—		VFA } microseeps containers
~~24~~	↓	(2)40ml vials	—		MEE }
~~5~~	W	(2)40ml vials	HCl		Trip Blanks
	~~X~~	4 Gallons of DI Water			~~X~~

21
13
14
16
24
24
32
27
52
17

*Important Note: For all tests that are marked with an asterisk (*), please fill two(2)- 32 oz brown bottles for each sample submited to laboratory. Also, please choose one of these samples(preferrably upgradient) and fill three (3) - 32 oz bottles in order for our lab to meet EPA Batch QC requirements for MS/MSD protocols. Please call the laboratory if you have any questions regarding these instructions. Thank You

Other Notes: * Label cooler - At least 5 coolers *

AAL Vial #'s : ____

Requested By: BDN Shipped By: ____ Checked By: ____ Date / Time: 7/24 - 14:45

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111039

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Test (Total dissolved solid) were analyzed outside holding time(28512).

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Include client project communication regarding analyses performed outside holding time

i) Client project communication forms not in file, see Bonnie Hogue @ CCI if more information is required.

Resolution recorded by: David Fuller Date: 11/12/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/16/01

QA Review by: KM Clemons Date: 11/16/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111046

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:

1. Adhere to deliverable requirements for sub-contracted analyses. KMC 11/16/01 See the attached raw data from subcontractor
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached orginal bid and the revised bid which indicate the intent to subcontract.

Resolution recorded by: KMClemons Date: 11/16/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/16/01

QA Review by: KMClemons Date: 11/16/01

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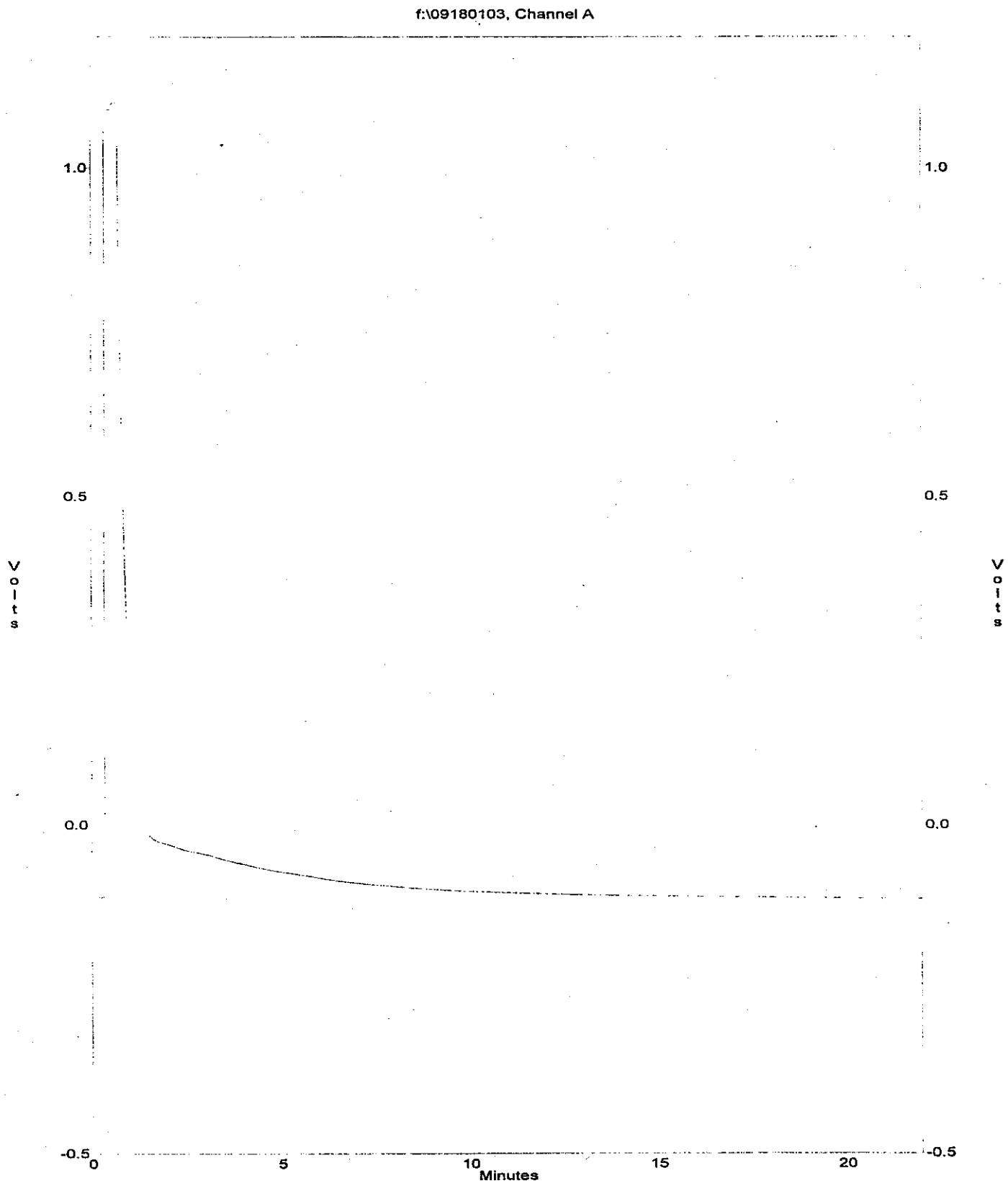
EDD Errors

28512.csv

Result < MDL	RL < MDL	REC < LCL	REC > UCL	No %SOLIDS
		77		
		154		
		231		
		308		
		445		
		522		

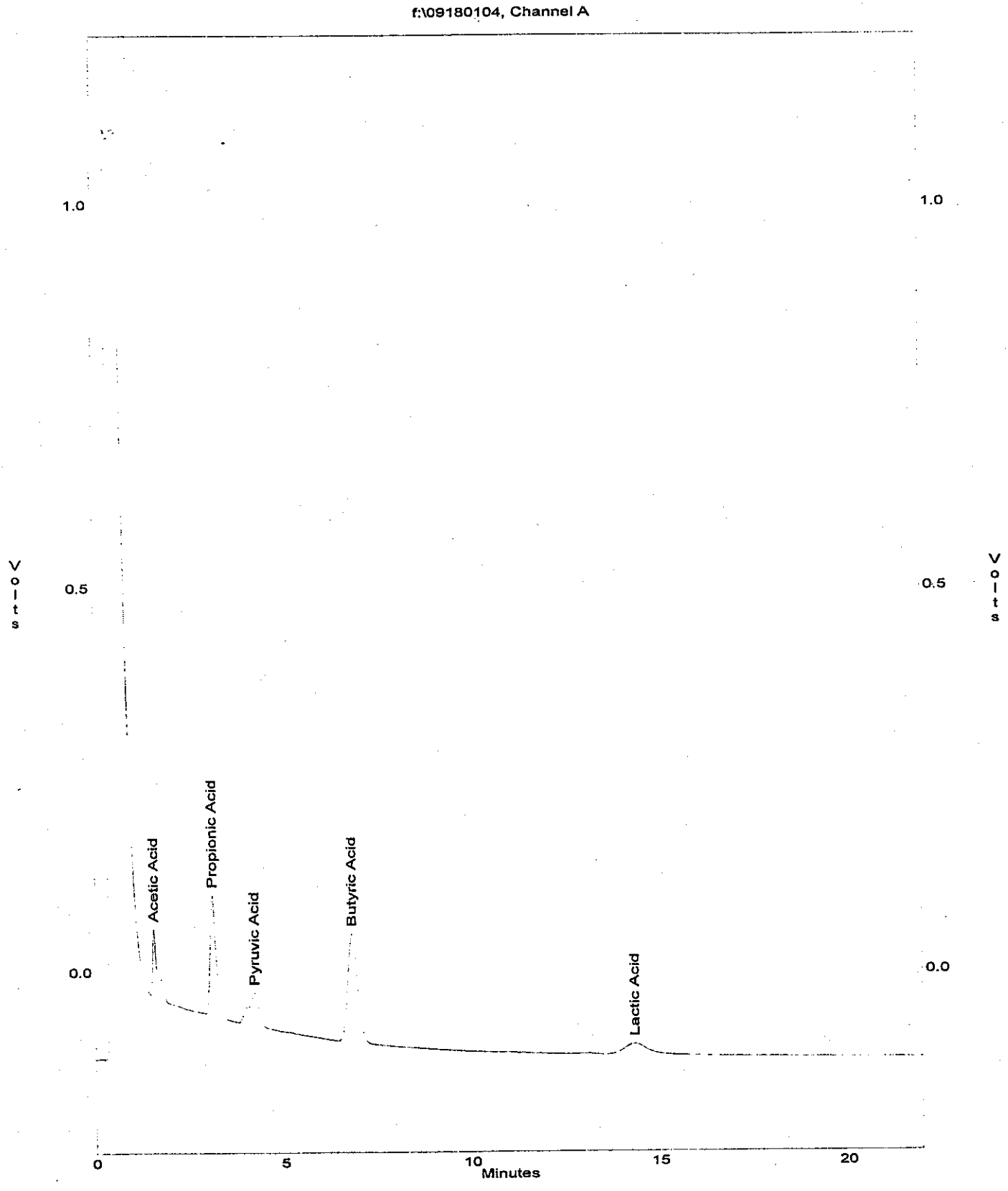
External Standard Report -- Channel A
File : f:\09180103
Method : f:\vfa.met
Sample ID : mb
Acquired : Sep 18, 2001 13:08:08
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180103, Channel A
1.0
0.5
0.0
-0.5
Volts
0
5
10
15
20
Minutes

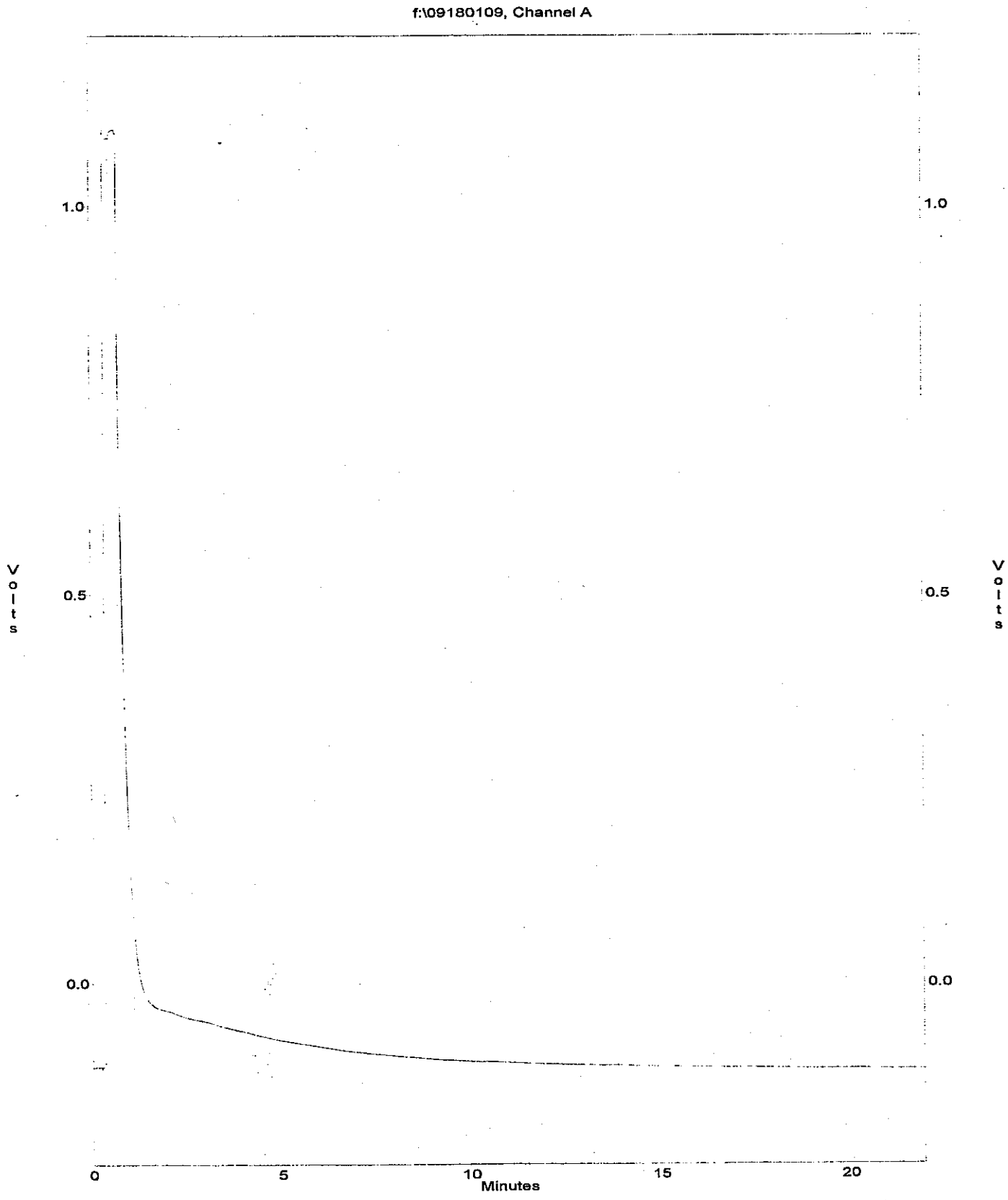
External Standard Report -- Channel A
File : f:\09180104
Method : f:\vfa.met
Sample ID : lcs 10x supelco
Acquired : Sep 18, 2001 13:30:53
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.570	63.597 mg/l	810383	86464
2	Propionic Acid	3.110	78.070 mg/l	1771031	155441
3	Pyruvic Acid	4.208	93.559 mg/l	762322	42557
4	Butyric Acid	6.827	93.757 mg/l	2614371	140610
5	Lactic Acid	14.338	69.001 mg/l	639776	14353
Totals			397.985	6597883	439425


f:\09180104, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

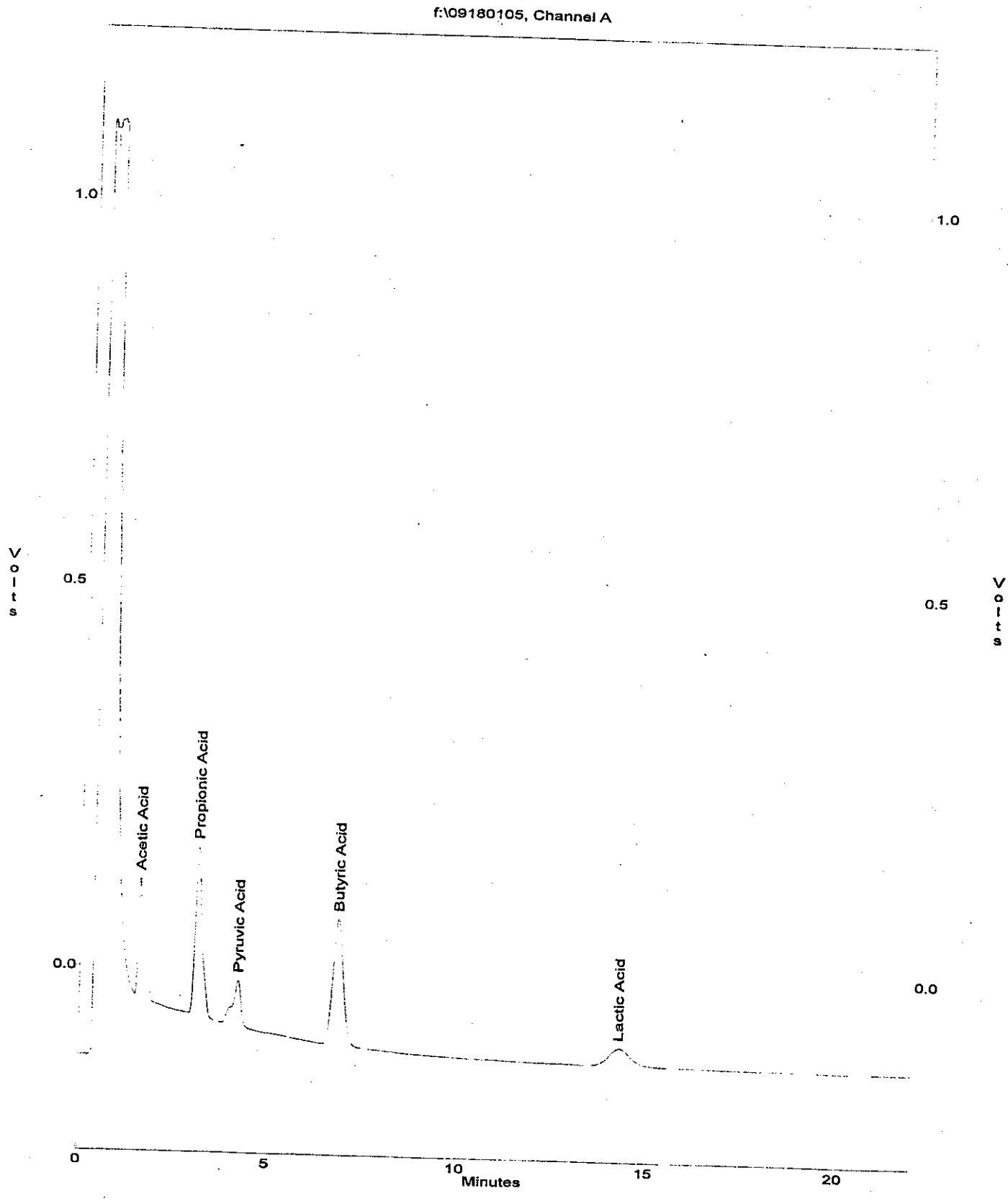
External Standard Report -- Channel A
File : f:\09180109
Method : f:\vfa.met
Sample ID : p109150-01a
Acquired : Sep 18, 2001 15:24:28
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180109, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

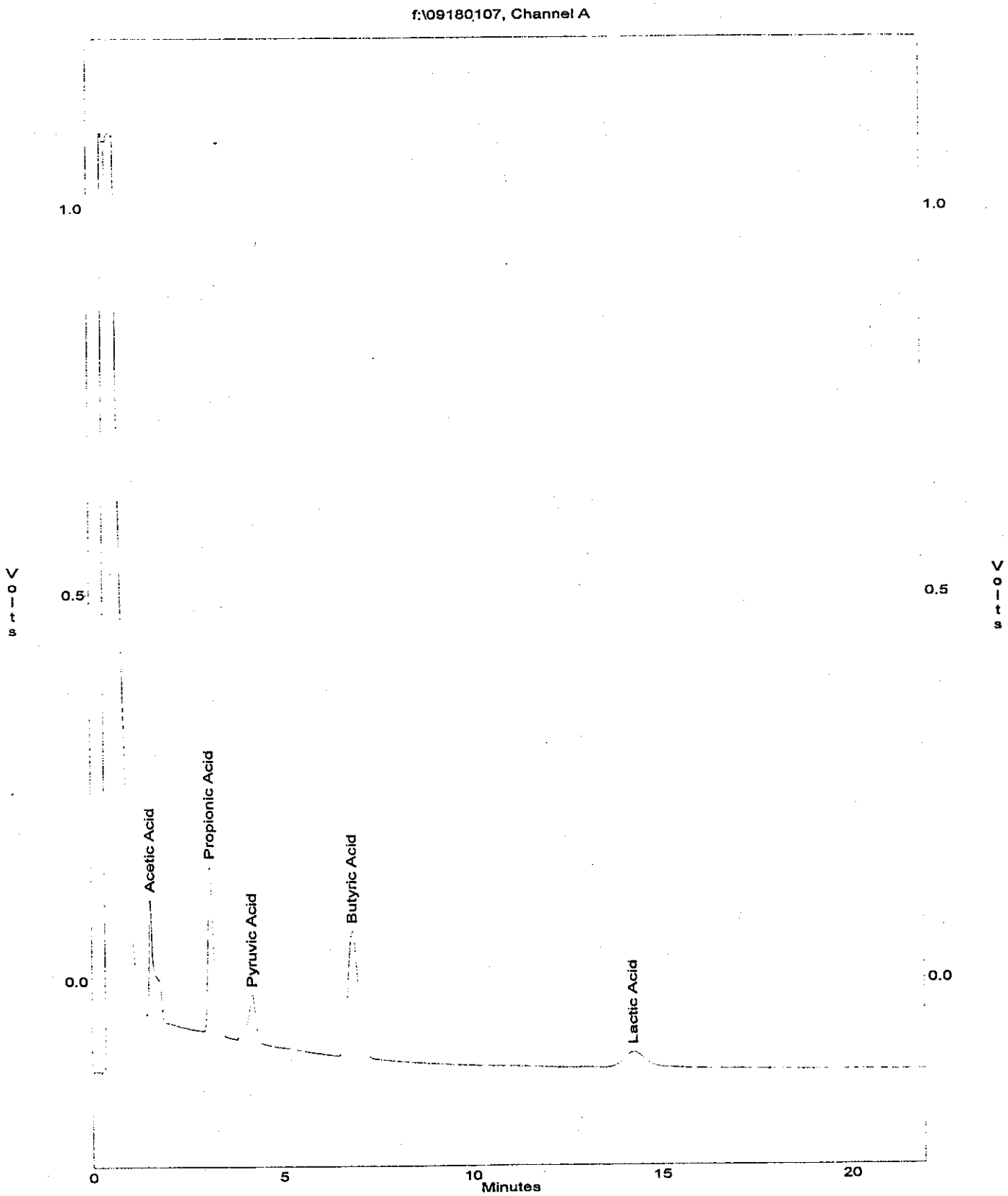
External Standard Report -- Channel A
File : f:\09180105
Method : f:\vfa.met
Sample ID : p109150-01a ms
Acquired : Sep 18, 2001 13:53:35
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.570	111.887 mg/l	1500077	151799
2	Propionic Acid	3.112	110.449 mg/l	2536279	217441
3	Pyruvic Acid	4.213	113.684 mg/l	931971	59067
4	Butyric Acid	6.832	109.652 mg/l	3070211	163018
5	Lactic Acid	14.287	91.587 mg/l	936318	22570
Totals			537.259	8974856	613895


f:\09180105, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

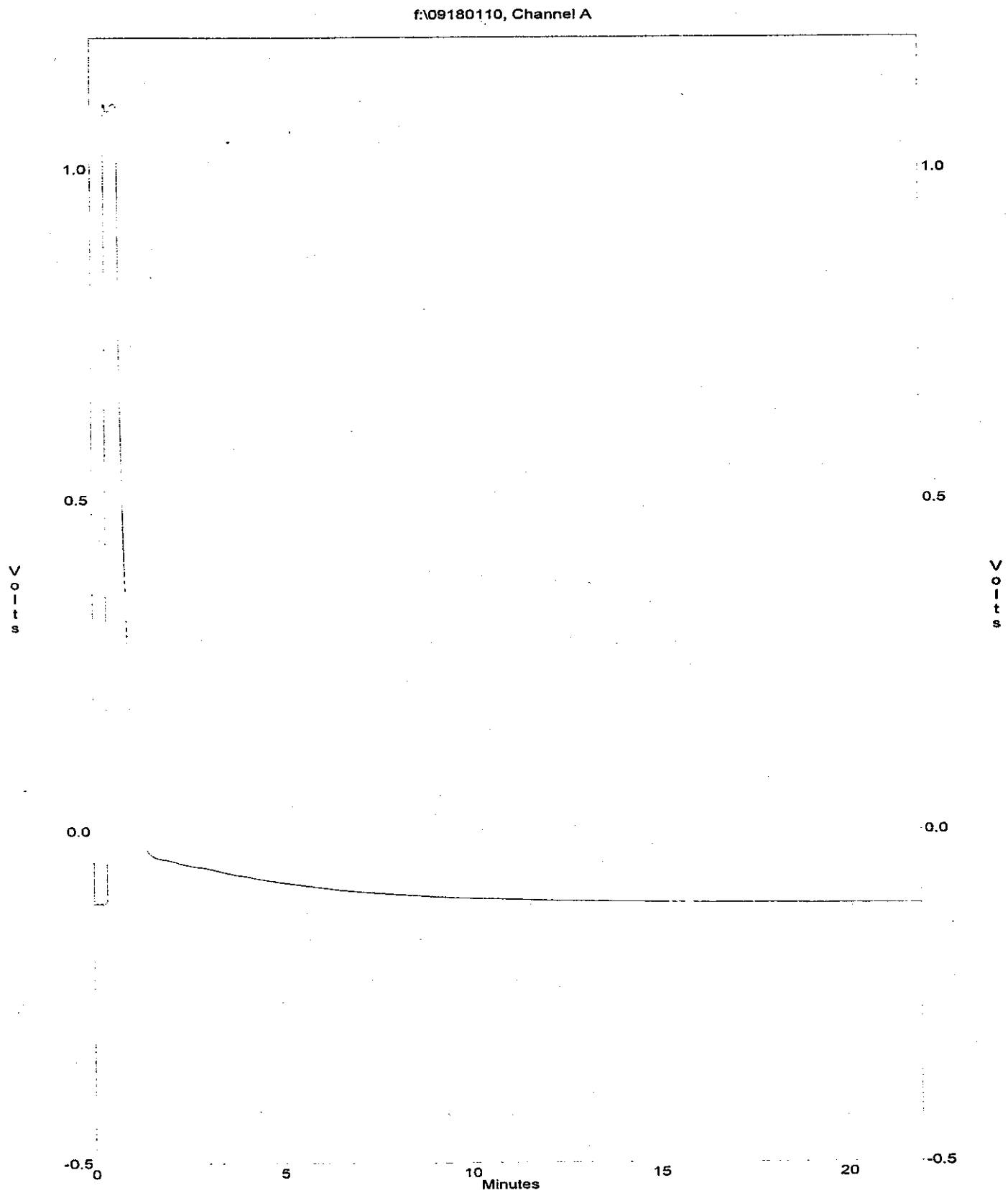
External Standard Report -- Channel A
File : f:\09180107
Method : f:\vfa.met
Sample ID : p109150-01a msd
Acquired : Sep 18, 2001 14:39:02
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	1.570	111.637 mg/l	1496505	150131
2	Propionic Acid	3.112	110.216 mg/l	2530770	214067
3	Pyruvic Acid	4.212	113.206 mg/l	927948	60568
4	Butyric Acid	6.835	109.016 mg/l	3051983	161018
5	Lactic Acid	14.267	85.716 mg/l	859238	20509
Totals			529.792	8866444	606293


f:\09180107, Channel A
1.0
0.5
0.0
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

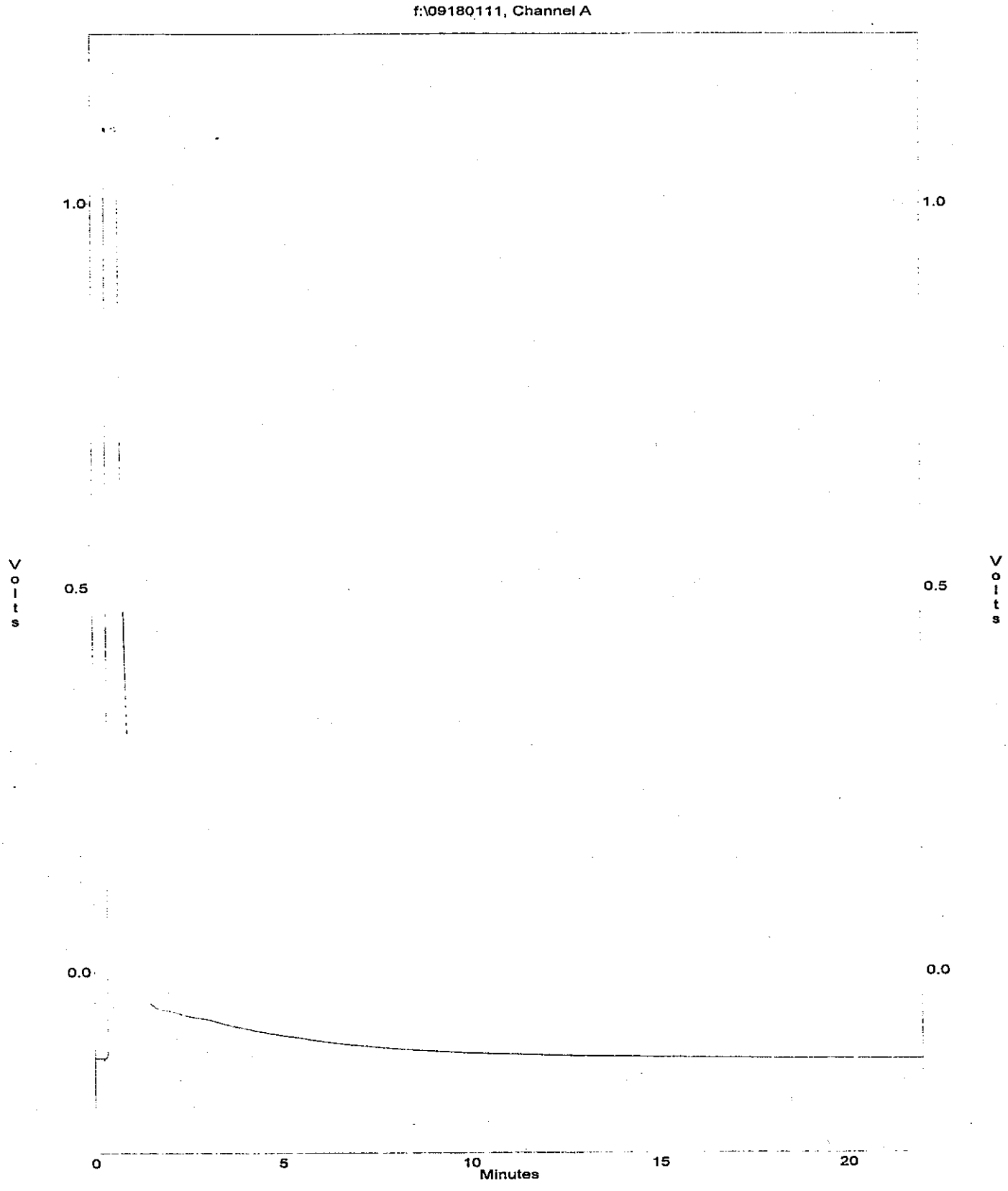
External Standard Report -- Channel A
File : f:\09180110
Method : f:\vfa.met
Sample ID : p109150-02a
Acquired : Sep 18, 2001 15:47:13
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180110, Channel A
1.0
0.5
0.0
-0.5
Volts
0
5
10
15
20
Minutes

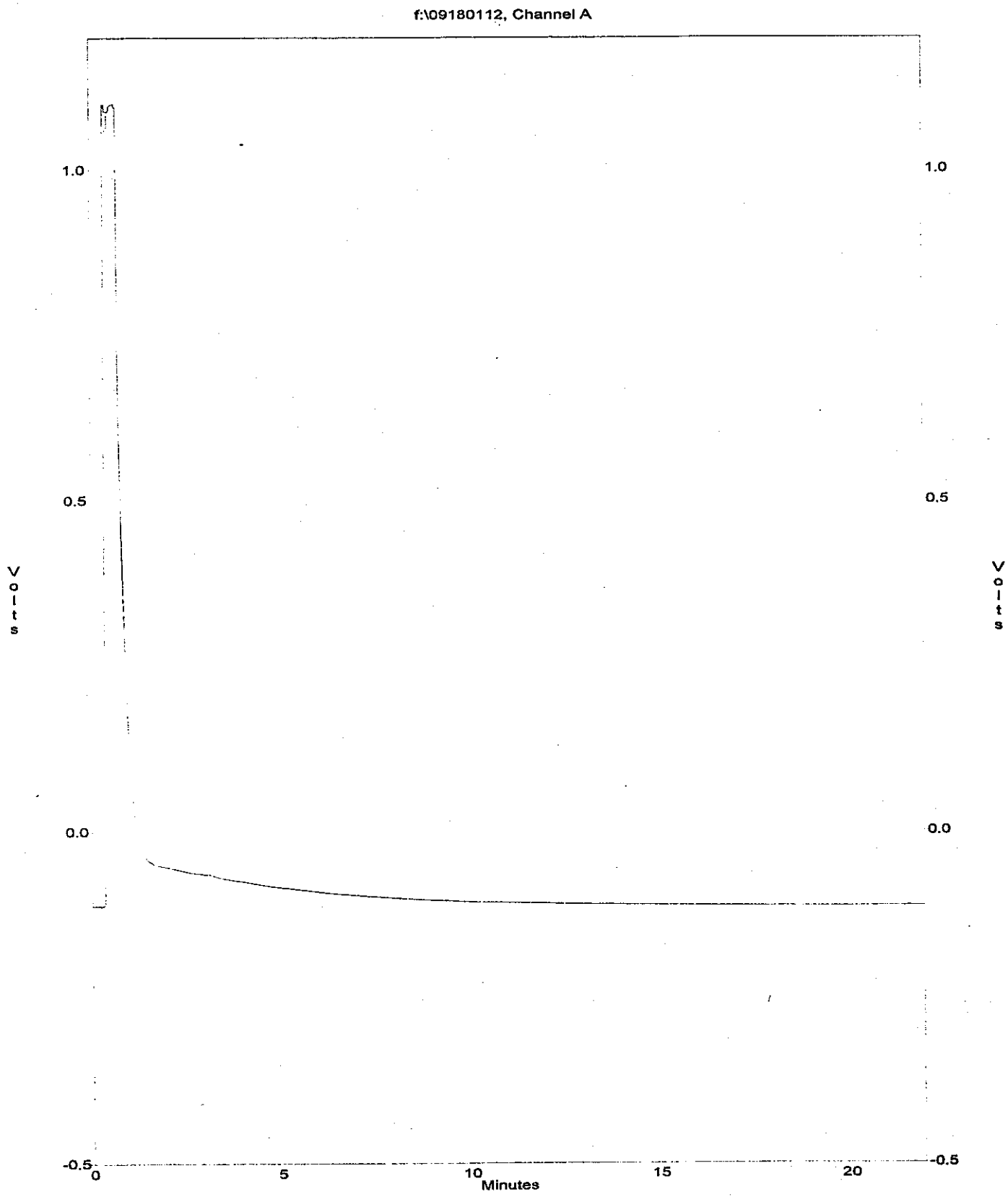
External Standard Report -- Channel A
File : f:\09180111
Method : f:\vfa.met
Sample ID : p109150-03a
Acquired : Sep 18, 2001 16:09:55
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180111, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

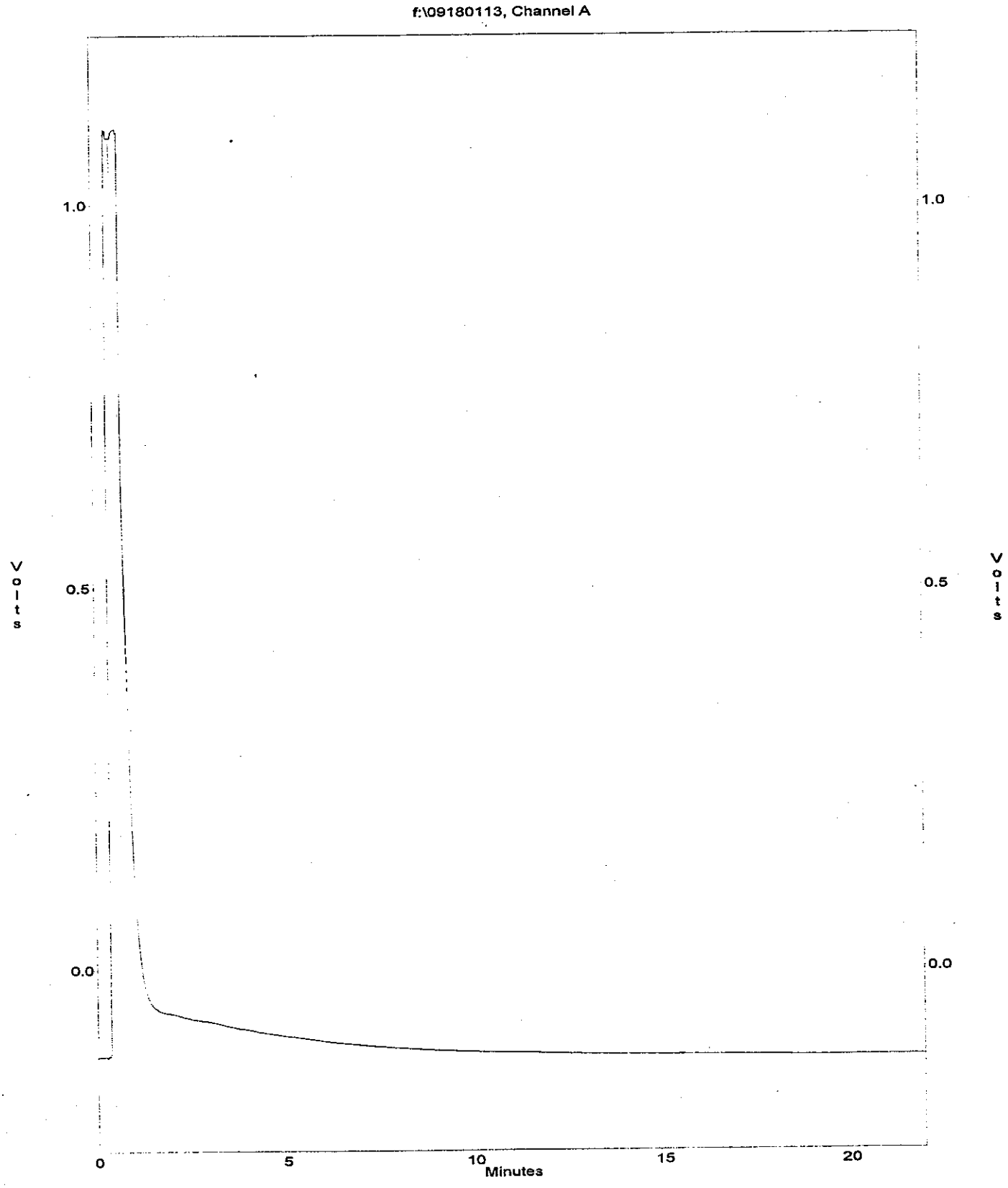
External Standard Report -- Channel A
File : f:\09180112
Method : f:\vfa.met
Sample ID : p109150-04a
Acquired : Sep 18, 2001 16:32:39
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180112, Channel A
1.0
0.5
0.0
-0.5
Volts
0
5
10
15
20
Minutes

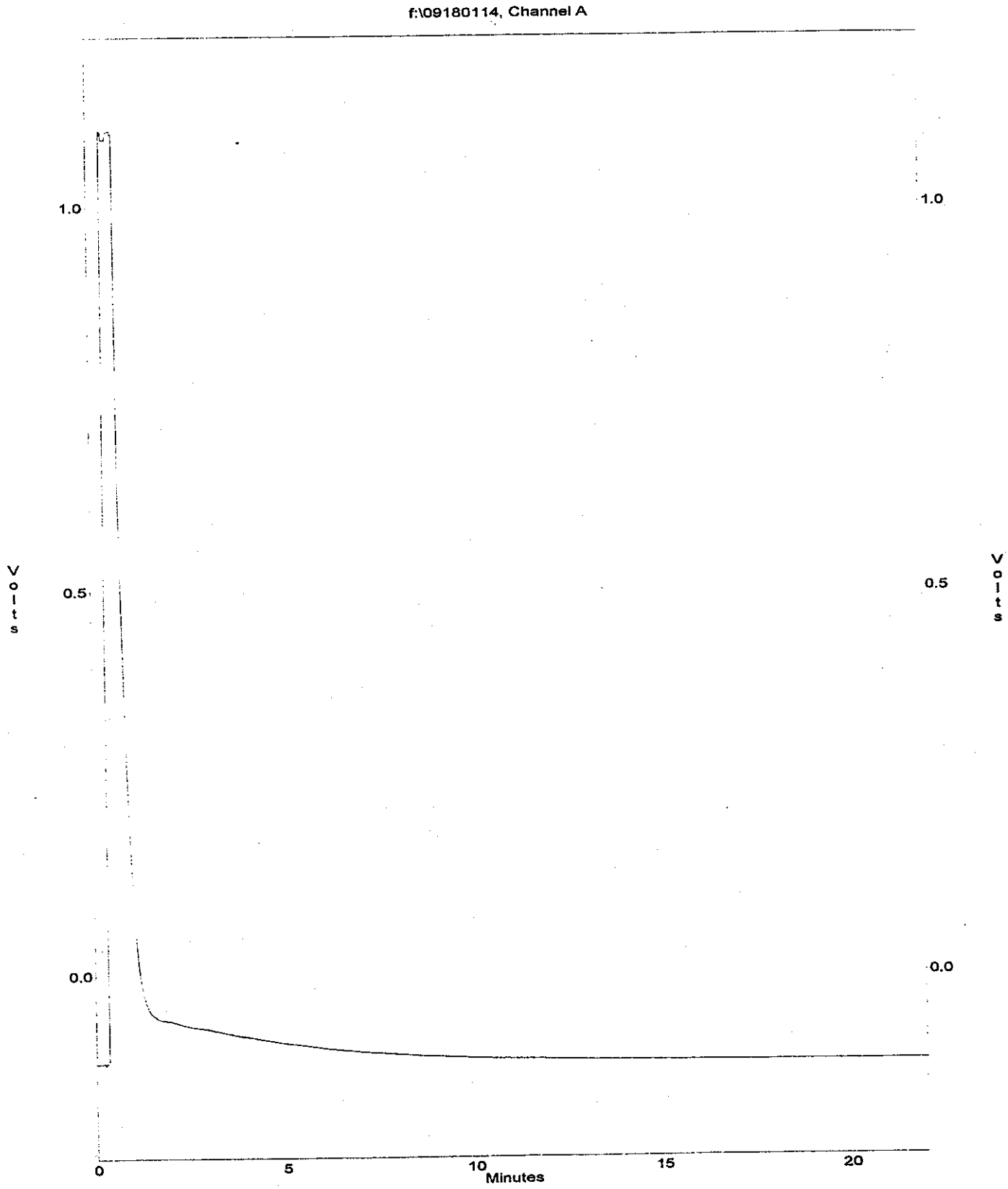
External Standard Report -- Channel A
File : f:\09180113
Method : f:\vfa.met
Sample ID : p109150-05a
Acquired : Sep 18, 2001 16:55:21
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180113, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

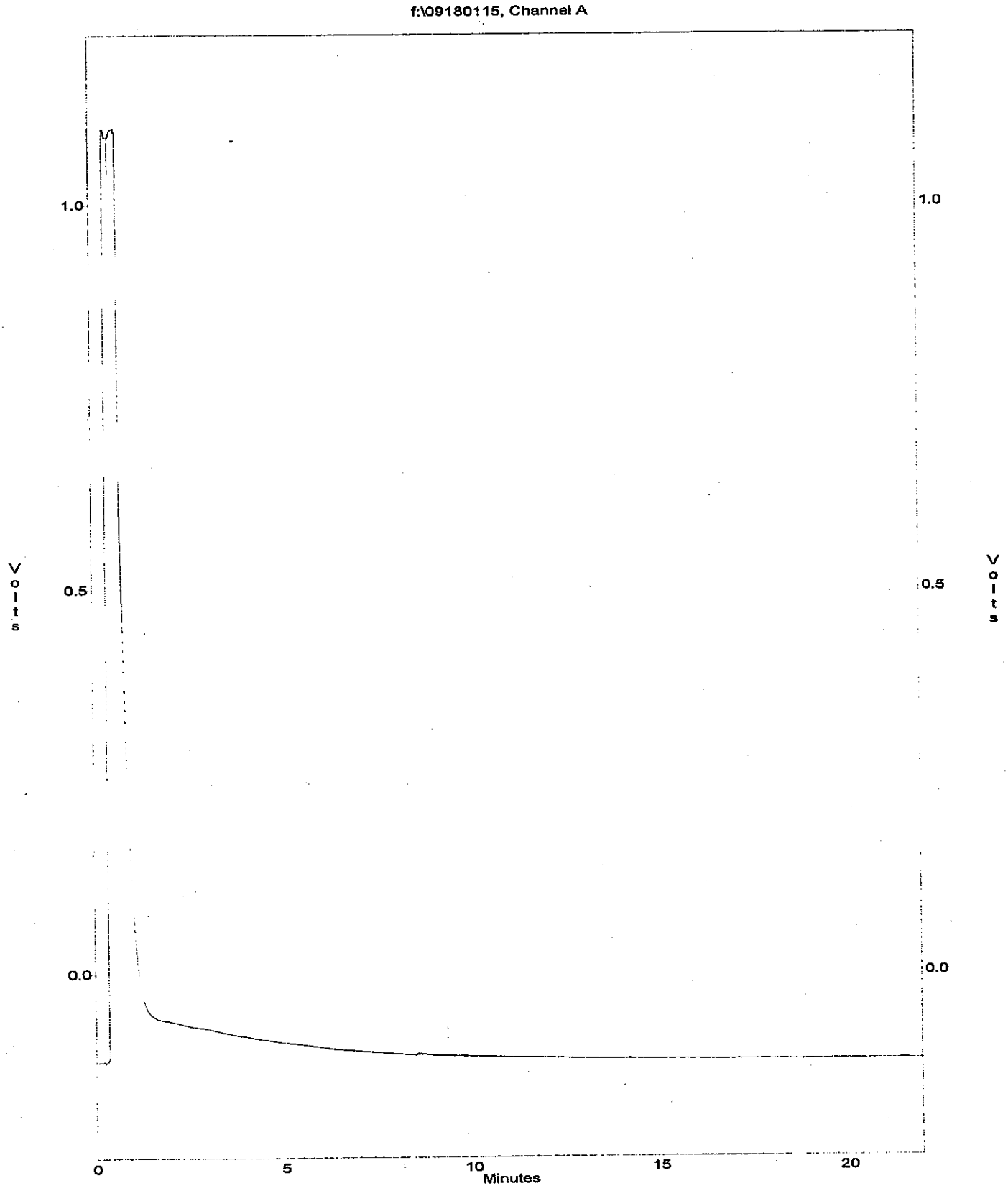
External Standard Report -- Channel A
File : f:\09180114
Method : f:\vfa.met
Sample ID : p109150-06a
Acquired : Sep 18, 2001 17:18:06
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0

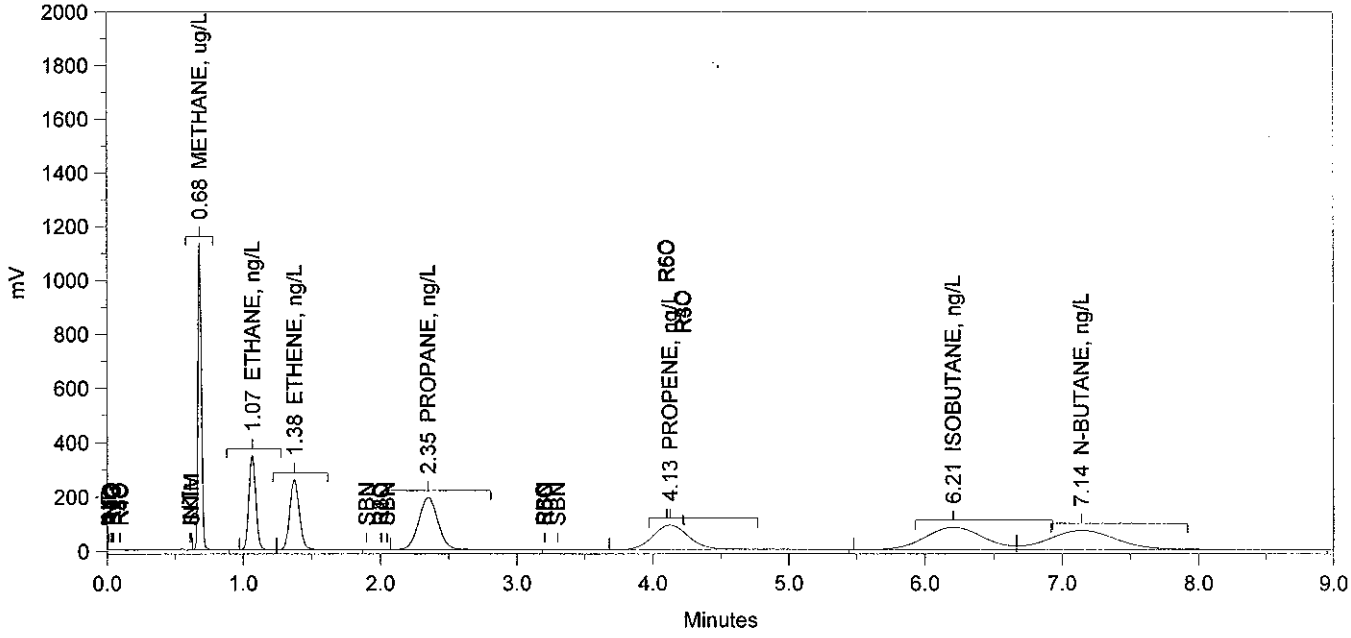

f:\09180114, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\09180115
Method : f:\vfa.met
Sample ID : p109150-07a
Acquired : Sep 18, 2001 17:40:48
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\09180115, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

LH091401A



Sample Name: **LH091401A**
Acquired from Chrom1--FID via port 1 on 9/14/01 08:39:36am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.63R**
Date Stamp: 9/14/01 08:39:36am
Sequence File: X30A.SEQ #163
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

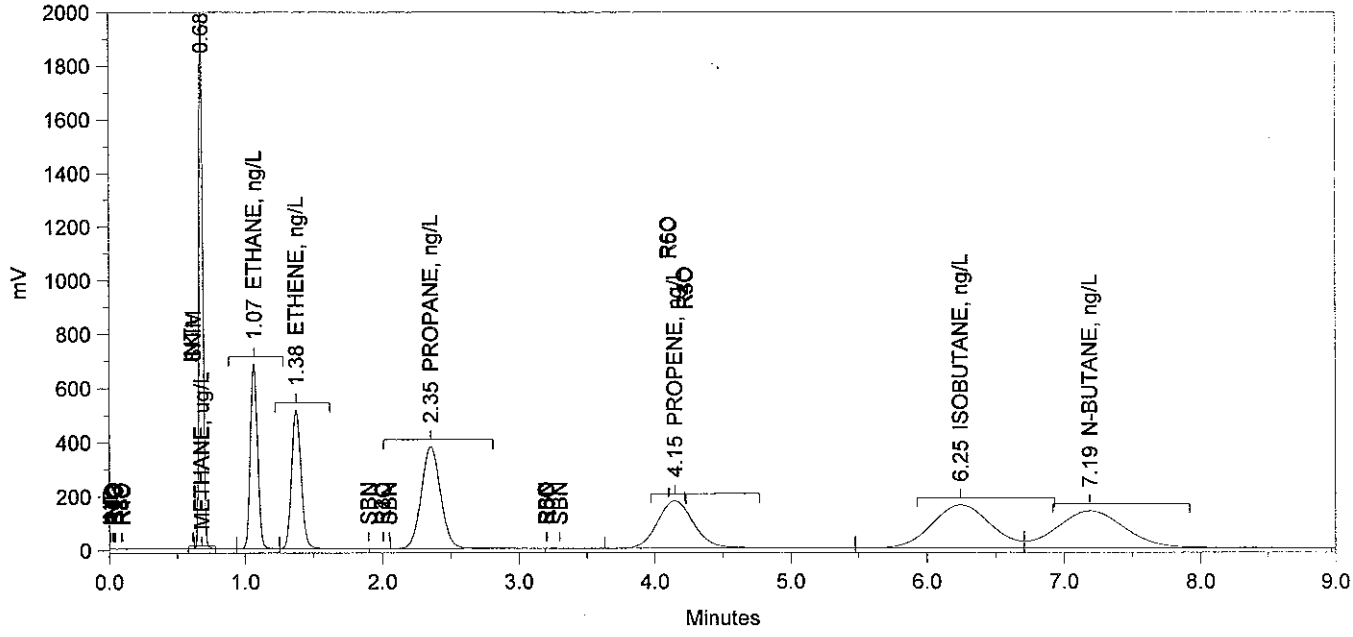
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.684	METHANE, ug/L	37.2167	0.018	1994040.0	15.770	BB	0.029	1138432.00	52.405
2	1.069	ETHANE, ng/L	23913.6300	11.252	1215529.0	9.613	BV	0.059	345586.40	15.908
3	1.377	ETHENE, ng/L	26895.1000	12.655	1247330.0	9.865	VB	0.081	257510.30	11.854
4	2.350	PROPANE, ng/L	34153.3400	16.070	1864846.0	14.748	BB	0.162	191344.20	8.808
5	4.126	PROPENE, ng/L	39937.7700	18.792	1614207.0	12.766	BV	0.302	89174.37	4.105
6	6.207	ISOBUTANE, ng/L	43517.0500	20.476	2346629.0	18.558	VV	0.483	81007.24	3.729
7	7.143	N-BUTANE, ng/L	44073.8600	20.738	2362022.0	18.680	VB	0.568	69315.83	3.191

Total Area = 12644600.0, Total Amount = 212528.0, Total Height = 2172371.0, Sample Units = ug/l, ng/l

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom1--FID via port 1 on 9/14/01 08:49:27am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.64R**
Date Stamp: 9/14/01 08:49:26am
Sequence File: X30A.SEQ #164
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

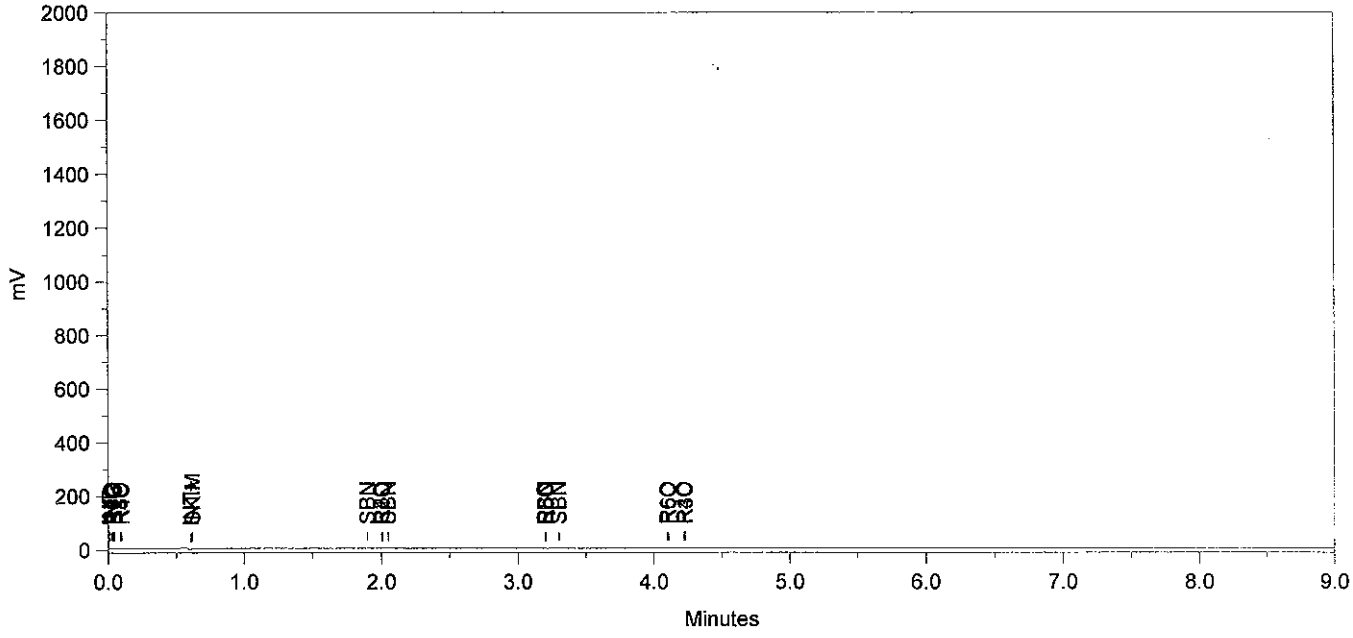
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.678	METHANE, ug/L	74.0823	0.018	3969272.0	15.763	SBB	0.033	2026627.00	49.711
2	1.067	ETHANE, ng/L	47824.7300	11.299	2430930.0	9.654	TVV	0.059	685560.00	16.816
3	1.376	ETHENE, ng/L	53751.0100	12.700	2492843.0	9.900	TVB	0.081	514165.10	12.612
4	2.355	PROPANE, ng/L	68033.6300	16.074	3714783.0	14.753	BB	0.164	377355.80	9.256
5	4.148	PROPENE, ng/L	79354.7100	18.749	3207362.0	12.738	BV	0.303	176259.50	4.323
6	6.246	ISOBUTANE, ng/L	86464.9100	20.429	4662564.0	18.517	VV	0.486	159805.80	3.920
7	7.191	N-BUTANE, ng/L	87748.0200	20.732	4702623.0	18.676	VB	0.572	137007.90	3.361

Total Area = 25180380.0, Total Amount = 423251.1, Total Height = 4076781.0, Sample Units = ug/l, ng/l

MB091401A



Sample Name: **MB091401A**
Acquired from Chrom1--FID via port 1 on 9/14/01 09:01:22am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.65R**
Date Stamp: 9/14/01 09:01:22am
Sequence File: X30A.SEQ #165
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

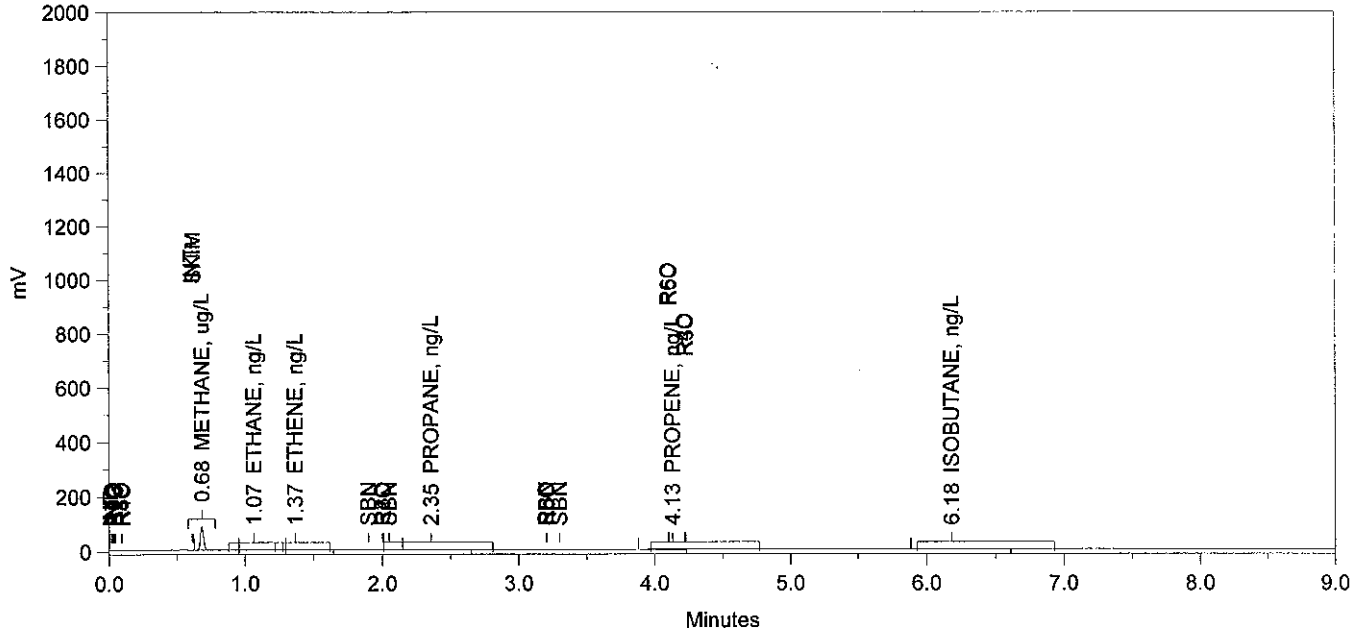
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 20 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug/l, ng/l

P0109150-01A



Sample Name: **P0109150-01A**
Acquired from Chrom1--FID via port 1 on 9/14/01 11:36:28am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.79R**
Date Stamp: 9/14/01 11:36:28am
Sequence File: X30A.SEQ #179
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

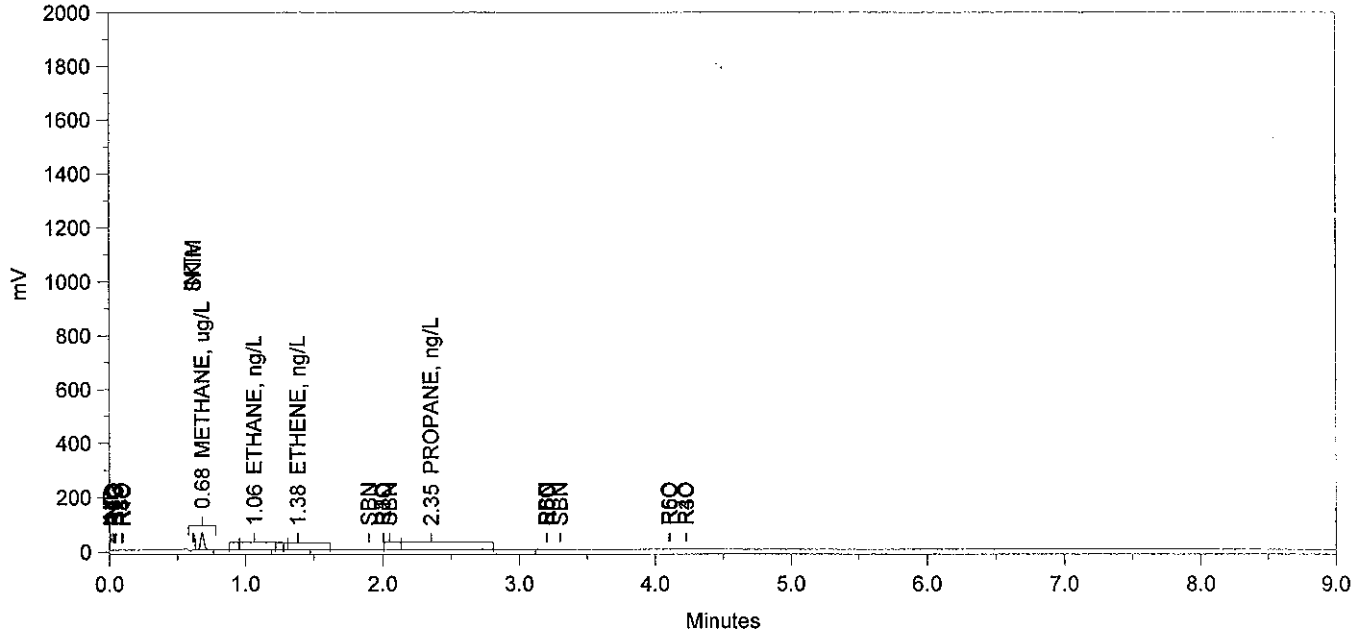
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.684	METHANE, ug/L	2.6877	0.244	144002.1	75.064	SBB	0.028	87103.17	95.303
2	1.066	ETHANE, ng/L	64.4111	5.858	3274.0	1.707	TVV	0.066	825.84	0.904
3	1.367	ETHENE, ng/L	63.4344	5.769	2941.9	1.534	TVB	0.099	494.59	0.541
4	2.355	PROPANE, ng/L	113.6498	10.336	6205.5	3.235	BB	0.173	597.95	0.654
5	4.131	PROPENE, ng/L	792.8164	72.106	32044.1	16.704	BB	0.241	2218.83	2.428
6	6.182	ISOBUTANE, ng/L	62.5191	5.686	3371.3	1.757	BB	0.361	155.77	0.170

Total Area = 191839.0, Total Amount = 1099.519, Total Height = 91396.16, Sample Units = ug/l, ng/l

11/5/200111:31:01 AMC:\CPWIN\X30\X30A1.80RP0109150-02A09-14-2001 11:45:45X30A_W1.MET

P0109150-02A



Sample Name: **P0109150-02A**
Acquired from Chrom1--FID via port 1 on 9/14/01 11:45:45am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.80R**
Date Stamp: 9/14/01 11:45:44am
Sequence File: X30A.SEQ #180
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

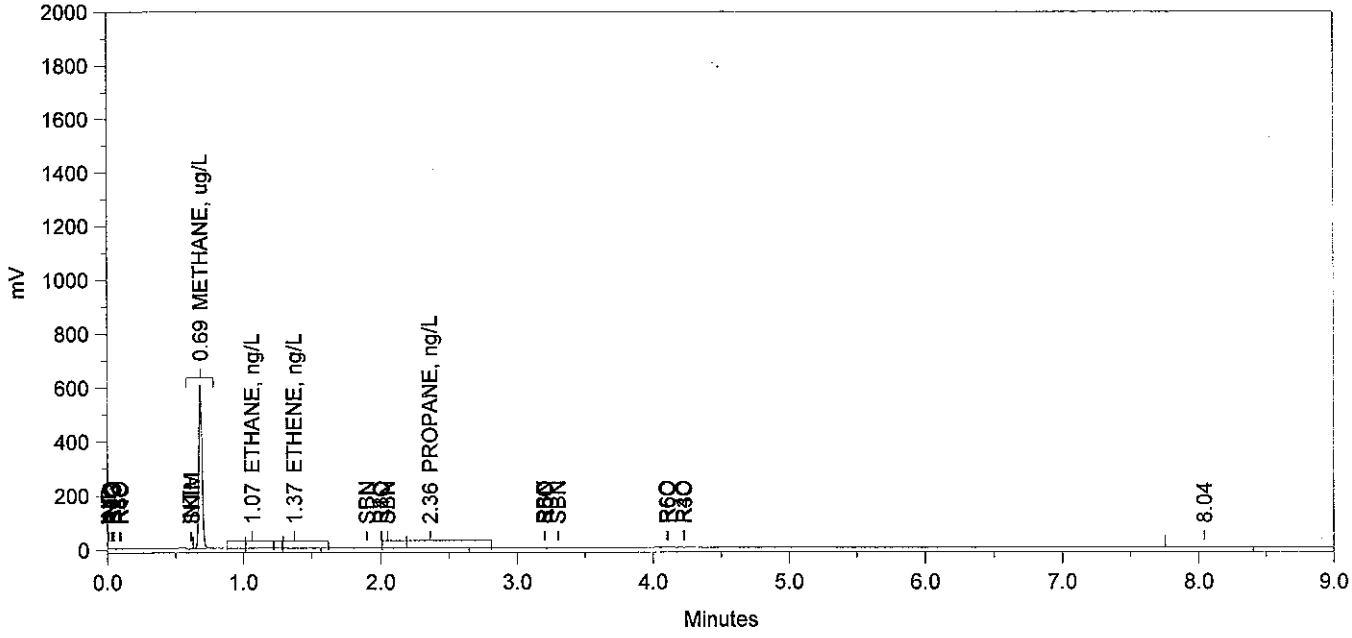
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.682	METHANE, ug/L	1.9420	0.898	104052.5	90.213	BB	0.027	63451.04	97.442
2	1.064	ETHANE, ng/L	58.6962	27.149	2983.5	2.587	BB	0.062	798.92	1.227
3	1.384	ETHENE, ng/L 23.34	~~23.0572~~	10.665	1069.3	0.927	BB	0.070	254.73	0.391
4	2.353	PROPANE, ng/L RCW 11/5/01	132.5079	61.289	7235.2	6.273	BB	0.197	612.36	0.940

Total Area = 115340.6, Total Amount = 216.203, Total Height = 65117.05, Sample Units = ug/l, ng/l

* Some peaks have been manually integrated,

P0109150-03A



Sample Name: **P0109150-03A**
Acquired from Chrom1--FID via port 1 on 9/14/01 11:55:06am by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.81R**
Date Stamp: 9/14/01 11:55:06am
Sequence File: X30A.SEQ #181
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

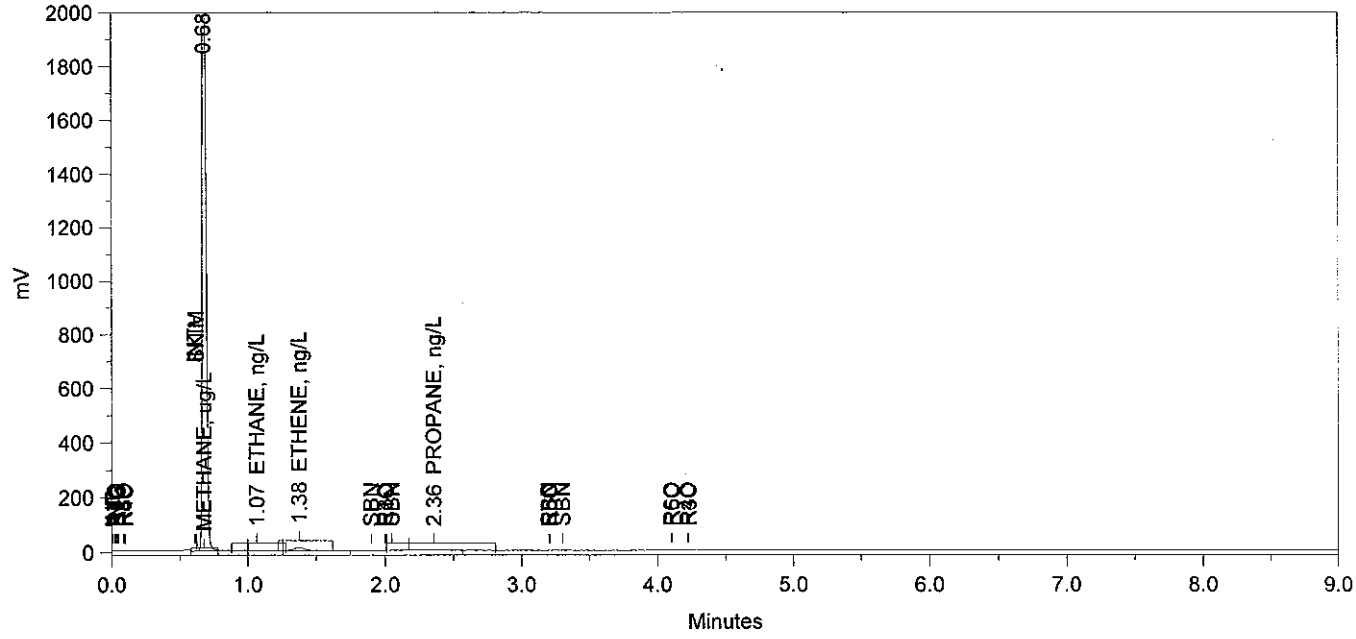
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.685	METHANE, ug/L	18.4308	12.418	987506.0	97.148	SBB	0.027	605438.50	99.712
2	1.065	ETHANE, ng/L	26.8237	18.073	1363.4	0.134	TVB	0.061	370.27	0.061
3	1.373	ETHENE, ng/L	44.6025	30.052	2068.6	0.203	TBB	0.090	383.59	0.063
4	2.361	PROPANE, ng/L	58.1416	39.175	3174.7	0.312	BB	0.174	303.79	0.050
5	8.040		0.4178	0.281	22383.5	2.202	BB	0.542	688.29	0.113

Total Area = 1016496.0, Total Amount = 148.416, Total Height = 607184.4, Sample Units = ug/l, ng/l

P0109150-04A



Sample Name: **P0109150-04A**
Acquired from Chrom1--FID via port 1 on 9/14/01 12:06:38pm by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.82R**
Date Stamp: 9/14/01 12:06:38pm
Sequence File: X30A.SEQ #182
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

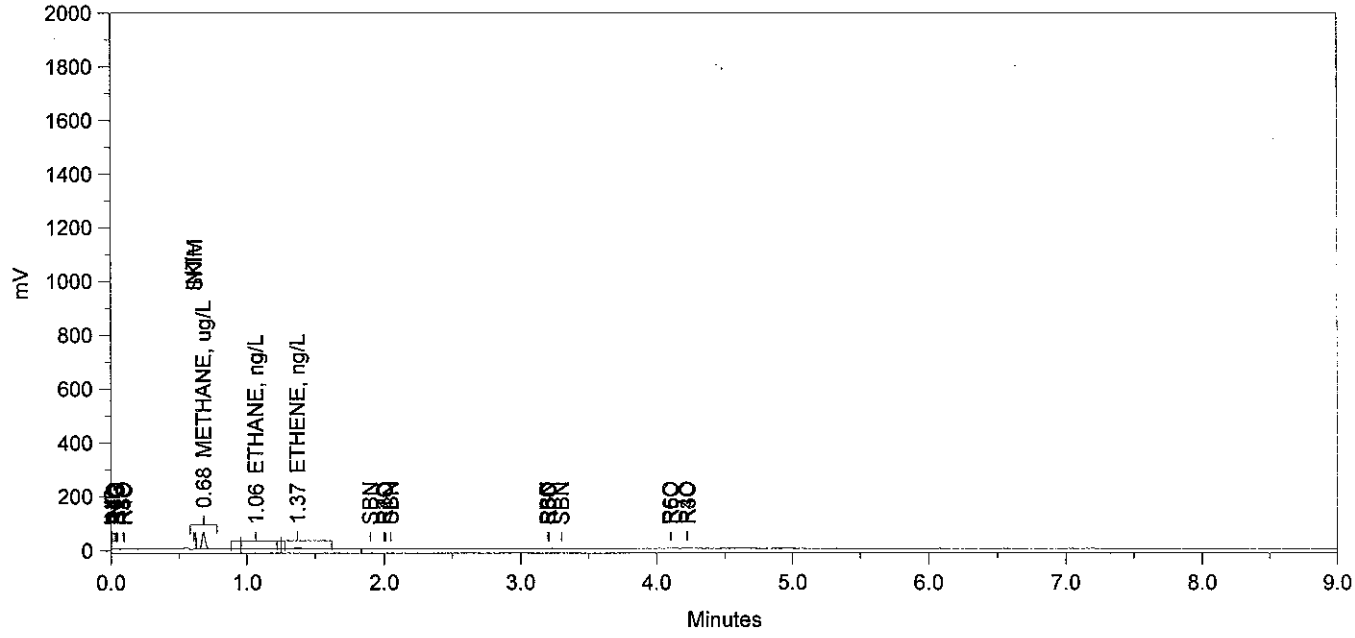
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.678	METHANE, ug/L	80.7855	6.424	4328423.0	98.741	SBB	0.035	2081943.00	99.473
2	1.066	ETHANE, ng/L	42.0324	3.342	2136.5	0.049	TVB	0.062	571.65	0.027
3	1.375	ETHENE, ng/L	1085.2110	86.291	50329.5	1.148	TBB	0.082	10184.92	0.487
4	2.356	PROPANE, ng/L	49.5923	3.943	2707.8	0.062	BB	0.166	272.22	0.013

Total Area = 4383597.0, Total Amount = 1257.621, Total Height = 2092972.0, Sample Units = ug/l, ng/l

P0109150-05A



Sample Name: **P0109150-05A**
Acquired from Chrom1--FID via port 1 on 9/14/01 12:52:48pm by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.83R**
Date Stamp: 9/14/01 12:52:48pm
Sequence File: X30A.SEQ #183
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

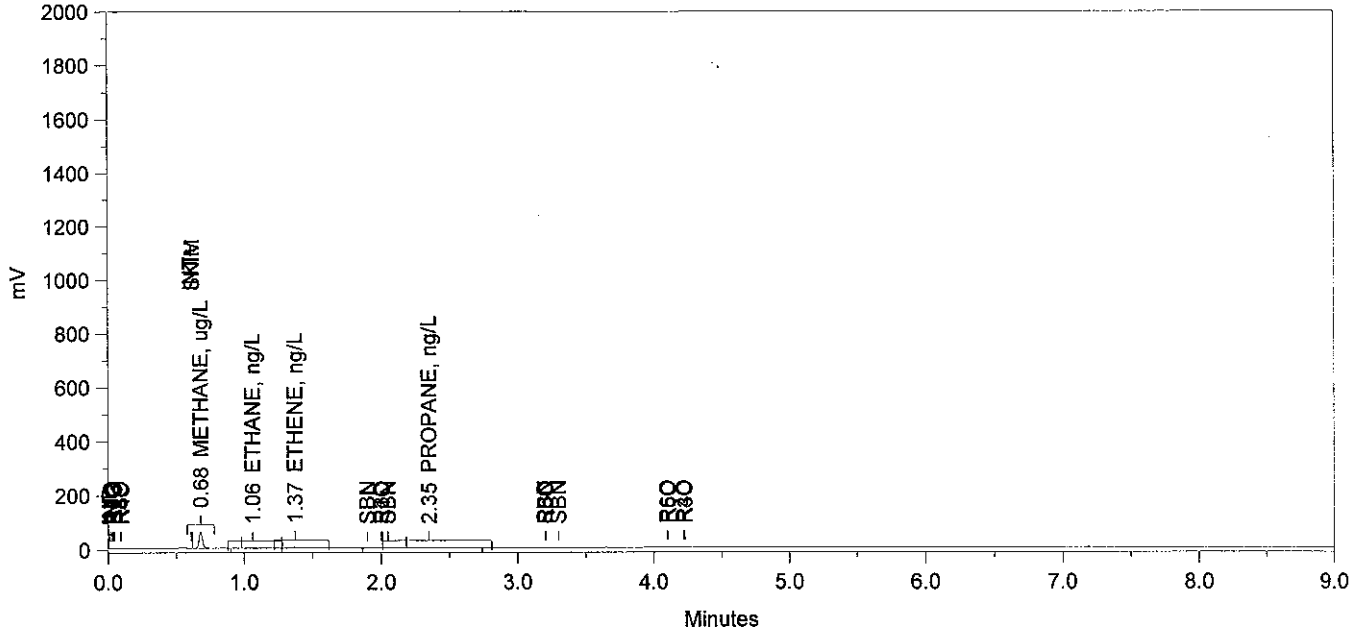
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.681	METHANE, ug/L	~~1.9143~~	0.531	102567.4	85.932	BB	0.027	62310.34	95.222
2	1.064	ETHANE, ng/L	~~35.8178~~	9.934	1820.6	1.525	BV	0.083	366.94	0.561
3	1.371	ETHENE, ng/L	~~322.8125~~	89.535	14971.3	12.543	VB	0.090	2759.76	4.217

Total Area = 119359.3, Total Amount = 360.545, Total Height = 65437.04, Sample Units = ug/l, ng/l

P0109150-06A



Sample Name: **P0109150-06A**
Acquired from Chrom1--FID via port 1 on 9/14/01 01:02:25pm by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.84R**
Date Stamp: 9/14/01 01:02:24pm
Sequence File: X30A.SEQ #184
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

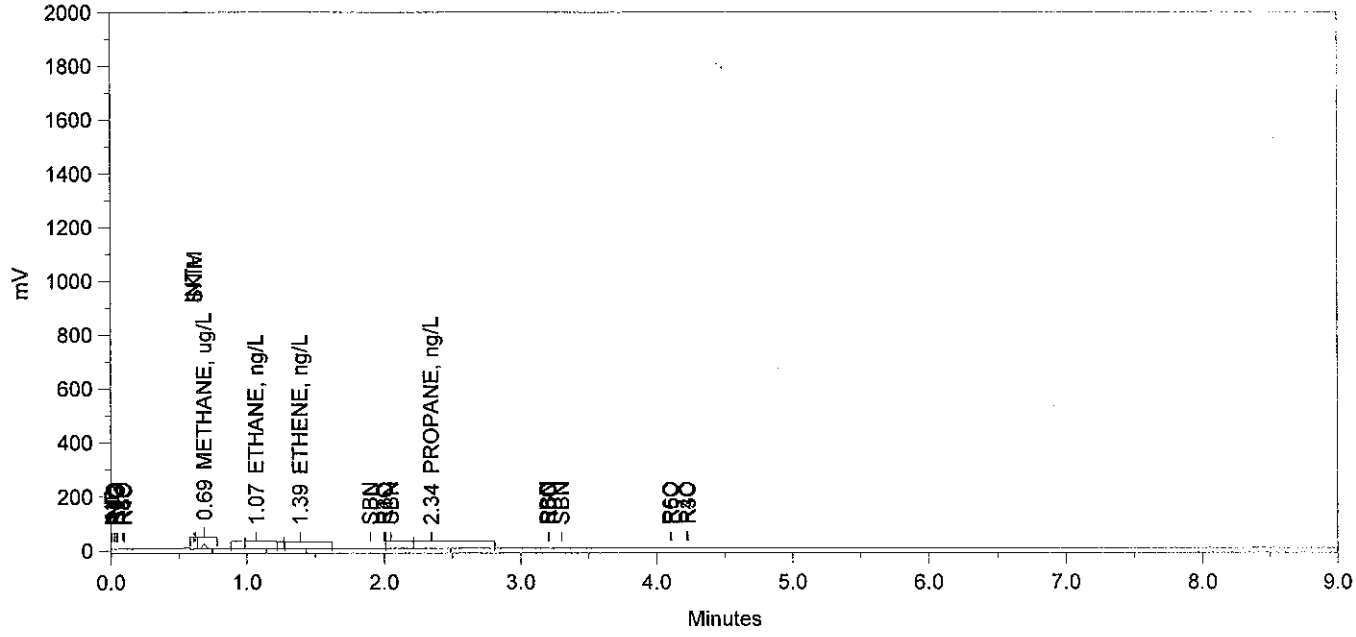
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	RCW 11/5/01 Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.682	METHANE, ug/L	1.883 ~~1.8900~~	0.474	101262.9	84.210	BB	0.027	61608.60	94.769
2	1.063	ETHANE, ng/L	37.029 ~~36.0124~~	9.028	1830.5	1.522	BV	0.068	449.30	0.691
3	1.373	ETHENE, ng/L	285.4103 ~~10.5573~~	77.852	14402.9	11.977	VB	0.088	2742.05	4.218
4	2.350	PROPANE, ng/L	RCW 11/5/01 50.4483	12.647	2754.6	2.291	BB	0.220	208.98	0.321

Total Area = 120250.9, Total Amount = 398.908, Total Height = 65008.94, Sample Units = ug/l, ng/l

P0109150-07A



Sample Name: **P0109150-07A**
Acquired from Chrom1--FID via port 1 on 9/14/01 01:12:07pm by RCW
FID

Data File: **C:\CPWIN\X30\X30A1.85R**
Date Stamp: 9/14/01 01:12:06pm
Sequence File: X30A.SEQ #185
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 9. Date Stamp: 9/19/01 10:00:32am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 13. Date Stamp: 9/19/01 09:12:40am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

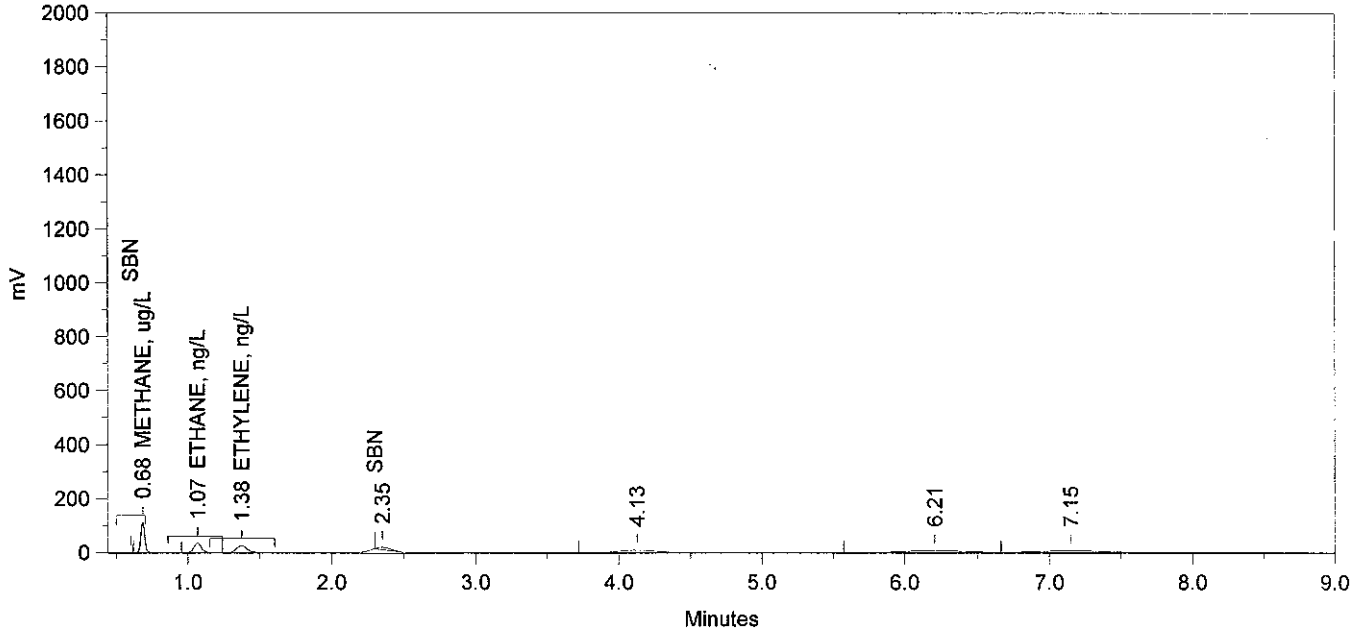
Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.686	METHANE, ug/L	0.5101	1.077	27332.1	91.833	BB	0.027	16699.92	97.468
2	1.068	ETHANE, ng/L	12.8261	27.086	652.0	2.190	BB	0.063	171.84	1.003
3	1.389	ETHENE, ng/L	9.5640	20.197	443.6	1.490	BB	0.065	114.55	0.669
4	2.344	PROPANE, ng/L	24.4532	51.640	1335.2	4.486	BB	0.151	147.48	0.861

Total Area = 29762.8, Total Amount = 47.353, Total Height = 17133.79, Sample Units = ug/l, ng/l

* Some peaks have been manually integrated,

LH091401A



Sample Name: **LH091401A**
Acquired from Chrom2--FID 10X via port 4 on 9/14/01 08:39:36am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D1.63R**
Date Stamp: 9/14/01 08:39:36am
Sequence File: X30C.SEQ #163
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 3. Date Stamp: 9/4/01 02:11:46pm
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 5. Date Stamp: 9/4/01 10:13:50am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

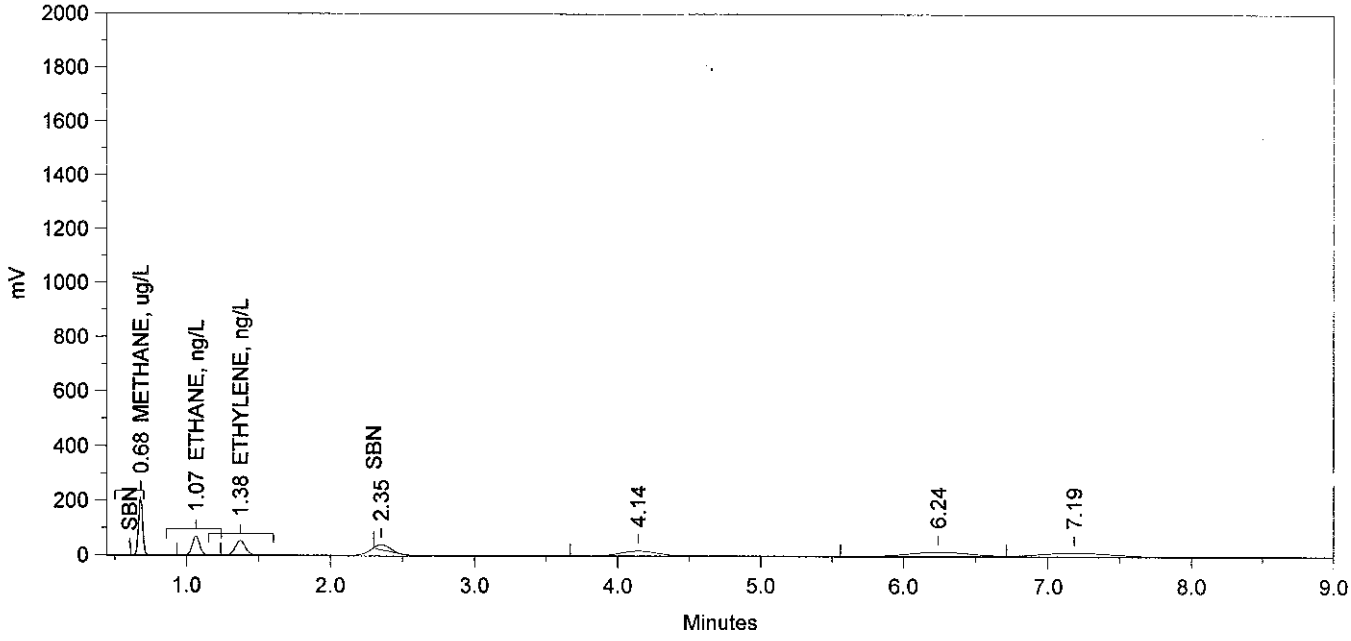
Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.683	METHANE, ug/L	37.4849	0.076	200254.0	17.361	BB	0.029	113601.90	54.831
2	1.069	ETHANE, ng/L	22961.6700	46.467	122495.2	10.620	BV	0.059	34546.03	16.674
3	1.376	ETHYLENE, ng/L	26284.4100	53.191	127494.9	11.053	VB	0.082	25845.14	12.474
4	2.351		10.1199	0.020	54062.9	4.687	BB	0.101	8899.98	4.296
5	4.128		31.4380	0.064	167949.7	14.560	BV	0.310	9028.04	4.357
6	6.206		44.5557	0.090	238028.0	20.636	VV	0.483	8205.78	3.961
7	7.150		45.5227	0.092	243194.0	21.084	VB	0.574	7059.90	3.408

Total Area = 1153479.0, Total Amount = 49415.21, Total Height = 207186.8, Sample Units = ug & ng/L

11/6/20019:12:39 AMC:\CPWIN\X30\X30D1.64RCCV LH01270009-14-2001 08:49:27X30D_W1.MET

CCV LH012700



Sample Name: **CCV LH012700**
Acquired from Chrom2--FID 10X via port 4 on 9/14/01 08:49:27am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D1.64R**
Date Stamp: 9/14/01 08:49:26am
Sequence File: X30C.SEQ #164
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 3. Date Stamp: 9/4/01 02:11:46pm
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 5. Date Stamp: 9/4/01 10:13:50am

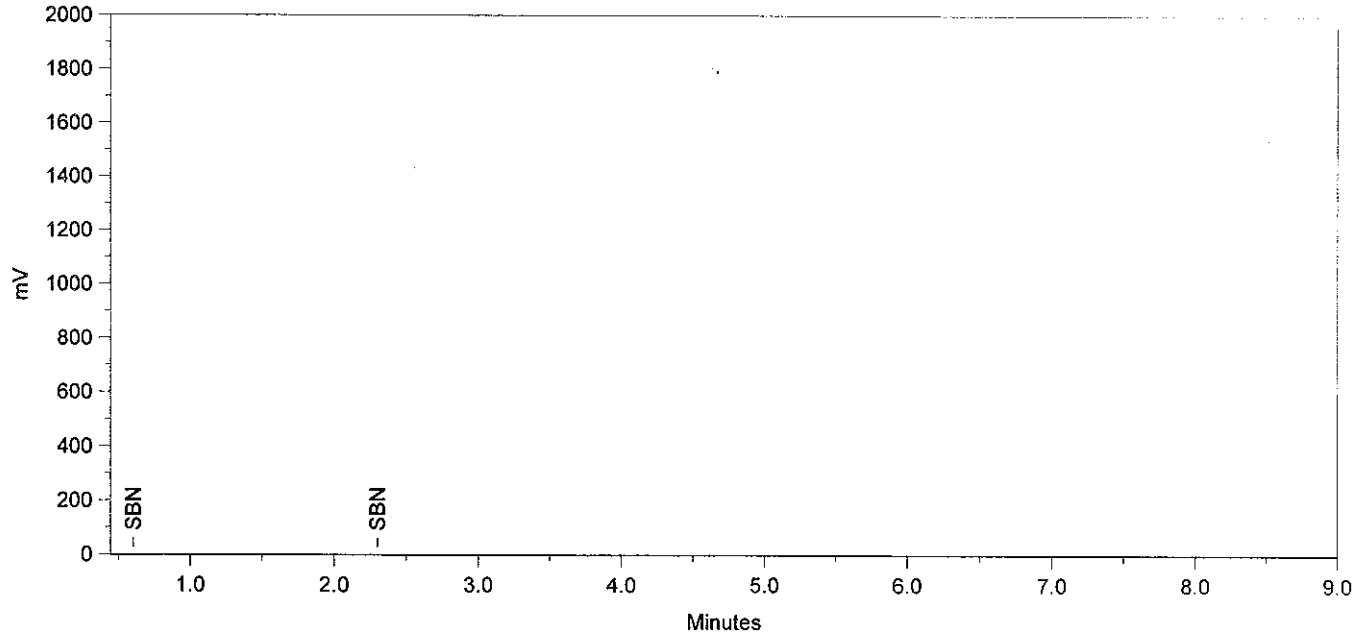
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.678	METHANE, ug/L	75.0045	0.077	400693.2	17.496	BB	0.032	210741.50	53.117
2	1.066	ETHANE, ng/L	45719.0900	46.657	243900.6	10.650	BV	0.059	68560.77	17.281
3	1.375	ETHYLENE, ng/L	51935.5500	53.001	251918.0	11.000	VB	0.082	51436.21	12.964
4	2.352		22.2536	0.023	118884.3	5.191	BB	0.108	18409.44	4.640
5	4.144		61.0243	0.062	326007.2	14.235	BB	0.307	17708.93	4.464
6	6.240		88.0138	0.090	470192.1	20.531	BV	0.487	16084.26	4.054
7	7.185		89.5891	0.091	478608.0	20.898	VB	0.578	13807.10	3.480

Total Area = 2290204.0, Total Amount = 97990.52, Total Height = 396748.3, Sample Units = ug & ng/L

MB091401A



Sample Name: **MB091401A**
Acquired from Chrom2--FID 10X via port 4 on 9/14/01 09:01:22am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D1.65R**
Date Stamp: 9/14/01 09:01:22am
Sequence File: X30C.SEQ #165
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 3. Date Stamp: 9/4/01 02:11:46pm
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 5. Date Stamp: 9/4/01 10:13:50am

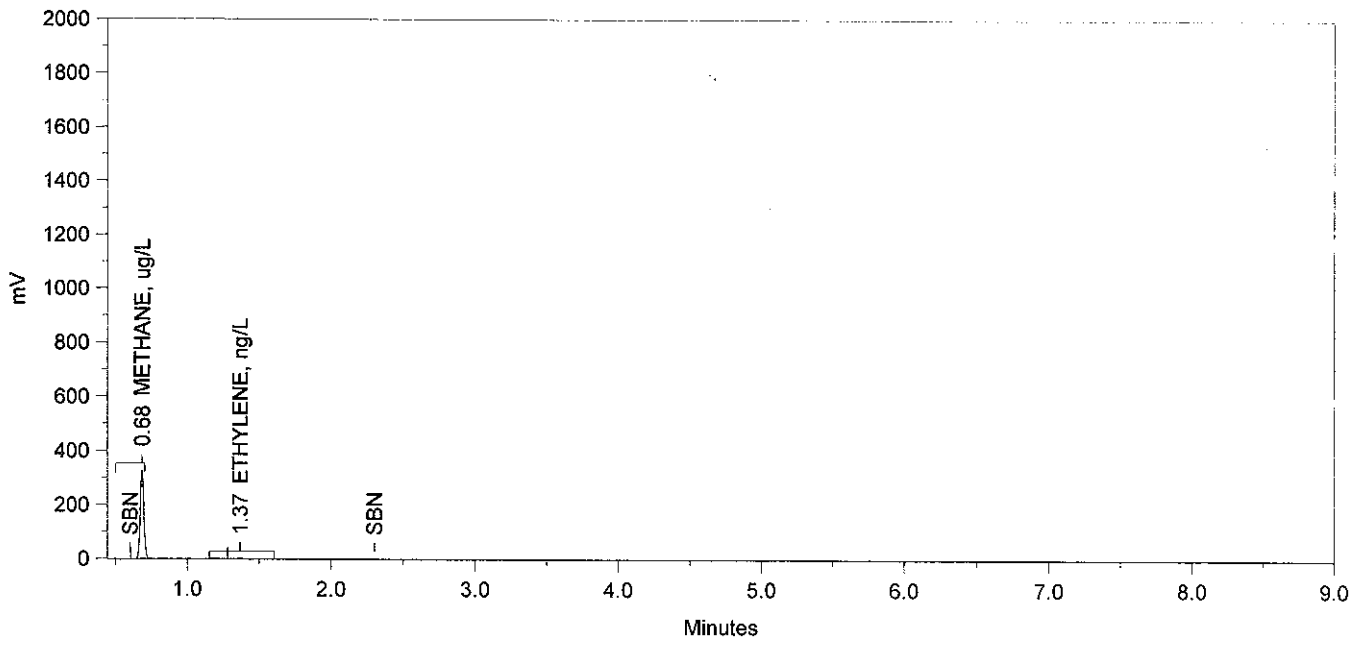
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

P0109150-04A



Sample Name: **P0109150-04A**
Acquired from Chrom2--FID 10X via port 4 on 9/14/01 12:06:38pm by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D1.82R**
Date Stamp: 9/14/01 12:06:38pm
Sequence File: X30C.SEQ #182
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 3. Date Stamp: 9/4/01 02:11:46pm
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 5. Date Stamp: 9/4/01 10:13:50am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.682	METHANE, ug/L	101.5338	6.128	542419.7	98.628	BB	0.027	333566.60	99.662
2	1.369	ETHYLENE, ng/L	1555.4750	93.872	7545.0	1.372	BB	0.111	1132.03	0.338

Total Area = 549964.6, Total Amount = 1657.008, Total Height = 334698.6, Sample Units = ug & ng/L

Sample Analysis Report

Sample Name : ACCURA 27A 141418-1
Data File Name : C:\PEAKNET\DATA\ACCURA27A-8-2-01_060.DXD

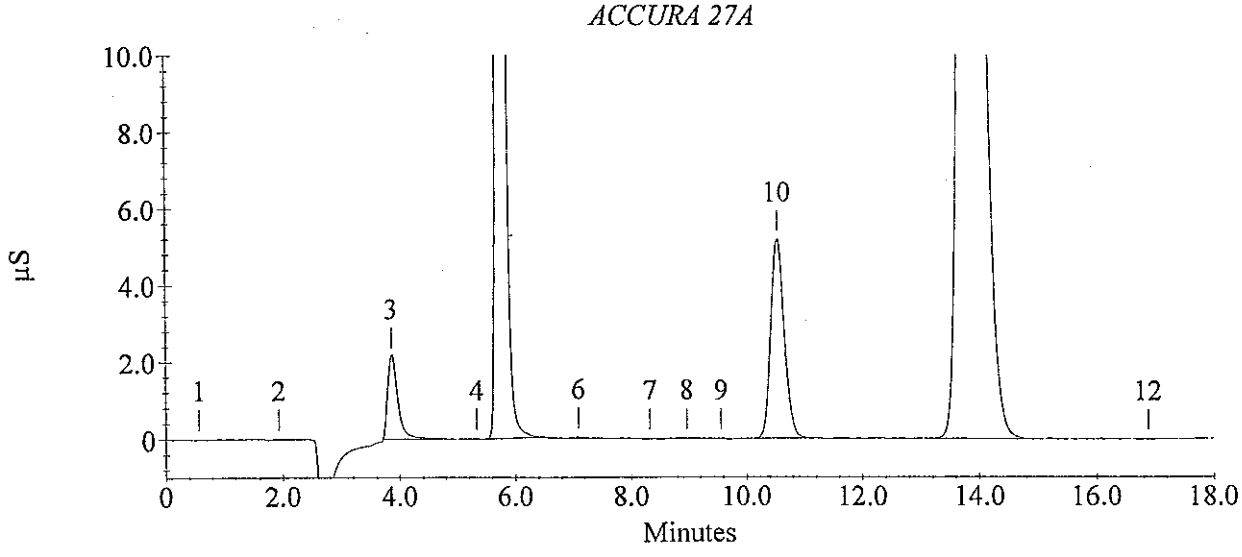
May be for our 28512 ASI Report #

141418

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/3/01 2:38:41 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.57	0.000	1649	185
2		1.93	0.000	3239	172
3		3.87	0.000	266104	21435
4		5.33	0.000	1183	173
5	CHLORIDE	5.77	13.815	4320097	499587
6	NITRITE	7.10	0.003 DL=0.01	3018	302
7		8.33	0.000	2921	242
8	BROMIDE	8.97	0.080	2545	225
9		9.57	0.000	2560	276
10	NITRATE	10.55	1.265	846110	51834
11	SULFATE	13.88	51.838	10926454	488251
12		16.88	0.000	2846	150



BAF 8/2/01

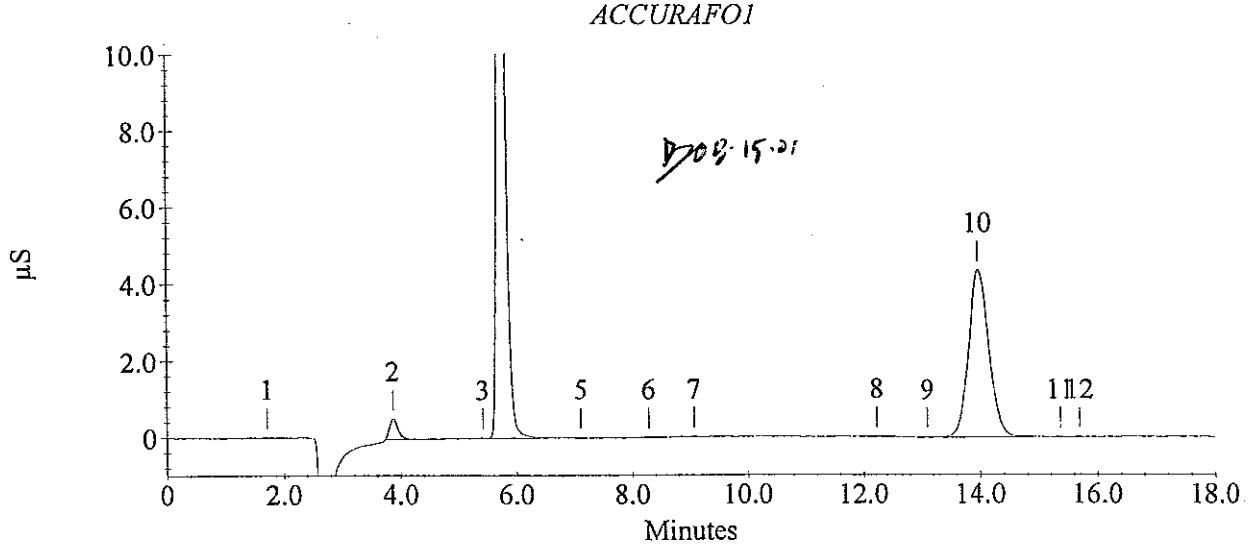
Sample Analysis Report

Sample Name : ACCURAFO1 141419-2
Data File Name : C:\PEAKNET\DATA\ACCURAFO1-8-1-01_051.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/2/01 9:57:56 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.72	0.000	1865	225
2		3.87	0.000	51673	5291
3		5.42	0.000	1508	209
4	CHLORIDE	5.75	7.069 DL=0.1	2195532	243434.
5	NITRITE	7.12	-0.001 BDL	1140	211
6		8.28	0.000	3880	159
7	BROMIDE	9.07	0.082	2757	228
8		12.23	0.000	2144	173
9		13.10	0.000	2454	186
10	SULFATE	13.97	4.980	1041159	43604
11		15.37	0.000	1431	182
12		15.70	0.000	1023	209



BAF 8/3/01

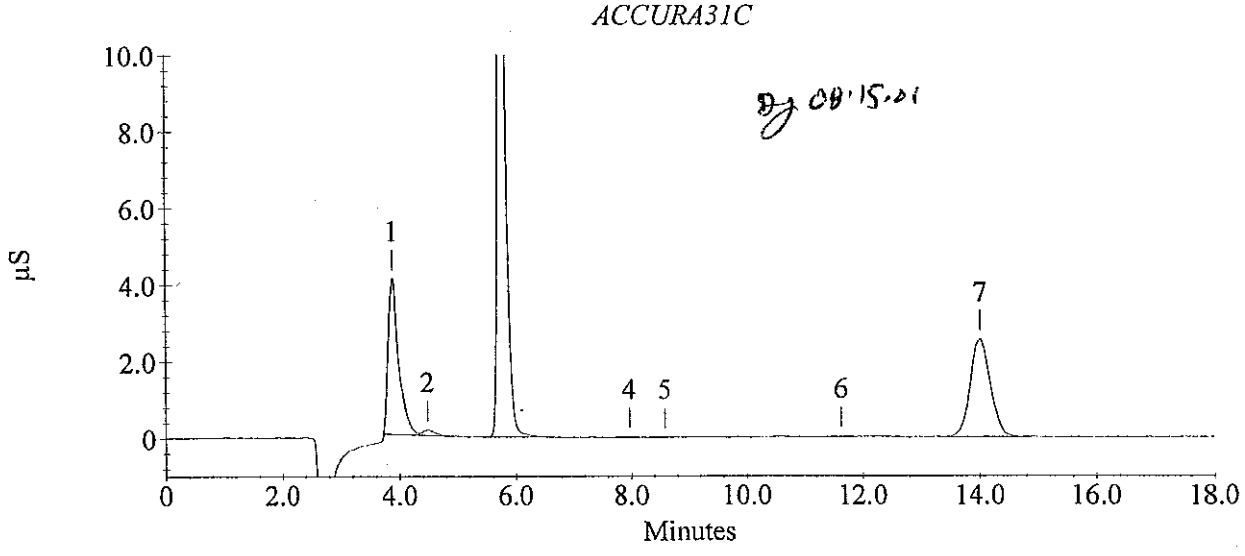
Sample Analysis Report

Sample Name : ACCURA31C 141418-3
Data File Name : C:\PEAKNET\DATA\ACCURA31C-8-1-01_050.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/2/01 9:37:38 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		3.88	0.000	510434	40440
2		4.48	0.000	21111	1470
3	CHLORIDE	5.77	5.399 DL=0.1	1669585	181820
4		7.97	0.000	2827	174
5	BROMIDE	8.58	0.075	1939	127
6		11.63	0.000	4239	304
7	SULFATE	14.02	2.943	611422	25480



BAF 8/3/01

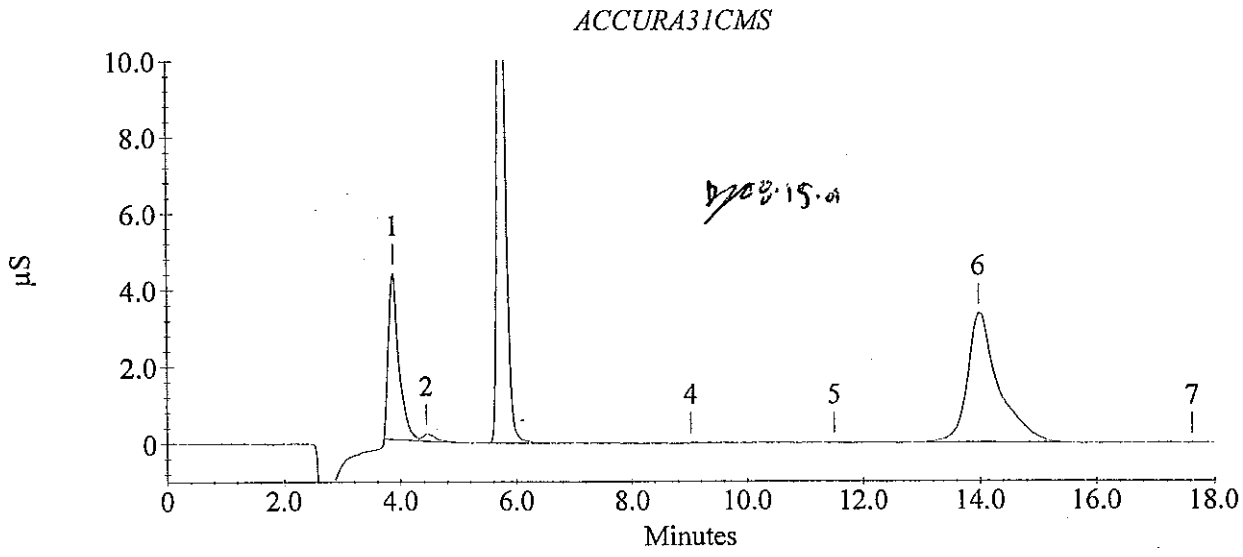
Sample Analysis Report

Sample Name : ACCURA31CMS[illegible]
Data File Name : C:\PEAKNET\DATA\ACCURA31CMS-8-1-01_053.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/2/01 10:38:30 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		3.88	0.000	542522	43259
2		4.45	0.000	30201	1860
3	CHLORIDE	5.75	5.141	1588204	172031
4	BROMIDE	9.02	0.114	6719	394
5		11.50	0.000	4911	258
6	SULFATE	13.98	5.840	1222564	33604
7		17.63	0.000	1420	202



BAF 8/3/01

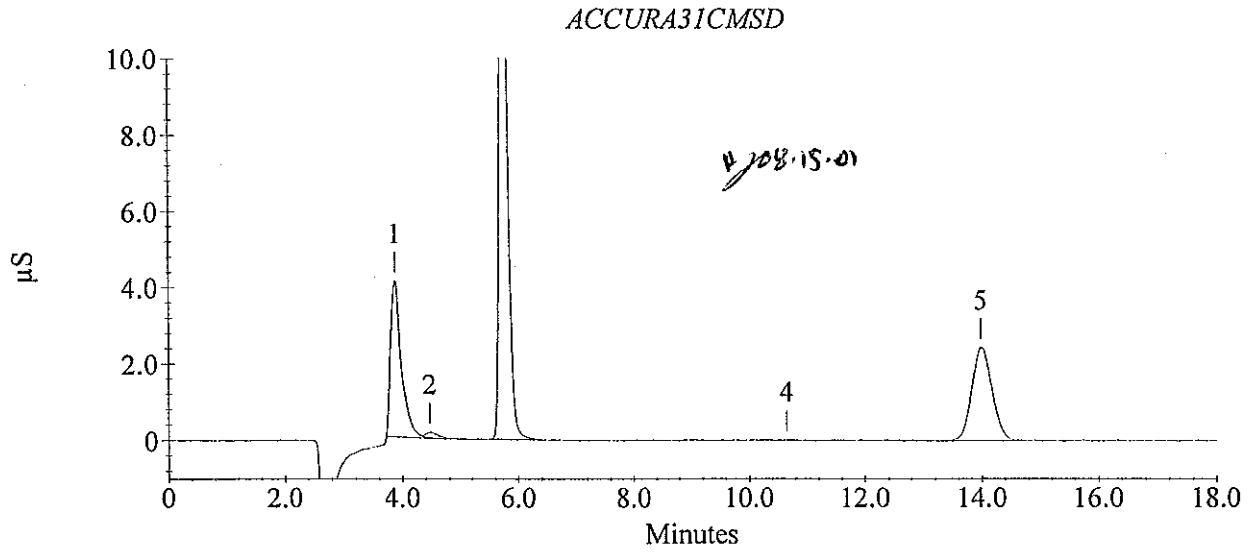
Sample Analysis Report

Sample Name : ACCURA31CMSD 141418-5
Data File Name : C:\PEAKNET\DATA\ACCURA31CMSD-8-1-01_054.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/2/01 10:58:52 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		3.88	0.000	515332	40772
2		4.47	0.000	21656	1520
3	CHLORIDE	5.75	5.205 DL=0.1	1608261	174171
4	NITRATE	10.65	-0.016	2515	189
5	SULFATE	13.98	2.810	583450	24371



8.15.01

BAF 8/3/01

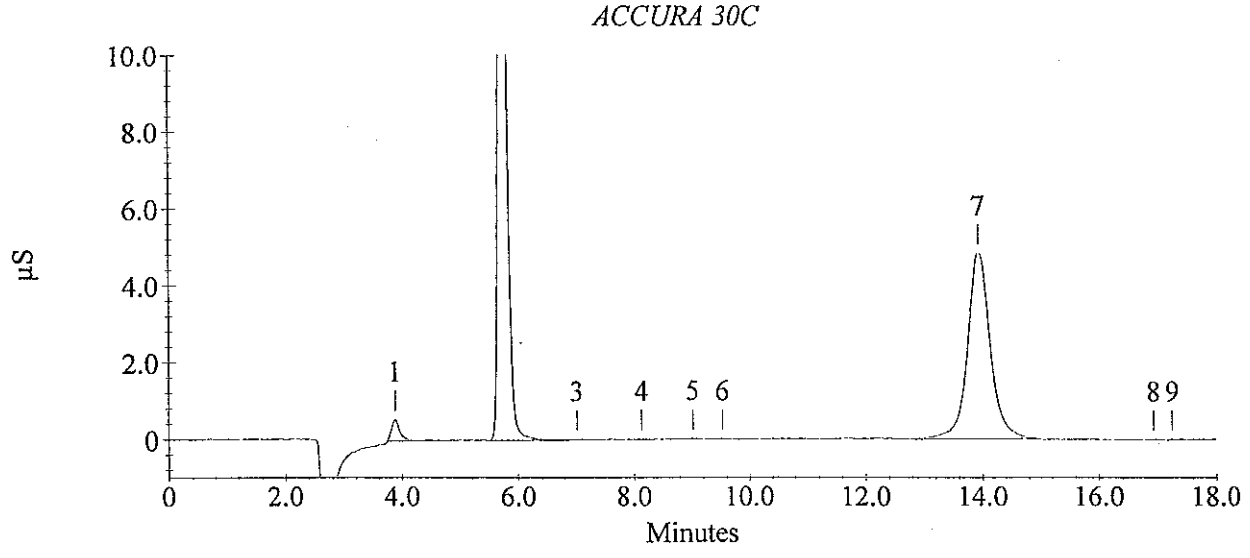
Sample Analysis Report

Sample Name : ACCURA 30C
Data File Name : C:\PEAKNET\DATA\ACCURA30C-8-2-01_061.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/3/01 2:59:02 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		3.88	0.000	56070	5561
2	CHLORIDE	5.73	7.401 DL=0.1	2299923	252148
3	NITRITE	7.02	-0.001 DL=0.01	1115	192
4		8.13	0.000	2002	202
5	BROMIDE	9.02	0.071	1407	179
6		9.53	0.000	1601	186
7	SULFATE	13.93	6.271	1313656	48322
8		16.93	0.000	1556	153
9		17.25	0.000	1170	168



BAF 8/2/01

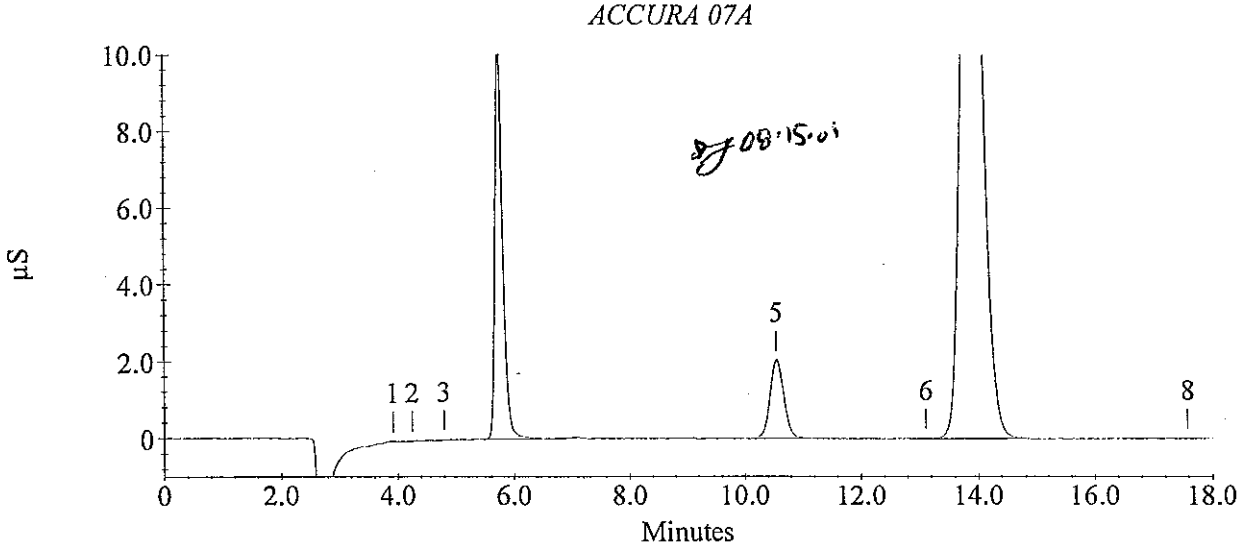
Sample Analysis Report

Sample Name : ACCURA 07A 1411418.7
Data File Name : C:\PEAKNET\DATA\ACCURA07A-8-2-01_059.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/3/01 2:18:23 PM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		3.92	0.000	1767	192
2		4.25	0.000	1878	248
3		4.80	0.000	1325	171
4	CHLORIDE	5.75	3.1950 DL=0.1	975517	103203
5	NITRATE	10.55	0.498 DL=0.01	341038	20361
6		13.12	0.000	1561	167
7	SULFATE	13.90	23.916	5035910	222341
8		17.58	0.000	1564	238



DJ 08.15.01

BAF 8/3/01

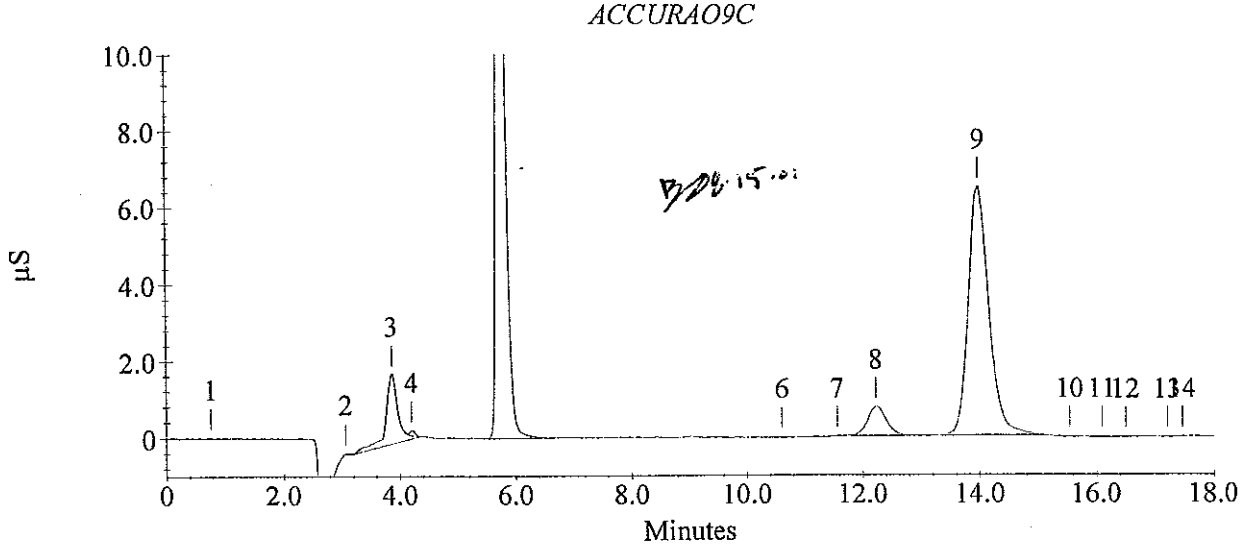
Sample Analysis Report

Sample Name : ACCURAO9C 141418-8
Data File Name : C:\PEAKNET\DATA\ACCURA09C-8-1-01_052.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/2/01 10:18:13 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.77	0.000	1218	124
2		3.07	0.000	989	203
3		3.87	0.000	261346	18056
4		4.20	0.000	8743	1271
5	CHLORIDE	5.77	8.297 DL=0.1	2582214	278951
6	NITRATE	10.62	-0.016 BDL	2367	207
7		11.57	0.000	2175	199
8		12.23	0.000	170558	7533
9	SULFATE	14.00	7.594	1592603	65013
10		15.55	0.000	1522	213
11		16.10	0.000	2847	283
12		16.50	0.000	2259	122
13		17.22	0.000	1414	149
14		17.47	0.000	1508	197



BAF 8/3/01

Analytical Services, Inc.

TOC
EPA Method 415.2 / 9060

Date 08-03-01
Time 2100

Batch 70318, 70319
Analyst DJ

Pos. #	Sample ID
1	30.0 ppm std
2	
3	
4	Wash
5	1.00 ppm Std
6	250
7	500
8	100
9	200
10	400
11	500
12	Wash
13	Blk
14	141163-1 pinwall
15	
16	
17	
18	141163-1MS
19	141163-1MSD
20	LCS
21	LCSD
22	Wash ~~wash~~
23	~~141163-2 Pinwall~~
24	141092-6 TOC
25	10/100
26	
27	
28	141092-6 DOC
29	10/100
30	

Pos. #	Sample ID
31	141092-6 DOC
32	141199-4 Toc
33	50/100
34	
35	
36	141199-4 DOC
37	50/100
38	
39	
40	141199-5 Toc
41	50/100
42	
43	
44	141199-5 Doc
45	50/100
46	
47	
48	141351-1
49	
50	
51	
52	141351-2
53	
54	
55	
56	141351-3
57	
58	
59	
60	141351-4

Pos. #	Sample ID
61	141351-4
62	
63	
64	Wash
65	CalCHK
66	141163-2 pinwall
67	Dup
68	
69	
70	141418-1 Azuma
71	
72	
73	
74	141418-2
75	
76	
77	
78	141418-3
79	
80	
81	
82	141418-4
83	
84	
85	
86	141418-5
87	
88	
89	
90	141418-6

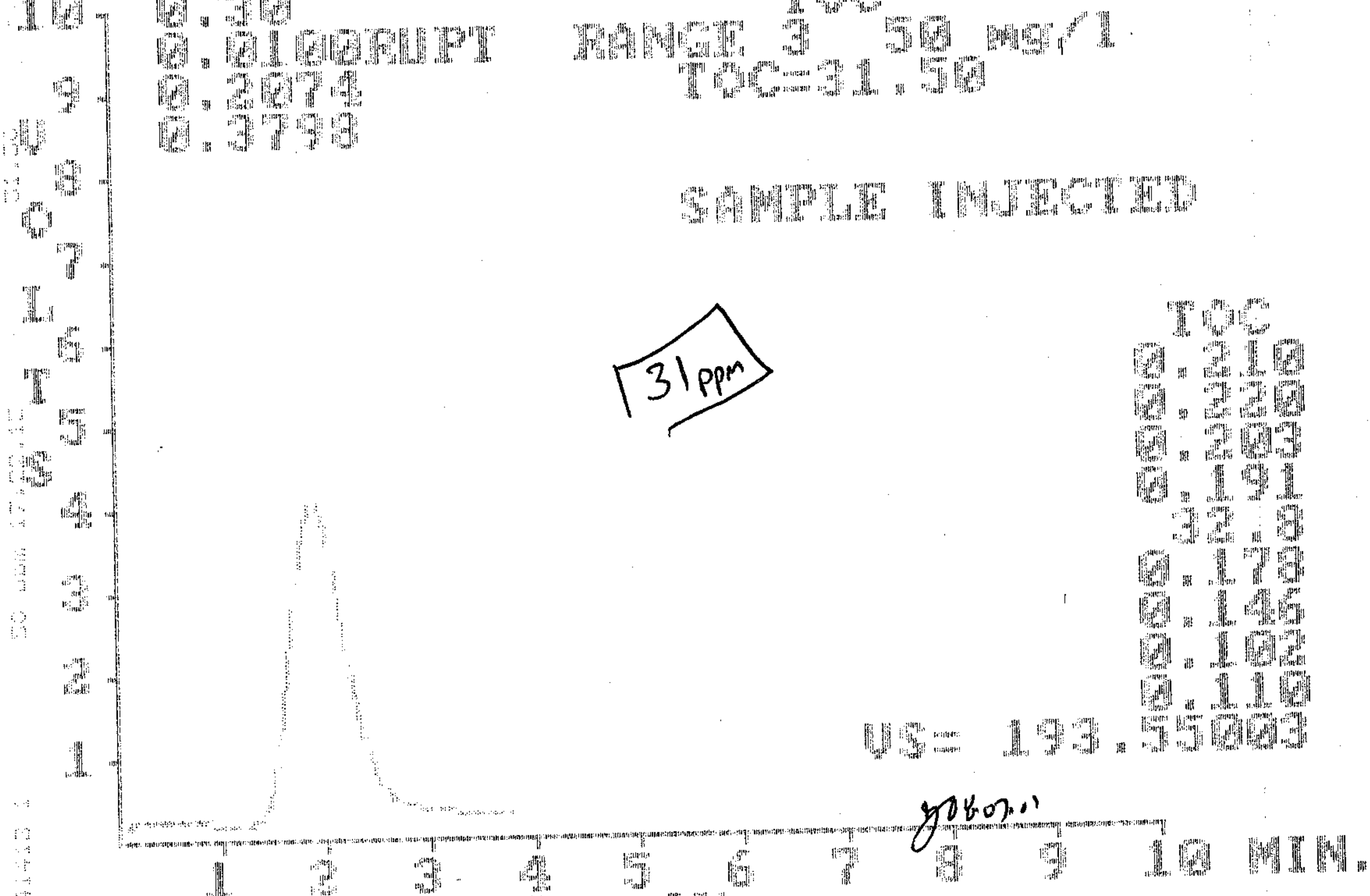
Pos. #	Sample ID
91	141418-6
92	
93	
94	141418-7
95	
96	
97	
98	141418-8
99	
100	
101	
102	CalCHK
103	Wash
104	Blk
105	141331-1 BFE
106	141331-1 Dup
107	141331-1MS
108	141331-1MSD
109	LCS
110	LCSD
111	Wash
112	Diss Blk
113	141331-2
114	-3
115	-4
116	141362-3 25/100
117	141362-4 25/100
118	141408-1 giraffe 25/100
119	141288-1 Eastman 25/100
120	CalChk

SAMPLES TO GO= 51 17:22:15
STATION # 70

TOC

0.30
0.0100RUPT RANGE 3 50 mg/l
0.2074 TOC=31.50
0.3798

SAMPLE INJECTED



31 ppm

TOC
0.210
0.220
0.203
0.191
32.8
0.178
0.146
0.102
0.110
US= 193.55003

g08.07.11

47.7 70.9 33 :OK

115

SAMPLES TO GO: 50 17:3

STATION # 71

TOC

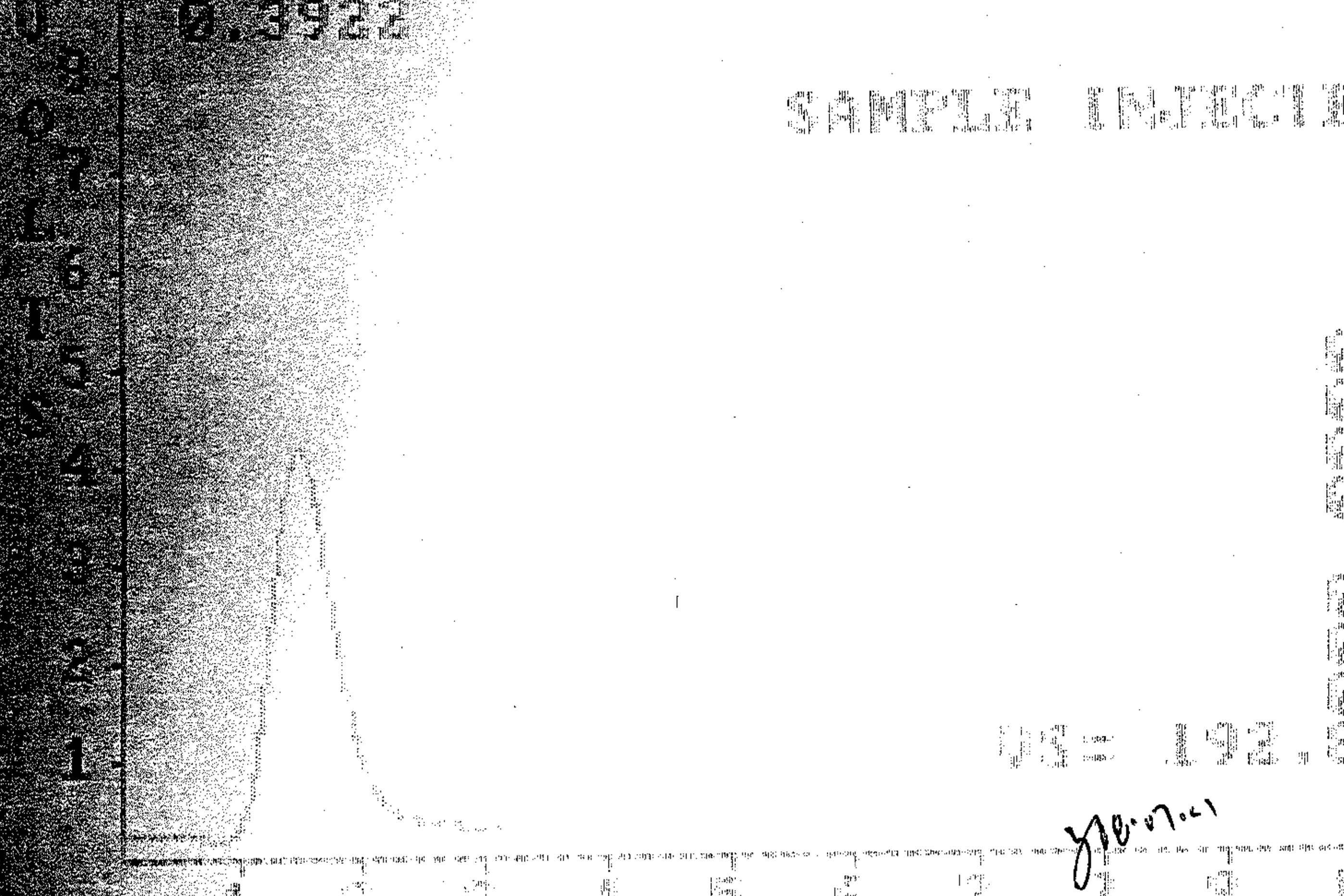
10. 0.31

0.0140RUPT RANGE 3 50 mg/l

0.2218 TOC=31.37

0.3922

SAMPLE INJECTI



.100
.200
.203
.191
.1.8
.178
.145
.102
.110
1003

US= 192.

0 MIN.

48.0 70.5 33 :OK

SAMPLES TO GO= 49 17:40:42

STATION # 72

0.32 TOC

0.0140RUPT RANGE 3 50 mg/l

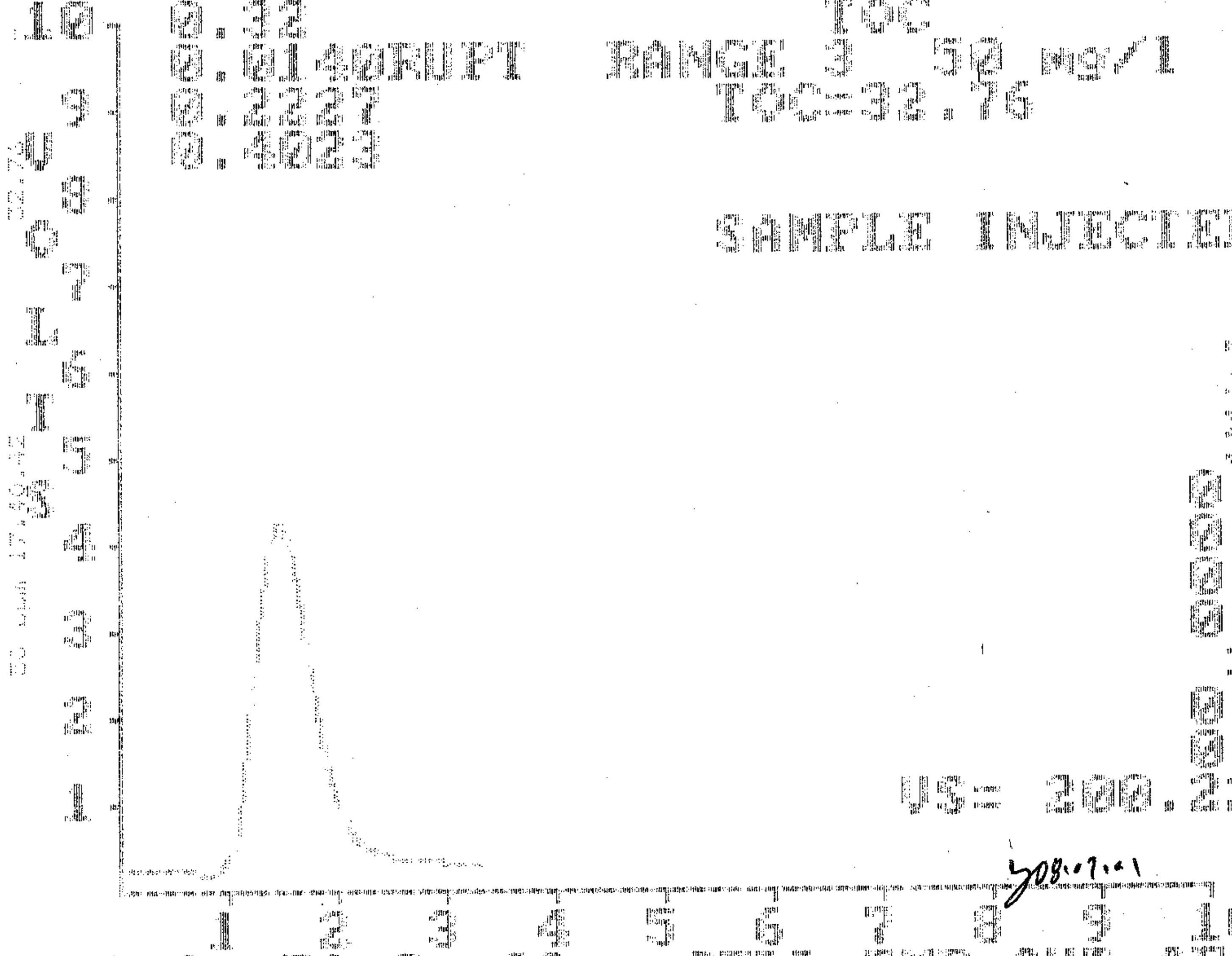
0.2227 TOC=32.76

0.4023

SAMPLE INJECTED

TOC
31.4
31.5
0.210
0.220
0.203
0.191
32.8
0.178
0.146

US= 200.22932



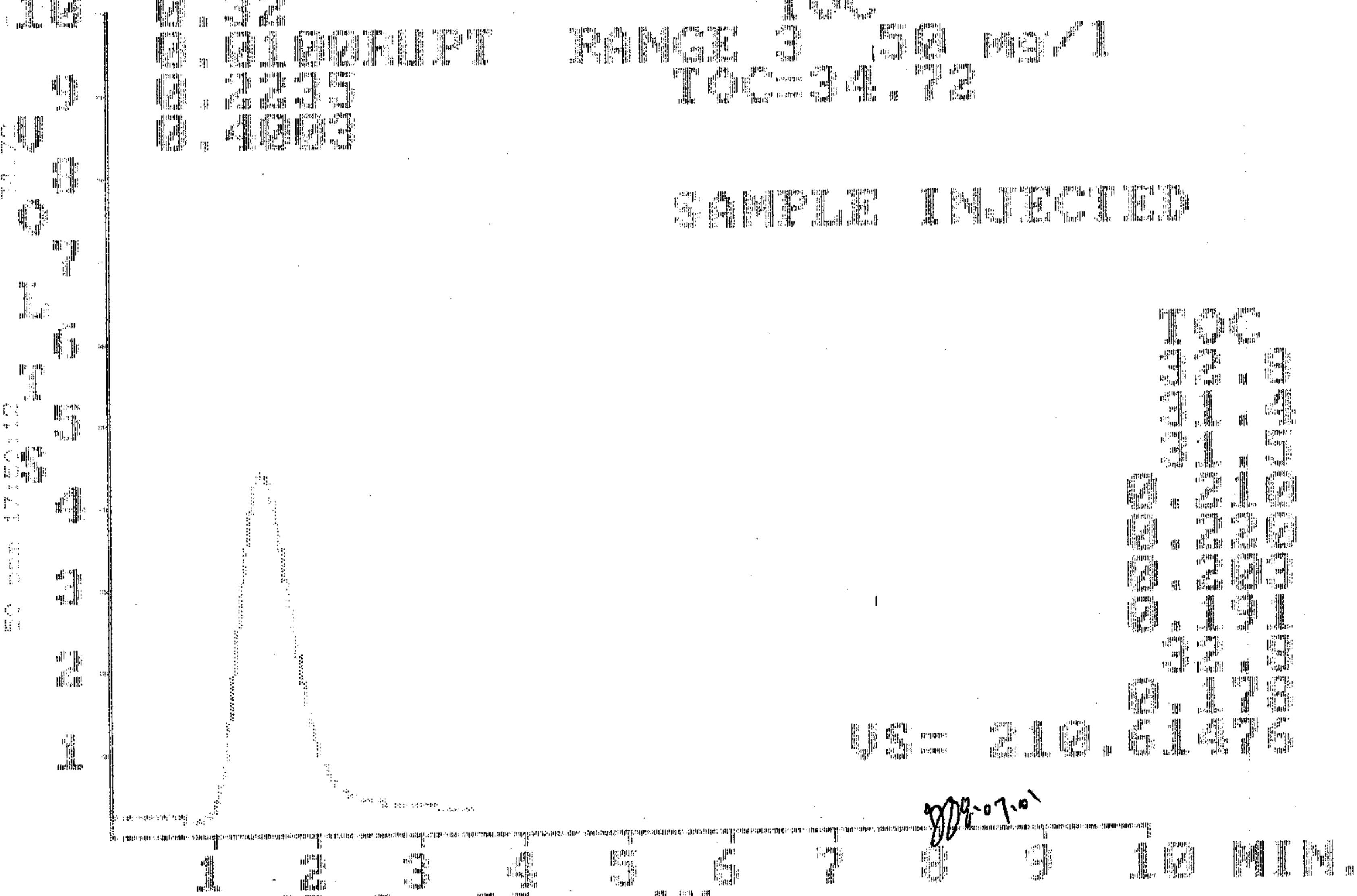
51.2 71.0 33 :CELL TMP OUT OF TOL.

SAMPLES TO GO= 48 17:50:11
STATION # 73

TOC

0.32
0.0100RUPT RANGE 3 .50 mg/l
0.2235 TOC=34.72
0.4003

SAMPLE INJECTED



TOC
32.9
31.4
31.5
0.210
0.220
0.203
0.191
32.8
0.178
VS= 210.61476

47.3 72.2 33 :OK

SAMPLES TO GO= 47 17:53:13

STATION # 74

TOC

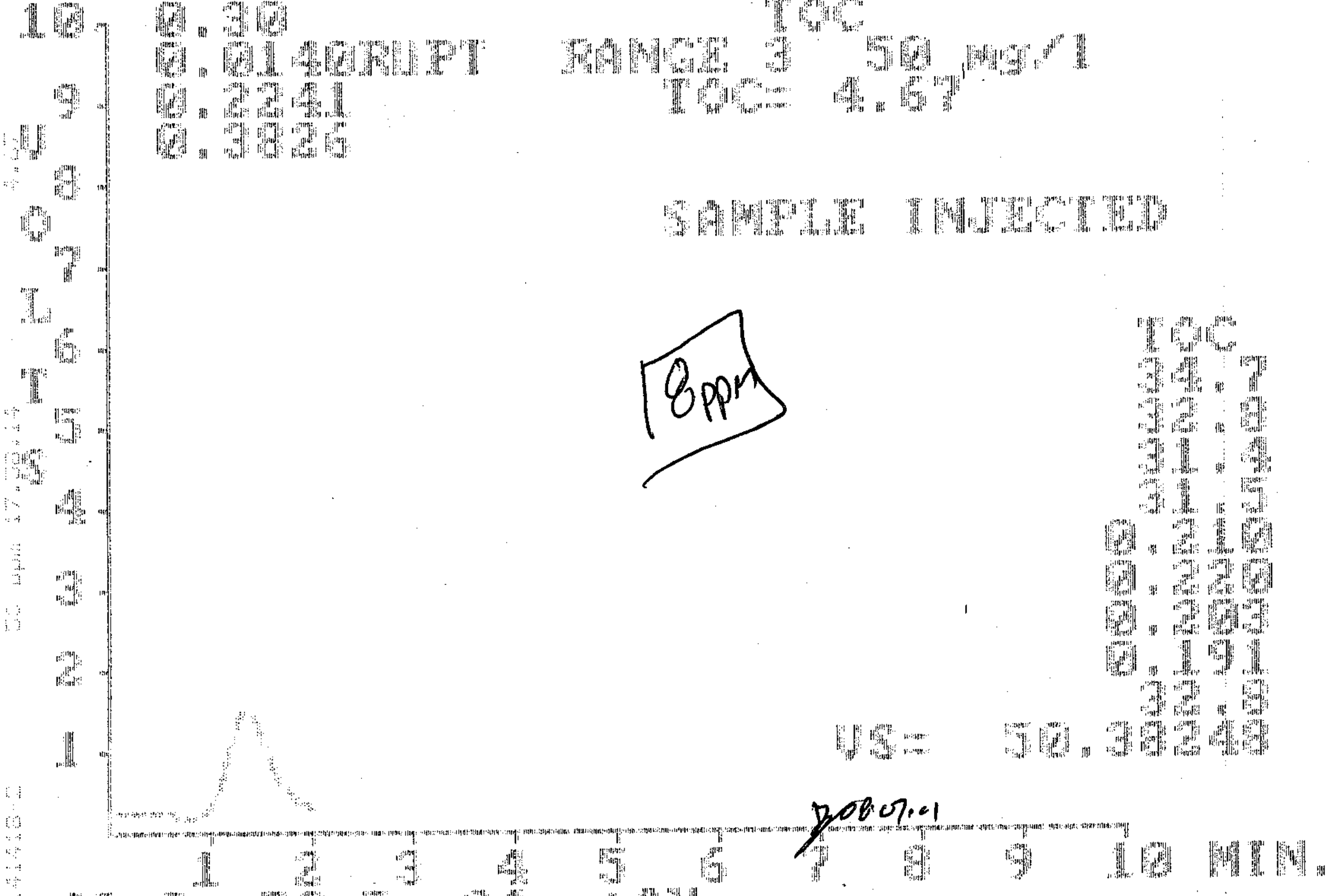
0.30

0.0140RUPT RANGE 3 50 mg/l

0.2241 TOC= 4.67

0.3826

SAMPLE INJECTED



TOC
34.7
32.8
31.4
31.5
0.210
0.220
0.203
0.191
32.8

VS= 50.38248

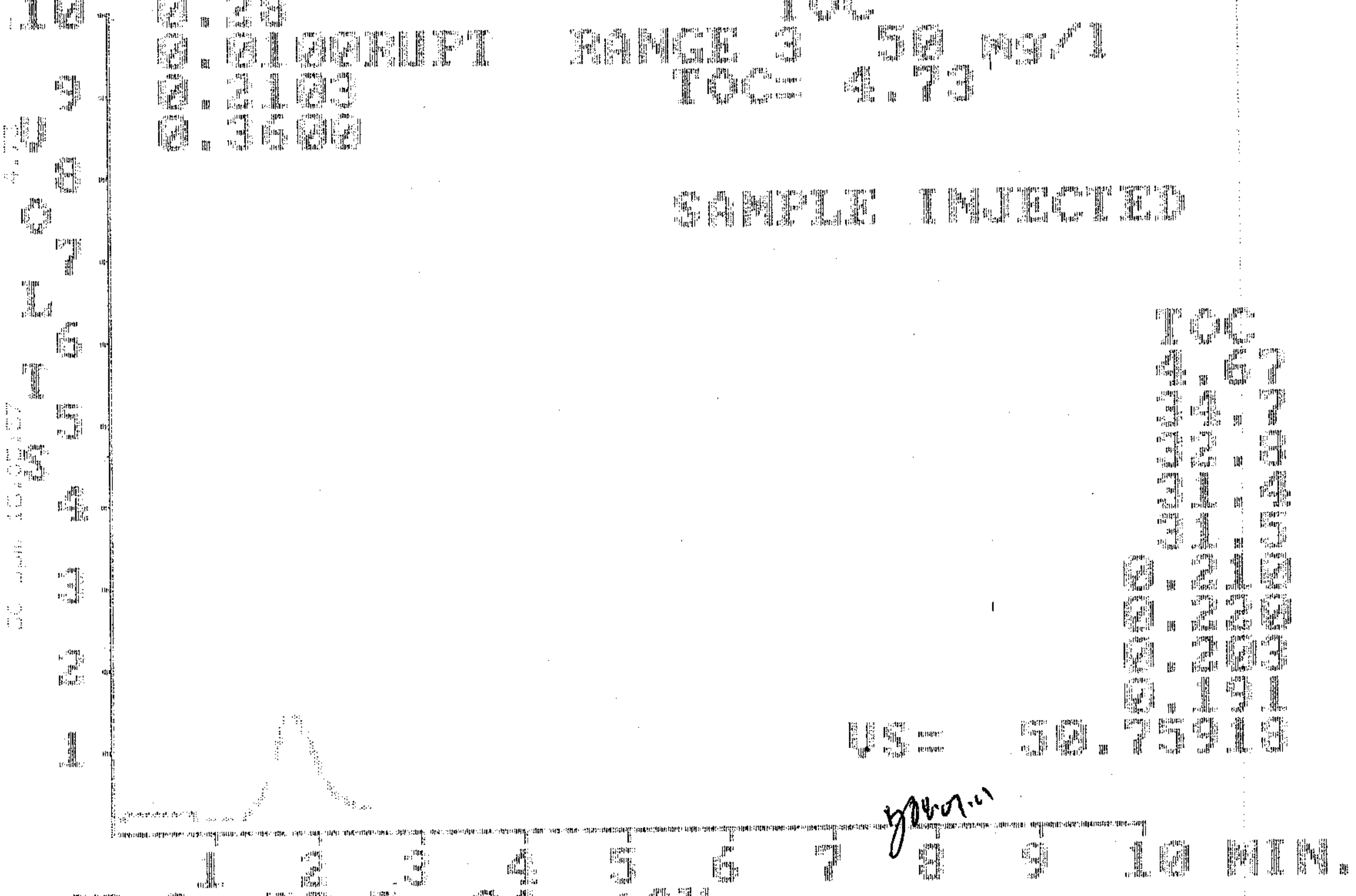
48.0 70.7 34 :OK

SAMPLES TO GO= 46 18:05:57
STATION # 75

0.28
0.0100RUPT RANGE 3 50 mg/1
0.2103
0.3600

TOC
TOC= 4.73

SAMPLE INJECTED



TOC
4.67
34.7
32.8
31.4
31.5
0.210
0.220
0.203
0.191
US= 50.75918

47.3 70.7 34 :OK

18:

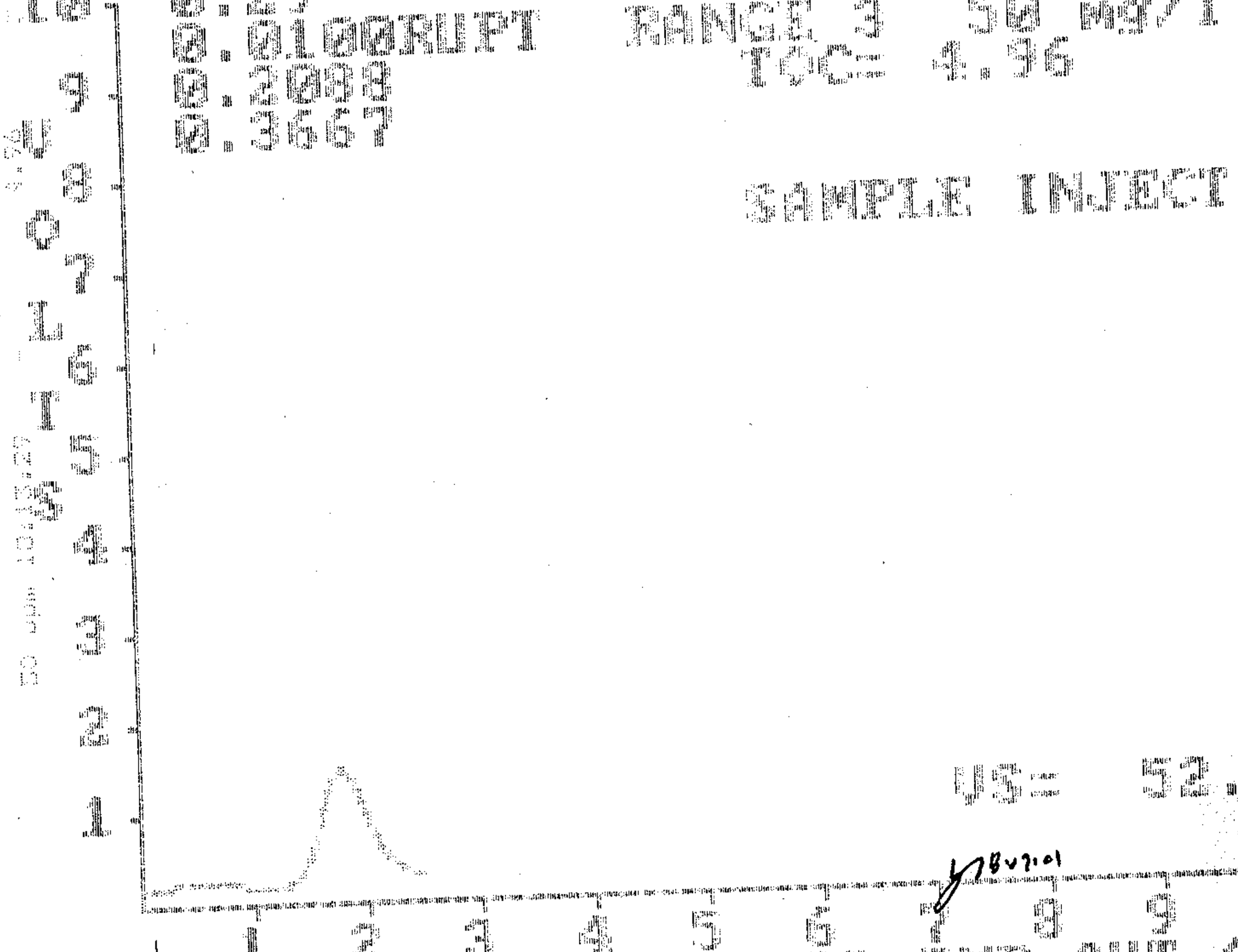
SAMPLES TO GO= 45
STATION # 76

TOC

0.29
0.0100RUPT RANGE 3 50 mg/l
0.2088
0.3667

TOC= 4.96

SAMPLE INJECT



US= 52.

MIN.

46.2 71.2 33 :CELL TMP OUT 0

SAMPLES TO GO= 43 19:30:55

STATION # 78

0.29

0.0152RUPT RANGE 3 50 mg/l

TOC

TOC=28.01

0.2059

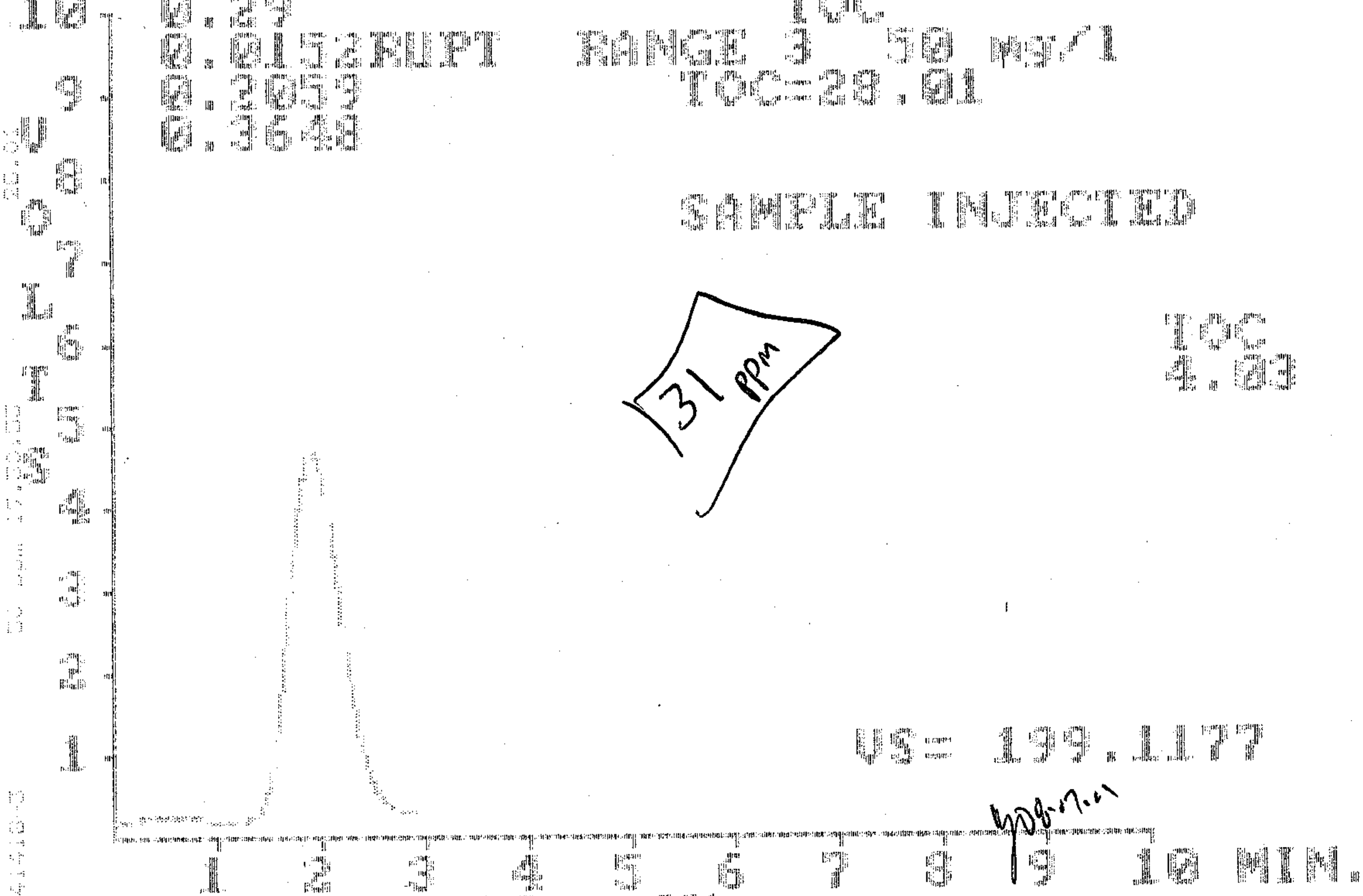
0.3648

SAMPLE INJECTED

TOC

4.03

31 ppm



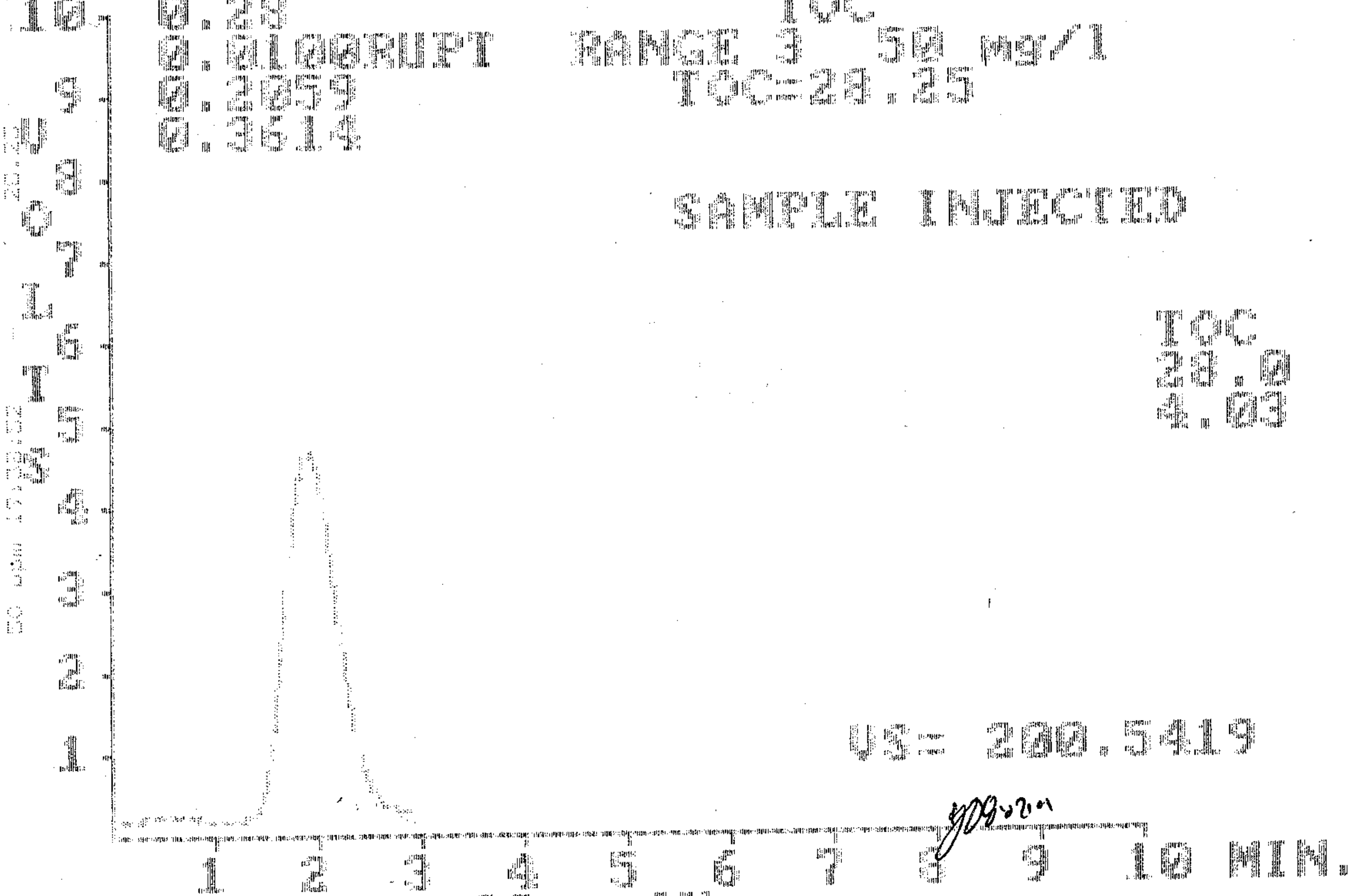
VS= 199.1177

48.4 71.7 33 :OK

STATION # 79

TOC

0.28
0.0100RUPT RANGE 3 50 mg/l
0.2059 TOC=28.25
0.3614



48.4 71.1 33 :OK

SAMPLES TO GO= 41 19:47:13

STATION # 80

TOC

0.27

0.0100RUPT RANGE 3 50 mg/l

0.2051 TOC=28.65

0.3405

SAMPLE INJECTED

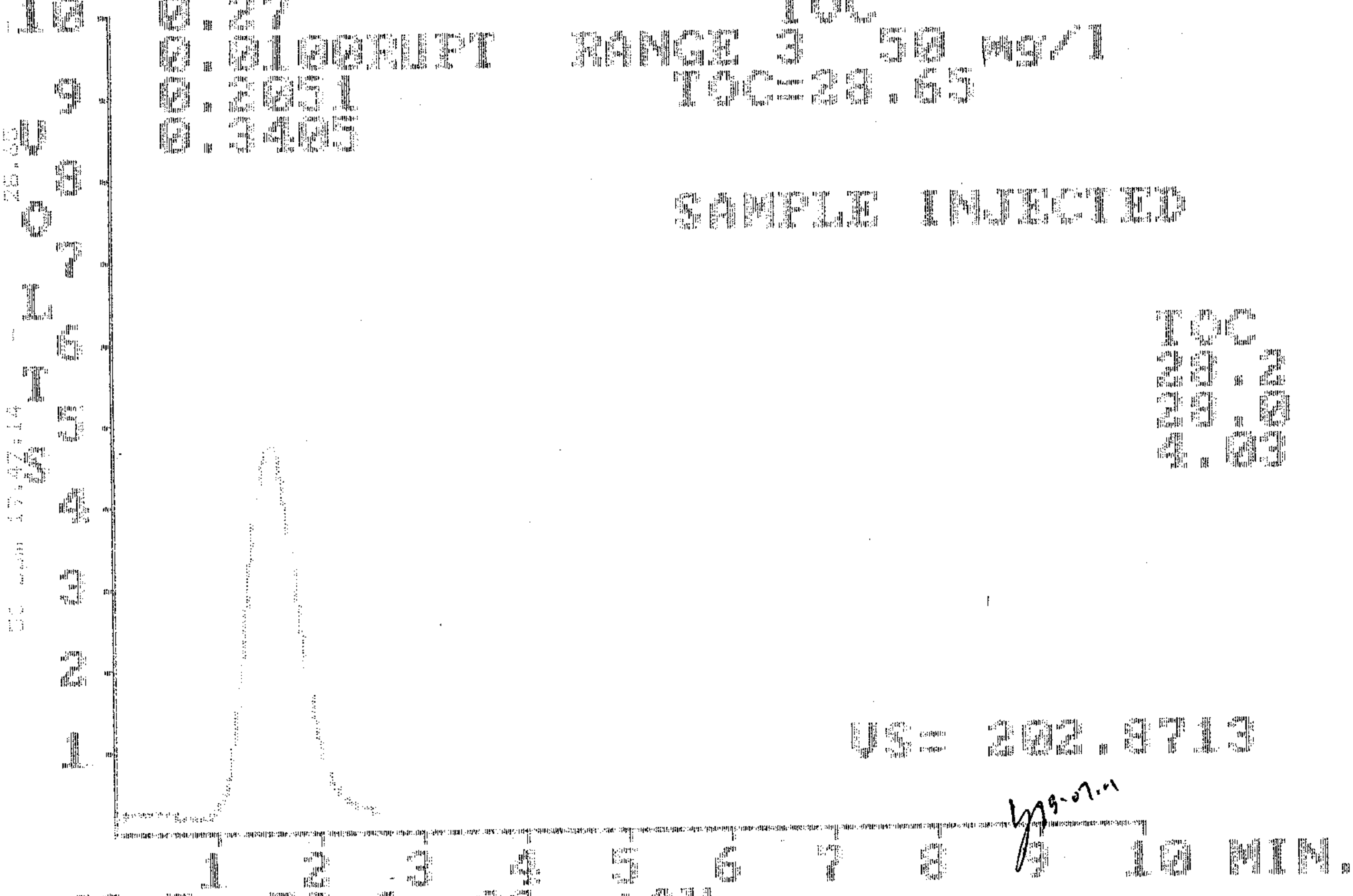
TOC

28.2

28.0

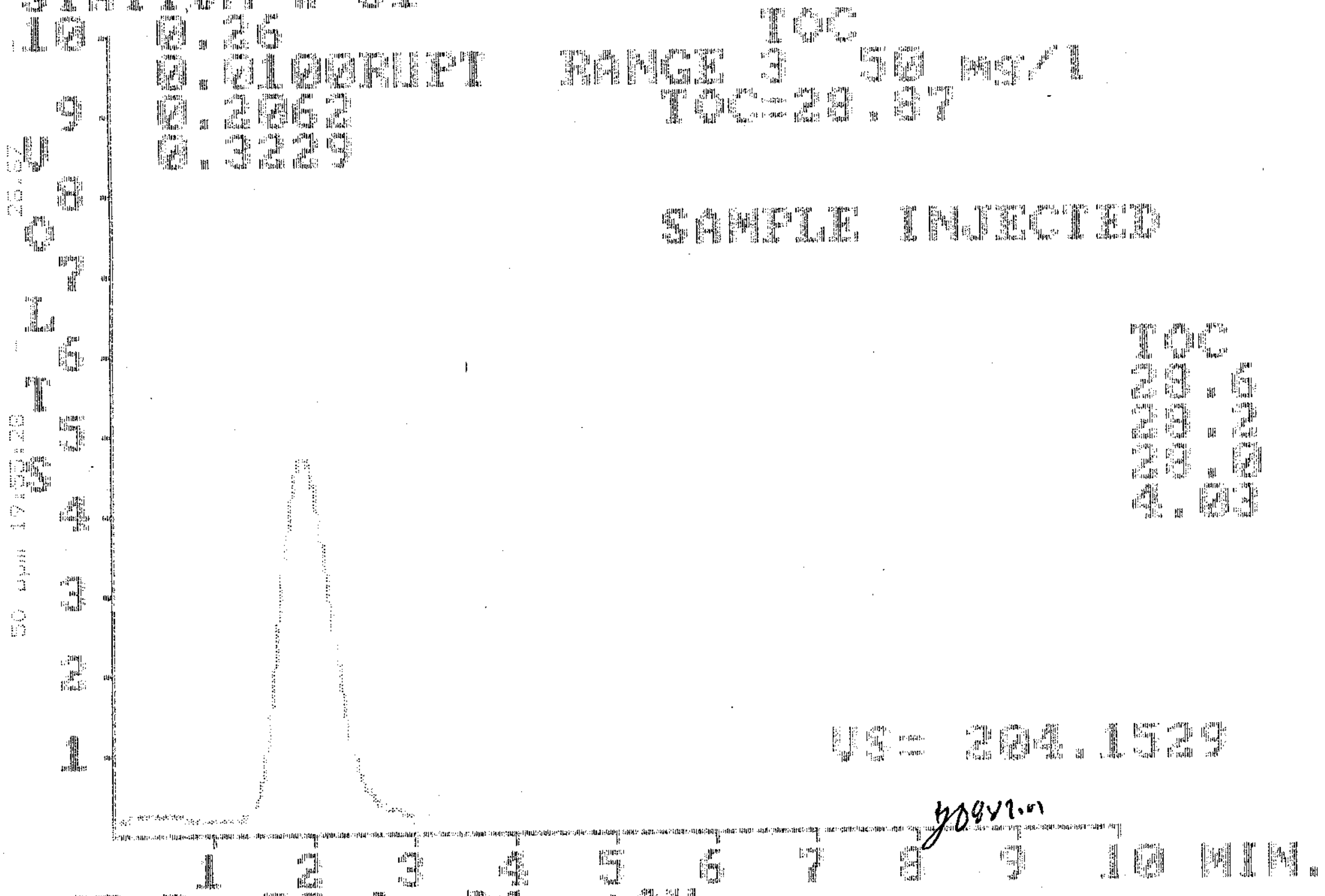
4.03

US= 202.8713



48.7 70.8 33 :OK

SAMPLES TO GO= 40 19:55:28
STATION # 81



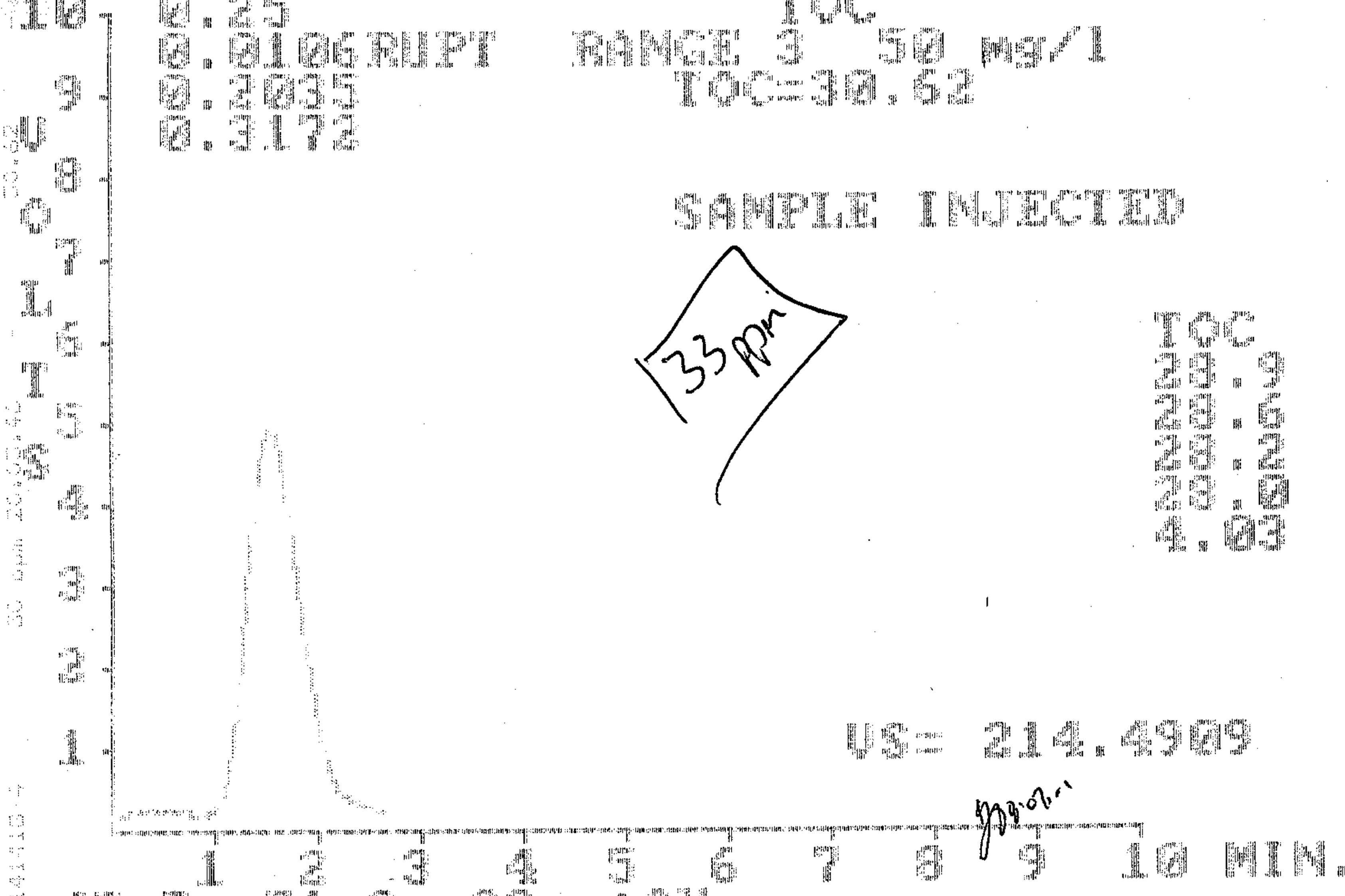
47.7 70.6 33 :OK

SAMPLES TO GO= 39 20:03:45
STATION # 02

0.25
0.0106RUPT RANGE 3 50 mg/l
0.2035
0.3172

TOC
TOC=30.62

SAMPLE INJECTED



33 ppm

TOC
20.9
20.6
20.2
20.0
4.03

US= 214.4909

47.7 71.2 33 :OK

SAMPLE INJECTED
10 MIN.

SAMPLES TO GO= 37 20:19:58

STATION # 84

0.28

0.0152RUPT RANGE 3 50 mg/l

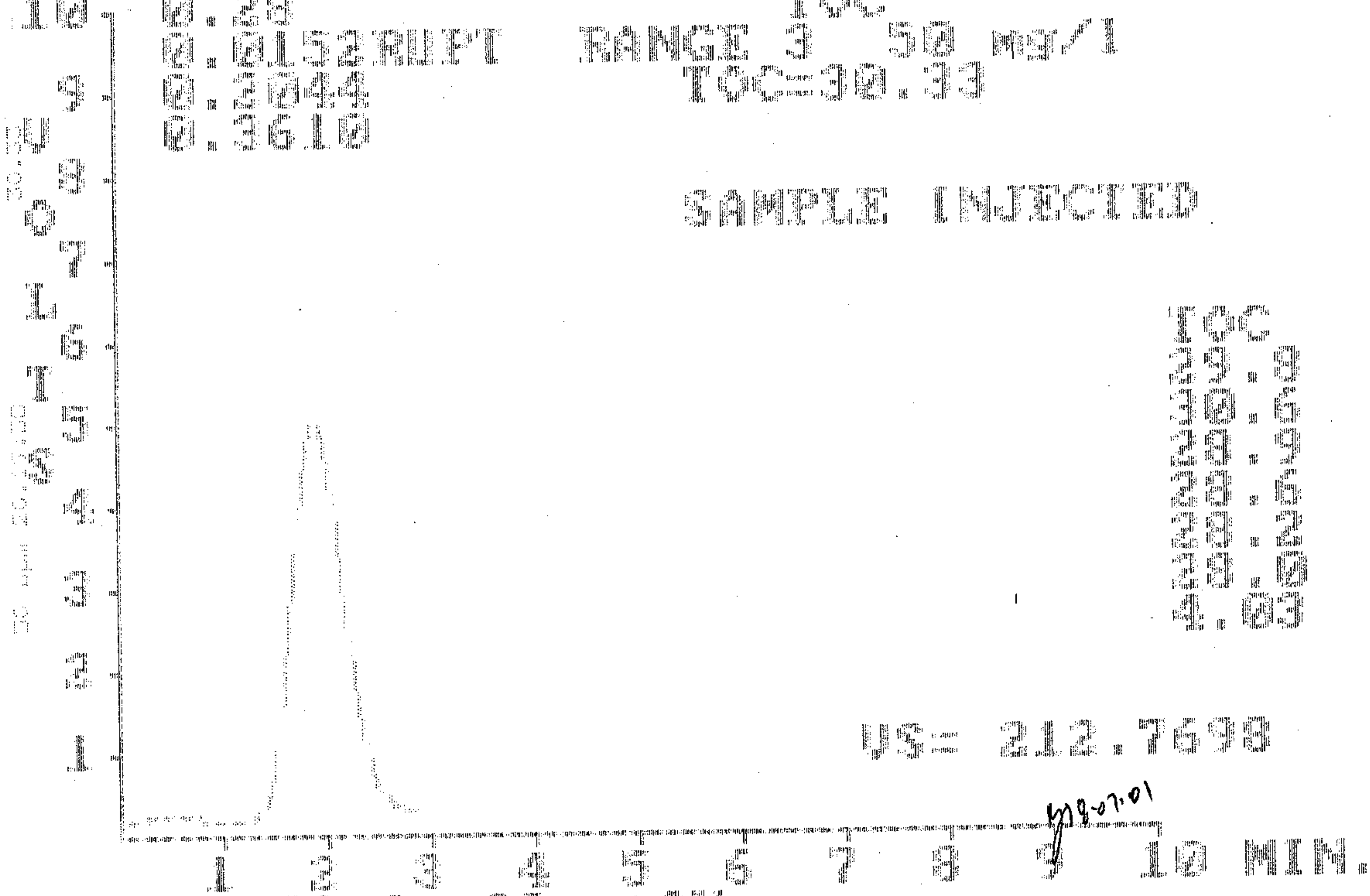
0.2044 TOC=30.33

0.3610

SAMPLE INJECTED

TOC
29.8
30.6
28.9
28.6
28.2
28.0
4.03

US= 212.7698



49.4 71.3 32 :OK

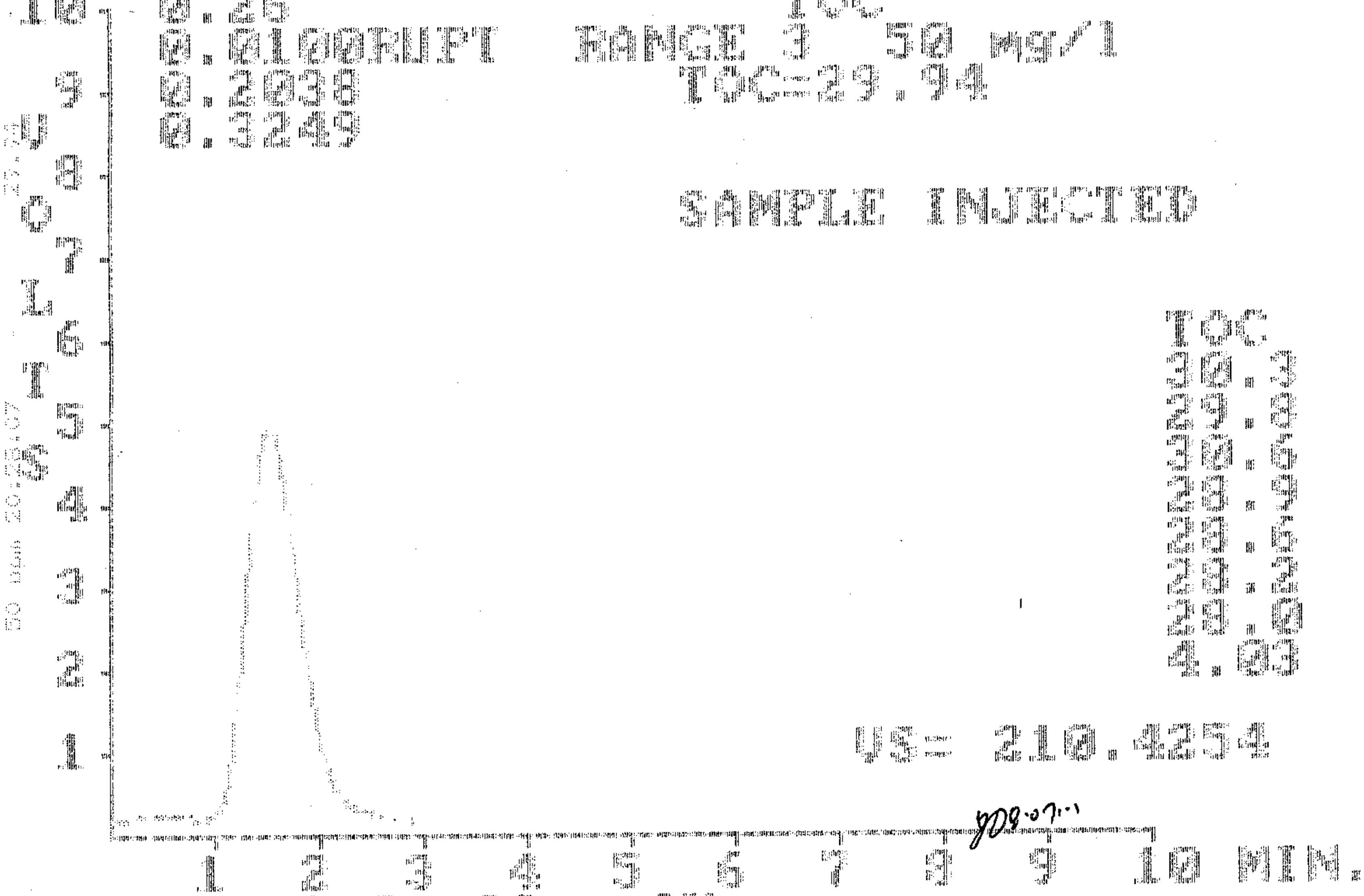
8-07-01

SAMPLES TO GO= 36 20:28:07
STATION # 85

0.26
0.0100RUPT RANGE 3 50 mg/l
0.2038
0.3249

TOC
TOC=29.94

SAMPLE INJECTED



TOC
30.3
29.8
30.6
28.9
29.5
29.2
29.0
4.03

VS= 210.4254

48.4 71.8 33 :OK

SAMPLES TO GO= 35 20:36:07

STATION # 86

TOC

0.28

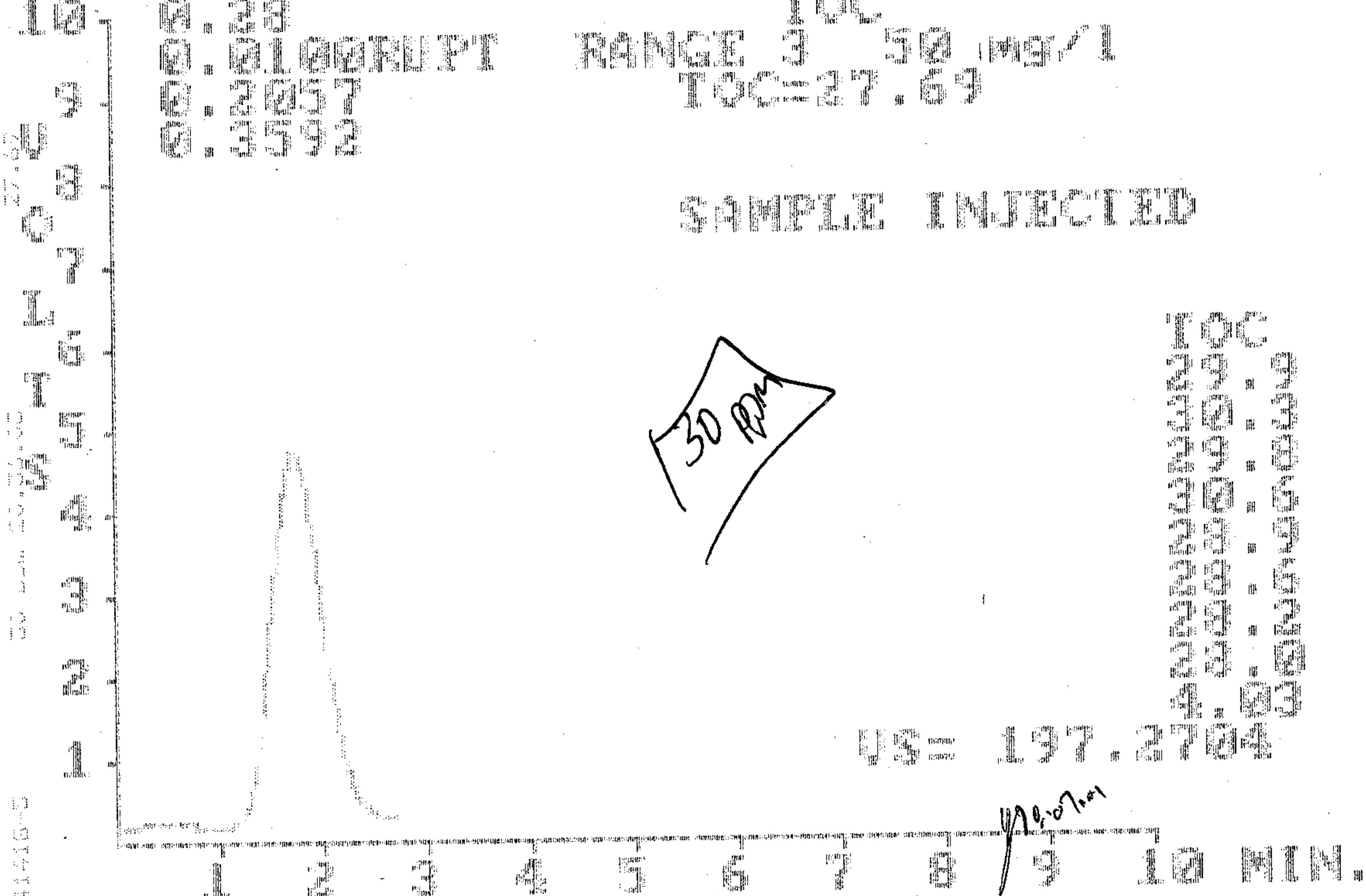
0.0100RUPT RANGE 3 50 mg/l

TOC=27.69

0.2057

0.3592

SAMPLE INJECTED



TOC
29.9
30.3
29.8
30.6
28.9
28.6
29.2
28.0
4.03

US= 197.2704

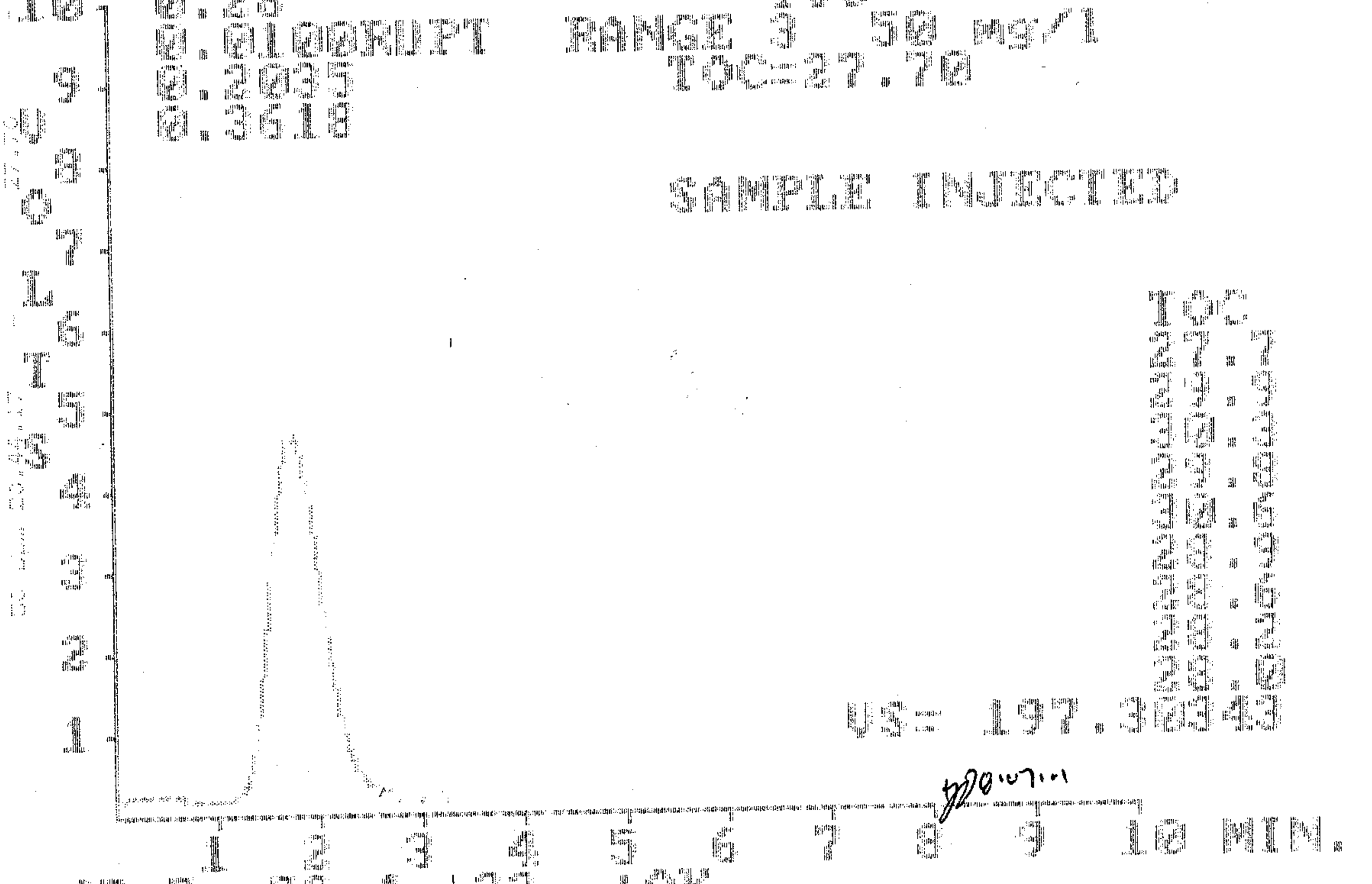
48.7 70.9 32 :OK

SAMPLES TO GO= 34 20:44:17
STATION # 87

10 0.28
0.0100RUPT RANGE 3 50 mg/1
0.2035
0.3618

TOC
TOC=27.70

SAMPLE INJECTED



TOC
27.7
29.9
30.3
29.8
30.6
28.9
28.6
28.2
28.0

US= 197.30343

47.7 72.4 33 :OK

SAMPLES TO GO= 33 20:52:13

STATION # 88

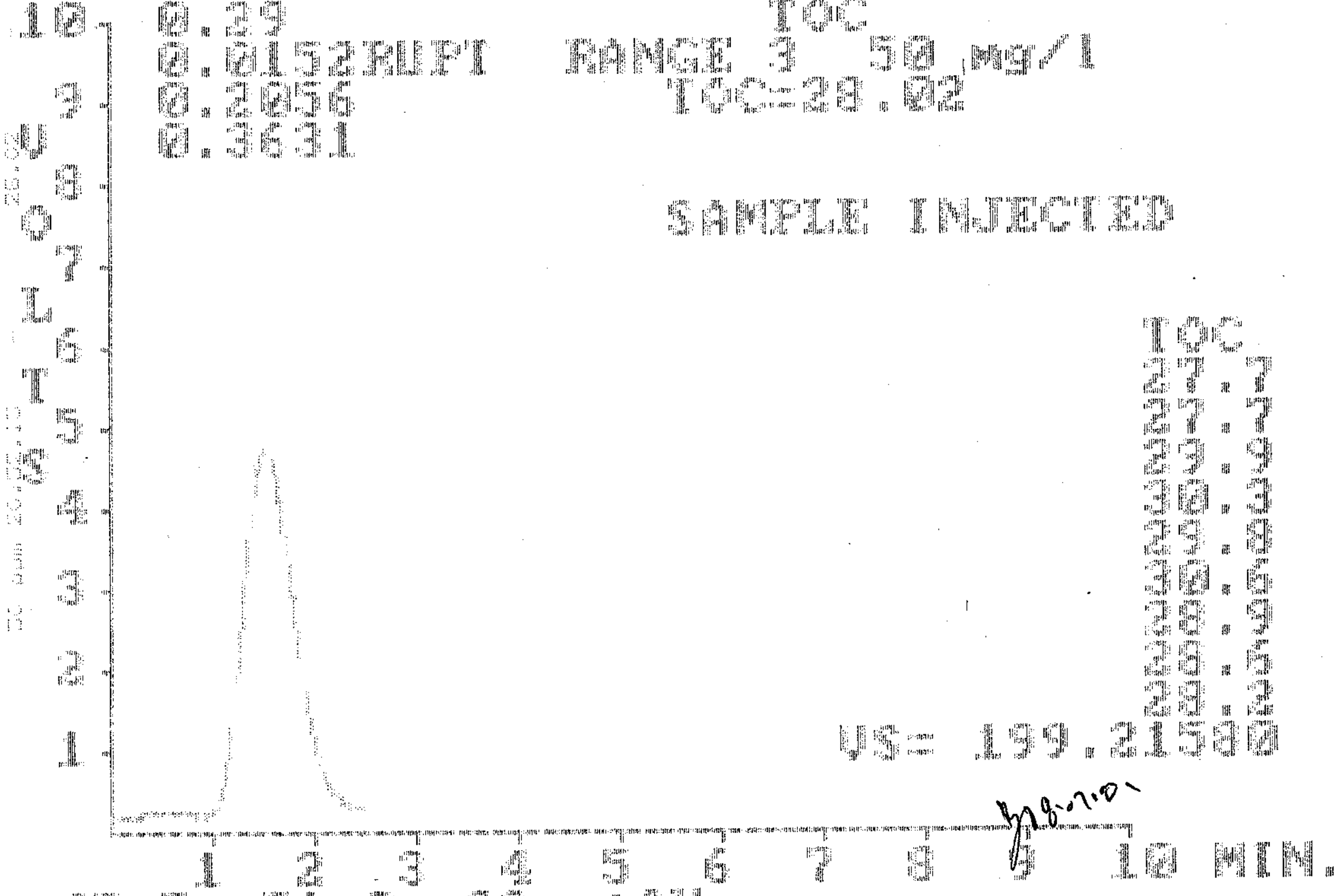
0.29

0.0152RUPT RANGE 3 50 mg/l

0.2056 TOC=28.02

0.3631

SAMPLE INJECTED



TOC
27.7
27.7
23.9
30.3
29.8
30.6
28.9
28.5
28.2

VS= 199.21500

47.7 71.0 32 :OK

SAMPLES TO GO= 32 21:00:31
STATION # 89

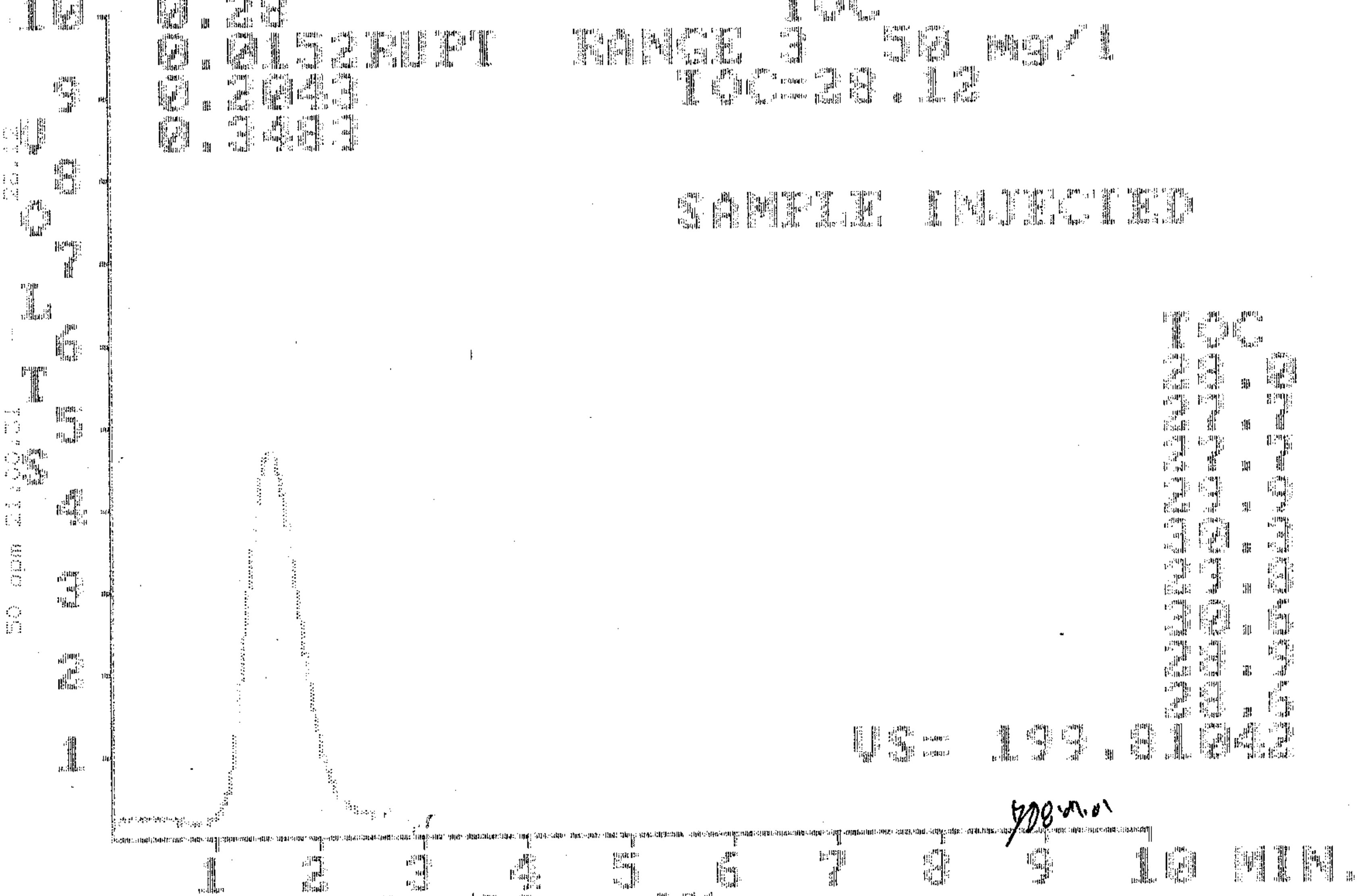
0.28
0.0152RUPT
0.2043
0.3483

TOC
RANGE 3 50 mg/l
TOC=28.12

SAMPLE INJECTED

TOC
28.0
27.7
27.7
29.9
30.3
27.8
30.6
28.9
28.6

US= 199.81042



47.0 70.8 33 :OK

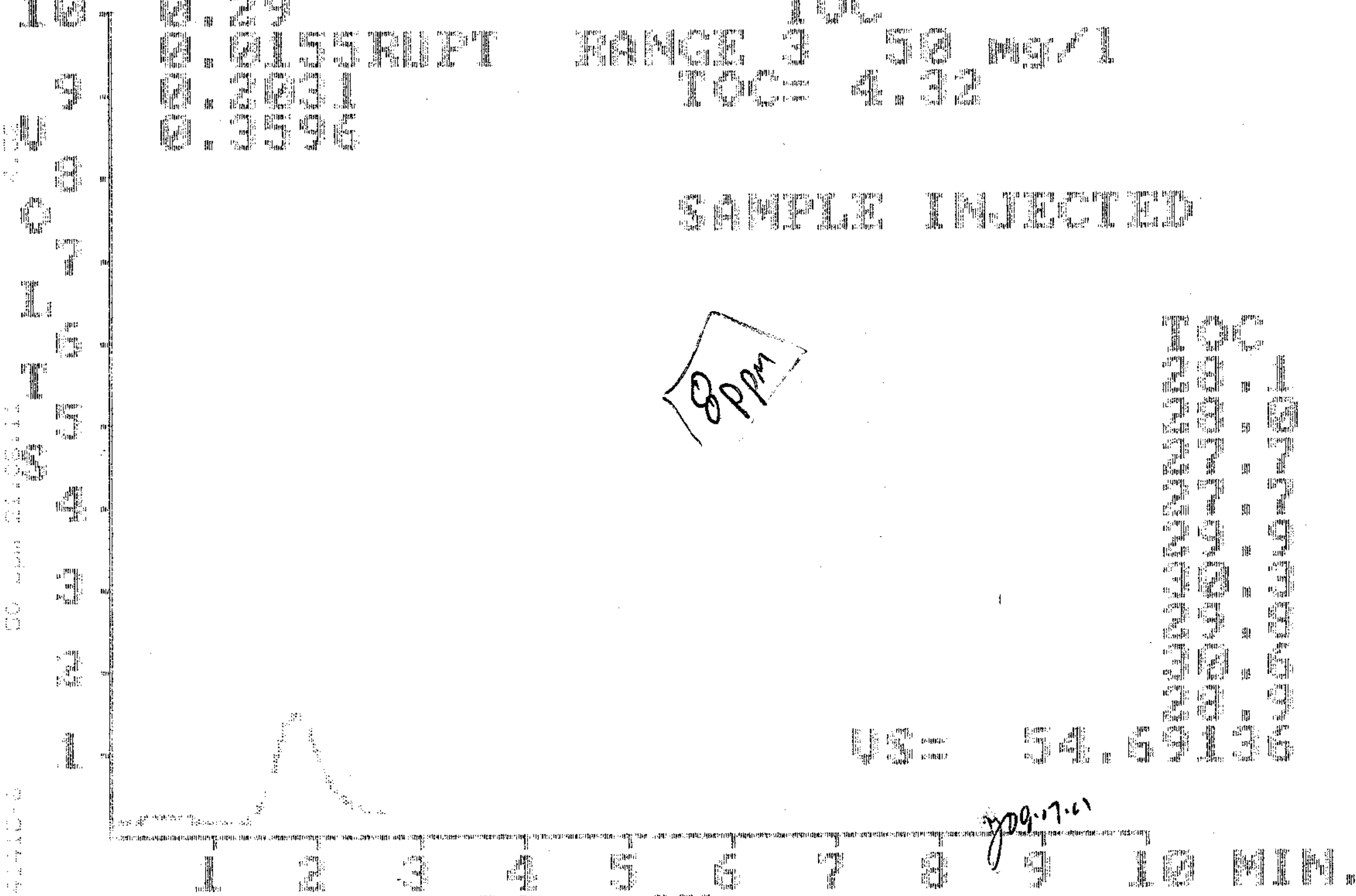
SAMPLES TO GO= 31 21:08:10
STATION # 90

0.29
0.0155RUPT RANGE 3 50 mg/l
0.2031
0.3596

TOC
TOC= 4.32

SAMPLE INJECTED

8ppm



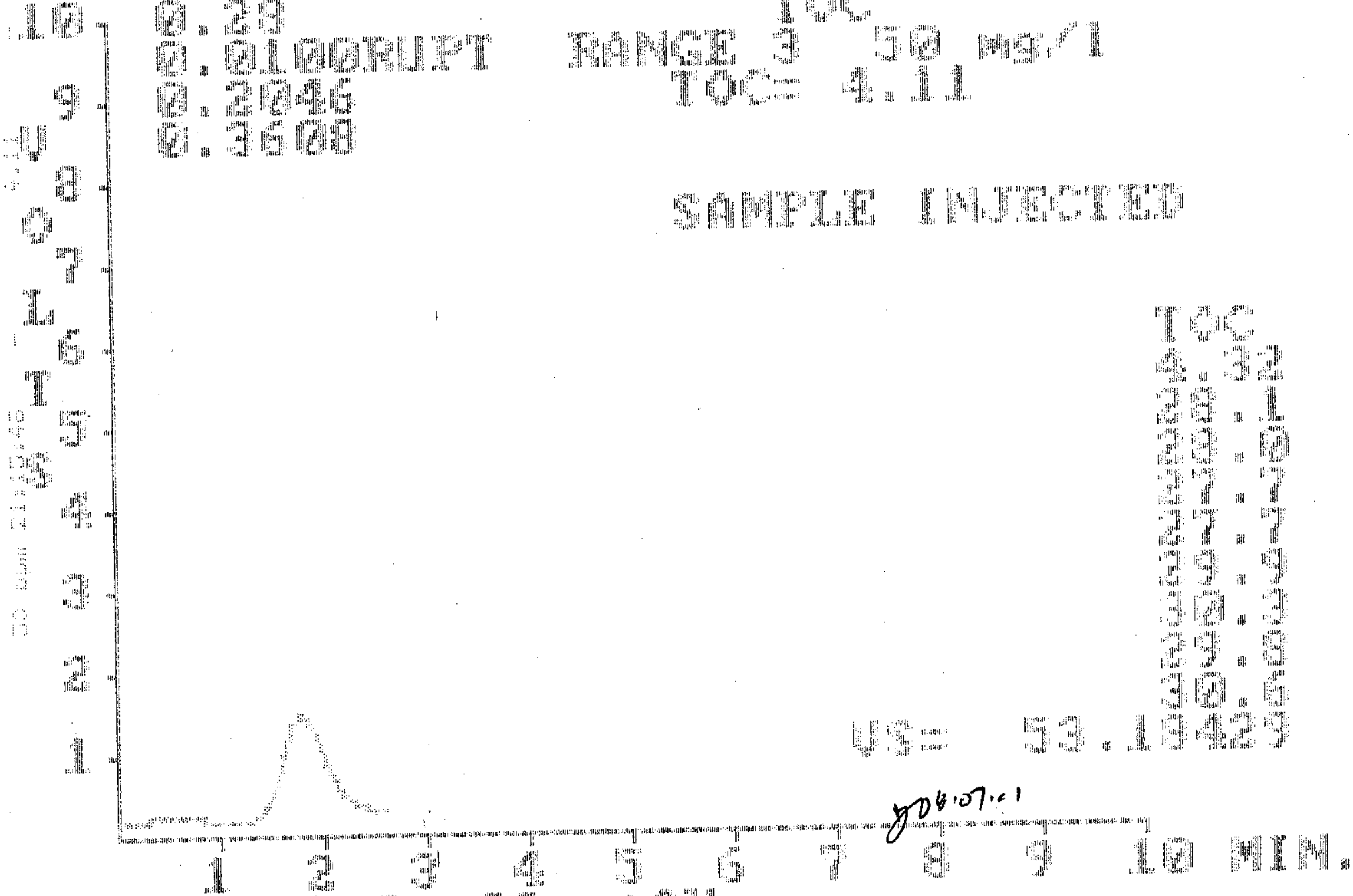
TOC
28.1
28.0
27.7
27.7
29.9
30.3
29.8
30.6
28.9

US= 54.69136

48.0 71.3 34 :OK

SAMPLES TO GO= 30 21:15:48

STATION # 91



0.29
0.0100RUPT RANGE 3 50 mg/l
0.2046
0.3608

TOC

TOC= 4.11

SAMPLE INJECTED

TOC
4.32
28.1
28.0
27.7
27.7
29.9
30.3
29.8
30.6

US= 53.19429

47.0 70.8 33 :OK

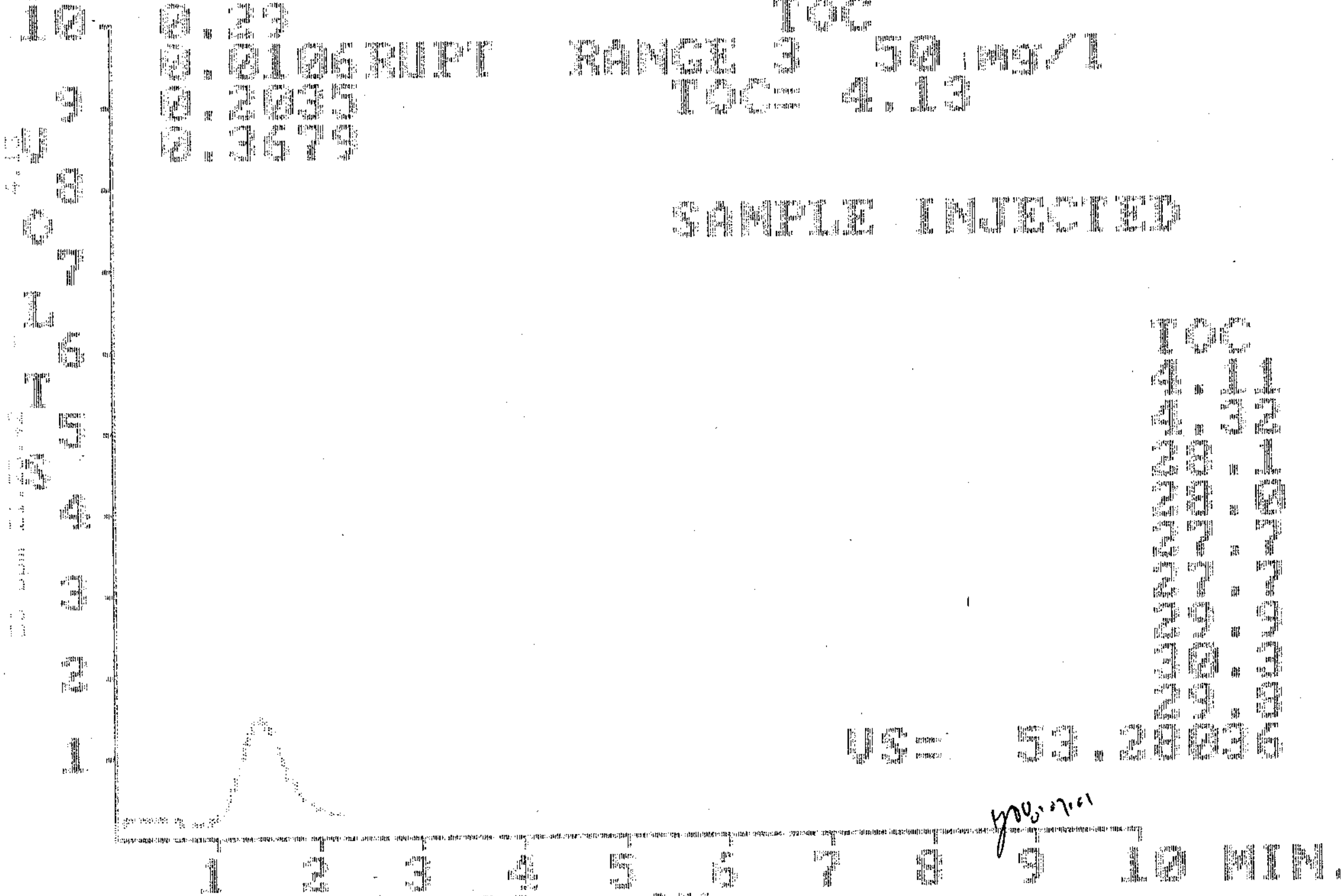
2004.07.01

SAMPLES TO GO= 29 21:23:42
STATION # 92

0.23
0.0106RUPI RANGE 3 50 mg/l
0.2035
0.3679

TOC
TOC= 4.13

SAMPLE INJECTED



TOC
4.11
4.32
28.1
28.0
27.7
27.7
29.9
30.3
29.8
US= 53.28036

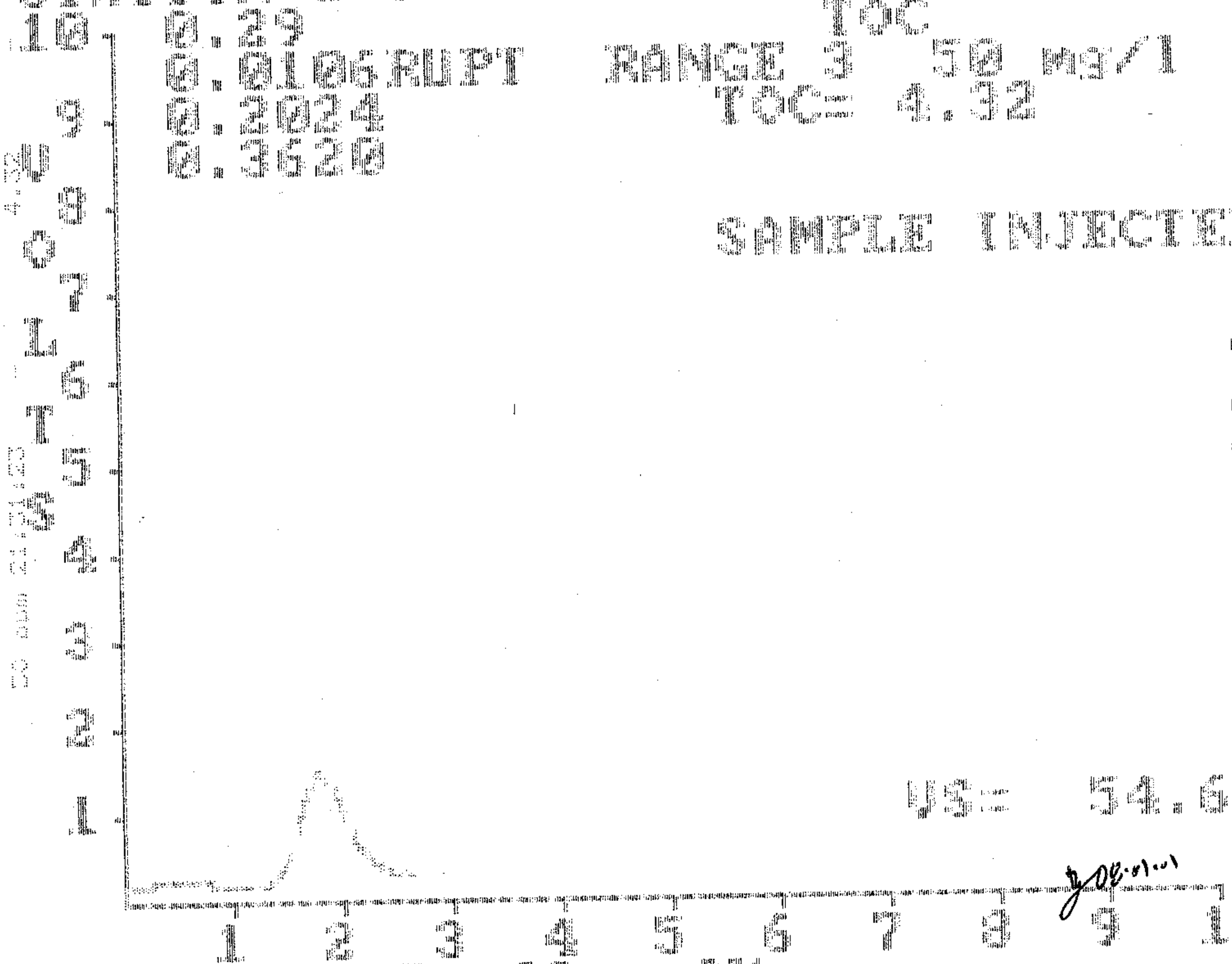
48.4 71.3 32 :OK

SAMPLES TO GO= 28 21:31:22
STATION # 93

TOC

0.29
0.0106RUPT RANGE 3 50 mg/1
0.2024 TOC= 4.32
0.3620

SAMPLE INJECTED



TOC
4.18
4.11
4.32
29.1
28.0
27.7
27.7
29.9
30.3

VS= 54.68338

47.7 70.7 32 :OK

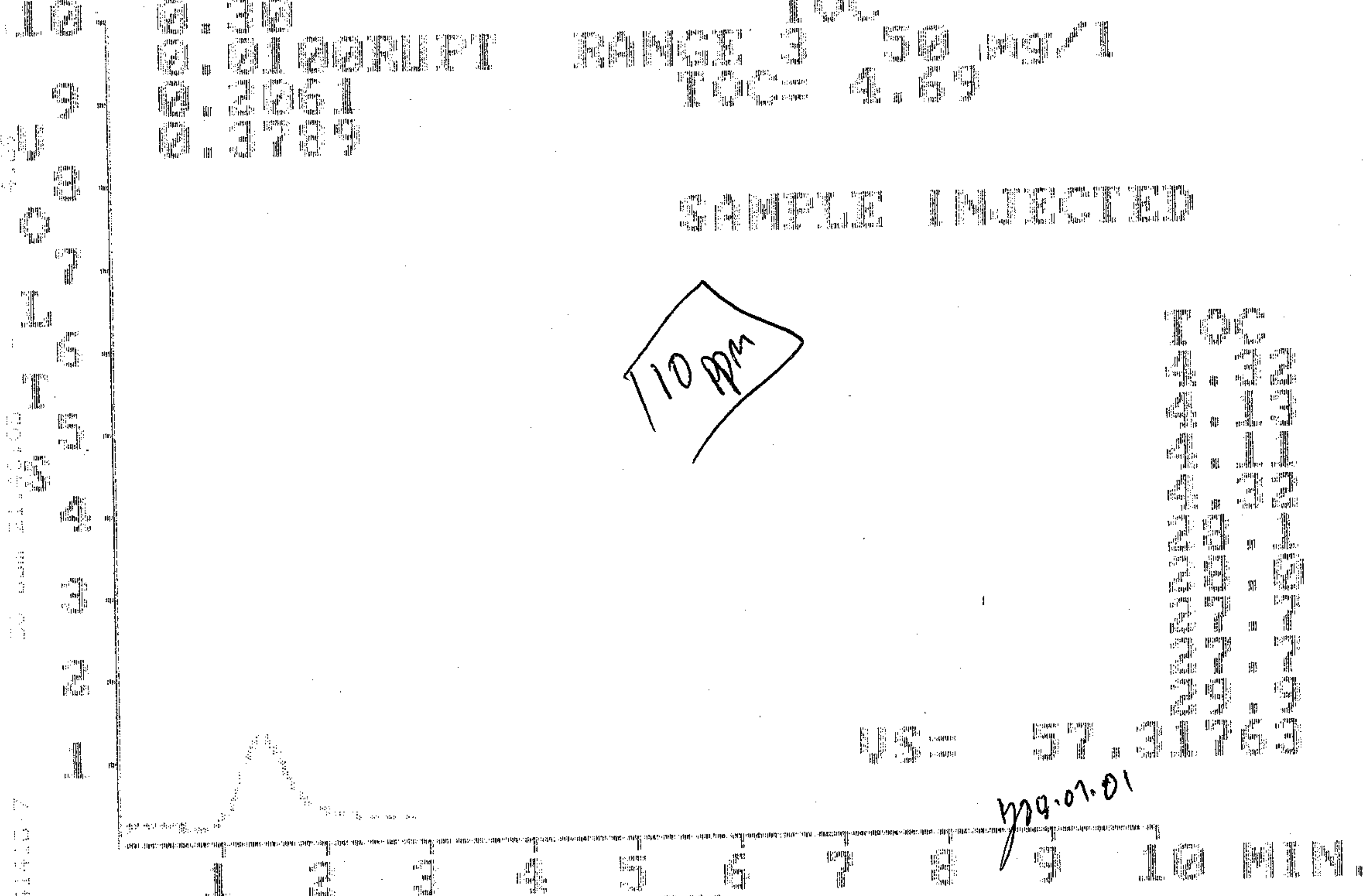
SAMPLES TO GO= 27 21:40:05
STATION # 94

TOC

0.30
0.0100RUPT RANGE 3 50 mg/l
0.2061 TOC= 4.69
0.3789

SAMPLE INJECTED

10 ppm



TOC
4.32
4.13
4.11
4.32
28.1
28.0
27.7
27.7
29.9
US= 57.31763

9.07.01

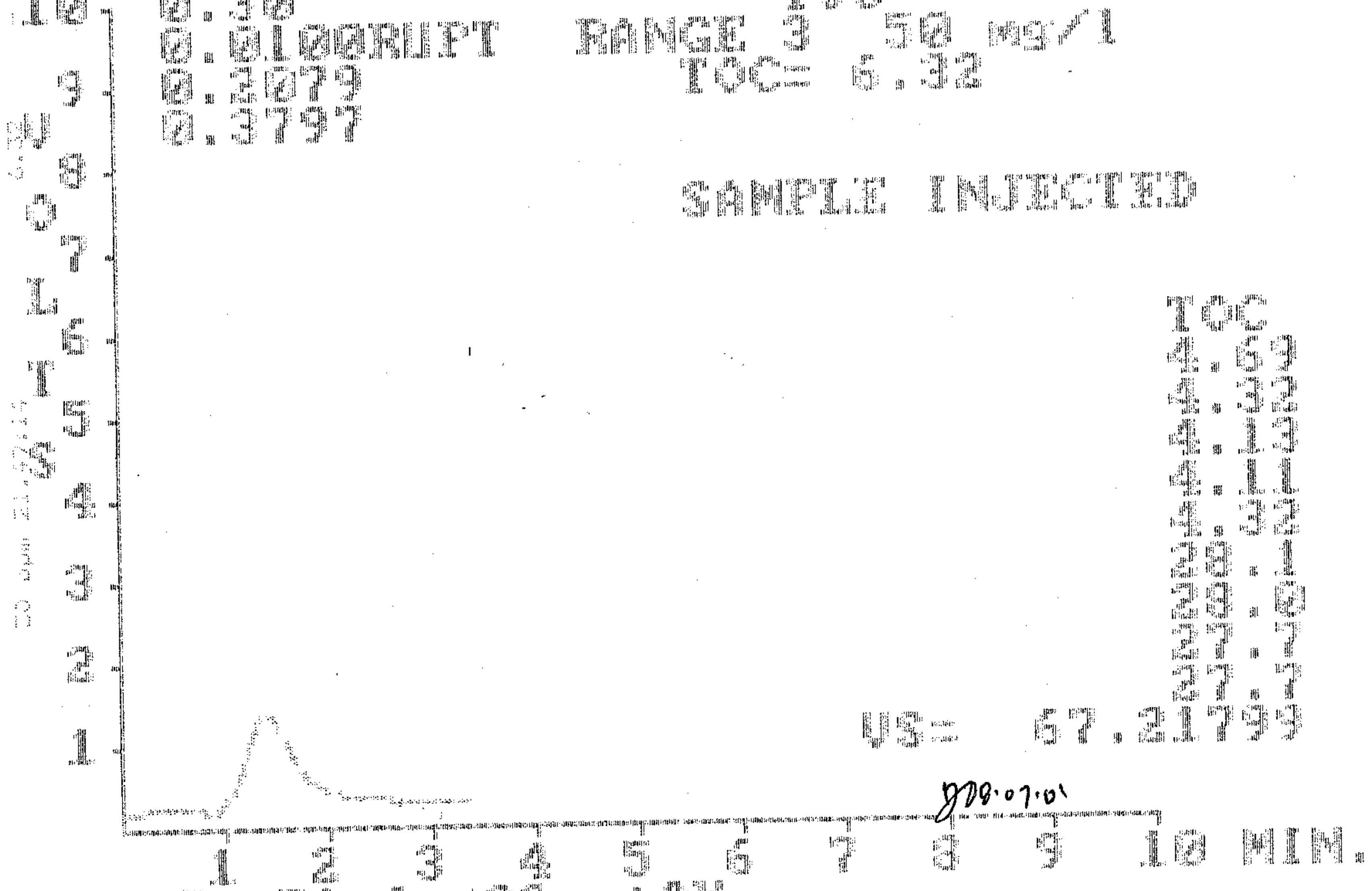
48.0 71.5 32 :OK

SAMPLES TO GO= 26 21:49:13
STATION # 95

0.30
0.0100RUPT RANGE 3 50 mg/l
0.2079
0.3797

TOC
TOC= 6.32

SAMPLE INJECTED



TOC
4.63
4.32
4.13
4.11
4.32
28.1
29.0
27.7
27.7

US= 67.21799

J08.07.01

48.0 71.6 '32 :OK

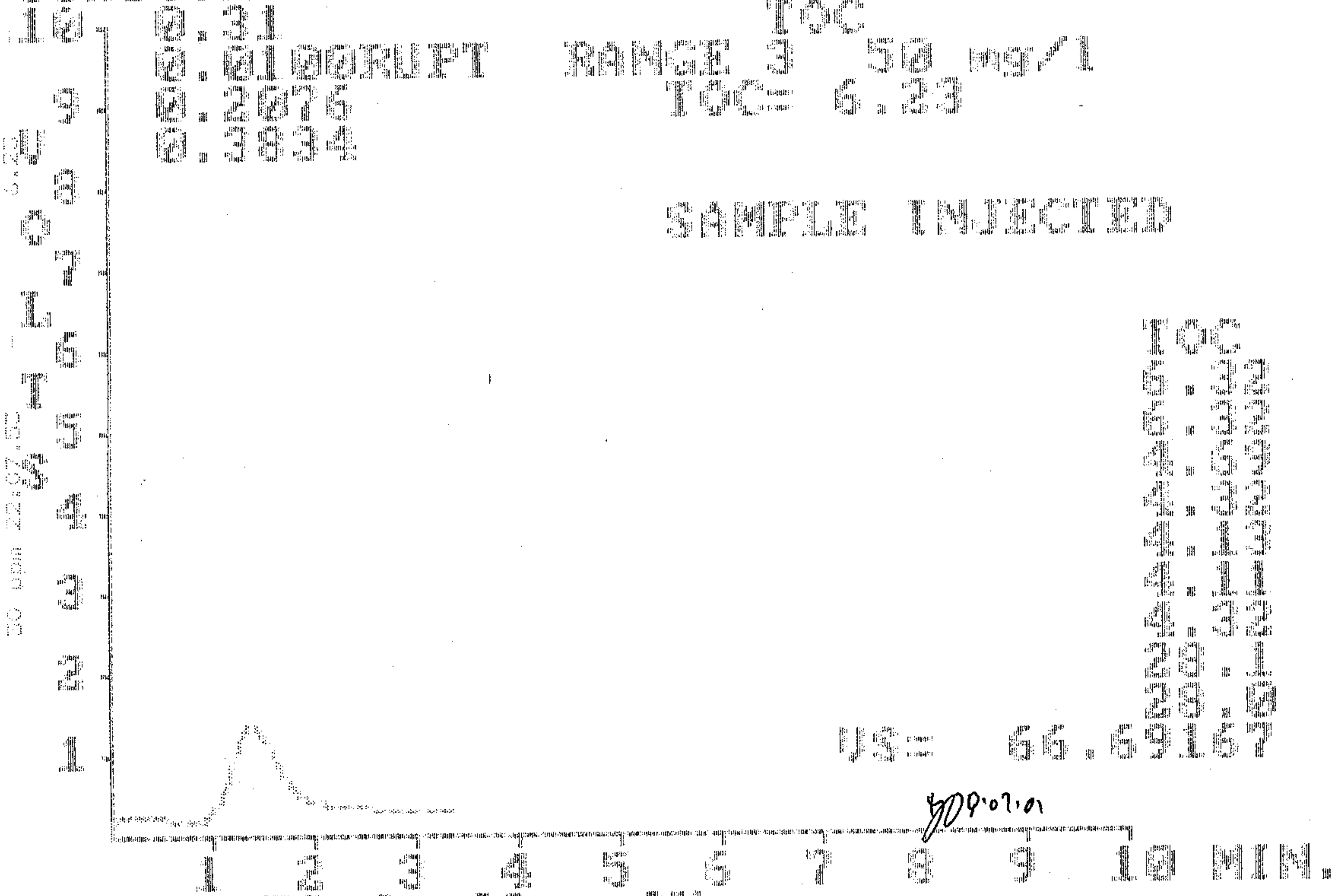
SAMPLES TO GO= 25
STATION # 96
RANGE TOC
TOC= 6.58 mg/l
SAMPLE INJECTED
21:58:31
10 MIN.

SAMPLES TO GO= 24 22:07:53
STATION # 97

TOC

0.31
0.0100RUPT RANGE 3 50 mg/l
0.2076 TOC= 6.23
0.3834

SAMPLE INJECTED

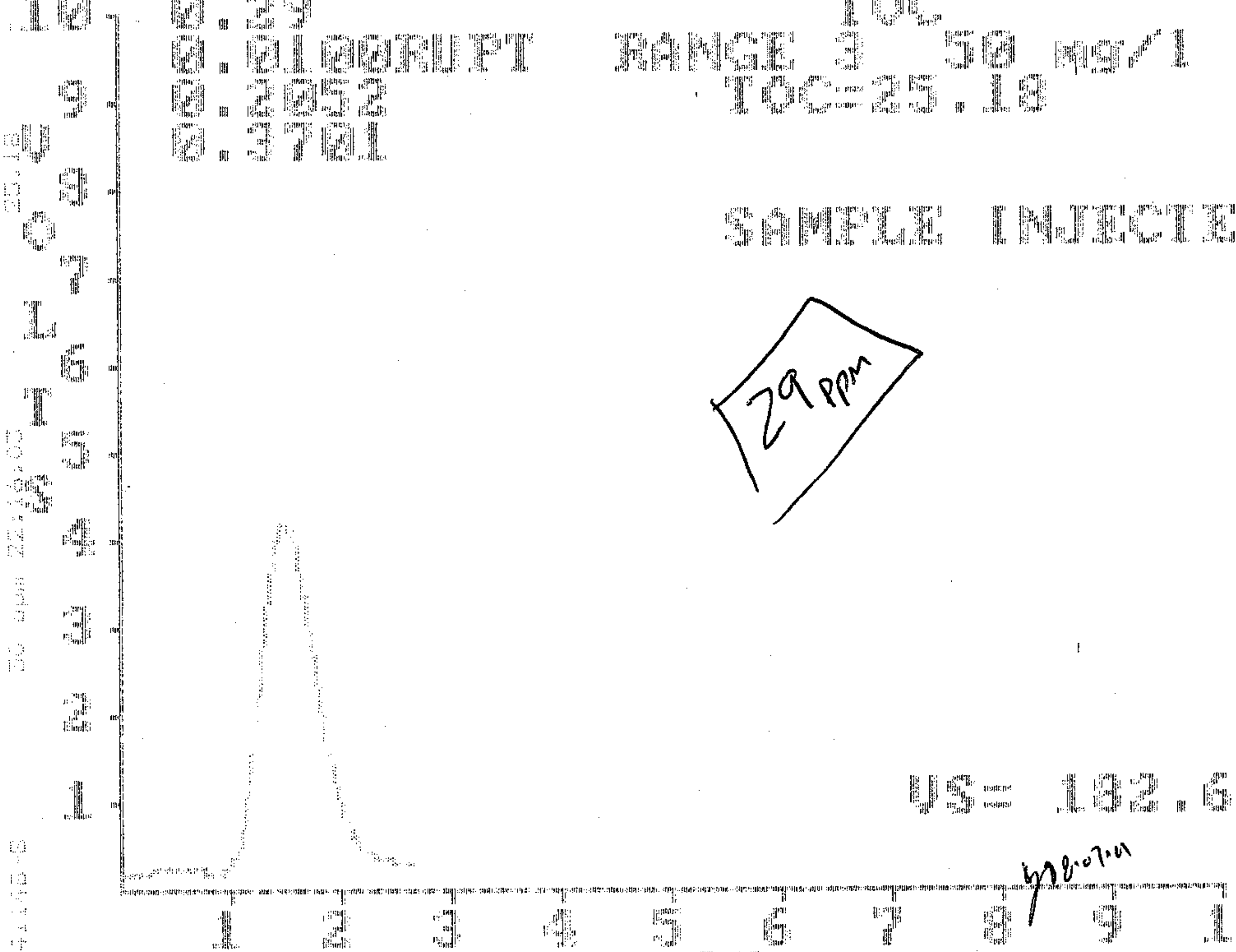


TOC
5.32
6.32
4.59
4.32
4.13
4.11
4.32
20.1
20.0
US= 66.69167

9.07.01

48.0 72.4 32 :OK

SAMPLES TO GO= 23 22:16:02
STATION # 98



0.29
0.0100RUPT
0.2052
0.3701

TOC
RANGE 3 50 mg/1
TOC=25.18

SAMPLE INJECTED

29 ppm

TOC
5.23
6.32
5.32
4.69
4.32
4.13
4.11
4.32
28.1
US= 102.62100

48.0 72.1 32 :OK

SAMPLES TO GO= 22 22:24:16

STATION # 99

TOC

0.29

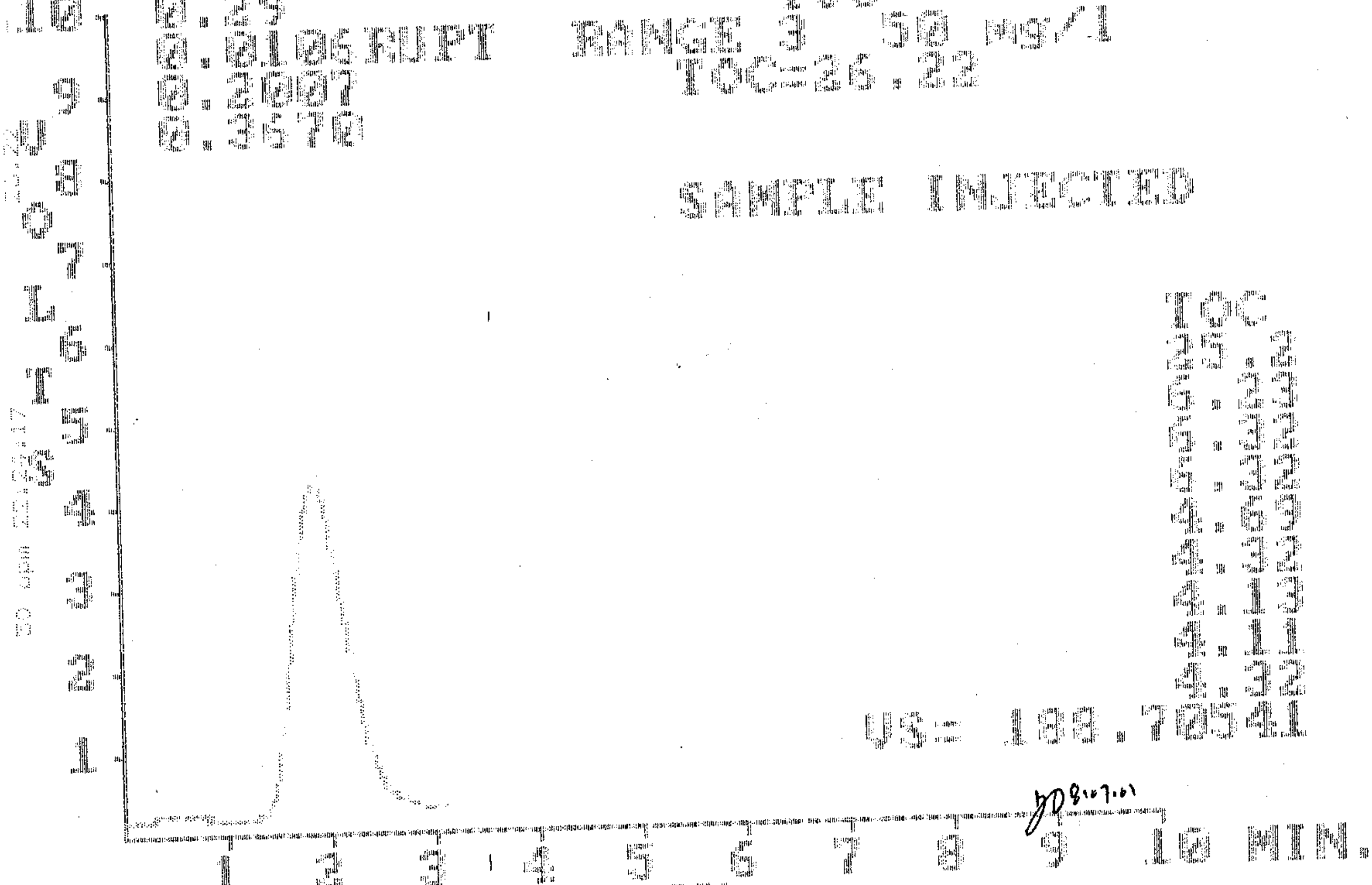
0.0106 RUPT RANGE 3 50 mg/1

TOC=26.22

0.2007

0.3570

SAMPLE INJECTED



TOC
25.2
6.23
5.32
5.32
4.69
4.32
4.13
4.11
4.32

VS= 188.70541

47.7 71.4 32 :OK

SAMPLES TO GO= 21 22:32:48

STATION # 100

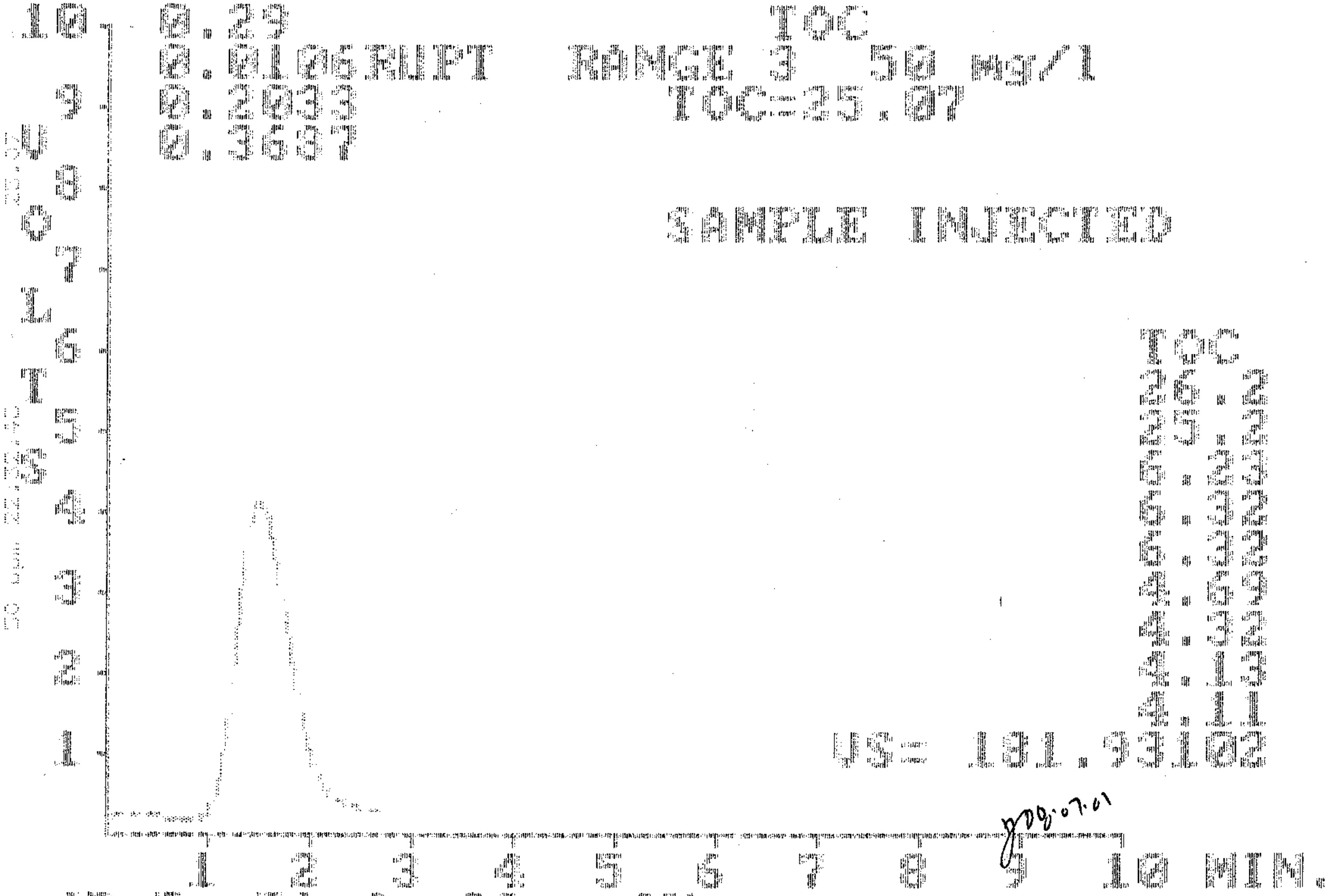
0.29 TOC

0.0106RUPT RANGE 3 50 mg/l

0.2033 TOC=25.07

0.3687

SAMPLE INJECTED



TOC
26.2
25.2
6.23
6.32
6.32
4.69
4.32
4.13
4.11

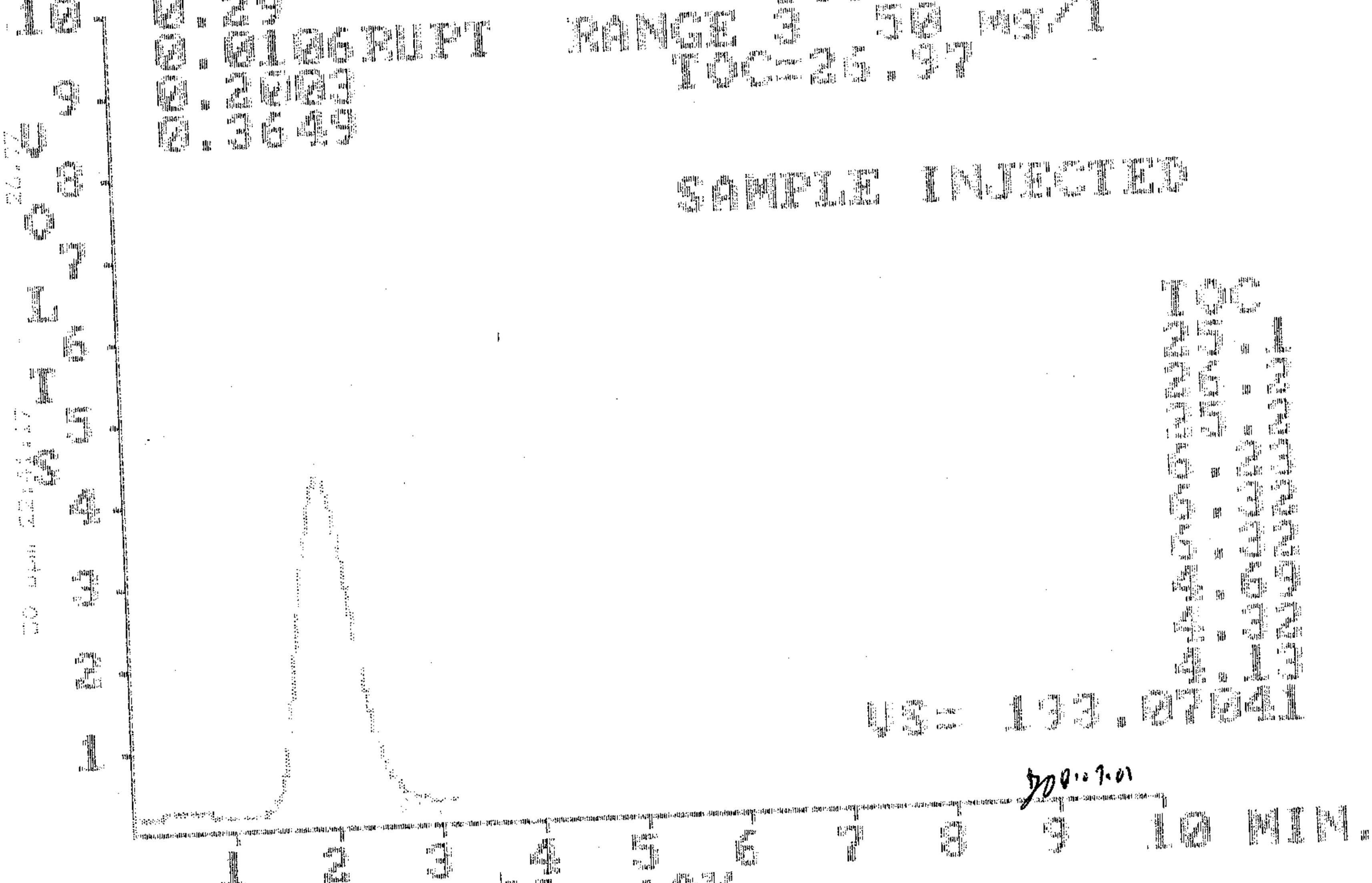
US= 181.93102

47.7 71.4 32 :OK

SAMPLES TO GO= 20 22:41:16
STATION # 101

TOC
0.29
0.0106RUPT RANGE 3 50 mg/l
TOC=26.97
0.2003
0.3649

SAMPLE INJECTED



TOC
25.1
26.2
25.2
6.23
5.32
5.32
4.69
4.32
4.13
US= 133.07041

20.0.7.01

48.0 71.6 32 :OK

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111053

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28512 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does not indicate that the integration is a manual determination. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:

1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

2. Provide evidence of manual intergrations

Resolution recorded by: _____ Date: 11/13, 2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
See attached

11/16/01

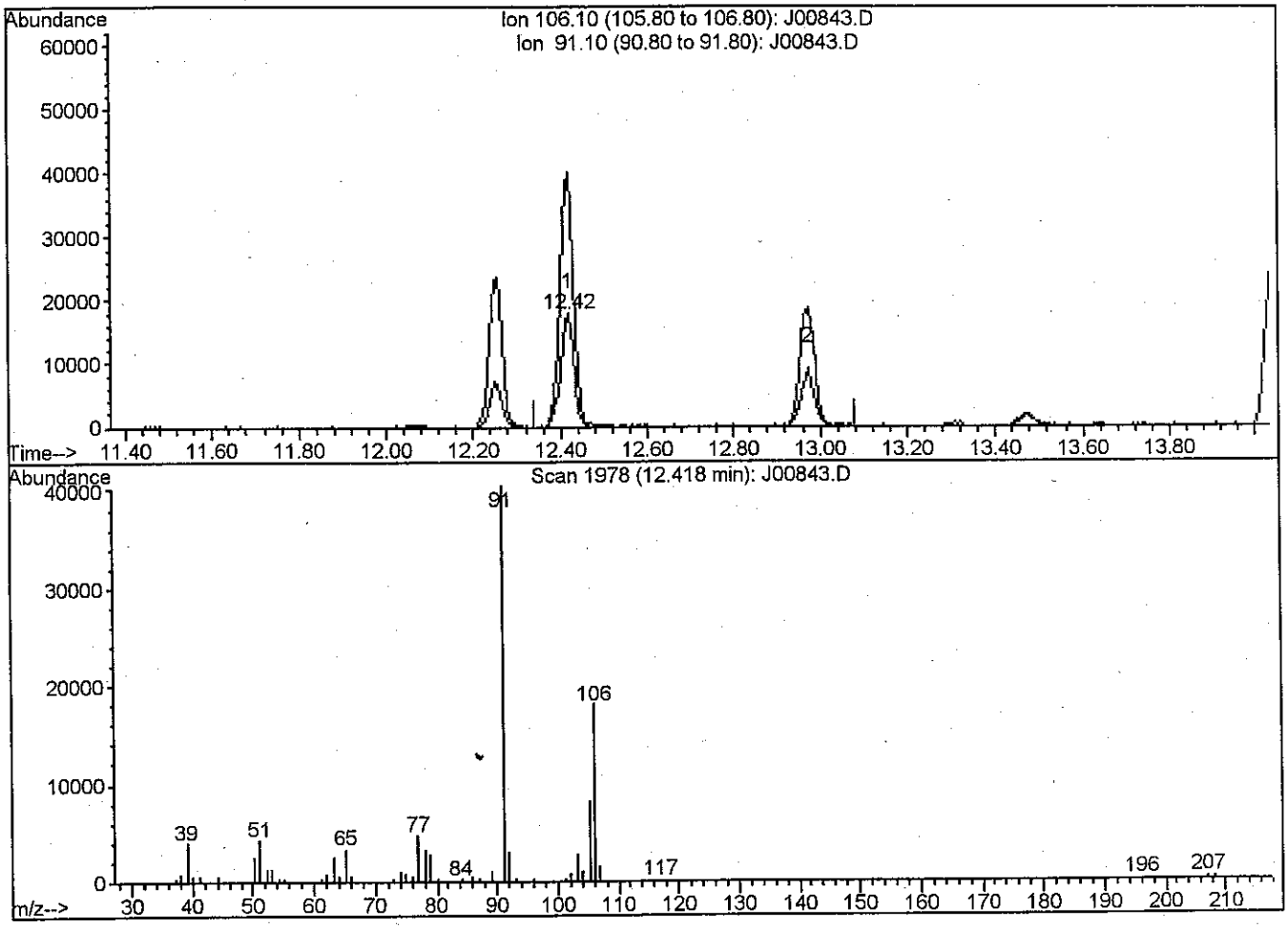
QA Review by: _____ Date: 11/16/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00843.D

(59) total-Xylene (TG)

12.42min 2.96ug\L m

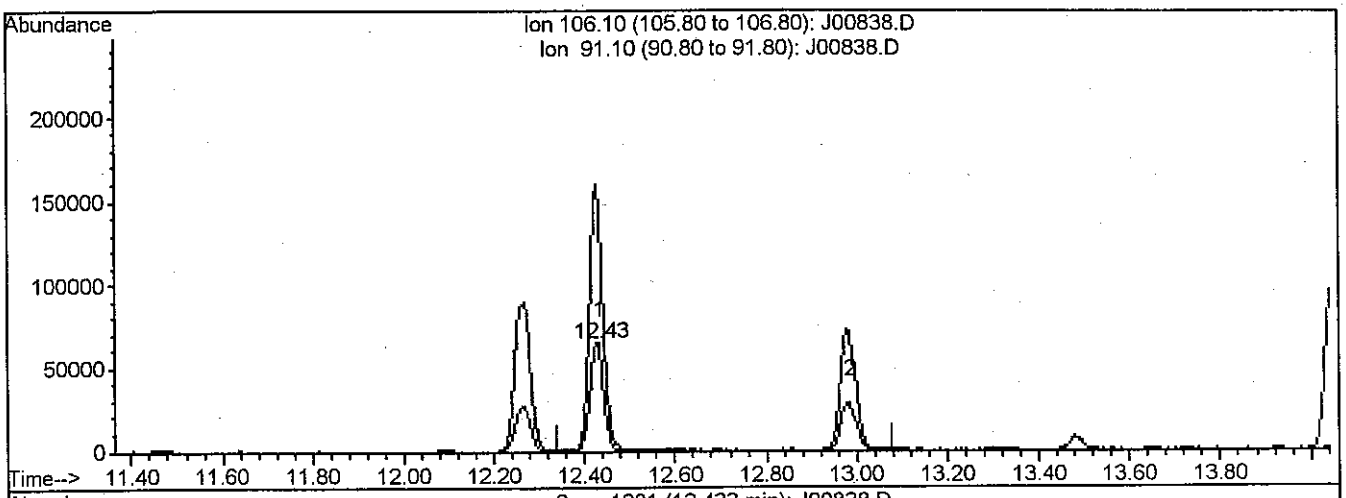
response 55563

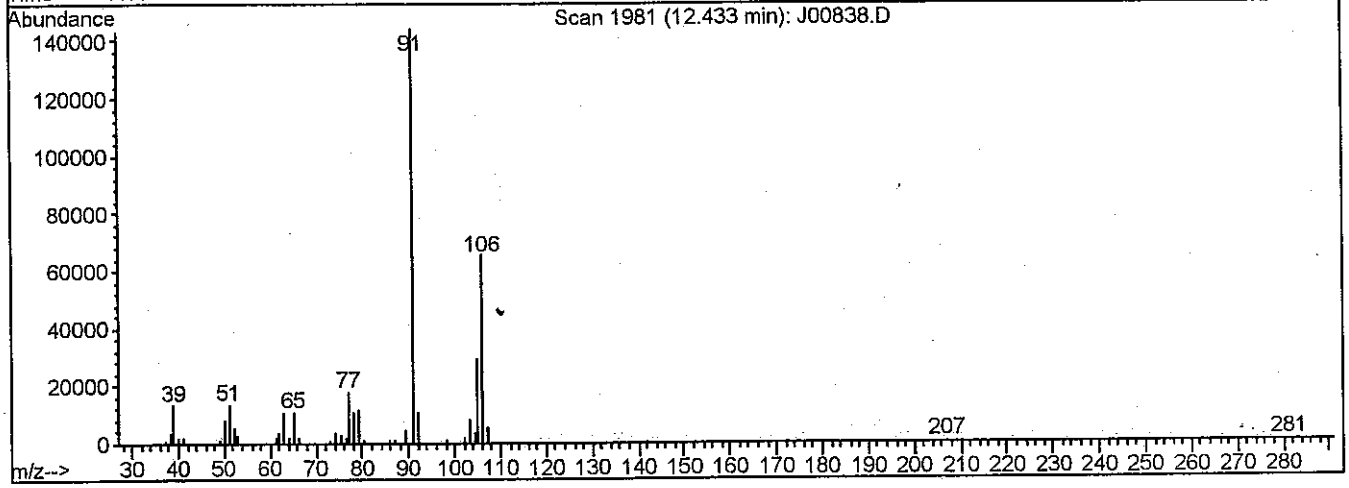
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	233.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Method : AngPams 6 10 2001.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00838.D

(59) total-Xylene (TG)

12.43min 12.04ug\L m

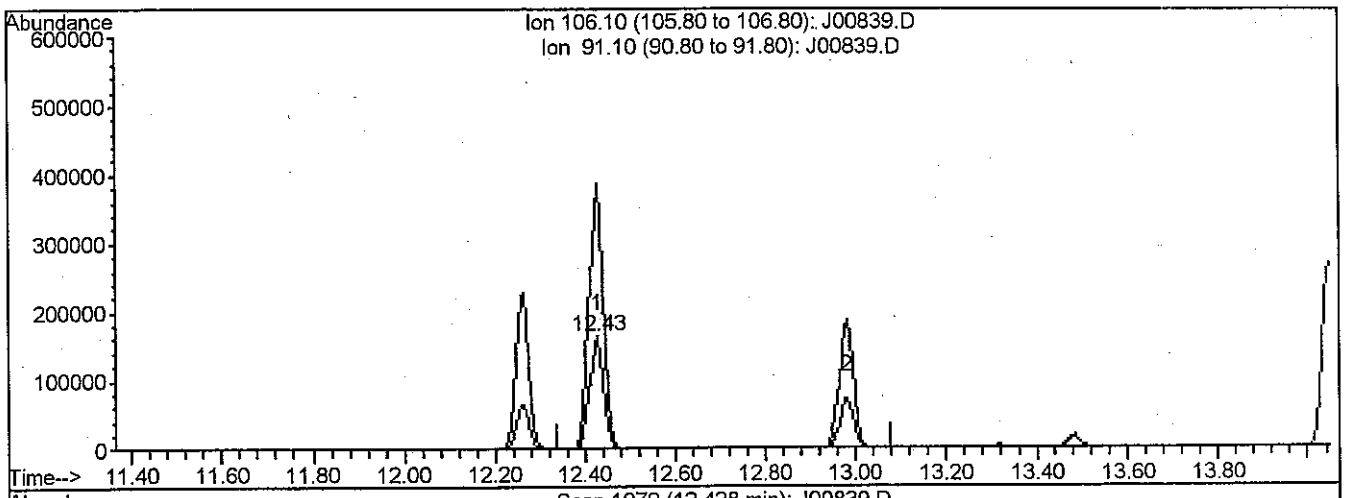
response 210562

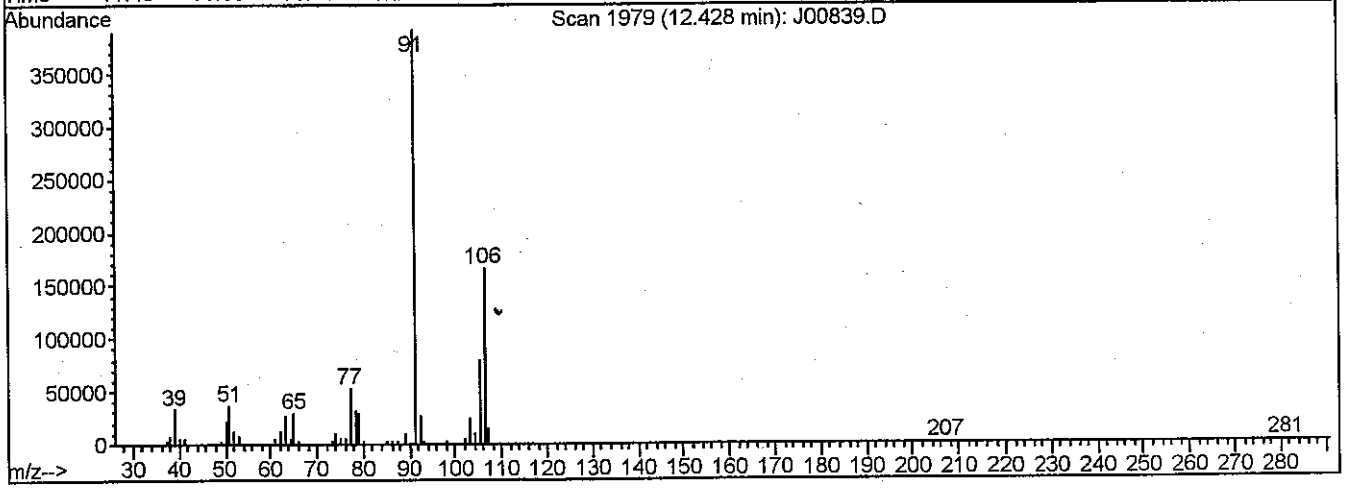
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.65#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
QuantTime: Aug 6 16:40:2001 Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00839.D

(59) total-Xylene (TG)

12.43min 31.11ug\L m

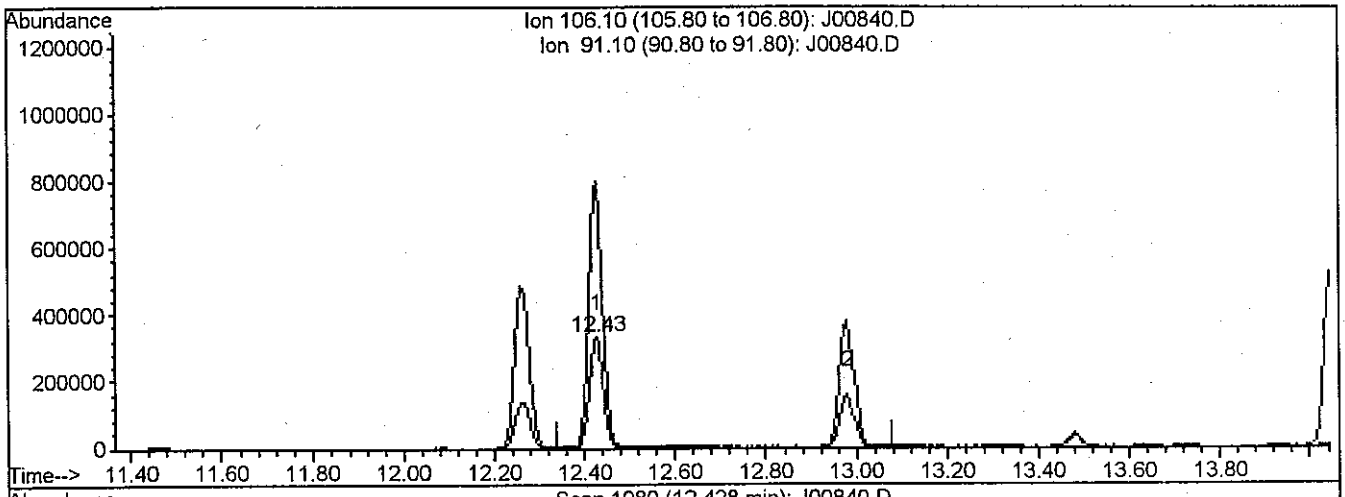
response 518556

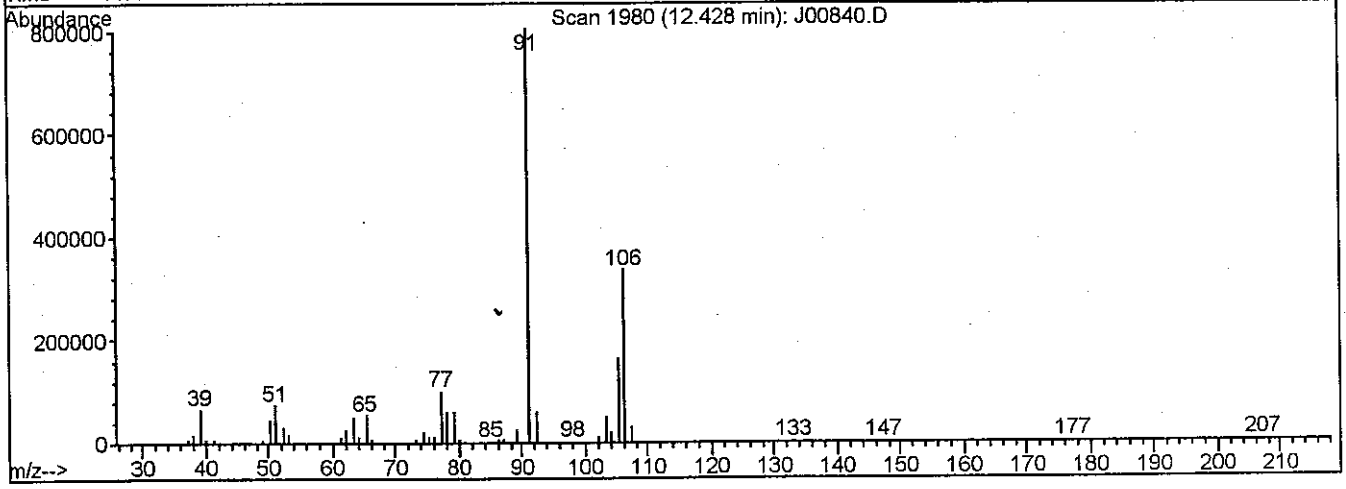
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 6 15:40:28 2001 Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00840.D

(59) total-Xylene (TG)

12.43min 61.59ug\L m

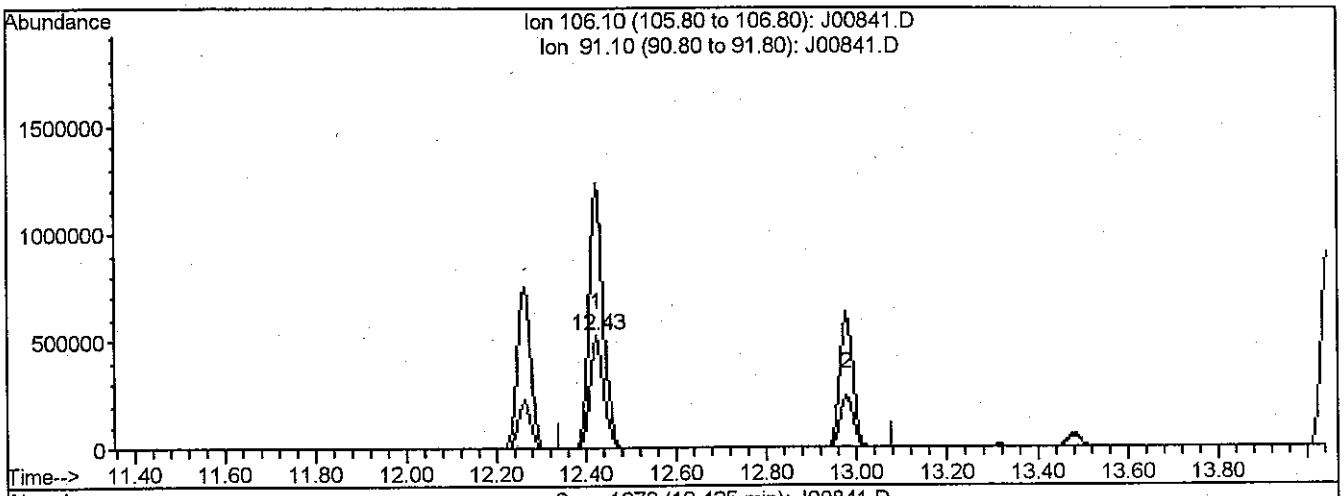
response 1092314

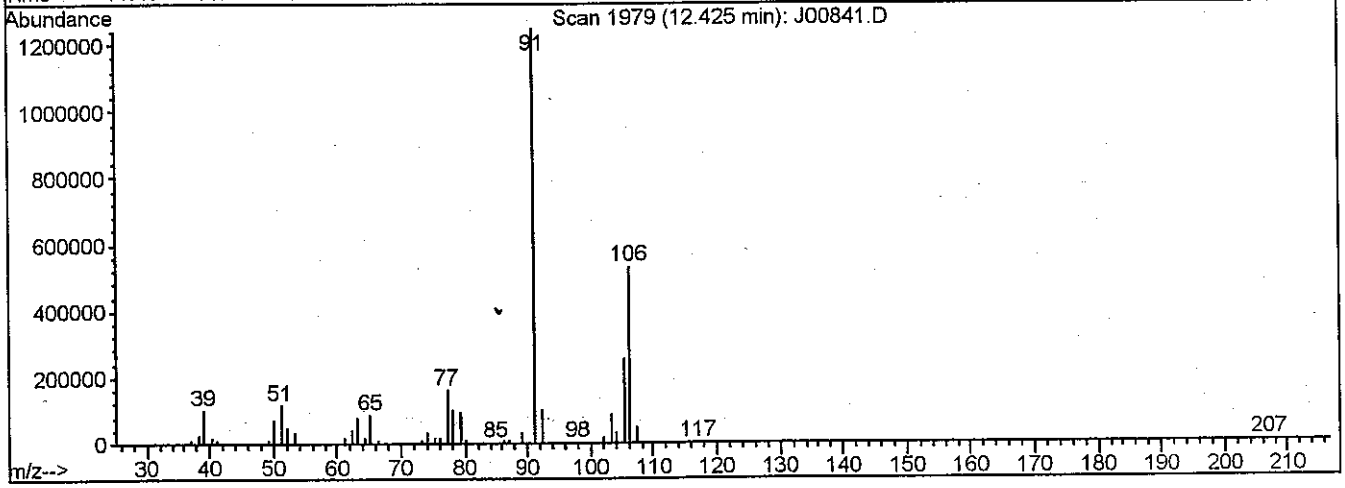
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.49#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00841.D

(59) total-Xylene (TG)

12.43min 89.55ug\L m

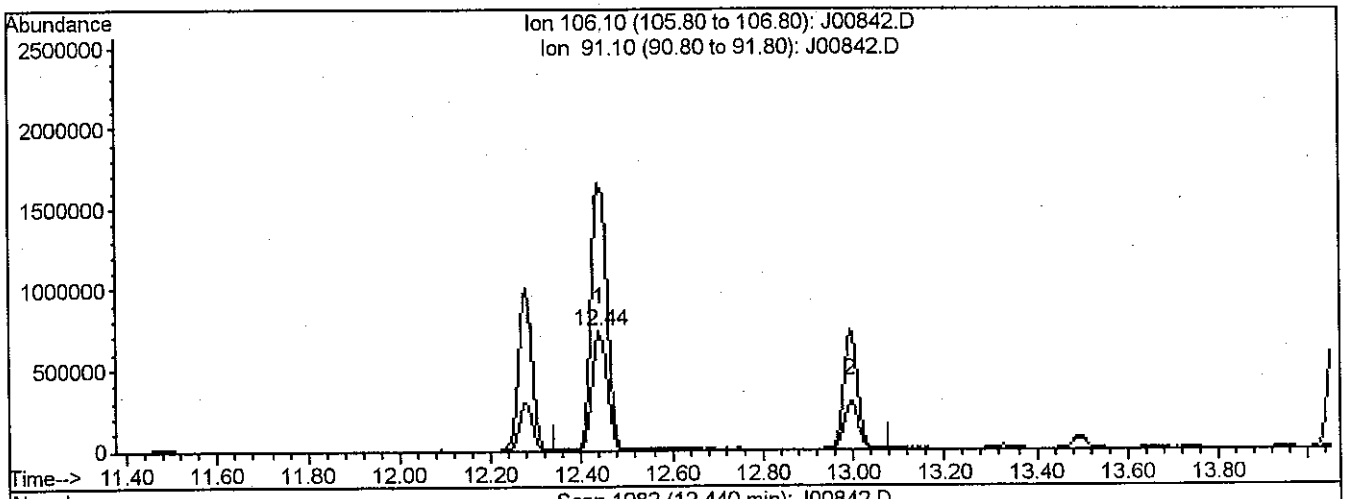
response 1744747

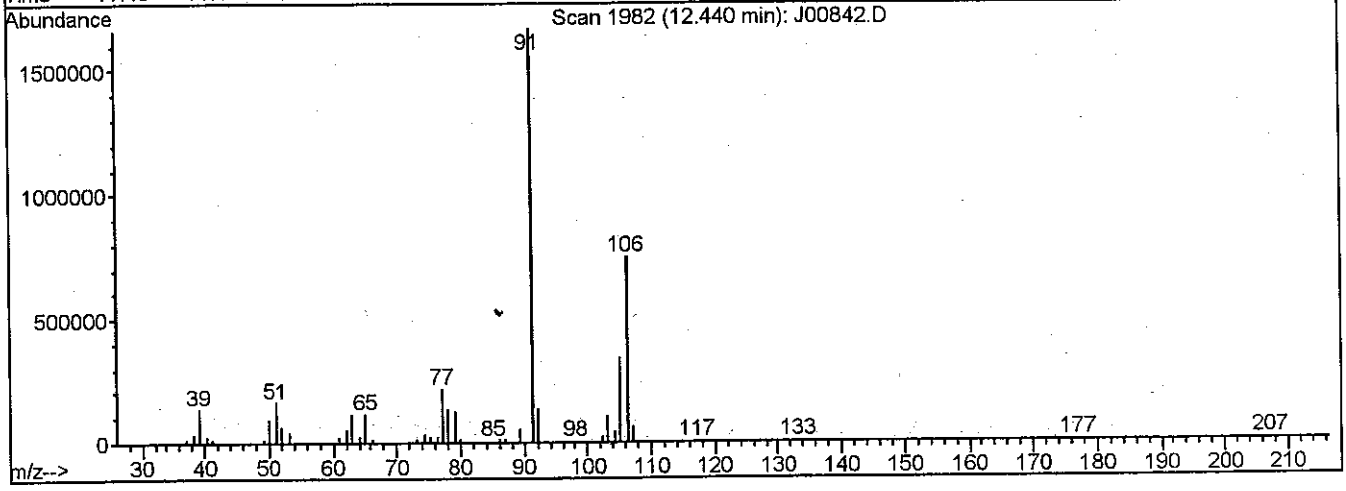
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00842.D

(59) total-Xylene (TG)

12.44min 113.52ug\L m

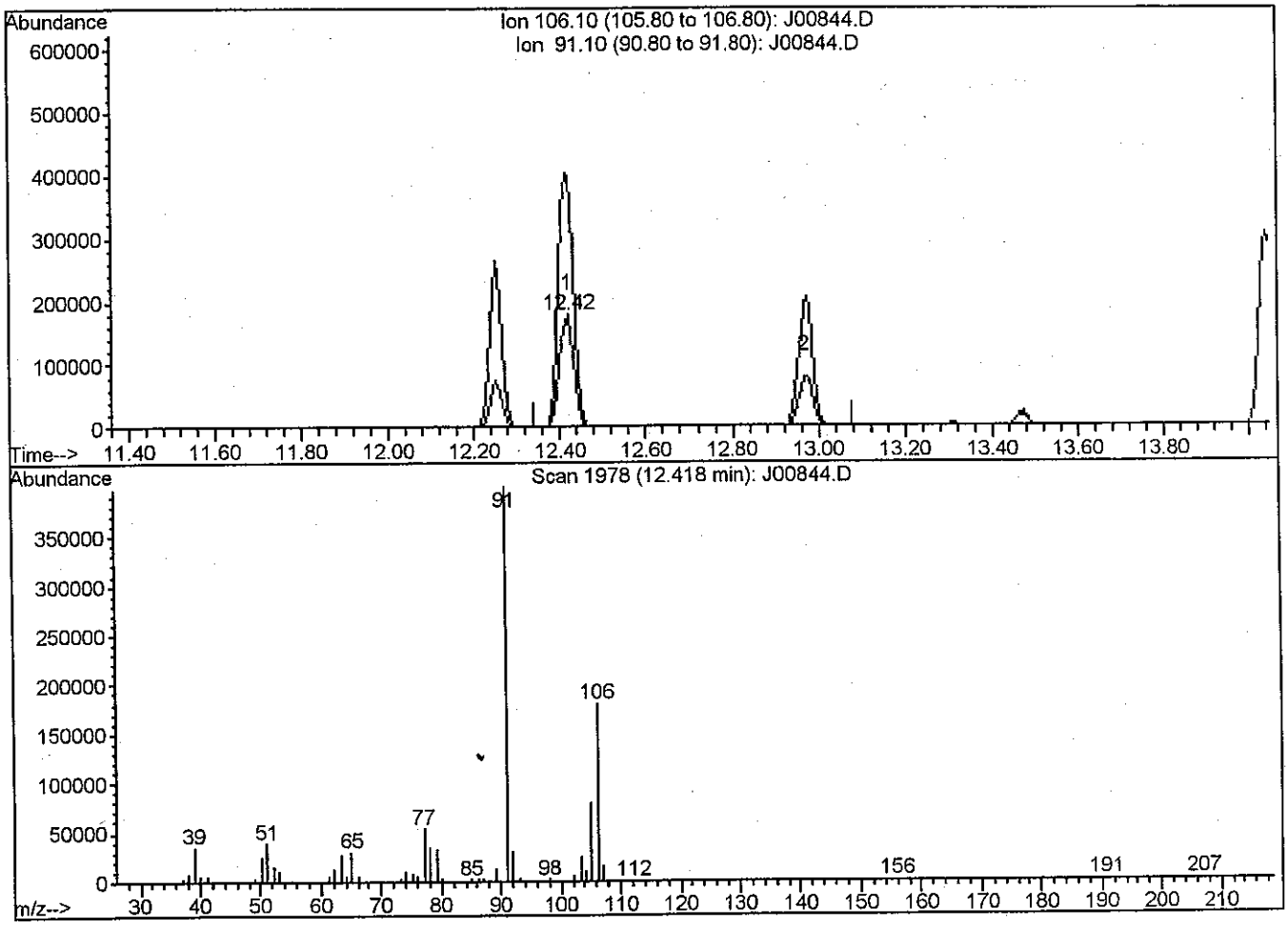
response 2279293

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	236.99#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00844.D

(59) total-Xylene (TG)

12.42min 29.73ug\L m

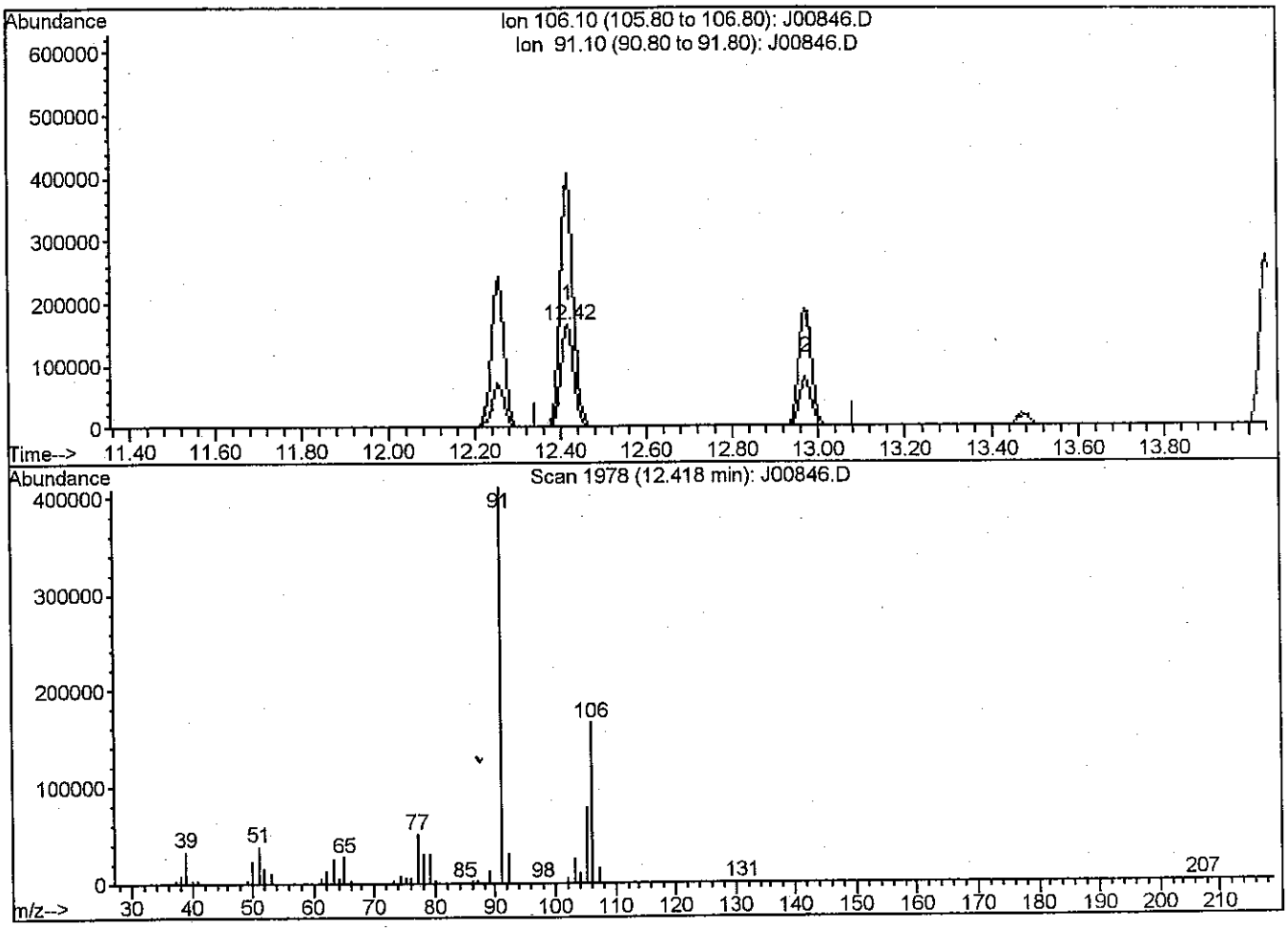
response 572541

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00846.D

(59) total-Xylene (TG)

12.42min 28.63ug\L m

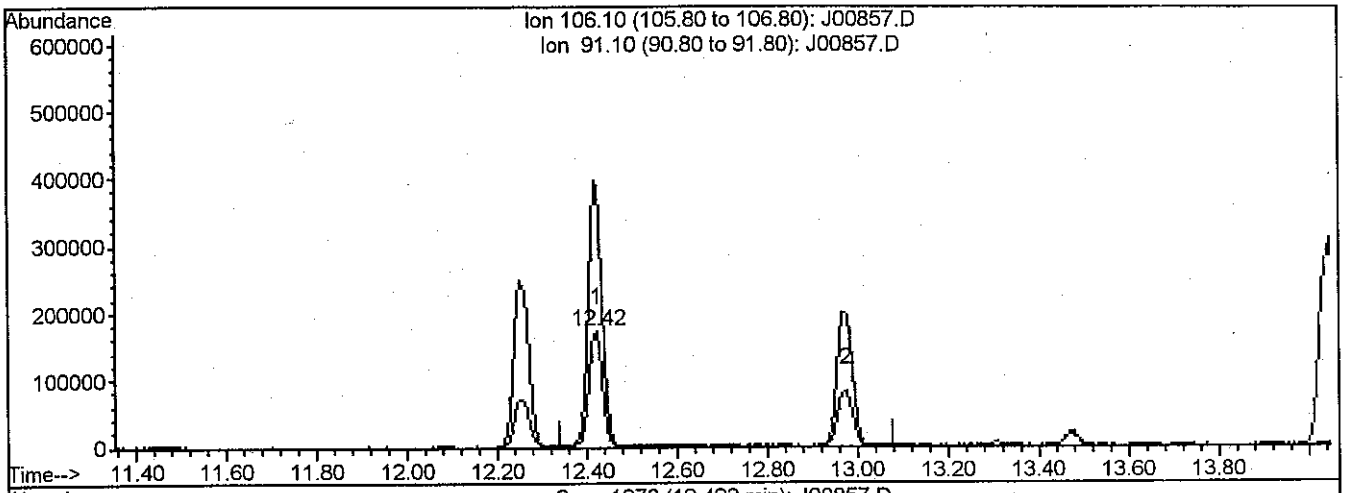
response 539877

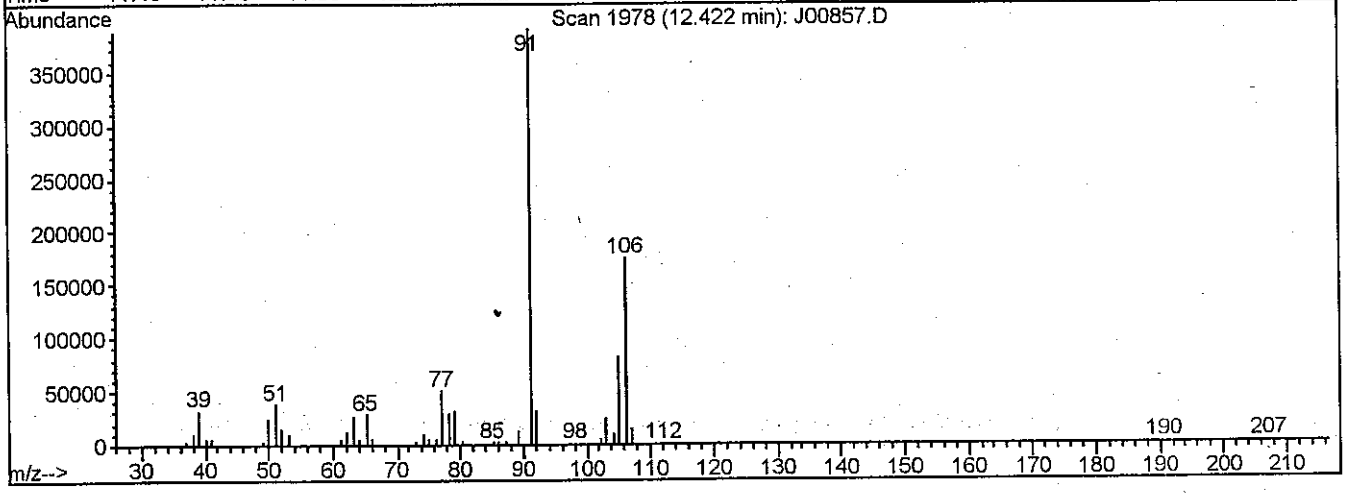
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.29#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00857.D

(59) total-Xylene (TG)

12.42min 31.63ug\L m

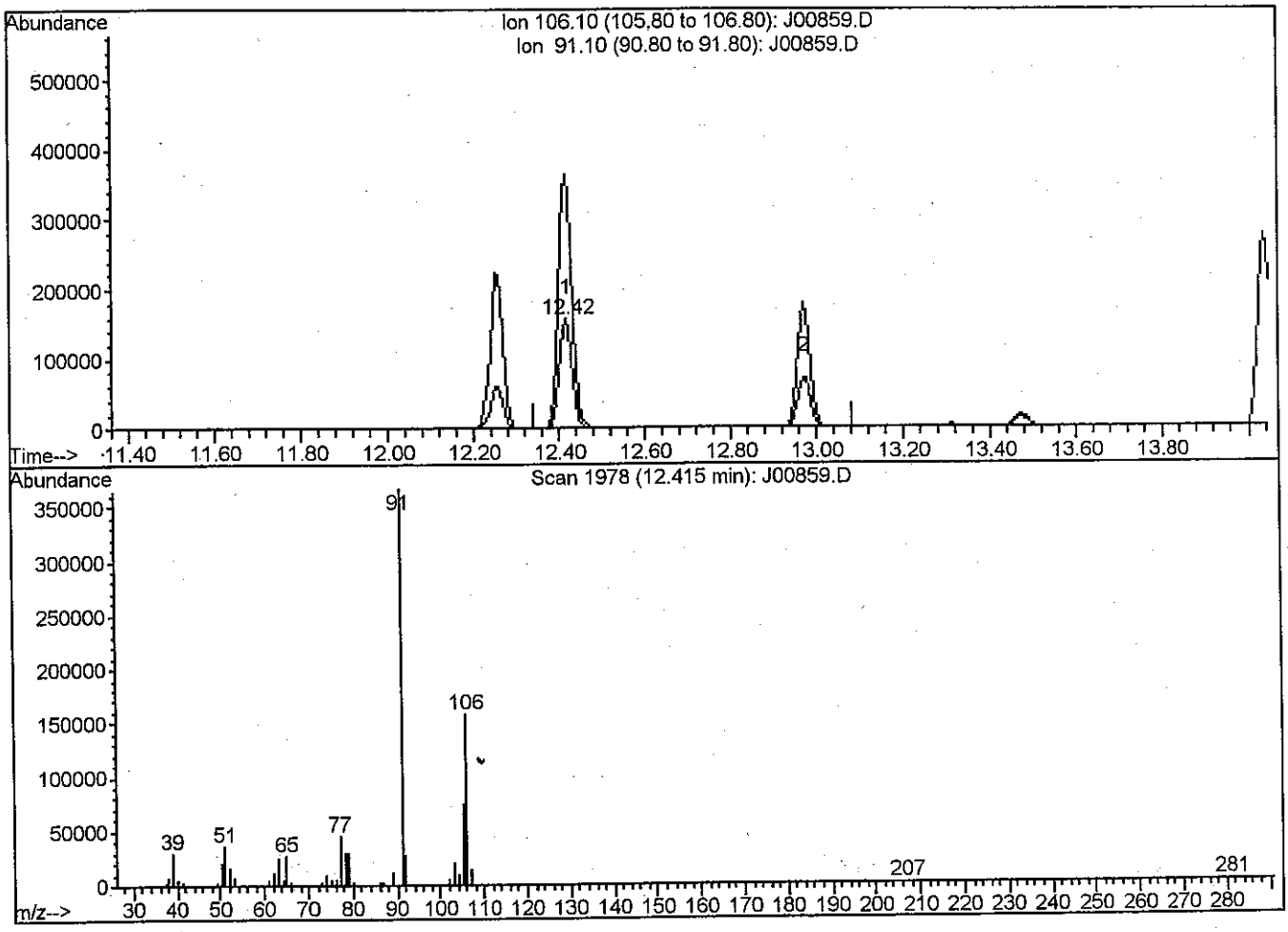
response 571672

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	229.84#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00859.D

(59) total-Xylene (TG)

12.42min 30.63ug\L m

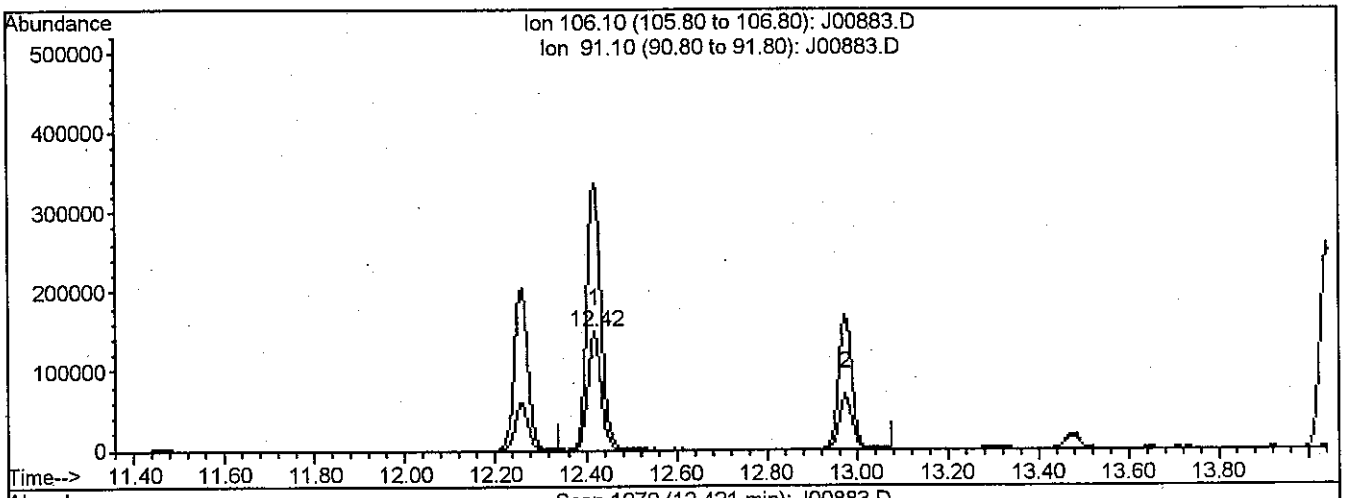
response 505157

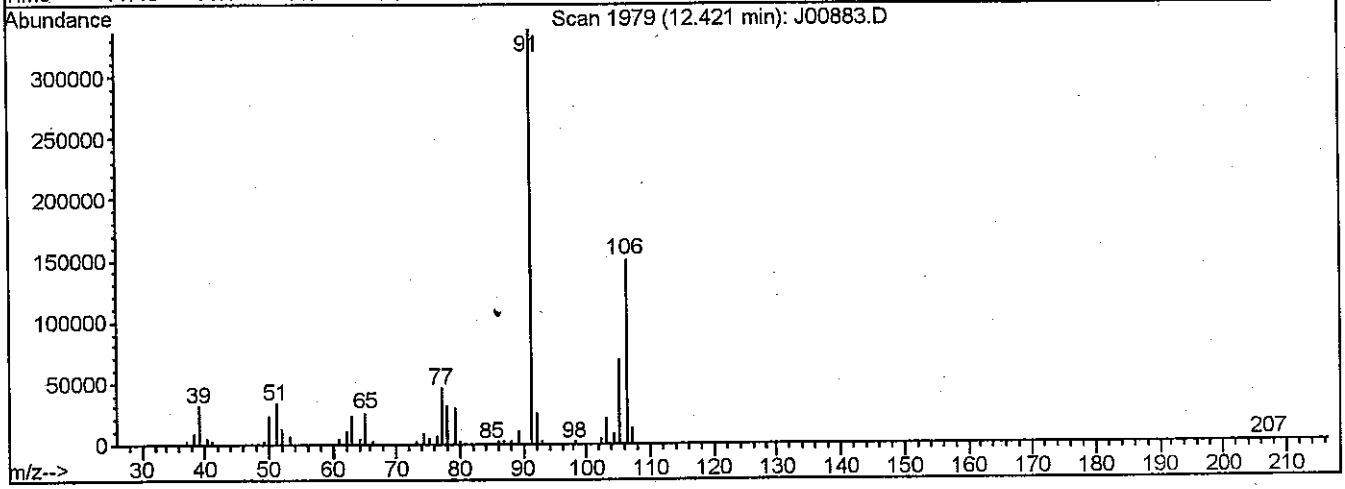
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	237.59#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator) Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00883.D

(59) total-Xylene (TG)

12.42min 29.47ug\L m

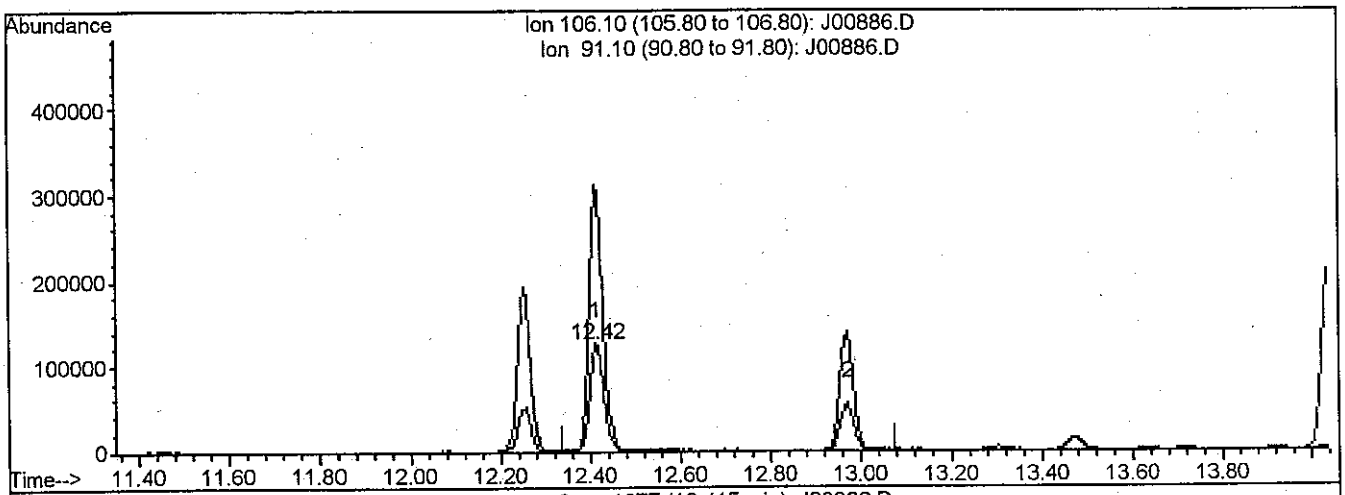
response 468877

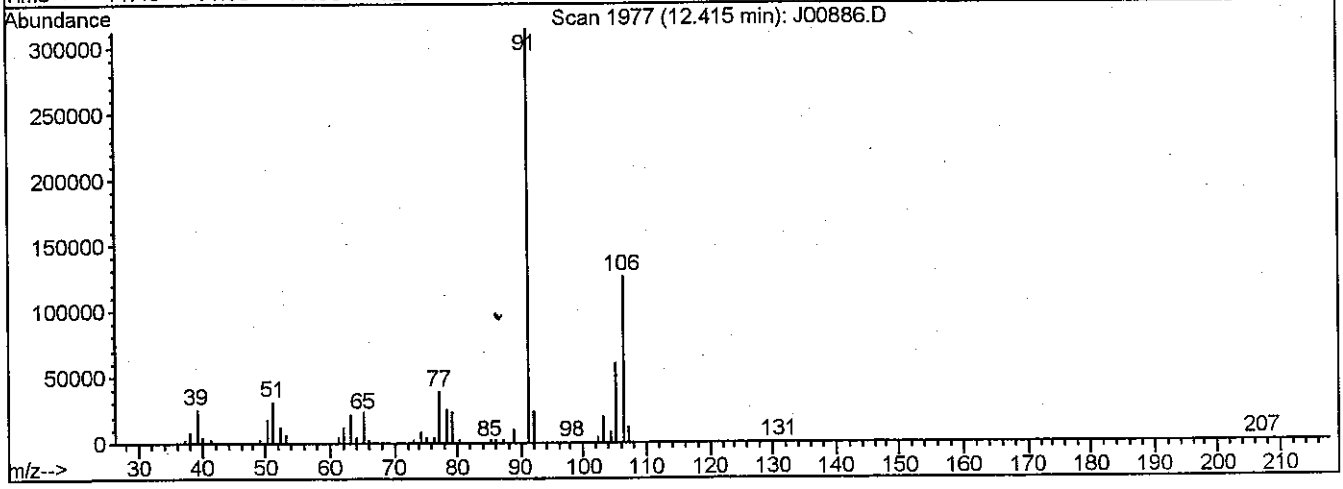
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.33#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MSIntegrationParams: rteint.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00886.D

(59) total-Xylene (TG)

12.42min 26.43ug\L m

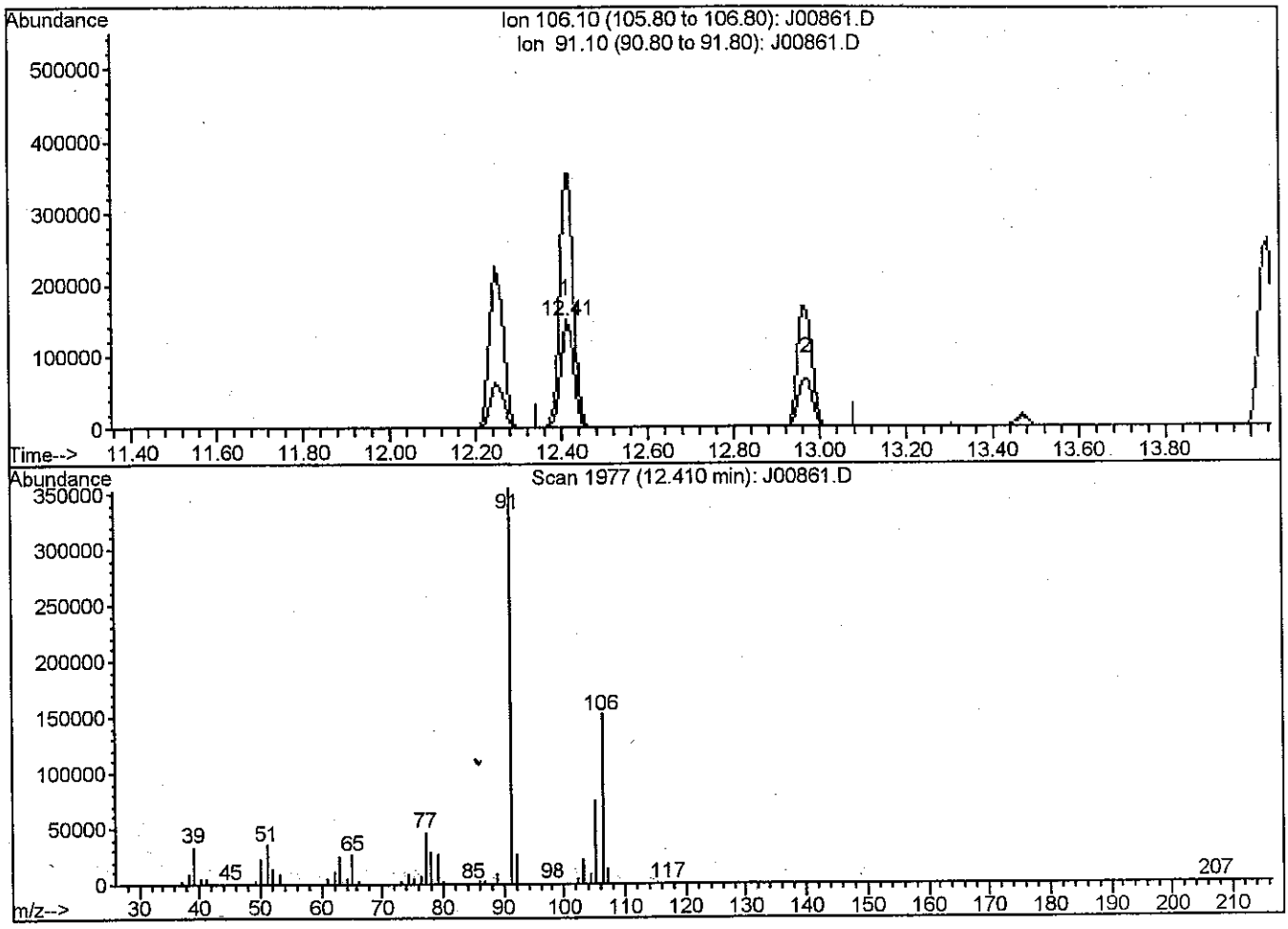
response 403328

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00861.D Vial: 5
Acq On : 08/07/01 12:58 Operator:
Sample : AC17886MS 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
Quant Time: Aug 7 16:40 2001 Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00861.D

(59) total-Xylene (TG)

12.41min 30.23ug\L m

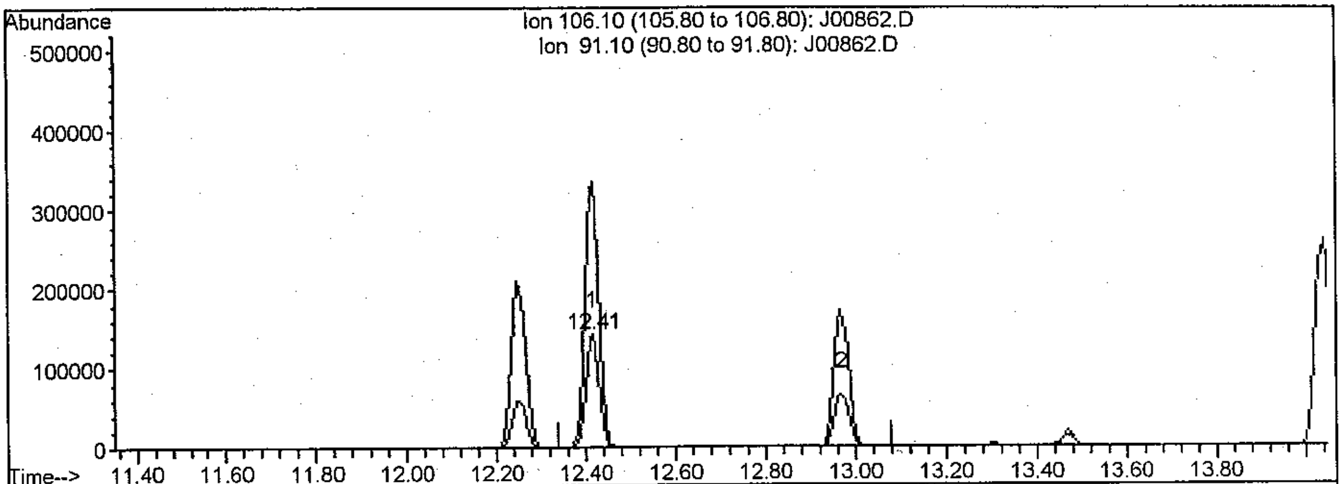
response 487840

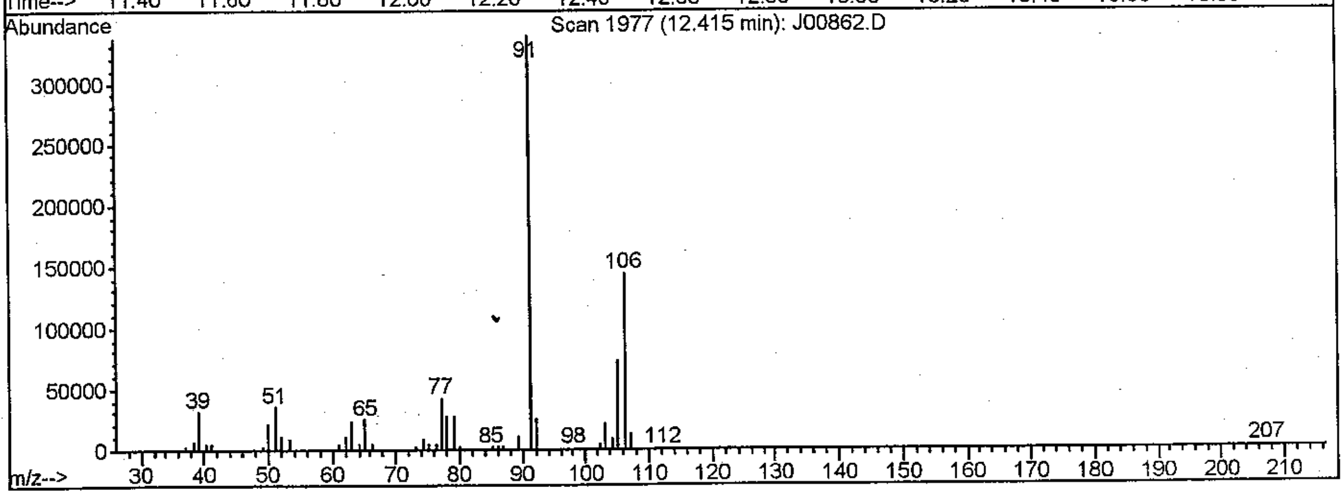
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.90#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00862.D Vial: 6
Acq On : 08/07/01 13:24 Operator:
Sample : AC17887MSD 12.5ml DF=2 Inst : HP-MSJ
Misc : 28512/W080601A Multiplr: 1.00
MS Integration Params: rteint.p / Quant Time: Aug 7 13:45 2001 Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00862.D

(59) total-Xylene (TG)

12.41min 30.17ug\L m

response 465165

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	243.45#
0.00	0.00	0.00
0.00	0.00	0.00

28530

Responses to October 9, 2001 Data Memo
CH2MHill Contractors Inc.

AAL Project#: 28368, 28507, 28508, 28512, 28530, 28744, 28764

Has the laboratory demonstrated acceptable control or precision and accuracy results. (Both
(Y) N 1 laboratory control and matrix spike/duplicate samples fail bias low.)
Comments: See QA-0111012

Does Case Narrative provide language towards steps taken by the laboratory to assure acceptable
(Y) N 2 recovery. (28512, 28744)
Comments: See QA-0111012

Does laboratory provide acceptable surrogate recovery for FL-PRO analyses. (The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve
(Y) N 3 acceptable recovery.) (28512, 28744)
Comments: See QA-0111019

Is this taken care of: The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND
(Y) N 4 below the reporting limit." (28744)
Comments: See QA-0111026

Is this taken care of: The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample
(Y) N 5 volume was due to multiple analyses. (28512, 28744)
Comments: See QA-0111033

(Y) N 6 Total dissolved solid were analyzed outside holding time(28512)?
Comments: See QA-0111040

Is this taken care of: Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as
(Y) N 7 stated in the CCI contract. (28512, 28744)
Comments: See QA - 0111047

Is this taken care of: Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does
(Y) N 8 not indicate that the integration is a manual determination. (28512, 28744)
Comments: See QA - 0111054

Is this taken care of: EDD: Laboratory cannot report data less than their method detection limit.
(Y) N 9 (28744)
Comments: See QA - 0111062

Is this taken care of: EDD: Associated data qualifier codes should be presented in specified column.
(Y) N 10 (28512, 28744)
Comments: See QA - 0111069

Is this taken care of: EDD: Surrogate compounds for FL PRO are not identified in Method Blank.
(Y) N 11 (28744)
Comments: See QA - 0111076

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111012

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not demonstrate acceptable control or precision and accuracy results. Both laboratory control and matrix spike/duplicate samples fail bias low.
Case Narrative does not provide language towards steps taken by the laboratory to assure acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
Recovery limits specified do not reflect in-house performance. See revised case narrative attached.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

QA Review by: KMClemons Date: 11/21/01

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ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

REVISED

AAL Project #: 28530
Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08
CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 08/03/01 at 0920:

Client Sample ID	Laboratory Sample ID
017-OLD-36-19A-Q3-01	AC17978
017-OLD-36-24B-Q3-01	AC17979
017-OLD-36-TB4-Q3-01	AC17980
017-OLD-36-IDW-Q3-01	AC17981
017-OLD-36-FB2-Q3-01	AC17982

2. The samples were received at 3^0C.

3. The "J" values noted for the Metals-Mercury, Metals-RCRA, Petroleum Range Organics, SVOC and VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The pH of all VOC samples was noted to be <2 prior to analysis.

5. Subcontract laboratories performed the following analyses:

Chloride by IC-EPA-300.0	Nitrate by IC-EPA-300.0
Nitrite by IC-EPA-300.0	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	VFA's (W) Microseeps

6. The following FL-PRO surrogate recoveries did not meet the reported FL-PRO recovery range as specified by the method:

C(39) -	Method Blank
	Laboratory Control Sample
	017-OLD-36-24B-Q3-01
o-Terphenyl -	Method Blank
	Laboratory Control Sample
	017-OLD-36-19A-Q3-01
	017-OLD-36-24B-Q3-01
	017-OLD-36-FB2-Q3-01

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Case Narrative

REVISED

Matrix Spike (batch LCS)
Matrix Spike Duplicate (batch LCSD)

This is indicated on the reports by the "Z" flag. Please note that the outlier recoveries met the following aqueous in-house established limits:

Sample:	Surrogate Compound	Recovery Range
	C-39	1-79
	o-Terphenyl	33-100
	Spike Compound	**Recovery Range**
	FL-PRO	20-113

Blank/LCS:	Surrogate Compound	Recovery Range
	C-39	0-131
	o-Terphenyl	51-115
	Spike Compound	**Recovery Range**
	FL-PRO	16-116

In addition, per the FL-PRO method developed by the State of Florida the following addresses outlier surrogate recoveries:

a. High recoveries may be due to a coeluting matrix interference or the presence of high molecular weight contaminants.
b. High recoveries may also be due to memory effects caused by poor sample volatility, backflash or carryover.
c. Low recoveries may be due to adsorption by the sample matrix.
d. Low recoveries may also be caused by incorrect integration. The chromatographic profile or motor oils does not give baseline resolution of all components, resulting in a characteristic rise in baseline underneath the resolved hydrocarbon components known as the "unresolved complex mixture".
e. If the surrogate recovery is outside of established limits, the results must be flagged and an explanation offered.

The following offers AAL's response to the method corrective measures concerning surrogates that fall outside the method specified limits:

a. The does not appear to be any chromatographic interference affecting the surrogate recoveries.

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REVISED

b. All FL-PRO analyses are <RL except for one sample. There does not appear to be carryover, etc.
c. This is possible perhaps and would constitute matrix interference.
d. The correct integration process is used for surrogates.

Since this process was observed in the samples and QC analyses, it is likely related to either of the following: the extraction process or the written method. It is inconclusive at this time what the reason is since it was learned via communications with Dr. Carl Kircher with the State of Florida that the FL-PRO method in general has created difficulty in achieving the method stated surrogate recoveries for laboratories who analyze via this method. Please note that Accura continues to evaluate the FL-PRO method internally.

7. The "Y" flags for the TDS analysis indicate that analysis occurred outside the EPA recommended holding time.

8. Batch QC analyses were inadvertently requested by the Project Manager. The Batch QC includes a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) for the following analyses: Petroleum Range Organics – FL-PRO, Herbicides – SW-846-8151A, SVOCs Navy – SW-846-8270C, PCB-SW-846-8082 and Pesticides-SW-846-8081A. Note that the LCS and LCSD recoveries are reported in the matrix spike and matrix spike duplicate columns on the Quality Control spreadsheet.

9. As presented on the QC Tables, some of the matrix spike (MS), matrix spike duplicate (MSD) and laboratory control sample (LCS) recoveries and relative percent differences did not meet the project specified limits. The limits provided are not generated in-house and therefore do not reflect actual laboratory performance.

10. Tentatively Identified Compounds are reported as quantitative estimates as presented in the raw data.

11. Total Xylenes are flagged with an "m" to indicate that the m,p-xylenes and o-xylene were calibrated for separately and manipulated automatically by the HP Chem Station Software to produce Total Xylenes.

Approved for Quality Assurance Release By:

Kelly M. Clemons — 11/21/01

Kelly M. Clemons
Date
Quality Assurance Manager

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Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111019

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Laboratory does not provide acceptable surrogate recovery for FL-PRO analyses. The case narrative accepts results base on in-house limits; however surrogate results do not meet summary report limits. No language is provided in the case narrative to support corrective action(s) taken to achieve acceptable recovery. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

See revised case narrative attached to QA-0111012

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

QA Review by: KMClemons Date: 11/21/01

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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111026

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

The case narrative defines "J" values for FL-PRO and VOCs as "concentrations that were above method detection limits, but below the reporting limits". CCI data evaluation indicates instances where the laboratory reported results "below the method detection limit AND below the reporting limit." (28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons
Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:

Resubmit summary reports and EDD to reflect result equal to or above the associated MDL.

N/A for project 28530. All results were ok.
This applies to the hard copy report. Kelly 11/21/01
EDD correction resolved issue.

Resolution recorded by: Candace Robinson Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Q.R 11/21/01

QA Review by: Carol L Rhea Date: 11/21/01

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Revision/Date : No. 00/Effective: 02/01/01
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111033

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
The laboratory case narrative indicates, due to limited sample volume, laboratory provided batch quality control sample results instead of contract-required, CCI-defined MS/MSD results. (FL-PRO, chloride, TOC, nitrate nitrogen, nitrate nitrogen, and alkalinity) Supporting documentation does not indicate if adequate sample was provided by CCI or if the limited sample volume was due to multiple analyses. (28512, 28744)

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
Per CCI Memo dated 10/9/01 the following was requested:
1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.
2. Include client project communication regarding inadequate sample volume available to meet contract quality control requirements.

Project specific notes incorrectly communicated "Batch QC" to the laboratory. See QA-0111057 - mechanism for project implementation which will correct this for future work.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
See attached PM checklist & Rec, VOA, SVO, Metals & Wet Chem & subcontractor checklists which are attachments to the SOP # 04-PM-0003.P associated w/ QA-0111057.

QA Review by: KMClemons Date: 11/21/01

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J:\QATracking\AuditsTracking\ClientAudits\CCI\LQCF-QA0111033.doc

NOTES FOR 28530

NAVY Level III Project - CCI LEVEL C

Need one good print-out of all cal., MS/MSD and LCS data.

Batch QC.

Full List Spike.

QC Table on common drive.

Report all Flags,("J", "B", etc.)

REPORT TIC's ALONG WITH THIS PROJECT!!!

BH

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Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111040

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Test (Total dissolved solid) were analyzed outside holding time(28512).

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Include client project communication regarding analyses performed outside holding time

There is no project communication with client documented regarding the stated issue. See below.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
Although there is no client communication regarding the issue referenced here, the mechanism for project implementation associated w/QA-0111057 will correct this for future work. The SOP attached to QA-0111057 has section specific checklists which address this issue.

QA Review by: KMClemons Date: 11/21/01

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Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111047

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01
Summary reports from subcontract laboratory were provided for chloride, methane, nitrite nitrogen, ethane, ethene, nitrate nitrogen, total dissolved solids and alkalinity. Sub-contract laboratory's supporting raw data is not included in the deliverable. Primary laboratory is responsible for ensuring that the sub-contract laboratory meets data deliverables requirements as stated in the CCI contract. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:
1. Adhere to deliverable requirements for sub-contracted analyses. See raw data attached.
2. Include client project communication regarding intent to subcontract (Section VII-Statement of Work CTO 17) See the attached original bid and the revised bid which indicate the intent to subcontract.

Resolution recorded by: KMClemons Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

QA Review by: KMClemons Date: 11/21/01

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Analytical Services, Inc.

Ion Chromatography
EPA 300.0, 9056

Date 8-4-01
Analyst BAF/AWL

Batch 300.0 70321
9056 70322

Sample number	Client Name	Dilution	Date/Prep	Rerun
1 BLK			8-4-01 1030	
2 CAL	High		↓	
3	Mid			
4	Low			
5 LCS				
6 LCSD			↓	
7 141545-1			8-4-01 0950	
8 -2				
9 -3				
10 141531-2				
11 533-2				
12 534-2				
13 535-1				
14 141549-3		25/100		
15 -4		25/20	↓	
16 BLK			8-4-01 1036	
17 CAL	High		↓	
18 14578	AWL	1/1000	8-4-01 1200	✓
19 BLK			8-4-01 1845	
20 CAL	High		↓	
21 141631-1	Qualx	-	8-4-01 1900	
22 BLK			8-4-01 1945	
23 CAL	High		↓	
24 BLK				
25 CAL	High			

Sample number	Client Name	Dilution	Date/Prep	Rerun
26 141312-1	Austell	1/100	8-7-01 1750	
27 -7		1/200		
28 -12		1/100		
29 -17		2		
30 -23		5/100		
31 141519-1	Ewo	-		✓
32 141522-1				✓
33 -2				
34 -3			↓	
35 BLK				
36 CAL	High			
37 BLK				
38 CAL	High			
39 141349-22				
40 141547-1				
41 BLK				
42 CAL	High			
43 ~~141547-1~~				
44 -4				
45 141545-3	MS		5-11-01 1100	
46 3	MSD		↓	
47 BLK			8-11-01 1130	
48 CAL	High		↓	
49 BLK			8-16-01 1500	
50 CAL	High		↓	

141578 AWL 10/100 8-16-01 1700
BLK 8-16-01 1500
CAL High

Analytical Services Inc. Batch QC
LC and MS Recovery Values
Inorganic Anions

Matrix : Aqueous Batch # 70321 Method : EPA 300.0

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Bromide	93	93	0	75 - 125	0 - 10
Chloride	92	91	1	75 - 125	0 - 10
Fluoride	88	87	1	75 - 125	0 - 10
Nitrate-Nitrogen	92	92	0	75 - 125	0 - 10
Nitrite-Nitrogen	98	99	1	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Bromide	92	91	1	75 - 125	0 - 10
Chloride	89	88	1	75 - 125	0 - 10
Fluoride	84	82	2	75 - 125	0 - 10
Nitrate-Nitrogen	90	90	0	75 - 125	0 - 10
Nitrite-Nitrogen	97	97	0	75 - 125	0 - 10
Sulfate	93	93	0	75 - 125	0 - 10

BJS 10/3/01

Analytical Services Inc. Batch QC
Surrogate Recovery
Inorganic Anions

Matrix : Aqueous Batch # 70321 Method : EPA 300.0

% Recovery Objectives

S1 SURROGATE NOT APPLICABLE

Sample	File	S1	S2	S3	S4	S5	S6

Q.C. Information for Batch # 70321 Printed: 08/17/2001 21:15:57

Sample Batch Information

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
70321BLK	08/04/2001	1030	AC/BF		08/05/2001	0156	AMC/BAF	IC
70321CALHIGH	08/04/2001	1030	AC/BF		08/05/2001	0216	AMC/BAF	IC
70321CALMID	08/04/2001	1030	AC/BF		08/05/2001	0236	AMC/BAF	IC
70321CALLOW	08/04/2001	1030	AC/BF		08/05/2001	0257	AMC/BAF	IC
70321LCS	08/04/2001	1030	AC/BF		08/05/2001	0317	AMC/BAF	IC
70321LCSD	08/04/2001	1030	AC/BF		08/05/2001	0337	AMC/BAF	IC
141545-1	08/04/2001	0930	AC/BF		08/05/2001	0358	AMC/BAF	IC
141545-2	08/04/2001	0930	AC/BF		08/05/2001	0418	AMC/BAF	IC
141545-3	08/04/2001	0930	AC/BF		08/05/2001	0438	AMC/BAF	IC
141531-2	08/04/2001	0930	AC/BF		08/05/2001	0458	AMC/BAF	IC
141533-2	08/04/2001	0930	AC/BF		08/05/2001	0519	AMC/BAF	IC
141534-2	08/04/2001	0930	AC/BF		08/05/2001	0539	AMC/BAF	IC
141535-1	08/04/2001	0930	AC/BF		08/05/2001	0559	AMC/BAF	IC
141549-3	08/04/2001	0930	AC/BF	25/100	08/05/2001	0620	AMC/BAF	IC
141549-4	08/04/2001	0930	AC/BF	25/100	08/05/2001	0640	AMC/BAF	IC
141578	08/04/2001	0930	AC/BF	1/1000	08/05/2001	0700	AMC/BAF	IC
DBL8/4	08/04/2001	1030	AC/BF		08/05/2001	0720	AMC/BAF	IC
DBL8/6	08/06/2001	1845	AC/BF		08/06/2001	1945	AMC/BAF	IC
141639-1	08/06/2001	1900	AC/BF		08/06/2001	2026	AMC/BAF	IC
DBL8/6	08/06/2001	1845	AC/BF		08/06/2001	2107	AMC/BAF	IC
DBL8/7	08/07/2001	1300	AC/BF		08/08/2001	1208	AMC/BAF	IC
141342-1	08/07/2001	1750	AC/BF	1/100	08/08/2001	1249	AMC/BAF	IC
141342-7	08/07/2001	1750	AC/BF	1/200	08/08/2001	1309	AMC/BAF	IC
141342-12	08/07/2001	1750	AC/BF	1/100	08/08/2001	1330	AMC/BAF	IC
141342-17	08/07/2001	1750	AC/BF	1/100	08/08/2001	1350	AMC/BAF	IC
141342-22	08/07/2001	1750	AC/BF	5/100	08/08/2001	1410	AMC/BAF	IC
141549-1	08/07/2001	1750	AC/BF		08/08/2001	1430	AMC/BAF	IC
141572-1	08/07/2001	1750	AC/BF		08/08/2001	1451	AMC/BAF	IC
141572-2	08/07/2001	1750	AC/BF		08/08/2001	1511	AMC/BAF	IC
141572-3	08/07/2001	1750	AC/BF		08/08/2001	1531	AMC/BAF	IC
DBL8/7	08/02/1901	1750	AC/BF		08/08/2001	1552	AMC/BAF	IC
~~141342-22D~~	08/11/2001	1200	AC/BF		08/11/2001	2112	AMC/BAF	IC
~~141549-1D~~	08/11/2001	1200	AC/BF		08/11/2001	2133	AMC/BAF	IC
DBL8/11	08/11/2001	1130	AC/BF		08/11/2001	2234	AMC/BAF	IC
141572-1D	08/11/2001	1200	AC/BF		08/11/2001	2153	AMC/BAF	IC
DBL8/13	08/13/2001	1630	AC/BF		08/13/2001	1709	AMC/BAF	IC
141545-1DUP	08/13/2001	1700	AC/BF		08/13/2001	1729	AMC/BAF	IC
141545-2DUP	08/13/2001	1700	AC/BF		08/13/2001	1750	AMC/BAF	IC
DBL8/13	08/13/2001	1630	AC/BF		08/13/2001	~~1750~~ 2007	AMC/BAF	IC
DBL8/8	08/09/2001	0301	AC/BF		08/09/2001	0301	AMC/BAF	IC
141545-3MS	08/09/2001	0544	AC/BF		08/09/2001	0544	AMC/BAF	IC
141545-3MSD	08/09/2001	0604	AC/BF		08/09/2001	0604	AMC/BAF	IC
141545-1D	08/09/2001	0624	AC/BF	10/100	08/09/2001	0624	AMC/BAF	IC
DBL8/8	08/09/2001	0846	AC/BF		08/09/2001	0846	AMC/BAF	IC
DBL8/11	08/11/2001	1830	AC/BF		08/11/2001	1830	AMC/BAF	IC
141342-22D	08/11/2001	2112	AC/BF	STRAIGHT	08/11/2001	2112	AMC/BAF	IC
141549-1D	08/11/2001	2133	AC/BF	5/100	08/11/2001	2133	AMC/BAF	IC
141572-1D	08/11/2001	2153	AC/BF	50/100	08/11/2001	2153	AMC/BAF	IC
DBL8/11	08/11/2001	2234	AC/BF		08/11/2001	2234	AMC/BAF	IC
DBL8/16	08/16/2001	1500	AC/BF		08/16/2001	1746	AMC/BAF	IC
141578-1D	08/16/2001	1700	AC/BF	10/100	08/16/2001	1948	AMC/BAF	IC

Q.C. Information for Batch # 70321 Printed: 08/17/2001 21:15:57

Sample Batch Information

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
DBL8/16	08/16/2001	1500	AC/BF		08/16/2001	2310	AMC/BAF	IC

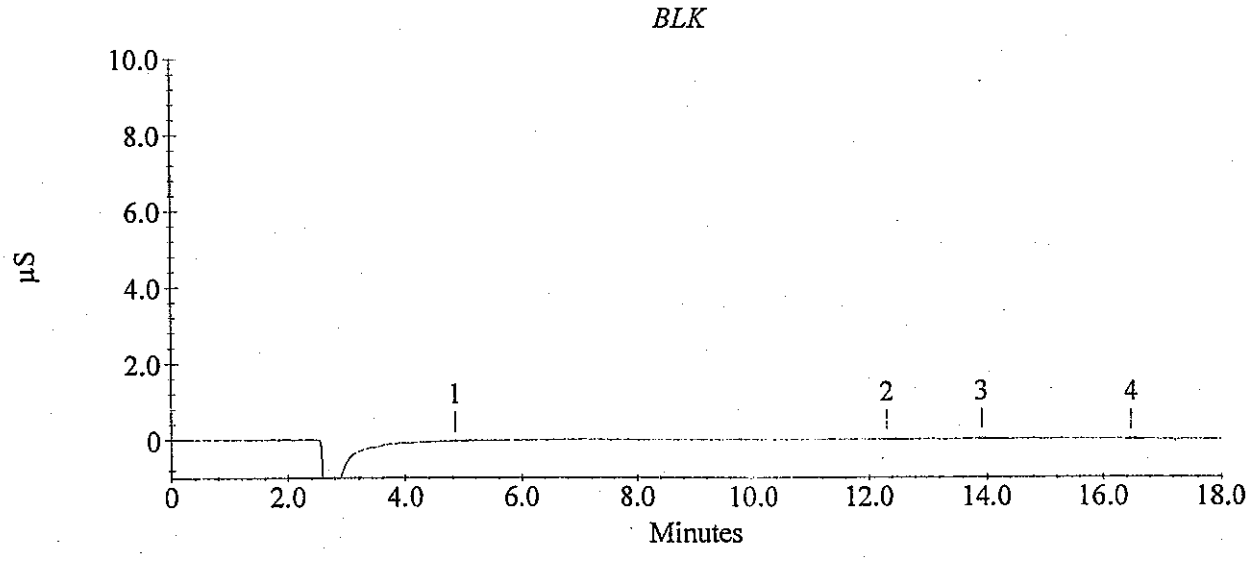
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\BLK-8-4-01_044.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 1:56:15 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		4.85	0.000	605	7
2		12.32	0.000	2705	190
3	SULFATE	13.92	0.091	9867	434
4		16.48	0.000	2267	211



BAF 8/7/01

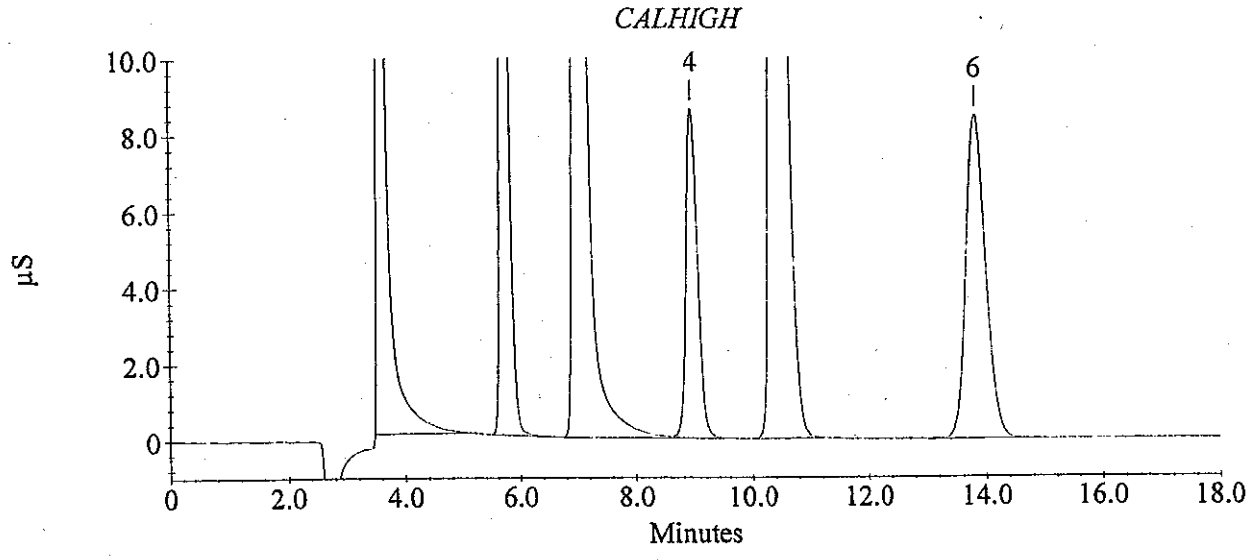
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\CALHIGH-8-4-01_045.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/5/01 2:16:32 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.58	8.495	3096886	347457
2	CHLORIDE	5.73	9.177	3011915	336305
3	NITRITE	7.05	9.941	5808349	449641
4	BROMIDE	8.97	9.431	1188342	86107
5	NITRATE	10.45	9.200	7820136	493931
6	SULFATE	13.83	9.414	1976506	84688



8/7/01

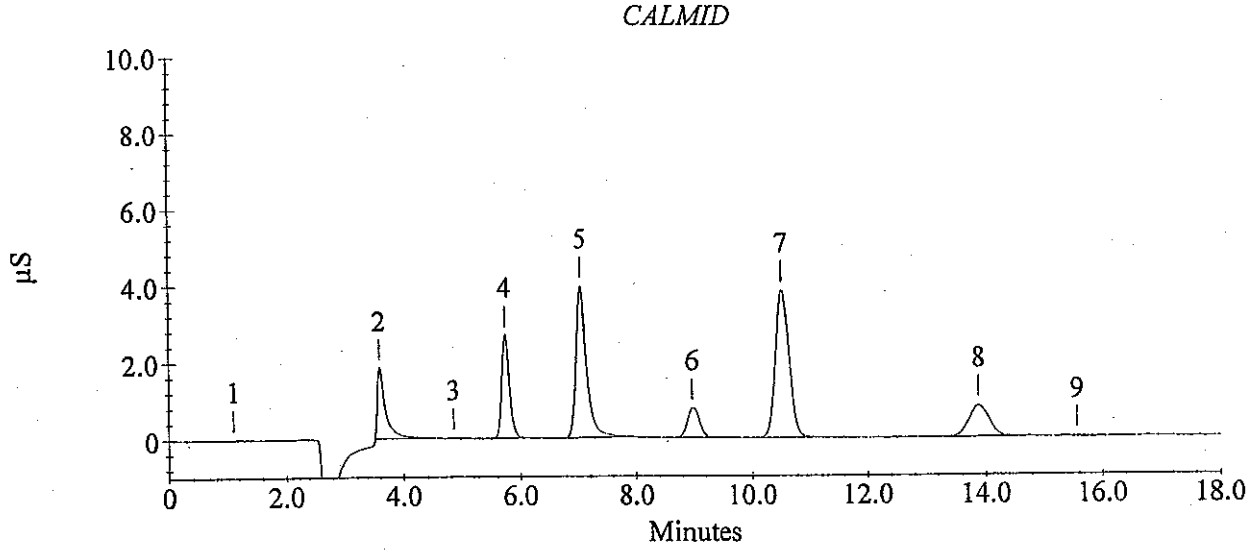
Sample Analysis Report

Sample Name : CALMID
Data File Name : C:\PEAKNET\DATA\CALMID-8-4-01_046.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 2:36:49 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.10	0.000	1860	221
2	FLUORIDE	3.58	0.673	187444	18117
3		4.85	0.000	939	127
4	CHLORIDE	5.73	0.903	253635	26727
5	NITRITE	7.05	0.981	502704	39304
6	BROMIDE	8.97	0.951	110949	7718
7	NITRATE	10.53	0.938	630742	38303
8	SULFATE	13.88	0.987	198885	8247
9		15.57	0.000	1409	181



BAF 8/14/01

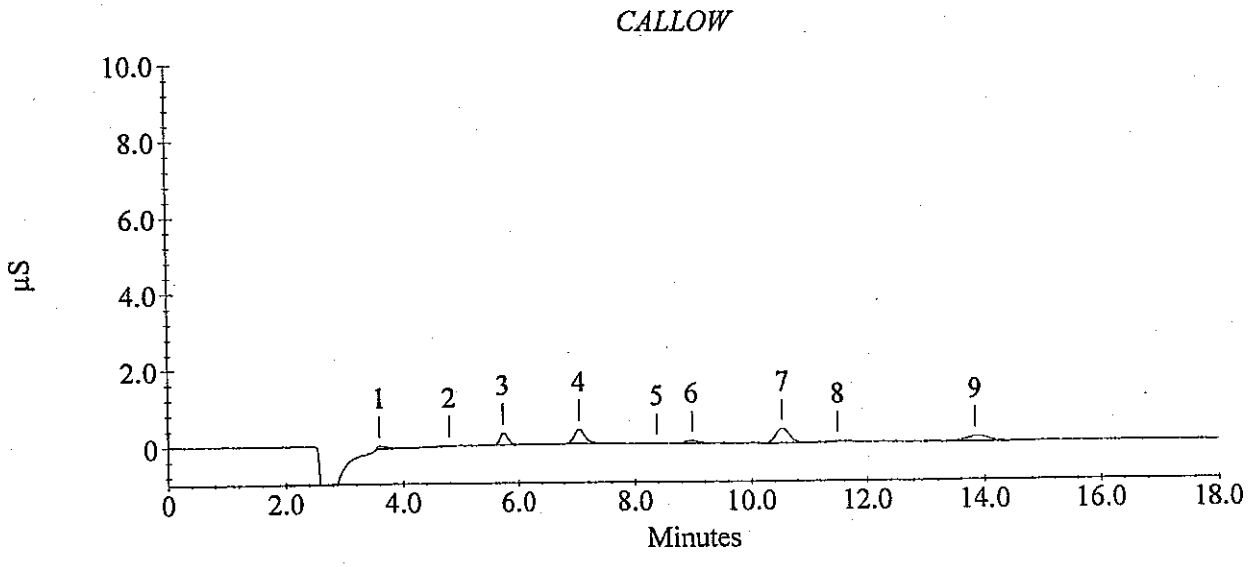
Sample Analysis Report

Sample Name : CALLOW
Data File Name : C:\PEAKNET\DATA\CALLOW-8-4-01_047.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 2:57:07 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.60	0.191	6880	702
2		4.80	0.000	2949	125
3	CHLORIDE	5.73	0.189	28761	3034
4	NITRITE	7.05	0.090	47799	3649
5		8.38	0.000	1076	121
6	BROMIDE	8.98	0.144	10459	738
7	NITRATE	10.55	0.080	66103	3753
8		11.50	0.000	1886	195
9	SULFATE	13.85	0.231	39376	1458



BAF 8/6/01

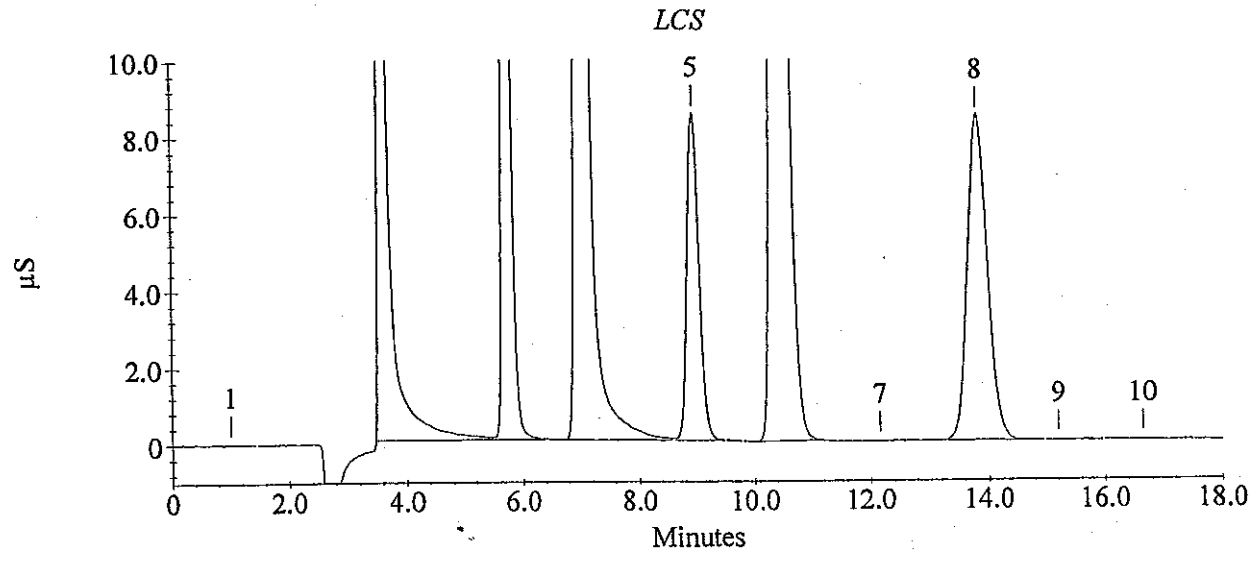
Sample Analysis Report

Sample Name : LCS
Data File Name : C:\PEAKNET\DATA\LCS-8-4-01_048.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/5/01 3:17:25 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.00	0.000	1946	192
2	FLUORIDE	3.58	8.791	3207649	352684
3	CHLORIDE	5.73	9.151	3003307	335275
4	NITRITE	7.03	9.846	5752407	441392
5	BROMIDE	8.95	9.310	1172873	84996
6	NITRATE	10.43	9.187	7808499	491074
7		12.17	0.000	1106	137
8	SULFATE	13.82	9.424	1978786	84525
9		15.20	0.000	1529	203
10		16.65	0.000	1898	122



BAF 8/6/01

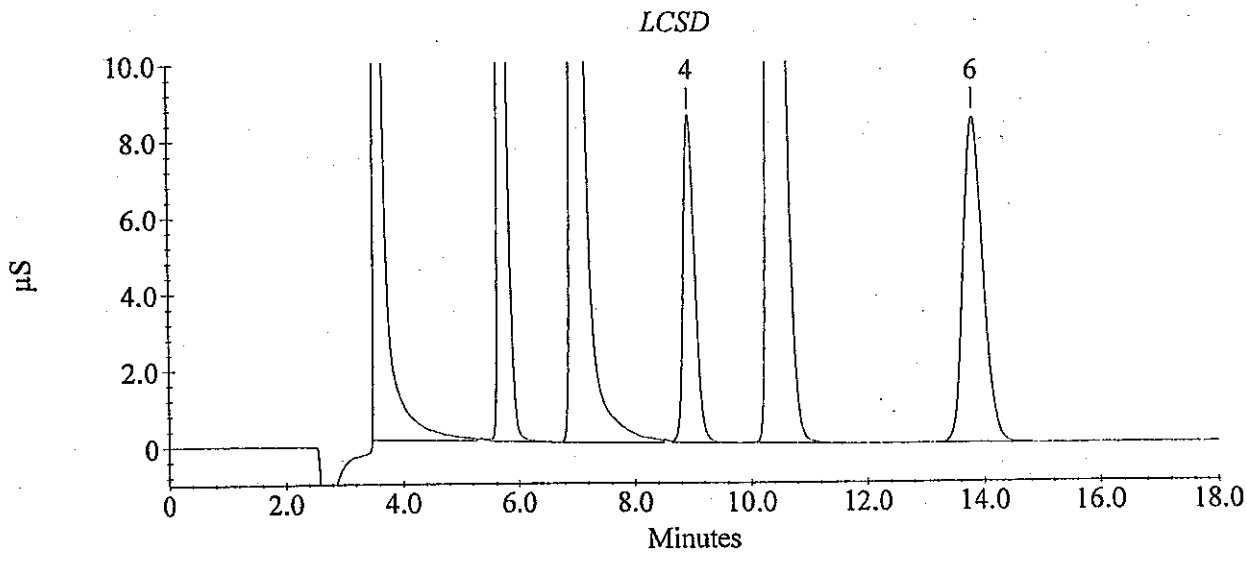
Sample Analysis Report

Sample Name : LCSD
Data File Name : C:\PEAKNET\DATA\LCSD-8-4-01_049.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/5/01 3:37:45 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.58	8.677	3164872	350252
2	CHLORIDE	5.73	9.133	2997114	335051
3	NITRITE	7.03	9.865	5763829	438880
4	BROMIDE	8.95	9.329	1175297	84970
5	NITRATE	10.45	9.211	7829335	493854
6	SULFATE	13.83	9.435	1980976	85048



BAF 8/16/01

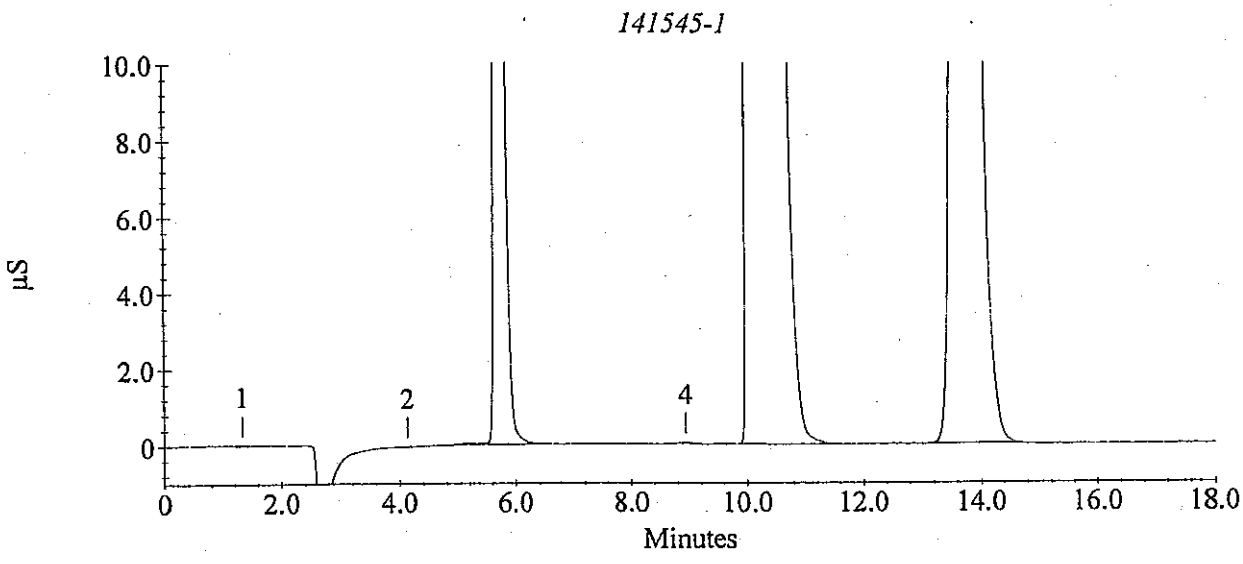
Sample Analysis Report

Sample Name : 141545-1
Data File Name : C:\PEAKNET\DATA\141545-1-8-4-01_050.DXD

Method File Name : C:\PeakNet\method\BFACMETHOD7-30-01HIGH.met
Date Time Collected : 8/5/01 3:58:02 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.33	0.000	1609	229
2		4.13	0.000	421	89
3	CHLORIDE	5.73	11.430 DIL=01	3776031	401883
4	BROMIDE	8.93	0.159	3719	274
5	NITRATE	10.13	~~76.165~~ 10/100	66666215	3104524
6	SULFATE	13.73	74.076	15617694	696190

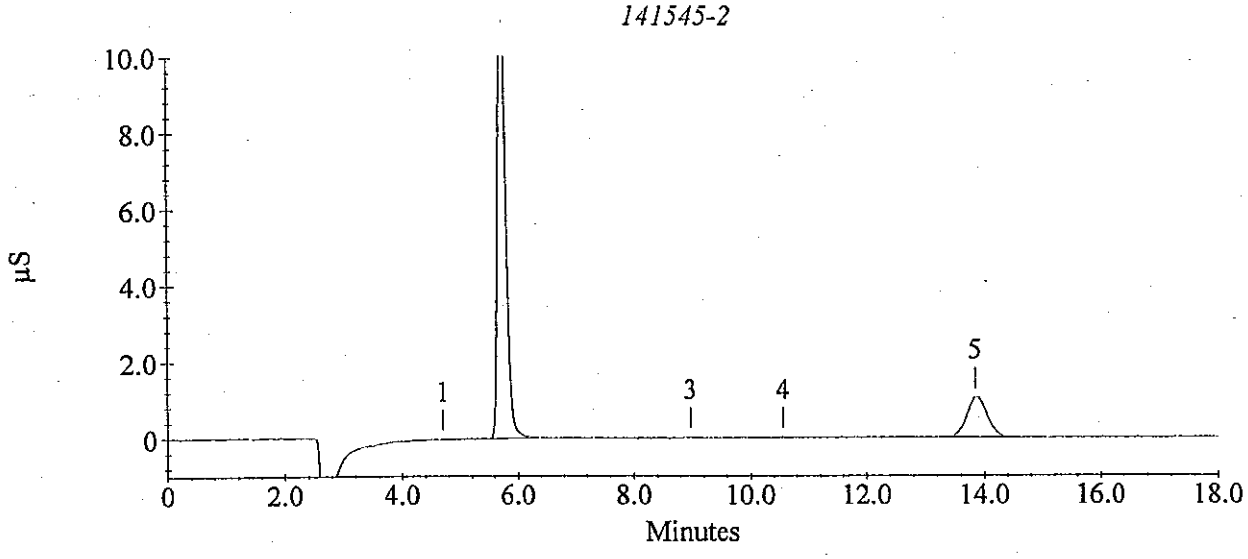


BAF 8/16/0

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 4:18:19 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		4.70	0.000	63	32
2	CHLORIDE	5.73	3.657 D<0.1	1120818	120050
3	BROMIDE	8.98	0.080	2562	245
4	NITRATE	10.57	-0.015 D<0.01	3650	269
5	SULFATE	13.85	1.240	252223	10532



BAF 8/6/01

Sample Analysis Report

Sample Name : 141545-2
Data File Name : C:\PEAKNET\DATA\141545-2-8-4-01_051.DXD

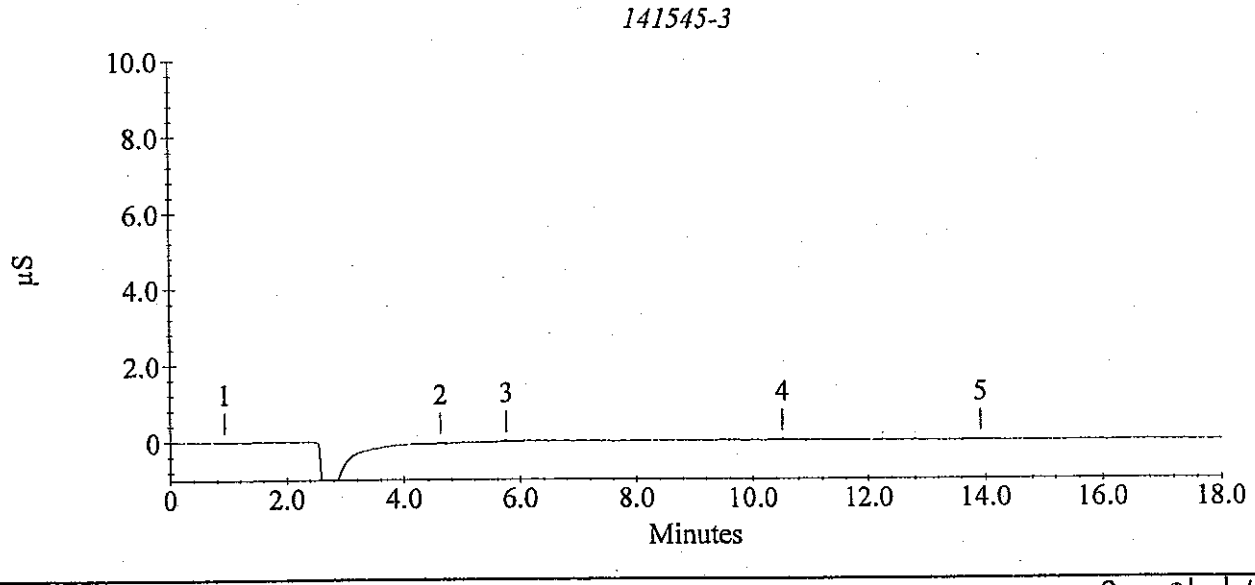
Sample Analysis Report

Sample Name : 141545-3
Data File Name : C:\PEAKNET\DATA\141545-3-8-4-01_052.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 4:38:37 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.93	0.000	918	101
2		4.62	0.000	1841	224
3	CHLORIDE	5.77	0.108	3016	306
4	NITRATE	10.52	-0.016 <0.01	2773	278
5	SULFATE	13.92	0.065	4357	196



BAF 8/6/01

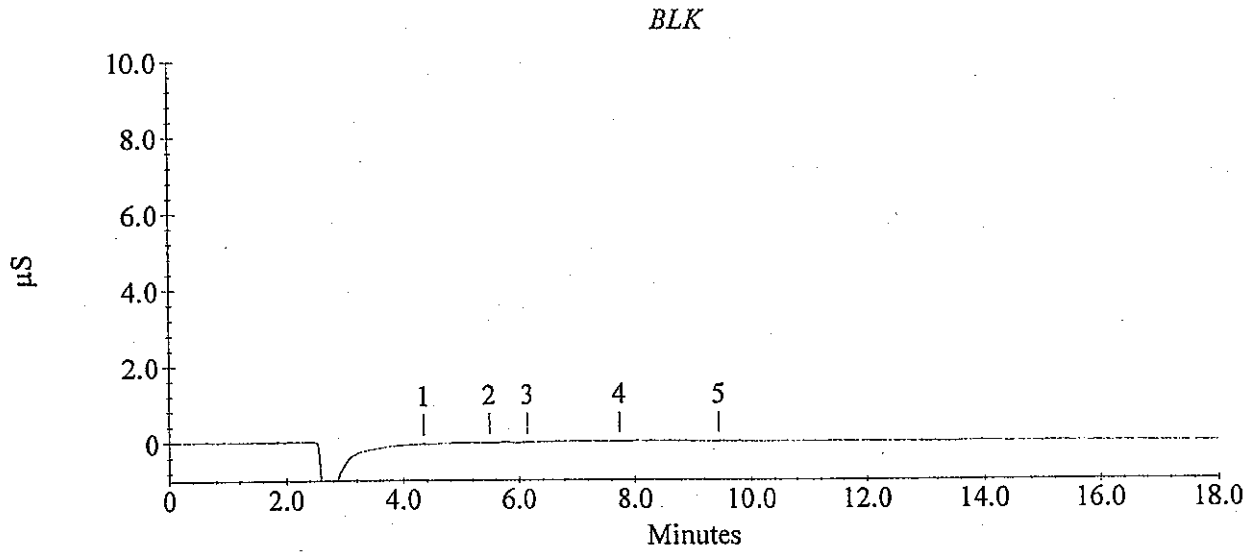
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\BLK-8-4-01_060.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/5/01 7:20:55 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		4.35	0.000	355	99
2	CHLORIDE	5.48	0.104	1760 Below curve	186
3		6.15	0.000	2559	178
4		7.73	0.000	1792	135
5		9.43	0.000	1116	166



BAF 8/6/01

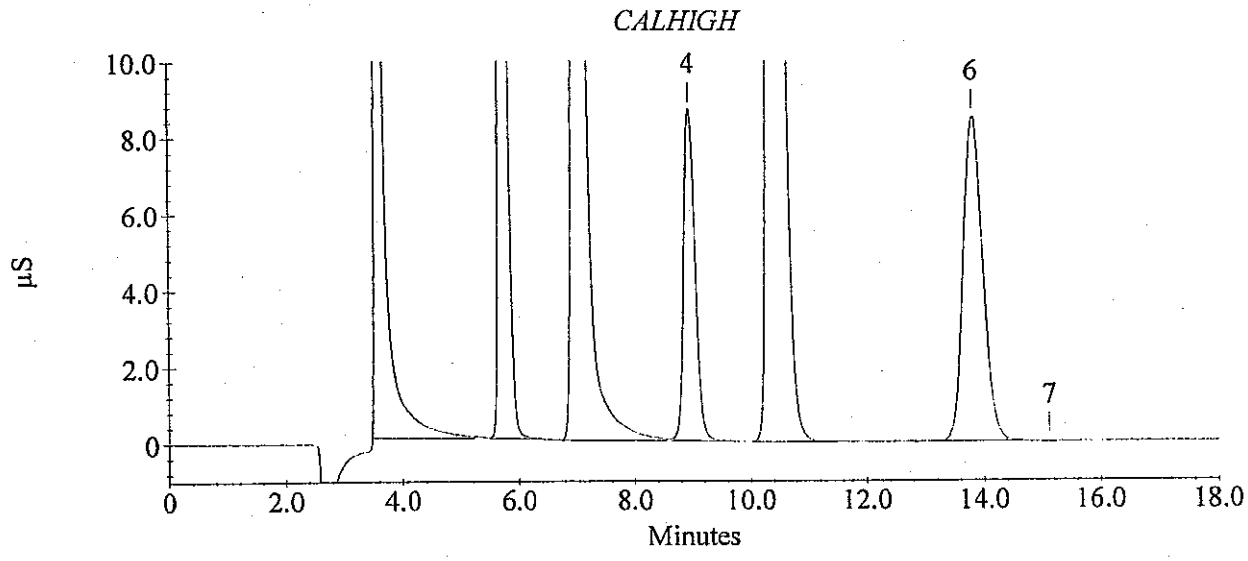
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\CALHIGH-8-4-01_061.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/5/01 7:41:13 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.58	8.584	3130239	349295
2	CHLORIDE	5.73	9.208	3022440	339395
3	NITRITE	7.03	9.954	5816261	445681
4	BROMIDE	8.95	9.433	1188605	86300
5	NITRATE	10.43	9.228	7844654	492826
6	SULFATE	13.82	9.396	1972717	84614
7		15.12	0.000	1393	119



BAF 8/6/01

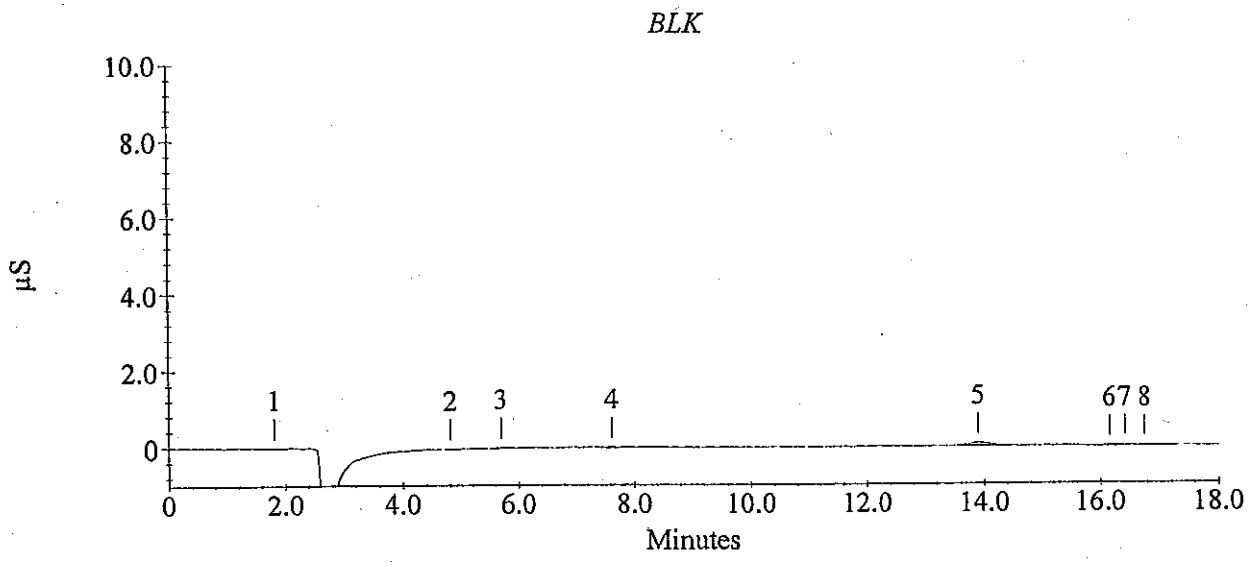
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\BLK-8-8-01_045.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/9/01 3:01:50 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.82	0.000	1343	189
2		4.82	0.000	504	103
3	CHLORIDE	5.70	0.106	2673	282
4		7.62	0.000	1198	195
5	SULFATE	13.90	0.129	17873	795
6		16.15	0.000	2514	227
7		16.42	0.000	1339	245
8		16.75	0.000	1583	218



BAF 8/14/01

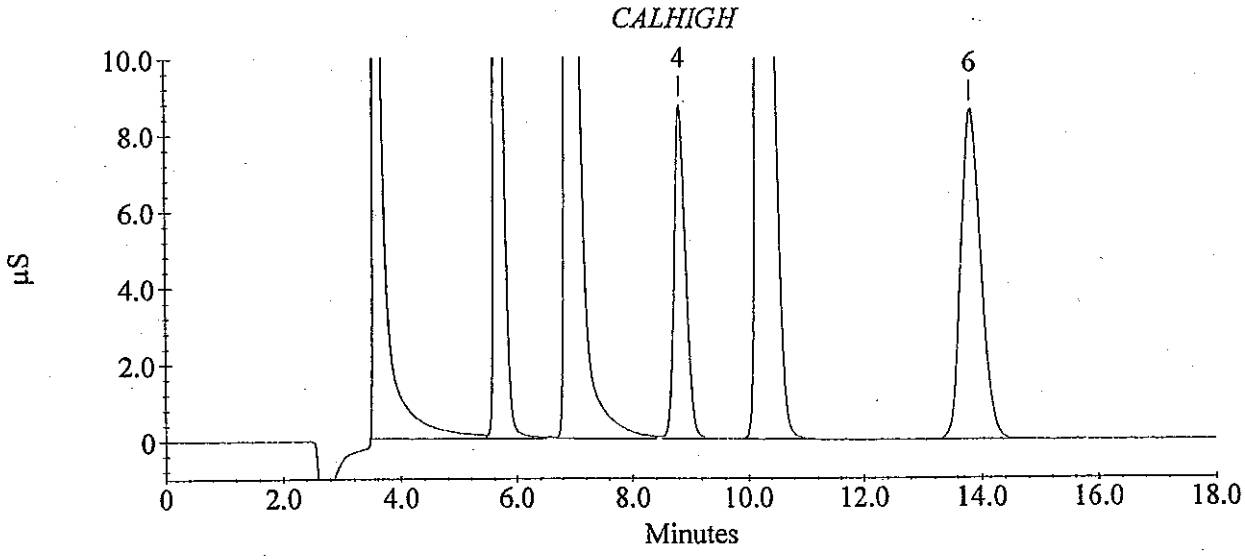
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\CALHIGH-8-8-01_046.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/9/01 3:22:07 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1	FLUORIDE	3.58	8.928	3258660	343733
2	CHLORIDE	5.70	9.622	3162952	355997
3	NITRITE	6.98	9.989	5837033	457874
4	BROMIDE	8.83	9.379	1181723	87122
5	NITRATE	10.28	9.406	8000799	512817
6	SULFATE	13.83	9.450	1984197	86080



BAF 8/14/01

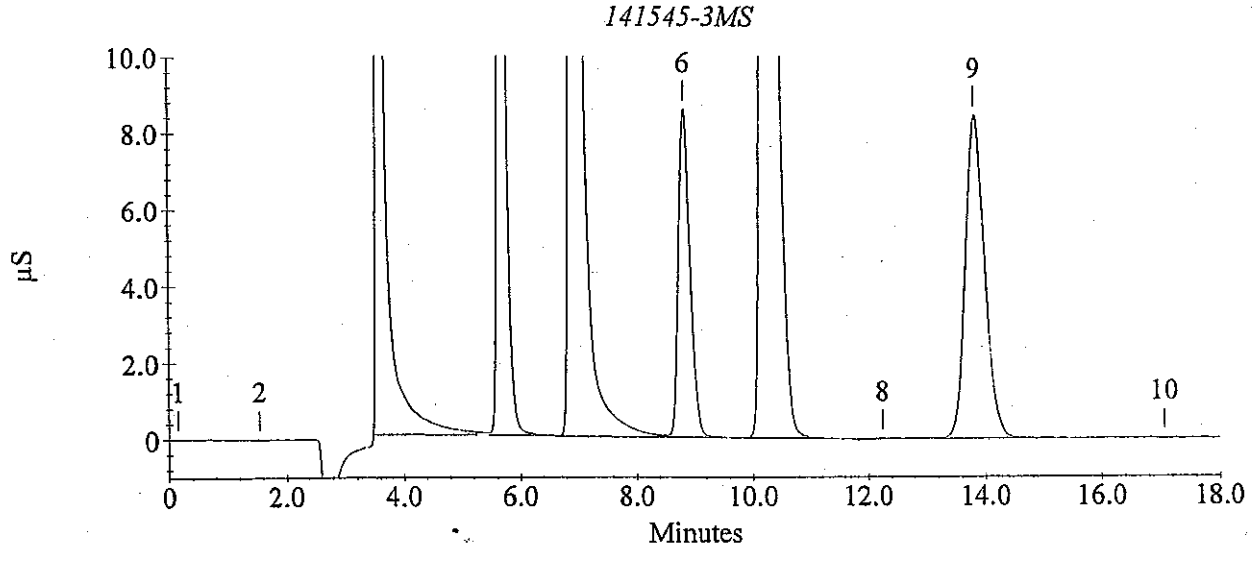
Sample Analysis Report

Sample Name : 141545-3MS
Data File Name : C:\PEAKNET\DATA\141545-3-8-8-01_053.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/9/01 5:44:12 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.15	0.000	1439	168
2		1.53	0.000	1264	167
3	FLUORIDE	3.58	8.381	3054362	320922
4	CHLORIDE	5.70	8.973	2942943	331431
5	NITRITE	6.98	9.691	5661470	443808
6	BROMIDE	8.83	9.164	1154245	85467
7	NITRATE	10.28	9.041	7679960	490287
8		12.25	0.000	2867	126
9	SULFATE	13.83	9.267	1945493	84414
10		17.07	0.000	1251	199



BAF 8/14/01

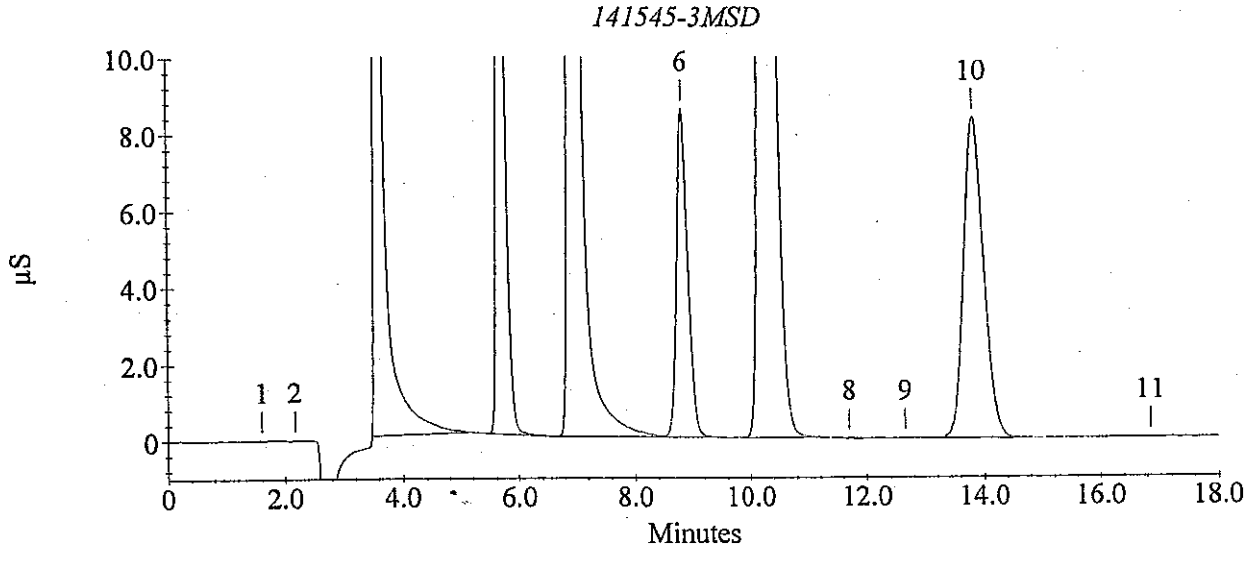
Sample Analysis Report

Sample Name : 141545-3MSD
Data File Name : C:\PEAKNET\DATA\141545-3-8-8-01_054.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/9/01 6:04:29 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		1.60	0.000	1620	88
2		2.17	0.000	2083	257
3	FLUORIDE	3.58	8.230	2998168	317292
4	CHLORIDE	5.70	8.914	2922990	331944
5	NITRITE	6.98	9.665	5645965	443555
6	BROMIDE	8.83	9.108	1147106	85554
7	NITRATE	10.28	9.036	7676253	491814
8		11.70	0.000	2207	195
9		12.65	0.000	1042	157
10	SULFATE	13.83	9.267	1945681	83650
11		16.85	0.000	9221	182



BAF 8/14/01

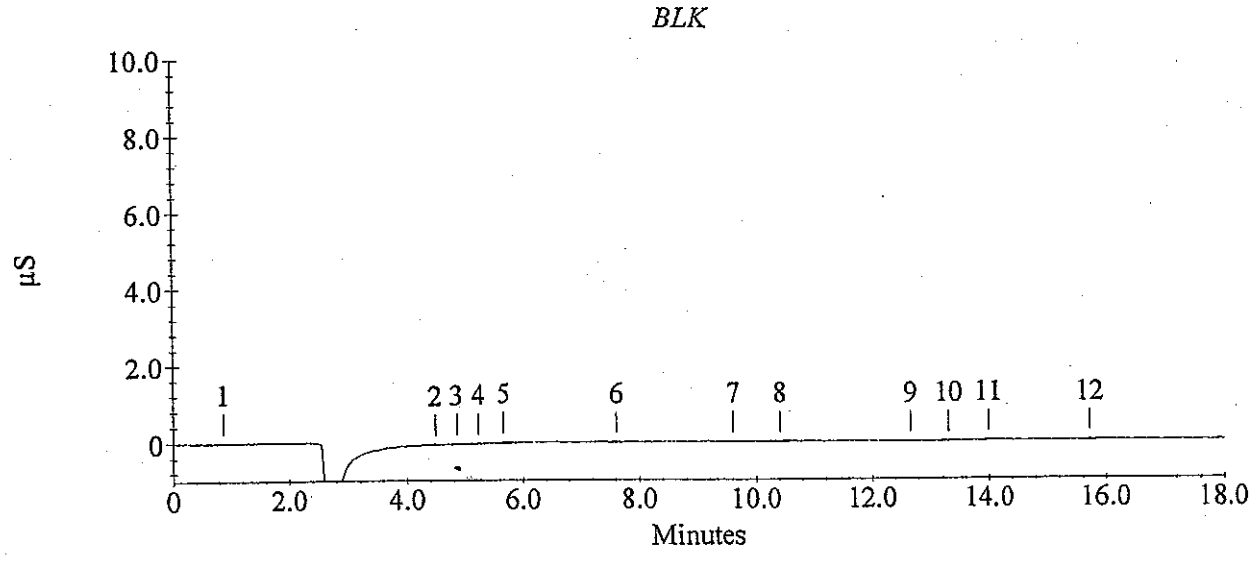
Sample Analysis Report

Sample Name : BLK
Data File Name : C:\PEAKNET\DATA\BLK-8-8-01_062.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01low.met
Date Time Collected : 8/9/01 8:46:53 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.87	0.000	4723	191
2		4.48	0.000	51	67
3		4.85	0.000	2451	234
4		5.23	0.000	1680	142
5	CHLORIDE	5.67	0.108	3256	363
6		7.62	0.000	1262	177
7		9.62	0.000	2750	183
8	NITRATE	10.42	-0.015	3199	158
9		12.67	0.000	2245	144
10		13.32	0.000	2848	190
11	SULFATE	14.00	0.067	4733	202
12		15.73	0.000	1372	191



BAF 8/14/01

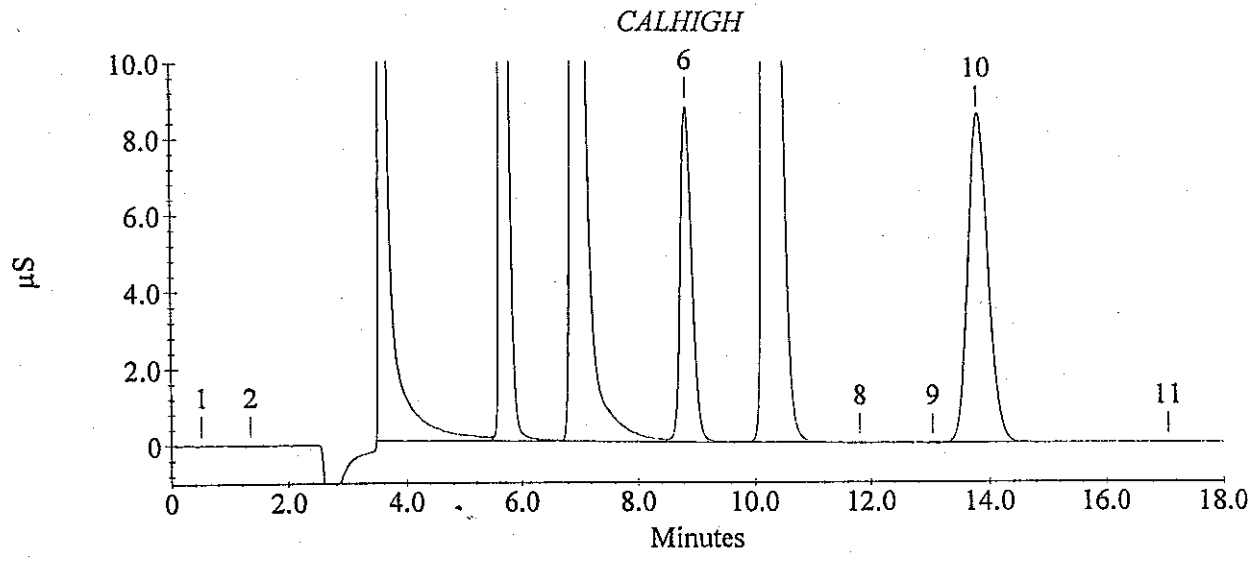
Sample Analysis Report

Sample Name : CALHIGH
Data File Name : C:\PEAKNET\DATA\CALHIGH-8-8-01_063.DXD

Method File Name : c:\peaknet\method\bfacmethod7-30-01high.met
Date Time Collected : 8/9/01 9:07:10 AM
System Operator : AMC/BAF

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Component Amount (ppm)	Peak Area	Peak Height
1		0.52	0.000	1734	216
2		1.35	0.000	1830	192
3	FLUORIDE	3.58	8.707	3176159	330988
4	CHLORIDE	5.70	9.656	3174392	355460
5	NITRITE	6.98	10.016	5852443	455477
6	BROMIDE	8.85	9.391	1183293	87485
7	NITRATE	10.30	9.413	8007164	514866
8		11.82	0.000	2462	156
9		13.05	0.000	1678	244
10	SULFATE	13.82	9.430	1979946	85550
11		17.07	0.000	3205	194



BFA 8/14/01

Analytical Services, Inc.

TOC
EPA Method 415.2 / 9060

Date 09·07·01
Time 2100

Batch 70378, 70379
Analyst DJ

Pos. #	Sample ID
1	30.0 ppm
2	↓
3	↓
4	Wash
5	1.00 ppm Std
6	2.50
7	5.00
8	10.0
9	20.0
10	40.0
11	50.0
12	Wash
13	BLK
14	WP-78 Vx Known
15	↓ ↓
16	↓ ↓
17	↓ Vx Known MS
18	↓ ↓ MSD
19	LCS
20	LCSD
21	Wash
22	WP72 Known
23	↓
24	↓
25	FO IDA 1
26	↓ 2
27	↓ 3
28	↓ 4
29	Wash ~~MDL~~
30	FO MDL 1 2

Pos. #	Sample ID
31	MDL 3
32	↓ 4
33	↓ 5
34	↓ 6
35	↓ 7
36	MDL 1
37	~~FH~~ CALCHK
38	141358-1 Acuma
39	↓
40	↓
41	↓
42	141358-2
43	↓
44	↓
45	↓
46	134358-3
47	↓
48	↓
49	↓
50	141358-4
51	↓
52	↓
53	↓
54	~~141358~~ 141503-1
55	↓ Acuma
56	↓
57	↓
58	141503-2
59	↓
60	↓

Pos. #	Sample ID
61	141503-2
62	141503-3
63	↓
64	↓
65	↓
66	141503-4
67	↓
68	↓
69	↓
70	141503-5
71	↓
72	↓
73	↓
74	141503-6
75	↓
76	↓
77	↓
78	141503-7
79	↓
80	↓
81	↓
82	141545-1 Acuma
83	↓
84	↓
85	↓
86	141545-2
87	↓
88	↓
89	↓
90	~~CALCHK~~ 141545-3

Pos. #	Sample ID
91	141545-3
92	↓
93	↓
94	CALCHK
95	Wash
96	BLK
97	141440-1 ~~Blk~~
98	↓ DUP
99	141440-1 MS
100	↓ MSD
101	LCS
102	LCSD
103	Wash
104	141440-4
105	141480-2 ~~Blk~~ TOC
106	↓ -3 25 Lucs
107	141355-1 TOC
108	141425-1 ~~Blk~~
109	↓ -2
110	↓ -3
111	↓ -4
112	↓ -5
113	↓ -6
114	↓ -6 DUP
115	141518-1 ~~DUP~~
116	141470-1 ~~TOC~~
117	↓ -2
118	↓ -3
119	↓ -4
120	CALCHK

1 30.0 ppm Std
2 141503-2
3 ↓
4 ↓
5 ↓
6 141503-3
7 ↓
8 ↓
9 ↓
10 141503-7
11 ↓
12 ↓
13 ↓
14 CALCHK

Analytical Services, Inc.

TOC

EPA Method 415.2 / 9060

Date 08-07-01
Time 2100

Analyst 70378, 70379
Batch # 05

TOC Calibration Std. 70378 : TV = 50.0ppm
10.0 mls of TOC Calibration Stock Std. 38 (1000 ppm) diluted to 200.0 mls with organic free DI H_2O.

TOC Intermediate Std. 70378 : TV = 100.0 ppm
20.0 mls of TOC Calibration Stock Std. 38 (1000 ppm) diluted to 200.0 mls with organic free DI H_2O.

70378 Multipoint Calibration Stds.

~~0.01 => blank~~ 08.07.01

True Value (ppm)	Prep of Calibration Curve: mls of TOC Int. Std. 70378 diluted to 100.0 mls with organic free DI H_2O.
~~0.50~~	~~0.50~~
~~1.25~~	~~1.25~~ 08.07.01
~~1.00~~	~~1.00~~
2.5	2.5
5.0	5.0
10.0	10.0
20.0	20.0
30.0	30.0
40.0	40.0

_____ Calibration Check Stds.

True Value (ppm)	Prep of Calibration Curve: mls of TOC Int. Std._____ diluted to 100.0 mls with organic free DI H_2O.
1.0	1.0
5.0	5.0
15.0	15.0
25.0	25.0
30.0	30.0
40.0	40.0

70378 LCS / LCSD: TV = 20.0 ppm
2.0 mls TOC Spiking Stock Std. 0094 (1000 ppm) diluted to 100.0 mls with organic free DI H_2O.

70378 MS /MSD: TV of spike = 20.0 ppm
2.00 mls TOC Spiking Stock Std. 0094 (1000 ppm) diluted to 100.0 mls with ASI sample # WP78 (70378) 141440-1 (70379)

Phosphoric Acid 455
Sodium Persulfate 463

FDA prep: 2.00 ml Toc Spiking Stock (0094) to 100 ml w/ organic free DI H_2O TV: 20.0ppm

MDL prep: 1.00 ml Toc Spiking Stock (0094) to 100 ml w/ organic Free DI H_2O. TV = 2.00ppm

Q.C. Information for Batch # 70378 Printed: 08/08/2001 19:05:49

Total Organic Carbon
Analysis Method : EPA 9060 Matrix : Aqueous
Blank result : < 1.0000

Laboratory Control Results

		Spike Amt.	% Recovery	RPD
L C Result :	20.0000	20.0000	100	1
L C Duplicate Result :	20.1000	20.0000	101	
Acceptance Limits :	% Recovery : 80 - 120		RPD : 0 - 20	

Matrix Spike Results

	Result	Sample Result	Spike Amt.	% Recovery	RPD
MS :	46.9000	28.0000	20.0000	95	1
MSD:	46.8000	28.0000	20.0000	94	
Acceptance Limits :	% Recovery : 89 - 125			RPD : 0 - 11	

Sample Duplicate Results (unspiked)

	First Sample	Second Sample
Result :	28.0000	61.2000
Duplicate Result :	27.8000	60.6000
Relative Percent Diff.	1 %	1 %
Acceptance Limits :		RPD : 0 - 11

Total Organic Carbon
Analysis Method : SM 5310 C Matrix : Aqueous
Blank result : < 0.5000

Laboratory Control Results

		Spike Amt.	% Recovery	RPD
L C Result :	20.0000	20.0000	100	1
L C Duplicate Result :	20.1000	20.0000	101	
Acceptance Limits :	% Recovery : 80 - 120		RPD : 0 - 20	

Matrix Spike Results

	Result	Sample Result	Spike Amt.	% Recovery	RPD
MS :	46.9000	28.0000	20.0000	95	1
MSD:	46.8000	28.0000	20.0000	94	
Acceptance Limits :	% Recovery : 89 - 125			RPD : 0 - 11	

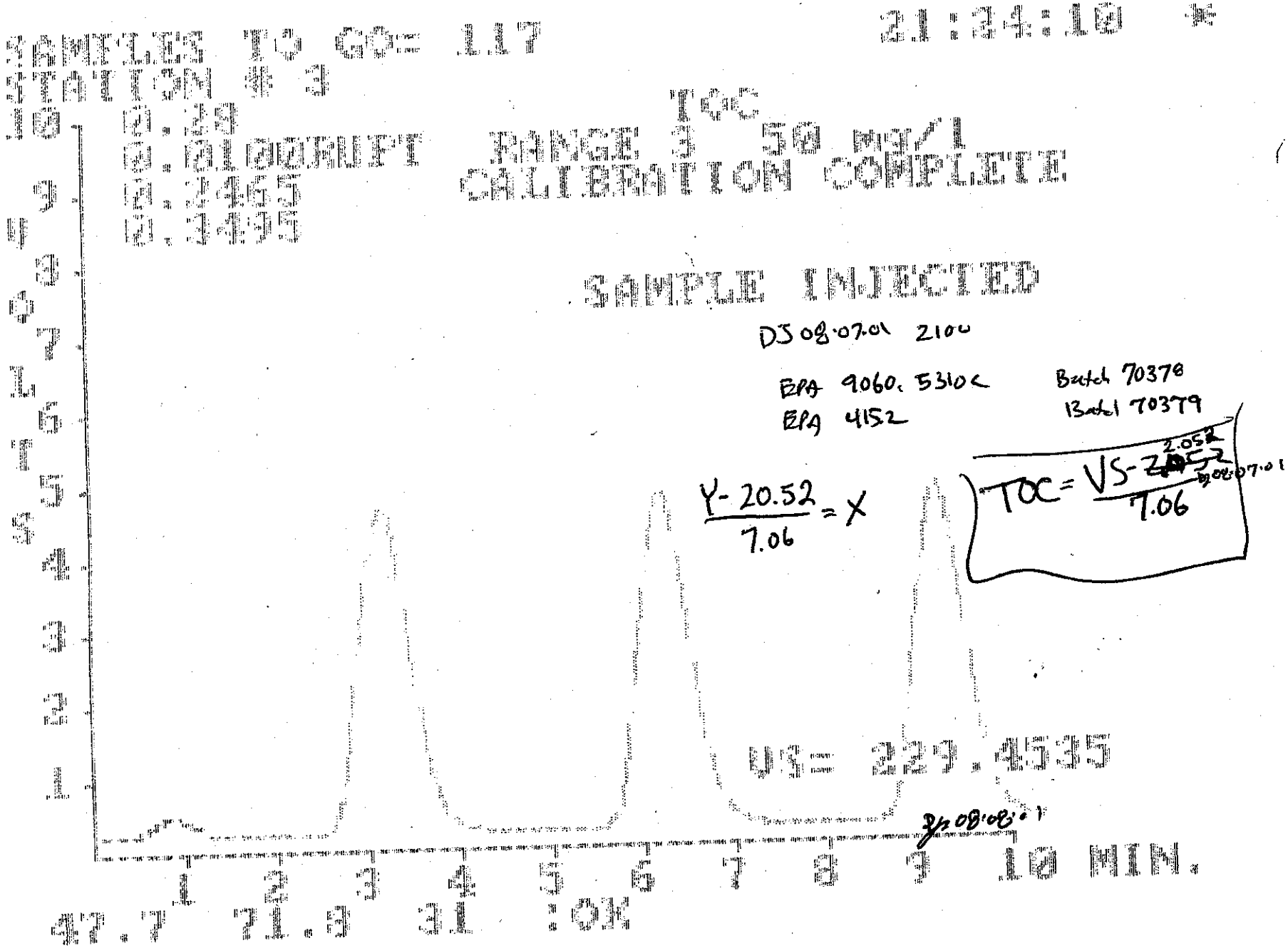
Sample Duplicate Results (unspiked)

	First Sample	Second Sample
Result :	28.0000	61.2000
Duplicate Result :	27.8000	60.6000
Relative Percent Diff.	1 %	1 %
Acceptance Limits :		RPD : 0 - 11

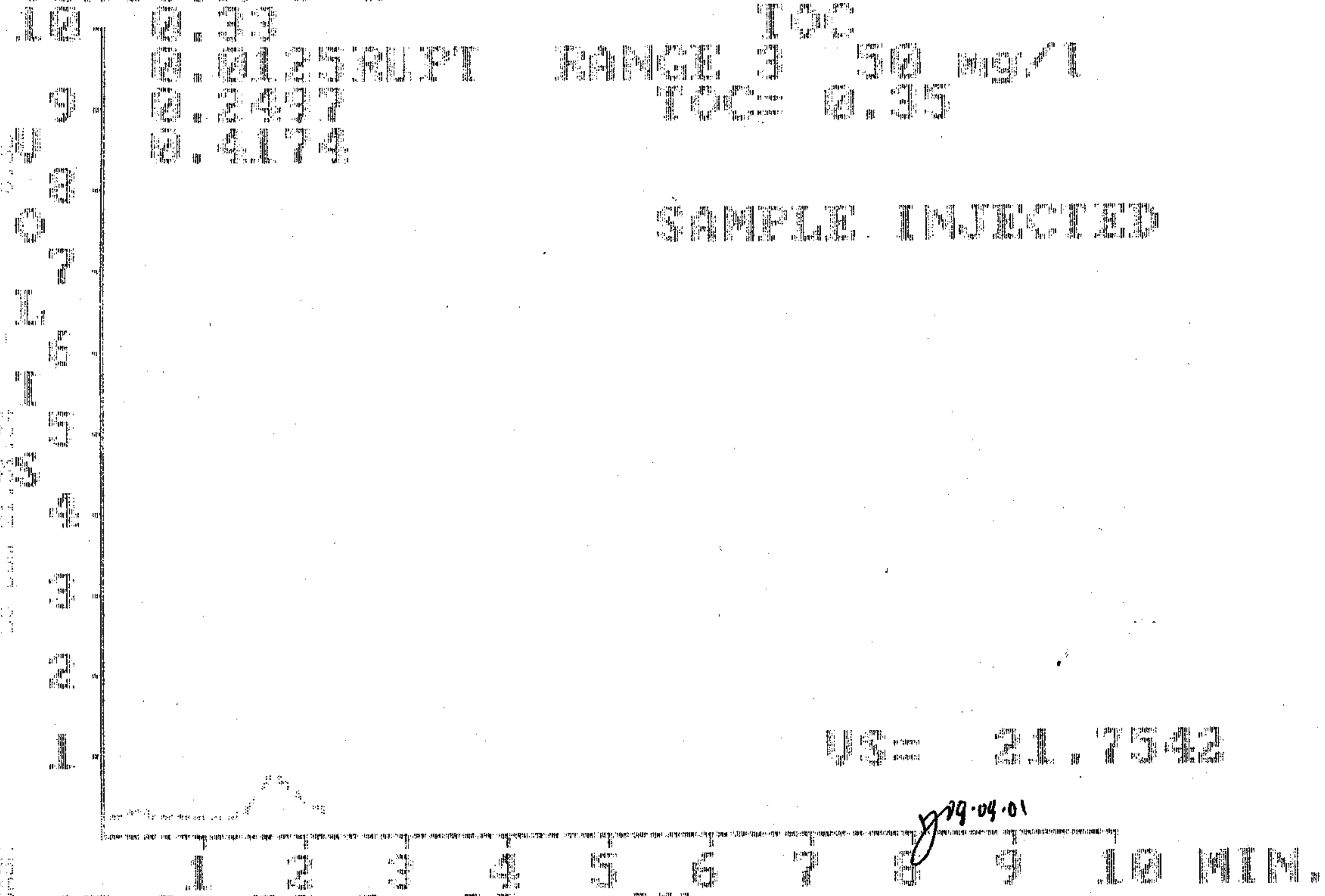
Q.C. Information for Batch # 70378 Printed: 08/08/2001 19:05:49

Sample Batch Information

Sample ID	Prep Date	Time	By	Prep Notes	Abb	Anal Date	Time	By	Inst #
70378BLK	/ /					08/07/2001	2100	DJ	ASTRO
70378LCS	/ /					08/07/2001	2100	DJ	ASTRO
70378LCSD	/ /					08/07/2001	2100	DJ	ASTRO
70378CALCHK	/ /					08/07/2001	2100	DJ	ASTRO
WP-78MS	/ /					08/07/2001	2100	DJ	ASTRO
WP-78MSD	/ /					08/07/2001	2100	DJ	ASTRO
WP-78	/ /					08/07/2001	2100	DJ	ASTRO
WP-78DUP	/ /					08/07/2001	2100	DJ	ASTRO
WP-72	/ /					08/07/2001	2100	DJ	ASTRO
WP-72DUP	/ /					08/07/2001	2100	DJ	ASTRO
141358-1	/ /					08/07/2001	2100	DJ	ASTRO
141358-2	/ /					08/07/2001	2100	DJ	ASTRO
141358-3	/ /					08/07/2001	2100	DJ	ASTRO
141358-4	/ /					08/07/2001	2100	DJ	ASTRO
141503-1	/ /					08/07/2001	2100	DJ	ASTRO
141503-2	/ /					08/07/2001	2100	DJ	ASTRO
141503-3	/ /					08/07/2001	2100	DJ	ASTRO
141503-4	/ /					08/07/2001	2100	DJ	ASTRO
141503-5	/ /					08/07/2001	2100	DJ	ASTRO
141503-6	/ /					08/07/2001	2100	DJ	ASTRO
141503-7	/ /					08/07/2001	2100	DJ	ASTRO
141503-8	/ /					08/07/2001	2100	DJ	ASTRO
141545-1	/ /					08/07/2001	2100	DJ	ASTRO
141545-2	/ /					08/07/2001	2100	DJ	ASTRO
141545-3	/ /					08/07/2001	2100	DJ	ASTRO


21:24:10
RANGE, TC
CALIBRATION COMPLETE
SAMPLE INJECTED
DJ 08.07.01 2100
EPA 9060, 5310C
EPA 4152
Batch 70378
Batch 70379
Y- 20.52 / 7.06 = X
TOC = VS-20.52 / 7.06
VS= 229.4535
08.08.01
10 MIN.

SAMPLES TO GO= 117 21:31:34
STATION # 4
0.33 TOC
0.0125RUPT RANGE 3 50 mg/l
0.2497 TOC= 0.35
0.4174



47.3 70.9 30 :OK

09.04.01

SAMPLES TO GO= 116 21:3[illegible]

STATION # 5

0.29

TOC

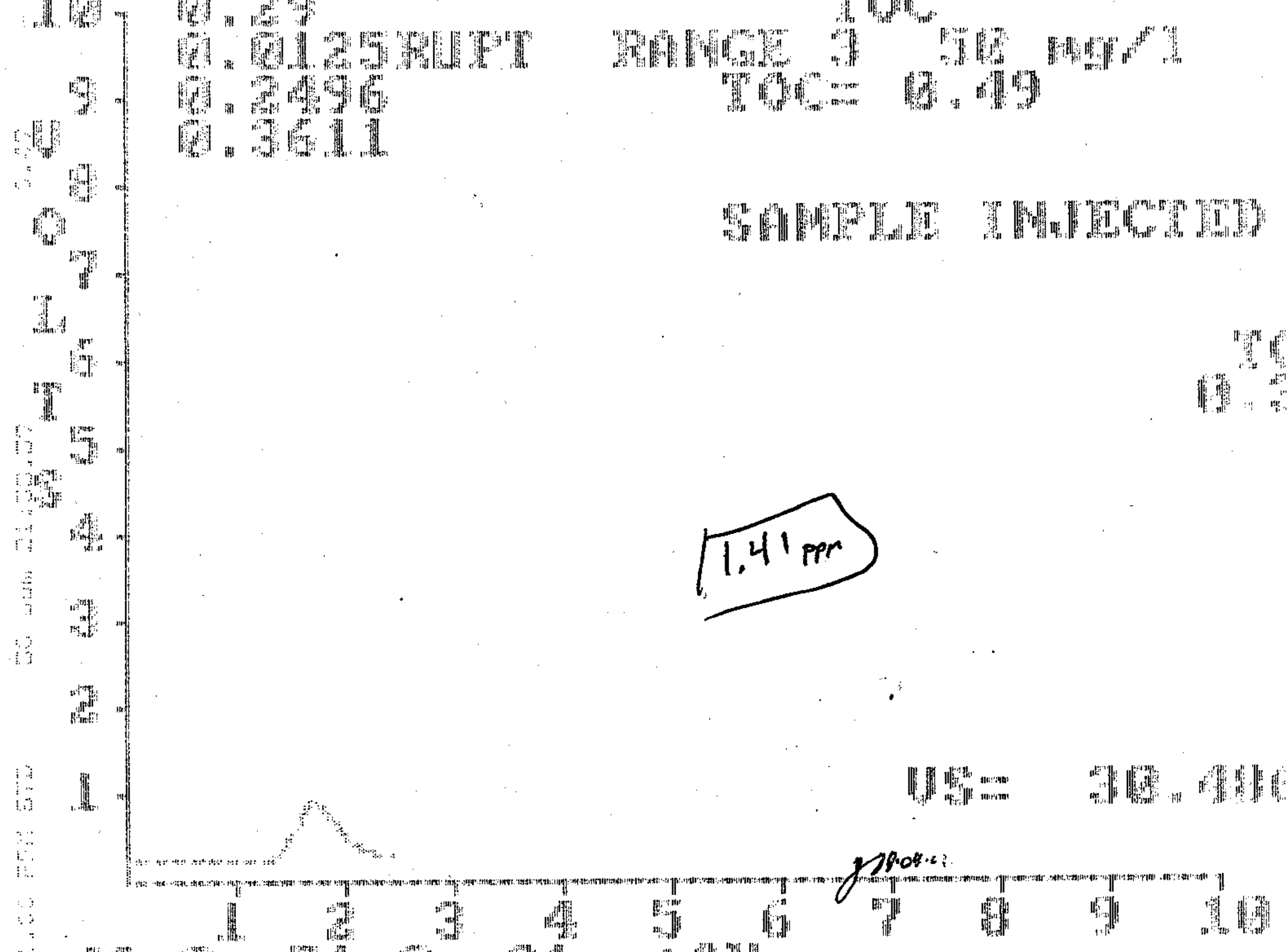
0.0125RUPT RANGE 3 50 mg/l

0.2496

TOC= 0.49

0.3611

SAMPLE INJECTED



1.41 ppm

US= 30.49[illegible]

48.0 71.0 31 :OK

JD 8-22-01

SAMPLES TO GO= 115 21:46

STATION # 6

0.33

0.0100RUPT RANGE 3 50 mg/l

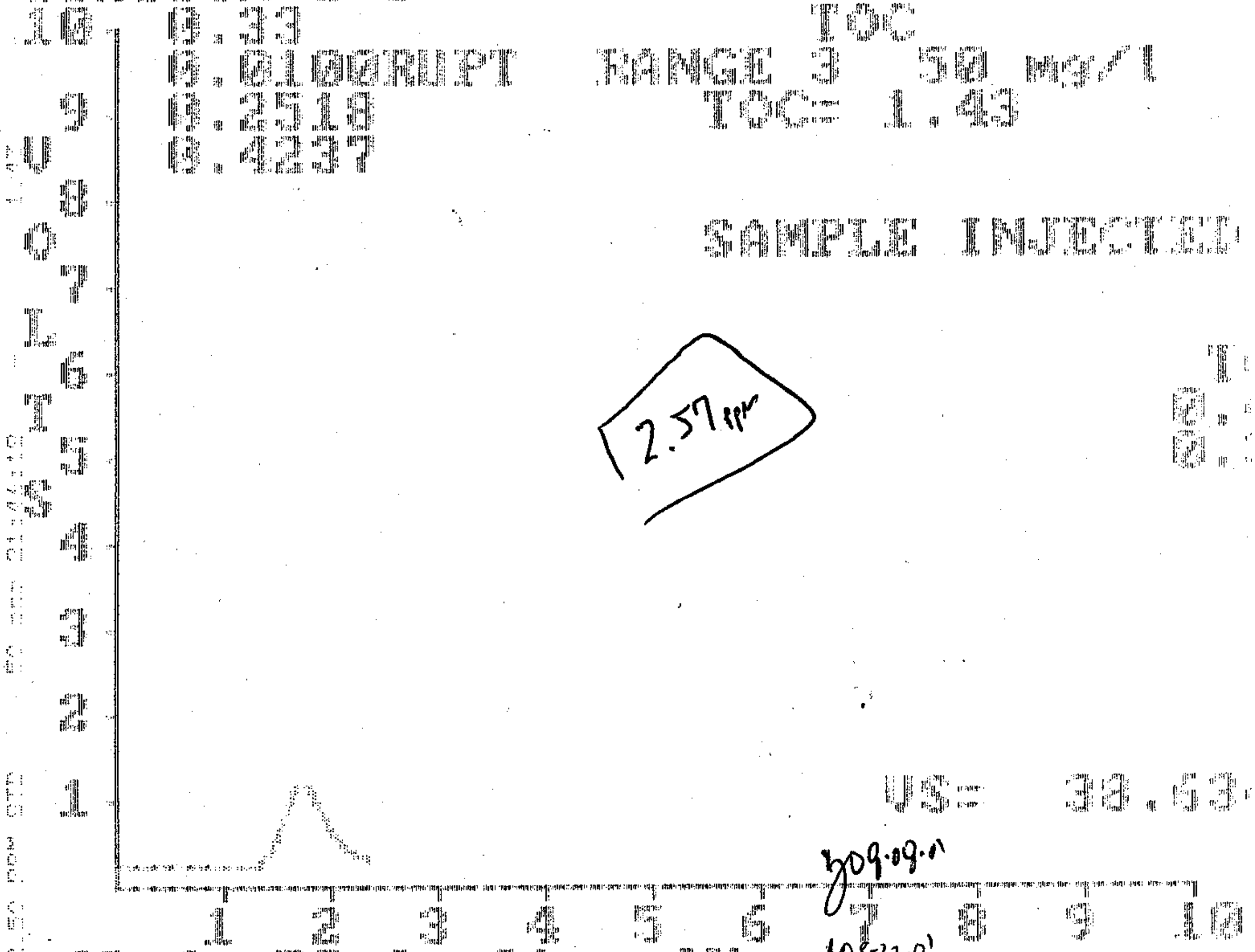
0.2518

0.4237

TOC

TOC= 1.43

SAMPLE INJECTED



2.57 ppm

US= 38.63

309.09.01

308-22-01

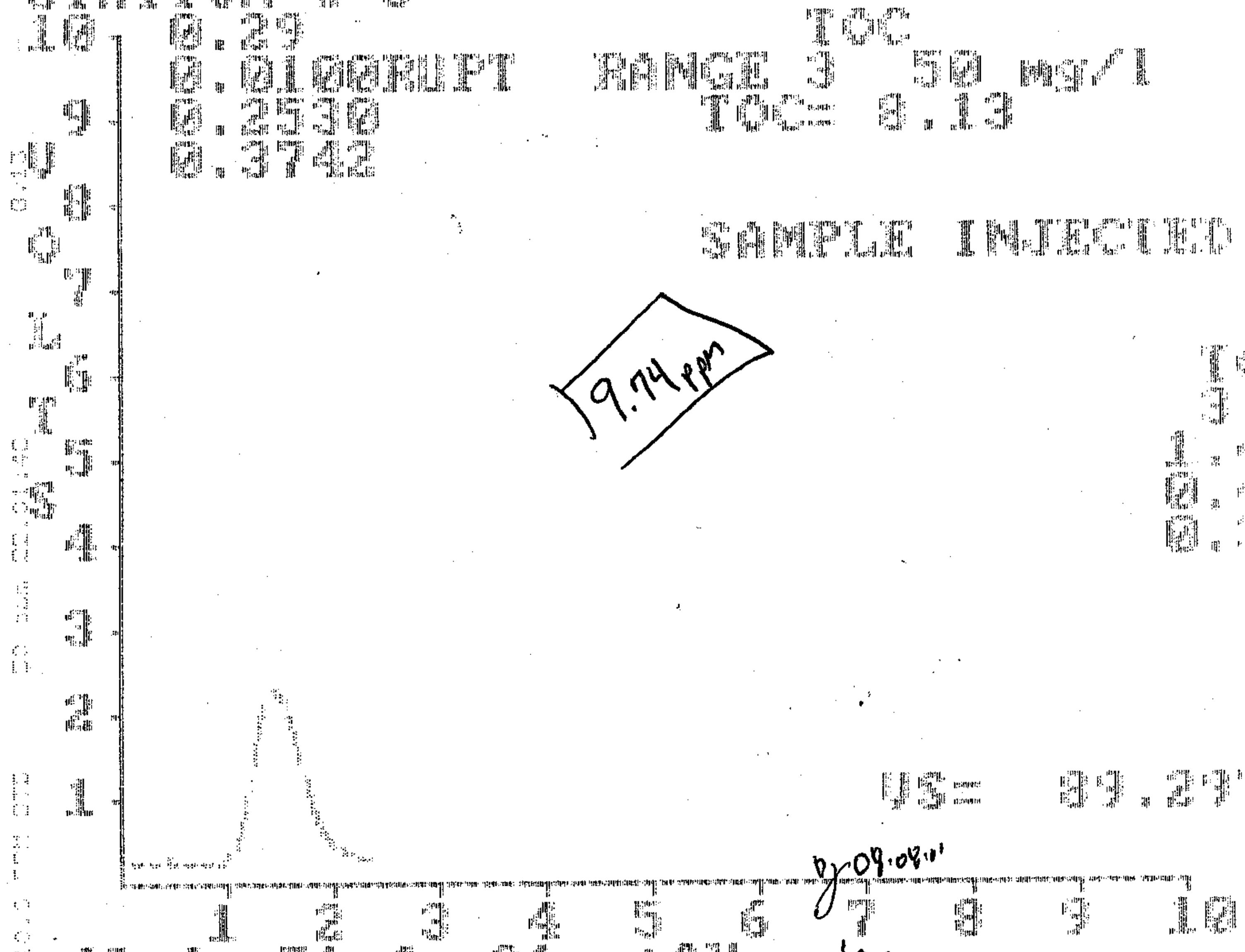
48.4 70.6 31 :OK

MIN.

SAMPLES TO GO= 14
STATION # 7
RANGE TC
TOC= 3.12 mg/l
SAMPLE INJECTED
4.60 ppm
US= 52.96
10-28-01 10-22-01

SAMPLES TO GO= 113 22:01

STATION # 8



48.4 71.4 31 :OK

JO 8-22-01

MIN.

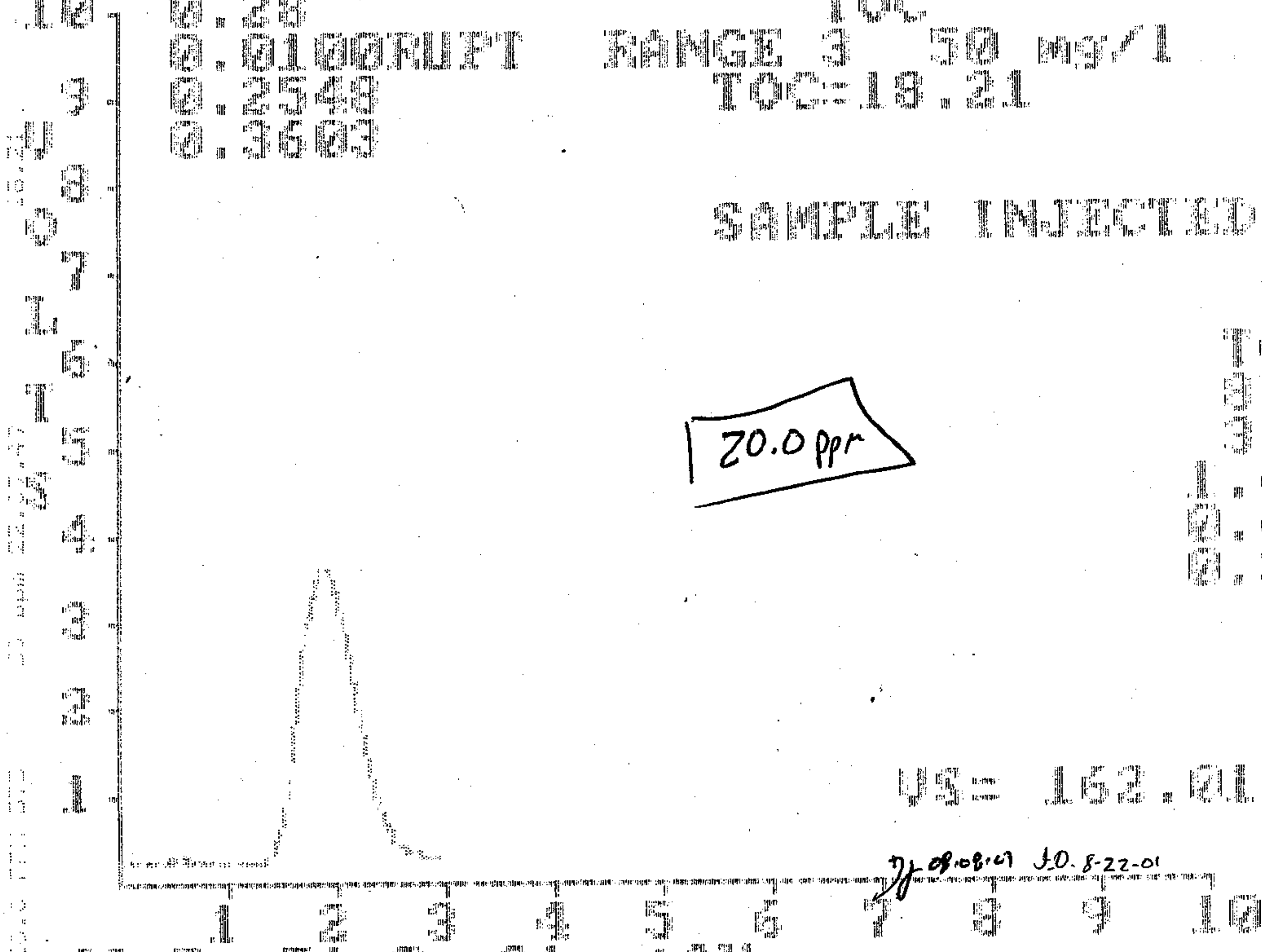
47

SAMPLES TO GO= 112 22:09
STATION # 9

0.28
0.0100RUPT RANGE 3 50 mg/l
0.2548
0.3603

TOC
TOC=18.21

SAMPLE INJECTED



20.0 ppm

US= 162.01

DJ 08-08-01 J.O. 8-22-01

43.7 71.0 31 :OK

MIN.

SAMPLES TO GO= 111 22:1

STATION # 10

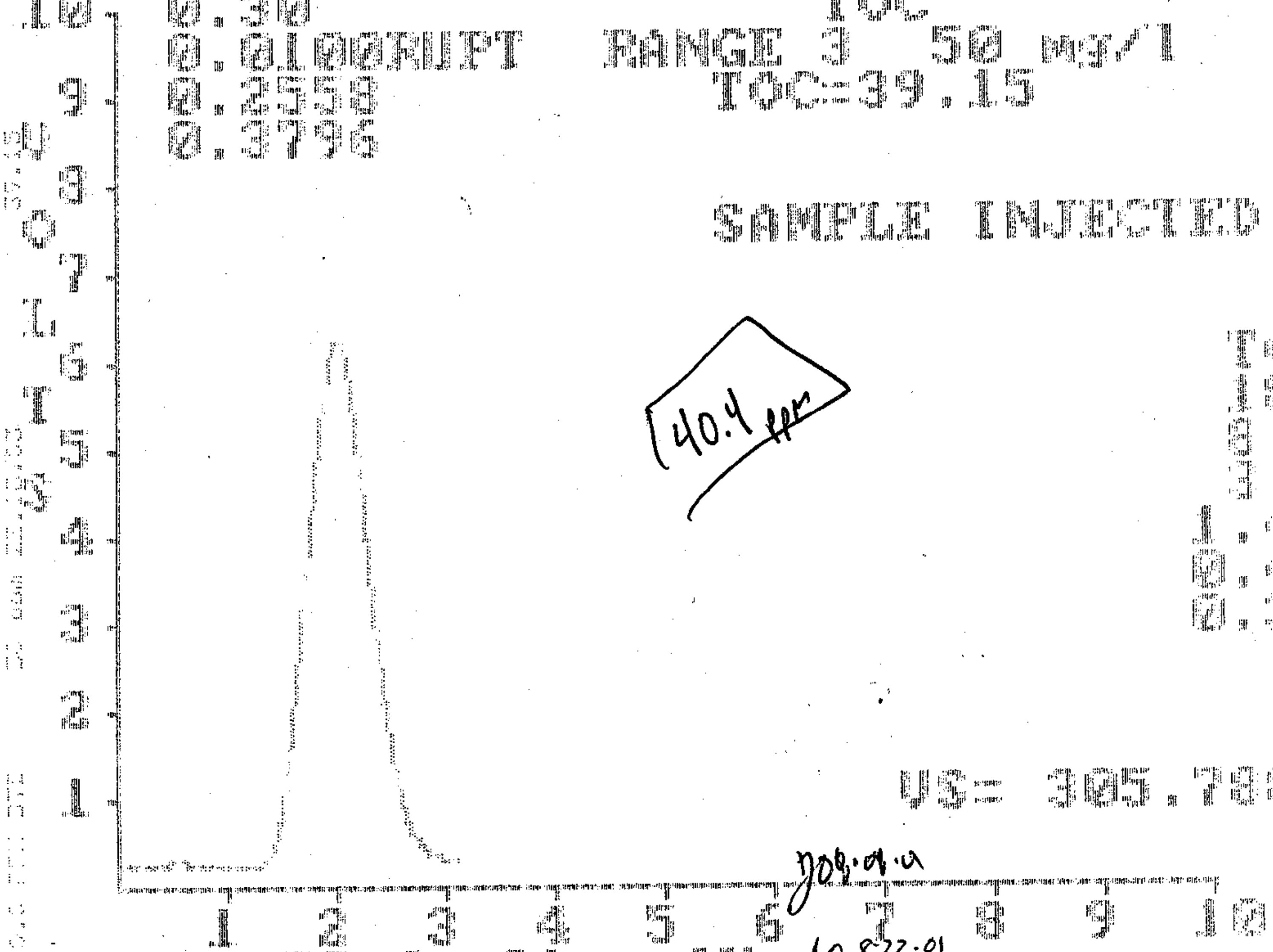
10 0.30 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2558 TOC=39.15

0.3796

SAMPLE INJECTED



US= 305.78

47.3 70.4 31 :OK

Jog. 9.4

JO 8-22-01

MIN.

02

SAMPLES TO GO= 110 22:26

STATION # 11

TOC

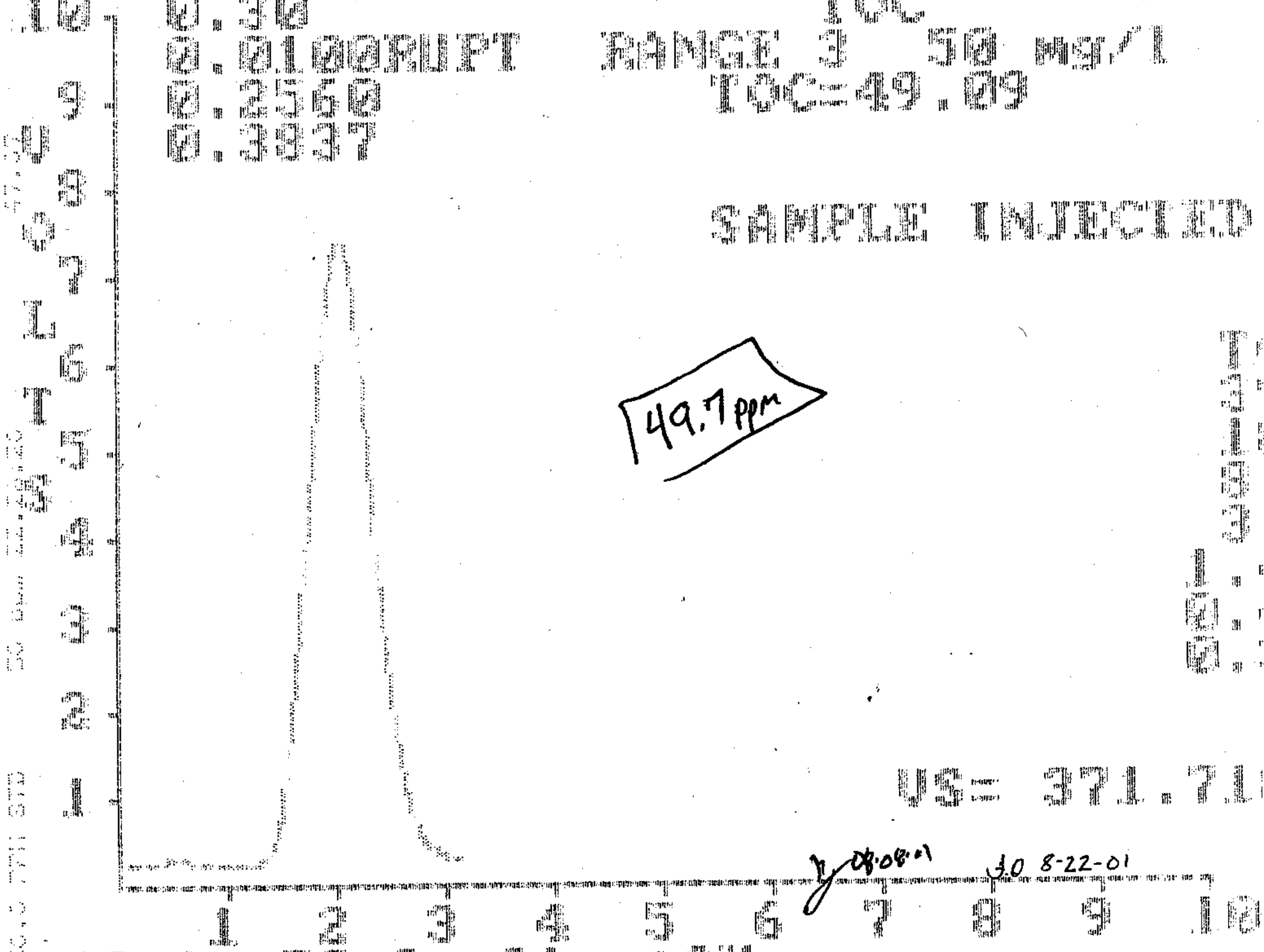
0.30

0.0100RUPT RANGE 3 50 mg/l

0.2560 TOC=49.09

0.3837

SAMPLE INJECTED



US= 371.71

MIN.

49.1 70.8 31 :OK

JO 8-22-01

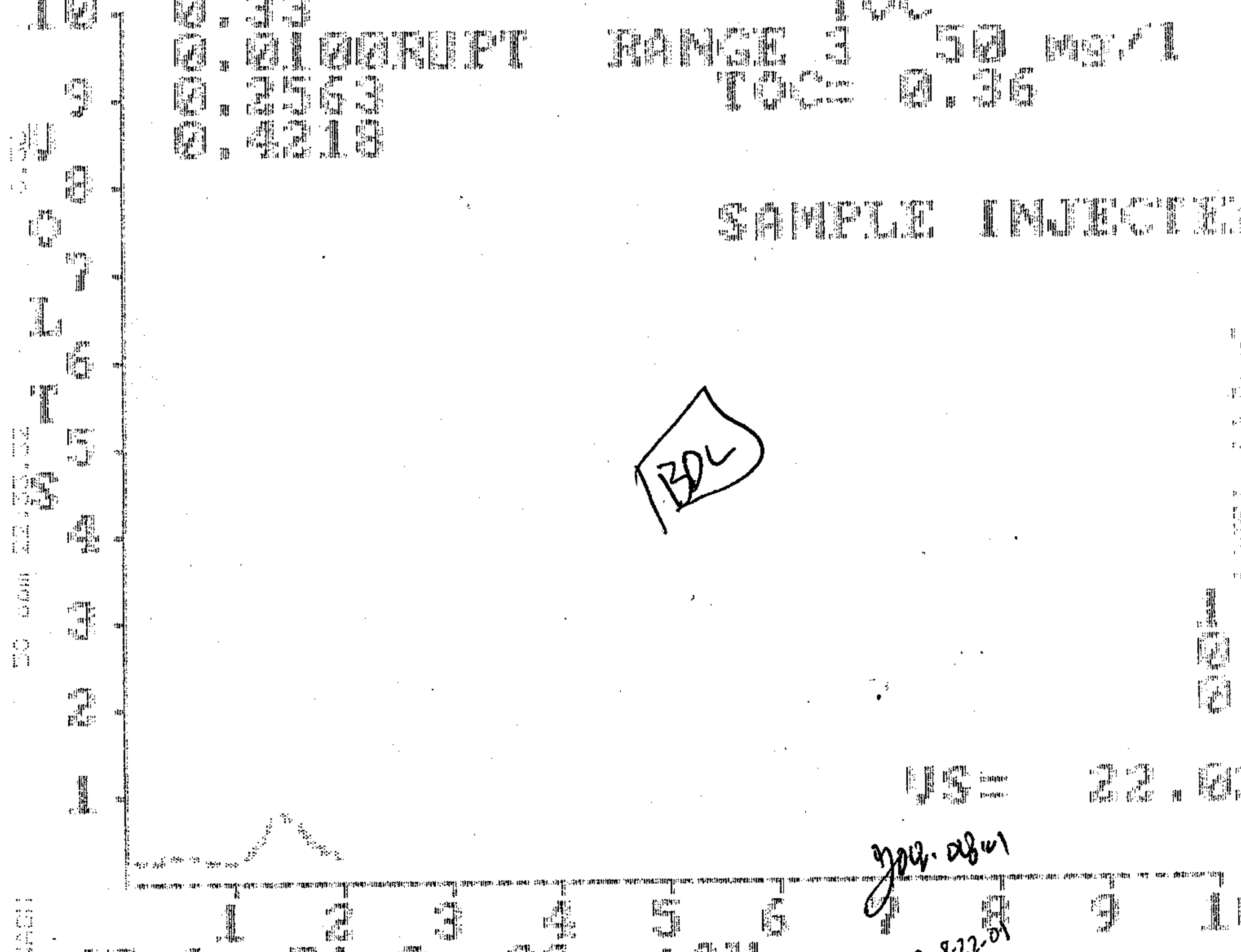
SAMPLES TO GO= 109 22:33

STATION # 12

TOC

0.33
0.010ABRUPT RANGE 3 50 mg/l
0.2563 TOC= 0.36
0.4218

SAMPLE INJECTED



US= 22.00

47.3 71.3 32 :OK

MIN.

BDL

J.O 8-22-01

12

SAMPLES TO GO= 100 22:40

STATION # 13

0.34

0.0100RUPT RANGE 3 50 mg/l

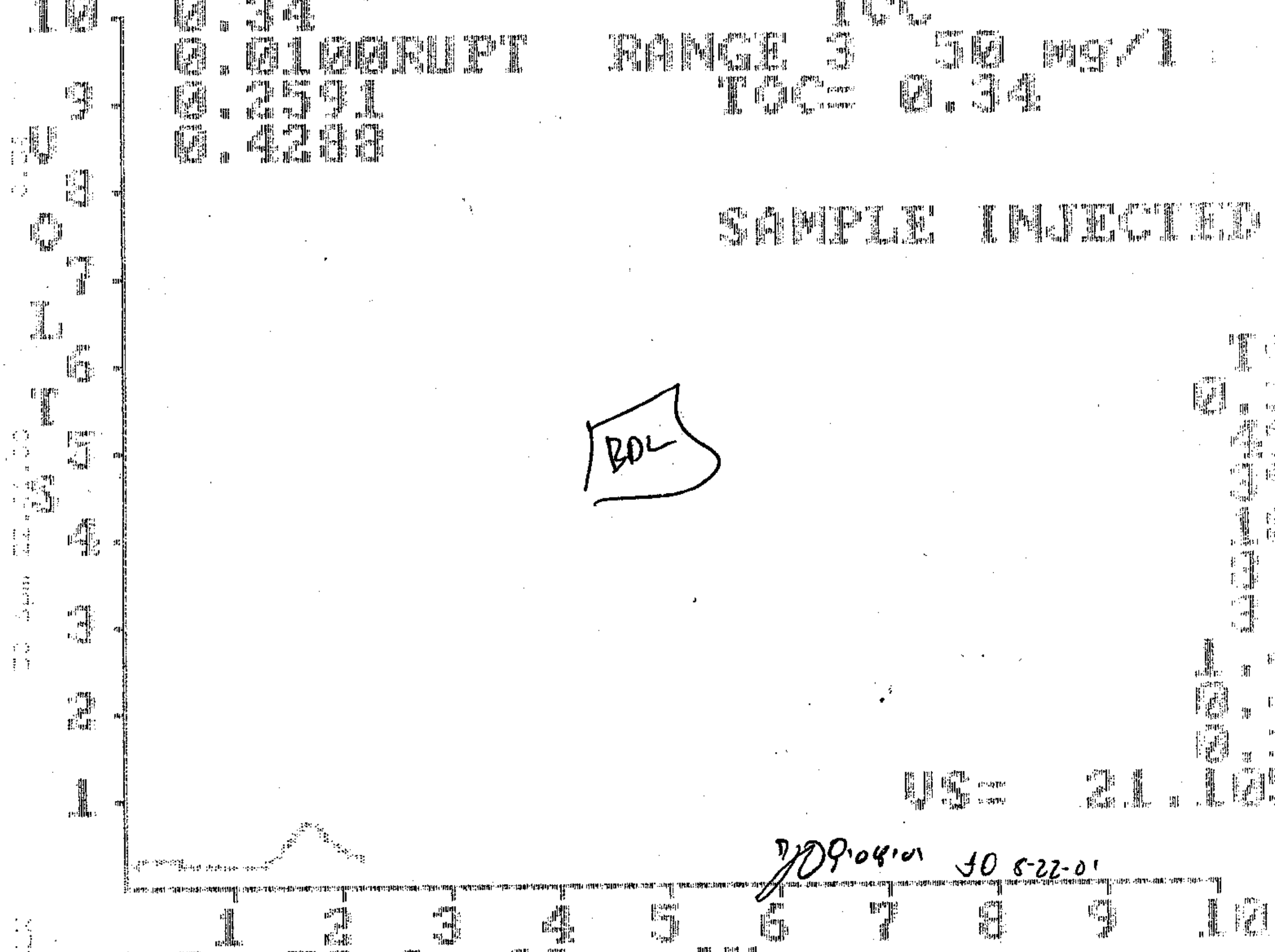
0.2591

0.4200

TOC

TOC= 0.34

SAMPLE INJECTED



US= 21.10

MIN.

47.7 70.8 32 :OK

SAMPLES TO GO= 107

STATION # 14

10:30

RANGE 50 mV

TOC=36.56

SAMPLE INJECTED

28 ppm

28.2

8.22.08

SAMPLES TO GO= 106 22:57

STATION # 15

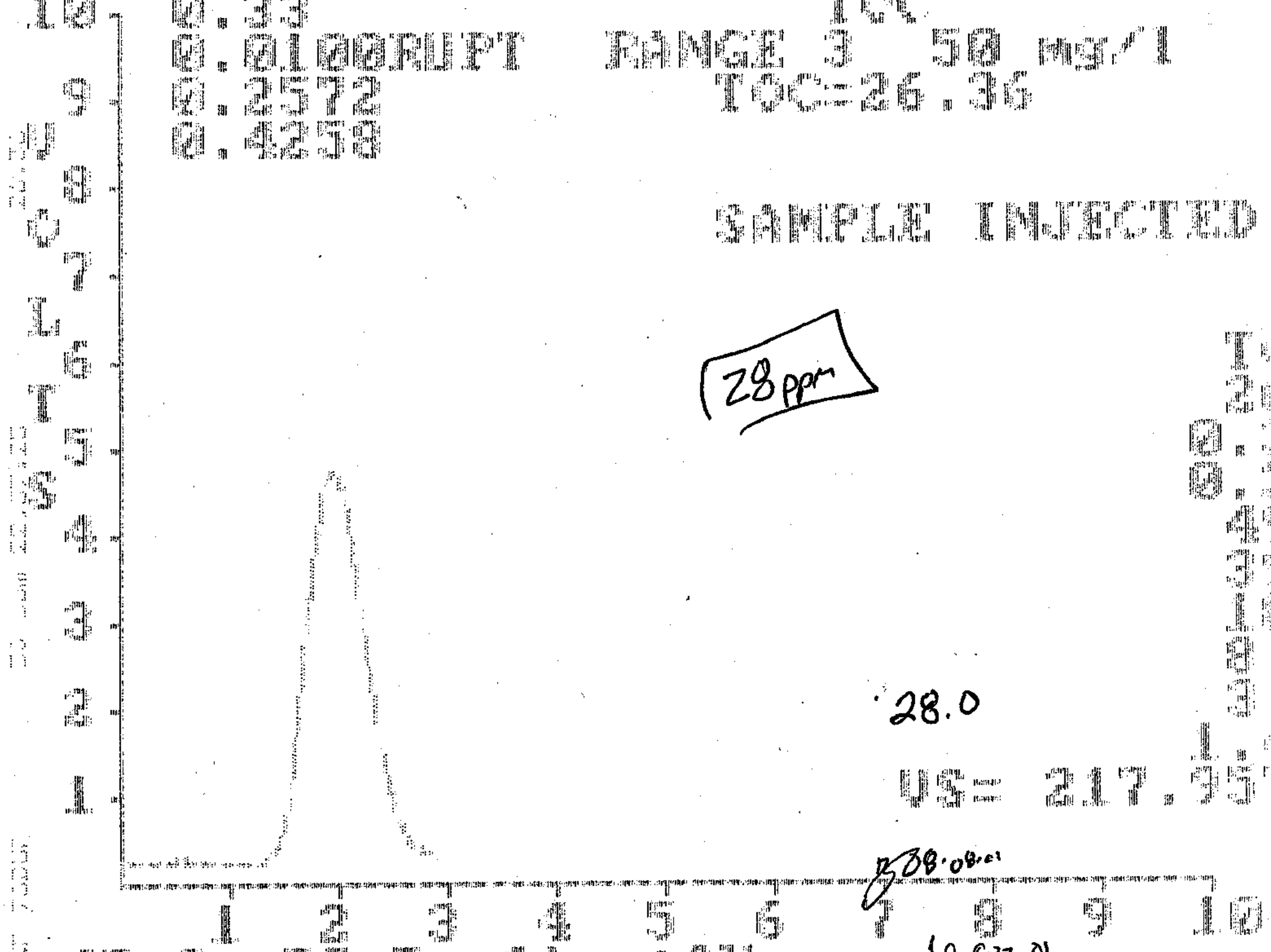
0.33 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2572 TOC=26.36

0.4258

SAMPLE INJECTED



28 ppm

28.0

US= 217.95

J.O 8-22-01

47.0 70.5 31 :OK

MIN.

SAMPLE INJECTED
RANGE 3 50 mg/l
TOC:26.16
28ppm
27.8ppm
JD 8-22-01

SAMPLES TO GO: 104

STATION #17

10 0.30

0.0100RUPT

0.3333

0.3796

TOC

RANGE 3 50 mg/l

TOC=45.93

SAMPLE INJECTED

47ppm 9.08.7

46.8ppm

18.58

92%

VS= 350.

9.08.7 JO 8-22-01

Cell Imp Out

52

SAMPLES TO GO= 103 23:22

STATION # 18

0.30

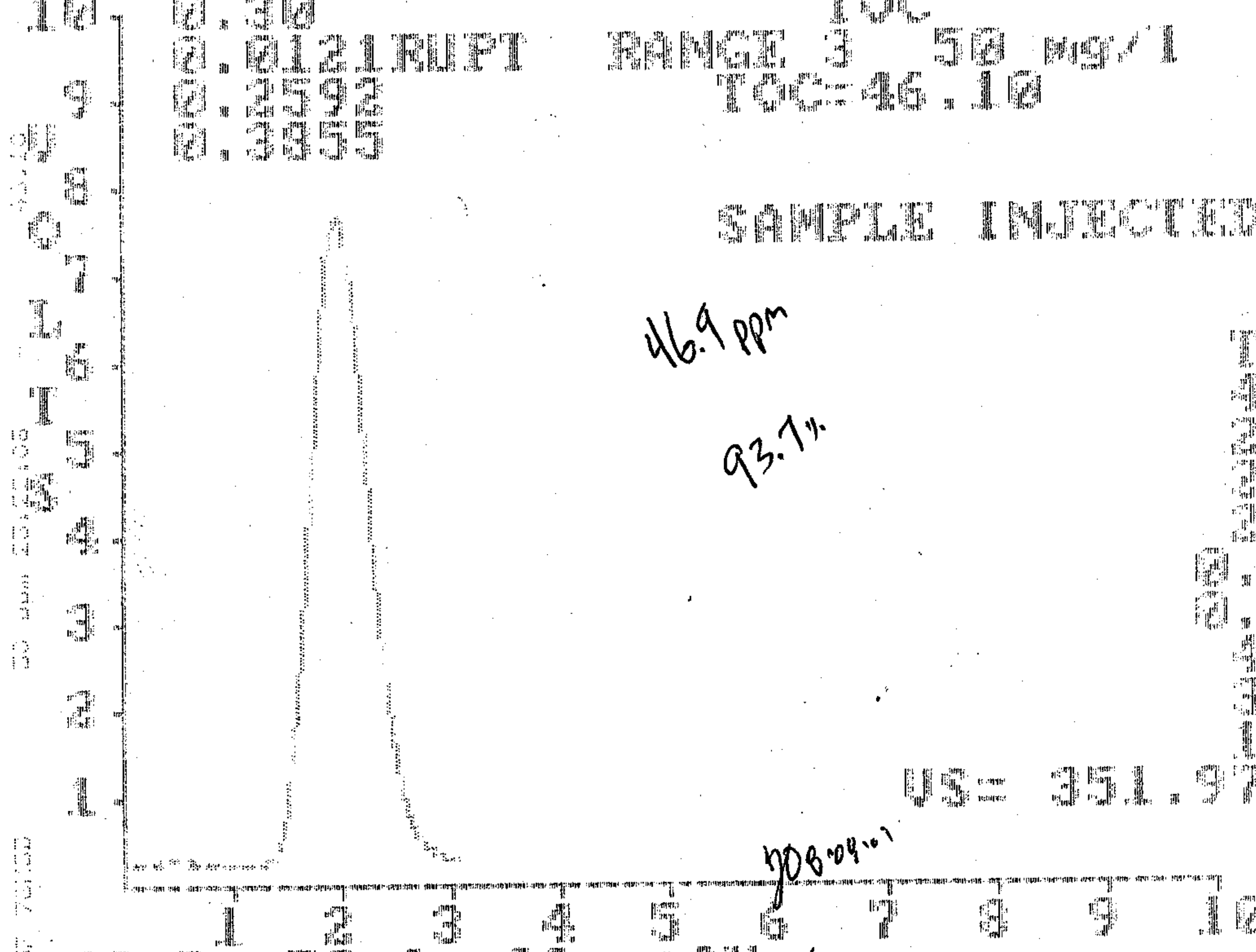
TOC

0.0121RUPT RANGE 3 50 mg/l

0.2592 TOC=46.10

0.3855

SAMPLE INJECTED



46.9 ppm

93.7%

US= 351.97

708.09.01

MIN.

51.

48.7 70.6 32 :OK JO. 8-22-01

SAMPLES TO GO= 102
STATION # 19
RANGE TOC
TOC=18.19
SAMPLE INJECTED
20ppm
10ppm
47.3
42.0
36.7
31.4
26.1
20.8
15.5
10.2
4.9
8-22-01

SAMPLE INJECTED
RANGE: TOC
TOC: 18.24 mg/l
20.1 ppm
100 %.
10.8-22-01

59

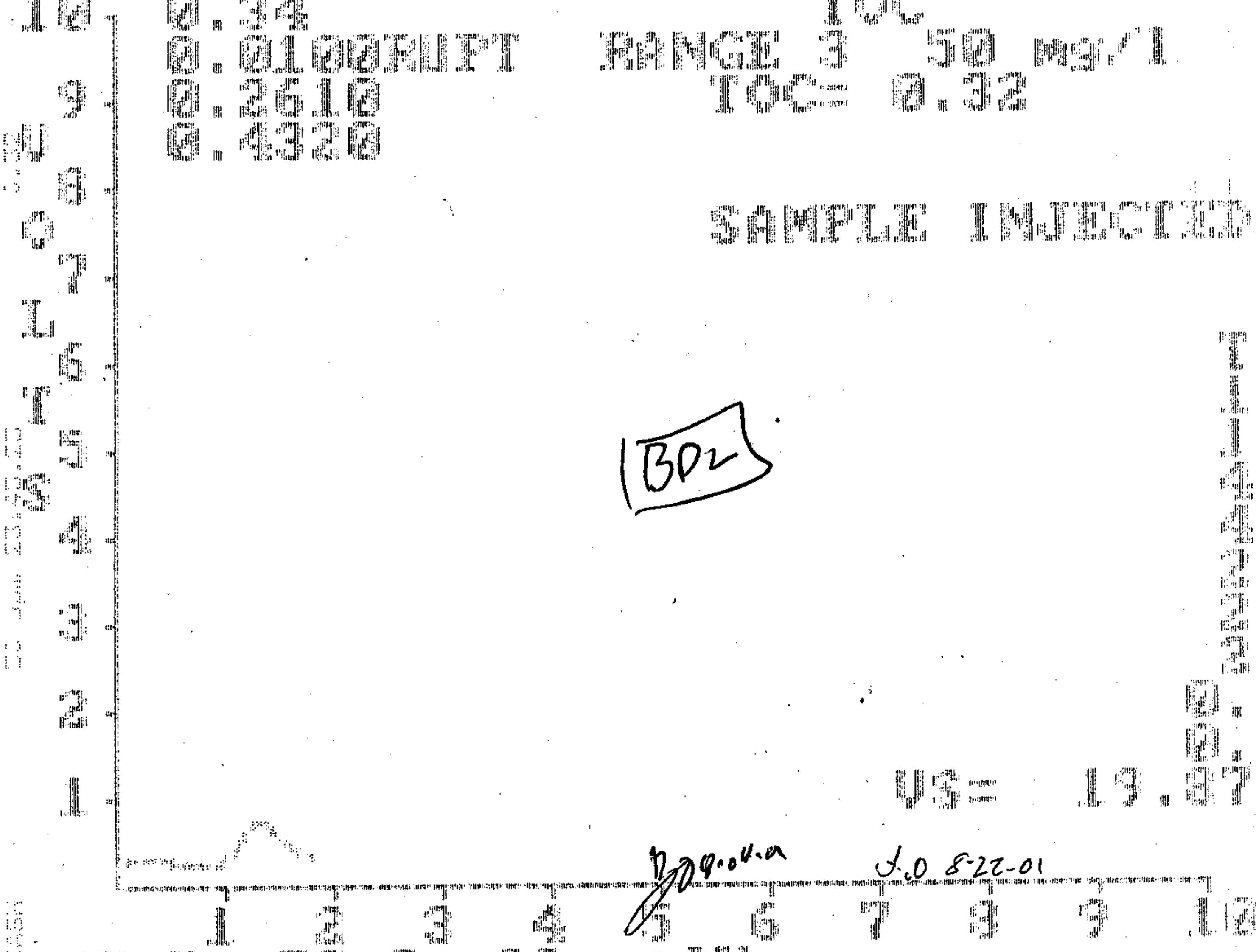
SAMPLES TO GO= 100 23:45
STATION # 21

0.34
0.0100RUPT RANGE 3 50 mg/l
0.2610
0.4320

TOC
TOC= 0.32

SAMPLE INJECTED

VS= 13.87



MIN.

47.7 70.0 32 :OK

SAMPLE INJECTED

RANGE: TOC
TOC=59.58 MG/L

61.2ppm

JPG 8-21-01

JO. 8-22-01

SAMPLES TO GO- 98
32
BANKRUPT
SOIL
TOC
RANGE 3 58 mg/l
TOC=59.32
SAMPLE INJECT
60.6 ppm
US- 48..
J.D 8-22-01

:29

SAMPLES TO GO= 97 00:11

STATION # 24

TOC

0.32

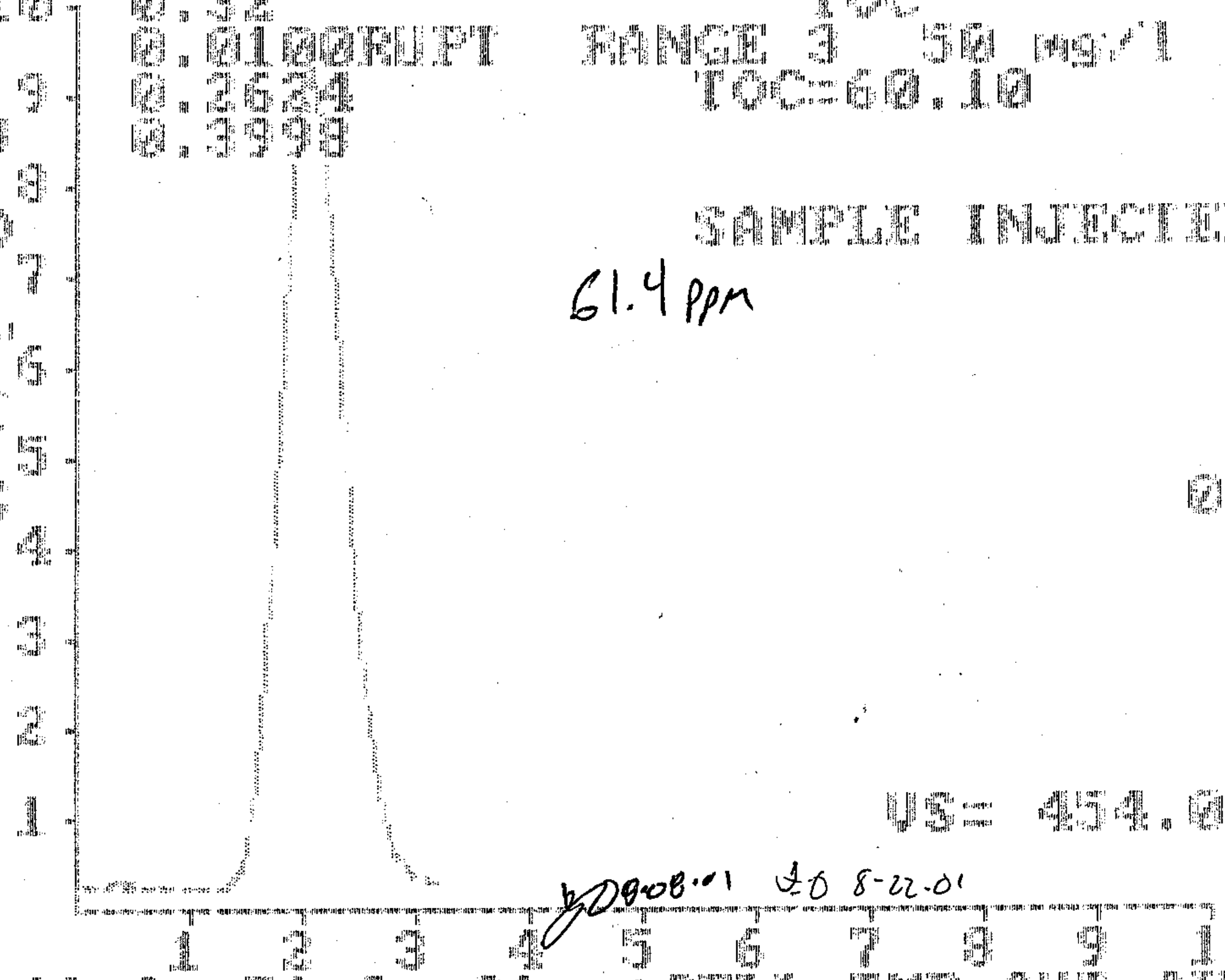
0.0100RUPT RANGE 3 50 mg/l

0.2624 TOC=60.10

0.3998

SAMPLE INJECTED

61.4 ppm



TOC
19.9
122
18.2
18.2
16.1
15.3
15.2
16.4
15.5
1392

US= 454.07

8-08-01 8-22-01

0 MIN.

46.6 71.2 31 :CELL TMP OUT OF

SAMPLES TO GO= 64 01:51

STATION # 37

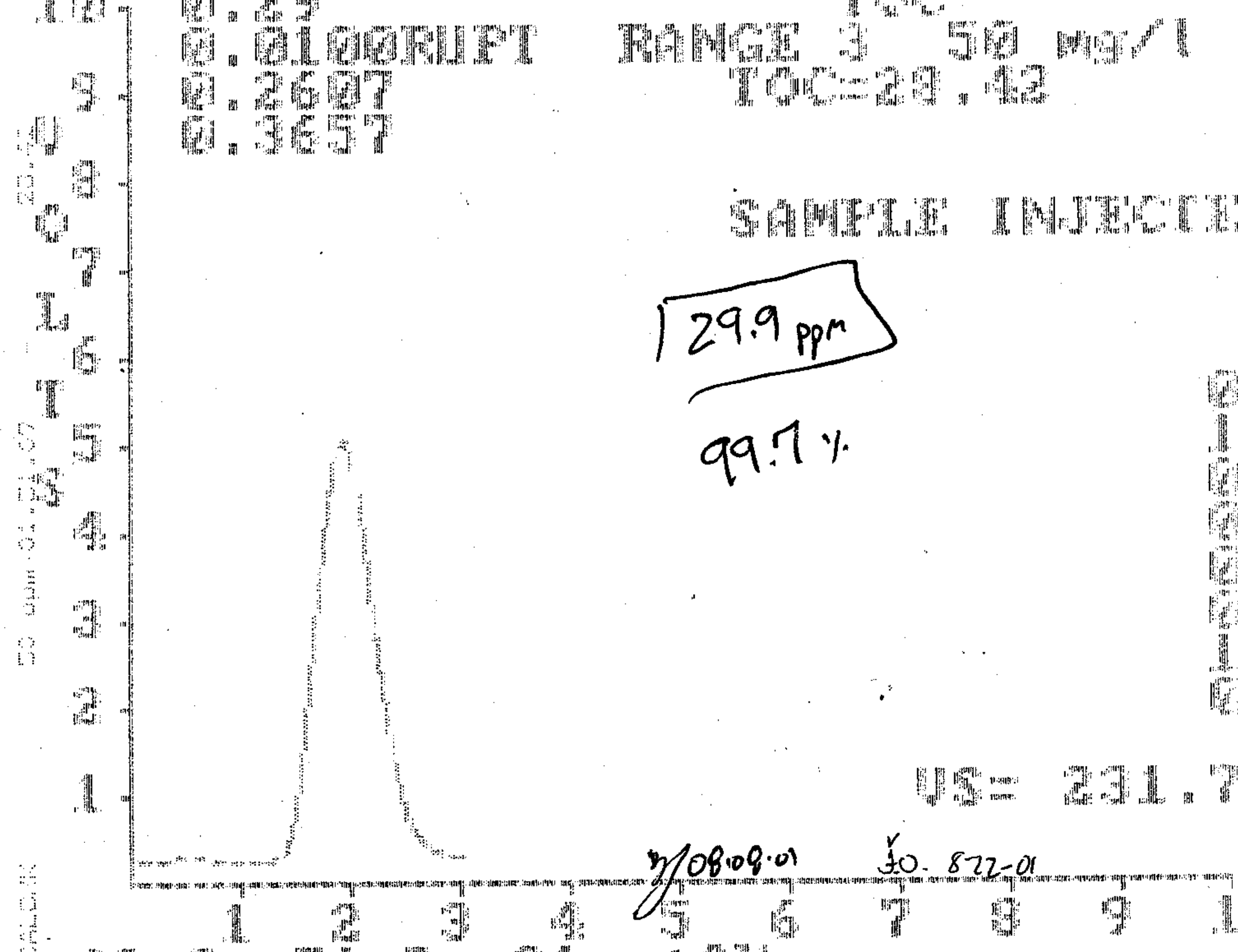
0.29 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2607 TOC=28.42

0.3657

SAMPLE INJECTED



29.9 ppm

99.7%

08.08.01 J.O. 8-22-01

US= 231.78

MIN.

48.0 71.7 31 :OK

SAMPLE INJECTED
RANGE 10.0
RUPT
BDL
8.22-01

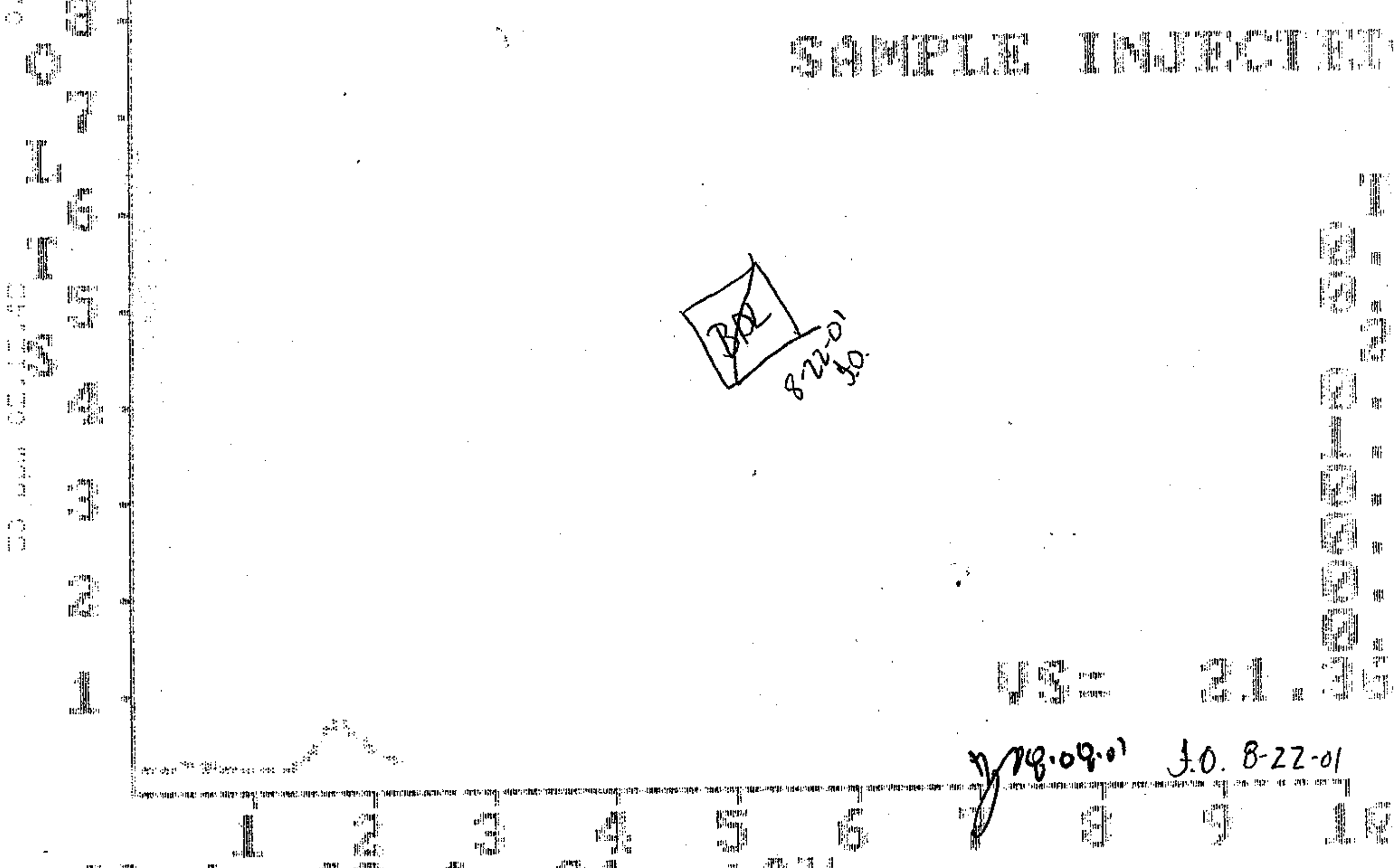
SAMPLE INJECTED
RANGE 2
TOC: 8.34 mg/l
BDL
8-22-01
J.O. 8-22-01

SAMPLES TO GO= 81 02:12
STATION # 40

10 0.34
0.0100RUPT RANGE 3 50 mg/l
0.2589
0.4297

TOC
TOC= 0.35

SAMPLE INJECTED



MIN.

43.4 69.4 31 :OK

SAMPLE INJECTED

RANGE TOC 3.50 mg/l
TOC 0.34

BDC 8-22-01
J.O.

BDC 8-22-01 J.O.

SAMPLE INJECTED

RANGE TOC
TOC= 0.36 mg/l

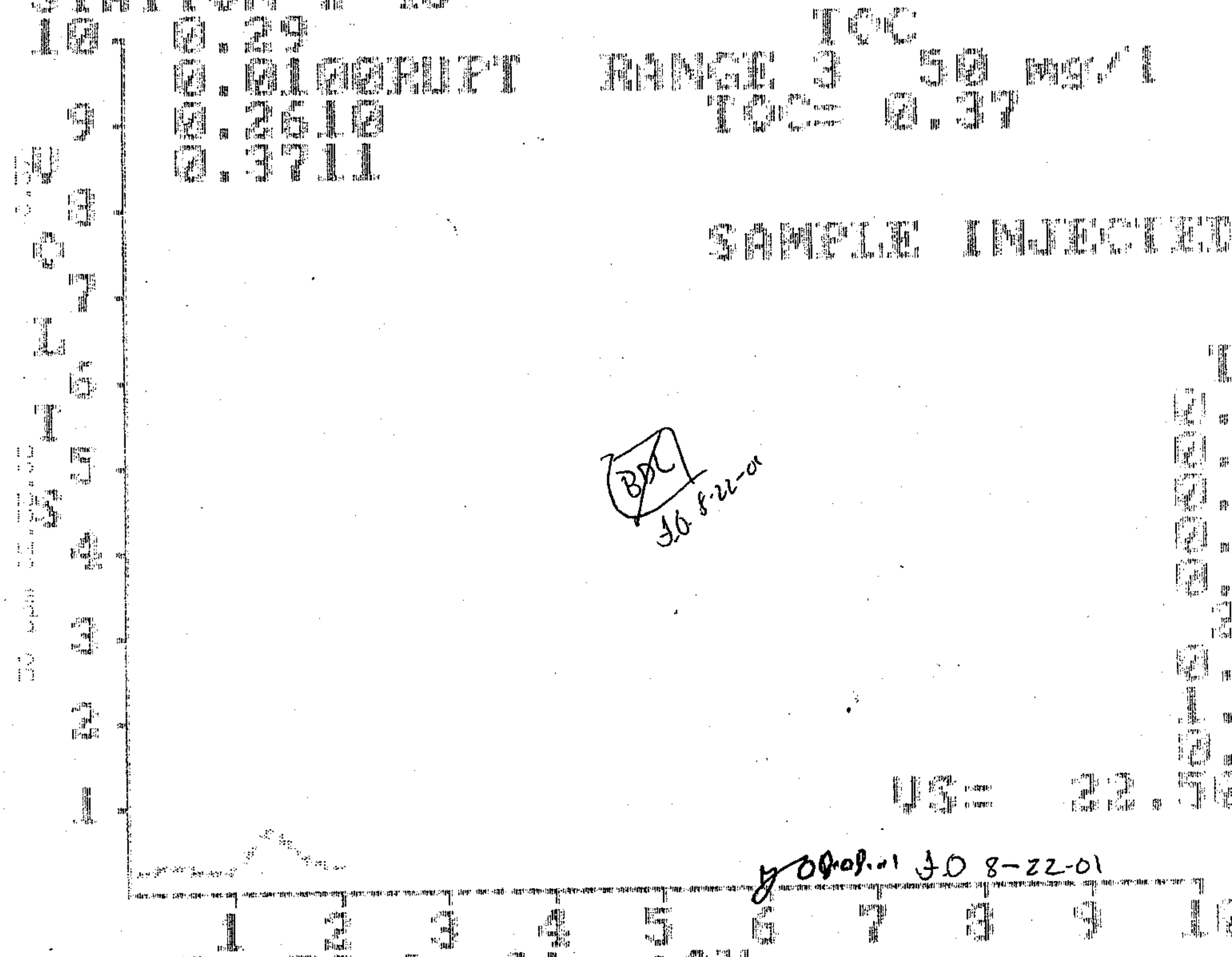
BDL

JB 8-01 JO 8-22-01

37

SAMPLES TO GO= 73 02:35

STATION # 43



MIN.

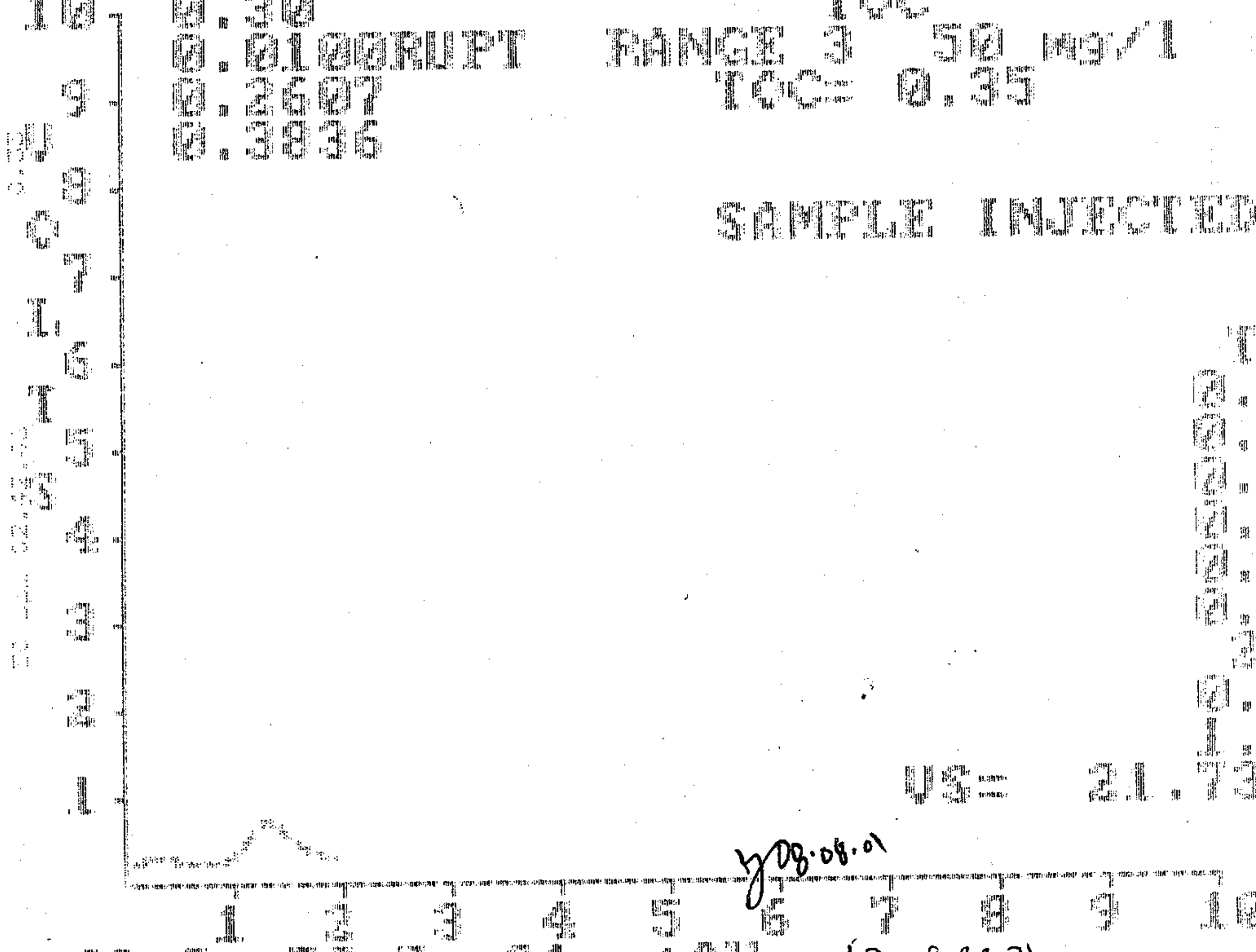
37.7 70.6 31 :OK

03

SAMPLES TO GO= 77

02:4

STATION # 44



48.0 70.5 31 :OK JO. 8-22-01

SAMPLE INJECTED
RANGE 10
TOC 0.30 mg/l
08:08.01 8-22-01 10

SAMPLES TO GO= 75 02:5

STATION # 46

0.32

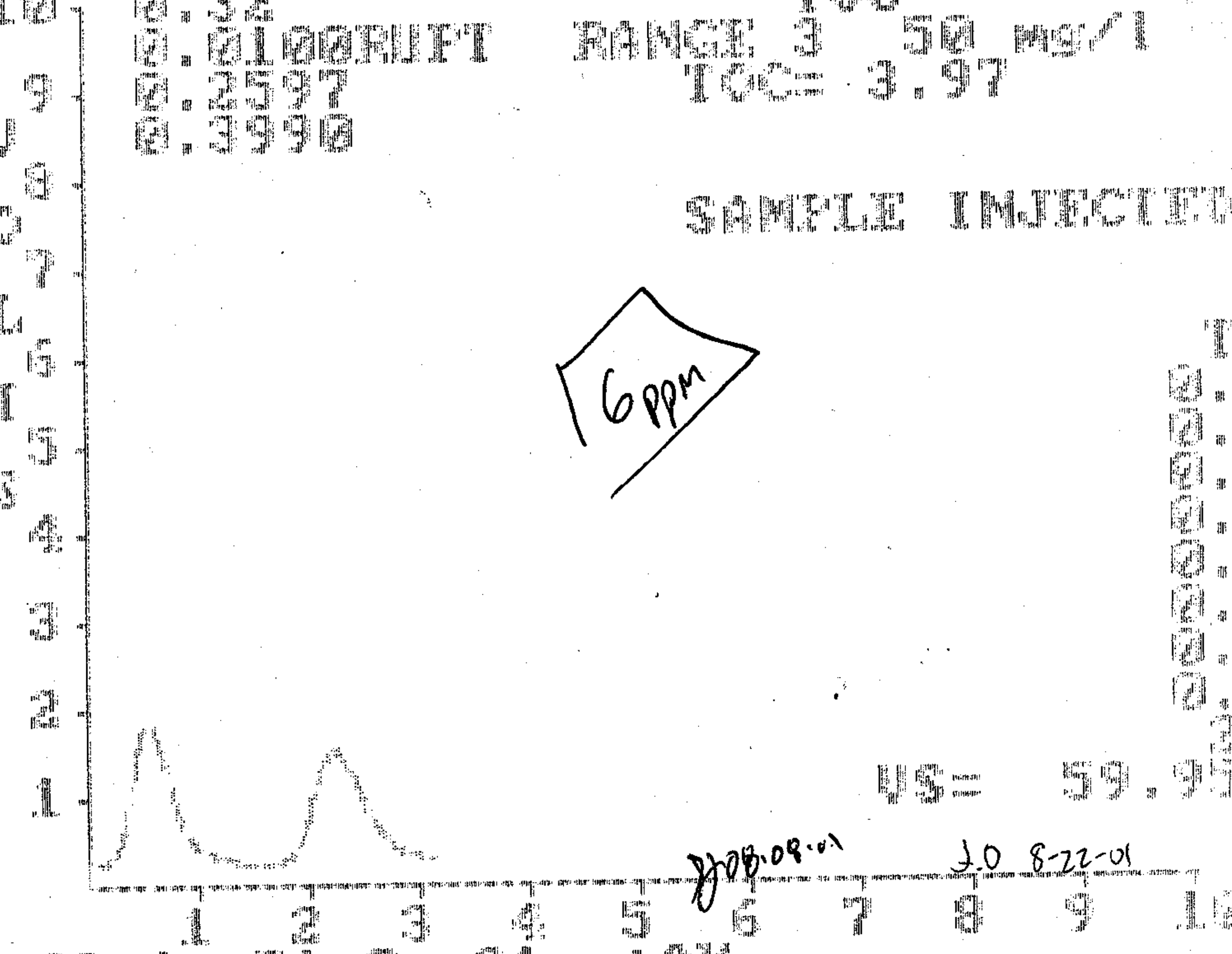
0.0100RUPT RANGE 3 50 mg/l

0.2597 TOC= 3.97

0.3990

TOC

SAMPLE INJECTE



6ppm

JJ 08.08.01

J.O 8-22-01

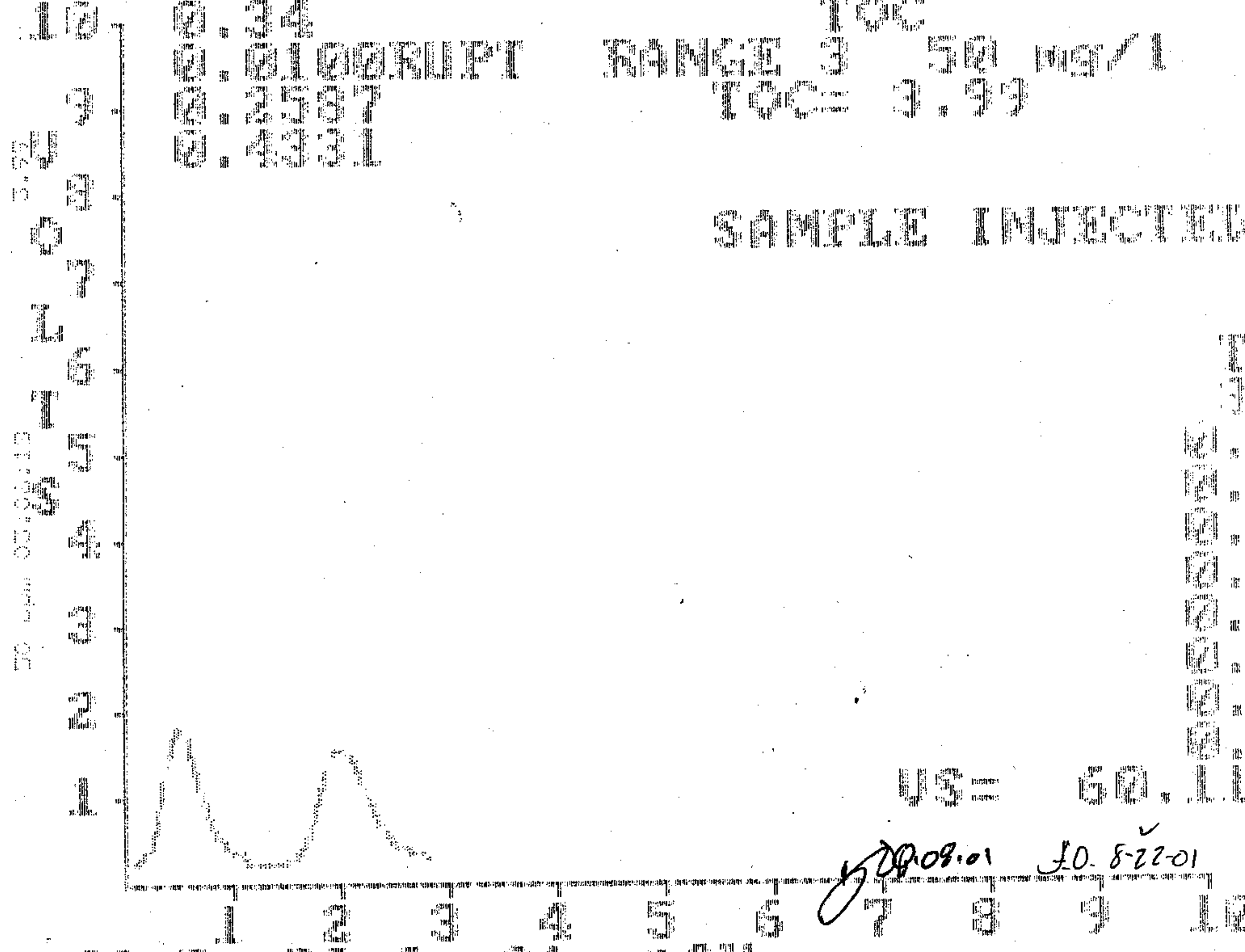
US= 59.9

48.4 71.0 31 :OK

MIN.

#2

SAMPLES TO GO= 74 03:06
STATION # 47



MIN.

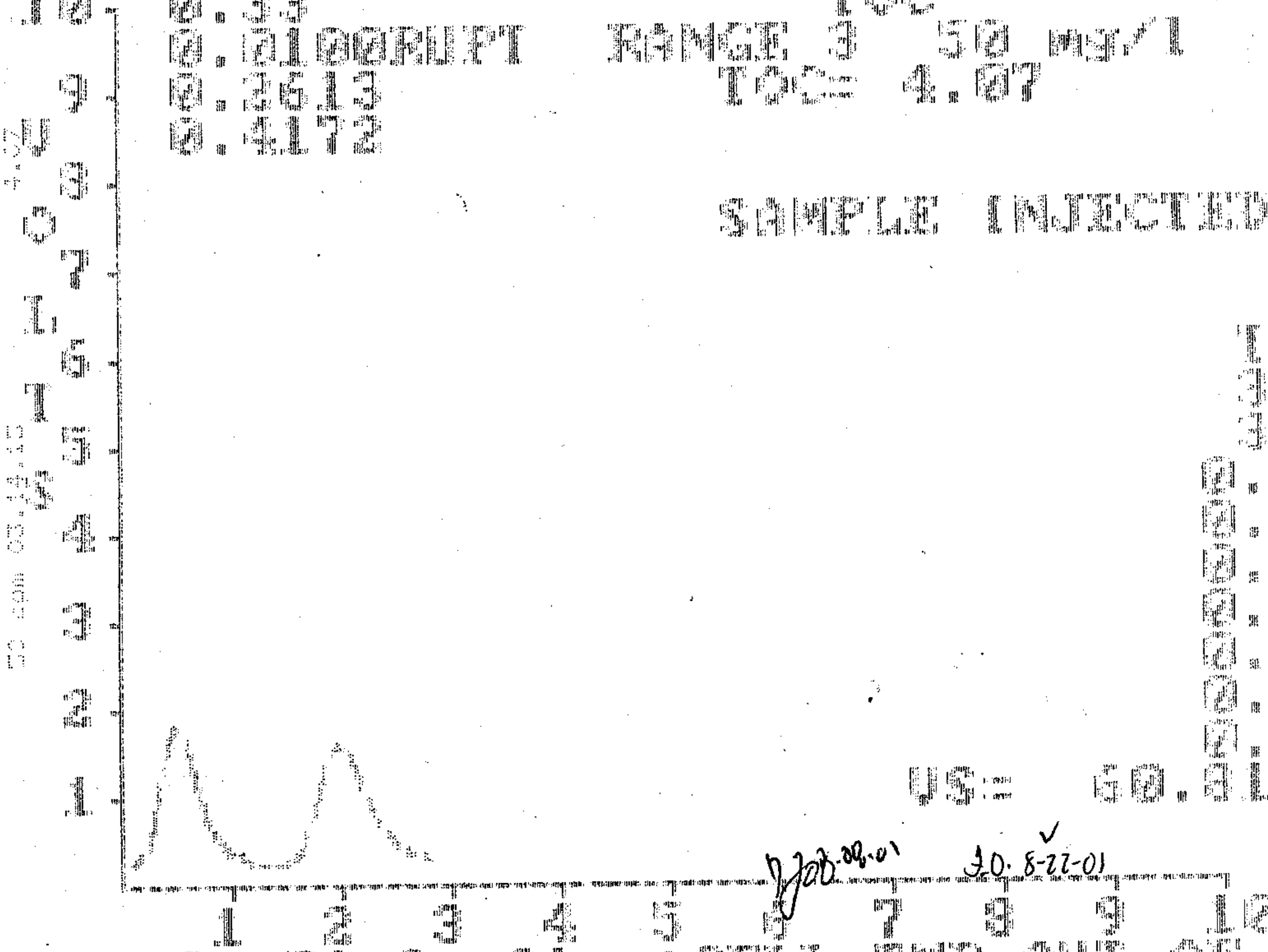
48.7 70.9 31 :OK

17

SAMPLES TO GO= 73 | 03:14
STATION # 48

.10 0.33 TOC
0.0100RUPT RANGE 3 50 mg/l
0.2613 TOC= 4.07
0.4172

SAMPLE INJECTED



US= 60.8

MIN.

45.9 71.3 31 :CELL TMP OUT OF

JO. 8-22-01

SAMPLES TO GO= 72

STATION # 49

10 0.34

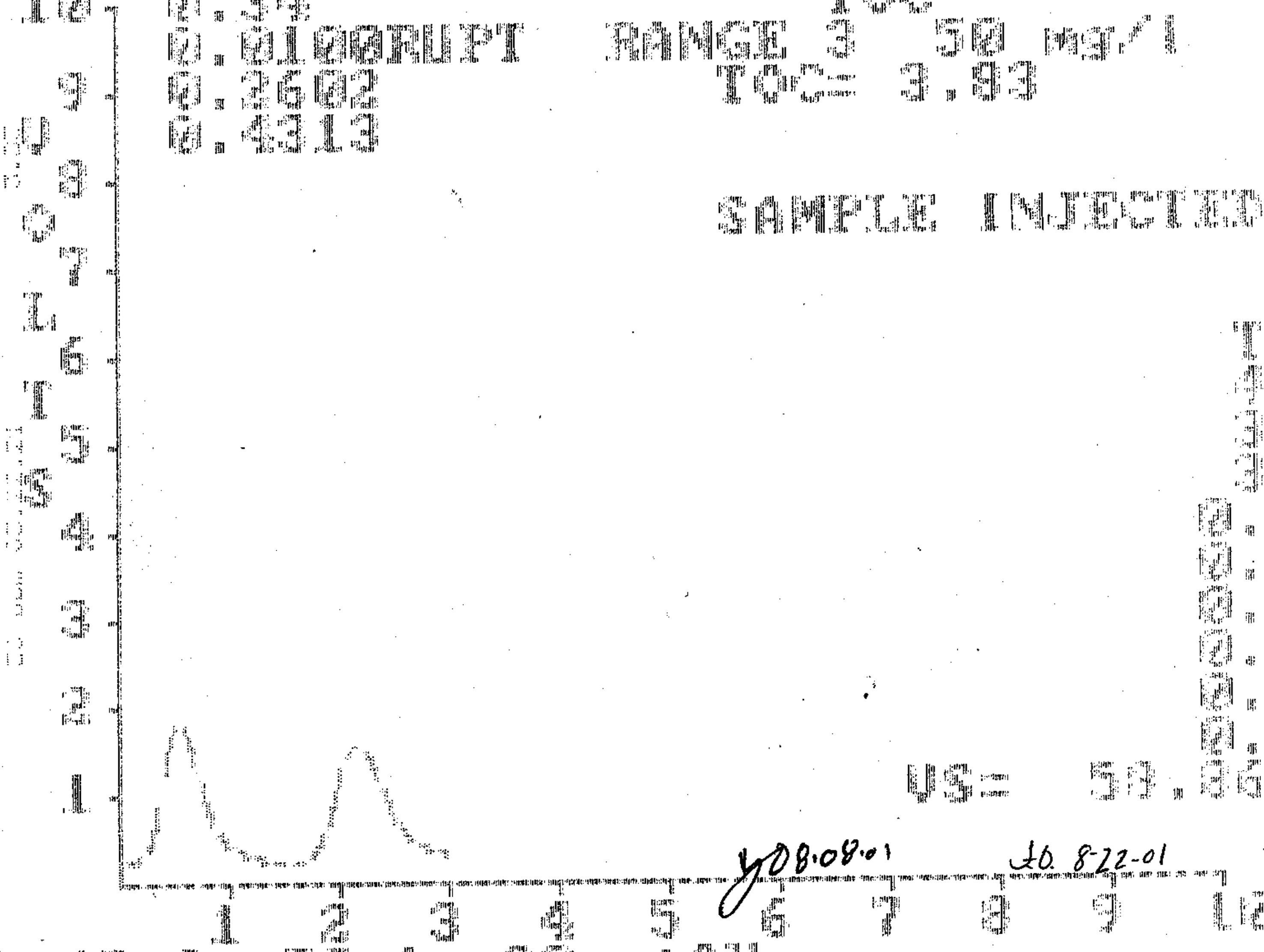
TOC

0.0100RUPT RANGE 3 50 mg/l

0.2602 TOC= 3.93

0.4313

SAMPLE INJECTED



VS= 58.8

y08.08.01 JO 8-22-01

47.3 70.1 30 :OK

MIN.

21

SAMPLES TO GO= 71 03:5

STATION # 50

TOC

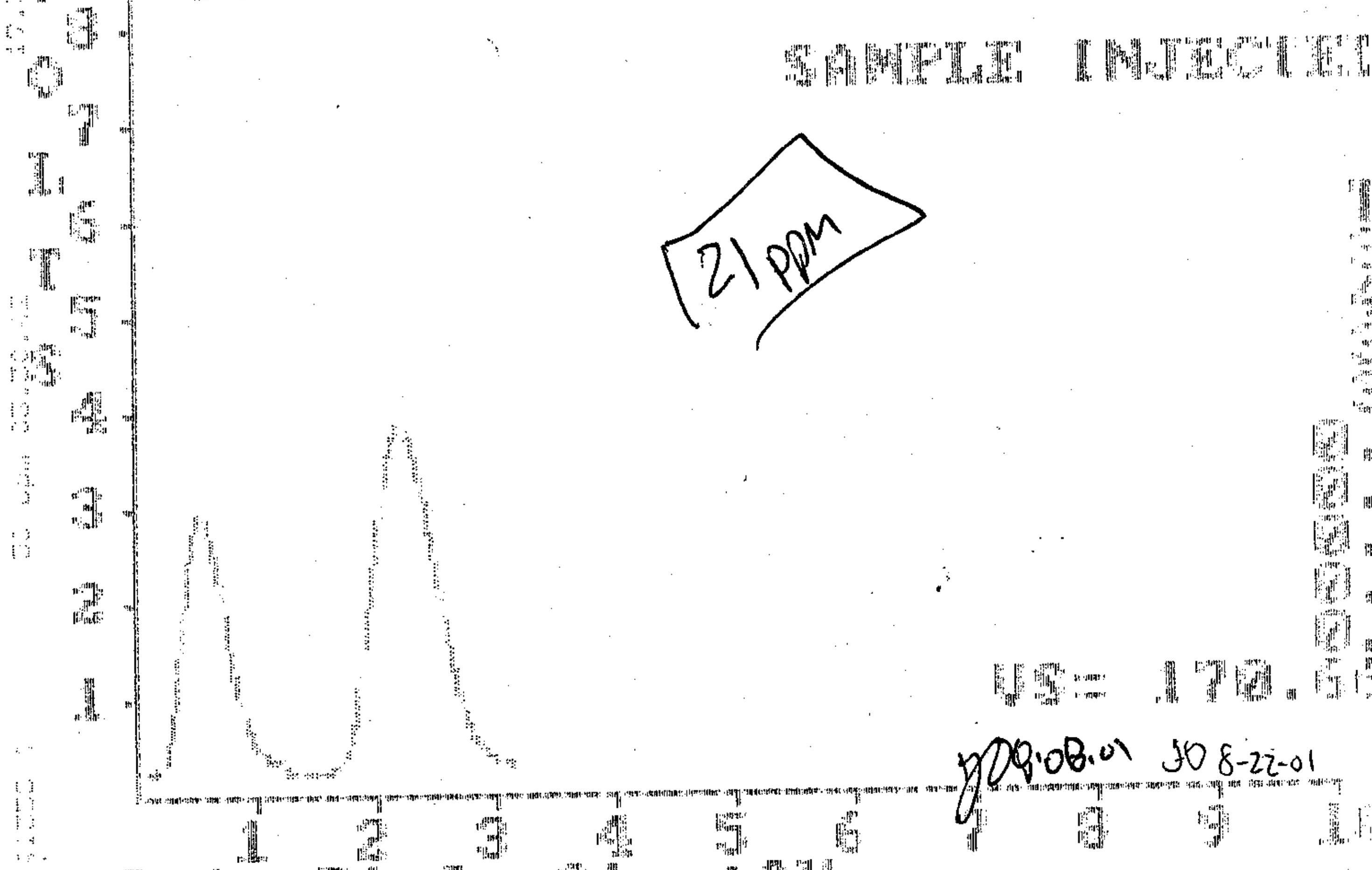
10 0.34

0.0100RUPT RANGE 3 50 mg/l

0.2603 TOC=19.38

0.4324

SAMPLE INJECTE



US= 170.5

JO 8-08-01 JO 8-22-01

88.4 71.2 31 :OK

VIEN.

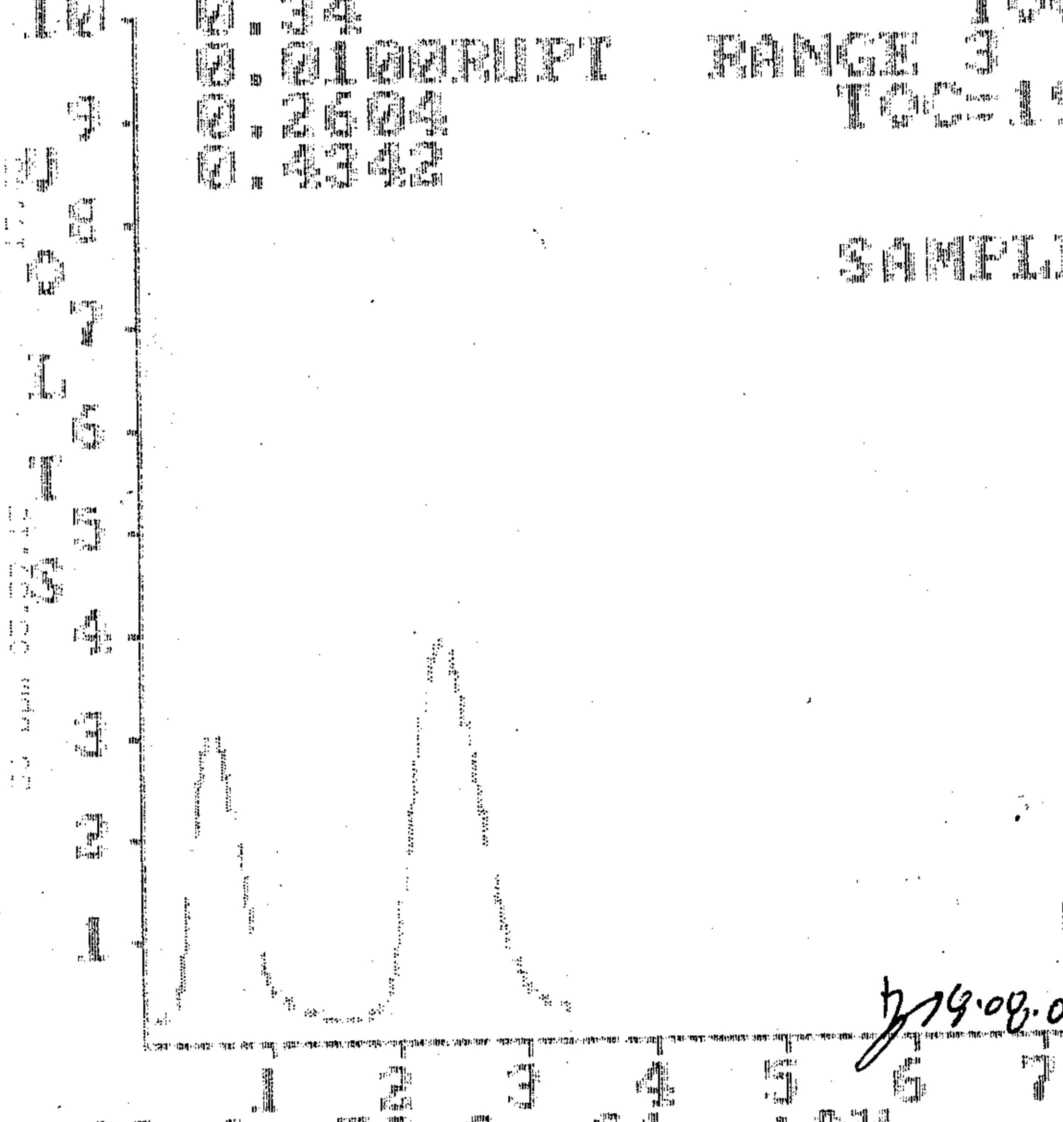
11

SAMPLES TO GO= 70 03:39
STATION # 51

TOC

0.34
0.0100RUPT RANGE 3 50 mg/l
0.2604 TOC=19.43
0.4342

SAMPLE INJECTED



US= 171.0

14.08.01 08-22-0

MEM.

43.4 70.9 31 :OK

L2

SAMPLES TO GO= 69 03:47

STATION # 52

TOC

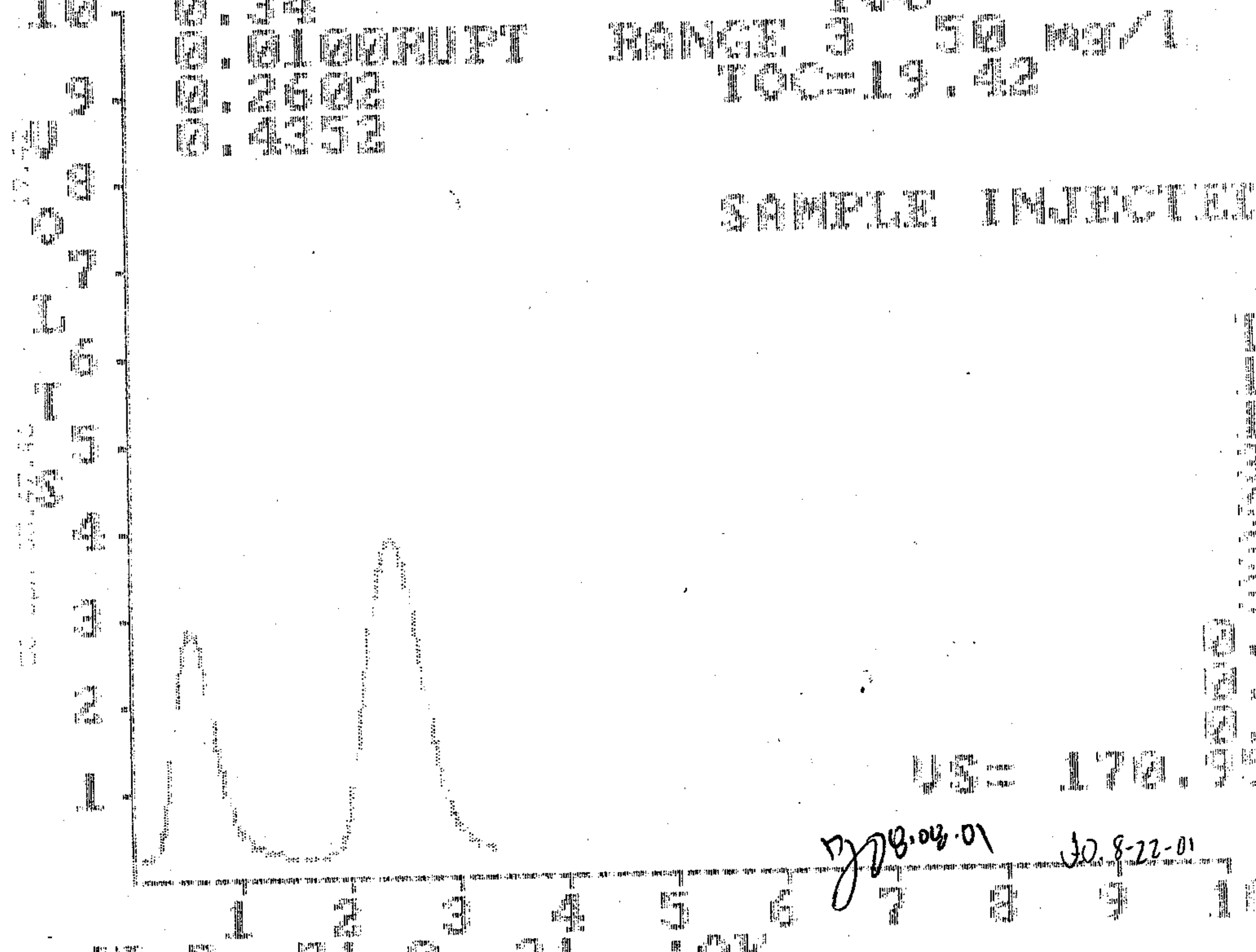
0.34

0.0100RUPT RANGE 3 50 mg/l

0.2602 TOC=19.42

0.4352

SAMPLE INJECTE[D]



MIN.

47.7 71.0 31 :OK

SAMPLE IMJECTED
RANGE 100
TOC 19.48 mV
10 SAMPLES TO GO
STATION # 53
DO NOT DISRUPT
8.08.01
8-22-01

SAMPLES TO GO: 57

STATION # 54

12 0.36

0.6100RUPT

0.3615

0.4476

RANGE TOC
3.50 mg/l
TOC 12.59

SAMPLE INJECTED

14 ppm

0.0 1.5 3.0 4.5 6.0 7.5 9.0 10.5

12.59

8-22-01

43

SAMPLES TO GO= 66 04:13

STATION # 55

TOC

0.36

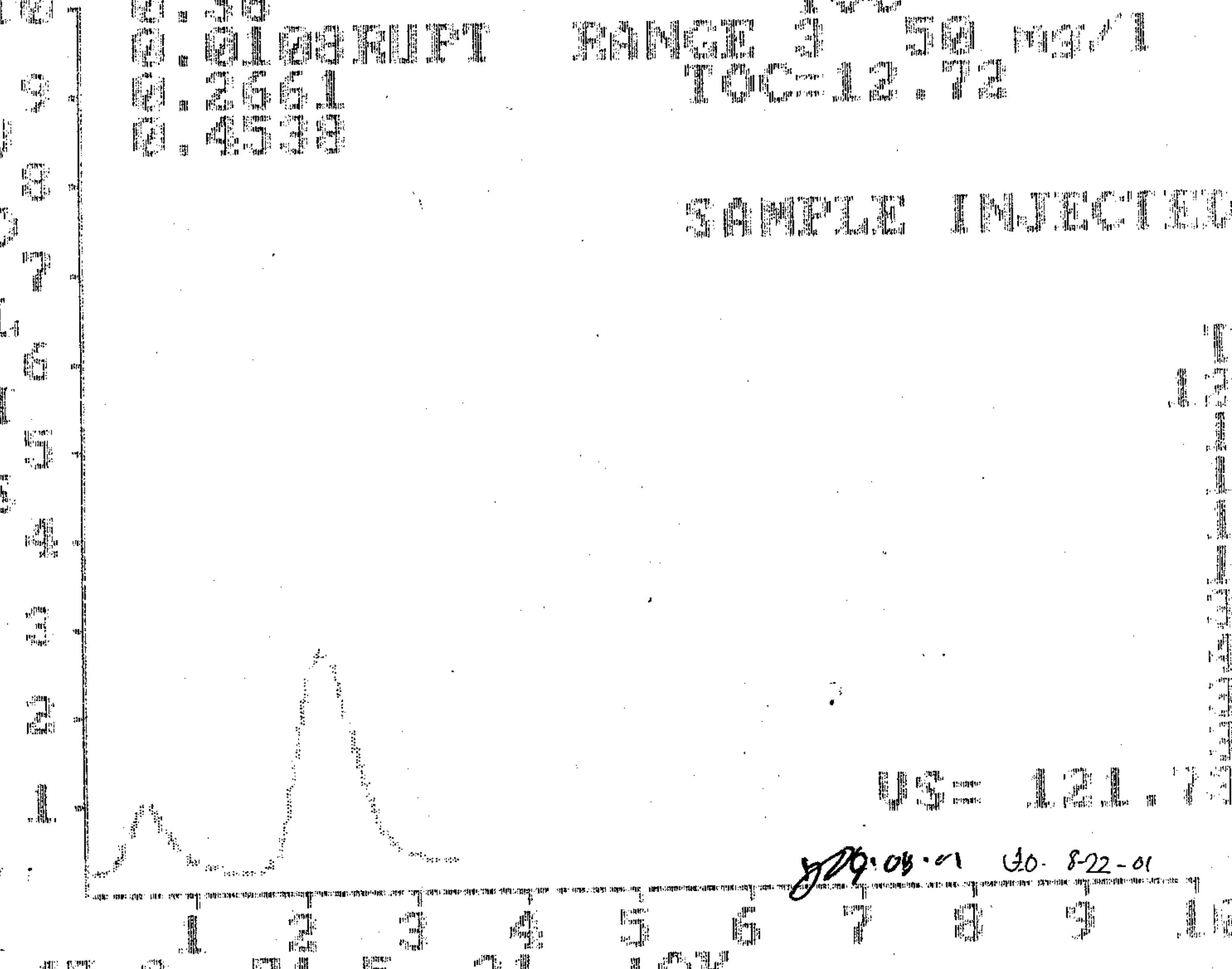
0.0108RUPT RANGE 3 50 mg/l

0.2661 TOC=12.72

0.4538

SAMPLE INJECTED

VOLTS



US= 121.7

9.08.01 JO. 8-22-01

MIN.

47.3 71.5 31 :OK

SAMPLE INJECTION #56

RANGE TOC
TOC=12.65 mg/l

SAMPLE INJECTION #56

TOC=12.65 mg/l

RANGE TOC

09:08:01 8-22-01

55

SAMPLES TO GO= 64 04:3

STATION # 57

TOC

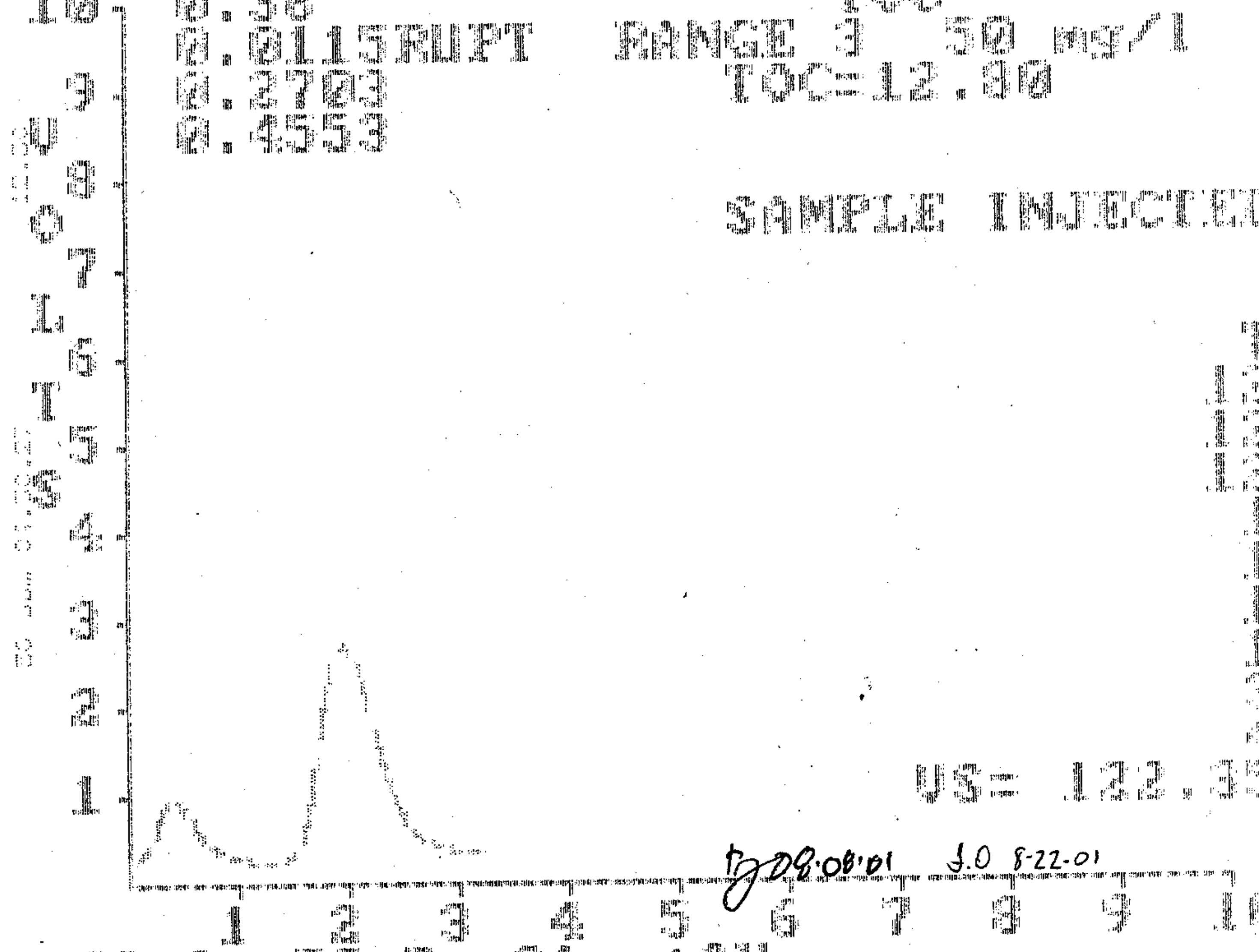
0.36

0.0115RUPT RANGE 3 50 mg/l

0.2703 TOC=12.80

0.4553

SAMPLE INJECTE



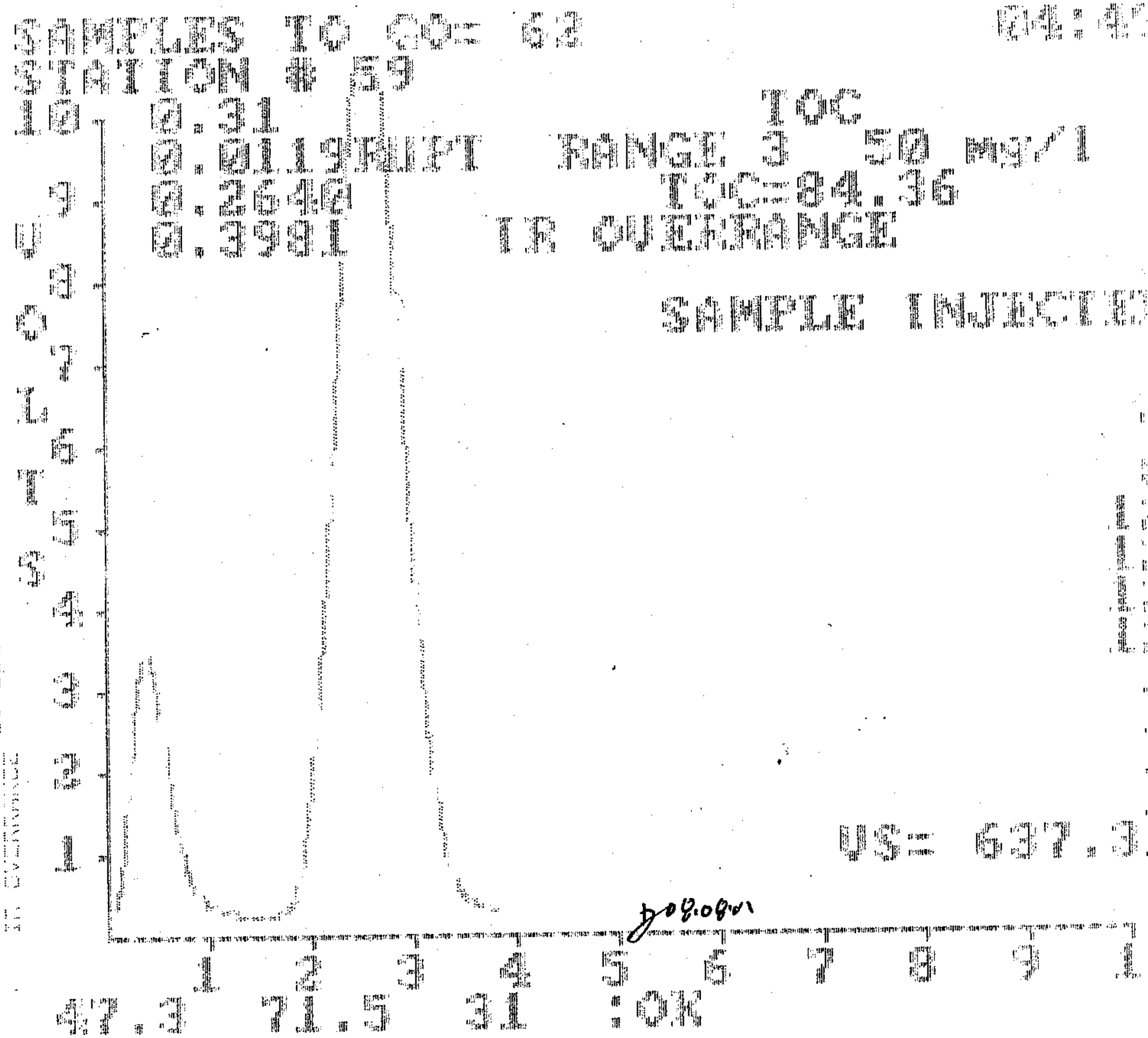
US= 122.3

TJ 08.08.01 J.O 8-22-01

MIN.

48.0 70.7 31 :OK

Rerun at
D1 25/100
08.08.01



SAMPLES TO GO= 62
04:4
STATION # 59
TOC
10 0.31
0.0119MIPT RANGE 3 50 mg/l
0.2640 TOC=84.36
0.3981 IR OVERRANGE
SAMPLE INJECTE
UOLTS
US= 637.3
1 2 3 4 5 6 7 8 9 1
47.3 71.5 31 :OK

MIN.

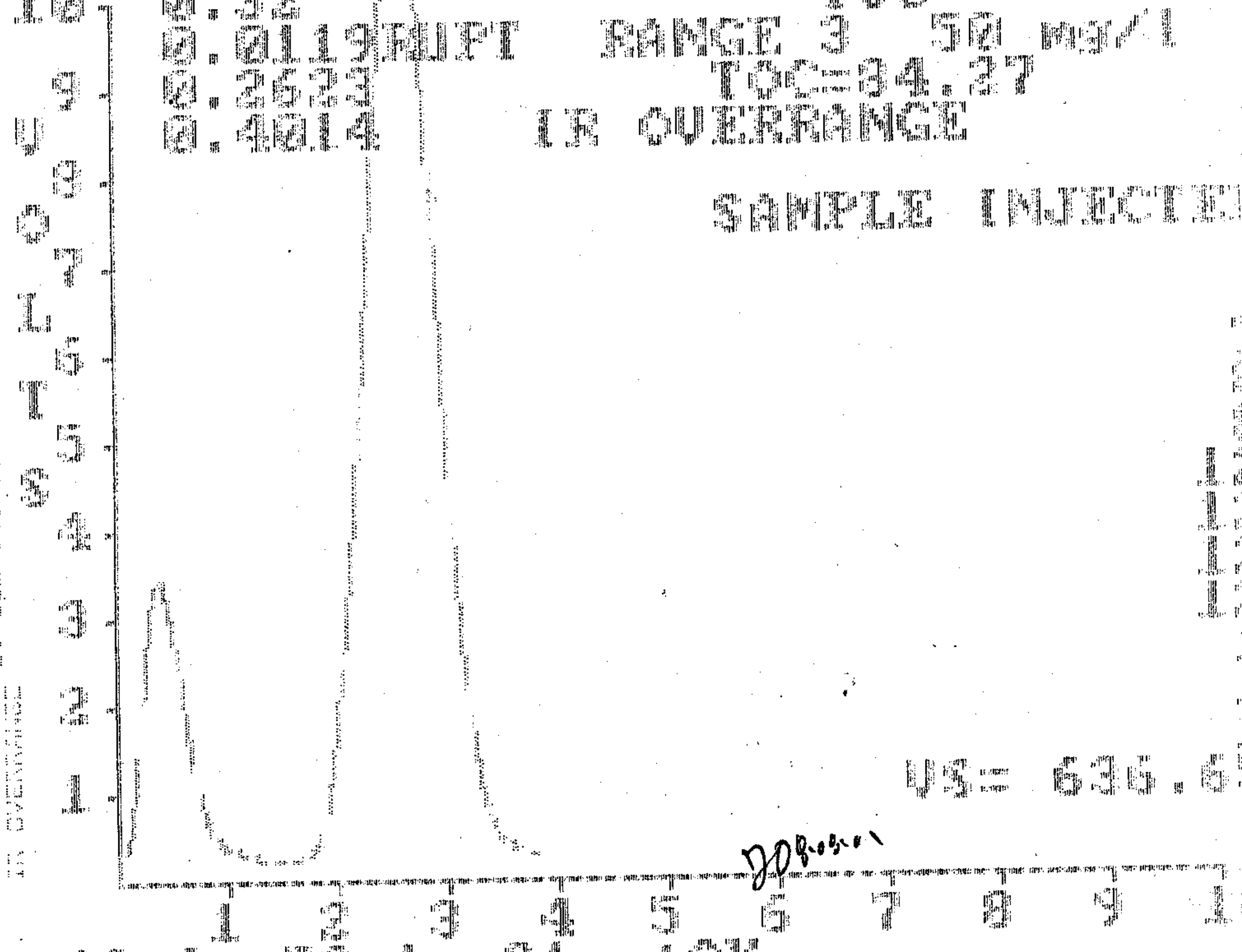
00 04:5

SAMPLES TO GO= 51
STATION # 60

TOC

10 0.32
0.0119MUPT RANGE 3 50 mg/l
TOC=34.27
0.2623
0.4014 IR OVERRANGE

SAMPLE INJECTE



VS= 635.6

48.0 72.1 31 :OK

MIN.

20

SAMPLES TO GO= 60 05:0

STATION # 61

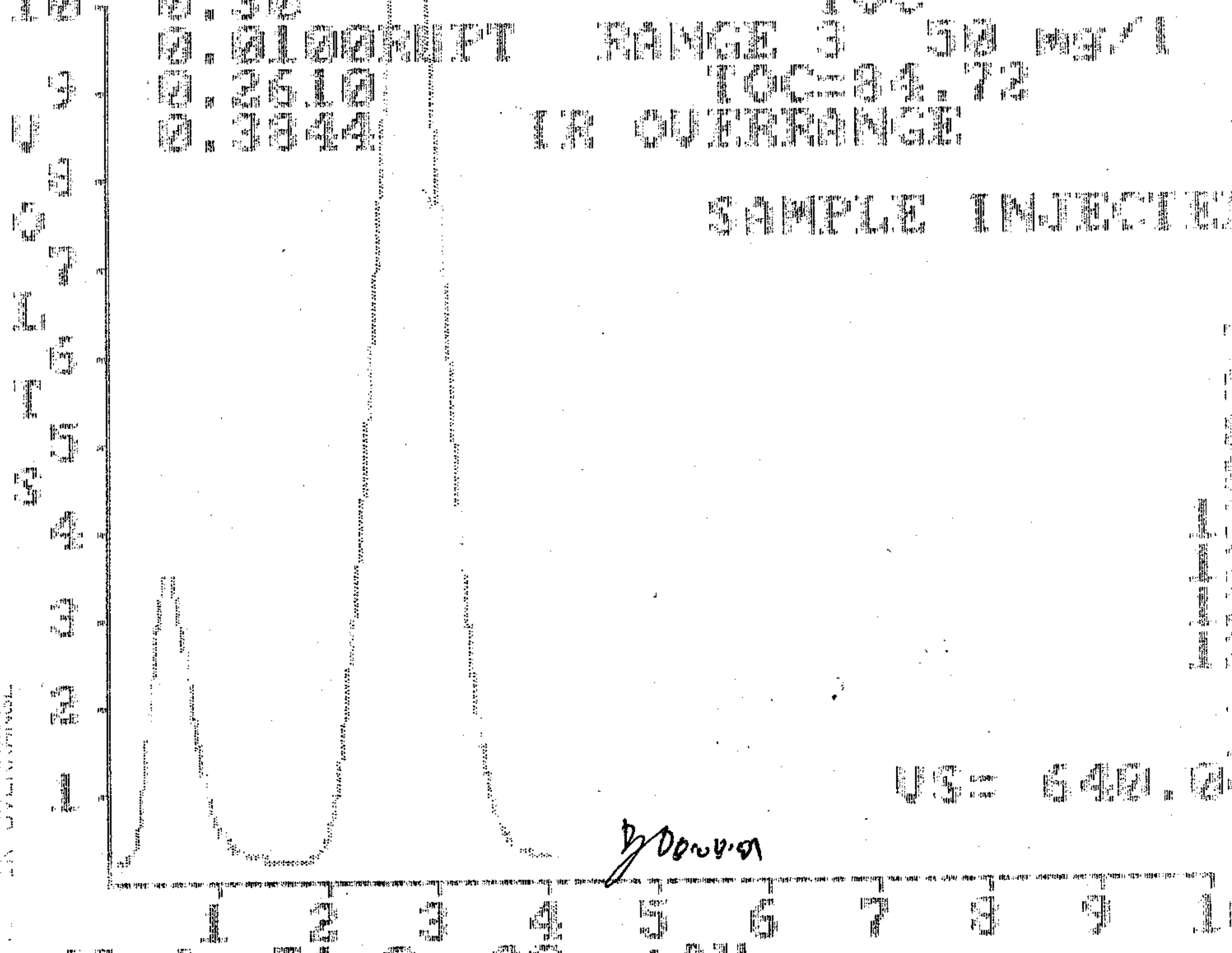
10 0.30 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2610 TOC=31.72

0.3044 IR OVERRANGE

SAMPLE INJECTE

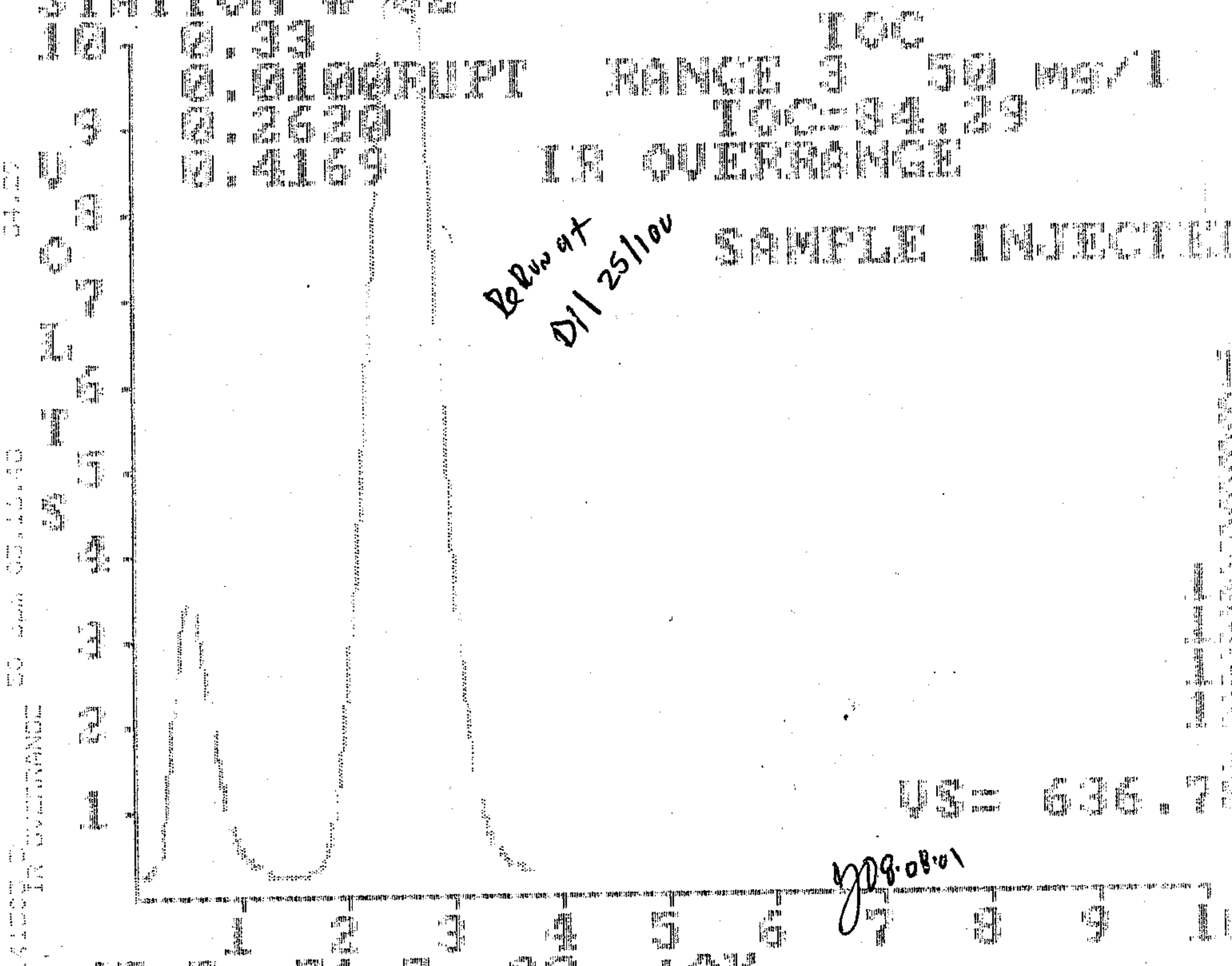


MIN.

18.4 71.0 30 :OK

44

SAMPLES TO GO= 59 05:15
STATION # 62



MIN.

47.7 71.7 30 :OK

43

[illegible]

MIN.

SAMPLES TO GC= 58

STATION # 63

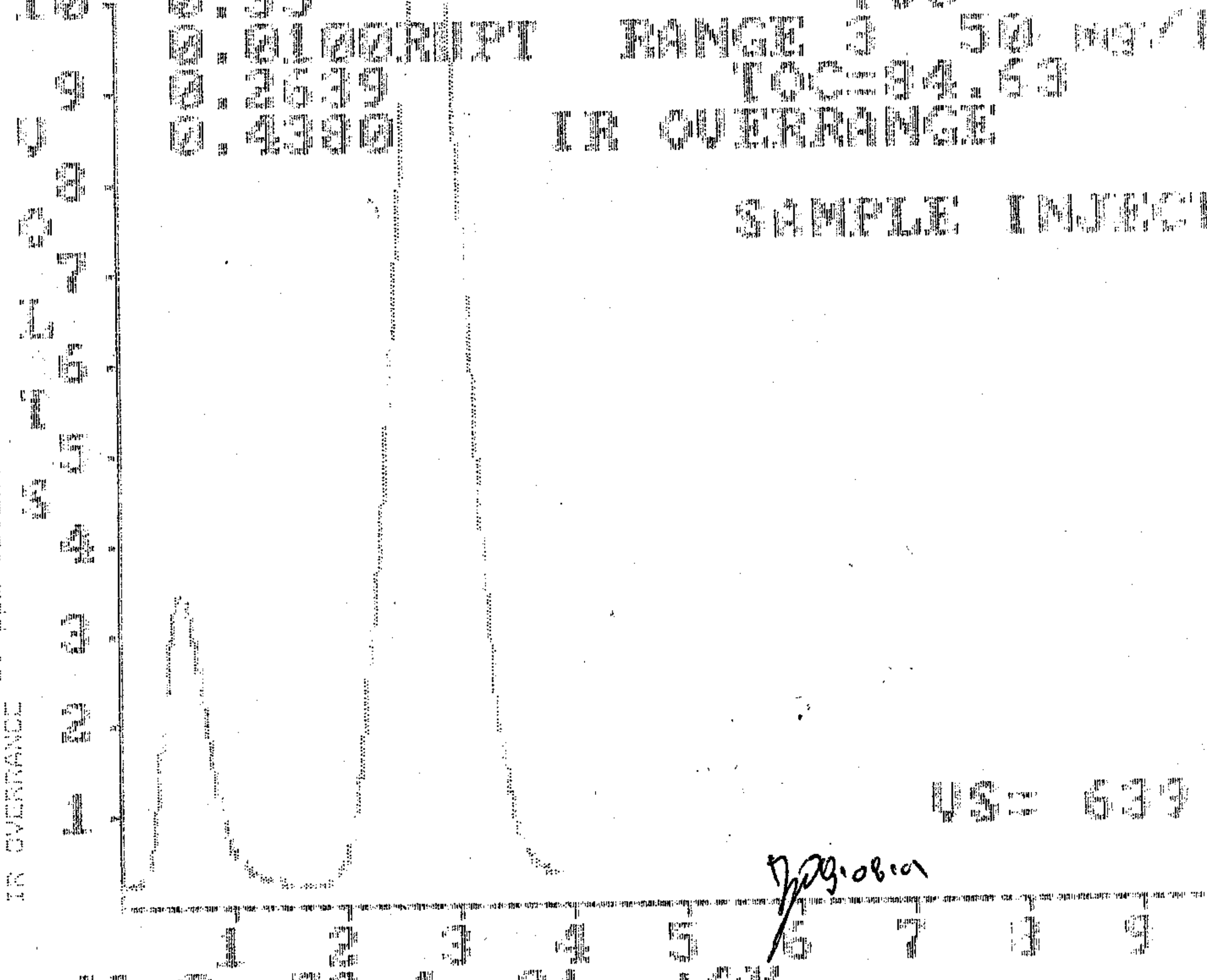
0.35 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2619 TOC=84.63

0.4390 IR OVERRANGE

SAMPLE INJECT



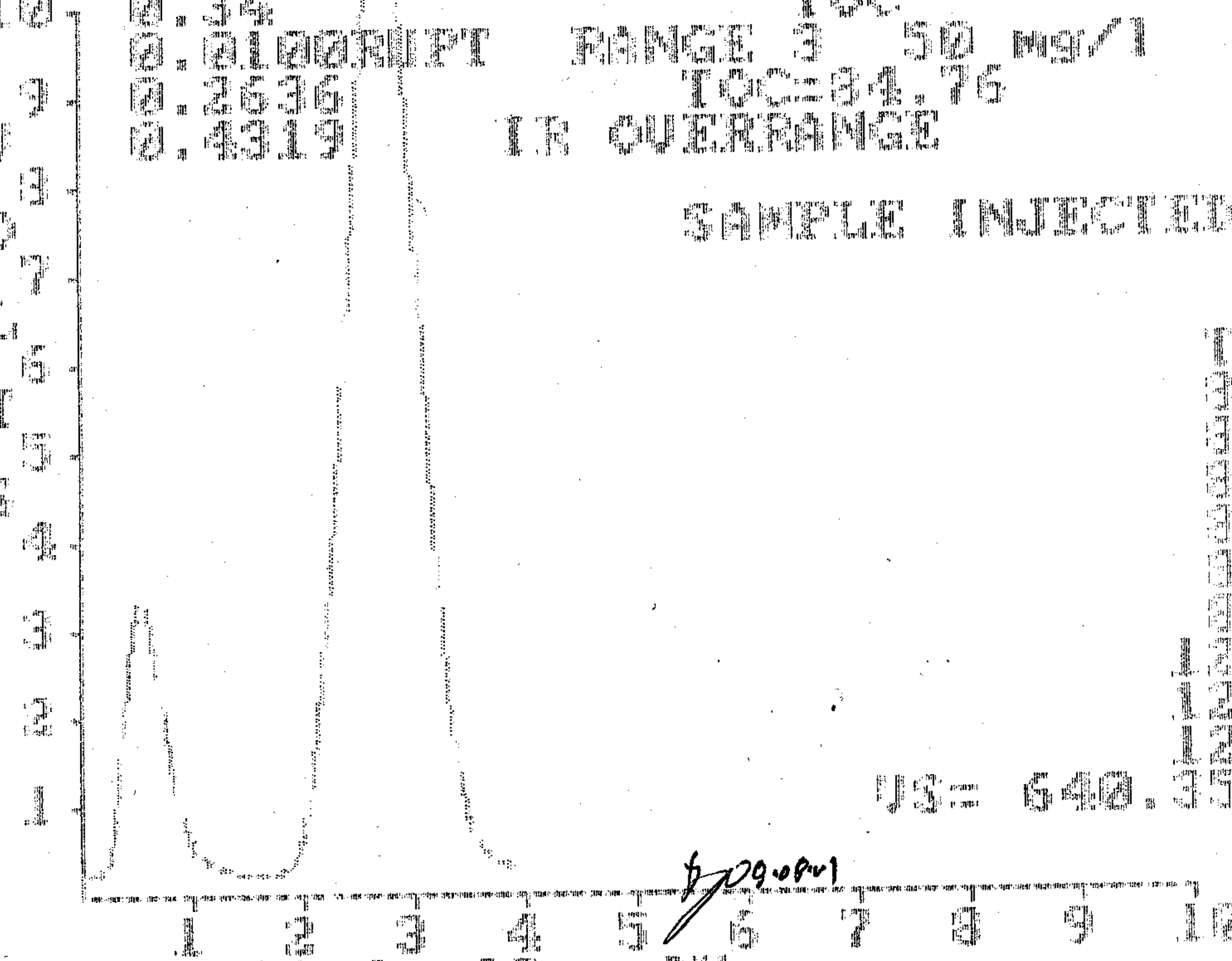
US= 639

49.0 72.4 31 :OK

5:03

SAMPLES TO GO= 57 05:35
STATION # 64
TOC
0.34
0.0100RUPT RANGE 3 50 mg/l
TOC=84.76
0.2636
0.4319 IR OVERRANGE

SAMPLE INJECTED



US= 640.35

2 MIN.

43.4 71.2 30 :OK

SAMPLES TO GO= 56 05:44

STATION # 65

TOC

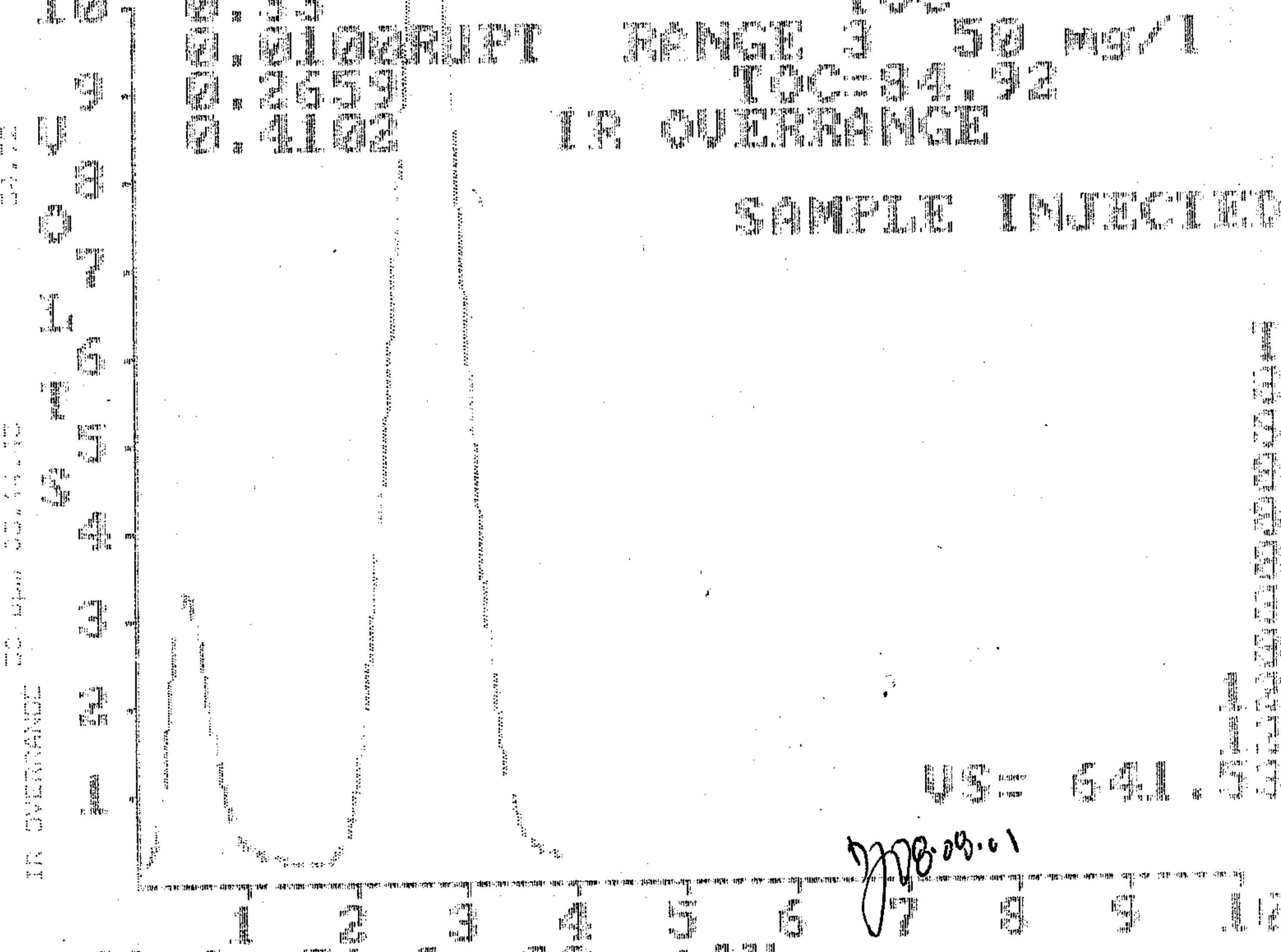
0.33

0.0100RUPT RANGE 3 50 mg/l

0.2659 TOC=84.92

0.4102 IR OVERRANGE

SAMPLE INJECTED



US= 641.53

MIN.

43.4 71.2 30 :OK

SAMPLE INJECTED
13ppm
D080801
T.O. 8-22-01

SAMPLE INJECTED
RANGE 50
TOC 10.00 mg/l
TOC
Sample ID: 10 GC-
Application: 67
Method: 54
Date: 08/22/01
Time: 10:57:30 AM
Sample Name: PJ080801
Vial: 30
Dilution Factor: 1.0000
Injection Volume: 100.0
Channel Description:
Sample Type: Unknown
Run Type: Sample
Acquisition Started: 08/22/01 10:57:30 AM
Acquisition Completed: 08/22/01 11:02:30 AM
Operator ID:
Instrument ID:
Comment:
Sample Amount: 0.0000
Control Type: None
Cycle: 1
Autosampler Position: 30
Sample Weight: 0.0000
Sample Volume: 0.0000
Dilution Factor: 1.0000
Injection Volume: 100.0
Channel Description:
Sample Type: Unknown
Run Type: Sample
Acquisition Started: 08/22/01 10:57:30 AM
Acquisition Completed: 08/22/01 11:02:30 AM
Operator ID:
Instrument ID:
Comment:
Sample Amount: 0.0000
Control Type: None
Cycle: 1
Autosampler Position: 30
Sample Weight: 0.0000
Sample Volume: 0.0000
PJ080801
8-22-01
30

SAMPLES TO GO= 53 05:07:

STATION # 68

TOC

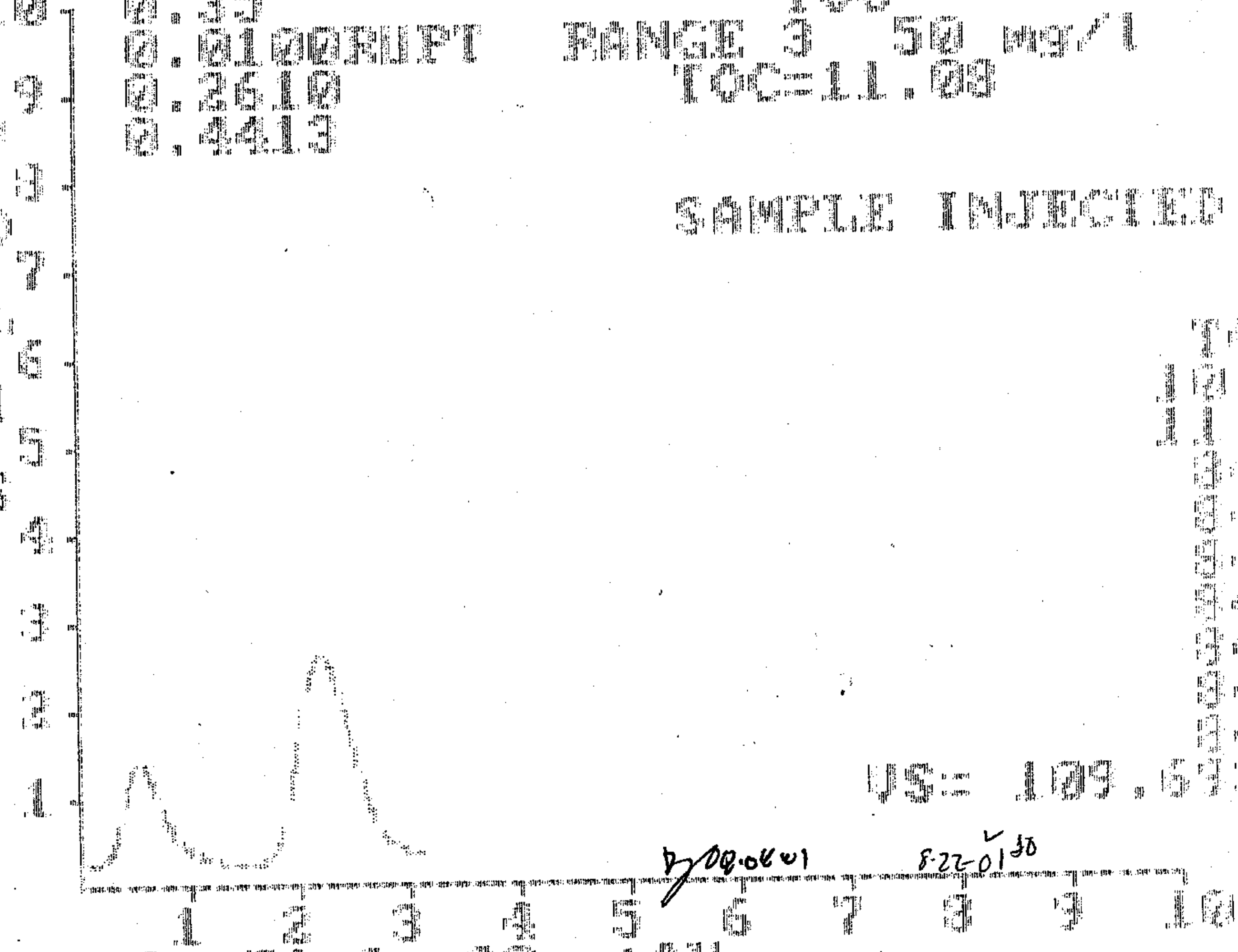
0.35

0.0100RUPT RANGE 3 50 mg/l

0.2610 TOC=11.08

0.4413

SAMPLE INJECTED



US= 109.6

MIN.

48.0 71.8 30 :OK

13

SAMPLES TO GO= 52 06:17

STATION # 69

0.35

0.0100RUPT RANGE 3 50 mg/l

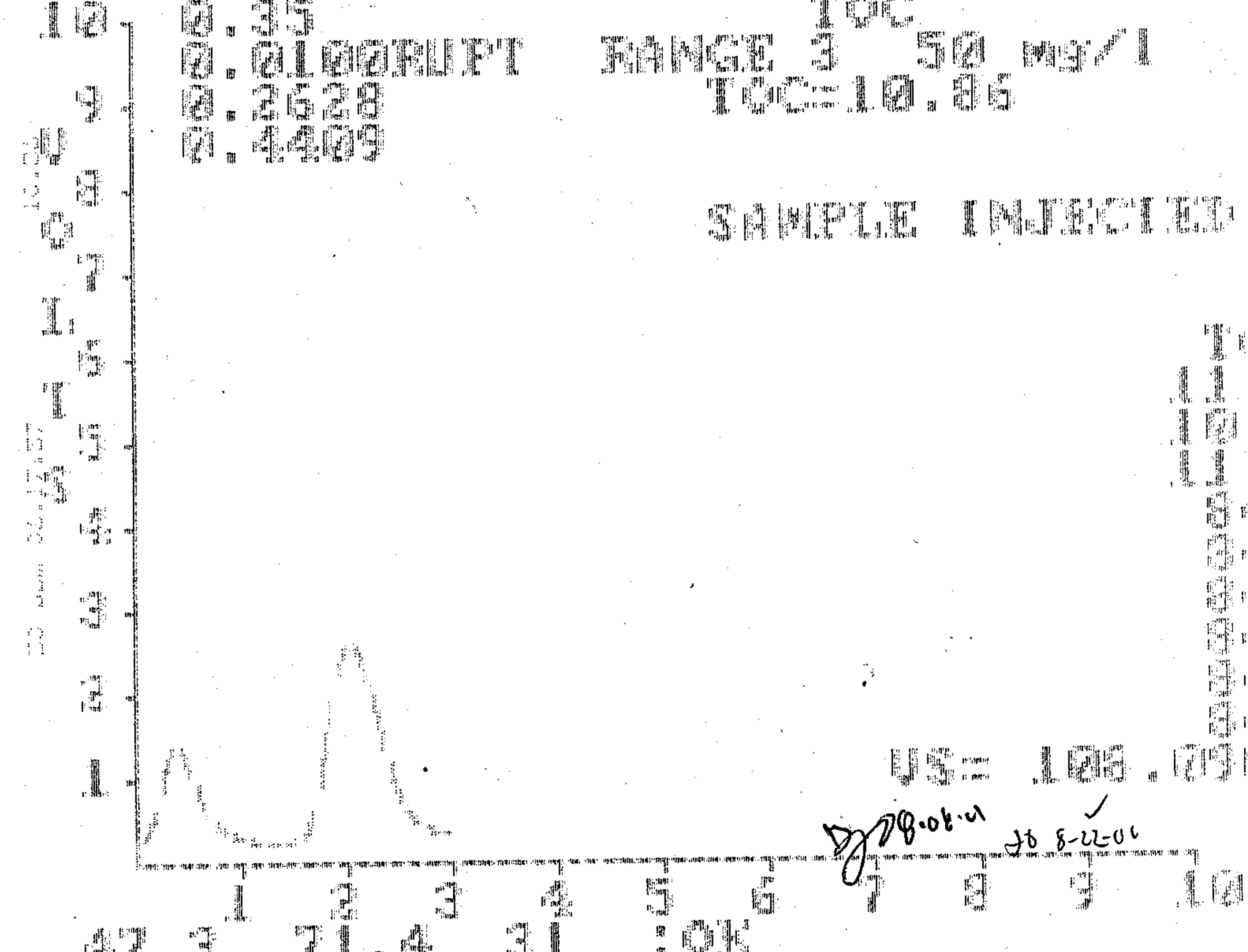
0.2628

0.4409

TOC

TOC=10.86

SAMPLE INJECTED



MIN.

47.3 71.4 31 :OK

US= 108.09

DJ 08-08-01 JB 8-22-01

6

SAMPLES TO GO= 51 06:26

STATION # 70

10 0.35

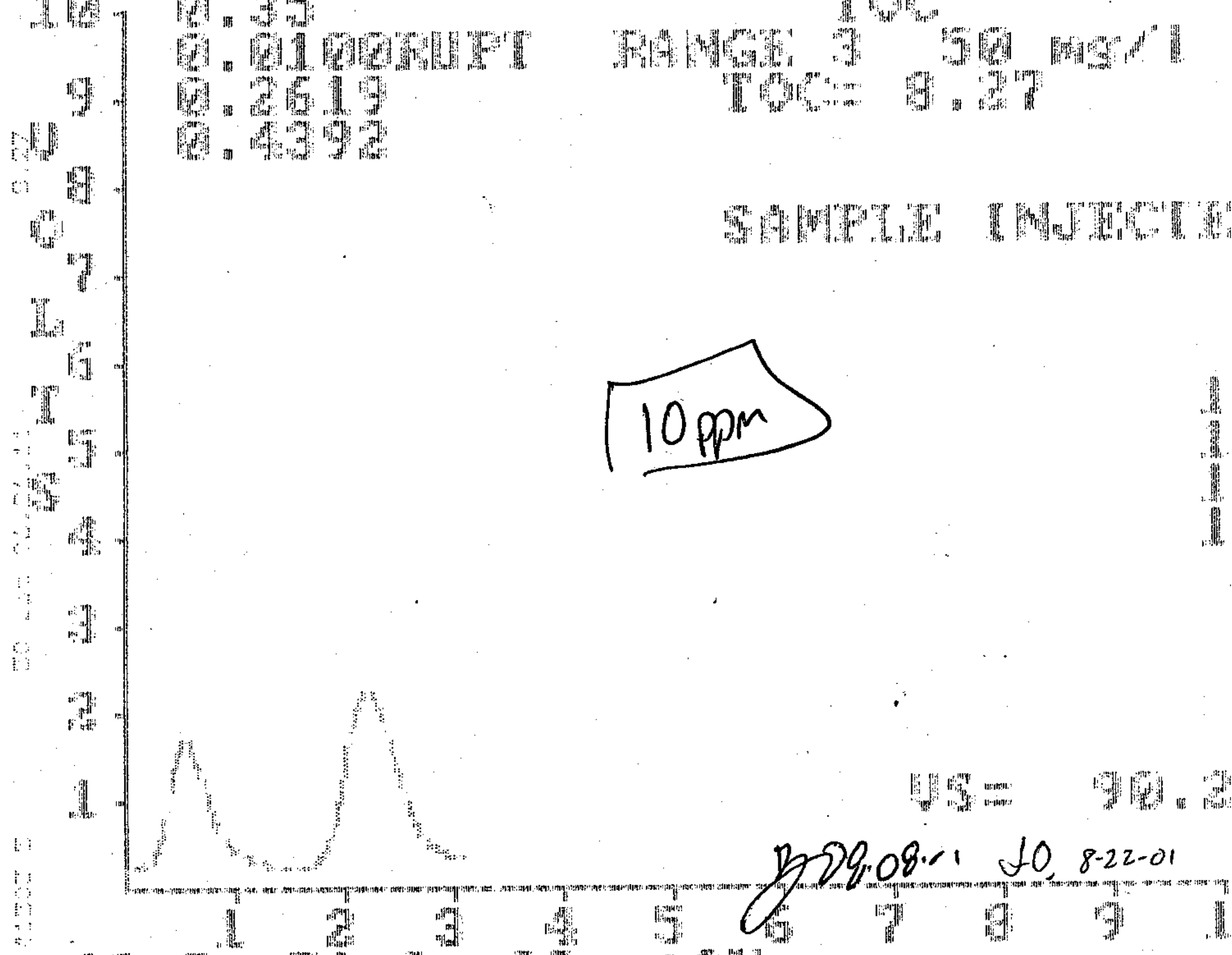
TOC

0.0100RUPT RANGE 3 50 mg/l

0.2619 TOC= 8.27

0.4392

SAMPLE INJECTED



10 ppm

US= 90.2

8-22-01

48.0 71.2 30 :OK

IN.

SAMPLES TO GO: 50

STATION # 7.1

RANGE: TOC
TOC 0.24 mg/l

SAMPLE INJECTED

Min

SAMPLES TO GO= 49

ATION # 72

RUPT

RANGE TOC

TOC= 0.21 mg/l

SAMPLE INJECTED

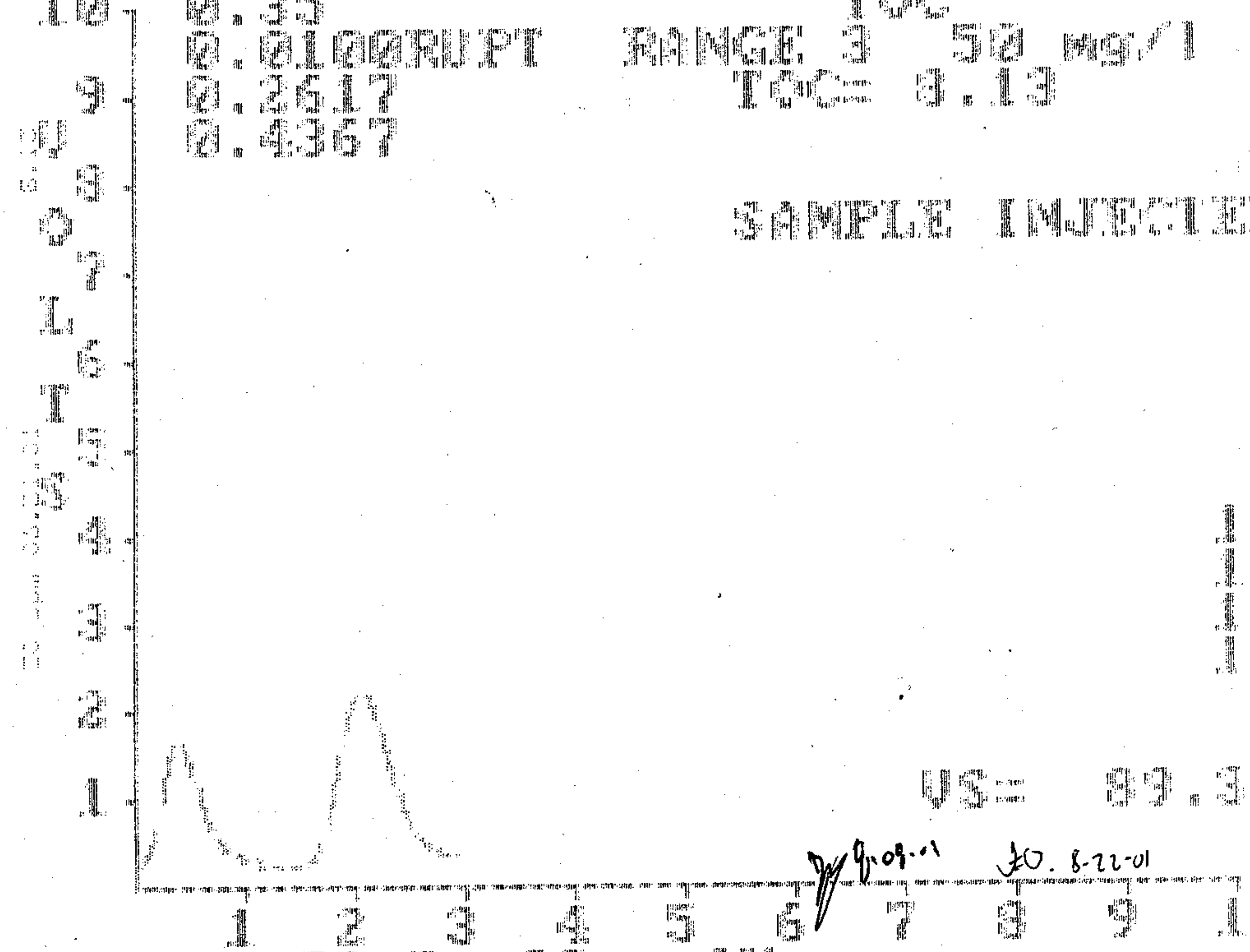
06:41

%= 89.2

8-22-01

SAMPLES TO GO= 48 06:51
STATION # 73
0.35 TOC
0.0100RUPT RANGE 3 50 mg/l
0.2617 TOC= 8.13
0.4367

SAMPLE INJECTED



US= 89.35

48.7 71.5 30 :OK

MIN.

SAMPLE INJECTION

RANGE: TOC 50 mg/l

TOC: 4.39

6 ppm

VS: 63.2

J.O 8-22-01

SAMPLES TO GO= 46 07:07

STATION # 75

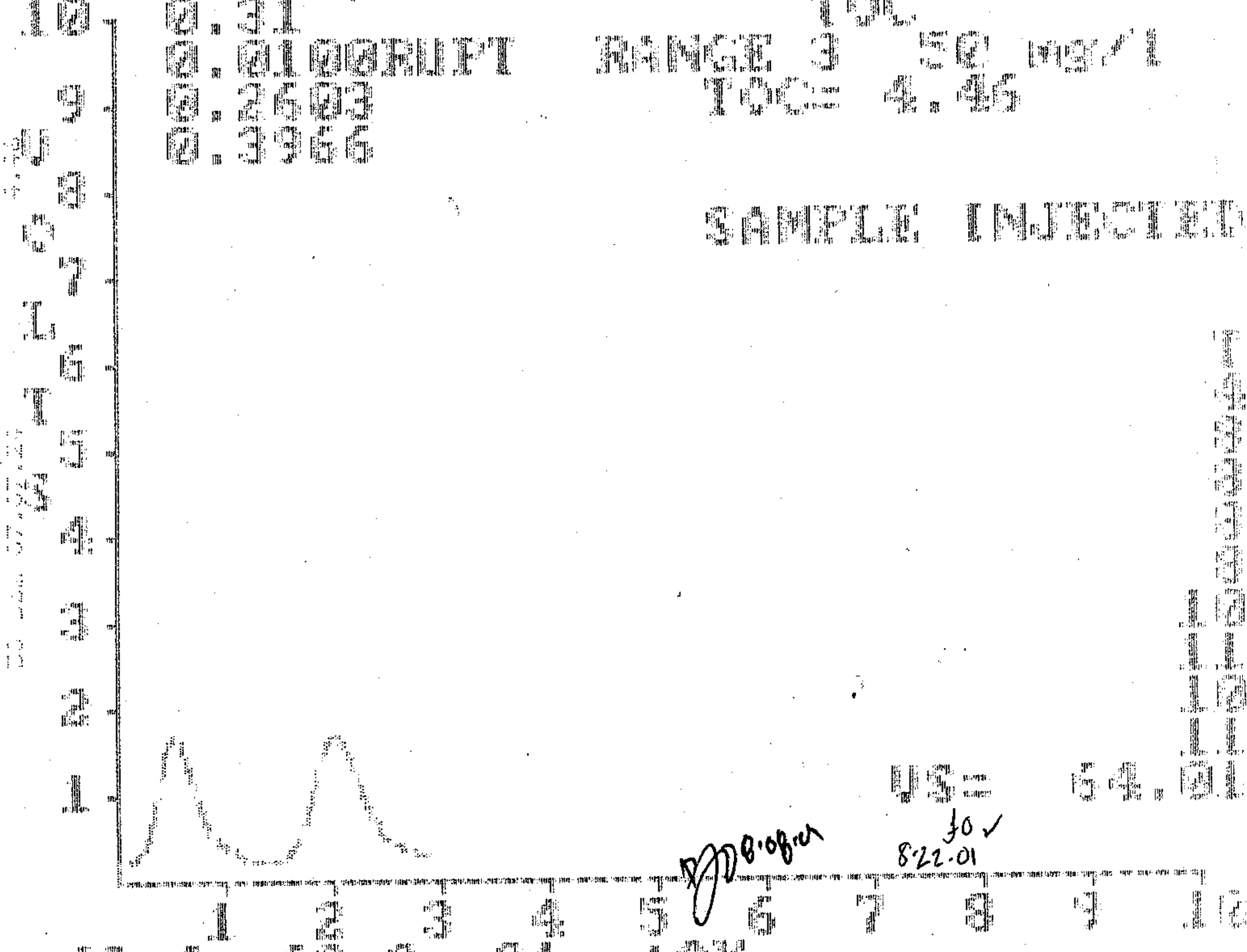
10 0.31 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2603 TOC= 4.46

0.3966

SAMPLE INJECTED



US= 64.01

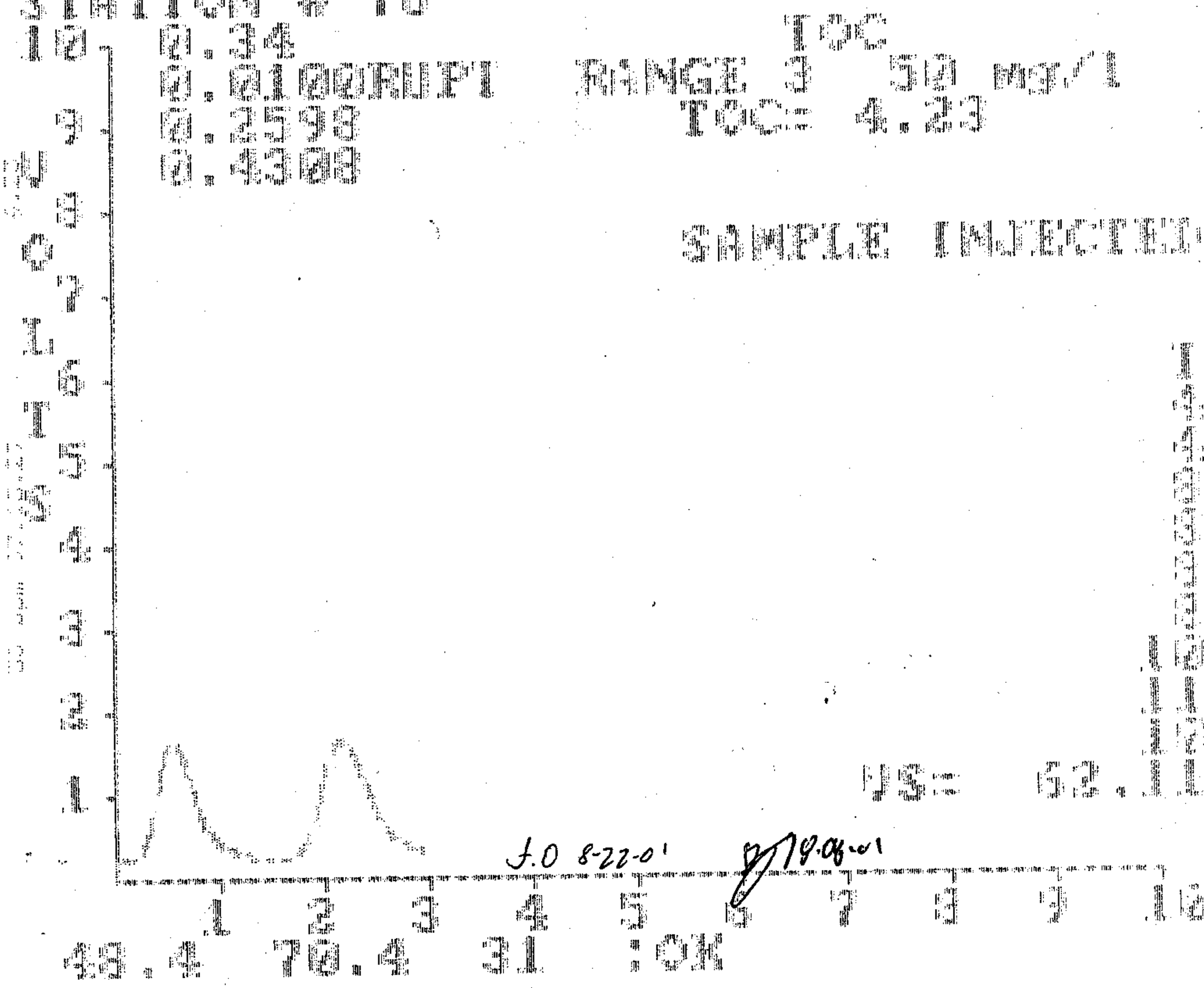
MIN.

48.4 69.9 31 :OK

8·22·01

SAMPLES TO GO- 45 07:15

STATION # 76



48.4 70.4 31 :OK

MIN.

SAMPLES TO GO= 44 07:25

STATION # 77

0.34

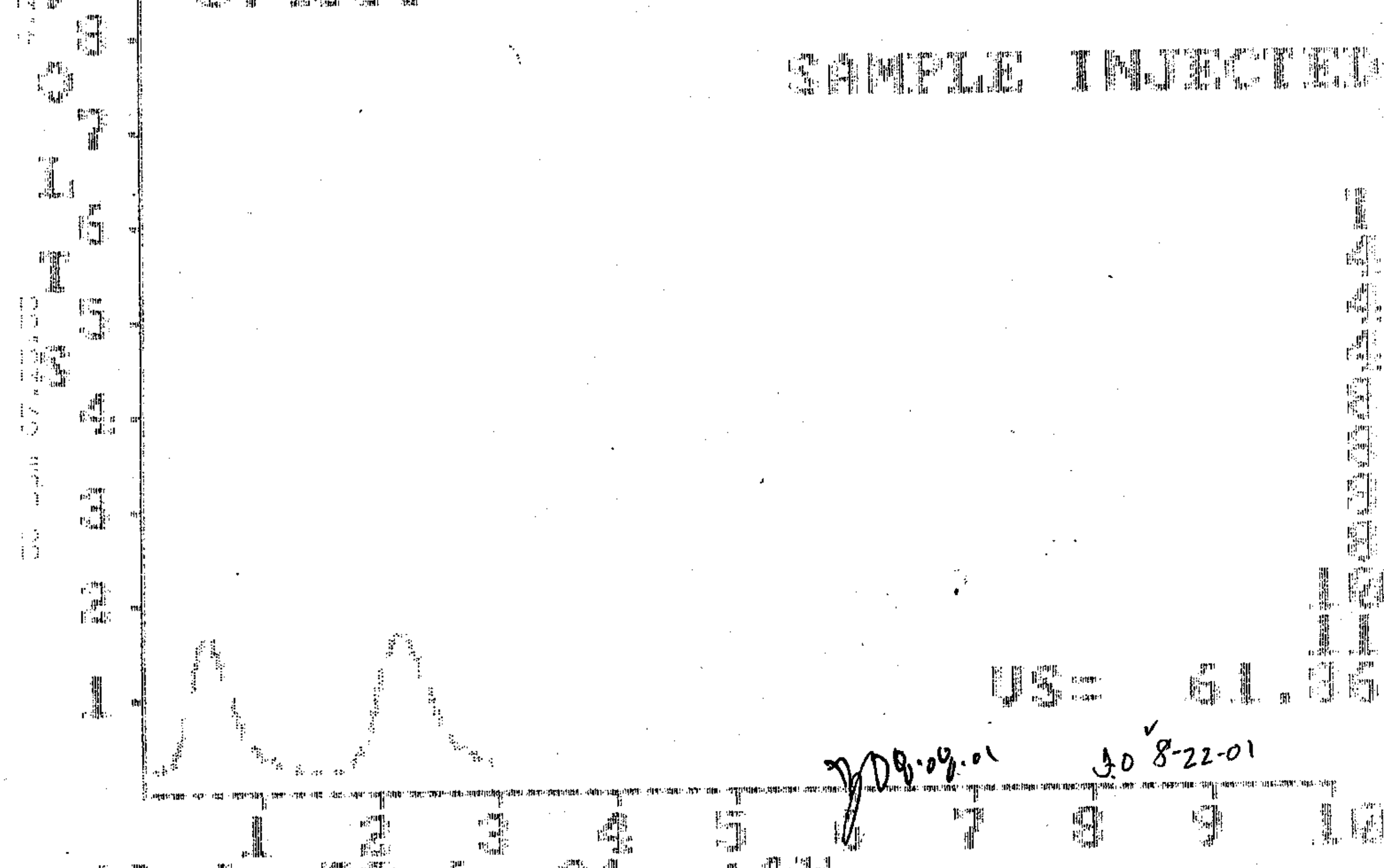
0.0100RUPT RANGE 3 50 mg/l

0.2619 TOC= 4.20

0.4363

TOC

SAMPLE INJECTED



MIN.

48.4 70.5 31 :OK

JD 08-09-01 JO 8-22-01

SAMPLES TO GO: 43

ATION # 78

RUPT

RANGE 3 50 mg/l

TOC=73.85

IN OVERRANGE

SAMPLE INJECTED

Rerun at

pH

25100

8.08.01

8-22-01

07:32

38

SAMPLES TO GO= 42 07:4

STATION # 79

0.34

0.0100RUPT RANGE 3 50 mg/l

0.2660

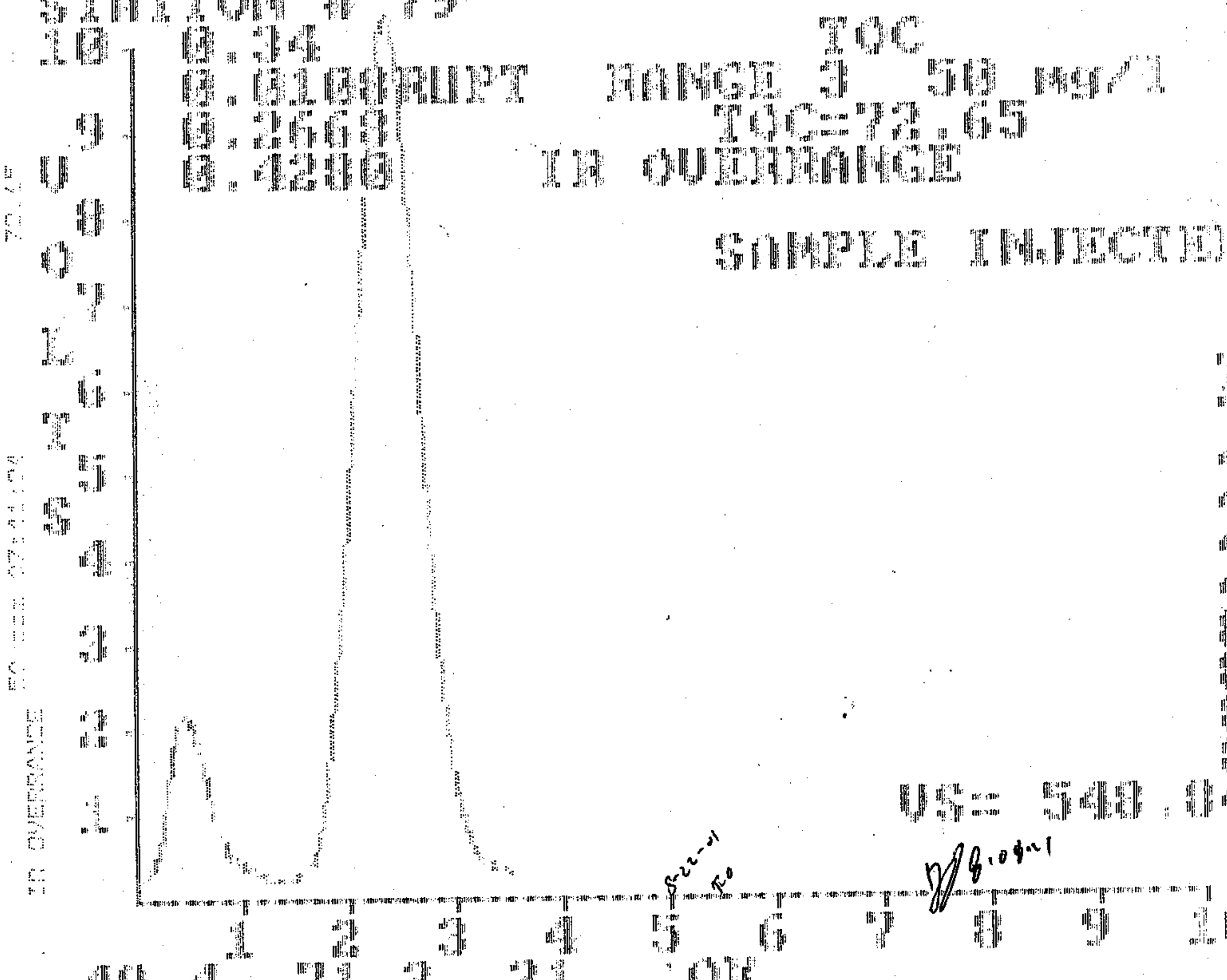
0.4200

TOC

TOC=72.65

IR OVERRANGE

SAMPLE INJECTED



US= 540.0

MIN.

48.4 71.2 31 OR

SAMPLES TO GO= 41 07:50

STATION # 60

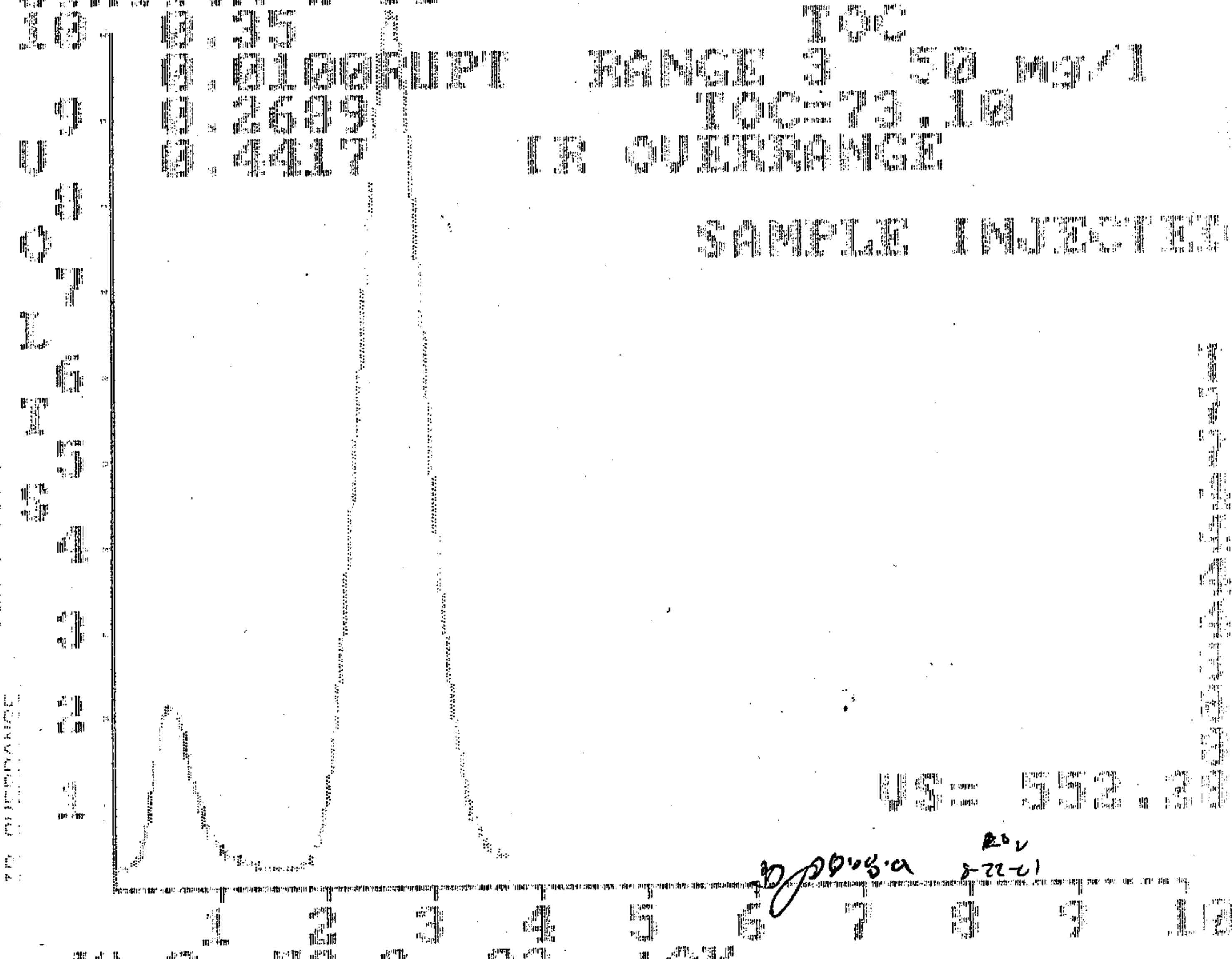
10 0.35 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2689 TOC=73.10

0.4417 IR OVERRANGE

SAMPLE INJECTED

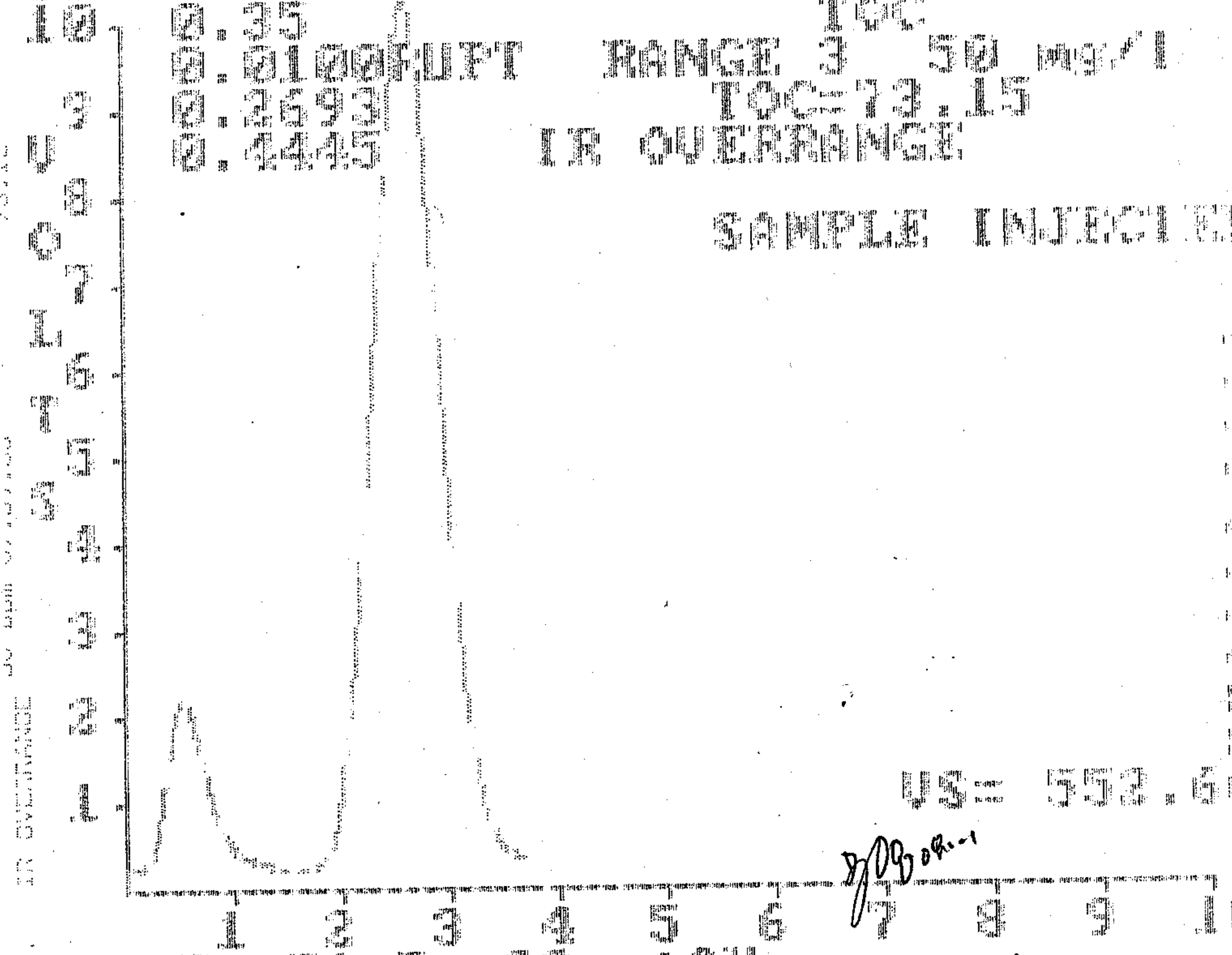


40.0 72.2 32 :OK

35

SAMPLES TO GO= 40 07:55
STATION # 21
10 0.35 TOC
0.0100 FUPT RANGE 3 50 mg/l
0.2693 TOC=73.15
0.4445 IR OVERRANGE

SAMPLE INJECTE



US= 552.6

MIN.

47.7 71.7 32 :OK

SAMPLES TO GO: 39

STATION # 82

RANGE 100
TOC 1.50 mg/l

SAMPLE INJECTED

3 ppm

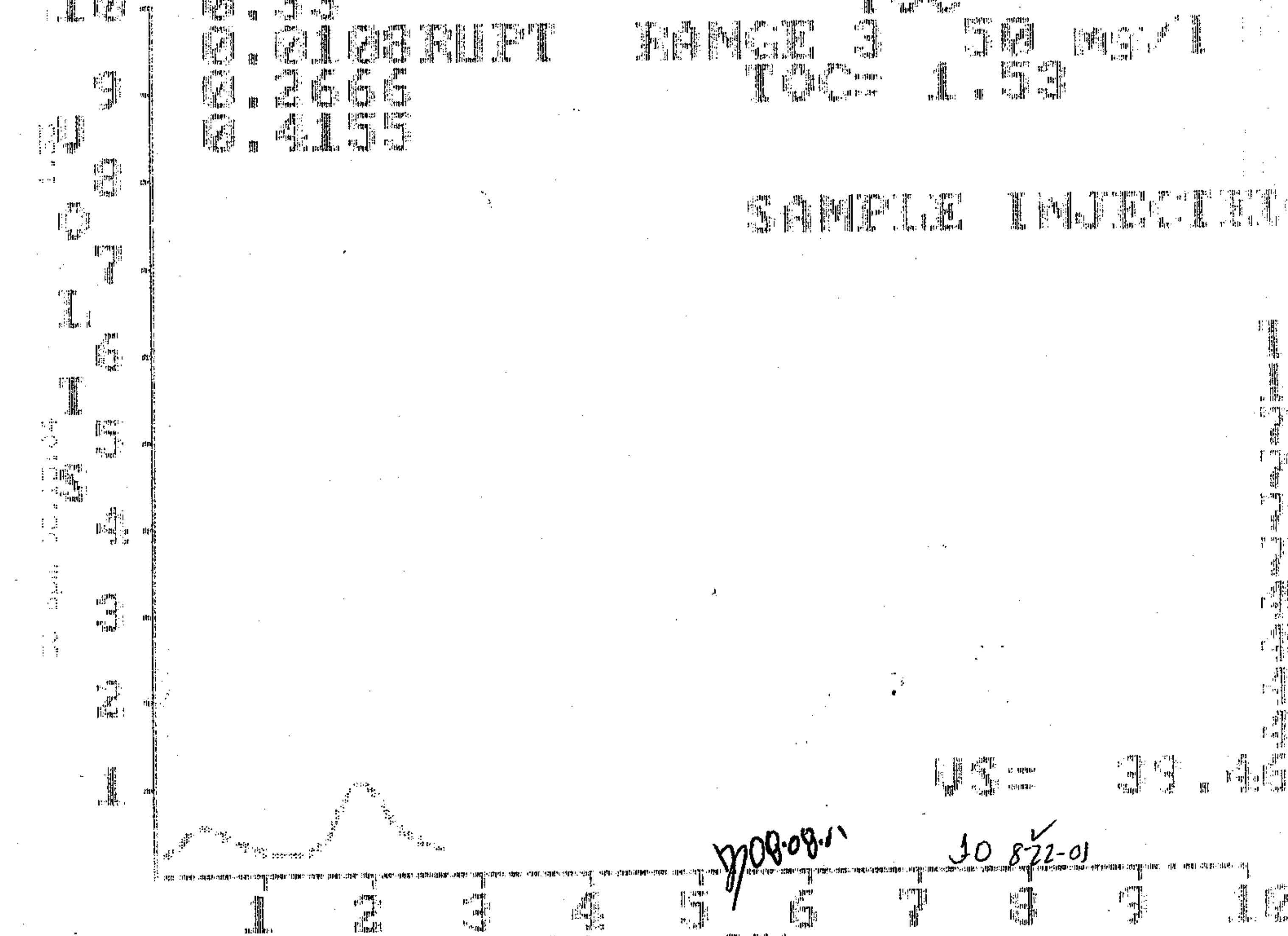
J.O 8-22-01

SAMPLES TO GO= 38 28:15
STATION # 93

TOC

0.33
0.0108RUPT RANGE 3 50 mg/l
0.2666 TOC= 1.53
0.4155

SAMPLE INJECTE



US= 39.45

MIN.

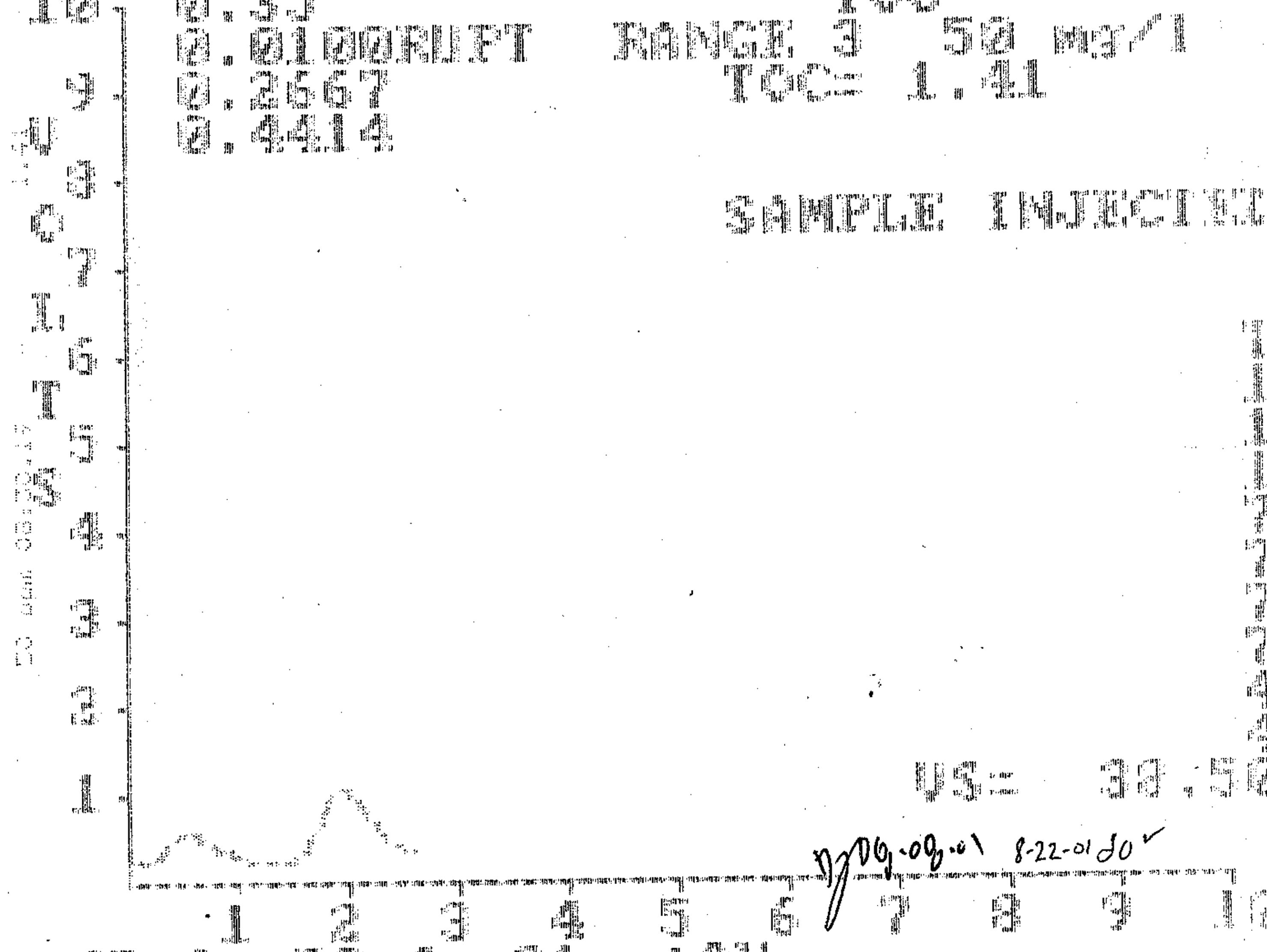
43.0 71.6 31 :OK

SAMPLE INJECTED
8-22-01
10:09:01

02

SAMPLES TO GO= 36 08:30
STATION # 05
10 0.35 TOC
0.0100DRIFT RANGE 3 50 mg/l
0.2567 TOC= 1.41
0.4414

SAMPLE INJECTI



MIN.

47.3 70.4 31 :OK

SAMPLE INJECTED

RANGE: TOC

TOC: 9.58 mg/l

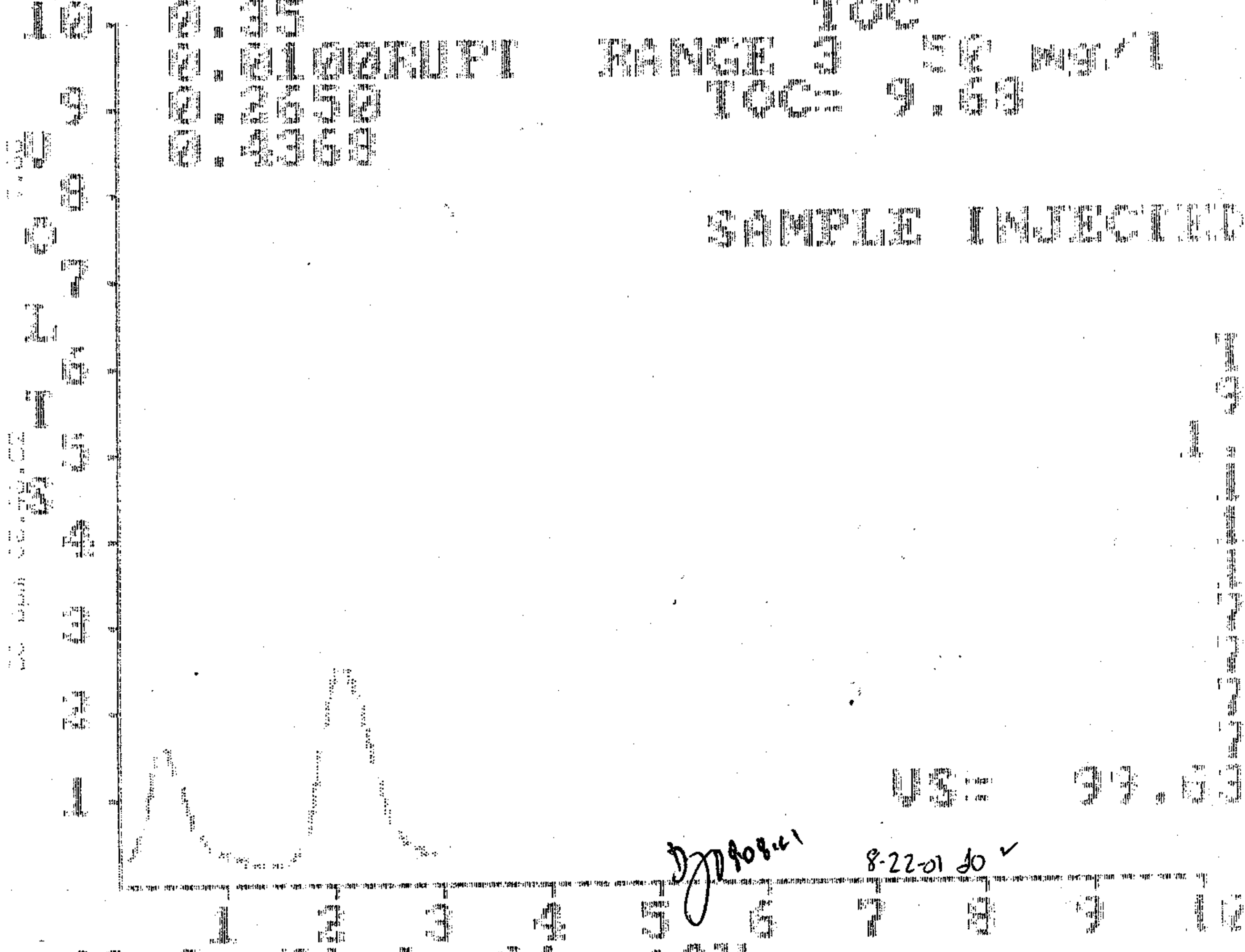
11 ppm

D 08-08-01 D 8-22-01

SAMPLES TO GO= 34 05:46
STATION # 87

TOC
RANGE 3 50 mg/l
TOC= 9.69

SAMPLE INJECTED



48.0 71.6 31 :OK

SAMPLES TO GO= 33 08:55:

STATION # 89

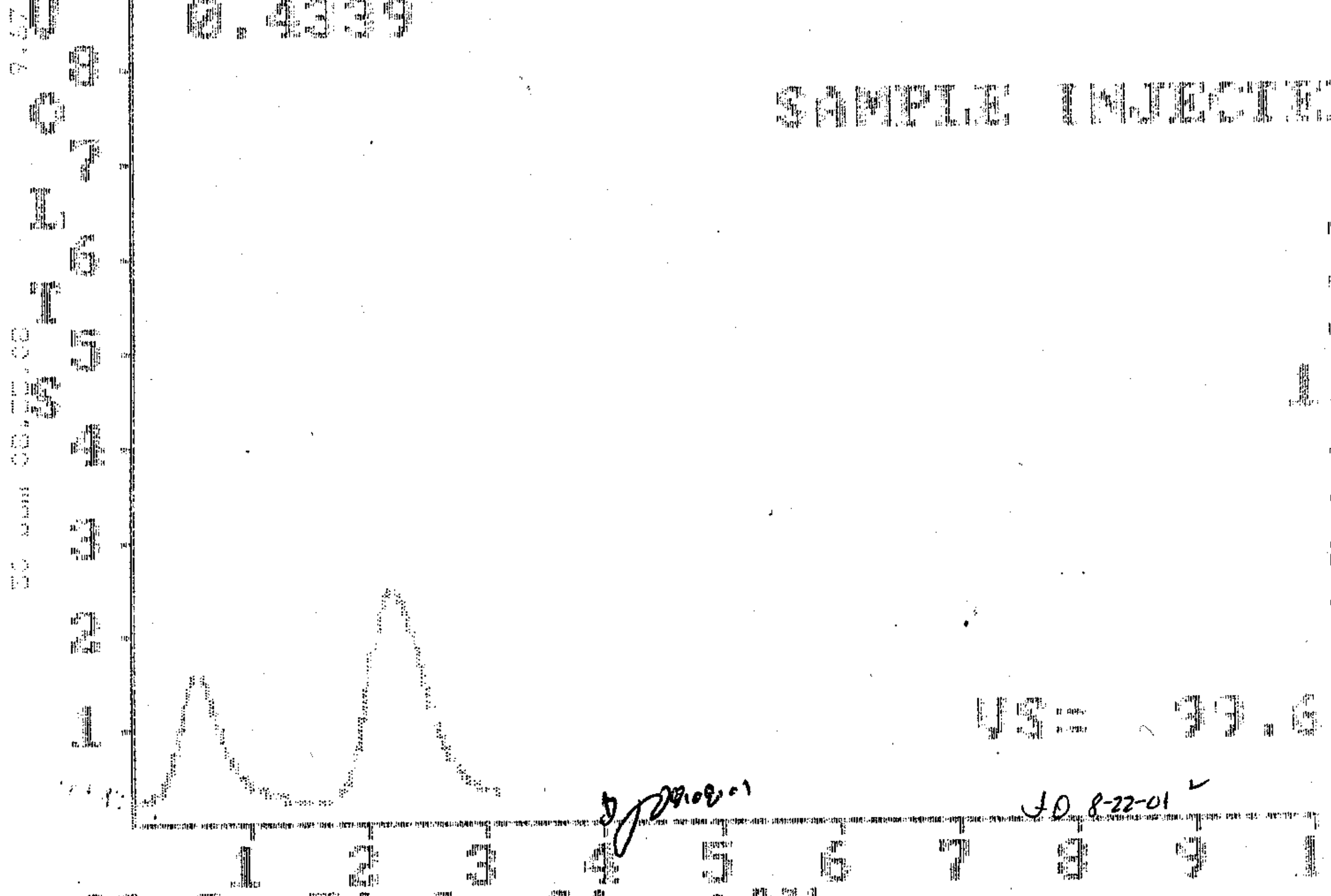
10 0.34 TOC

0.0154RUPT RANGE 3 50 mg/l

0.2639 TOC= 9.67

0.4339

SAMPLE INJECTED



US= 33.60

JO 8-22-01

48.0 71.3 31 :OK

IN.

SAMPLE INJECTED

RANGE: TOC
TOC= 9.68 mg/l

8-22-01 JO ✓

08.9.11

RANGE TOC
TOC= 0.36 MG/L

SAMPLE INJECTED

BDL

JO 8-22-01

37

SAMPLES TO GO= 30 07:18

STATION # 91

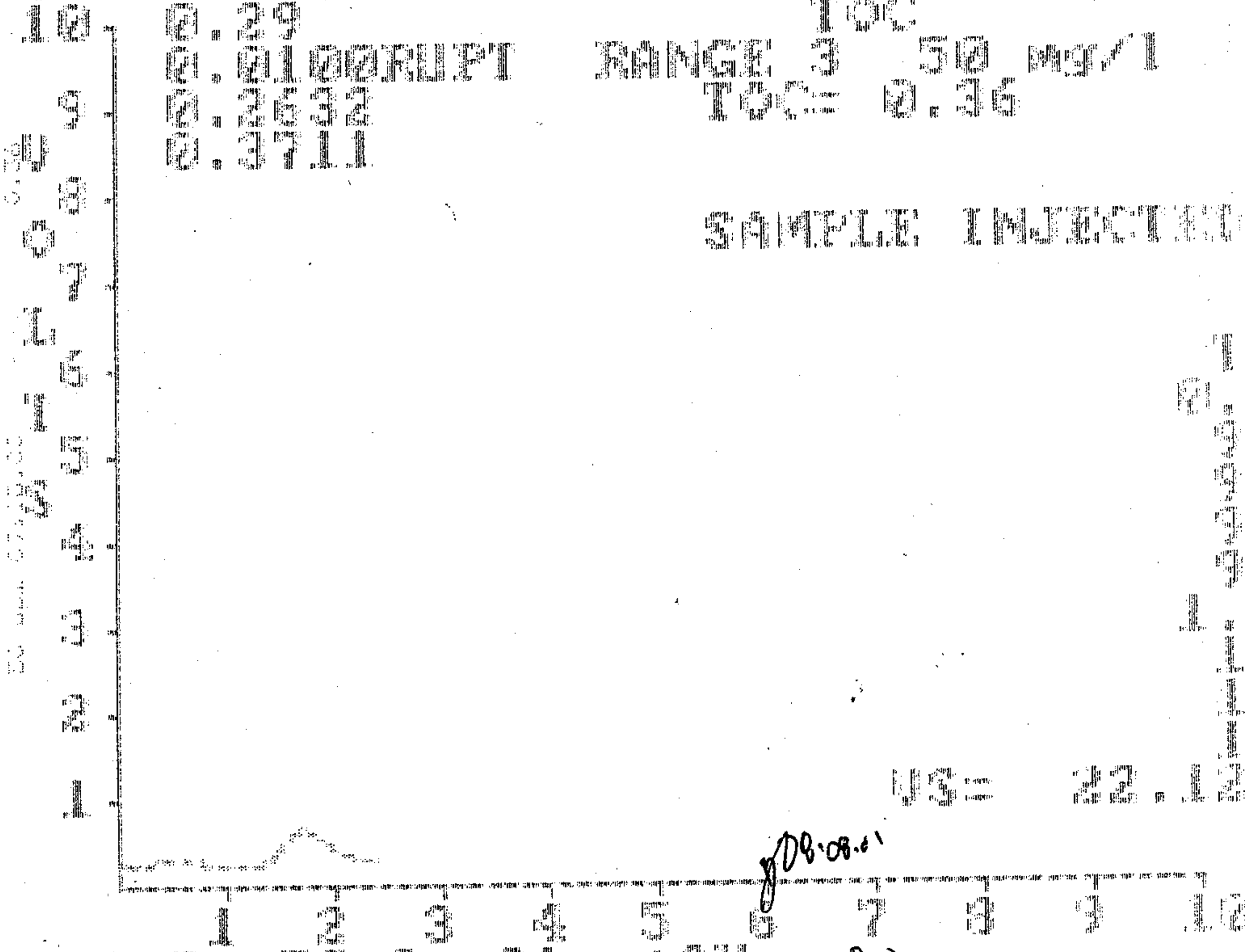
0.29 TOC

0.0100RUPT RANGE 3 50 mg/l

0.2632 TOC= 0.36

0.3711

SAMPLE INJECTED



47.7 70.9 31 :OK

JO 8-22-01 ✓

SAMPLE INJECTED
RANGE 1.0
TOT 0.31
8-22-01

SAMPLES TO GO: 20
STATION #: 30
RANGE: 10C
TOT: 0.35
SAMPLE INJECT
10:09:01
10-24-01

SAMPLE INJECTED

RANGE TOC
TOC 27.50 mg/l

29.0 ppm

96.8%

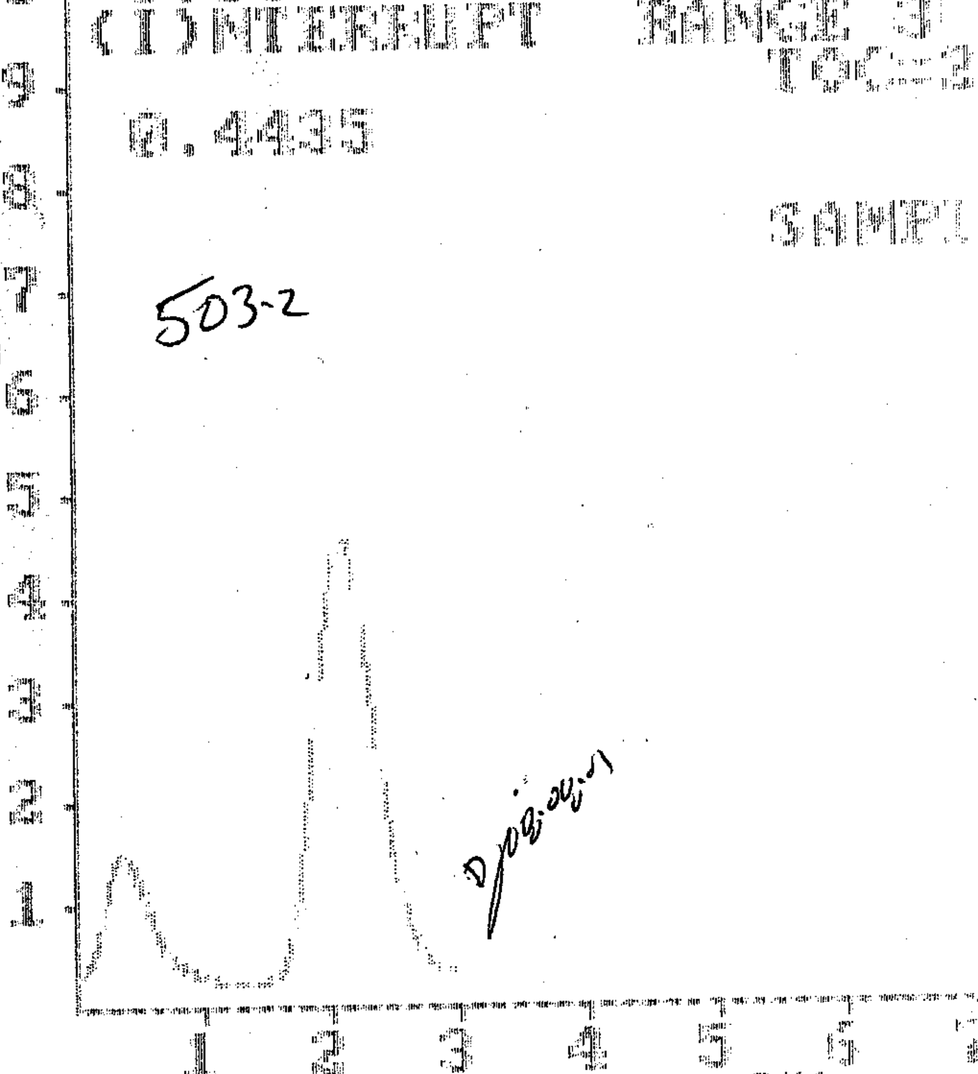
8-22-01

SAMPLE INJECTED
BDL
8/09/01 JO 8-22-01

SAMPLES TO GO= 11
STATION # 4
10 0.35
(I)NTERRUPT RANGE 3
TOC=2

0.4435

SAMPL



47.0 71.1 33 ICK

Sample #	Tag	Range	Time	TIC	TOC	POC
	144503.2	50 ppm	15:52:45		21.92	
		50 ppm	16:07:04		22.63	
		50 ppm	16:14:11		22.06	

16:14:30

50 mg/l
.06

INJECTED

TOC
22.6
21.9

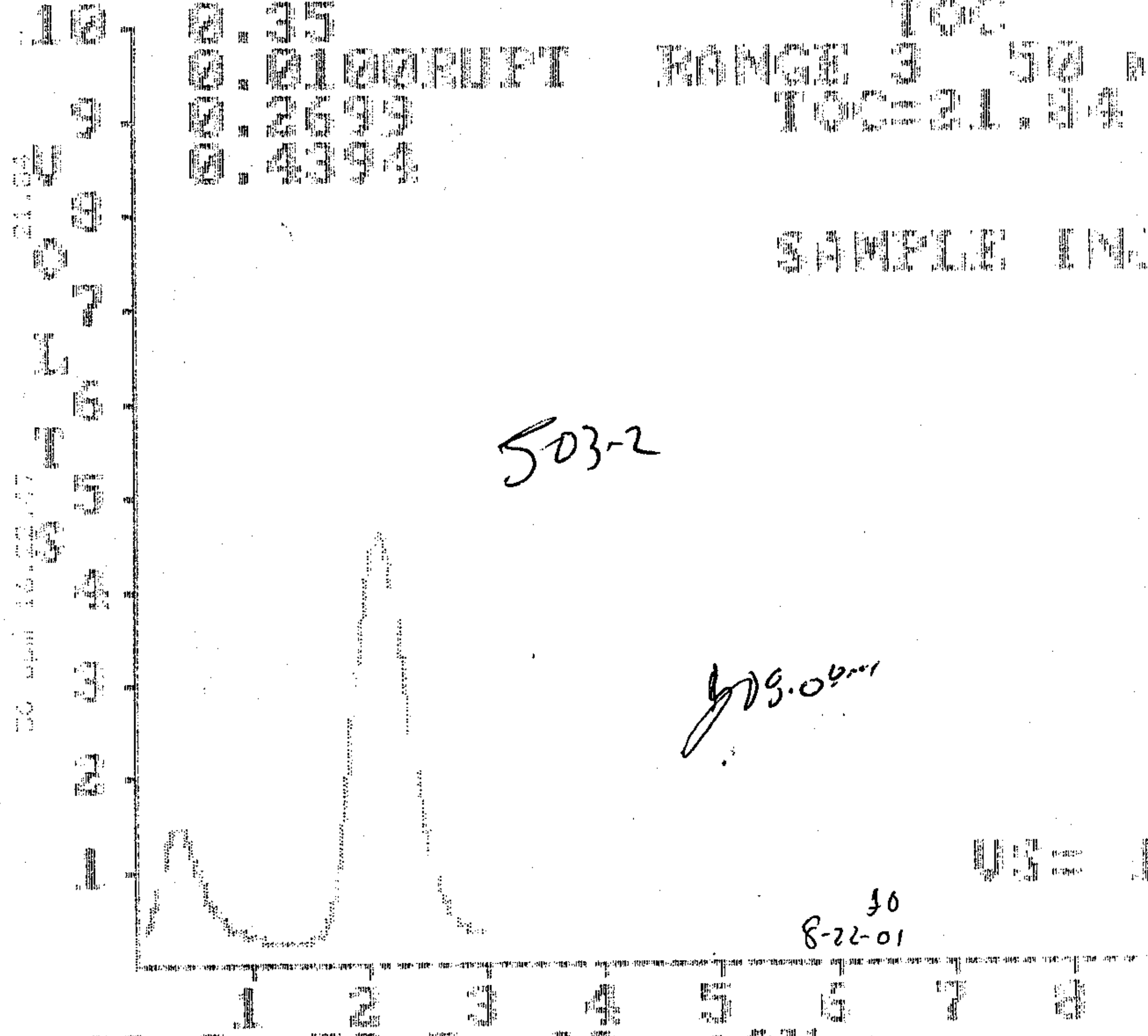
S= 184.6394

JO 8-22-01

8 9 10 MIN.

SAMPLES TO GO= 10
STATION # 5

TOC



RANGE 3 50 m
TOC=21.84

SAMPLE IN

US=

48.0 70.5 33 :OK

6:22:48

/1

CTD

TOC
22.1
22.5
21.9

3.2238

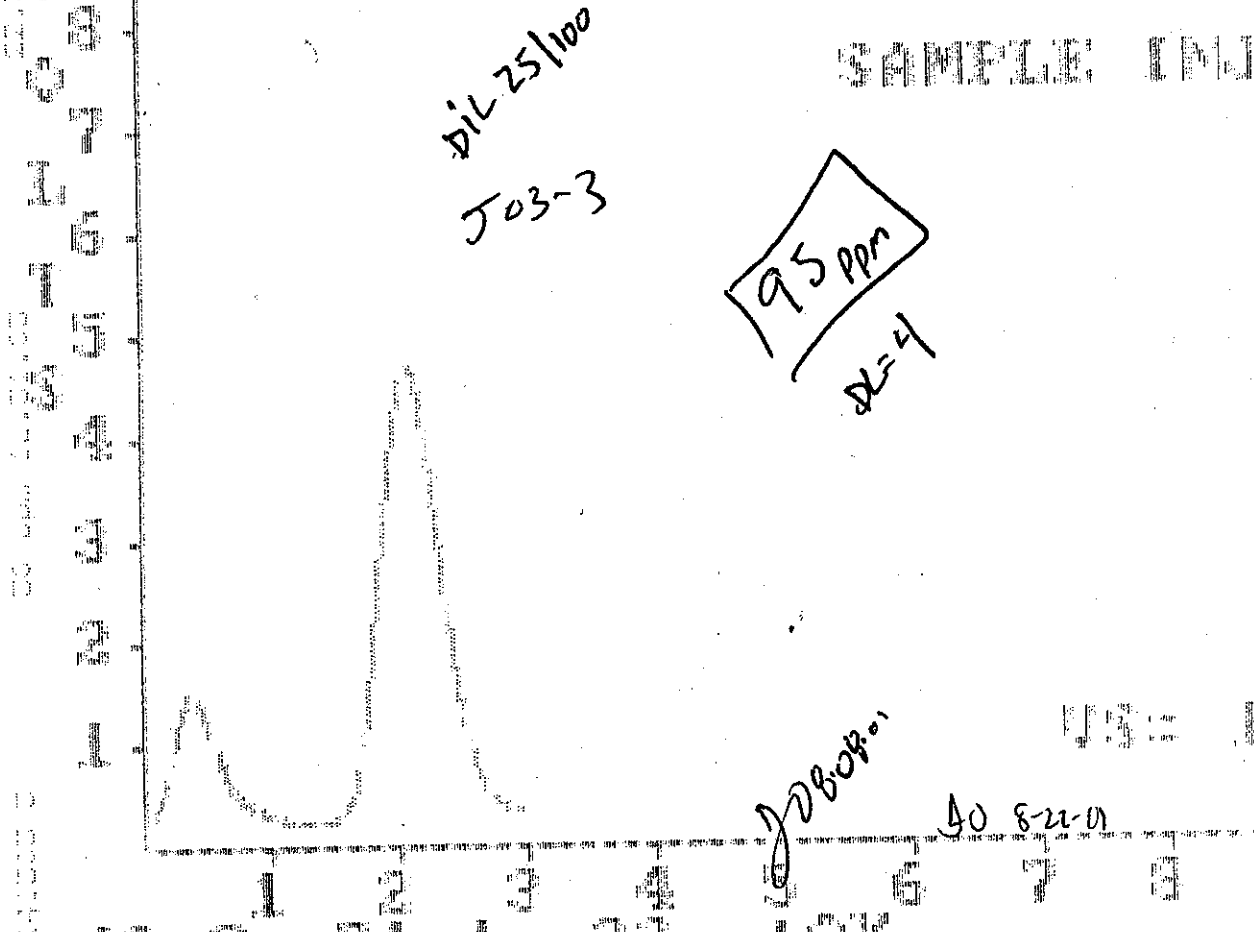
10 MIN.

SAMPLES TO GO= 9
STATION # 6

10 0.35
0.0100RUPT RANGE 3 50
0.2714
0.4453

TOC
TOC=22.51

SAMPLE INJ



US=

48.0 71.1 33 :OK

6:31:04

/1

KED

TOC
21.8
22.1
22.6
21.9

7.5962

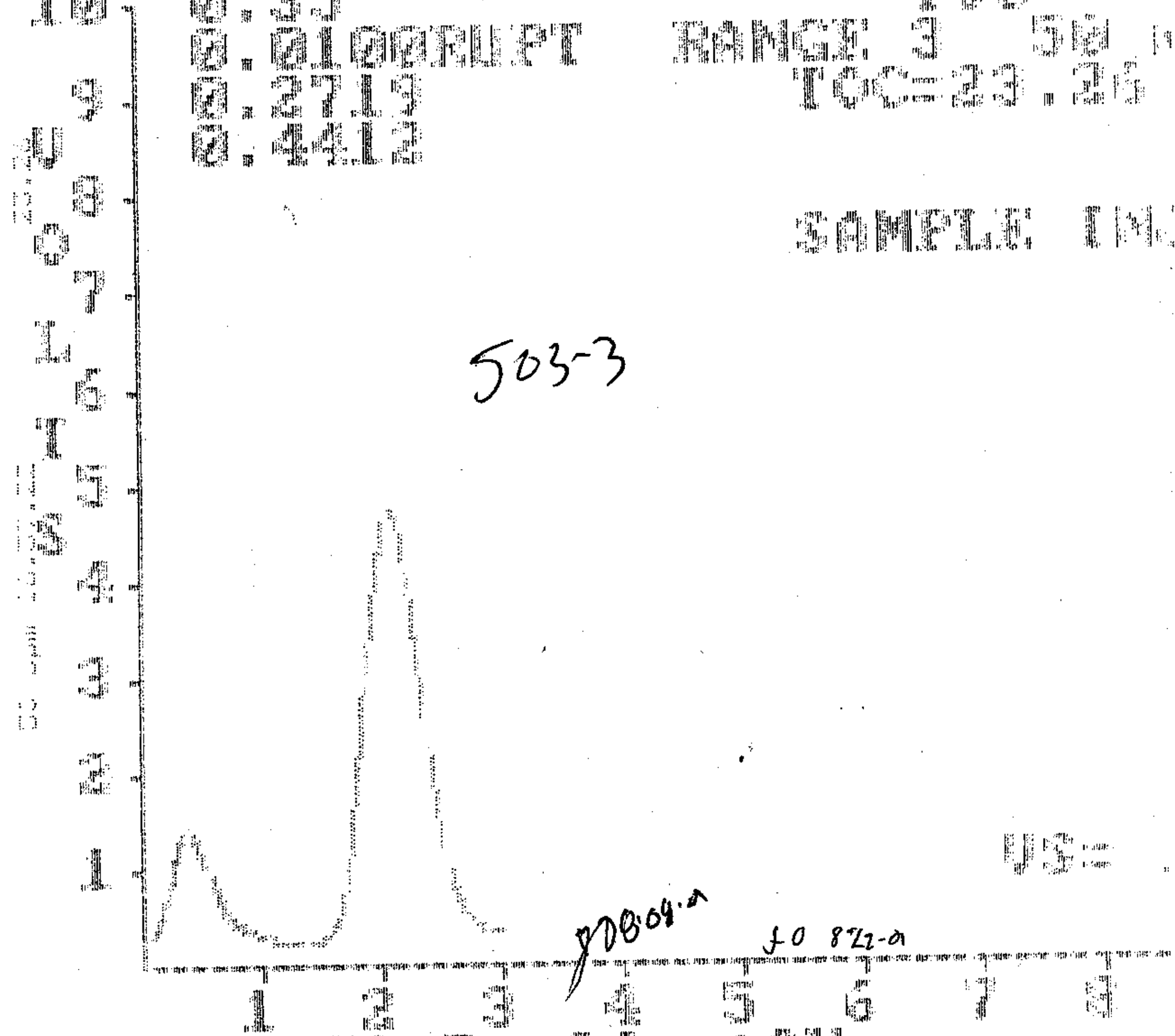
12 MIN.

SAMPLES TO GO= 8
STATION # 7

TOC

0.35
0.0100RUPT RANGE 3 50
0.2719 TOC=23.26
0.4412

SAMPLE IN



47.3 71.5 34 :OK

6:39:21

#1

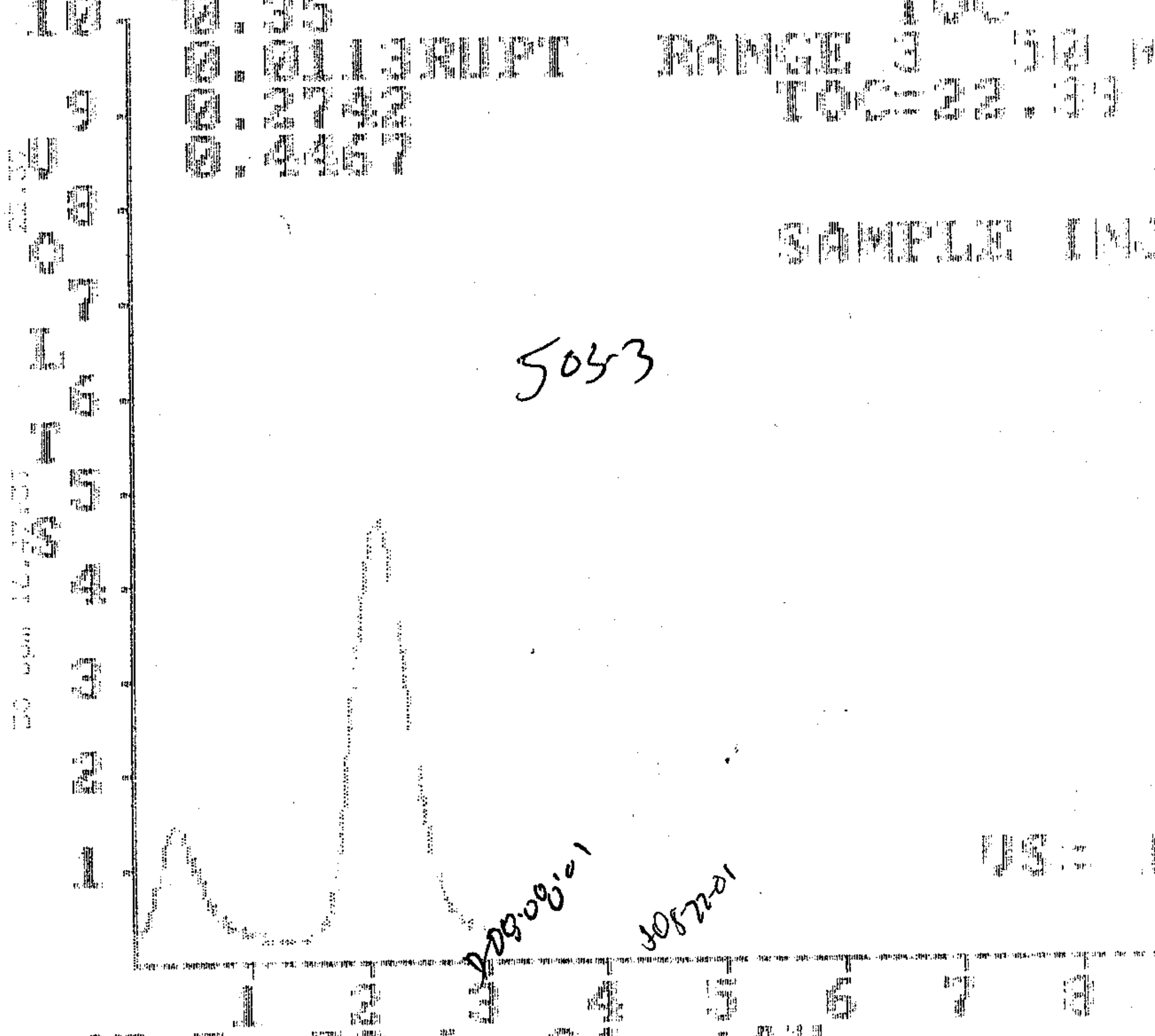
CIED

TOC
22.5
21.8
22.1
22.3
21.9

2.5395

10 MIN.

SAMPLES TO GO= 7
STATION # 9



47.7 70.6 34 :OK

6:47:38

/1

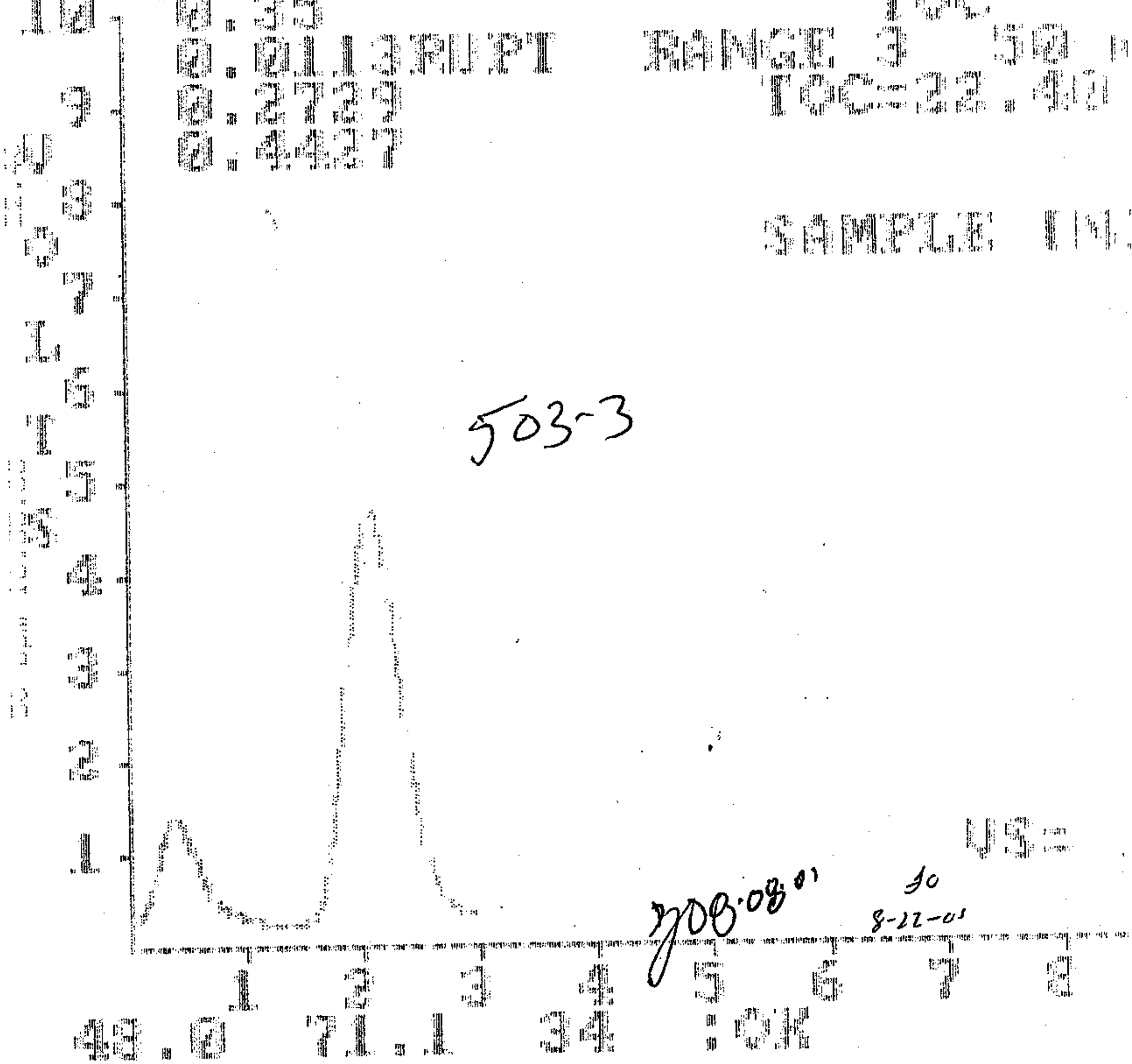
KCLED

TOC
22.3
22.5
21.8
22.1
22.6
21.9

6.8679

10 MIN.

SAMPLES TO GO= 6
STATION # 9
TOC



Dil 25/100
76 ppm
DL=4
303.7
10 MIN.

7:04:05

/1

CTED

TOC
22.4
22.4
23.1
22.7
21.8
22.1
22.5
21.9

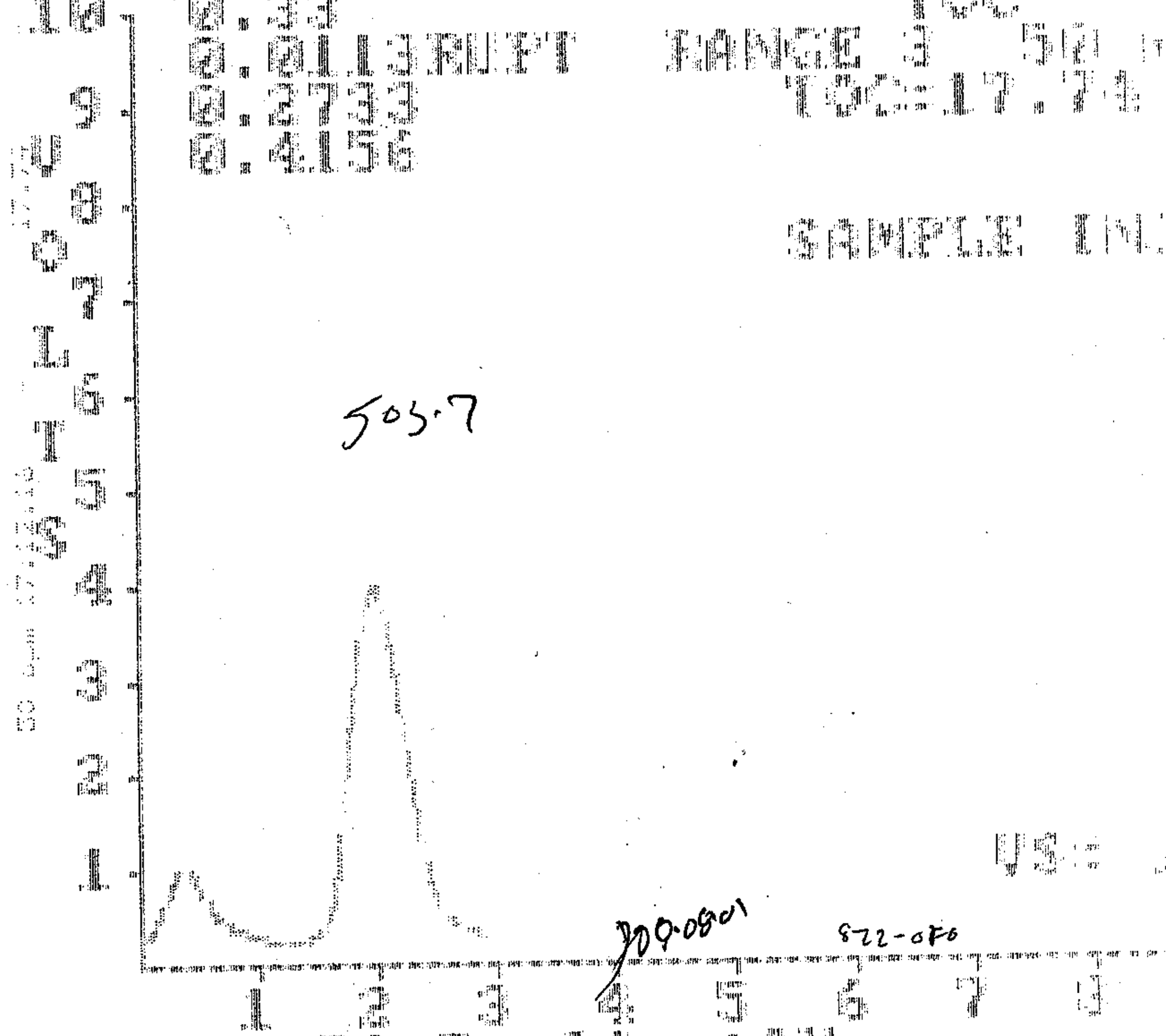
2.7218

10 MIN.

SAMPLES TO GO= 4
STATION # 11
0.33
0.0113RUPT RANGE 3 50
0.2733
0.4156

TOC
TOC=17.74

SAMPLE IN



US=

48.0 71.5 34. :OK

7:12:15

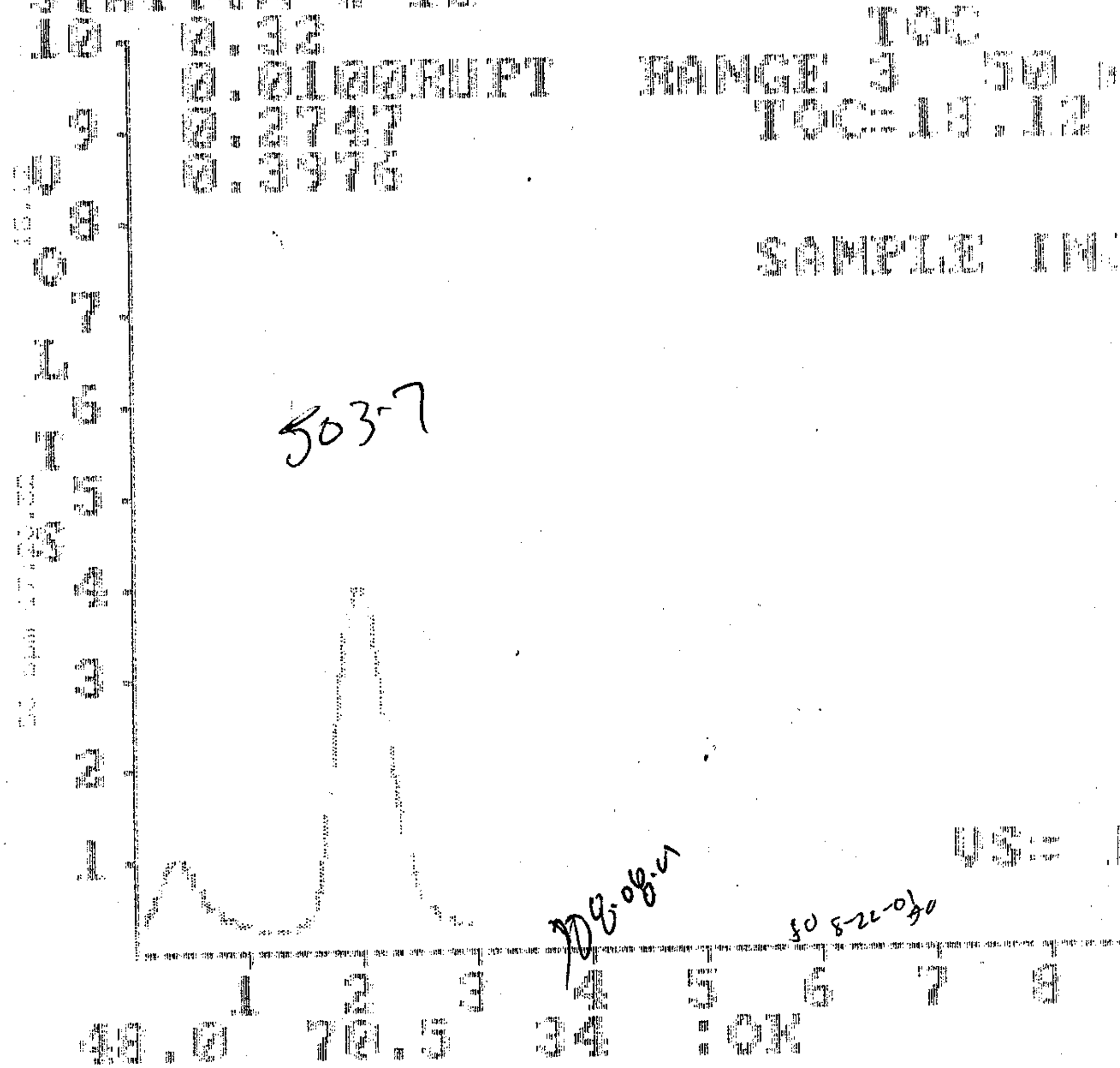
/1

CED

TOC
17.4
22.4
22.4
22.3
22.5
21.3
22.1
22.7
21.9
4.9532

10 MIN.

SAMPLES TO GO= 3
STATION # 12



7:20:31

r'1

RED

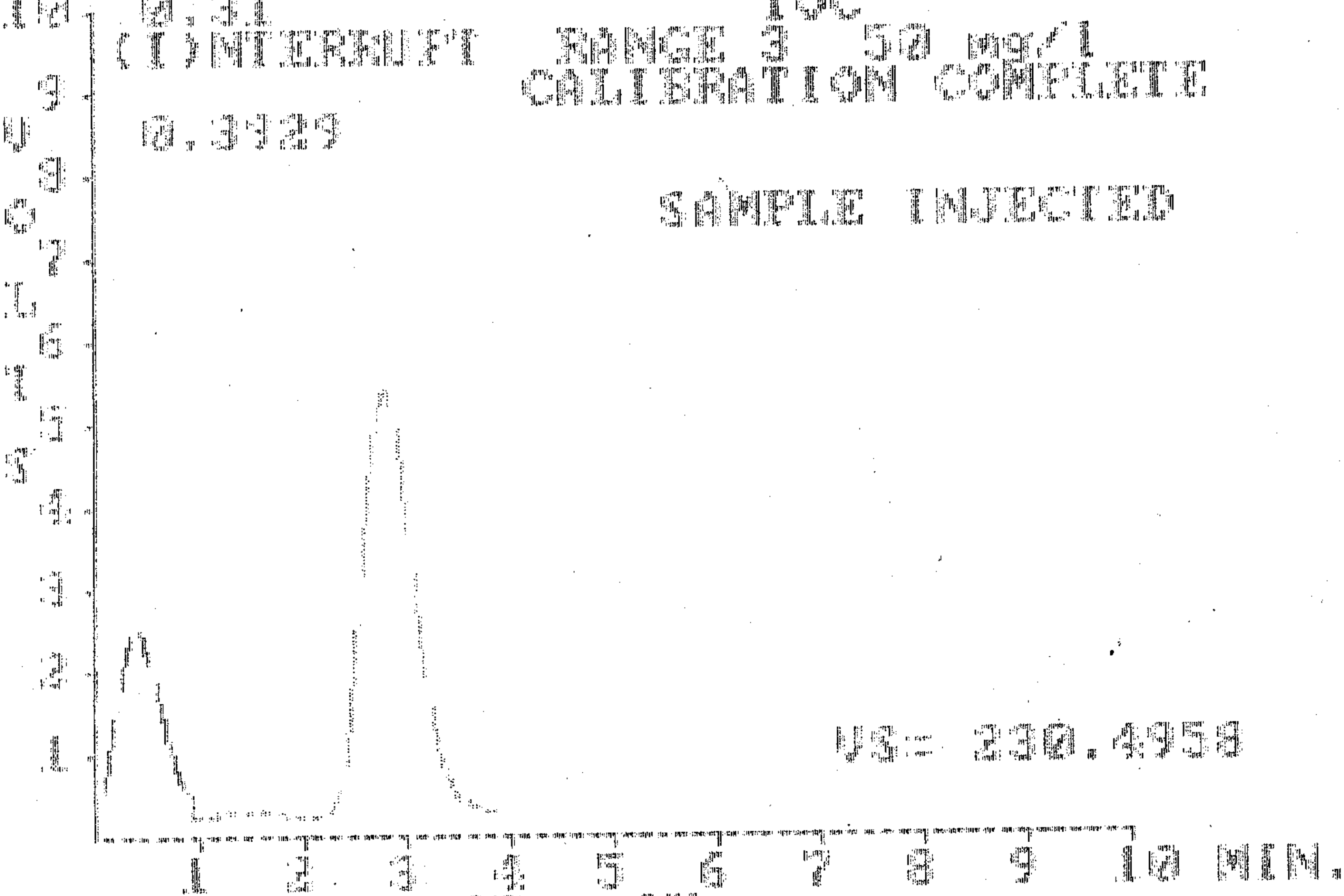
T°C
17.7
17.8
22.6
23.6
23.4
23.3
23.5
23.3
23.1
23.5
7.5799

10 MIN.

SAMPLES TO GO= 4 19:11:35

STATION # 1

TOC



49.4 71.6 35 :OK

10:19:35
SAMPLE INJECTED
503-2
94 ppm
DL=4
8-22-01
10 MIN.

10:21:42
SAMPLE NO. 3
RANGE TOC
TOC=21.47 mg/l
5032
SAMPLE INJECTED
TOC
21.5
US= 133.1825
8-22-01
0 1 2 3 4 5 6 7 8 9 10 MIN.

14:55:14
RANGE 10
TOC 4.91
503-7
SAMPLE INJECTED
US: 155.1152
10 MIN.

SAMPLES TO GO= 1 10:43:55

STATION # 5

10 0.31 TOC

0.010RRUPT RANGE 3 50 mg/l

0.2783 TOC=27.54

0.3883

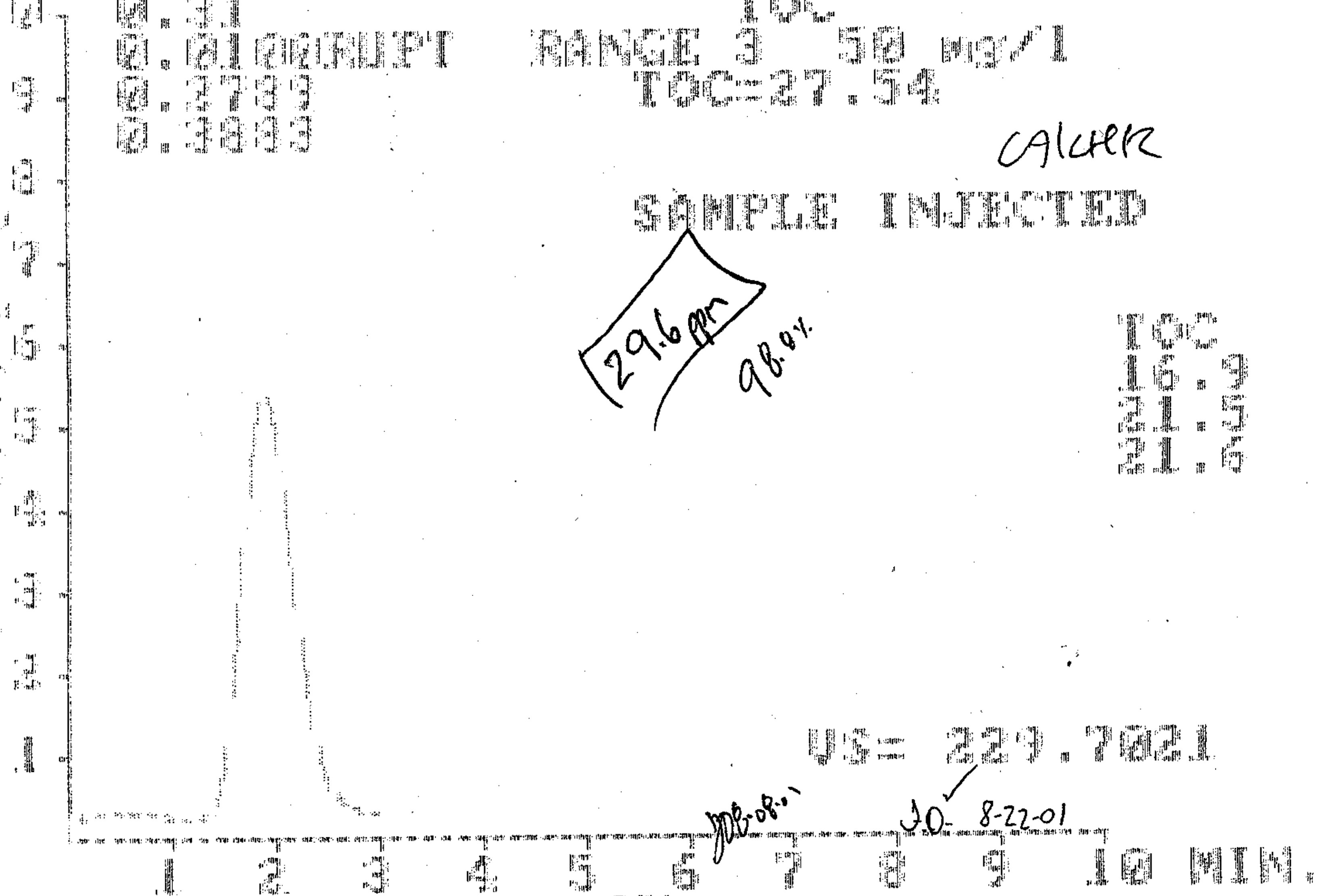
CALHER

SAMPLE INJECTED

29.6ppm

98.0%

TOC
16.9
21.5
21.6



US= 229.7021

8-08-01

JO 8-22-01

48.0 71.4 35 :OK

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271 revised (8/2/00)						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCI Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
355	Waters	Volatiles	8260B	C	85	93.5	119	163.625	79.475	76.5
330	Waters	TPH	FL-PRO	C	68	74.8	95.2	130.9	63.58	61.2
330	Waters	TOC	9060	C	25	27.5	35	48.125	23.375	22.5
330	Waters	Alkalinity	EPA 305.1/310	C	8	8.8	11.2	15.4	7.48	7.2
330	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	30	33	42	57.75	28.05	27
330	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
330	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
330	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	120	130	170	220	115	120
330	Waters	Acetic Acid	HPLC/UV--see note 1.)	C	172.5	189.75	241.5	332.0625	161.2875	155.25
330	Waters	Butyric Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Lactic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Propionic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
330	Waters	Pyruvic Acid	HPLC/UV--see note 1.)	C	see above	see above	see above	see above	see above	see above
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5

ATTACHMENT B

lab bid form

1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	8.4.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	8.4.00
Lab Representative's Name/Title (please print)	Signature	Date

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

AAL NOTES:

**1.) This quote is based on running an acid scan using a GC (Gas Chromatography) instead of HPLC. Samples will be subcontracted to another laboratory.
TheGC Scan includes all of the acids listed.

ATTACHMENT B
lab bid form

CTO No:	CTO 0017		Base Name:	NTC Orlando			Task:	Efficiency sampling at SA 36 & 39		
Project No.:	152044		RFB No:	0017-271						
Approx No. of Samples	Matrix	Analytical Parameter	Analytical Method	CCl Data Package Level1	Quotation (per sample) Standard TAT2	Quotation (per sample) Accelerated TAT3	Quotation (per sample) Accelerated TAT4	Quotation (per sample) Accelerated TAT5	Quotation (per sample) alternate Package Level 6	Quotation (per sample) alternate Package Level 7
26	Soil	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
26	Soil	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
4	Waters	Volatiles	5035/8260B	C	125	137.5	175	240.625	116.875	112.5
2	Waters	TOC	9060	C	45	49.5	63	86.625	42.075	40.5
71	Waters	Volatiles	8260B	C	125	137.5	175	240.625	116.875	112.5
66	Waters	TPH	FL-PRO	C	80	88	112	154	74.8	72
66	Waters	TOC	9060	C	40	44	56	77	37.4	36
66	Waters	Alkalinity	EPA 305.1/310	C	15	16.5	21	28.875	14.025	13.5
66	Waters	Nitrate/Nitrite	EPA 300.1/353/354	C	40	44	56	77	37.4	36
66	Waters	Chloride	EPA 300.1/325	C	20	22	28	38.5	18.7	18
66	Waters	Bromide	EPA 300.1/320.1	C	40	44	56	77	37.4	36
66	Waters	Methane/Ethane/ Ethene	ASTM D1945	C	125	137.5	175	240.625	116.875	112.5
66	Waters	Acetic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Butyric Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Lactic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Propionic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
66	Waters	Pyruvic Acid	HPLC/UV	C	no bid	no bid	no bid	no bid	no bid	no bid
1	Waters	TCL Volatiles	8260B	A	160	176	224	308	149.6	144
1	Waters	TCL Semi-volatiles	8270C	A	275	302.5	385	529.375	257.125	247.5
1	Waters	TCL Pesticides	8081A	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TCL PCBs	8082	A	125	137.5	175	240.625	116.875	112.5
1	Waters	TAL Metals	6010B	A	225	247.5	315	433.125	210.375	202.5
1	Waters	Herbicides	8151A	A	140	154	196	269.5	130.9	126
1	Waters	Reactivity	Chapter 7.3	A	25	27.5	35	48.125	23.375	22.5
1	Waters	Corrosivity	9045a	A	10	11	14	19.25	9.35	9
1	Waters	Ignitability	1010/1020	A	25	27.5	35	48.125	23.375	22.5
50	Waters	TDS	160.1	B	N/A	16.5	21	N/A	N/A	N/A
50	Waters	Sodium	6010B	B	N/A	16.5	21	N/A	N/A	N/A

ATTACHMENT B
lab bid form

Notes:	1	Please see Attachment E for details
	2	Preliminary data: 14 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	3	Preliminary data: 7 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	4	Preliminary data: 3 calendar days ; Final data: 14 calendar days; EDD: 14 calendar days
	5	Preliminary data: 48-24 hours (calendar days) ; Final data: 14 calendar days; EDD: 14 calendar days
	6	CCI Package Level B
	7	CCI Package Level B with EDD

Additional Notes:	A) Please indicate which methods the laboratory is **not** capable of performing
	B) Quotations must be valid for at least 180 days. All quotations are final. You are encouraged to submit your most competitive pricing.
	C) The analyses listed above may all be requested throughout the project.
	D) Samples may be divided between 2 or 3 of the most competive labs.
	E) Quotations must include sample, container, and cooler disposal
	F) Unless otherwise specified, quotations must include dual column/integrator confirmation and laboratory QC.

Signature represents that the vendor has reviewed and understands this Request for Quotation and its contents and accepts its requirements.

Accura Analytical Labs (AAL)	Norcross, GA	7.31.00
Laboratory Name	Facility Location	Date of Quotation Submittal
Martin Van Lear, Business Development	M. Martin Van Lear	7.31.00
Lab Representative's Name/Title (please print)	Signature	Date
David C. Fuller, Vice President		11.01.00
Lab Representative's Name/Title (please print)	Signature	Revised Date of Quotation Submittal

Business Type:	[ ] Large	[ ] Small	[XX] Small Disadvantaged	[ ] Woman-Owned	[ ] Labor Surplus Area

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111054

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Raw data indicate Total Xylene integration is a manual determination, support documentation does not provide evidence of this integration (i.e. blow-up). The case narrative does not indicate that the integration is a manual determination. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01 the following was requested:

1. Re-submit a revised case narrative to reflect ALL events surrounding this data, accurately explaining any anomalous results and any actions taken regarding these results.

2. Provide evidence of manual intergrations

Resolution recorded by: J.H Date: 11.15.2001

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

KMC 11/21/01

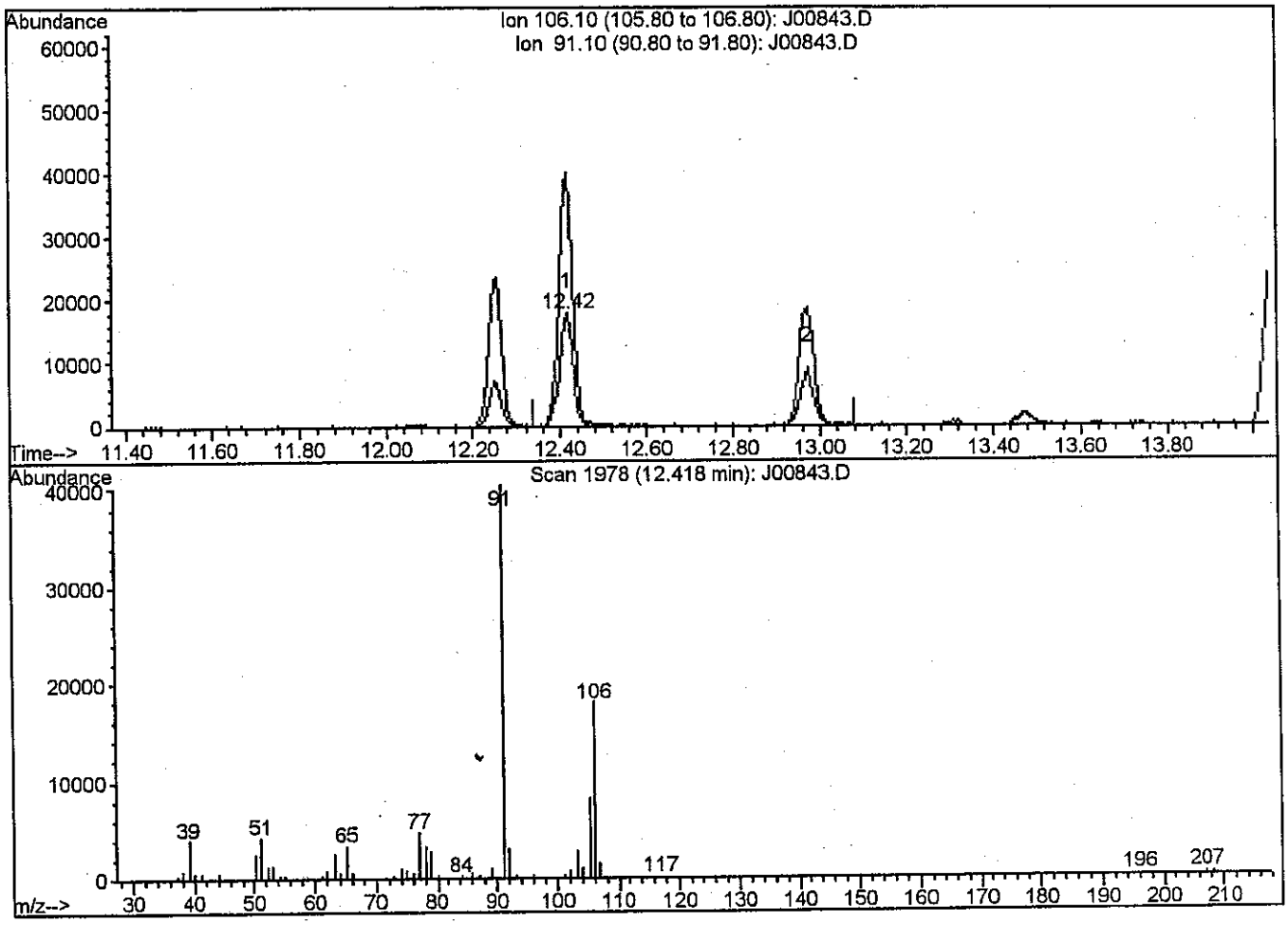
QA Review by: KM Clemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00843.D

(59) total-Xylene (TG)

12.42min 2.96ug\L m

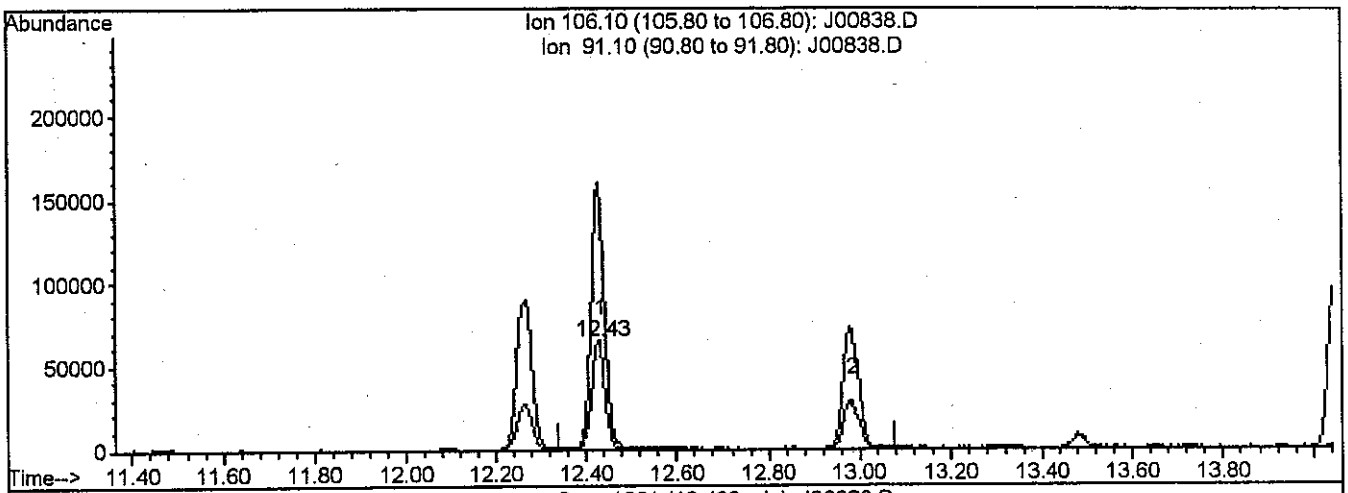
response 55563

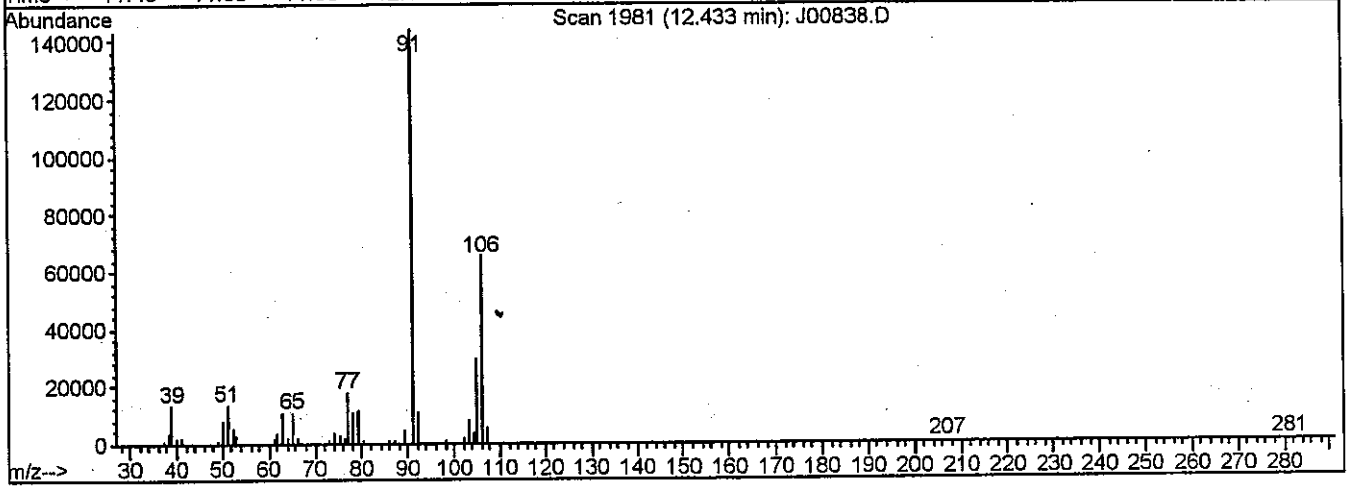
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	233.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: 40t2001.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00838.D

(59) total-Xylene (TG)

12.43min 12.04ug\L m

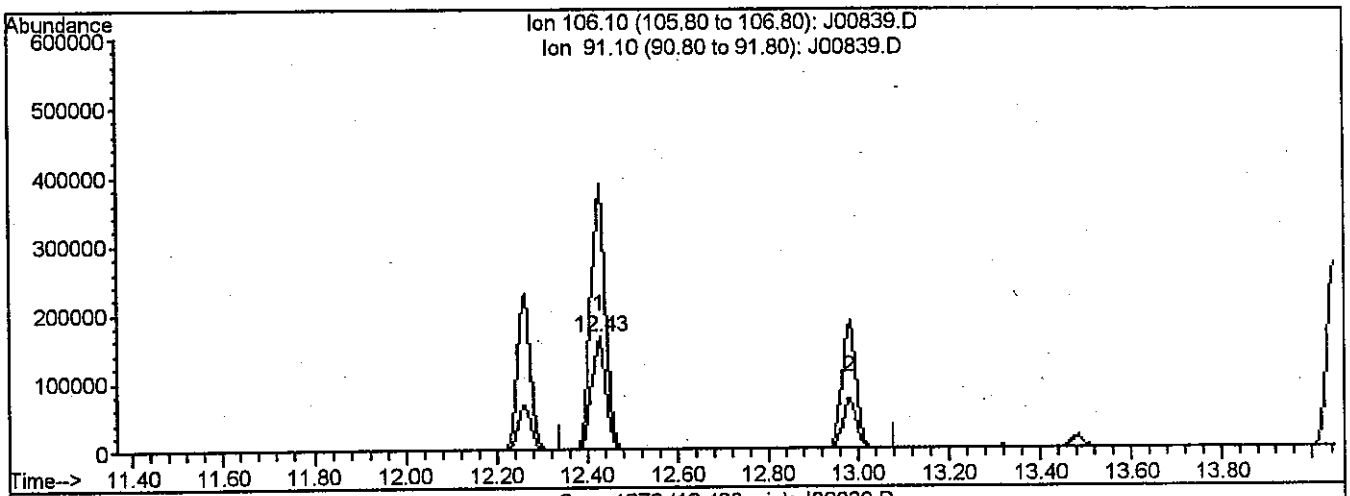
response 210562

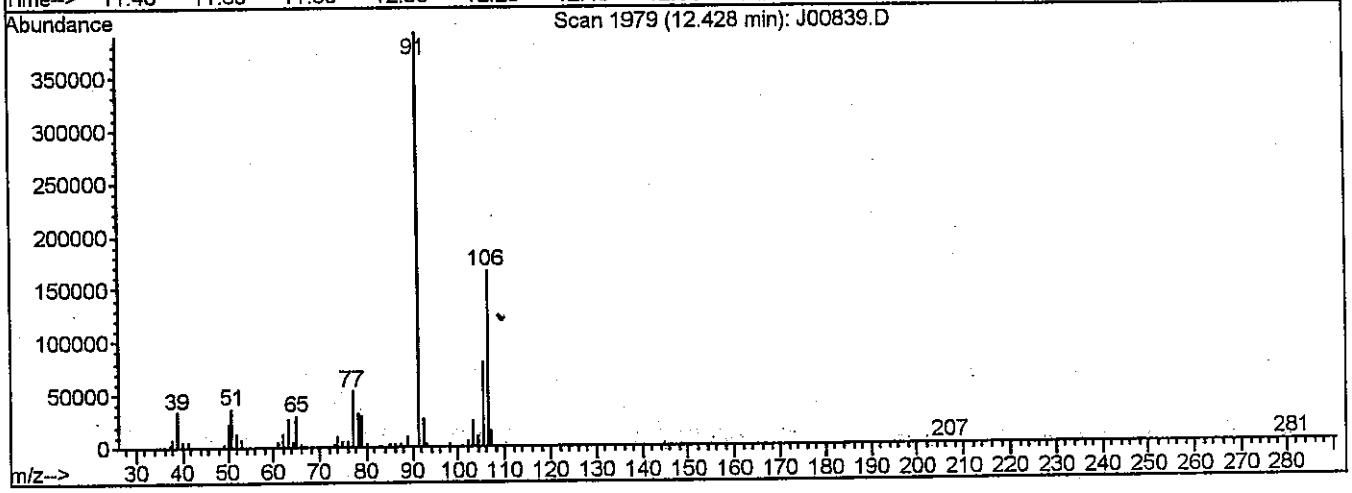
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.65#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 6 16:40 2001 Quant Results File: temp.res
QuantTimeIngPars.p

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00839.D

(59) total-Xylene (TG)

12.43min 31.11ug\L m

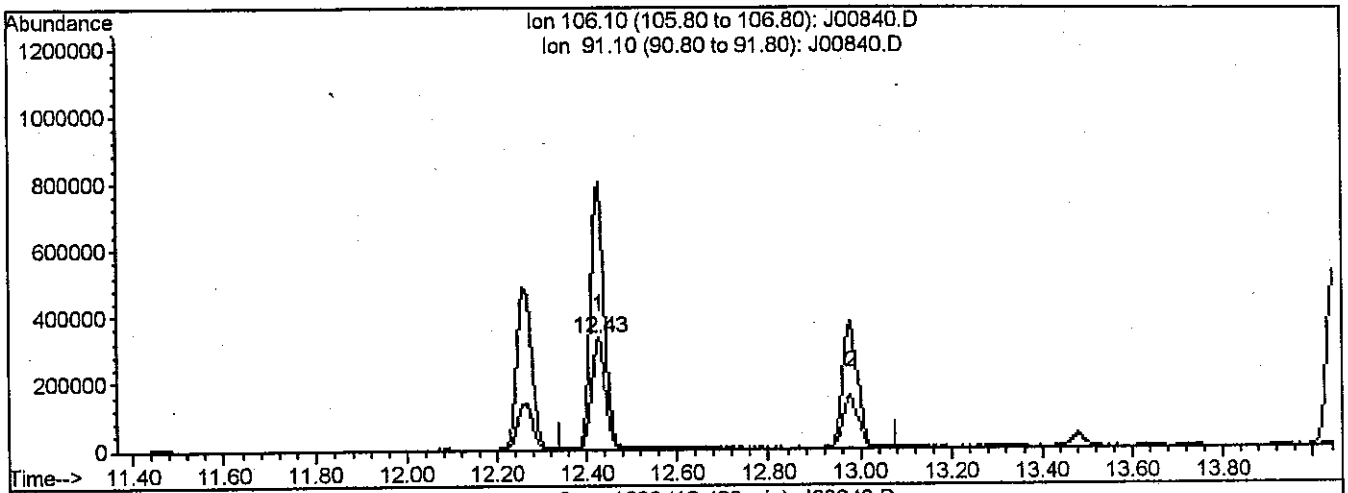
response 518556

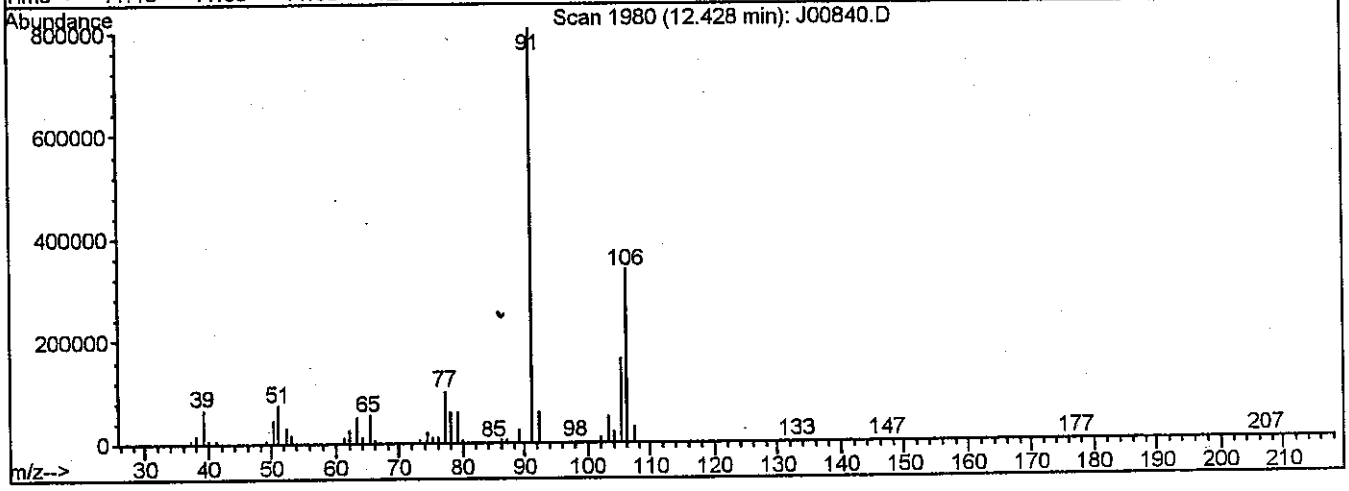
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: 40t2mft.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00840.D

(59) total-Xylene (TG)

12.43min 61.59ug\L m

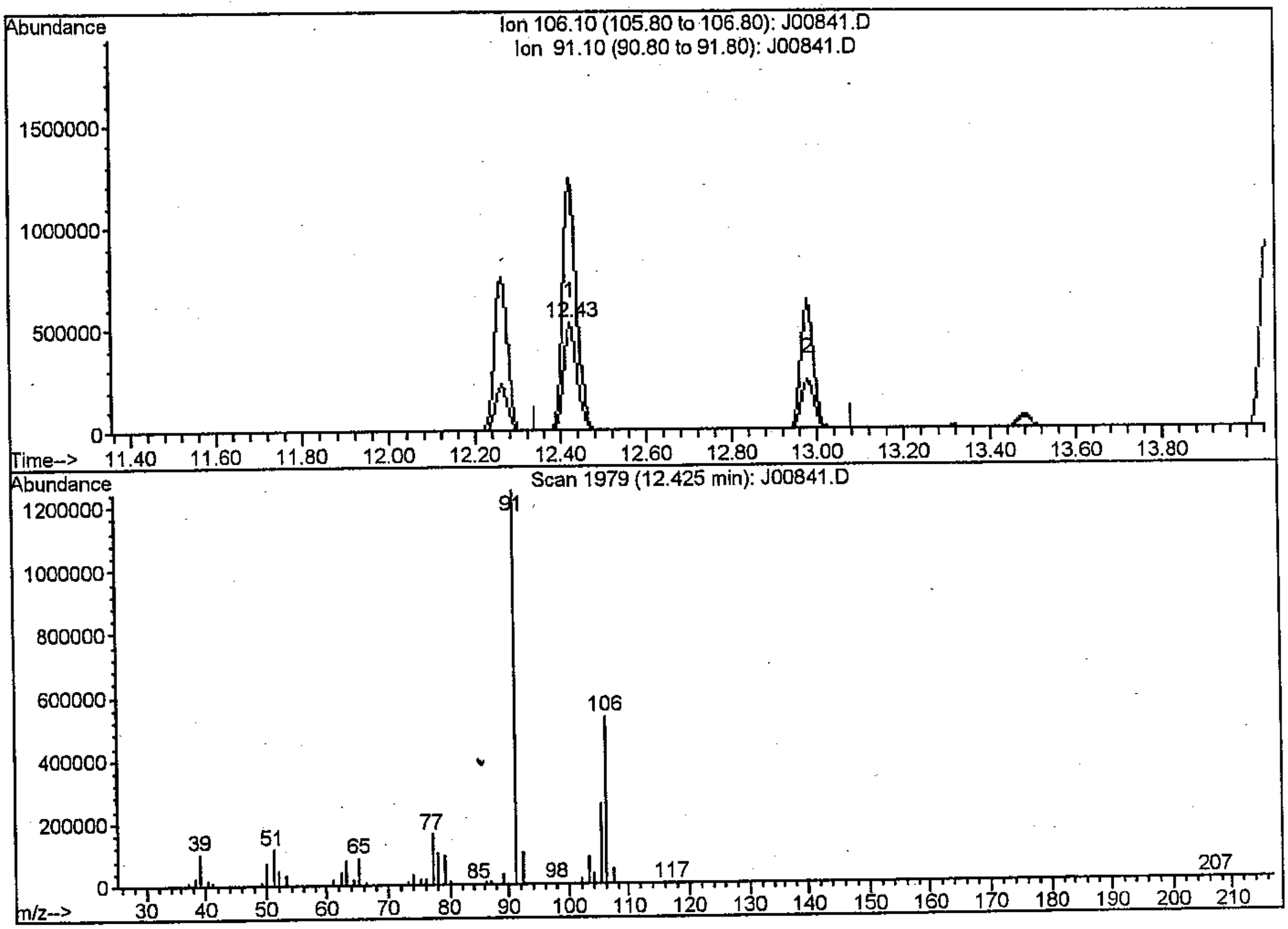
response 1092314

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.49#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D   Vial: 5
Acq On : 08/06/01 12:05   Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073)   Inst : HP-MSJ
Misc : WATER 25ml   Multiplr: 1.00
Q8aññt@gmetiAngPa6am6:4itt200it.p   Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00841.D

(59) total-Xylene (TG)

12.43min 89.55ug\L m

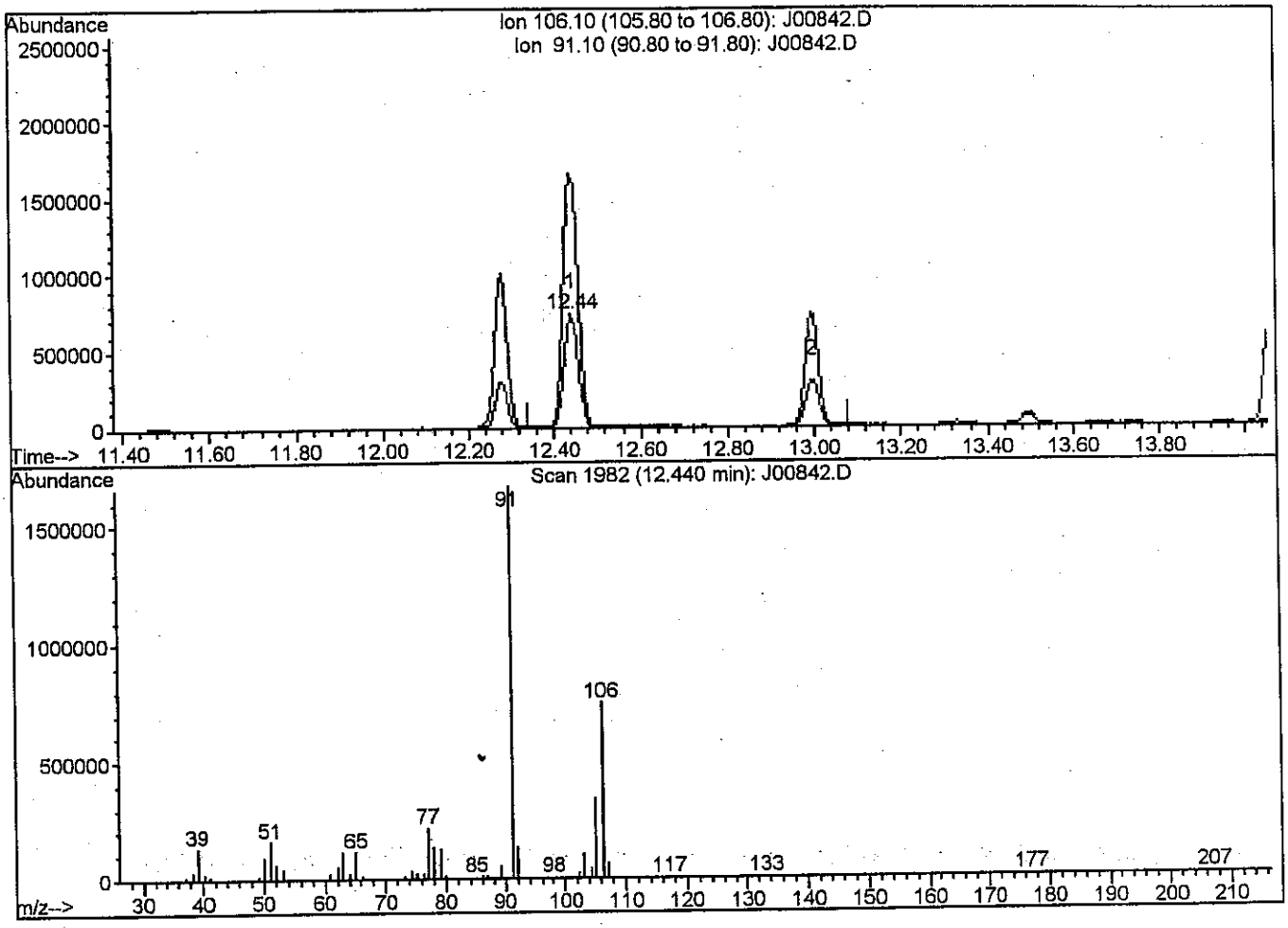
response 1744747

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	239.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Method : C:\HPCHEM\1\METHODS\AUG01.M (RTE) Quant Results File: temp.res
Quant Time: Aug 6 15:41 2001 Quant Report (Target Compounds)

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00842.D

(59) total-Xylene (TG)

12.44min 113.52ug\L m

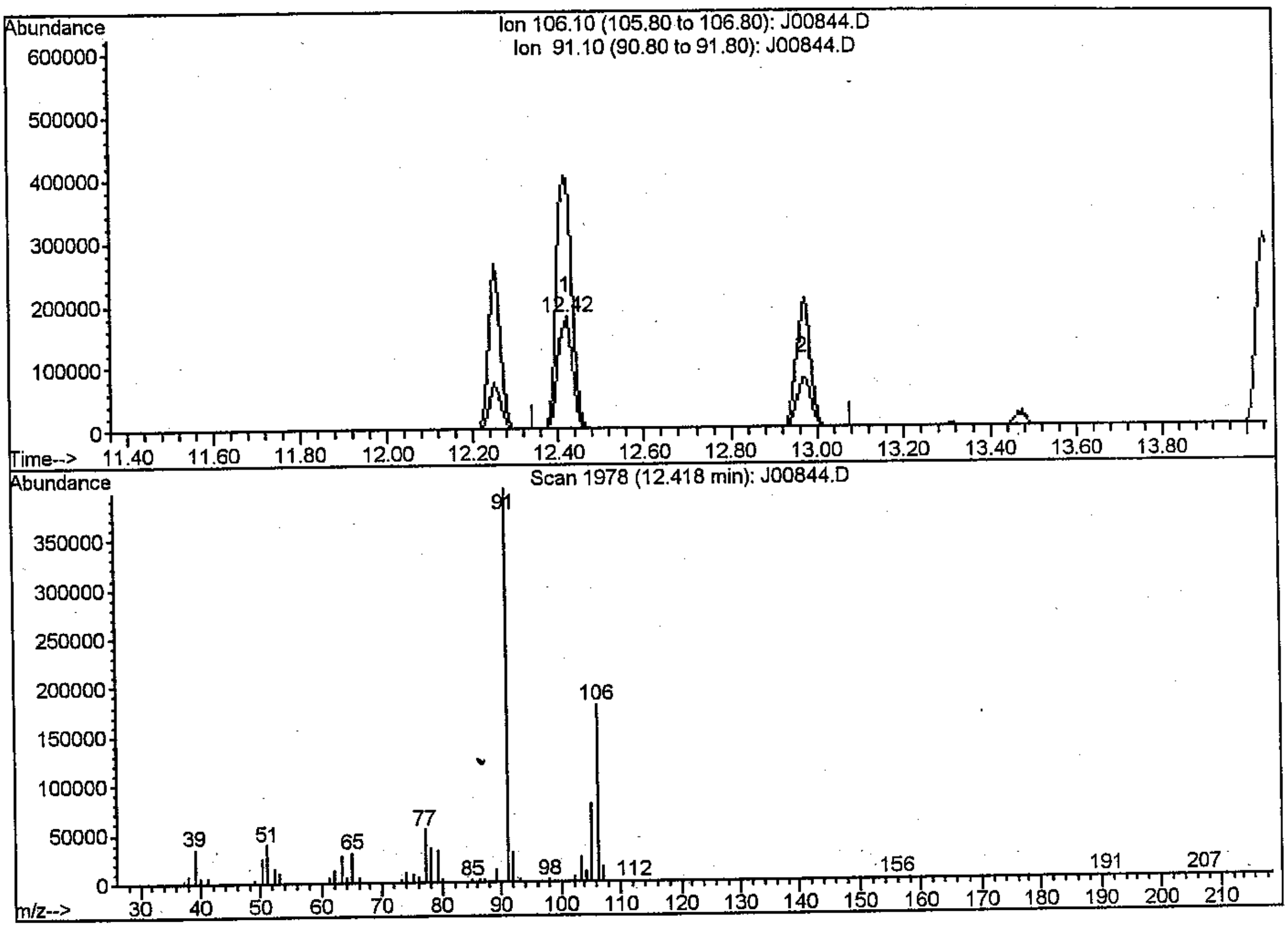
response 2279293

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	236.99#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File	: C:\HPCHEM\1\DATA\1J080601\J00844.D	Vial:	8
Acq On	: 08/06/01 16:13	Operator:	
Sample	: ICV 10 PPb (V01082,V01073)	Inst	: HP-MSJ
Misc	: WATER 25ml	Multiplr:	1.00
MSantTgmetiAngPafahs:4it2001t.p		Quant Results File:	temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00844.D

(59) total-Xylene (TG)

12.42min 29.73ug\L m

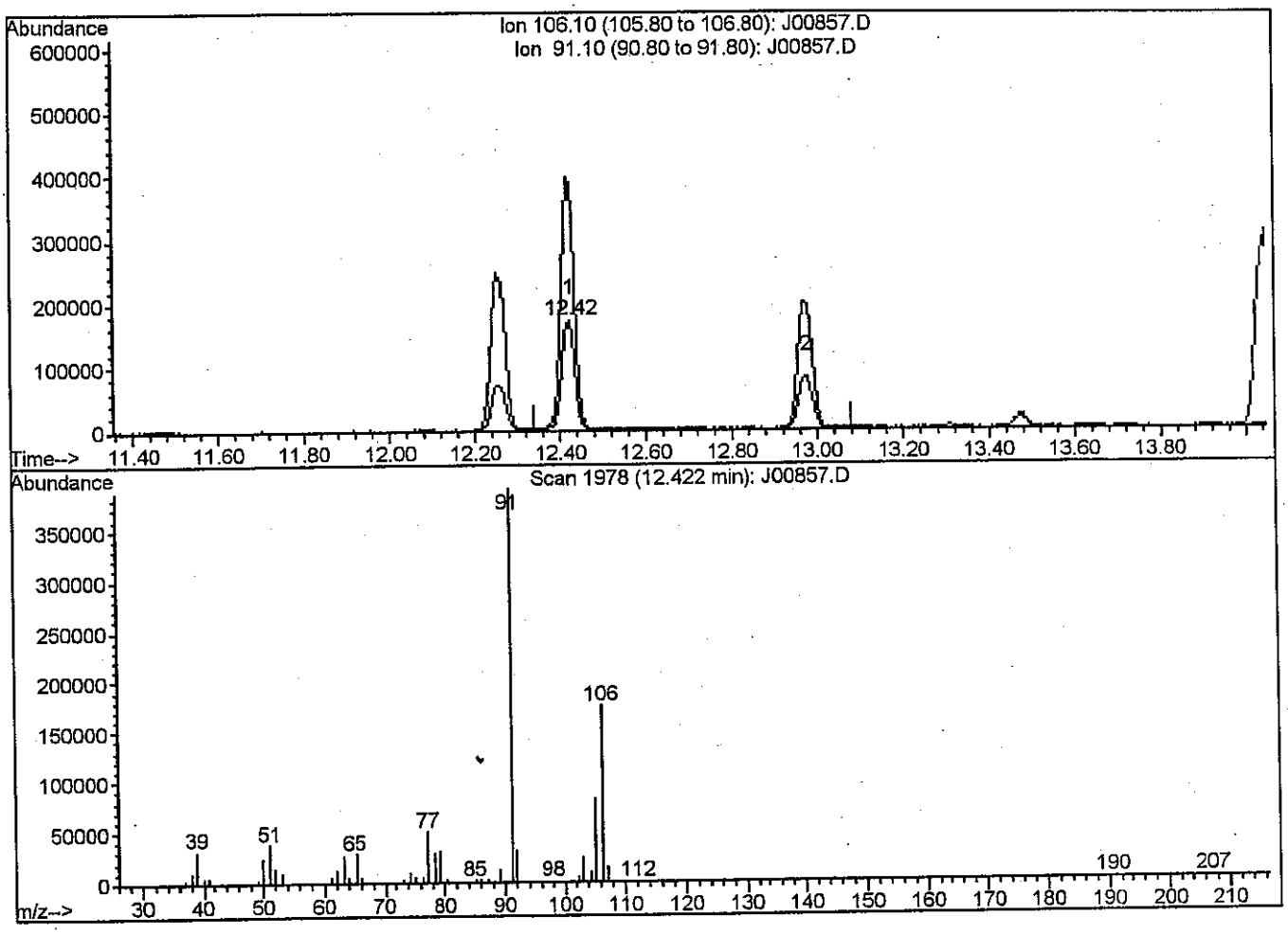
response 572541

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	240.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 7 8:58 2001 Quant Results File: temp.res
Quant Method: C:\HPCHEM\1\DATA\1J080701\J00857.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00857.D

(59) total-Xylene (TG)

12.42min 31.63ug\L m

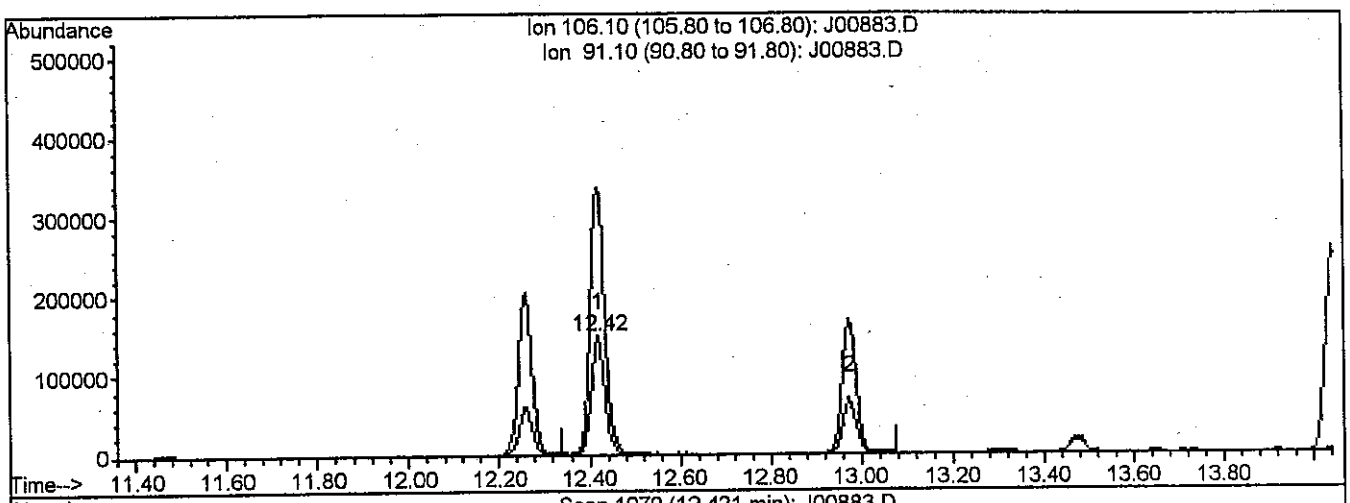
response 571672

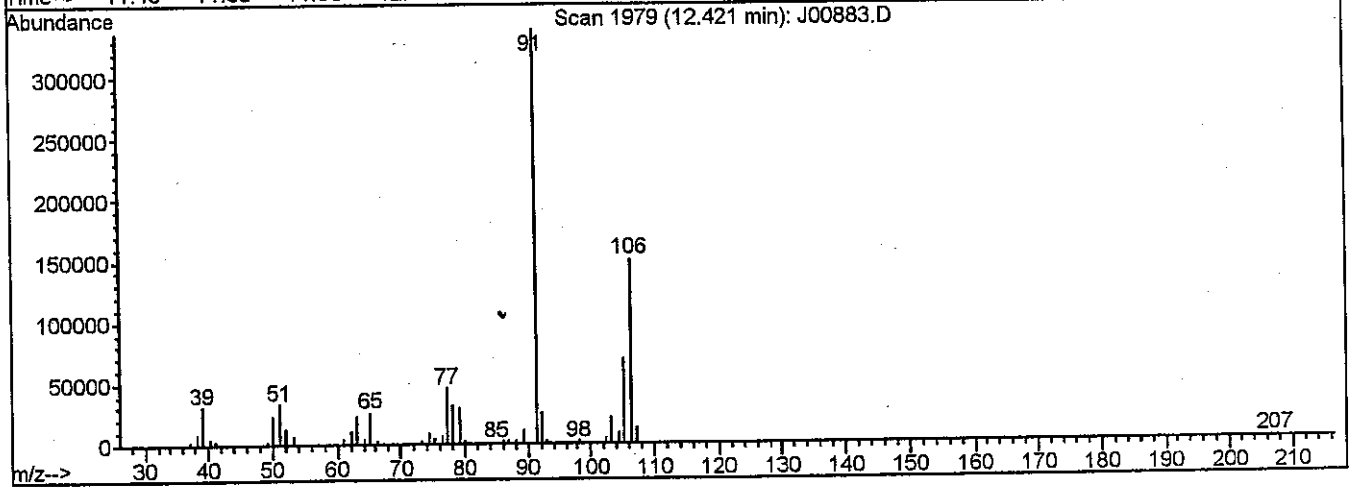
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	229.84#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: st2111.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00883.D

(59) total-Xylene (TG)

12.42min 29.47ug\L m

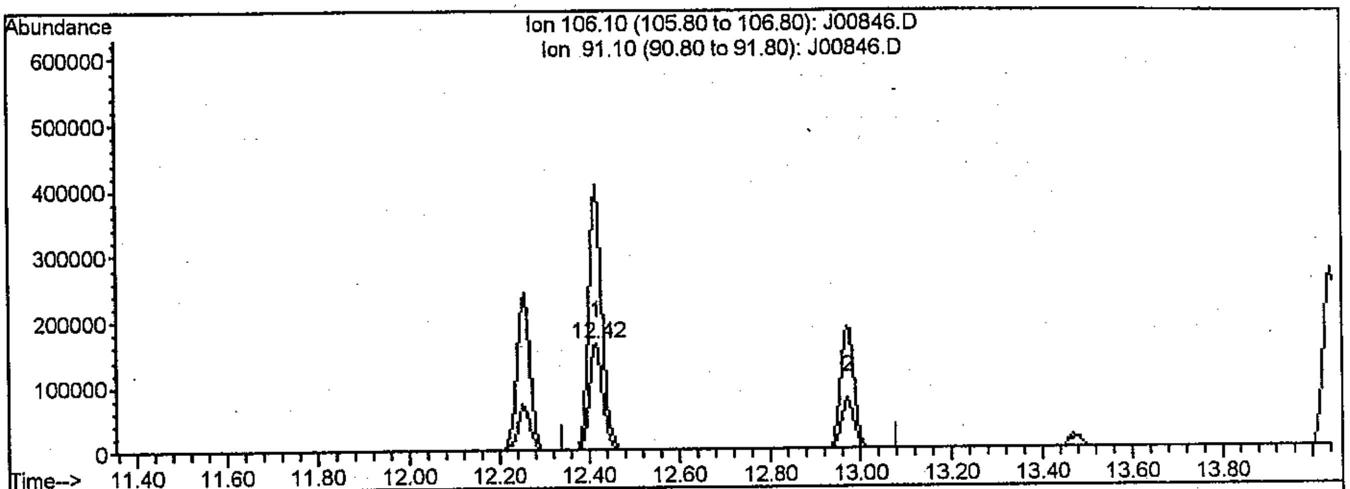
response 468877

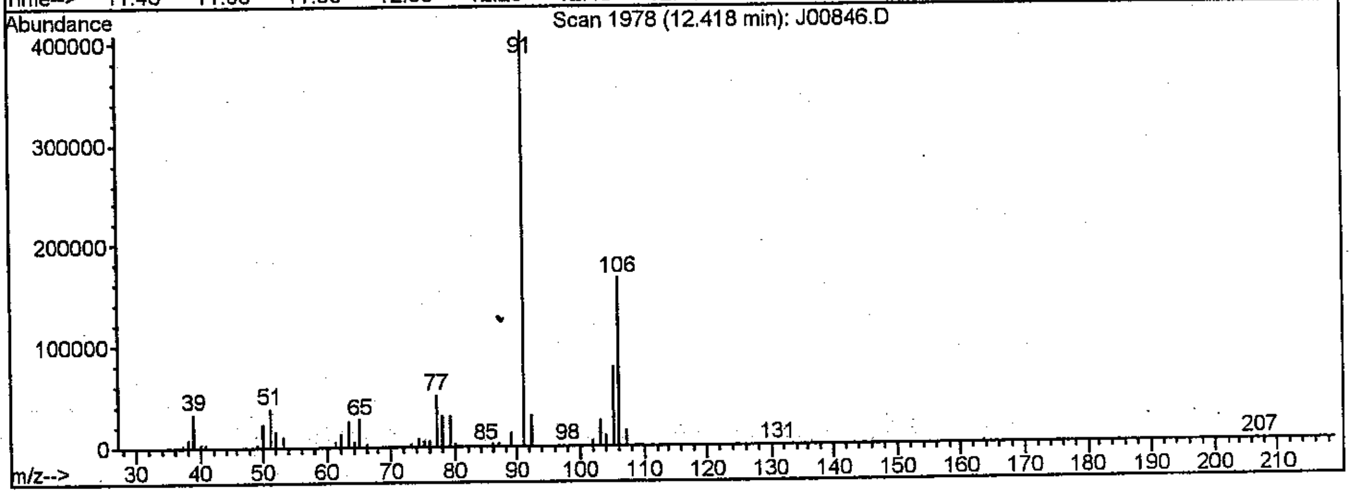
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.33#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Time: Aug 6 13:50 2001 / Integration Params: rteint.p Quant Results File: temp.res

Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00846.D

(59) total-Xylene (TG)

12.42min 28.63ug\L m

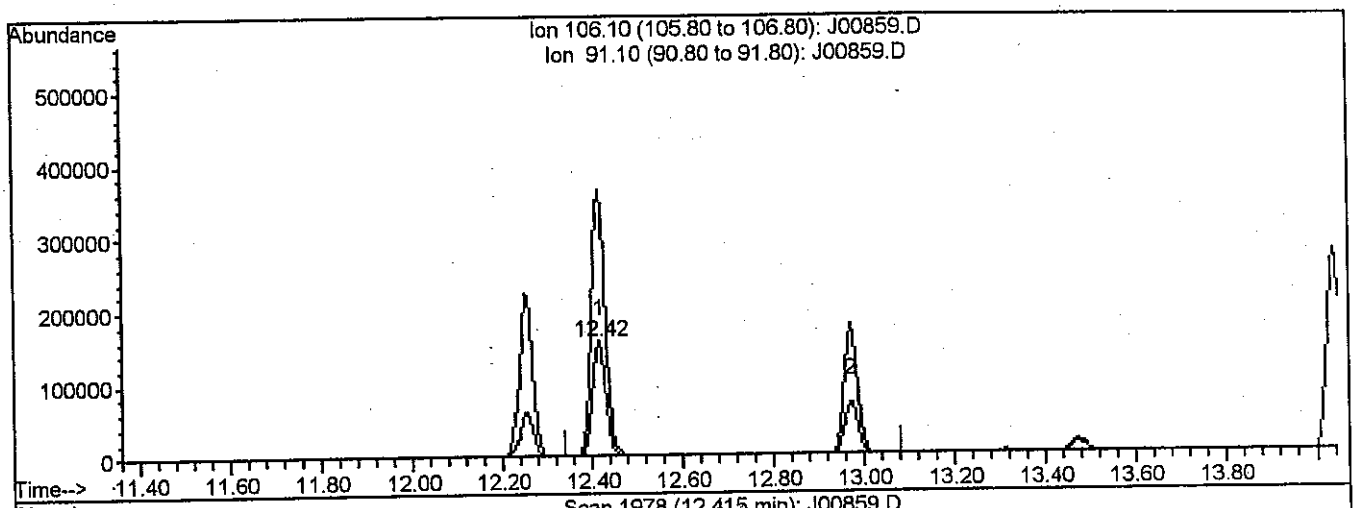
response 539877

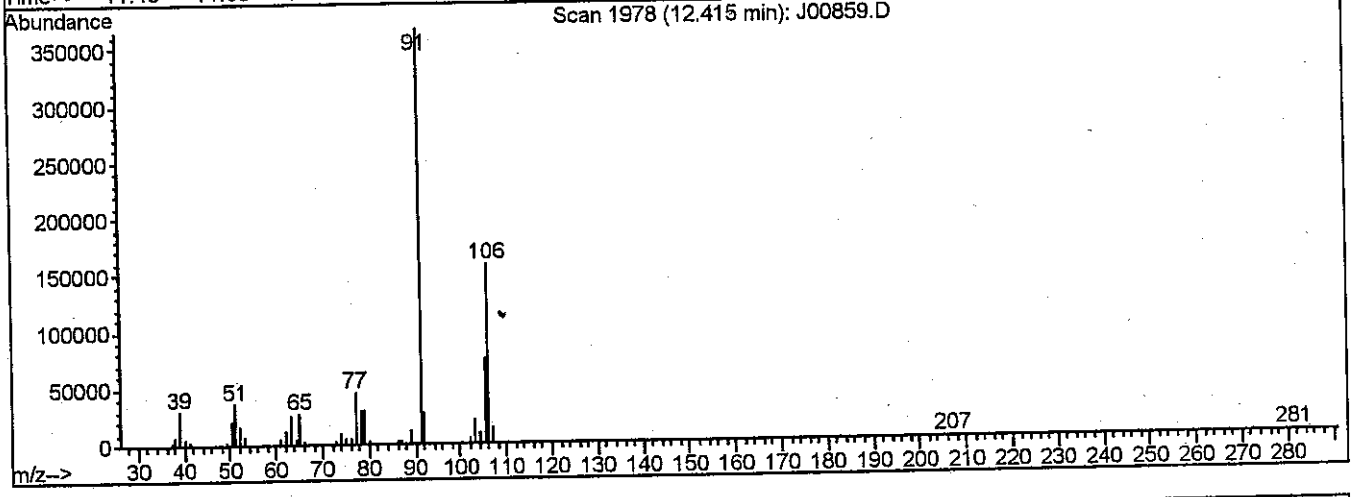
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	241.29#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
Quant Method : C:\HPCHEM\1\DATA\1J080701\1J080701.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00859.D

(59) total-Xylene (TG)

12.42min 30.63ug\L m

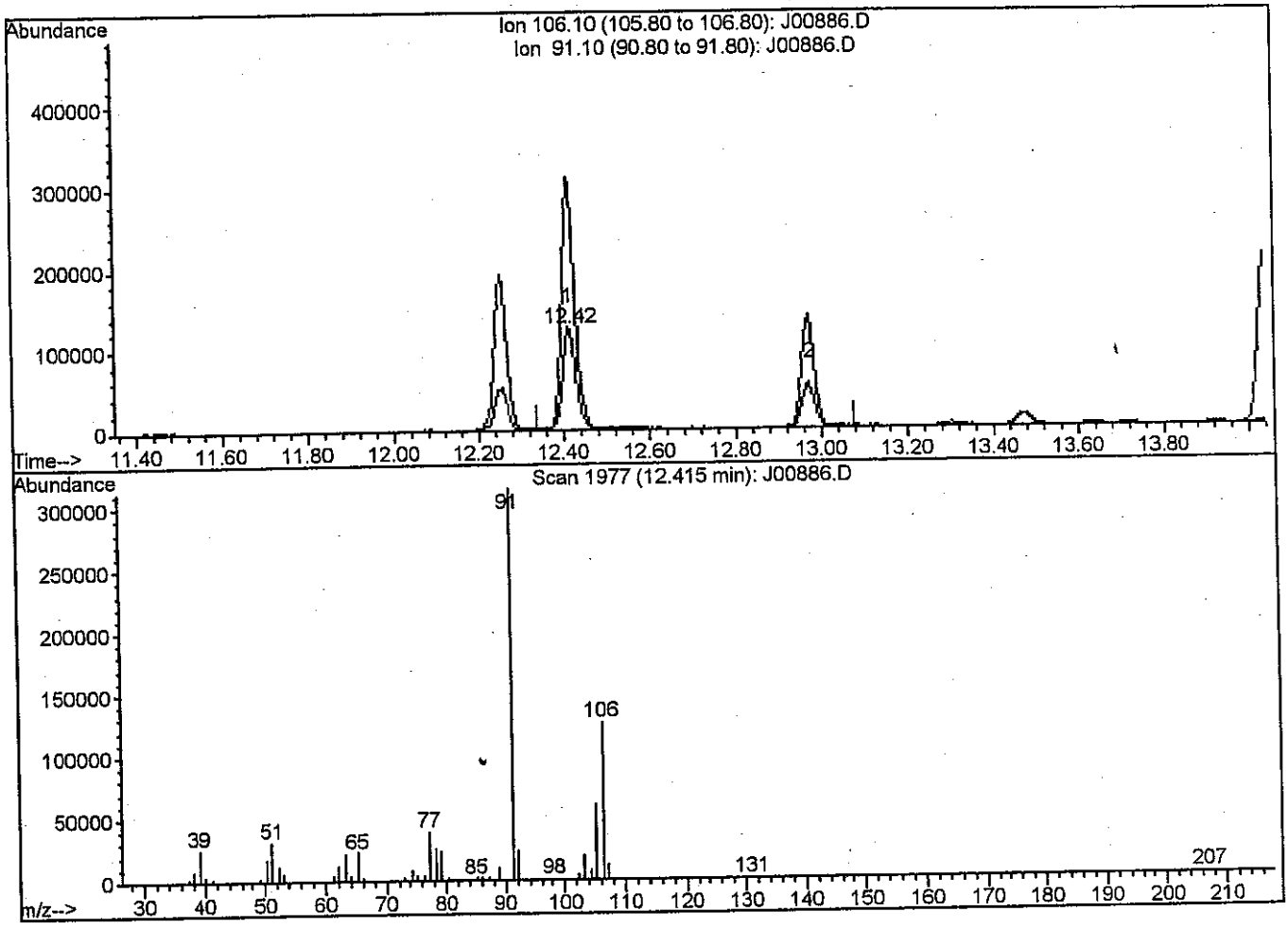
response 505157

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	237.59#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
QuantTime: Aug 8 14:29 2001 Quant Results File: temp.res
QuantMethod: Target Compound Report.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration



TIC: J00886.D

(59) total-Xylene (TG)

12.42min 26.43ug\L m

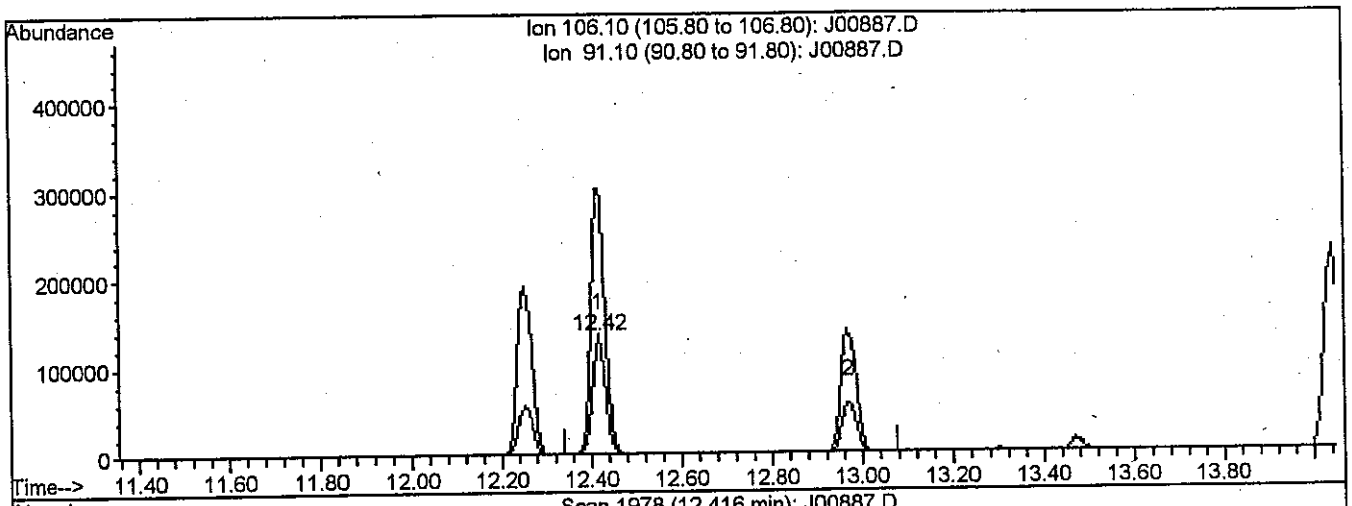
response 403328

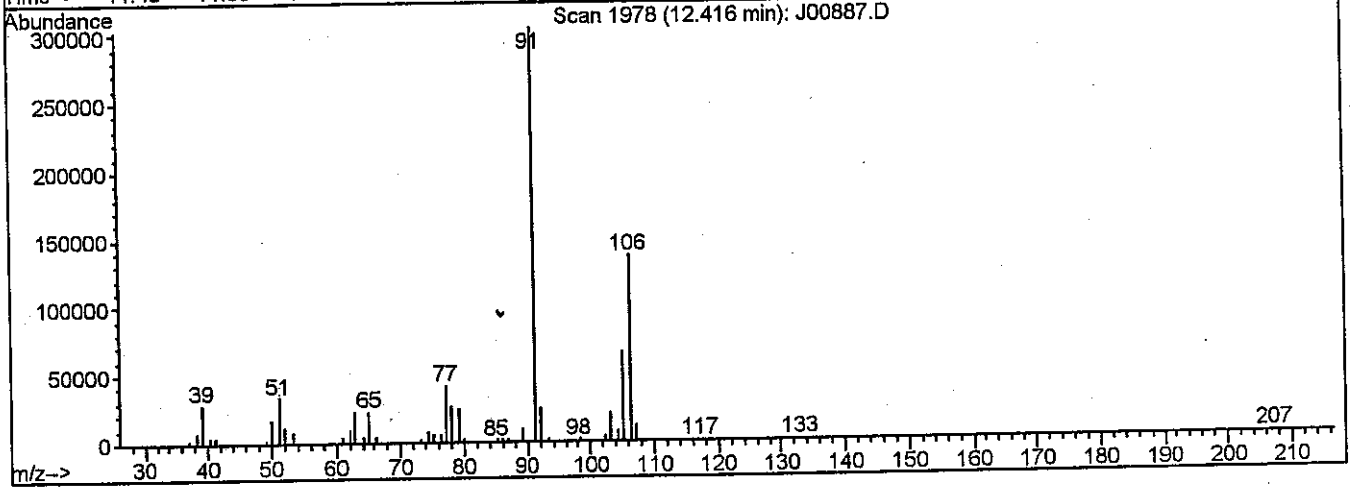
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00887.D Vial: 4
Acq On : 08/08/01 11:49 Operator:
Sample : AC17978MS 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MSIntegrationParams: 29t2001.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00887.D

(59) total-Xylene (TG)

12.42min 25.26ug\L m

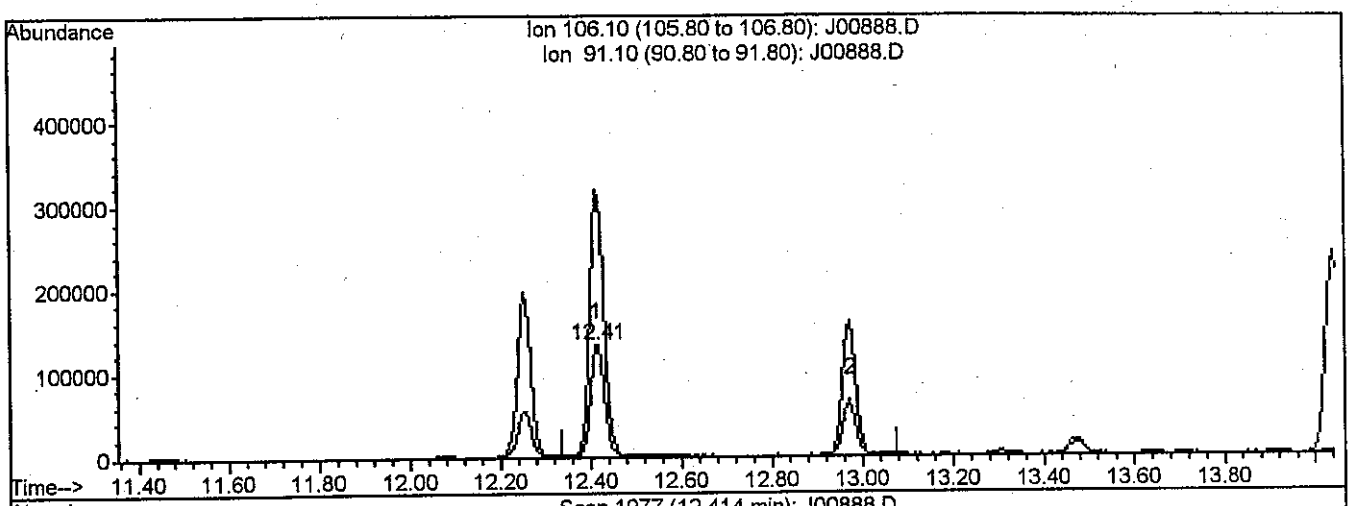
response 412621

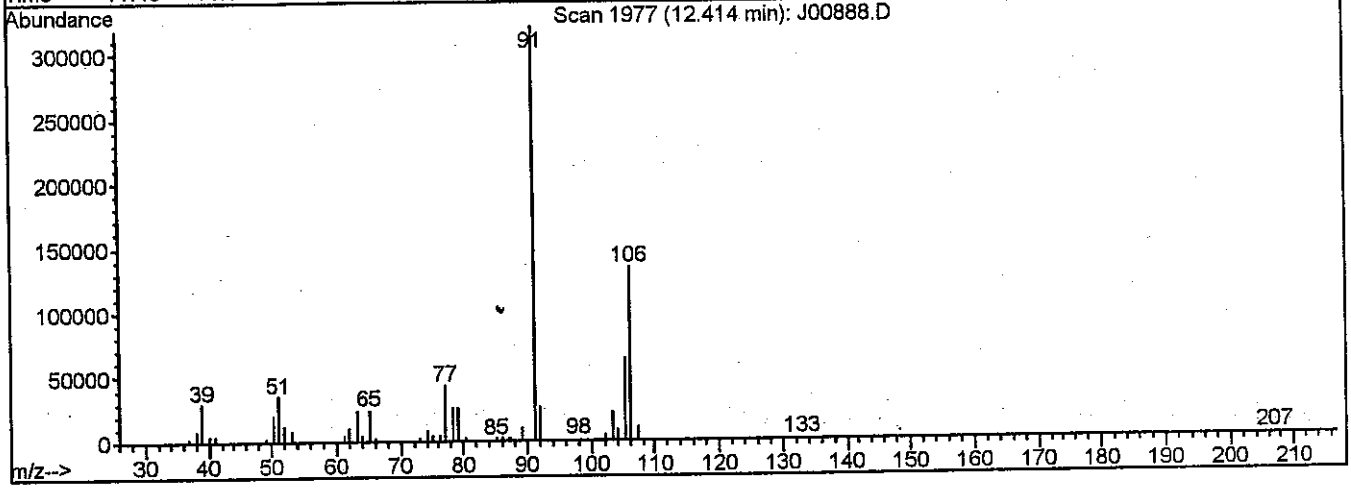
Ion	Exp%	Act%
106.10	100	100
91.10	78.60	244.70#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00888.D Vial: 5
Acq On : 08/08/01 12:15 Operator:
Sample : AC17978MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: 2mtest.p Quant Results File: temp.res

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration





TIC: J00888.D

(59) total-Xylene (TG)

12.41min 28.13ug\L m

response 442325

Ion	Exp%	Act%
106.10	100	100
91.10	78.60	242.49#
0.00	0.00	0.00
0.00	0.00	0.00

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Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111062

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis_____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Laboratory cannot report data less than their method detection limit. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Per CCI Memo dated 10/9/01

Resubmit EDD to reflect result equal to or above the associated MDL.

Corrected

Resolution recorded by: _____ Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

11/21/01

QA Review by: KMClemons Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

EDD Errors 28530.csv

Result < MDL	RL < MDL	REC < LCL	REC > UCL	No %SOLIDS
5	67	77		
81	68	153		
82	69	154		
214	144	244		
402	145	468		
403	146			
404	216			
471	217			
472	218			
473	648			
	649			
	650			

FOW numbers

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Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111069

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Associated data qualifier codes should be presented in specified column. (28512, 28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

Corrected

Resolution recorded by: _____ Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

C.R 11/21/01

QA Review by: _____ Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

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Environmental Analytical Services
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Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-005.F
Revision/Date : No. 00/Effective: 02/01/01
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[ ] Departmental Corrective Action [X] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: QA-0111076

Reported By: Kelly Clemons Date Reported: _____

Department: Data Review Project(s): 28530 Analysis _____ Due: 10/30/01

Discrepancy:

Per CCI Memo dated 10/9/01

Electronic Data Deliverables

Surrogate compounds for FL PRO are not identified in Method Blank. (28744)

Resolution Assigned to (circle one): Phil Kyle Michael Trinidad David Fuller
Kelly Clemons Diana Burdette John Peterson Migdalia Alvarado Duane J

Resolution:

corrected

Resolution recorded by: [signature] Date: 11/21/01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

Q.R 11/21/01

QA Review by: [signature] Date: 11/21/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

FL-PRO CONTROL LIMITS

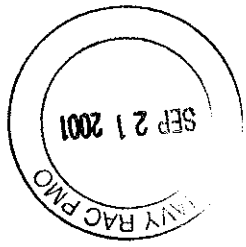
Updated on 7/12/01 Analyst:BP

	OTP		C39		Spike Rec% (LCS Only)	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
SOIL (Blank & LCS)	38	131	0	53	26	104
WATER (Blank & LCS)	51	115	0	131	16	116

ACCURA ANALYTICAL LABORATORY
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
Case Narrative

AAL Project #: 28530

Client Project: CTO 17-NTC Orlando – Study Area 36 / 152044.32.12.01.08



CTO Manager: J. Wilmoth

The following items were noted concerning this project:

1. The following samples were received at Accura Analytical Laboratory on 08/03/01 at 0920:

Client Sample ID	Laboratory Sample ID
017-OLD-36-19A-Q3-01	AC17978
017-OLD-36-24B-Q3-01	AG17979
017-OLD-36-TB4-Q3-01	AC17980
017-OLD-36-IDW-Q3-01	AC17981
017-OLD-36-FB2-Q3-01	AC17982

2. The samples were received at 3^0C.

3. The "J" values noted for the Metals-Mercury, Metals-RCRA, Petroleum Range Organics, SVOC and VOC results indicate estimated concentrations that were above the method detection limits, but below the reporting limits.

4. The pH of all VOC samples was noted to be <2 prior to analysis.

5. The following analyses were performed by subcontract laboratories:

Chloride by IC-EPA-300.0	Nitrate by IC-EPA-300.0
Nitrite by IC-EPA-300.0	Ethane and Ethene (W) Microseeps-AM18
Methane (W) Microseeps-AM20GAX	VFA's (W) Microseeps

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Potable & Non-potable Water-Solid/Hazardous Waste

6. The following surrogate recoveries were below the method specified limits:

Petroleum Range Organics (PRO) FL-PRO	
C(39) -	Method Blank
	Laboratory Control Sample
	017-OLD-36-24B-Q3-01
o-Terphenyl -	Method Blank
	Laboratory Control Sample
	017-OLD-36-19A-Q3-01
	017-OLD-36-24B-Q3-01
	017-OLD-36-FB2-Q3-01
	Matrix Spike (batch LCS)
	Matrix Spike Duplicate (batch LCSD)

The recoveries were within the laboratory historical limits, therefore the data was accepted.

7. The TDS analyses were performed 7 days outside the EPA recommended holding time as indicated by the "Y" qualifier. The results for this analysis should be considered estimated.

8. The Reactive Cyanide and Reactive Sulfide analyses were performed 22 days after sampling. The EPA recommends that these test be performed as soon as possible following sample collection.

9. Due to limited sample, Laboratory Control Sample and Laboratory Control Sample Duplicate pairs were analyzed in place of Matrix Spike and Matrix Spike Duplicate for the following analyses:

Petroleum Range Organics – FL-PRO
Herbicides – SW-846-8151A
SVOCs Navy – SW-846-8270C
PCB-SW-846-8082
Pesticides-SW-846-8081A

These Laboratory Control Sample and Laboratory Control Sample Duplicate pairs are reported as Matrix Spike and Matrix Spike Duplicate on the QC reports. The recoveries for these samples were compared to the LCS ranges.

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10. The following spike recoveries were below the project specified limits:

SVOCs Navy – SW-846-8270C

LCS - 2,4-Dimethylphenol
Hexachlorocyclopentadiene
Dimethyl phthalate
Diethyl phthalate
Di-n-butylphthalate

LCSD - 2,4-Dimethylphenol
Hexachlorocyclopentadiene
Dimethyl phthalate
Diethyl phthalate

Pesticides – SW-846-8081A

LCS - Endosulfan II (All results for this compound should be considered estimated.)

BATCH QC LCS - alpha-BHC
beta-BHC
delta-BHC
gamma-BHC
Heptachlor
Aldrin
Heptachlor epoxide
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endosulfan sulfate
Methoxychlor
Endrin ketone
Endrin aldehyde
alpha-Chlordane
gamma-Chlordane

BATCH LCSD - alpha-BHC
delta-BHC
gamma-BHC

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Aldrin
Endosulfan I
Endosulfan II
Methoxychlor
Endrin aldehyde

For the SVOC analysis, the laboratory control sample and laboratory control sample duplicate recoveries were bias low, and there were no hits of those compounds listed above in the samples; however, the results for those compounds listed above should be considered estimated except for analyte Di-n-butylphthalate that did have a passing laboratory control sample recovery.

For the Pesticides analysis, the laboratory control sample that was extracted with the samples was within the project specified limits for all analytes except for Endosulfan II whose laboratory control sample recovery was bias low; therefore the data was accepted for all Pesticides analytes except for Endosulfan II whose results should be considered as bias low estimates.

11. The relative percent difference between the laboratory control sample and laboratory control sample duplicate was outside the project specified limits for the following analytes:

SVOC-SW-846-8270C
Diethyl phthalate Di-n-butylphthalate Butylbenzylphthalate
3,3'-Dichlorobenzidine Di-n-octylphthalate

Pesticides-SW-846-8081A
Alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor
Aldrin Heptachlor epoxide Endosulfan I Dieldrin 4,4'-DDE
Endrin Endosulfan II 4,4'-DDD Endosulfan Sulfate 4,4'-DDT
Methoxychlor Endrin Ketone Endrin Aldehyde alpha-Chlordane
Gamma-Chlorodane Tetrachloro-m-xylene

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12. Tentatively Identified Compounds are reported as quantitative estimates.

Approved for Quality Assurance Release By:

Camden Robinson
Quality Assurance Officer

9/19/01
Date

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ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: **AC17978** **Accura Project #:** **28530**

Client: **CH2M HILL - CCI** Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-19A-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	14		1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 8/4/01 Date Analyzed: 8/5/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride by IC	11.4		0.1
Nitrate by IC	78.7		0.01
Nitrite by IC	<RL		0.01

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	150		5.0
Ethene	5600		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	7.8		0.015

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	0.27	J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	700	Y	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	3		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/24/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.85	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5

Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.2	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	43		
o-Terphenyl (Range 82-142)	81	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	132		
4-Bromofluorobenzene (80-120)	102		
Toluene-d8 (80-119)	98		

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LABORATORY REPORT

Accura Sample ID #: **AC17979** **Accura Project #:** **28530**

Client: **CH2M HILL - CCI** Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: **017-OLD-36-24B-Q3-01**

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	8.6		1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 8/4/01 Date Analyzed: 8/5/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride by IC	3.6		0.1
Nitrate by IC	<RL		0.01
Nitrite by IC	<RL		0.01

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	360		5.0
Ethene	410		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	49		0.015

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	0.24	J	1.0

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	37	Y	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	11		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/24/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5

Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	0.86	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	26	Z	
o-Terphenyl (Range 82-142)	35	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	126		
4-Bromofluorobenzene (80-120)	103		
Toluene-d8 (80-119)	94		

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LABORATORY REPORT

Accura Sample ID #: AC17980 **Accura Project #:** 28530

Client: CH2M HILL - CCI Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-TB4-Q3-01

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	49		5.0
Ethene	1300		5.0

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	1.9		0.015

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/24/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3

1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.67	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	11		5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	0.50	J	4
Vinyl chloride	<RL		5.5

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	118		
4-Bromofluorobenzene (80-120)	107		
Toluene-d8 (80-119)	103		

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LABORATORY REPORT

Accura Sample ID #: AC17981 **Accura Project #:** 28530

Client: CH2M HILL - CCI Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-IDW-Q3-01

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/17/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Ignitability/Flash Point Method Ref: 1010

Date Ext/Dig/Prep: 8/17/01 Date Analyzed: 8/17/01 Result Units: °F

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ignitability/Flash Point	>140		80

ANALYSIS: Metals - Mercury - RCRA Method Ref: 7470A

Date Ext/Dig/Prep: 8/17/01 Date Analyzed: 8/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	<RL		0.0020

ANALYSIS: Metals - RCRA Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/11/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Arsenic	<RL		0.050
Barium	0.19	J	0.50
Cadmium	<RL		0.0050
Chromium	0.0056	J	0.050
Lead	<RL		0.010
Selenium	<RL		0.050
Silver	<RL		0.050

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/14/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		0.50
Aroclor-1232	<RL		0.50
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/21/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.050
4,4'-DDE	<RL		0.050
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	<RL		0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.050
delta-BHC	<RL		0.050
Dieldrin	<RL		0.050
Endosulfan sulfate	<RL		0.050
Endrin	<RL		0.050
Endrin aldehyde	<RL		0.050
Endrin ketone	<RL		0.050
gamma-BHC	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.25
Total Chlordane (Technical)	<RL		0.50
Toxaphene	<RL		2.5

ANALYSIS: pH (Water) Method Ref: 9040B

Date Ext/Dig/Prep: 8/3/01 Date Analyzed: 8/3/01 Result Units: pH units

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
pH	6.5		

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	260		5.0

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/16/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10

2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	9.1	J	50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10
Dibenzofuran	<RL		10
Diethylphthalate	<RL		10
Dimethylphthalate	<RL		10
Di-n-butylphthalate	<RL		10
Di-n-octylphthalate	<RL		10
Fluoranthene	<RL		10
Fluorene	<RL		10
Hexachlorobenzene	<RL		10
Hexachlorobutadiene	<RL		10
Hexachlorocyclopentadiene	<RL		10
Hexachloroethane	<RL		10
Indeno(1,2,3-cd)pyrene	<RL		10
Naphthalene	<RL		10
Nitrobenzene	<RL		10
N-Nitroso-di-n-propylamine	<RL		10
N-Nitrosodiphenylamine	<RL		10
Pentachlorophenol	<RL		50
Phenanthrene	<RL		10
Phenol	<RL		10
Pyrene	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	<RL		6.5
cis-1,2-Dichloroethene	8.8		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	<RL		5.5

Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	19	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X Herbicide Sample Surrogates-W Method Ref: 8151A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range D-164)	86		

ANALYSIS: X PCB Sample Surrogates (Waters Method Ref: 8082

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/14/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-128)	34		

ANALYSIS: X Pest Sample Surrogates (Water Method Ref: 8081A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/21/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range D-143)	30		
Tetrachloro-m-xylene (Range 21-111)	54		

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/8/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	126		
4-Bromofluorobenzene (80-120)	105		
Toluene-d8 (80-119)	97		

ANALYSIS: X SVOC Sample Surrogates (Waters Method Ref: 8270C

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/16/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 28-142)	102		
2-Fluorobiphenyl (Range 21-122)	73		
2-Fluorophenol (Range 11-114)	57		
Nitrobenzene-d5 (Range 16-125)	71		
Phenol-d6 (Range 9-109)	83		
p-Terphenyl-d14 (Range 5-157)	75		

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LABORATORY REPORT

Accura Sample ID #: AC17982 **Accura Project #:** 28530

Client: CH2M HILL - CCI Date Sampled: 8/2/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/19/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: 017-OLD-36-FB2-Q3-01

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	2.0		1.0

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 8/4/01 Date Analyzed: 8/5/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride by IC	0.1		0.1
Nitrate by IC	<RL		0.01
Nitrite by IC	<RL		0.01

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.1

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	17	Y	5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5

1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5
1,2-Dichloroethane	<RL		3
1,2-Dichloropropane	<RL		2
1,2-Ethylene Dibromide	<RL		3
1,3,5-Trimethylbenzene	<RL		2.5
1,3-Dichlorobenzene	<RL		6
1,3-Dichloropropane	<RL		2
1,4-Dichlorobenzene	<RL		1.5
2,2-Dichloropropane	<RL		17.5
2-Chlorotoluene	<RL		2
4-Chlorotoluene	<RL		3
Benzene	<RL		1
Bromobenzene	<RL		1.5
Bromochloromethane	<RL		2
Bromodichloromethane	<RL		4
Bromoform	<RL		6
Bromomethane	<RL		5.5
Carbon tetrachloride	<RL		10.5
Chlorobenzene	<RL		2
Chloroethane	<RL		5
Chloroform	<RL		1.5
Chloromethane	0.67	J	6.5
cis-1,2-Dichloroethene	<RL		6
cis-1,3-Dichloropropene	<RL		5
Dibromochloromethane	<RL		2.5
Dibromomethane	<RL		12
Dichlorodifluoromethane	<RL		5
Ethylbenzene	<RL		3
Hexachlorobutadiene	<RL		5.5
Isopropylbenzene	<RL		2.5
Methylene chloride	<RL		1.5
Naphthalene	<RL		2
n-Butylbenzene	<RL		5.5
n-Propylbenzene	<RL		2
p-Isopropyltoluene	<RL		6
Sec-Butylbenzene	<RL		6.5
Styrene	<RL		2
Tert-Butylbenzene	<RL		7
Tetrachloroethylene	<RL		7
Toluene	1.6	J	5.5
Total Xylenes	<RL		5
trans-1,2-Dichloroethene	<RL		3
trans-1,3-Dichloropropene	<RL		5
Trichloroethylene	<RL		5
Trichlorofluoromethane	<RL		4
Vinyl chloride	<RL		5.5

ANALYSIS: X PRO Sample Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	42		

o-Terphenyl (Range 82-142)	47	Z	

ANALYSIS: X VOC Sample Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (81-132)	122		
4-Bromofluorobenzene (80-120)	108		
Toluene-d8 (80-119)	104		

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC17983 **Accura Project #:** 28530

Client: CH2M HILL - CCI Date Sampled: 8/3/01

Client Contact: J. WILMOTH Date Received: 8/3/01

Client Project Number: 152044.32.12.01.08 Date Reported: 9/14/01

Client Project Name: CTO 17-NTC ORLANDO-STUDY AREA 36 Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: Alkalinity Method Ref: 310.1

Date Ext/Dig/Prep: 8/10/01 Date Analyzed: 8/10/01 Result Units: mg/L as CaCO3

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Alkalinity	<RL		1

ANALYSIS: Anions Method Ref: 300.0

Date Ext/Dig/Prep: 8/4/01 Date Analyzed: 8/5/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Chloride by IC	<RL		0.1
Nitrate by IC	<RL		0.01
Nitrite by IC	<RL		0.01

ANALYSIS: Ethane and Ethene (W) Microseeps Method Ref: AM18

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ng/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Ethane	<RL		5.0
Ethene	<RL		5.0

ANALYSIS: Herbicides Method Ref: 8151A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/17/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,5-T	<RL		0.50
2,4,5-TP (Silvex)	<RL		0.50
2,4-D	<RL		0.50

ANALYSIS: Metals - Mercury - RCRA Method Ref: 7470A

Date Ext/Dig/Prep: 8/17/01 Date Analyzed: 8/20/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Mercury	0.00025	J	0.0020

ANALYSIS: Metals - RCRA Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/11/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Arsenic	<RL		0.050
Barium	<RL		0.50
Cadmium	<RL		0.0050
Chromium	<RL		0.050

Lead	<RL	0.010
Selenium	<RL	0.050
Silver	<RL	0.050

ANALYSIS: Methane (W) Microseeps Method Ref: AM20GAX

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/16/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Methane	<RL		0.015

ANALYSIS: PCB's Method Ref: 8082

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/14/01 Result Units: ug/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Aroclor-1016	<RL		0.50
Aroclor-1221	<RL		0.50
Aroclor-1232	<RL		0.50
Aroclor-1242	<RL		0.50
Aroclor-1248	<RL		0.50
Aroclor-1254	<RL		0.50
Aroclor-1260	<RL		0.50

ANALYSIS: Pesticides Method Ref: 8081A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/21/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
4,4'-DDD	<RL		0.050
4,4'-DDE	<RL		0.050
4,4'-DDT	<RL		0.10
Aldrin	<RL		0.050
alpha-BHC	<RL		0.050
alpha-Endosulfan	<RL		0.050
beta-BHC	<RL		0.050
beta-Endosulfan	<RL		0.050
delta-BHC	<RL		0.050
Dieldrin	<RL		0.050
Endosulfan sulfate	<RL		0.050
Endrin	<RL		0.050
Endrin aldehyde	<RL		0.050
Endrin ketone	<RL		0.050
gamma-BHC	<RL		0.050
Heptachlor	<RL		0.050
Heptachlor epoxide	<RL		0.050
Methoxychlor	<RL		0.25
Total Chlordane (Technical)	<RL		0.50
Toxaphene	<RL		2.5

ANALYSIS: Petroleum Range Organics (PRO) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Petroleum Range Organics (PRO)	<RL		1.0

ANALYSIS: Reactive Cyanide Method Ref: SW846-7.332

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Cyanide	<RL		0.20

ANALYSIS: Reactive Sulfide Method Ref: SW846-7.342

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/25/01 Result Units: mg/kg

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Reactive Sulfide	<RL		5.0

ANALYSIS: SVOC's Navy Method Ref: 8270C

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/16/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2,4-Trichlorobenzene	<RL		10
1,2-Dichlorobenzene	<RL		10
1,3-Dichlorobenzene	<RL		10
1,4-Dichlorobenzene	<RL		10
2,4,5-Trichlorophenol	<RL		50
2,4,6-Trichlorophenol	<RL		10
2,4-Dichlorophenol	<RL		10
2,4-Dimethylphenol	<RL		10
2,4-Dinitrophenol	<RL		50
2,4-Dinitrotoluene	<RL		10
2,6-Dinitrotoluene	<RL		10
2-Chloronaphthalene	<RL		10
2-Chlorophenol	<RL		10
2-Methylnaphthalene	<RL		10
2-Methylphenol	<RL		10
2-Nitroaniline	<RL		50
2-Nitrophenol	<RL		10
3,3'-Dichlorobenzidine	<RL		20
3,4-Methylphenol	<RL		20
3-Nitroaniline	<RL		50
4,6-Dinitro-2-methylphenol	<RL		50
4-Bromophenyl phenyl ether	<RL		10
4-Chloro-3-methylphenol	<RL		20
4-Chloroaniline	<RL		20
4-Chlorophenyl phenyl ether	<RL		10
4-Nitroaniline	<RL		50
4-Nitrophenol	<RL		50
Acenaphthene	<RL		10
Acenaphthylene	<RL		10
Anthracene	<RL		10
Benzo(a)anthracene	<RL		10
Benzo(a)pyrene	<RL		10
Benzo(b)fluoranthene	<RL		10
Benzo(g,h,i)perylene	<RL		10
Benzo(k)fluoranthene	<RL		10
Benzoic acid	<RL		50
Benzyl alcohol	<RL		20
bis(2-Chloroethoxy)methane	<RL		10
bis(2-Chloroethyl)ether	<RL		10
bis(2-Chloroisopropyl)ether	<RL		10
bis(2-Ethylhexyl)phthalate	<RL		10
Butyl benzyl phthalate	<RL		10
Carbazole	<RL		10
Chrysene	<RL		10
Dibenz(a,h)anthracene	<RL		10
Dibenzofuran	<RL		10

Diethylphthalate	<RL	10
Dimethylphthalate	<RL	10
Di-n-butylphthalate	<RL	10
Di-n-octylphthalate	<RL	10
Fluoranthene	<RL	10
Fluorene	<RL	10
Hexachlorobenzene	<RL	10
Hexachlorobutadiene	<RL	10
Hexachlorocyclopentadiene	<RL	10
Hexachloroethane	<RL	10
Indeno(1,2,3-cd)pyrene	<RL	10
Naphthalene	<RL	10
Nitrobenzene	<RL	10
N-Nitroso-di-n-propylamine	<RL	10
N-Nitrosodiphenylamine	<RL	10
Pentachlorophenol	<RL	50
Phenanthrene	<RL	10
Phenol	<RL	10
Pyrene	<RL	10

ANALYSIS: TDS (Total Dissolved Solids) Method Ref: 160.1

Date Ext/Dig/Prep: 8/16/01 Date Analyzed: 8/17/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Dissolved Solids	<RL		5.0

ANALYSIS: Total Organic Carbon (TOC) Method Ref: EPA 9060

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: mg/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Total Organic Carbon	<RL		1

ANALYSIS: VFA's (W) Microseeps Method Ref: AM21G

Date Ext/Dig/Prep: 8/24/01 Date Analyzed: 8/24/01 Result Units: mg/l

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Acetic Acid	<RL		1.0
Butyric Acid	<RL		1.0
Lactic Acid	<RL		25
Propionic Acid	<RL		1.0
Pyruvic Acid	<RL		10

ANALYSIS: VOC's Navy (25 ml purge) Method Ref: 8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: ug/L

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,1,1,2-Tetrachloroethane	<RL		2.5
1,1,1-Trichloroethane	<RL		4
1,1,2,2-Tetrachloroethane	<RL		2
1,1,2-Trichloroethane	<RL		5
1,1-Dichloroethane	<RL		2
1,1-Dichloroethene	<RL		6
1,2,3-Trichlorobenzene	<RL		1.5
1,2,3-Trichloropropane	<RL		16
1,2,4-Trichlorobenzene	<RL		2
1,2,4-Trimethylbenzene	<RL		6.5
1,2-Dibromo-3-chloropropane	<RL		13
1,2-Dichlorobenzene	<RL		1.5

1,2-Dichloroethane	<RL	3
1,2-Dichloropropane	<RL	2
1,2-Ethylene Dibromide	<RL	3
1,3,5-Trimethylbenzene	<RL	2.5
1,3-Dichlorobenzene	<RL	6
1,3-Dichloropropane	<RL	2
1,4-Dichlorobenzene	<RL	1.5
2,2-Dichloropropane	<RL	17.5
2-Chlorotoluene	<RL	2
4-Chlorotoluene	<RL	3
Benzene	<RL	1
Bromobenzene	<RL	1.5
Bromochloromethane	<RL	2
Bromodichloromethane	<RL	4
Bromoform	<RL	6
Bromomethane	<RL	5.5
Carbon tetrachloride	<RL	10.5
Chlorobenzene	<RL	2
Chloroethane	<RL	5
Chloroform	<RL	1.5
Chloromethane	<RL	6.5
cis-1,2-Dichloroethene	<RL	6
cis-1,3-Dichloropropene	<RL	5
Dibromochloromethane	<RL	2.5
Dibromomethane	<RL	12
Dichlorodifluoromethane	<RL	5
Ethylbenzene	<RL	3
Hexachlorobutadiene	<RL	5.5
Isopropylbenzene	<RL	2.5
Methylene chloride	<RL	1.5
Naphthalene	<RL	2
n-Butylbenzene	<RL	5.5
n-Propylbenzene	<RL	2
p-Isopropyltoluene	<RL	6
Sec-Butylbenzene	<RL	6.5
Styrene	<RL	2
Tert-Butylbenzene	<RL	7
Tetrachloroethylene	<RL	7
Toluene	<RL	5.5
Total Xylenes	<RL	5
trans-1,2-Dichloroethene	<RL	3
trans-1,3-Dichloropropene	<RL	5
Trichloroethylene	<RL	5
Trichlorofluoromethane	<RL	4
Vinyl chloride	<RL	5.5

ANALYSIS: X Herbicide QC Surrogates-Water Method Ref: 8151A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
DCAA (Range 58-110)	87		

ANALYSIS: X PCB QC Surrogates (Waters) Method Ref: 8082

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/14/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 46-138)	122		

ANALYSIS: X Pest QC Surrogates (Waters) Method Ref: 8081A

Date Ext/Dig/Prep: 8/9/01 Date Analyzed: 8/21/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
Decachlorobiphenyl (Range 30-136)	111		
Tetrachloro-m-xylene (Range 38-107)	81		

ANALYSIS: X PRO QC Surrogates (Water) Method Ref: FL-PRO

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/17/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
C(39) (Range 42-193)	19	Z	
o-Terphenyl (Range 82-142)	71	Z	

ANALYSIS: X VOC QC Surrogates-Waters Method Ref: 5030B/8260B

Date Ext/Dig/Prep: 8/7/01 Date Analyzed: 8/7/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
1,2-Dichloroethane-d4 (83-124)	89		
4-Bromofluorobenzene (81-118)	97		
Toluene-d8 (84-115)	100		

ANALYSIS: X SVOC QC Surrogates (Waters) Method Ref: 8270C

Date Ext/Dig/Prep: 8/8/01 Date Analyzed: 8/16/01 Result Units: %

Analyte Name	Analytical Results	Qualifier	Reported Detection Limits
2,4,6-Tribromophenol (Range 25-127)	76		
2-Fluorobiphenyl (Range 27-121)	81		
2-Fluorophenol (Range 24-101)	63		
Nitrobenzene-d5 (Range 24-114)	73		
Phenol-d6 (Range 26-104)	73		
p-Terphenyl-d14 (Range 28-139)	100		

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28530

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%
8260B	Chloromethane	78	94			60-140	20-150	18%	#VALUE!	<30	<50	85		38-116	38-116		
8260B	Bromomethane	63	76			60-140	20-150	19%	#VALUE!	<30	<50	67		49-117	49-117		
8260B	Vinyl Chloride	85	98			60-140	20-150	14%	#VALUE!	<30	<50	89		31-121	31-121		
8260B	Chloroethane	93	106			60-140	20-150	13%	#VALUE!	<30	<50	98		62-116	62-116		
8260B	Methylene Chloride	87	110			60-140	20-150	24%	#VALUE!	<30	<50	96		55-126	55-126		
8260B	Acetone	73	68			60-140	20-150	8%	#VALUE!	<30	<50	89		43-165	43-165		
8260B	Carbon Disulfide	97	99			60-140	20-150	3%	#VALUE!	<30	<50	100		76-119	76-119		
8260B	1,1-Dichloroethene	85	101			60-140	20-150	17%	#VALUE!	<30	<50	91		54-128	54-128		
8260B	1,1-Dichloroethane	85	99			60-140	20-150	16%	#VALUE!	<30	<50	91		62-141	62-141		
8260B	cis-1,2-Dichloroethene	88	102			60-140	20-150	15%	#VALUE!	<30	<50	95		70-131	60-141		
8260B	trans-1,2-Dichloroethene	86	99			60-140	20-150	14%	#VALUE!	<30	<50	93		61-138	51-148		
8260B	Chloroform	85	94			60-140	20-150	10%	#VALUE!	<30	<50	90		65-129	65-129		
8260B	1,2-Dichloroethane	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		68-135	68-135		
8260B	2-Butanone	84	100			60-140	20-150	18%	#VALUE!	<30	<50	90		50-163	50-163		
8260B	1,1,1-Trichloroethane	88	95			60-140	20-150	8%	#VALUE!	<30	<50	95		68-135	68-135		
8260B	Carbon Tetrachloride	87	96			60-140	20-150	10%	#VALUE!	<30	<50	97		67-125	67-125		
8260B	Bromodichloromethane	85	95			60-140	20-150	11%	#VALUE!	<30	<50	83		68-135	58-145		
8260B	1,2-Dichloropropane	85	95			60-140	20-150	10%	#VALUE!	<30	<50	84		76-132	76-132		
8260B	Cis-1,3-Dichloropropene	82	90			60-140	20-150	10%	#VALUE!	<30	<50	90		70-122	70-122		
8260B	Trichloroethylene	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		67-137	67-137		
8260B	Dibromochloromethane	91	94			60-140	20-150	3%	#VALUE!	<30	<50	95		64-120	64-120		
8260B	1,1,2-Trichloroethane	94	89			60-140	20-150	5%	#VALUE!	<30	<50	90		70-141	70-141		
8260B	Benzene	84	91			60-140	20-150	8%	#VALUE!	<30	<50	89		51-139	51-139		
8260B	trans-1,3-Dichloropropene	88	92			60-140	20-150	4%	#VALUE!	<30	<50	89		42-154	42-154		
8260B	Bromoform	84	89			60-140	20-150	6%	#VALUE!	<30	<50	84		67-129	67-129		
8260B	4-Methyl-2-Pentanone	75	99			60-140	20-150	27%	#VALUE!	<30	<50	88		77-119	77-119		
8260B	2-Hexanone	99	103			60-140	20-150	3%	#VALUE!	<30	<50	93		47-165	47-165		
8260B	Tetrachloroethylene	91	92			60-140	20-150	1%	#VALUE!	<30	<50	92		67-131	67-131		
8260B	Toluene	89	91			60-140	20-150	3%	#VALUE!	<30	<50	90		31-137	31-137		
8260B	1,1,2,2-Tetrachloroethane	87	94			60-140	20-150	8%	#VALUE!	<30	<50	92		55-138	55-138		
8260B	Chlorobenzene	86	93			60-140	20-150	8%	#VALUE!	<30	<50	89		69-140	69-140		
8260B	Ethylbenzene	88	94			60-140	20-150	6%	#VALUE!	<30	<50	93		59-140	59-140		
8260B	Styrene	83	97			60-140	20-150	15%	#VALUE!	<30	<50	86		71-133	71-133		
8260B	Xylenes, Total	84	94			60-140	20-150	11%	#VALUE!	<30	<50	88		68-133	68-133		
8260B	4-Bromofluorobenzene (Surr)	93	90			75-125	65-135	4%	#VALUE!			90					
8260B	1,2-Dichloroethane-d4 (Surr)	86	93			62-139	52-149	8%	#VALUE!			93					
8260B	Toluene-d8 (Surr)	99	95			75-125	65-135	4%	#VALUE!			96					

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28530

Precision Limits Field Dup Deviation	
Water	Soil
%	%
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75
<50	<75

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28530

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%
8260B	Chloromethane	78	94			60-140	20-150	18%	#VALUE!	<30	<50	85		38-116	38-116		
8260B	Bromomethane	63	76			60-140	20-150	19%	#VALUE!	<30	<50	67		49-117	49-117		
8260B	Vinyl Chloride	85	98			60-140	20-150	14%	#VALUE!	<30	<50	89		31-121	31-121		
8260B	Chloroethane	93	106			60-140	20-150	13%	#VALUE!	<30	<50	98		62-116	62-116		
8260B	Methylene Chloride	87	110			60-140	20-150	24%	#VALUE!	<30	<50	96		55-126	55-126		
8260B	Acetone	73	68			60-140	20-150	8%	#VALUE!	<30	<50	89		43-165	43-165		
8260B	Carbon Disulfide	97	99			60-140	20-150	3%	#VALUE!	<30	<50	100		76-119	76-119		
8260B	1,1-Dichloroethene	85	101			60-140	20-150	17%	#VALUE!	<30	<50	91		54-128	54-128		
8260B	1,1-Dichloroethane	85	99			60-140	20-150	16%	#VALUE!	<30	<50	91		62-141	62-141		
8260B	cis-1,2-Dichloroethene	88	102			60-140	20-150	15%	#VALUE!	<30	<50	95		70-131	60-141		
8260B	trans-1,2-Dichloroethene	86	99			60-140	20-150	14%	#VALUE!	<30	<50	93		61-138	51-148		
8260B	Chloroform	85	94			60-140	20-150	10%	#VALUE!	<30	<50	90		65-129	65-129		
8260B	1,2-Dichloroethane	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		68-135	68-135		
8260B	2-Butanone	84	100			60-140	20-150	18%	#VALUE!	<30	<50	90		50-163	50-163		
8260B	1,1,1-Trichloroethane	88	95			60-140	20-150	8%	#VALUE!	<30	<50	95		68-135	68-135		
8260B	Carbon Tetrachloride	87	96			60-140	20-150	10%	#VALUE!	<30	<50	97		67-125	67-125		
8260B	Bromodichloromethane	85	95			60-140	20-150	11%	#VALUE!	<30	<50	83		68-135	58-145		
8260B	1,2-Dichloropropane	85	95			60-140	20-150	10%	#VALUE!	<30	<50	84		76-132	76-132		
8260B	Cis-1,3-Dichloropropene	82	90			60-140	20-150	10%	#VALUE!	<30	<50	90		70-122	70-122		
8260B	Trichloroethylene	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		67-137	67-137		
8260B	Dibromochloromethane	91	94			60-140	20-150	3%	#VALUE!	<30	<50	95		64-120	64-120		
8260B	1,1,2-Trichloroethane	94	89			60-140	20-150	5%	#VALUE!	<30	<50	90		70-141	70-141		
8260B	Benzene	84	91			60-140	20-150	8%	#VALUE!	<30	<50	89		51-139	51-139		
8260B	trans-1,3-Dichloropropene	88	92			60-140	20-150	4%	#VALUE!	<30	<50	89		42-154	42-154		
8260B	Bromoform	84	89			60-140	20-150	6%	#VALUE!	<30	<50	84		67-129	67-129		
8260B	4-Methyl-2-Pentanone	75	99			60-140	20-150	27%	#VALUE!	<30	<50	88		77-119	77-119		
8260B	2-Hexanone	99	103			60-140	20-150	3%	#VALUE!	<30	<50	93		47-165	47-165		
8260B	Tetrachloroethylene	91	92			60-140	20-150	1%	#VALUE!	<30	<50	92		67-131	67-131		
8260B	Toluene	89	91			60-140	20-150	3%	#VALUE!	<30	<50	90		31-137	31-137		
8260B	1,1,2,2-Tetrachloroethane	87	94			60-140	20-150	8%	#VALUE!	<30	<50	92		55-138	55-138		
8260B	Chlorobenzene	86	93			60-140	20-150	8%	#VALUE!	<30	<50	89		69-140	69-140		
8260B	Ethylbenzene	88	94			60-140	20-150	6%	#VALUE!	<30	<50	93		59-140	59-140		
8260B	Styrene	83	97			60-140	20-150	15%	#VALUE!	<30	<50	86		71-133	71-133		
8260B	Xylenes, Total	84	94			60-140	20-150	11%	#VALUE!	<30	<50	88		68-133	68-133		
8260B	4-Bromofluorobenzene (Surr)	93	90			75-125	65-135	4%	#VALUE!			90					
8260B	1,2-Dichloroethane-d4 (Surr)	86	93			62-139	52-149	8%	#VALUE!			93					
8260B	Toluene-d8 (Surr)	99	95			75-125	65-135	4%	#VALUE!			96					
TCL SEMI-VOLATILES BY GC/MS						ug/L	ug/kg			%	%			%	%		
8270C	Phenol	64	66			25-125	20-150	3%	#VALUE!	<30	<50			25-125	25-135		
8270C	Bis (2-chloroethyl) ether	60	69			44-125	20-150	14%	#VALUE!	<30	<50			44-125	34-135		
8270C	2-Chlorophenol	62	66			41-125	20-150	6%	#VALUE!	<30	<50			41-125	31-135		
8270C	1,3-Dichlorobenzene	44	49			36-125	20-150	11%	#VALUE!	<30	<50			36-125	26-135		
8270C	1,4-Dichlorobenzene	52	51			30-125	20-150	2%	#VALUE!	<30	<50			30-125	25-135		
8270C	1,2-Dichlorobenzene	46	51			42-155	20-150	10%	#VALUE!	<30	<50			42-155	32-135		

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TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28530

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8270C	2-Methylphenol	61	67			25-125	20-150	9%	#VALUE!	<30	<50			25-125	25-135		
8270C	2,2'-Oxybis (1-Chloropropane) [bis (2-Chloroisopropyl) ether]	59	69			36-166	20-150	16%	#VALUE!	<30	<50			36-166	26-175		
8270C	4-Methylphenol	63	71			33-125	20-150	12%	#VALUE!	<30	<50			33-125	25-135		
8270C	N-Nitroso-di-n-propylamine	55	63			37-125	20-150	14%	#VALUE!	<30	<50			37-125	27-135		
8270C	Hexachloroethane	39	45			25-153	20-150	14%	#VALUE!	<30	<50			25-153	25-163		
8270C	Nitrobenzene	59	64			46-133	20-150	8%	#VALUE!	<30	<50			46-133	36-143		
8270C	Isophorone	56	68			26-175	20-150	19%	#VALUE!	<30	<50			26-175	25-175		
8270C	2-Nitrophenol	58	64			44-125	20-150	10%	#VALUE!	<30	<50			44-125	34-135		
8270C	2,4-Dimethylphenol	43	42			45-139	20-150	2%	#VALUE!	<30	<50			45-139	35-149		
8270C	Bis (2-chloroethoxy) methane	61	70			49-125	20-150	14%	#VALUE!	<30	<50			49-125	39-135		
8270C	2,4-Dichlorophenol	59	68			46-125	20-150	14%	#VALUE!	<30	<50			46-125	36-135		
8270C	1,2,4-Trichlorobenzene	44	49			44-142	20-150	11%	#VALUE!	<30	<50			44-142	34-152		
8270C	Naphthalene	52	59			50-125	20-150	13%	#VALUE!	<30	<50			50-125	40-135		
8270C	4-Chloroaniline	59	68			45-136	20-150	14%	#VALUE!	<30	<50			45-136	35-146		
8270C	Hexachlorobutadiene	38	44			25-125	20-150	15%	#VALUE!	<30	<50			25-125	25-135		
8270C	4-Chloro-3-methylphenol	68	75			44-125	20-150	10%	#VALUE!	<30	<50			44-125	34-135		
8270C	2-Methylnaphthalene	54	62			41-125	20-150	14%	#VALUE!	<30	<50			41-125	31-135		
8270C	Hexachlorocyclopentadiene	1	1			41-125	20-150	0%	#VALUE!	<30	<50			41-125	31-135		
8270C	2,4,6-Trichlorophenol	64	76			39-128	20-150	17%	#VALUE!	<30	<50			39-128	29-138		
8270C	2,4,5-Trichlorophenol	64	76			25-175	20-150	17%	#VALUE!	<30	<50			25-175	25-175		
8270C	2-Chloronaphthalene	61	70			60-125	20-150	14%	#VALUE!	<30	<50			60-125	50-135		
8270C	2-Nitroaniline	72	87			50-125	20-150	19%	#VALUE!	<30	<50			50-125	40-135		
8270C	Dimethyl phthalate	6	8			25-175	20-150	29%	#VALUE!	<30	<50			25-175	25-175		
8270C	Acenaphthylene	64	78			47-125	20-150	20%	#VALUE!	<30	<50			47-125	37-135		
8270C	2,6-Dinitrotoluene	72	88			51-125	20-150	20%	#VALUE!	<30	<50			51-125	41-135		
8270C	3-Nitroaniline	71	86			51-125	20-150	19%	#VALUE!	<30	<50			51-125	41-135		
8270C	Acenaphthene	62	70			49-124	20-150	12%	#VALUE!	<30	<50			49-124	39-135		
8270C	2,4-Dinitrophenol	60	71			30-151	20-150	17%	#VALUE!	<30	<50			30-151	25-161		
8270C	4-Nitrophenol	73	85			25-131	20-150	15%	#VALUE!	<30	<50			25-131	25-141		
8270C	Dibenzofuran	64	75			52-125	20-150	16%	#VALUE!	<30	<50			52-125	42-135		
8270C	2,4-Dinitrotoluene	69	85			39-139	20-150	21%	#VALUE!	<30	<50			39-139	29-149		
8270C	Diethyl phthalate	8	11			37-125	20-150	32%	#VALUE!	<30	<50			37-125	27-135		
8270C	4-Chlorophenyl-phenyl ether	60	74			51-132	20-150	21%	#VALUE!	<30	<50			51-132	41-142		
8270C	Fluorene	66	79			48-139	20-150	18%	#VALUE!	<30	<50			48-139	38-149		
8270C	4-Nitroaniline	70	84			40-143	20-150	18%	#VALUE!	<30	<50			40-143	30-153		
8270C	4,6-Dinitro-2-methylphenol	76	103			26-134	20-150	30%	#VALUE!	<30	<50			26-134	25-144		
8270C	N-Nitrosodiphenylamine	68	85			27-125	20-150	22%	#VALUE!	<30	<50			27-125	25-135		
8270C	4-Bromophenyl-phenyl ether	68	87			53-127	20-150	25%	#VALUE!	<30	<50			53-127	43-137		
8270C	Hexachlorobenzene	74	90			46-133	20-150	20%	#VALUE!	<30	<50			46-133	36-143		
8270C	Pentachlorophenol	84	108			28-136	20-150	25%	#VALUE!	<30	<50			28-136	38-146		
8270C	Phenanthrene	69	85			54-125	20-150	21%	#VALUE!	<30	<50			54-125	44-135		
8270C	Anthracene	69	84			45-165	20-150	20%	#VALUE!	<30	<50			45-165	35-175		
8270C	Carbazole	78	94			34-132	20-150	19%	#VALUE!	<30	<50			34-132	34-132		
8270C	Di-n-butylphthalate	30	44			34-126	20-150	38%	#VALUE!	<30	<50			34-126	25-136		

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TABLE 2-3
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AAL 28530

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8270C	Fluoranthene	68	85			47-125	20-150	22%	#VALUE!	<30	<50			47-125	37-135		
8270C	Pyrene	85	102			47-136	20-150	18%	#VALUE!	<30	<50			47-136	37-146		
8270C	Butylbenzylphthalate	35	49			26-125	20-150	33%	#VALUE!	<30	<50			26-125	25-135		
8270C	3,3'-Dichlorobenzidine	73	101			29-175	20-150	32%	#VALUE!	<30	<50			29-175	25-175		
8270C	Benzo (a) anthracene	74	90			51-133	20-150	20%	#VALUE!	<30	<50			51-133	41-143		
8270C	Chrysene	73	90			55-133	20-150	21%	#VALUE!	<30	<50			55-133	45-143		
8270C	bis (2-Ethylhexyl) phthalate	86	114			33-129	20-150	28%	#VALUE!	<30	<50			33-129	25-139		
8270C	Di-n-octylphthalate	77	106			38-127	20-150	32%	#VALUE!	<30	<50			38-127	28-137		
8270C	Benzo (b) fluoranthene	69	92			37-125	20-150	29%	#VALUE!	<30	<50			37-125	27-135		
8270C	Benzo (k) fluoranthene	70	82			37-123	20-150	16%	#VALUE!	<30	<50			37-123	37-123		
8270C	Benzo (a) pyrene	69	89			41-125	20-150	25%	#VALUE!	<30	<50			41-125	31-135		
8270C	Indeno (1,2,3-cd) pyrene	76	95			27-160	20-150	22%	#VALUE!	<30	<50			27-160	25-170		
8270C	Dibenzo (a,h) anthracene	76	95			50-125	20-150	22%	#VALUE!	<30	<50			50-125	40-135		
8270C	Benzo (g,h,i) perylene	72	93			34-149	20-150	25%	#VALUE!	<30	<50			34-149	25-159		
8270C	Nitrobenzene-d5	56	60			35-114	23-120	7%	#VALUE!								
8270C	2-Fluorobiphenyl	58	62			43-116	30-115	7%	#VALUE!								
8270C	Terphenyl-d14	78	93			33-141	18-137	18%	#VALUE!								
8270C	Phenol-d5	56	61			10-110	24-113	9%	#VALUE!								
8270C	2-Fluorophenol	49	51			21-110	25-121	4%	#VALUE!								
8270C	2,4,6-Tribromophenol	75	91			10-123	19-122	19%	#VALUE!								
	TCL PESTICIDES/AROCHLORS					%	%			%	%			%	%		
8081A	alpha-BHC	37	57			75-125	20-150	43%	#VALUE!	<30	<50	89		75-125	65-135		
8081A	beta-BHC	38	61			51-125	20-150	46%	#VALUE!	<30	<50	82		51-125	41-133		
8081A	delta-BHC	36	61			75-126	20-150	52%	#VALUE!	<30	<50	100		75-126	65-136		
8081A	gamma-BHC (Lindane)	38	59			73-125	20-150	43%	#VALUE!	<30	<50	85		73-125	63-130		
8081A	Heptachlor	35	49			45-128	20-150	33%	#VALUE!	<30	<50	79		45-128	35-138		
8081A	Aldrin	33	46			47-125	20-150	33%	#VALUE!	<30	<50	81		47-125	37-126		
8081A	Heptachlor epoxide	39	64			53-134	20-150	49%	#VALUE!	<30	<50	90		53-134	43-144		
8081A	Endosulfan I	27	45			49-143	20-150	50%	#VALUE!	<30	<50	75		49-143	39-153		
8081A	Dieldrin	38	64			42-132	20-150	51%	#VALUE!	<30	<50	108		42-132	32-142		
8081A	4,4'-DDE	38	59			45-139	20-150	43%	#VALUE!	<30	<50	99		45-139	35-149		
8081A	Endrin	41	72			43-134	20-150	55%	#VALUE!	<30	<50	109		43-134	33-144		
8081A	Endosulfan II	31	54			75-159	20-150	54%	#VALUE!	<30	<50	55		75-159	65-169		
8081A	4,4'-DDD	40	73			48-136	20-150	58%	#VALUE!	<30	<50	104		48-136	38-146		
8081A	Endosulfan sulfate	38	71			46-141	20-150	61%	#VALUE!	<30	<50	119		46-141	36-151		
8081A	4,4'-DDT	39	69			34-143	20-150	56%	#VALUE!	<30	<50	100		34-143	25-153		
8081A	Methoxychlor	38	68			73-142	20-150	57%	#VALUE!	<30	<50	95		73-142	63-152		
8081A	Endrin ketone	34	63			43-134	20-150	60%	#VALUE!	<30	<50	83		43-134	33-144		
8081A	Endrin aldehyde	35	64			75-150	20-150	59%	#VALUE!	<30	<50	93		75-150	35-160		
8081A	alpha-Chlordane	36	52			41-125	20-150	36%	#VALUE!	<30	<50	83		41-125	31-135		
8081A	gamma-Chlordane	35	54			41-125	20-150	43%	#VALUE!	<30	<50	94		41-125	31-133		
8082A	Arochlor-1016	92	92			54-125	20-150	0%	#VALUE!	<30	<50	98		54-125	44-127		
8082A	Arochlor-1260	106	104			41-126	20-150	2%	#VALUE!	<30	<50	113		41-126	31-136		
8081A	Decachlorobiphenyl (DCBP) (Surr)	40	54			34-133	25-143	30%	#VALUE!			94					

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		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil		
8081A	Tetrachloro-m-xylene (TCMX) (Surr)	46	76			45-125	35-135	49%	#VALUE!			83					
HERBICIDES						mg/L	mg/kg			%	%			%	%		
8151A	2,4,5-T	72	64			30-150	30-150	12%	#DIV/0!	<30	<50			30-150	30-150		
8151A	2,4,5-TP	78	76			30-150	30-150	3%	#DIV/0!	<30	<50			30-150	30-150		
8151A	2,4-D	92	81			30-150	30-150	13%	#DIV/0!	<30	<50			30-150	30-150		
8151A	DCAA (Surr)	93	92			42-166	42-166	1%	#DIV/0!	<30	<50			42-166	42-166		
MERCURY BY COLD VAPOR						%	%			%	%			%	%		
7470	Mercury	90	91			50-150	NA	1%	#VALUE!	<30	NA	107		70-130	NA		
METALS BY ICP						%	%			%	%			%	%		
6010B	Arsenic	104	94			50-150	30-170	10%	#DIV/0!	<30	<50	96		79-115	79-115		
6010B	Barium	100	89			50-150	30-170	12%	#DIV/0!	<30	<50	92		85-112	85-112		
6010B	Cadmium	100	91			50-150	30-170	9%	#DIV/0!	<30	<50	96		78-118	78-118		
6010B	Chromium	100	91			50-150	30-170	9%	#DIV/0!	<30	<50	94		82-115	82-115		
6010B	Lead	105	96			50-150	30-170	9%	#DIV/0!	<30	<50	96		79-116	79-116		
6010B	Selenium	100	91			50-150	30-170	9%	#DIV/0!	<30	<50	95		68-121	68-121		
6010B	Silver	98	89			50-150	30-170	10%	#DIV/0!	<30	<50	92		75-123	75-123		
PETROLEUM HYDROCARBONS						%	%			%	%			%	%		
FL-PRO	TPH	108	119			50-150	30-170	10%	#DIV/0!	<30	<50	94		75-125	70-130		
ALKALINITY						%	%			%	%			%	%		
310.1	Alkalinity	91	92			50-150	30-170	1%	#DIV/0!	<30	<50	97		75-125	70-130		
REACTIVE CYANIDE						%	%			%	%			%	%		
SW846-7.332	Reactive Cyanide	80	83			50-150	30-170	4%	#DIV/0!	<30	<50	90		75-125	70-130		
REACTIVE SULFIDE						%	%			%	%			%	%		
SW846-7.342	Reactive Sulfide	116	105			50-150	30-170	10%	#DIV/0!	<30	<50	88		75-125	70-130		

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CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **0802-1A**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs/ Bonnie Hogue	Steve Tsangaris/TPA/CCI	4350 W. CYPRESS St. Ste 600, Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		Jeff Wilmoth/ATL/CCI	115 Perimeter Center Place N.E., Ste 700, Atlanta, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Jeff Wilmoth/ATL/CCI	770/604-9182 Ext 268	770/449-8800 Ext 233	Jennifer Ottoson/TPA/CH2M HILL	205 Indian River Dr., Coca,FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOC 8260B	NO3 & NO2	CHLORIDE	TDS & ALKALINITY	FL-PRO	TOC	SVOC	PIP	HERB	8 RCRA METALS & Hg	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-19A-Q3-01		GW	08/02/01	0940	III	14	3	1	1	1	2	1					Grab		AC17978
2	01-OLD-36-24B-Q3-01		GW	08/02/01	1000	III	14	3	1	1	1	2	1					Grab		79
3	017-OLD-36-TB4-Q3-01		AQ	08/02/01	~	III	14	3										Grab		80
4	017-OLD-36-IDW-Q3-01		AQ	08/02/01	1035	III	14	3						3	3	3	1	Composite	Investigation Derived Waste	81
5	017-OLD-36-FB2-Q3-01		AQ	08/02/01	1145	III	14	3	1	1	1	2	1					Grab		82
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)
Carlton R. Ivery/DFB CH2M HILL & Craig Haas/ORL/TPA

[30] COURIER AND SHIPPING NUMBER:
FEDEX Airbill # 828511654837

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
AM # 28530 8[illegible] 3°c

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: (CARLTON) IVERY	8/2/01	1800	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	08/03/01	09:20	Printed Name and Signature: [illegible]	08-03-01	09:20
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **0802-1B**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	Accura Labs/ Bonnie Hogue	Steve Tsangaris/TPA/CCI	4350 W. CYPRESS St. Ste 600, Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		Jeff Wilmoth/ATL/CCI	115 Perimeter Center Place N.E., Ste 700, Atlanta, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Jeff Wilmoth/ATL/CCI	770/604-9182 Ext 268	770/449-8800 Ext 233	Jennifer Ottoson/TPA/CH2M HILL	205 Indian River Dr., Coca,FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	R. CYANIDE	R. SULFIDE	FLASHPOINT	pH					[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-IDW-Q3-01		AQ	08/02/01	1035	III	14	1	1	1	1					Composite	Investigation Derived Waste	AC17981
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

[29] SAMPLER(S) AND COMPANY: (please print)
Carlton R. Ivery/DFB CH2M HILL & Craig Haas/ORL/TPA

[30] COURIER AND SHIPPING NUMBER:
FEDEX Airbill # 828511654837

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
AAL# 28530 SM 3C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: CARLTON IVERY	8/2/01	1800	Printed Name and Signature: FEDEX		
Printed Name and Signature: FEDEX	08 03 01	09:20	Printed Name and Signature:	08·03·01	09:20
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

MICROSEEPS

Client Name:	Accura Analytical Labs
Contact:	Bonnie Hogue
Address:	6017 Financial Drive
	Norcross, GA 30071

Page:	Page 1 of 4
Order #:	P0108078
Report Date:	08/27/01
Client Proj Name:	SA36,NTC Orlando
Client Proj #:	CH2MHill project

AAL# 28530

Sample Identification

Lab Sample #	Client Sample ID
P0108078-01	AC17978
P0108078-02	AC17979
P0108078-03	AC17980

Approved By: _____

NOTES:These samples were analyzed with project P0108093 for the QA/QC requirements.

NON-CONFORMANCE FORM

Date: 8/6/01 **Receiver:** RRamujo **Time of Receipt:** 10:40

Client: ACCURA **Number Samples out of Conformance:** 4

Reason for Non-Conformance:

__ Samples rcvd. past holding time → Parameters _____

__ Broken Bottles → Description _____

__ Incorrect containers → Description _____

__ Incorrect preservative → Description _____

X Sample ID different from COC → Description Samples on COC are listed as AC17980 but came in labeled AC17982

__ Labels missing or unreadable → Description _____

__ Analysis not written on COC → Description _____

__ Sample received not on COC → Description _____

__ Sample on COC not received → Description _____

__ Hold time not observed internally → Description _____

Remarks _____

Asst. Lab. Dir. Initials: [signature] Date: 8/6/01 (See other side for resolution)

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17978	Water	02 Aug. 01 9:40	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	150	5.0	ng/L	AM18
Ethene	5600	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	7.8	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17979	Water	02 Aug. 01 10:00	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	360	5.0	ng/L	AM18
Ethene	410	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	49	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17980	Water	02 Aug. 01 11:45	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	49	5.0	ng/L	AM18
Ethene	1300	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1.9	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs

Page -1 of 1

Contact: Bonnie Hogue

P0108078

Address: 6017 Financial Drive

Report Date: 08/27/01

Client Proj Name: SA36,NTC Orlando

Client Proj #: CH2MHill project

Norcross, GA 30071

Sample Identification

Lab Sample #	Client Sample ID
P0108078-01	AC17978
P0108078-02	AC17979
P0108078-03	AC17980

Approved By:

NOTES:These samples were analyzed with project P0108093 for the QA/QC requirements.

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-01

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received
AC17978	Water	##########	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	150	5.0	ng/L	AM18	rw	8/16/2001
Ethene	5600	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	7.8	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-02

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received
AC17979	Water	##########	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	360	5.0	ng/L	AM18	rw	8/16/2001
Ethene	410	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	49	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-03

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received

AC17980 Water ########## 06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	49	5.0	ng/L	AM18	rw	8/16/2001
Ethene	1300	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	1.9	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

PO108078

SUBCONTRACTED TO: MICROSEEPS

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC
Address: 6017 Financial Drive, Norcross, GA 30071
Accura Lab Contact Name: **Bonnie J. Hogue**
Contact Phone # (770) 449 - 8800, **ext. 216**
Fax Number: (770) 449 - 5477

AAL PROJECT # 28530

For Laboratory Use Only

Custody Seal: Y N
QC Level: N 1 2 3 4
Entered into LIMS:
Sample Condition:
Page ____ OF ____
Init/Temp:
LAB Project #

	AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	VFA's	MEE	Remarks	LAB #
01	AC 17978	8/2/01 09:40		G	W		017-OLD-36-19A	4	✓	✓	See Attached original C.O.C from AAL's client for detailed project requirements	
02	AC 17979	10:00		G	W		-24B	4	✓	✓		
03	AC 17980	11:45		G	W		-	4	✓	✓		
	AC											
	AC											
	AC											
	AC											
	AC											
	AC											
	AC											

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
		C Romano/Microseeps	8/6/01 1030	**PLEASE FAX RESULTS!!**
Relinquished By:	Date / Time	Received By:	Date / Time	Turnaround Time Re...

Matrix Guide: (S = Soil) (W = Water) (L = Liquid)

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **141545**

Project: Project#28530

Prepared For:
Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue

August 15, 2001

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Kathryn Smith
Project Manager

Christy D. Hudson
Quality Assurance

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Georgia (812/351/1301); NELAC (E87315) scope: CWA, SDWA, RCRA expires July 1, 2002; NSF International (04180) scope: SDWA expires August 17, 2002; Alabama (41090); Arkansas; California (2290); Connecticut (PH-0250); Florida (E87315); Louisiana (A.I. 30742); Nebraska; North Carolina (381); North Dakota (R-116); Oklahoma (9907); Rhode Island (219); South Carolina (98011); Tennessee (02994); United States Army Corps of Engineers-MRD; USDA Soil Import License (S-36027); Virginia (00026). For more information visit our web site at: asi-lab.com

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ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141545-1**

August 15, 2001

Sample Description

Accura Analytical Laboratory
Water, Grab, Project#28530, 17978, 08/02/2001, 09:40, received 08/03/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	3	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	11.4	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	78.7	0.01	mg/L

BDL - Below Detection Limit

ASI
ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141545-2**

August 15, 2001

Sample Description

Accura Analytical Laboratory
Water, Grab, Project#28530, AC17979, 08/02/2001, 10:00, received 08/03/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	11	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	3.6	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Accura Analytical Laboratory
6017 Financial Drive
Norcross, GA 30071

Attention: Ms. Bonnie J. Hogue
Report No. **141545-3**

August 15, 2001

Sample Description

Accura Analytical Laboratory
Water, Grab, Project#28530, AC17982, 08/02/2001, 11:45, received 08/03/2001

Analytical Method	Analyte	Result	Detection Limit	Units
	General Chemistry			
EPA 9060	Total Organic Carbon (TOC)	BDL	1	mg/L
	Inorganic Anions			
EPA 300.0	Chloride (Cl)	0.1	0.1	mg/L
EPA 300.0	Nitrite Nitrogen (N)	BDL	0.01	mg/L
EPA 300.0	Nitrate Nitrogen (N)	BDL	0.01	mg/L

BDL - Below Detection Limit

Inorganic Anions by Method EPA 300.0
Spike Recovery

Batch # 70321 ***Matrix : Aqueous***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Bromide	93	93	0	75 - 125	0 - 10
Chloride	92	91	1	75 - 125	0 - 10
Fluoride	88	87	1	75 - 125	0 - 10
Nitrate-Nitrogen	92	92	0	75 - 125	0 - 10
Nitrite-Nitrogen	98	99	1	75 - 125	0 - 10
Sulfate	94	94	0	75 - 125	0 - 10

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Bromide	92	91	1	75 - 125	0 - 10
Chloride	89	88	1	75 - 125	0 - 10
Fluoride	84	82	2	75 - 125	0 - 10
Nitrate-Nitrogen	90	90	0	75 - 125	0 - 10
Nitrite-Nitrogen	97	97	0	75 - 125	0 - 10
Sulfate	93	93	0	75 - 125	0 - 10

Inorganic Anions by Method EPA 300.0
Surrogate Recovery

Batch # 70321 ***Matrix : Aqueous***

	% Recovery Objectives	
Surrogate #	Surrogate Name	Surrogate Range
S1	SURROGATE NOT APPLICABLE	

Sample	File	S1	S2	S3	S4	S5	S6

Inorganic Anions by Method EPA 300.0
Blank Results Information

Batch # 70321 ***Matrix : Aqueous***

Analyte	Blank Result	Detection Limit
Chloride	BDL	0.1
Nitrite Nitrogen	BDL	0.01
Nitrate Nitrogen	BDL	0.01

Inorganic Anions by Method EPA 300.0
Sample Batch Information

Batch # 70321 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
70321BLK	08/04/01	1030	AC/BF		08/05/01	0156	AMC/BAF	IC
70321CALHIGH	08/04/01	1030	AC/BF		08/05/01	0216	AMC/BAF	IC
70321CALMID	08/04/01	1030	AC/BF		08/05/01	0236	AMC/BAF	IC
70321CALLOW	08/04/01	1030	AC/BF		08/05/01	0257	AMC/BAF	IC
70321LCS	08/04/01	1030	AC/BF		08/05/01	0317	AMC/BAF	IC
70321LCSD	08/04/01	1030	AC/BF		08/05/01	0337	AMC/BAF	IC
141545-1	08/04/01	0930	AC/BF		08/05/01	0358	AMC/BAF	IC
141545-2	08/04/01	0930	AC/BF		08/05/01	0418	AMC/BAF	IC
141545-3	08/04/01	0930	AC/BF		08/05/01	0438	AMC/BAF	IC
141531-2	08/04/01	0930	AC/BF		08/05/01	0458	AMC/BAF	IC
141533-2	08/04/01	0930	AC/BF		08/05/01	0519	AMC/BAF	IC
141534-2	08/04/01	0930	AC/BF		08/05/01	0539	AMC/BAF	IC
141535-1	08/04/01	0930	AC/BF		08/05/01	0559	AMC/BAF	IC
141549-3	08/04/01	0930	AC/BF	25/100	08/05/01	0620	AMC/BAF	IC
141549-4	08/04/01	0930	AC/BF	25/100	08/05/01	0640	AMC/BAF	IC
141578	08/04/01	0930	AC/BF	1/1000	08/05/01	0700	AMC/BAF	IC
DBL8/4	08/04/01	1030	AC/BF		08/05/01	0720	AMC/BAF	IC
DBL8/6	08/06/01	1845	AC/BF		08/06/01	1945	AMC/BAF	IC
141639-1	08/06/01	1900	AC/BF		08/06/01	2026	AMC/BAF	IC
DBL8/6	08/06/01	1845	AC/BF		08/06/01	2107	AMC/BAF	IC
DBL8/7	08/07/01	1300	AC/BF		08/08/01	1208	AMC/BAF	IC
141342-1	08/07/01	1750	AC/BF	1/100	08/08/01	1249	AMC/BAF	IC
141342-7	08/07/01	1750	AC/BF	1/200	08/08/01	1309	AMC/BAF	IC
141342-12	08/07/01	1750	AC/BF	1/100	08/08/01	1330	AMC/BAF	IC
141342-17	08/07/01	1750	AC/BF	1/100	08/08/01	1350	AMC/BAF	IC
141342-22	08/07/01	1750	AC/BF	5/100	08/08/01	1410	AMC/BAF	IC
141549-1	08/07/01	1750	AC/BF		08/08/01	1430	AMC/BAF	IC
141572-1	08/07/01	1750	AC/BF		08/08/01	1451	AMC/BAF	IC
141572-2	08/07/01	1750	AC/BF		08/08/01	1511	AMC/BAF	IC
141572-3	08/07/01	1750	AC/BF		08/08/01	1531	AMC/BAF	IC
DBL8/7	08/02/01	1750	AC/BF		08/08/01	1552	AMC/BAF	IC
141342-22D	08/11/01	1200	AC/BF		08/11/01	2112	AMC/BAF	IC
141549-1D	08/11/01	1200	AC/BF		08/11/01	2133	AMC/BAF	IC
DBL8/11	08/11/01	1130	AC/BF		08/11/01	2234	AMC/BAF	IC
141572-1D	08/11/01	1200	AC/BF		08/11/01	2153	AMC/BAF	IC
DBL8/13	08/13/01	1630	AC/BF		08/13/01	1709	AMC/BAF	IC
141545-1DUP	08/13/01	1700	AC/BF		08/13/01	1729	AMC/BAF	IC
141545-2DUP	08/13/01	1700	AC/BF		08/13/01	1750	AMC/BAF	IC
DBL8/13	08/13/01	1630	AC/BF		08/13/01	1750	AMC/BAF	IC
DBL8/8	08/09/01	0301	AC/BF		08/09/01	0301	AMC/BAF	IC
141545-3MS	08/09/01	0544	AC/BF		08/09/01	0544	AMC/BAF	IC
141545-3MSD	08/09/01	0604	AC/BF		08/09/01	0604	AMC/BAF	IC
141545-1D	08/09/01	0624	AC/BF	10/100	08/09/01	0624	AMC/BAF	IC
DBL8/8	08/09/01	0846	AC/BF		08/09/01	0846	AMC/BAF	IC

Inorganic Anions by Method EPA 300.0

Sample Batch Information

Batch # 70321 ***Matrix : Aqueous***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
DBL8/11	08/11/01	1830	AC/BF		08/11/01	1830	AMC/BAF	IC
141342-22D	08/11/01	2112	AC/BF	STRAIGHT	08/11/01	2112	AMC/BAF	IC
141549-1D	08/11/01	2133	AC/BF	5/100	08/11/01	2133	AMC/BAF	IC
141572-1D	08/11/01	2153	AC/BF	50/100	08/11/01	2153	AMC/BAF	IC
DBL8/11	08/11/01	2234	AC/BF		08/11/01	2234	AMC/BAF	IC

Single Analyte Data

Blank Results Information

Batch Number	Analyte	Analysis Method	Preparation Method	Blank Result	Matrix
70378	TOC	EPA 9060		< 1.0000	Aqueous

Lab Control Information

Batch Number	Analyte	Analysis Method	LC % Rec.	LCD % Rec.	LC/LCD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	100	101	1	80 - 120	0 - 20

Matrix Spike Information

Batch Number	Analyte	Analysis Method	MS % Rec.	MSD % Rec.	MS/MSD RPD	%Recovery Range	RPD Range
70378	TOC	EPA 9060	95	94	1	89 - 125	0 - 11

Unspiked Sample Duplicate Information

Batch Number	Analyte	Analysis Method	Sample 1 RPD	Sample 2 RPD	RPD Range
70378	TOC	EPA 9060	1	1	0 - 11

Single Analyte Data
Sample Batch Information
Analysis : TOC

Batch # 70378 ***Matrix : Aqueous***

		Preparation				Analysis			
Sample ID	Tag	Date	Time	By	Notes	Date	Time	By	Inst
70378BLK		/ /				08/07/01	2100	DJ	ASTRO
70378LCS		/ /				08/07/01	2100	DJ	ASTRO
70378LCSD		/ /				08/07/01	2100	DJ	ASTRO
70378CALCHK		/ /				08/07/01	2100	DJ	ASTRO
WP-78MS		/ /				08/07/01	2100	DJ	ASTRO
WP-78MSD		/ /				08/07/01	2100	DJ	ASTRO
WP-78		/ /				08/07/01	2100	DJ	ASTRO
WP-78DUP		/ /				08/07/01	2100	DJ	ASTRO
WP-72		/ /				08/07/01	2100	DJ	ASTRO
WP-72DUP		/ /				08/07/01	2100	DJ	ASTRO
141358-1		/ /				08/07/01	2100	DJ	ASTRO
141358-2		/ /				08/07/01	2100	DJ	ASTRO
141358-3		/ /				08/07/01	2100	DJ	ASTRO
141358-4		/ /				08/07/01	2100	DJ	ASTRO
141503-1		/ /				08/07/01	2100	DJ	ASTRO
141503-2		/ /				08/07/01	2100	DJ	ASTRO
141503-3		/ /				08/07/01	2100	DJ	ASTRO
141503-4		/ /				08/07/01	2100	DJ	ASTRO
141503-5		/ /				08/07/01	2100	DJ	ASTRO
141503-6		/ /				08/07/01	2100	DJ	ASTRO
141503-7		/ /				08/07/01	2100	DJ	ASTRO
141503-8		/ /				08/07/01	2100	DJ	ASTRO
141545-1		/ /				08/07/01	2100	DJ	ASTRO
141545-2		/ /				08/07/01	2100	DJ	ASTRO
141545-3		/ /				08/07/01	2100	DJ	ASTRO

ACCURA ANALYTICAL LABORATORY, INC.

SAMPLE RECEIPT CHECKLIST VERSION 5 Client Code: 03707 AAL Project Mg: BJH

Client Project Name: NTC ORLANDO - STUDY AREA 86 ACCURA Lab Project#: 28530

Are there EnCores, tests with < 48Hr hold times, or RUSH TAT's requested? (YES) NO

If YES, you must communicate RUSH analyses to the appropriate analyst(s) immediately!!! / or preserve EnCores (see #16 below)!!!

Preliminary Examination: Initials: KS Date received: 08-03-01 Date cooler was opened: 08-03-01

1. Did cooler/package come with a shipping slip (airbill, Etc.)? (YES) NO
   If YES, enter carrier name and airbill number here: SEE REVERSE
   Describe type of packing in cooler: ICE
   ****If cooler was hand delivered, CIRCLE HERE, skip to item #5****
2. Were custody seals on outside of cooler? YES (NO)
   If YES, how many:_____ seal dated:_____ seal name:_____
3. Were custody seals unbroken and intact at the date and time of arrival? YES (N/A) NO
4. Were custody papers sealed in a plastic bag to prevent damage to chain of custody? (YES) NO
5. If required, was enough ice used? **(Internal cooler temperature,_____)** SEE REVERSE (YES) N/A NO
6. Did you sign custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
   If YES, enter project name at the top.

****

Complete project file with green sheet, proper file tag, and shipping documentation. Line up samples following chain. Complete Container Count Sheet including extra containers for dissolved metals filtrates. Complete login in Labworks and generate AAL ID Barcode Labels.

8. Did all containers arrive unbroken and were labels in good condition? (YES) NO
9. Were custody papers filled out properly and did all labels agree with custody papers? YES (NO)
10. Were correct containers and sufficient amount of sample sent for the test indicated? YES (NO)
11. All samples collected within three days of date received for these analyses
    (Reactive Cn & S, Solids in H2O, Sulfide, Sulfite, !ALL! Extractable Organic Waters)? (YES) N/A NO
    If NO, coordinate with the project manager to ensure that no samples go out of hold!!!
12. No residual chlorine found in waters for these analyses:
    (Cyanide, PAH, SVOC, Pesticides, PCB's, Herbicides)? (YES) N/A NO
    Checked by: KS **(Initials)**
13. Were samples properly chemically preserved, if required, upon receipt? (YES) N/A NO
    (For example: pH checked for waters for all Metals, Wet Chemistry, Pesticides, PCB's, Herbicides, and low level VOC/BTEX soil samples submitted in either Encore samplers or $NaHSO_4$ labeled vials)
    Preservation checked by: KS **(Initials)**
14. Were air bubbles (>1/4 inch) absent in VOC/BTEX samples? (YES) N/A NO
    If NO, list ID # on back and label vials with "Do Not Use Until Notified By Management":
15. If there are samples for dissolved metals, were they field filtered? YES (N/A) NO
    If NO, list date and time samples were filtered and preserved in lab:_____

****

16. Were Encore samplers included? YES (NO)
    If YES, date and time preserved with $NaHSO_4$:_____ By whom:_____
17. Does this submittal contain soil $NaHSO_4$ vials for BTEX/GRO/VOC'S? YES (NO)
    If YES, vials weighed by and entered into vial database by:_____
18. Initials of laboratory personnel responsible for labeling laboratory I.D. numbers on containers: KS

****

Keep samples and chain out. Before logging samples to their appropriate location, another person must review the entire project ensuring that information on the AAL ID Barcode label matches the container label, and that all information is consistent with the chain.

Final check and samples logged to locations by: BKS **(Initials)**

Was it necessary to call the assigned project manager in order to proceed with login? YES (NO)
If YES, give details on the back of this form.
Who was called?_____ By whom?_____ Date/Time:_____

Mgr. Review: BJH (Initials) 8/5/01 (Date)

ACCURA ANALYTICAL LABORATORY, INC.
SAMPLE RECEIPT VARIANCE FORM

Item #	Discrepancies Noted:
1 & 5	All SAMPLE ID #'s — All CONTAINERS RCD IN 3 CLRS - VIDE
	① FEDEX TRK # 822511654827 TEMP 3°C
	② " " " 8285 1165 4837 COC/LOG MRS# 8226 1068 5919 TEMP 3°C
	③ " " " 8285 1165 4837 COC/LOG MRS# 8226 1068 5920 TEMP 3°C
9	SAMPLE ID # 0178LD-36-TB4-020118 — DATE & TIME OF COLLECTION NOT SHOWN ON COC AND CONTAINERS RCD -
10	SAMPLE ID # 0178LD-36-TB4-020118 — NO OF CONTAINERS ON COC 3 - RCD 2 X 40 ML VOC VIALS.

Item #	Actions Taken:
9	LOGIN AS SAMPLED SAMP TIME AS EARLIEST SAMPLE RECEIVED
10	LOGIN 2 x 40mL VIALS → SUFFICIENT QUANTITY RECEIVED, NO MORE ACTION NECESSARY
*	L.D reviewed project - C.R only signed case narrative C.R 8/19/01

Project Mgr. Review: [illegible] (Initials) 8/5/01 (Date)

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28530 **Test Performed:** Alkalinity Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Y If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? Y If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? _____
   Reason for dilution. _____
4. Duplicate AAL sample number 17920
   Is the RPD acceptable? Y If not, what is the reason? _____
5. MS/MSD AAL sample number 17920
   Are the recoveries acceptable? _____ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? NA
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? ~~YES~~ NA (see 8/29/07)
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. Yes

Analyst entering results in Labworks. AS Date: 08-10-07

Peer Reviewer. (see 8/29/07) Date: 8/29/07

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01
Analyst: AS
Time Started: 11:30 / 15:40

Lot #'s: 0.02N H_2SO_4: 1046
Phenolphthalein Indicator: —

	AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
								mg/L as $CaCO_3$			
	BLANK	50mL				0.05-0.10	0				4.5/4.2 and
	LCS	50+5mL	spike Na_2CO_3			12.90	2580				~~10%~~ 97.3%
1	17883	50mL				6.93	138.6				
2	17884					1.25	25				
3	17885					0.05	1				pH = 4.55
4	17886					0.05	1				pH = 4.55
5	17887					0.20	4				
6	17888					1.00	20				
7	17890					0.65	13				
8	17891					9.00	180				
9	17919					0.50	10				
10	17920					4.15	83				
11	17921					4.15	83				
12	17922					1.05	21				
13	17923					0.60	12				
14	17924					0.57	11.4				
15	17925					0.78	15.6				
16	17926					1.10	22				
17	17934					3.35	67				
18	17978					0.70	14				

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{mL\ sample}$

P-alkalinity = phenolphthalein alkalinity
T-alkalinity = total alkalinity

where: A = mL acid used
N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Cont on page 95

Reviewed By: _____
ALKALNTY.XLS Page No. 1 of 4

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Alkalinity, Total and Phenolphthalein

SM 2320B/ EPA 310.1

Date: 08-10-01

Analyst: AS

Time Started: 11:30/15:40

Lot #'s: 0.02N H_2SO_4: 1046

Phenolphthalein Indicator: ~

AAL #	Sample Volume (mL)	Dilution Factor	P-Alkalinity Titration (mL)	P-Alkalinity mg/L as $CaCO_3$	T-Alkalinity Titration (mL)	T-Alkalinity mg/L as $CaCO_3$	OH^-	CO_3^{-2}	HCO_3^-	Comments
						mg/L as $CaCO_3$				
17979	50				0.43	8.6				
17982	↓				0.10	2				
17920 D					4.10	82				2.4% RSD
17920MS	+5mL				16.27	2440				91% rec.
17920 MSD	+5 ✓ spike				16.40	2450				92.4%

Calculation: Alkalinity, mg $CaCO_3$/L = $\frac{A \times N \times 50000}{mL\ sample}$

P-alkalinity = phenolphthalein alkalinity

T-alkalinity = total alkalinity

where: A = mL acid used

N = Normality of acid

see Standard Methods for table with relationship of P-alkalinity to T-alkalinity and calculation of the types of alkalinity.

Reviewed By: ~

ALKALNTY.XLS Page No. 15

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28530 Test Performed: Reac. CN

Project Manager BJN

Analyst Questions:

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____
   Reason for dilution _____
4. Duplicate AAL sample number 18320
   Is the RPD acceptable? ✓ If not, what is the reason? _____
5. MS/MSD AAL sample number 18140 ✓
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? _____ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r>0.995; standards & ICV within ± 10% recovery)? YES
9. For titration tests, are the titration ratios acceptable? N/A
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? YES
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. YES

Analyst entering results in Labworks. KT Date: 8.26.01

Peer Reviewer. [signature] Date: 8/29/01

Peer Reviewer is responsible for reviewing all above questions.

Cyanide (soils and reactives)

EPA SW-846 9013/9010B/9014 and sect 7.3/9010b/9014

Analyst: NF

Analysis Date: 08/24/01 - 08/25/01

Lot #'s:

Cyanide Working Std: 66L

Cyanide ICV Working Std: 66M

NaOH 0.25N:

H_2SO_4 18N (1:1):

$Na_2H_2PO_4$ Solution: 66K / 66E

Chloramine-T Solution: Daily

Pyridine/Barbituric Acid: B I-015072-1

Reagents

Date 7-point curve generated:

Std Conc. (mg/L CN⁻)	Blank	0.005	0.010	0.025	0.040	0.050	0.075	ICV 0.025
Absorbance								0.249
Calc. Conc (mg/L CN-)								0.0256
Standard %R (+/- 10%)								103
Correlation Coefficient								

3-Point Curve:

Blank	0.005	0.025	0.075
0	0.048	0.251	0.720
	0.0047	0.0258	0.0747
	94	103	99.6
0.9999			

#	AAL #	Spiked vol (ml) and conc.	Sample weight (gm.)	Extraction volume (ml)	Dilution factor (DF)	Sample vol. (ml) (V^1_I)	Vol. (ml) after distillation (V^1_F)	Vol. (ml) for colorimetry (V^2_I)	Vol. (ml) after colorimetry (V^2_F)	Abs.	Conc. From curve (mg/L)	Result (mg/kg)	RDL (mg/kg)
1	BI		10	50	—	50	100	50	100	0.001	neg	<DL	0.020
2	LCS	10ml of 1ppm			—					0.219	0.0225	0.0901	%R=90
3	17981				1:5					0.002	neg	<DL	0.020
4	18028									0.035	0.0165		
5	18139									0.000	0.000		
6	18140									0.001	neg		
7	18141									0.002	neg		
8	18142									0.001	neg		
9	18320									0.007	0.0021		
10	18329									0.004	0.0006		
11	18345									0.003	0.0001		
12	18588									0.005	0.0012		
13	18591									0.006	0.0016		
14	18893									0.003	0.0001		
15	18894									0.001	neg		

Comments:

Result (mg/kg) = $\frac{\text{Conc. from curve (mg/L)} \times V^2_F \times V^1_F \times DF}{V^1_I \times V^2_I}$

Reviewed By:

Cyanide (soils and reactives)

EPA SW-846 9013/9010B/9014 and sect 7.3/9010b/9014

Analyst:_____ Analysis Date:_____

Lot #'s:

Cyanide Working Std:_____
Cyanide ICV Working Std:_____
NaOH 0.25N:_____
H_2SO_4 18N (1:1):_____

$Na_2H_2PO_4$ Solution:_____
Chloramine-T Solution:_____
Pyridine/Barbituric Acid:_____

Date 7-point curve generated:

Std Conc. (mg/L CN⁻)	Blank	0.005	0.010	0.025	0.040	0.050	0.075	ICV 0.025
Absorbance				See previous page				
Calc. Conc (mg/L CN-)								
Standard %R (+/- 10%)								
Correlation Coefficient								

3-Point Curve:

Blank	0.005	0.025	0.075

#	AAL #	Spiked vol (ml) and conc.	Sample weight (gm.)	Extraction volume (ml)	Dilution factor (DF)	Sample vol. (ml) (V^1_I)	Vol. (ml) after distillation (V^1_F)	Vol. (ml) for colorimetry (V^2_I)	Vol. (ml) after colorimetry (V^2_F)	Abs.	Conc. From curve (mg/L)	Result (mg/kg)	RDL (mg/kg)
1	18140MS	10ml of 1ppm	10g	50		50	100	50	100	0.196	0.0201	0.080	%R=
2	18140MSD	↓				↓	↓	↓	↓	0.202	0.0208	0.083	%R=83%
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Comments:

Result (mg/kg) = $\frac{\text{Conc. from curve (mg/L)} \times V^2_F \times V^1_F \times DF}{V^1_I \times V^2_I}$

Reviewed By:_____ 05!)
Page No._____

ANALYTICAL, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28530 Test Performed: Reac. 5-2

Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? ~~No~~ ✓ (y 8.26.01) If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why? Are the samples being reanalyzed? _____
3. Sample numbers requiring dilution? — _____ _____ _____ _____ _____
   Reason for dilution. _____
4. Duplicate AAL sample number 17503
   Is the RPD acceptable? No If not, what is the reason? _____
5. MS/MSD AAL sample number 18140
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
6. Are all special requirements on project sheet completed? ✓ If not, has the project manager been notified. _____
7. Any additional comments. _____

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? NA
9. For titration tests, are the titration ratios acceptable? yes
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? NA
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. yes

Analyst entering results in Labworks. JF Date: 8.26.01

Peer Reviewer. KME Date: 8/31/01

Peer Reviewer is responsible for reviewing all above questions.

Per angela you do not subtract the ML 2 I-2 used for sample but for blank -KME 8/31/01

Environmental

Total Sulfides
EPA 376.1

Analyst: AS/UF
Date: 08-24-01 - 8/25/01
Time Started: 11:30 / 19:30

Lot #'s:
Working Sulfide Standard: 66Q / 67A
Zinc Acetate Solution: ———
$Na_2S_2O_3$ 0.0250N: I-01057
$Na_2S_2O_3$ 0.0100N: 1134

Starch Solution: I-01048-2
I_2 0.02500N: I-00127
6N NaOH: ———
1:1 HCl: 66I

Standardization Titrations:

mL of 0.0100N $Na_2S_2O_3$ used for 200ml working standard: 12.30
mL of 0.0250N $Na_2S_2O_3$ used for 200mL working standard: 5.05

Ratio of 0.0100/0.0250=0.400
Ratio of Titrations: 0.411
} see pg 31 same date

RPD between the two ratios = 5.406
If RPD is less than 15%, then continue with the samples, otherwise retitrate.

= Reactives =

AAL#	mL I_2	Sample volume	Dilution	mL 0.0250N $Na_2S_2O_3$	Calc. Value (mg/L)	8.25.01 QC
Blank	10	~~50 10g=50mL~~	200	*~~0.30~~ 9.85	0.3 ~~to <DL~~	3.0
LCS	10	10g of 200ppm		5.60	176	%R = 88
18028	10	10g=50ml		*~~9.02~~ 7.6	96	50 = RDL
16854	10			8.95	~~<DL~~ 42	
17981	12			3.57	260	
17503	10			4.27	230	
17503D	10			2.35	306 = 310	%RPD = 29
17504	12			4.90	204 = 200	
18139	10			*~~14.15~~ 9.95	<DL	
18140	13			9.83	<DL	
18141	10			11.55	<DL	
18142	10			9.40	~~<DL~~ 24	
18320	10			10.90	<DL	

* samples reanalyzed 8.25.01

Calculation: mg S^{-2}/L = $\frac{400(A-B)}{mL\ sample}$, where; A=mL 0.02500N I_2
B=mL 0.02500N $Na_2S_2O_3$

Reviewed By: ———

Environmental Analytical Services

Total Sulfides

EPA 376.1

Lot #'s:

Analyst: _____
Date: _____
Time Started: _____

Working Sulfide Standard: _____
Zinc Acetate Solution: _____
$Na_2S_2O_3$ 0.0250N: See previous
$Na_2S_2O_3$ 0.0100N: _____

Starch Solution: _____
I_2 0.02500N: _____
6N NaOH: pale
1:1 HCl: _____

Standardization Titrations:

mL of 0.0100N $Na_2S_2O_3$ used for 200ml working standard: _____
mL of 0.0250N $Na_2S_2O_3$ used for 200mL working standard: _____

Ratio of 0.0100/0.0250=0.400
Ratio of Titrations: _____

RPD between the two ratios = _____

If RPD is less than 15%, then continue with the samples, otherwise retitrate.

kg # 8.25.01

AAL#	mL I_2	Sample volume	Dilution	mL 0.0250N $Na_2S_2O_3$	Calc. Value (mg/L)	QC
18320d	10	10g→50ml		10.80	<DL	RDL=5.0
18345	↓	↓		8.95	~~<DL~~ 42	↓
18588				10.85	<DL	RDL=6.8
18591				10.90	<DL	RDL=6.2
18893				2.75	290	
18894		↓		9.75	~~<DL~~ 10	↓
18140 MS		10g + 10ml spike		4.20	232	%R=116 %RPD=10
18140 MSD	↓	↓		4.75	210	%R=105
		Reactive S = [400(10-B)/50 × (0.05L)] / [0.01kg · 1800s] × 1800s				

Calculation: mg S^{-2}/L = $\frac{400(A-B)}{\text{mL sample}}$, where; A=mL 0.02500N I_2
B=mL 0.02500N $Na_2S_2O_3$

Reviewed By: _____

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28530 Test Performed: Flashpoint Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? ___ If not, has the RDL been raised or the samples reanalyzed? ___
2. Are the LCS/LCSD within limits? ___ If not, why? Are the samples being reanalyzed? ___
3. Sample numbers requiring dilution? ___
   Reason for dilution ___
4. Duplicate AAL sample number ___
   Is the RPD acceptable? ___ If not, what is the reason? ___
5. MS/MSD AAL sample number ___
   Are the recoveries acceptable? ___ If not, what is the reason? ___
6. Are all special requirements on project sheet completed? ___ If not, has the project manager been notified. ___
7. Any additional comments. ___

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? ___
9. For titration tests, are the titration ratios acceptable? ___
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? ___
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. ___

Analyst entering results in Labworks. AS Date: 08-17-01

Peer Reviewer. KC Date: 8/24/01

Peer Reviewer is responsible for reviewing all above questions.

Flash Point Log Book
EPA SW-846 1010

's: p-Xylene: E-01033

ate	Analyst	AAL#	Result (°F)	QC	Comments
16/01	BB	p-xylene	82		14:45 – 15:05
↓	↓	15162	135		Solid portion } As per DCF report
↓	↓	15162	136		Liquid portion } Solid portion in LIMS
17/01	KC	pxylene	82		1415 – 1700
↓	↓	16877	>140		↓
↓	↓	16878	>140		↓
↓	↓	16854	>140		↓
18/01	ZH	P-Xylene	83°F		11:40 – 12:35
↓	↓	16780	~~>140°F~~ >140°F		↓
↓	↓	16781	>140°F		↓
25/01	ZH	P-Xylene	82°F		17:00 – 17:45
↓	↓	16950	>140°F		
30/01	ZH	P-Xylene	82°F		14:25 – 15:00
↓	↓	16951	>140°F		
31/01	ZH	p-Xylene	83°F		1510 – 1720
↓	↓	17090	131°F		
↓	↓	17092	<80°F		
2/16/01	AS	p-Xylene	81°F		8:30 –
↓	↓	16994	>140°F		solid 10:00
↓	↓	17503	>140°F		liquid 11:07
↓	↓	17504	>140°F		solid 1:23
↓	↓	18320	>140°F		liquid 3:13
8/17/01	AS	~~17781~~			end 15:13
↓	↓	p-xylene	81°F		11:20
↓	↓	17781	>140°F		liquid / under
↓	↓	18328	>140°F		soil
↓	↓	17820	136°F		lacquer paint
↓	↓	17820D	135°F		" re-run duplicate
↓	↓	18588	>140°F		soil
↓	↓	18591	>140°F		soil
↓	↓	18009	>140°F		greasy-like liquid
↓	↓	18345	>140°F		liquid / water
					end 5:40 / 17:40 pm

ACCURATE ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Wet Chemistry Checklist

Project #: 28530 **Test Performed:** TDS Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? Yes If not, has the RDL been raised or the samples reanalyzed? —
2. Are the LCS/LCSD within limits? — If not, why? Are the samples being reanalyzed? —
3. Sample numbers requiring dilution? —
   Reason for dilution. —
4. Duplicate AAL sample number 17885
   Is the RPD acceptable? NO If not, what is the reason? RPD >20%
5. MS/MSD AAL sample number —
   Are the recoveries acceptable? — If not, what is the reason? —
6. Are all special requirements on project sheet completed? — If not, has the project manager been notified. —
7. Any additional comments. —

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? —
9. For titration tests, are the titration ratios acceptable? —
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? ✓
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. ✓

Analyst entering results in Labworks. Debra Bana Date: 9/20/01

Peer Reviewer. LD Date: 9/23/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
~~7/24/01~~	~~DG~~	~~6:30~~	~~13:30~~ 7/25/01	~~17088 Dup~~	~~3~~	~~54.2323~~	~~100 mL~~	~~54.2319~~	~~54.2313~~		< DL	DATA NOT REPORTED per BTH
8-13-01	AS	11:00		Blank	1	71.7586		71.7582	71.7585		< DL	
				17839	2	72.6436		72.6422	72.6426		< DL	
				17840	3	54.2289		54.2279	54.2284		< DL	
				17841	4	70.3683		70.3772	70.3764	70.3769	86	
				17842	5	71.0181		71.0399	71.0374	71.0365	184	
				17841D	6	73.4836		73.4916	73.4909	73.4911	75	
~~8-15-01~~ 8-15-01	AS	15:45	15:45	17841	7	54.830		54.839	54.842		10	
				17841	8	57.566		57.575	57.576		10	
8/16/01	DG	6:45	14:30	Blank	4	70.3712	100 mL	70.3707	70.3708		~~306~~ < DL	
				17883	X	72.3853		72.4159	72.4165		306	
				17884	1	71.7601		71.7699	71.7699		98	
				17885	5	71.0156		71.0276	71.0278		120	
				17885D	6	73.4829		73.4922	73.4927		93	
				17886	13	69.0235		69.0315	69.0320		80	
				17887	7	69.5653		69.5700	69.5703		47	
				17888	14	61.3834		61.3926	61.3933		92	
				17890	8	56.7423		56.7543	56.7549		120	
				17891	9	65.5823		65.6113	65.6113		290	
				17978	21	53.8425	100 mL	53.9120	53.9123		695	
				17979	2	72.6462		72.6499	72.6492		37	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

TOTAL DISSOLVED SOLIDS (TDS)

EPA Method 160.1

Date	Analyst	Start Time	End Time	AAL #	cruc #	Tare wt. (g)	Sample volume (mL)	Final wt. (g) 1	2	3	TDS (mg/L)	Comments
3/16/01	DG	6:45	14:30	17982	3	54.2299 ~~54.2299~~	100 mL	54.2316	54.2319	~~17~~	17	
"	"	"	"	17934	11	79.2307	"	79.5062	79.5064	~~2755~~	2755	

TDS = (Final wt - Tare wt) in mg / sample volume in L

Reviewed By:_____

Wet Chemistry Checklist

Project #: 28530 **Test Performed:** pH Project Manager: BJH

Analyst Questions:

1. Is the Blank <1/2 RDL? ——— If not, has the RDL been raised or the samples reanalyzed? ———
2. Are the LCS/LCSD within limits? ——— If not, why? Are the samples being reanalyzed? ———
3. Sample numbers requiring dilution? ——— ——— ——— ——— ——— ———
   Reason for dilution. ———
4. Duplicate AAL sample number ———
   Is the RPD acceptable? ——— If not, what is the reason? ———
5. MS/MSD AAL sample number ———
   Are the recoveries acceptable? ——— If not, what is the reason? ———
6. Are all special requirements on project sheet completed? ——— If not, has the project manager been notified. ———
7. Any additional comments. ———

Reviewer Questions:

8. Is the curve acceptable (r >0.995; standards & ICV within ± 10% recovery)? ———
9. For titration tests, are the titration ratios acceptable? ———
10. For meter or balance tests, was the meter or balance calibrated for the day analyzed? ✓
11. Does the LIMS entries agree with log book entries viz. date, time, results, sigfigs, RDL etc. ✓

Analyst entering results in Labworks. AS Date: 08-03-01

Peer Reviewer. ——— Date: 8/23/01

Peer Reviewer is responsible for reviewing all above questions.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

pH, Oxidation-Reduction Potential, and Conductivity Log

EPA 150.1, 9040A, 9045C for pH

EPA 120.1, 9050 for Conductivity

ASTM D1498-93 for Oxidation-Reduction Potential

Date	Analyst	AAL #	pH			Temp °C	Time	Conductivity (uMHOS/cm)				ORP (mV)	Comments
			Sample	Dup	% RPD			ICV	Sample	Dup	% RPD		
⊥	⊥	17303	5.5	5.5	0	⊥	⊥		PS 7-25-01				
~~7/26/01~~	~~217~~	~~16950~~				28	11:10						
7/27/01	DG	17503	8.0	8.1	1.2	28	⊥						
		~~17503 DUP~~	~~8.1~~ DG 7/27/01			28							
		16994	3.4	3.4	0								
		~~16994 DUP~~	~~3.4~~ DG 7/27/01										
		17504	7.1	7.0	2.1								
		~~17504 DUP~~	~~7.0~~										
⊥	⊥	16950	5.8	6.0	3.4								
DG 7/27/01		~~16950 DUP~~	~~6.0~~ DG 7/27/01			⊥	⊥						
7/27/01	217	17551	3.3	3.3	0	28°C	14:20						
		17552	3.3	3.4	2.9	↓							
7-27-01	PS	1A17592	6.7	6.9	2.9	28°C	~~7-27~~ 15:25			PS 7-28-01			1A
		2A17594	7.2	7.3	1.3								2A
		17590 3A17595	7.4	7.4	0								3A
		PS 4A17596	7.3	7.3	0								4A
		7-26-01 5A17598	7.2	7.2	0	⊥	⊥						5A
7-28-01	PS		8.9	8.9	0	28°C	17:25		PS 7-28-01				EFFLUENT
8-01-01	217	16951	6.0	6.0	0	Paper 27°C	10:05		217 8-01-01				
8-02-01	217	17917	7.1	7.1	0	27°C	10:55		217 8/2/01				Rec 28.5 L
↓	↓	17932	6.5	6.5	0	28°C	17:00						P
8-03-01	AS	17981	6.5	6.5	0	29°C	15:55		AS 08/03/01				
8-6-01	PS	18048	6.4	6.4	0	26°C	10:43		PS 8-6-01				
8-6-01	PS	18050	9.0	9.0	0	26°C	10:43		PS 8-6-01				EFFLUENT

Note: see pH and Conductivity Calibration Log Book for calibration and lot #'s

ORP = Oxidation-Reduction Potential

Reviewed By: _____

Page No.: 82

Phconlog

SVO GC DATA CHECKLIST
FL-PRO

PROJECT #: 28530	METHOD: FL-PRO
MATRIX: water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS (/LCSD)?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
Are multicomponent patterns resolvable?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: RPS	
Date: 08/27/01	Time: 14:45

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all analyte calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL	
Date: 8/27/01	Time: 14:45

NOTES FOR 28530

NAVY Level III Project - CCI LEVEL C

Need one good print-out of all cal., MS/MSD and LCS data.

Batch QC.

Full List Spike.

QC Table on common drive.

Report all Flags,("J", "B", etc.)

REPORT TIC's ALONG WITH THIS PROJECT!!!

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

FL Pro

ANALYSIS (DRO) / PAH

DATE/TIME: 8/8/01 8:00a.m

MATRIX: WATER

ANALYST: LJ

EXT. METHOD: 3510 / (3520)

INSTRUMENT: GC-FID / GC-MSD

AAL I.D.	SAMPLE VOLUME	pH	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
2FW080801-1	1L	<2	LJ		1mL	BLK
2FW080801:2	↓			LJ		LCS
17919	↓					
17920	965mL					
17921	970mL					
17922	955mL					
17923	945mL					
17924	940mL					
17925	1L					
17978	↓					
17979	980mL					
17982	955mL	↓	↓		↓	Low solvent recovery ↓

A.H 8/10/01 4:45 pm

START TIME: ~~8:15 am~~ 12:00pm 8/9/01 STOP TIME: 8:30a.m. SOLVENT ID #: EXO277

SURROGATE I.D. : FL01E137 CONC. : 300ppm INITAL : LJ

SURROGATE I.D. : D01E136 CONC. : 50ppm INITAL : LJ

SPIKE I.D. : FL01E135 CONC. : 250ppm INITIAL : LJ

SPIKE I.D. : — CONC. : — INITIAL : —

EXTRACT STORAGE: REFRIG.# 5, BOX #: D-197 RapidVap TEMP.: 45°

Spike witness: DR

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 8/6/01 **Batch ID:** DROW 79 **Matrix:** Water

Ext. Method: 3520 **MS ID:** LCS **MSD ID:** LCSD

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1	28507	17839	8/6/01	FL-Pro
2		17840		
3		17841		
4		17842		
5	28510	17883		
6		17884		
7		17885		
8		17886		
9		17887		
10		17888		
11		17890		
12		17891		
13	28530	17978	8/8/01	
14		17979		
15		17982		
16	28567	18309	8/16/01	
17		18310		
18		18311		
19		18312		
20		18316		

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2147752	31.171 ug/mlm
Spiked Amount 50.000	Recovery = 62.34%		
3) SC C(39)	38.44f	6004297	167.373 ug/mlm
Spiked Amount 300.000	Recovery = 55.79%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	64544071	N.D. ug/ml

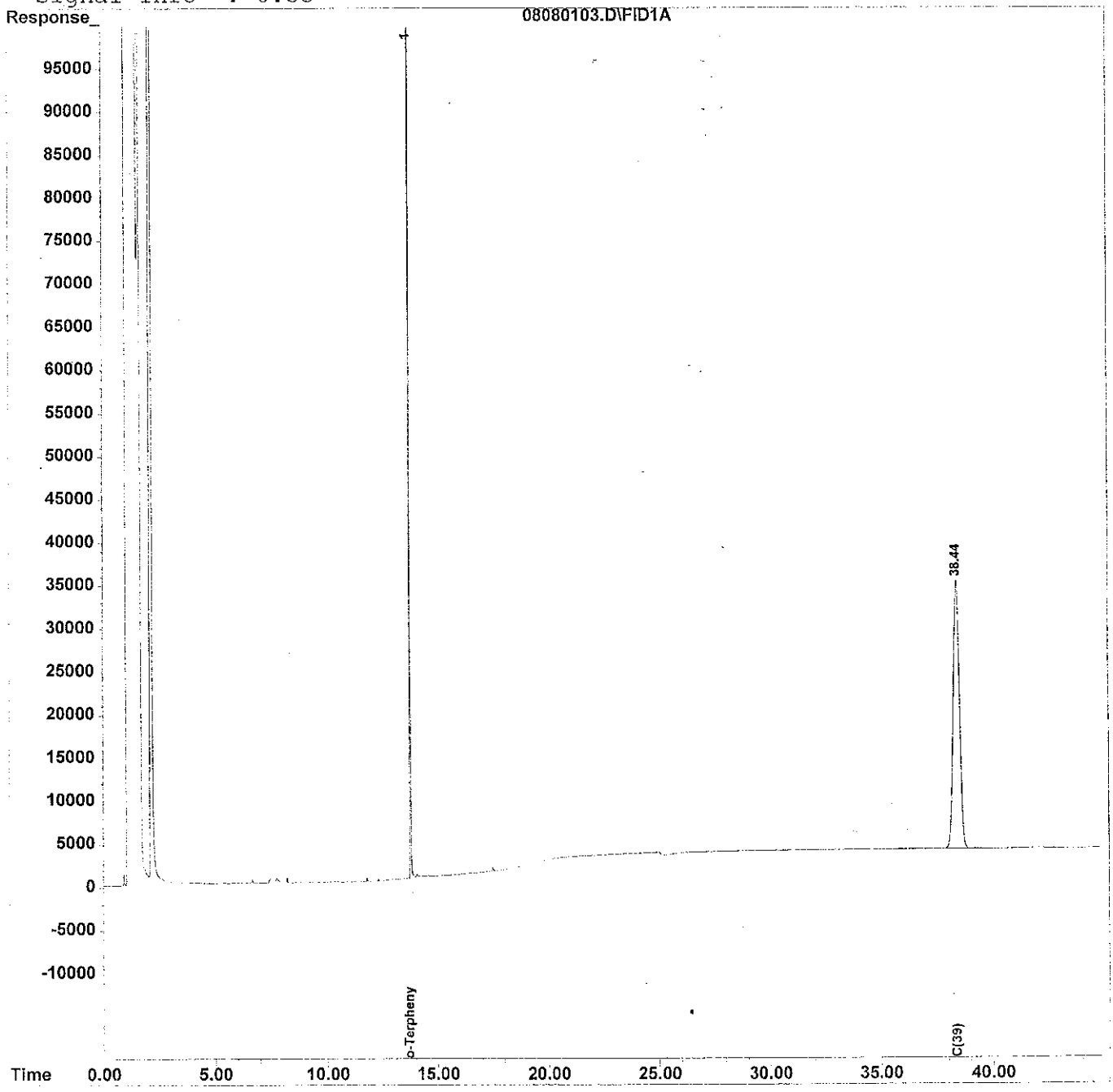
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080103.D Vial: 3
Acq On : 08/08/01 10:27 Operator: BP
Sample : QFW0806011 Inst : HPGCO
Misc : PRO WATER BLANK Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 11:22 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2228791	32.347 ug/ml
Spiked Amount 50.000	Recovery = 64.69%		
3) SC C(39)	38.40f	5171113	144.148 ug/mlm
Spiked Amount 300.000	Recovery = 48.05%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	202074040	2696.591 ug/ml

1086

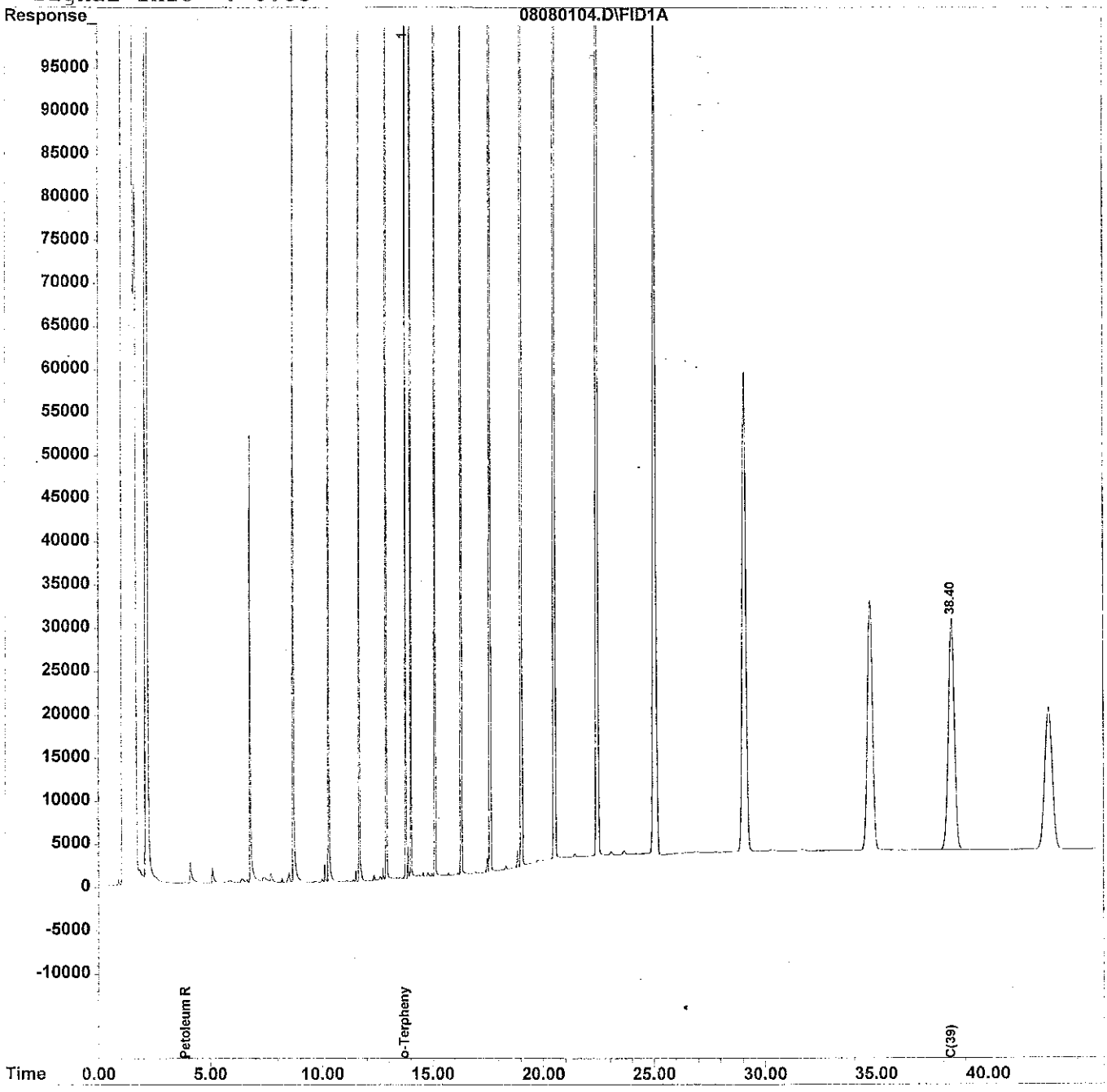
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080104.D Vial: 4
Acq On : 08/08/01 11:21 Operator: BP
Sample : QFW0806012 Inst : HPGCO
Misc : PRO WATER LCS Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:05 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\080801\08080105.D Vial: 5
Acq On : 08/08/01 12:16 Operator: BP
Sample : QFW0806013 Inst : HPGCO
Misc : PRO WATER LCSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.76	2328552	33.795 ug/ml
Spiked Amount 50.000	Recovery = 67.59%		
3) SC C(39)	38.37f	6107448	170.249 ug/mlm
Spiked Amount 300.000	Recovery = 56.75%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	216443050	2981.245 ug/ml

1196

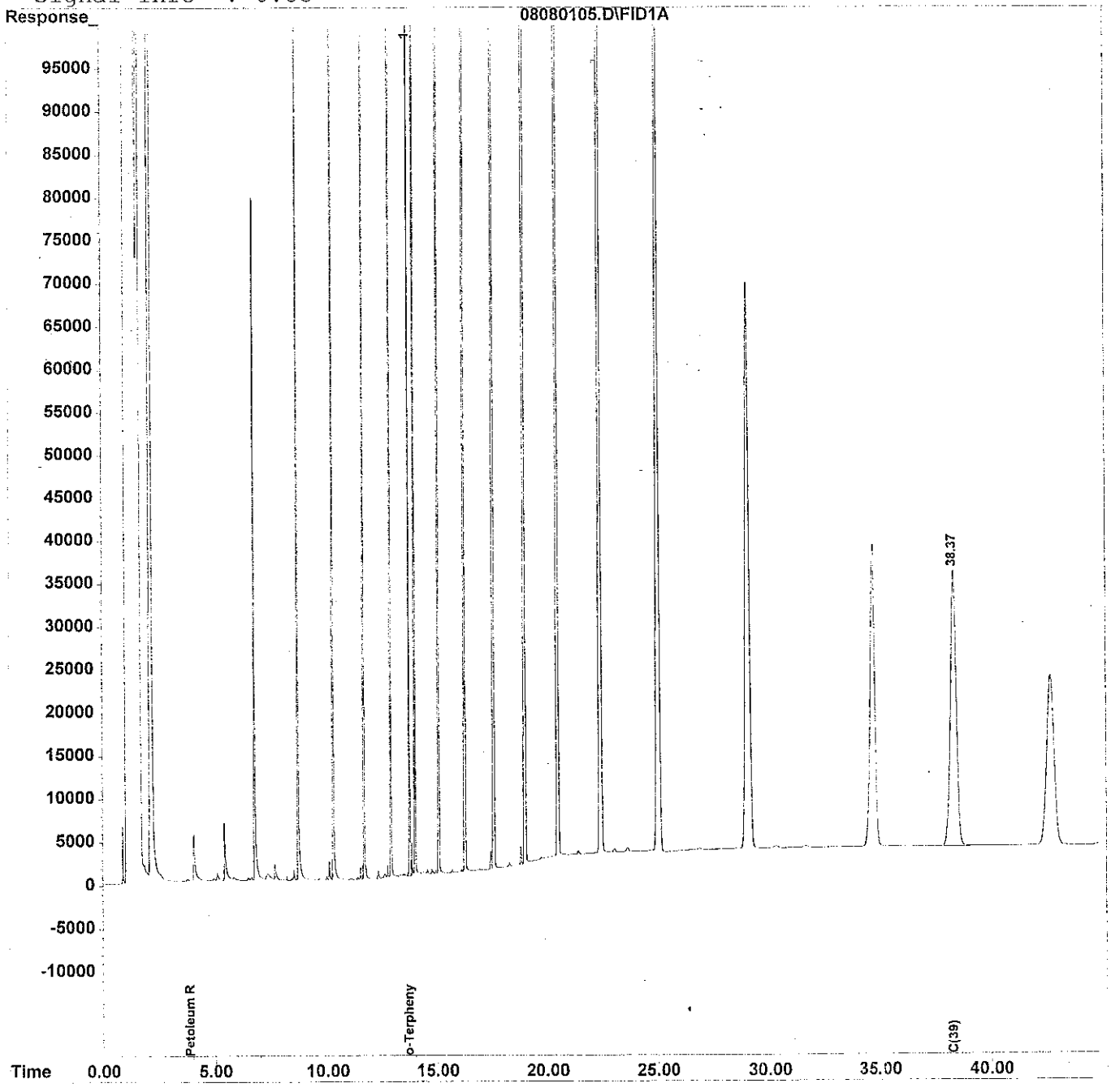
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\080801\08080105.D Vial: 5
Acq On : 08/08/01 12:16 Operator: BP
Sample : QFW0806013 Inst : HPGCO
Misc : PRO WATER LCSD Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 8 13:06 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



SVO GC CALIBRATION CHECKLIST
SW-846-8000

DATE / INSTRUMENT: HP6CO	METHOD: 8000
MATRIX: FL-PRO ICAL 8/16/01	

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Is the Initial Calibration compliant with the method specifications?	Y	N	NA
Were daily retention time windows updated?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Are all mistakes single lined, initialled, and dated?	Y	N	NA

Analyst: RPS	Reviewer: RL
Date: 08/24/01 Time: 12:35	Date: 08/24/01 Time: 08:15

Response Factor Report HPGCO

Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001

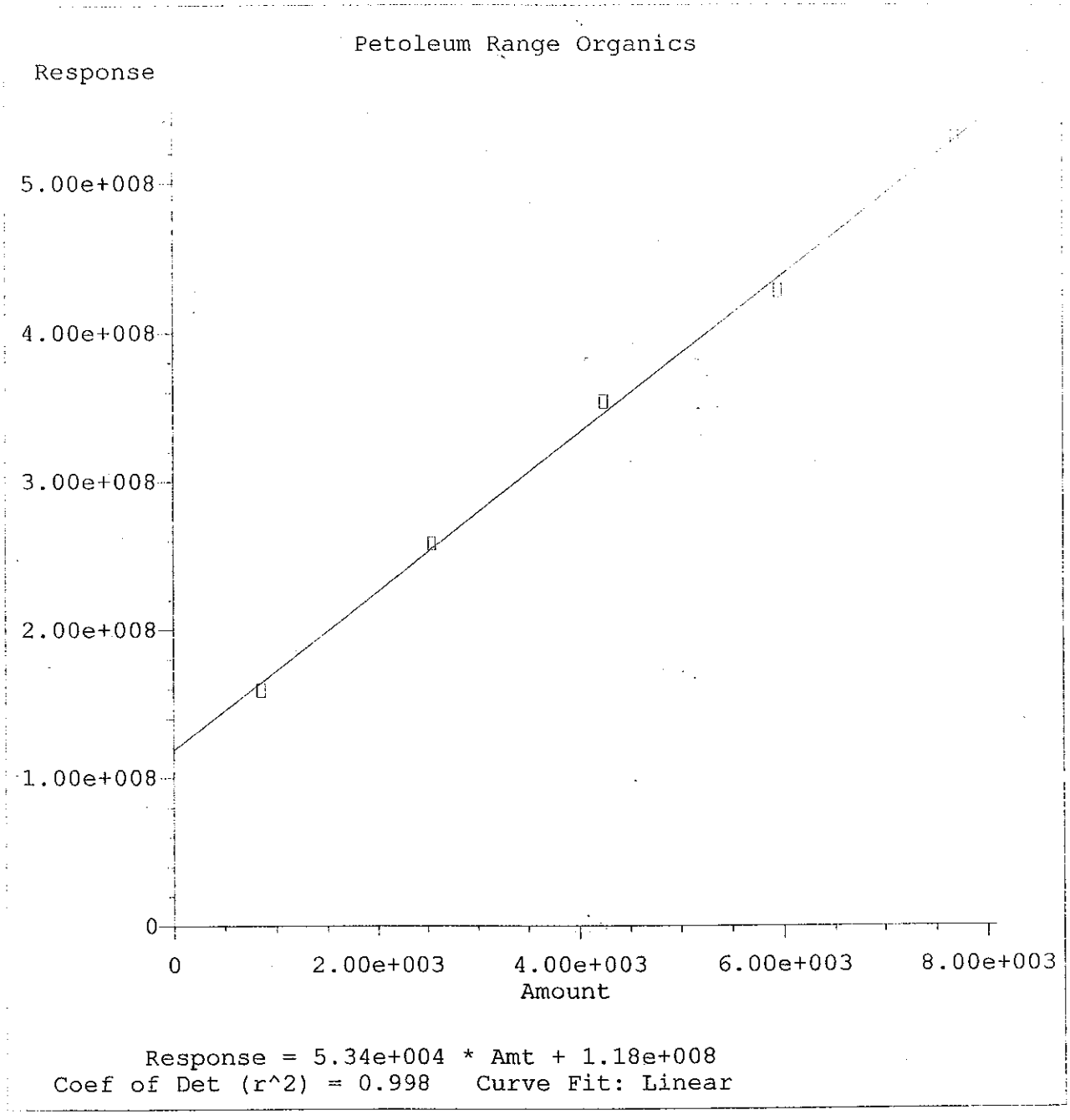
Calibration Files
1 =P00002.D 2 =P00003.D 3 =P00028.D
4 =P00005.D 5 =P00006.D

	Compound	1	2	3	4	5	Avg		%RSD
1) HM	Petoleum Range Organi	1.873	1.012	0.832	0.719	0.690	1.025	E5	47.84
2) SC	o-Terphenyl	6.059	6.608	6.937	6.381	6.748	6.547	E4	5.19
3) SC	C(39)	4.735	5.204	5.175	4.580	4.035	4.746	E4	10.14

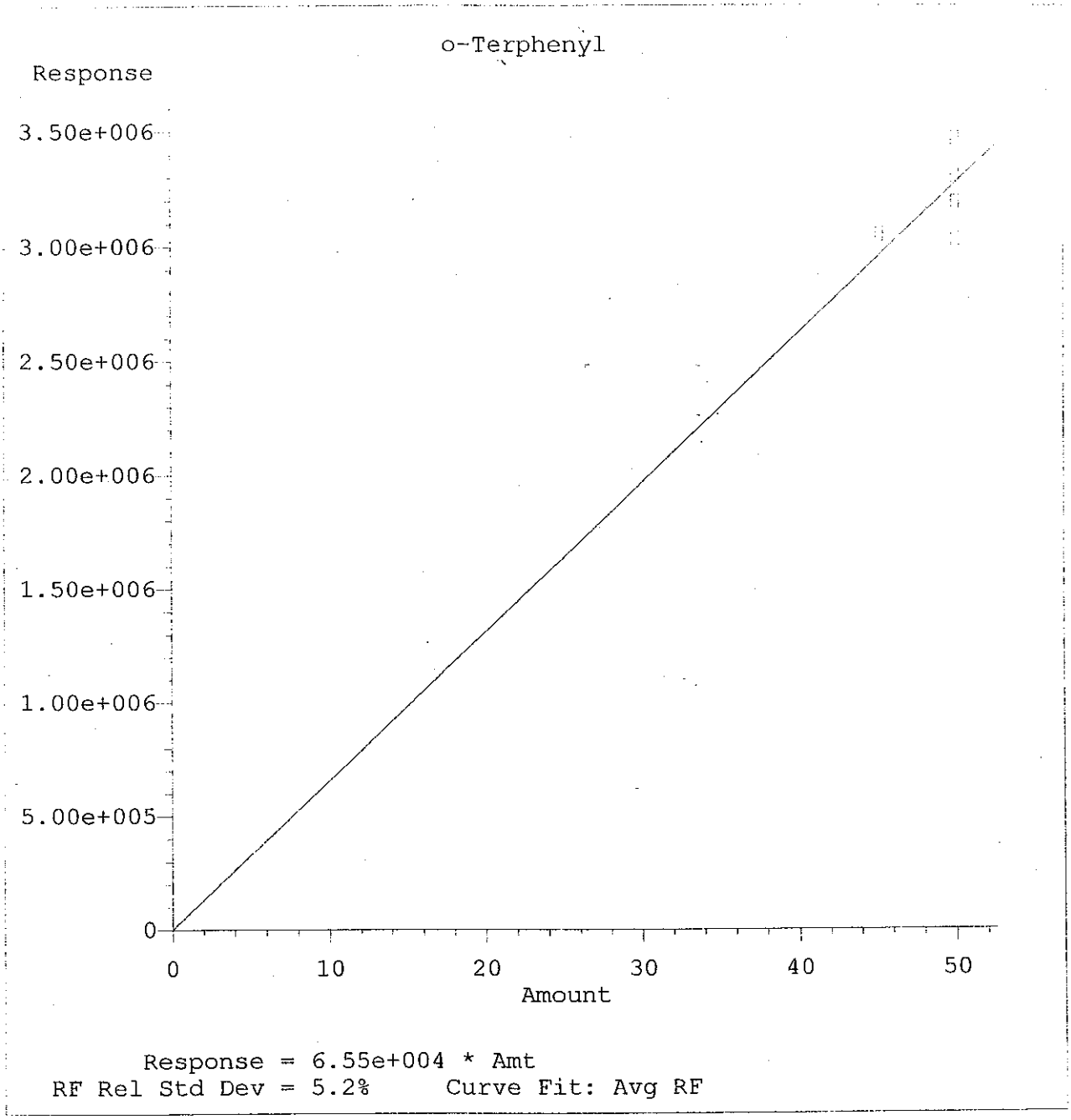
(#) = Out of Range

+ See attached

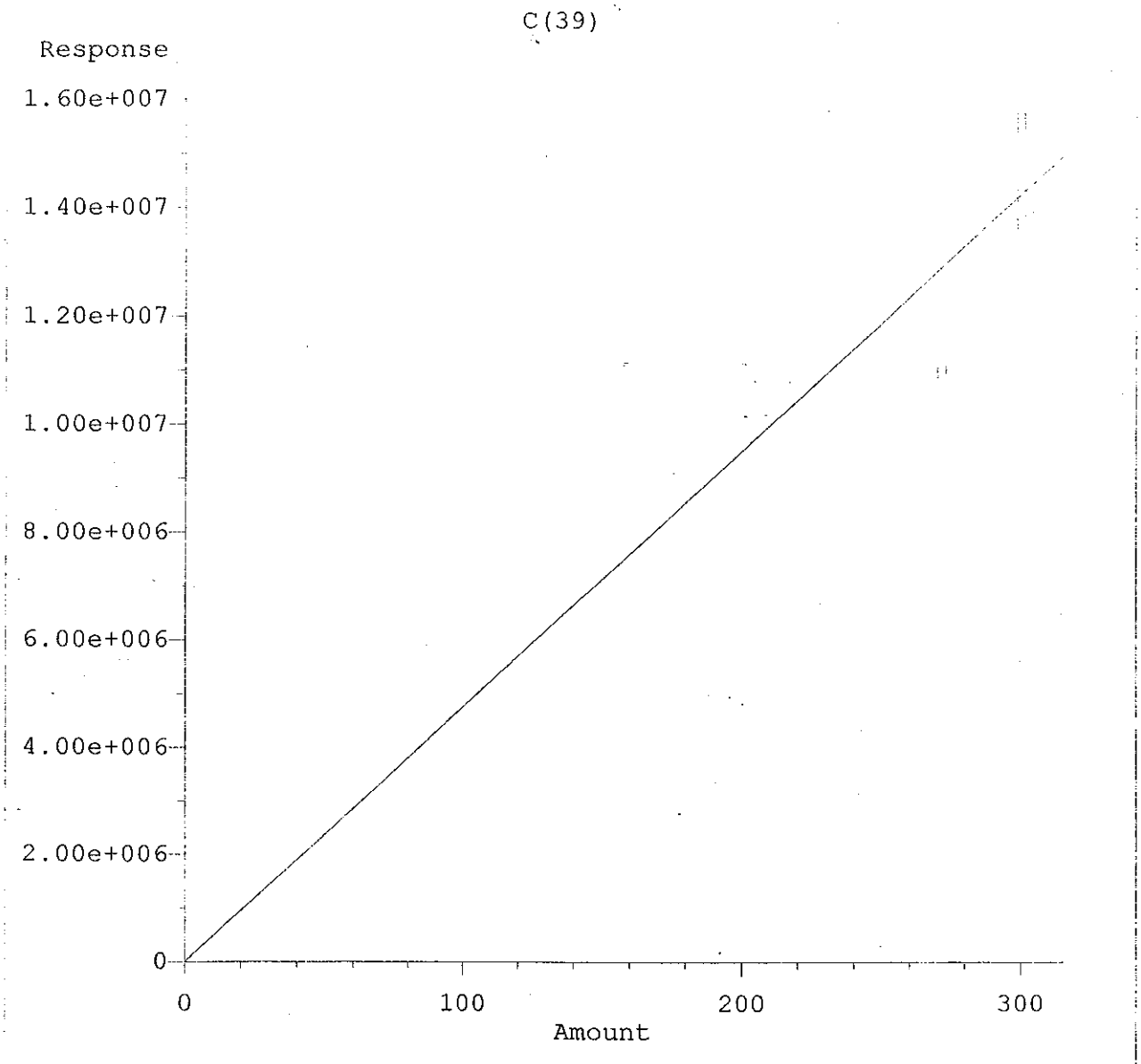
PRO0816.M Thu Aug 23 07:31:01 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001



Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001



Response = 4.75e+004 * Amt
RF Rel Std Dev = 10.1% Curve Fit: Avg RF

Method Name: C:\HPCHEM\1\METHODS\PRO0816.M
Calibration Table Last Updated: Fri Aug 17 07:07:17 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00002.D Vial: 2
Acq On : 08/16/01 21:21 Operator:
Sample : 850 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:01 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3029633	43.969 ug/mlm
Spiked Amount 50.000	Recovery = 87.94%		
3) SC C(39)	37.71f	14204058	395.947 ug/mlm
Spiked Amount 300.000	Recovery = 131.98%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	159170716	1846.664 ug/ml

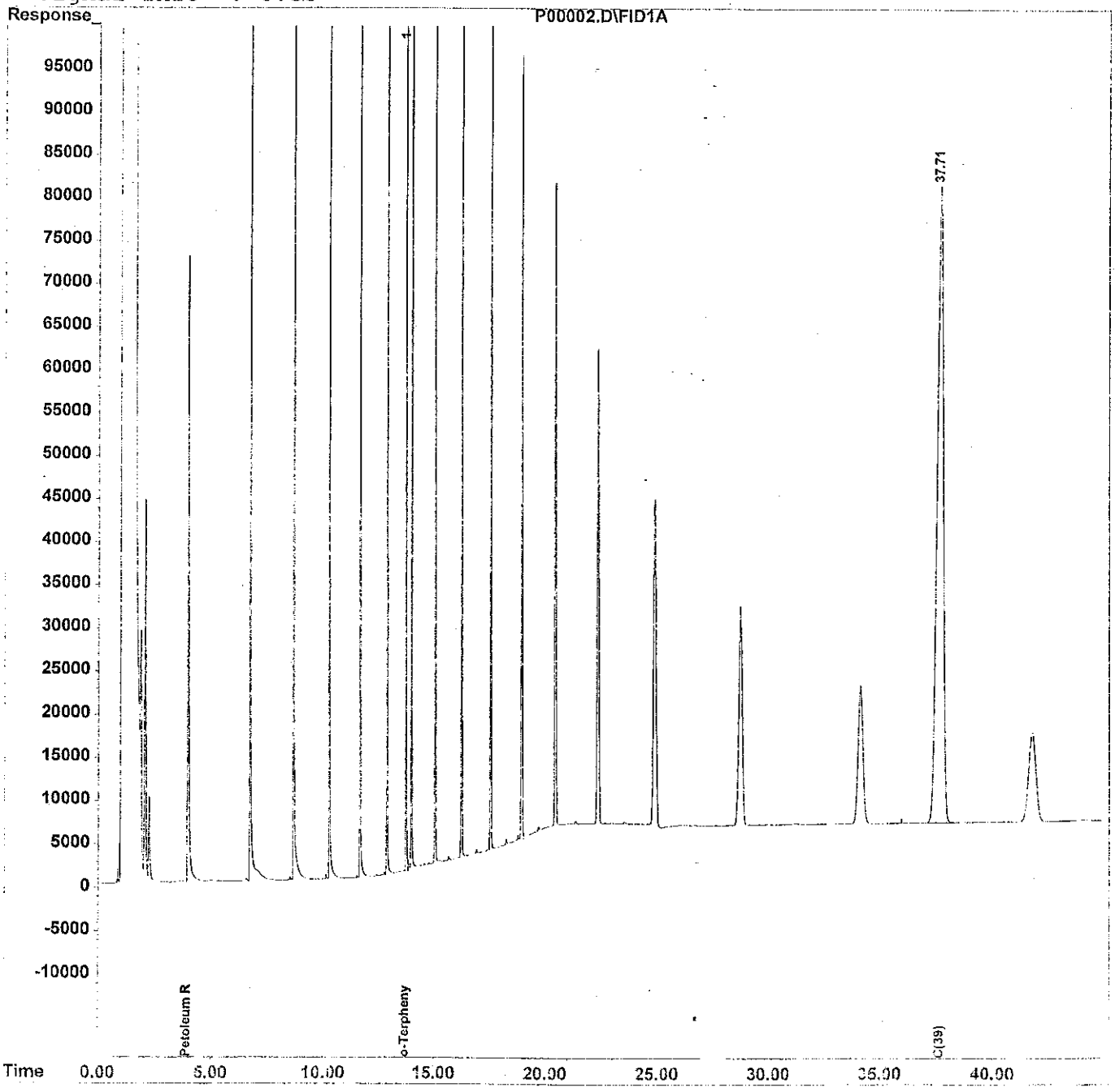
(f)=RT Delta > 1/2 Window (m)=manual Int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00002.D Vial: 2
Acq On : 08/16/01 21:21 Operator:
Sample : 850 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:01 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



P00002.D PRO0727.M Tue Aug 21 08:28:48

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00003.D Vial: 3
Acq On : 08/16/01 22:16 Operator:
Sample : 2550 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:07 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

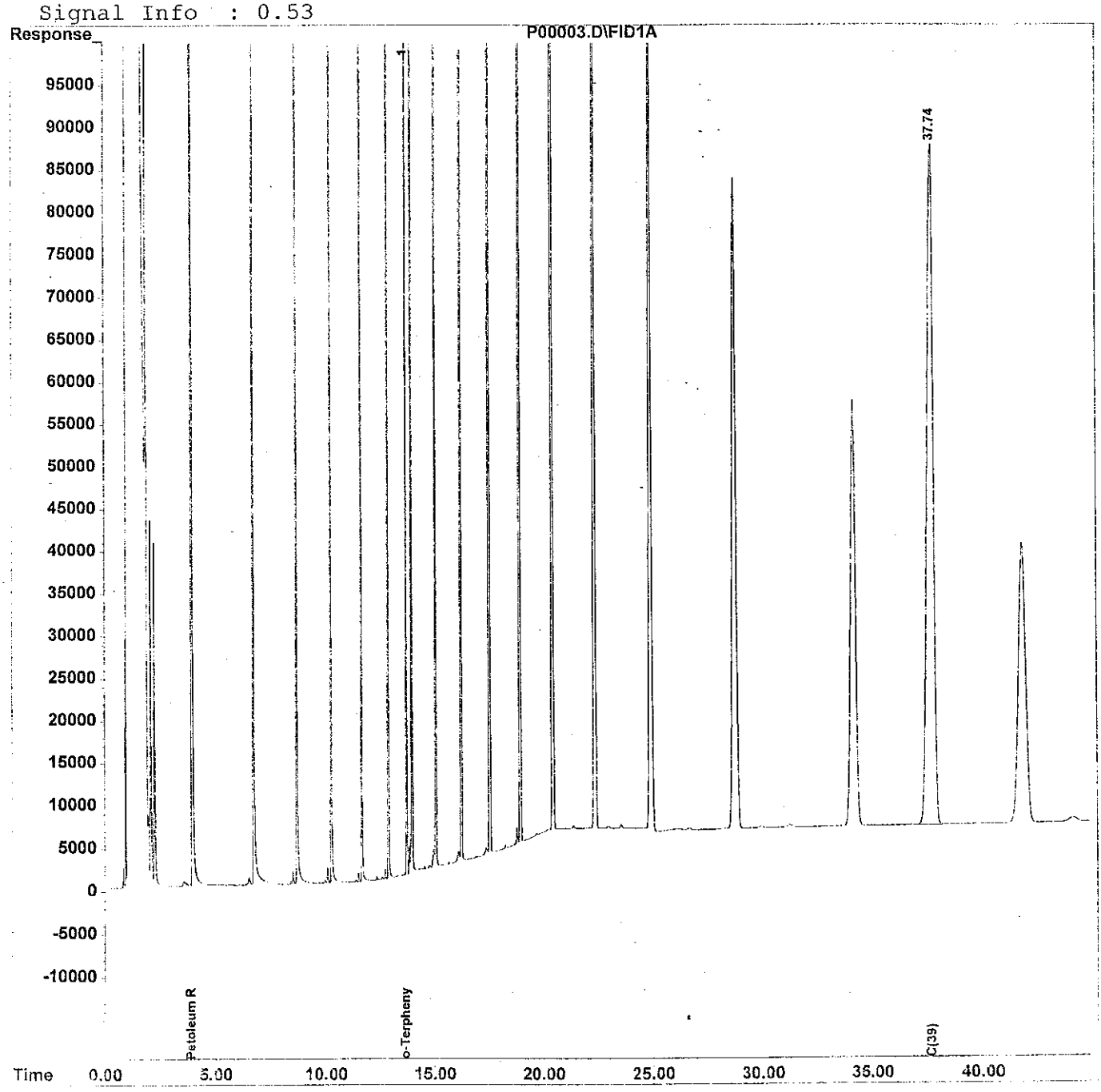
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3303946	47.951 ug/ml
Spiked Amount 50.000	Recovery =		95.90%
3) SC C(39)	37.74f	15612724	435.214 ug/mlm
Spiked Amount 300.000	Recovery =		145.07%
Target Compounds			
1) HM Petoleum Range Organics	3.93	258056852	3805.625 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00003.D Vial: 3
Acq On : 08/16/01 22:16 Operator:
Sample : 2550 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:07 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\081601\P00004.D           Vial: 4
Acq On    : 08/16/01 23:11                           Operator:
Sample    : 4250 PHS FLPRO IC                        Inst     : HPGCO
Misc      :                                          Multiplr: 1.00
IntFile   : PRO0914.e
Quant Time: Aug 17  7:02 2001  Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title        : FL PRO
Last Update  : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj.  : 2
Signal Phase : RTX-5
Signal Info  : 0.53
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3468746	50.342 ug/ml
Spiked Amount 50.000	Recovery	=	100.68%
3) SC C(39)	37.72f	15523893	432.738 ug/mlm
Spiked Amount 300.000	Recovery	=	144.25%
Target Compounds			
1) HM Petoleum Range Organics	3.93	353672737	5699.801 ug/ml

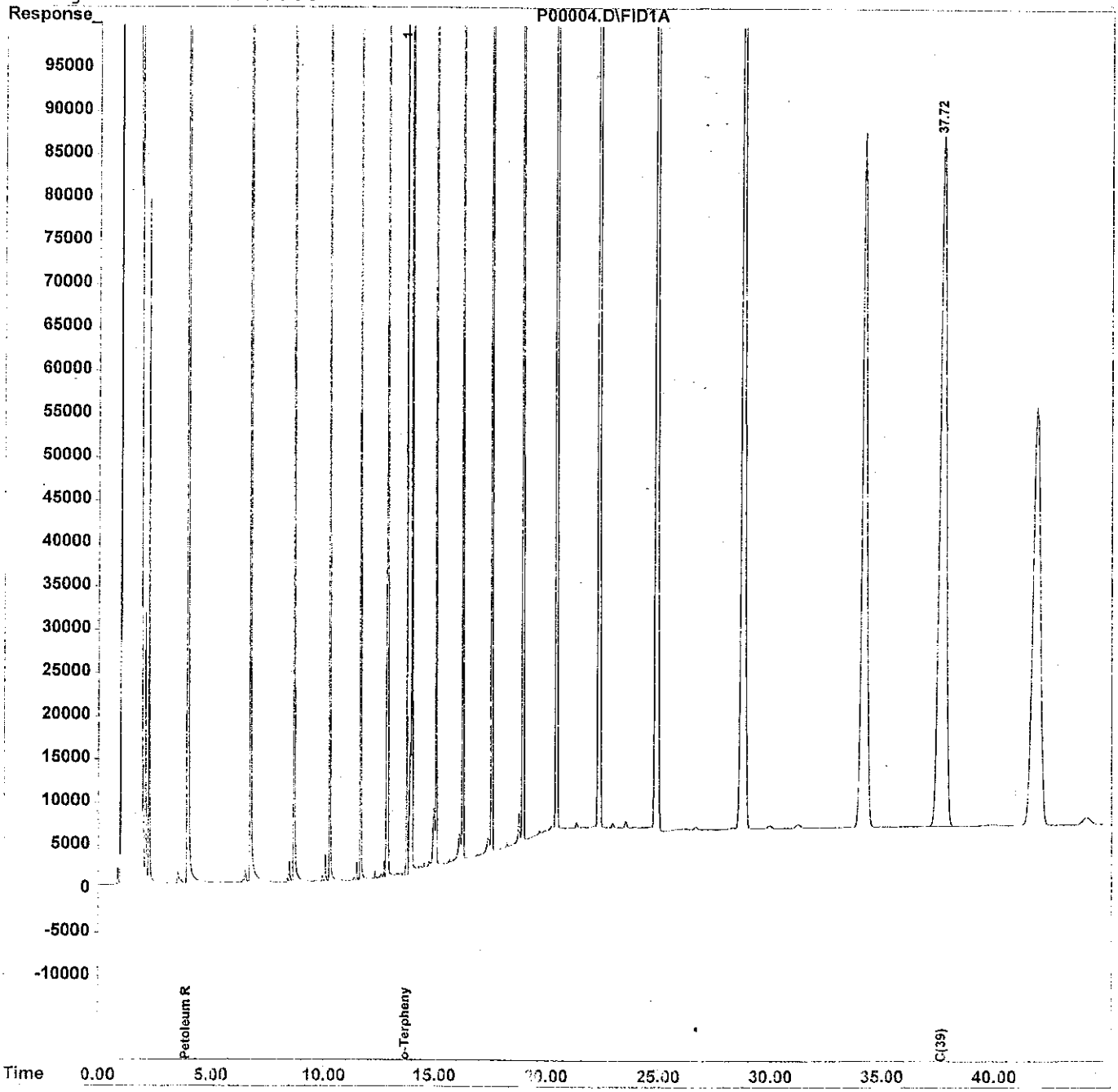
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00004.D
Acq On : 08/16/01 23:11
Sample : 4250 PHS FLPRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 7:02 2001 Quant Results File: PRO0727.RES

Vial: 4
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00005.D
Acq On : 08/17/01 00:05
Sample : 5950 PHS FLPRO IC
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 7:03 2001 Quant Results File: PRO0727.RES

Vial: 5
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

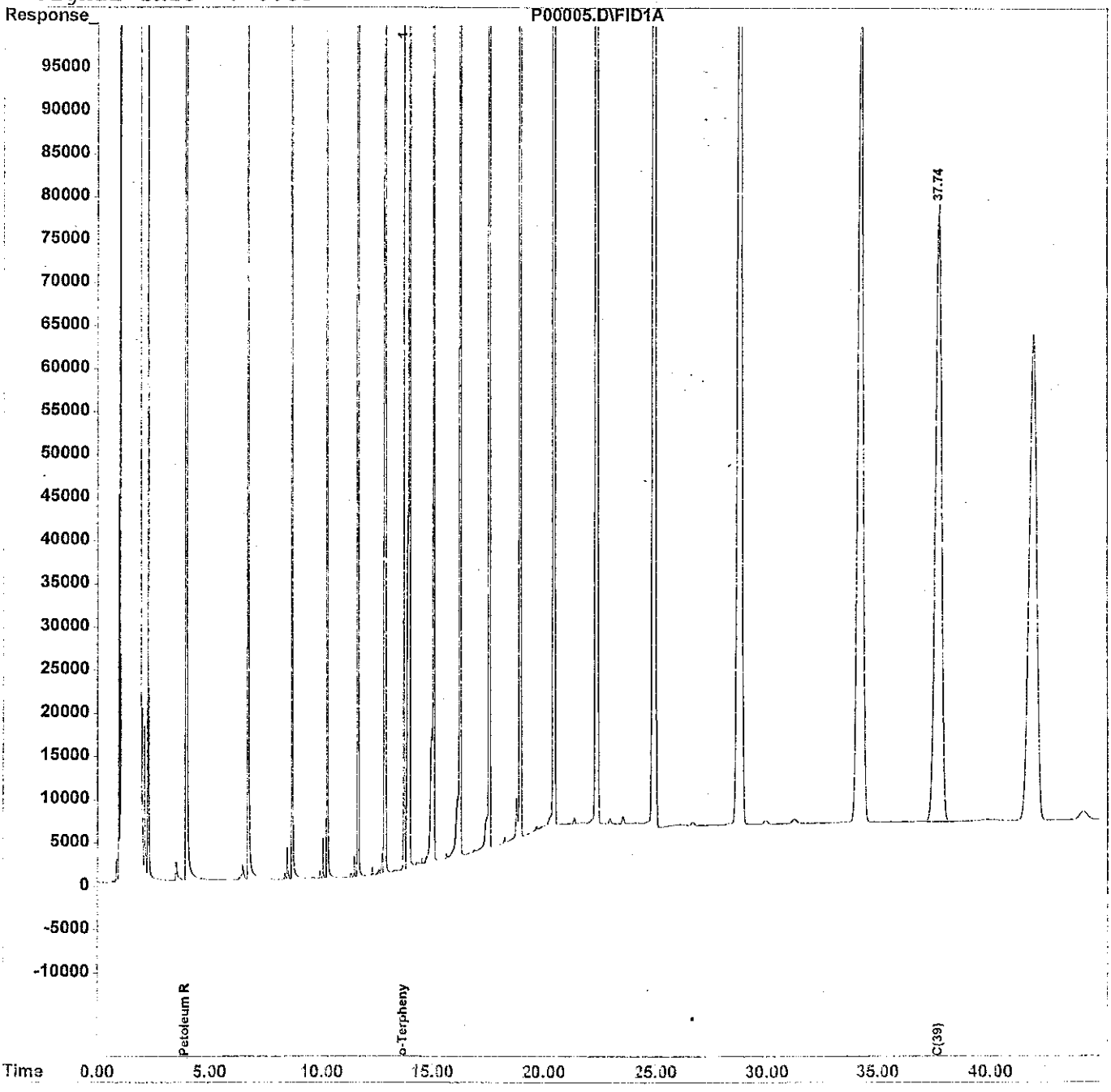
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3190581	46.305 ug/ml
Spiked Amount 50.000	Recovery =		92.61%
3) SC C(39)	37.74f	13738837	382.979 ug/mlm
Spiked Amount 300.000	Recovery =		127.66%
Target Compounds			
1) HM Petoleum Range Organics	3.93	427760586	7167.501 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00005.D Vial: 5
Acq On : 08/17/01 00:05 Operator:
Sample : 5950 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:03 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



P00005.D PRO0727.M Tue Aug 21 06:28:56 20

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00006.D Vial: 6
Acq On : 08/17/01 01:00 Operator:
Sample : 7692 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:04 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

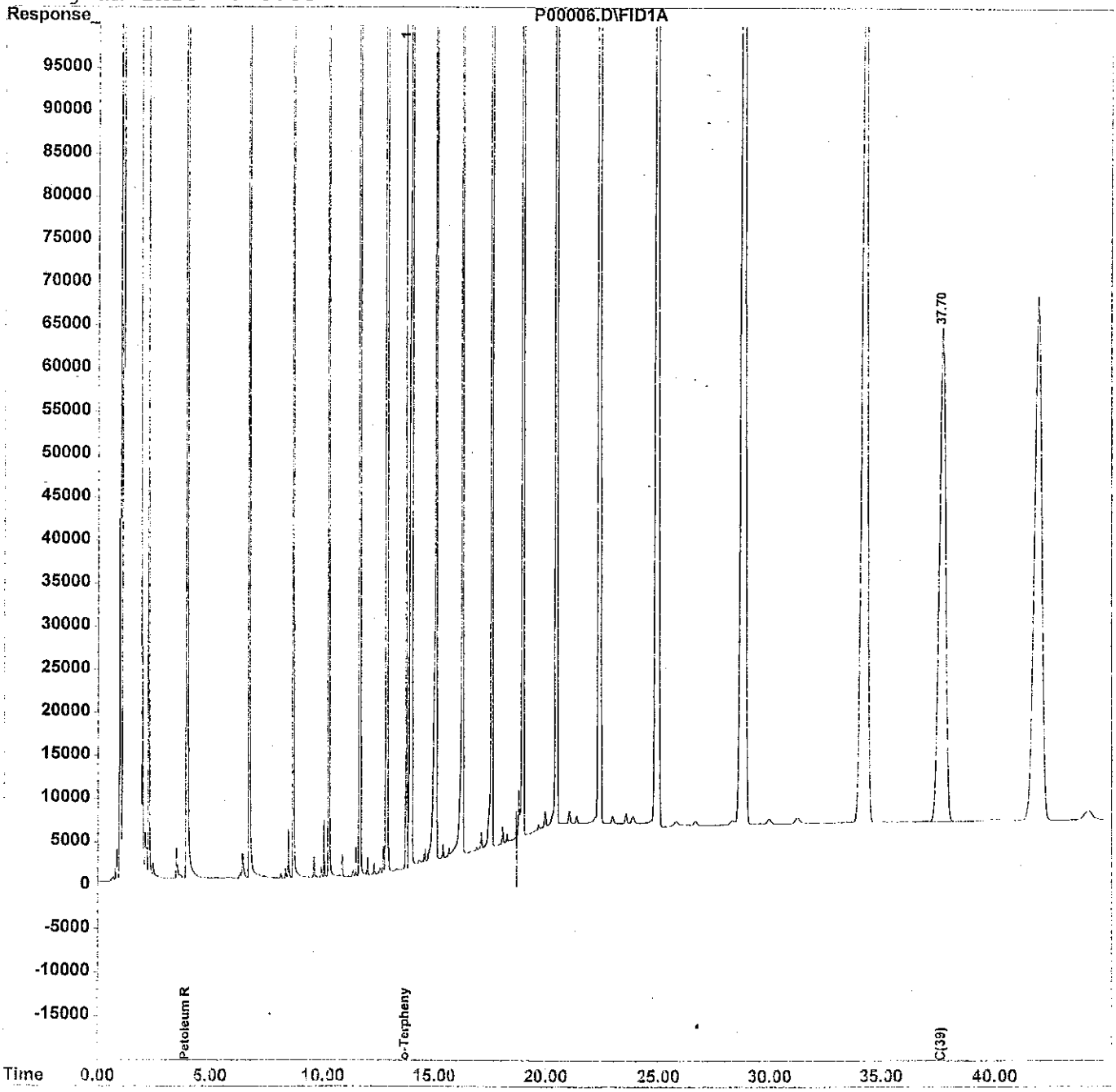
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3050246	44.269 ug/ml
Spiked Amount 50.000	Recovery = 88.54%		
3) SC C(39)	37.70f	10955271	305.385 ug/mlm
Spiked Amount 300.000	Recovery = 101.80%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	530499415	9202.785 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00006.D Vial: 6
Acq On : 08/17/01 01:00 Operator:
Sample : 7692 PHS FLPRO IC Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 7:04 2001 Quant Results File: PRO0727.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0727.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Jul 27 18:21:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00007.D Vial: 7
Acq On : 08/17/01 01:54 Operator:
Sample : 4250 PHS FLPRO ICV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 9:08 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 09:03:49 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	3306040	50.498 ug/ml
Spiked Amount 50.000	Recovery = 101.00%		
3) SC C(39)	37.76	15168687	319.633 ug/mlm
Spiked Amount 300.000	Recovery = 106.54%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	345716891	4256.243 ug/ml

(f)=RT Del- '2 Window (m)=manual int.

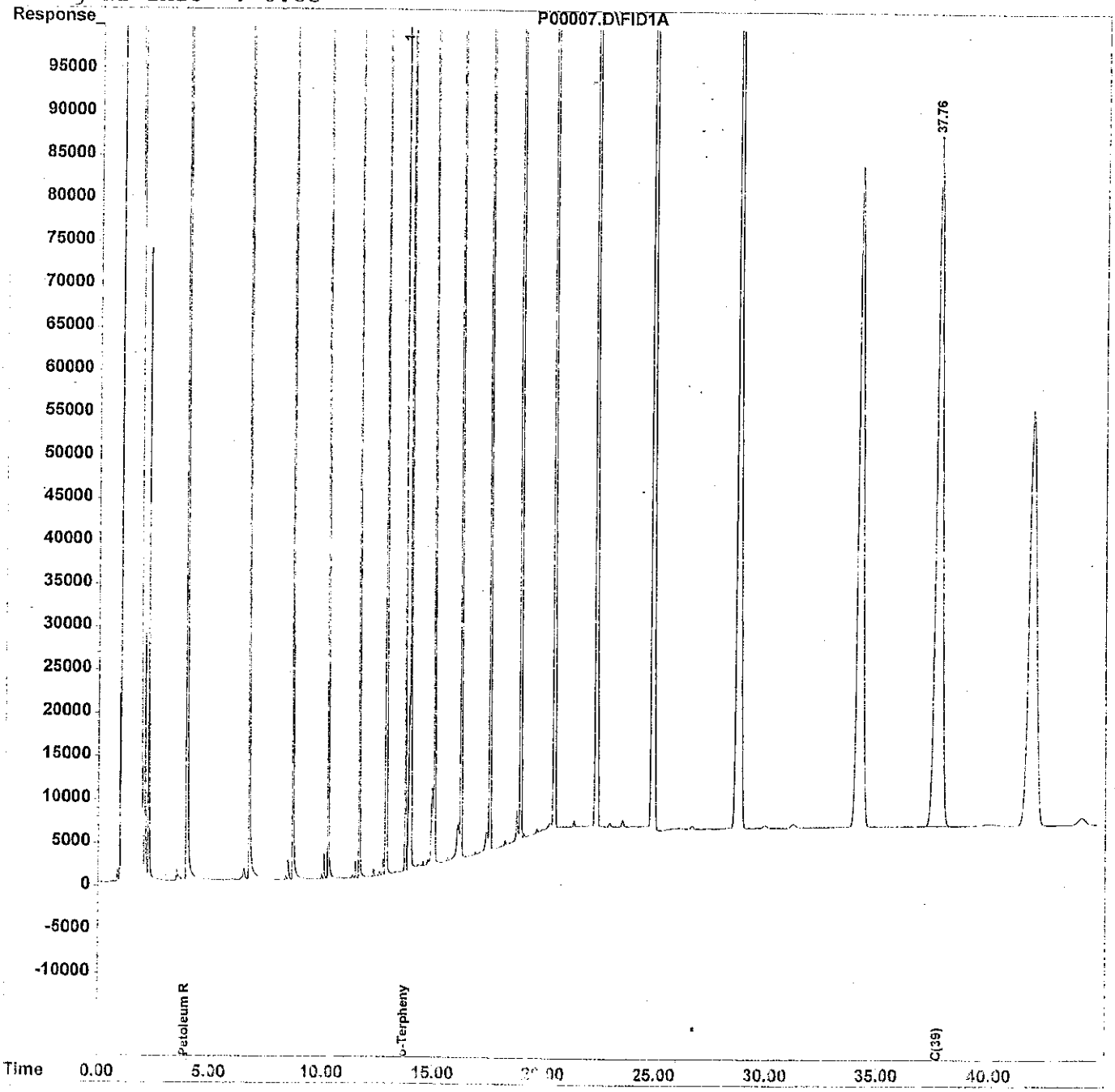
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00007.D
Acq On : 08/17/01 01:54
Sample : 4250 PHS FLPRO ICV
Misc :
IntFile : PRO0914.e
Quant Time: Aug 17 9:08 2001 Quant Results File: PRO0816.RES

Vial: 7
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 09:03:49 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Standard Name: FL-PRO ICAL
Lab Standard ID#: 015V194-98
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot\Lab ID#	Conc.	Amount Used	Final Conc.
FL-PRO Std.	EX01254-1.23	500ppm	100ul	850 PHS
			300ul	2550
			500ul	4250
			700ul	5950
			1000ul	7692
OTP	EX99102-10	10,000ppm	5.0ul	50ppm
C(39)	501A104	3,000PPM	100ul	300ppm
MeCl2	EX01277	100%	All diluted to 100	0ul except 015V198
015V198 OTP=45.2 + C39=27		1.5ppm	respectively	

Standard Name: FLPRO ICV
Lab Standard ID#: 015V199
Prepared By: RL/RPS

Date Made: 08/16/01
Expire Date: 02/16/01
Matrix: MeCl2

Standard	Lot\Lab ID#	Conc.	Amount Used	Final Conc.
FLPRO ICV Std.	501A106	500ppm	500ul	4250PHS
OTP ICV	EX01203	10,000ppm	5ul	50PPM
C(39)ICV	EX01216-5	3,000PPM	100ul	300 PPM
MeCl2	EX01277	100%	Diluted to final	volume of
			1000ul	

RL 2/21/01

Jon CLS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 15:34 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	3297387	50.366 ug/mlm
Spiked Amount 50.000	Recovery = 100.73%		
3) SC C(39)	37.54f	15669117	330.178 ug/mlm
Spiked Amount 300.000	Recovery = 110.06%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	364558029	4609.032 ug/ml

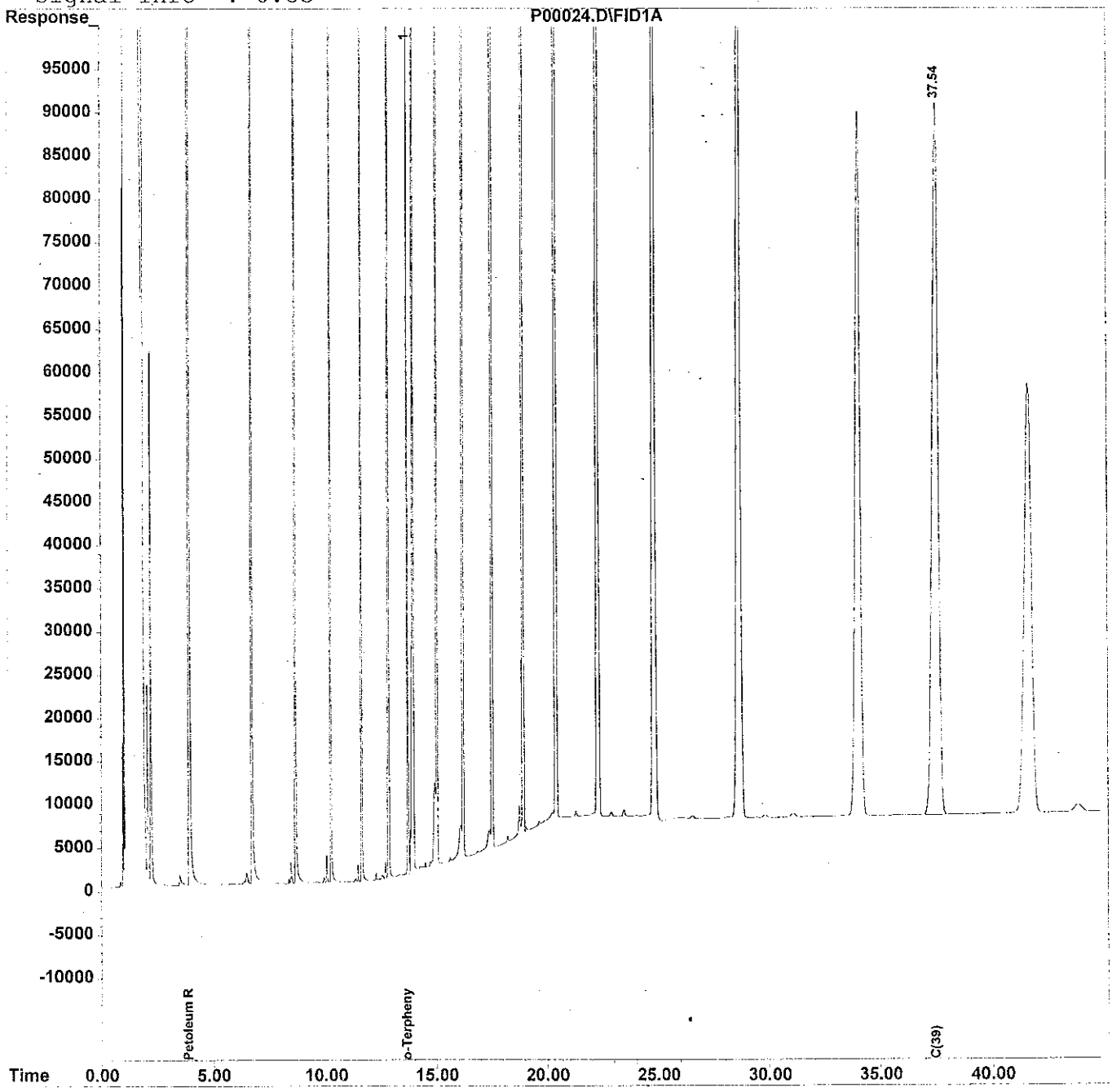
(f)=RT Delta > 1/2 Windo (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00024.D Vial: 24
Acq On : 08/17/01 17:22 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:20 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00018.D Vial: 18
Acq On : 08/17/01 11:51 Operator:
Sample : 4250 PHS PRO CCV Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 23 7:38 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.72	2925454	44.685 ug/ml
Spiked Amount 50.000	Recovery =		89.37%
3) SC C(39)	37.60f	13559226	285.719 ug/mlm
Spiked Amount 300.000	Recovery =		95.24%
Target Compounds			
1) HM Petoleum Range Organics	3.93	328617182	3936.062 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

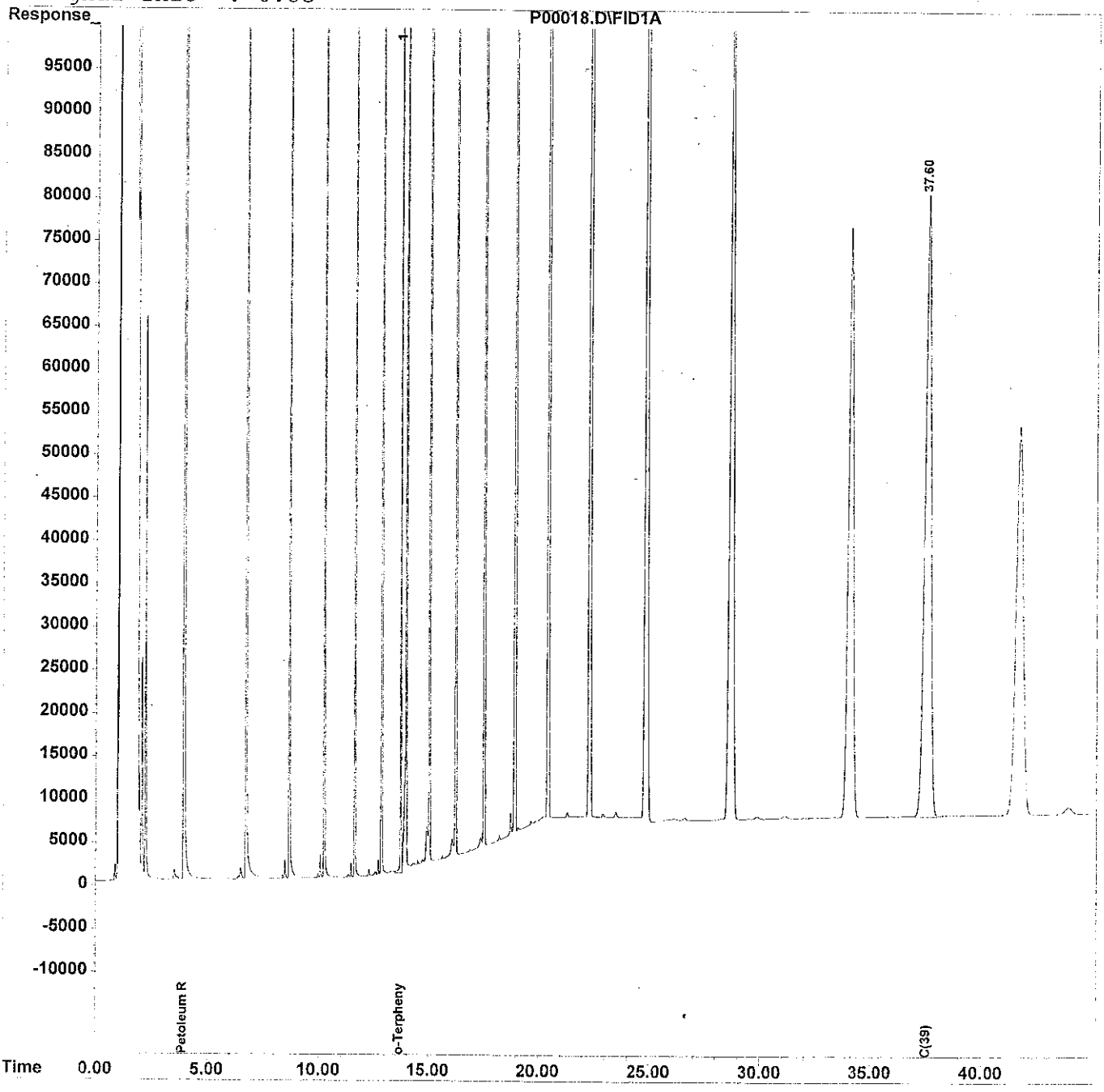
Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00018.D
Acq On : 08/17/01 11:51
Sample : 4250 PHS PRO CCV
Misc :
IntFile : PRO0914.e
Quant Time: Aug 23 7:38 2001 Quant Results File: PRO0816.RES

Vial: 18
Operator:
Inst : HPGCO
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00020.D Vial: 20
Acq On : 08/17/01 13:41 Operator:
Sample : 17978 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:17 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	2642333	40.360 ug/mlm
Spiked Amount 50.000	Recovery =		80.72%
3) SC C(39)	37.52f	6082728	128.175 ug/mlm
Spiked Amount 300.000	Recovery =		42.73%
Target Compounds			
1) HM Petoleum Range Organics	3.93	132767695	268.900 ug/ml

$268.900 \text{ ug/ml} \times \frac{1 \text{ ml}}{1000} = \text{DL}$

$= 0.27\text{J ppm}$

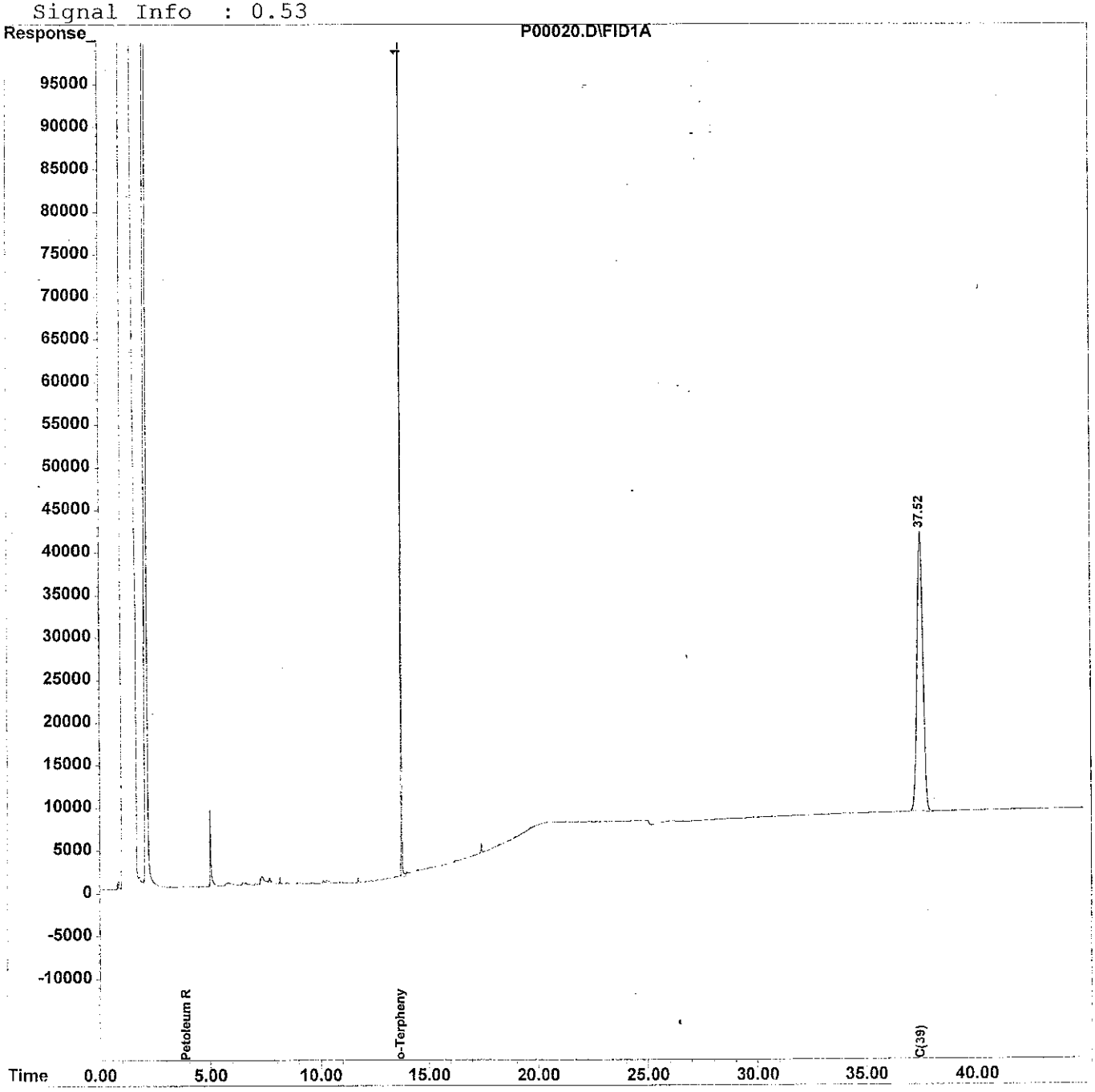
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00020.D Vial: 20
Acq On : 08/17/01 13:41 Operator:
Sample : 17978 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:17 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00021.D Vial: 21
Acq On : 08/17/01 14:36 Operator:
Sample : 17979 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:18 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	1131346	17.281 ug/mlm
Spiked Amount 50.000	Recovery =		34.56%
3) SC C(39)	37.46f	3682893	77.606 ug/mlm
Spiked Amount 300.000	Recovery =		25.87%
Target Compounds			
1) HM Petoleum Range Organics	3.93	130951726	234.898 ug/ml

$\frac{1ml}{980} = .001$ (0.245 ppm)

RDL = $\frac{1000 \mu l/ml}{980}$

RDL = 1.02 = 1.0

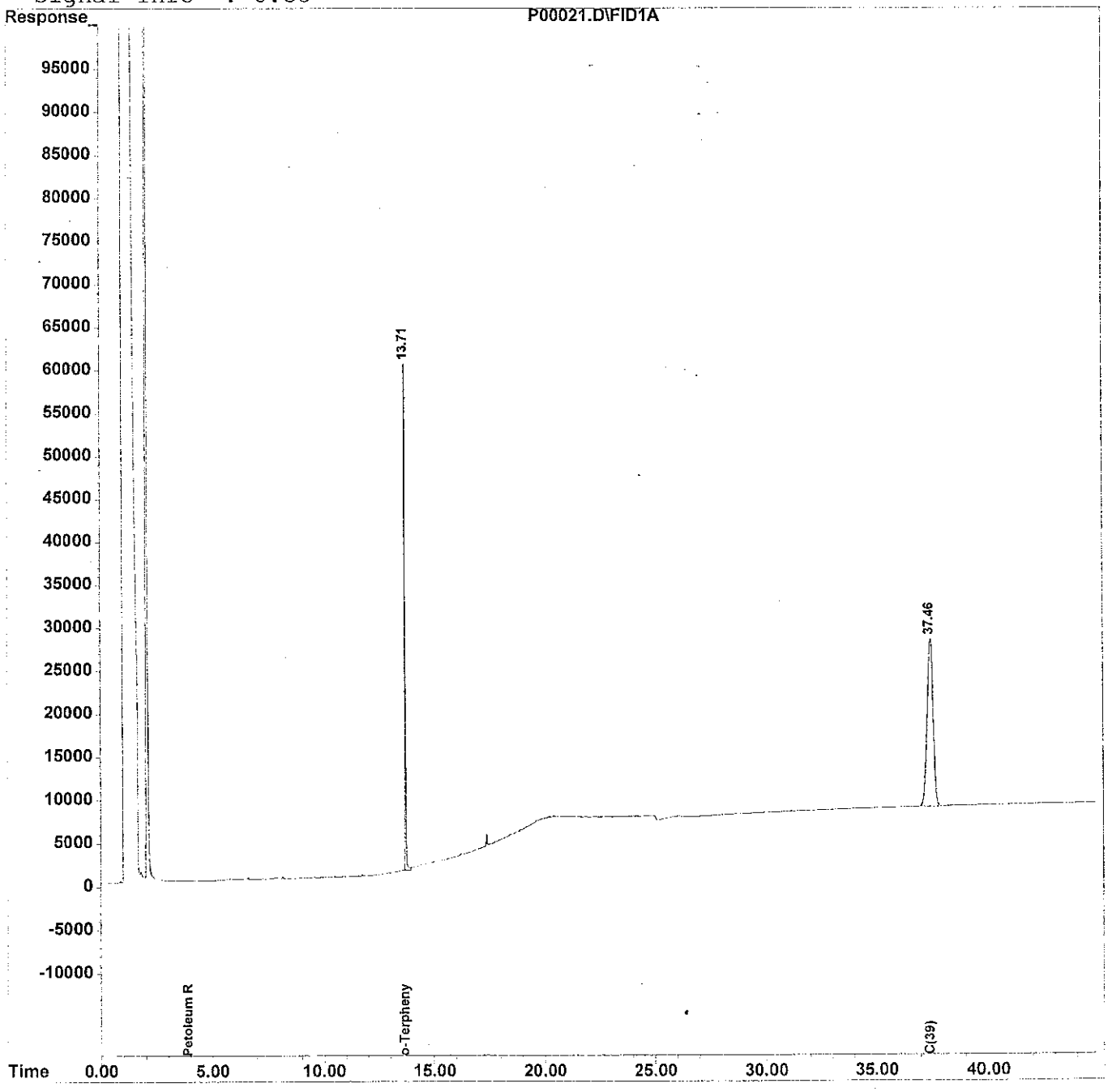
(f)=RT Delta 2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00021.D Vial: 21
Acq On : 08/17/01 14:36 Operator:
Sample : 17979 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:18 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00022.D Vial: 22
Acq On : 08/17/01 15:32 Operator:
Sample : 17982 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:31 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.71	1534902	23.445 ug/mlm
Spiked Amount 50.000	Recovery = 46.89%		
3) SC C(39)	37.48f	6011595	126.676 ug/mlm
Spiked Amount 300.000	Recovery = 42.23%		
Target Compounds			
1) HM Petoleum Range Organics	3.93	126856155	158.210 ug/ml

$\frac{1\text{ml}}{955} = <DL$

$ROL = \frac{1000 \times 1\text{ml}}{955}$

$ROL = 1.05 = 1.1$

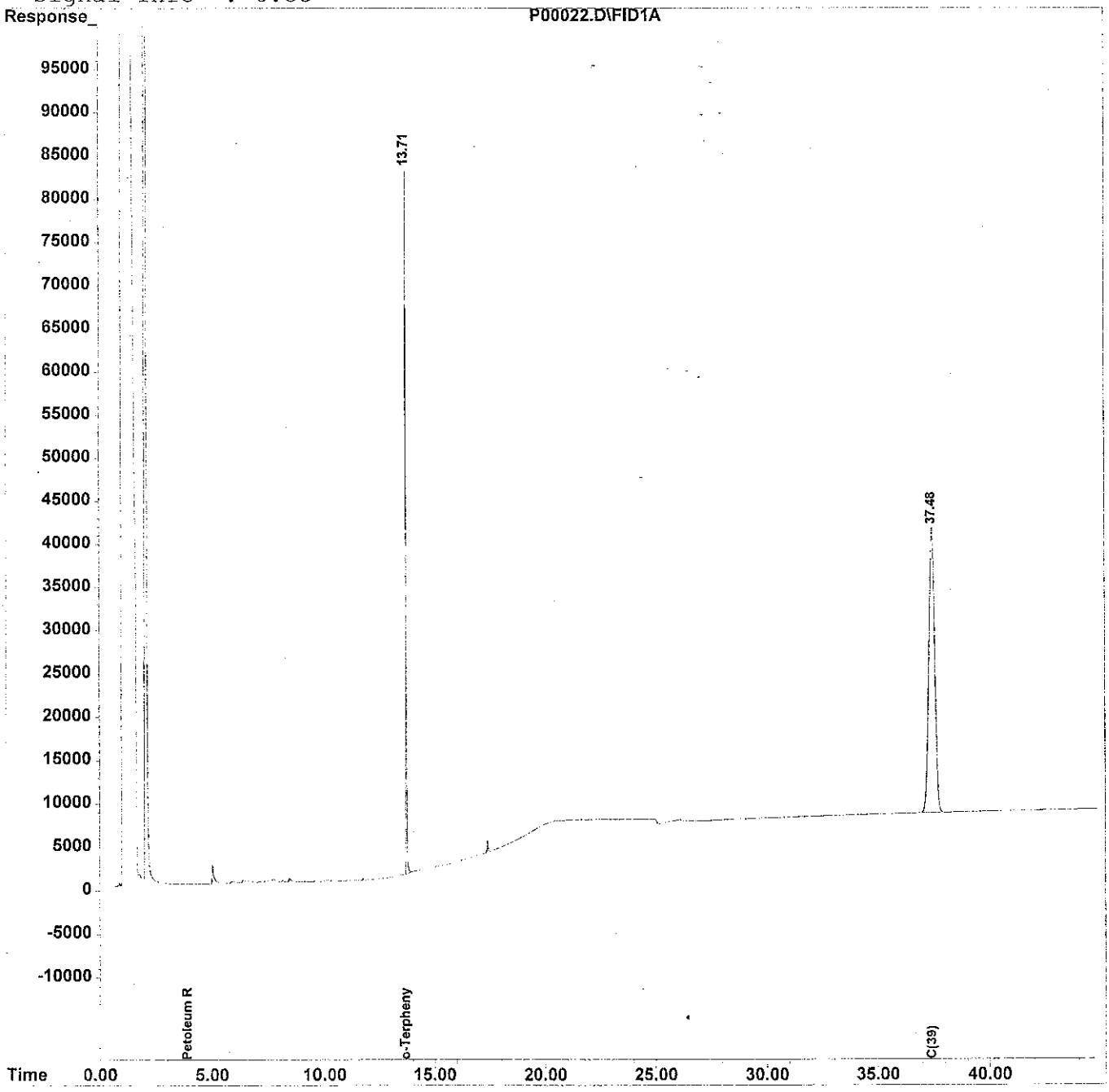
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00022.D Vial: 22
Acq On : 08/17/01 15:32 Operator:
Sample : 17982 W Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 24 12:31 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00009.D Vial: 9
Acq On : 08/17/01 03:42 Operator:
Sample : QFW080801-1 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 8:51 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.73	2312019	35.315 ug/ml
Spiked Amount 50.000		Recovery =	70.63%
3) SC C(39)	37.66	2681671	56.508 ug/ml
Spiked Amount 300.000		Recovery =	18.84%
Target Compounds			
1) HM Petoleum Range Organics	3.93	106731250	N.D. ug/ml

=2DL

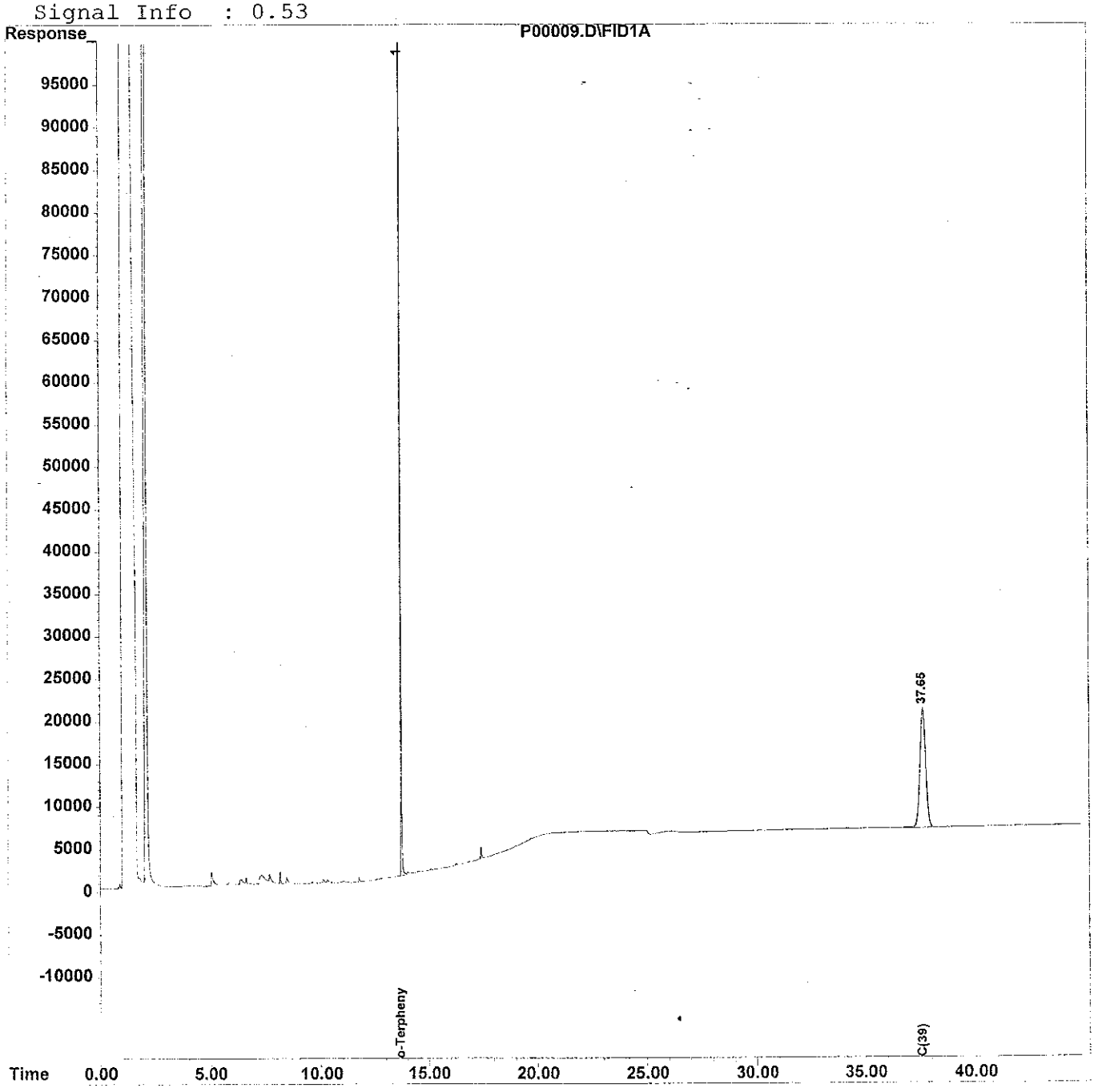
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081601\P00009.D Vial: 9
Acq On : 08/17/01 03:42 Operator:
Sample : QFW080801-1 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 17 8:51 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081601\P00010.D Vial: 10
Acq On : 08/17/01 04:36 Operator:
Sample : QFW080801-2 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:06 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Initial Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SC o-Terphenyl	13.73	1987959	30.365 ug/mlm
Spiked Amount 50.000	Recovery =		60.73%
3) SC C(39)	37.67	3191566	67.252 ug/mlm
Spiked Amount 300.000	Recovery =		22.42%
Target Compounds			
1) HM Petoleum Range Organics	3.93	243729173	2346.586 ug/ml

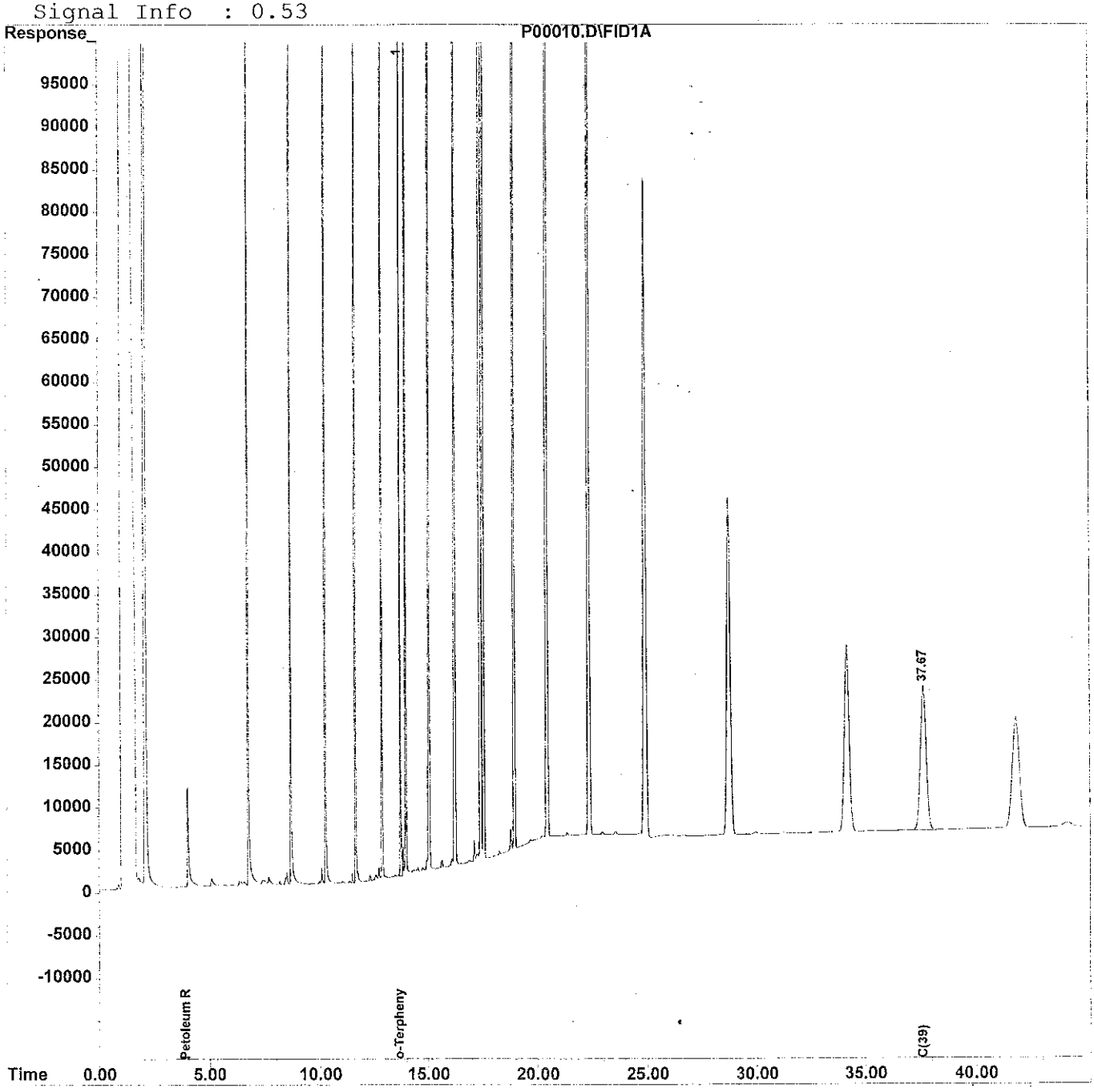
2.347 : 4.25 = 55% 94%

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\081601\P00010.D Vial: 10
Acq On : 08/17/01 04:36 Operator:
Sample : QFW080801-2 Inst : HPGCO
Misc : Multiplr: 1.00
IntFile : PRO0914.e
Quant Time: Aug 21 8:06 2001 Quant Results File: PRO0816.RES

Quant Method : C:\HPCHEM\1\METHODS\PRO0816.M (Chemstation Integrator)
Title : FL PRO
Last Update : Fri Aug 17 07:07:17 2001
Response via : Multiple Level Calibration
DataAcq Meth : PRO0727.M

Volume Inj. : 2
Signal Phase : RTX-5
Signal Info : 0.53



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Mercury Waters and Leachates Digestion Log

curve facts 0.9993

Date: 8/17/01-8/20/01
Start Time: 900
End Time: 1208
Analyst(s): KC
Matrix: Water/TCLP
Method: 7470A

Batch #: 081701hg
Lot #'s:
$SnCl_2$: MRP090C
HNO_3: 99295
H_2SO_4: 99285
$K_2S_2O_8$: MRP089L

Water Bath Temp.: 95°C
NaCl-Hydroxylamine Sulfate: MRP088N
Mercury Std.: MS5002X
Mercury ICV Std.: MS5002V
Potassium Permanganate: MRP088S

AAL #	Bottle #	Sample Vol. (mL)	HNO_3 (mL)	H_2SO_4 (mL)	K2S2O8 (mL)	KMnO4 (mL)	NaCl-Hydroxyl-amine Sulfate	Final Vol (mL)	Dilution Factor	Spike Amt. Added	Results (ppb)	Comments
Blank	Blank	50	2.5	5	8	15	6	100	1:2	—		
0.5	4									0.5	0.733	
1.0	1000									1.0	1.067	
3.0	32									3.0	2.939	
5.0	52									5.0	4.813	
10.0	6									10.0	10.06	
ICV	19									3.0	2.963	
CCV	71									3.0		
water BLK	304									—	<EDL	0.00025J
water LCS	58									3.0	3.209	107%
17450	31									—	0.198	
17451	102										0.337	
17452	2000										0.342	
17453	2001										0.447	
17454	2002										0.260	
17455	2003										0.277	
17456	48										0.141	
17457	52										0.204	
17458	302										0.099	
17459	45										0.148	

Reviewed By: _____

ACCURA ANALYTICAL

Environmental Analytical Services

Mercury Waters and Leachates Digestion Log

Date:_____ Batch #:_____ Water Bath Temp.:_____

Start Time:_____ Lot #'s:

End Time:_____ $SnCl_2$:_____ NaCl-Hydroxylamine Sulfate:_____

Analyst(s):_____ HNO_3:_____ Mercury Std.:_____

Matrix: Water/TCLP H_2SO_4: see 14 Mercury ICV Std.:_____

Method: 7470A $K_2S_2O_8$:_____ Potassium Permanganate:_____

AAL #	Bottle #	Sample Vol. (mL)	HNO_3 (mL)	H_2SO_4 (mL)	K2S2O8 (mL)	KMnO4 (mL)	NaCl-Hydroxyl-amine Sulfate	Final Vol (mL)	Dilution Factor	Spike Amt. Added	Results (ppb)	Comments
174160	16	50	2.5	5	8	15	6	100	1:2	—	0.176	
17934	30	↓	↓	↓	↓	↓	↓	↓	↓	↓	0.035	
17981	23										0.129	CRDL
18052	34										0.304	
18302	64										0.456	
18303	51										0.115	
18304	67										2.199	
18304D	57										2.229	
18302MS	29									3.0	3.168	90% KCS 8/28/01
18302MSD	14									3.0	3.188	91% KCS 8/29/01
18505	23									—	0.035	
18506	69	↓	↓	↓	↓	↓	↓	↓	↓	—	0.050	
CCB	—	—	—	—	—	—	—	—	—	—	<DL	
CCV	—									3.0	3.235	108%
CCB	—									—	<DL	
CCV	—									3.0	2.899	97%
CCB	—									—	<DL	
CCV	—	↓	↓	↓	↓	↓	↓	↓	↓	3.0	3.075	103%
							8/20/01					

Reviewed By:_____ Hgdigwtr page# 015

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Checklist

Project #: 28530 **Instrument Used: Trace ICAP/ICAP/GFAA/FIMS Hg**

Analyst Questions

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? 1 ✓ If not, why, or are the samples being reanalyzed? _____
3. Duplicate AAL sample number 18304
   Is the RPD acceptable? ✓ If not, what is the reason? _____
4. MS/MSD AAL sample number 18303
   Are the recoveries acceptable? ✓ If not, what is the reason? _____
5. Sample numbers requiring dilution? – _____ _____ _____ _____ _____ _____
   Reason for dilution. – _____
6. Are all special requirements on project sheet completed? ✓ If unable to complete, has the project manager been notified? _____
7. Any additional comments. – _____
   _____

Reviewer Questions

8. Is the ICV within ± 10% for 6010B, or 5% for 200.7? ✓
9. For Hg and GFAA, is the curve acceptable, (>0.995 correlation coefficient)? ✓
10. Verified the correct date & time; sample results with sigfigs in LIMS ✓
11. Verified the RDL and its sigfigs according to dilution ✓

Analyst entering results in Labworks. KC Date: 8/29/01

Peer Reviewer: [illegible] Date: 8/30/01

Peer Reviewer is responsible for reviewing all above questions.

Accurate Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Control Program
Document No.: 14-05-00-F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [4] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: MET0108065

Reported By: Kim Cameron Date Reported: 8/28/01

Department: Metals Project(s): 28530 PM: BH/MT

Discrepancy:
- secondary & tertiary (stock solution + working standard) used for spiking were expired
  ↳ (ICV only)
  KMC 8/28/01

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:
The ICV std. used to check the ICAL was expired. however the purchased standard used to prepare this (2° & 3° stds) standard was not expired. The internal expiration is 1 month for the 2° & 3° standards. The range observed for recovery during the affected period (7-11-01 → 8-(20-01) was 95% - 104% since the

Resolution recorded by: _____ Date: _____

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments
↳ acceptance window is 90% - 110%
there is no apparent degradation of the standard. ~~Continue to~~ monitoring standards for expiration. Will cover properly as the analyst is now aware of error. there is no apparent affect on the results as

QA Review by: KMClemons Date: 8/28/01

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM, QA will forward completed copy back to department to be inserted into book.

File Name: Lab quality communication form.doc Date: 04/12/01

Sample Information File C:\AAUSER\SAMPINFO\081701HG.SIF

Description :
Batch ID : 080901HG
Volume Units :
Weight Units :
Analyst : KC
Sample Volume : 0.00

AS Loc	Sample ID	Sample Weight	Sample Units	User Dilution	Remarks
9	WATER BLANK			2.0000	
10	WATER LCS			2.0000	
11	17450			2.0000	
12	17451			2.0000	
13	17452			2.0000	
14	17453			2.0000	
15	17454			2.0000	
16	17455			2.0000	
17	17456			2.0000	
18	17457			2.0000	
19	17458			2.0000	
20	17459			2.0000	
21	17460			2.0000	
22	17934			2.0000	
23	18052			2.0000	
24	18302			2.0000	
25	18303			2.0000	
26	18304			2.0000	
27	18304D			2.0000	
28	18302MS			2.0000	
29	18302MSD			2.0000	
30	18505			2.0000	
31	18506			2.0000	
32	17981			2.0000	

SD : 0.1656 0.1656 0.0003
%RSD: 7.9 7.9 7.8822
QC failed, value less than lower limit for Hg.

Element: Hg Seq. No.: 28 AS Loc.: 8 Date: 08/20/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.219	2.219	0.0036	0.0338	0.0036	07:40:33	No
2	2.017	2.017	0.0032	0.0291	0.0033	07:41:13	No
3	2.205	2.205	0.0036	0.0334	0.0036	07:41:52	No
Mean:	2.147	2.147	0.0035				
SD :	0.1131	0.1131	0.0002				
%RSD:	5.3	5.3	5.2688				

QC failed, value less than lower limit for Hg.
Recalibration and rerun samples since last good QC sequence being performed.

Element: Hg Seq. No.: 29 AS Loc.: 1 Date: 08/20/2001
Sample ID: Calib. Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0002	0.0019	0.0002	07:42:55	No
2			0.0001	0.0009	0.0001	07:43:35	No
3			0.0001	0.0005	0.0001	07:44:15	No
Mean:			0.0001				
SD :			0.0000				
%RSD:			37.8025				

Auto-zero performed.

Element: Hg Seq. No.: 30 AS Loc.: 2 Date: 08/20/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0008	0.0083	0.0009	07:45:16	No
2			0.0008	0.0082	0.0009	07:45:56	No
3			0.0008	0.0097	0.0010	07:46:36	No
Mean:			0.0008				
SD :			0.0000				
%RSD:			3.9734				

[Hg] Standard number 1 applied. [0.500]
Correlation Coefficient: 1.00000 Slope: 0.00160

Element: Hg Seq. No.: 31 AS Loc.: 3 Date: 08/20/2001
Sample ID: 1.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0013	0.0147	0.0014	07:47:36	No
2			0.0010	0.0094	0.0011	07:48:15	No
3			0.0012	0.0118	0.0013	07:48:55	No
Mean:			0.0012				
SD :			0.0001				
%RSD:			12.6459				

[Hg] Standard number 2 applied. [1.000]
Correlation Coefficient: 0.90006 Slope: 0.00128

Element: Hg Seq. No.: 32 AS Loc.: 4 Date: 08/20/2001
Sample ID: 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0034	0.0343	0.0036	07:49:56	No
2			0.0030	0.0264	0.0031	07:50:35	No
3			0.0032	0.0294	0.0033	07:51:15	No
Mean:			0.0032				
SD :			0.0002				
%RSD:			7.2105				

[Hg] Standard number 3 applied. [3.000]
Correlation Coefficient: 0.99105 Slope: 0.00110

Element: Hg Seq. No.: 33 AS Loc.: 5 Date: 08/20/2001
Sample ID: 5.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0055	0.0528	0.0057	07:52:16	No
2			0.0053	0.0483	0.0054	07:52:56	No
3			0.0051	0.0467	0.0052	07:53:36	No
Mean:			0.0053				
SD :			0.0002				
%RSD:			3.9216				

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99725 Slope: 0.00107

Element: Hg Seq. No.: 34 AS Loc.: 6 Date: 08/20/2001
Sample ID: 10.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0111	0.1037	0.0112	07:54:38	No
2			0.0113	0.1038	0.0114	07:55:18	No
3			0.0105	0.0969	0.0106	07:55:58	No
Mean:			0.0110				
SD :			0.0004				
%RSD:			3.6941				

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99931 Slope: 0.00109

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib. Blank	0.0001	---	----	----	----
0.50 ppb	0.0008	0.500	0.733	0.0000	4.0
1.0 ppb	0.0012	1.000	1.067	0.0001	12.6
3.0 ppb	0.0032	3.000	2.939	0.0002	7.2
5.0 ppb	0.0053	5.000	4.873	0.0002	3.9
10.0 ppb	0.0110	10.000	10.06	0.0004	3.7
Correlation Coefficient: 0.99931		Slope:	0.00109	----	

Element: Hg Seq. No.: 35 AS Loc.: 1 Date: 08/20/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.225	-0.225	-0.0002	-0.0064	-0.0001	07:57:01	No
2	-0.034	-0.034	0.0000	0.0000	0.0001	07:57:41	No
3	-0.076	-0.076	-0.0001	-0.0001	0.0000	07:58:21	No
Mean:	-0.111	-0.111	-0.0001				
SD :	0.1003	0.1003	0.0001				
%RSD:	90.0	90.0	89.9964				

Reagent Blank Performed

Element: Hg Seq. No.: 36 AS Loc.: 7 Date: 08/20/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.068	3.068	0.0033	0.0335	0.0035	07:59:23	No
2	2.902	2.902	0.0032	0.0296	0.0033	08:00:03	No
3	2.920	2.920	0.0032	0.0310	0.0033	08:00:43	No
Mean:	2.963	2.963	0.0032				
SD :	0.0915	0.0915	0.0001				
%RSD:	3.1	3.1	3.0873				

QC value within specified limits.

Element: Hg Seq. No.: 37 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0001	-0.0008	0.0000	08:01:46	No
2	-0.124	-0.124	-0.0001	-0.0011	0.0000	08:02:25	No
3	0.037	0.037	0.0000	0.0010	0.0002	08:03:05	No
Mean:	-0.052	-0.052	-0.0001				
SD :	0.0822	0.0822	0.0001				
%RSD:	157.0	157.0	157.0095				

QC value within specified limits.

Element: Hg Seq. No.: 38 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0013	0.0002	08:04:05	No
2	0.001	0.001	0.0000	0.0004	0.0001	08:04:45	No
3	-0.052	-0.052	-0.0001	-0.0003	0.0001	08:05:25	No
Mean:	-0.007	-0.007	0.0000				
SD :	0.0408	0.0408	0.0000				
%RSD:	551.0	551.0	550.9704				

QC value within specified limits.

Element: Hg Seq. No.: 39 AS Loc.: 9 Date: 08/20/2001
Sample ID: WATER BLANK

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.276	0.138	0.0002	0.0015	0.0001	08:06:25	No
2	0.103	0.051	0.0001	-0.0001	0.0001	08:07:06	No
3	0.366	0.183	0.0002	0.0027	0.0002	08:07:46	No
Mean:	0.248	0.124	0.0001				
SD :	0.1338	0.0669	0.0001				

C.C8C25T

%RSD:	53.9	53.9	53.8556

Element: Hg Seq. No.: 40 AS Loc.: 10 Date: 08/20/2001
Sample ID: WATER LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.093	3.546	0.0039	0.0392	0.0039	08:08:46	No
2	6.191	3.096	0.0034	0.0304	0.0034	08:09:26	No
3	5.969	2.985	0.0033	0.0286	0.0033	08:10:05	No
Mean:	6.418	3.209	0.0035				
SD :	0.5951	0.2975	0.0003				
%RSD:	9.3	9.3	9.2725				

Element: Hg Seq. No.: 41 AS Loc.: 11 Date: 08/20/2001
Sample ID: 17450

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.004	0.0000	-0.0017	0.0000	08:11:05	No
2	0.415	0.207	0.0002	0.0036	0.0002	08:11:45	No
3	0.188	0.094	0.0001	0.0010	0.0001	08:12:24	No
Mean:	0.198	0.099	0.0001				
SD :	0.2119	0.1059	0.0001				
%RSD:	106.9	106.9	106.9306				

Element: Hg Seq. No.: 42 AS Loc.: 12 Date: 08/20/2001
Sample ID: 17451

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.435	0.217	0.0002	0.0037	0.0002	08:13:24	No
2	0.088	0.044	0.0000	-0.0015	0.0000	08:14:04	No
3	0.487	0.244	0.0003	0.0036	0.0003	08:14:43	No
Mean:	0.337	0.168	0.0002				
SD :	0.2169	0.1085	0.0001				
%RSD:	64.4	64.4	64.4039				

Element: Hg Seq. No.: 43 AS Loc.: 13 Date: 08/20/2001
Sample ID: 17452

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.392	0.196	0.0002	0.0023	0.0002	08:15:43	No
2	0.387	0.193	0.0002	0.0019	0.0002	08:16:23	No
3	0.247	0.123	0.0001	0.0013	0.0001	08:17:03	No
Mean:	0.342	0.171	0.0002				
SD :	0.0823	0.0411	0.0000				
%RSD:	24.1	24.1	24.0698				

Element: Hg Seq. No.: 44 AS Loc.: 14 Date: 08/20/2001
Sample ID: 17453

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.625	0.312	0.0003	0.0041	0.0003	08:18:02	No
2	0.474	0.237	0.0003	0.0031	0.0003	08:18:43	No
3	0.241	0.120	0.0001	0.0014	0.0001	08:19:23	No

Mean:	0.447	0.223	0.0002
SD :	0.1936	0.0968	0.0001
%RSD:	43.3	43.3	43.3385

Element: Hg Seq. No.: 45 AS Loc.: 15 Date: 08/20/2001
Sample ID: 17454

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.297	0.149	0.0002	0.0013	0.0002	08:20:23	No
2	0.197	0.098	0.0001	0.0005	0.0001	08:21:03	No
3	0.287	0.143	0.0002	0.0018	0.0002	08:21:42	No
Mean:	0.260	0.130	0.0001				
SD :	0.0553	0.0276	0.0000				
%RSD:	21.2	21.2	21.2172				

Element: Hg Seq. No.: 46 AS Loc.: 16 Date: 08/20/2001
Sample ID: 17455

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.826	0.413	0.0005	0.0064	0.0004	08:22:42	No
2	-0.022	-0.011	0.0000	-0.0012	0.0000	08:23:21	No
3	0.028	0.014	0.0000	-0.0027	0.0000	08:24:01	No
Mean:	0.277	0.139	0.0002				
SD :	0.4760	0.2380	0.0003				
%RSD:	171.6	171.6	171.6373				

Element: Hg Seq. No.: 47 AS Loc.: 17 Date: 08/20/2001
Sample ID: 17456

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.308	0.154	0.0002	0.0015	0.0002	08:25:01	No
2	0.047	0.024	0.0000	-0.0013	0.0000	08:25:40	No
3	0.066	0.033	0.0000	-0.0005	0.0000	08:26:20	No
Mean:	0.141	0.070	0.0001				
SD :	0.1453	0.0726	0.0001				
%RSD:	103.3	103.3	103.2958				

Element: Hg Seq. No.: 48 AS Loc.: 18 Date: 08/20/2001
Sample ID: 17457

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.247	0.123	0.0001	0.0009	0.0001	08:27:20	No
2	0.242	0.121	0.0001	0.0009	0.0001	08:28:00	No
3	0.123	0.062	0.0001	-0.0003	0.0001	08:28:40	No
Mean:	0.204	0.102	0.0001				
SD :	0.0701	0.0351	0.0000				
%RSD:	34.4	34.4	34.3863				

Element: Hg Seq. No.: 49 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.124	0.124	0.0001	0.0034	0.0003	08:29:43	No

2	-0.047	-0.047	-0.0001	0.0001	0.0001	08:30:23	No
3	-0.170	-0.170	-0.0002	-0.0030	-0.0001	08:31:02	No
Mean:	-0.031	-0.031	0.0000				
SD :	0.1478	0.1478	0.0002				
%RSD:	480.0	480.0	479.9619				

QC value within specified limits.

Element: Hg Seq. No.: 50 AS Loc.: 8 Date: 08/20/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.939	3.939	0.0043	0.0445	0.0044	08:32:05	No
2	2.966	2.966	0.0032	0.0288	0.0034	08:32:45	No
3	-0.158	-0.158	-0.0002	-0.0054	-0.0001	08:33:24	No
Mean:	2.249	2.249	0.0025				
SD :	2.141	2.141	0.0023				
%RSD:	95.2	95.2	95.1962				

QC failed, value less than lower limit for Hg.

Element: Hg Seq. No.: 51 AS Loc.: 8 Date: 08/20/2001
✓ Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.453	3.453	0.0038	0.0379	0.0039	08:34:24	No
2	3.067	3.067	0.0033	0.0318	0.0035	08:35:04	No
3	3.184	3.184	0.0035	0.0313	0.0036	08:35:44	No
Mean:	3.235	3.235	0.0035				
SD :	0.1976	0.1976	0.0002				
%RSD:	6.1	6.1	6.1075				

QC value within specified limits.

Element: Hg Seq. No.: 52 AS Loc.: 19 Date: 08/20/2001
Sample ID: 17458

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.083	0.041	0.0000	-0.0010	0.0000	08:36:45	No
2	0.242	0.121	0.0001	0.0006	0.0001	08:37:24	No
3	0.278	0.139	0.0002	0.0014	0.0002	08:38:04	No
Mean:	0.201	0.100	0.0001				
SD :	0.1039	0.0519	0.0001				
%RSD:	51.7	51.7	51.7025				

next CCV failed rerun starting w/ 17458

Element: Hg Seq. No.: 53 AS Loc.: 20 Date: 08/20/2001
Sample ID: 17459

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.102	-0.051	-0.0001	-0.0021	-0.0001	08:39:03	No
2	0.336	0.168	0.0002	0.0021	0.0002	08:39:43	No
3	0.013	0.006	0.0000	-0.0006	0.0000	08:40:23	No
Mean:	0.082	0.041	0.0000				
SD :	0.2270	0.1135	0.0001				
%RSD:	275.7	275.7	275.7237				

Element: Hg Seq. No.: 54 AS Loc.: 21 Date: 08/20/2001

Method Name: Hg
Method Description: Hg
Element: Hg

Date: 08/20/2001
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 081701HG.SIF Results Data Set Name: 081701hg

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 08/20/2001
Sample ID: Calib. Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0004	0.0027	0.0004	11:06:24	No
2			0.0003	0.0037	0.0003	11:07:04	No
3			0.0001	0.0015	0.0001	11:07:44	No
Mean:			0.0003				
SD :			0.0001				
%RSD:			48.9400				

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 08/20/2001
Sample ID: 0.50 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0011	0.0134	0.0014	11:08:45	No
2			0.0009	0.0114	0.0012	11:09:24	No
3			0.0009	0.0111	0.0012	11:10:03	No
Mean:			0.0010				
SD :			0.0001				
%RSD:			10.9472				

[Hg] Standard number 1 applied. [0.500]
Correlation Coefficient: 1.00000 Slope: 0.00194

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 08/20/2001
Sample ID: 1.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0016	0.0174	0.0019	11:11:04	No
2			0.0017	0.0199	0.0020	11:11:44	No
3			0.0015	0.0164	0.0018	11:12:23	No
Mean:			0.0016				
SD :			0.0001				
%RSD:			6.2365				

[Hg] Standard number 2 applied. [1.000]
Correlation Coefficient: 0.97271 Slope: 0.00170

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 08/20/2001
Sample ID: 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0049	0.0504	0.0052	11:13:25	No

2		0.0047	0.0476	0.0050	11:14:04	No
3		0.0048	0.0481	0.0050	11:14:44	No
Mean:		0.0048				
SD :		0.0001				
%RSD:		2.0556				

[Hg] Standard number 3 applied. [3.000]
Correlation Coefficient: 0.99838 Slope: 0.00161

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 08/20/2001
Sample ID: 5.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0083	0.0791	0.0085	11:15:45	No
2			0.0081	0.0788	0.0084	11:16:24	No
3			0.0082	0.0809	0.0085	11:17:04	No
Mean:			0.0082				
SD :			0.0001				
%RSD:			1.0256				

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99948 Slope: 0.00163

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 08/20/2001
Sample ID: 10.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0168	0.1573	0.0171	11:18:05	No
2			0.0161	0.1514	0.0164	11:18:45	No
3			0.0160	0.1500	0.0163	11:19:25	No
Mean:			0.0163				
SD :			0.0004				
%RSD:			2.6670				

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.00163

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib. Blank	0.0003	---	-----	-----	----
0.50 ppb	0.0010	0.500	0.597	0.0001	10.9
1.0 ppb	0.0016	1.000	1.003	0.0001	6.2
3.0 ppb	0.0048	3.000	2.948	0.0001	2.1
5.0 ppb	0.0082	5.000	5.036	0.0001	1.0
10.0 ppb	0.0163	10.000	9.991	0.0004	2.7
Correlation Coefficient: 0.99989		Slope:	0.00163	----	

Element: Hg Seq. No.: 7 AS Loc.: 1 Date: 08/20/2001
Sample ID: Reagent Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.163	-0.163	-0.0003	-0.0007	0.0000	11:20:27	No
2	-0.135	-0.135	-0.0002	-0.0010	0.0001	11:21:07	No
3	-0.141	-0.141	-0.0002	-0.0001	0.0001	11:21:46	No
Mean:	-0.146	-0.146	-0.0002				
SD :	0.0149	0.0149	0.0000				

%RSD: 10.2 10.2 10.1850
Reagent Blank Performed

Element: Hg Seq. No.: 8 AS Loc.: 7 Date: 08/20/2001
Sample ID: ICV 3.0 ppb

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.048	3.048	0.0050	0.0486	0.0053	11:22:49	No
2	2.733	2.733	0.0045	0.0404	0.0047	11:23:29	No
3	3.019	3.019	0.0049	0.0488	0.0052	11:24:08	No
Mean:	2.933	2.933	0.0048				
SD :	0.1740	0.1740	0.0003				
%RSD:	5.9	5.9	5.9318				

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.353	-0.353	-0.0006	-0.0068	-0.0003	11:25:12	No
2	-0.094	-0.094	-0.0002	0.0017	0.0001	11:25:52	No
3	-0.072	-0.072	-0.0001	-0.0018	0.0002	11:26:32	No
Mean:	-0.173	-0.173	-0.0003				
SD :	0.1562	0.1562	0.0003				
%RSD:	90.3	90.3	90.2871				

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 9 Date: 08/20/2001
Sample ID: 17458

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.030	-0.015	0.0000	-0.0020	0.0000	11:27:32	No
2	0.312	0.156	0.0003	0.0042	0.0003	11:28:12	No
3	0.013	0.007	0.0000	-0.0007	0.0001	11:28:52	No
Mean:	0.099	0.049	0.0001				
SD :	0.1860	0.0930	0.0002				
%RSD:	188.8	188.8	188.8415				

Element: Hg Seq. No.: 11 AS Loc.: 10 Date: 08/20/2001
Sample ID: 17459

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.105	0.052	0.0001	0.0016	0.0001	11:29:52	No
2	0.376	0.188	0.0003	0.0035	0.0004	11:30:31	No
3	-0.036	-0.018	0.0000	-0.0022	0.0000	11:31:11	No
Mean:	0.148	0.074	0.0001				
SD :	0.2098	0.1049	0.0002				
%RSD:	141.5	141.5	141.5296				

Element: Hg Seq. No.: 12 AS Loc.: 11 Date: 08/20/2001
Sample ID: 17460

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.123	0.061	0.0001	0.0005	0.0002	11:32:11	No
2	0.200	0.100	0.0002	0.0025	0.0002	11:32:50	No
3	0.206	0.103	0.0002	0.0027	0.0002	11:33:30	No
Mean:	0.176	0.088	0.0001				
SD :	0.0463	0.0231	0.0000				
%RSD:	26.3	26.3	26.2715				

Element: Hg Seq. No.: 13 AS Loc.: 12 Date: 08/20/2001
Sample ID: 17934

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.011	0.0000	-0.0014	0.0000	11:34:30	No
2	0.052	0.026	0.0000	-0.0008	0.0001	11:35:10	No
3	0.075	0.038	0.0001	0.0010	0.0001	11:35:50	No
Mean:	0.035	0.018	0.0000				
SD :	0.0510	0.0255	0.0000				
%RSD:	145.3	145.3	145.3469				

Element: Hg Seq. No.: 14 AS Loc.: 13 Date: 08/20/2001
Sample ID: 18052

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.399	0.199	0.0003	0.0032	0.0004	11:36:50	No
2	0.156	0.078	0.0001	-0.0007	0.0002	11:37:30	No
3	0.357	0.178	0.0003	0.0023	0.0003	11:38:10	No
Mean:	0.304	0.152	0.0002				
SD :	0.1295	0.0648	0.0001				
%RSD:	42.6	42.6	42.6201				

Element: Hg Seq. No.: 15 AS Loc.: 14 Date: 08/20/2001
Sample ID: 18302

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.627	0.314	0.0005	0.0062	0.0006	11:39:10	No
2	0.460	0.230	0.0004	0.0043	0.0004	11:39:50	No
3	0.282	0.141	0.0002	0.0009	0.0003	11:40:29	No
Mean:	0.456	0.228	0.0004				
SD :	0.1725	0.0862	0.0001				
%RSD:	37.8	37.8	37.7879				

Element: Hg Seq. No.: 16 AS Loc.: 15 Date: 08/20/2001
Sample ID: 18303

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.018	0.0000	0.0000	0.0001	11:41:29	No
2	-0.082	-0.041	-0.0001	-0.0021	0.0000	11:42:09	No
3	0.391	0.195	0.0003	0.0045	0.0004	11:42:48	No
Mean:	0.115	0.058	0.0001				
SD :	0.2458	0.1229	0.0002				
%RSD:	213.4	213.4	213.3877				

Element: Hg Seq. No.: 17 AS Loc.: 16 Date: 08/20/2001
Sample ID: 18304

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.313	1.156	0.0019	0.0187	0.0019	11:43:48	No
2	2.209	1.105	0.0018	0.0183	0.0019	11:44:28	No
3	2.074	1.037	0.0017	0.0144	0.0017	11:45:08	No
Mean:	2.199	1.099	0.0018				
SD :	0.1196	0.0598	0.0001				
%RSD:	5.4	5.4	5.4401				

Element: Hg Seq. No.: 18 AS Loc.: 17 Date: 08/20/2001
Sample ID: 18304d

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.347	1.174	0.0019	0.0179	0.0020	11:46:08	No
2	2.104	1.052	0.0017	0.0156	0.0018	11:46:49	No
3	2.235	1.117	0.0018	0.0154	0.0019	11:47:28	No
Mean:	2.229	1.114	0.0018				
SD :	0.1216	0.0608	0.0001				
%RSD:	5.5	5.5	5.4574				

Element: Hg Seq. No.: 19 AS Loc.: 18 Date: 08/20/2001
Sample ID: 18304ms KC 8/20/01

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.337	3.169	0.0052	0.0460	0.0052	11:48:29	No
2	6.324	3.162	0.0051	0.0477	0.0052	11:49:09	No
3	6.347	3.174	0.0052	0.0483	0.0052	11:49:48	No
Mean:	6.336	3.168	0.0052				
SD :	0.0116	0.0058	0.0000				
%RSD:	0.2	0.2	0.1835				

Element: Hg Seq. No.: 20 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0000	0.0027	0.0002	11:50:51	No
2	-0.101	-0.101	-0.0002	0.0014	0.0001	11:51:31	No
3	-0.151	-0.151	-0.0002	-0.0010	0.0000	11:52:11	No
Mean:	-0.094	-0.094	-0.0002				
SD :	0.0614	0.0614	0.0001				
%RSD:	65.3	65.3	65.3456				

QC value within specified limits.

Element: Hg Seq. No.: 21 AS Loc.: 8 Date: 08/20/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.068	3.068	0.0050	0.0491	0.0053	11:53:14	No
2	2.737	2.737	0.0045	0.0405	0.0047	11:53:54	No
3	2.891	2.891	0.0047	0.0443	0.0050	11:54:33	No
Mean:	2.899	2.899	0.0047				
SD :	0.1656	0.1656	0.0003				
%RSD:	5.7	5.7	5.7118				

QC value within specified limits.

Element: Hg Seq. No.: 22 AS Loc.: 19 Date: 08/20/2001
Sample ID: 18307msd kc 8/20/01

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.433	3.217	0.0052	0.0470	0.0053	11:55:34	No
2	6.394	3.197	0.0052	0.0468	0.0053	11:56:14	No
3	6.299	3.150	0.0051	0.0471	0.0052	11:56:54	No
Mean:	6.375	3.188	0.0052				
SD :	0.0690	0.0345	0.0001				
%RSD:	1.1	1.1	1.0818				

Element: Hg Seq. No.: 23 AS Loc.: 20 Date: 08/20/2001
Sample ID: 18505

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.034	0.017	0.0000	-0.0009	0.0001	11:57:54	No
2	-0.059	-0.030	0.0000	-0.0017	0.0000	11:58:34	No
3	0.131	0.065	0.0001	0.0001	0.0002	11:59:14	No
Mean:	0.035	0.018	0.0000				
SD :	0.0950	0.0475	0.0001				
%RSD:	270.7	270.7	270.7252				

Element: Hg Seq. No.: 24 AS Loc.: 21 Date: 08/20/2001
Sample ID: 18506

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.043	0.0001	0.0010	0.0001	12:00:12	No
2	0.055	0.027	0.0000	0.0010	0.0001	12:00:52	No
3	0.007	0.004	0.0000	-0.0007	0.0001	12:01:32	No
Mean:	0.050	0.025	0.0000				
SD :	0.0401	0.0201	0.0000				
%RSD:	81.0	81.0	80.9558				

Element: Hg Seq. No.: 25 AS Loc.: 22 Date: 08/20/2001
Sample ID: 17981

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.014	0.0000	0.0006	0.0001	12:02:32	No
2	0.165	0.083	0.0001	0.0025	0.0002	12:03:12	No
3	0.195	0.098	0.0002	0.0029	0.0002	12:03:51	No
Mean:	0.129	0.065	0.0001				
SD :	0.0895	0.0448	0.0001				
%RSD:	69.2	69.2	69.1684				

Element: Hg Seq. No.: 26 AS Loc.: 1 Date: 08/20/2001
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.128	-0.128	-0.0002	0.0008	0.0001	12:04:55	No
2	-0.211	-0.211	-0.0003	-0.0023	-0.0001	12:05:34	No
3	-0.072	-0.072	-0.0001	0.0024	0.0002	12:06:14	No
Mean:	-0.137	-0.137	-0.0002				
SD :	0.0701	0.0701	0.0001				

%RSD: 51.2 51.2 51.2018
QC value within specified limits.

Element: Hg Seq. No.: 27 AS Loc.: 8 Date: 08/20/2001
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.147	3.147	0.0051	0.0497	0.0054	12:07:18	No
2	3.009	3.009	0.0049	0.0471	0.0052	12:07:58	No
3	3.070	3.070	0.0050	0.0475	0.0053	12:08:37	No
Mean:	3.075	3.075	0.0050				
SD :	0.0690	0.0690	0.0001				
%RSD:	2.2	2.2	2.2447				

QC value within specified limits.

SVO GC DATA CHECKLIST
SW-846-8081A / 8082 / 8151A

PROJECT #: 28530	METHOD: (circle applicable methods)		
MATRIX: WATER	(8081A)	(8082)	8151A

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
For Pesticides & Herbicides, were all hits verified with second column confirmation?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: YCK

Date: 08/24/01 Time: 15:30

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL

Date: 8/27/01 Time: 09:05

SVO GC DATA CHECKLIST
SW-846-8081A / 8082 / 8151A

PROJECT #: 28580	METHOD: (circle applicable methods)		
MATRIX: WATER	8081A	8082	(8151A)

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are continuing calibrations compliant with method requirements?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is blank result less than 1/2 RDL for analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	(Y)	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	N	(NA)
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Were analyses performed such that carryover was not a problem?	(Y)	N	NA
For Pesticides & Herbicides, were all hits verified with second column confirmation?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA
Are all applicable runlog and extraction sheets signed, dated, and included?	(Y)	N	NA
Are all analytes to be reported indicated as such on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: YCK

Date: 08/24/01 Time: 15:50

PEER REVIEW

Are continuing calibrations compliant with method requirements?	Y	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	~~NA~~
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable (blank, LCS, samples)?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Is the runlog completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL

Date: 8/27/01 Time: 9:05

Accura Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: A-QS-005.F
Revision/Date: No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [✓] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: Ø SV0108013

Reported By: Ralph Lindsey RL 8.24.01 Date Reported: 8/24/01

Department: SVOC Project(s): 28511, 28530 PM: BJH

Discrepancy:

Batch QC for project 28511 (Pest) has LCS that failed for all compounds. LCSD passed for except DDE. LCS run with sample passed for all compounds. Surrogate is high for blank for tetra (Project 28511)

In-house limits

Proj. Spec. Limits

Batch LCS failed for - all except 4,4'-DDT

LCS failed for - α-BHC, Δ-BHC, Co-BHC, Aldrin, Endo I, Endo II, Methoxychlor, End. Aldehyde

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Report Results

Resolution recorded by: JMB **Date:** 082401

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ **Date:** _____

Original to QA, copy in the QCF Book, copy in the project folder, copy to PM. QA will forward completed copy back to department to be inserted

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: PEST / PCB
DATE/TIME: 8/9/01 9:00am

MATRIX: WATER / TCLP
PB3JW 81
ANALYST: [illegible]

EXT. METHOD: 3510 / 3520
PCBW 82
INSTRUMENT: GC/ECD

AAL I.D.	SAMPLE VOLUME	SURR 1.0mL	SPIKE	SOLVENT EXCHANGE	FINAL VOLUME	ACID CLEANED	COMMENTS
QPW080901-1	1L	[illegible]		A. Hill	5.0mL	PCB's x1	BK (split)
QPW080901-2			[illegible]				LCS Pest
17981							P/P
18003							Pest
18004							Pest
QPW080901-3			[illegible]				LCS PCB

A. Hill 8/9/01 12:30 pm

START TIME: 1:45p.m. STOP TIME: 8:00p.m. RapidVap TEMP.: 45°C

CH2CL2 I.D.: EX01277 HEXANE I.D.: EX01259

SURROGATE I.D.: ~~P01E090~~ P01E127 CONC.: ~~0.5ppm~~ 0.5ppm INITIAL: [illegible]

SPIKE I.D.: P01E077 CONC.: 5.0ppm INITIAL: [illegible]

SPIKE I.D.: P01E090 CONC.: 0.5ppm INITIAL: [illegible]

EXTRACT STORAGE: REFRIGERATOR # 5, BOX # P- 230

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/20/01
Analyst Initials: YCK
Instrument Method: 8081D2
Calibration Column: Rtx - CLP I (F)
Confirmation Column: Rtx - CLP II

DDT Breakdown % (<15%): 2.7%
Endrin Breakdown % (<15%): 8.5%

Pest Calibration Date: 08/21/01
PCB Calibration Date:

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	11-142	20-151
Water	20-110	D-128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	Primer	0881OIP	Std	1X	NA	NA	
2	Hexane		Solv				
3	PEM		Std				PQ1161
4	IC Pest 10PPB						PQ1175
5	IC Pest 50PPB						PQ1176
6	IC Pest 80PPB						PQ1172
7	IC Pest 100PPB						PQ1164
8	IC Pest 150PPB						PQ1173
9	IC Pest 250PPB						PQ1174
10	ICV Pest 100PPB				99	103	PQ1163
11	CCV Chlor 250PPB				NA	NA	99% PQ1169
12	CCV Tox 250PPB						95% PQ1112
13	Hexane		Solv.				
14	QPSC810011		Soil		98/60	113/134	
15	QPS0810012				76/58	95/100	
16	1833% S 5000X			5000X	DO	DO	
17	QPLW0809011		Water	1X	81/67	111/115	
18	QPLW0809012				94/72	84/88	
19	17981W				54/43	91/33	
20	18003W				91/55	101/113	
21	18004W				78/95	106/112	
22	Hexane		Solv.		NA	NA	
23	PEM		Std				PQ1161

Signature/Date: 08/21

1 cont

GC/ECD Pesticides & PCBs Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/21/01 **DDT Breakdown % (<15%):** _____ **Pest Calibration Date:** _____

Analyst Initials: _____ **Endrin Breakdown % (<15%):** _____ **PCB Calibration Date:** _____

Instrument Method: _____

Calibration Column: _____

Confirmation Column: _____

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil		
Water		

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
24	std	082101P	Std	1X	NA	NA	
25	ccv 50 ppb	↓	↓	↓	107/109	112/114	P01176
26	APW08130II		Water		56/52	73/79	
27	APW08130IB				52/47	56/58	
28	18217W				96/37	78/90	
29	18218W				60/56	89/93	
30	18219W				51/61	70/73	
31	18220W				51/62	101/106	
32	18221W				76/89	99/101	
33	18222W				63/58	102/107	
34	18223W				70/79	105/112	
35	18275W				52/49	171/6	
36	18276W				50/51	74/76	
37	18277W				63/82	77/80	
38	18278W				47/40	95/101	
39	18279W				64/60	84/88	
40	18280W				70/62	103/108	
41	18281W		↓		67/51	114/121	
42	Hexane		Solv.		NA	NA	
43	PEM		Std		↓	↓	P01161
44	CCV Pest100PPB		↓		97/95	104/107	P01164
45	18282W		Water		94/117	149/154	
46	18347W	↓	↓	↓	12/7.3	<DL/<DL	

Signature/Date: _____ 08/22/01

↓ cont

GC/ECD PEST-CLP

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/14/01
Analyst Initials: YCK
Instrument Method: 8082
Calibration Column: SPB-608
Confirmation Column: —

PCB Calibration Date: 07/11/01

Surrogate Recovery Limits (%)	
	Decachlorobiphenyl
Soil	44 - 145
Water	D - 128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. (%) DCB	Comments/Observations
1	Hexane	07011660	soln	1X	NA	PC1148
2	ccv PCB 1.0 ppm		std		91	1016 - 89%, 1260 - 95%
3	QPS08100 11		S		134	
4	1 2			50X	109	1016 - 76%, 1260 - 97%
5	18306 S 50X			10X	82	
6	18306 S 10X			1X	100	TBA clean up
7	QPS08100 11				133	1016 - 77%, 1260 - 97%
8	1 2		W		108	
9	QPW08090 11				122	1016 - 98%, 1260 - 113%
10	1 3				93	
11	17981W				34	PC1148
12	Hexane		soln		NA	1016 - 102%, 1260 - 110%
13	ccv PCB 1.0 ppm		std		103	

YCK 08/14/01

Signature/Date: 08/14/01

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
	System Monitoring Compounds							
1)	S Tetrachloro-m-xy	6.64	6.45	9298099	6597808	53.897	43.339	
	Spiked Amount 100.000			Recovery =		53.90%	43.34%	
22)	S Decachlorobiphen	19.68	20.43	4057528	4212342	30.897	32.565	
	Spiked Amount 100.000			Recovery =		30.90%	32.57%	
	Target Compounds							
2)	T alpha-BHC	8.08	0.00	10652	0	0.043	N.D.	#
3)	T beta-BHC	9.14	9.14f	54652	542700	0.500	5.615	#
4)	T gamma-BHC (Linda	8.84f	9.00f	1468265	159167	6.317	0.785	#
5)	T delta-BHC	9.57	9.89	98717	312531	0.449	1.528	#
6)	T Heptachlor	10.18f	10.04	1271260	283976	5.628	1.376	#
7)	T Aldrin	0.00	10.86	0	128931	N.D.	0.703	#
8)	T Heptachlor epoxi	12.34	0.00	218636	0	1.333	N.D.	#
9)	T Endosulfan I	13.30	13.19	201373	105199	1.214	0.661	#
10)	T gamma-Chlordane	12.60f	12.65	627400	16247443	3.334	84.648	#
11)	T alpha-Chlordane	12.94	13.00	481551	19337	2.654	0.106	#
12)	T 4,4-DDE	13.21f	13.48f	489204	40522	3.114	0.253	#
13)	T Dieldrin	13.82	13.78	115942	35549	0.724	0.224	#
14)	T Endrin	14.36	14.44	44035	108489	0.417	1.229	#
15)	T 4,4-DDD	14.52	14.71	58588	11764	0.521	0.101	#
16)	T Endosulfan II	14.86	14.92	136196	30572	1.109	0.212	#
17)	T Endrin aldehyde	15.84	15.74	93570	349882	0.945	3.329	#
18)	T 4,4-DDT	15.12	15.44	47777	11592	0.372	0.090	#
19)	T Endosulfan sulfa	16.86f	16.39f	69053	706664	0.607	5.869	#
20)	T Methoxychlor	16.18	17.01f	21565	30600	0.344	0.537	#
21)	T Endrin ketone	17.41	17.51	15952	56645	0.116	0.413	#

Pest 608

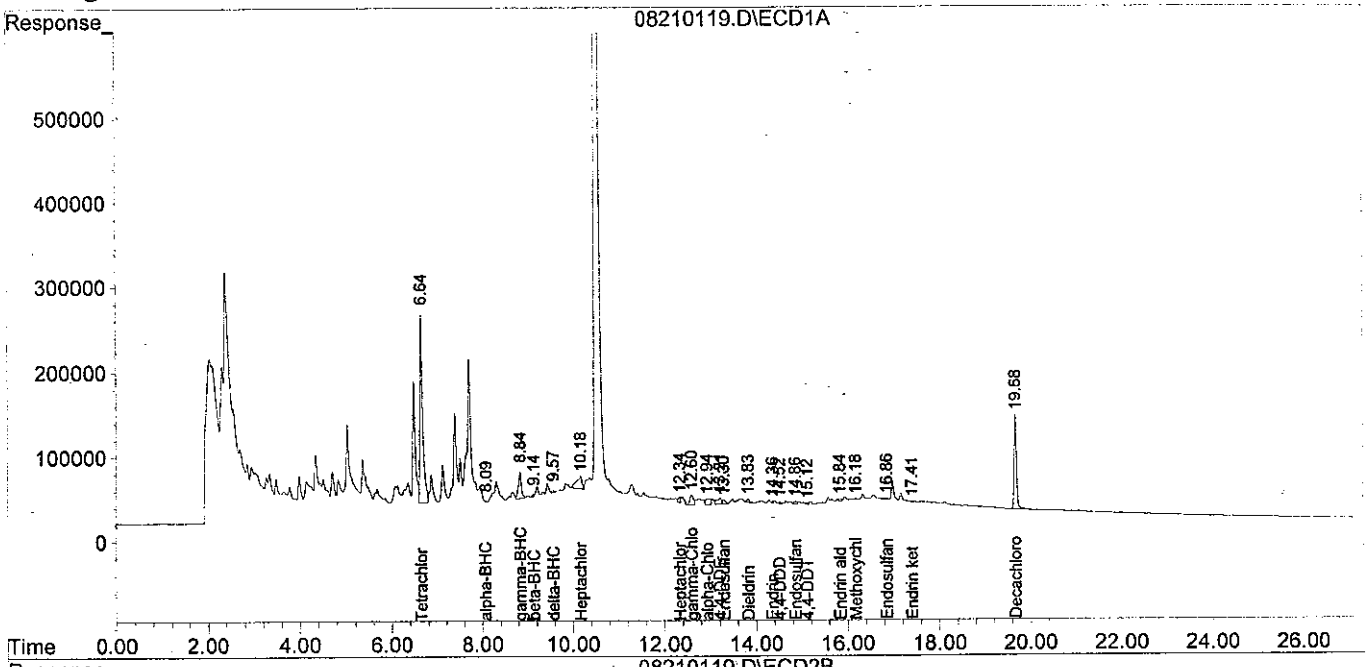
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

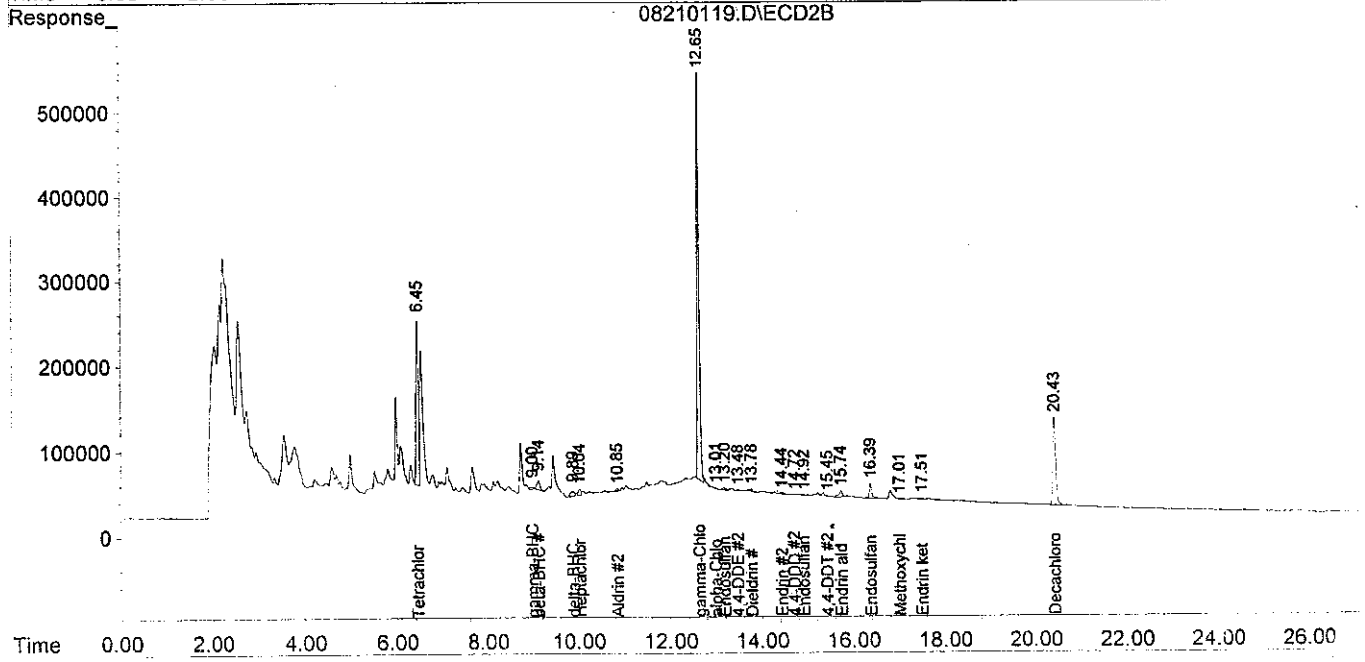
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:42 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Target Compounds						
1) L1 Chlordane{1}	9.91	9.67	147927	249143	17.599	35.533 #
2) L1 Chlordane{2}	10.18f	10.04	955079	387297	64.806	39.958 #
3) L1 Chlordane{3}	11.20	11.29f	35820	85606	3.149	10.763 #
4) L1 Chlordane{4}	12.25f	0.00	213375	0	43.757	N.D. #
5) L1 Chlordane{5}	12.70f	12.65f	75082	17087661	2.943	783.171 #
6) L1 Chlordane{6}	12.94	12.92	190209	91004	4.870	4.900
7) L1 Chlordane{7}	14.41	0.00	41313	0	11.061	N.D. #
Sum Chlordane			1658806	17900712	148.185	874.325
Average Chlordane					21.169	174.865

Chlordane

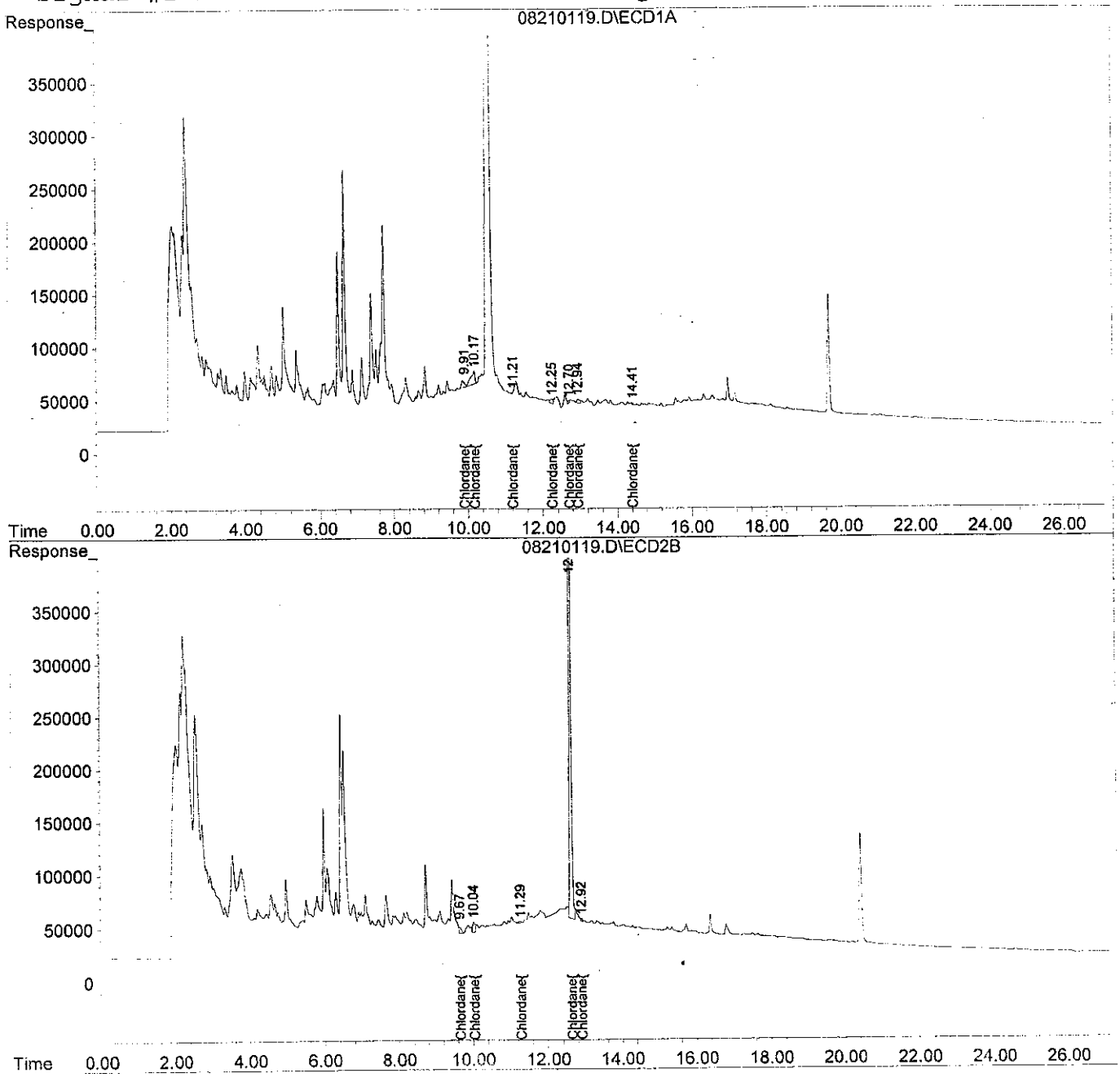
(f)=RT Delta > 2 Window (#)=Amounts differ by > 25% (m)=manual
08210119.D 08 L.M Fri Aug 24 12:42:49 2001 Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:42 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:45 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Target Compounds						
1) L Toxaphene{1}	14.02f	14.92	17690	266449	7.598	91.155 #
2) L Toxaphene{2}	15.12	15.16	46319	271072	6.753	36.572 #
3) L Toxaphene{3}	15.66	15.74	330820	820658	54.228	138.396 #
4) L Toxaphene{4}	16.10	15.98f	469998	408161	120.904	61.280 #
5) L Toxaphene{5}	16.57	16.81f	964100	916319	112.273	97.253
6) L Toxaphene{6}	17.41	17.01	288884	177054	49.101	32.704 #
7) L Toxaphene{7}	17.75	17.81f	462516	84133	137.179	23.199 #
Sum Toxaphene			2580327	2943845	488.037	480.558
Average Toxaphene					69.720	68.651

TOX < 1.0

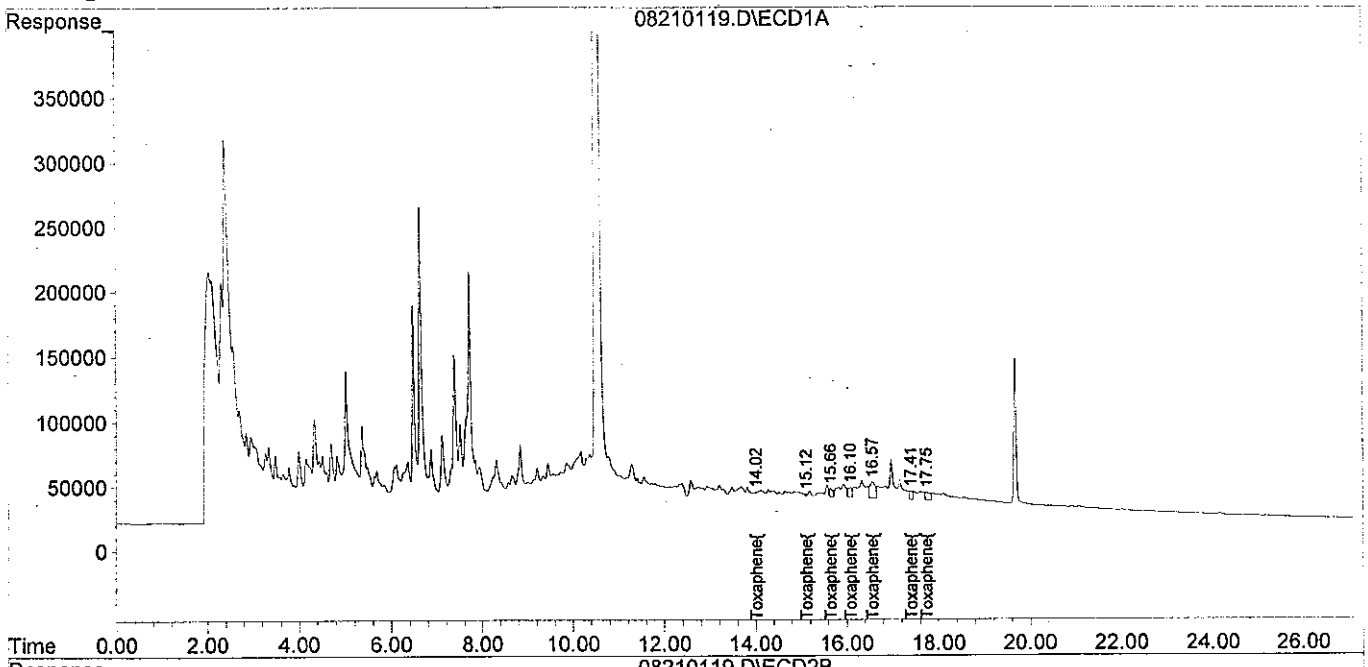
f)=RT Delta > 1/2 Window (#)=Amounts differ by > 15% (m)=manual int.

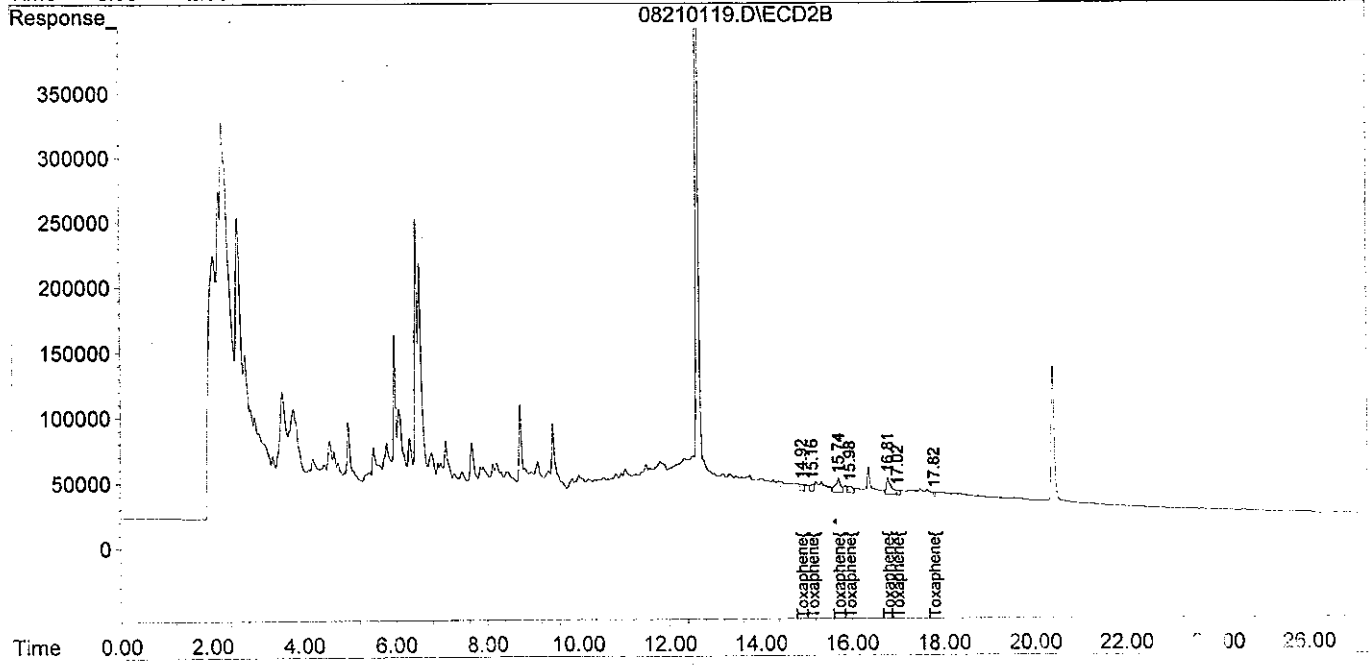
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\082101\08210119.D\ECD2B.CH
Acq On : 08/21/01 23:27 Operator: YGK
Sample : 17981 W Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:45 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\081401\08140111.D Vial: 11
Acq On : 08/14/01 19:23 Operator: YGK
Sample : 17981 W Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	14571140	0.084 ug/ml
Spiked Amount 0.100		Recovery =	84.00%
12) S Decachlorobiphenyl	24.66	5073718	0.034 ug/ml
Spiked Amount 0.100		Recovery =	34.00% v
Target Compounds			
2) L1 Aroclor-1016{1}	0.00	0	N.D. ug/ml
3) L1 Aroclor-1016{2}	6.73f	56511	0.009 ug/ml
4) L1 Aroclor-1016{3}	0.00	0	N.D. ug/ml
5) L1 Aroclor-1016{4}	8.25f	38918	0.006 ug/ml
6) L1 Aroclor-1016{5}	9.81f	339401	0.078 ug/ml
Sum Aroclor-1016		434830	0.093 ug/ml
Average Aroclor-1016			0.031 ug/ml
7) L2 Aroclor-1260{1}	14.10	4576	0.001 ug/ml
8) L2 Aroclor-1260{2}	14.50	83928	0.006 ug/ml
9) L2 Aroclor-1260{3}	17.44	2800	0.000 ug/ml
10) L2 Aroclor-1260{4}	18.12	3584	0.000 ug/ml
11) L2 Aroclor-1260{5}	19.63	6587	0.001 ug/ml
Sum Aroclor-1260		101475	0.008 ug/ml
Average Aroclor-1260			0.002 ug/ml

PCB <0.2

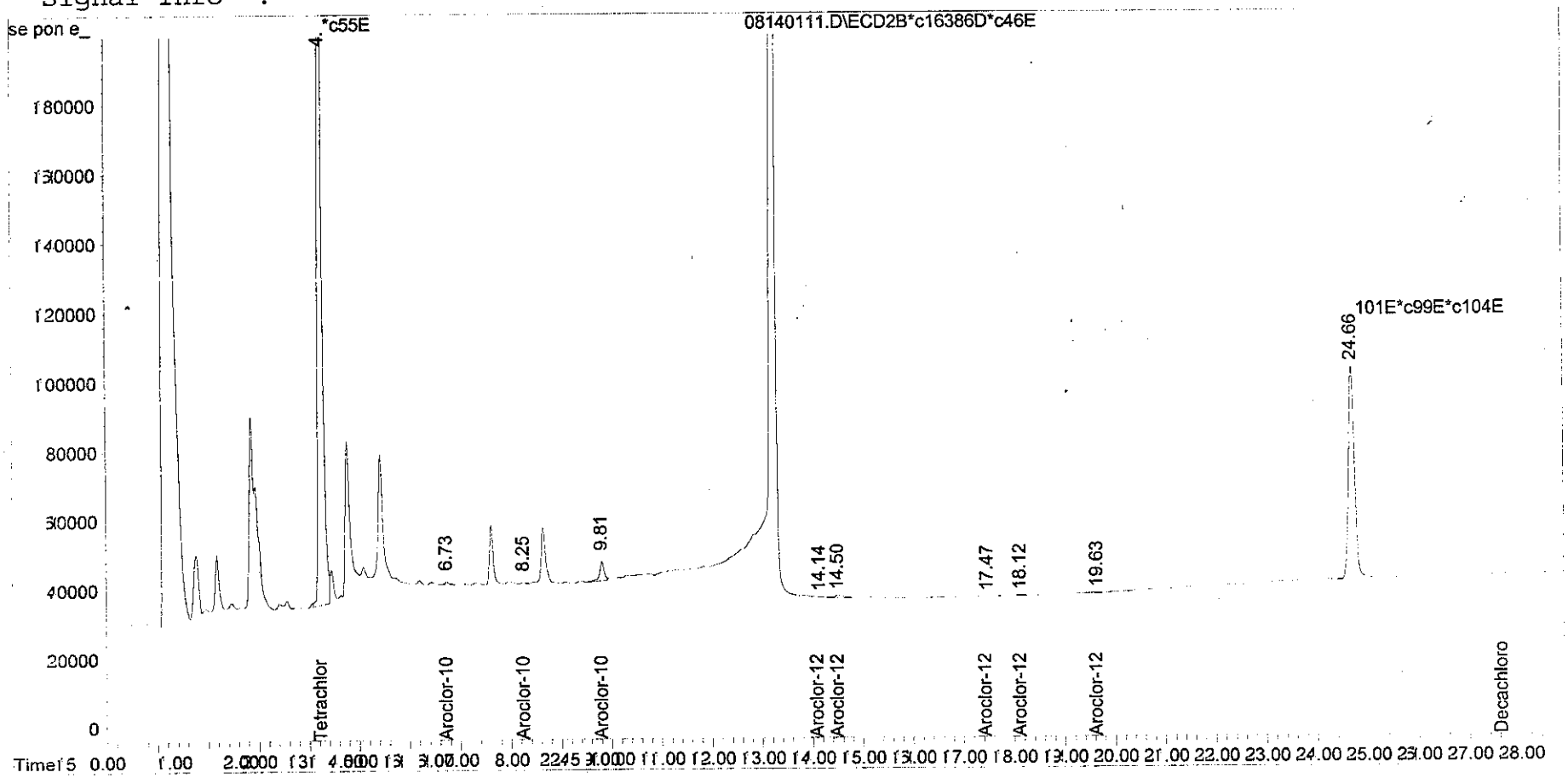
(f)= Delta > 1/2 Window (m)=manual inc.

Quantitation Report

Data File : C:\HPCHEM\3\DATA\081401\08140111.D Vial: 11
Acq On : 08/14/01 19:23 Operator: YGK
Sample : 17981 W Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
		System Monitoring Compounds							
1)	S	Tetrachloro-m-xy	6.65	6.46	14044056	10212291	81.407	67.082	
		Spiked Amount 100.000				Recovery =	81.41%	67.08%	
22)	S	Decachlorobiphen	19.69	20.44	14543958	14810059	110.750	114.495	
		Spiked Amount 100.000				Recovery =	110.75%	114.50%	
		Target Compounds							
2)	T	alpha-BHC	0.00	8.04	0	64128	N.D.	0.273	#
3)	T	beta-BHC	9.12	9.15f	29200	6161211	0.267	63.743	#
4)	T	gamma-BHC (Linda	8.92	8.95	66747	268280	0.287	1.323	#
5)	T	delta-BHC	9.58	9.90	1128014	83071	5.132	0.406	#
6)	T	Heptachlor	10.10	10.12f	70142	60012	0.308	0.291	
7)	T	Aldrin	10.87	10.86	158788	125230	0.820	0.683	
8)	T	Heptachlor epoxi	0.00	12.26	0	155117	N.D.	0.955	#
9)	T	Endosulfan I	13.24	13.18	1227357	795339	7.398	5.001	#
10)	T	gamma-Chlordane	0.00	12.71	0	214571	N.D.	1.118	#
11)	T	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12)	T	4,4-DDE	13.09	13.38	406147	81803	2.585	0.512	#
13)	T	Dieldrin	13.83	13.79	235021	259087	1.468	1.636	
14)	T	Endrin	14.36	14.53	79127	357442	0.749	4.050	#
15)	T	4,4-DDD	0.00	14.80	0	14017	N.D.	0.121	#
16)	T	Endosulfan II	0.00	15.03f	0	25071	N.D.	0.174	#
17)	T	Endrin aldehyde	15.73f	15.70	430829	301375	4.352	2.868	#
18)	T	4,4-DDT	15.14	15.41	299690	15315	2.331	0.119	#
19)	T	Endosulfan sulfa	16.81	16.39f	107817	79173	0.948	0.657	#
20)	T	Methoxychlor	16.19	0.00	13290	0	0.212	N.D.	#
21)	T	Endrin ketone	0.00	17.43f	0	21835	N.D.	0.159	#

Pest < $\frac{1}{2}$ Q2

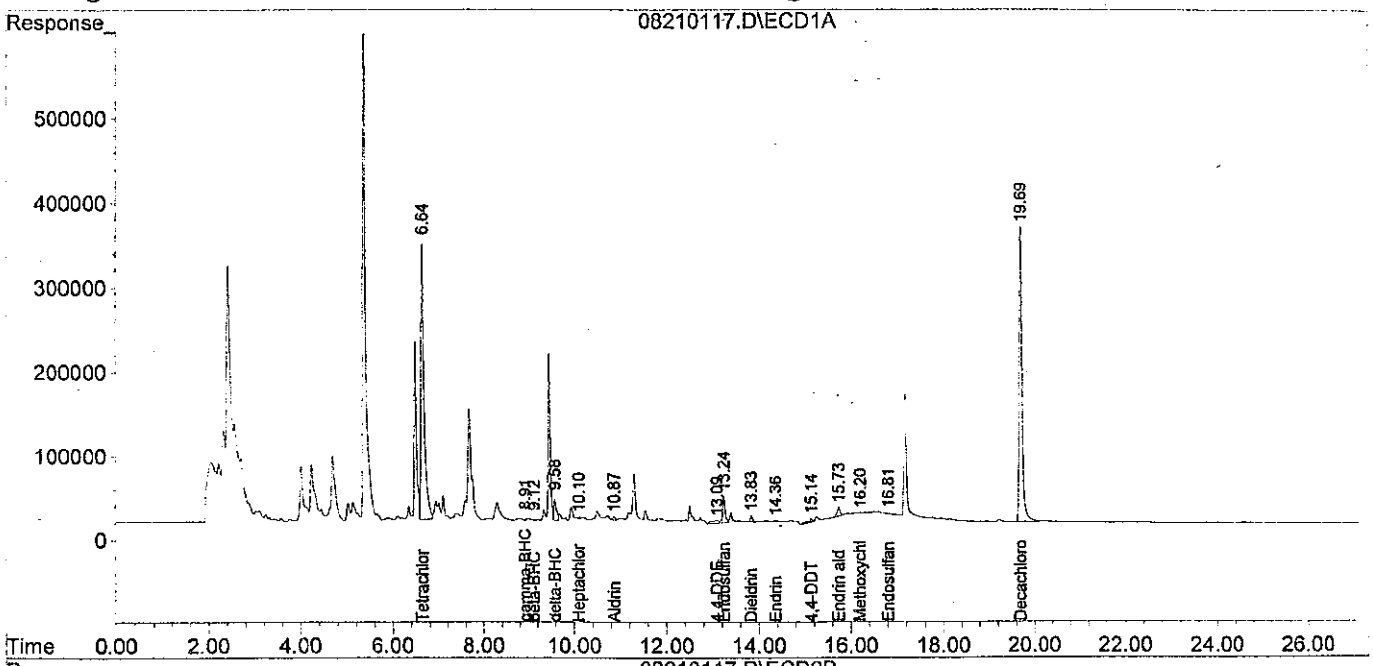
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=
08210117.D Thu Aug 23 10:26:25 2001

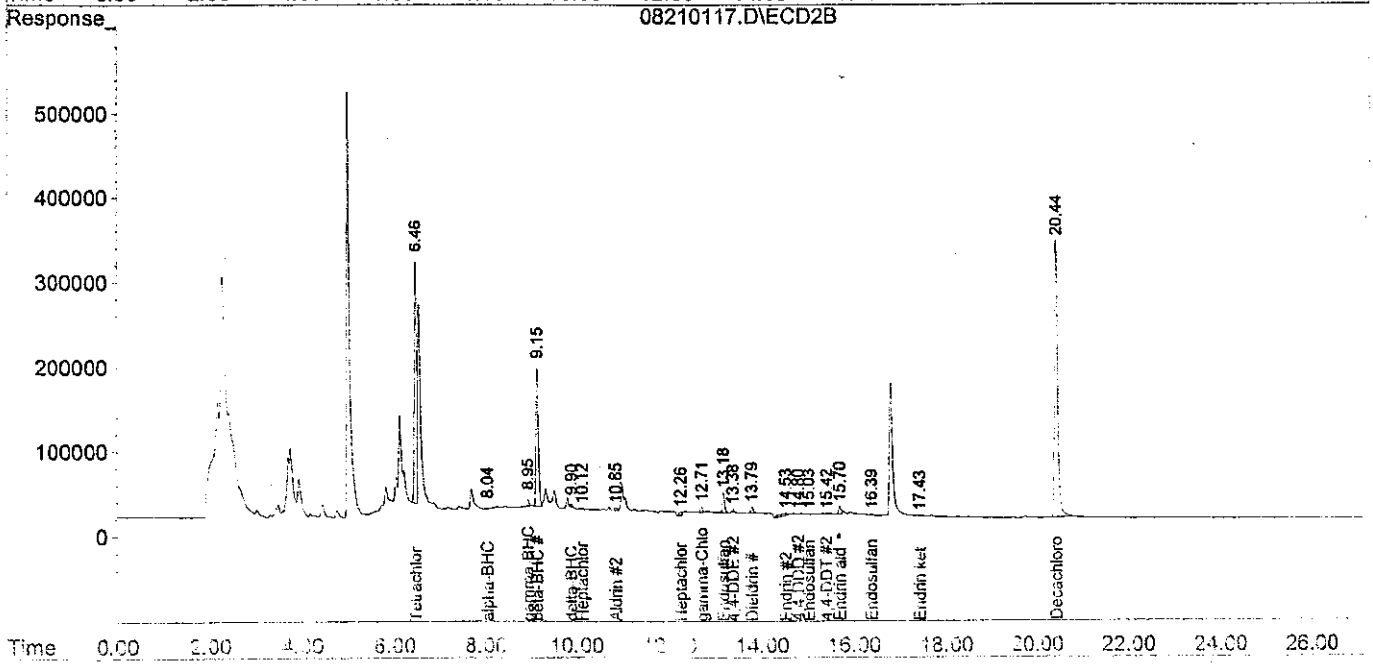
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:42 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Target Compounds						
1) L1 Chlordane{1}	9.94	9.68	734725	185825	87.413	26.503 #
2) L1 Chlordane{2}	10.10	10.12f	197471	212418	13.399	21.916 #
3) L1 Chlordane{3}	11.19	11.28	418716	106014	36.814	13.328 #
4) L1 Chlordane{4}	12.17	12.11f	36772	168130	7.541	41.363 #
5) L1 Chlordane{5}	0.00	12.71	0	384131	N.D.	17.606 #
6) L1 Chlordane{6}	0.00	12.83f	0	216297	N.D.	11.645 #
7) L1 Chlordane{7}	0.00	0.00	0	0	N.D.	N.D.
Sum Chlordane			1387684	1272814	145.167	132.361
Average Chlordane					36.292	22.060

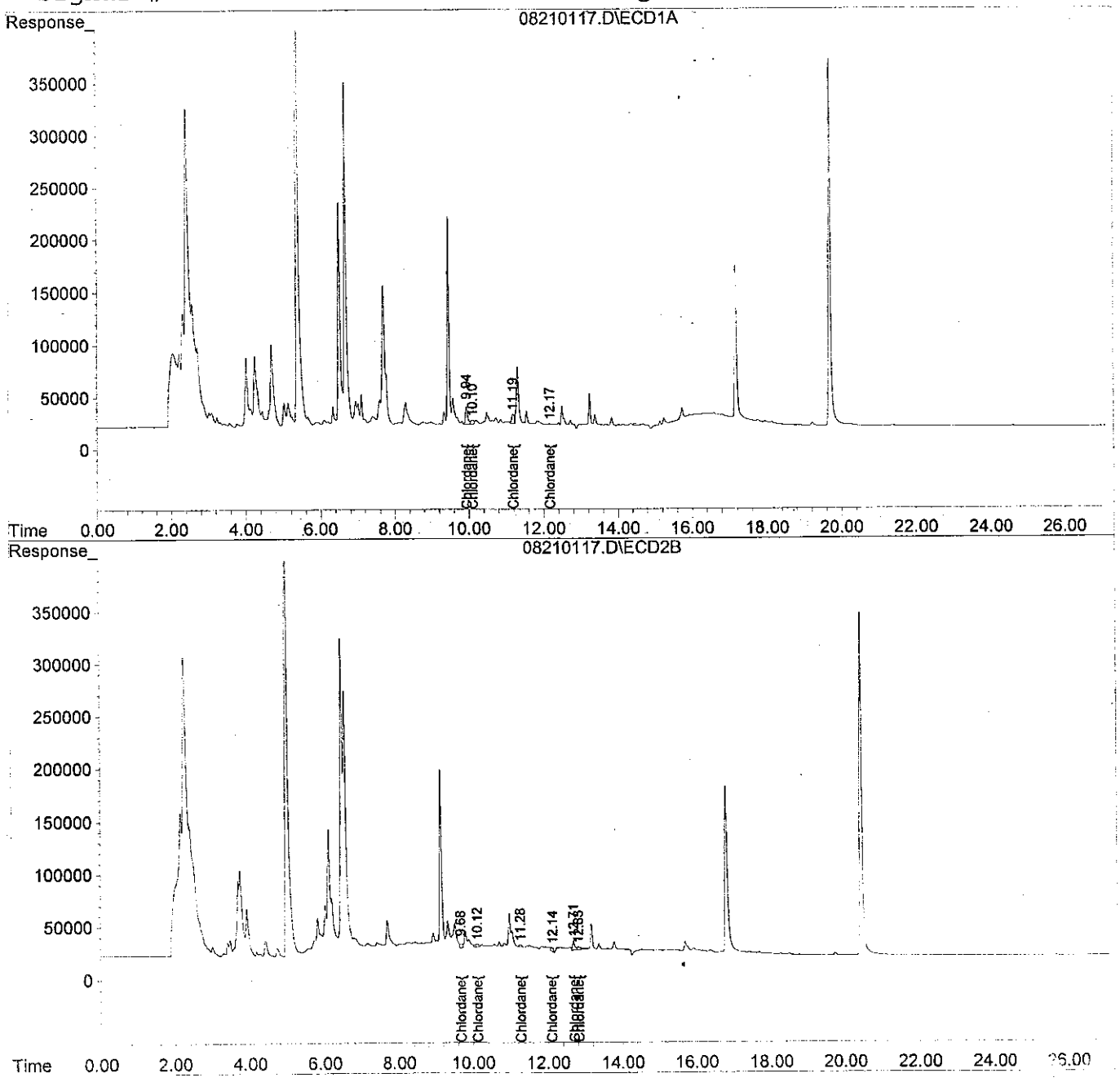
Chlord < $\frac{1}{2}$ PQL

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:42 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:45 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
	Target Compounds							
1) L	Toxaphene{1}	14.07	14.95	22322	202943	9.588	69.429	#
2) L	Toxaphene{2}	15.14	15.16	345451	257948	50.365	34.801	#
3) L	Toxaphene{3}	15.73f	15.70	2418690	1144708	396.468	193.044	#
4) L	Toxaphene{4}	16.10	15.92	1214190	515076	312.342	77.332	#
5) L	Toxaphene{5}	16.59	16.82f	978454	8900760	113.945	944.676	#
6) L	Toxaphene{6}	0.00	0.00	0	0	N.D.	N.D.	
7) L	Toxaphene{7}	17.76	17.69f	619433	321978	183.720	88.782	#
Sum	Toxaphene			5598540	11343413	1066.428	1408.064	
Average	Toxaphene					177.738	234.677	

TOX < ½ RL

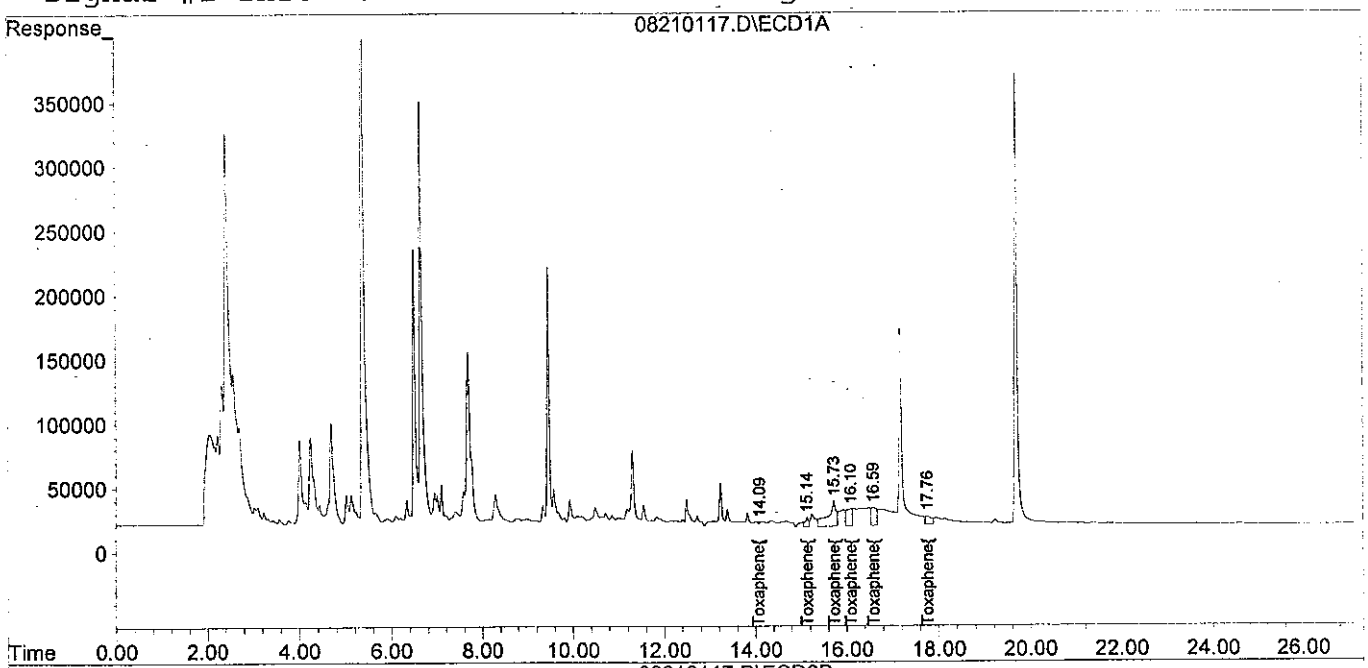
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

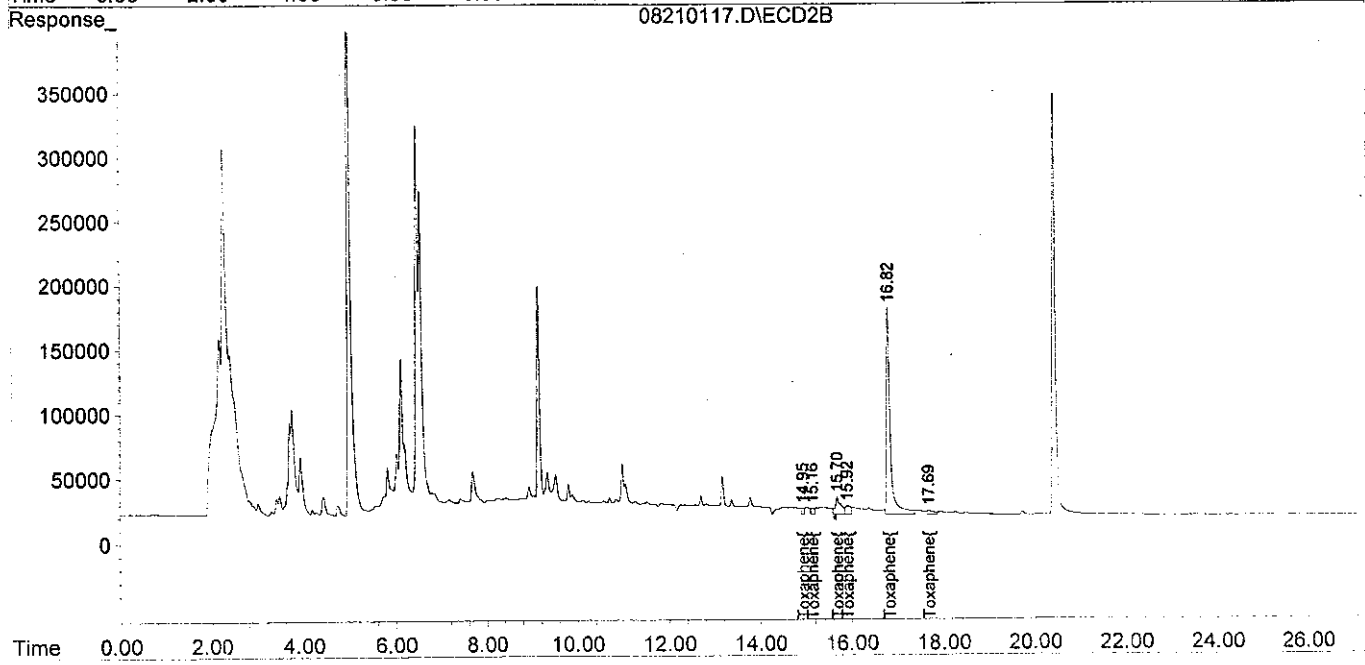
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\082101\08210117.D\ECD2B.CH
Acq On : 08/21/01 22:23 Operator: YGK
Sample : QPW0809011 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:45 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\081401\08140109.D Vial: 9
Acq On : 08/14/01 18:16 Operator: YGK
Sample : QPW0809011 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	16636291	0.095 ug/ml
Spiked Amount 0.100		Recovery =	95.00%
12) S Decachlorobiphenyl	24.66	18059421	0.122 ug/ml
Spiked Amount 0.100		Recovery =	122.00% ✓
Target Compounds			
2) L1 Aroclor-1016{1}	0.00	0	N.D. ug/ml
3) L1 Aroclor-1016{2}	6.57f	201154	0.031 ug/ml
4) L1 Aroclor-1016{3}	7.78	140828	0.010 ug/ml
5) L1 Aroclor-1016{4}	8.18	198631	0.032 ug/ml
6) L1 Aroclor-1016{5}	9.81f	429901	0.099 ug/ml
Sum Aroclor-1016		970514	0.171 ug/ml
Average Aroclor-1016			0.043 ug/ml
7) L2 Aroclor-1260{1}	14.01	34995	0.004 ug/ml
8) L2 Aroclor-1260{2}	14.58	64987	0.005 ug/ml
9) L2 Aroclor-1260{3}	17.49	274	0.000 ug/ml
10) L2 Aroclor-1260{4}	18.14	6554	0.000 ug/ml
11) L2 Aroclor-1260{5}	0.00	0	N.D. ug/ml
Sum Aroclor-1260		106810	0.009 ug/ml
Average Aroclor-1260			0.002 ug/ml

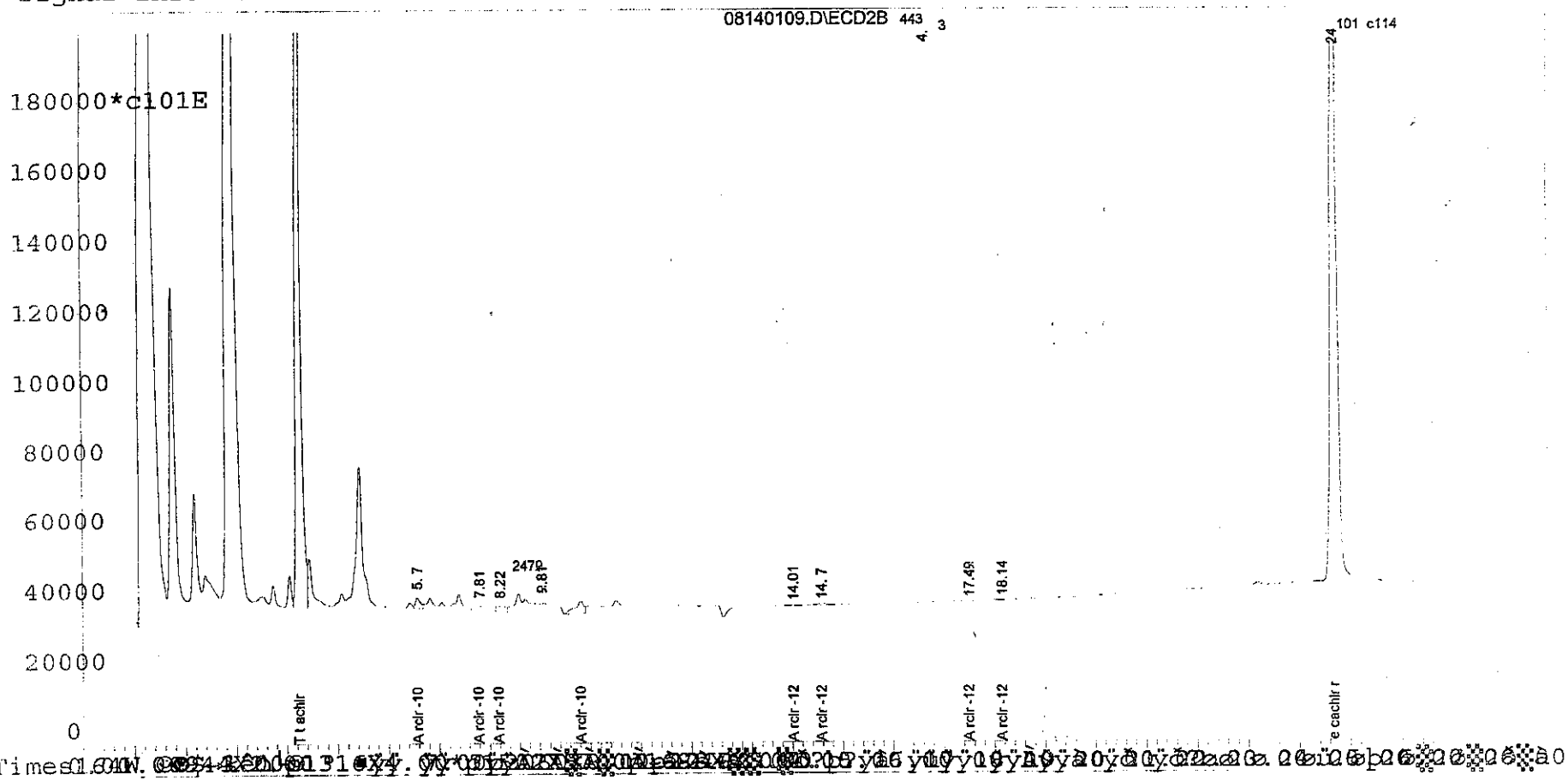
PCB <0.2

Quantitation Report

Data File : C:\HPCHEM\3\DATA\081401\08140109.D Vial: 9
Acq On : 08/14/01 18:16 Operator: YGK
Sample : QPW0809011 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info : *c16384D



Accura Analytical Laboratory, Inc.

Pesticides LCS Report

Sample ID:	QPW0809012	**Date Acquired:**	8/21/01
Operator:	YGK	**Instrument ID:**	PEST-A
Data File:	08210118	**Bottle #:**	18
Method:	8081A	**Matrix:**	Water

Compounds	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Aldrin	0.10	0.081	81%	29 - 118	Pass
alpha-BHC	0.10	0.089	89%	39 - 135	Pass
beta-BHC	0.10	0.082	82%	42 - 118	Pass
gamma-BHC	0.10	0.085	85%	36 - 122	Pass
delta-BHC	0.10	0.1	100%	49 - 123	Pass
4,4'-DDD	0.10	0.104	104%	70 - 115	Pass
4,4'-DDE	0.10	0.099	99%	62 - 110	Pass
4,4'-DDT	0.10	0.1	100%	64 - 116	Pass
Dieldrin	0.10	0.108	108%	47 - 113	Pass
Endosulfan I	0.10	0.075	75%	37 - 118	Pass
Endosulfan II	0.10	0.055	55%	32 - 132	Pass
Endosulfan Sulfate	0.10	0.119	119%	54 - 129	Pass
Endrin	0.10	0.109	109%	34 - 140	Pass
Endrin Aldehyde	0.10	0.093	93%	44 - 127	Pass
Endrin Ketone	0.10	0.083	83%	49 - 120	Pass
Heptachlor epoxide	0.10	0.09	90%	63 - 111	Pass
Heptachlor	0.10	0.079	79%	33 - 120	Pass
Methoxychlor	0.10	0.095	95%	43 - 136	Pass

Surrogates	Expected Rec. (ppm)	Actual Rec. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Tetrachloro-m-xylene	0.10	0.094	94%	32 - 107	Pass
Decachlorobiphenyl	0.10	0.083	83%	39 - 127	Pass

*Inhouse limits to be developed.

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210118.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\082101\08210118.D\ECD2B.CH
Acq On : 08/21/01 22:55 Operator: YGK
Sample : QPW0809012 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

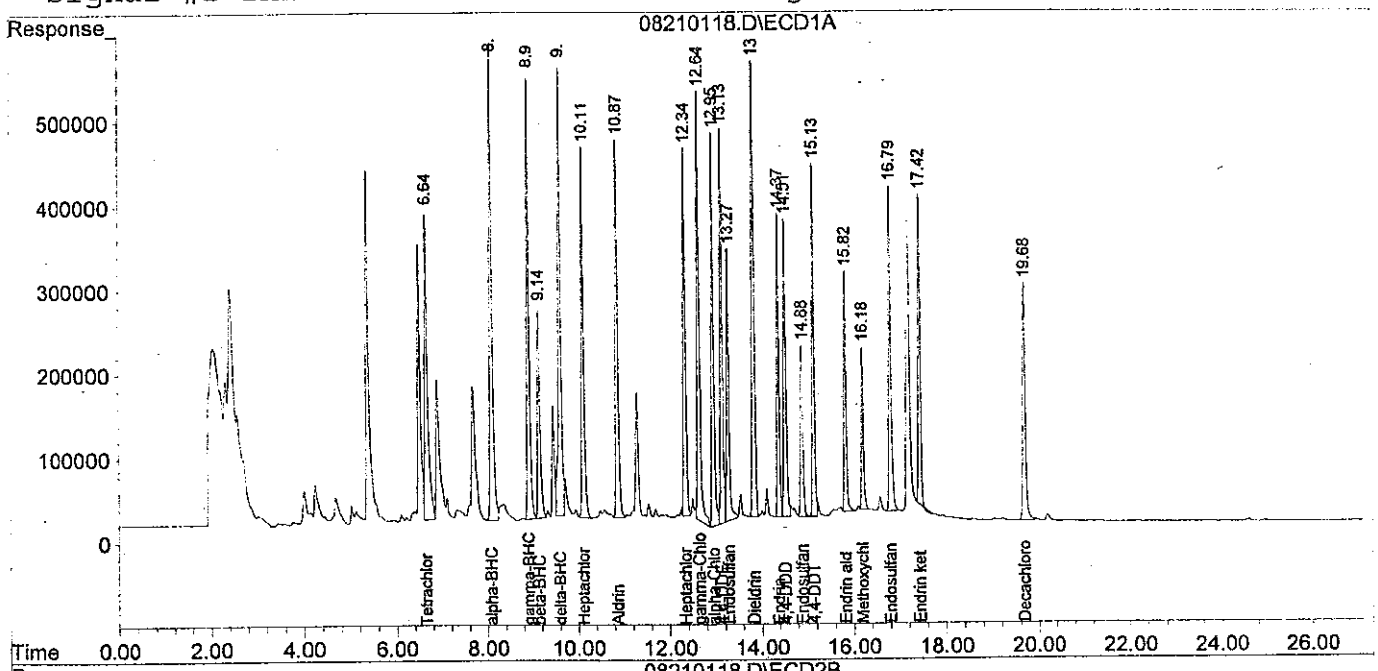
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
	System Monitoring Compounds							
1) S	Tetrachloro-m-xy	6.65	6.46	16232163	10902584	94.090	71.616	
	Spiked Amount 100.000			Recovery	=	94.09%	71.62%	
22) S	Decachlorobiphen	19.68	20.44	11007670	11376718	83.822	87.952	
	Spiked Amount 100.000			Recovery	=	83.82%	87.95%	
	Target Compounds							
2) T	alpha-BHC	8.08	8.02	21940581	20847021	89.237	88.759	
3) T	beta-BHC	9.14	9.18	8937921	12146950	81.786	125.670	#
4) T	gamma-BHC (Linda	8.91	8.95	19727933	19369316	84.877	95.541	
5) T	delta-BHC	9.60	9.92	21892232	17295344	99.596	84.546	
6) T	Heptachlor	10.11	10.05	15999048	15871023	78.733	76.926	
7) T	Aldrin	10.87	10.85	15730918	15399756	81.283	83.978	
8) T	Heptachlor epoxi	12.34	12.24	14788994	13360570	90.160	82.276	
9) T	Endosulfan I	13.27	13.16	12379102	11138704	74.615	70.036	
10) T	gamma-Chlordane	12.64	12.68	17690097	16844230	93.998	87.757	
11) T	alpha-Chlordane	12.95	13.02	15033513	16045522	82.849	88.109	
12) T	4,4-DDE	13.13	13.43	15573456	15188882	99.124	94.996	
13) T	Dieldrin	13.83	13.79	17327118	17237471	108.221	108.821	
14) T	Endrin	14.37	14.48	11543144	9720271	109.208	110.142	
15) T	4,4-DDD	14.51	14.74	11731252	11468205	104.332	98.860	
16) T	Endosulfan II	14.88	14.96	6717183	10286446	54.711	71.373	#
17) T	Endrin aldehyde	15.82	15.71	9218610	9871770	93.116	93.932	
18) T	4,4-DDT	15.13	15.43	12863593	13221843	100.044	102.703	
19) T	Endosulfan sulfa	16.79	16.32	13545597	12288286	119.070	102.048	
20) T	Methoxychlor	16.18	16.92	5966178	9657028	95.200	169.369	#
21) T	Endrin ketone	17.42	17.51	11380831	12331485	82.783	89.909	

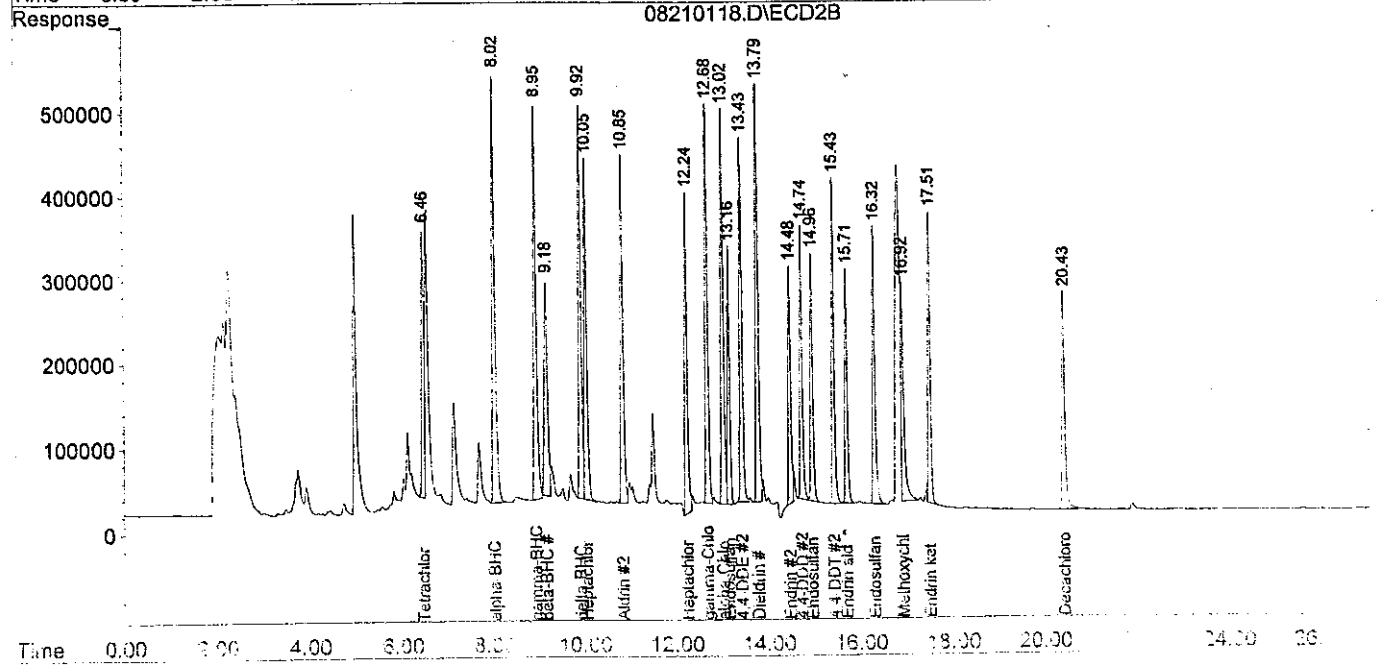
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210118.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\082101\08210118.D\ECD2B.CH
Acq On : 08/21/01 22:55 Operator: YGK
Sample : QPW0809012 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:26 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Accura Analytical Laboratory, Inc.

PCB's LCS Report

Sample ID:	QPW0809012	**Date Acquired:**	8/14/01
Operator:	YGK	**Instrument ID:**	PEST-C
Data File:	08140110	**Bottle #:**	10
Method:	8082	**Matrix:**	WATER

Compounds	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
AR 1016	1.00	0.976	98%	61 - 112	Pass
AR 1260	1.00	1.128	113%	70 - 129	Pass

Surrogate	Expected Conc. (ppm)	Actual Conc. (ppm)	Percent Recovery	Recovery Limits (%)	Pass/ Fail
Decachlorobiphenyl	0.10	0.093	93%	46 - 138	Pass

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\081401\08140110.D Vial: 10
Acq On : 08/14/01 18:50 Operator: YGK
Sample : QPW0809013 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

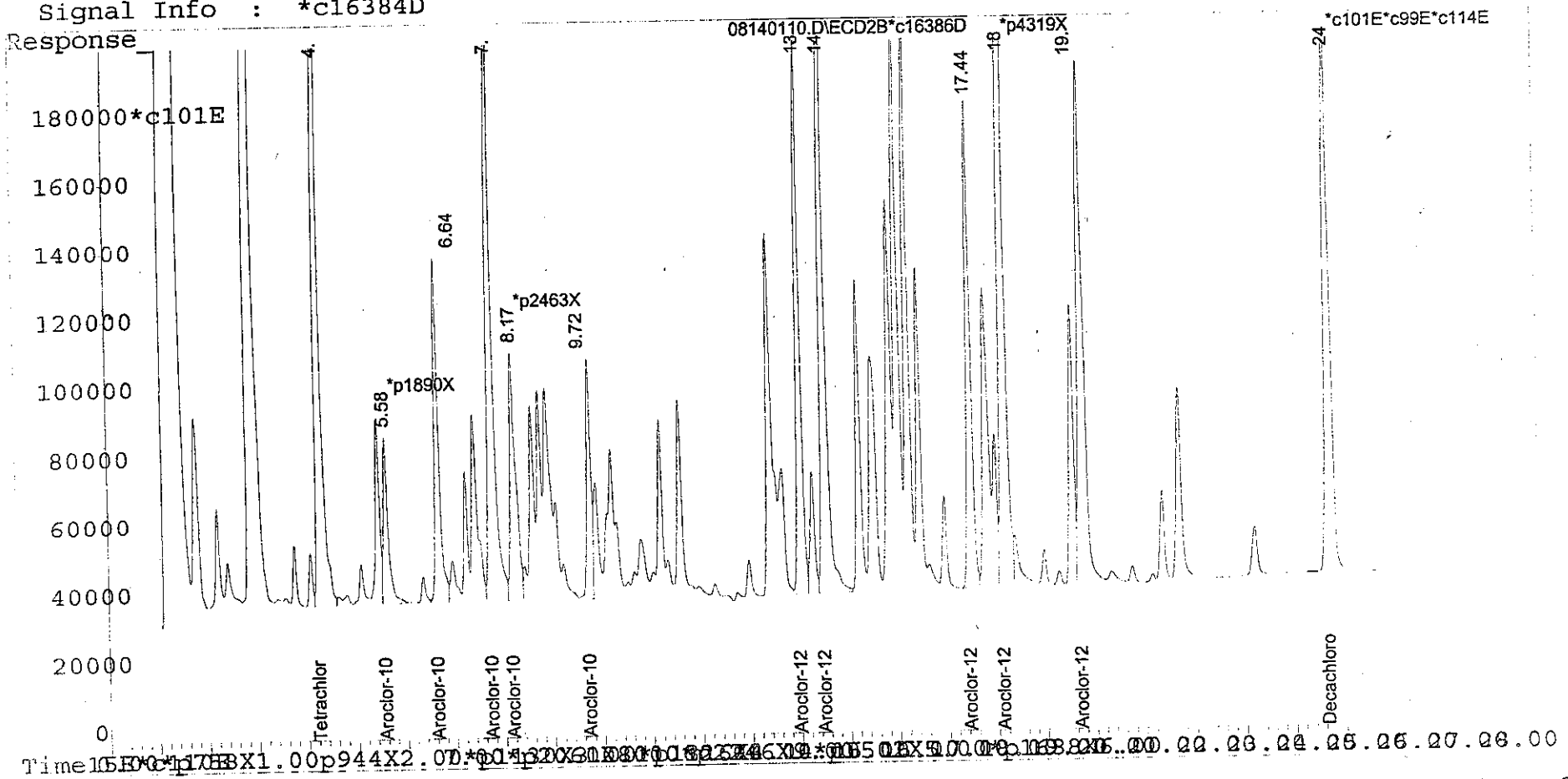
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	20096328	0.115 ug/ml
Spiked Amount 0.100		Recovery =	115.00%
12) S Decachlorobiphenyl	24.66	13742572	0.093 ug/ml
Spiked Amount 0.100		Recovery =	93.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	3367571	0.974 ug/ml
3) L1 Aroclor-1016{2}	6.64	6338579	0.978 ug/ml
4) L1 Aroclor-1016{3}	7.74	14153608	0.970 ug/ml
5) L1 Aroclor-1016{4}	8.17	6066845	0.977 ug/ml
6) L1 Aroclor-1016{5}	9.72	4283226	0.983 ug/ml
Sum Aroclor-1016		34209829	4.882 ug/ml
Average Aroclor-1016			0.976 ug/ml
7) L2 Aroclor-1260{1}	13.99	9924899	1.107 ug/ml
8) L2 Aroclor-1260{2}	14.48	15841114	1.183 ug/ml
9) L2 Aroclor-1260{3}	17.44	9061429	1.134 ug/ml
10) L2 Aroclor-1260{4}	18.11	22034425	1.105 ug/ml
11) L2 Aroclor-1260{5}	19.70	13038501	1.110 ug/ml
Sum Aroclor-1260		69900368	5.640 ug/ml
Average Aroclor-1260			1.128 ug/ml

Data File : C:\HPCHEM\3\DATA\081401\08140110.D
Acq On : 08/14/01 18:50
Sample : QPW0809013
Misc :
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Vial: 10
Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info : *c16384D



Accura Analytical Laboratory, Inc.

PCB's LCS/LCSD Report

Sample ID:	QPW0801014+15	**Date Acquired:**	8/3/01
Operator:	YGK	**Instrument ID:**	HP-GCF
Data File:	08030104+05	**Bottle #:**	4+5
Method:	8082	**Matrix:**	Water

Compounds	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail*c	6399Ds211W ☺♥& ' '
	1.0	0.915	92%	0.915	92%	61 - 112	Pass	Pass	0%	< 20	Pass1X	
	1.0	1.06	106%	1.044	104%	70 - 129	Pass	Pass	2%	< 20	Pass	Aroclor 1260

rogate	Expected Conc.(ppm)	LCS Act. Conc.(ppm)	LCS % Recovery	LCSD Act. Conc.(ppm)	LCSD % Recovery	Recovery Limits (%)	Pass/ Fail	Pass/ Fail*	ÿÿà?ÿøÿþ ÿÿ ÿÿÿ ÿÃÿÀÿ À þà þà?ü ð?ü ð ü ð

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\080301\08030104.D Vial: 4
Acq On : 08/03/01 10:41 Operator: YGK
Sample : QPW0801014 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 7 9:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	17210906	0.099 ug/ml
Spiked Amount 0.100		Recovery = 99.00%	
12) S Decachlorobiphenyl	24.70	18496688	0.125 ug/ml
Spiked Amount 0.100		Recovery = 125.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.59	3513518	1.016 ug/ml
3) L1 Aroclor-1016{2}	6.65	5448288	0.840 ug/ml
4) L1 Aroclor-1016{3}	7.75	12869100	0.882 ug/ml
5) L1 Aroclor-1016{4}	8.19	5569018	0.897 ug/ml
6) L1 Aroclor-1016{5}	9.74	4103022	0.942 ug/ml
Sum Aroclor-1016		31502947	4.577 ug/ml
Average Aroclor-1016			0.915 ug/ml
7) L2 Aroclor-1260{1}	14.02	9024900	1.007 ug/ml
8) L2 Aroclor-1260{2}	14.51	14295062	1.068 ug/ml
9) L2 Aroclor-1260{3}	17.47	8476887	1.060 ug/ml
10) L2 Aroclor-1260{4}	18.14	20937989	1.050 ug/ml
11) L2 Aroclor-1260{5}	19.72	13093022	1.114 ug/ml
Sum Aroclor-1260		65827859	5.300 ug/ml
Average Aroclor-1260			1.060 ug/ml

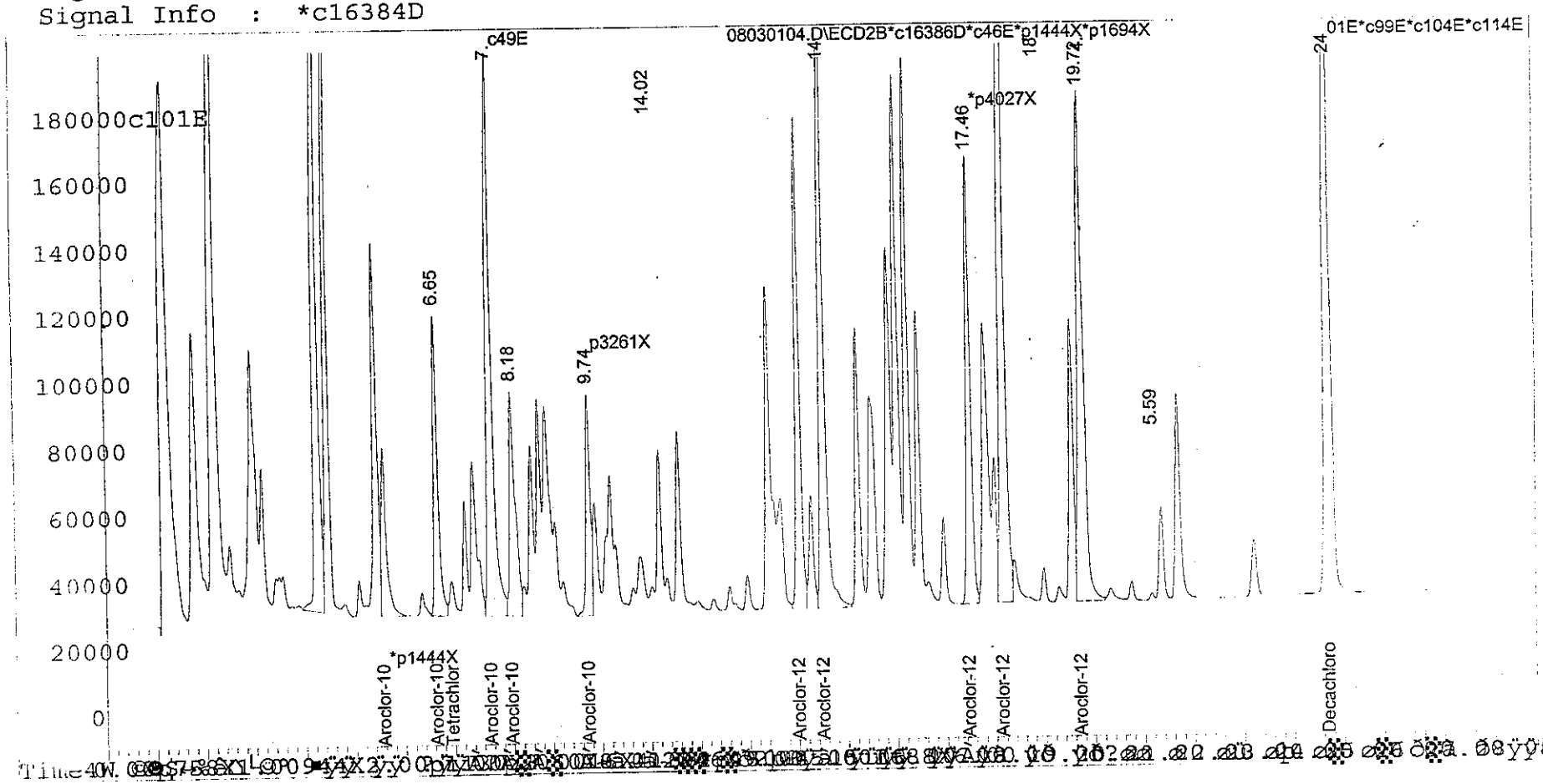
Quantitation Report

Data File : C:\HPCHEM\3\DATA\080301\08030104.D
Acq On : 08/03/01 10:41
Sample : QPW0801014
Misc :
IntFile : EVENTS.E
Quant Time: Aug 7 9:17 2001 Quant Results File: 07011660.RES

Vial: 4
Operator: YGK
Inst : HP-GCF
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info : *c16384D



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\080301\08030105.D Vial: 5
Acq On : 08/03/01 11:15 Operator: YGK
Sample : QPW0801015 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 7 9:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

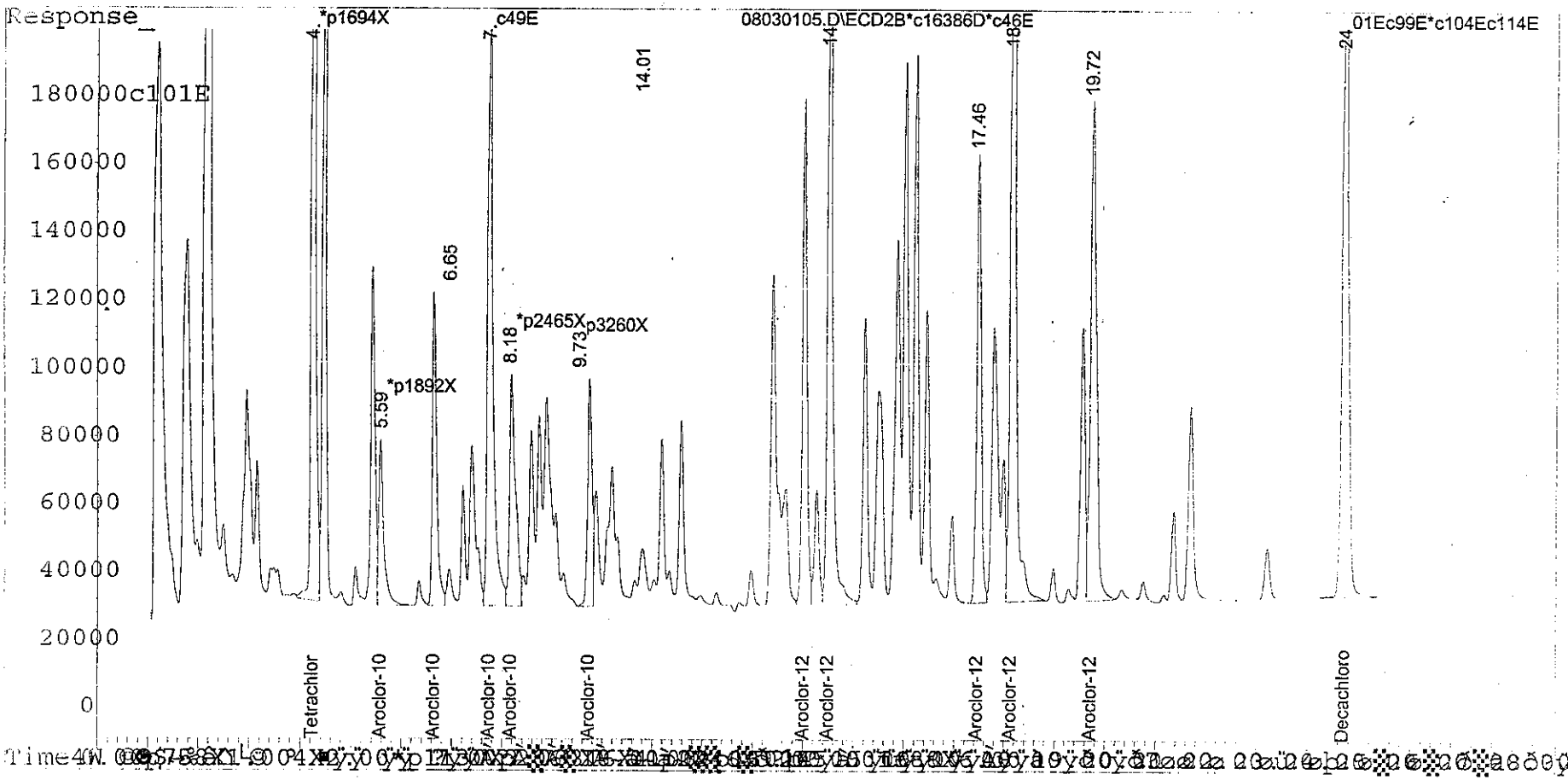
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	18050671	0.104 ug/ml
Spiked Amount 0.100		Recovery = 104.00%	
12) S Decachlorobiphenyl	24.69	15909675	0.107 ug/ml
Spiked Amount 0.100		Recovery = 107.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.59	3410021	0.986 ug/ml
3) L1 Aroclor-1016{2}	6.65	5573714	0.860 ug/ml
4) L1 Aroclor-1016{3}	7.75	13070689	0.896 ug/ml
5) L1 Aroclor-1016{4}	8.18	5622964	0.906 ug/ml
6) L1 Aroclor-1016{5}	9.74	4040077	0.927 ug/ml
Sum Aroclor-1016		31717465	4.574 ug/ml
Average Aroclor-1016			0.915 ug/ml
7) L2 Aroclor-1260{1}	14.01	9095160	1.015 ug/ml
8) L2 Aroclor-1260{2}	14.50	14320099	1.070 ug/ml
9) L2 Aroclor-1260{3}	17.46	8319894	1.041 ug/ml
10) L2 Aroclor-1260{4}	18.13	21226691	1.065 ug/ml
11) L2 Aroclor-1260{5}	19.72	12116543	1.031 ug/ml
Sum Aroclor-1260		65078387	5.222 ug/ml
Average Aroclor-1260			1.044 ug/ml

Quantitation Report

Data File : C:\HPCHEM\3\DATA\080301\08030105.D Vial: 5
Acq On : 08/03/01 11:15 Operator: YGK
Sample : QPW0801015 Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 7 9:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info : *c16384D*c46E



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SAMPLE EXTRACTION BATCHBOOK

Beginning Date: 8/1/01 **Batch ID:** Pest+WF1 **Matrix:** Water

Ext. Method: 3510 **MS ID:** LCS **MSD ID:** LCSD

	Lab. Proj. #	LIMS ID #	Ext. Date	Comment
1	28471	17542	8/1/01	
2	28479	17567		
3		17568		
4		17569		
5		17570		
6	28484	17588		
7	28511	17874	8/6/01	
8		17875		
9		17876		
10		17877		
11	28529	17934		
12	28530	17981	8/9/01	
13	28534	18003		
14		18004		
15	28579	18347	8/13/01	
16		18365		
17		18366		
18		18367		
19				
20				

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\080801\D002440.D\ECD1A.CH Vial: 16
Signal #2 : E:\DATA\080801\D002440.D\ECD2B.CH
Acq On : 8 Aug 0201 14:43 Operator: RL
Sample : QPW0801011 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 09 06:36:41 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
1) CSA Tetrachloro-m-xy	4.01	3.97	255.5E6	114.7E6	77.999	76.477	
Spiked Amount 100.000			Recovery =		78.00%	76.48%	
22) CSA Decachlorobiphen	14.78	15.63	486.1E6	209.9E6	101.058	86.046	
Spiked Amount 100.000			Recovery =		101.06%	86.05%	
Target Compounds							
2) CMA alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3) CMA gamma-BHC (Linda	5.44	0.00	3406899	0	0.633	N.D.	#
4) CMA Heptachlor	6.31	0.00	3317556	0	0.650	N.D.	#
5) CMB Aldrin	6.91	7.04	9881324	3942803	1.823	1.614	
6) CMB beta-BHC	0.00	5.72f	0	1326623	N.D.	1.159	#
7) CMB delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
8) CMB Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9) CMA Endosulfan I	8.89	0.00	2662432	0	0.497	N.D.	#
10) CMB gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11) CMB alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12) CMB 4,4-DDE	8.79	0.00	6248604	0	1.282	N.D.	#
13) CMA Dieldrin	9.37	9.52	15320242	6764007	2.763	2.565	
14) CMA Endrin	0.00	0.00	0	0	N.D.	N.D.	
15) CMB Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
16) CMA 4,4-DDD	0.00	10.42	0	1105781	N.D.	0.544	#
17) CMA 4,4-DDT	10.57	0.00	-2822967	0	N.D.	N.D.	
18) CMB Endrin Aldehyde	11.12f	0.00	1711666	0	0.402	N.D.	#
19) CMB Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20) CMA Methoxychlor	11.60	12.47f	3378396	1257025	1.275	1.050	
21) CMB Endrin Ketone	12.60f	0.00	5390736	0	0.856	N.D.	#

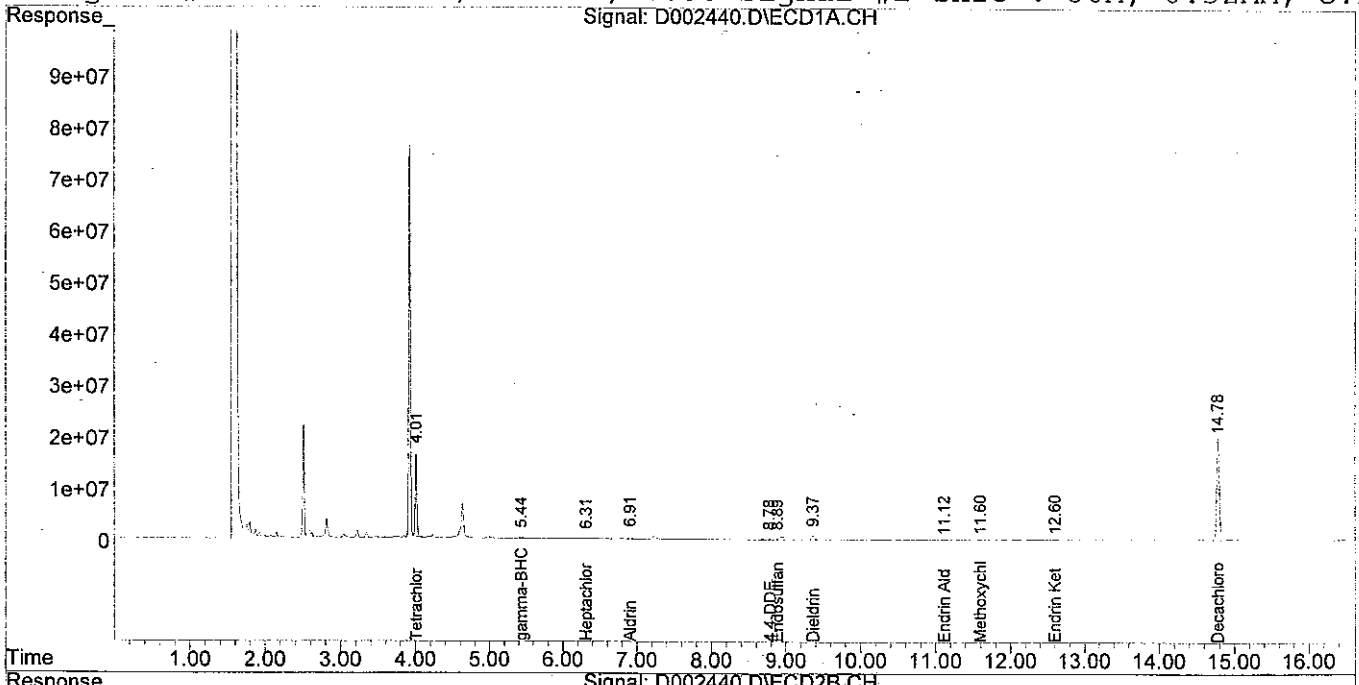
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

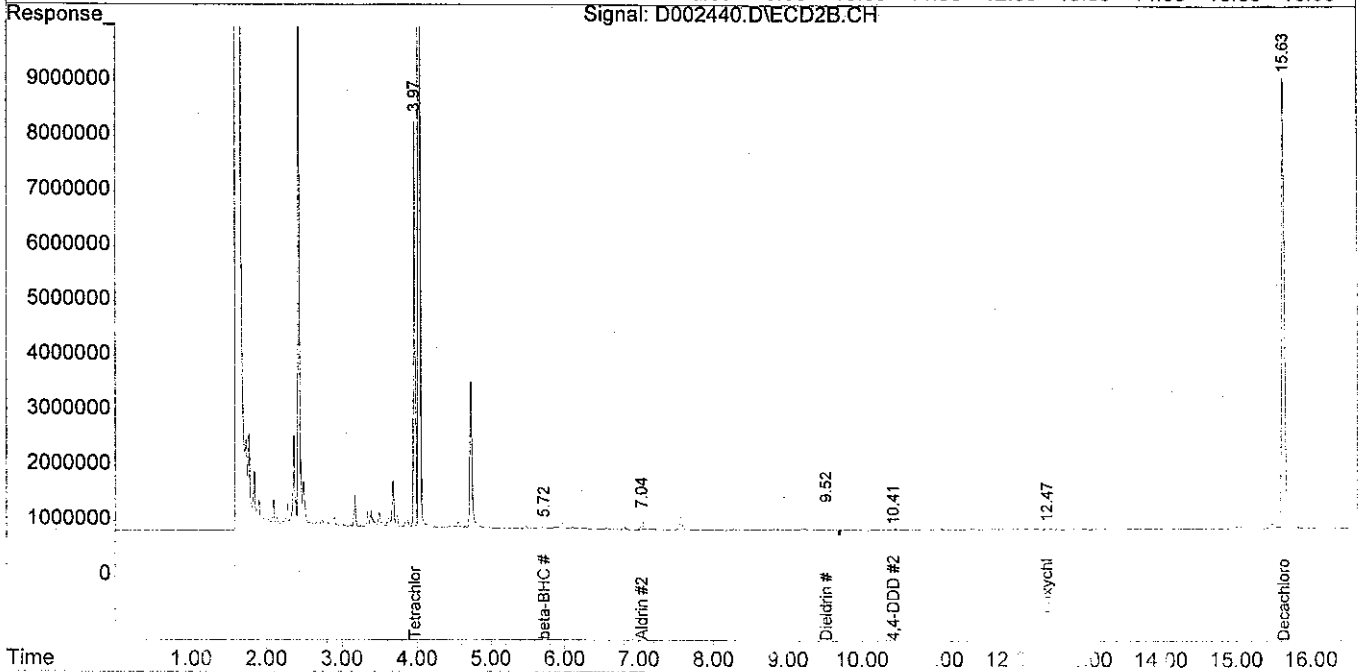
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\080801\D002440.D\ECD1A.CH Vial: 16
Signal #2 : E:\DATA\080801\D002440.D\ECD2B.CH
Acq On : 8 Aug 0201 14:43 Operator: RL
Sample : QPW0801011 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 9 6:36 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\080801\D002441.D\ECD1A.CH Vial: 17
Signal #2 : E:\DATA\080801\D002441.D\ECD2B.CH
Acq On : 8 Aug 0201 15:12 Operator: RL
Sample : QPW0801012 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 09 06:36:48 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.00	3.97	130.9E6	59497932	39.981	39.671
Spiked Amount 100.000			Recovery =		39.98%	39.67%
22) CSA Decachlorobiphen	14.78	15.63	222.7E6	95431438	46.286	39.123
Spiked Amount 100.000			Recovery =		46.29%	39.12%
Target Compounds						
2) CMA alpha-BHC	4.90	4.96	212.7E6	92530776	37.186	35.379
3) CMA gamma-BHC (Linda	5.46	5.60	203.1E6	88361538	37.746	35.596
4) CMA Heptachlor	6.33	6.42	179.1E6	70322142	35.092	32.586
5) CMB Aldrin	6.90	7.04	180.7E6	76000658	33.343	31.112
6) CMB beta-BHC	5.61	5.75	91932199	40166297	38.411	35.105
7) CMB delta-BHC	5.94	6.31	199.9E6	88271653	36.055	35.679
8) CMB Heptachlor Epoxi	8.09	8.18	198.3E6	79417619	39.083	34.892
9) CMA Endosulfan I	8.87	8.96	146.9E6	60658456	27.445	25.412
10) CMB gamma-Chlordane	8.34	8.55	195.6E6	89868363	35.222	35.398
11) CMB alpha-Chlordane	8.60	8.85	184.5E6	84700654	35.832	33.996
12) CMB 4,4-DDE	8.77	9.22	183.0E6	84702738	37.563	35.606
13) CMA Dieldrin	9.36	9.52	208.2E6	93388594	37.556	35.416
14) CMA Endrin	9.83	10.14	186.4E6	81549324	41.087	38.728
15) CMB Endosulfan II	10.29	10.58	158.1E6	74387278	30.528	29.281
16) CMA 4,4-DDD	9.99	10.42	179.6E6	76782069	39.768	37.745
17) CMA 4,4-DDT	10.56	11.06	191.3E6	80710728	38.585	35.734
18) CMB Endrin Aldehyde	11.16	11.29	148.6E6	67703788	34.904	33.719
19) CMB Endosulfan Sulfa	12.06	11.86	183.2E6	77639816	38.262	33.348
20) CMA Methoxychlor	11.59	12.53	100.9E6	41736050	38.061	34.848
21) CMB Endrin Ketone	12.64	12.97	215.1E6	100.4E6	34.166	32.237

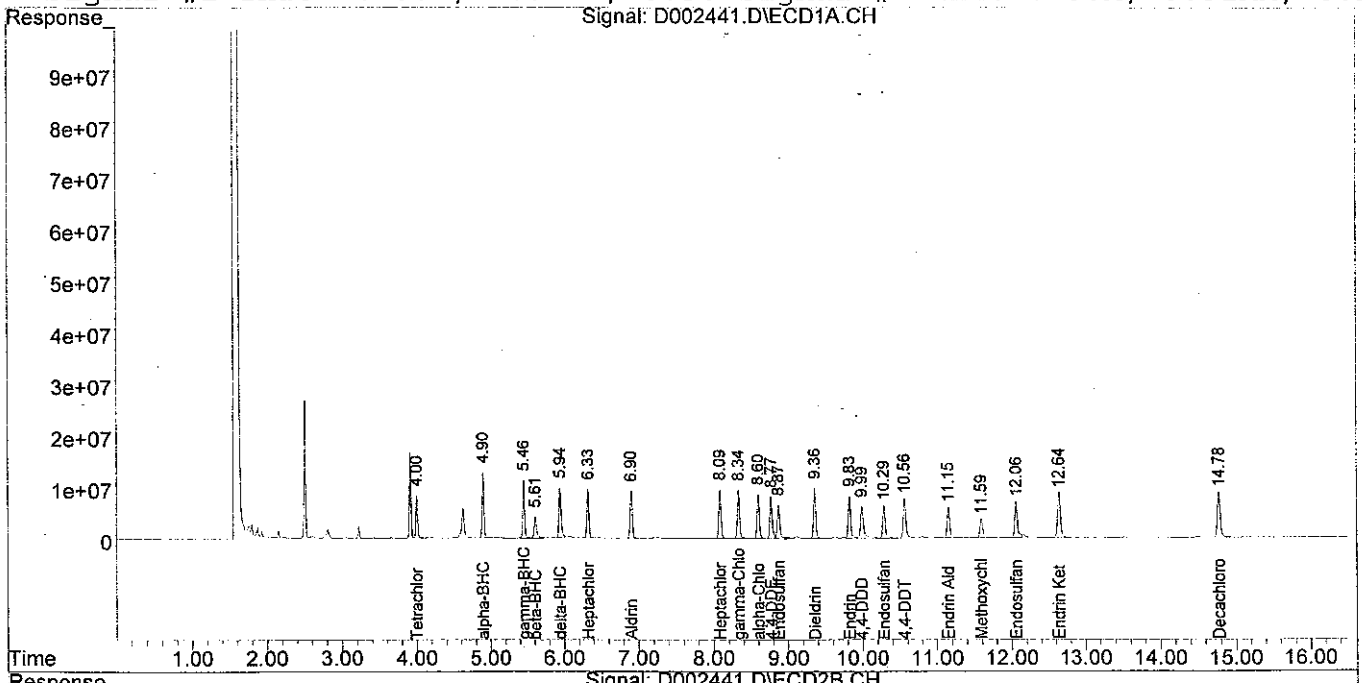
(f)=RT Delta > 1 Window (#)=Amounts differ by > 25% (m)=manual int.

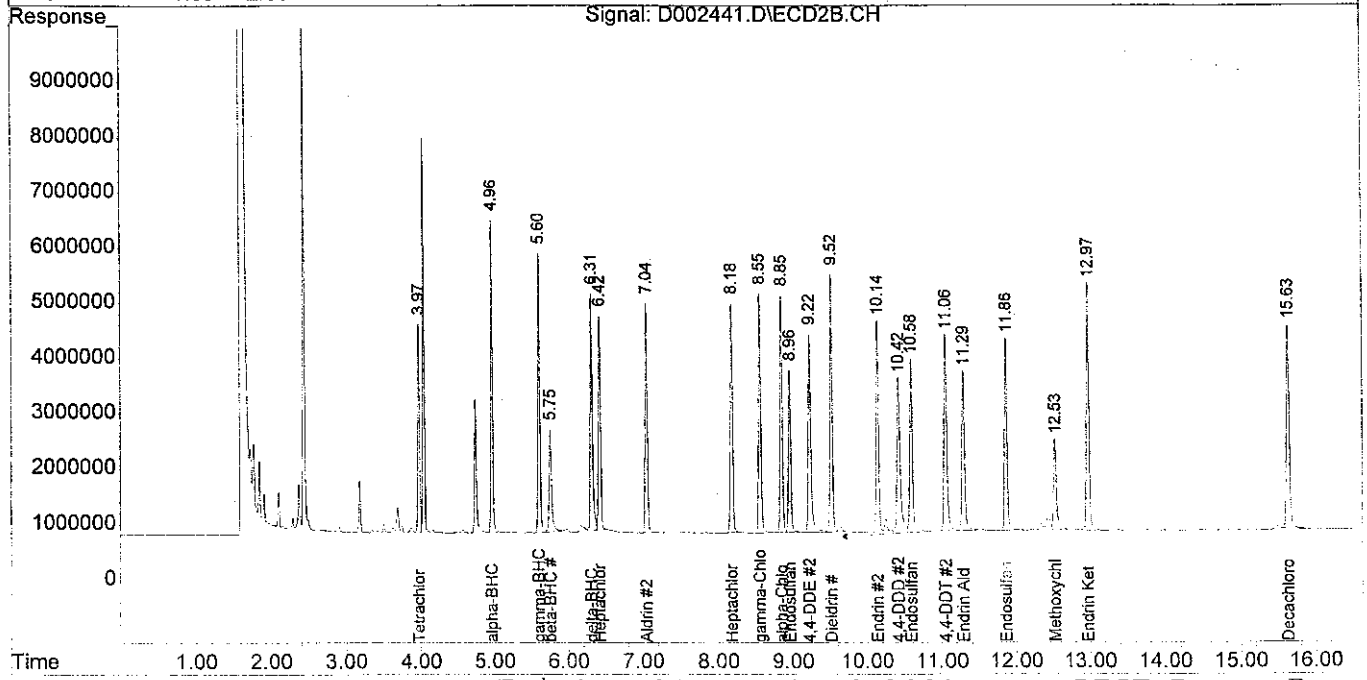
Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\080801\D002441.D\ECD1A.CH Vial: 17
Signal #2 : E:\DATA\080801\D002441.D\ECD2B.CH
Acq On : 8 Aug 0201 15:12 Operator: RL
Sample : QPW0801012 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 9 6:36 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\080801\D002442.D\ECD1A.CH Vial: 18
Signal #2 : E:\DATA\080801\D002442.D\ECD2B.CH
Acq On : 8 Aug 0201 15:41 Operator: RL
Sample : QPW0801013 Inst : AG-GCG
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 09 06:36:57 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Initial Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
1) CSA Tetrachloro-m-xy	4.00	3.97	175.6E6	77272443	53.617	51.522
Spiked Amount 100.000			Recovery =		53.62%	51.52%
22) CSA Decachlorobiphen	14.78	15.63	363.3E6	155.7E6	75.523	63.824
Spiked Amount 100.000			Recovery =		75.52%	63.82%
Target Compounds						
2) CMA alpha-BHC	4.90	4.96	328.4E6	139.8E6	57.415	53.458
3) CMA gamma-BHC (Linda	5.46	5.60	317.3E6	138.8E6	58.980	55.909
4) CMA Heptachlor	6.33	6.42	251.6E6	98315137	49.297	45.558
5) CMB Aldrin	6.90	7.05	249.9E6	103.8E6	46.108	42.498
6) CMB beta-BHC	5.61	5.75	145.0E6	66383299	60.569	58.019
7) CMB delta-BHC	5.95	6.31	336.6E6	147.9E6	60.708	59.791
8) CMB Heptachlor Epoxi	8.09	8.18	323.4E6	125.4E6	63.727	55.091
9) CMA Endosulfan I	8.87	8.96	240.4E6	100.7E6	44.914	42.187
10) CMB gamma-Chlordane	8.34	8.56	297.4E6	134.4E6	53.547	52.925
11) CMB alpha-Chlordane	8.60	8.85	269.3E6	132.1E6	52.302	53.038
12) CMB 4,4-DDE	8.77	9.22	288.4E6	133.3E6	59.190	56.032
13) CMA Dieldrin	9.36	9.52	353.5E6	156.7E6	63.754	59.445
14) CMA Endrin	9.83	10.14	324.4E6	140.2E6	71.528	66.562
15) CMB Endosulfan II	10.29	10.58	278.8E6	130.5E6	53.841	51.375
16) CMA 4,4-DDD	9.99	10.42	327.8E6	142.5E6	72.571	70.061
17) CMA 4,4-DDT	10.56	11.06	343.6E6	146.2E6	69.293	64.724
18) CMB Endrin Aldehyde	11.16	11.29	271.5E6	123.8E6	63.779	61.669
19) CMB Endosulfan Sulfa	12.06	11.86	342.4E6	144.2E6	71.482	61.933
20) CMA Methoxychlor	11.59	12.53	180.5E6	80722786	68.104	67.401
21) CMB Endrin Ketone	12.64	12.97	398.3E6	185.8E6	63.262	59.660

Quantitation Report (Not Reviewed)

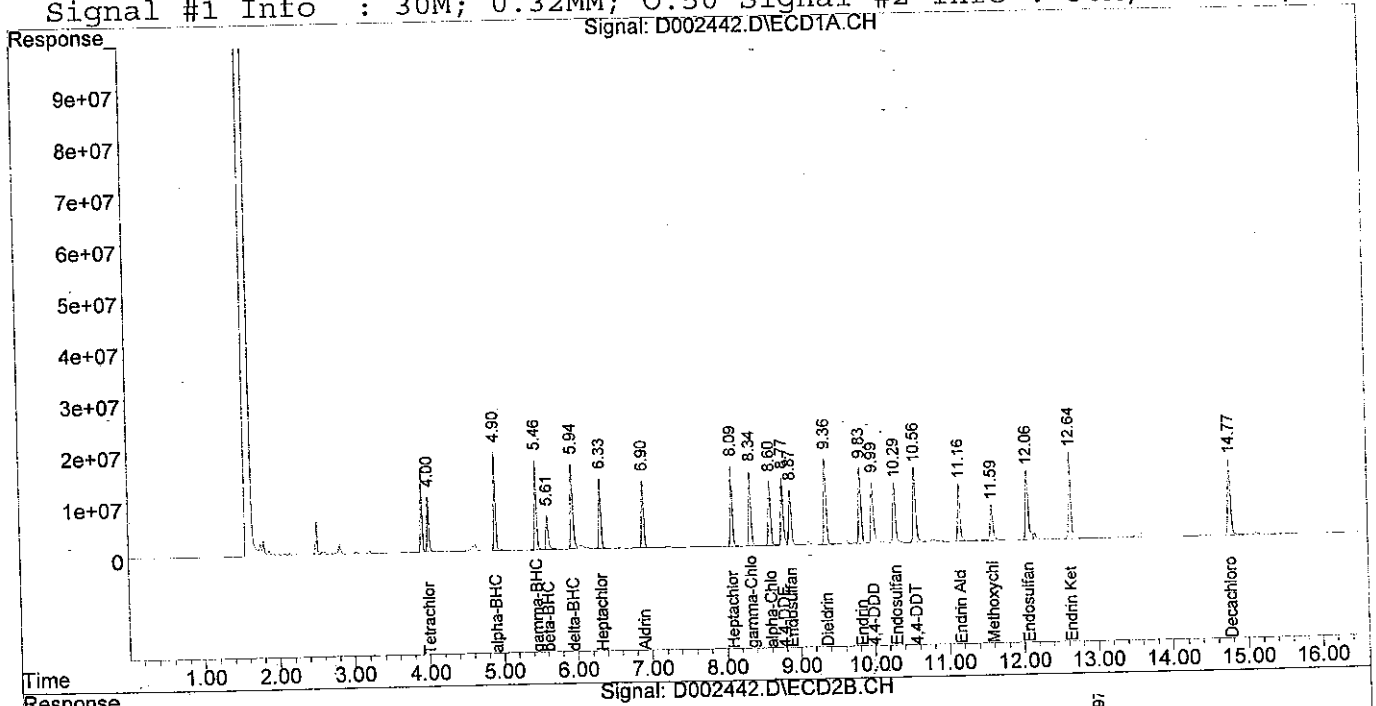
Signal #1 : E:\DATA\080801\D002442.D\ECD1A.CH
Signal #2 : E:\DATA\080801\D002442.D\ECD2B.CH
Acq On : 8 Aug 0201 15:41
Sample : QPW0801013
Misc :

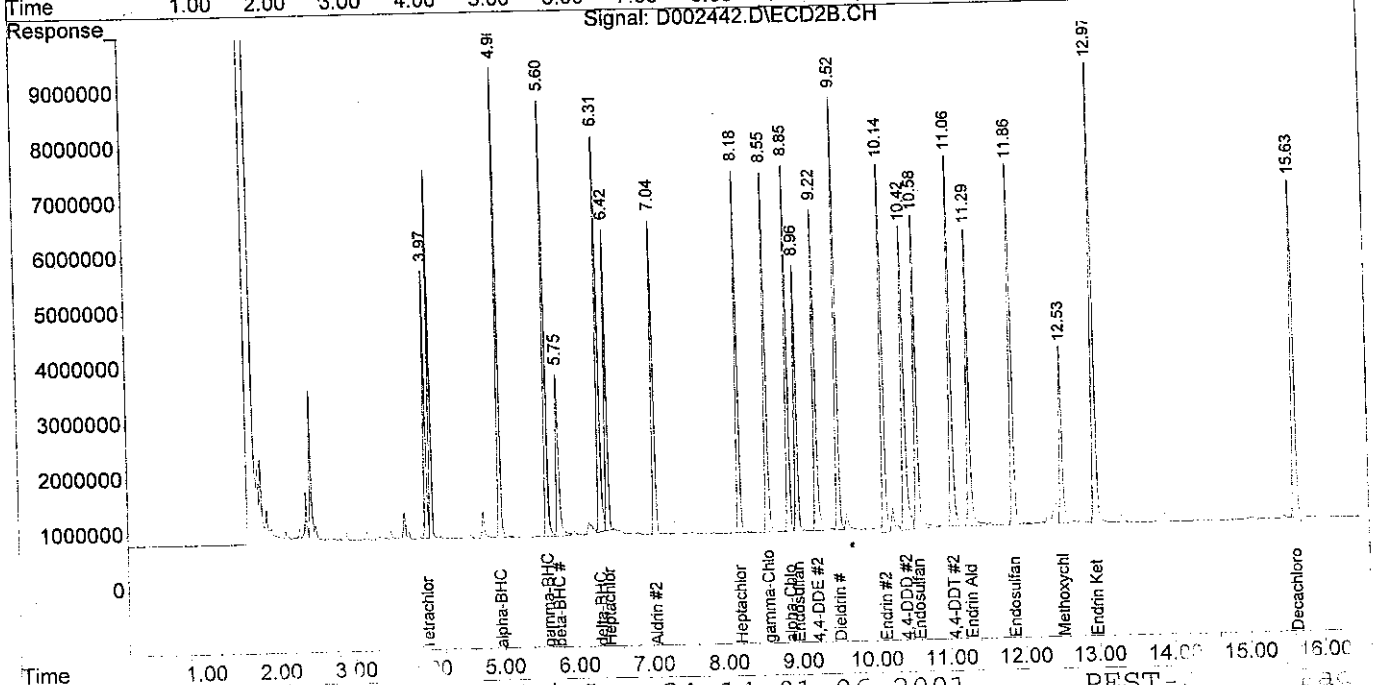
Vial: 18
Operator: RL
Inst : AG-GCG
Multiplr: 1.00

IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Aug 9 6:36 2001 Quant Results File: 8081A0808.RES

Quant Method : E:\METHODS\8081A0808.M (Chemstation Integrator)
Title : SW846-8081A,CALIBRATION 07/10/01
Last Update : Wed Aug 08 13:56:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : CLPACQ.M

Volume Inj. : 1UL
Signal #1 Phase : Rtx-CLPPEST1 Signal #2 Phase: Rtx-CLPPEST2
Signal #1 Info : 30M; 0.32MM; 0.50 Signal #2 Info : 30M; 0.32MM; 0.25UM





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD2B.CH
Acq On : 08/21/01 19:11 Operator: YGK
Sample : ICV PEST 100 PPB CCV Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:55 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

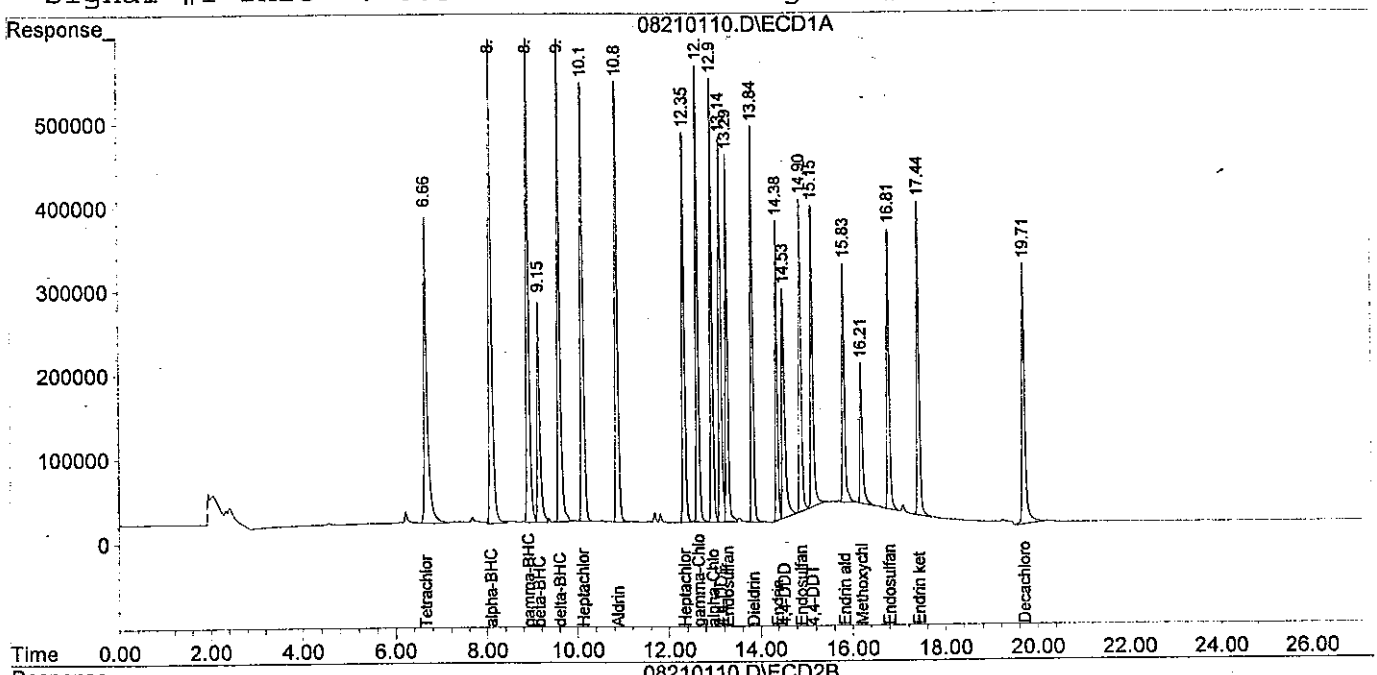
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	6.66	6.47	17127881	15344069	99.282	100.791
	Spiked Amount 100.000			Recovery	=	99.28% ✓	100.79%
22)	S Decachlorobiphen	19.71	20.46	13463434	13231875	102.522	102.294
	Spiked Amount 100.000			Recovery	=	102.52% ✓	102.29%
	Target Compounds						
2)	T alpha-BHC	8.10	8.04	24494514	23333781	99.624	99.347
3)	T beta-BHC	9.16	9.20	10302597	9446447	94.273	97.731
4)	T gamma-BHC (Linda	8.92	8.96	22524992	20524703	96.911	101.240
5)	T delta-BHC	9.61	9.94	21645746	20333368	98.475	99.396
6)	T Heptachlor	10.13	10.07	19090736	19527571	96.580	94.649
7)	T Aldrin	10.88	10.86	18506315	17972731	95.623	98.009
8)	T Heptachlor epoxi	12.35	12.25	15601744	15648474	95.115	96.365
9)	T Endosulfan I	13.29	13.17	15478676	14995667	93.297	94.288
10)	T gamma-Chlordane	12.65	12.70	17826175	18239050	94.721	95.024
11)	T alpha-Chlordane	12.96	13.04	17047446	17325185	93.948	95.136
12)	T 4,4-DDE	13.14	13.44	15159868	15620400	96.491	97.695
13)	T Dieldrin	13.84	13.80	15213968	15197744	95.023	95.944
14)	T Endrin	14.38	14.49	11168333	9150896	105.662	103.691
15)	T 4,4-DDD	14.53	14.76	11327258	11135769	100.739	95.994
16)	T Endosulfan II	14.90	14.98	12579505	13975954	102.459	96.973
17)	T Endrin aldehyde	15.83	15.73	9782970	10029806	98.817	95.436
18)	T 4,4-DDT	15.15	15.45	12667159	12781675	98.516	99.284
19)	T Endosulfan sulfa	16.81	16.34	11113997	12010098	97.696	99.738
20)	T Methoxychlor	16.21	16.95	6415037	5833960	102.362	102.319
21)	T Endrin ketone	17.44	17.53	12934295	13048115	94.083	95.134

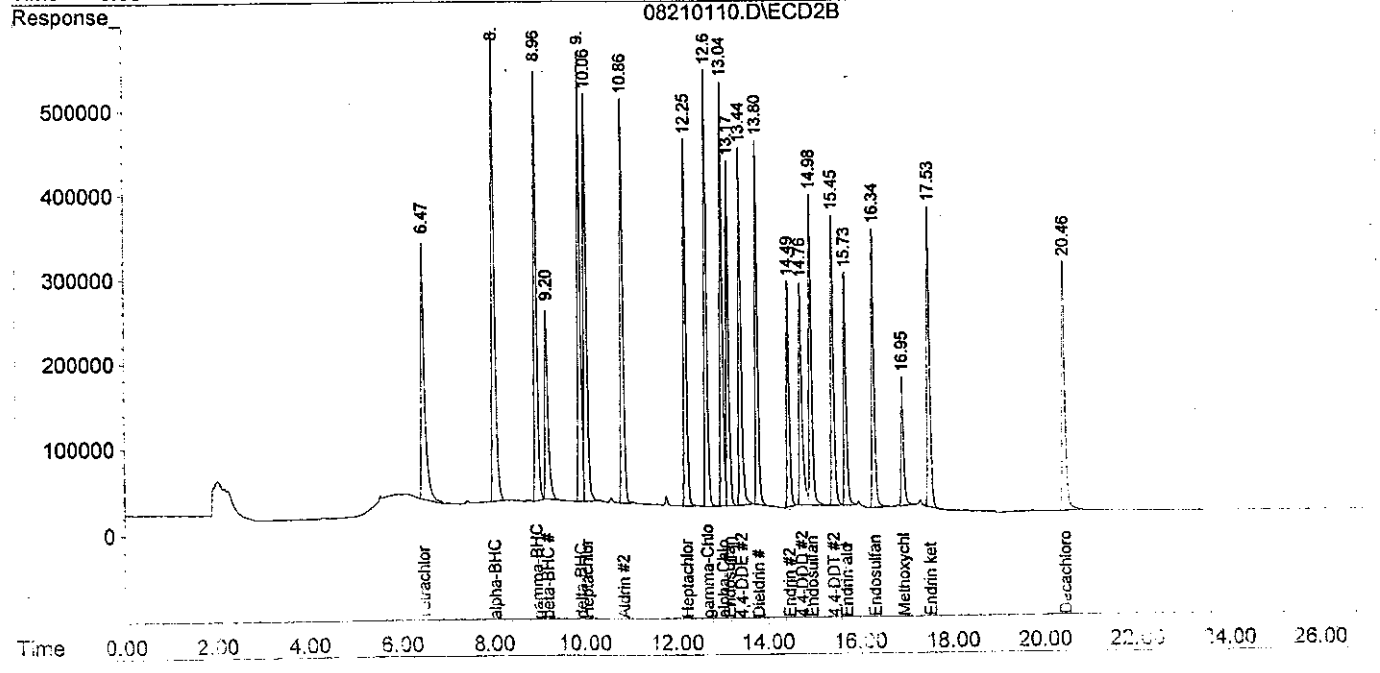
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD2B.CH
Acq On : 08/21/01 19:11 Operator: YGK
Sample : ICV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:55 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\082101\08210125.D\ECD1A.CH Vial: 25
Acq On : 22 Aug 2001 2:40 Operator: YGK
Sample : CCV PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile : AUTOINT2.E

Data File : C:\HPCHEM\1\DATA\082101\08210125.D\ECD2B.CH Vial: 25
Acq On : 22 Aug 2001 2:40 Operator: YGK
Sample : CCV PEST 50 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile : events2.e
Quant Time: Aug 23 10:28 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	6.64	6.45	9237443	8320561	53.545 107	54.655 109
	Spiked Amount 100.000			Recovery =		53.55%	54.66%
22)	S Decachlorobiphen	19.68	20.43	7369332	7347488	56.116 112	56.803 114
	Spiked Amount 100.000			Recovery =		56.12%	56.80%
	Target Compounds						
2)	T alpha-BHC	8.07	8.02	12959280	12585933	52.708	53.586
3)	T beta-BHC	9.13	9.18	5750379	5292692	52.619	54.757
4)	T gamma-BHC (Linda	8.90	8.94	12287379	11325005	52.865	55.862
5)	T delta-BHC	9.59	9.92	11806355	11185608	53.712	54.679
6)	T Heptachlor	10.11	10.05	11106519	11327126	52.556	54.902
7)	T Aldrin	10.86	10.84	10369920	10125788	53.582	55.218
8)	T Heptachlor epoxi	12.33	12.23	8817302	8947593	53.754	55.100
9)	T Endosulfan I	13.27	13.15	9027009	8728223	54.410	54.880
10)	T gamma-Chlordane	12.63	12.68	10198995	10499647	54.193	54.702
11)	T alpha-Chlordane	12.94	13.02	9653498	9939763	53.200	54.581
12)	T 4,4-DDE	13.12	13.43	8343929	8641872	53.108	54.049
13)	T Dieldrin	13.82	13.78	8640966	8736714	53.970	55.155
14)	T Endrin	14.36	14.47	5520950	4433056	52.233	50.232
15)	T 4,4-DDD	14.51	14.75	6373858	5991490	56.686	51.649
16)	T Endosulfan II	14.87	14.96	7283937	7992411	59.327	55.456
17)	T Endrin aldehyde	15.81	15.71	5470992	5612304	55.262	53.402
18)	T 4,4-DDT	15.13	15.43	6952563	6921029	54.072	53.760
19)	T Endosulfan sulfa	16.79	16.32	6089812	6678431	53.531	55.461
20)	T Methoxychlor	16.20	16.94	3574487	3141037	57.036	55.089
21)	T Endrin ketone	17.42	17.51	7492967	7677236	54.503	55.975

(F)=RT Delta > 1 (#)=Amounts differ by > 25% (m)=manual
08210125.D Thu Aug 23 10:28:13 2001

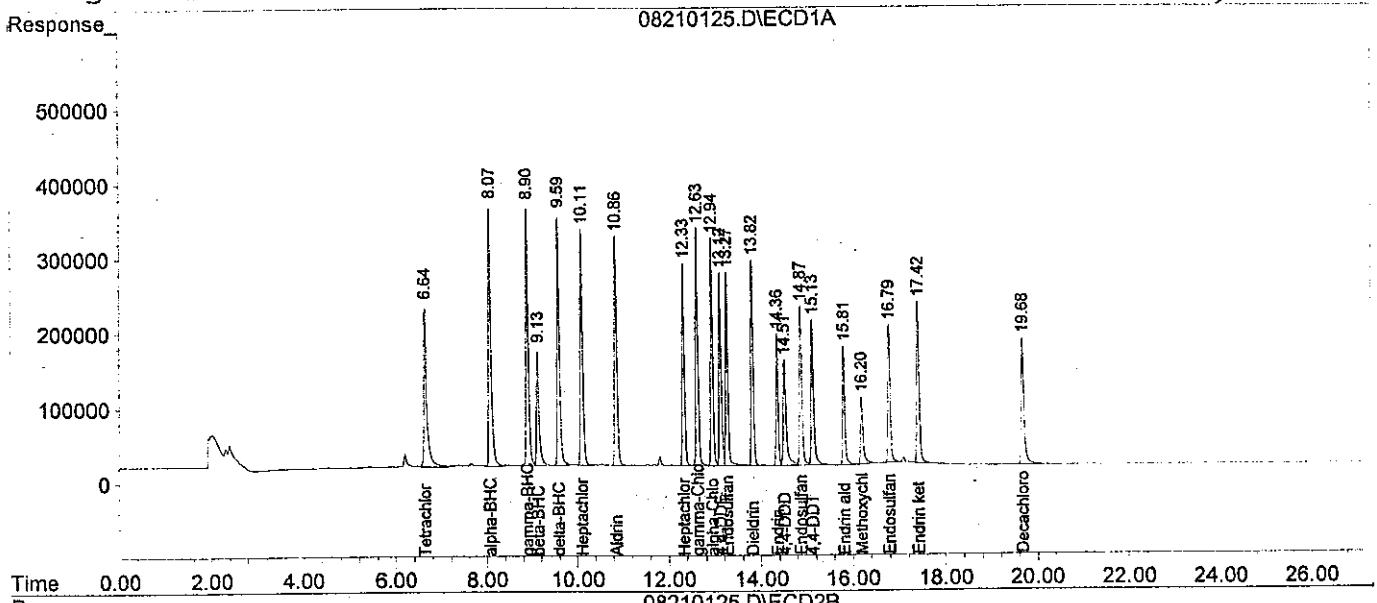
Quantitation Report

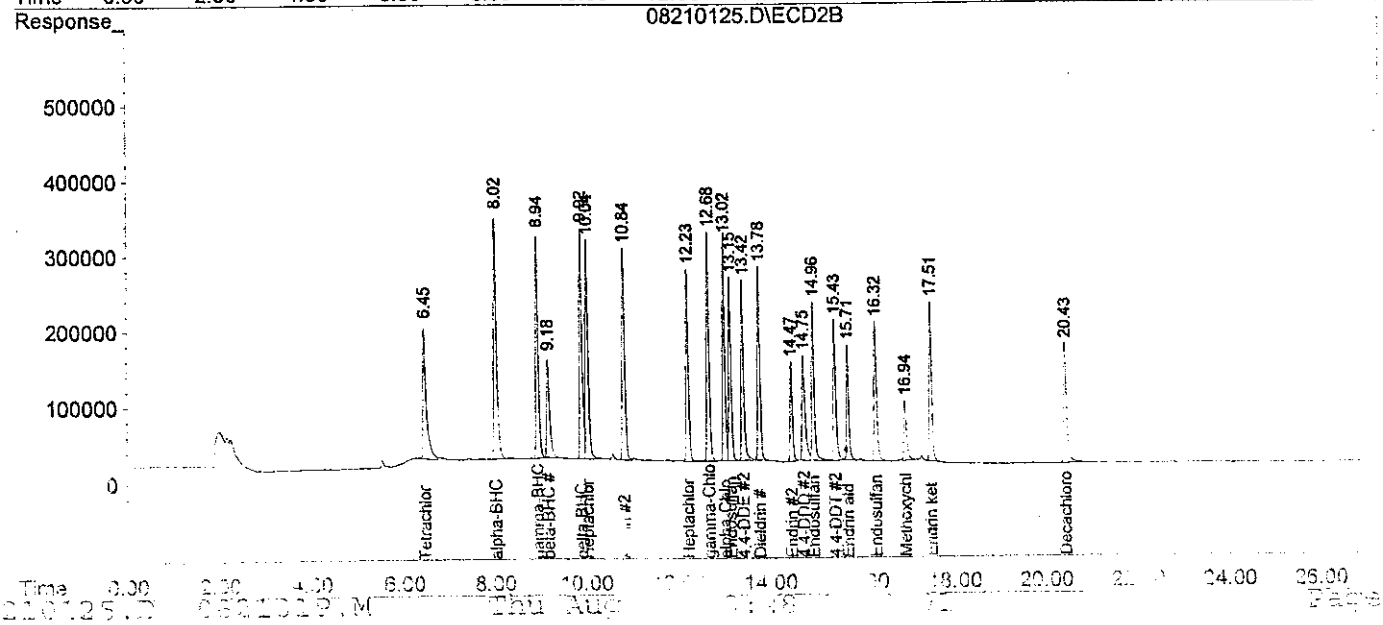
Data File : C:\HPCHEM\1\DATA\082101\08210125.D\ECD1A.CH Vial: 25
Acq On : 22 Aug 2001 2:40 Operator: YGK
Sample : CCV PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile : AUTOINT2.E

Data File : C:\HPCHEM\1\DATA\082101\08210125.D\ECD2B.CH Vial: 25
Acq On : 22 Aug 2001 2:40 Operator: YGK
Sample : CCV PEST 50 Inst : HPGCD
Misc : Multiplr: 1.00
IntFile : events2.e
Quant Time: Aug 23 10:28 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210144.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\082101\08210144.D\ECD2B.CH
Acq On : 08/22/01 12:42 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 13:57 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

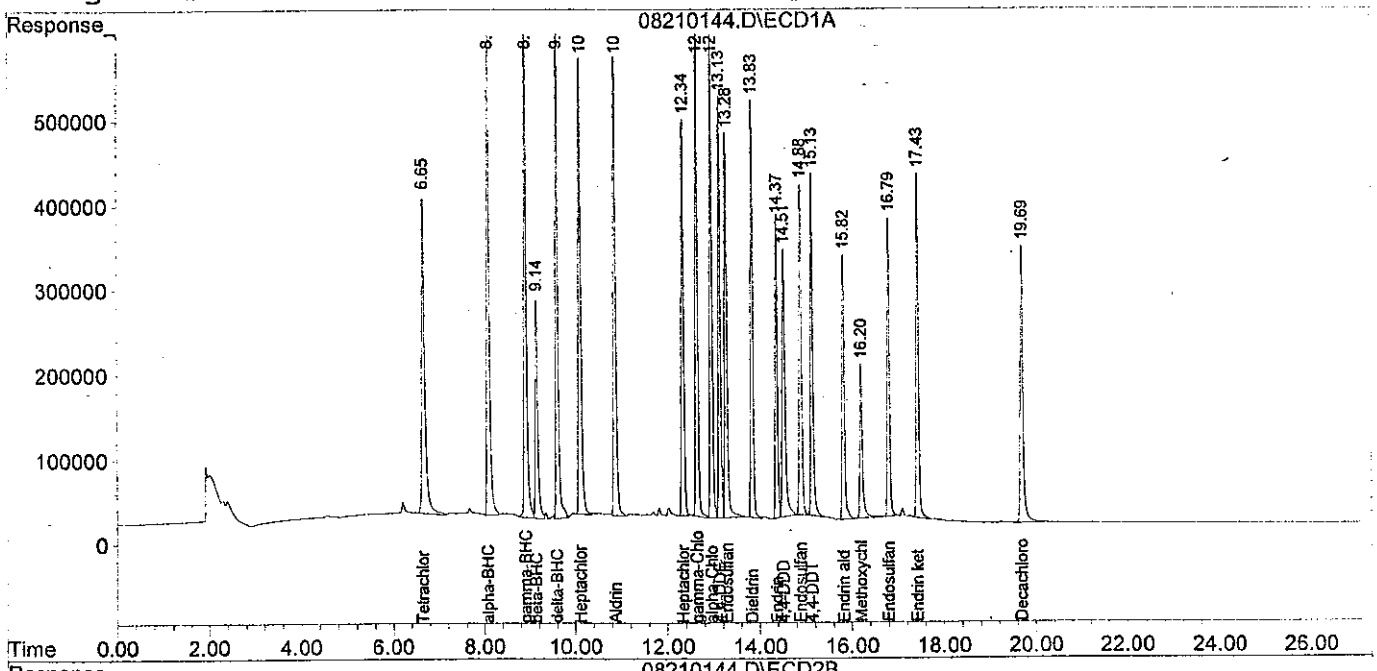
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.65	6.46	16781111	14574648	97.272	95.737
		Spiked Amount 100.000			Recovery	=	97.27%	95.74%
22)	S	Decachlorobiphen	19.69	20.44	13649935	13894784	103.942	107.419
		Spiked Amount 100.000			Recovery	=	103.94%	107.42%
		Target Compounds						
2)	T	alpha-BHC	8.08	8.03	24759803	23124861	100.703	98.457
3)	T	beta-BHC	9.14	9.18	9816732	8990135	89.828	93.011
4)	T	gamma-BHC (Linda	8.91	8.95	21989770	18688127	94.608	92.181
5)	T	delta-BHC	9.60	9.92	20902017	20683008	95.091	101.106
6)	T	Heptachlor	10.12	10.05	19191534	19672823	97.181	95.353
7)	T	Aldrin	10.87	10.85	18905938	17921622	97.688	97.730
8)	T	Heptachlor epoxi	12.34	12.24	15476816	15573344	94.353	95.902
9)	T	Endosulfan I	13.28	13.16	16205137	15361635	97.676	96.589
10)	T	gamma-Chlordane	12.64	12.68	19251585	19362334	102.295	100.876
11)	T	alpha-Chlordane	12.95	13.02	18242777	18309873	100.536	100.543
12)	T	4,4-DDE	13.13	13.43	16266174	16301605	103.533	101.956
13)	T	Dieldrin	13.83	13.79	16023303	15729073	100.078	99.299
14)	T	Endrin	14.37	14.48	11385942	9561234	107.721	108.340
15)	T	4,4-DDD	14.51	14.75	12607591	11965773	112.126	103.149
16)	T	Endosulfan II	14.88	14.96	13056414	14410617	106.343	99.989
17)	T	Endrin aldehyde	15.82	15.71	10644329	10544666	107.517	100.335
18)	T	4,4-DDT	15.13	15.43	13768684	13536603	107.083	105.148
19)	T	Endosulfan sulfa	16.79	16.32	11753213	12442129	103.315	103.326
20)	T	Methoxychlor	16.20	16.94	6941923	6117208	110.769	107.286
21)	T	Endrin ketone	17.43	17.51	14104751	14118024	102.597	102.934

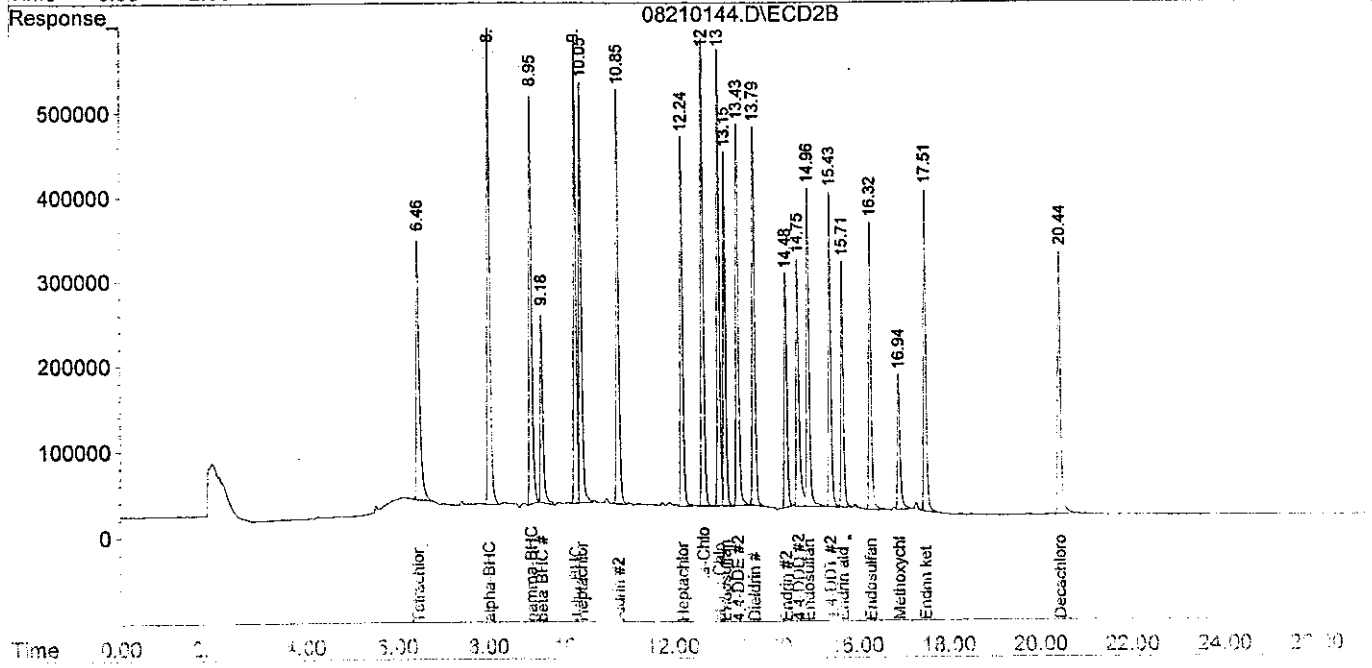
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210144.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\082101\08210144.D\ECD2B.CH
Acq On : 08/22/01 12:42 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 13:57 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210165.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\082101\08210165.D\ECD2B.CH
Acq On : 08/23/01 00:14 Operator: YGK
Sample : CCV PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 8:45 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

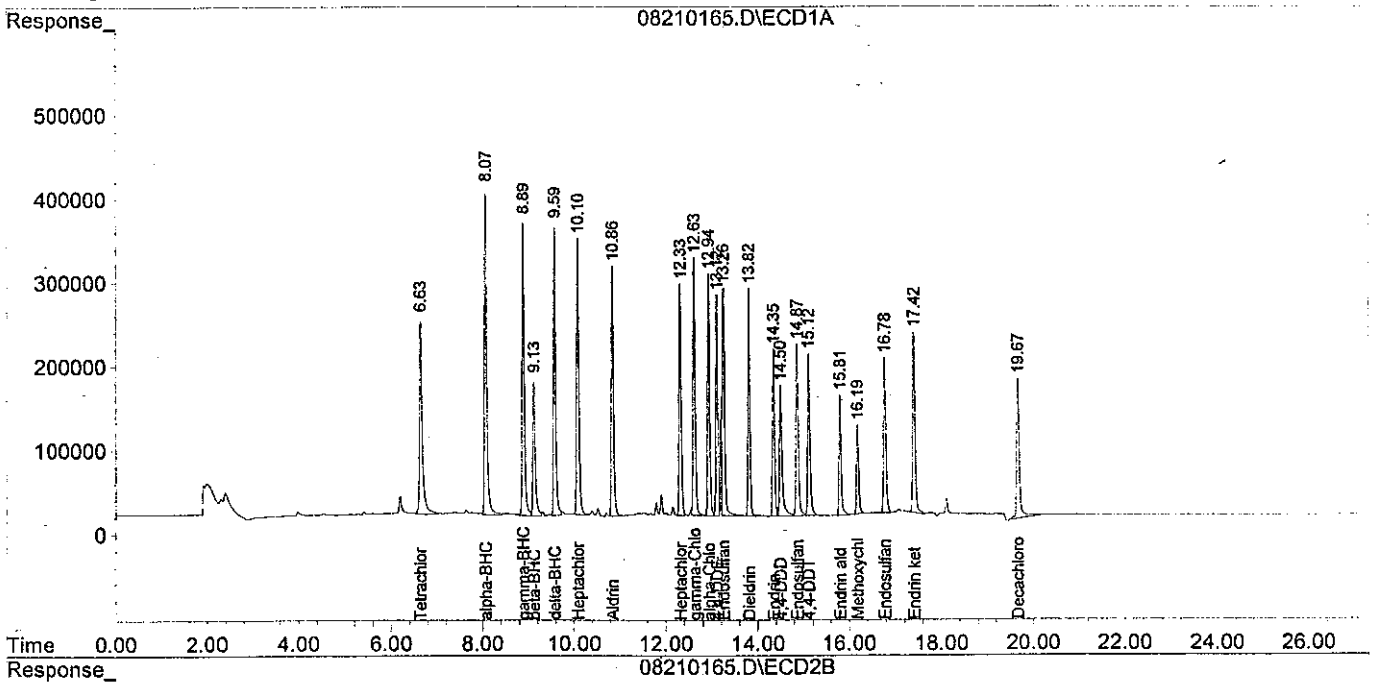
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.63	6.45	9308648	8271637	53.958	54.334
		Spiked Amount 100.000			Recovery =		53.96% 108	54.33% 109
22)	S	Decachlorobiphen	19.67	20.42	6908006	6304203	52.603	48.737
		Spiked Amount 100.000			Recovery =		52.60% 105	48.74% 97
		Target Compounds						
2)	T	alpha-BHC	8.07	8.01	13299011	12602126	54.090	53.655
3)	T	beta-BHC	9.13	9.17	5669293	5127363	51.877	53.047
4)	T	gamma-BHC (Linda	8.89	8.94	11777776	10931831	50.672	53.922
5)	T	delta-BHC	9.59	9.91	11088532	10732957	50.446	52.466
6)	T	Heptachlor	10.10	10.04	10785771	10703503	50.916	51.879
7)	T	Aldrin	10.86	10.84	9333799	9470886	48.228	51.647
8)	T	Heptachlor epoxi	12.33	12.23	8502579	8609531	51.835	53.018
9)	T	Endosulfan I	13.26	13.14	9654555	8138405	58.193	51.172
10)	T	gamma-Chlordane	12.63	12.67	9565453	9134394	50.827	47.589
11)	T	alpha-Chlordane	12.94	13.01	8796701	8785879	48.478	48.245
12)	T	4,4-DDE	13.12	13.42	7737189	7814253	49.247	48.873
13)	T	Dieldrin	13.82	13.78	8202596	8187551	51.232	51.689
14)	T	Endrin	14.36	14.47	6007509	4996578	56.836	56.617
15)	T	4,4-DDD	14.50	14.74	6183257	5659450	54.991	48.787
16)	T	Endosulfan II	14.87	14.95	6791046	7073628	55.312	49.081
17)	T	Endrin aldehyde	15.81	15.70	4692396	4477434	47.397	42.604
18)	T	4,4-DDT	15.12	15.43	6467883	5917757	50.303	45.967
19)	T	Endosulfan sulfa	16.78	16.31	6052798	6184531	53.206	51.360
20)	T	Methoxychlor	16.19	16.93	3455665	3064385	55.140	53.745
21)	T	Endrin ketone	17.42	17.50	7297501	6872909	53.081	50.110

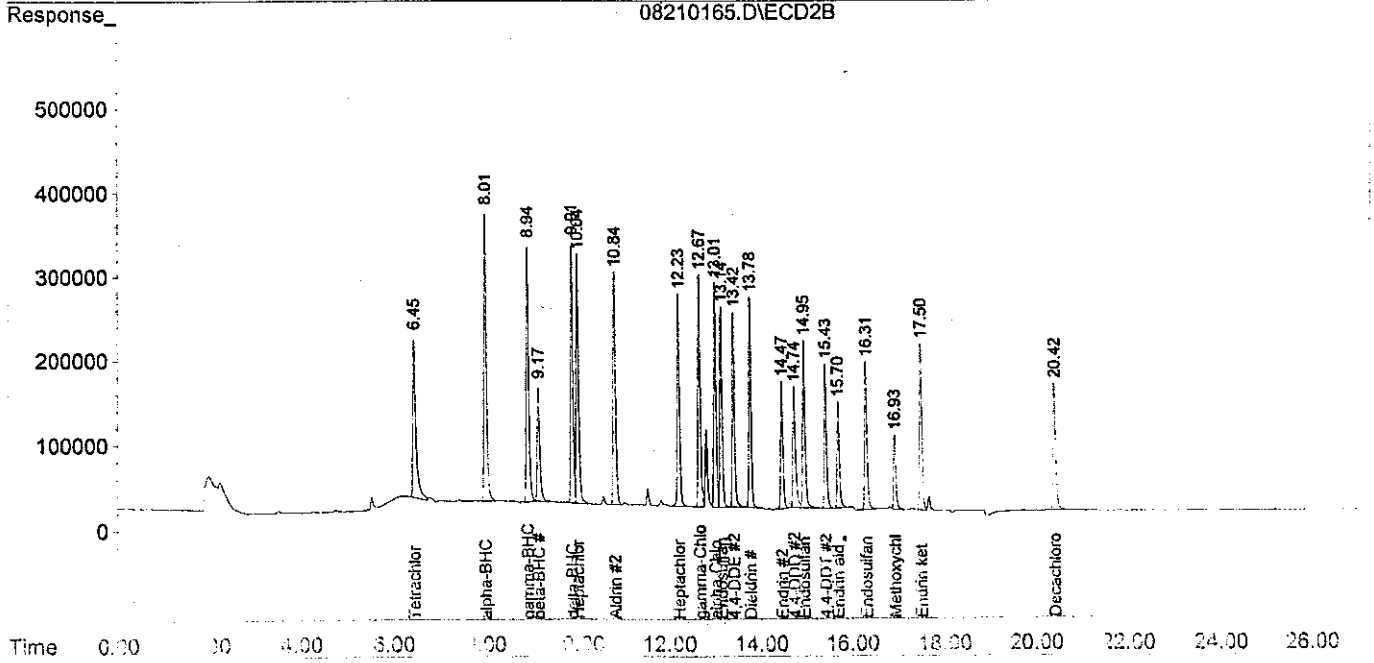
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210165.D\ECD1A.CH Vial: 65
Signal #2 : C:\HPCHEM\1\DATA\082101\08210165.D\ECD2B.CH
Acq On : 08/23/01 00:14 Operator: YGK
Sample : CCV PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 8:45 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210184.D\ECD1A.CH Vial: 84
Signal #2 : C:\HPCHEM\1\DATA\082101\08210184.D\ECD2B.CH
Acq On : 08/23/01 10:21 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:53 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

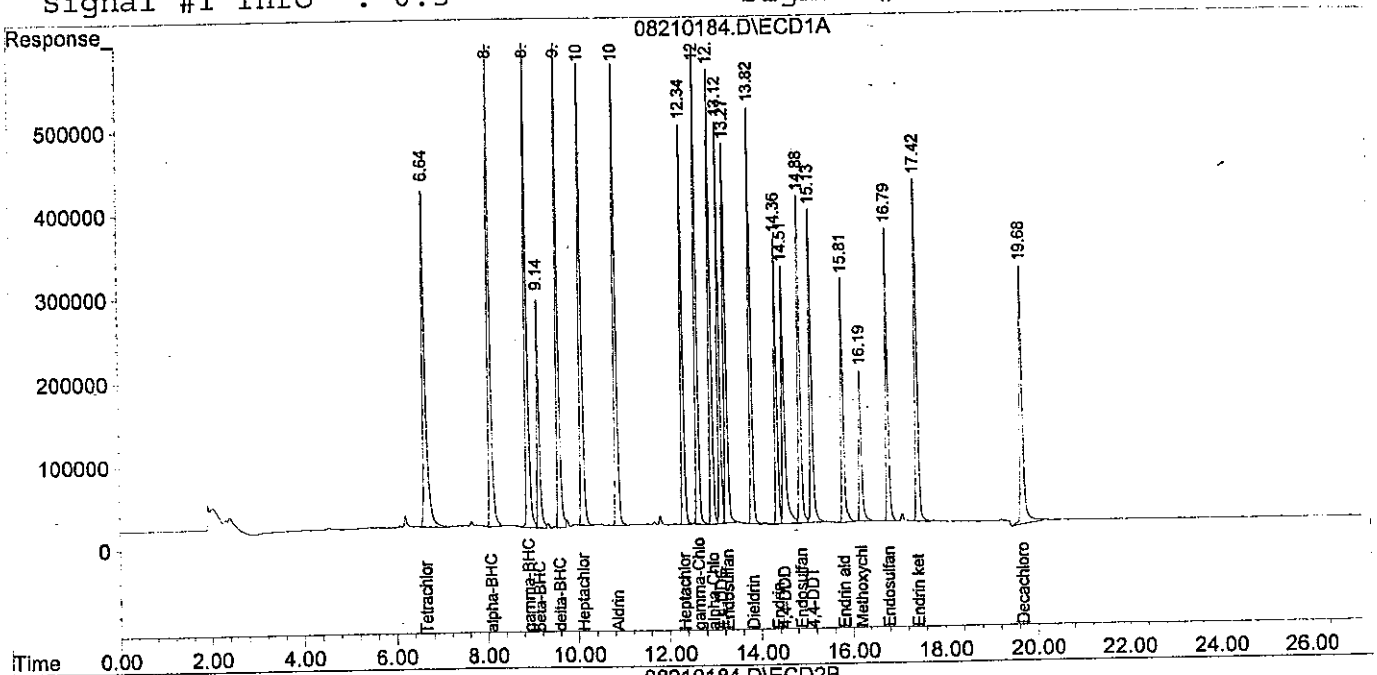
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	6.64	6.45	16459735	14940242	95.410	98.138
	Spiked Amount 100.000			Recovery	=	95.41%	98.14%
22)	S Decachlorobiphen	19.68	20.43	12922345	12011154	98.402	92.857
	Spiked Amount 100.000			Recovery	=	98.40%	92.86%
	Target Compounds						
2)	T alpha-BHC	8.08	8.02	23387978	22886467	95.124	97.442
3)	T beta-BHC	9.14	9.18	9583680	8990578	87.695	93.015
4)	T gamma-BHC (Linda	8.90	8.94	21210441	18630660	91.255	91.897
5)	T delta-BHC	9.59	9.92	19937777	20330716	90.705	99.383
6)	T Heptachlor	10.11	10.05	18837416	19164539	95.073	92.890
7)	T Aldrin	10.86	10.84	18279444	17778769	94.451	96.951
8)	T Heptachlor epoxi	12.34	12.23	15424673	15277294	94.036	94.079
9)	T Endosulfan I	13.27	13.15	15144327	15091080	91.282	94.888
10)	T gamma-Chlordane	12.63	12.68	18049928	18076950	95.910	94.179
11)	T alpha-Chlordane	12.94	13.02	16864771	16877326	92.941	92.676
12)	T 4,4-DDE	13.12	13.42	14943937	15363948	95.117	96.091
13)	T Dieldrin	13.82	13.78	15573716	15564752	97.270	98.261
14)	T Endrin	14.36	14.47	10663360	8512327	100.884	96.455
15)	T 4,4-DDD	14.51	14.74	12834419	11284428	114.143	97.276
16)	T Endosulfan II	14.88	14.95	13199885	13703648	107.511	95.084
17)	T Endrin aldehyde	15.82	15.71	9887165	9357715	99.869	89.041
18)	T 4,4-DDT	15.13	15.43	12914678	11882651	100.441	92.300
19)	T Endosulfan sulfa	16.79	16.32	11458225	11716862	100.722	97.303
20)	T Methoxychlor	16.19	16.93	6616686	5809781	105.579	101.895
21)	T Endrin ketone	17.42	17.50	13937259	13487899	101.378	98.340

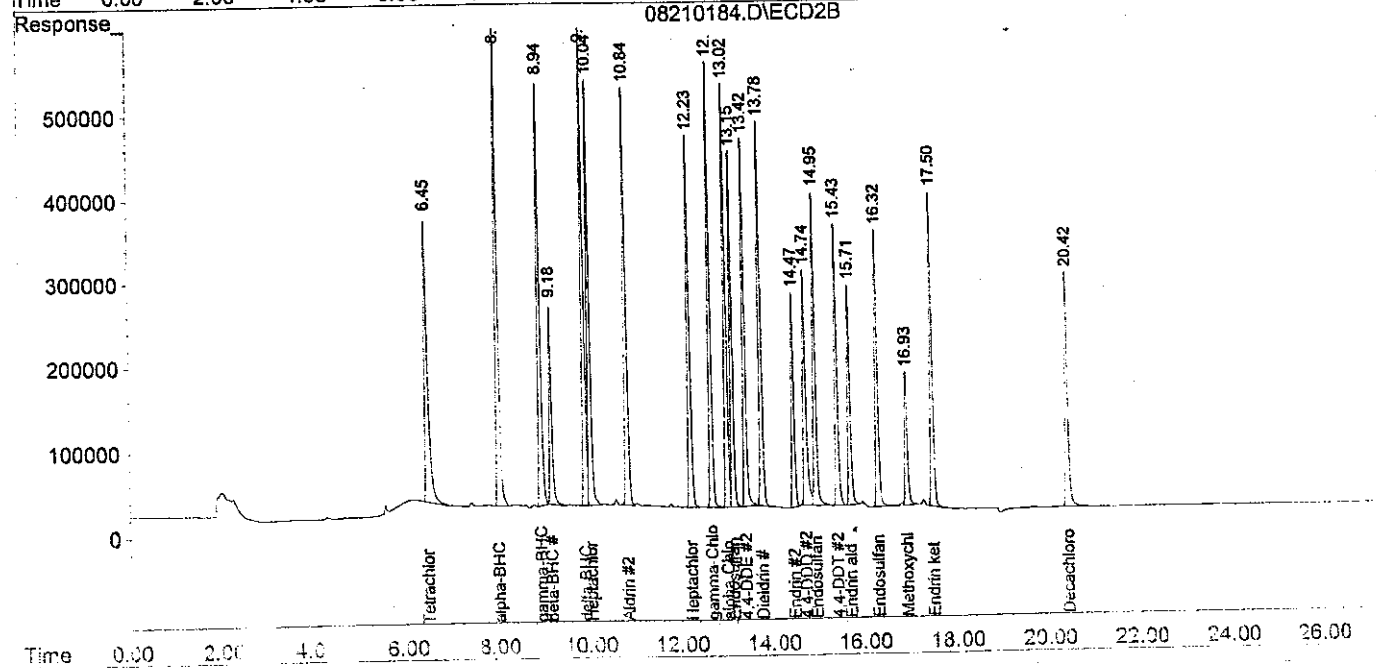
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210184.D\ECD1A.CH Vial: 84
Signal #2 : C:\HPCHEM\1\DATA\082101\08210184.D\ECD2B.CH
Acq On : 08/23/01 10:21 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 23 10:53 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210193.D\ECD1A.CH Vial: 93
Signal #2 : C:\HPCHEM\1\DATA\082101\08210193.D\ECD2B.CH
Acq On : 08/23/01 14:59 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 24 12:35 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

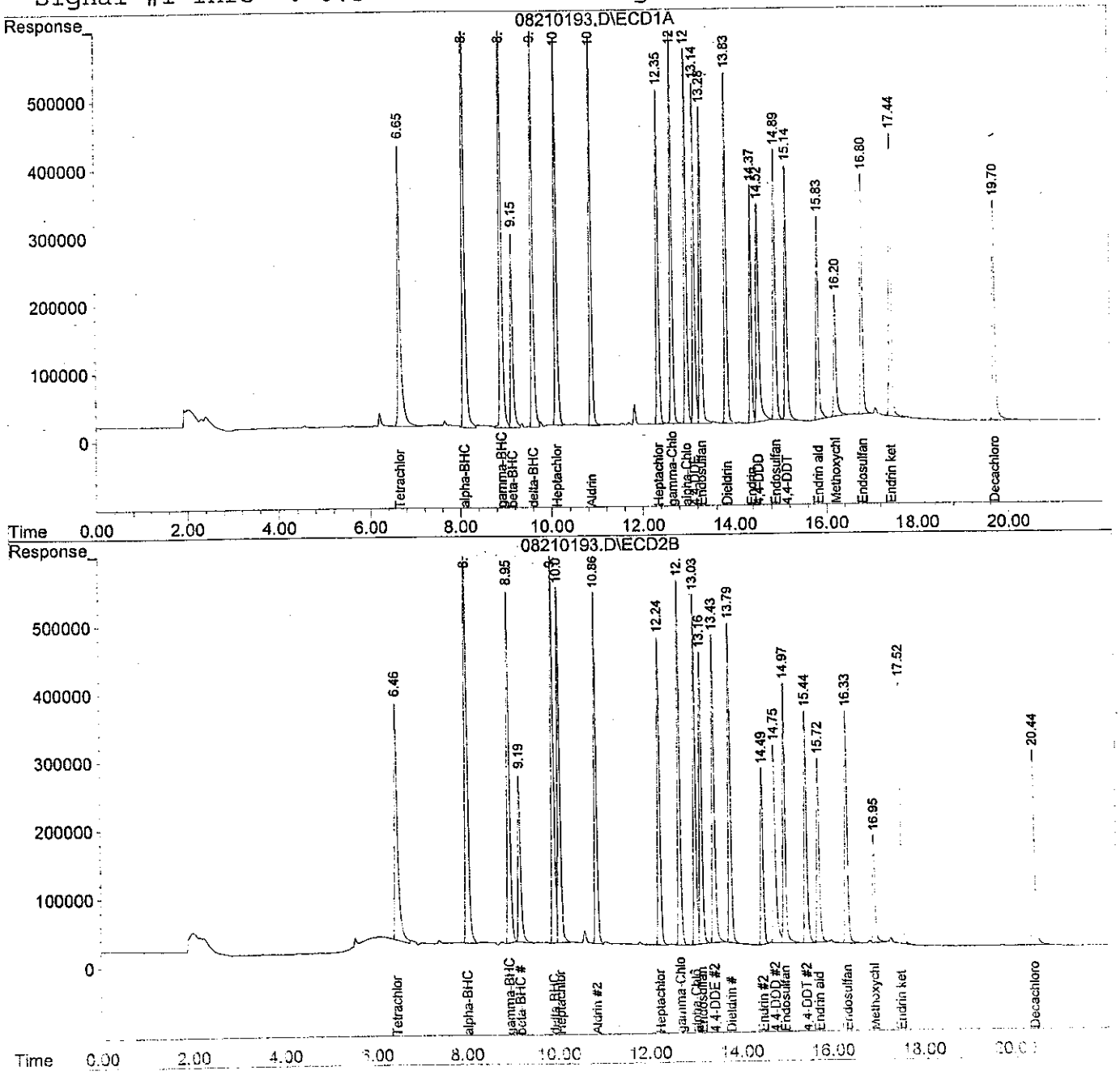
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.65	6.46	16939595	15393831	98.191	101.118
		Spiked Amount 100.000			Recovery =		98.19%	101.12%
22)	S	Decachlorobiphen	19.70	20.44	13010730	12457885	99.075	96.311
		Spiked Amount 100.000			Recovery =		99.08%	96.31%
		Target Compounds						
2)	T	alpha-BHC	8.09	8.03	24459293	23625284	99.481	100.588
3)	T	beta-BHC	9.15	9.19	9902212	9160103	90.610	94.769
4)	T	gamma-BHC (Linda	8.91	8.95	21816720	19045876	93.864	93.945
5)	T	delta-BHC	9.60	9.93	20340248	20979863	92.536	102.557
6)	T	Heptachlor	10.12	10.06	19230034	19651571	97.411	95.250
7)	T	Aldrin	10.87	10.86	18835352	18317625	97.323	99.890
8)	T	Heptachlor epoxi	12.35	12.24	15738726	15740865	95.950	96.934
9)	T	Endosulfan I	13.28	13.16	15667662	15341673	94.437	96.463
10)	T	gamma-Chlordane	12.64	12.69	18106951	18074285	96.213	94.166
11)	T	alpha-Chlordane	12.96	13.03	17136969	17239242	94.441	94.664
12)	T	4,4-DDE	13.14	13.43	15485552	15735675	98.564	98.416
13)	T	Dieldrin	13.84	13.79	16163574	15951720	100.954	100.704
14)	T	Endrin	14.37	14.49	10824916	8672640	102.413	98.271
15)	T	4,4-DDD	14.52	14.75	12477316	11456024	110.967	98.755
16)	T	Endosulfan II	14.89	14.97	13060587	14112601	106.377	97.921
17)	T	Endrin aldehyde	15.83	15.72	9921955	9687889	100.221	92.183
18)	T	4,4-DDT	15.14	15.44	12503169	12043807	97.241	93.552
19)	T	Endosulfan sulfa	16.80	16.33	11515798	12131969	101.228	100.750
20)	T	Methoxychlor	16.21	16.95	6579371	5911829	104.984	103.684
21)	T	Endrin ketone	17.44	17.52	14263865	13931339	103.754	101.573

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210193.D\ECD1A.CH Vial: 93
Signal #2 : C:\HPCHEM\1\DATA\082101\08210193.D\ECD2B.CH
Acq On : 08/23/01 14:59 Operator: YGK
Sample : CCV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 24 12:35 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25



08210193.D 082101P.M [illegible] 01

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210111.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\082101\08210111.D\ECD2B.CH
Acq On : 08/21/01 15:04 Operator: YGK
Sample : CCV CHLORD 250 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:41 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Target Compounds						
1) L1 Chlordane{1}	9.92	9.70	2059266	1976243	244.999	281.857
2) L1 Chlordane{2}	10.13	10.06	3725905	3384931	252.818	349.231 #
3) L1 Chlordane{3}	11.22	11.25	2786013	2399228	244.946	301.640
4) L1 Chlordane{4}	12.20	12.17	1172755	1073043	240.496	263.988
5) L1 Chlordane{5}	12.65	12.69	6112565	5588531	239.579	256.137
6) L1 Chlordane{6}	12.95	12.91	9335431	4829755	239.013	260.035
7) L1 Chlordane{7}	14.45	13.04	1044837	4503806	279.748	253.475
Sum Chlordane			26236772	23755537	1741.598	1966.363
Average Chlordane					248.800	280.909

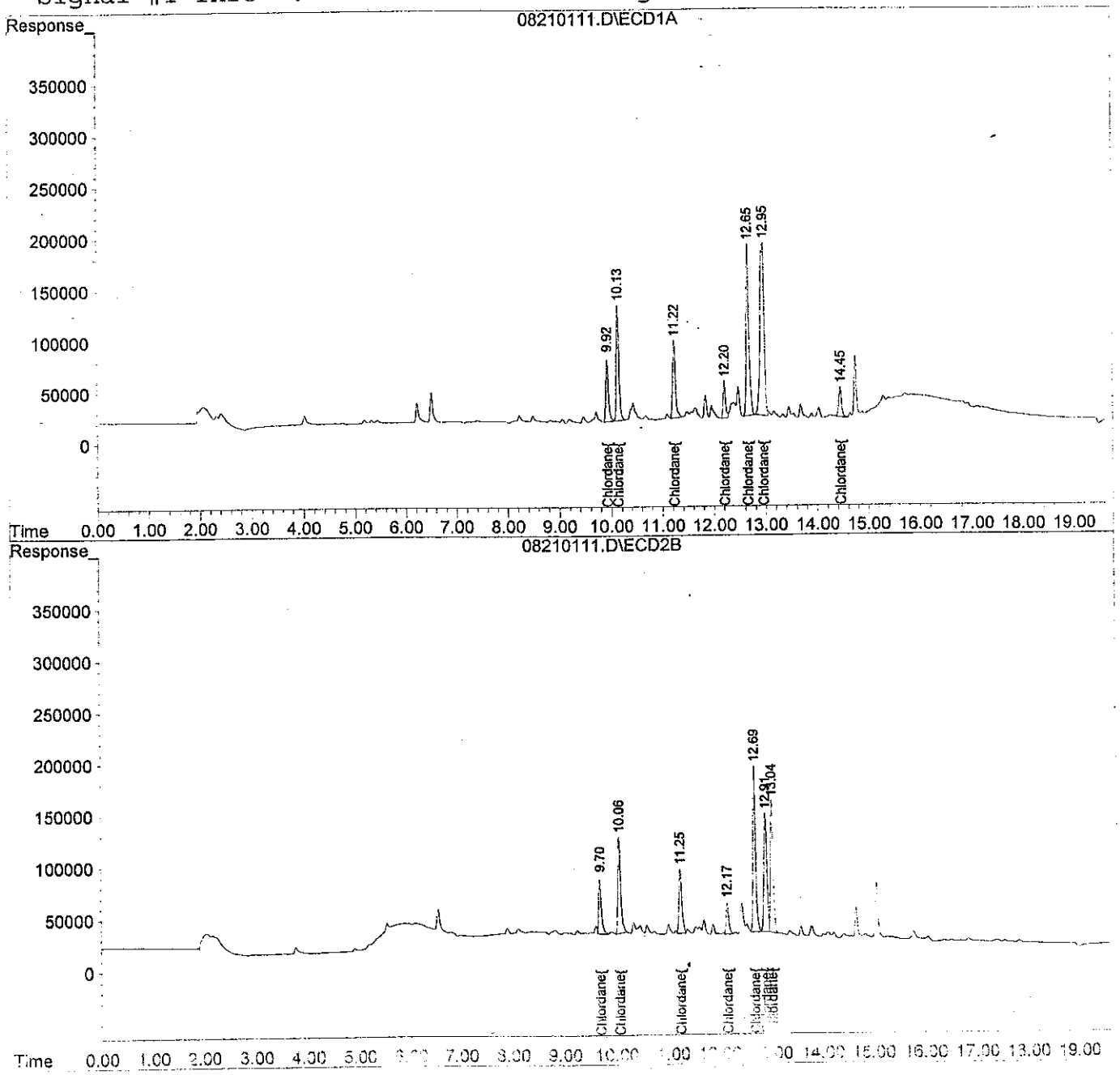
99%

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210111.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\082101\08210111.D\ECD2B.CH
Acq On : 08/21/01 15:04 Operator: YGK
Sample : CCV CHLORD 250 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Aug 24 12:41 2001 Quant Results File: 081501CL.RES

Quant Method : C:\HPCHEM\1\METHODS\081501CL.M (Chemstation Integrator)
Title : CHLORDANE ANALYSIS BY ECD; GC: PEST A,08/15/01
Last Update : Thu Aug 16 12:11:07 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210112.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\082101\08210112.D\ECD2B.CH
Acq On : 08/21/01 19:43 Operator: YGK
Sample : CCV TOX 2500 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:44 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	Target Compounds						
1)	L Toxaphene{1}	14.06	14.95	5243000	7572123	2252.029	2590.505
2)	L Toxaphene{2}	15.15	15.16	19494626	20277070	2842.211	2735.679
3)	L Toxaphene{3}	15.63	15.74	13628188	15735434	2233.910	2653.628
4)	L Toxaphene{4}	16.06	15.93	8733352	17486493	2246.594	2625.357
5)	L Toxaphene{5}	16.59	16.88	19155852	25397670	2230.779	2695.564
6)	L Toxaphene{6}	17.39	17.00	13882543	15818468	2359.586	2921.824
7)	L Toxaphene{7}	17.72	17.75	8072135	9949693	2394.146	2743.527
	Sum Toxaphene			88209694	112.2E6	16559.256	18966.084
	Average Toxaphene					2365.608	2709.441

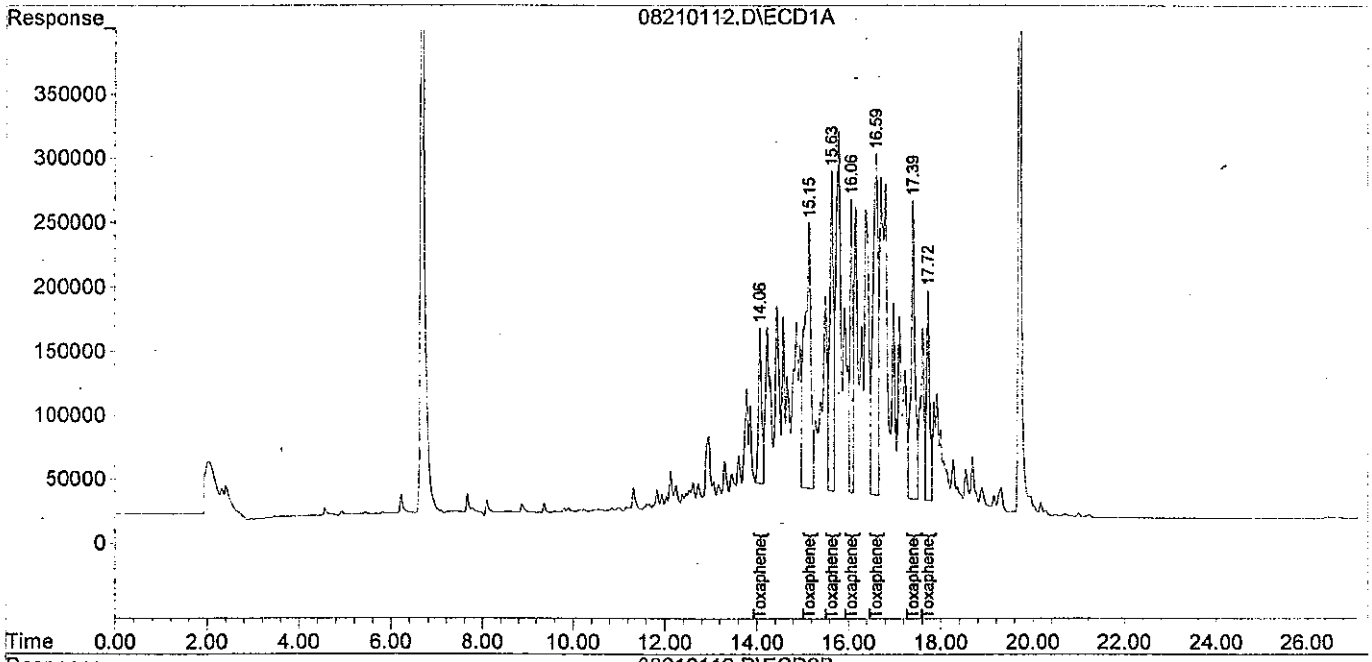
95

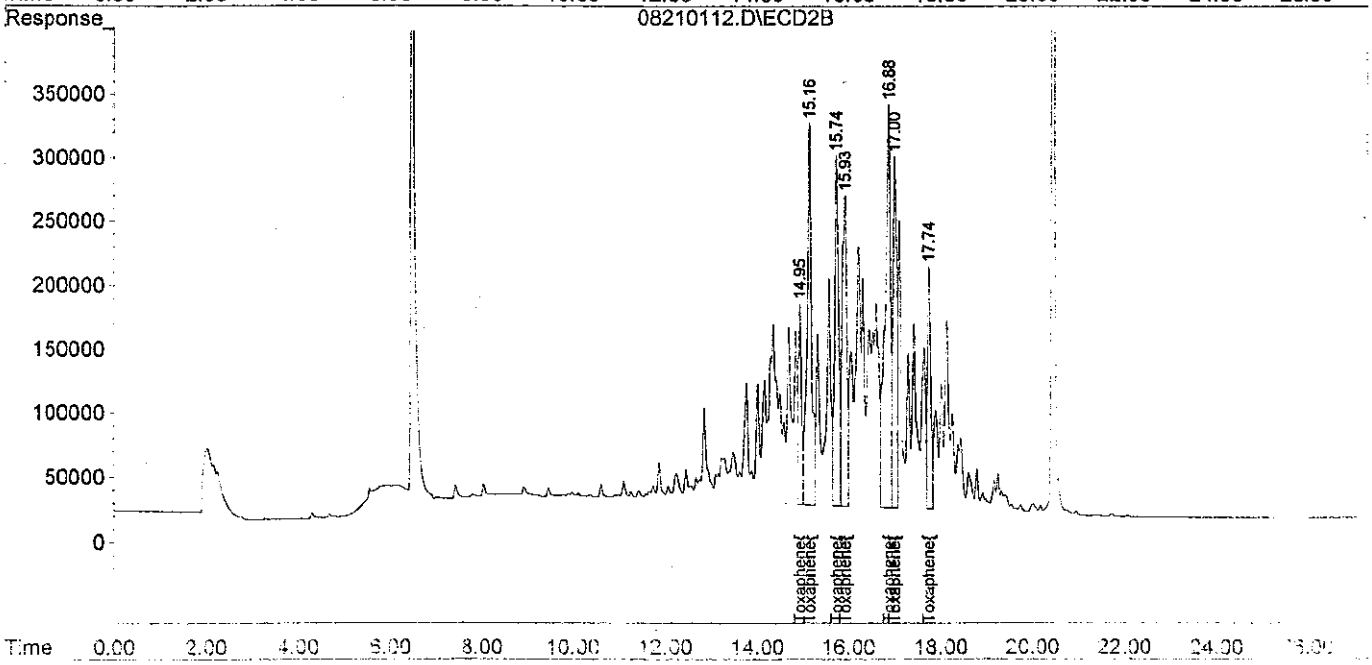
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210112.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\082101\08210112.D\ECD2B.CH
Acq On : 08/21/01 19:43 Operator: YGK
Sample : CCV TOX 2500 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 24 12:44 2001 Quant Results File: 081501TX.RES

Quant Method : C:\HPCHEM\1\METHODS\081501TX.M (Chemstation Integrator)
Title : TOXAPHENE ANALYSIS BY ECD; GC A,08/15/01
Last Update : Fri Aug 17 10:01:33 2001
Response via : Single Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\081401\08140102.D Vial: 2
Acq On : 08/14/01 10:21 Operator: YGK
Sample : CCV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:28 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

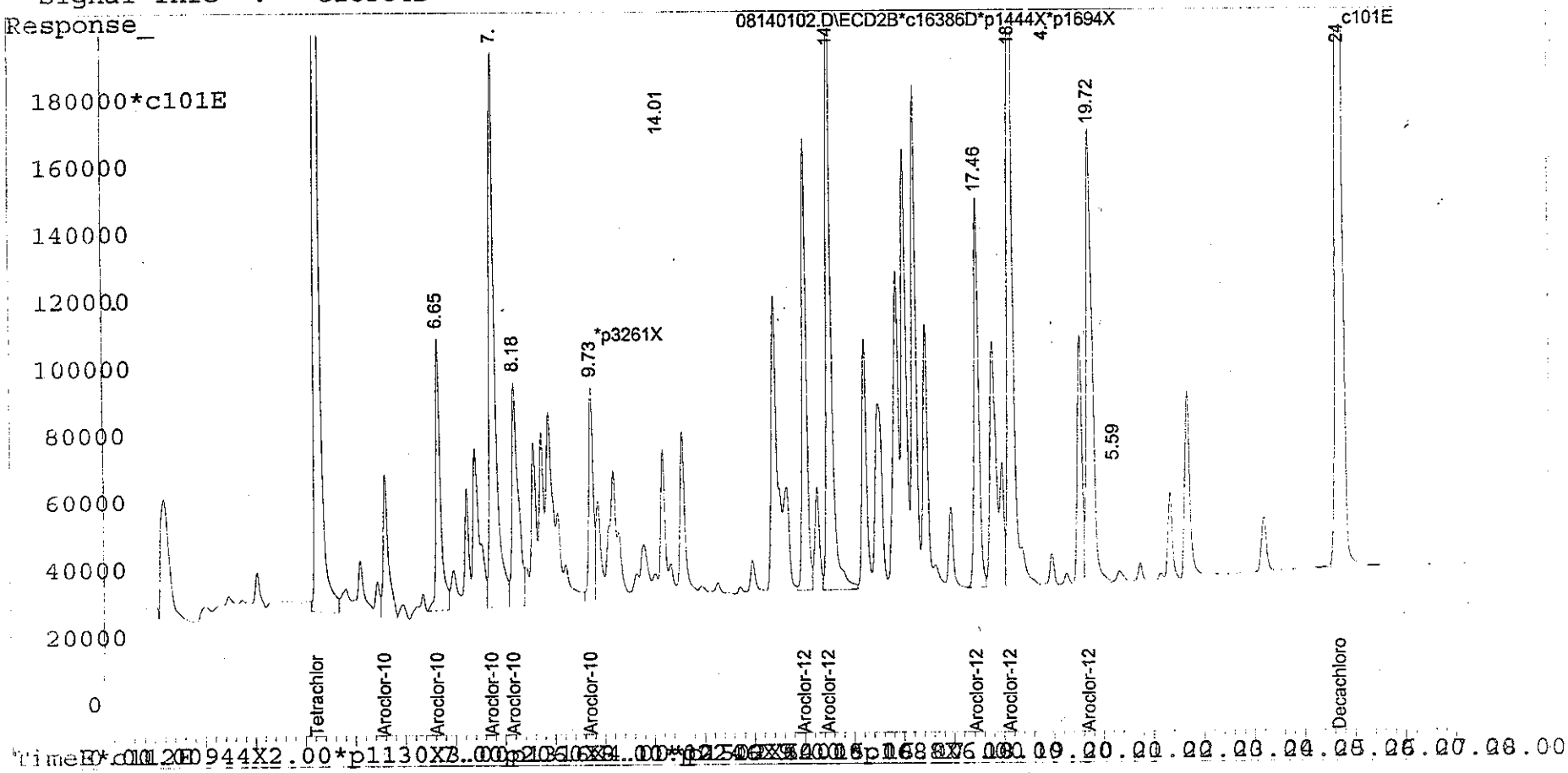
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	30758621	0.176 ug/ml
Spiked Amount 0.100		Recovery = 176.00%	
12) S Decachlorobiphenyl	24.69	26896090	0.181 ug/ml
Spiked Amount 0.100		Recovery = 181.00%	91
Target Compounds			
2) L1 Aroclor-1016{1}	5.59	3098643	0.896 ug/ml
3) L1 Aroclor-1016{2}	6.65	5243684	0.809 ug/ml
4) L1 Aroclor-1016{3}	7.75	13194073	0.904 ug/ml
5) L1 Aroclor-1016{4}	8.18	5780753	0.931 ug/ml
6) L1 Aroclor-1016{5}	9.74	3915617	0.899 ug/ml
Sum Aroclor-1016		31232770	4.439 ug/ml
Average Aroclor-1016			0.888 ug/ml 89
7) L2 Aroclor-1260{1}	14.01	8238028	0.919 ug/ml
8) L2 Aroclor-1260{2}	14.50	13287843	0.993 ug/ml
9) L2 Aroclor-1260{3}	17.46	7468674	0.934 ug/ml
10) L2 Aroclor-1260{4}	18.14	19299073	0.968 ug/ml
11) L2 Aroclor-1260{5}	19.72	11225141	0.955 ug/ml
Sum Aroclor-1260		59518759	4.770 ug/ml
Average Aroclor-1260			0.954 ug/ml 95

Quantitation Report

Data File : C:\HPCHEM\3\DATA\081401\08140102.D Vial: 2
Acq On : 08/14/01 10:21 Operator: YGK
Sample : CCV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:28 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info : *c16384D



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\081401\08140113.D Vial: 13
Acq On : 08/14/01 20:31 Operator: YGK
Sample : CCV PCB 1.0 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

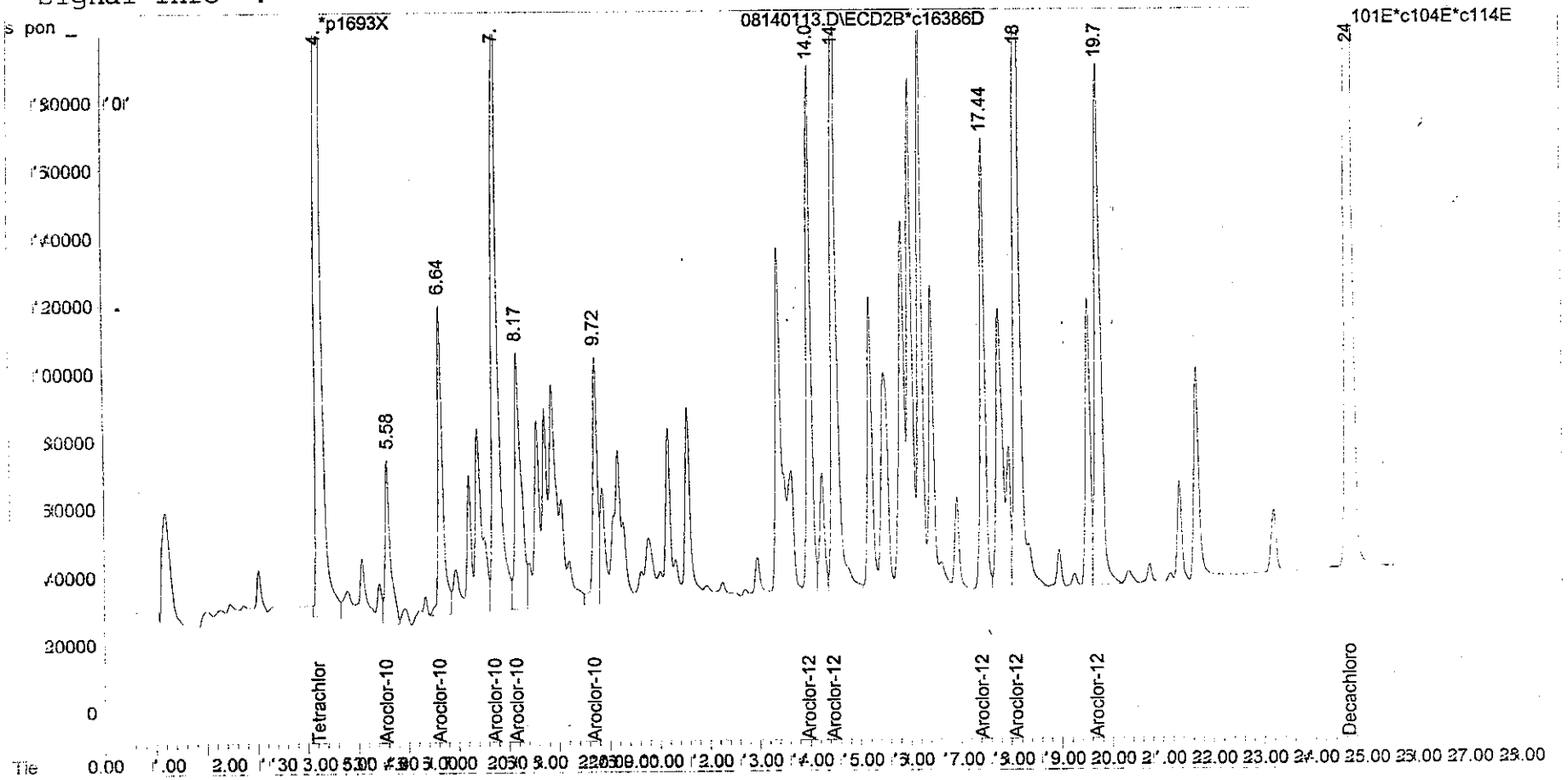
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	35740705	0.205 ug/ml
Spiked Amount 0.100		Recovery = 205.00%	
12) S Decachlorobiphenyl	24.67	30476578	0.205 ug/ml
Spiked Amount 0.100		Recovery = 205.00%	103
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	3497299	1.011 ug/ml
3) L1 Aroclor-1016{2}	6.64	5932086	0.915 ug/ml
4) L1 Aroclor-1016{3}	7.74	15218548	1.043 ug/ml
5) L1 Aroclor-1016{4}	8.17	6659844	1.073 ug/ml
6) L1 Aroclor-1016{5}	9.72	4661016	1.070 ug/ml
Sum Aroclor-1016		35968793	5.112 ug/ml
Average Aroclor-1016			1.022 ug/ml 102
7) L2 Aroclor-1260{1}	14.00	9559176	1.067 ug/ml
8) L2 Aroclor-1260{2}	14.49	15502847	1.158 ug/ml
9) L2 Aroclor-1260{3}	17.44	8552222	1.070 ug/ml
10) L2 Aroclor-1260{4}	18.12	22185953	1.113 ug/ml
11) L2 Aroclor-1260{5}	19.71	12532432	1.067 ug/ml
Sum Aroclor-1260		68332630	5.474 ug/ml
Average Aroclor-1260			1.095 ug/ml 110

Quantitation Report

Data File : C:\HPCHEM\3\DATA\081401\08140113.D Vial: 13
Acq On : 08/14/01 20:31 Operator: YGK
Sample : CCV PCB 1.0 PPM Inst : HP-GCF
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 15 8:29 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 08/21/01 HPGCD	METHOD: (circle applicable methods)
MATRIX:	(8081A) 8082 8151A

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Is the runlog completely filled out (~~including review signature/date~~)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YCK	Reviewer: RL
Date: 08/22/01 Time: 16:00	Date: 8/24/01 Time: 14:45

Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001

Calibration Files
10 =08210104.D 50 =08210105.D 75 =08210106.D
100 =08210107.D 150 =08210108.D 250 =08210109.D

		Compound	10	50	75	100	150	250	Avg		%RSD
1)	S	Tetrachloro-m-xylen	1.955	1.911	1.772	1.671	1.649	1.393	1.725	E5	11.85
2)	T	alpha-BHC	2.505	2.742	2.508	2.401	2.464	2.132	2.459	E5	8.02
3)	T	beta-BHC	1.361	1.177	1.142	0.977	1.016	0.883	1.093	E5	15.59
4)	T	gamma-BHC (Lindane)	2.709	2.534	2.414	2.180	2.217	1.893	2.324	E5	12.44
5)	T	delta-BHC	2.485	2.387	2.345	2.026	2.121	1.825	2.198	E5	11.41
6)	T	Heptachlor	2.705	2.237	2.063	1.879	1.830	1.501	2.036	E5	20.17
7)	T	Aldrin	2.411	2.111	1.975	1.833	1.789	1.493	1.935	E5	16.10
8)	T	Heptachlor epoxide	2.181	1.789	1.655	1.520	1.469	1.229	1.640	E5	19.81
9)	T	Endosulfan I	2.176	1.816	1.696	1.504	1.511	1.250	1.659	E5	19.18
10)	T	gamma-Chlordane	2.251	2.027	1.934	1.789	1.779	1.512	1.882	E5	13.36
11)	T	alpha-Chlordane	2.371	1.921	1.826	1.680	1.671	1.419	1.815	E5	17.71
12)	T	4,4-DDE	1.847	1.669	1.629	1.499	1.498	1.284	1.571	E5	12.15
13)	T	Dieldrin	1.959	1.734	1.639	1.520	1.493	1.261	1.601	E5	14.81
14)	T	Endrin	1.323	1.033	1.091	1.033	0.977	0.886	1.057	E5	13.97
15)	T	4,4-DDD	1.066	1.118	1.194	1.140	1.184	1.046	1.124	E5	5.39
16)	T	Endosulfan II	1.184	1.375	1.296	1.235	1.237	1.039	1.228	E5	9.22
17)	T	Endrin aldehyde	1.100	1.072	1.002	0.966	0.967	0.832	0.990	E5	9.59
18)	T	4,4-DDT	1.381	1.363	1.336	1.272	1.266	1.096	1.286	E5	8.09
19)	T	Endosulfan sulfate	1.393	1.195	1.151	1.080	1.077	0.929	1.138	E5	13.57
20)	T	Methoxychlor		6.866	6.565	6.234	6.185	5.485	6.267	E4	8.24
21)	T	Endrin ketone	1.557	1.505	1.394	1.327	1.333	1.132	1.375	E5	10.94
22)	S	Decachlorobiphenyl	1.482	1.486	1.332	1.298	1.244	1.037	1.313	E5	12.74

Signal #2 Calibration Files
10 =08210104.D 50 =08210105.D 75 =08210106.D
100 =08210107.D 150 =08210108.D 250 =08210109.D

		Compound	10	50	75	100	150	250	Avg		%RSD
1)	S	Tetrachloro-m-xylen	1.764	1.625	1.529	1.441	1.498	1.277	1.522	E5	10.85
2)	T	alpha-BHC	2.461	2.549	2.439	2.280	2.337	2.027	2.349	E5	7.82
3)	T	beta-BHC	1.042	1.063	1.040	0.890	0.936	0.828	0.967	E5	9.96
4)	T	gamma-BHC (Lindane)	2.015	2.275	2.223	1.916	1.989	1.746	2.027	E5	9.68
5)	T	delta-BHC	2.147	2.190	2.162	2.003	2.016	1.756	2.046	E5	7.91
6)	T	Heptachlor	2.688	2.259	2.078	1.919	1.879	1.556	2.063	E5	18.66
7)	T	Aldrin	2.094	2.030	1.915	1.758	1.737	1.468	1.834	E5	12.48
8)	T	Heptachlor epoxide	2.027	1.792	1.661	1.532	1.483	1.248	1.624	E5	16.56
9)	T	Endosulfan I	2.025	1.744	1.620	1.490	1.444	1.218	1.590	E5	17.42
10)	T	gamma-Chlordane	2.290	2.069	1.966	1.832	1.809	1.550	1.919	E5	13.15
11)	T	alpha-Chlordane	2.263	1.949	1.855	1.721	1.692	1.446	1.821	E5	15.14
12)	T	4,4-DDE	1.778	1.723	1.679	1.549	1.540	1.324	1.599	E5	10.30
13)	T	Dieldrin	1.900	1.733	1.625	1.515	1.477	1.255	1.584	E5	14.08
14)	T	Endrin	1.103	0.839	0.929	0.871	0.798	0.755	0.883	E5	13.99
15)	T	4,4-DDD	1.322	1.189	1.212	1.123	1.125	0.989	1.160	E5	9.58

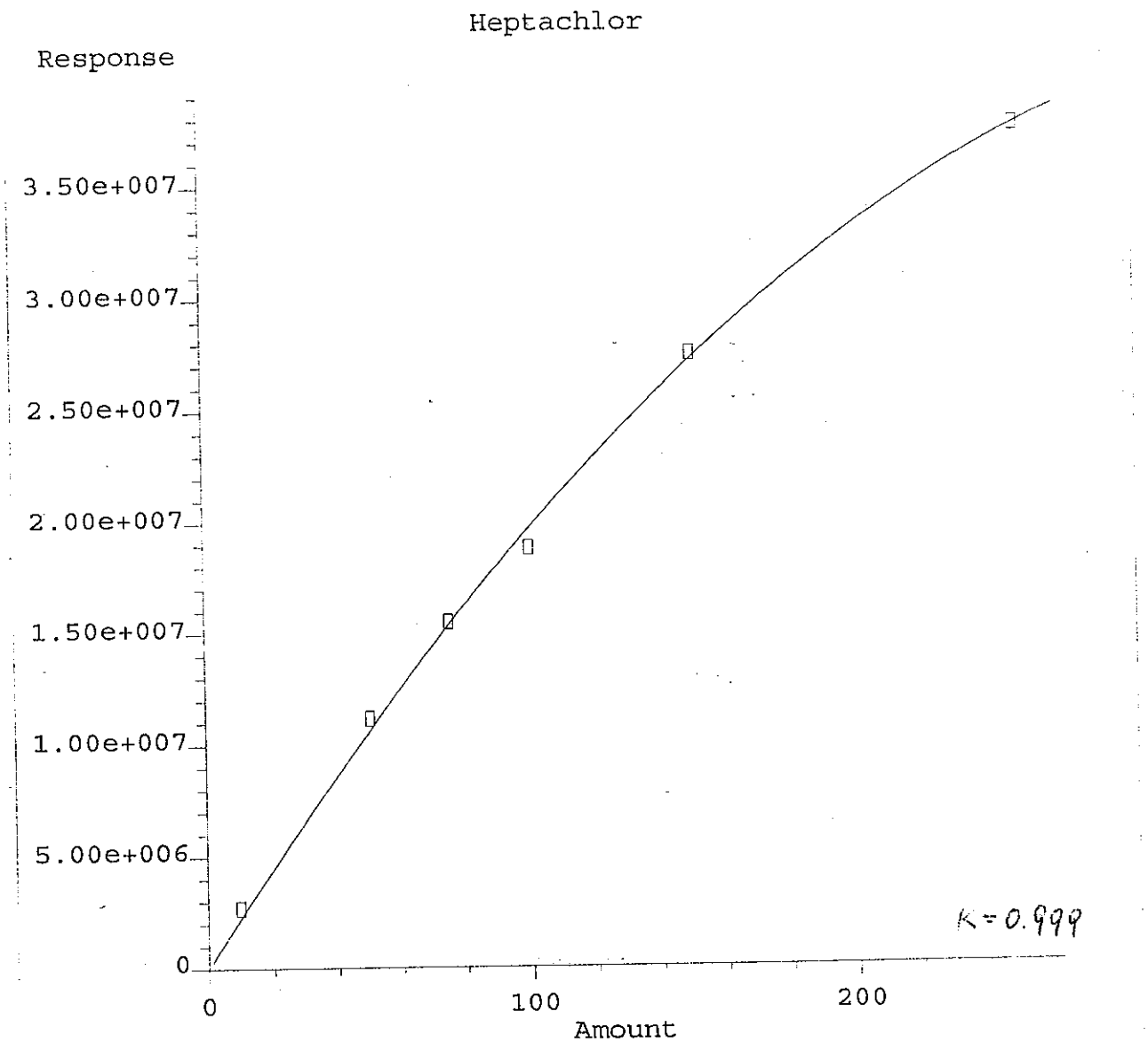
(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:53:34 2001

Calibration Files
10 =08210104.D 50 =08210105.D 75 =08210106.D
100 =08210107.D 150 =08210108.D 250 =08210109.D

		Compound	10	50	75	100	150	250	Avg		%RSD
16)	T	Endosulfan II	1.819	1.570	1.448	1.356	1.334	1.120	1.441	E5	16.48
17)	T	Endrin aldehyde	1.309	1.112	1.046	0.997	0.993	0.849	1.051	E5	14.58
18)	T	4,4-DDT	1.390	1.380	1.342	1.258	1.262	1.093	1.287	E5	8.59
19)	T	Endosulfan sulfate	1.337	1.324	1.240	1.172	1.162	0.990	1.204	E5	10.63
20)	T	Methoxychlor		6.141	6.029	5.772	5.601	4.966	5.702	E4	8.12
21)	T	Endrin ketone	1.500	1.532	1.404	1.337	1.329	1.127	1.372	E5	10.61
22)	S	Decachlorobiphenyl	1.475	1.451	1.289	1.257	1.253	1.038	1.294	E5	12.27

(#) = Out of Range



R = -3.10e+002 A*A + 2.28e+005 A + 0.00e+000
Curve Fit: Quad/(0,0)

Method Name: C:\HPCHEM\1\METHODS\082101P.M
Calibration Table Last Updated: Wed Aug 22 08:54:33 2001

Signal #1 : C:\HPCHEM\1\DATA\082101\08210104.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\082101\08210104.D\ECD2B.CH
Acq On : 08/21/01 15:58 Operator: YGK
Sample : IC PEST 10 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:53 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

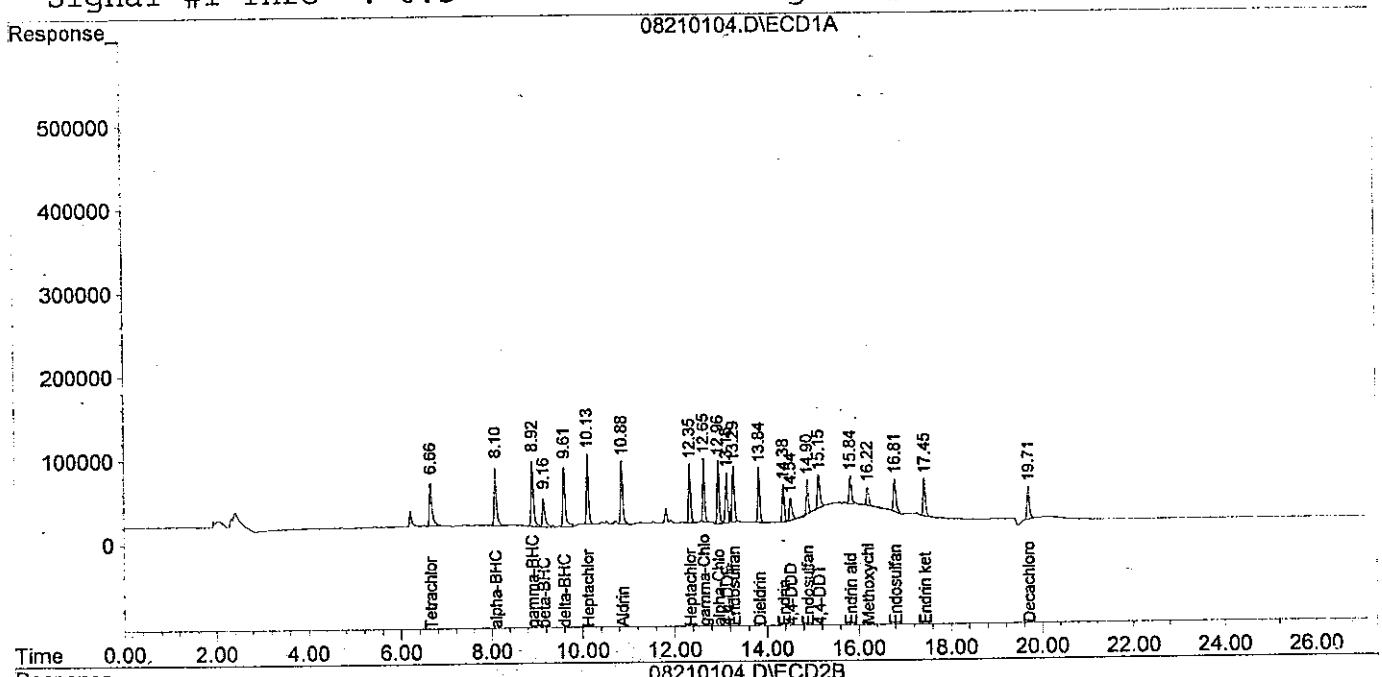
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	6.66	6.48	1955301	1763977	10.784	11.587
	Spiked Amount 100.000			Recovery =		10.78%	11.59%
22)	S Decachlorobiphen	19.71	20.45	1482149	1474541	10.838	11.400
	Spiked Amount 100.000			Recovery =		10.84%	11.40%
	Target Compounds						
2)	T alpha-BHC	8.10	8.04	2505419	2460595	10.190	10.476
3)	T beta-BHC	9.16	9.21	1361348	1041571	12.457	10.776
4)	T gamma-BHC (Linda	8.92	8.96	2708586	2014896	11.653	9.939
5)	T delta-BHC	9.61	9.94	2484923	2146842	11.305	10.494
6)	T Heptachlor	10.13	10.06	2705112	2688358	12.083	13.030
7)	T Aldrin	10.88	10.86	2410533	2094242	12.455	11.420
8)	T Heptachlor epoxi	12.35	12.25	2180878	2027325	12.220	12.285m
9)	T Endosulfan I	13.29	13.17	2176085	2025325	12.288	12.735
10)	T gamma-Chlordane	12.65	12.70	2251069	2290490	11.566	11.933
11)	T alpha-Chlordane	12.96	13.04	2370940	2263355	13.031	12.428
12)	T 4,4-DDE	13.15	13.45	1847364	1777838	11.696	11.119
13)	T Dieldrin	13.84	13.80	1959234	1900275	12.237	11.997
14)	T Endrin	14.38	14.50	1323046	1102786	12.517	11.927
15)	T 4,4-DDD	14.54	14.77	1065694	1321747	9.478	11.394
16)	T Endosulfan II	14.90	14.98	1184326	1819355	9.646	12.624 #
17)	T Endrin aldehyde	15.84	15.73	1100304	1309045	11.114	12.456
18)	T 4,4-DDT	15.15	15.45	1381052	1389766	10.741	10.795
19)	T Endosulfan sulfa	16.81	16.34	1393196	1336838	12.247	11.102
20)	T Methoxychlor	16.22	16.96	780945	706872	12.461	12.397
21)	T Endrin ketone	17.45	17.53	1556925	1500062	11.325	10.937

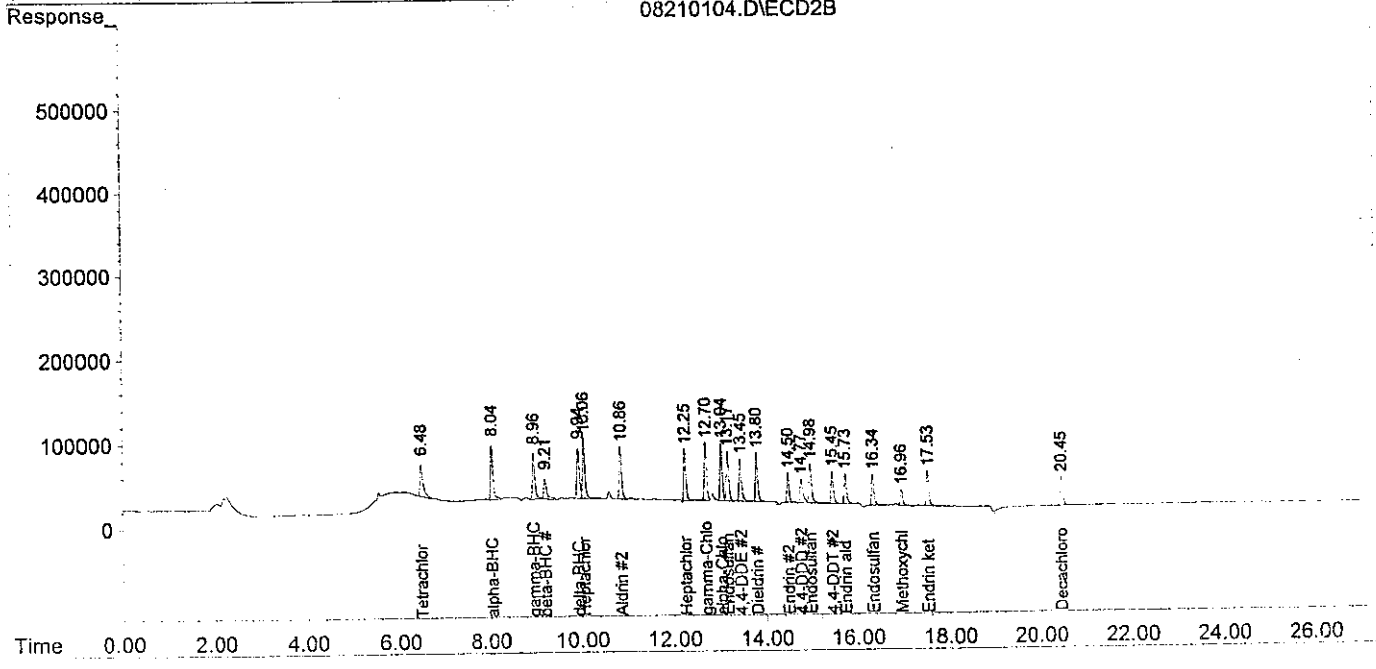
(f)=RT Delta > 1/2 Windo (#)=Amounts differ by > 25% (m)=manual ir
08210104.D 082101P.M Wed Aug 22 08:56:12 2001

Signal #1 : C:\HPCHEM\1\DATA\082101\08210104.D\ECD..CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\082101\08210104.D\ECD2B.CH
Acq On : 08/21/01 15:58 Operator: YGK
Sample : IC PEST 10 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:53 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantitation Report (N iewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210105.D ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\082101\08210105.D\ECD2B.CH
Acq On : 08/21/01 16:30 Operator: YGK
Sample : IC PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:40 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

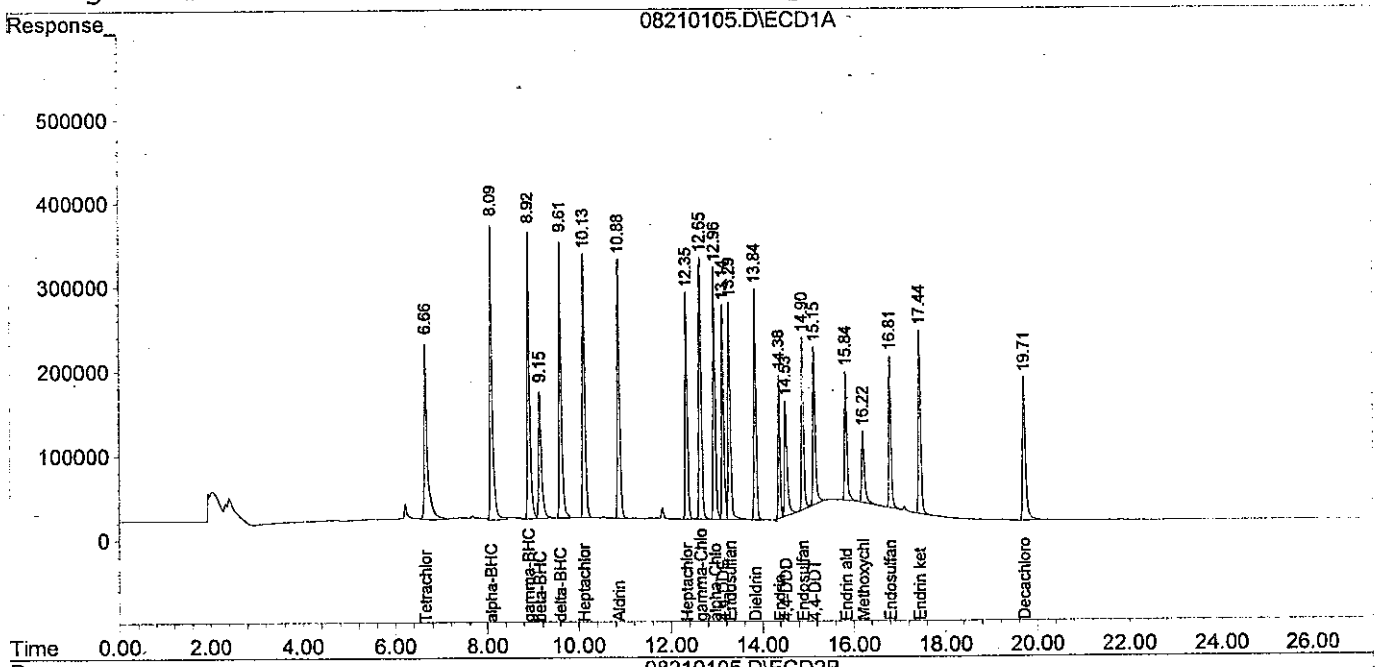
Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

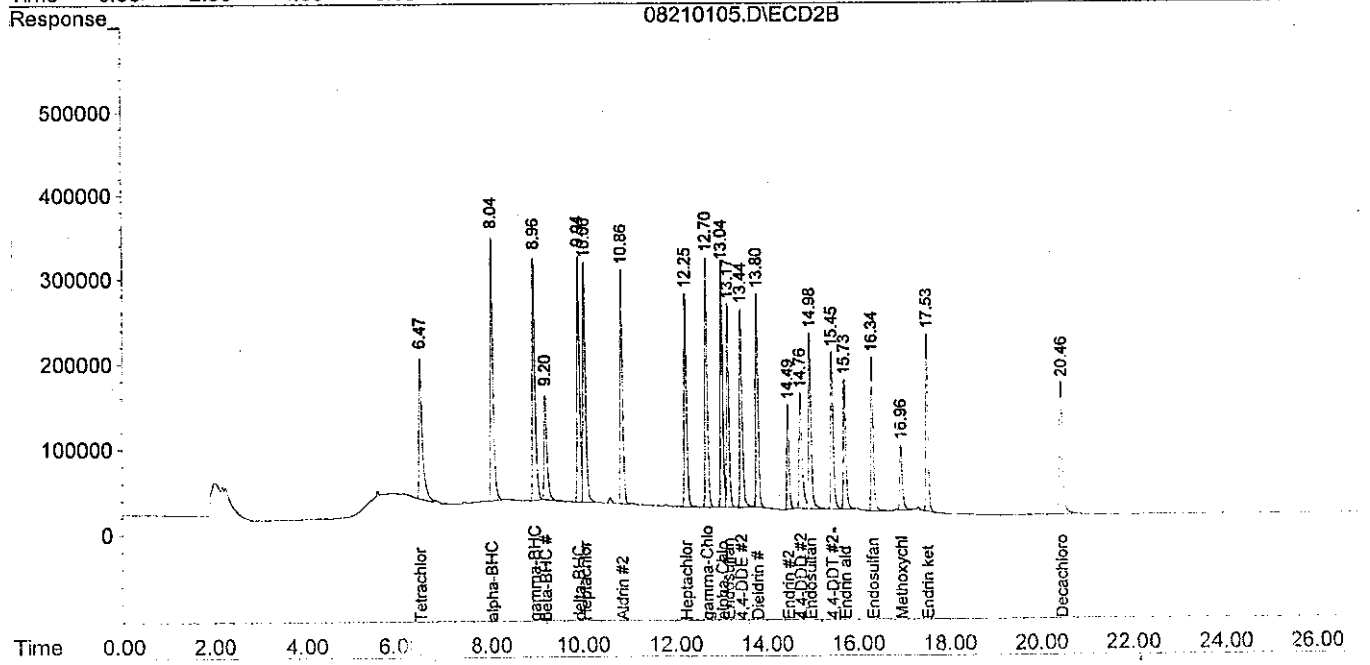
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.66	6.47	9553710	8124442	53.154	53.960
		Spiked Amount 100.000			Recovery =		53.15%	53.96%
22)	S	Decachlorobiphen	19.71	20.46	7431665	7253055	53.542	54.348
		Spiked Amount 100.000			Recovery =		53.54%	54.35%
		Target Compounds						
2)	T	alpha-BHC	8.09	8.04	13707893	12743342	56.842	55.061
3)	T	beta-BHC	9.15	9.20	5887158	5316778	53.764	55.438
4)	T	gamma-BHC (Linda	8.92	8.96	12668571	11374178	54.623	56.796
5)	T	delta-BHC	9.61	9.94	11932742	10949084	54.046	53.761
6)	T	Heptachlor	10.13	10.06	11186638	11292630	54.228	55.173
7)	T	Aldrin	10.88	10.86	10554229	10151638	54.435	55.799
8)	T	Heptachlor epoxi	12.35	12.25	8945127	8959915	53.980	54.536
9)	T	Endosulfan I	13.29	13.17	9081914	8720410	50.812	54.920
10)	T	gamma-Chlordane	12.65	12.70	10136837	10345562	51.202	53.418
11)	T	alpha-Chlordane	12.96	13.04	9603100	9745351	51.555	52.941
12)	T	4,4-DDE	13.14	13.44	8346343	8615636	51.899	53.517
13)	T	Dieldrin	13.84	13.80	8669589	8664418	53.637	55.038
14)	T	Endrin	14.38	14.50	5163348	4192729	49.376	47.760
15)	T	4,4-DDD	14.53	14.76	5587570	5947379	46.807	51.165
16)	T	Endosulfan II	14.90	14.98	6876623	7851861	54.441	54.189
17)	T	Endrin aldehyde	15.84	15.73	5361031	5558660	52.370	52.253
18)	T	4,4-DDT	15.15	15.45	6816020	6897541	51.624	52.642
19)	T	Endosulfan sulfa	16.81	16.34	5975605	6619051	51.950	54.654
20)	T	Methoxychlor	16.22	16.96	3432833	3070592	52.869	55.384
21)	T	Endrin ketone	17.44	17.53	7522909	7659817	54.100	55.485

Signal #1 : C:\HPCHEM\1\DATA\0821..1\08210105.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\082101\082..0105.D\ECD2B.CH
Acq On : 08/21/01 16:30 Operator: YGK
Sample : IC PEST 50 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:40 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





Quantita ort (Not wed

Signal #1 : C:\HPCHEM\1\DATA\082101\08210106.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\082101\08210106.D\ECD2B.CH
Acq On : 08/21/01 17:02 Operator: YGK
Sample : IC PEST 75 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:41 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

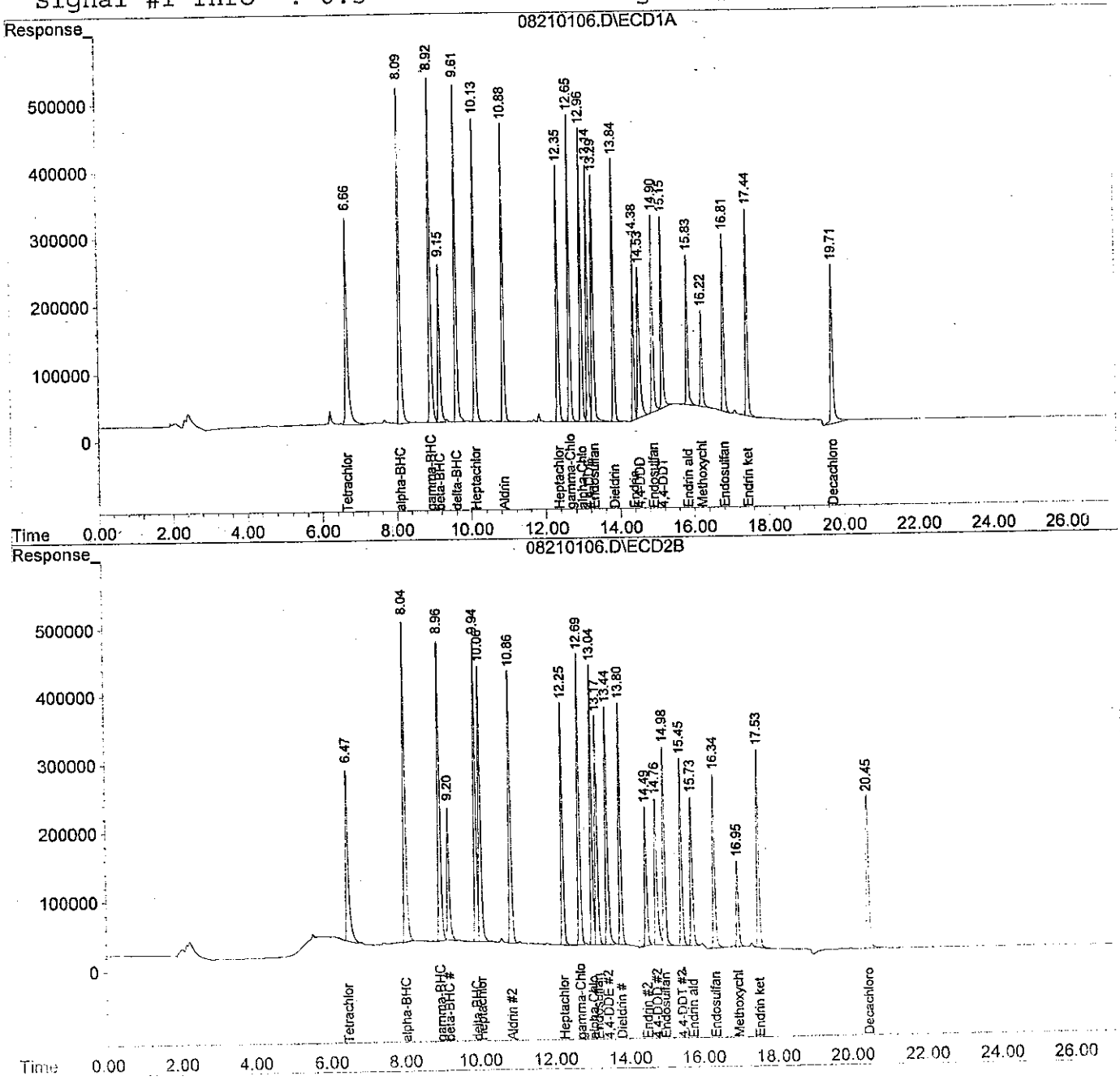
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.66	6.47	13290927	11469672	73.496	75.581
		Spiked Amount 100.000			Recovery	=	73.50%	75.58%
22)	S	Decachlorobiphen	19.71	20.45	9986726	9667665	71.902	72.486
		Spiked Amount 100.000			Recovery	=	71.90%	72.49%
		Target Compounds						
2)	T	alpha-BHC	8.09	8.04	18809128	18291104	76.749	78.400
3)	T	beta-BHC	9.15	9.20	8567826	7801863	78.052	80.773
4)	T	gamma-BHC (Linda	8.92	8.96	18101986	16671776	77.689	82.800
5)	T	delta-BHC	9.61	9.94	17591205	16214502	79.589	79.344
6)	T	Heptachlor	10.13	10.06	15476180	15585279	77.331	75.739
7)	T	Aldrin	10.88	10.86	14813627	14359963	76.243	78.519
8)	T	Heptachlor epoxi	12.35	12.25	12409166	12455099	76.994	75.489
9)	T	Endosulfan I	13.29	13.17	12723468	12153561	71.253	76.251
10)	T	gamma-Chlordane	12.65	12.70	14503343	14745817	73.405	76.069
11)	T	alpha-Chlordane	12.96	13.04	13696563	13909690	73.854	75.563
12)	T	4,4-DDE	13.14	13.44	12217282	12594845	76.245	78.201
13)	T	Dieldrin	13.84	13.80	12295470	12184236	76.148	77.043
14)	T	Endrin	14.38	14.50	8183345	6971175	78.413	78.682
15)	T	4,4-DDD	14.53	14.76	8953771	9091361	76.691	78.235
16)	T	Endosulfan II	14.90	14.98	9721276	10861280	77.587	74.790
17)	T	Endrin aldehyde	15.84	15.73	7516368	7845613	73.608	73.922
18)	T	4,4-DDT	15.15	15.45	10019257	10061605	76.386	76.972
19)	T	Endosulfan sulfa	16.81	16.34	8634201	9302255	75.143	76.602
20)	T	Methoxychlor	16.22	16.96	4924051	4522051	76.518	81.050
21)	T	Endrin ketone	17.44	17.53	10454513	10529506	75.089	76.084

(f)=RT Delta > 1/2 Window (#)=Amount s ffer by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\1\DATA\082101\08210106.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\082101\08210106.D\ECD2B.CH
Acq On : 08/21/01 17:02 Operator: YGK
Sample : IC PEST 75 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:41 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25



Quantitation Report (Not Re e

Signal #1 : C:\HPCHEM\1\DATA\082101\08210107.D\ECD1A.CH Vial:
Signal #2 : C:\HPCHEM\1\DATA\082101\08210107.D\ECD2B.CH
Acq On : 08/21/01 17:34 Operator: YGK
Sample : IC PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:42 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

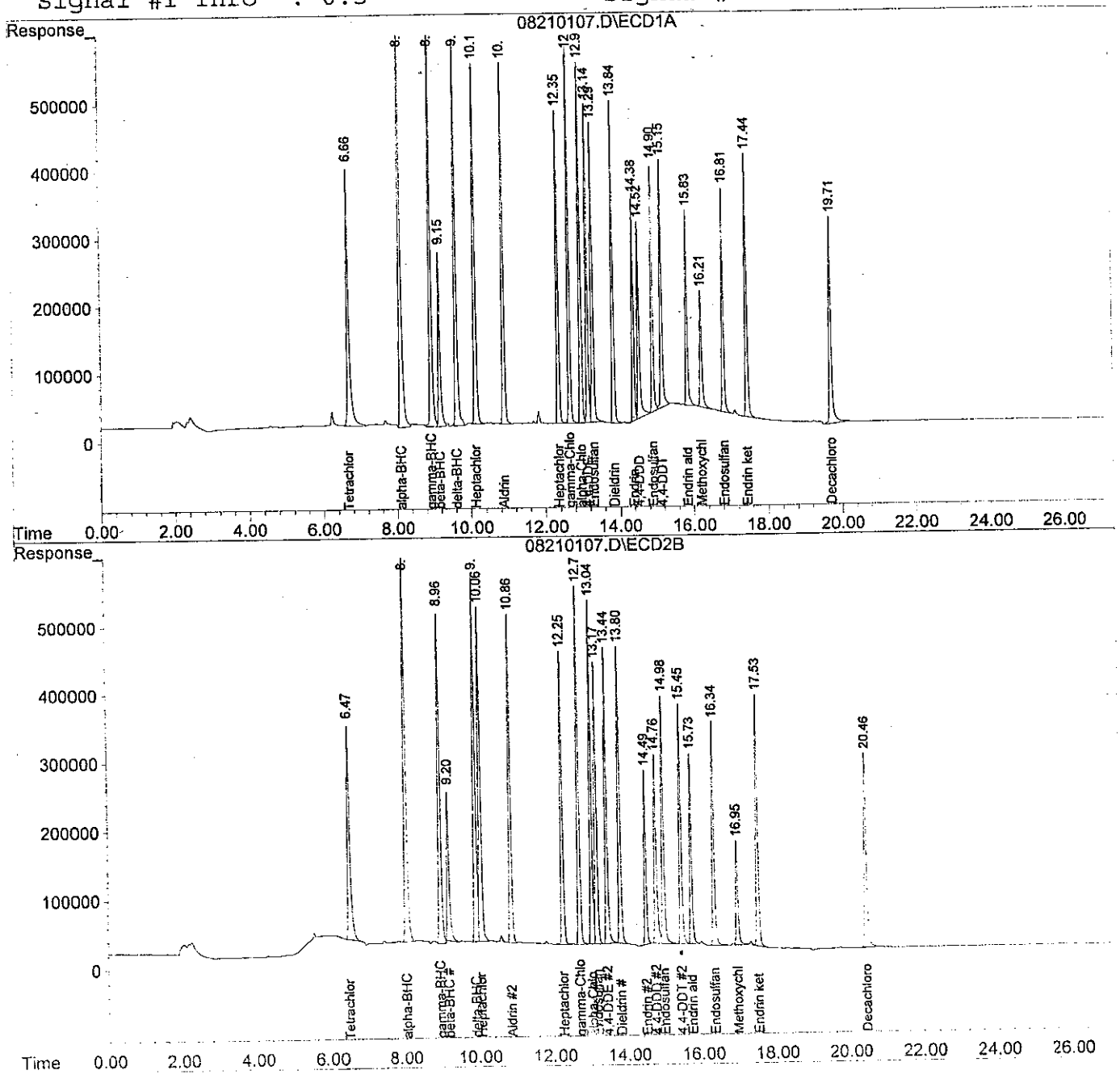
Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	6.66	6.47	16707621	14406155	92.691	94.877
	Spiked Amount 100.000			Recovery =		92.69%	94.88%
22)	S Decachlorobiphen	19.71	20.46	12978443	12567838	94.579	95.749
	Spiked Amount 100.000			Recovery =		94.58%	95.75%
	Target Compounds						
2)	T alpha-BHC	8.10	8.04	24011264	22796568	98.839	98.061
3)	T beta-BHC	9.15	9.20	9767722	8897481	89.672	92.520
4)	T gamma-BHC (Linda	8.92	8.96	21798393	19160073	94.211	95.592
5)	T delta-BHC	9.61	9.94	20256323	20028949	92.377	98.154
6)	T Heptachlor	10.13	10.06	18791095	19187485	97.399	93.756
7)	T Aldrin	10.88	10.86	18332673	17582368	94.972	96.471
8)	T Heptachlor epoxi	12.35	12.25	15196266	15319897	97.537	93.156
9)	T Endosulfan I	13.29	13.17	15044089	14899887	84.788	93.829
10)	T gamma-Chlordane	12.65	12.70	17886997	18316249	91.350	95.125
11)	T alpha-Chlordane	12.96	13.04	16798258	17209687	91.443	94.070
12)	T 4,4-DDE	13.14	13.44	14987259	15492943	94.191	96.637
13)	T Dieldrin	13.84	13.80	15199112	15145924	94.777	96.068
14)	T Endrin	14.38	14.49	10328864	8713091	98.018	95.946
15)	T 4,4-DDD	14.52	14.76	11396558	11229387	99.067	96.674
16)	T Endosulfan II	14.90	14.98	12349610	13560800	99.843	94.167
17)	T Endrin aldehyde	15.84	15.73	9662208	9968688	96.392	94.919
18)	T 4,4-DDT	15.15	15.45	12721276	12581158	97.842	97.020
19)	T Endosulfan sulfa	16.81	16.34	10796258	11720834	94.504	97.259
20)	T Methoxychlor	16.21	16.95	6233932	5771767	97.870	102.788
21)	T Endrin ketone	17.44	17.53	13273437	13373987	96.390	97.618

Signal #1 : C:\HPCHEM\1\DATA\082101\0821..107 ...CD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\082101\08210107 ...ECD2B.CH
Acq On : 08/21/01 17:34 Operator: YGK
Sample : IC PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:42 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25



Quantitation Report (Not R...

Signal #1 : C:\HPCHEM\1\DATA\082101\08210108.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\082101\08210108.D\ECD2B.CH
Acq On : 08/21/01 18:07 Operator: YGK
Sample : IC PEST 150 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:42 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.66	6.47	24739178	22475384	137.191	148.310
		Spiked Amount 100.000			Recovery	=	137.19%	148.31%
22)	S	Decachlorobiphen	19.71	20.46	18665177	18788292	135.649	143.540
		Spiked Amount 100.000			Recovery	=	135.65%	143.54%
		Target Compounds						
2)	T	alpha-BHC	8.10	8.04	36959430	35058793	152.471	150.423
3)	T	beta-BHC	9.15	9.20	15245706	14040907	139.706	145.833
4)	T	gamma-BHC (Linda	8.92	8.96	33254202	29834109	143.429	147.913
5)	T	delta-BHC	9.61	9.94	31819172	30247257	145.054	148.101
6)	T	Heptachlor	10.13	10.07	27442906	28187118	154.130	137.444
7)	T	Aldrin	10.88	10.87	26840748	26055464	138.937	142.653
8)	T	Heptachlor epoxi	12.36	12.25	22037516	22242234	151.941	135.127
9)	T	Endosulfan I	13.29	13.17	22661059	21666234	128.279	136.460
10)	T	gamma-Chlordane	12.65	12.70	26679873	27129899	136.526	141.001
11)	T	alpha-Chlordane	12.96	13.04	25062086	25385565	136.947	138.895
12)	T	4,4-DDE	13.14	13.44	22472125	23100825	141.813	144.326
13)	T	Dieldrin	13.84	13.80	22394318	22157046	139.879	140.326
14)	T	Endrin	14.38	14.50	14649756	11967278	138.658	130.219
15)	T	4,4-DDD	14.52	14.76	17762851	16880465	156.499	145.526
16)	T	Endosulfan II	14.90	14.98	18552761	20007636	151.124	139.102
17)	T	Endrin aldehyde	15.84	15.73	14503107	14892459	145.901	142.005
18)	T	4,4-DDT	15.15	15.45	18993402	18936426	146.936	146.530
19)	T	Endosulfan sulfa	16.81	16.34	16158615	17432710	141.803	144.844
20)	T	Methoxychlor	16.21	16.95	9277348	8401396	147.201	148.445
21)	T	Endrin ketone	17.44	17.53	20001035	19929031	145.641	145.545

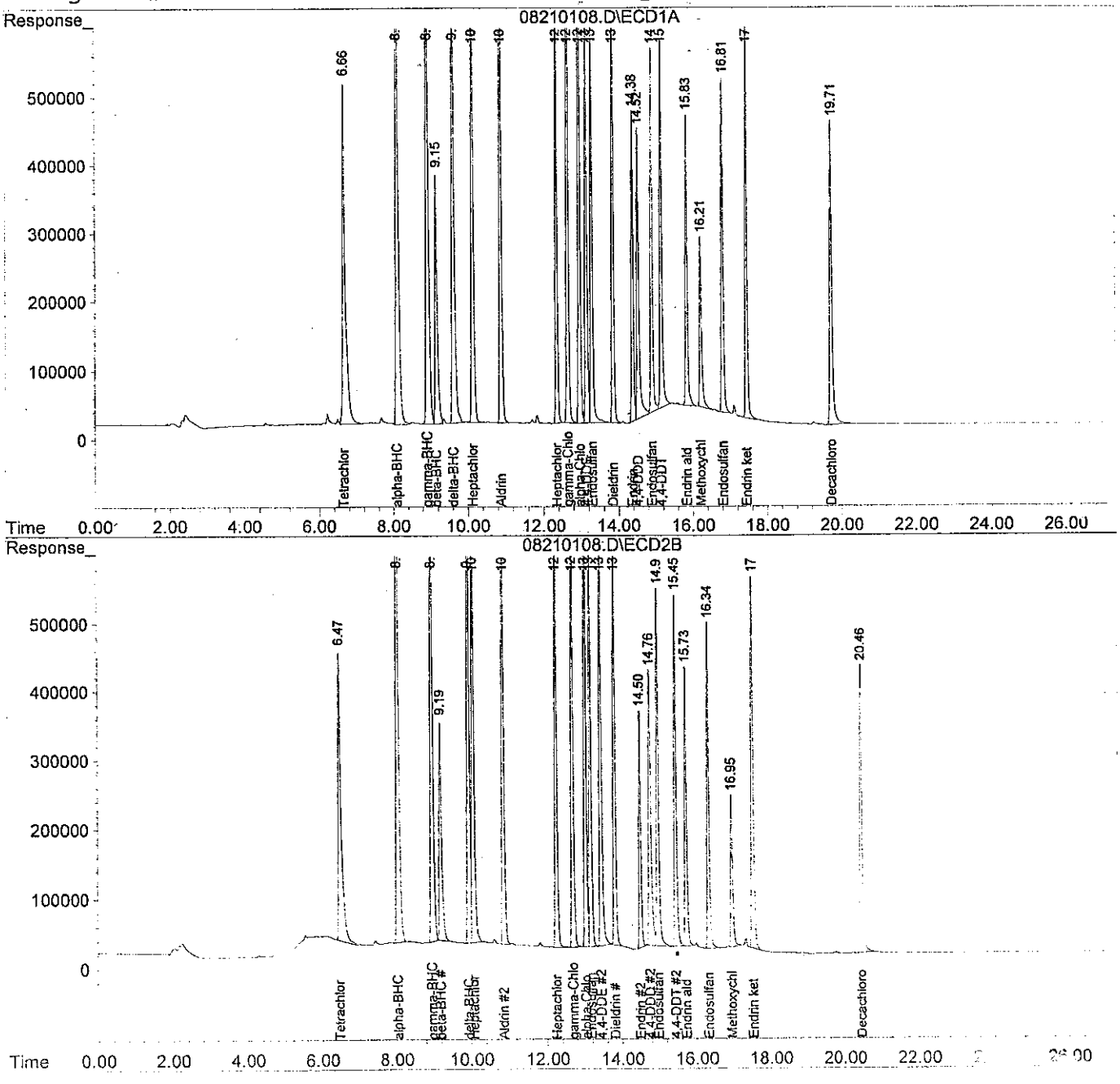
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\082101\08210108.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\082101\08210108.D\ECD2B.CH
Acq On : 08/21/01 18:07 Operator: YGK
Sample : IC PEST 150 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:42 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25



Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\082101\08210109.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\082101\08210109.D\ECD2B.CH
Acq On : 08/21/01 18:39 Operator: YGK
Sample : IC PEST 250 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:43 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

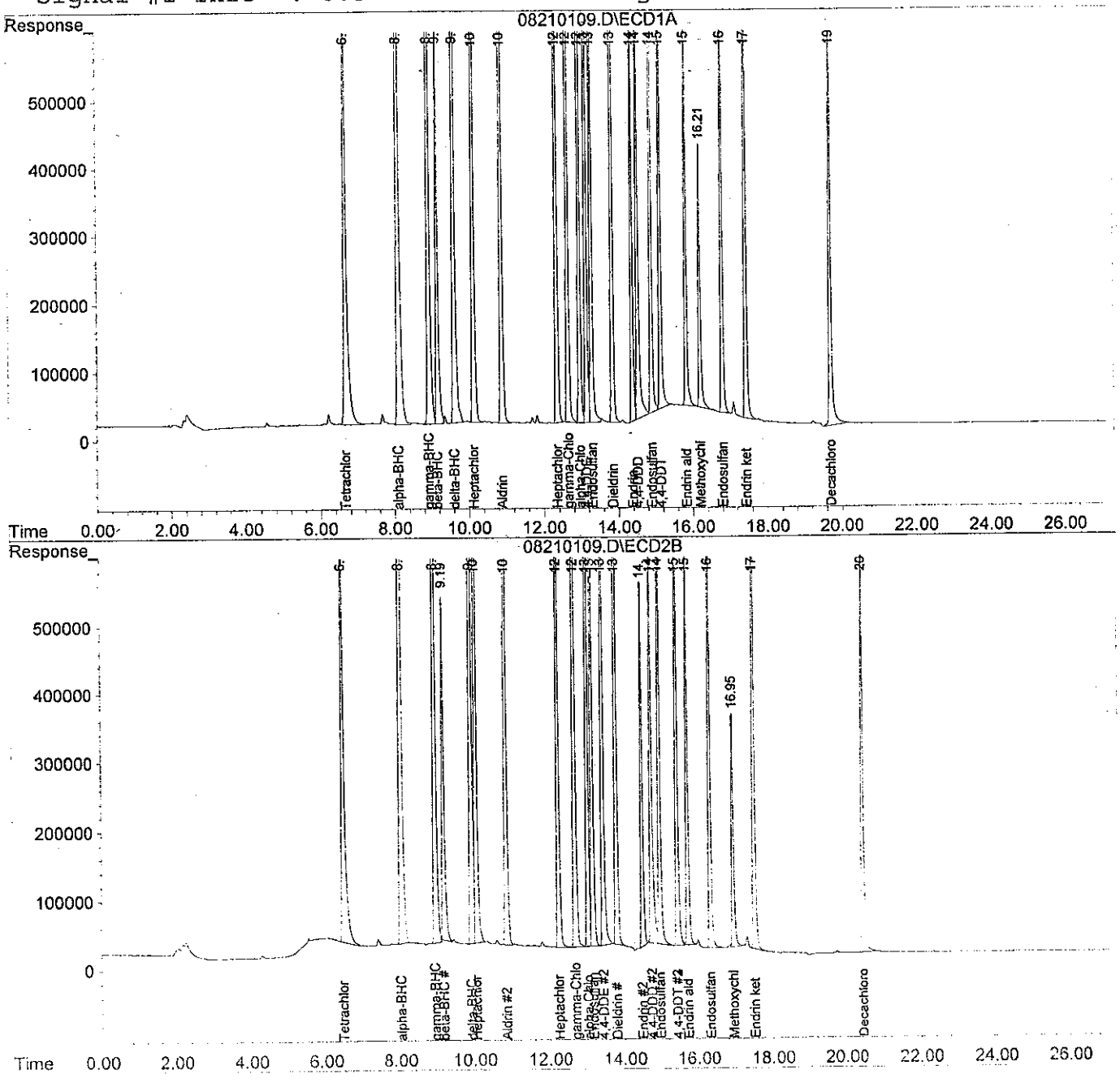
Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.66	6.47	34819848	31927241	191.478	208.977
		Spiked Amount 100.000				Recovery =	191.48%	208.98%
22)	S	Decachlorobiphen	19.70	20.45	25928035	25938747	188.015	197.943
		Spiked Amount 100.000				Recovery =	188.02%	197.94%
		Target Compounds						
2)	T	alpha-BHC	8.09	8.03	53303408	50683960	217.046	215.317
3)	T	beta-BHC	9.15	9.19	22068482	20711149	201.042	213.593
4)	T	gamma-BHC (Linda	8.92	8.96	47327838	43660681	202.750	214.793
5)	T	delta-BHC	9.61	9.93	45618380	43903282	206.608	213.729
6)	T	Heptachlor	10.13	10.06	37518877	38902344	239.974	188.131
7)	T	Aldrin	10.88	10.86	37321038	36704782	192.161	199.654
8)	T	Heptachlor epoxi	12.35	12.25	30713914	31211122	239.884	188.614
9)	T	Endosulfan I	13.29	13.17	31258139	30455141	175.991	190.949
10)	T	gamma-Chlordane	12.65	12.69	37804984	38762294	193.040	200.907
11)	T	alpha-Chlordane	12.96	13.04	35474039	36155967	193.694	197.434
12)	T	4,4-DDE	13.14	13.44	32104733	33093349	202.222	206.130
13)	T	Dieldrin	13.84	13.80	31527045	31366296	196.142	197.549
14)	T	Endrin	14.38	14.49	22139159	18879067	209.502	204.973
15)	T	4,4-DDD	14.52	14.75	26139607	24713727	230.944	212.486
16)	T	Endosulfan II	14.89	14.97	25973935	27987773	210.595	193.491
17)	T	Endrin aldehyde	15.83	15.72	20806737	21228016	209.068	201.345
18)	T	4,4-DDT	15.14	15.44	27406041	27324250	211.870	211.140
19)	T	Endosulfan sulfa	16.81	16.33	23231723	24744257	203.278	204.556
20)	T	Methoxychlor	16.21	16.95	13713054	12413771	217.799	217.681
21)	T	Endrin ketone	17.44	17.52	28311605	28184329	204.944	204.657

Signal #1 : C:\HPCHEM\1\DATA\082101\08210109.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\082101\08210109.D\ECD2B.CH
Acq On : 08/21/01 18:39 Operator: YGK
Sample : IC PEST 250 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:43 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Tue Aug 21 14:40:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25



Quantitation R[illegible]t (Not Reviewe[illegible]

Signal #1 : C:\HPCHEM\1\DATA\082101\0[illegible].D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\082101\082[illegible]0.D\ECD2B.CH
Acq On : 08/21/01 19:11 Operator: YGK
Sample : ICV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:55 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Initial Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25

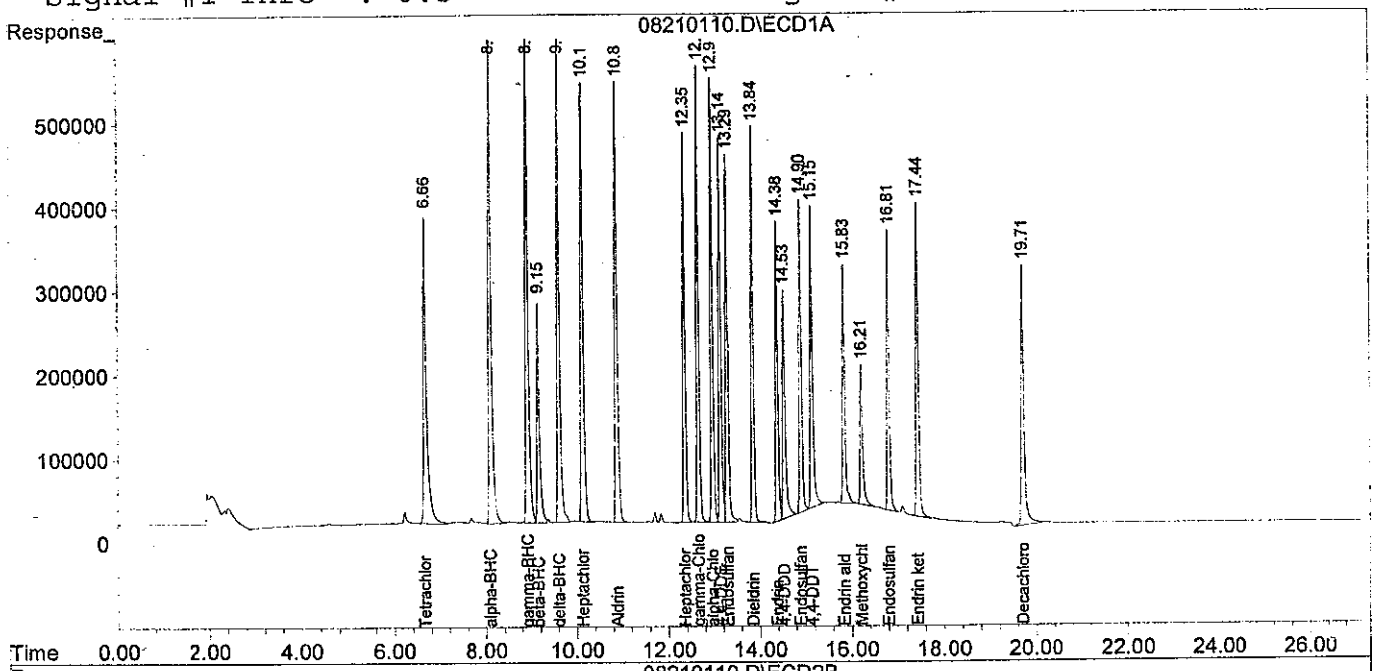
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
		System Monitoring Compounds						
1)	S	Tetrachloro-m-xy	6.66	6.47	17127881	15344069	99.282	100.791
		Spiked Amount 100.000				Recovery =	99.28%	100.79%
22)	S	Decachlorobiphen	19.71	20.46	13463434	13231875	102.522	102.294
		Spiked Amount 100.000				Recovery =	102.52%	102.29%
		Target Compounds						
2)	T	alpha-BHC	8.10	8.04	24494514	23333781	99.624	99.347
3)	T	beta-BHC	9.16	9.20	10302597	9446447	94.273	97.731
4)	T	gamma-BHC (Linda	8.92	8.96	22524992	20524703	96.911	101.240
5)	T	delta-BHC	9.61	9.94	21645746	20333368	98.475	99.396
6)	T	Heptachlor	10.13	10.07	19090736	19527571	96.580	94.649
7)	T	Aldrin	10.88	10.86	18506315	17972731	95.623	98.009
8)	T	Heptachlor epoxi	12.35	12.25	15601744	15648474	95.115	96.365
9)	T	Endosulfan I	13.29	13.17	15478676	14995667	93.297	94.288
10)	T	gamma-Chlordane	12.65	12.70	17826175	18239050	94.721	95.024
11)	T	alpha-Chlordane	12.96	13.04	17047446	17325185	93.948	95.136
12)	T	4,4-DDE	13.14	13.44	15159868	15620400	96.491	97.695
13)	T	Dieldrin	13.84	13.80	15213968	15197744	95.023	95.944
14)	T	Endrin	14.38	14.49	11168333	9150896	105.662	103.691
15)	T	4,4-DDD	14.53	14.76	11327258	11135769	100.739	95.994
16)	T	Endosulfan II	14.90	14.98	12579505	13975954	102.459	96.973
17)	T	Endrin aldehyde	15.83	15.73	9782970	10029806	98.817	95.436
18)	T	4,4-DDT	15.15	15.45	12667159	12781675	98.516	99.284
19)	T	Endosulfan sulfa	16.81	16.34	11113997	12010098	97.696	99.738
20)	T	Methoxychlor	16.21	16.95	6415037	5833960	102.362	102.319
21)	T	Endrin ketone	17.44	17.53	12934295	13048115	94.083	95.134

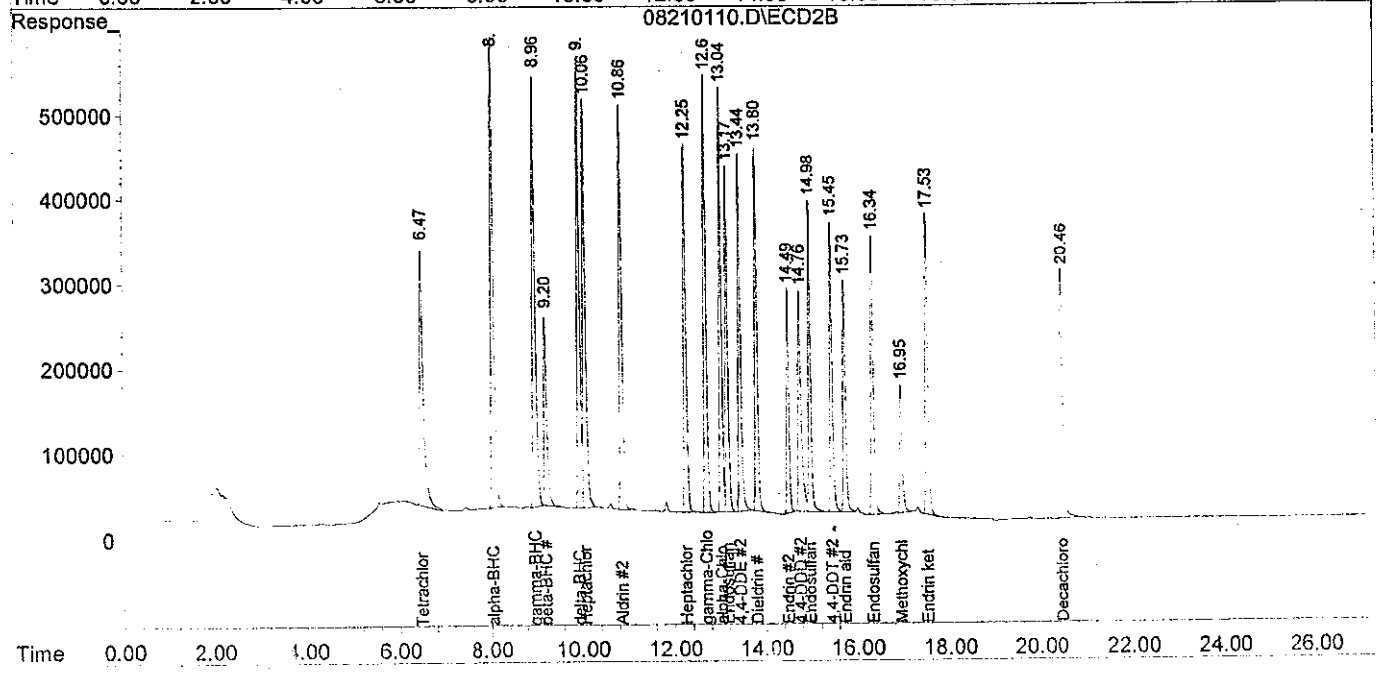
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
0[illegible]210110.D 082101P.M Fri Aug 24 14:46:[illegible]5 2001 Page 1

Signal #1 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\082101\08210110.D\ECD2B.CH
Acq On : 08/21/01 19:11 Operator: YGK
Sample : ICV PEST 100 PPB Inst : HPGCD
Misc : Multiplr: 1.00
IntFile Signal #1: AUTOINT2.E IntFile Signal #2: events2.e
Quant Time: Aug 22 8:55 2001 Quant Results File: 082101P.RES

Quant Method : C:\HPCHEM\1\METHODS\082101P.M (Chemstation Integrator)
Title : Calibration for Pest By Method 8081 (08/21/01)
Last Update : Wed Aug 22 08:54:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8081D2.M

Volume Inj. : 2
Signal #1 Phase : Rtx_CLP1 Signal #2 Phase: Rtx_CLP2
Signal #1 Info : 0.5 Signal #2 Info : 0.25





ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/20/01
Analyst Initials: YCK
Instrument Method: 8081D 2
Calibration Column: Rtx - CLP1 (F)
Confirmation Column: Rtx - CLP11

DDT Breakdown % (<15%): 2.7%
Endrin Breakdown % (<15%): 8.5%

Pest Calibration Date: 08/21/01
PCB Calibration Date:

Surrogate Recovery Limits (%)		
	TCMX	DCB
Soil	11-142	20-151
Water	20-110	D-128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. TCMX	Surrogate Rec. DCB	Comments/Observations
1	Primer	082101P	Std	1X	NA	NA	
2	Hexane	〃	Solv	〃	〃	〃	
3	PEM	〃	Std	〃	〃	〃	P01161
4	IC Pest 10PPB	〃	〃	〃	〃	〃	P01175
5	IC Pest 50PPB	〃	〃	〃	〃	〃	P01176
6	IC Pest 75PPB	〃	〃	〃	〃	〃	P01172
7	IC Pest 100PPB	〃	〃	〃	〃	〃	P01164
8	IC Pest 150PPB	〃	〃	〃	〃	〃	P01173
9	IC Pest 250PPB	〃	〃	〃	〃	〃	P01174
10	ICV Pest 100PPB	〃	〃	〃	99	103	P01163
11	CCV Chlor 250PPB	〃	〃	〃	NA	NA	99% P01169
12	CCV Tox 2500PPB	〃	↓	〃	〃	〃	95% P01170
13	Hexane	〃	Solv	〃	〃	〃	
14	GP5081001i	〃	Soil	〃	98/60	113/134	
15	GP5081002	〃	↓	↓	76/58	05/100	
16	18306 S 5000X	〃	↓	5000X	DO	DO	
17	GPLW080901	〃	Water	1X	81/67	111/115	
18	GPLW080902	〃	〃	〃	94/72	84/88	
19	17981W	〃	〃	〃	54/43	31/33	
20	18003W	〃	〃	〃	91/55	101/113	
21	18004W	〃	↓	〃	78/95	102/112	
22	Hexane	〃	Solv.	〃	NA	NA	
23	PEM	〃	Std	↓	↓	↓	P01161

Signature/Date: 08/21

cont

SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 07/11/01 PEST-C	METHOD: (circle applicable methods)
MATRIX: —	8081A (8082) 8151A

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	Y	N	(NA)
Is the runlog completely filled out (including review signature/date)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YGK	Reviewer: RL
Date: 07/12/01 Time: 11:00	Date: 07/17/01 Time: 10:05

Response Factor Report PEST-C

Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001

Calibration Files
1 =07110103.D 5 =07110107.D 4 =07110106.D
3 =07110105.D 2 =07110104.D

		Compound	1	5	4	3	2	Avg		%RSD
1)	S	Tetrachloro-m-xylene	1.790	1.753	1.681	1.757	1.735	1.743	E8	2.31
2)	L1	Aroclor-1016{1}	4.131	2.913	3.248	3.372	3.629	3.459	E6	13.17
3)	L1	Aroclor-1016{2}	7.906	5.445	5.895	6.289	6.879	6.483	E6	14.72
4)	L1	Aroclor-1016{3}	1.711	1.276	1.333	1.489	1.488	1.459	E7	11.62
5)	L1	Aroclor-1016{4}	7.193	5.287	5.656	6.514	6.388	6.208	E6	12.08
6)	L1	Aroclor-1016{5}	5.087	3.789	3.963	4.576	4.373	4.358	E6	11.80
7)	L2	Aroclor-1260{1}	1.053	0.802	0.823	0.882	0.920	0.896	E7	11.11
8)	L2	Aroclor-1260{2}	1.579	1.187	1.239	1.326	1.363	1.339	E7	11.29
9)	L2	Aroclor-1260{3}	8.991	7.481	7.575	7.758	8.161	7.993	E6	7.70
10)	L2	Aroclor-1260{4}	2.104	1.978	1.944	1.944	1.996	1.993	E7	3.30
11)	L2	Aroclor-1260{5}	1.152	1.165	1.180	1.178	1.199	1.175	E7	1.50
12)	S	Decachlorobiphenyl	1.596	1.400	1.413	1.510	1.505	1.485	E8	5.41

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110103.D Vial: 3
Acq On : 11 Jul 2001 10:45 Operator: YGK
Sample : IC AR 1016,1260 0.10 PPM,SS 0.020 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:37 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

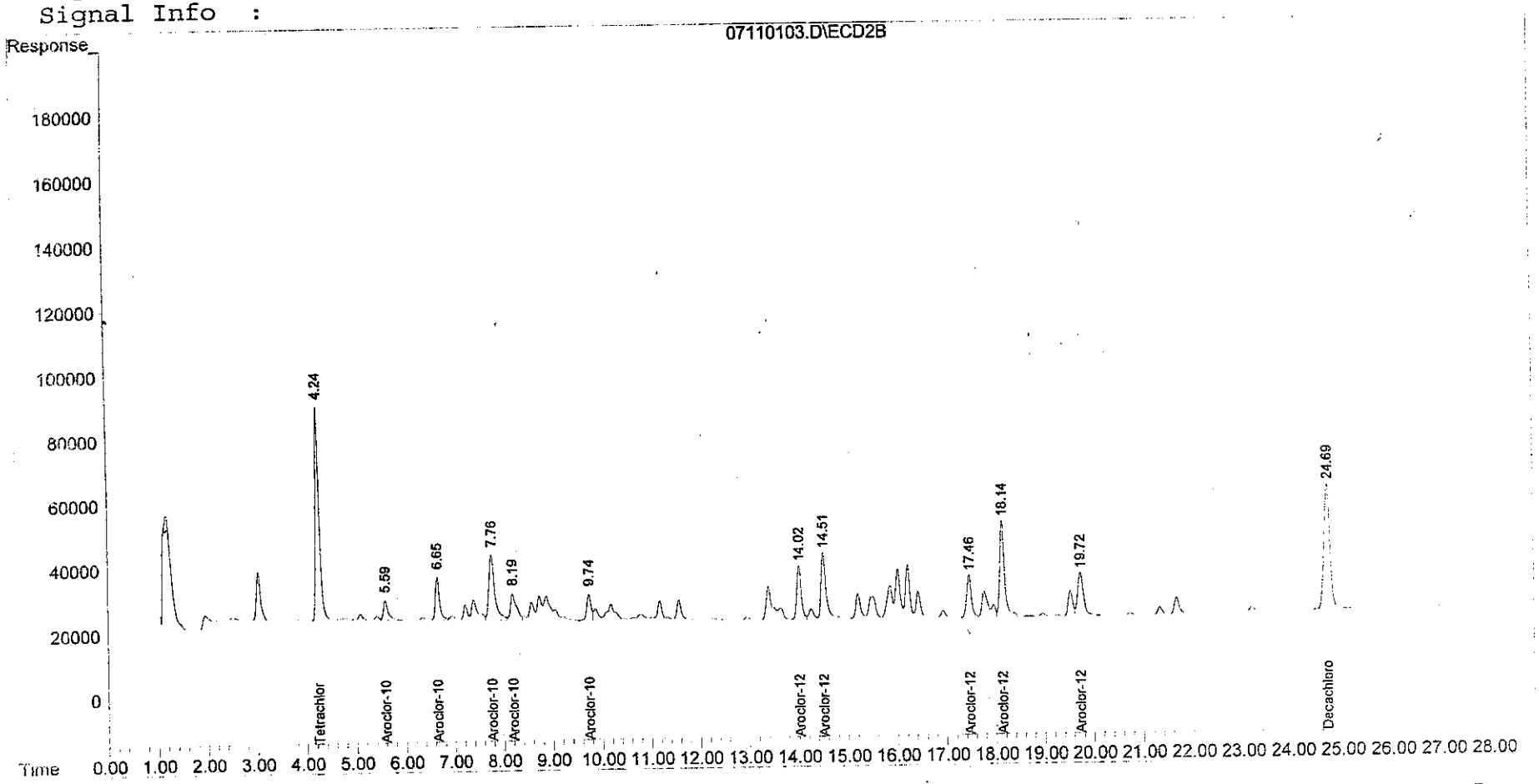
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.24	3580492	0.021 ug/ml
Spiked Amount 0.100		Recovery =	21.00%
12) S Decachlorobiphenyl	24.69	3192815	0.022 ug/ml
Spiked Amount 0.100		Recovery =	22.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.59	413096	0.117 ug/ml
3) L1 Aroclor-1016{2}	6.65	790578	0.121 ug/ml
4) L1 Aroclor-1016{3}	7.76	1711176	0.117 ug/ml
5) L1 Aroclor-1016{4}	8.19	719292	0.115 ug/ml
6) L1 Aroclor-1016{5}	9.74	508673	0.117 ug/ml
Sum Aroclor-1016		4142816	0.587 ug/ml
Average Aroclor-1016			0.117 ug/ml
7) L2 Aroclor-1260{1}	14.02	1053481	0.118 ug/ml
8) L2 Aroclor-1260{2}	14.51	1578749	0.118 ug/ml
9) L2 Aroclor-1260{3}	17.46	899130	0.112 ug/ml
10) L2 Aroclor-1260{4}	18.14	2104115	0.106 ug/ml
11) L2 Aroclor-1260{5}	19.73	1152282	0.098 ug/ml
Sum Aroclor-1260		6787757	0.552 ug/ml
Average Aroclor-1260			0.110 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110103.D
Acq On : 11 Jul 2001 10:45
Sample : IC AR 1016,1260 0.10 PPM,SS 0.020 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:37 2001 Quant Results File: 07011660.RES

Vial: 3
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110104.D Vial: 4
Acq On : 11 Jul 2001 11:19 Operator: YGK
Sample : IC AR 1016,1260 0.50 PPM,SS 0.10 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

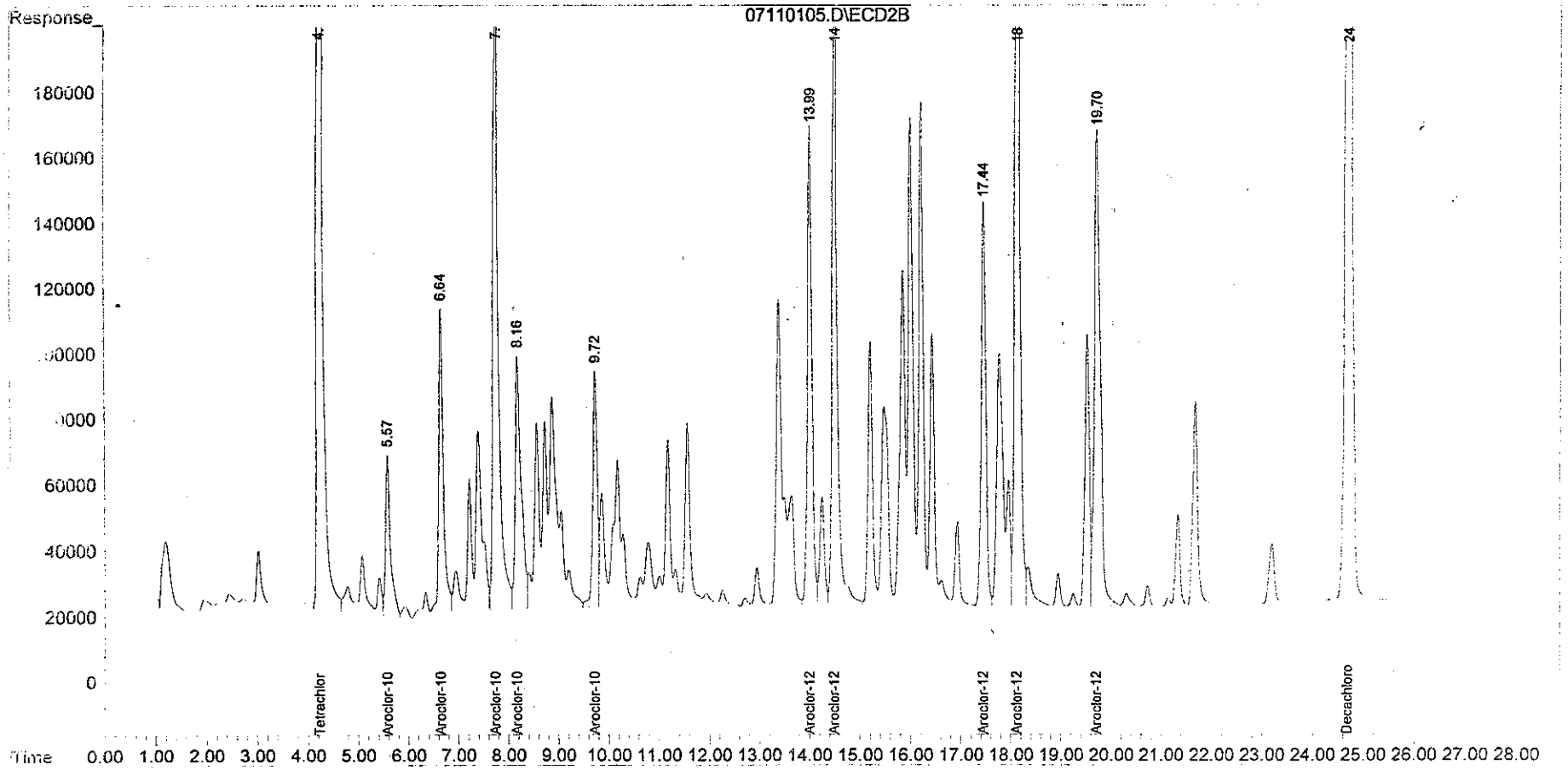
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	17348045	0.081 ug/ml
Spiked Amount 0.100		Recovery =	81.00%
12) S Decachlorobiphenyl	24.68	15051651	0.097 ug/ml
Spiked Amount 0.100		Recovery =	97.00%
Target Compounds			
2) L1 Aroclor-1016{1}	5.58	1814489	0.456 ug/ml
3) L1 Aroclor-1016{2}	6.64	3439525	0.472 ug/ml
4) L1 Aroclor-1016{3}	7.74	7441932	0.466 ug/ml
5) L1 Aroclor-1016{4}	8.17	3193797	0.475 ug/ml
6) L1 Aroclor-1016{5}	9.72	2186375	0.474 ug/ml
Sum Aroclor-1016		18076118	2.343 ug/ml
Average Aroclor-1016			0.469 ug/ml
7) L2 Aroclor-1260{1}	14.00	4597807	0.518 ug/ml
8) L2 Aroclor-1260{2}	14.49	6812910	0.561 ug/ml
9) L2 Aroclor-1260{3}	17.45	4080513	0.551 ug/ml
10) L2 Aroclor-1260{4}	18.12	9982163	0.544 ug/ml
11) L2 Aroclor-1260{5}	19.71	5997296	0.544 ug/ml
Sum Aroclor-1260		31470690	2.717 ug/ml
Average Aroclor-1260			0.543 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110105.D Vial: 5
Acq On : 11 Jul 2001 11:53 Operator: YGK
Sample : IC AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110105.D Vial: 5
Acq On : 11 Jul 2001 11:53 Operator: YGK
Sample : IC AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:17 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

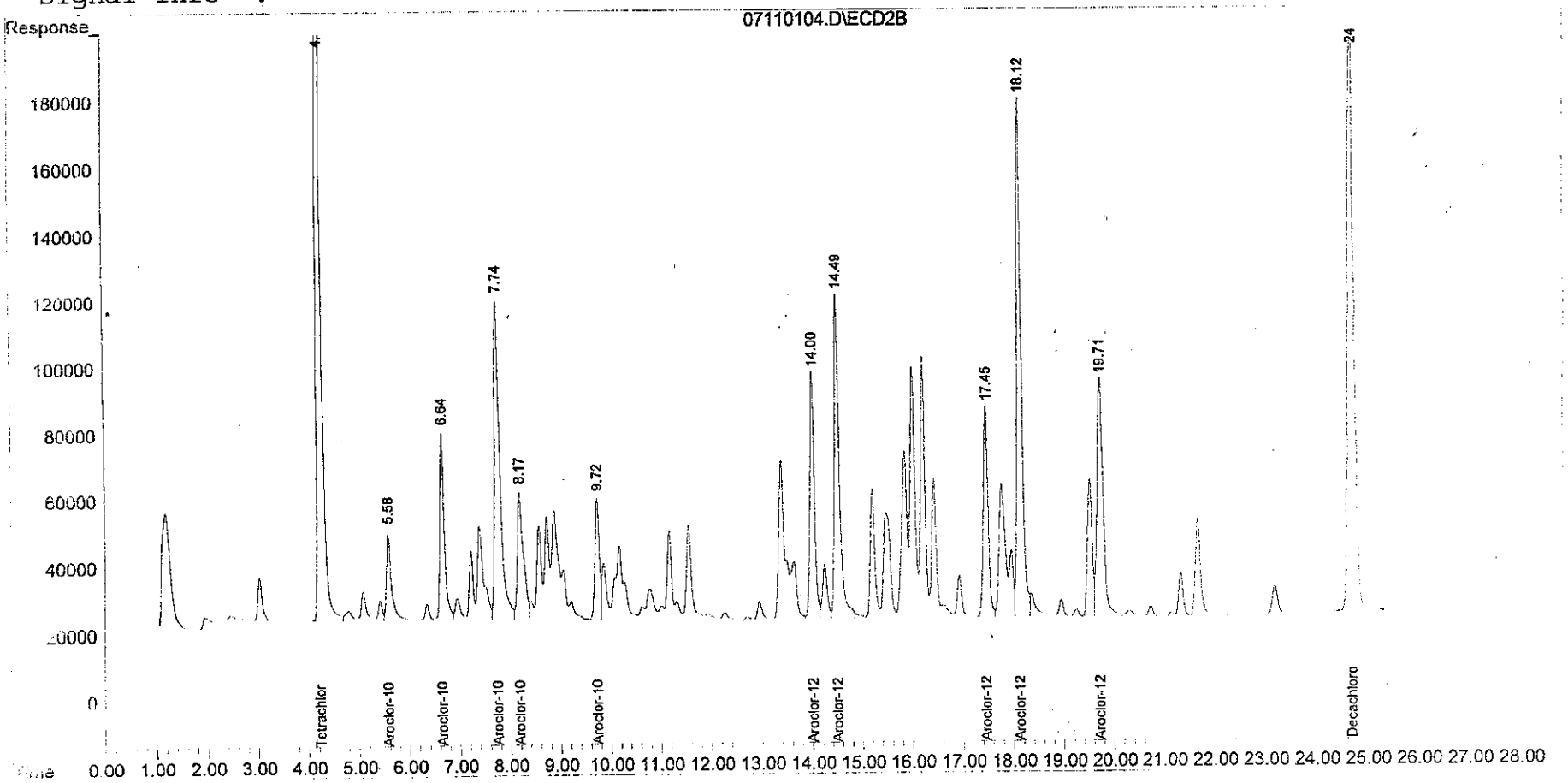
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	35141972	0.202 ug/ml
Spiked Amount 0.100		Recovery = 202.00%	
12) S Decachlorobiphenyl	24.67	30202396	0.203 ug/ml
Spiked Amount 0.100		Recovery = 203.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	3372371	0.975 ug/ml
3) L1 Aroclor-1016{2}	6.64	5815157	0.897 ug/ml
4) L1 Aroclor-1016{3}	7.73	14497278	0.993 ug/ml
5) L1 Aroclor-1016{4}	8.16	6264229	1.009 ug/ml
6) L1 Aroclor-1016{5}	9.72	4406109	1.011 ug/ml
Sum Aroclor-1016		34355144	4.886 ug/ml
Average Aroclor-1016			0.977 ug/ml
7) L2 Aroclor-1260{1}	14.00	8823765	0.985 ug/ml
8) L2 Aroclor-1260{2}	14.48	13263288	0.991 ug/ml
9) L2 Aroclor-1260{3}	17.44	7758310	0.971 ug/ml
10) L2 Aroclor-1260{4}	18.11	19441253	0.975 ug/ml
11) L2 Aroclor-1260{5}	19.70	11781556	1.003 ug/ml
Sum Aroclor-1260		61068172	4.924 ug/ml
Average Aroclor-1260			0.985 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110104.D
Acq On : 11 Jul 2001 11:19
Sample : IC AR 1016,1260 0.50 PPM,SS 0.10 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Vial: 4
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110106.D Vial: 6
Acq On : 11 Jul 2001 12:26 Operator: YGK
Sample : IC AR 1016,1260 1.5 PPM,SS 0.30 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

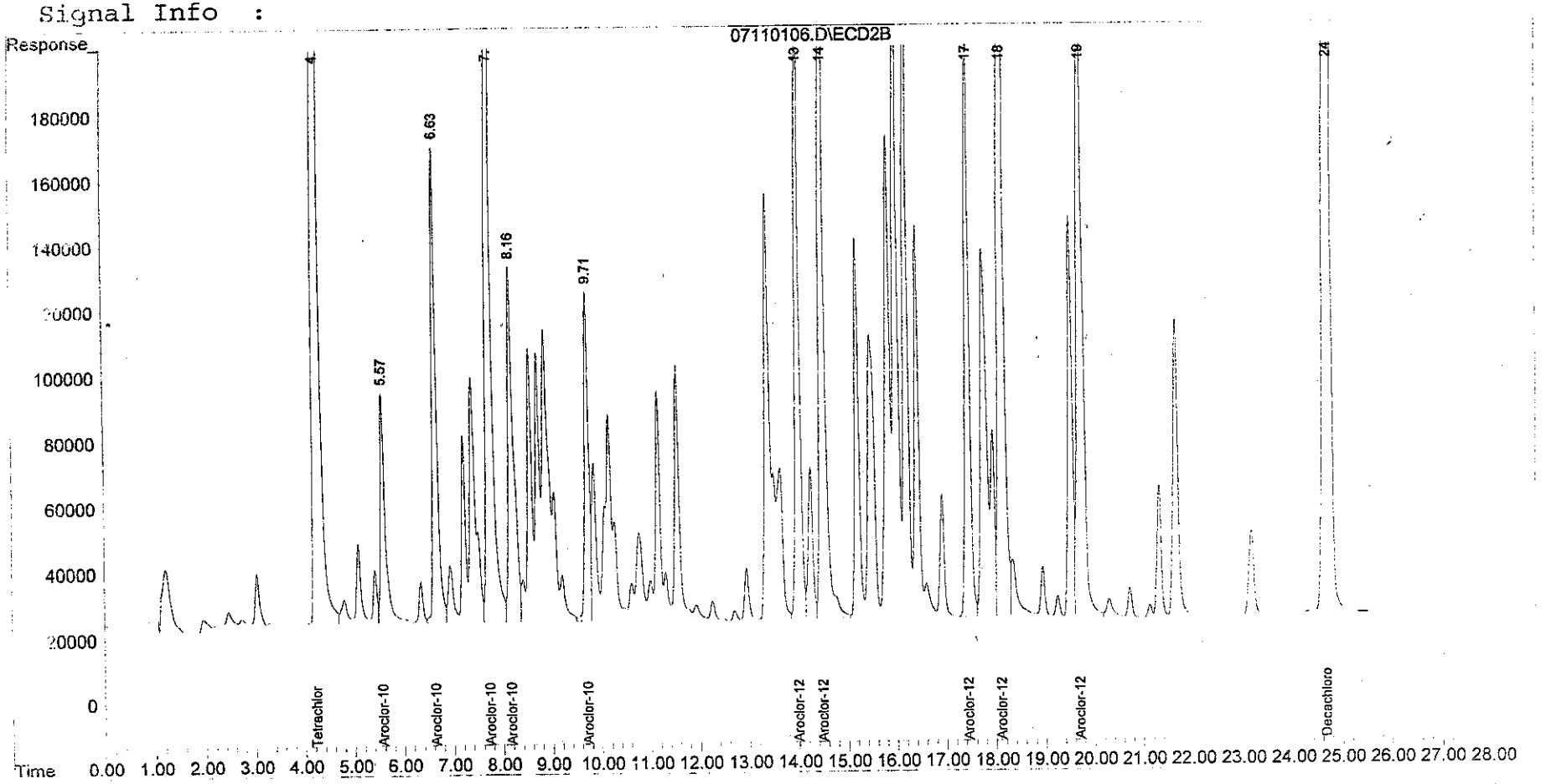
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.23	50419302	0.245 ug/ml
Spiked Amount 0.100		Recovery = 245.00%	
12) S Decachlorobiphenyl	24.66	42399273	0.278 ug/ml
Spiked Amount 0.100		Recovery = 278.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	4871311	1.282 ug/ml
3) L1 Aroclor-1016{2}	6.63	8843219	1.259 ug/ml
4) L1 Aroclor-1016{3}	7.73	19988965	1.279 ug/ml
5) L1 Aroclor-1016{4}	8.16	8484749	1.286 ug/ml
6) L1 Aroclor-1016{5}	9.71	5945042	1.309 ug/ml
Sum Aroclor-1016		48133287	6.416 ug/ml
Average Aroclor-1016			1.283 ug/ml
7) L2 Aroclor-1260{1}	13.99	12345384	1.377 ug/ml
8) L2 Aroclor-1260{2}	14.47	18579137	1.467 ug/ml
9) L2 Aroclor-1260{3}	17.44	11363228	1.480 ug/ml
10) L2 Aroclor-1260{4}	18.11	29164778	1.533 ug/ml
11) L2 Aroclor-1260{5}	19.69	17693078	1.568 ug/ml
Sum Aroclor-1260		89145606	7.426 ug/ml
Average Aroclor-1260			1.485 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110106.D
Acq On : 11 Jul 2001 12:26
Sample : IC AR 1016,1260 1.5 PPM,SS 0.30 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:12 2001 Quant Results File: 07011660.RES

Vial: 6
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110107.D
Acq On : 11 Jul 2001 13:00
Sample : IC AR 1016,1260 2.5 PPM,SS 0.50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:33 2001 Quant Results File: 07011660.RES

Vial: 7
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :

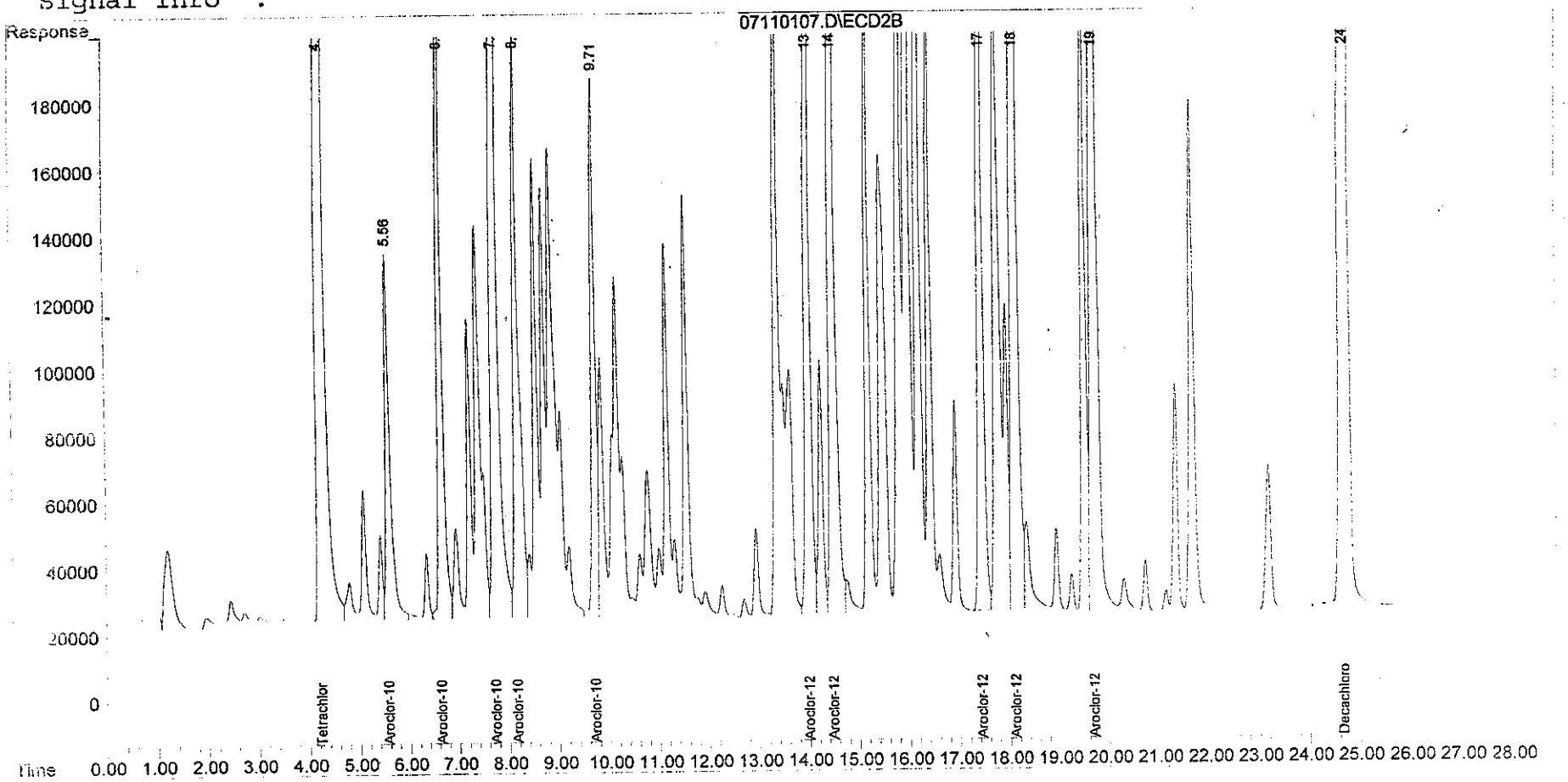
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.22	87642521	0.467 ug/ml
Spiked Amount 0.100		Recovery = 467.00%	
12) S Decachlorobiphenyl	24.65	69993751	0.465 ug/ml
Spiked Amount 0.100		Recovery = 465.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	7283360	1.984 ug/ml
3) L1 Aroclor-1016{2}	6.63	13612011	2.008 ug/ml
4) L1 Aroclor-1016{3}	7.72	31887989	2.106 ug/ml
5) L1 Aroclor-1016{4}	8.15	13217654	2.062 ug/ml
6) L1 Aroclor-1016{5}	9.71	9472955	2.125 ug/ml
Sum Aroclor-1016		75473969	10.284 ug/ml
Average Aroclor-1016			2.057 ug/ml
7) L2 Aroclor-1260{1}	13.98	20060898	2.232 ug/ml
8) L2 Aroclor-1260{2}	14.47	29671680	2.269 ug/ml
9) L2 Aroclor-1260{3}	17.43	18702243	2.384 ug/ml
10) L2 Aroclor-1260{4}	18.10	49449723	2.537 ug/ml
11) L2 Aroclor-1260{5}	19.69	29132301	2.525 ug/ml
Sum Aroclor-1260		147.0E6	11.947 ug/ml
Average Aroclor-1260			2.389 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110107.D
Acq On : 11 Jul 2001 13:00
Sample : IC AR 1016,1260 2.5 PPM,SS 0.50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 11 13:33 2001 Quant Results File: 07011660.RES

Vial: 7
Operator: YGK
Inst : PEST-C
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\071101\07110108.D Vial: 8
Acq On : 11 Jul 2001 13:34 Operator: YGK
Sample : ICV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:23 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Initial Calibration
DataAcq Meth : 8082F2.M

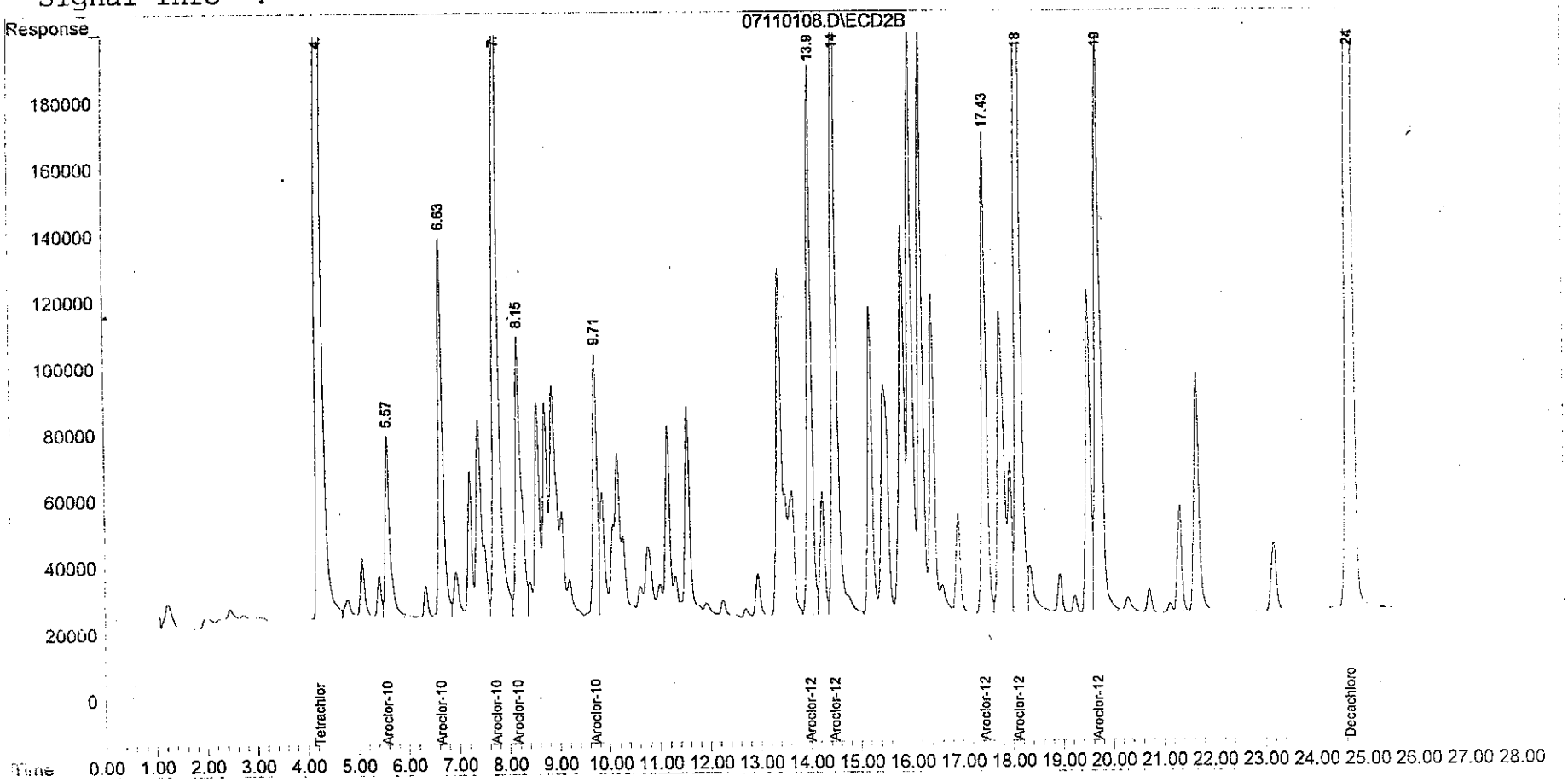
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	4.22	35987494	0.206 ug/ml
Spiked Amount 0.100		Recovery = 206.00%	
12) S Decachlorobiphenyl	24.65	30573896	0.206 ug/ml
Spiked Amount 0.100		Recovery = 206.00%	
Target Compounds			
2) L1 Aroclor-1016{1}	5.57	3687904	1.066 ug/ml
3) L1 Aroclor-1016{2}	6.63	6876154	1.061 ug/ml
4) L1 Aroclor-1016{3}	7.73	15707813	1.076 ug/ml
5) L1 Aroclor-1016{4}	8.16	6628721	1.068 ug/ml
6) L1 Aroclor-1016{5}	9.71	4654616	1.068 ug/ml
Sum Aroclor-1016		37555208	5.339 ug/ml
Average Aroclor-1016			1.068 ug/ml
7) L2 Aroclor-1260{1}	13.98	10033736	1.120 ug/ml
8) L2 Aroclor-1260{2}	14.47	15065799	1.125 ug/ml
9) L2 Aroclor-1260{3}	17.43	9143377	1.144 ug/ml
10) L2 Aroclor-1260{4}	18.10	23183739	1.163 ug/ml
11) L2 Aroclor-1260{5}	19.69	14025284	1.194 ug/ml
Sum Aroclor-1260		71451935	5.746 ug/ml
Average Aroclor-1260			1.149 ug/ml

Data File : C:\HPCHEM\3\DATA\071101\07110108.D Vial: 8
Acq On : 11 Jul 2001 13:34 Operator: YGK
Sample : ICV AR 1016,1260 1.0 PPM,SS 0.20 PPM Inst : PEST-C
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 11 14:23 2001 Quant Results File: 07011660.RES

Quant Method : C:\HPCHEM\3\METHODS\07011660.M (Chemstation Integrator)
Title : AR 1016&1260 CALIBRATION ,GC # 3,07/11/01
Last Update : Wed Jul 11 13:08:27 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8082F2.M

Volume Inj. :
Signal Phase :
Signal Info :



GC/ECD PEST-C, P[illegible]ss Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 07/11/01
Analyst Initials: YCK
Instrument Method: 8082F2
Calibration Column: SPB-608
Confirmation Column: –

PCB Calibration Date: 07/11/01

Surrogate Recovery Limits (%)	
	Decachlorobiphenyl
Soil	45-127
Water	70-128

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. (%) DCB	Comments/Observations
1	Hexane	07011660	soln	1X	NA	P01138
2	ccv PCB 1.0 ppm		sfd			P01057
3	ICA 1016/1260 .010 ppm					P01058
	0.50 ppm					P01138
5	1.0 ppm					P01060
6	1.5 ppm					P01061
7	2.5 ppm					P01145
8	ICVA 1016/1260 1.0 ppm				103	1016-107%, 1260-115% P01033
9	ICA 1221 1.0 ppm				NA	P01021
10	ICA 1232 1.0 ppm					P01027
11	ICA 1242 1.0 ppm					P01032
12	ICA 1248 1.0 ppm					P01035
13	ICA 1254 1.0 ppm					
14	Hexane	07011660	soln		NA	
15	15914 w		w		96	
16	15586w 10X			10X	20	
17	GPW070501I			1X	98	
18	1 3				87	1016-99% 1260-103%
19	15971 w				62	
20	15973 w				57	
21	15984 w				84	
22	16162 w				42	
23	GPW070601I				81	

Signature/Date: [signature] 07/11/01

1 cont

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: HERBICIDE

HBNB W 043

MATRIX: WATER

DATE/TIME: 8/9/01 11:000.m

ANALYST: LL

EXT. METHOD: 8151

INSTRUMENT: GC/ECD

AAL I.D.	SAMPLE VOLUME	pH <2	SURR 1.0ml	SPIKE 1.0ml	FINAL VOLUME	COMMENTS
QHW080901-1	1L	LL	LL		5.0mL	BLK
QHW080901-2				LL		LCS
QHW080901-3				LL		LCSD
17934						
17981						

QA 8/17/01 11:55 AM

MECL2 ID: EX01277 ETHER ID: EX01247 HEXANE ID: EX01259

DIAZALD ID: EX01238 2-(2-ETHOXYETHOXY)-ETHANOL ID: EX00085

SURROGATE I.D.: HOIE125 CONC.: 2.5ppm INITIAL: LL

SPIKE I.D.: HOIE100 CONC.: 1.25-12.5ppm INITIAL: LL

EXTRACT STORAGE: REFRIGERATOR # 5, BOX #: H--032

Spike Witness: A.H

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/17/01
Analyst Initials: YGK
Instrument Method: 8151D16
Calibration Column: HP-5 (F)
Confirmation Column: DB-1701

Herbicide Calibration Date: 06/26/01

Surrogate Recovery Limits (%)	
	DCAA
Soil	52 - 130
Water	D - 164

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
1	Hexane	D062601H	Soil	1X		
2	CCV Herb .25ppm		Std		93	H01134
3	QHW080811011		W		68	
4	1 2				80	
5	18368w 2X			2X	112	Vf=10mL
6	17934w			1X	64	
7	18133 10X			10X	52	Vf=50mL
8	18133 2X			2X	40	Vf=10mL
9	18347 w			1X	97	
10	18365 w				93	
11	18366 w				77	
12	Hexane		Soil		NA	
13	CCV Herb .25ppm		Std		94	H01134
14	18367w		W		79	
15	18369w				94	
16	18370w				114	
17	18403w				90	
18	QHW080901l				87	
19	QHW080901L2				93	
20	1 3				92	
21	17981w				86	
22	QHS0813011		S		96	
23	1 2				80	

Signature/Date: YGK 08/17/01

↓ cont

GC/ECD Herbicides Instrument Run Log

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Sequence Setup Date: 08/17/01
Analyst Initials:
Instrument Method:
Calibration Column:
Confirmation Column:

Herbicide Calibration Date:

Continued from pg 53

Surrogate Recovery Limits (%)	
	DCAA
Soil	
Water	

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
24	18134 S	062601H	S	1x	91	
25	Hexane	1	soln	1	NA	H01134
26	ccv Herb. 25ppm	1	std	1	95	

08/17/01

Signature/Date: 08/17/01

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170121.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\081701\08170121.D\ECD2B.CH
Acq On : 08/17/01 22:08 Operator: YGK
Sample : 17981 W Inst : HPGCE
Misc : ~~Vf=50 ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.12	13.36	5335554	6190302	0.430	0.457	
		Spiked Amount 0.500			Recovery	=	86.00% ✓	91.40%	
		Target Compounds							
1)	T	Dalapon	6.88	6.76	64612	11374348	0.003	0.533	#
3)	T	Dicamba	13.51f	13.82	1168959	2896974	0.021	0.057	#
4)	T	MCPP	13.76	14.03f	176431	713071	6.457	21.332	#
5)	T	MCPA	14.15	14.63	4871883	3340718	121.742	60.894	#
6)	T	Dichloroprop	14.82	15.23	6353395	2024150	0.364	0.124	#
7)	T	2,4-D	0.00	15.91	0	3992508	N.D.	0.214	#
8)	T	2,4,5-TP(Silvex)	16.61	16.88	238347	535755	0.003	0.007	#
9)	T	2,4,5-T	17.00	17.51	161295	294579	0.002	0.004	#
10)	T	2,4-DB	17.59f	18.00	1901719	1303460	0.248	0.133	#
11)	T	Dinoseb	17.97	18.70	278808	66435	0.005	0.001	#

Herb <u>4</u> 2

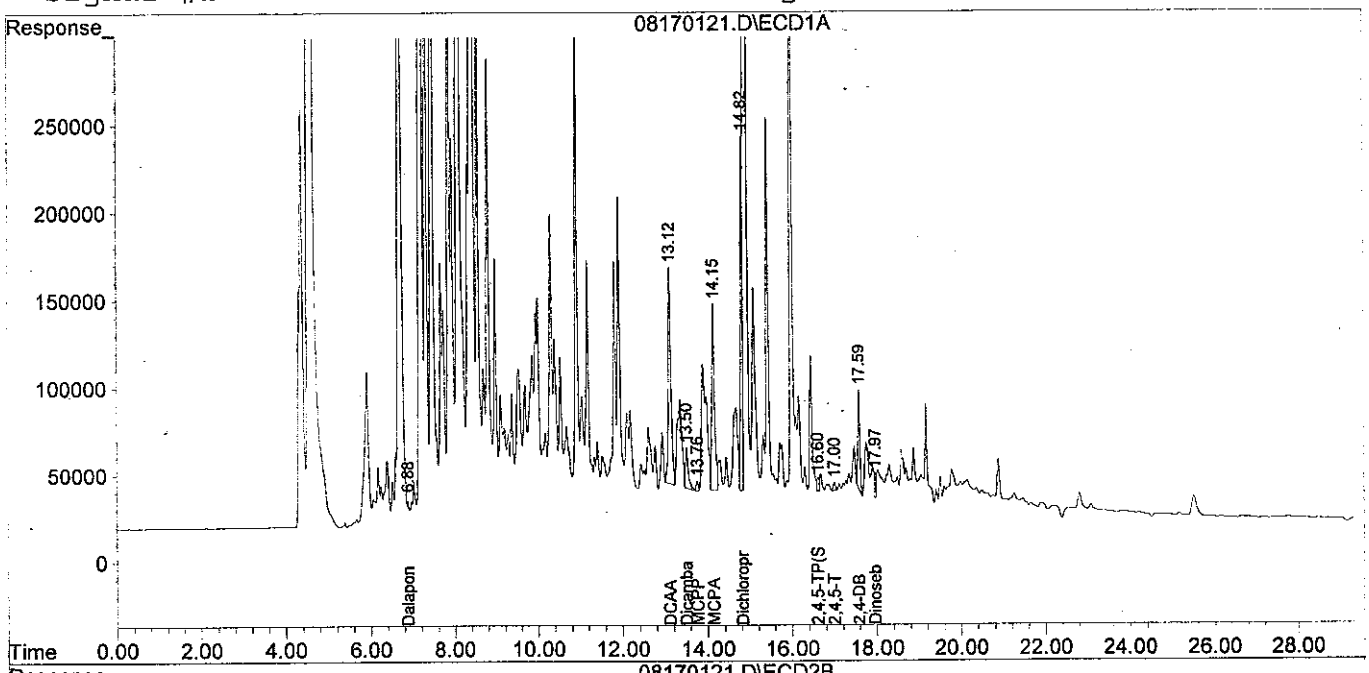
(f)=RT Delta > 1/2 Window (#)=Amounts di[illegible] by > 25% (m)=manual int.

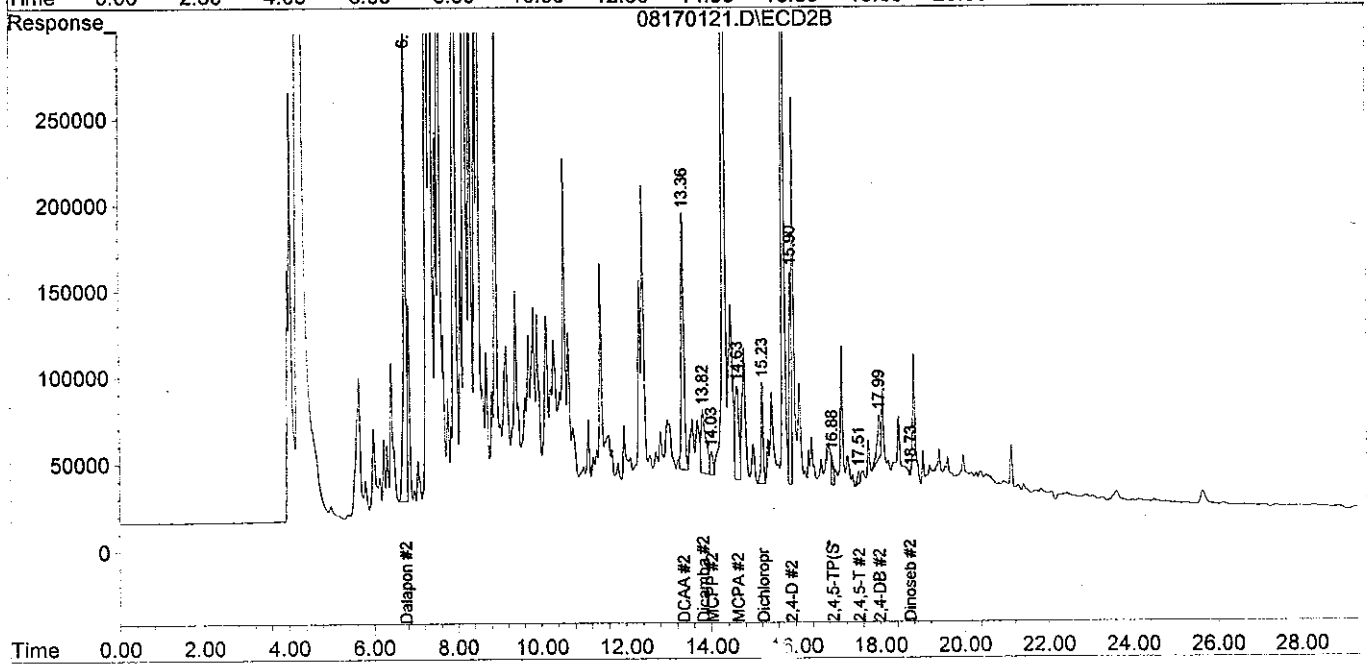
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170121.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\081701\08170121.D\ECD2B.CH
Acq On : 08/17/01 22:08 Operator: YGK
Sample : 17981 W Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170118.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\2\DATA\081701\08170118.D\ECD2B.CH
Acq On : 08/17/01 20:15 Operator: YGK
Sample : QHW0809011 Inst : HPGCE
Misc : ~~Vf=50 ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
	System Monitoring Compounds							
2) S	DCAA	13.13	13.36	5375413	6705167	0.433	0.495	
Spiked Amount	0.500			Recovery	=	86.60% ✓	99.00%	
	Target Compounds							
1) T	Dalapon	6.89	6.72f	135612	1014662	0.007	0.048	#
3) T	Dicamba	13.42	13.86f	273612	351016	0.005	0.007	#
4) T	MCPP	13.74f	0.00	195027	0	7.138	N.D.	#
5) T	MCPA	14.16	14.62	225777	60468	5.642	1.102	#
6) T	Dichloroprop	14.90f	15.25	87885183	332066	5.039	0.020	#
7) T	2,4-D	15.29f	15.91f	553194	873201	0.030	0.047	#
8) T	2,4,5-TP(Silvex)	16.55f	16.86	76588	1443346	0.001	0.018	#
9) T	2,4,5-T	16.99	17.49	349116	150660	0.004	0.002	#
10) T	2,4-DB	17.58f	18.03	116813	1038321	0.015	0.106	#
11) T	Dinoseb	17.97	18.64	388373	46642	0.007	0.001	#

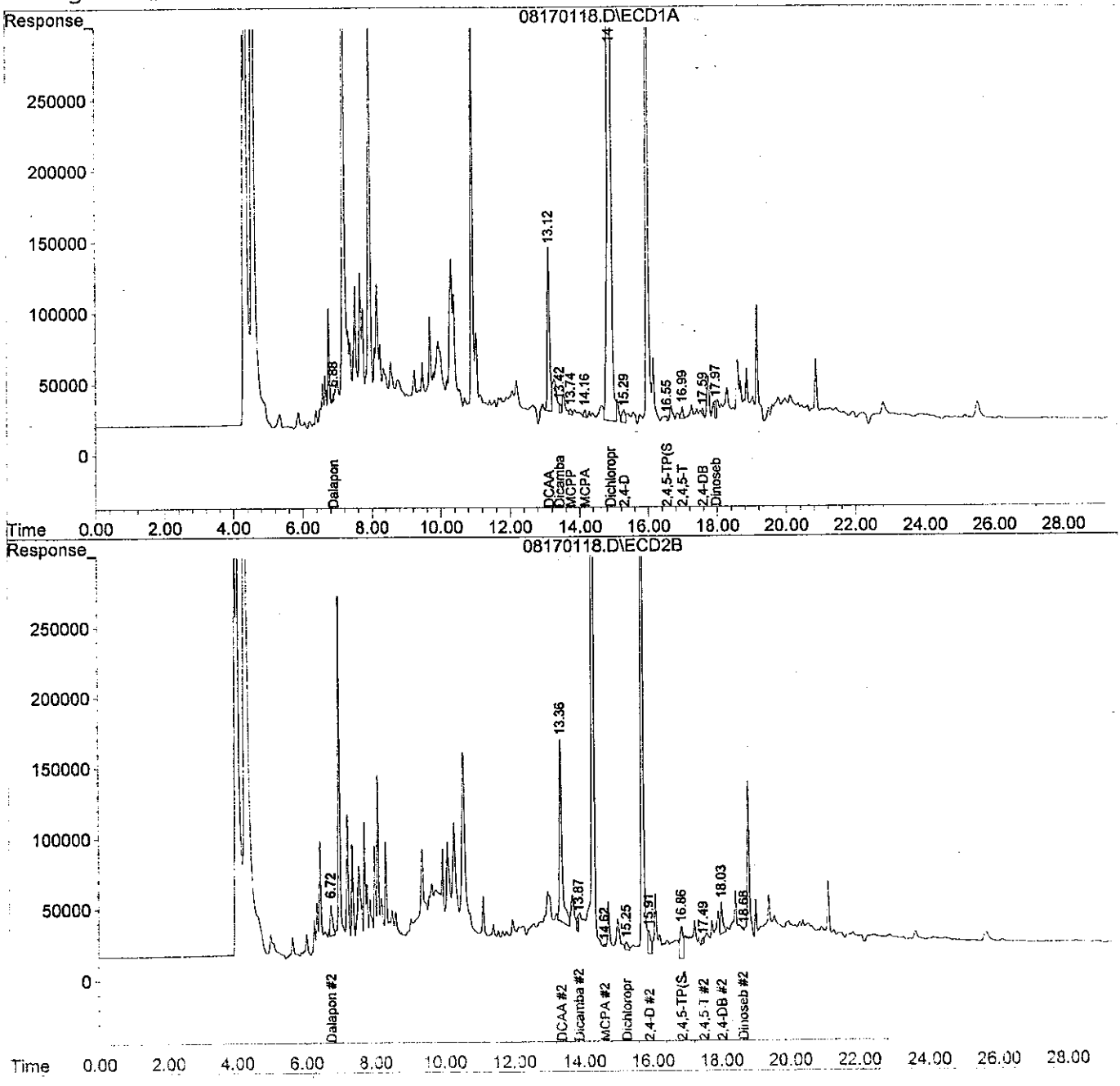
Herbicides

Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170118.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\2\DATA\081701\08170118.D\ECD2B.CH
Acq On : 08/17/01 20:15 Operator: YGK
Sample : QHW0809011 Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Accura Analytical Laboratory, Inc.
Herbicides LCS/LCS DUP Report

Sample ID:	QHW08090l2&3	**Date Acquired:**	8/17/01
Operator:	YGK	**Instrument ID:**	PEST-B
Data File:	08170119&20	**Bottle #:**	19&20
Method:	8151A	**Matrix:**	WATER

Compounds	Expected Con. (ppm)	LCS Con. (ppm)	LCS % Recovery	LCSD Con. (ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail	%RPD	%RPD Limit	%RPD Pass/ Fail
2,4D	0.25	0.231	92%	0.203	81%	51 - 123	Pass	Pass	13%	< 20	Pass
Silvex(2,4,5-TP)	0.25	0.195	78%	0.19	76%	53 - 117	Pass	Pass	3%	< 20	Pass
2,4,5-T	0.25	0.179	72%	0.16	64%	53 - 117	Pass	Pass	11%	< 20	Pass
Dinoseb	0.25	0.179	72%	0.156	62%	23 - 87	Pass	Pass	14%	< 20	Pass

Surrogate	Expected Con. (ppm)	LCS Con. (ppm)	LCS % Recovery	LCSD Con. (ppm)	LCSD % Recovery	Recovery Limits (%)	LCS Pass/ Fail	LCSD Pass/ Fail
DCAA	0.50	0.467	93%	0.461	92%	58 - 110	Pass	Pass

Inhouse limits to be developed.

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\081701\08170119.D\ECD2B.CH
Acq On : 08/17/01 20:53 Operator: YGK
Sample : QHW0809012 Inst : HPGCE
Misc : ~~Vf=50 ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

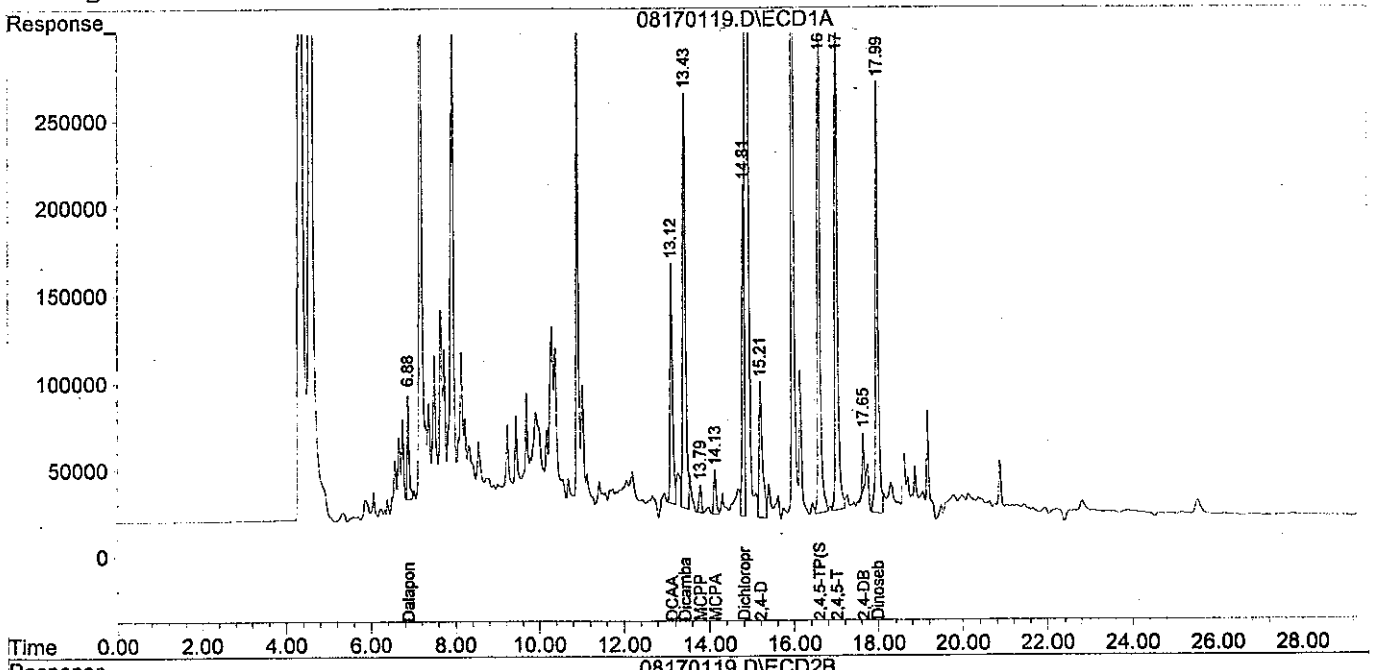
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.12	13.36	5803380	6148028	0.467	0.454	
		Spiked Amount 0.500			Recovery	=	93.40% ✓	90.80%	
		Target Compounds							
1)	T	Dalapon	6.88	6.77	1839782	2670738	0.090	0.125	#
3)	T	Dicamba	13.44	13.80	10236544	11873265	0.187	0.235	#
4)	T	MCPP	13.79	14.12	576139	1609842	21.085	48.159	#
5)	T	MCPA	14.13	14.65	967430	1118478	24.175	20.387	
6)	T	Dichloroprop	14.81	15.23	6444297	3617065	0.370	0.221	#
7)	T	2,4-D	15.21	15.84	4287371	4635716	0.231	0.248	
8)	T	2,4,5-TP(Silvex)	16.59	16.90	16333880	19297079	0.195	0.239	
9)	T	2,4,5-T	17.01	17.48	14254099	14643207	0.179	0.194	
10)	T	2,4-DB	17.65	17.98	867894	3743870	0.113	0.383	#
11)	T	Dinoseb	17.99	18.66	9629781	7782148	0.179	0.155	

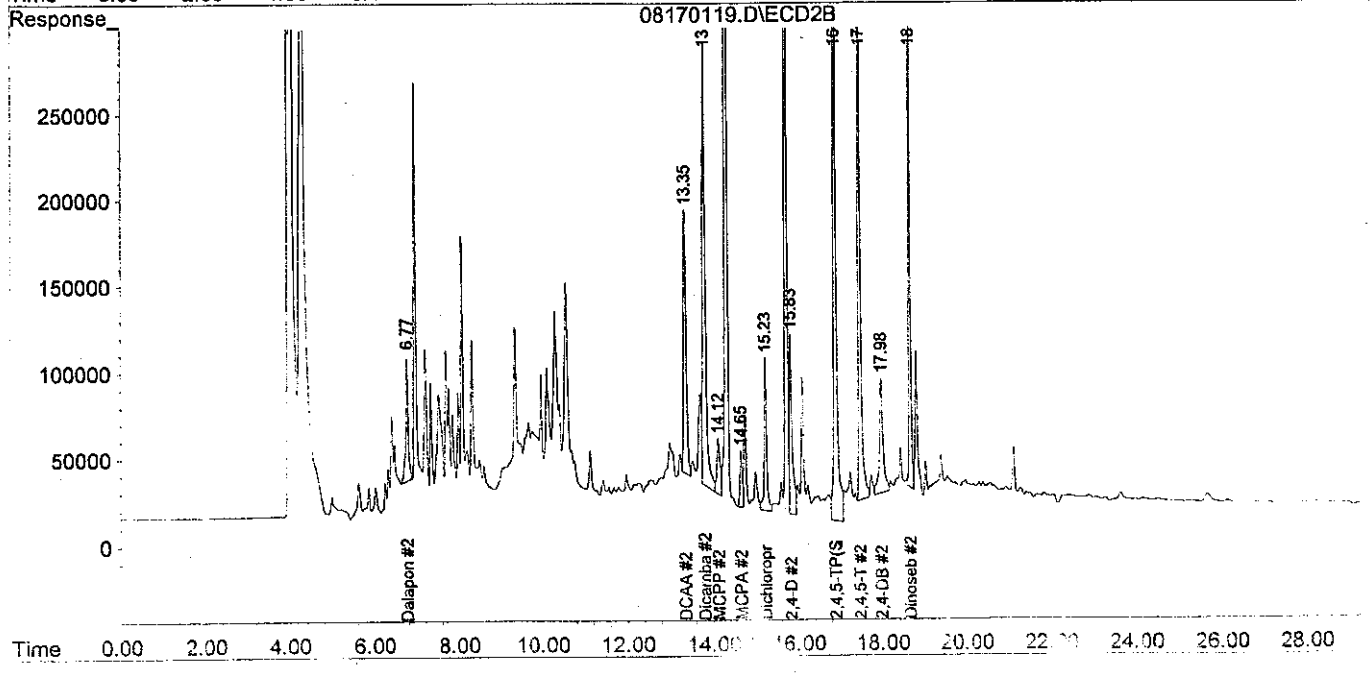
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170119.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\081701\08170119.D\ECD2B.CH
Acq On : 08/17/01 20:53 Operator: YGK
Sample : QHW0809012 Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170120.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\081701\08170120.D\ECD2B.CH
Acq On : 08/17/01 21:30 Operator: YGK
Sample : QHW0809013 Inst : HPGCE
Misc : ~~Vf=50 ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

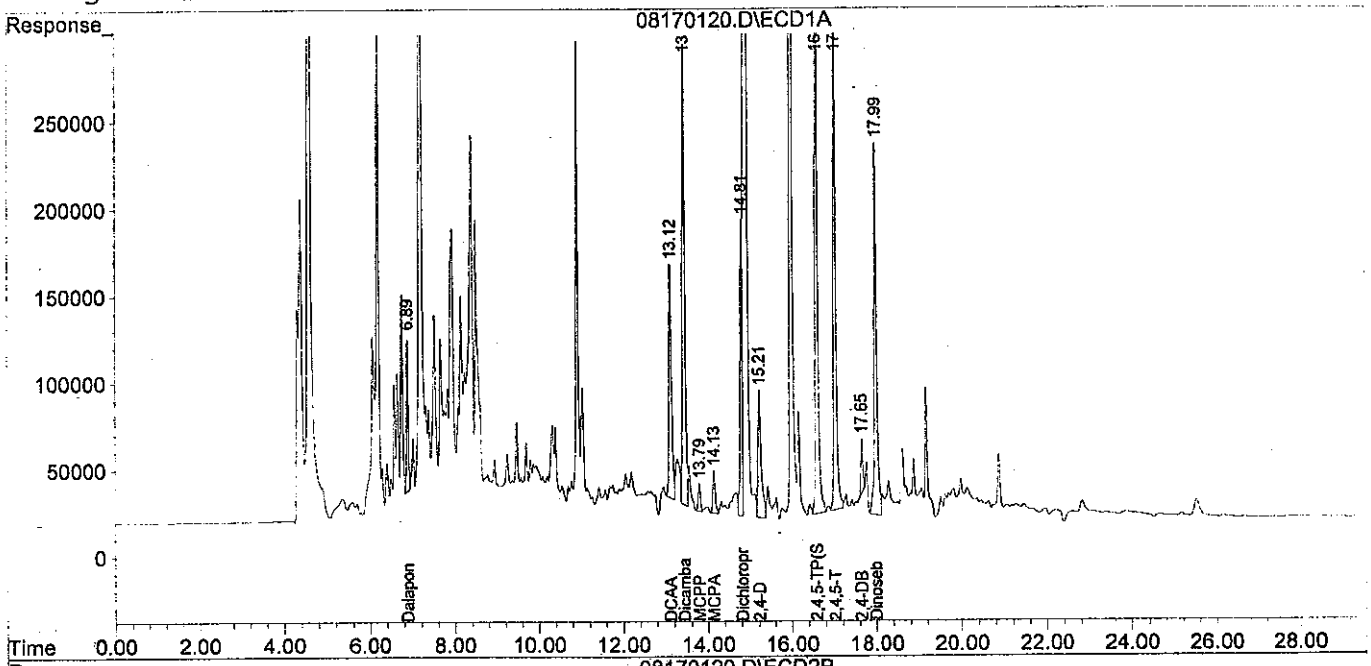
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.12	13.36	5728569	6701229	0.461	0.495	
		Spiked Amount 0.500			Recovery	=	92.20% ✓	99.00%	
		Target Compounds							
1)	T	Dalapon	6.89	6.78	2360407	3734502	0.115	0.175	#
3)	T	Dicamba	13.44	13.80	11180328	15151149	0.204	0.300	#
4)	T	MCPP	13.79	14.12	578615	1954568	21.176	58.472	#
5)	T	MCPA	14.14	14.65	960045	1051436	23.990	19.165	
6)	T	Dichloroprop	14.81	15.23	5512180	3062956	0.316	0.187	#
7)	T	2,4-D	15.21	15.84	3770350	3974397	0.203	0.213	
8)	T	2,4,5-TP(Silvex)	16.59	16.90	15946186	16583686	0.190	0.205	
9)	T	2,4,5-T	17.01	17.48	12748641	13147806	0.160	0.174	
10)	T	2,4-DB	17.65	17.99	861221	3413812	0.112	0.349	#
11)	T	Dinoseb	17.99	18.66	8401414	6934290	0.156	0.138	

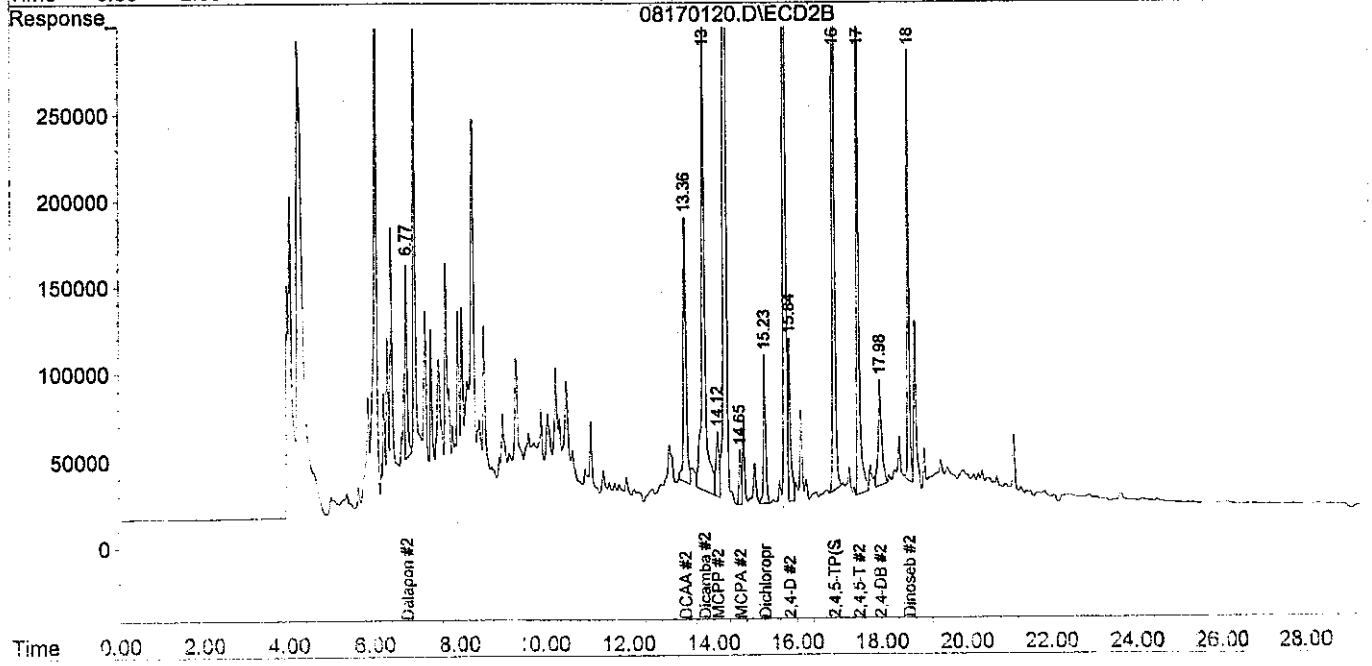
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170120.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\081701\08170120.D\ECD2B.CH
Acq On : 08/17/01 21:30 Operator: YGK
Sample : QHW0809013 Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:40 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170102.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\081701\08170102.D\ECD2B.CH
Acq On : 08/17/01 09:45 Operator: YGK
Sample : CCV HERB .25 PPM Inst : HPGCE
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:35 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Aug 20 08:34:02 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

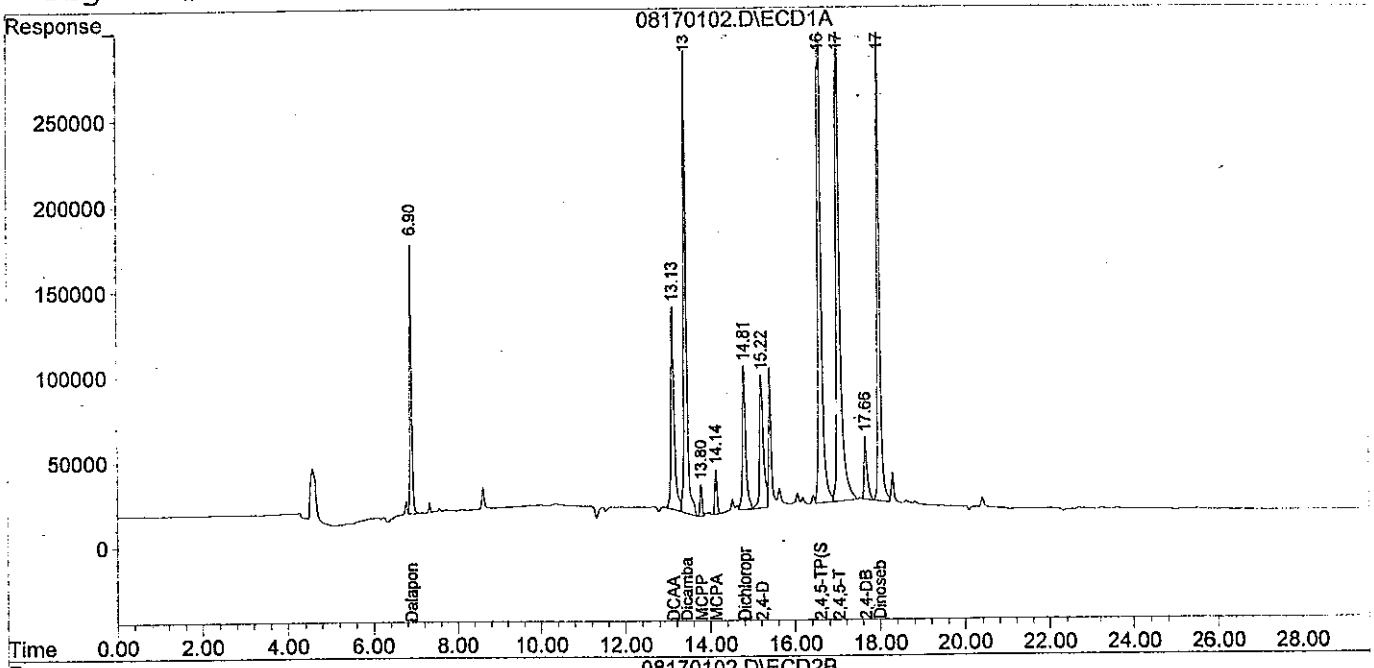
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.13	13.37	5766825	6283616	0.464	0.464
Spiked Amount 0.500					Recovery	=	92.80% ✓	92.80%
		Target Compounds						
1)	T	Dalapon	6.90	6.79	4845985	4994308	0.236	0.234
3)	T	Dicamba	13.44	13.81	12704182	11879509	0.232	0.235
4)	T	MCPP	13.80	14.13	673280	870787	24.641	26.050
5)	T	MCPA	14.14	14.66	1000378	1491345	24.998	27.184
6)	T	Dichloroprop	14.81	15.24	3914621	3716455	0.224	0.227
7)	T	2,4-D	15.22	15.85	4486022	4313798	0.242	0.231
8)	T	2,4,5-TP(Silvex)	16.60	16.90	19624143	18570794	0.234	0.230
9)	T	2,4,5-T	17.03	17.49	18837824	17615833	0.237	0.233
10)	T	2,4-DB	17.66	18.00	1814777	2214915	0.236	0.227
11)	T	Dinoseb	18.00	18.67	12418844	11576071	0.231	0.231

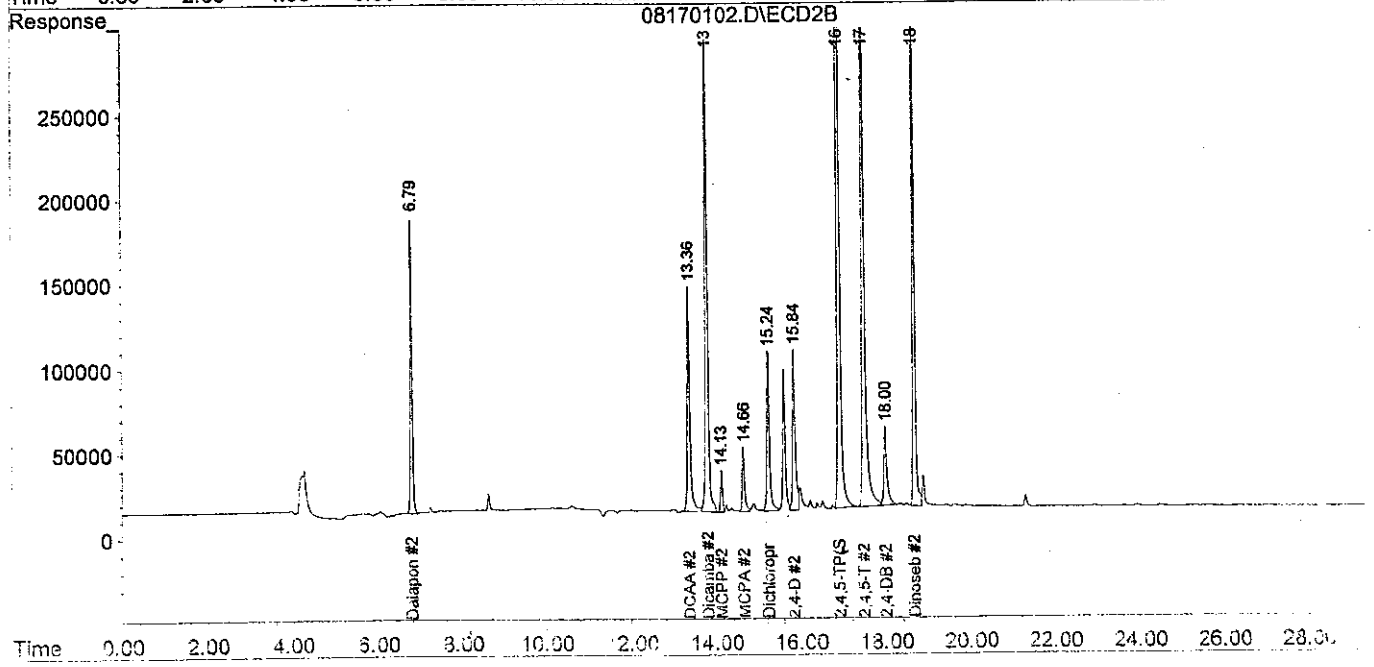
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170102.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\081701\08170102.D\ECD2B.CH
Acq On : 08/17/01 09:45 Operator: YGK
Sample : CCV HERB .25 PPM Inst : HPGCE
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:35 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Mon Aug 20 08:34:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170113.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\2\DATA\081701\08170113.D\ECD2B.CH
Acq On : 08/17/01 17:07 Operator: YGK
Sample : CCV HERB.25 PPM Inst : HPGCE
Misc : ~~Vf=50-ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:39 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

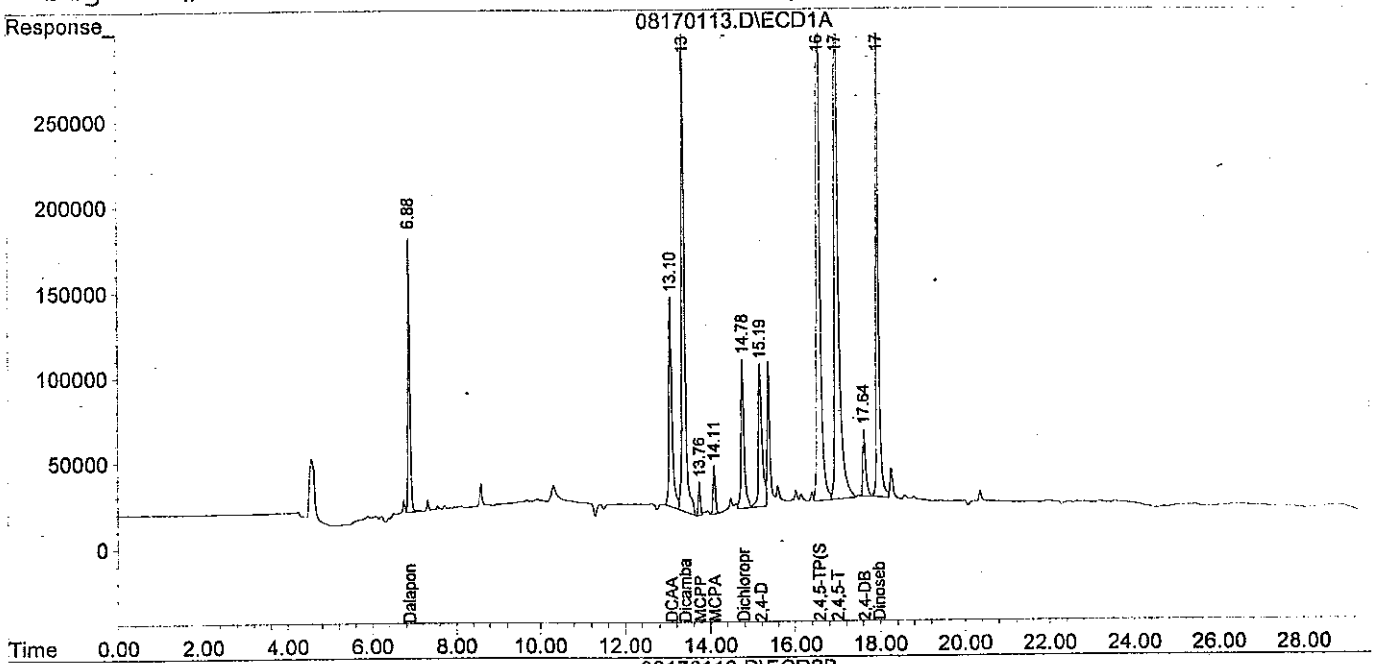
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.10	13.34	5844232	6475626	0.471	0.478
		Spiked Amount 0.500			Recovery	=	94.20% ✓	95.60%
		Target Compounds						
1)	T	Dalapon	6.88	6.77	4904667	5245889	0.239	0.246
3)	T	Dicamba	13.41	13.78	13219649	12580876	0.242	0.249
4)	T	MCPP	13.77	14.10	696865	846157	25.504	25.313
5)	T	MCPA	14.11	14.63	1020681	1354167	25.506	24.684
6)	T	Dichloroprop	14.78	15.21	4090411	3935844	0.235	0.240
7)	T	2,4-D	15.19	15.82	4703728	4571153	0.254	0.245
8)	T	2,4,5-TP(Silvex)	16.58	16.88	20348219	19234118	0.243	0.238
9)	T	2,4,5-T	17.01	17.47	19519476	18002123	0.245	0.238
10)	T	2,4-DB	17.64	17.98	1837568	2324695	0.239	0.238
11)	T	Dinoseb	17.98	18.65	12630530	11989024	0.235	0.239

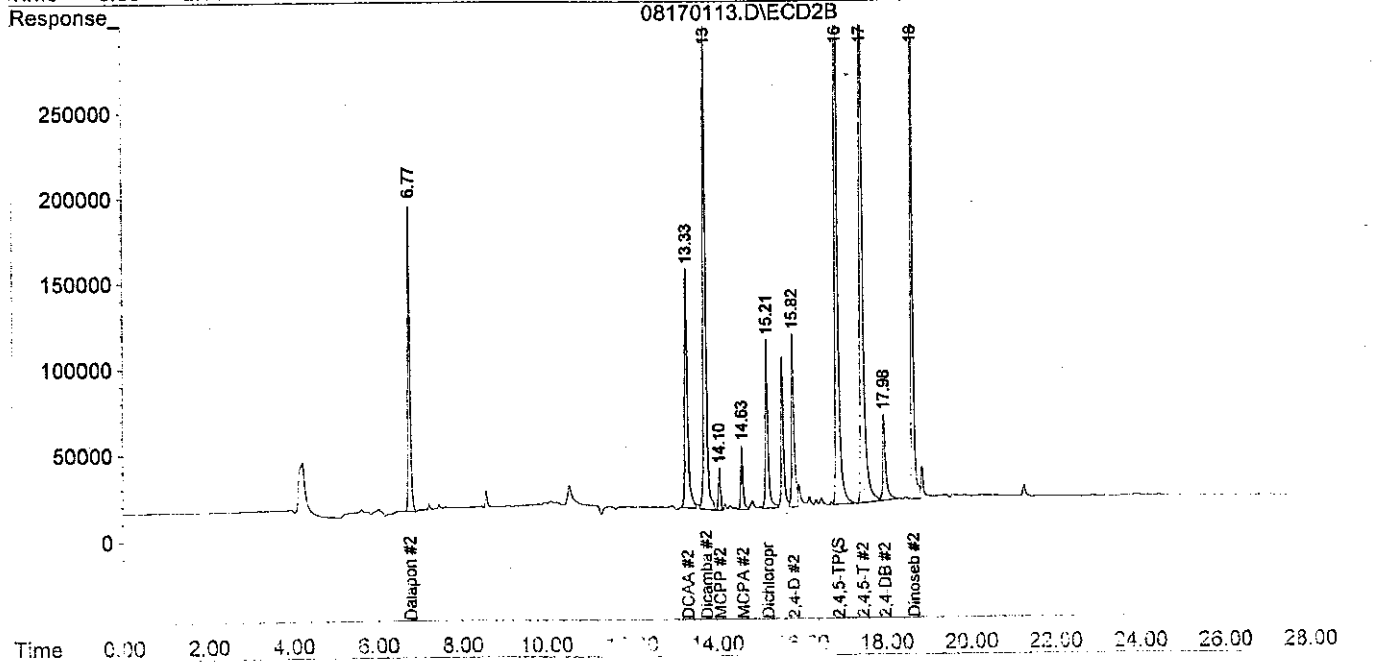
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170113.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\2\DATA\081701\08170113.D\ECD2B.CH
Acq On : 08/17/01 17:07 Operator: YGK
Sample : CCV HERB.25 PPM Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:39 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\081701\08170126.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\2\DATA\081701\08170126.D\ECD2B.CH
Acq On : 08/18/01 01:52 Operator: YGK
Sample : CCV HERB .25 PPM Inst : HPGCE
Misc : ~~Vf=50 ml~~ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:43 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

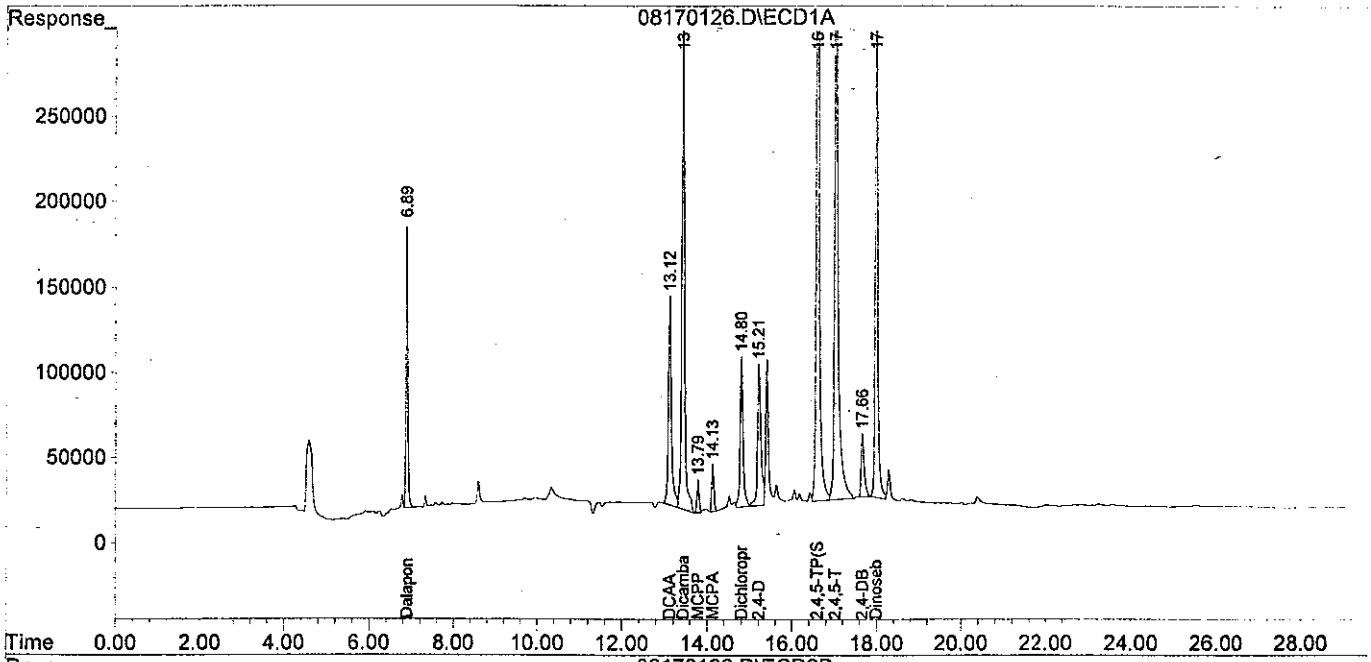
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.12	13.36	5917980	6488648	0.477	0.479
		Spiked Amount 0.500			Recovery	=	95.40% ✓	95.80%
		Target Compounds						
1)	T	Dalapon	6.89	6.78	5042128	5329511	0.246	0.250
3)	T	Dicamba	13.44	13.80	13251332	12599588	0.242	0.250
4)	T	MCPP	13.79	14.12	696463	849355	25.489	25.409
5)	T	MCPA	14.13	14.65	1025206	1346841	25.619	24.550
6)	T	Dichloroprop	14.81	15.23	4114148	3906289	0.236	0.239
7)	T	2,4-D	15.21	15.84	4750336	4582226	0.256	0.246
8)	T	2,4,5-TP(Silvex)	16.60	16.90	20478899	19719873	0.245	0.244
9)	T	2,4,5-T	17.03	17.48	19622844	18851010	0.247	0.250
10)	T	2,4-DB	17.66	18.00	1864997	2407592	0.243	0.246
11)	T	Dinoseb	17.99	18.67	12566463	12005928	0.234	0.239

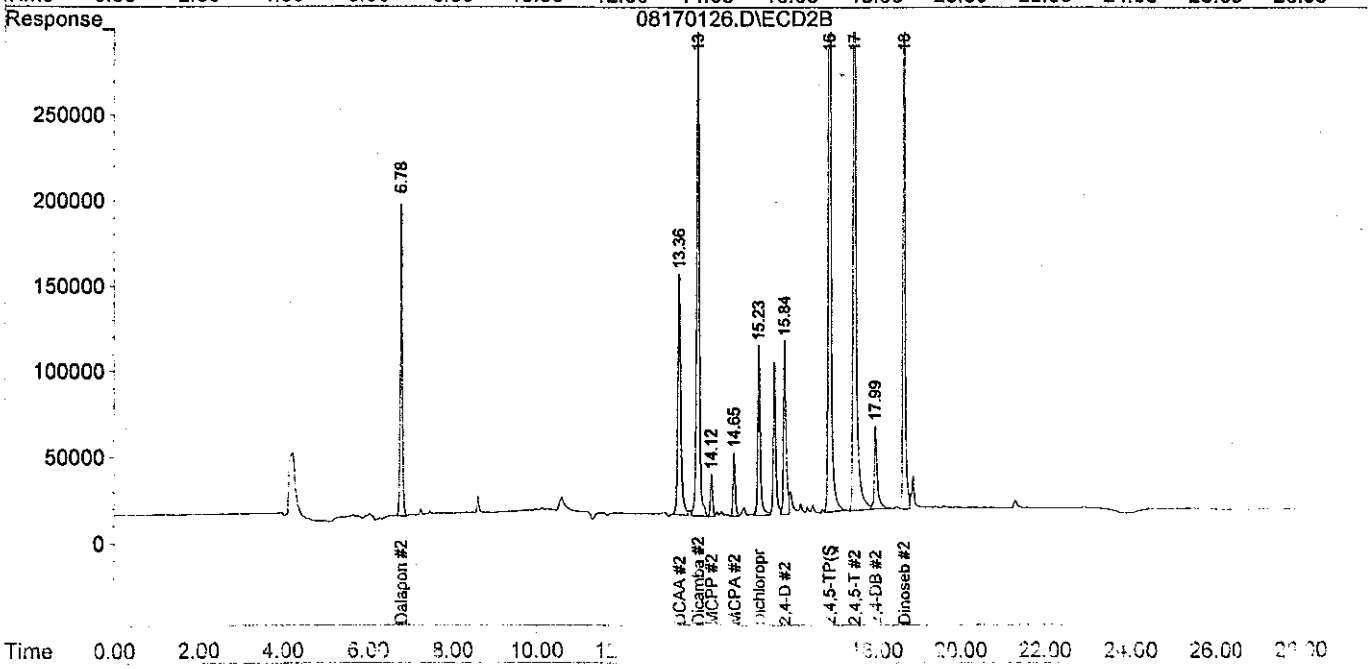
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\081701\08170126.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\2\DATA\081701\08170126.D\ECD2B.CH
Acq On : 08/18/01 01:52 Operator: YGK
Sample : CCV HERB .25 PPM Inst : HPGCE
Misc : Vf=50 ml Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Aug 20 8:43 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SVO GC CALIBRATION CHECKLIST
SW-846-8081A / 8082 / 8151A

DATE / INSTRUMENT: 06/26/01 HPGCE	METHOD: (circle applicable methods)
MATRIX: —	8081A 8082 (8151A)

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Is the Initial Calibration compliant with the method specifications?	(Y)	N	NA
Were daily retention time windows updated?	(Y)	N	NA
For Pesticides, is the breakdown of the PEM <15% for DDT and Endrin?	(Y)	N	NA
Is the runlog completely filled out (including ~~review signature/date~~)?	(Y)	N	NA
Are all mistakes single lined, initialled, and dated?	(Y)	N	NA

Analyst: YRL	Reviewer: RL
Date: 06/27/01 Time: 16:00	Date: 08/22/01 Time: 08:53

Response Factor Report HPGCE

Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001

Calibration Files
1 =06260104.D 2 =06260105.D 3 =06260106.D
4 =06260107.D 5 =06260108.D

		Compound	1	2	3	4	5	Avg		%RSD
1)	T	Dalapon	2.304	2.047	2.054	1.939	1.904	2.050	E7	7.64
2)	S	DCAA	1.507	1.247	1.230	1.118	1.108	1.242	E7	12.97
3)	T	Dicamba	6.827	5.507	5.412	4.850	4.751	5.469	E7	15.15
4)	T	MCPP	2.448	2.615	2.793	2.836	2.971	2.732	E4	7.46
5)	T	MCPA	3.704	3.934	4.092	4.090	4.189	4.002	E4	4.75
6)	T	Dichloroprop	2.220	1.753	1.738	1.535	1.474	1.744	E7	16.80
7)	T	2,4-D	2.201	1.881	1.861	1.684	1.649	1.855	E7	11.83
8)	T	2,4,5-TP(Silvex)	9.833	8.479	8.423	7.595	7.540	8.374	E7	11.09
9)	T	2,4,5-T	9.439	8.058	8.026	7.170	7.084	7.956	E7	11.91
10)	T	2,4-DB	7.777	7.593	7.799	7.557	7.666	7.678	E6	1.40
11)	T	Dinoseb	6.106	5.375	5.460	4.983	4.969	5.378	E7	8.62

Signal #2 Calibration Files
1 =06260104.D 2 =06260105.D 3 =08170102.D
4 =06260107.D 5 =06260108.D

		Compound	1	2	3	4	5	Avg		%RSD
1)	T	Dalapon	2.378	2.091	2.145	2.044	2.008	2.133	E7	6.85
2)	S	DCAA	1.595	1.348	1.356	1.240	1.235	1.355	E7	10.78
3)	T	Dicamba	5.762	4.966	5.051	4.739	4.721	5.048	E7	8.39
4)	T	MCPP	3.395	3.247	3.321	3.360	3.390	3.343	E4	1.83
5)	T	MCPA	6.288	5.370	5.469	5.230	5.074	5.486	E4	8.61
6)	T	Dichloroprop	1.948	1.608	1.663	1.516	1.452	1.638	E7	11.69
7)	T	2,4-D	2.145	1.831	1.900	1.743	1.709	1.866	E7	9.27
8)	T	2,4,5-TP(Silvex)	8.889	7.974	8.144	7.682	7.732	8.084	E7	6.03
9)	T	2,4,5-T	8.388	7.474	7.632	7.119	7.140	7.551	E7	6.84
10)	T	2,4-DB	1.208	0.938	0.936	0.897	0.909	0.978	E7	13.28
11)	T	Dinoseb	5.300	4.932	5.071	4.865	4.940	5.022	E7	3.43

(#) = Out of Range
062601H.M Tue Aug 21 16:32:11 2001 Page 1

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD2B.CH
Acq On : 06/26/01 17:31 Operator: YGK
Sample : IC HERB .10 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:55 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

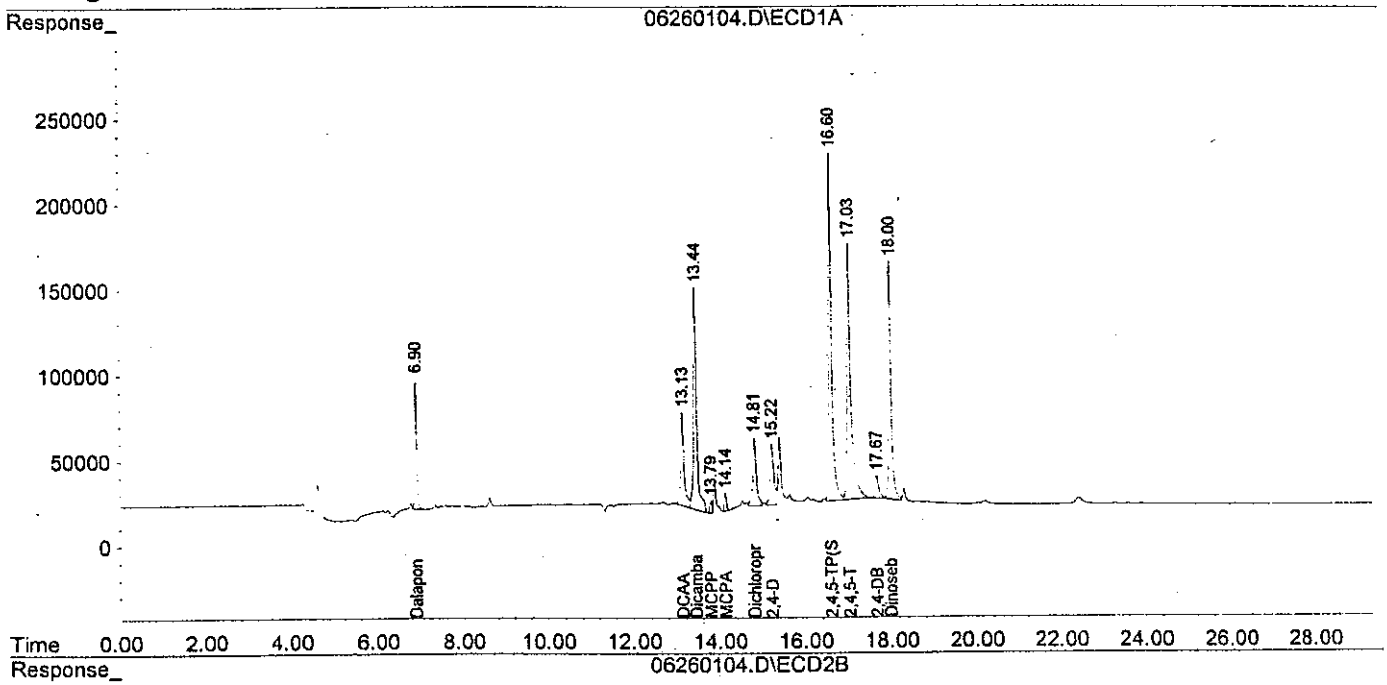
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.13	13.37	3014501	3190280	0.260	0.119	#
Spiked Amount 0.500					Recovery	=	52.00%	23.80%	
		Target Compounds							
1)	T	Dalapon	6.90	6.79	2303630	2377945	0.120	0.055	#
3)	T	Dicamba	13.45	13.82	6826677	5761511	0.132	0.051	#
4)	T	MCPP	13.80	14.13	244761	339506	9.371	5.802	#
5)	T	MCPA	14.14	14.66	370372	628805	9.684	6.516	#
6)	T	Dichloroprop	14.81	15.25	2219876	1947534	0.136	0.060	#
7)	T	2,4-D	15.22	15.86	2201298	2144860	0.126	0.059	#
8)	T	2,4,5-TP(Silvex)	16.61	16.91	9833391	8889313	0.125	0.044	#
9)	T	2,4,5-T	17.03	17.50	9439283	8387785	0.127	0.048	#
10)	T	2,4-DB	17.67	18.00	777701	1207647	0.108	0.071	#
11)	T	Dinoseb	18.00	18.67	6105517	5299522	0.123	0.047	#

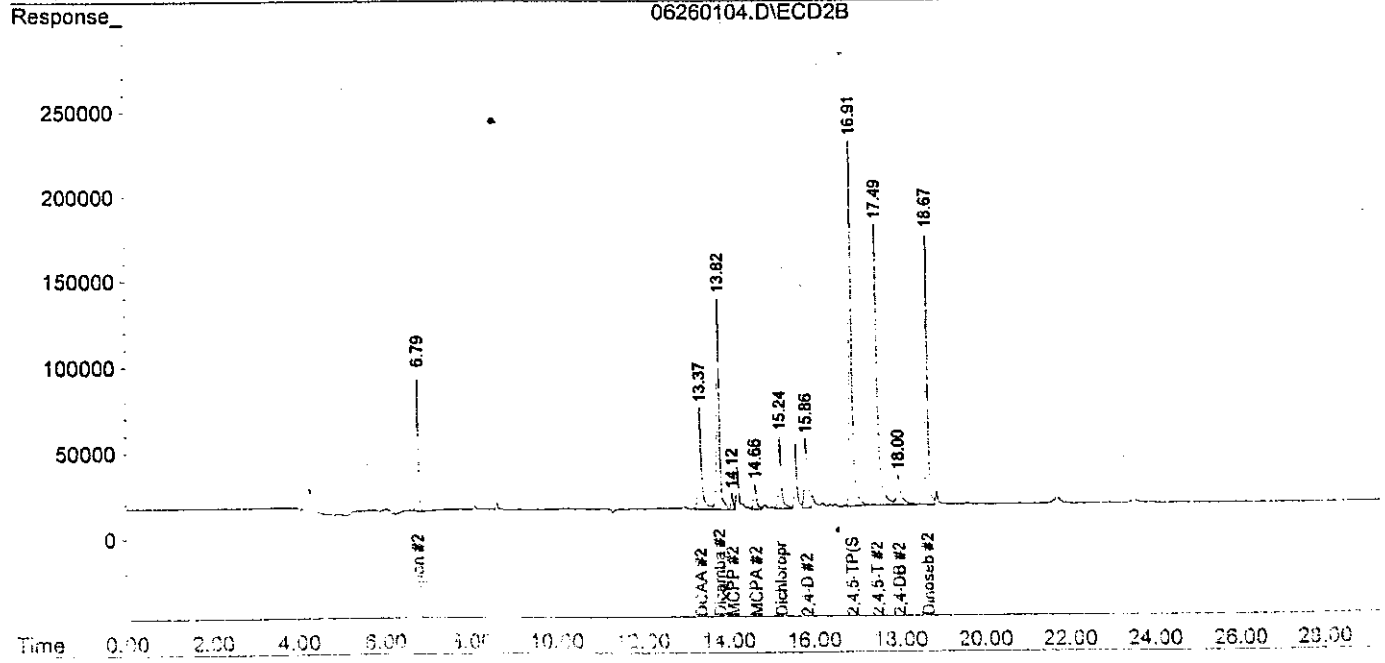
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\062601\06260104.D\ECD2B.CH
Acq On : 06/26/01 17:31 Operator: YGK
Sample : IC HERB .10 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:55 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD2B.CH
Acq On : 06/26/01 18:09 Operator: YGK
Sample : IC HERB .20 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:56 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

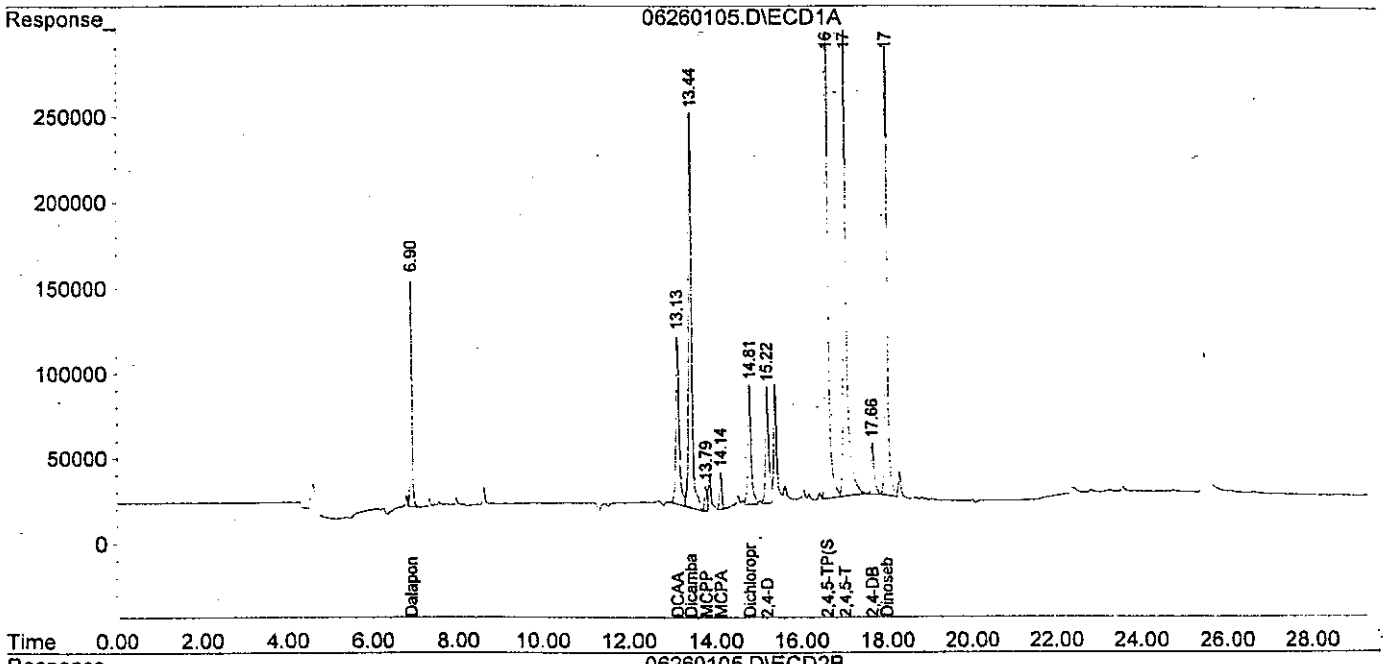
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.13	13.37	4986367	5392699	0.430	0.228	#
		Spiked Amount 0.500			Recovery	=	86.00%	45.60%	
		Target Compounds							
1)	T	Dalapon	6.90	6.79	4093794	4181826	0.212	0.109	#
3)	T	Dicamba	13.44	13.81	11013134	9932160	0.213	0.100	#
4)	T	MCPP	13.79	14.13	522926	649461	20.052	11.918	#
5)	T	MCPA	14.14	14.66	786893	1073916	20.502	11.951	#
6)	T	Dichloroprop	14.81	15.24	3506824	3216394	0.215	0.114	#
7)	T	2,4-D	15.22	15.85	3761027	3662527	0.214	0.113	#
8)	T	2,4,5-TP(Silvex)	16.60	16.91	16958997	15948971	0.216	0.089	#
9)	T	2,4,5-T	17.03	17.49	16116189	14948779	0.217	0.097	#
10)	T	2,4-DB	17.66	18.00	1518605	1876094	0.208	0.120	#
11)	T	Dinoseb	18.00	18.67	10749420	9864292	0.216	0.099	#

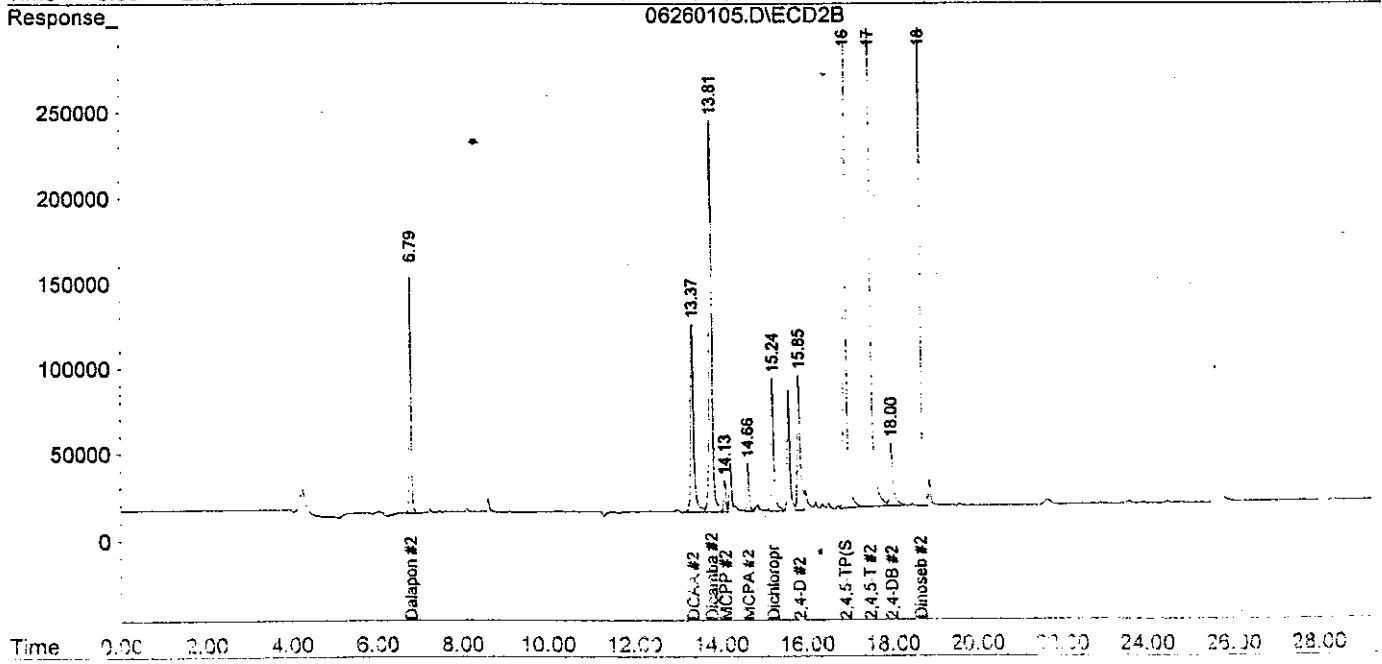
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\062601\06260105.D\ECD2B.CH
Acq On : 06/26/01 18:09 Operator: YGK
Sample : IC HERB .20 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:56 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD2B.CH
Acq On : 06/26/01 18:47 Operator: YGK
Sample : IC HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 10:47 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
	System Monitoring Compounds						
2) S	DCAA	13.12	13.36	6149726	6778227	0.495	0.500
Spiked Amount	0.500			Recovery	=	99.00%	100.00%
	Target Compounds						
1) T	Dalapon	6.90	6.79	5135771	5361741	0.251	0.251
3) T	Dicamba	13.44	13.81	13529042	12626555	0.247	0.250
4) T	MCPP	13.80	14.13	698128	830159	25.550	24.835
5) T	MCPA	14.14	14.66	1022962	1367273	25.563	24.922
6) T	Dichloroprop	14.81	15.24	4345418	4158506	0.249	0.254
7) T	2,4-D	15.22	15.85	4652301	4750049	0.251	0.255
8) T	2,4,5-TP(Silvex)	16.60	16.90	21056634	20360963	0.251	0.252
9) T	2,4,5-T	17.02	17.49	20066197	19079452	0.252	0.253
10) T	2,4-DB	17.66	17.99	1949707	2340860	0.254	0.239
11) T	Dinoseb	17.99	18.67	13649570	12677927	0.254	0.252

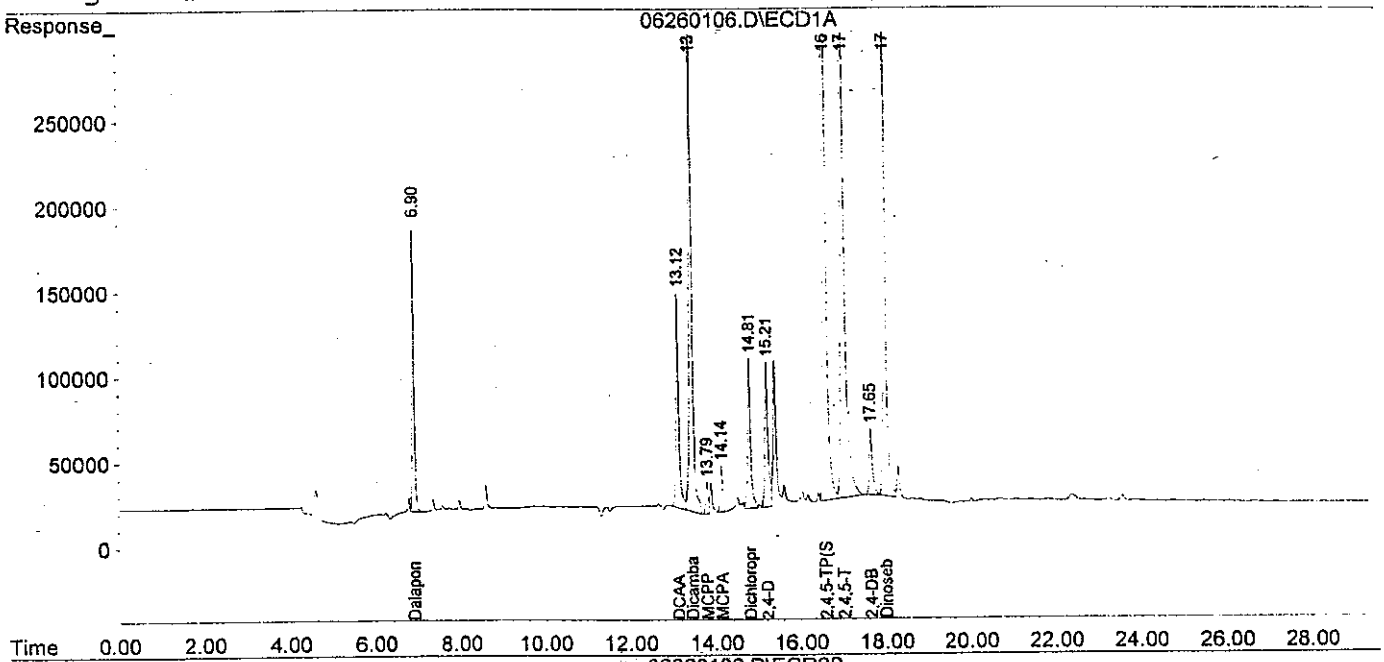
(d)=PD Delta > 1/3 Window ... differ by > 15% (m)=manual int.
...6260106.D 062601H. ... 16:19:47 2001 Page 1

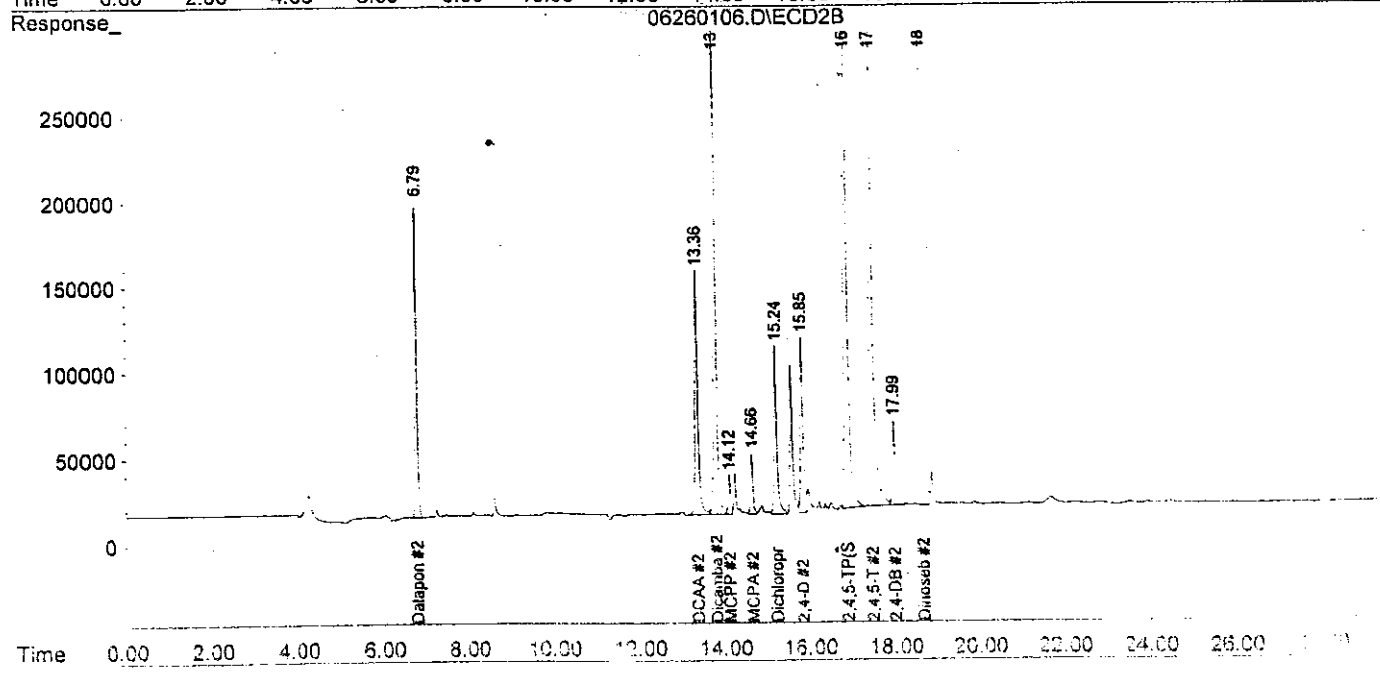
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\2\DATA\062601\06260106.D\ECD2B.CH
Acq On : 06/26/01 18:47 Operator: YGK
Sample : IC HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 10:47 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD2B.CH
Acq On : 06/26/01 19:24 Operator: YGK
Sample : IC HERB .40 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

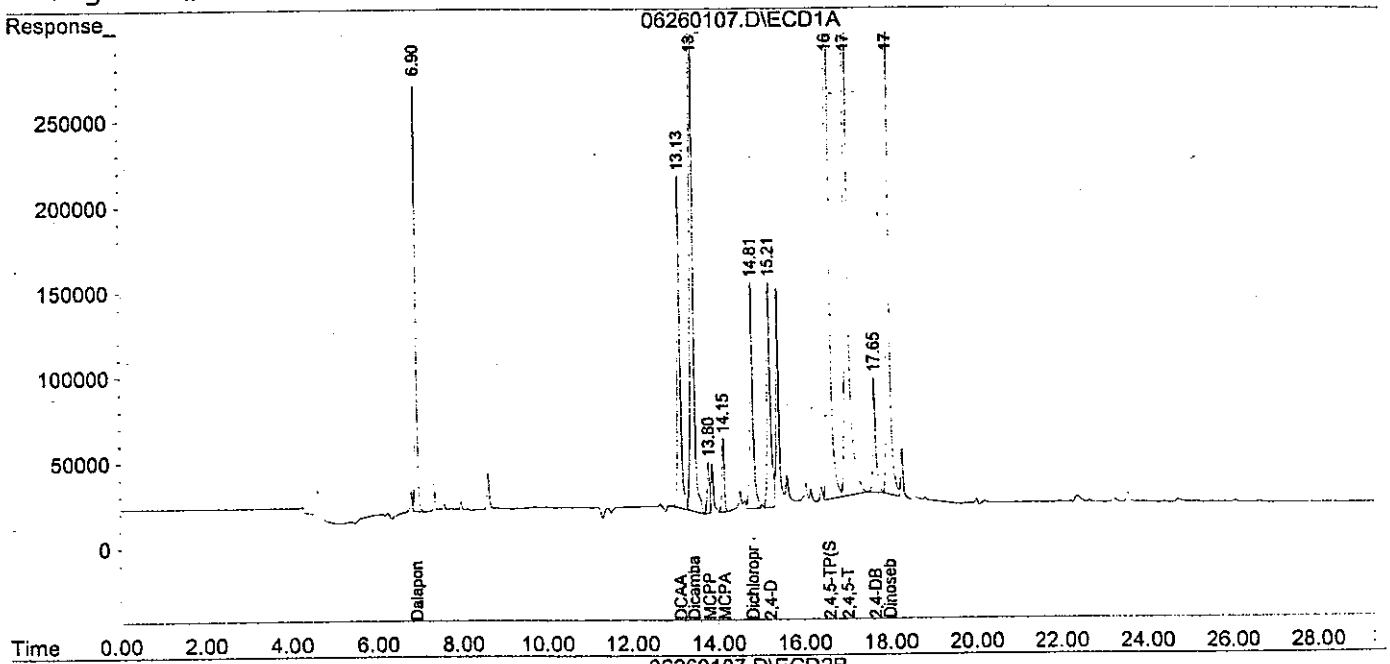
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
	System Monitoring Compounds							
2) S	DCAA	13.13	13.36	8944141	9922440	0.774	0.556	#
Spiked Amount	0.500			Recovery	=	154.80%	111.20%	
	Target Compounds							
1) T	Dalapon	6.90	6.79	7754674	8176914	0.404	0.287	#
3) T	Dicamba	13.44	13.81	19401784	18957097	0.377	0.265	#
4) T	MCPP	13.80	14.13	1134524	1344149	44.161	30.483	#
5) T	MCPA	14.15	14.67	1635830	2091928	42.693	28.982	#
6) T	Dichloroprop	14.81	15.24	6138538	6065403	0.376	0.289	
7) T	2,4-D	15.21	15.85	6734717	6973607	0.380	0.284	#
8) T	2,4,5-TP(Silvex)	16.60	16.90	30378295	30727407	0.389	0.243	#
9) T	2,4,5-T	17.02	17.48	28681197	28475710	0.388	0.257	#
10) T	2,4-DB	17.66	17.99	3022976	3586872	0.408	0.299	#
11) T	Dinoseb	18.00	18.67	19930325	19461214	0.401	0.274	#

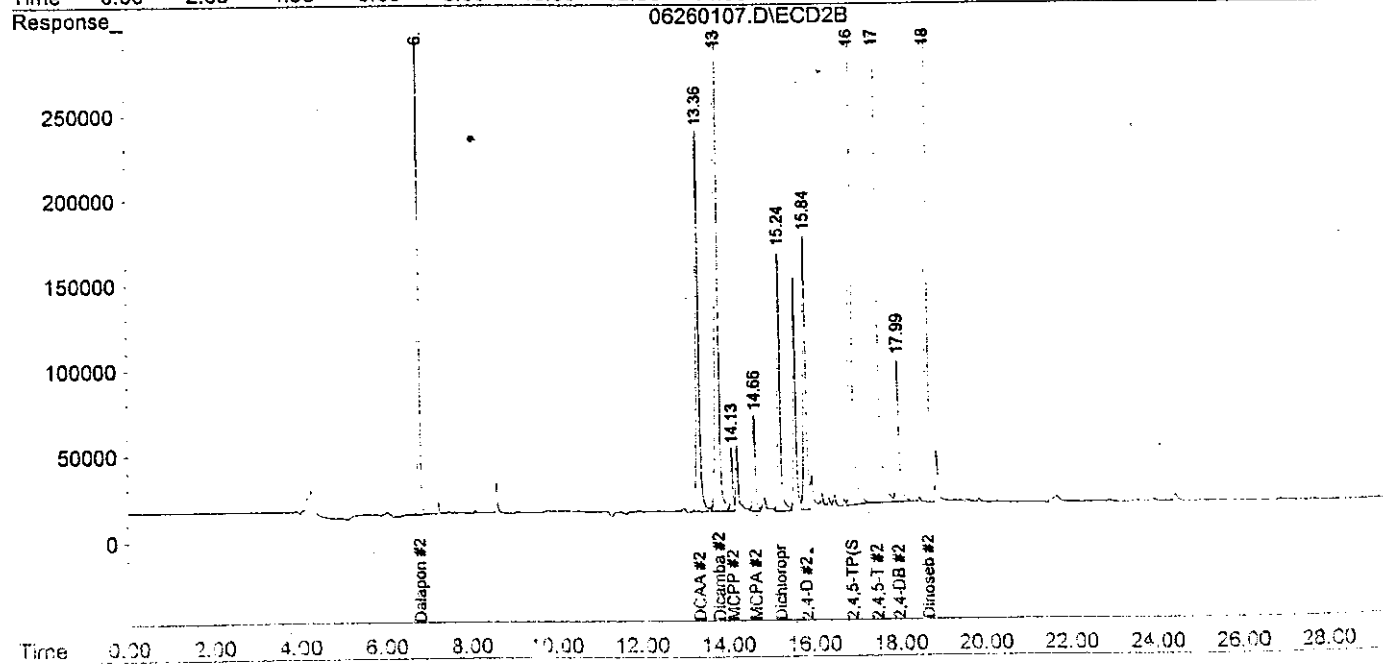
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\2\DATA\062601\06260107.D\ECD2B.CH
Acq On : 06/26/01 19:24 Operator: YGK
Sample : IC HERB .40 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:58 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD2B.CH
Acq On : 06/26/01 20:02 Operator: YGK
Sample : IC HERB .50 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:59 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

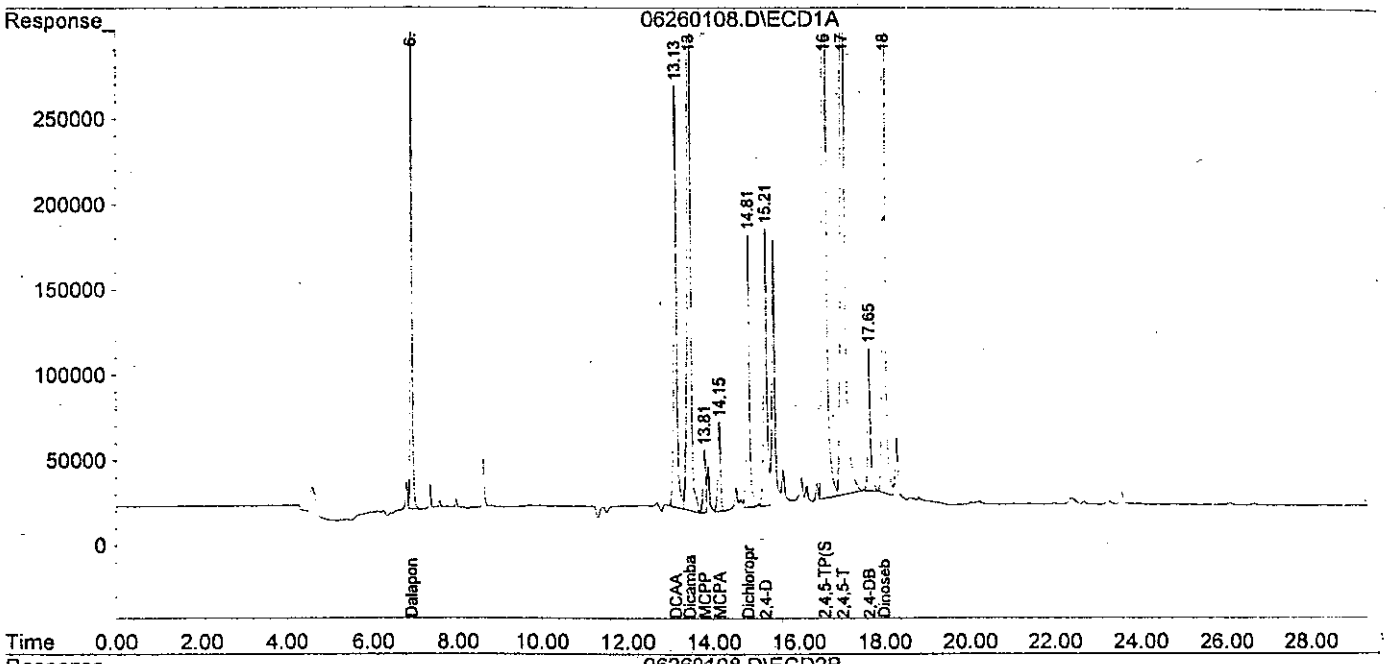
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml	
		System Monitoring Compounds							
2)	S	DCAA	13.13	13.37	11080237	12348173	0.928	0.790	
		Spiked Amount 0.500			Recovery	=	185.60%	158.00%	
		Target Compounds							
1)	T	Dalapon	6.90	6.79	9521275	10040974	0.480	0.403	
3)	T	Dicamba	13.44	13.82	23756714	23603908	0.449	0.387	
4)	T	MCPP	13.81	14.14	1485466	1695168	56.522	43.501	
5)	T	MCPA	14.15	14.67	2094694	2536998	53.786	40.048	#
6)	T	Dichloroprop	14.81	15.24	7369866	7260799	0.437	0.390	
7)	T	2,4-D	15.22	15.85	8242770	8547054	0.456	0.397	
8)	T	2,4,5-TP(Silvex)	16.60	16.91	37698724	38660814	0.468	0.370	
9)	T	2,4,5-T	17.02	17.49	35418501	35702372	0.463	0.383	
10)	T	2,4-DB	17.65	17.99	3833004	4546988	0.510	0.419	
11)	T	Dinoseb	18.00	18.67	24842516	24699403	0.482	0.408	

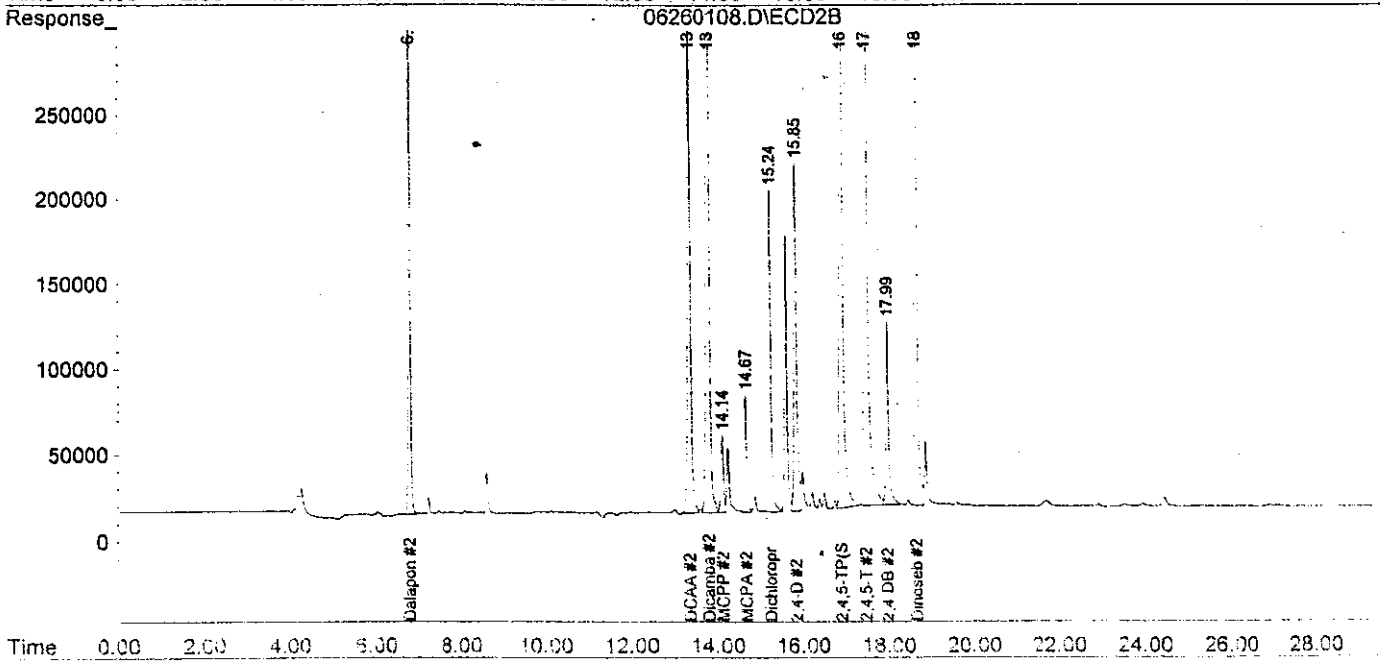
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\2\DATA\062601\06260108.D\ECD2B.CH
Acq On : 06/26/01 20:02 Operator: YGK
Sample : IC HERB .50 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 8:59 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD2B.CH
Acq On : 06/26/01 21:17 Operator: YGK
Sample : ICV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 9:02 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Initial Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

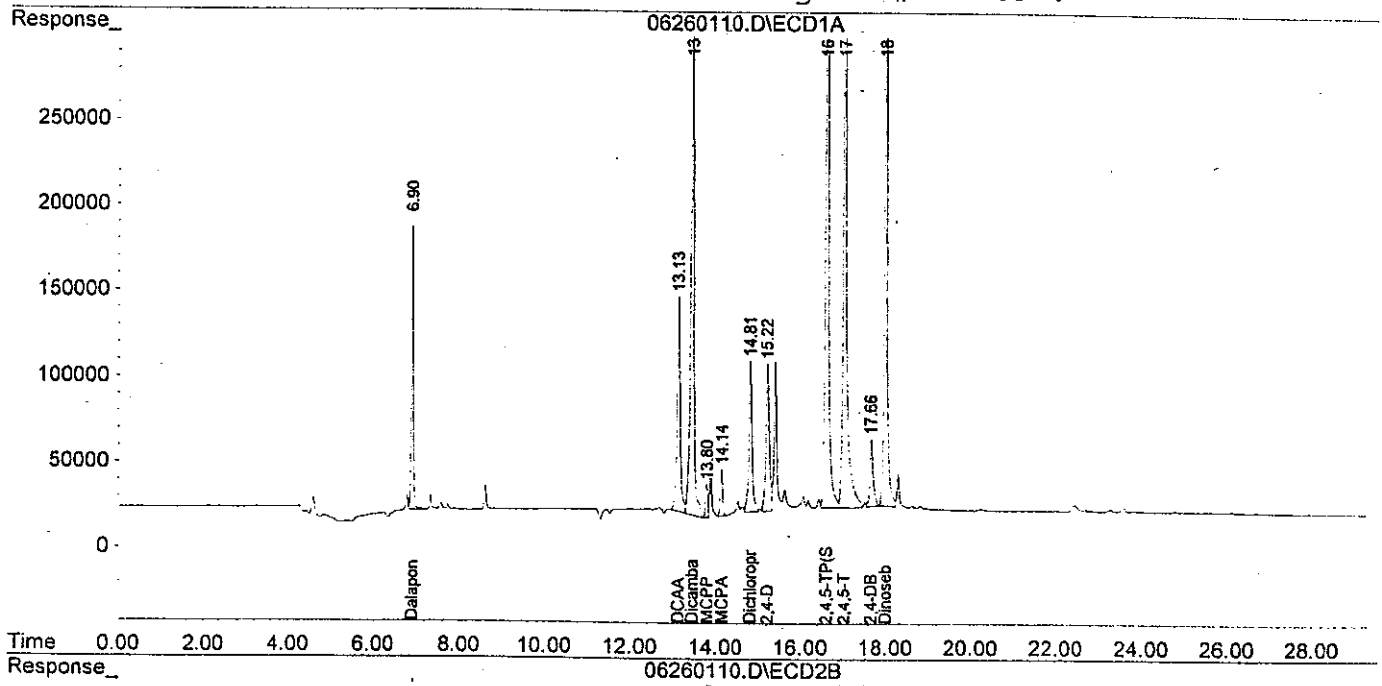
		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/ml	ug/ml
		System Monitoring Compounds						
2)	S	DCAA	13.13	13.37	6172440	6682132	0.497	0.493
		Spiked Amount 0.500			Recovery =		99.40%	98.60%
		Target Compounds						
1)	T	Dalapon	6.90	6.79	5270215	5388152	0.257	0.253
3)	T	Dicamba	13.45	13.82	13895835	12782413	0.254	0.253
4)	T	MCPP	13.80	14.14	732571	859680	26.811	25.718
5)	T	MCPA	14.15	14.67	1057765	1373355	26.432	25.033
6)	T	Dichloroprop	14.82	15.25	4297273	4075556	0.246	0.249
7)	T	2,4-D	15.22	15.85	4718415	4742409	0.254	0.254
8)	T	2,4,5-TP(Silvex)	16.60	16.91	21517839	19777872	0.257	0.245
9)	T	2,4,5-T	17.03	17.49	20494816	19245289	0.258	0.255
10)	T	2,4-DB	17.66	18.00	2027753	2527735	0.264	0.259
11)	T	Dinoseb	18.00	18.67	13678520	12904768	0.254	0.257

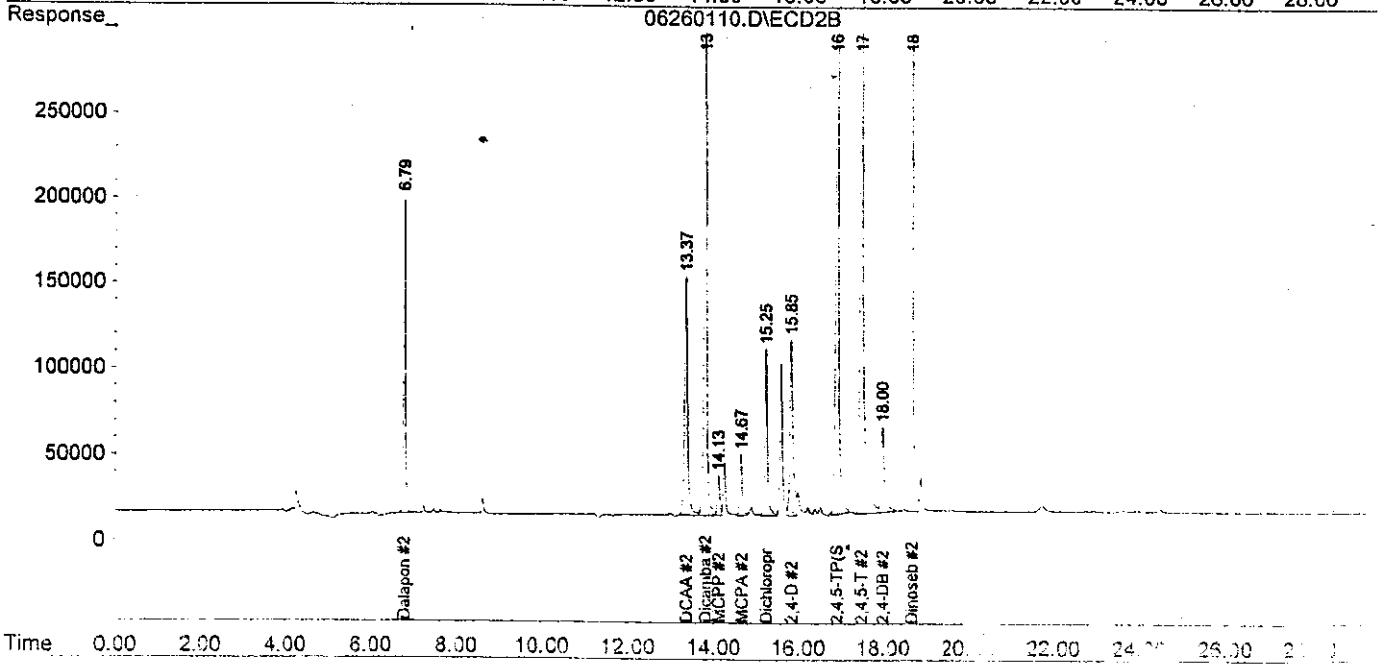
Quantitation Report

Signal #1 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\062601\06260110.D\ECD2B.CH
Acq On : 06/26/01 21:17 Operator: YGK
Sample : ICV HERB .25 PPM Inst : PEST-B
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: Jun 27 9:02 2001 Quant Results File: 062601H.RES

Quant Method : C:\HPCHEM\2\METHODS\062601H.M (Chemstation Integrator)
Title : HERBICIDE ,CALIBR.12/01/00
Last Update : Tue Jun 26 14:32:51 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8151D16.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Sequence Setup Date: 06/26/01
Analyst Initials: YGK
Instrument Method: 8151D16
Calibration Column: HP-5 (F)
Confirmation Column: J&W 1701

Herbicide Calibration Date: 06/26/01

Surrogate Recovery Limits (%)	
	DCAA
Soil	52 - 130
Water	D - 164

Vial Position	AAL #	Method Filename	Matrix	Dilution Factor	Surrogate Rec. DCAA	Comments/Observations
1	Hexane	062601H	Sol	1X	NA	
2	std		std			
~~2~~ 2	std					
~~3~~ 3	IC Herb .10 ppm					
~~4~~ 4	IC Herb .20 ppm					H01136
~~5~~ 5	IC Herb .25 ppm					H01135
~~6~~ 6	IC Herb .40 ppm					H01134
~~7~~ 7	IC Herb .50 ppm					H01132
~~8~~ 8	std					H01132
9	ICV Herb .25 ppm				99	
YGK 6/26/01						H01137

Signature/Date: Yefim Zeyman 06/26/01

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

Metals Checklist

Project #: 29530 RCRA

Instrument Used: Trace ICAP/ICAP/GFAA/FIMS Hg

Analyst Questions

1. Is the Blank <1/2 RDL? ✓ If not, has the RDL been raised or the samples reanalyzed? _____
2. Are the LCS/LCSD within limits? ✓ If not, why, or are the samples being reanalyzed? _____

   Duplicate AAL sample number 18127
   Is the RPD acceptable? ✓ If not, what is the reason? _____

   MS/MSD AAL sample number 18127
   Are the recoveries acceptable? ✓ If not, what is the reason? _____

5. Sample numbers requiring dilution? — _____ _____ _____ _____ _____ _____
   Reason for dilution. _____
6. Are all special requirements on project sheet completed? ✓ If unable to complete, has the project manager been notified? _____
7. Any additional comments. — _____
   _____

Reviewer Questions

8. Is the ICV within ± 10% for 6010B, or 5% for 200.7? yes
9. For Hg and GFAA, is the curve acceptable, (>0.995 correlation coefficient)? —
10. Verified the correct date & time; sample results with sigfigs in LIMS yes
11. Verified the RDL and its sigfigs according to dilution —

Analyst entering results in Labworks. BP Date: 8/14/01

Peer Reviewer: [signature] Date: 8/14/01

Peer Reviewer is responsible for reviewing all above questions.

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1-Blank	AUG1001	WATERS2	08/11/01	09:55		X	IR
2	STD8	AUG1001	WATERS2	08/11/01	10:01		X	IR
3	STD3	AUG1001	WATERS2	08/11/01	10:07		X	IR
4	STD4	AUG1001	WATERS2	08/11/01	10:11		X	IR
5	STD2	AUG1001	WATERS2	08/11/01	10:16		X	IR
6	ICV 2	AUG1001	WATERS2	08/11/01	10:21	MA	Q	CONC
7	ICB	AUG1001	WATERS2	08/11/01	10:27	MA	B	CONC
8	ICS A	AUG1001	WATERS2	08/11/01	10:34	MA	Q	CONC
9	ICS AB	AUG1001	WATERS2	08/11/01	10:41	MA	Q	CONC
10	SS I	AUG1001	WATERS2	08/11/01	10:48	MA	Q	CONC
11	SS I LOW	AUG1001	WATERS2	08/11/01	10:54	MA	Q	CONC
12	QMW0809011 1200	AUG1001	WATERS2	08/11/01	11:00	MA	S	CONC
13	QMW0809012 LCS	AUG1001	WATERS2	08/11/01	11:07	MA	S	CONC
14	QMW0809013 LCSD	AUG1001	WATERS2	08/11/01	11:13	MA	S	CONC
15	17874	AUG1001	WATERS2	08/11/01	11:19	MA	S	CONC
16	17875	AUG1001	WATERS2	08/11/01	11:25	MA	S	CONC
17	17876	AUG1001	WATERS2	08/11/01	11:31	MA	S	CONC
18	17877	AUG1001	WATERS2	08/11/01	11:37	MA	S	CONC
19	17879	AUG1001	WATERS2	08/11/01	11:44	MA	S	CONC
20	17880	AUG1001	WATERS2	08/11/01	11:50	MA	S	CONC
21	17934	AUG1001	WATERS2	08/11/01	11:56	MA	S	CONC
22	ICV 2	AUG1001	WATERS2	08/11/01	12:05	MA	Q	CONC
23	ICB	AUG1001	WATERS2	08/11/01	12:11	MA	B	CONC
24	17981	AUG1001	WATERS2	08/11/01	12:17	MA	S	CONC
25	18003	AUG1001	WATERS2	08/11/01	12:24	MA	S	CONC
26	18004	AUG1001	WATERS2	08/11/01	12:30	MA	S	CONC
27	18005	AUG1001	WATERS2	08/11/01	12:36	MA	S	CONC
28	18006	AUG1001	WATERS2	08/11/01	12:42	MA	S	CONC
29	18009	AUG1001	WATERS2	08/11/01	12:48	MA	S	CONC
30	18050	AUG1001	WATERS2	08/11/01	12:55	MA	S	CONC
31	18052	AUG1001	WATERS2	08/11/01	13:01	MA	S	CONC
32	18127	AUG1001	WATERS2	08/11/01	13:07	MA	S	CONC
33	18127 D	AUG1001	WATERS2	08/11/01	13:13	MA	S	CONC
34	ICV 2	AUG1001	WATERS2	08/11/01	13:22	MA	Q	CONC
35	ICB	AUG1001	WATERS2	08/11/01	13:29	MA	B	CONC
36	18127 MS	AUG1001	WATERS2	08/11/01	13:35	MA	S	CONC
37	18127 MSD	AUG1001	WATERS2	08/11/01	13:41	MA	S	CONC
38	ICV 2	AUG1001	WATERS2	08/11/01	13:50	MA	Q	CONC
39	ICB	AUG1001	WATERS2	08/11/01	13:56	MA	B	CONC
40	QMW0807014 1000	AUG1001	WATERS2	08/11/01	14:03	MA	S	CONC
41	QMW0807015 LCS	AUG1001	WATERS2	08/11/01	14:09	MA	S	CONC
42	QMW0807016 LCSD	AUG1001	WATERS2	08/11/01	14:16	MA	S	CONC
43	17657	AUG1001	WATERS2	08/11/01	14:20	MA	S	CONC
44	17659	AUG1001	WATERS2	08/11/01	14:25	MA	S	CONC
45	17661	AUG1001	WATERS2	08/11/01	14:29	MA	S	CONC
46	17663	AUG1001	WATERS2	08/11/01	14:34	MA	S	CONC
47	17665	AUG1001	WATERS2	08/11/01	14:39	MA	S	CONC
48	17667	AUG1001	WATERS2	08/11/01	14:43	MA	S	CONC
49	17669	AUG1001	WATERS2	08/11/01	14:48	MA	S	CONC
50	ICV 2	AUG1001	WATERS2	08/11/01	14:55	MA	Q	CONC
51	ICB	AUG1001	WATERS2	08/11/01	15:00	MA	B	CONC
52	17671	AUG1001	WATERS2	08/11/01	15:05	MA	S	CONC
53	17672	AUG1001	WATERS2	08/11/01	15:10	MA	S	CONC

fm - 26550 RCRA

080901-A

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	17673	AUG1001	WATERS2	08/11/01	15:14	MA	S	CONC
55	17675	AUG1001	WATERS2	08/11/01	15:19	MA	S	CONC
56	17677	AUG1001	WATERS2	08/11/01	15:23	MA	S	CONC
57	17679	AUG1001	WATERS2	08/11/01	15:28	MA	S	CONC
58	17681	AUG1001	WATERS2	08/11/01	15:33	MA	S	CONC
59	17683	AUG1001	WATERS2	08/11/01	15:37	MA	S	CONC
60	17685	AUG1001	WATERS2	08/11/01	15:42	MA	S	CONC
61	17683 D	AUG1001	WATERS2	08/11/01	15:46	MA	S	CONC
62	ICV 2	AUG1001	WATERS2	08/11/01	15:54	MA	Q	CONC
63	ICB	AUG1001	WATERS2	08/11/01	15:59	MA	B	CONC
64	17683 MS	AUG1001	WATERS2	08/11/01	16:03	MA	S	CONC
65	17683 MSD	AUG1001	WATERS2	08/11/01	16:08	MA	S	CONC
66	MARIA WATER	AUG1001	WATERS2	08/11/01	16:12	MA	S	CONC
67	ICV 2	AUG1001	WATERS2	08/11/01	16:20	MA	Q	CONC
68	ICB	AUG1001	WATERS2	08/11/01	16:25	MA	B	CONC
69	ICV 2	AUG1001	WATERS2	08/11/01	16:56	MA	Q	CONC
70	ICB	AUG1001	WATERS2	08/11/01	17:00	MA	B	CONC
71	QMS0810014 1250	AUG1001	WATERS2	08/11/01	17:03	MA	S	CONC
72	QMS0810015 LCS	AUG1001	WATERS2	08/11/01	17:07	MA	S	CONC
73	QMS0810016 LCSD	AUG1001	WATERS2	08/11/01	17:10	MA	S	CONC
74	17988	AUG1001	WATERS2	08/11/01	17:14	MA	S	CONC
75	17991	AUG1001	WATERS2	08/11/01	17:17	MA	S	CONC
76	18028	AUG1001	WATERS2	08/11/01	17:21	MA	S	CONC
77	18137	AUG1001	WATERS2	08/11/01	17:25	MA	S	CONC
78	18306	AUG1001	WATERS2	08/11/01	17:28	MA	S	CONC
79	18306-D	AUG1001	WATERS2	08/11/01	17:32	MA	S	CONC
80	18306-MS	AUG1001	WATERS2	08/11/01	17:35	MA	S	CONC
81	ICV 2	AUG1001	WATERS2	08/11/01	17:41	MA	Q	CONC
82	ICB	AUG1001	WATERS2	08/11/01	17:58	MA	B	CONC
83	18306-MSD	AUG1001	WATERS2	08/11/01	18:01	MA	S	CONC
84	QMS0803017 1315	AUG1001	WATERS2	08/11/01	18:05	MA	S	CONC
85	QMS0803018 LCS	AUG1001	WATERS2	08/11/01	18:08	MA	S	CONC
86	QMS0803019 LCSD	AUG1001	WATERS2	08/11/01	18:12	MA	S	CONC
87	17349	AUG1001	WATERS2	08/11/01	18:15	MA	S	CONC
88	17350	AUG1001	WATERS2	08/11/01	18:19	MA	S	CONC
89	17351	AUG1001	WATERS2	08/11/01	18:22	MA	S	CONC
90	17352	AUG1001	WATERS2	08/11/01	18:26	MA	S	CONC
91	17353	AUG1001	WATERS2	08/11/01	18:30	MA	S	CONC
92	17354 2FD	AUG1001	WATERS2	08/11/01	18:33	MA	S	CONC
93	ICV 2	AUG1001	WATERS2	08/11/01	18:39	MA	Q	CONC
94	ICB	AUG1001	WATERS2	08/11/01	18:44	MA	B	CONC
95	17355	AUG1001	WATERS2	08/11/01	18:47	MA	S	CONC
96	17356	AUG1001	WATERS2	08/11/01	18:51	MA	S	CONC
97	17357	AUG1001	WATERS2	08/11/01	18:54	MA	S	CONC
98	17358	AUG1001	WATERS2	08/11/01	18:58	MA	S	CONC
99	17359	AUG1001	WATERS2	08/11/01	19:02	MA	S	CONC
100	17361	AUG1001	WATERS2	08/11/01	19:05	MA	S	CONC
101	17362	AUG1001	WATERS2	08/11/01	19:09	MA	S	CONC
102	17364	AUG1001	WATERS2	08/11/01	19:12	MA	S	CONC
103	17365	AUG1001	WATERS2	08/11/01	19:16	MA	S	CONC
104	17365-D	AUG1001	WATERS2	08/11/01	19:19	MA	S	CONC
105	ICV 2	AUG1001	WATERS2	08/11/01	19:26	MA	Q	CONC
106	ICB	AUG1001	WATERS2	08/11/01	19:30	MA	B	CONC
107	17365-MS	AUG1001	WATERS2	08/11/01	19:33	MA	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
108	17365-MSD	AUG1001	WATERS2	08/11/01	19:37	MA	S	CONC
109	ICV 2	AUG1001	WATERS2	08/11/01	19:43	MA	Q	CONC
110	STD1-Blank	AUG1001	WATERS2	08/11/01	20:03		X	IR
111	STD3	AUG1001	WATERS2	08/11/01	20:07		X	IR
112	STD2	AUG1001	WATERS2	08/11/01	20:11		X	IR
113	ICV 2	AUG1001	WATERS2	08/11/01	20:20	AOP	Q	CONC
114	ICB	AUG1001	WATERS2	08/11/01	20:26	AOP	B	CONC
115	QMW0810011 1100	AUG1001	WATERS2	08/11/01	20:33	AOP	S	CONC
116	QMW0810012 LCS	AUG1001	WATERS2	08/11/01	20:39	AOP	S	CONC
117	QMW0810013 LCSD	AUG1001	WATERS2	08/11/01	20:45	AOP	S	CONC
118	18254	AUG1001	WATERS2	08/11/01	20:51	AOP	S	CONC
119	18302	AUG1001	WATERS2	08/11/01	20:57	AOP	S	CONC
120	18303	AUG1001	WATERS2	08/11/01	21:03	AOP	S	CONC
121	18304	AUG1001	WATERS2	08/11/01	21:10	AOP	S	CONC
122	18217	AUG1001	WATERS2	08/11/01	21:16	AOP	S	CONC
123	18218	AUG1001	WATERS2	08/11/01	21:22	AOP	S	CONC
124	18219	AUG1001	WATERS2	08/11/01	21:28	AOP	S	CONC
125	ICV 2	AUG1001	WATERS2	08/11/01	21:37	AOP	Q	CONC
126	ICB	AUG1001	WATERS2	08/11/01	21:43	AOP	B	CONC
127	18220	AUG1001	WATERS2	08/11/01	21:50	AOP	S	CONC
128	18221	AUG1001	WATERS2	08/11/01	21:56	AOP	S	CONC
129	18222	AUG1001	WATERS2	08/11/01	22:02	AOP	S	CONC
130	18223	AUG1001	WATERS2	08/11/01	22:08	AOP	S	CONC
131	18267	AUG1001	WATERS2	08/11/01	22:14	AOP	S	CONC
132	18275	AUG1001	WATERS2	08/11/01	22:21	AOP	S	CONC
133	18276	AUG1001	WATERS2	08/11/01	22:27	AOP	S	CONC
134	18277	AUG1001	WATERS2	08/11/01	22:33	AOP	S	CONC
135	18278	AUG1001	WATERS2	08/11/01	22:39	AOP	S	CONC
136	18279	AUG1001	WATERS2	08/11/01	22:45	AOP	S	CONC
137	ICV 2	AUG1001	WATERS2	08/11/01	22:54	AOP	Q	CONC
138	ICB	AUG1001	WATERS2	08/11/01	23:00	AOP	B	CONC
139	18280	AUG1001	WATERS2	08/11/01	23:07	AOP	S	CONC
140	18281	AUG1001	WATERS2	08/11/01	23:13	AOP	S	CONC
141	18282	AUG1001	WATERS2	08/11/01	23:19	AOP	S	CONC
142	18282-D	AUG1001	WATERS2	08/11/01	23:25	AOP	S	CONC
143	18304-D	AUG1001	WATERS2	08/11/01	23:31	AOP	S	CONC
144	18304-MS	AUG1001	WATERS2	08/11/01	23:38	AOP	S	CONC
145	18304-MSD	AUG1001	WATERS2	08/11/01	23:44	AOP	S	CONC
146	AG LCS	AUG1001	WATERS2	08/11/01	23:50	AOP	S	CONC
147	AG LCSD	AUG1001	WATERS2	08/11/01	23:56	AOP	S	CONC
148	18304-AGMS	AUG1001	WATERS2	08/12/01	00:02	AOP	S	CONC
149	ICV 2	AUG1001	WATERS2	08/12/01	00:11	AOP	Q	CONC
150	ICB	AUG1001	WATERS2	08/12/01	00:18	AOP	B	CONC
151	18304-AGMSD	AUG1001	WATERS2	08/12/01	00:24	AOP	S	CONC
152	ICV 2	AUG1001	WATERS2	08/12/01	00:30	AOP	Q	CONC
153	ICB	AUG1001	WATERS2	08/12/01	00:37	AOP	B	CONC
154	SS I	AUG1001	WATERS2	08/12/01	00:43	AOP	Q	CONC
155	SS I LOW	AUG1001	WATERS2	08/12/01	00:49	AOP	Q	CONC
156	ICS A	AUG1001	WATERS2	08/12/01	00:56	AOP	Q	CONC
157	ICS AB	AUG1001	WATERS2	08/12/01	01:08	AOP	Q	CONC

#	Element	STD'lank	STD8	STD3	STD4	STD2	ICV 2
1	Ag3280	-.00162	.67989				1.003
2	Al3082	.01157		.09276			Q.7002
3	As1890	.0001			.27834		1.009
4	Ba4934	.00043				1.85275	.9887
5	Be3130	-.00116		1.91617			1.001
6	Ca3179	.00144				.08543	1.006
7	Cd2265	-.00018				1.31249	1.005
8	Co2286	-.00023				.88781	1.007
9	Cr2677	.00021			.71126		.9860
10	Cu3247	.00411				.43748	.9937
11	Fe2714	.00022		.03618			Q1.080
12	K_7664	.01459				.11635	10.53
13	Mg2790	-.00001				.0487	.9669
14	Mn2576	.00034				.76707	.9996
15	Ni2316	.00006		.61147			.9899
16	2203/1	.00141				2.49827	1.002
17	2203/2	-.00059				2.39082	.9982
18	1960/1	-.00394			1.00076		1.003
19	1960/2	.00099			.42831		1.002
20	Sb2068	.00053		.30964			.9731
21	Sn1899	0		.25837			1.006
22	Tl1908	-.0002		.09801			1.035
23	V_2924	-.00001			.01373		.9793
24	Zn2062	.00019				.27055	1.016
25	Pb2203						1.001
26	Se1960						1.003

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#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	QMW'1200
1	Ag3280	.0007	.0006	.2970	Q.0015	.0002	.0002
2	Al3082	-.1337	41.82	41.60	Q-.0831	-.1220	-.0054
3	As1890	-.0024	-.0052	Q1.077	.0385	Q.0042	-.0075
4	Ba4934	-.0002	-.0002	.2898	.0391	.0095	.0002
5	Be3130	.0002	.0000	.1029	.0010	.0002	-.0000
6	Ca3179	-.0046	50.38	50.02	.0216	.0069	.2876
7	Cd2265	.0003	.0004	.3069	Q.0012	.0004	.0001
8	Co2286	.0005	.0006	.2981	.0101	.0027	.0000
9	Cr2677	-.0001	-.0003	.2957	Q.0027	Q.0008	.0001
10	Cu3247	-.0013	Q-.0297	.2649	Q.0039	-.0001	-.0005
11	Fe2714	-.0061	49.37	49.08	Q.0563	.0098	.0174
12	K_7664	-.0031	Q-.5894	Q28.94	-.1808	.0117	.1062
13	Mg2790	-.0017	51.88	51.30	.0033	-.0007	.0073
14	Mn2576	-.0000	-.0008	.1988	.0102	.0026	.0015
15	Ni2316	-.0001	-.0005	.2930	.0087	Q.0017	-.0015
16	2203/1	-.0015	.0011	1.035	.0058	.0031	-.0005
17	2203/2	.0025	-.0036	1.017	.0144	.0013	.0003
18	1960/1	.0025	.0046	.5717	.0461	.0096	-.0038
19	1960/2	.0014	-.0209	.5391	.0484	.0116	.0030
20	Sb2068	-.0007	-.0061	.0983	Q.0025	.0001	.0016
21	Sn1899	.0020	-.0067	Q.0963	-.0015	.0003	.0007
22	Tl1908	.0004	.0026	1.056	.0411	Q.012	-.0021
[illegible]	V_2924	.0001	-.000[illegible]	.[illegible]938	.0099	Q.00	-.0008

#	Element	ICB	ICS A	ICS AB	SS I	SS I LOW	QMW'1200
24	Zn2062	-.0005	-.0043	.3049	.0106	.0020	.0190
25	Pb2203	.0000	Q-.0120	1.018	.0088	.0027	-.0001
26	Se1960	.0023	-.0052	.5595	.0470	.0104	-.0014

#	Element	QMW' LCS	QMW'LCSD	17874	17875	17876	17877
1	Ag3280	.9207	.9625	.0009	.0003	.0002	.0007
2	Al3082	3.843	6.294	-.0357	1.032	2.864	.2642
3	As1890	.9639	.9996	-.0070	-.0023	-.0070	-.0037
4	Ba4934	.9222	.9591	.0322	.0169	.0433	.0028
5	Be3130	.9506	.9880	.0004	.0000	.0005	-.0000
6	Ca3179	4.856	5.518	3.966	52.32	4.636	8.822
7	Cd2265	.9596	.9966	.0002	.0000	-.0000	-.0001
8	Co2286	.9559	.9930	.0052	.0008	.0051	-.0002
9	Cr2677	.9352	.9730	.0042	.0028	.0135	.0003
10	Cu3247	.9416	.9787	-.0010	-.0020	.0041	-.0019
11	Fe2714	4.756	4.907	.1012	.1733	3.155	2.749
12	K_7664	14.70	16.00	1.530	14.83	3.588	15.33
13	Mg2790	4.725	4.907	2.273	.0023	4.520	1.620
14	Mn2576	.9474	.9852	.1791	.0041	.2314	.0472
15	Ni2316	.9322	.9674	-.0006	.0001	.0065	.0017
16	2203/1	.9675	1.020	-.0016	.0015	.0013	.0016
17	2203/2	.9459	.9987	.0010	.0028	.0024	.0020
18	1960/1	.9466	.9760	-.0064	-.0083	-.0049	-.0067
19	1960/2	.9511	.9888	.0050	.0066	.0054	.0065
20	Sb2068	.9273	.9657	.0006	.0018	.0006	.0028
21	Sn1899	2.034	2.106	.0022	.0008	.0004	.0011
22	Tl1908	.9892	1.031	.0035	-.0006	-.0034	-.0023
23	V_2924	.9309	.9674	-.0000	.0015	.0084	.0015
24	Zn2062	.9595	1.021	.0115	.0411	.3034	.0068
25	Pb2203	.9594	1.011	-.0006	.0019	.0010	.0017
26	Se1960	.9482	.9801	-.0024	-.0019	-.0015	-.0019

#	Element	17879	17880	17934	ICV 2	ICB	17981
							12.17
1	Ag3280	.0003	.0002	.0003	1.017	.0003	.0005
2	Al3082	.1300	.1790	.4411	Q.6993	-.1125	3.643
3	As1890	-.0061	-.0048	-.0050	1.022	-.0051	-.0055
4	Ba4934	.0151	.1996	.0197	.9822	-.0002	.1860 J
5	Be3130	-.0000	-.0000	-.0001	1.018	.0002	.0000
6	Ca3179	17.07	28.98	94.49	1.043	-.0082	22.53
7	Cd2265	-.0001	-.0000	.0001	1.011	.0004	-.0001
8	Co2286	.0001	.0010	.0030	1.018	.0004	.0005
9	Cr2677	.0012	.0010	.0092	.9927	-.0004	.0056 J
10	Cu3247	-.0025	-.0024	-.0046	1.006	-.0016	-.0033
11	Fe2714	.0853	.0961	.0918	Q1.093	-.0023	15.04
12	K_7664	2.770	22.95	201.1	Q10.59	-.0632	11.93
13	Mg2790	1.725	18.15	30.20	.9713	-.0028	1.222
14	Mn2576	.0037	.4252	.1023	1.010	.0000	.1744
15	Ni2316	-.0002	.0174	.0222	.9914	-.0004	.0005
16	2203/1	.0065	-.0019	-.0053	1.027	-.0018	.001
17	2203/2	.0081	.0012	.0073	1.011	.0011	.00

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#	Element	17879	17880	17934	ICV 2	ICB	17981
18	1960/1	-.0049	-.0056	-.0055	.9945	.0031	-.0066
19	1960/2	.0035	.0044	.0036	1.005	.0019	-.0009
20	Sb2068	.0024	.0023	.0015	.9733	-.0004	-.0001
21	Sn1899	.0013	.0007	.0012	1.029	.0010	-.0003
22	Tl1908	-.0015	-.0018	-.0032	1.048	.0022	-.0007
23	V_2924	.0015	.0015	.0015	.9849	.0008	.0039
24	Zn2062	.0129	.0107	.0902	1.050	-.0006	.1854
25	Pb2203	.0072	-.0007	-.0003	1.022	-.0006	.0010
26	Se1960	-.0016	-.0018	-.0004	.9983	.0029	-.0036

#	Element	18003	18004	18005	18006	18009	18050
1	Ag3280	.0009	.0005	.0005	.0003	.0002	-.0005
2	Al3082	.0059	.0122	.3859	.1297	.0062	5.940
3	As1890	-.0069	-.0026	-.0049	-.0078	-.0070	-.0026
4	Ba4934	.0221	.0247	.0126	.0862	.0212	.0087
5	Be3130	.0010	.0001	.0000	-.0000	.0000	.0024
6	Ca3179	4.814	5.758	72.40	25.76	5.000	6.162
7	Cd2265	.0008	-.0000	-.0001	.0002	-.0000	.0002
8	Co2286	.0007	.0001	-.0002	.0000	.0001	.0208
9	Cr2677	.0047	.0043	.0006	.0004	.0034	.0051
10	Cu3247	-.0012	-.0027	-.0104	-.0042	-.0022	.0068
11	Fe2714	.0103	.0093	4.751	-.0009	.0023	1.218
12	K_7664	1.853	2.166	10.56	9.756	1.900	49.53
13	Mg2790	2.178	2.573	14.92	8.701	2.221	2.414
14	Mn2576	.0034	.0029	1.380	.1705	.0025	4.024
15	Ni2316	.0007	.0004	.0007	-.0007	-.0001	.0053
16	2203/1	-.0012	-.0007	-.0014	.0002	-.0005	.0046
17	2203/2	.0024	-.0009	.0010	.0011	.0005	.0016
18	1960/1	-.0054	-.0041	-.0075	-.0049	-.0026	.0102
19	1960/2	.0087	.0076	.0020	.0072	.0072	.0113
20	Sb2068	.0004	.0017	.0003	.0016	.0027	-.0000
21	Sn1899	-.0007	.0002	.0014	-.0004	-.0002	.0006
22	Tl1908	.0002	.0000	-.0024	.0002	-.0022	.0005
23	V_2924	.0015	.0015	-.0001	.0015	.0015	.0011
24	Zn2062	.0048	.0160	.0258	.0120	.0124	.0510
25	Pb2203	.0001	-.0006	-.0008	.0006	.0000	.0023
26	Se1960	-.0005	.0000	-.0023	-.0002	.0009	.0102

#	Element	18052	18127	18127 D	ICV 2	ICB	18127 MS
1	Ag3280	.0005	.0014	.0011	1.007	.0004	.9842
2	Al3082	.2000	.0672	.0425	Q.6967	-.0956	4.181
3	As1890	.0019	.0413	.0231	1.004	-.0052	1.077
4	Ba4934	.0103	.0127	.0075	.9525	-.0003	.9981
5	Be3130	-.0001	-.0000	-.0000	1.010	.0002	1.029
6	Ca3179	22.02	6.147	4.213	1.019	-.0116	10.51
7	Cd2265	-.0002	-.0001	-.0000	.9823	.0003	.9972
8	Co2286	-.0004	-.0000	-.0001	1.003	.0006	1.028
9	Cr2677	.0774	.0009	[illegible]02	.9720	-.0001	.9998
10	Cu324[illegible]	.0055	.1239	[illegible]63	1.001	-.0032	1.173
11	Fe271		.0443	[illegible]73	Q1.066	-.0074	5.087

#	Element	18052	18127	18127 D	ICV 2	ICB	18127 MS
12	K_7664	227.6	2.086	1.769	10.43	-.0215	20.69
13	Mg2790	4.704	.8083	.7047	Q.9416	-.0017	5.770
14	Mn2576	.0129	.0041	.0031	.9942	-.0000	1.025
15	Ni2316	-.0004	.2743	.2410	.9538	-.0003	1.253
16	2203/1	-.0025	.0108	.0039	1.027	.0001	1.057
17	2203/2	-.0007	.0106	.0068	.9952	.0009	1.042
18	1960/1	-.0045	-.0041	-.0081	.9778	.0028	.9896
19	1960/2	.0062	.0062	.0048	.9906	.0016	1.025
20	Sb2068	3.554	.0031	.0020	.9469	-.0003	.9819
21	Sn1899	.0031	.0019	.0014	1.022	-.0003	2.196
22	Tl1908	-.0032	-.0001	.0004	1.041	.0002	1.077
23	V_2924	.3182	-.0008	.0007	.9645	-.0007	1.002
24	Zn2062	.1391	.1403	.0574	1.023	-.0008	1.106
25	Pb2203	-.0018	.0109	.0050	1.016	.0005	1.051
26	Se1960	-.0003	-.0004	-.0036	.9822	.0025	1.002

#	Element	181' MSD	ICV 2	ICB	QMW'1000	QMW' LCS	QMW'LCSD
1	Ag3280	.8924	.9792	.0005	.0001	2.628	
2	Al3082	3.786	Q.6729	-.0869	.0713	2.496	2.726
3	As1890	.9839	.9804	-.0053	-.0108	2.725	
4	Ba4934	.8875	Q.9264	-.0002	.0019	2.737	
5	Be3130	.9358	.9854	.0002	.0000	2.865	
6	Ca3179	9.540	.9743	-.0115	.1942	3.152	3.505
7	Cd2265	.9131	.9586	.0003	-.0006	2.718	
8	Co2286	.9348	.9769	.0002	-.0016	2.843	
9	Cr2677	.9090	.9472	-.0002	.0007	2.792	
10	Cu3247	1.047	.9744	-.0028	.1678	2.979	
11	Fe2714	4.646	1.045	-.0075	.0104	3.136	3.406
12	K_7664	18.00	9.821	-.0320	.2780	30.52	
13	Mg2790	5.255	Q.9158	-.0025	.0096	2.655	2.867
14	Mn2576	.9285	.9695	.0000	.0045	2.834	
15	Ni2316	1.133	Q.9302	-.0002	-.0014	2.664	
16	2203/1	.9633	1.007	-.0005	.0122	2.866	
17	2203/2	.9463	.9823	.0004	.0061	2.766	
18	1960/1	.9067	.9589	.0056	-.0147	2.467	
19	1960/2	.9296	.9774	-.0004	.0134	2.522	
20	Sb2068	.8865	Q.9130	-.0014	.0080	2.601	
21	Sn1899	2.013	.9971	.0005	.0000	6.337	
22	Tl1908	.9823	1.022	.0046	-.0043	2.922	3.165
23	V_2924	.9015	Q.9388	-.0007	-.0009	2.791	
24	Zn2062	.9974	.9681	-.0009	.0883	2.685	
25	Pb2203	.9567	.9990	.0000	.0103	2.833	
26	Se1960	.9145	.9653	.0037	-.0052	2.486	

#	Element	17657	17659	17661	17663	17665	17667
1	Ag3280						
2	Al3082	.4280	4.498	.7221	.9661	.4076	3.236
3	As1890						
4	Ba493-						
5	B-130						

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#	Element	17657	17659	17661	17663	17665	17667
6	Ca3179	.4667	.7523	42.21	2.637	10.55	13.83
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	21.51	13.75	10.06	.4680	.2636	5.931
12	K_7664						
13	Mg2790	1.999	2.749	18.03	2.012	5.444	8.201
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	.0145	-.0012	-.0002	-.0019	-.0019	-.0037
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17669	ICV 2	ICB	17671	17672	17673
1	Ag3280						
2	Al3082	.6669	Q.7079	-.1735	.8010	.0730	1.485
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	3.041	1.003	-.0135	1.437	.2413	15.99
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	15.14	Q1.080	.0175	.9498	.0182	2.762
12	K_7664						
13	Mg2790	3.543	Q.9345	-.0063	.7823	.0107	4.568
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	.0002	1.039	.0006	-.0015	-.0029	-.0025
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17675	17677	17679	17681	17683	17685
1	Ag3280						
2	Al3082	.8940	.5434	10.90	74.70	10.67	.5867
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	2.658	2.552	4.571	14.05	13.54	.9274
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	29.33	.8800	18.48	127.4	14.71	.8694
12	K_7664						
13	Mg2790	3.947	6.644	3.356	19.25	7.344	.8418
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	.0046	-.0009	.0003	.0047	-.0073	-.0009
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17683 D	ICV 2	ICB	17683 MS	176' MSD	MAR'ATER
1	Ag3280						
2	Al3082	10.46	Q.7158	-.0679	19.84	20.02	.0328
3	As1890						
4	Ba4934						
5	Be3130						
6	Ca3179	12.91	.9982	-.0151	15.79	15.43	4.798
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	14.11	1.093	.0063	18.73	18.65	.0483
12	K_7664						
13	Mg2790	6.968	.9305	-.0028	9.573	9.552	1.001
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	-.0027	1.041	0005	2.702	2.806	.0170
23	V_2924						

#	Element	17683 D	ICV 2	ICB	17683 MS	176' MSD	MAR'ATER
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICV 2	ICB	ICV 2	ICB	QMS'1250	QMS' LCS
1	Ag3280						
2	Al3082	Q.7289	-.0649	Q.7087	-.0570	.0512	3.866
3	As1890			.9876	-.0017	-.0055	.9806
4	Ba4934						
5	Be3130						
6	Ca3179	1.001	-.0154	.9713	-.0159	.4035	5.467
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	Q1.089	.0023	Q1.060	-.0004	.0212	4.868
12	K_7664						
13	Mg2790	Q.9334	-.0004	Q.9055	.0002	.0047	4.678
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908	1.052	.0051				
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	QMS'LCSD	17988	17991	18028	18137	18306
1	Ag3280						
2	Al3082	3.679	1643.	5952.	1795.	1075.	1705.
3	As1890	.9174	1.329	1.059	-.4190	.6542	3.991
4	Ba4934						
5	Be3130						
6	Ca3179	5.584	34790.	267.7	78.14	23020.	2388.
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	4.612	3823.	8970.	467.0	2585.	12050.
12	K_7664						
13	Mg2790	4.404	313.3	69.25	45.75	200.9	499.4
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						

#	Element	QMS'LCSD	17988	17991	18028	18137	18306
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	18306-D	18306-MS	ICV 2	ICB	183'-MSD	QMS'1315
1	Ag3280						
2	Al3082	1410.	2522.	Q.7493	-.0532	2493.	.0257
3	As1890	2.630	99.78	.9853	-.0031	94.60	-.0046
4	Ba4934						
5	Be3130						
6	Ca3179	1785.	2624.	.9804	-.0076	2736.	.4117
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	9391.	13260.	Q1.114	.0154	13650.	.1383
12	K_7664						
13	Mg2790	421.7	902.3	Q.9141	-.0038	986.4	.0104
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	QMS' LCS	QMS'LCSD	17349	17350	17351	17352
1	Ag3280						
2	Al3082	.7942	.8343	3203.	3726.	2356.	4217.
3	As1890	.9333	.9792	2.094	2.518	.7032	2.669
4	Ba4934						
5	Be3130						
6	Ca3179	1.508	1.334	242.6	184.1	237.2	230.5
7	Cd2265						
8	Co2286						
9	Cr2677						
[illegible]							
[illegible]	Fe [illegible]	1.041	1.145	8766.	[illegible]	[illegible]	[illegible]

#	Element	QMS' LCS	QMS'LCSD	17349	17350	17351	17352
12	K_7664						
13	Mg2790	.8768	.9075	54.69	78.98	128.6	80.34
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17353	173' 2FD	ICV 2	ICB	17355	17356
1	Ag3280						
2	Al3082	5130.	5256.	Q.7443	-.0534	4716.	7194.
3	As1890	1.572	2.375	.9995	-.0013	1.986	2.185
4	Ba4934						
5	Be3130						
6	Ca3179	379.7	135.0	.9923	-.0125	470.4	354.7
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	7120.	12910.	Q1.184	.0083	6881.	11840.
12	K_7664						
13	Mg2790	137.5	94.77	Q.9299	-.0063	157.0	99.09
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17357	17358	17359	17361	17362	17364
1	Ag3280						
2	Al3082	4803.	8568.	3702.	2219.	9110.	10060.
3	As1890	1.632	2.911	1.127	.3010	4.495	1.758
4	Ba49						
5	Be31						

#	Element	17357	17358	17359	17361	17362	17364
6	Ca3179	535.4	296.9	569.7	213.2	146.2	64.53
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	6937.	12580.	6795.	1822.	21480.	8605.
12	K_7664						
13	Mg2790	395.4	221.7	351.3	137.6	143.7	208.5
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	17365	17365-D	ICV 2	ICB	17365-MS	173'-MSD
1	Ag3280						
2	Al3082	9587.	9377.	Q.7141	-.0623	10610.	11030.
3	As1890	1.425	1.687	.9776	-.0009	82.29	100.9
4	Ba4934						
5	Be3130						
6	Ca3179	61.27	105.5	.9741	-.0116	181.6	293.1
7	Cd2265						
8	Co2286						
9	Cr2677						
10	Cu3247						
11	Fe2714	8182.	8570.	Q1.157	.0167	7094.	8273.
12	K_7664						
13	Mg2790	198.9	154.9	Q.9133	-.0017	363.7	350.6
14	Mn2576						
15	Ni2316						
16	2203/1						
17	2203/2						
18	1960/1						
19	1960/2						
20	Sb2068						
21	Sn1899						
22	Tl1908						
23	V_2924						
24	Zn2062						
25	Pb2203						
26	Se1960						

#	Element	ICV 2	STD'lank	STD3	STD2	ICV 2	ICB
1	Ag3280	1.003				1.028	.0010
2	Al3082	Q.7164	.00951	.09303		Q.7752	-.0184
3	As1890	.9960				1.015	-.0016
4	Ba4934	Q.9218	.00009		1.74545	1.021	.0004
5	Be3130	1.006				1.005	.0004
6	Ca3179	.9857	.00076		.08683	.9735	.0058
7	Cd2265	.9511				.9567	.0006
8	Co2286	.9954				.9985	.0005
9	Cr2677	.9584				.9642	-.0004
10	Cu3247	1.007				1.033	-.0025
11	Fe2714	Q1.094	.00064	.03692		1.040	-.0239
12	K_7664	Q11.23	.01577		.11896	Q11.56	-.0488
13	Mg2790	Q.9238	.00001		.04826	.9460	-.0036
14	Mn2576	.9886				.9970	.0003
15	Ni2316	Q.9140	-.00004	.58094		.9782	.0002
16	2203/1	1.028				1.028	-.0009
17	2203/2	.9994				.9983	.0026
18	1960/1	.9660				.9973	.0104
19	1960/2	.9837				1.002	.0203
20	Sb2068	Q.9095	.0006	.30061		.9623	.0028
21	Sn1899	1.047				Q1.075	.0349
22	Tl1908	1.045				Q1.065	.0035
23	V_2924	.9516				.9684	.0007
24	Zn2062	.9520				Q.9422	.0005
25	Pb2203	1.018				1.018	.0004
26	Se1960	.9721				.9989	.0138

#	Element	QMW'1100	QMW' LCS	QMW'LCSD	18254	18302	18303
1	Ag3280	.0008	.8500	.8250	.0013	.0007	.0008
2	Al3082	.0453	3.774	3.629	.1322	3.360	6.834
3	As1890	-.0074	.9808	.9494	.0007	-.0022	-.0174
4	Ba4934	.0014	.9567	.9317	.0286	.0446	.1710
5	Be3130	-.0001	.9495	.9166	.0002	-.0000	-.0001
6	Ca3179	.0760	4.634	4.513	7.539	10.87	3.748
7	Cd2265	.0000	.9176	.8948	.0007	.0004	.0011
8	Co2286	.0000	.9505	.9170	.0007	.0054	-.0924
9	Cr2677	-.0006	.9164	.8866	.0020	.0036	.0390
10	Cu3247	-.0029	.9609	.9138	.0521	.0084	.0248
11	Fe2714	-.0085	4.643	4.567	1.202	3.234	35.02
12	K_7664	-.0432	16.78	15.85	2.173	4.934	46.04
13	Mg2790	-.0039	4.642	4.523	.5478	.6759	.8757
14	Mn2576	.0007	.9426	.9088	.0519	.1258	.2626
15	Ni2316	-.0013	.9297	.9137	.0035	.3433	.2881
16	2203/1	.0006	.9678	.9458	.0077	.0043	1.172
17	2203/2	.0026	.9631	.9256	.0096	.0050	1.145
18	1960/1	-.0006	.9899	.9667	.0084	.0046	-.0582
19	1960/2	.0039	.9798	.9717	.0253	.0028	-.0237
20	Sb2068	.0027	.9181	.8883	.0030	.0033	.5533
21	Sn1899	.0281	1.876	1.811	.0268	.8809	1349.
22	Tl1908	.0004	.9935	.9659	.0071	.0046	.0106
23	V_2924	-.0008	.9141	.8816	[illegible]	-.0018	.0001

#	Element	QMW'1100	QMW' LCS	QMW'LCSD	18254	18302	18303
24	Zn2062	.0146	.9182	.8973	.1133	2.118	3.177
25	Pb2203	.0014	.9653	.9382	.0084	.0038	1.160
26	Se1960	.0010	.9866	.9685	.0144	.0043	-.0453

#	Element	18304	18217	18218	18219	ICV 2	ICB
1	Ag3280	.0006	.0001	.0004	.0003	1.017	.0012
2	Al3082	1.780	.0593	.0948	.1165	Q.7267	-.0512
3	As1890	-.0048	-.0072	-.0087	-.0068	1.031	-.0025
4	Ba4934	.0120	.0077	.0523	.0298	1.025	.0005
5	Be3130	-.0001	.0000	.0004	.0001	1.023	.0007
6	Ca3179	12.28	4.107	2.400	4.461	1.007	.0090
7	Cd2265	.0001	-.0001	-.0000	.0001	1.011	.0007
8	Co2286	.0018	-.0001	.0012	-.0001	1.021	-.0001
9	Cr2677	.0065	.0023	.0007	.0024	.9891	-.0012
10	Cu3247	.0459	-.0022	-.0029	-.0032	1.001	-.0016
11	Fe2714	1.055	-.0016	-.0031	.0295	1.054	-.0294
12	K_7664	10.13	1.137	.9883	1.996	Q11.01	-.3589
13	Mg2790	.4211	2.249	2.252	1.509	.9775	-.0152
14	Mn2576	.0473	.0211	.0238	.0046	1.009	.0005
15	Ni2316	.1660	.0020	-.0005	-.0007	1.032	-.0012
16	2203/1	.0035	-.0009	.0063	-.0009	1.045	-.0026
17	2203/2	.0017	.0014	.0075	.0009	1.017	.0017
18	1960/1	.0043	.0014	-.0028	.0021	1.012	.0087
19	1960/2	.0048	.0049	.0028	-.0014	1.006	.0185
20	Sb2068	.0043	.0008	.0007	.0007	.9818	-.0021
21	Sn1899	7.295	.1892	.0929	.0623	Q1.121	.0384
22	Tl1908	-.0012	-.0004	.0032	.0030	Q1.061	-.0004
23	V_2924	.0015	-.0007	.0008	.0015	.9803	.0008
24	Zn2062	.2431	.0210	.0204	.0142	1.014	.0005
25	Pb2203	.0026	-.0000	.0068	-.0002	1.036	-.0010
26	Se1960	.0048	.0028	-.0008	.0011	1.010	.0121

#	Element	18220	18221	18222	18223	18267	18275
1	Ag3280	-.0003	.0004	.0005	.0005	.0005	.0005
2	Al3082	.0924	.1822	.2192	.0488	.0721	.4133
3	As1890	-.0066	-.0056	-.0086	-.0087	-.0069	-.0066
4	Ba4934	.0204	.0241	.0584	.0221	.0104	.0173
5	Be3130	.0001	.0001	.0004	.0001	-.0000	.0001
6	Ca3179	4.732	.2244	.7842	2.032	2.908	2.368
7	Cd2265	-.0001	-.0001	-.0001	.0000	.0001	-.0001
8	Co2286	-.0010	.0001	-.0001	.0000	.0009	-.0004
9	Cr2677	.0003	.0001	.0010	.0006	.0001	.0067
10	Cu3247	-.0038	-.0014	-.0014	-.0025	.6583	-.0017
11	Fe2714	-.0058	.0479	.0213	.0006	.0166	.2620
12	K_7664	.7367	.5997	1.151	.8667	2.456	.6837
13	Mg2790	2.546	.8604	1.377	1.533	1.177	1.793
14	Mn2576	.0021	.0115	.0112	.0030	.0061	.0101
15	Ni2316	-.0017	-.0009	.0009	-.0005	.0059	.0004
16	2[illegible]	.0007	-.0001	.0013	-.0002	.0021	-.0[illegible]
17	2[illegible]	[illegible]0	-.0001	.0020	-.00[illegible]	.0021	

#	Element	18220	18221	18222	18223	18267	18275
18	1960/1	-.0003	-.0007	-.0005	-.0012	-.0006	-.0003
19	1960/2	.0042	.0033	.0016	.0034	.0023	.0046
20	Sb2068	.0032	.0019	.0004	.0001	.0032	-.0010
21	Sn1899	.0310	.0294	.0252	.0211	.0213	.0169
22	Tl1908	.0038	-.0007	.0005	.0009	-.0007	.0009
23	V_2924	-.0016	-.0007	-.0007	-.0007	-.0007	.0023
24	Zn2062	.0182	.0077	.0218	.0114	.0279	.0110
25	Pb2203	.0008	.0000	.0017	-.0002	.0022	-.0005
26	Se1960	.0014	.0008	.0003	.0005	.0005	.0014

#	Element	18276	18277	18278	18279	ICV 2	ICB
1	Ag3280	.0004	.0003	.0003	.0007	1.020	.0019
2	Al3082	1.186	.2145	.1039	.4216	Q.7439	-.0477
3	As1890	-.0060	-.0044	-.0084	-.0068	1.012	-.0009
4	Ba4934	.0173	.0397	.0500	.0427	1.052	.0005
5	Be3130	-.0000	.0029	.0000	.0001	1.000	.0005
6	Ca3179	11.59	6.103	7.601	6.372	.9894	.0087
7	Cd2265	-.0001	.0003	-.0001	-.0001	.9893	.0008
8	Co2286	.0002	.0154	.0033	.0000	1.003	.0017
9	Cr2677	.0011	.0058	.0040	.0043	.9762	.0000
10	Cu3247	-.0028	.0022	-.0028	-.0024	1.019	-.0007
11	Fe2714	.6810	.0058	.0694	.5061	1.050	-.0017
12	K_7664	.3592	2.745	1.579	2.044	Q11.30	-.0574
13	Mg2790	1.869	21.23	3.275	3.165	.9574	-.0047
14	Mn2576	.0076	.2967	.0409	.0132	.9979	.0004
15	Ni2316	-.0006	.0447	.0021	.0005	1.017	-.0001
16	2203/1	-.0016	.0001	-.0005	.0006	1.020	-.0100
17	2203/2	.0015	.0003	.0010	.0010	.9925	.0069
18	1960/1	.0015	.0066	-.0021	-.0036	1.009	.0023
19	1960/2	.0042	.0063	.0058	.0044	.9966	.0189
20	Sb2068	-.0020	-.0024	-.0006	-.0007	.9865	.0035
21	Sn1899	.0165	.0165	.0200	.0156	1.048	.0186
22	Tl1908	-.0006	.0016	.0016	.0025	1.053	-.0001
23	V_2924	.0015	.0015	.0000	.0015	.9764	.0030
24	Zn2062	.0137	.0724	.0235	.0268	.9670	.0008
25	Pb2203	-.0007	.0003	.0001	.0008	1.011	-.0042
26	Se1960	.0027	.0064	.0008	-.0007	1.005	.0079

#	Element	18280	18281	18282	18282-D	18304-D	18304-MS
1	Ag3280	.0005	.0003	.0005	.0004	.0006	1.023
2	Al3082	.1002	.0949	.0804	.0736	1.796	6.242
3	As1890	-.0064	-.0072	-.0070	-.0062	-.0069	1.058
4	Ba4934	.0287	.0160	.0367	.0298	.0121	1.035
5	Be3130	.0000	.0000	.0000	.0000	-.0002	1.039
6	Ca3179	4.208	10.99	8.284	7.093	11.72	17.58
7	Cd2265	-.0001	-.0002	.0000	.0001	-.0000	1.036
8	Co2286	-.0001	-.0005	.0003	.0002	.0011	1.049
9	Cr2677	.0104	.0028	.0049	.0038	.0051	1.002
10	Cu3247	-.0031	-.0034	-.0026	-.0029	.0467	1.115
11	Fe2714	.00[illegible]	.0[illegible]	-.0[illegible]3	.0003	.9[illegible]	6.006

#	Element	18280	18281	18282	18282-D	18304-D	18304-MS
12	K_7664	1.437	5.925	2.430	2.036	10.67	47.22
13	Mg2790	3.289	5.049	4.187	3.611	.4010	5.495
14	Mn2576	.0020	.0018	.0022	.0031	.0456	1.062
15	Ni2316	-.0009	-.0000	-.0007	-.0006	.1609	1.235
16	2203/1	-.0002	.0009	-.0019	-.0029	.0028	1.079
17	2203/2	.0013	.0007	.0002	.0007	.0012	1.051
18	1960/1	-.0026	-.0068	-.0006	.0026	.0034	1.117
19	1960/2	.0040	.0039	.0024	.0009	.0008	1.079
20	Sb2068	.0052	.0025	.0015	.0020	.0004	.9371
21	Sn1899	.0135	.0140	.0115	.0112	2.980	4.291
22	Tl1908	-.0042	-.0014	.0007	-.0005	-.0004	1.156
23	V_2924	-.0000	.0015	.0015	.0015	-.0009	1.007
24	Zn2062	.0070	.0111	.0146	.0129	.2311	1.297
25	Pb2203	.0005	.0010	-.0010	-.0016	.0019	1.068
26	Se1960	-.0002	-.0029	.0007	.0023	.0028	1.105

#	Element	183'-MSD	AG LCS	AG LCSD	183'AGMS	ICV 2	ICB
1	Ag3280	1.034	.0577	.0569	.0588	1.010	.0009
2	Al3082	6.257	.0530	.0880	2.081	Q.7309	-.0690
3	As1890	1.069	-.0053	-.0102	-.0056	.9996	-.0017
4	Ba4934	1.049	.0013	.0010	.0140	1.049	.0003
5	Be3130	1.053	.0002	-.0000	-.0001	.9848	.0004
6	Ca3179	17.71	.1498	.2142	13.44	.9783	.0089
7	Cd2265	1.053	.0005	-.0000	.0001	.9792	.0006
8	Co2286	1.062	-.0000	-.0004	.0015	.9898	.0003
9	Cr2677	1.017	.0003	-.0004	.0071	.9641	-.0003
10	Cu3247	1.125	-.0013	-.0019	.0535	1.010	-.0015
11	Fe2714	6.118	.0284	.0473	1.146	1.047	-.0267
12	K_7664	47.68	.1035	.0218	12.32	Q11.50	-.0631
13	Mg2790	5.582	.0424	.0414	.5035	.9483	-.0036
14	Mn2576	1.076	.0013	.0012	.0521	.9857	.0002
15	Ni2316	1.254	-.0008	-.0021	.1846	1.012	-.0002
16	2203/1	1.096	.0021	.0015	.0028	1.000	.0008
17	2203/2	1.070	.0047	.0011	.0016	.9714	.0024
18	1960/1	1.137	.0014	-.0056	-.0012	.9979	.0117
19	1960/2	1.112	.0236	.0052	.0034	.9825	.0123
20	Sb2068	.9384	.0016	-.0000	.0052	.9880	.0022
21	Sn1899	4.201	.0495	.0211	3.798	1.047	.0225
22	Tl1908	1.180	.0034	-.0001	-.0011	1.033	.0025
23	V_2924	1.021	.0015	-.0007	.0007	.9678	.0015
24	Zn2062	1.322	.0035	.0108	.2630	.9553	-.0003
25	Pb2203	1.086	.0031	.0015	.0020	.9906	.0015
26	Se1960	1.129	.0089	-.0019	.0007	.9929	.0120

#	Element	183'GMSD	ICV 2	ICB	SS I	SS I LOW	ICS A
1	Ag3280	.0577	1.010	.0007	Q.0015	.0004	.0001
2	Al3082	2.029	Q.7219	-.0627	Q-.0290	-.0545	41.41
3	As1890	-.0050	1.015	-.0011	.0066	Q.0059	-.0041
4	Ba4934	.0136	1.041	.0004	.0018	.0105	.0001
5	Be3130	-.0001	1.003	.0006	.0011	.0003	-.0001

#	Element	183'GMSD	ICV 2	ICB	SS I	SS I LOW	ICS A
6	Ca3179	13.24	1.001	.0078	.0257	.0230	49.36
7	Cd2265	-.0001	1.006	.0004	.0011	.0004	.0004
8	Co2286	.0013	1.007	.0008	.0108	.0029	.0006
9	Cr2677	.0069	.9806	-.0003	.0034	Q.0001	-.0013
10	Cu3247	.0527	1.001	-.0018	Q.0028	-.0008	Q-.0301
11	Fe2714	1.142	Q1.062	-.0280	.0222	.0036	49.39
12	K_7664	12.23	Q11.31	-.1073	-.1125	-.0904	Q-.9171
13	Mg2790	.4988	.9618	-.0055	-.0025	-.0036	52.39
14	Mn2576	.0514	.9977	.0002	.0103	.0026	-.0008
15	Ni2316	.1833	1.036	-.0002	.0095	Q.0009	-.0018
16	2203/1	.0035	1.017	-.0001	.0106	.0010	-.0090
17	2203/2	.0018	.9906	.0008	.0099	.0035	.0012
18	1960/1	.0017	1.004	.0097	.0523	.0181	-.0043
19	1960/2	.0076	.9903	.0095	.0381	.0135	-.0198
20	Sb2068	.0127	.9965	.0026	.0109	.0017	-.0100
21	Sn1899	3.892	Q1.076	.0227	.0112	.0104	-.0000
22	Tl1908	.0010	1.043	.0050	.0444	.0113	.0047
23	V_2924	-.0009	.9773	.0008	.0104	Q.0015	.0023
24	Zn2062	.2617	.9906	-.0004	.0104	.0021	-.0045
25	Pb2203	.0026	1.008	.0004	.0105	.0020	Q-.0171
26	Se1960	.0040	.9995	.0098	.0477	Q.0167	Q-.0108

#	Element	ICS AB
1	Ag3280	.3072
2	Al3082	41.61
3	As1890	Q1.108
4	Ba4934	.3156
5	Be3130	.1052
6	Ca3179	49.80
7	Cd2265	.3129
8	Co2286	.3046
9	Cr2677	.3004
10	Cu3247	.2749
11	Fe2714	49.81
12	K_7664	Q33.10
13	Mg2790	52.73
14	Mn2576	.2032
15	Ni2316	.3110
16	2203/1	1.063
17	2203/2	1.028
18	1960/1	.5997
19	1960/2	.5133
20	Sb2068	.1064
21	Sn1899	Q.1094
22	Tl1908	1.097
23	V_2924	.3058
24	Zn2062	.3023
25	Pb2203	1.040
26	Se1960	.5696

SVO GC/MS DATA CHECKLIST
SW-846-8270C

PROJECT #: 28530	METHOD: 8270C
MATRIX: Water	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	(Y)	N	NA
Are Tuning results compliant with method?	(Y)	N	NA
Are DDT breakdown and tailing factors within method limits?	(Y)	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	(Y)	N	NA
Are all SPCC Response Factors acceptable for CCV?	(Y)	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	(Y)	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	(Y)	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	(Y)	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	(Y)	N	NA
Is blank result less than 1/2 RDL for all analytes of interest?	(Y)	N	NA
Are all spike recoveries acceptable for the LCS/LCSD?	Y	(N) *	NA
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	(Y)	N	NA
If blank, LCS or surrogate results are unacceptable, was re-extraction performed to confirm?	Y	(N)	NA
Were sample analyses performed within holding times?	(Y)	N	NA
Are quantitations based on the latest acceptable initial calibration?	(Y)	N	NA
Are all requested analytes below the upper calibration limit?	(Y)	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	(Y)	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8270C?	(Y)	N	NA
Are all mistakes single lined out, initialled, & dated?	(Y)	N	NA
Are all analytes not to be reported lined off, initialed, and dated on the raw data?	(Y)	N	NA
Was analysis completed as instructed on the Log-in Record?	(Y)	N	NA
Has all data been entered into LIMS?	(Y)	N	NA

Analyst: [signature]

Date: 8/20/01 Time: 0810

PEER REVIEW

Are Tuning results, DDT breakdown and tailing factors compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	~~N~~	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Was analysis completed as instructed on the Log-in Record?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: RL

Date: 8/21/01 Time: 09.15

Accurate Analytical Laboratory, Inc.
Environmental Analytical Services
6017 Financial Drive
Norcross, GA 30071

Laboratory Quality Communication Form
Document No.: 14-QS-0[illegible] F
Revision/Date : No. 00/Effective: 02/01/01
Page No.: 1 of 1

[ ] Departmental Corrective Action [+] Quality Notice [ ] Temporary Method Deviation Notice

Tracking Number: SV0108009

Reported By: DG Date Reported: 8/17/01

Department: SVOC Project(s): 28530 PM: BJH

Discrepancy:

LCS recoveries outside Navy acceptance limits. No in-house limits established for these cmpds. See attached.

Resolution Assigned to (circle one): Bonnie Hogue Michael Trinidad Christelle Newsome Kelly Clemons Malla Pollana Diana Burdette John Peterson David Fuller Duane J

Resolution:

Report data; note in case narrative as necessary.

Resolution recorded by: DMD Date: 08.12.01

Copied to (circle one): Bonnie Hogue Michael Trinidad David Fuller Kelly Clemons

QA Comments

QA Review by: _____ Date: _____

Original to QA, copy in the QCF Book, copy in the project folder copy to PM, QA will forward completed copy back to department to be inserted into book.

File Name: Lab quality communication form.doc 03/22/01

ACCURA ANALYTICAL LABORATORIES

EXTRACTION LOG

ANALYSIS: (BNA) / BN — BNAW202

DATE/TIME: 8/8/01 8:00a.m

MATRIX: (WATER) / TCLP

ANALYST: JJ

EXT. METHOD: 3510 (3520)

INSTRUMENT: GC/MS

Full List

AAL I.D.	SAMPLE VOLUME	pH A	pH B	SURR 1.0mL	SPIKE 1.0mL	FINAL VOLUME	COMMENTS
QSW080801-1	1L	7|2	<2	JJ		1ML	BLK Full list JJ 8/10/01
QSW080801-2	↓	↓	↓	↓	JJ	↓	LCS Full list spike
QSW080801-3					JJ		LCSD ↓
17981	↓	↓	↓	↓		↓	

JJ 8/13/01 9:30

START TIME: 12:00pm STOP TIME: 8:45a.m START TIME: 12:15 STOP TIME: 8:15a.m

JJ 8/14/01 BN01E133 BN050ppm Acid 100ppm

SURROGATE I.D.: 501168 CONC.: 50ppm INITAL: JJ

SPIKE I.D.: 501168 CONC.: 50ppm INITIAL: JJ

SOLVENT ID #: EX01277 RapidVap TEMP.: 45°C

TRACT STORAGE: REFRIGERATOR # 5 BOX #: B-561

Spike witness DP

W

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: rteint.p
Quant Time: Aug 16 08:27:02 2001

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 08:18:03 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.99	152	166007	40.00	ug/L	0.00
21) Naphthalene-d8	7.52	136	415419	40.00	ug/L	0.00
38) Acenaphthene-d10	9.72	164	518901	40.00	ug/L	0.00
59) Phenanthrene-d10	11.57	188	377978	40.00	ug/L	0.00
73) Chyrsene-d12	14.97	240	441216	40.00	ug/L	0.00
81) Perylene-d12	17.79	264	385394	40.00	ug/L	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	4.60	112	415078	57.29	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 57.29%			
7) Phenol-d5	5.55	99	635891	82.72	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 82.72%			
22) Nitrobenzene-d5	6.66	82	328233	35.32	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 70.64%			
42) 2-Fluorobiphenyl	8.84	172	407776	36.66	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 73.32%			
63) 2,4,6-Tribromophenol	10.71	330	180723	101.80	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 101.80%			
75) Terphenyl-d14	13.54	244	315623	37.26	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 74.52%			
Target Compounds						Qvalue
27) Benzoic Acid	7.14	105	24259	9.10	ug/L	95

8/16/01

(#) = qualifier out of range (m) = manual integration

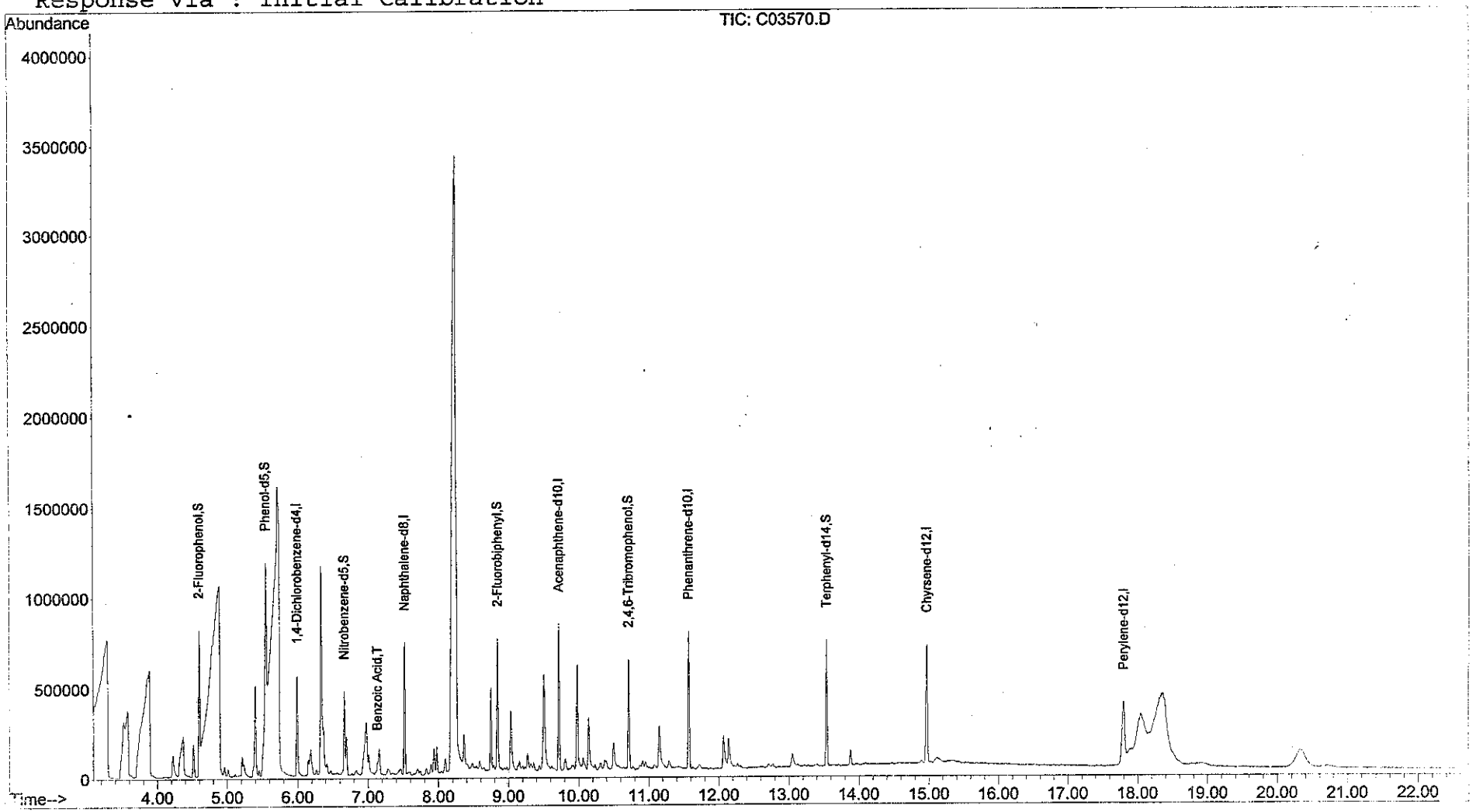
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: rteint.p
Quant Time: Aug 16 8:27 2001

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 08:18:03 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : G:\DATA\081501A\C03570.D Vial: 22
Acq On : 08/16/01 02:32 Operator: DMB/DG
Sample : 17981 BNA W 8/8 Inst : AG-MSC
Misc : BNA WATER Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

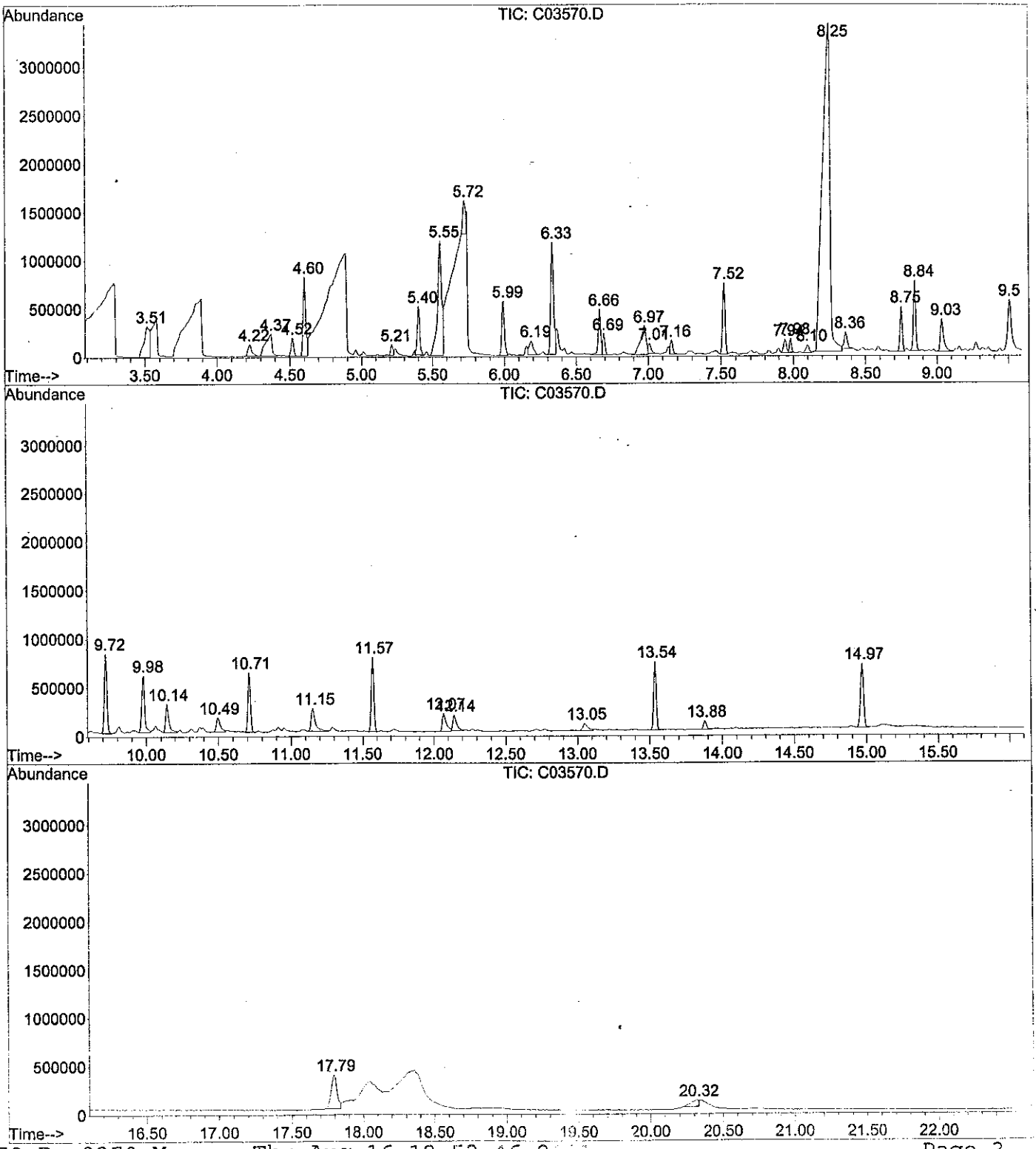
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.514	65	74	78	rBV2	316089	926194	7.48%	2.521%
2	4.225	190	195	206	rBV	119411	221004	1.78%	0.602%
3	4.372	206	220	228	rBV	223234	699415	5.65%	1.904%
4	4.519	240	245	251	rVB2	185982	233836	1.89%	0.636%
5	4.601	254	259	263	rBV	813450	1057735	8.54%	2.879%
6	5.212	360	363	366	rBV	108057	137241	1.11%	0.374%
7	5.400	391	395	402	rVB	499753	615760	4.97%	1.676%
8	5.553	408	421	425	rBV	1185464	2452714	19.80%	6.676%
9	5.723	447	450	452	rBV2	350085	436305	3.52%	1.188%
10	5.993	491	496	501	rBV	558160	664900	5.37%	1.810%
11	6.187	525	529	537	rVB	143668	266930	2.16%	0.727%
12	6.334	548	554	558	rBV2	1156690	1674056	13.52%	4.557%
13	6.663	600	610	613	rBV	466242	573388	4.63%	1.561%
14	6.693	613	615	620	rVB	217394	220115	1.78%	0.599%
15	6.975	650	663	667	rBV	292223	801163	6.47%	2.181%
16	7.010	667	669	676	rVB	104808	124529	1.01%	0.339%
17	7.157	692	694	703	rVB	141249	172027	1.39%	0.468%
18	7.521	751	756	760	rBV	732784	842705	6.80%	2.294%
19	7.938	823	827	831	rVV	136403	190707	1.54%	0.519%
20	7.979	831	834	837	rVB	146312	144709	1.17%	0.394%
21	8.097	848	854	859	rBV	81959	130335	1.05%	0.355%
22	8.250	863	880	895	rVV	3402744	12386219	100.00%	33.714%
23	8.361	895	899	906	rVB3	169467	235002	1.90%	0.640%
24	8.749	960	965	969	rBV	463474	513789	4.15%	1.398%
25	8.843	975	981	987	rBV	725291	840083	6.78%	2.287%
26	9.031	1009	1013	1027	rVB	333442	530834	4.29%	1.445%
27	9.507	1086	1094	1110	rBV	528132	1045492	8.44%	2.846%
28	9.719	1125	1130	1137	rVB	818257	948674	7.66%	2.582%
29	9.983	1169	1175	1183	rBV	582387	834686	6.74%	2.272%
30	10.142	1197	1202	1215	rBV2	289188	466753	3.77%	1.270%
31	10.494	1258	1262	1271	rBV	142399	272332	2.20%	0.741%

32	10.712	1294	1299	1307	rBV	610417	735589	5.94%	2.002%
33	11.152	1369	1374	1389	rBV	232378	443008	3.58%	1.206%
34	11.569	1440	1445	1450	rVB	762966	929151	7.50%	2.529%
35	12.069	1525	1530	1539	rBV	182579	361279	2.92%	0.983%
36	12.139	1539	1542	1553	rVB	156491	271796	2.19%	0.740%
37	13.050	1691	1697	1707	rBV2	74572	172823	1.40%	0.470%
38	13.538	1775	1780	1785	rBV	703977	803152	6.48%	2.186%
39	13.879	1834	1838	1846	rBV2	87272	124280	1.00%	0.338%
40	14.971	2017	2024	2032	rBV	659194	995352	8.04%	2.709%
41	17.792	2494	2504	2512	rBV2	350691	996705	8.05%	2.713%
42	20.318	2919	2934	2936	rBV5	67743	246659	1.99%	0.671%

Sum of corrected areas: 36739426

LSC Report - Integrated Chromatogram

File : G:\DATA\081501A\C03570.D
Operator : DMB/DG
Acquired : 16 Aug 2001 2:32 am using AcqMethod 8270
Instrument : AG-MSC
Sample Name: 17981 BNA W 8/8
Misc Info : BNA WATER
Vial Number: 22
Quant File :8270.RES (RTE Integrator)



Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

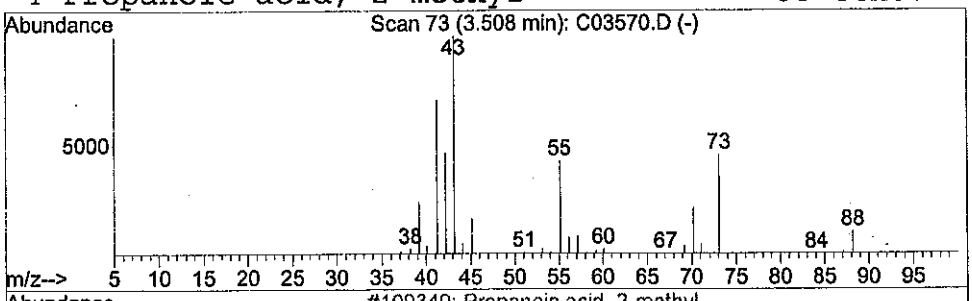
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

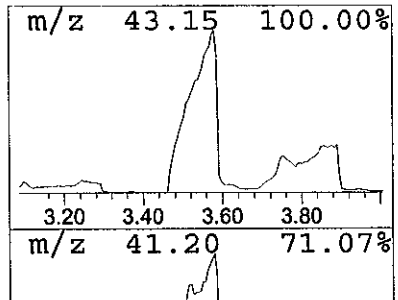
****

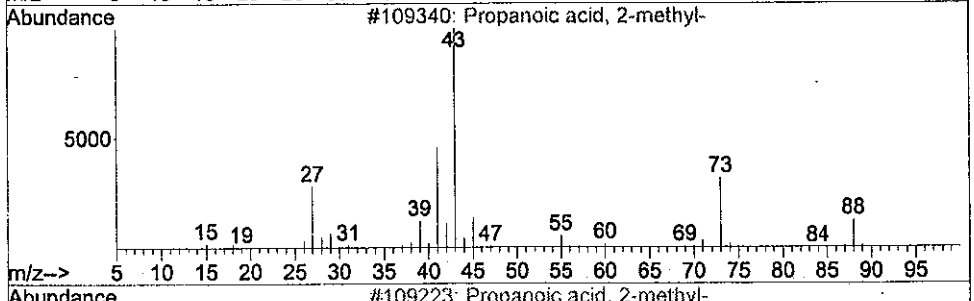
Peak Number 1 unknown — Concentration Rank 3

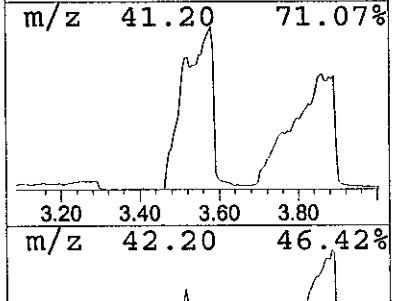
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.51	55.72 ug/L	926194	1,4-Dichlorobenzene-d4	5.99

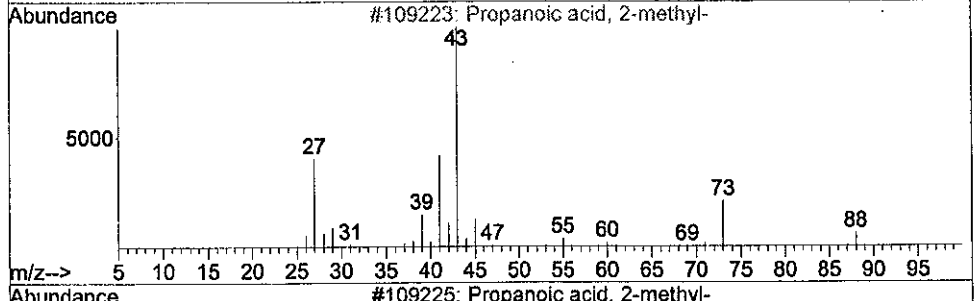
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanoic acid, 2-methyl-	88	C4H8O2	000079-31-2	43
2	Propanoic acid, 2-methyl-	88	C4H8O2	000079-31-2	43
3	Propanoic acid, 2-methyl-	88	C4H8O2	000079-31-2	43
4	Propanoic acid, 2-methyl-	88	C4H8O2	000079-31-2	38

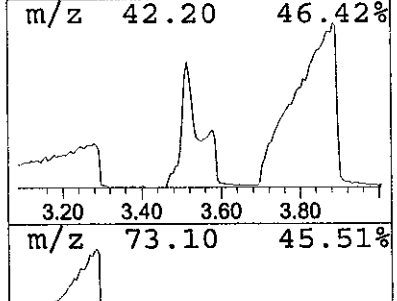


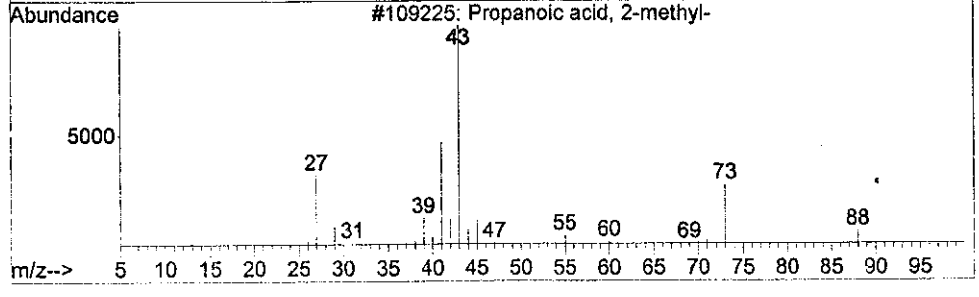


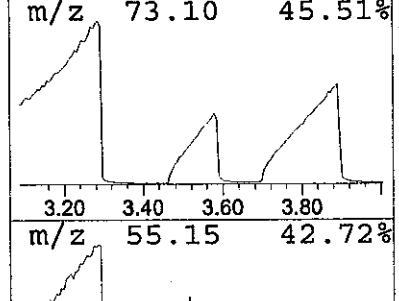


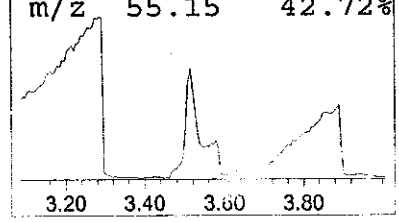












Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

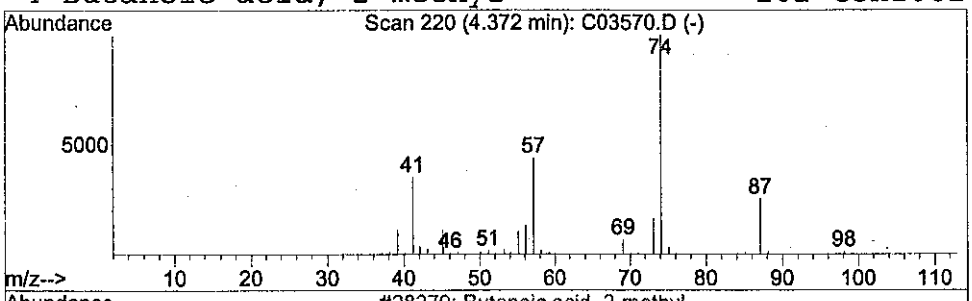
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

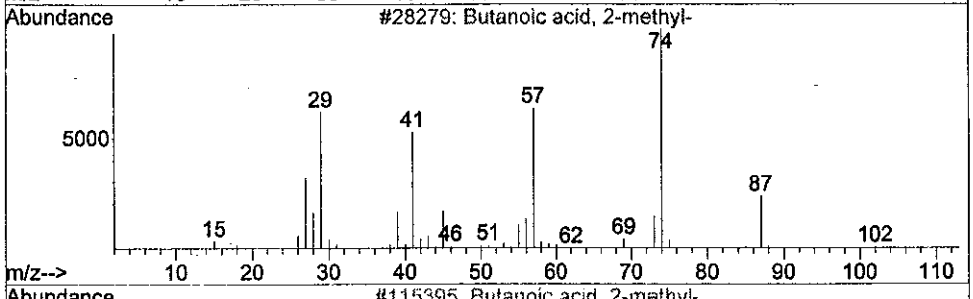
****

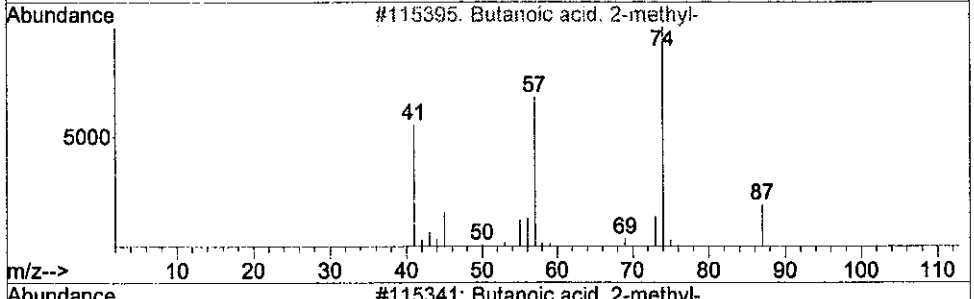
Peak Number 2 Butanoic acid, 2-methyl- Concentration Rank 5

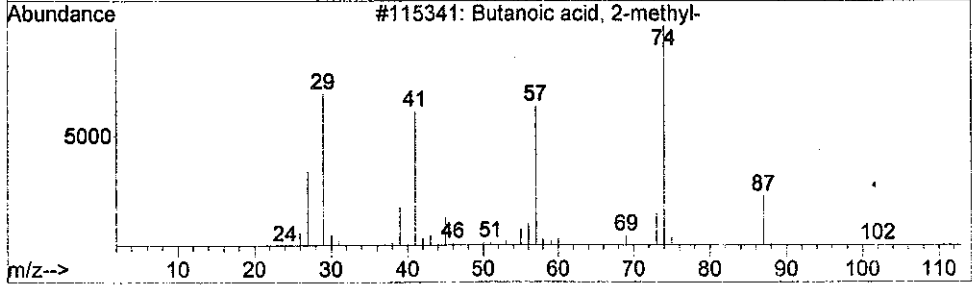
R.T.	EstConc	Area	Relative to ISTD	R.T.
4.37	42.08 ug/L	699415	1,4-Dichlorobenzene-d4	5.99

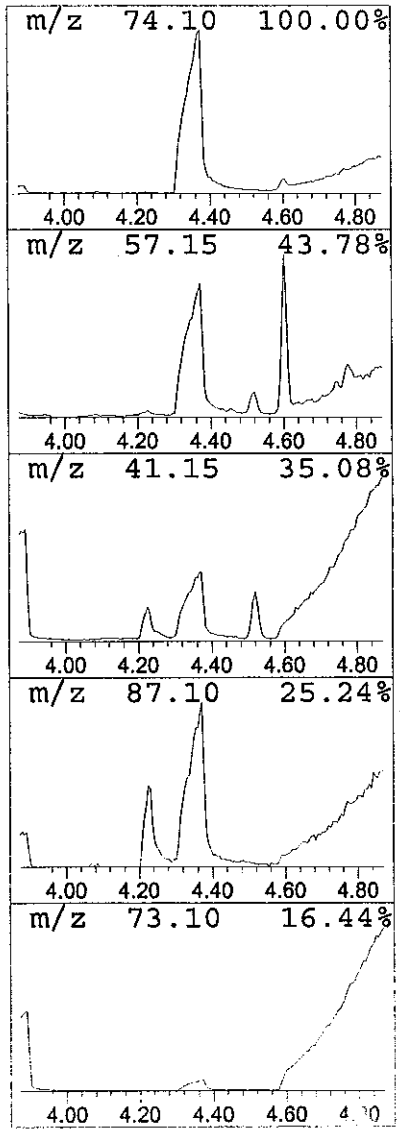
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	83
2	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	83
3	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	78
4	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	64











Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

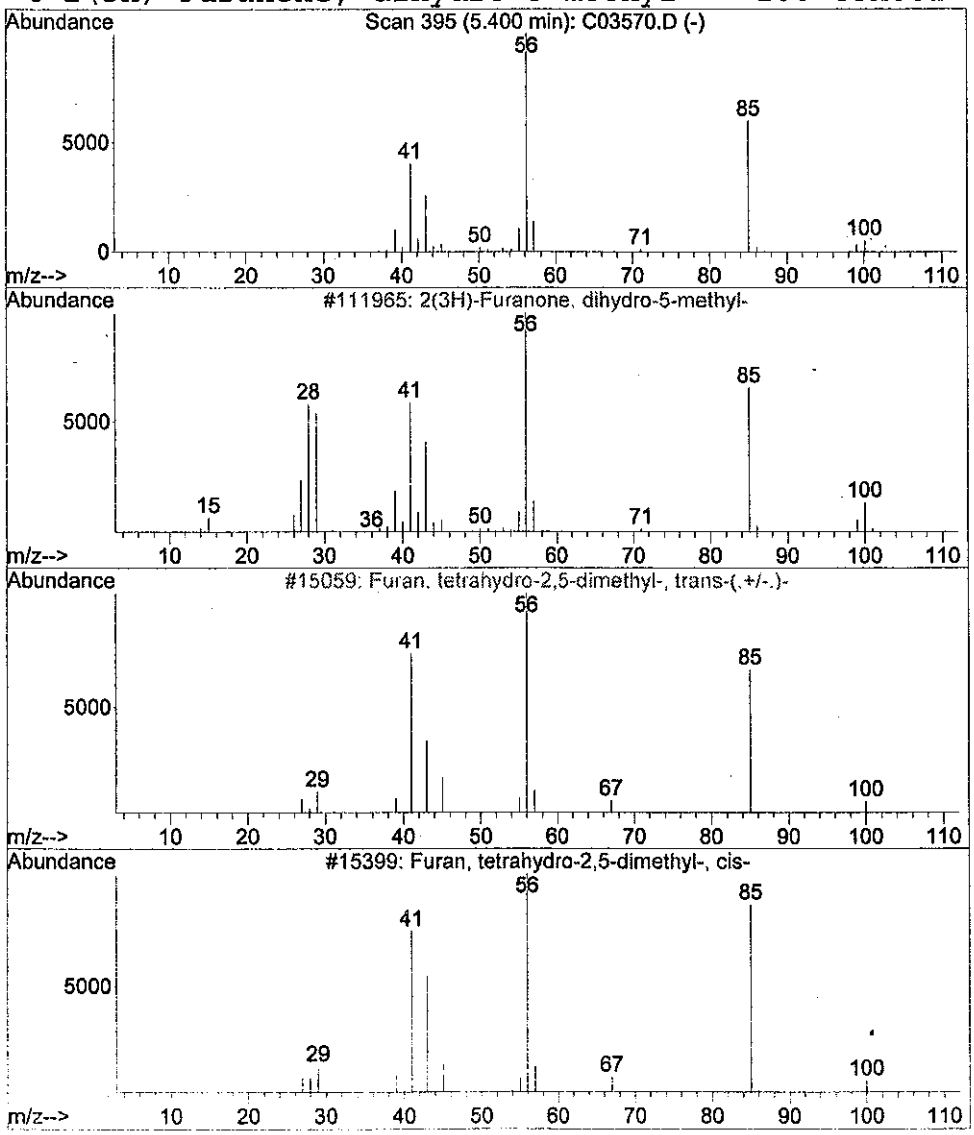
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

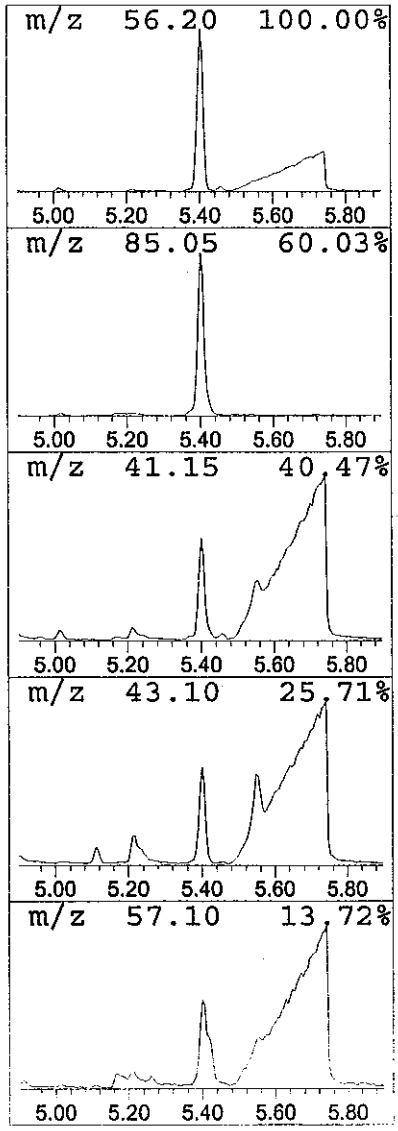
****

Peak Number 3 2(3H)-Furanone, dihydro-5-m... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.40	37.04 ug/L	615760	1,4-Dichlorobenzene-d4	5.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, dihydro-5-methyl-	100	C5H8O2	000108-29-2	91
2	Furan, tetrahydro-2,5-dimethyl-,...	100	C6H12O	038484-59-2	86
3	Furan, tetrahydro-2,5-dimethyl-,...	100	C6H12O	002144-41-4	78
4	2(3H)-Furanone, dihydro-5-methyl-	100	C5H8O2	000108-29-2	78





Library Search Compound Report

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Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

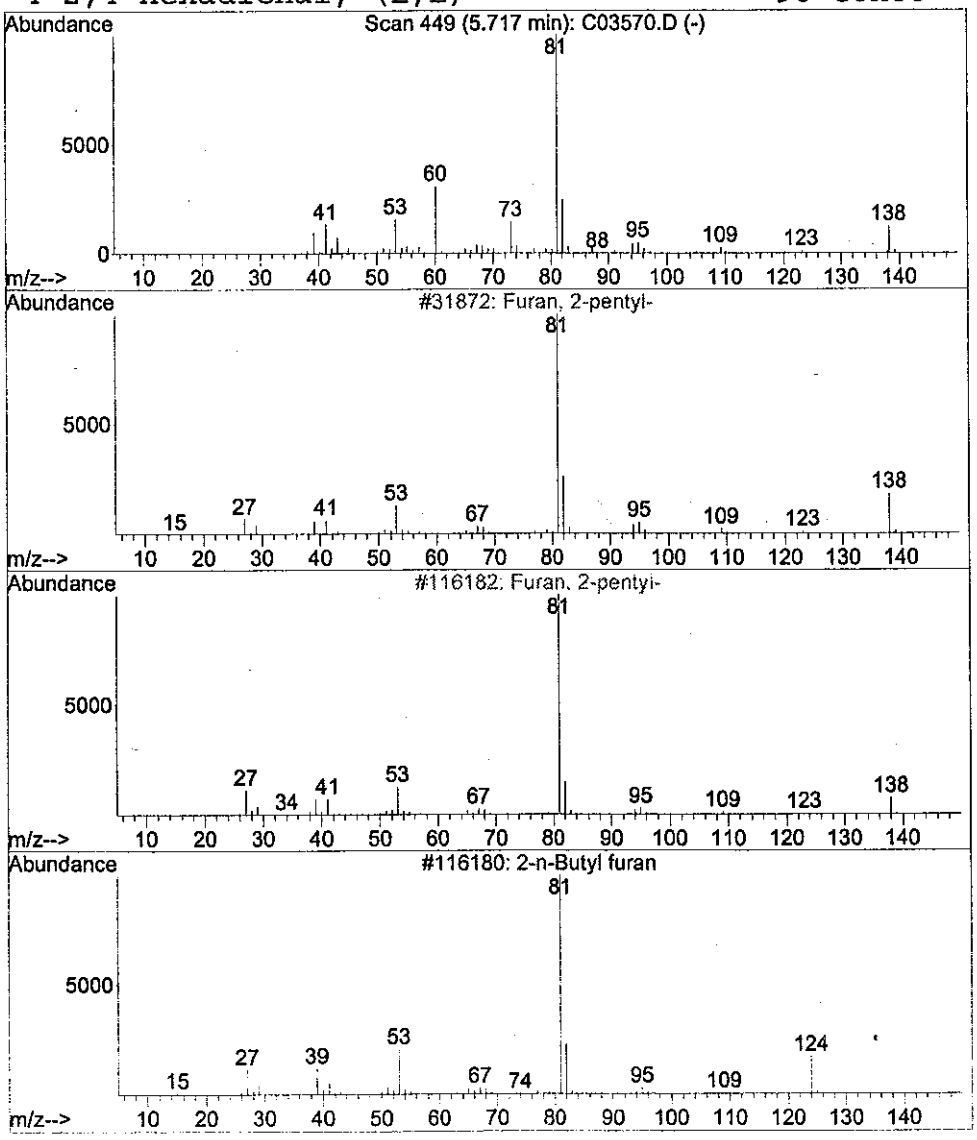
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

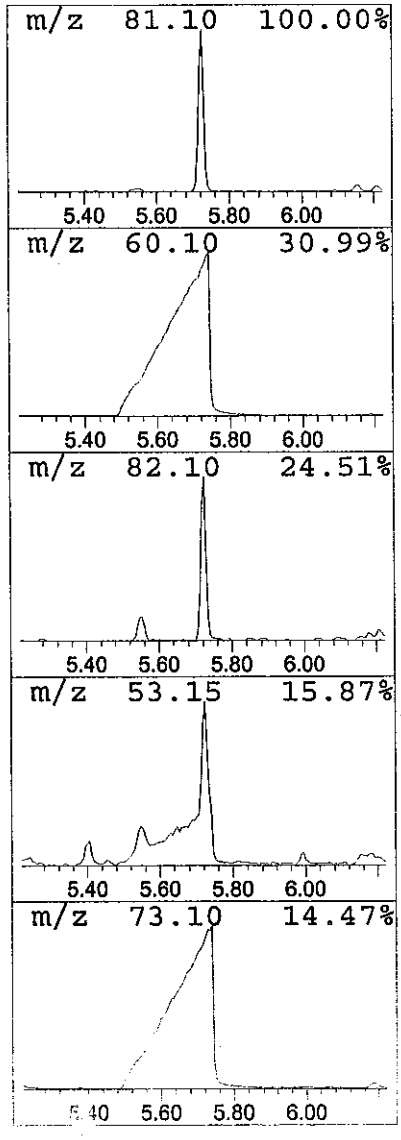
****

Peak Number 4 unknown — Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.72	26.25 ug/L	436305	1,4-Dichlorobenzene-d4	5.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, 2-pentyl-	138	C9H14O	003777-69-3	68
2	Furan, 2-pentyl-	138	C9H14O	003777-69-3	52
3	2-n-Butyl furan	124	C8H12O	004466-24-4	47
4	2,4-Hexadienal, (E,E)-	96	C6H8O	000142-83-6	37





Library Search Compound Report

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Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

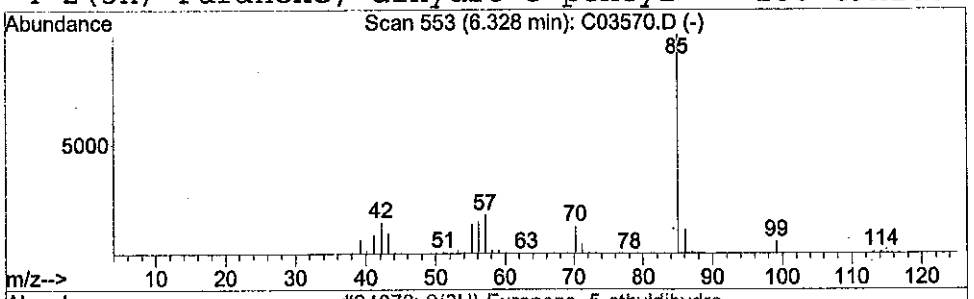
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

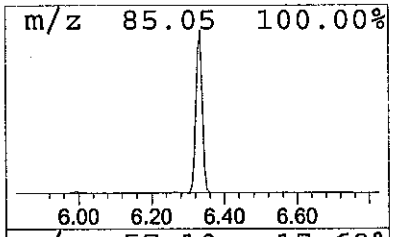
****

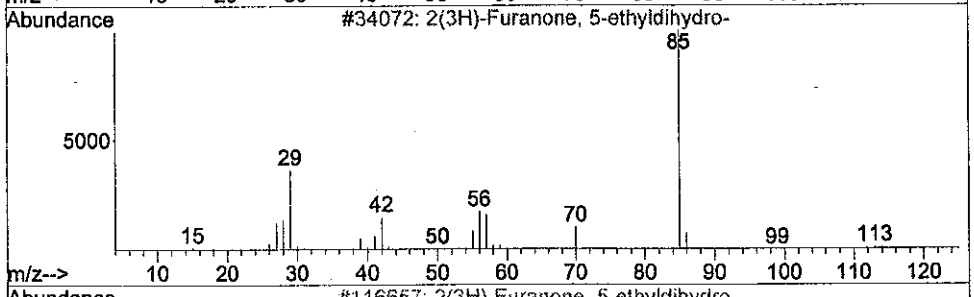
Peak Number 5 2(3H)-Furanone, 5-ethyldihy... Concentration Rank 2

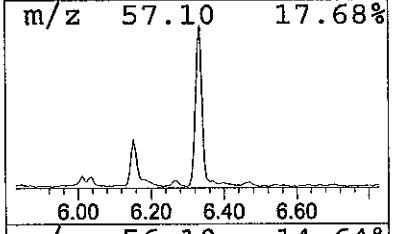
R.T.	EstConc	Area	Relative to ISTD	R.T.
6.33	100.71 ug/L	1674060	1,4-Dichlorobenzene-d4	5.99

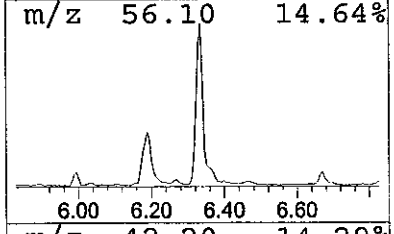
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	87
2	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	72
3	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	47
4	2(3H)-Furanone, dihydro-5-pentyl-	156	C9H16O2	000104-61-0	38

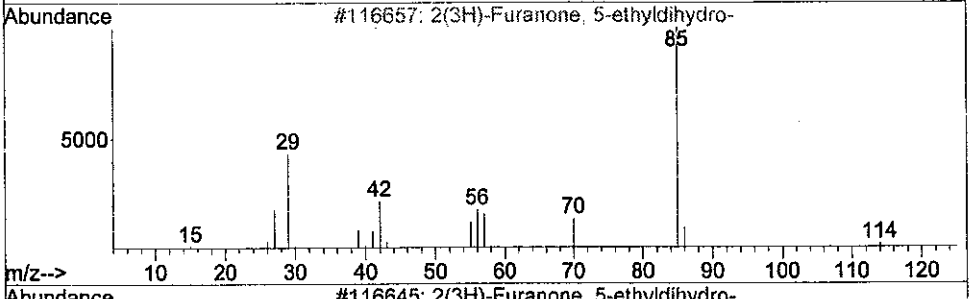


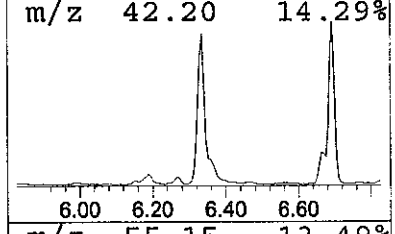


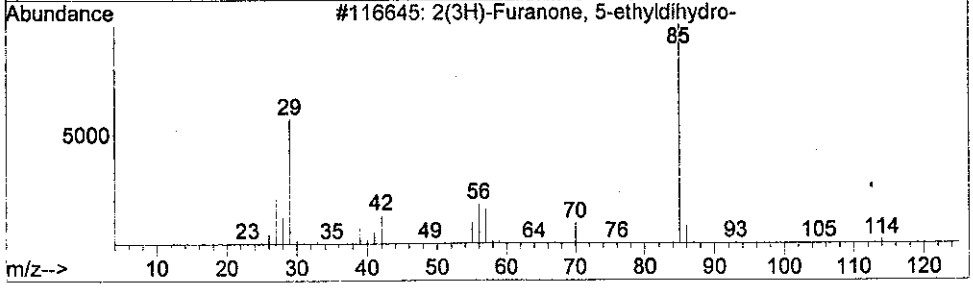


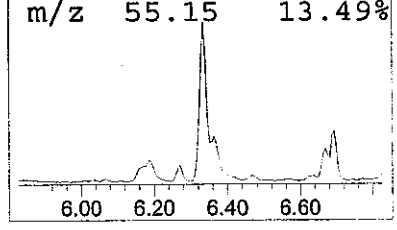












Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

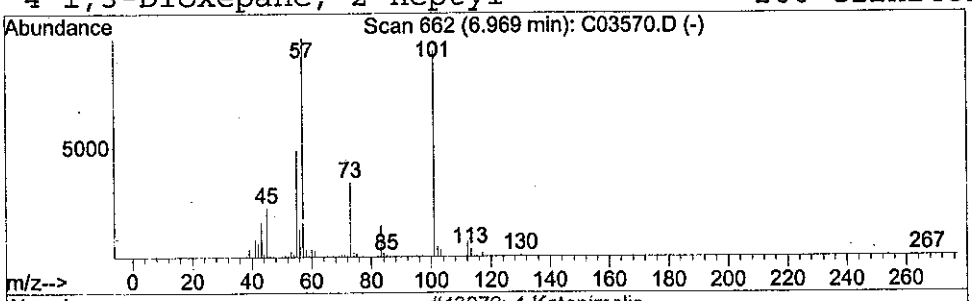
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

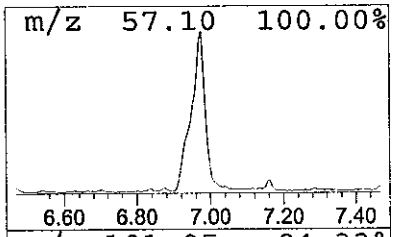
****

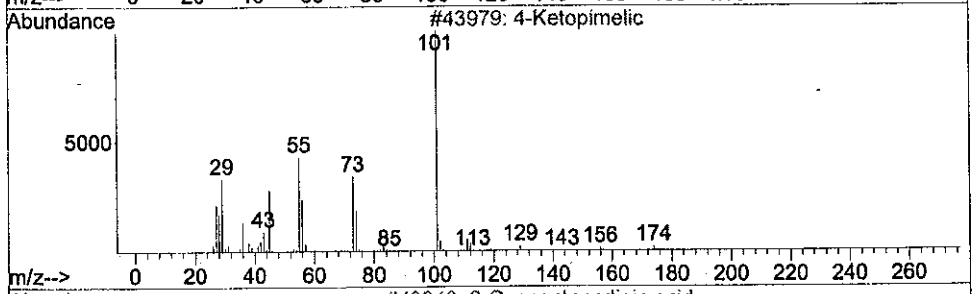
Peak Number 6 unknown Concentration Rank 6

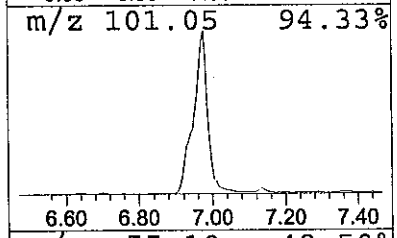
R.T.	EstConc	Area	Relative to ISTD	R.T.
6.97	38.03 ug/L	801163	Naphthalene-d8	7.52

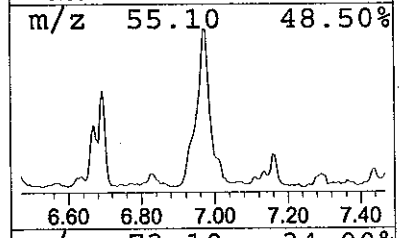
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Ketopimelic	174	C7H10O5	000502-50-1	50
2	2-Oxopentanedioic acid	146	C5H6O5	000328-50-7	40
3	Ethyl hydrogen succinate	146	C6H10O4	001070-34-4	38
4	1,3-Dioxepane, 2-heptyl-	200	C12H24O2	061732-92-1	25

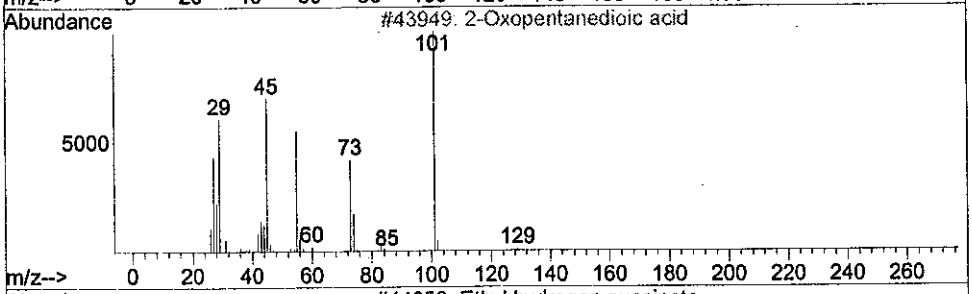


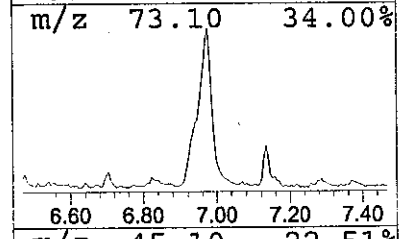


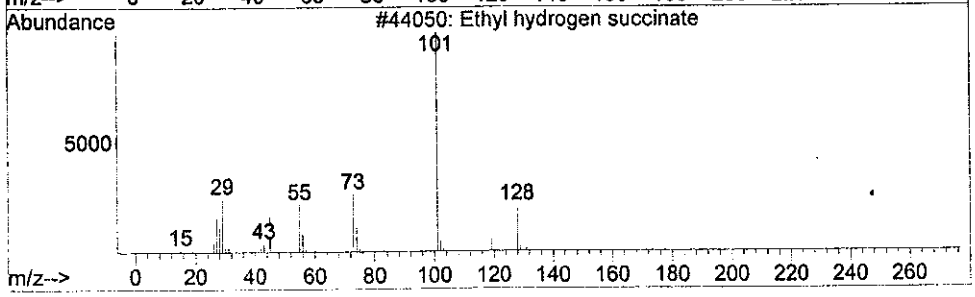


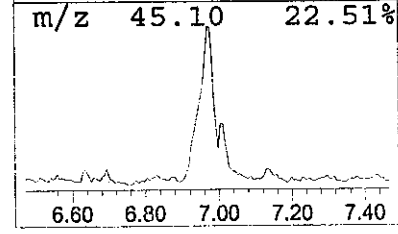












Library Search Compound Report

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Acq On : 08/16/01 02:32
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Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

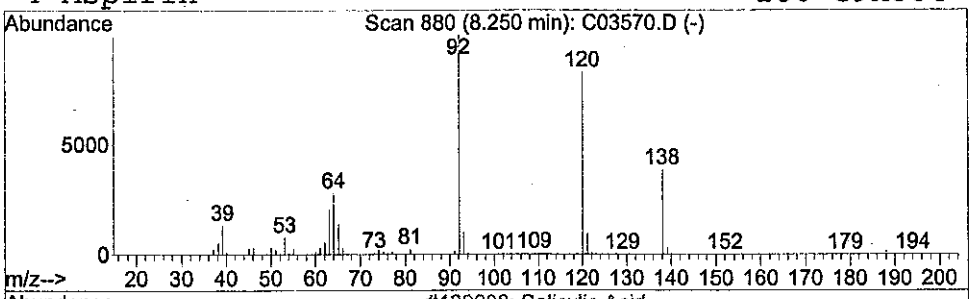
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

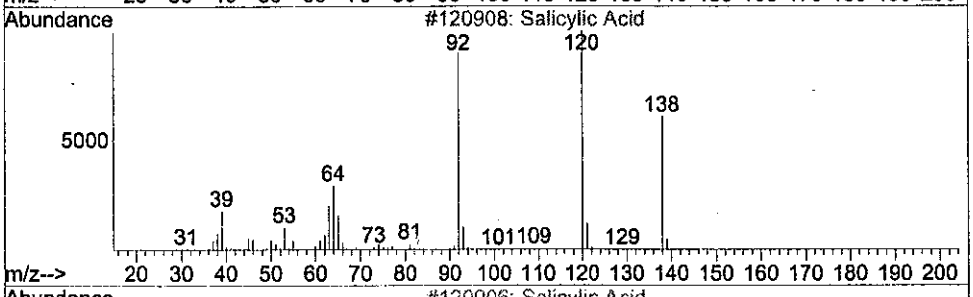
****

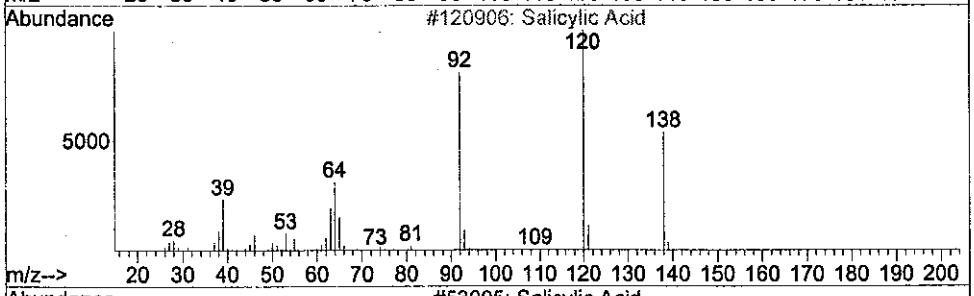
Peak Number 7 Salicylic Acid Concentration Rank 1

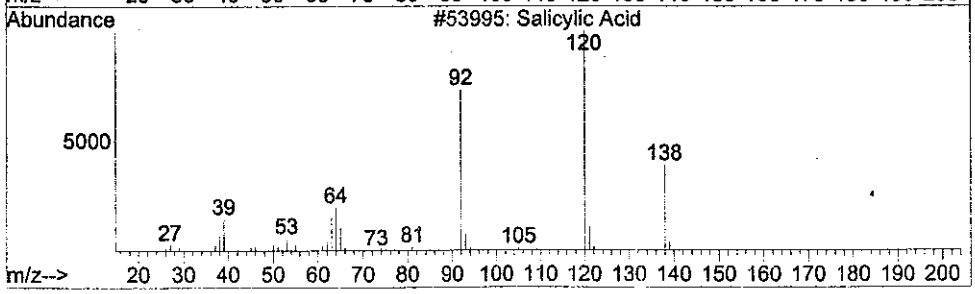
R.T.	EstConc	Area	Relative to ISTD	R.T.
8.25	587.93 ug/L	12386200	Naphthalene-d8	7.52

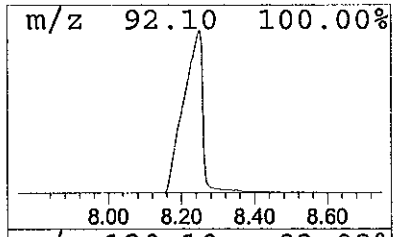
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Salicylic Acid	138	C7H6O3	000069-72-7	95
2	Salicylic Acid	138	C7H6O3	000069-72-7	91
3	Salicylic Acid	138	C7H6O3	000069-72-7	76
4	Aspirin	180	C9H8O4	000050-78-2	64

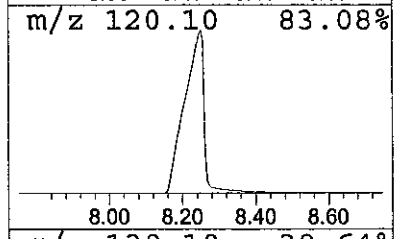


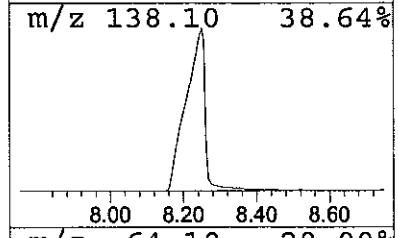


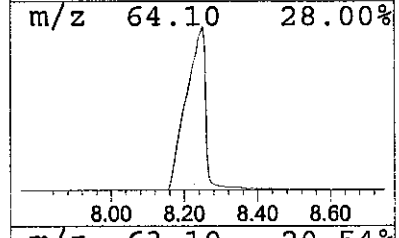


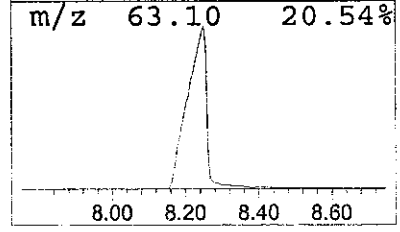












Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

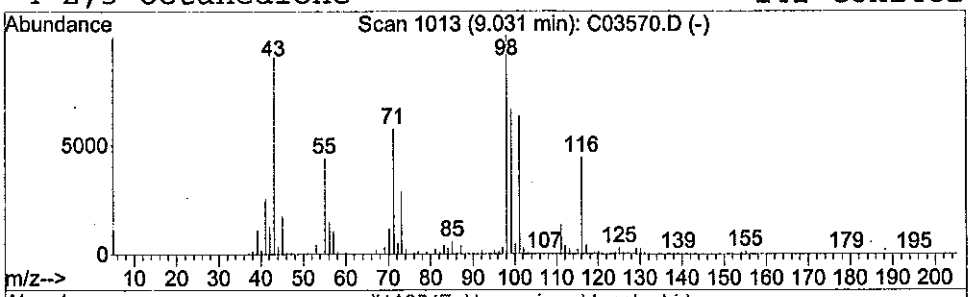
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

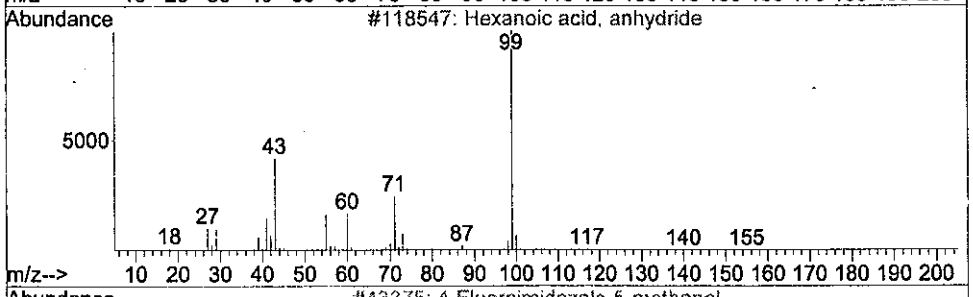
****

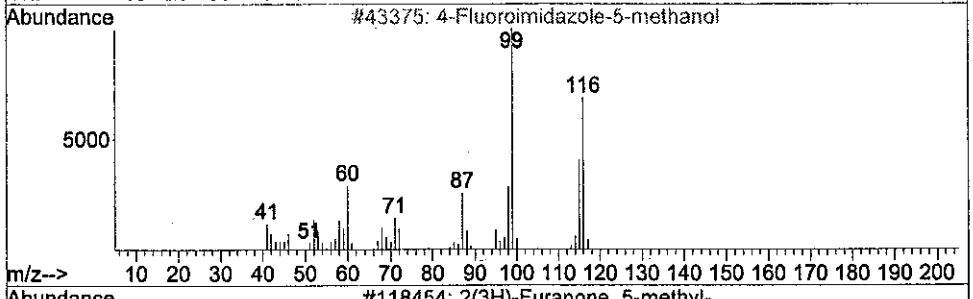
Peak Number 8 unknown — Concentration Rank 10

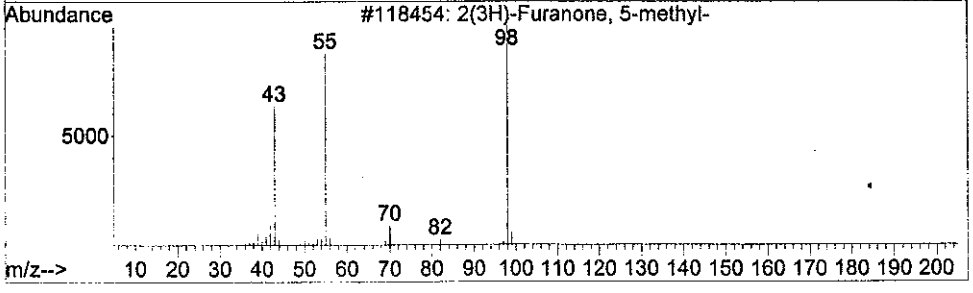
R.T.	EstConc	Area	Relative to ISTD	R.T.
9.03	22.38 ug/L	530834	Acenaphthene-d10	9.72

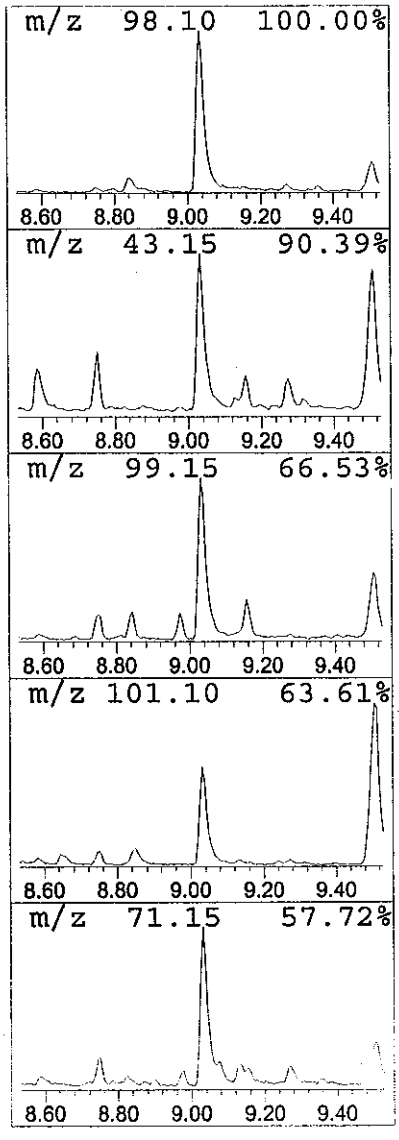
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid, anhydride	214	C12H22O3	002051-49-2	25
2	4-Fluoroimidazole-5-methanol	116	C4H5FN2O	1000128-07-6	22
3	2(3H)-Furanone, 5-methyl-	98	C5H6O2	000591-12-8	14
4	2,3-Octanedione	142	C8H14O2	000585-25-1	14











Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

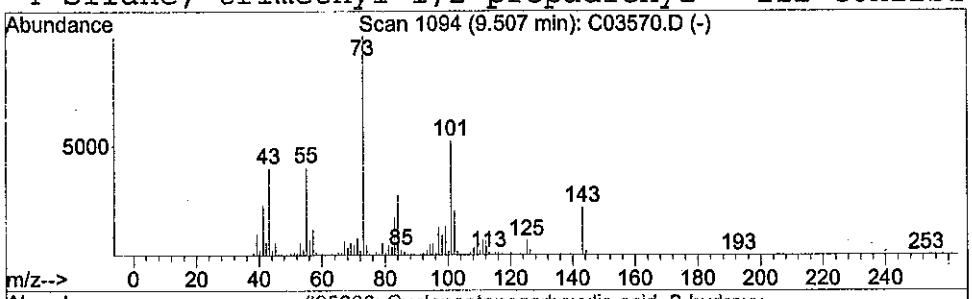
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

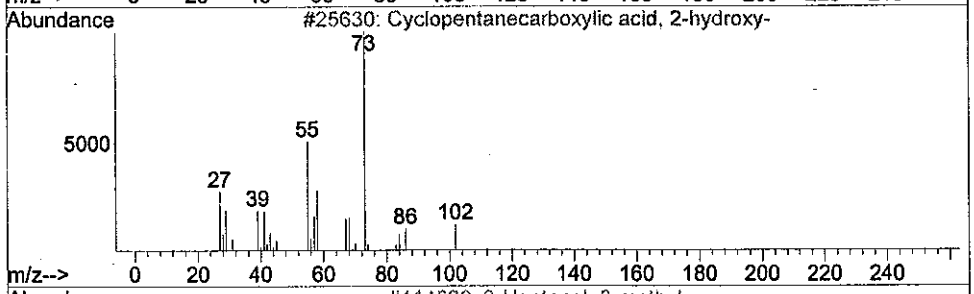
****

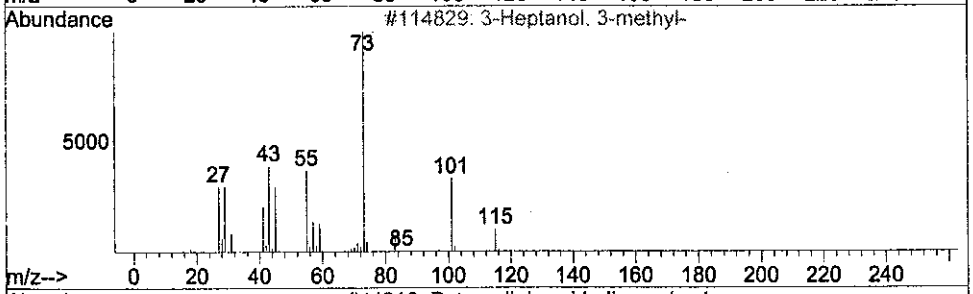
Peak Number 9 unknown — Concentration Rank 4

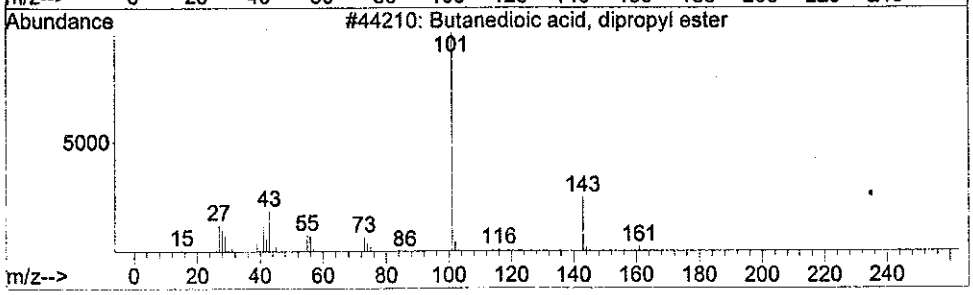
R.T.	EstConc	Area	Relative to ISTD	R.T.
9.51	44.08 ug/L	1045490	Acenaphthene-d10	9.72

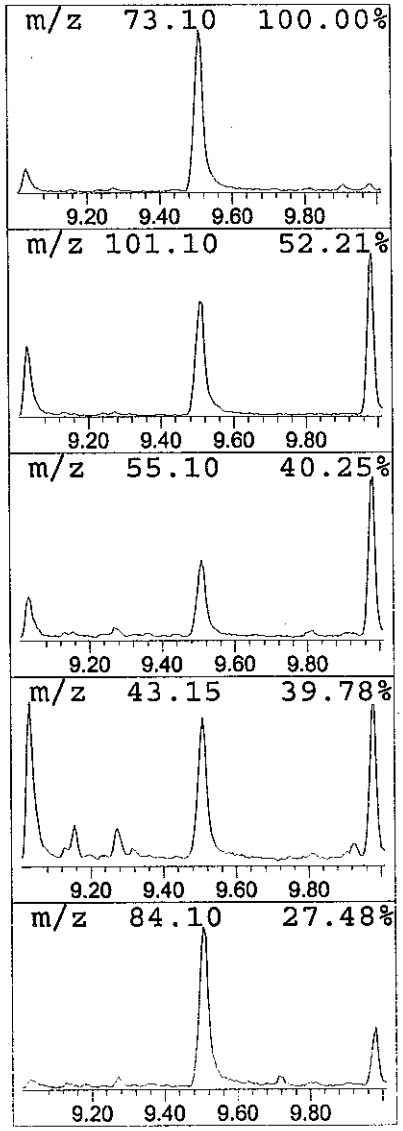
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanecarboxylic acid, 2-h...	130	C6H10O3	081887-89-0	10
2	3-Heptanol, 3-methyl-	130	C8H18O	005582-82-1	10
3	Butanedioic acid, dipropyl ester	202	C10H18O4	000925-15-5	10
4	Silane, trimethyl-1,2-propadienyl-	112	C6H12Si	014657-22-8	9











Library Search Compound Report

Data File : G:\DATA\081501A\C03570.D
Acq On : 08/16/01 02:32
Sample : 17981 BNA W 8/8
Misc : BNA WATER
MS Integration Params: LSCINT.P

Vial: 22
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

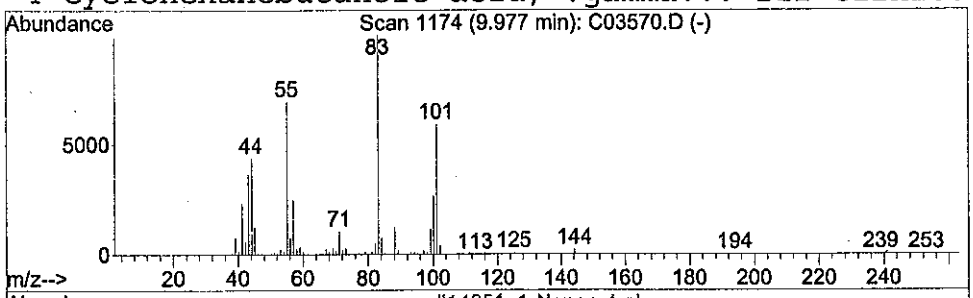
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

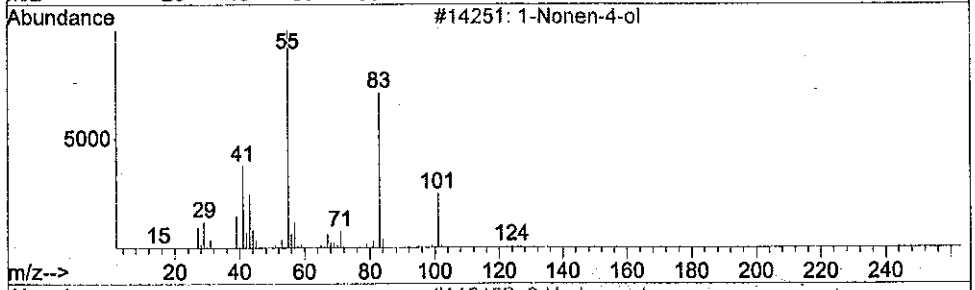
****

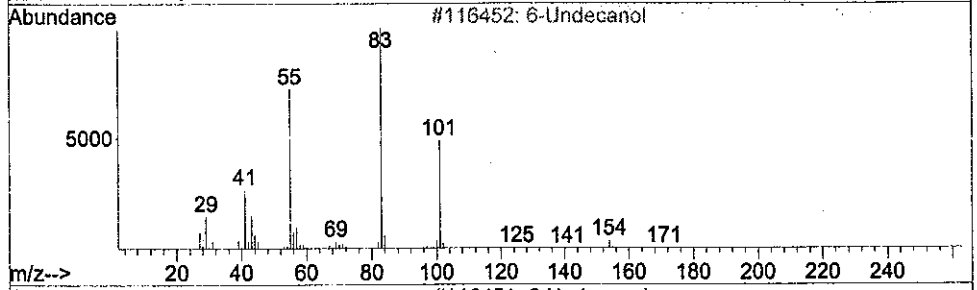
Peak Number 10 unknown — Concentration Rank 8

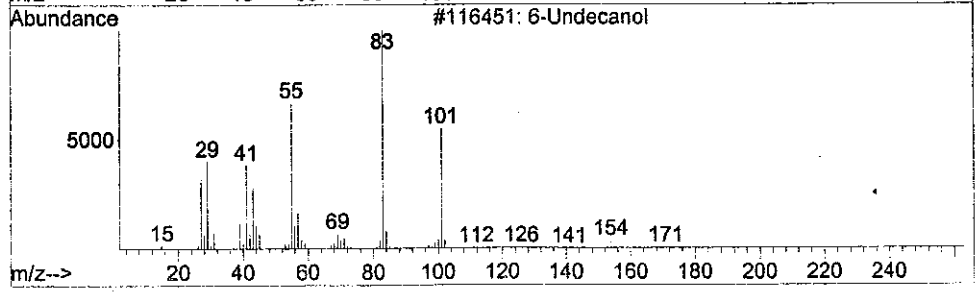
R.T.	EstConc	Area	Relative to ISTD	R.T.
9.98	35.19 ug/L	834686	Acenaphthene-d10	9.72

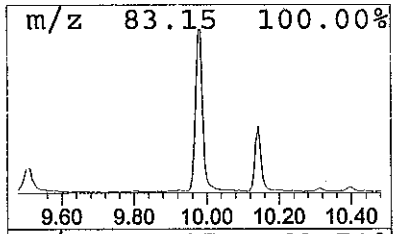
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Nonen-4-ol	142	C9H18O	035192-73-5	50
2	6-Undecanol	172	C11H24O	023708-56-7	50
3	6-Undecanol	172	C11H24O	023708-56-7	47
4	Cyclohexanebutanoic acid, .gamma...	212	C12H20O3	054966-52-8	43

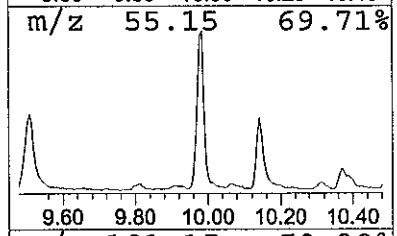


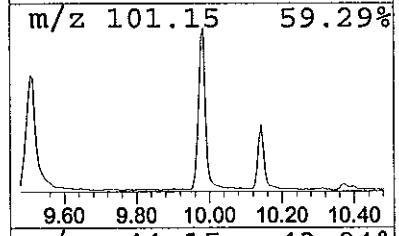


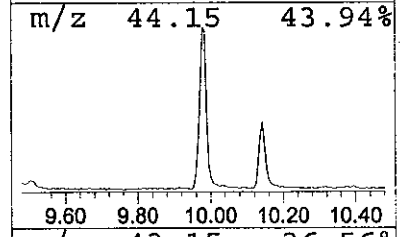


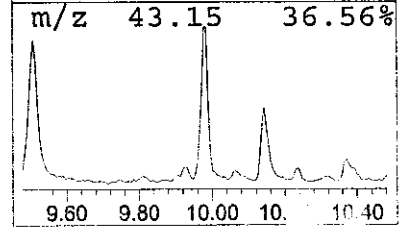












Tentatively Identified Compound (LSC) summary

Operator ID: DMB/DG Date Acquired: 16 Aug 2001 2:32 am
Data File: G:\DATA\081501A\C03570.D
Name: 17981 BNA W 8/8
Misc: BNA WATER
Method: C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.51	55.7	ug/L	926194	1	5.99	664900	40.0
Butanoic acid, 2-...	4.37	42.1	ug/L	699415	1	5.99	664900	40.0
2(3H)-Furanone, d...	5.40	37.0	ug/L	615760	1	5.99	664900	40.0
unknown	5.72	26.3	ug/L	436305	1	5.99	664900	40.0
2(3H)-Furanone, 5...	6.33	100.7	ug/L	1674060	1	5.99	664900	40.0
unknown	6.97	38.0	ug/L	801163	2	7.52	842705	40.0
Salicylic Acid	8.25	587.9	ug/L	12386200	2	7.52	842705	40.0
unknown	9.03	22.4	ug/L	530834	3	9.72	948674	40.0
unknown	9.51	44.1	ug/L	1045490	3	9.72	948674	40.0
unknown	9.98	35.2	ug/L	834686	3	9.72	948674	40.0

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03582.D Vial: 12
Acq On : 08/16/01 18:16 Operator: DMB/DG
Sample : QSW0808011 Inst : AG-MSC
Misc : BNA WATER BLANK Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 17 06:54:41 2001 Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	65495	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	162393	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	195630	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	146037	40.00	ug/L	0.00
73) Chyrsene-d12	15.19	240	155420	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	129611	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	172281	63.48	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 63.48%			
7) Phenol-d5	5.76	99	220122	72.89	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 72.89%			
22) Nitrobenzene-d5	6.89	82	121082	36.33	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 72.66%			
42) 2-Fluorobiphenyl	9.07	172	155016	40.25	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 80.50%			
63) 2,4,6-Tribromophenol	10.95	330	50224	75.75	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 75.75%			
75) Terphenyl-d14	13.77	244	152936	50.16	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 100.32%			

Target Compounds Qvalue

8/17/01

(#) = qualifier out of range (m) = manual integration

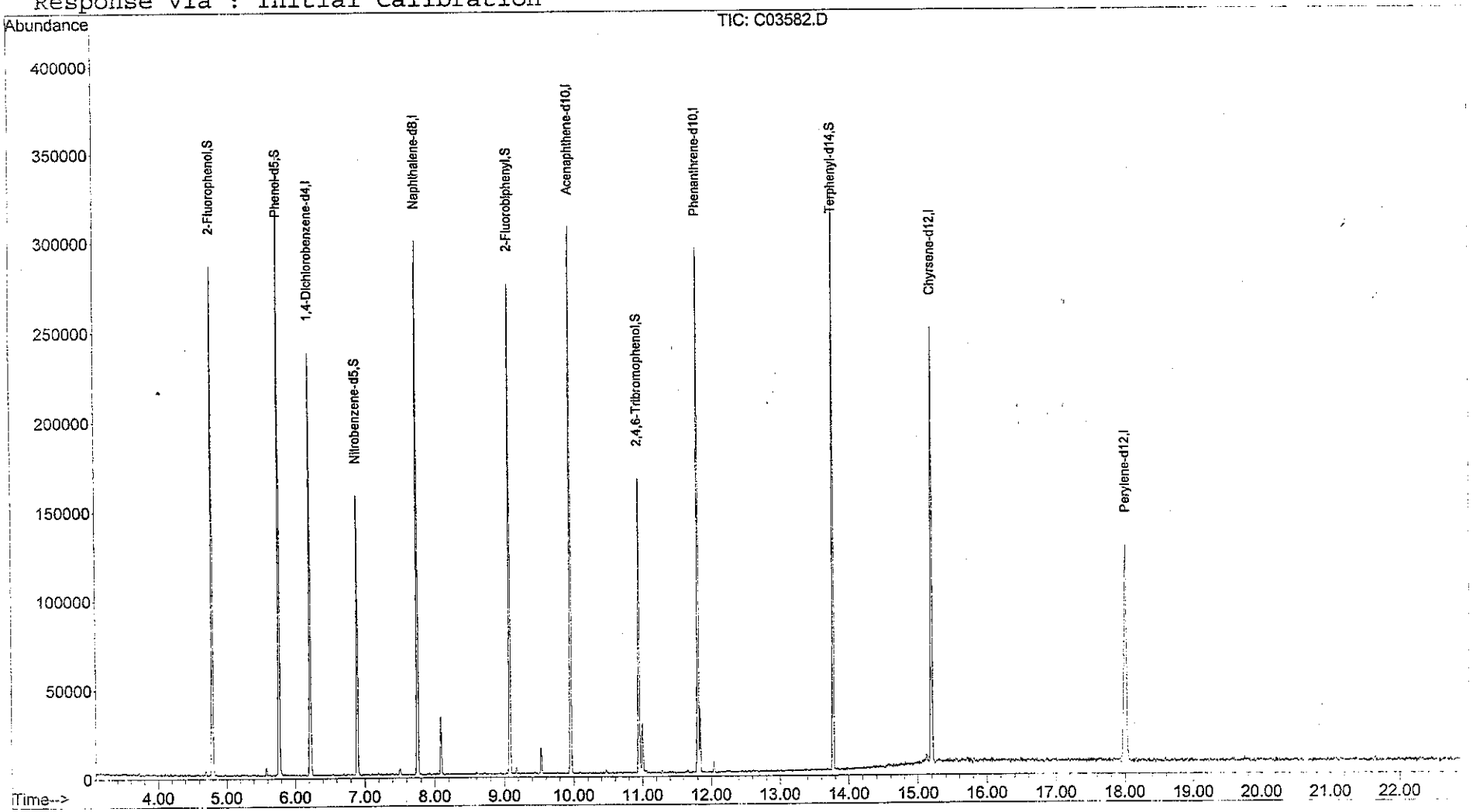
Quantitation R' ort (QT Reviewed)

Data File : G:\DATA\081601\C03582.D
Acq On : 08/16/01 18:16
Sample : QSW0808011
Misc : BNA WATER BLANK
MS Integration Params: rteint.p
Quant Time: Aug 17 6:55 2001

Vial: 12
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : G:\DATA\081601\C03582.D
Acq On : 08/16/01 18:16
Sample : QSW0808011
Misc : BNA WATER BLANK
4S Integration Params: LSCINT.P

Vial: 12
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 2 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

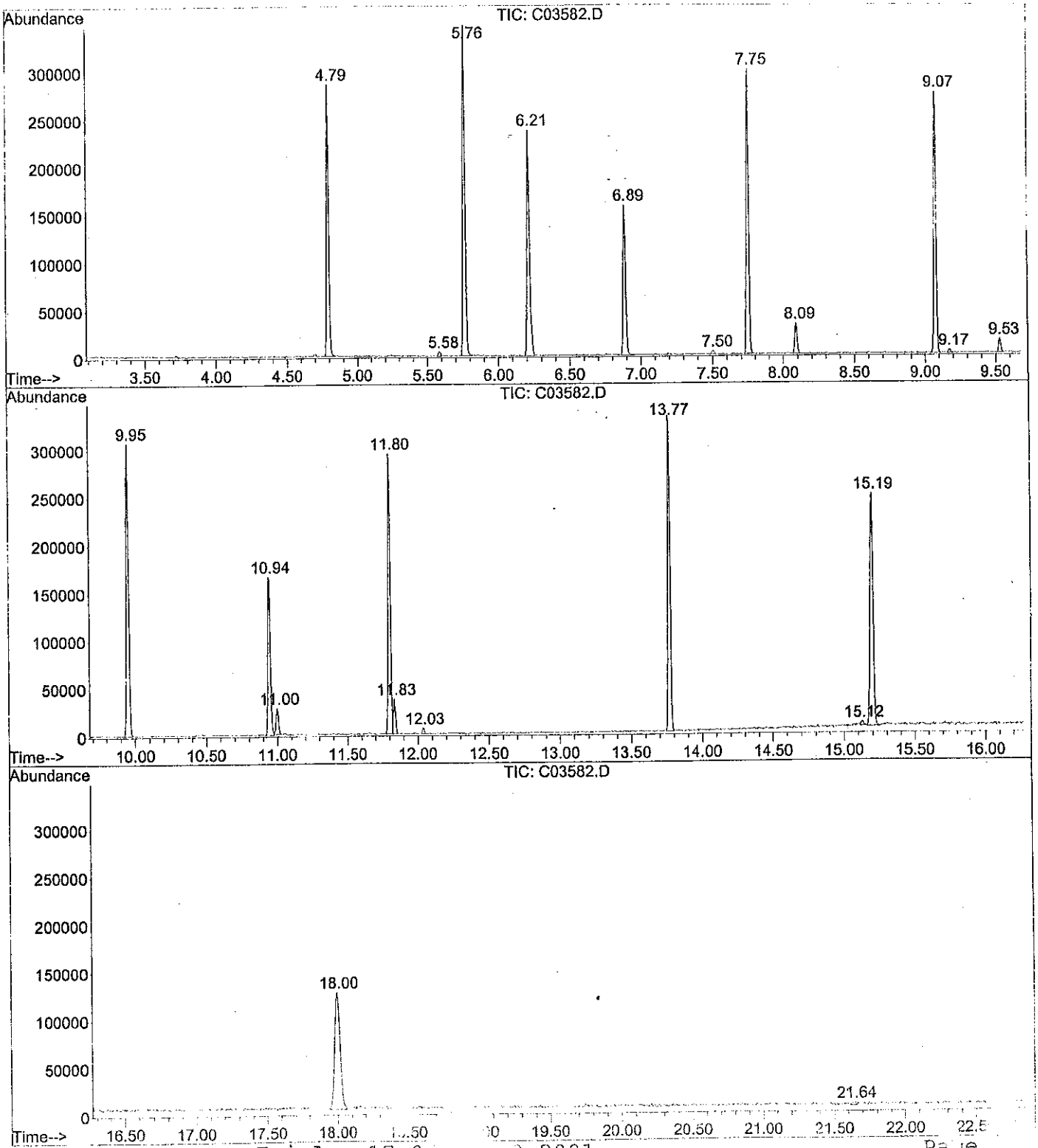
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.789	287	291	300	rVB	285190	310004	80.73%	7.997%
2	5.582	423	426	429	rBV3	4796	4989	1.30%	0.129%
3	5.764	452	457	466	rVB	347097	384018	100.00%	9.907%
4	6.211	528	533	540	rBV	237018	275911	71.85%	7.118%
5	6.886	644	648	658	rVB	157627	177780	46.29%	4.586%
6	7.503	749	753	758	rVB2	3805	4743	1.24%	0.122%
7	7.750	790	795	800	rBV	298952	327328	85.24%	8.444%
8	8.085	848	852	857	rBV	32457	37148	9.67%	0.958%
9	9.072	1015	1020	1027	rVB	274611	300795	78.33%	7.760%
10	9.172	1034	1037	1042	rVB2	3600	4226	1.10%	0.109%
11	9.530	1094	1098	1103	rVB2	14943	17181	4.47%	0.443%
12	9.954	1165	1170	1175	rBV	306842	351501	91.53%	9.068%
13	10.941	1334	1338	1344	rBV	166122	203985	53.12%	5.262%
14	10.999	1344	1348	1353	rVB	27250	33275	8.66%	0.858%
15	11.798	1479	1484	1488	rBV2	293809	354497	92.31%	9.145%
16	11.834	1488	1490	1494	rVB	36510	33469	8.72%	0.863%
17	12.033	1522	1524	1527	rVB2	6124	5601	1.46%	0.144%
18	13.767	1815	1819	1824	rBV	331626	377107	98.20%	9.729%
19	15.124	2048	2050	2056	rVB4	4402	5150	1.34%	0.133%
20	15.195	2056	2062	2071	rVB2	244357	347701	90.54%	8.970%
21	17.997	2529	2539	2550	rBV3	123362	314976	82.02%	8.126%
22	21.640	3154	3159	3162	rBV3	3181	4925	1.28%	0.127%

Sum of corrected areas: 3876310

LSC Report - Integrated Chromatogram

File : G:\DATA\081601\C03582.D
Operator : DMB/DG
Acquired : 16 Aug 2001 6:16 pm using AcqMethod 8270
Instrument : AG-MSC
Sample Name: QSW0808011
Misc Info : BNA WATER BLANK
Vial Number: 12
Quant File :8270.RES (RTE Integrator)



Library Search Compound Report

Data File : G:\DATA\081601\C03582.D
Acq On : 08/16/01 18:16
Sample : QSW0808011
Misc : BNA WATER BLANK
4S Integration Params: LSCINT.P

Vial: 12
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

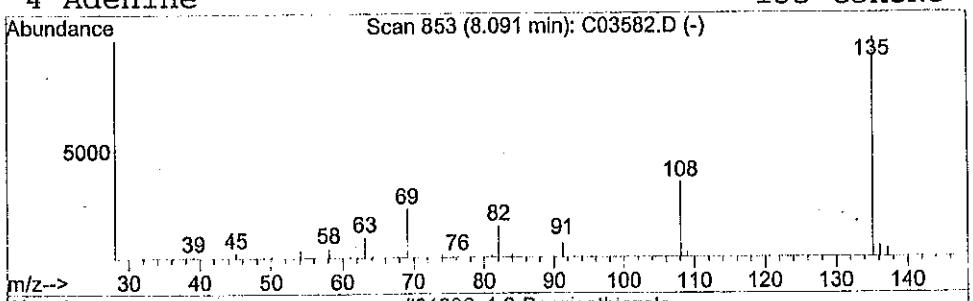
Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Library : C:\DATABASE\NIST98.L

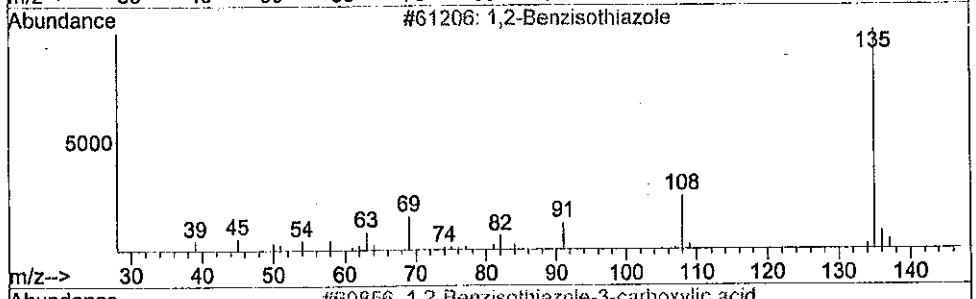
****

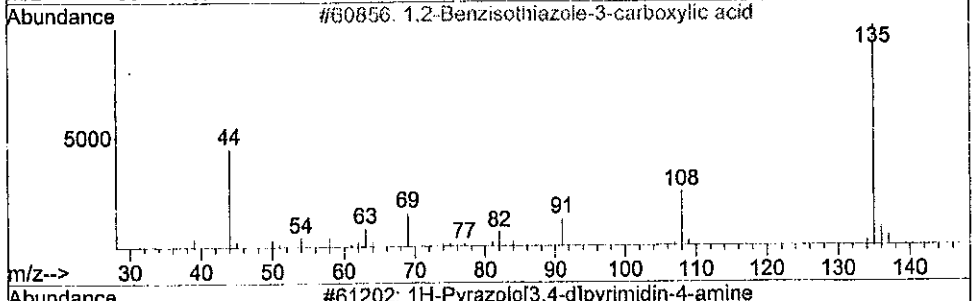
Peak Number 1 1,2-Benzisothiazole Concentration Rank 1

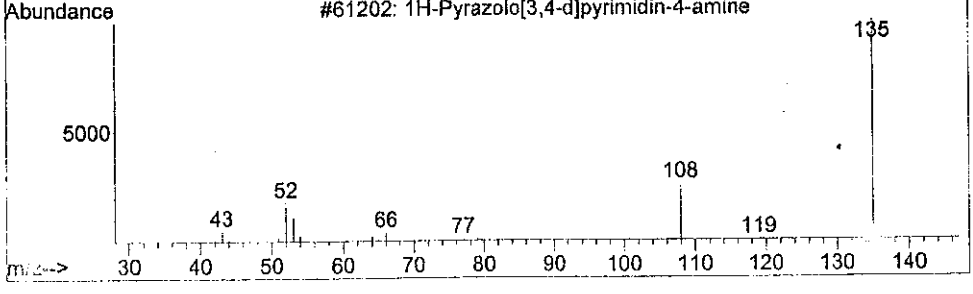
R.T.	EstConc	Area	Relative to ISTD	R.T.
8.09	4.54 ug/L	37148	Naphthalene-d8	7.75

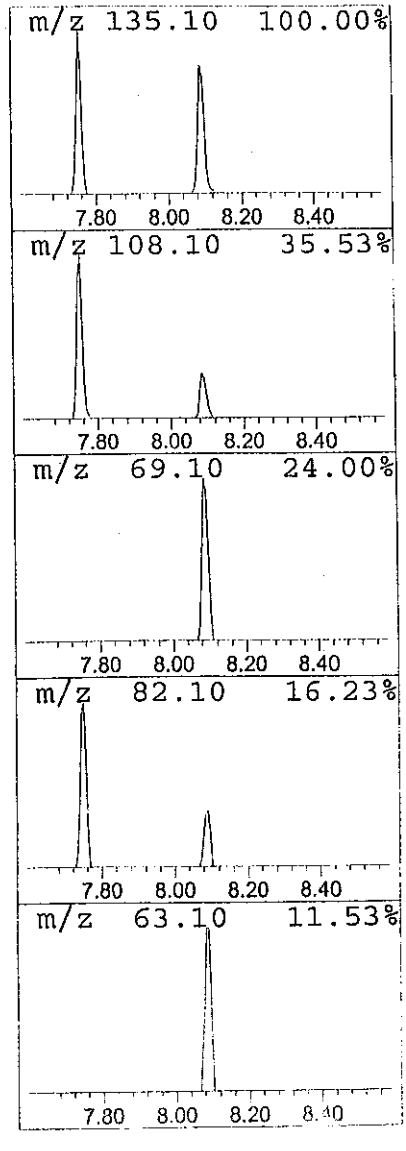
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzisothiazole	135	C7H5NS	000272-16-2	90
2	1,2-Benzisothiazole-3-carboxylic...	179	C8H5NO2S	040991-34-2	74
3	1H-Pyrazolo[3,4-d]pyrimidin-4-amine	135	C5H5N5	002380-63-4	58
4	Adenine	135	C5H5N5	000073-24-5	53











Tentatively Identified Compound (LSC) summary

Operator ID: DMB/DG Date Acquired: 16 Aug 2001 6:16 pm
Data File: G:\DATA\081601\C03582.D
Name: QSW0808011
Misc: BNA WATER BLANK
Method: C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title: SW-846 Method 8270 Calibration Method
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
1,2-Benzisothiazole	8.09	4.5	ug/L	37148	2	7.75	327328	40.0

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03552.D Vial: 4
Acq On : 08/15/01 16:06 Operator: DMB/DG
Sample : QSW0808012 Inst : AG-MSC
Misc : BNA WATER LCS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 16 07:28:46 2001 Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.99	152	94485	40.00	ug/L	0.00
21) Naphthalene-d8	7.52	136	219729	40.00	ug/L	0.00
38) Acenaphthene-d10	9.72	164	263578	40.00	ug/L	0.00
59) Phenanthrene-d10	11.58	188	192064	40.00	ug/L	0.00
73) Chyrsene-d12	14.97	240	199148	40.00	ug/L	0.00
81) Perylene-d12	17.80	264	188555	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.60	112	306157	74.24	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 74.24%			
7) Phenol-d5	5.55	99	364825	83.38	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 83.38%			
22) Nitrobenzene-d5	6.66	82	277690	56.49	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 112.98%#			
42) 2-Fluorobiphenyl	8.84	172	329140	58.25	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 116.50%			
63) 2,4,6-Tribromophenol	10.72	330	101425	112.43	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 112.43%			
75) Terphenyl-d14	13.54	244	297650	77.85	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 155.70%#			
Target Compounds						Qvalue
2) Pyridine	3.34	79	48977	19.22	ug/L	95
3) N-nitrosodimethylamine	3.30	42	21761	22.08	ug/L	97
4) Methylmethanesufonate	4.45	80	24335	15.22	ug/L	98
6) Ethylmethanesulfonate	5.16	79	50770	27.13	ug/L	100
8) Phenol	5.56	94	173611	31.76	ug/L	97
9) Aniline	5.65	93	82227	25.89	ug/L	97
10) bis(2-Chloroethyl)ether	5.68	63	138694	30.22	ug/L	96
11) 2-Chlorophenol	5.79	128	118741	30.89	ug/L	100
12) 1,3-Dichlorobenzene	5.96	146	85817	21.84	ug/L	99
13) 1,4-Dichlorobenzene	6.01	146	106750	26.16	ug/L	98
14) Benzyl alcohol	6.13	108	159696	33.08	ug/L	100
15) 1,2-Dichlorobenzene	6.23	146	85715	23.10	ug/L	99
16) 2-Methylphenol	6.25	108	116148	30.52	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.31	45	103418	29.52	ug/L	99
18) 3,4-Methylphenol	6.42	108	320615	62.70	ug/L	100
19) n-Nitroso-di-n-propylamine	6.47	70	76814	27.34	ug/L	99
20) Hexachloroethane	6.60	117	46041	19.60	ug/L	99
23) Nitrobenzene	6.69	77	124779	29.37	ug/L	99
24) Isophorone	6.95	82	141812	27.95	ug/L	99
25) 2-Nitrophenol	7.07	139	66667	28.88	ug/L	99

(#) = qualifier out of range manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03552.D
Acq On : 08/15/01 16:06
Sample : QSW0808012
Misc : BNA WATER LCS
MS Integration Params: rteint.p
Quant Time: Aug 16 07:28:46 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	2,4-Dimethylphenol	7.06	107	106833	21.73	ug/L	98
27)	Benzoic Acid	7.12	105	41697	29.56	ug/L	95
28)	bis(2-Chloroethoxy)methane	7.17	93	122824	30.53	ug/L	99
29)	2,4-Dichlorophenol	7.33	162	98350	29.66	ug/L	98
30)	1,2,4-Trichlorobenzene	7.46	180	92672	22.20	ug/L	99
31)	Naphthalene	7.54	128	188886	25.91	ug/L	100
32)	4-Chloroaniline	7.60	127	114683	29.27	ug/L	99
33)	2,6-Dichlorophenol	7.62	162	47372	30.29	ug/L	98
34)	Hexachlorobutadiene	7.74	225	43686	18.84	ug/L	100
35)	4-Chloro-3-methylphenol	8.15	107	129234	34.12	ug/L	100
36)	2-Methylnaphthalene	8.39	142	186498	26.94	ug/L	99
37)	1-Methylnaphthalene	8.53	142	93917	27.08	ug/L	98
40)	2,4,6-Trichlorophenol	8.75	196	78896	31.85	ug/L	99
41)	2,4,5-Trichlorophenol	8.80	196	86556	31.92	ug/L	99
43)	2-Chloronaphthalene	9.00	162	173771	30.53	ug/L	100
44)	2-Nitroaniline	9.14	65	120512	35.87	ug/L	99
45)	Dimethylphthalate	9.37	163	14220	3.19	ug/L	99
46)	Acenaphthylene	9.54	152	208669	32.10	ug/L	100
47)	2,6-Dinitrotoluene	9.47	165	59741	36.04	ug/L	98
48)	3-Nitroaniline	9.65	138	88292	35.26	ug/L	98
49)	Acenaphthene	9.76	153	261675	30.81	ug/L	100
50)	2,4-Dinitrophenol	9.78	184	144512	30.21	ug/L	99
51)	4-Nitrophenol	9.81	109	94125	36.29	ug/L	100
52)	Dibenzofuran	9.95	168	214883	32.22	ug/L	100
53)	2,4-Dinitrotoluene	9.97	165	72251	34.62	ug/L	98
54)	Diethylphthalate	10.24	149	20229	4.02	ug/L	96
55)	2,3,4,6-Tetrachlorophenol	10.15	232	27432	30.82	ug/L	95
56)	Fluorene	10.39	166	259502	32.94	ug/L	99
57)	4-Chlorophenyl-phenylether	10.35	204	117880	30.20	ug/L	99
58)	4-Nitroaniline	10.42	138	90972	34.79	ug/L	98
60)	4,6-Dinitro-2-methylphenol	10.48	198	44938	38.15	ug/L	99
61)	n-Nitrosodiphenylamine	10.51	169	145719	34.06	ug/L	99
62)	Azobenzene	10.55	77	169219	36.54	ug/L	99
64)	4-Bromophenyl-phenylether	10.97	248	85222	34.09	ug/L	99
65)	Hexachlorobenzene	11.19	284	58223	37.15	ug/L	100
66)	Pentachlorophenol	11.39	266	51072	41.97	ug/L	99
67)	Phenanthrene	11.60	178	239022	34.72	ug/L	99
68)	Anthracene	11.66	178	235303	34.70	ug/L	100
69)	Carbazole	11.84	167	186638	38.82	ug/L	100
70)	Di-n-butylphthalate	12.26	149	99017	15.23	ug/L	99
71)	Fluoranthene	13.11	202	216854	34.07	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03552.D
Acq On : 08/15/01 16:06
Sample : QSW0808012
Misc : BNA WATER LCS
MS Integration Params: rteint.p
Quant Time: Aug 16 07:28:46 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
72)	Benzidine	13.23	184	1514	2.03	ug/L	#	65
74)	Pyrene	13.40	202	293595	42.57	ug/L		99
76)	Butylbenzylphthalate	14.14	149	82629	17.63	ug/L		98
77)	3,3'-Dichlorobenzidine	14.87	252	56495	36.68	ug/L		97
78)	Benzo[a]anthracene	14.95	228	258128	36.93	ug/L		99
79)	Chrysene	15.01	228	252455	36.44	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	14.90	149	179395	43.24	ug/L		100
82)	Di-n-octylphthalate	15.89	149	239925	38.42	ug/L		99
83)	Benzo[b]fluoranthene	16.90	252	227986	34.59	ug/L		99
84)	Benzo[k]fluoranthene	16.95	252	228999	34.79	ug/L		100
85)	Benzo[a]pyrene	17.66	252	211817	34.62	ug/L		98
86)	Indeno[1,2,3-cd]pyrene	21.05	276	244811	37.91	ug/L		100
87)	Dibenz[a,h]anthracene	21.07	278	204681	37.77	ug/L		99
88)	Benzo[g,h,i]perylene	22.04	276	234647	36.15	ug/L		99

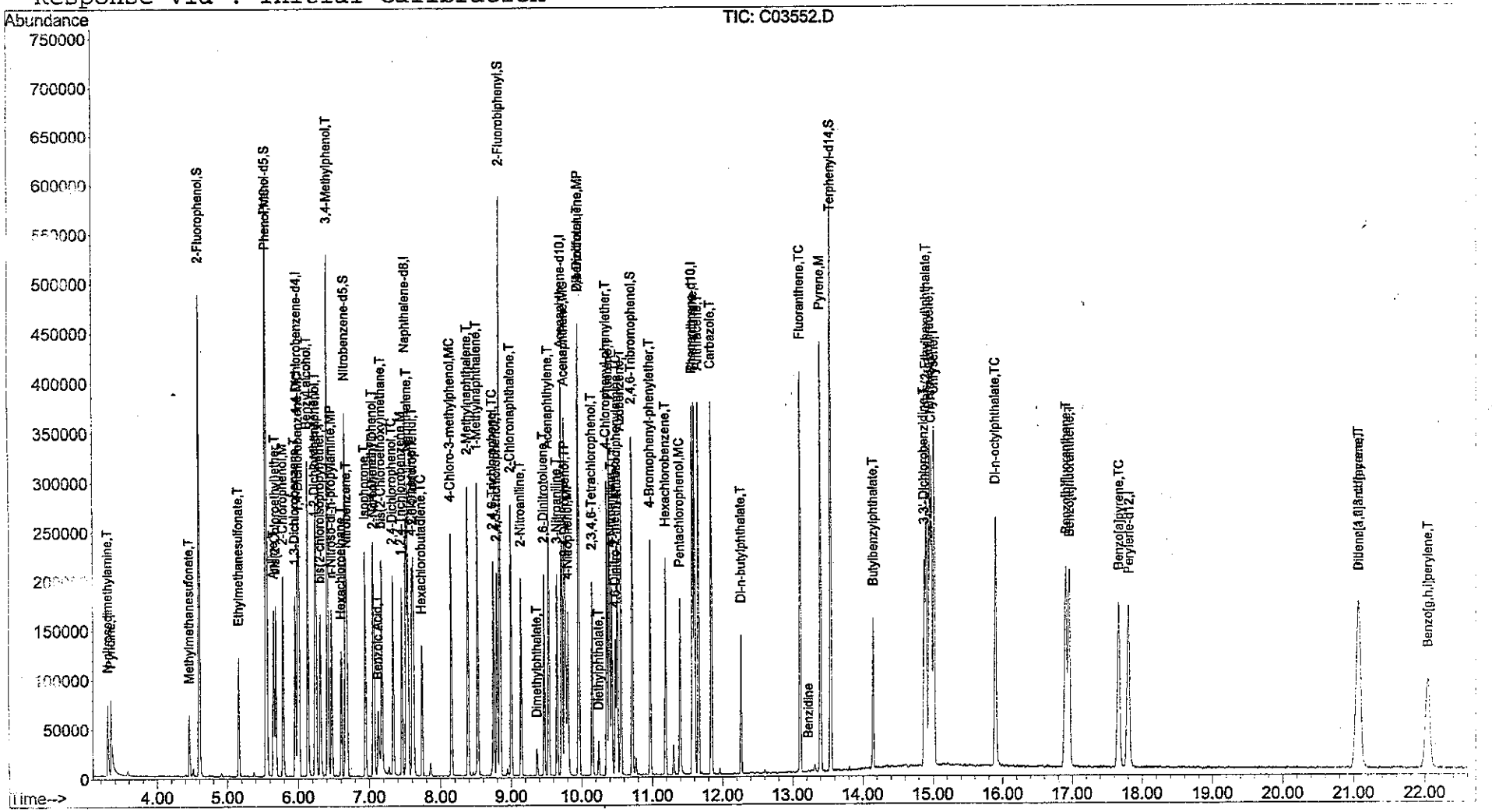
8/16/01

(#) = qual[illegible] out of range [illegible]) = manual integration
C0[illegible]55[illegible].D Thu 16 07:58:42 2001

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03552.D Vial: 4
Acq On : 08/15/01 16:06 Operator: DMB/DG
Sample : QSW0808012 Inst : AG-MSC
Misc : BNA WATER LCS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 16 7:28 2001 Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 07:51:50 2001
Response via : Initial Calibration

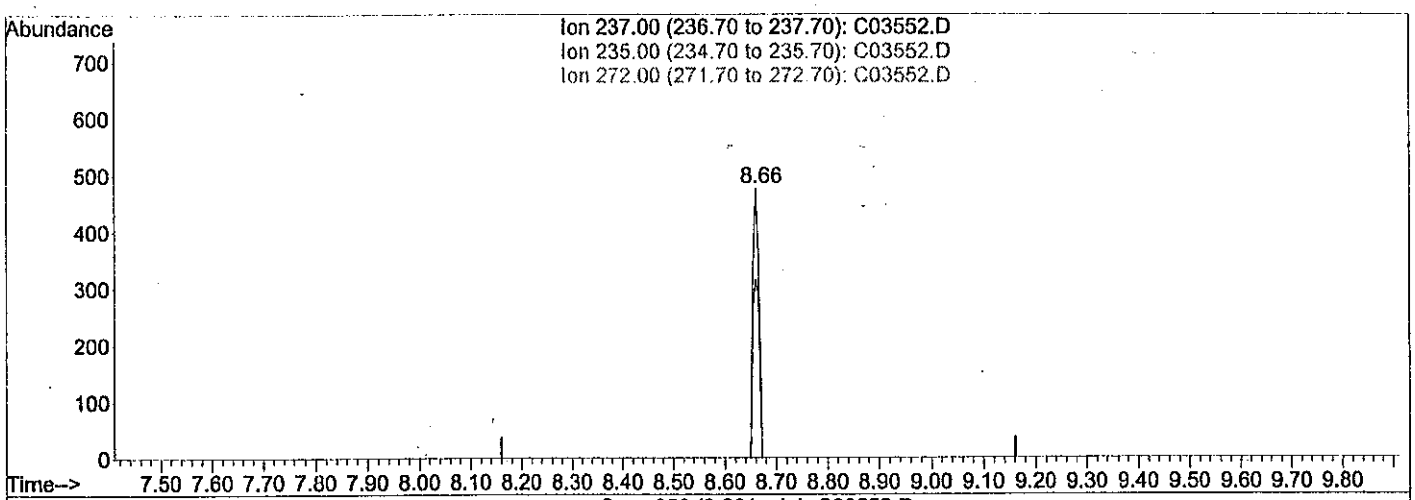


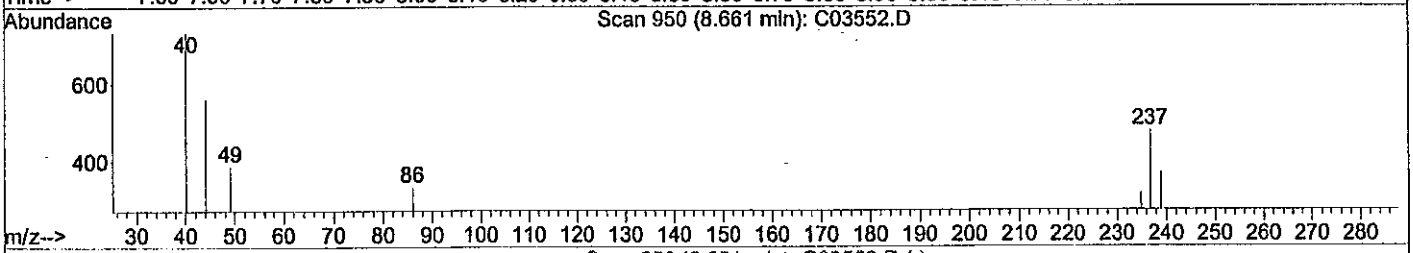
Quantitation Report (Qedit)

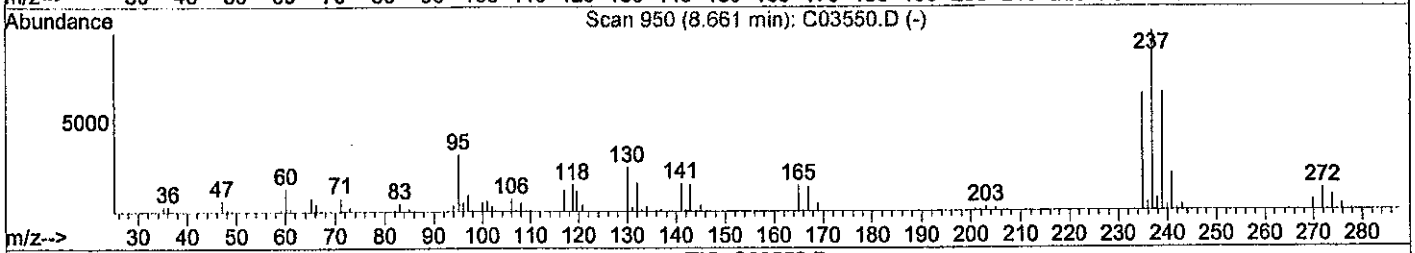
Data File : G:\DATA\081501A\C03552.D
Acq On : 08/15/01 16:06
Sample : QSW0808012
Misc : BNA WATER LCS
MS Integration Params: rteint.p
Quant Time: Aug 16 7:28 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Multiple Level Calibration







TIC: C03552.D

(39) Hexachlorocyclopentadiene (TP)

8.66min 0.37ug/L

response 714 SUMMED

Ion	Exp%	Act%
237.00	100	100
235.00	36.20	42.72 S
272.00	6.80	0.00# S
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03553.D Vial: 5
Acq On : 08/15/01 16:42 Operator: DMB/DG
Sample : QSW0808013 Inst : AG-MSC
Misc : BNA WATER LCSD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 16 07:29:55 2001 Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.99	152	137197	40.00	ug/L	0.00
21) Naphthalene-d8	7.52	136	331587	40.00	ug/L	0.00
38) Acenaphthene-d10	9.72	164	407082	40.00	ug/L	0.00
59) Phenanthrene-d10	11.58	188	296553	40.00	ug/L	0.00
73) Chyrsene-d12	14.97	240	313390	40.00	ug/L	0.00
81) Perylene-d12	17.80	264	294185	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.60	112	461359	77.05	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 77.05%			
7) Phenol-d5	5.55	99	586053	92.25	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 92.25%			
22) Nitrobenzene-d5	6.66	82	447630	60.34	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 120.68%#			
42) 2-Fluorobiphenyl	8.84	172	545224	62.47	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 124.94%#			
63) 2,4,6-Tribromophenol	10.72	330	189615	136.14	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 136.14%#			
75) Terphenyl-d14	13.54	244	557480	92.65	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 185.30%#			
Target Compounds						Qvalue
2) Pyridine	3.33	79	71631	19.36	ug/L	97
3) N-nitrosodimethylamine	3.30	42	34375	24.02	ug/L	98
4) Methylmethanesufonate	4.45	80	41411	17.84	ug/L	98
6) Ethylmethanesulfonate	5.16	79	86789	31.94	ug/L	99
8) Phenol	5.56	94	261642	32.96	ug/L	96
9) Aniline	5.65	93	143041	31.01	ug/L	96
10) bis(2-Chloroethyl)ether	5.68	63	228872	34.35	ug/L	97
11) 2-Chlorophenol	5.79	128	183770	32.92	ug/L	100
12) 1,3-Dichlorobenzene	5.96	146	139626	24.47	ug/L	100
13) 1,4-Dichlorobenzene	6.01	146	151463	25.56	ug/L	99
14) Benzyl alcohol	6.13	108	268642	38.32	ug/L	99
15) 1,2-Dichlorobenzene	6.23	146	137538	25.53	ug/L	99
16) 2-Methylphenol	6.25	108	186495	33.75	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.31	45	175944	34.59	ug/L	99
18) 3,4-Methylphenol	6.42	108	526507	70.90	ug/L	100
19) n-Nitroso-di-n-propylamine	6.47	70	128351	31.46	ug/L	98
20) Hexachloroethane	6.60	117	75983	30.27	ug/L	99
23) Nitrobenzene	6.69	77	205361	32.04	ug/L	99
24) Isophorone	6.95	82	260795	34.06	ug/L	100
25) 2-Nitrophenol	7.07	139	111619	32.04	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03553.D
Acq On : 08/15/01 16:42
Sample : QSW0808013
Misc : BNA WATER LCSD
MS Integration Params: rteint.p
Quant Time: Aug 16 07:29:55 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.06	107	156795	21.13	ug/L		99
27)	Benzoic Acid	7.13	105	54854	25.77	ug/L		89
28)	bis(2-Chloroethoxy)methane	7.18	93	211453	34.83	ug/L		100
29)	2,4-Dichlorophenol	7.33	162	169554	33.89	ug/L		99
30)	1,2,4-Trichlorobenzene	7.46	180	152919	24.28	ug/L		100
31)	Naphthalene	7.54	128	323237	29.38	ug/L		100
32)	4-Chloroaniline	7.60	127	201180	34.03	ug/L		99
33)	2,6-Dichlorophenol	7.62	162	82121	34.79	ug/L		99
34)	Hexachlorobutadiene	7.74	225	77645	22.18	ug/L		100
35)	4-Chloro-3-methylphenol	8.15	107	215080	37.63	ug/L		99
36)	2-Methylnaphthalene	8.38	142	326161	31.22	ug/L		99
37)	1-Methylnaphthalene	8.53	142	167204	31.95	ug/L		98
40)	2,4,6-Trichlorophenol	8.75	196	144967	37.89	ug/L		99
41)	2,4,5-Trichlorophenol	8.80	196	159278	38.03	ug/L		99
43)	2-Chloronaphthalene	9.00	162	306438	34.86	ug/L		100
44)	2-Nitroaniline	9.14	65	225714	43.50	ug/L		100
45)	Dimethylphthalate	9.37	163	27030	3.92	ug/L		99
46)	Acenaphthylene	9.54	152	391797	39.03	ug/L		99
47)	2,6-Dinitrotoluene	9.47	165	112465	43.93	ug/L		99
48)	3-Nitroaniline	9.65	138	167074	43.21	ug/L		99
49)	Acenaphthene	9.76	153	457579	34.89	ug/L		99
50)	2,4-Dinitrophenol	9.78	184	261589	35.40	ug/L		98
51)	4-Nitrophenol	9.81	109	169283	42.26	ug/L		99
52)	Dibenzofuran	9.95	168	388244	37.70	ug/L		100
53)	2,4-Dinitrotoluene	9.97	165	137343	42.61	ug/L		98
54)	Diethylphthalate	10.24	149	43181	5.55	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.15	232	53378	38.83	ug/L		98
56)	Fluorene	10.39	166	479959	39.45	ug/L		100
57)	4-Chlorophenyl-phenylether	10.35	204	221868	36.81	ug/L		99
58)	4-Nitroaniline	10.43	138	170435	42.20	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.48	198	93912	51.64	ug/L		99
61)	n-Nitrosodiphenylamine	10.51	169	280807	42.51	ug/L		99
62)	Azobenzene	10.55	77	322507	45.10	ug/L		99
64)	4-Bromophenyl-phenylether	10.97	248	167246	43.33	ug/L		99
65)	Hexachlorobenzene	11.19	284	109261	45.15	ug/L		99
66)	Pentachlorophenol	11.39	266	101566	54.06	ug/L		99
67)	Phenanthrene	11.60	178	454230	42.73	ug/L		99
68)	Anthracene	11.66	178	442044	42.22	ug/L		100
69)	Carbazole	11.84	167	347398	46.80	ug/L	#	100
70)	Di-n-butylphthalate	12.26	149	222368	22.15	ug/L		100
71)	Fluoranthene	13.11	202	457985	42.67	ug/L		99

(#) = qualifier out of range (m) = manual integration
C03553.D 8270.M Thu Aug 16 07:30:39 2001

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03553.D
Acq On : 08/15/01 16:42
Sample : QSW0808013
Misc : BNA WATER LCSD
MS Integration Params: rteint.p
Quant Time: Aug 16 07:29:55 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
72)	Benzidine	13.23	184	18732	16.30	ug/L	#	98
74)	Pyrene	13.40	202	551822	50.84	ug/L		100
76)	Butylbenzylphthalate	14.14	149	179770	24.37	ug/L		100
77)	3,3'-Dichlorobenzidine	14.87	252	122196	50.41	ug/L		98
78)	Benzo[a]anthracene	14.95	228	495969	45.09	ug/L		100
79)	Chrysene	15.01	228	489658	44.91	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	14.89	149	372946	57.13	ug/L		100
82)	Di-n-octylphthalate	15.89	149	516443	53.01	ug/L		100
83)	Benzo[b]fluoranthene	16.90	252	471200	45.82	ug/L		99
84)	Benzo[k]fluoranthene	16.95	252	423374	41.23	ug/L		97
85)	Benzo[a]pyrene	17.66	252	422853	44.30	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.06	276	479183	47.56	ug/L		100
87)	Dibenz[a,h]anthracene	21.09	278	403299	47.70	ug/L		99
88)	Benzo[g,h,i]perylene	22.05	276	469969	46.40	ug/L		100

8/16/01

(#) = qualifier out of range (m) = manual integration

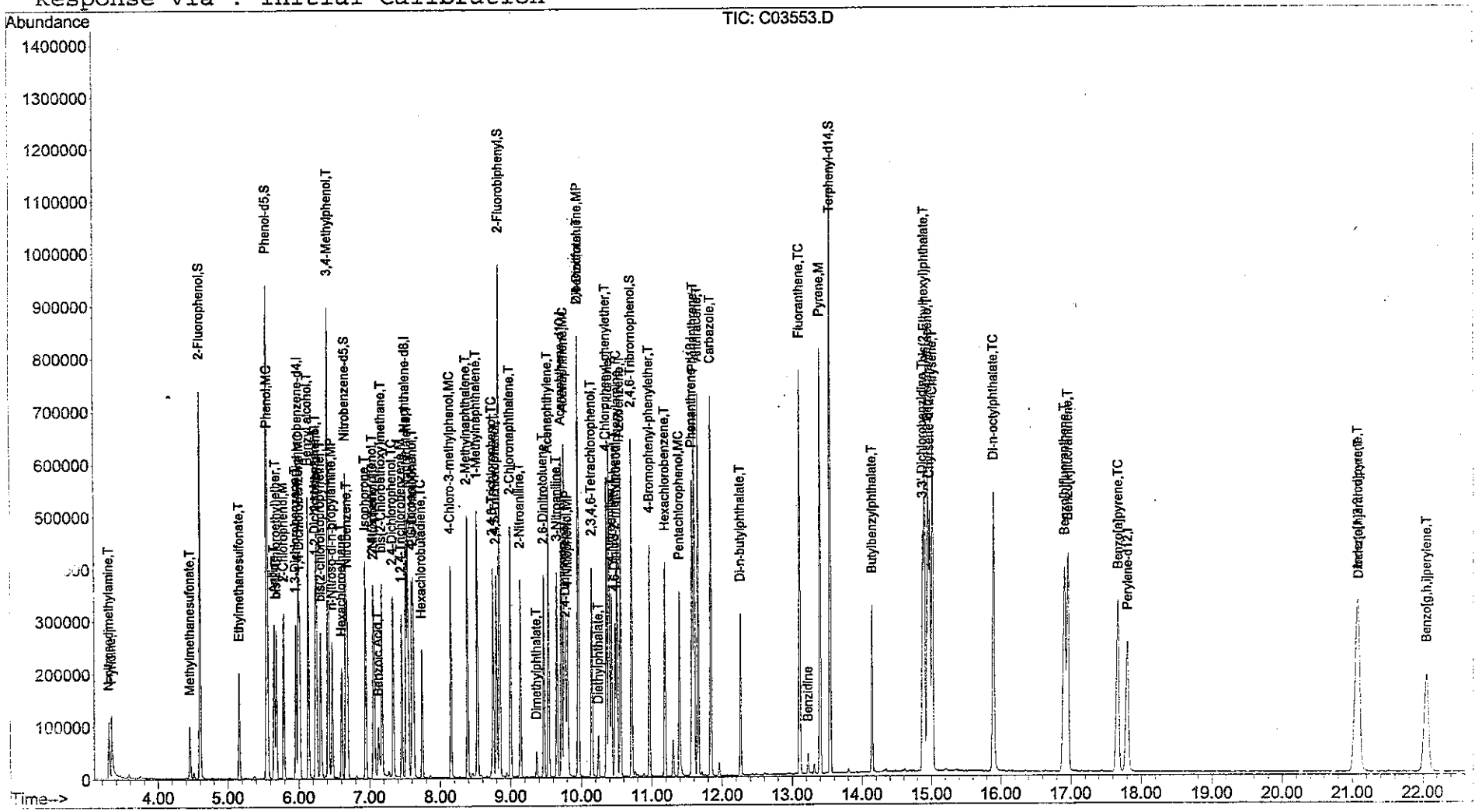
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081501A\C03553.D
Acq On : 08/15/01 16:42
Sample : QSW0808013
Misc : BNA WATER LCSD
S Integration Params: rteint.p
uant Time: Aug 16 7:29 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

ethod : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
itle : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Initial Calibration

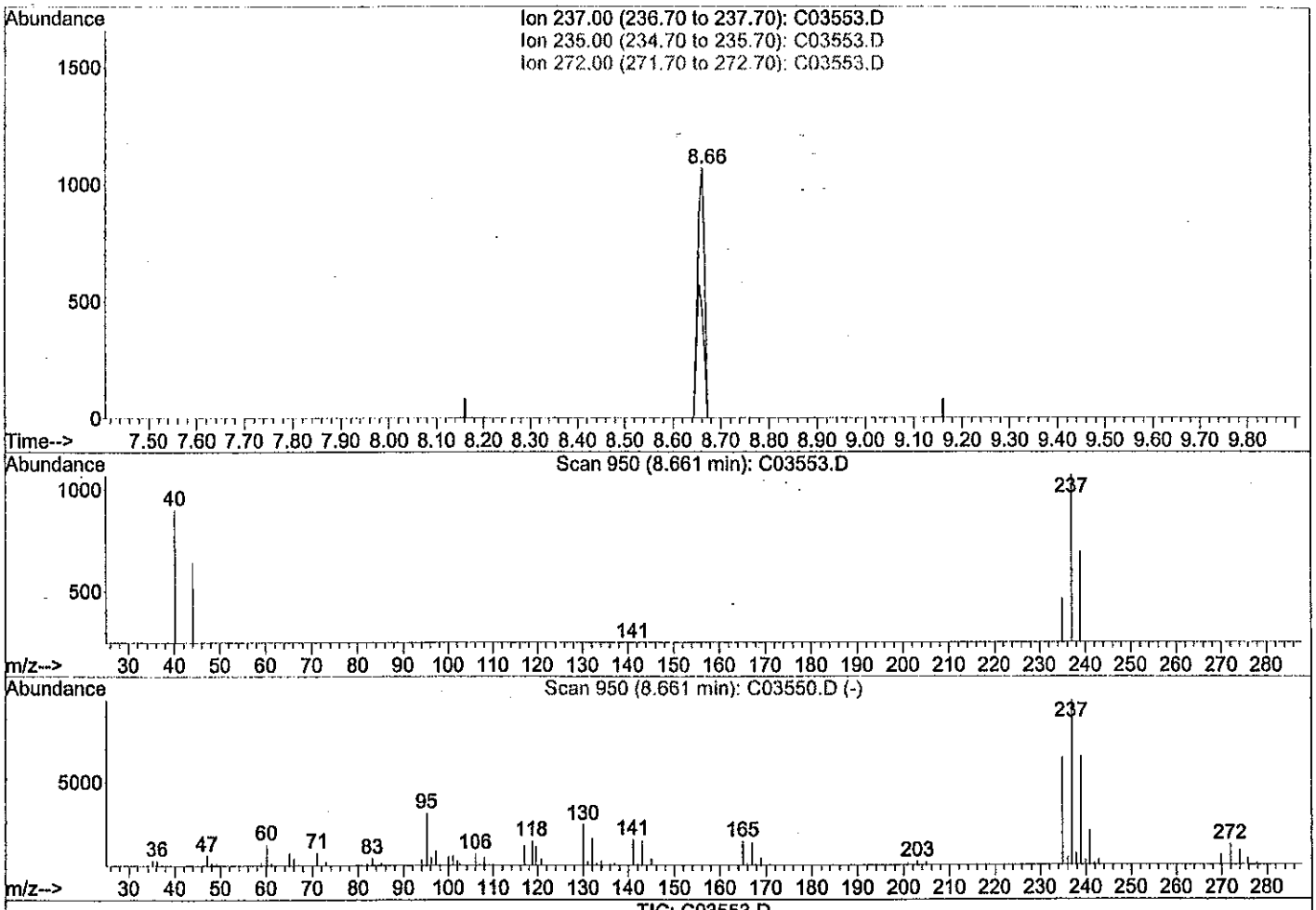


Quantitation Report (Qedit)

Data File : G:\DATA\081501A\C03553.D
Acq On : 08/15/01 16:42
Sample : QSW0808013
Misc : BNA WATER LCSD
MS Integration Params: rteint.p
Quant Time: Aug 16 7:29 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 05:55:26 2001
Response via : Multiple Level Calibration



TIC: C03553.D

(39) Hexachlorocyclopentadiene (TP)

8.66min 0.55ug/L

response 1616 SUMMED

Ion	Exp%	Act%
237.00	100	100
235.00	36.20	34.84 S
272.00	6.80	0.00# S
0.00	0.00	0.00

Response Factor Report AG-MSC

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Initial Calibration

Calibration Files
10 =C03578.D 20 =C03577.D 50 =C03572.D
80 =C03576.D 120 =C03575.D 160 =C03574.D

		Compound	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------	----------	ISTD	----------	----------	----------		
2)	T	Pyridine	0.691	1.037	0.960	1.023	1.028	1.062	0.976	13.23
3)	T	N-nitrosodimeth	0.345	0.411	0.348	0.351	0.342	0.371	0.361	6.64
4)	T	Methylmethanesu	0.608	0.686	0.569	0.623	0.591	0.602	0.607	6.56
5)	S	2-Fluorophenol	1.559	1.816	1.651	1.663	1.619	1.682	1.658	4.86
6)	T	Ethylmethanesul	0.841	0.932	0.821	0.877	0.806	0.862	0.853	4.94
7)	S	Phenol-d5	1.733	2.030	1.772	1.914	1.806	1.858	1.844	5.46
8)	MC	Phenol	2.109	2.514	2.155	2.250	2.147	2.199	2.215	6.32
9)	T	Aniline	1.291	1.305	1.138	1.075	1.099	1.082	1.148	9.26
10)	T	bis(2-Chloroeth	2.080	2.377	2.066	2.146	1.899	1.966	2.078	7.44
11)	M	2-Chlorophenol	1.632	1.817	1.603	1.683	1.607	1.587	1.643	5.18
12)	T	1,3-Dichloroben	1.651	1.787	1.591	1.613	1.546	1.567	1.607	5.81
13)	MC	1,4-Dichloroben	1.795	1.898	1.583	1.640	1.567	1.592	1.662	7.97
14)	T	Benzyl alcohol	0.611	2.120	1.880	1.987	1.881	1.907	1.754	29.15
15)	T	1,2-Dichloroben	1.542	1.746	1.480	1.536	1.451	1.501	1.528	6.83
16)	T	2-Methylphenol	1.640	1.977	1.640	1.715	1.613	1.647	1.692	7.71
17)	T	bis(2-chloroiso	1.677	1.878	1.626	1.676	1.568	1.580	1.649	6.90
18)	T	3,4-Methylpheno	2.213	2.562	2.160	2.258	2.106	2.117	2.215	7.40
19)	MP	n-Nitroso-di-n-	1.118	1.343	1.172	1.239	1.168	1.177	1.200	6.03
20)	T	Hexachloroethan	0.915	1.016	0.885	0.909	0.887	0.911	0.912	5.42
21)	I	Naphthalene-d8	----------	----------	ISTD	----------	----------	----------		
22)	S	Nitrobenzene-d5	0.797	0.918	0.783	0.825	0.830	0.827	0.821	5.97
23)	T	Nitrobenzene	0.708	0.823	0.696	0.717	0.715	0.723	0.722	6.62
24)	T	Isophorone	0.821	1.023	0.840	0.893	0.867	0.855	0.872	8.36
25)	TC	2-Nitrophenol	0.361	0.424	0.364	0.386	0.382	0.380	0.380	5.86
26)	T	2,4-Dimethylphe	0.717	0.878	0.829	0.833	0.831	0.829	0.815	6.15
27)	T	Benzoic Acid			0.115	0.220	0.245	0.268	0.221	27.96
28)	T	bis(2-Chloroeth	0.704	0.820	0.688	0.735	0.712	0.704	0.720	6.66
29)	TC	2,4-Dichlorophe	0.547	0.634	0.535	0.562	0.572	0.566	0.565	5.94
30)	M	1,2,4-Trichloro	0.661	0.741	0.608	0.630	0.628	0.624	0.639	7.95
31)	T	Naphthalene	1.293	1.461	1.195	1.234	1.211	1.217	1.247	8.58
32)	T	4-Chloroaniline	0.675	0.798	0.654	0.674	0.645	0.632	0.669	9.23
33)	T	2,6-Dichlorophe	0.262	0.298	0.254	0.268	0.269	0.260	0.265	6.52
34)	TC	Hexachlorobutad	0.330	0.395	0.330	0.344	0.348	0.342	0.343	7.77
35)	MC	4-Chloro-3-meth	0.579	0.726	0.620	0.665	0.625	0.632	0.635	7.53
36)	T	2-Methylnaphtha	1.207	1.367	1.155	1.223	1.192	1.168	1.199	7.33
37)	T	1-Methylnaphtha	0.617	0.706	0.562	0.617	0.602	0.570	0.604	8.65
38)	I	Acenaphthene-d10	----------	----------	ISTD	----------	----------	----------		
39)	TP	Hexachlorocyclo	0.170	0.211	0.188	0.216	0.215	0.219	0.204	8.84
40)	TC	2,4,6-Trichloro	0.306	0.369	0.314	0.351	0.330	0.324	0.329	7.12
41)	T	2,4,5-Trichloro	0.338	0.401	0.343	0.374	0.358	0.356	0.360	6.06

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report AG-MSC

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Initial Calibration

Calibration Files
10 =C03578.D 20 =C03577.D 50 =C03572.D
80 =C03576.D 120 =C03575.D 160 =C03574.D

		Compound	10	20	50	80	120	160	Avg	%RSD
42)	S	2-Fluorobipheny	0.837	0.917	0.742	0.788	0.767	0.752	0.787	8.87
43)	T	2-Chloronaphtha	0.864	0.993	0.804	0.847	0.810	0.796	0.842	8.61
44)	T	2-Nitroaniline		0.562	0.471	0.530	0.501	0.517	0.512	6.22
45)	T	Dimethylphthala	0.648	0.772	0.616	0.673	0.620	0.637	0.651	9.04
46)	T	Acenaphthylene	0.935	1.104	0.907	0.970	0.914	0.928	0.947	8.02
47)	T	2,6-Dinitrotolu	0.222	0.266	0.227	0.257	0.247	0.254	0.244	6.65
48)	T	3-Nitroaniline		0.418	0.361	0.390	0.364	0.380	0.378	6.43
49)	MC	Acenaphthene	1.160	1.369	1.093	1.185	1.098	1.086	1.150	9.20
50)	TP	2,4-Dinitrophen			0.588	0.609	0.619	0.636	0.614	2.82
51)	MP	4-Nitrophenol		0.386	0.340	0.364	0.343	0.373	0.359	5.02
52)	T	Dibenzofuran	1.002	1.149	0.899	0.957	0.890	0.893	0.947	10.83
53)	MP	2,4-Dinitrotolu	0.271	0.356	0.287	0.312	0.293	0.313	0.303	9.23
54)	T	Diethylphthalat	0.738	0.867	0.696	0.748	0.711	0.732	0.741	8.03
55)	T	2,3,4,6-Tetrach	0.095	0.119	0.104	0.115	0.113	0.116	0.110	7.52
56)	T	Fluorene	1.188	1.382	1.062	1.147	1.095	1.112	1.145	10.25
57)	T	4-Chlorophenyl-	0.532	0.614	0.488	0.507	0.505	0.498	0.514	9.69
58)	T	4-Nitroaniline		0.434	0.362	0.402	0.374	0.401	0.387	7.98
59)	I	Phenanthrene-d10	----------ISTD----------							
60)	T	4,6-Dinitro-2-m			0.224	0.266	0.275	0.275	0.262	8.26
61)	TC	n-Nitrosodiphen	0.913	1.030	0.875	0.923	0.914	0.861	0.910	6.52
62)	T	Azobenzene	1.019	1.150	0.937	0.996	0.988	0.944	0.996	7.54
63)	S	2,4,6-Tribromop	0.160	0.193	0.174	0.190	0.188	0.183	0.182	6.28
64)	T	4-Bromophenyl-p	0.492	0.543	0.457	0.479	0.478	0.456	0.480	6.60
65)	T	Hexachlorobenze	0.303	0.357	0.296	0.307	0.305	0.294	0.306	7.81
66)	MC	Pentachlorophen		0.225	0.220	0.264	0.263	0.262	0.249	8.19
67)	T	Phenanthrene	1.381	1.598	1.288	1.285	1.290	1.270	1.331	9.61
68)	T	Anthracene	1.323	1.518	1.239	1.294	1.277	1.219	1.295	8.35
69)	T	Carbazole	1.027	1.182	0.973	1.023	1.024	1.000	1.021	7.90
70)	T	Di-n-butylphtha	1.382	1.622	1.358	1.464	1.486	1.440	1.439	6.98
71)	TC	Fluoranthene	1.366	1.570	1.268	1.328	1.335	1.306	1.336	8.98
72)		Benzidine	0.118	0.081	0.166	0.086	0.101	0.117	0.111	27.59
73)	I	Chyrsene-d12	----------ISTD----------							
74)	M	Pyrene	1.520	1.716	1.392	1.469	1.428	1.368	1.460	8.85
75)	S	Terphenyl-d14	0.816	0.912	0.750	0.774	0.779	0.744	0.785	8.21
76)	T	Butylbenzylphth	0.989	1.166	1.019	1.115	1.069	1.057	1.062	5.79
77)	T	3,3'-Dichlorobe	0.289	0.368	0.311	0.346	0.333	0.341	0.329	8.04
78)	T	Benzo[a]anthrac	1.316	1.474	1.211	1.299	1.263	1.251	1.286	7.41
79)	T	Chrysene	1.272	1.477	1.210	1.259	1.213	1.216	1.254	8.67
80)	T	bis(2-Ethylhexy	0.855	1.083	0.954	1.013	0.997	0.979	0.974	7.24
81)	I	Perylene-d12	----------ISTD----------							
82)	TC	Di-n-octylphtha	1.308	1.726	1.456	1.615	1.641	1.561	1.542	8.96

(#) = C ...ge ### Number of calibration level ...ceeded format ###

Response Factor Report AG-MSC

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Initial Calibration

Calibration Files
10 =C03578.D 20 =C03577.D 50 =C03572.D
80 =C03576.D 120 =C03575.D 160 =C03574.D

		Compound	10	20	50	80	120	160	Avg	%RSD
83)	T	Benzo[b]fluoran	1.426	1.580	1.271	1.370	1.358	1.311	1.367	8.13
84)	T	Benzo[k]fluoran	1.319	1.556	1.247	1.264	1.260	1.263	1.292	9.97
85)	TC	Benzo[a]pyrene	1.259	1.447	1.193	1.255	1.252	1.232	1.257	7.25
86)	T	Indeno[1,2,3-cd	1.356	1.583	1.473	1.440	1.423	1.438	1.436	5.65
87)	T	Dibenz[a,h]anth	1.009	1.343	1.192	1.178	1.177	1.160	1.166	8.62
88)	T	Benzo[g,h,i]per	1.198	1.503	1.448	1.375	1.358	1.404	1.372	7.13

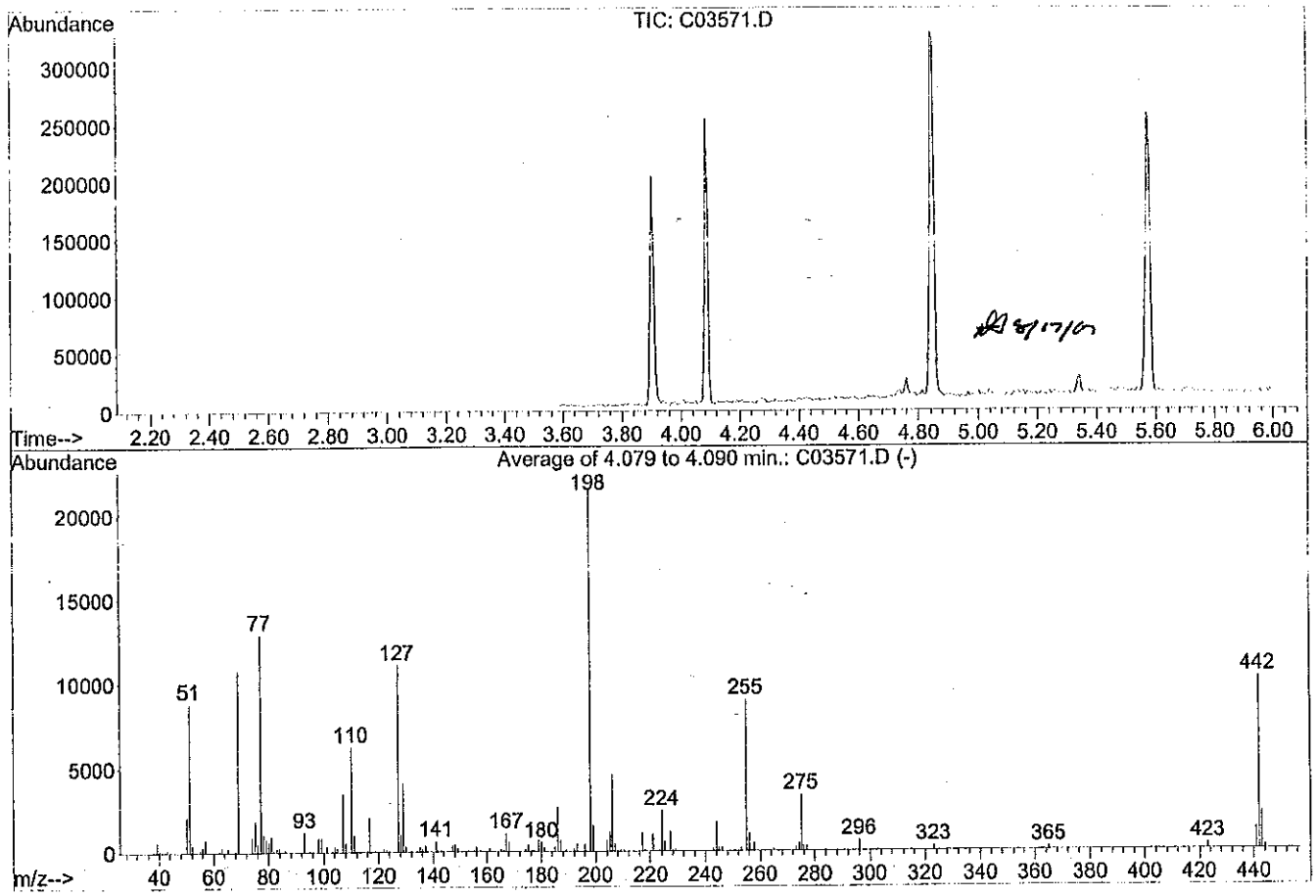
8/17/01

#) = Out of Range # of calibration levels exceeded format ###

DFTPP

Data File : G:\DATA\081601\C03571.D
Acq On : 08/16/01 12:20
Sample : DFTPP 50 SO1132
Misc :
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00



AutoFind: Scans 85, 86, 87; Background Corrected with Scan 81

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.2	8883	PASS
68	69	0.00	2	0.9	102	PASS
69	198	0.00	100	50.1	10803	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	51.5	11112	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	21557	PASS
199	198	5	9	7.4	1605	PASS
275	198	10	30	15.6	3369	PASS
365	198	1	100	1.0	223	PASS
441	443	0.01	100	59.3	1367	PASS
442	198	40	100	47.7	10288	PASS
443	442	17	23	22.4	2307	PASS

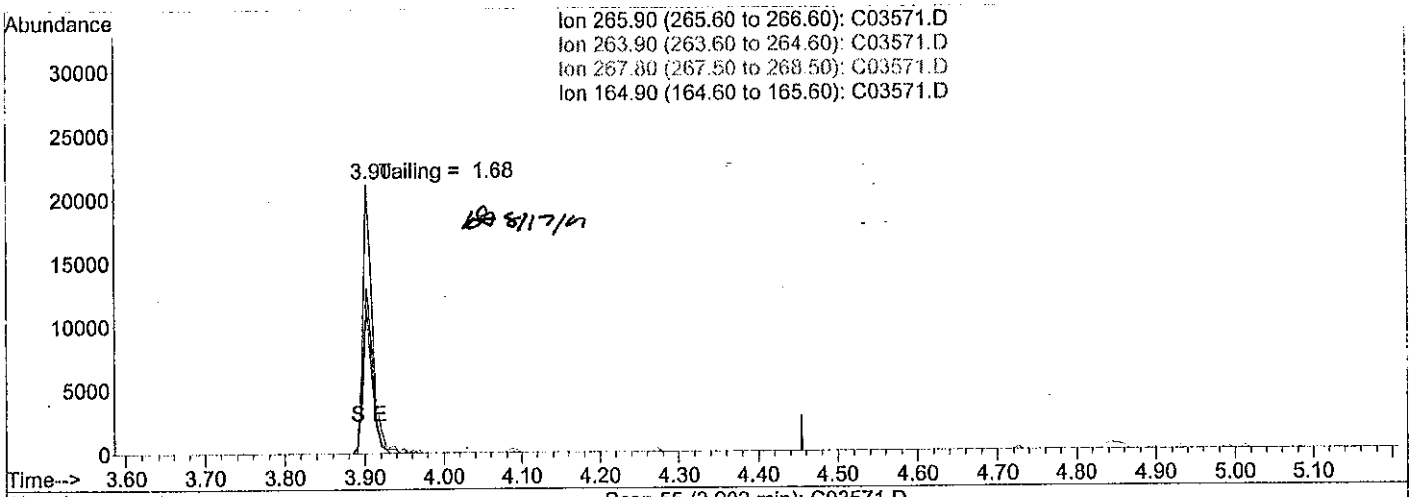
Quantitation Report (Qedit)

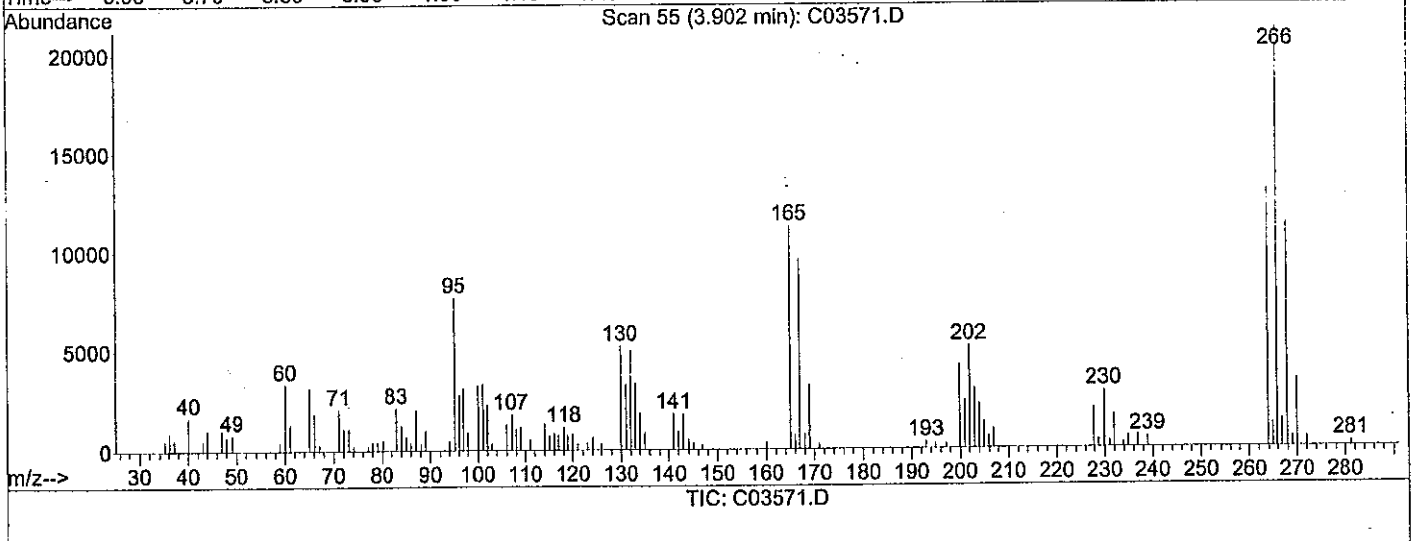
Data File : G:\DATA\081601\C03571.D
Acq On : 08/16/01 12:20
Sample : DFTPP 50 SO1132
Misc :
MS Integration Params: rteint.p
Quant Time: Aug 17 6:09 2001

Vial: 1
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Jul 05 07:31:26 2001
Response via : Single Level Calibration





TIC: C03571.D

(1) Pentachlorophenol

3.90min 62.80

response 17866

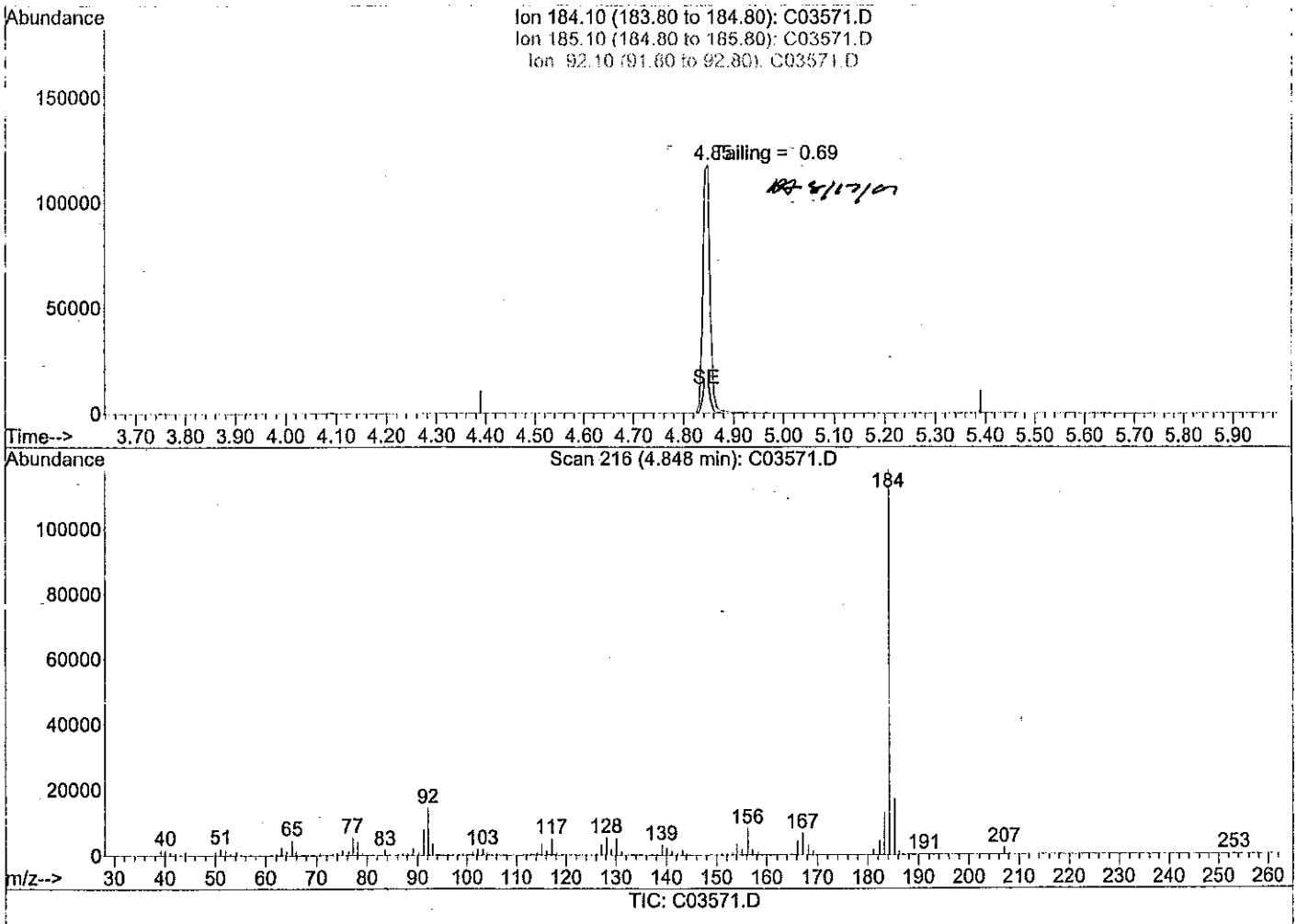
Ion	Exp%	Act%
265.90	100	100
263.90	67.10	60.23
267.80	63.90	56.25
164.90	49.10	54.33

Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03571.D
Acq On : 08/16/01 12:20
Sample : DFTPP 50 SO1132
Misc :
MS Integration Params: rteint.p
Quant Time: Aug 17 6:09 2001

Vial: 1
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Jul 05 07:31:26 2001
Response via : Single Level Calibration



(3) Benzidine

4.85min 75.91

response 120256

Ion	Exp%	Act%
184.10	100	100
185.10	0.00	14.62#
92.10	0.00	13.22#
0.00	0.00	0.00

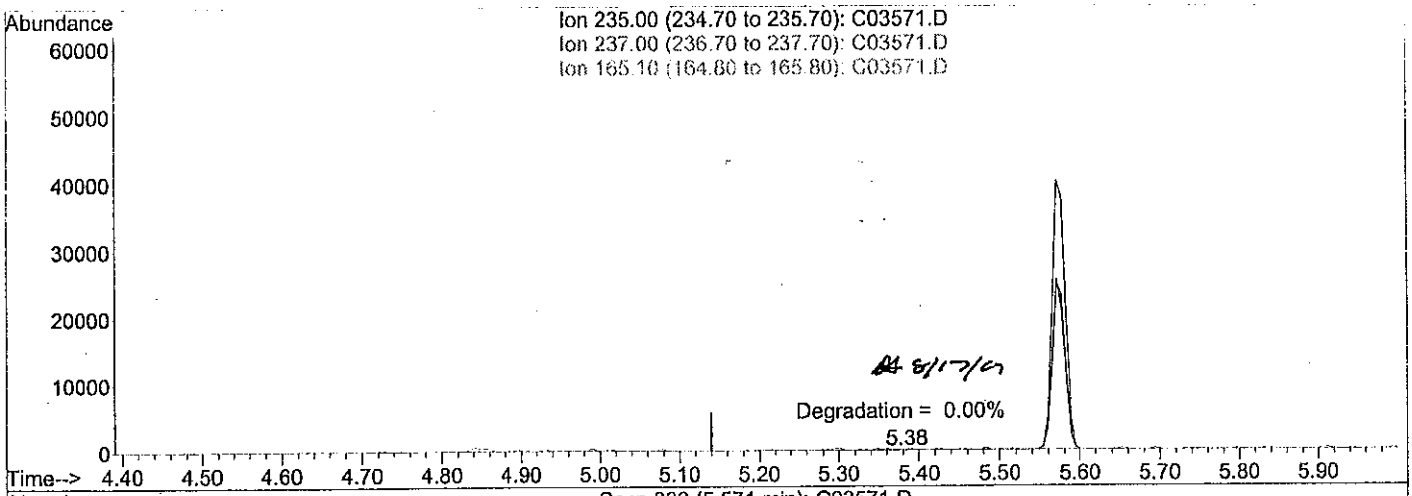
Quantitation Report (Qedit)

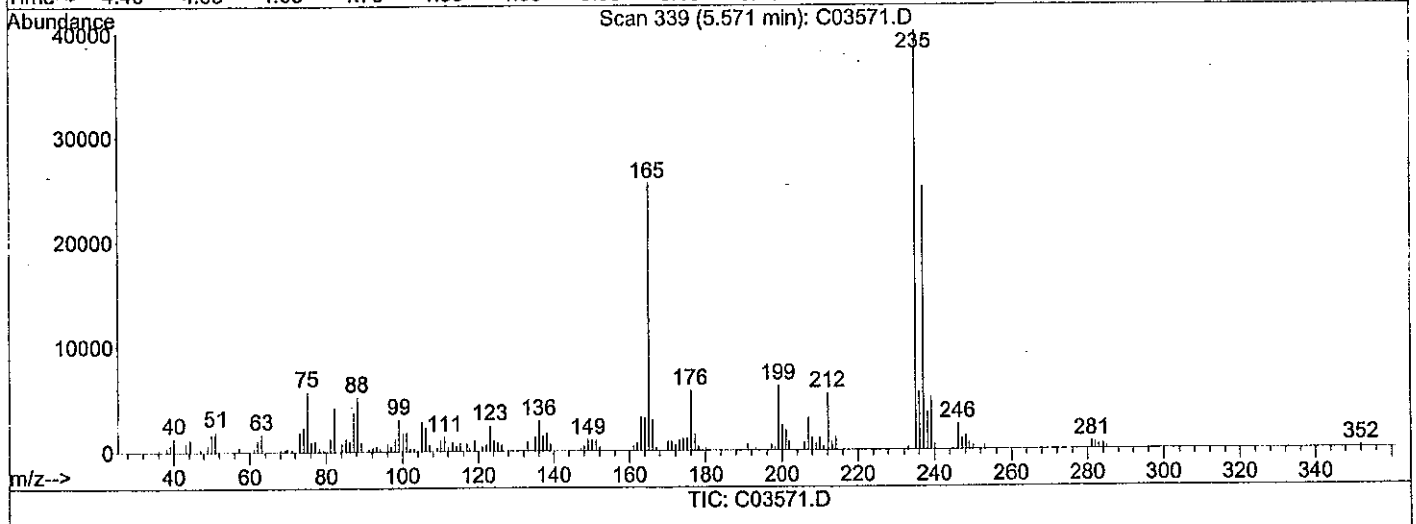
Data File : G:\DATA\081601\C03571.D
Acq On : 08/16/01 12:20
Sample : DFTPP 50 SO1132
Misc :
MS Integration Params: rteint.p
Quant Time: Aug 17 6:09 2001

Vial: 1
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Jul 05 07:31:26 2001
Response via : Single Level Calibration





TIC: C03571.D

(4) DDT

5.57min 60.99

response 44949

Ion	Exp%	Act%
235.00	100	100
237.00	0.00	61.87#
165.10	0.00	60.03#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 06:32:04 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	71955	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	175290	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	215363	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	166615	40.00	ug/L	0.00
73) Chyrsene-d12	15.19	240	180791	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	149545	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	28046	9.41	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 9.41%#			
7) Phenol-d5	5.76	99	31181	9.40	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 9.40%#			
22) Nitrobenzene-d5	6.89	82	34922	9.71	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 19.42%#			
42) 2-Fluorobiphenyl	9.08	172	45078	10.63	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 21.26%#			
63) 2,4,6-Tribromophenol	10.94	330	6655	8.80	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 8.80%#			
75) Terphenyl-d14	13.77	244	36898	10.40	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 20.80%#			
Target Compounds						Qvalue
2) Pyridine	3.53	79	12439m	7.26	ug/L	
3) N-nitrosodimethylamine	3.43	42	6214	9.56	ug/L	100
4) Methylmethanesufonate	4.64	80	10937	10.01	ug/L	100
6) Ethylmethanesulfonate	5.37	79	15130	9.86	ug/L	100
8) Phenol	5.78	94	37931	9.52	ug/L	100
9) Aniline	5.87	93	23223	11.25	ug/L	100
10) bis(2-Chloroethyl)ether	5.90	63	37416	10.01	ug/L	100
11) 2-Chlorophenol	6.01	128	29350	9.93	ug/L	100
12) 1,3-Dichlorobenzene	6.18	146	29699	10.27	ug/L	100
13) 1,4-Dichlorobenzene	6.23	146	32286	10.80	ug/L	100
14) Benzyl alcohol	6.36	108	10999m	3.49	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	27733	10.09	ug/L	100
16) 2-Methylphenol	6.48	108	29509	9.70	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	30174	10.17	ug/L	100
18) 3,4-Methylphenol	6.64	108	79606	19.97	ug/L	100
19) n-Nitroso-di-n-propylamine	6.69	70	20106	9.31	ug/L	100
20) Hexachloroethane	6.83	117	16453	10.02	ug/L	100
23) Nitrobenzene	6.91	77	31433	9.81	ug/L	100
24) Isophorone	7.17	82	35967	9.42	ug/L	100
25) 2-Nitrophenol	7.30	139	15808	9.50	ug/L	100

Qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 06:32:04 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	31442	8.80	ug/L		100
28)	bis(2-Chloroethoxy)methane	7.41	93	30849	9.78	ug/L		100
29)	2,4-Dichlorophenol	7.57	162	23991	9.69	ug/L		100
30)	1,2,4-Trichlorobenzene	7.69	180	28985	10.35	ug/L		100
31)	Naphthalene	7.77	128	56659	10.37	ug/L		100
32)	4-Chloroaniline	7.83	127	29579	10.09	ug/L		100
33)	2,6-Dichlorophenol	7.85	162	11473	9.90	ug/L		100
34)	Hexachlorobutadiene	7.97	225	14475	9.64	ug/L		100
35)	4-Chloro-3-methylphenol	8.38	107	25365	9.11	ug/L		100
36)	2-Methylnaphthalene	8.62	142	52913	10.07	ug/L		100
37)	1-Methylnaphthalene	8.76	142	27023	10.22	ug/L		100
39)	Hexachlorocyclopentadiene	8.89	237	9173	8.34	ug/L		100
40)	2,4,6-Trichlorophenol	8.98	196	16455	9.29	ug/L		100
41)	2,4,5-Trichlorophenol	9.03	196	18199	9.40	ug/L		100
43)	2-Chloronaphthalene	9.23	162	46510	10.26	ug/L		100
44)	2-Nitroaniline	9.37	65	23667	8.59	ug/L		100
45)	Dimethylphthalate	9.60	163	34883	9.95	ug/L		100
46)	Acenaphthylene	9.77	152	50317	9.87	ug/L		100
47)	2,6-Dinitrotoluene	9.70	165	11927	9.06	ug/L		100
48)	3-Nitroaniline	9.88	138	18136	8.92	ug/L		100
49)	Acenaphthene	9.99	153	62437	10.08	ug/L		100
50)	2,4-Dinitrophenol	10.01	184	29942	9.06	ug/L		100
51)	4-Nitrophenol	10.04	109	14738	7.62	ug/L		100
52)	Dibenzofuran	10.19	168	53941	10.57	ug/L		100
53)	2,4-Dinitrotoluene	10.19	165	14581	8.95	ug/L		100
54)	Diethylphthalate	10.47	149	39718	9.96	ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.38	232	5116	8.64	ug/L		100
56)	Fluorene	10.62	166	63936	10.38	ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	28619	10.34	ug/L		100
58)	4-Nitroaniline	10.65	138	18543	8.90	ug/L		100
60)	4,6-Dinitro-2-methylphenol	10.71	198	7385	6.76	ug/L		100
61)	n-Nitrosodiphenylamine	10.74	169	38015	10.03	ug/L		100
62)	Azobenzene	10.78	77	42464	10.24	ug/L		100
64)	4-Bromophenyl-phenylether	11.20	248	20489	10.25	ug/L		100
65)	Hexachlorobenzene	11.42	284	12607	9.88	ug/L		100
66)	Pentachlorophenol	11.63	266	6449	6.23	ug/L		100
67)	Phenanthrene	11.83	178	57536	10.38	ug/L		100
68)	Anthracene	11.89	178	55106	10.22	ug/L		100
69)	Carbazole	12.07	167	42788	10.06	ug/L	#	100
70)	Di-n-butylphthalate	12.49	149	57558	9.60	ug/L		100
71)	Fluoranthene	13.34	202	56883	10.2[illegible]	ug/L		[illegible]

(#) = qualifier out of r[illegible]n) manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 06:32:04 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
72)	Benzidine	13.46	184	4902	10.57	ug/L	#	100
74)	Pyrene	13.63	202	68708	10.41	ug/L		100
76)	Butylbenzylphthalate	14.37	149	44690	9.31	ug/L		100
77)	3,3'-Dichlorobenzidine	15.09	252	13065	8.80	ug/L		100
78)	Benzo[a]anthracene	15.17	228	59495	10.24	ug/L		100
79)	Chrysene	15.23	228	57494	10.15	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.12	149	38646	8.78	ug/L		100
82)	Di-n-octylphthalate	16.11	149	48897	8.48	ug/L		100
83)	Benzo[b]fluoranthene	17.10	252	53302	10.43	ug/L		100
84)	Benzo[k]fluoranthene	17.16	252	49305	10.21	ug/L		100
85)	Benzo[a]pyrene	17.86	252	47072	10.02	ug/L		100
86)	Indeno[1,2,3-cd]pyrene	21.22	276	50704	9.45	ug/L		100
87)	Dibenz[a,h]anthracene	21.25	278	37719	8.65	ug/L		100
88)	Benzo[g,h,i]perylene	22.22	276	44791	8.73	ug/L		100

8/17/01

(#) = qualifier out of range (m) = manual integration

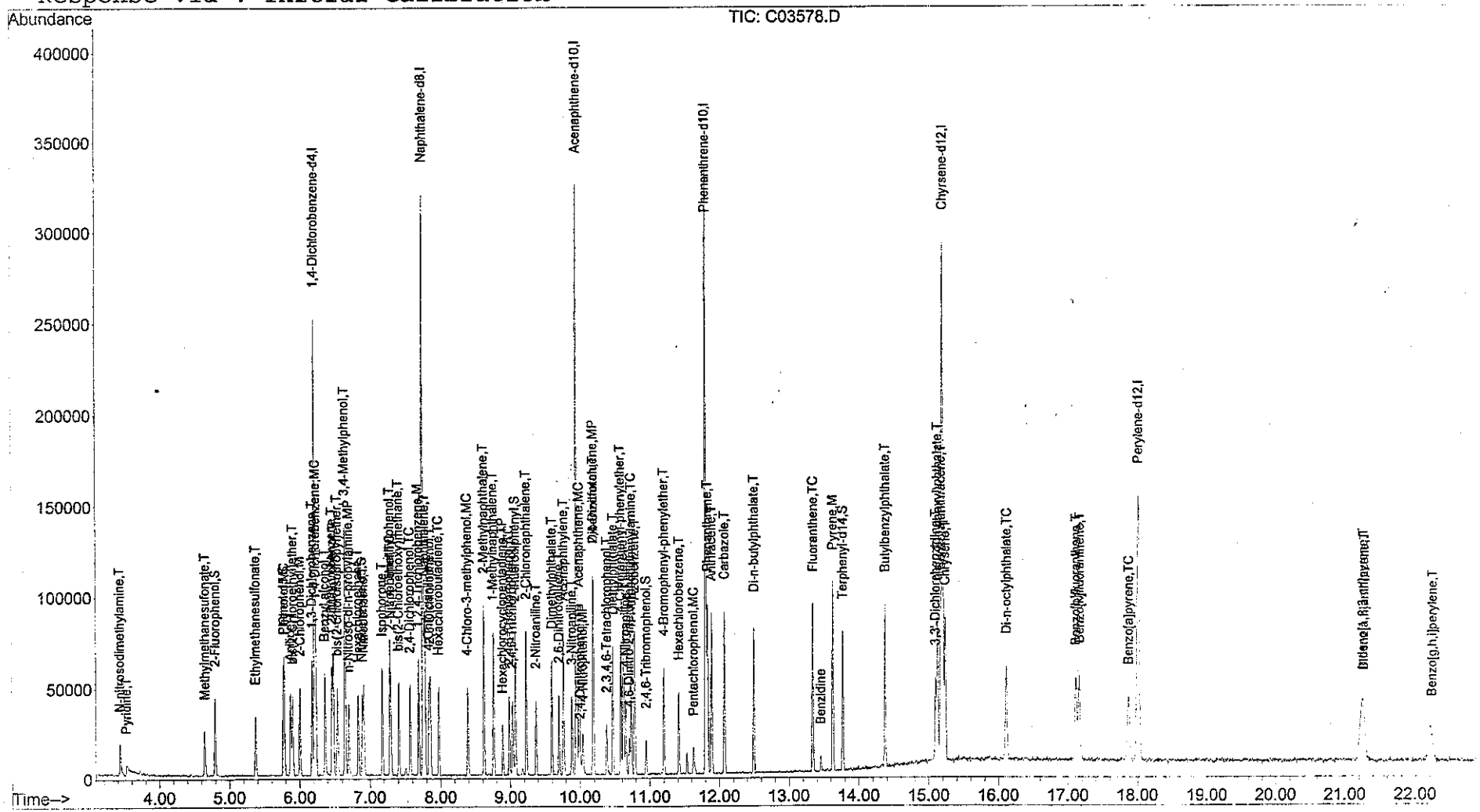
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 6:32 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration



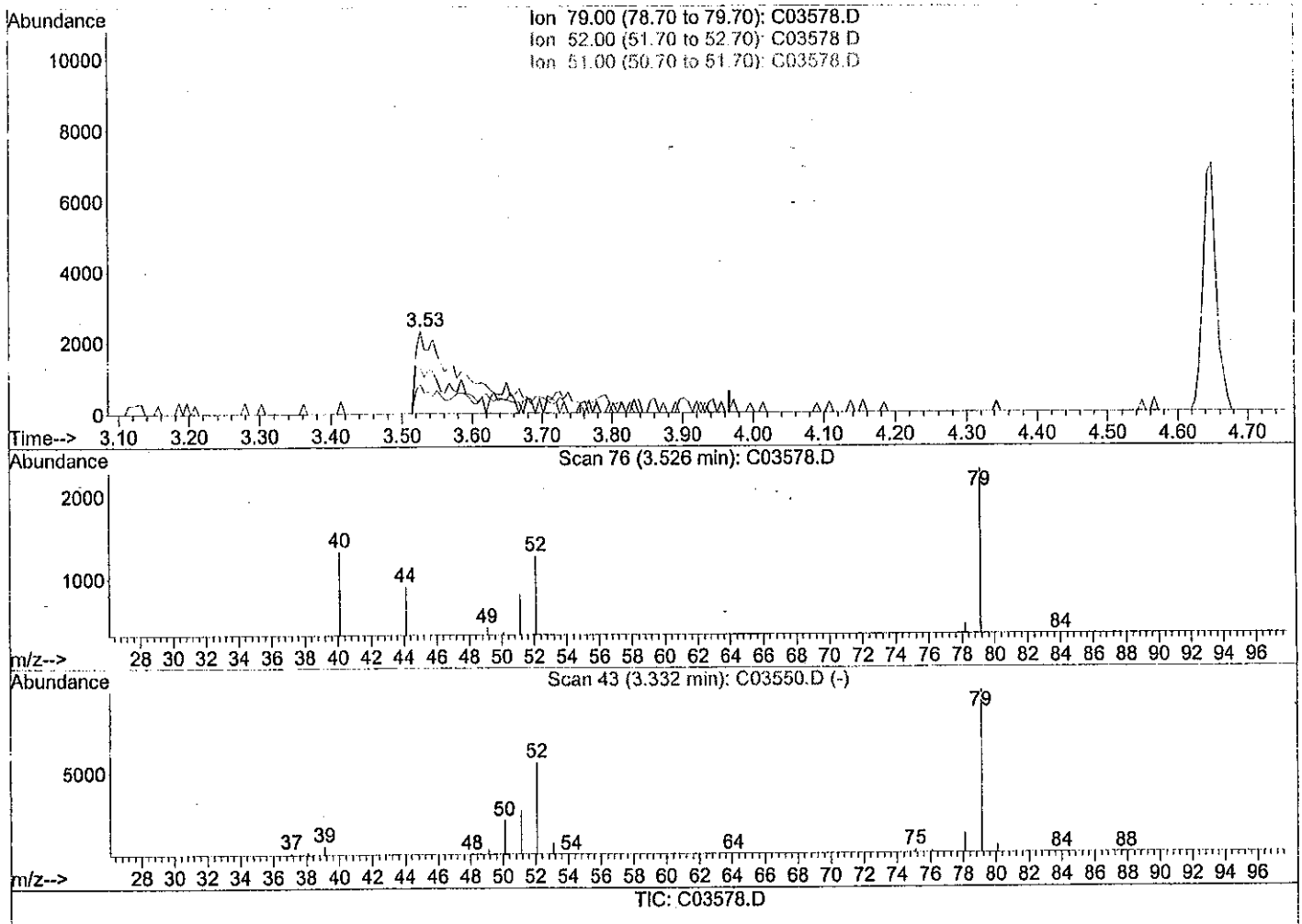
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 6:32 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:34:46 2001
Response via : Multiple Level Calibration



(2) Pyridine (T)

3.53min 7.26ug/L m

response 12439

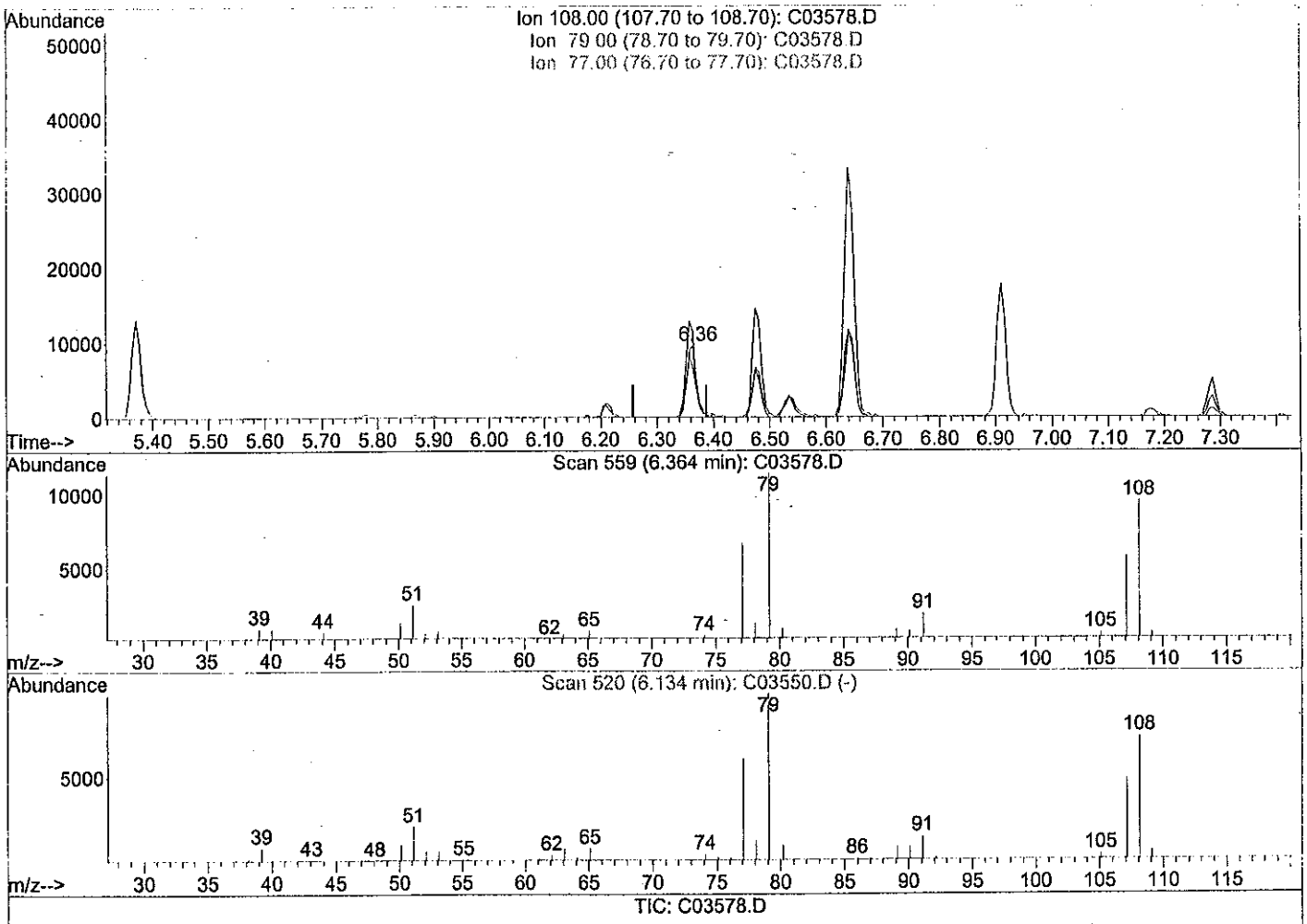
Ion	Exp%	Act%
79.00	100	100
52.00	21.30	23.02
51.00	13.20	14.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03578.D
Acq On : 08/16/01 16:00
Sample : BNA 10
Misc : S01167
MS Integration Params: rteint.p
Quant Time: Aug 17 6:32 2001

Vial: 8
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration



TIC: C03578.D

(14) Benzyl alcohol (T)

6.36min 3.49ug/L m

response 10999 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	0.00	0.00	S
77.00	0.00	0.00	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03577.D Vial: 7
Acq On : 08/16/01 15:25 Operator: DMB/DG
Sample : BNA 20 Inst : AG-MSC
Misc : S01166 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 17 06:33:40 2001 Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:33:28 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	68772	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	169306	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	218623	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	177045	40.00	ug/L	0.00
73) Chyrsene-d12	15.19	240	196076	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	162014	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	62449	21.91	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 21.91%#			
7) Phenol-d5	5.76	99	69793	22.01	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 22.01%#			
22) Nitrobenzene-d5	6.89	82	77683	22.36	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 44.72%			
42) 2-Fluorobiphenyl	9.08	172	100273	23.30	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 46.60%			
63) 2,4,6-Tribromophenol	10.95	330	17078	21.25	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 21.25%#			
75) Terphenyl-d14	13.77	244	89432	23.25	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 46.50%			
Target Compounds						Qvalue
2) Pyridine	3.48	79	35644m	21.94	ug/L	
3) N-nitrosodimethylamine	3.43	42	14136	22.75	ug/L #	92
4) Methylmethanesufonate	4.64	80	23600	22.60	ug/L	100
6) Ethylmethanesulfonate	5.37	79	32040	21.84	ug/L #	96
8) Phenol	5.78	94	86450	22.70	ug/L	99
9) Aniline	5.86	93	44868	22.73	ug/L	95
10) bis(2-Chloroethyl)ether	5.90	63	81732	22.88	ug/L	96
11) 2-Chlorophenol	6.01	128	62485	22.13	ug/L	99
12) 1,3-Dichlorobenzene	6.18	146	61440	22.24	ug/L	98
13) 1,4-Dichlorobenzene	6.23	146	65257	22.84	ug/L	99
14) Benzyl alcohol	6.36	108	72914m	24.20	ug/L #	
15) 1,2-Dichlorobenzene	6.46	146	60052	22.87	ug/L	99
16) 2-Methylphenol	6.48	108	67978	23.37	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	64594	22.78	ug/L	100
18) 3,4-Methylphenol	6.64	108	176164	46.25	ug/L	100
19) n-Nitroso-di-n-propylamine	6.69	70	46185	22.39	ug/L	98
20) Hexachloroethane	6.83	117	34950	22.28	ug/L	97
23) Nitrobenzene	6.91	77	69658	22.79	ug/L	98
24) Isophorone	7.17	82	86581	23.47	ug/L	98
25) 2-Nitrophenol	7.30	139	35926	22.35	ug/L	96

qualifier out of range (m) = manual inte

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03577.D
Acq On : 08/16/01 15:25
Sample : BNA 20
Misc : S01166
MS Integration Params: rteint.p
Quant Time: Aug 17 06:33:40 2001

Vial: 7
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:33:28 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	74331	21.53	ug/L		99
27)	Benzoic Acid	7.42	105	3150	3.37	ug/L	#	1
28)	bis(2-Chloroethoxy)methane	7.41	93	69382	22.77	ug/L		97
29)	2,4-Dichlorophenol	7.57	162	53690	22.45	ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	62707	23.18	ug/L		99
31)	Naphthalene	7.77	128	123669	23.42	ug/L		99
32)	4-Chloroaniline	7.83	127	67542	23.85	ug/L		98
33)	2,6-Dichlorophenol	7.86	162	25216	22.52	ug/L		94
34)	Hexachlorobutadiene	7.97	225	33451	23.07	ug/L		95
35)	4-Chloro-3-methylphenol	8.38	107	61429	22.84	ug/L		99
36)	2-Methylnaphthalene	8.62	142	115683	22.80	ug/L		99
37)	1-Methylnaphthalene	8.76	142	59768	23.39	ug/L		100
39)	Hexachlorocyclopentadiene	8.89	237	23060	20.66	ug/L		97
40)	2,4,6-Trichlorophenol	8.98	196	40319	22.43	ug/L		99
41)	2,4,5-Trichlorophenol	9.03	196	43814	22.30	ug/L		98
43)	2-Chloronaphthalene	9.23	162	108527	23.58	ug/L		99
44)	2-Nitroaniline	9.37	65	61396	21.94	ug/L		97
45)	Dimethylphthalate	9.60	163	84350	23.70	ug/L		98
46)	Acenaphthylene	9.77	152	120733	23.33	ug/L		98
47)	2,6-Dinitrotoluene	9.70	165	29073	21.77	ug/L		97
48)	3-Nitroaniline	9.88	138	45735	22.16	ug/L		99
49)	Acenaphthene	9.99	153	149602	23.80	ug/L		99
50)	2,4-Dinitrophenol	10.01	184	10458	3.12	ug/L		9
51)	4-Nitrophenol	10.04	109	42159	21.46	ug/L		97
52)	Dibenzofuran	10.19	168	125581	24.25	ug/L		99
53)	2,4-Dinitrotoluene	10.19	165	38953	23.55	ug/L		99
54)	Diethylphthalate	10.47	149	94822	23.41	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.38	232	12994	21.61	ug/L		94
56)	Fluorene	10.62	166	151058	24.15	ug/L		99
57)	4-Chlorophenyl-phenylether	10.59	204	67139	23.89	ug/L		99
58)	4-Nitroaniline	10.65	138	47392	22.40	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.71	198	20554	17.72	ug/L		93
61)	n-Nitrosodiphenylamine	10.74	169	91190	22.63	ug/L		98
62)	Azobenzene	10.79	77	101764	23.09	ug/L		97
64)	4-Bromophenyl-phenylether	11.20	248	48104	22.65	ug/L		98
65)	Hexachlorobenzene	11.42	284	31616	23.32	ug/L		99
66)	Pentachlorophenol	11.63	266	19889	18.07	ug/L		99
67)	Phenanthrene	11.83	178	141424	24.00	ug/L		100
68)	Anthracene	11.89	178	134393	23.45	ug/L		100
69)	Carbazole	12.07	167	104600	23.15	ug/L	#	98
70)	Di-n-butylphthalate	12.49	149	143613	22.55	ug/L		99

(#) = qu range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03577.D
Acq On : 08/16/01 15:25
Sample : BNA 20
Misc : S01166
MS Integration Params: rteint.p
Quant Time: Aug 17 06:33:40 2001

Vial: 7
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:33:28 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.34	202	139023	23.51	ug/L		100
72)	Benzidine	13.46	184	7175	14.56	ug/L	#	90
74)	Pyrene	13.63	202	168189	23.50	ug/L		99
76)	Butylbenzylphthalate	14.37	149	114296	21.95	ug/L		98
77)	3,3'-Dichlorobenzidine	15.10	252	36086	22.41	ug/L		99
78)	Benzo[a]anthracene	15.17	228	144550	22.94	ug/L		99
79)	Chrysene	15.24	228	144772	23.56	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.12	149	106174	22.24	ug/L		97
82)	Di-n-octylphthalate	16.11	149	139843	22.39	ug/L		99
83)	Benzo[b]fluoranthene	17.11	252	127955	23.11	ug/L		98
84)	Benzo[k]fluoranthene	17.16	252	126063	24.09	ug/L		99
85)	Benzo[a]pyrene	17.87	252	117225	23.02	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.23	276	128234	22.05	ug/L		96
87)	Dibenz[a,h]anthracene	21.26	278	108785	23.03	ug/L		95
88)	Benzo[g,h,i]perylene	22.22	276	121761	21.91	ug/L		92

8/17/01

(#) = qualifier out of range (m) = manual integration

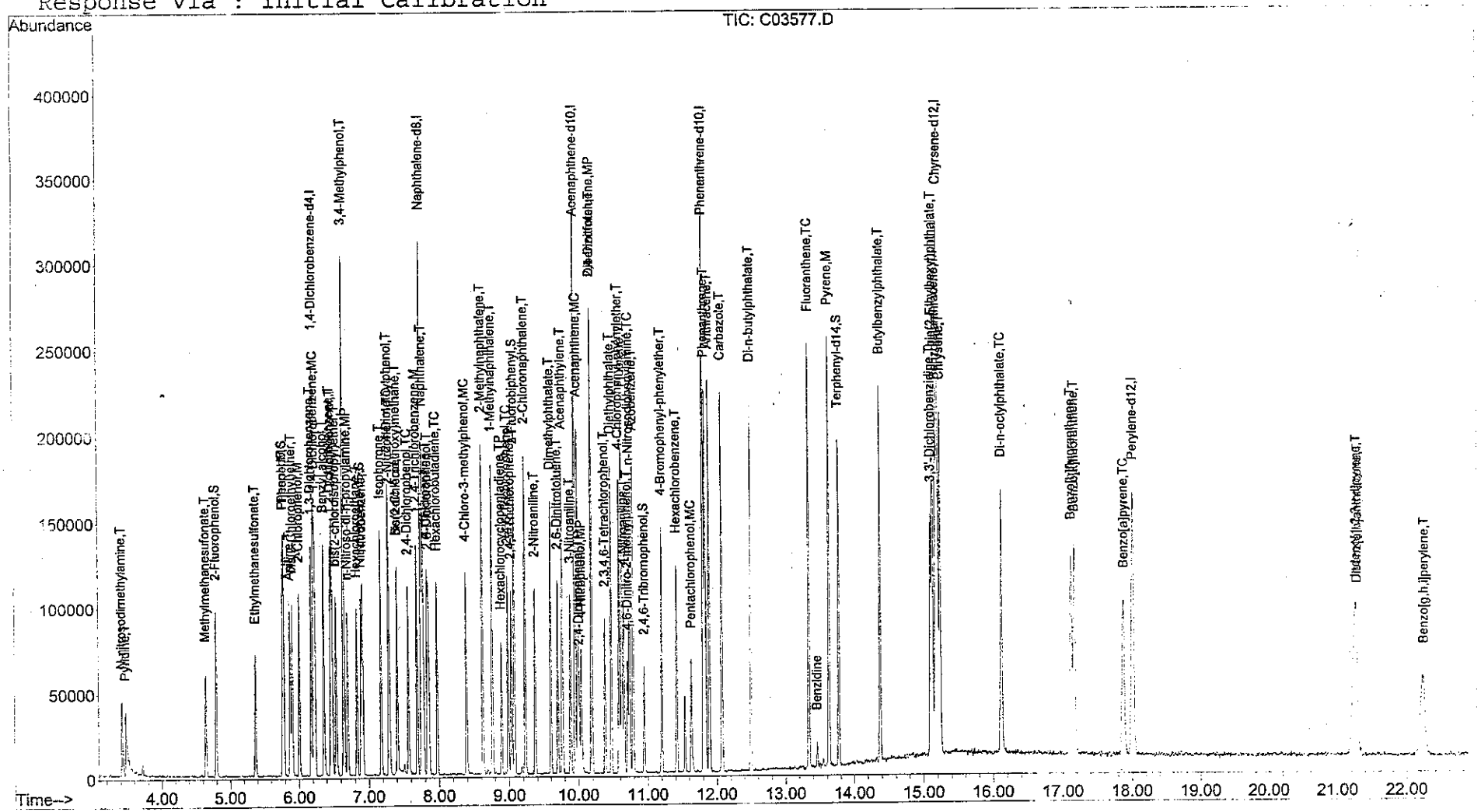
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03577.D
On : 08/16/01 15:25
Sample : BNA 20
Misc : S01166
MS Integration Params: rteint.p
Quant Time: Aug 17 6:34 2001

Vial: 7
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:33:28 2001
Response via : Initial Calibration



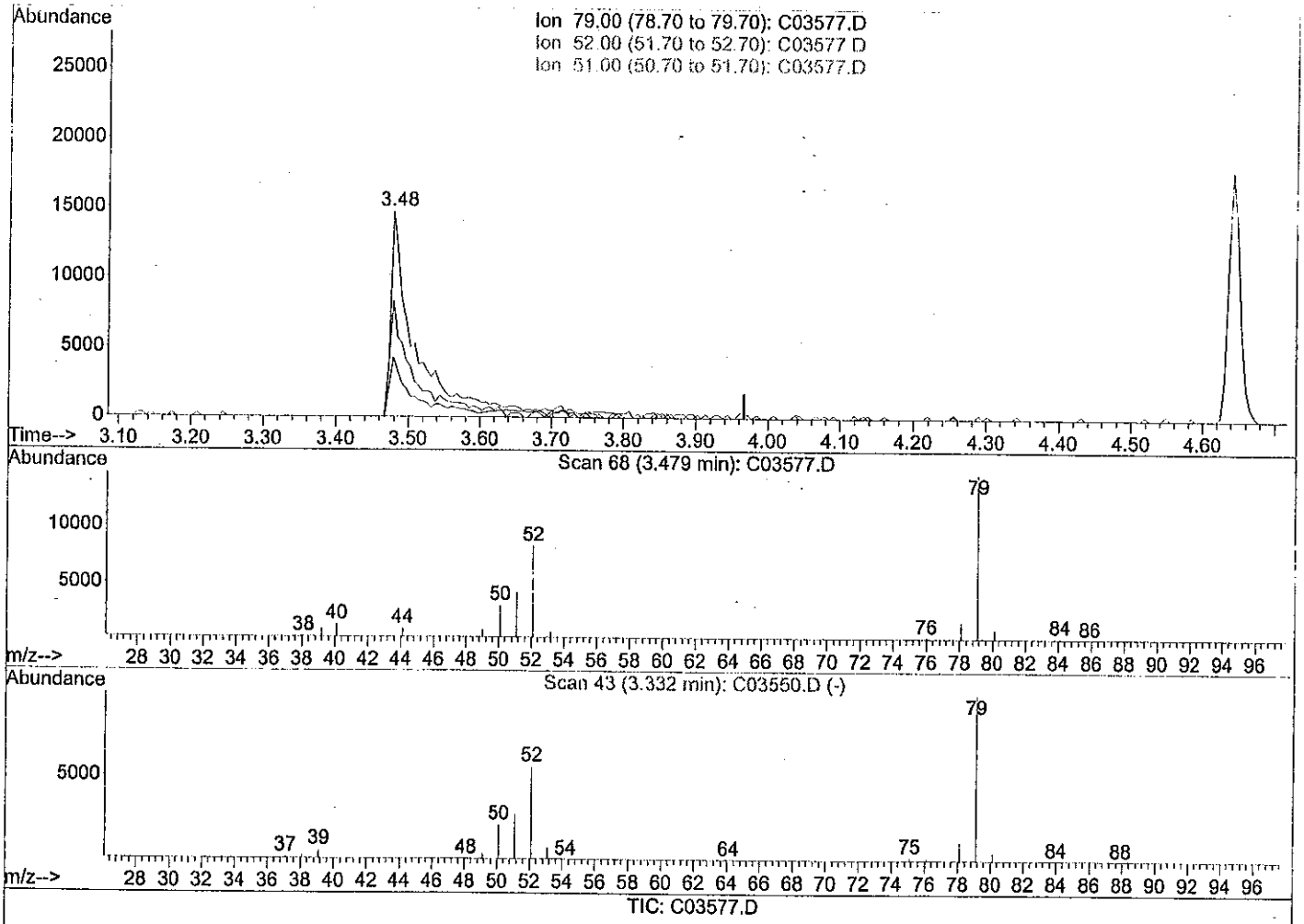
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03577.D
Acq On : 08/16/01 15:25
Sample : BNA 20
Misc : S01166
MS Integration Params: rteint.p
Quant Time: Aug 17 6:33 2001

Vial: 7
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:33:28 2001
Response via : Multiple Level Calibration



TIC: C03577.D

(2) Pyridine (T)

3.48min 21.94ug/L m

response 35644

Ion	Exp%	Act%
79.00	100	100
52.00	23.00	51.71#
51.00	14.30	20.71#
0.00	0.00	0.00

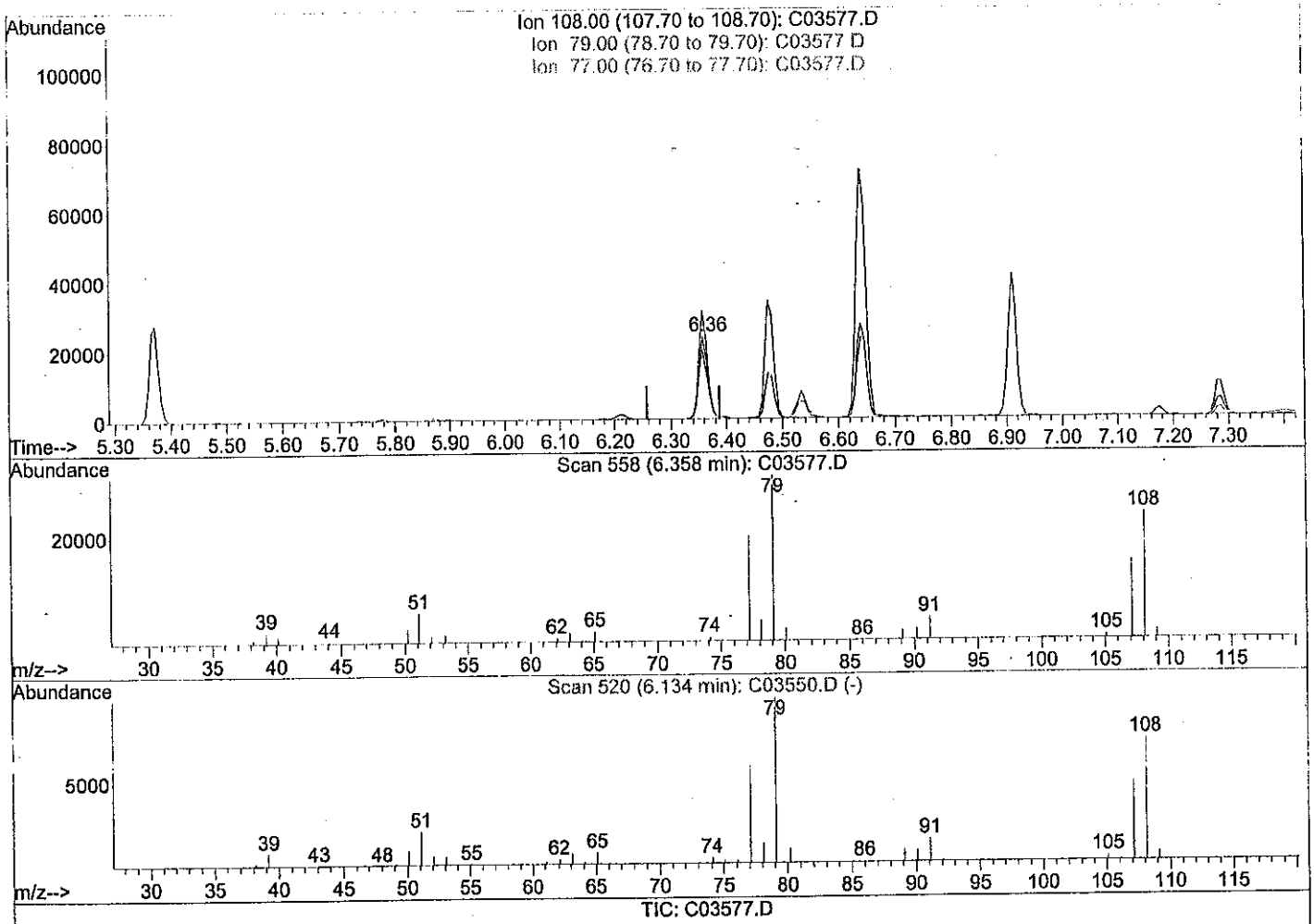
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03577.D
Acq On : 08/16/01 15:25
Sample : BNA 20
Misc : S01166
MS Integration Params: rteint.p
Quant Time: Aug 17 6:34 2001

Vial: 7
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:34:46 2001
Response via : Multiple Level Calibration



TIC: C03577.D

(14) Benzyl alcohol (T)

6.36min 24.20ug/L m

response 72914 SUMMED

Ion	Exp%	Act%
108.00	100	100
79.00	0.00	39.19# S
77.00	0.00	25.47# S
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03572.D
Acq On : 08/16/01 12:36
Sample : BNA 50 S01185
Misc : S01185
MS Integration Params: rteint.p
Quant Time: Aug 17 05:44:45 2001

Vial: 2
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 08:54:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	59086	40.00	ug/L	-0.01
21) Naphthalene-d8	7.75	136	148705	40.00	ug/L	-0.01
38) Acenaphthene-d10	9.95	164	190026	40.00	ug/L	-0.01
59) Phenanthrene-d10	11.80	188	148006	40.00	ug/L	-0.01
73) Chyrsene-d12	15.19	240	164486	40.00	ug/L	-0.02
81) Perylene-d12	18.00	264	148166	40.00	ug/L	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	121920	47.28	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 47.28%			
7) Phenol-d5	5.76	99	130865	47.83	ug/L	-0.01
Spiked Amount 100.000	Range 26 - 104		Recovery = 47.83%			
22) Nitrobenzene-d5	6.89	82	145474	43.73	ug/L	-0.01
Spiked Amount 50.000	Range 39 - 99		Recovery = 87.46%			
42) 2-Fluorobiphenyl	9.08	172	176333	43.28	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 86.56%			
63) 2,4,6-Tribromophenol	10.95	330	32229	46.36	ug/L	-0.01
Spiked Amount 100.000	Range 25 - 127		Recovery = 46.36%			
75) Terphenyl-d14	13.77	244	154143	48.81	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 97.62%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	70891	44.49	ug/L	98
3) N-nitrosodimethylamine	3.42	42	25706	41.71	ug/L	96
4) Methylmethanesufonate	4.64	80	42002	42.01	ug/L	96
6) Ethylmethanesulfonate	5.37	79	60627	51.81	ug/L	99
8) Phenol	5.78	94	159137	46.55	ug/L	100
9) Aniline	5.86	93	84058	42.32	ug/L	99
10) bis(2-Chloroethyl)ether	5.90	63	152591	53.17	ug/L	95
11) 2-Chlorophenol	6.00	128	118408	49.26	ug/L	98
12) 1,3-Dichlorobenzene	6.18	146	117518	47.82	ug/L	99
13) 1,4-Dichlorobenzene	6.23	146	116923	45.82	ug/L	100
14) Benzyl alcohol	6.36	108	138865m	46.00	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	109277	47.09	ug/L	99
16) 2-Methylphenol	6.48	108	121140	50.90	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	120067	54.81	ug/L	99
18) 3,4-Methylphenol	6.64	108	319081	99.78	ug/L	100
19) n-Nitroso-di-n-propylamine	6.69	70	86590	49.28	ug/L	99
20) Hexachloroethane	6.83	117	65364	44.49	ug/L	98
23) Nitrobenzene	6.91	77	129458	45.03	ug/L	99
24) Isophorone	7.17	82	156054	45.44	ug/L	99
25) 2-Nitrophenol	7.30	139	67571	43.26	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03572.D
Acq On : 08/16/01 12:36
Sample : BNA 50 S01185
Misc : S01185
MS Integration Params: rteint.p
Quant Time: Aug 17 05:44:45 2001

Vial: 2
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 08:54:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	154040	46.29	ug/L		99
27)	Benzoic Acid	7.36	105	21363	22.38	ug/L	#	90
28)	bis(2-Chloroethoxy)methane	7.41	93	127808	46.94	ug/L		99
29)	2,4-Dichlorophenol	7.57	162	99517	44.35	ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	113007	40.00	ug/L		100
31)	Naphthalene	7.77	128	222209	45.04	ug/L		99
32)	4-Chloroaniline	7.83	127	121609	45.87	ug/L		99
33)	2,6-Dichlorophenol	7.85	162	47238	44.63	ug/L		95
34)	Hexachlorobutadiene	7.97	225	61322	39.07	ug/L		98
35)	4-Chloro-3-methylphenol	8.38	107	115273	44.98	ug/L		99
36)	2-Methylnaphthalene	8.62	142	214750	45.84	ug/L		100
37)	1-Methylnaphthalene	8.76	142	104493	44.52	ug/L		99
39)	Hexachlorocyclopentadiene	8.90	237	44697	32.41	ug/L		99
40)	2,4,6-Trichlorophenol	8.98	196	74516	41.72	ug/L		100
41)	2,4,5-Trichlorophenol	9.03	196	81486	41.68	ug/L		100
43)	2-Chloronaphthalene	9.23	162	190912	46.53	ug/L		99
44)	2-Nitroaniline	9.37	65	111991	46.23	ug/L		98
45)	Dimethylphthalate	9.60	163	146287	45.49	ug/L		99
46)	Acenaphthylene	9.77	152	215379	45.96	ug/L		100
47)	2,6-Dinitrotoluene	9.70	165	53826	45.05	ug/L		97
48)	3-Nitroaniline	9.88	138	85818	47.54	ug/L		99
49)	Acenaphthene	9.99	153	259642	42.41	ug/L		99
50)	2,4-Dinitrophenol	10.01	184	139701	40.50	ug/L		94
51)	4-Nitrophenol	10.04	109	80687	43.15	ug/L		100
52)	Dibenzofuran	10.19	168	213608	44.43	ug/L		99
53)	2,4-Dinitrotoluene	10.19	165	68143	45.28	ug/L		95
54)	Diethylphthalate	10.47	149	165397	45.57	ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.38	232	24809	38.66	ug/L		98
56)	Fluorene	10.62	166	252225	44.41	ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	115931	41.20	ug/L		97
58)	4-Nitroaniline	10.65	138	85967	45.60	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.71	198	41431	45.65	ug/L		97
61)	n-Nitrosodiphenylamine	10.74	169	161927	49.12	ug/L		100
62)	Azobenzene	10.79	77	173334	48.57	ug/L		98
64)	4-Bromophenyl-phenylether	11.20	248	84607	43.92	ug/L		99
65)	Hexachlorobenzene	11.42	284	54701	45.29	ug/L		95
66)	Pentachlorophenol	11.63	266	40782	43.49	ug/L		99
67)	Phenanthrene	11.83	178	238259	44.91	ug/L		100
68)	Anthracene	11.89	178	229141	43.85	ug/L		100
69)	Carbazole	12.07	167	179957	48.57	ug/L	#	100
70)	Di-n-butylphthalate	12.49	149	251258	50.15	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03572.D
Acq On : 08/16/01 12:36
Sample : BNA 50 S01185
Misc : S01185
MS Integration Params: rteint.p
Quant Time: Aug 17 05:44:45 2001

Vial: 2
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Thu Aug 16 08:54:59 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.34	202	234652	43.80	ug/L		96
72) Benzidine	13.46	184	30660	53.45	ug/L	#	100
74) Pyrene	13.63	202	286121	50.23	ug/L		98
76) Butylbenzylphthalate	14.37	149	209541	54.13	ug/L		97
77) 3,3'-Dichlorobenzidine	15.10	252	63972	50.29	ug/L		97
78) Benzo[a]anthracene	15.17	228	249025	43.13	ug/L		100
79) Chrysene	15.24	228	248734	43.46	ug/L		99
80) bis(2-Ethylhexyl)phthalate	15.12	149	196087	57.23	ug/L		99
82) Di-n-octylphthalate	16.11	149	269720	54.97	ug/L		100
83) Benzo[b]fluoranthene	17.11	252	235367	45.45	ug/L		97
84) Benzo[k]fluoranthene	17.16	252	230890	44.64	ug/L		98
85) Benzo[a]pyrene	17.87	252	220961	45.96	ug/L		98
86) Indeno[1,2,3-cd]pyrene	21.23	276	272833	53.77	ug/L		95
87) Dibenz[a,h]anthracene	21.25	278	220724	51.83	ug/L		98
88) Benzo[g,h,i]perylene	22.22	276	268134	52.57	ug/L		97

8/17/01

(#) = qualifier out of range (m) = manual integration

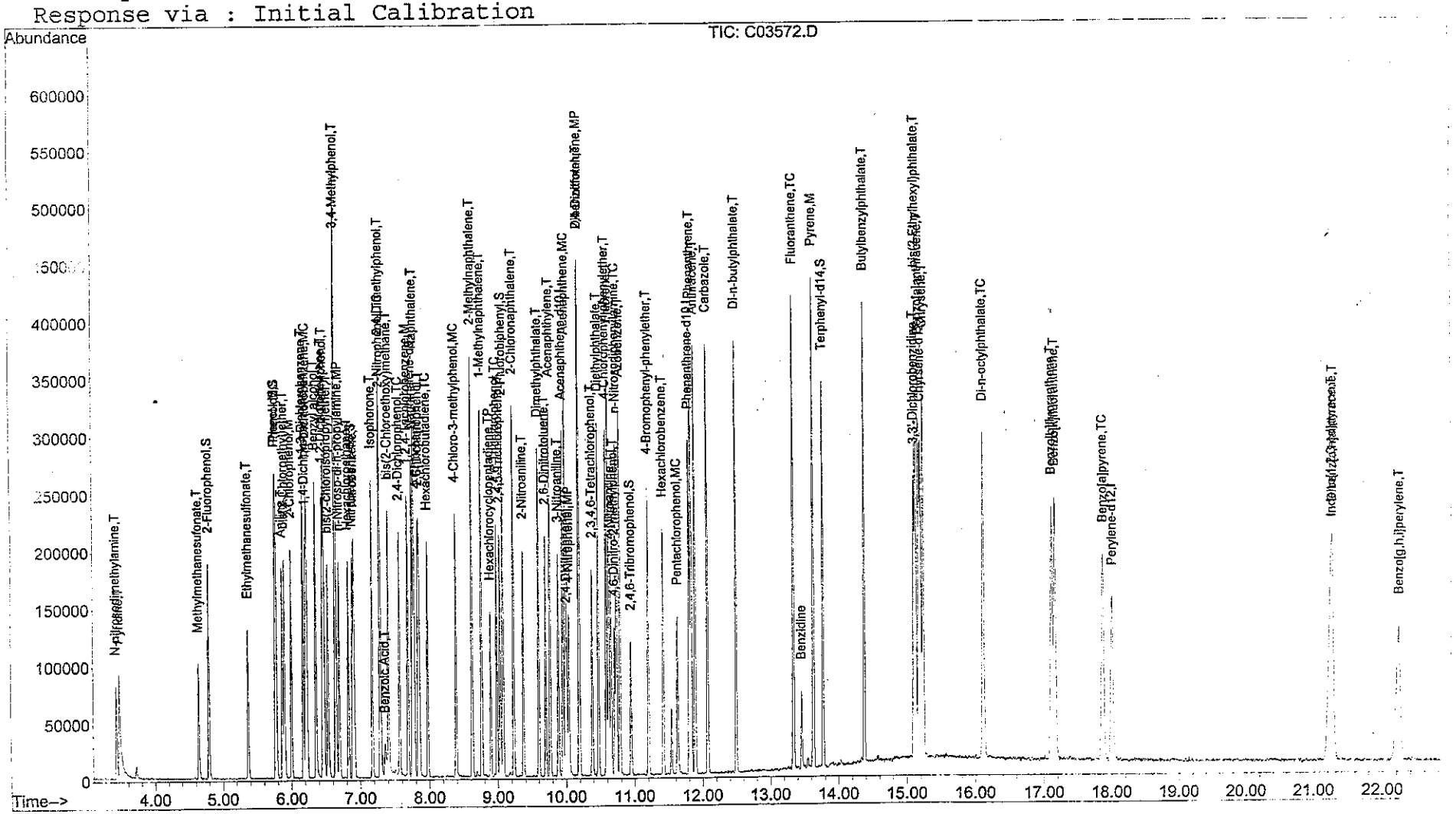
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03572.D
Acq On : 08/16/01 12:36
Sample : BNA 50 S01185
Misc : S01185
MS Integration Params: rteint.p
Quant Time: Aug 17 5:45 2001

Vial: 2
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:34:46 2001
Response via : Initial Calibration



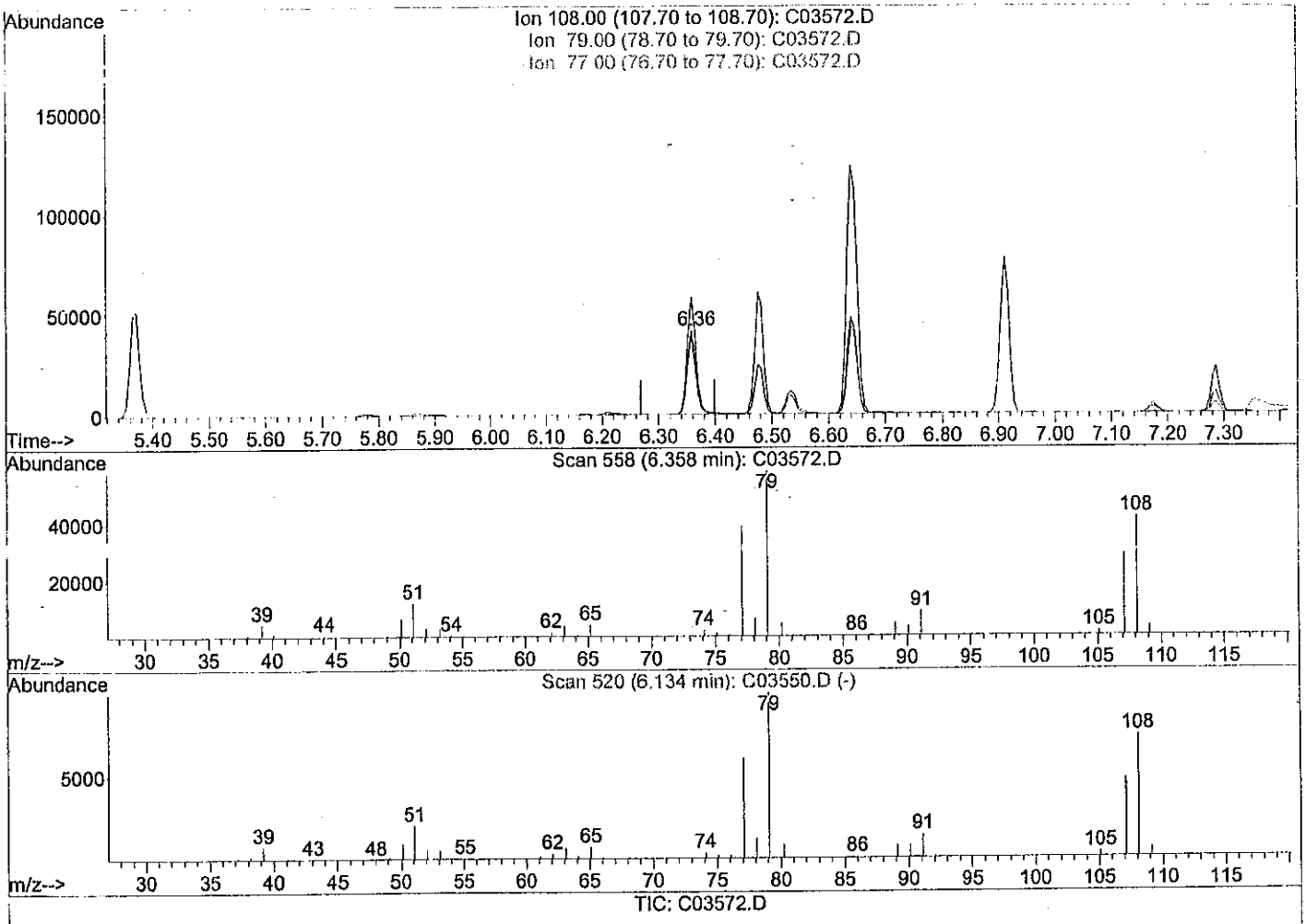
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03572.D
Acq On : 08/16/01 12:36
Sample : BNA 50 S01185
Misc : S01185
MS Integration Params: rteint.p
Quant Time: Aug 17 5:45 2001

Vial: 2
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:34:46 2001
Response via : Multiple Level Calibration



TIC: C03572.D

(14) Benzyl alcohol (T)

6.36min 46.00ug/L m

response 138865 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	42.10	39.80	S
77.00	26.60	25.67	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03576.D
Acq On : 08/16/01 14:51
Sample : BNA 80
Misc : S01164
MS Integration Params: rteint.p
Quant Time: Aug 17 06:39:37 2001

Vial: 6
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:39:25 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	77029	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	197819	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	255625	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	203985	40.00	ug/L	0.00
73) Chyrsene-d12	15.20	240	222785	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	197500	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	256163	80.25	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 80.25%			
7) Phenol-d5	5.76	99	294925	83.04	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 83.04%			
22) Nitrobenzene-d5	6.89	82	326397	80.41	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 160.82%#			
42) 2-Fluorobiphenyl	9.08	172	402884	80.06	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 160.12%#			
63) 2,4,6-Tribromophenol	10.95	330	77646	83.85	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 83.85%			
75) Terphenyl-d14	13.77	244	344986	78.94	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 157.88%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	157597	83.87	ug/L	96
3) N-nitrosodimethylamine	3.42	42	54138	77.79	ug/L	98
4) Methylmethanesufonate	4.64	80	95969	82.07	ug/L	97
6) Ethylmethanesulfonate	5.36	79	135166	82.26	ug/L	99
8) Phenol	5.78	94	346568	81.26	ug/L	99
9) Aniline	5.87	93	165547	74.89	ug/L	99
10) bis(2-Chloroethyl)ether	5.90	63	330667	82.65	ug/L	99
11) 2-Chlorophenol	6.00	128	259275	81.96	ug/L	98
12) 1,3-Dichlorobenzene	6.18	146	248426	80.27	ug/L	98
13) 1,4-Dichlorobenzene	6.23	146	252634	78.96	ug/L	100
14) Benzyl alcohol	6.36	108	306092m	90.68	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	236617	80.44	ug/L	98
16) 2-Methylphenol	6.48	108	264196	81.09	ug/L	98
17) bis(2-chloroisopropyl)ethe	6.53	45	258145	81.27	ug/L	99
18) 3,4-Methylphenol	6.64	108	695747	163.08	ug/L	100
19) n-Nitroso-di-n-propylamine	6.70	70	190879	82.60	ug/L	99
20) Hexachloroethane	6.83	117	140094	79.74	ug/L	100
23) Nitrobenzene	6.91	77	283836	79.49	ug/L	99
24) Isophorone	7.17	82	353473	81.99	ug/L	99
25) 2-Nitrophenol	7.30	139	152591	81.25	ug/L	99

(#) = qualif. out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03576.D
Acq On : 08/16/01 14:51
Sample : BNA 80
Misc : S01164
MS Integration Params: rteint.p
Quant Time: Aug 17 06:39:37 2001

Vial: 6
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:39:25 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	329652	81.74 ug/L		100
27)	Benzoic Acid	7.36	105	87115	79.77 ug/L		91
28)	bis(2-Chloroethoxy)methane	7.41	93	290985	81.75 ug/L		99
29)	2,4-Dichlorophenol	7.57	162	222432	79.59 ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	249243	78.84 ug/L		99
31)	Naphthalene	7.77	128	488147	79.13 ug/L		99
32)	4-Chloroaniline	7.83	127	266472	80.54 ug/L		99
33)	2,6-Dichlorophenol	7.85	162	105879	80.92 ug/L		99
34)	Hexachlorobutadiene	7.97	225	136147	80.35 ug/L		99
35)	4-Chloro-3-methylphenol	8.38	107	263250	83.76 ug/L		99
36)	2-Methylnaphthalene	8.62	142	484004	81.65 ug/L		100
37)	1-Methylnaphthalene	8.76	142	244039	81.75 ug/L		99
39)	Hexachlorocyclopentadiene	8.89	237	110496	84.66 ug/L		99
40)	2,4,6-Trichlorophenol	8.98	196	179382	85.36 ug/L		99
41)	2,4,5-Trichlorophenol	9.03	196	191371	83.29 ug/L		99
43)	2-Chloronaphthalene	9.23	162	432856	80.44 ug/L		99
44)	2-Nitroaniline	9.37	65	271078	82.85 ug/L		99
45)	Dimethylphthalate	9.60	163	343850	82.63 ug/L		100
46)	Acenaphthylene	9.77	152	495854	81.96 ug/L		100
47)	2,6-Dinitrotoluene	9.70	165	131260	84.05 ug/L		98
48)	3-Nitroaniline	9.88	138	199389	82.63 ug/L		99
49)	Acenaphthene	9.99	153	605681	82.41 ug/L		100
50)	2,4-Dinitrophenol	10.01	184	311325	79.36 ug/L		94
51)	4-Nitrophenol	10.04	109	186075	81.01 ug/L		99
52)	Dibenzofuran	10.19	168	489155	80.79 ug/L		100
53)	2,4-Dinitrotoluene	10.19	165	159396	82.43 ug/L		99
54)	Diethylphthalate	10.47	149	382341	80.74 ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.38	232	58718	83.51 ug/L		98
56)	Fluorene	10.62	166	586607	80.20 ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	259400	78.94 ug/L		99
58)	4-Nitroaniline	10.66	138	205386	83.04 ug/L		100
60)	4,6-Dinitro-2-methylphenol	10.71	198	108599	81.25 ug/L		98
61)	n-Nitrosodiphenylamine	10.74	169	376576	81.12 ug/L		100
62)	Azobenzene	10.79	77	406409	80.02 ug/L		98
64)	4-Bromophenyl-phenylether	11.20	248	195461	79.90 ug/L		99
65)	Hexachlorobenzene	11.42	284	125244	80.19 ug/L		98
66)	Pentachlorophenol	11.63	266	107807	85.03 ug/L		98
67)	Phenanthrene	11.83	178	524439	77.25 ug/L		100
68)	Anthracene	11.89	178	527842	79.94 ug/L		99
69)	Carbazole	12.07	167	417222	80.14 ug/L	#	99
70)	Di-n-butylphthalate	12.49	149	597277	81.40 ug/L		99

(#) = qualifier out of range (a) manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03576.D
Acq On : 08/16/01 14:51
Sample : BNA 80
Misc : S01164
MS Integration Params: rteint.p
Quant Time: Aug 17 06:39:37 2001

Vial: 6
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:39:25 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.34	202	541908	79.54	ug/L		99
72) Benzidine	13.46	184	34930	61.52	ug/L	#	95
74) Pyrene	13.63	202	654463	80.47	ug/L		99
76) Butylbenzylphthalate	14.37	149	496861	84.00	ug/L		98
77) 3,3'-Dichlorobenzidine	15.10	252	154177	84.25	ug/L		100
78) Benzo[a]anthracene	15.17	228	578782	80.84	ug/L		100
79) Chrysene	15.24	228	560858	80.33	ug/L		100
80) bis(2-Ethylhexyl)phthalate	15.12	149	451347	83.20	ug/L		100
82) Di-n-octylphthalate	16.11	149	637944	83.78	ug/L		99
83) Benzo[b]fluoranthene	17.12	252	541256	80.20	ug/L		98
84) Benzo[k]fluoranthene	17.16	252	499176	78.24	ug/L		98
85) Benzo[a]pyrene	17.87	252	495668	79.86	ug/L		99
86) Indeno[1,2,3-cd]pyrene	21.25	276	568978	80.26	ug/L		100
87) Dibenz[a,h]anthracene	21.27	278	465494	80.84	ug/L		100
88) Benzo[g,h,i]perylene	22.22	276	542931	80.16	ug/L		100

8/17/01

(#) = qualifier out of range (= manual i

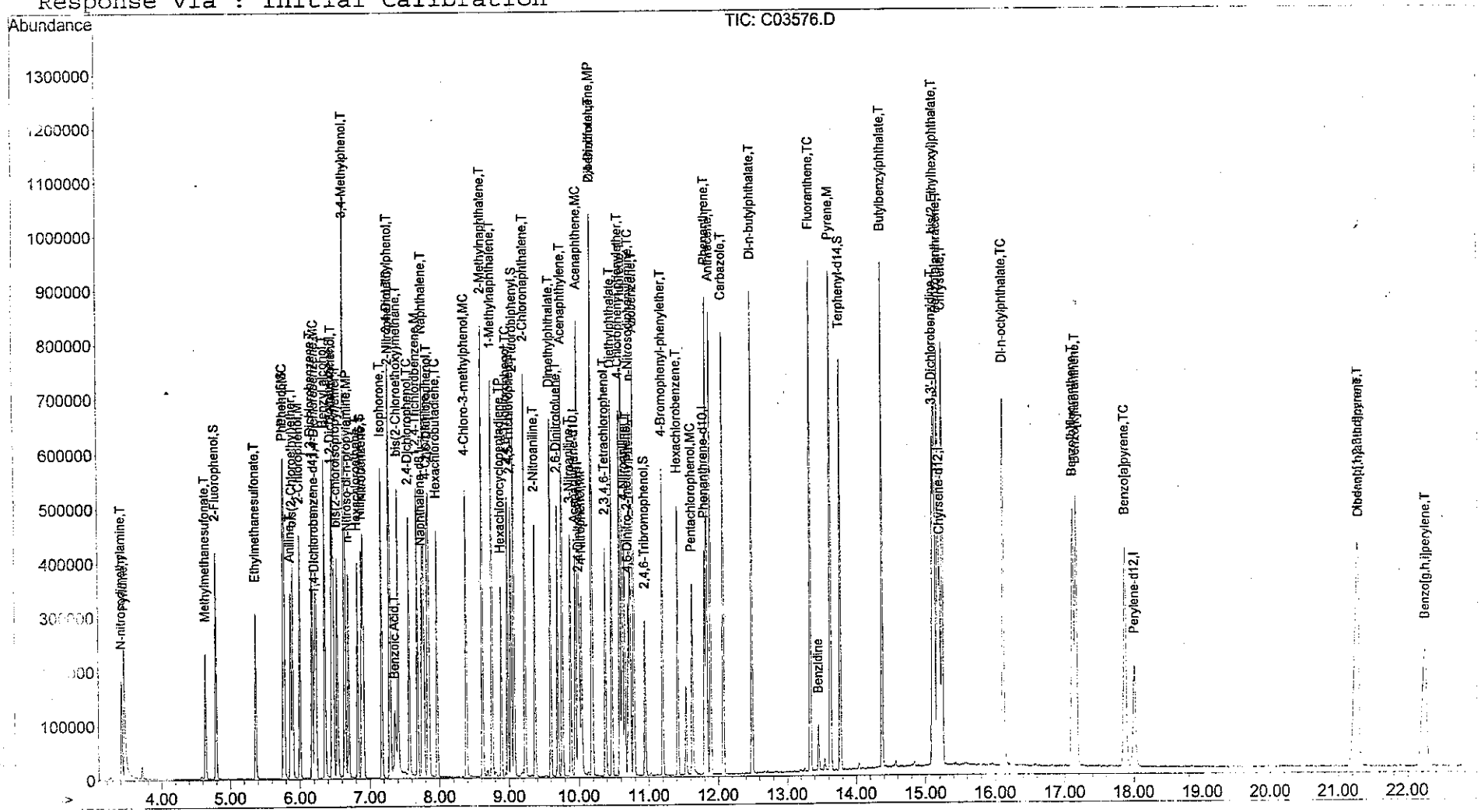
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03576.D
Acq On : 08/16/01 14:51
Sample : BNA 80
Misc : S01164
MS Integration Params: rteint.p
Quant Time: Aug 17 6:39 2001

Vial: 6
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:39:25 2001
Response via : Initial Calibration



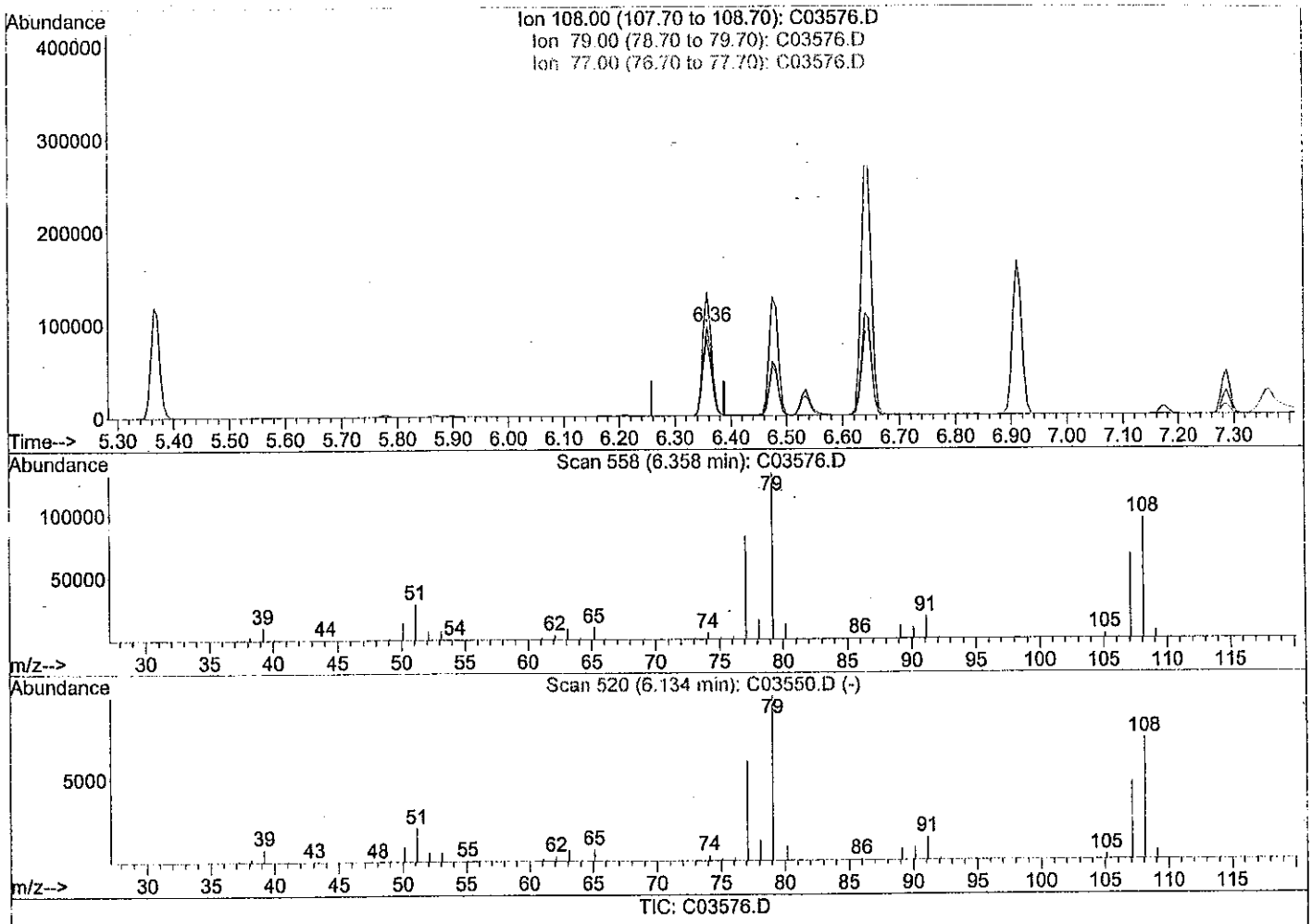
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03576.D
Acq On : 08/16/01 14:51
Sample : BNA 80
Misc : S01164
MS Integration Params: rteint.p
Quant Time: Aug 17 6:39 2001

Vial: 6
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Multiple Level Calibration



TIC: C03576.D

(14) Benzyl alcohol (T)

6.36min 90.68ug/L m

response 306092 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	39.80	40.85	S
77.00	25.70	25.31	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03575.D
Acq On : 08/16/01 14:17
Sample : BNA 120
Misc : S01163
MS Integration Params: rteint.p
Quant Time: Aug 17 06:42:06 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	69543	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	167144	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	215985	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	163052	40.00	ug/L	0.00
73) Chyrsene-d12	15.20	240	183639	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	159960	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	337871	117.24	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 117.24%#			
7) Phenol-d5	5.76	99	376790	117.51	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 117.51%#			
22) Nitrobenzene-d5	6.89	82	415982	121.28	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 242.56%#			
42) 2-Fluorobiphenyl	9.08	172	496831	116.84	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 233.68%#			
63) 2,4,6-Tribromophenol	10.95	330	92000	124.29	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 124.29%			
75) Terphenyl-d14	13.77	244	429309	119.18	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 238.36%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	214473	126.43	ug/L	96
3) N-nitrosodimethylamine	3.42	42	71441	113.70	ug/L	97
4) Methylmethanesufonate	4.64	80	123317	116.81	ug/L	99
6) Ethylmethanesulfonate	5.36	79	168085	113.30	ug/L	99
8) Phenol	5.78	94	448018	116.35	ug/L	99
9) Aniline	5.87	93	229308	114.90	ug/L	94
10) bis(2-Chloroethyl)ether	5.90	63	396210	109.69	ug/L	98
11) 2-Chlorophenol	6.01	128	335166	117.36	ug/L	99
12) 1,3-Dichlorobenzene	6.18	146	322514	115.42	ug/L	100
13) 1,4-Dichlorobenzene	6.23	146	326910	113.17	ug/L	99
14) Benzyl alcohol	6.36	108	392429m	128.79	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	302681	113.97	ug/L	99
16) 2-Methylphenol	6.48	108	336477	114.39	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.53	45	327204	114.10	ug/L	100
18) 3,4-Methylphenol	6.65	108	878919	228.19	ug/L	100
19) n-Nitroso-di-n-propylamine	6.70	70	243639	116.78	ug/L	99
20) Hexachloroethane	6.83	117	184964	116.61	ug/L	99
23) Nitrobenzene	6.91	77	358501	118.83	ug/L	99
24) Isophorone	7.17	82	434773	119.36	ug/L	100
25) 2-Nitrophenol	7.29	139	1914 9	120.63	ug/	99

(#) = qualifier out of range (m) = manua_ integra n

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03575.D
Acq On : 08/16/01 14:17
Sample : BNA 120
Misc : S01163
MS Integration Params: rteint.p
Quant Time: Aug 17 06:42:06 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	416917	122.35 ug/L		99
27)	Benzoic Acid	7.37	105	123012	133.31 ug/L		92
28)	bis(2-Chloroethoxy)methane	7.41	93	357152	118.75 ug/L		100
29)	2,4-Dichlorophenol	7.57	162	286877	121.50 ug/L		100
30)	1,2,4-Trichlorobenzene	7.69	180	315127	117.98 ug/L		100
31)	Naphthalene	7.77	128	607139	116.48 ug/L		100
32)	4-Chloroaniline	7.83	127	323451	115.70 ug/L		100
33)	2,6-Dichlorophenol	7.85	162	134894	122.02 ug/L		98
34)	Hexachlorobutadiene	7.97	225	174575	121.94 ug/L		99
35)	4-Chloro-3-methylphenol	8.38	107	313152	117.93 ug/L		100
36)	2-Methylnaphthalene	8.62	142	597573	119.31 ug/L		100
37)	1-Methylnaphthalene	8.76	142	301894	119.68 ug/L		99
39)	Hexachlorocyclopentadiene	8.89	237	139239	126.26 ug/L		100
40)	2,4,6-Trichlorophenol	8.98	196	213814	120.42 ug/L		99
41)	2,4,5-Trichlorophenol	9.03	196	231998	119.50 ug/L		100
43)	2-Chloronaphthalene	9.23	162	525034	115.47 ug/L		100
44)	2-Nitroaniline	9.37	65	324648	117.44 ug/L		100
45)	Dimethylphthalate	9.60	163	401776	114.26 ug/L		99
46)	Acenaphthylene	9.77	152	592466	115.90 ug/L		99
47)	2,6-Dinitrotoluene	9.70	165	160214	121.42 ug/L		100
48)	3-Nitroaniline	9.89	138	235887	115.70 ug/L		100
49)	Acenaphthene	9.99	153	711365	114.56 ug/L		100
50)	2,4-Dinitrophenol	10.01	184	401176	121.04 ug/L		91
51)	4-Nitrophenol	10.04	109	222216	114.50 ug/L		99
52)	Dibenzofuran	10.19	168	576535	112.69 ug/L		100
53)	2,4-Dinitrotoluene	10.19	165	189900	116.22 ug/L		99
54)	Diethylphthalate	10.47	149	460885	115.20 ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.38	232	73540	123.79 ug/L		98
56)	Fluorene	10.62	166	709489	114.80 ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	327397	117.91 ug/L		100
58)	4-Nitroaniline	10.66	138	242323	115.95 ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.71	198	134625	126.00 ug/L		99
61)	n-Nitrosodiphenylamine	10.74	169	446887	120.44 ug/L		100
62)	Azobenzene	10.79	77	483289	119.05 ug/L		99
64)	4-Bromophenyl-phenylether	11.20	248	233798	119.56 ug/L		99
65)	Hexachlorobenzene	11.42	284	148998	119.35 ug/L		99
66)	Pentachlorophenol	11.63	266	128562	126.85 ug/L		98
67)	Phenanthrene	11.83	178	631056	116.28 ug/L		99
68)	Anthracene	11.89	178	624870	118.39 ug/L		99
69)	Carbazole	12.07	167	500729	120.32 ug/L	#	100
70)	Di-n-butylphthalate	12.49	149	726663	123.90 ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03575.D
Acq On : 08/16/01 14:17
Sample : BNA 120
Misc : S01163
MS Integration Params: rteint.p
Quant Time: Aug 17 06:42:06 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.34	202	653147	119.93	ug/L		100
72)	Benzidine	13.46	184	49351	108.73	ug/L	#	100
74)	Pyrene	13.63	202	786942	117.38	ug/L		100
76)	Butylbenzylphthalate	14.37	149	588822	120.76	ug/L		99
77)	3,3'-Dichlorobenzidine	15.10	252	183440	121.61	ug/L		96
78)	Benzo[a]anthracene	15.17	228	695882	117.91	ug/L		100
79)	Chrysene	15.24	228	668535	116.16	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.12	149	549037	122.78	ug/L		100
82)	Di-n-octylphthalate	16.11	149	787337	127.66	ug/L		99
83)	Benzo[b]fluoranthene	17.12	252	651536	119.19	ug/L		99
84)	Benzo[k]fluoranthene	17.16	252	604621	117.01	ug/L		98
85)	Benzo[a]pyrene	17.87	252	600607	119.47	ug/L		98
86)	Indeno[1,2,3-cd]pyrene	21.24	276	683057	118.97	ug/L		99
87)	Dibenz[a,h]anthracene	21.27	278	564614	121.06	ug/L		100
88)	Benzo[g,h,i]perylene	22.23	276	651734	118.80	ug/L		99

8/17/01

(#) = qualifier o t of ge (m = manual integration
C03575.D 8270.M Aug 17 06:42:48 2001

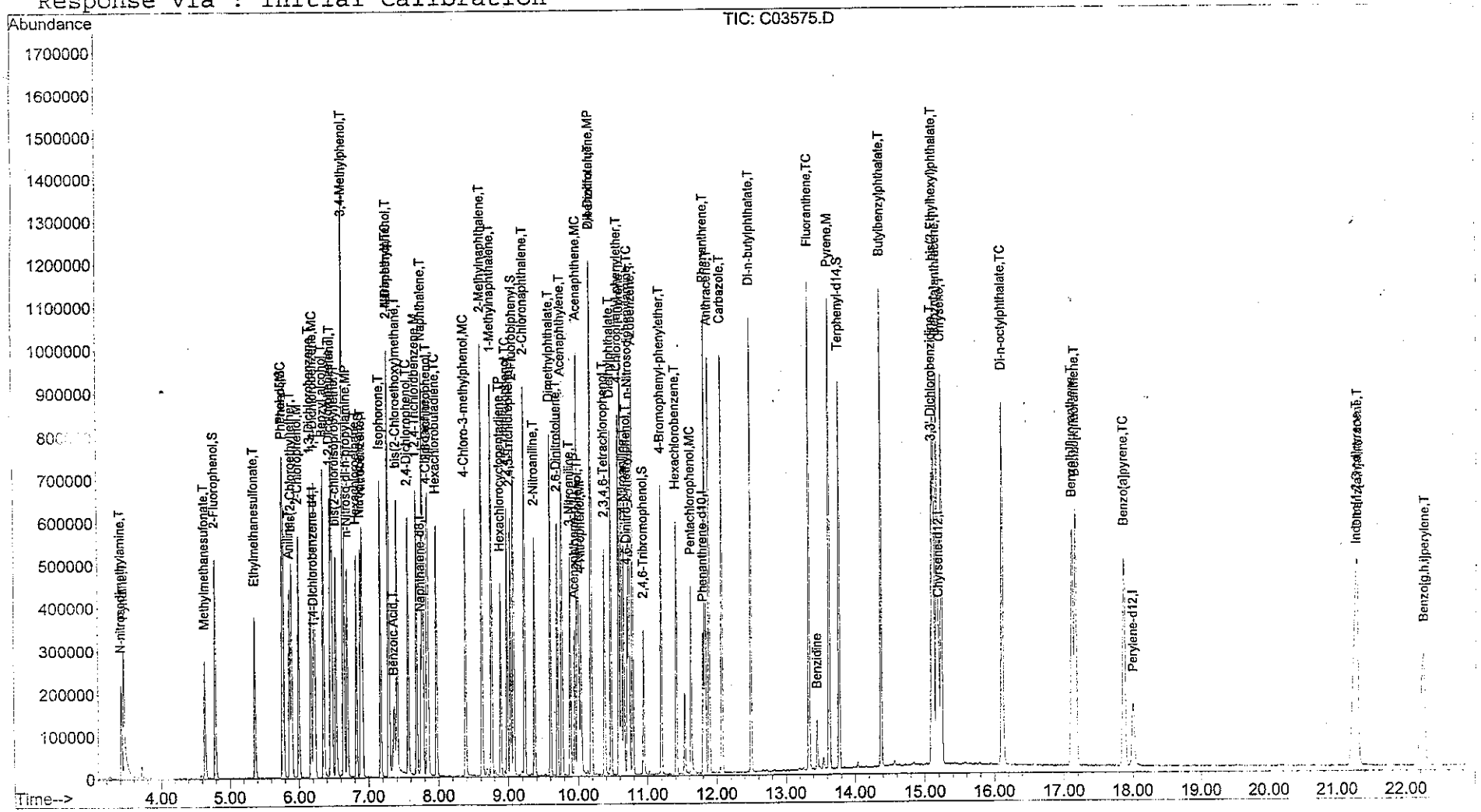
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03575.D
Acq On : 08/16/01 14:17
Sample : BNA 120
Misc : S01163
MS Integration Params: rteint.p
Quant Time: Aug 17 6:42 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Initial Calibration



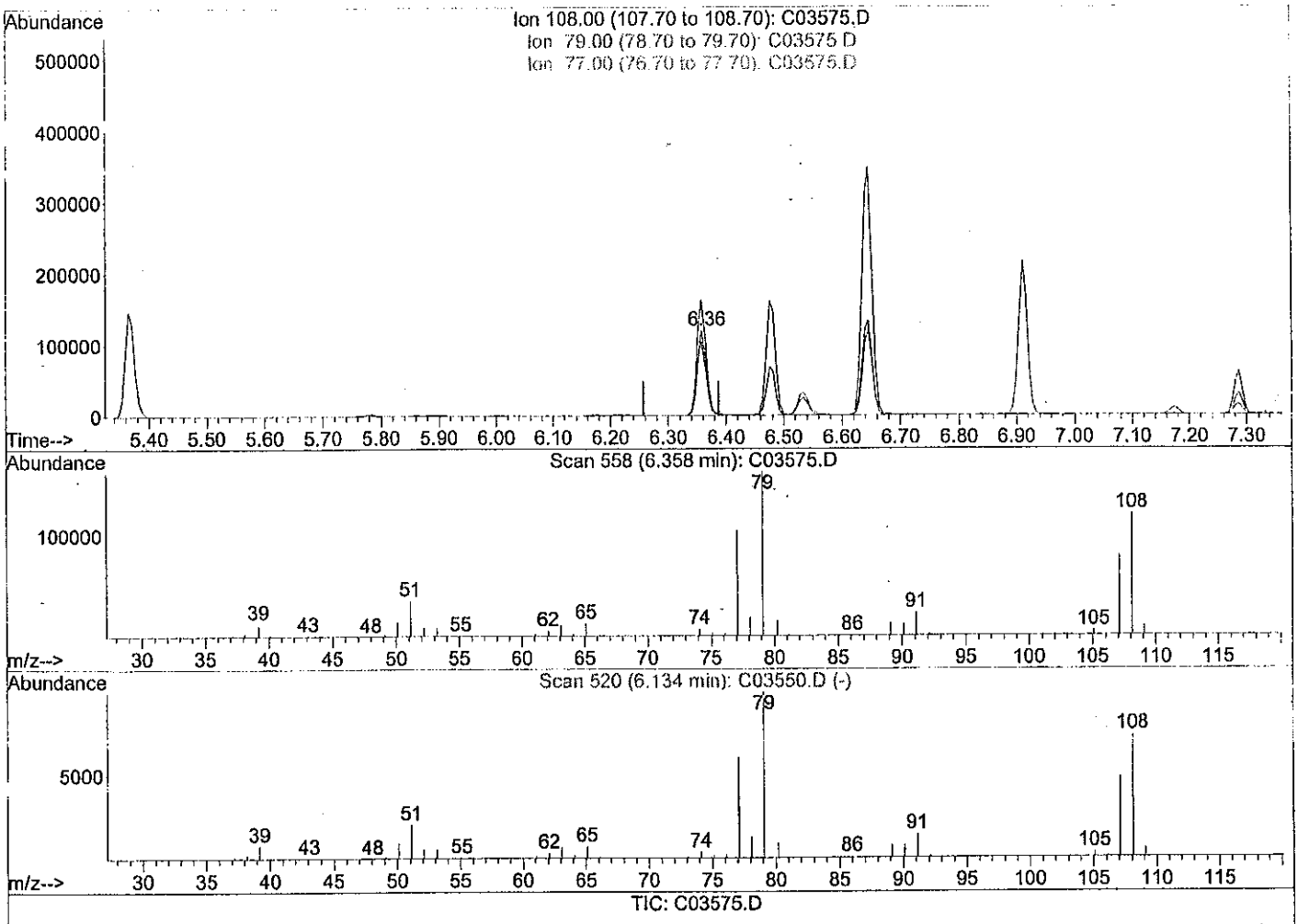
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03575.D
Acq On : 08/16/01 14:17
Sample : BNA 120
Misc : S01163
MS Integration Params: rteint.p
Quant Time: Aug 17 6:42 2001

Vial: 5
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:40:31 2001
Response via : Multiple Level Calibration



TIC: C03575.D

(14) Benzyl alcohol (T)

6.36min 128.79ug/L m

response 392429 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	40.90	40.45	S
77.00	25.30	25.46	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03574.D
Acq On : 08/16/01 13:43
Sample : BNA 160
Misc : S01162
MS Integration Params: rteint.p
Quant Time: Aug 17 06:43:09 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:42:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	71732	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	175045	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	222753	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	180063	40.00	ug/L	0.00
73) Chyrsene-d12	15.20	240	207195	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	189431	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	482531	162.33	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 162.33%#			
7) Phenol-d5	5.76	99	533009	161.16	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 161.16%#			
22) Nitrobenzene-d5	6.89	82	578830	161.14	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 322.28%#			
42) 2-Fluorobiphenyl	9.07	172	670290	152.85	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 305.70%#			
63) 2,4,6-Tribromophenol	10.95	330	131743	161.16	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 161.16%#			
75) Terphenyl-d14	13.77	244	616231	151.62	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 303.24%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	304802	174.19	ug/L	99
3) N-nitrosodimethylamine	3.42	42	106453	164.25	ug/L	97
4) Methylmethanesufonate	4.64	80	172639	158.53	ug/L	99
6) Ethylmethanesulfonate	5.36	79	247448	161.71	ug/L	99
8) Phenol	5.78	94	630917	158.85	ug/L	100
9) Aniline	5.87	93	310357	150.77	ug/L	98
10) bis(2-Chloroethyl)ether	5.90	63	564211	151.43	ug/L	100
11) 2-Chlorophenol	6.00	128	455317	154.57	ug/L	100
12) 1,3-Dichlorobenzene	6.18	146	449569	155.99	ug/L	99
13) 1,4-Dichlorobenzene	6.23	146	456851	153.33	ug/L	100
14) Benzyl alcohol	6.36	108	547150m	174.06	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	430690	157.23	ug/L	100
16) 2-Methylphenol	6.48	108	472617	155.77	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	453475	153.31	ug/L	99
18) 3,4-Methylphenol	6.65	108	1214605	305.72	ug/L	99
19) n-Nitroso-di-n-propylamine	6.70	70	337606	156.88	ug/L	100
20) Hexachloroethane	6.83	117	261450	159.80	ug/L	99
23) Nitrobenzene	6.91	77	506346	160.26	ug/L	99
24) Isophorone	7.17	82	598510	156.89	ug/L	99
25) 2-Nitrophenol	7.30	139	266170	160.16	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03574.D
Acq On : 08/16/01 13:43
Sample : BNA 160
Misc : S01162
MS Integration Params: rteint.p
Quant Time: Aug 17 06:43:09 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:42:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	580657	162.71 ug/L		100
27)	Benzoic Acid	7.37	105	187544	194.08 ug/L		96
28)	bis(2-Chloroethoxy)methane	7.41	93	493213	156.59 ug/L		100
29)	2,4-Dichlorophenol	7.57	162	396283	160.26 ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	436930	156.20 ug/L		99
31)	Naphthalene	7.77	128	851791	156.05 ug/L		100
32)	4-Chloroaniline	7.83	127	442842	151.26 ug/L		100
33)	2,6-Dichlorophenol	7.85	162	181710	156.94 ug/L		97
34)	Hexachlorobutadiene	7.97	225	239420	159.69 ug/L		99
35)	4-Chloro-3-methylphenol	8.38	107	442641	159.17 ug/L		99
36)	2-Methylnaphthalene	8.62	142	817625	155.88 ug/L		100
37)	1-Methylnaphthalene	8.76	142	399292	151.15 ug/L		99
39)	Hexachlorocyclopentadiene	8.89	237	195018	171.47 ug/L		100
40)	2,4,6-Trichlorophenol	8.98	196	288858	157.75 ug/L		100
41)	2,4,5-Trichlorophenol	9.03	196	317284	158.47 ug/L		99
43)	2-Chloronaphthalene	9.23	162	709514	151.30 ug/L		100
44)	2-Nitroaniline	9.37	65	460774	161.62 ug/L		100
45)	Dimethylphthalate	9.60	163	567882	156.60 ug/L		99
46)	Acenaphthylene	9.77	152	826901	156.84 ug/L		100
47)	2,6-Dinitrotoluene	9.70	165	226142	166.17 ug/L		99
48)	3-Nitroaniline	9.89	138	338683	161.08 ug/L		100
49)	Acenaphthene	9.99	153	967665	151.10 ug/L		99
50)	2,4-Dinitrophenol	10.01	184	566386	165.69 ug/L		98
51)	4-Nitrophenol	10.04	109	332489	166.11 ug/L		100
52)	Dibenzofuran	10.19	168	795475	150.77 ug/L		99
53)	2,4-Dinitrotoluene	10.20	165	278708	165.39 ug/L		99
54)	Diethylphthalate	10.47	149	652334	158.09 ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.38	232	103268	168.55 ug/L		99
56)	Fluorene	10.62	166	991088	155.49 ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	443913	155.02 ug/L		100
58)	4-Nitroaniline	10.66	138	357556	165.89 ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.71	198	198065	167.86 ug/L		99
61)	n-Nitrosodiphenylamine	10.73	169	620315	151.38 ug/L		100
62)	Azobenzene	10.79	77	679583	151.59 ug/L		99
64)	4-Bromophenyl-phenylether	11.20	248	328183	151.97 ug/L		99
65)	Hexachlorobenzene	11.42	284	212050	153.81 ug/L		100
66)	Pentachlorophenol	11.63	266	188622	168.53 ug/L		99
67)	Phenanthrene	11.83	178	914516	152.60 ug/L		100
68)	Anthracene	11.89	178	878174	150.66 ug/L		100
69)	Carbazole	12.07	167	719970	156.66 ug/L	#	99
70)	Di-n-butylphthalate	12.49	149	1037332	160.16 ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03574.D
Acq On : 08/16/01 13:43
Sample : BNA 160
Misc : S01162
MS Integration Params: rteint.p
Quant Time: Aug 17 06:43:09 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:42:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.34	202	940749	156.42	ug/L		99
72) Benzidine	13.46	184	84332	168.25	ug/L	#	99
74) Pyrene	13.63	202	1134144	149.94	ug/L		99
76) Butylbenzylphthalate	14.37	149	876247	159.28	ug/L		100
77) 3,3'-Dichlorobenzidine	15.10	252	282584	166.04	ug/L		97
78) Benzo[a]anthracene	15.17	228	1037149	155.75	ug/L		100
79) Chrysene	15.24	228	1007893	155.22	ug/L		100
80) bis(2-Ethylhexyl)phthalate	15.12	149	811521	160.85	ug/L		100
82) Di-n-octylphthalate	16.11	149	1182955	161.97	ug/L		100
83) Benzo[b]fluoranthene	17.12	252	993540	153.48	ug/L		100
84) Benzo[k]fluoranthene	17.17	252	957349	156.45	ug/L		99
85) Benzo[a]pyrene	17.87	252	933281	156.76	ug/L		99
86) Indeno[1,2,3-cd]pyrene	21.26	276	1089760	160.27	ug/L		99
87) Dibenz[a,h]anthracene	21.28	278	879186	159.18	ug/L		98
88) Benzo[g,h,i]perylene	22.24	276	1063861	163.76	ug/L		100

8/17/01

(#) = qualifier out of range (m) = manual integration

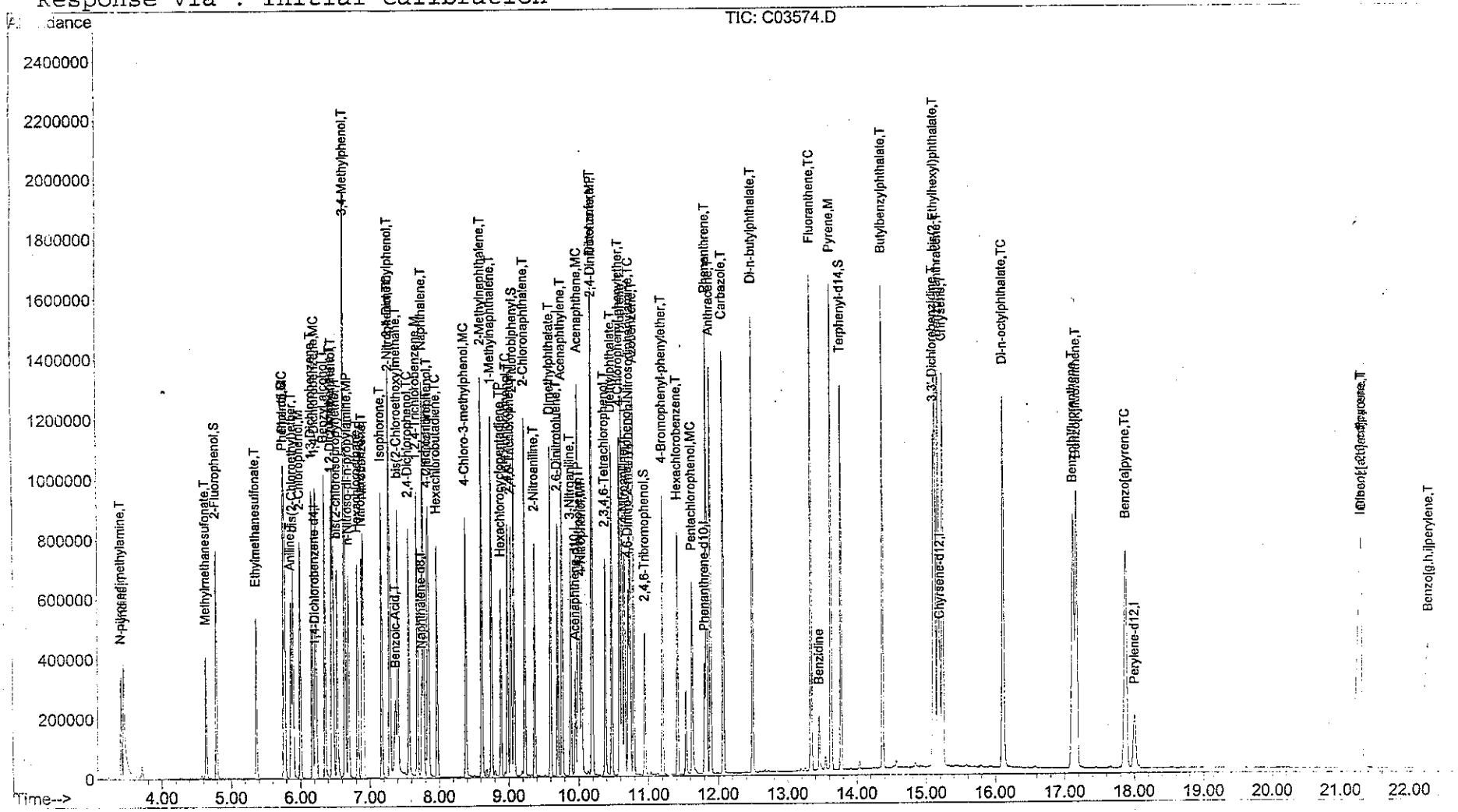
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03574.D
Acq On : 08/16/01 13:43
Sample : BNA 160
Misc : S01162
MS Integration Params: rteint.p
Quant Time: Aug 17 6:43 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:42:57 2001
Response via : Initial Calibration



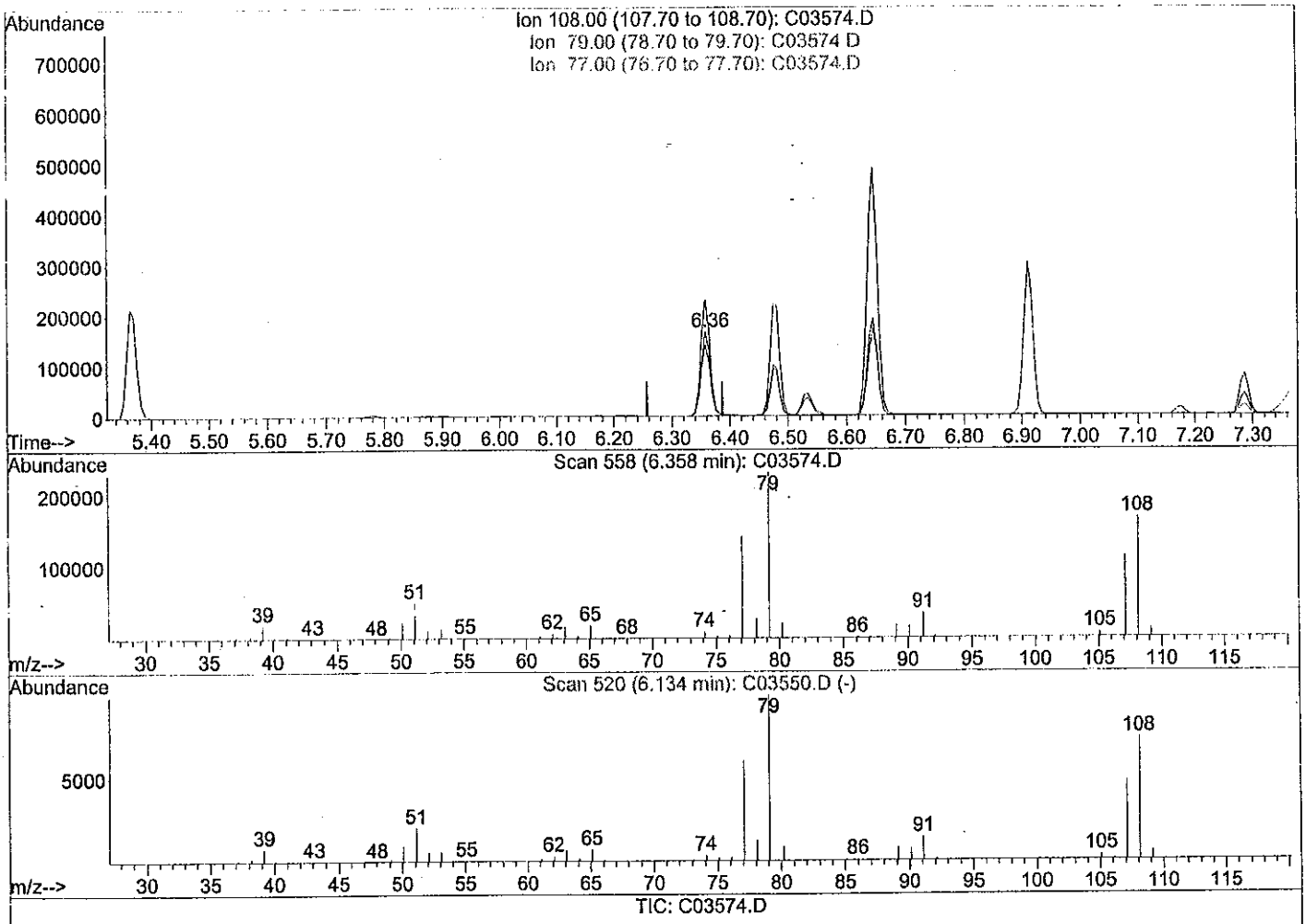
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03574.D
Acq On : 08/16/01 13:43
Sample : BNA 160
Misc : S01162
MS Integration Params: rteint.p
Quant Time: Aug 17 6:43 2001

Vial: 4
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:42:57 2001
Response via : Multiple Level Calibration



TIC: C03574.D

(14) Benzyl alcohol (T)

6.36min 174.06ug/L m

response 547150 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	40.40	40.60	S
77.00	25.50	25.15	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03573.D
Acq On : 08/16/01 13:09
Sample : BNA 200
Misc : S01161
MS Integration Params: rteint.p
Quant Time: Aug 17 06:44:08 2001

Vial: 3
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:43:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	67304	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	174175	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	218929	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	167083	40.00	ug/L	0.00
73) Chyrsene-d12	15.20	240	177168	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	160455	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	542770	194.61	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 194.61%#			
7) Phenol-d5	5.76	99	604673	194.86	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 194.86%#			
22) Nitrobenzene-d5	6.89	82	668276	186.97	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 373.94%#			
42) 2-Fluorobiphenyl	9.08	172	775481	179.92	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 359.84%#			
63) 2,4,6-Tribromophenol	10.95	330	152838	201.49	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 201.49%#			
75) Terphenyl-d14	13.77	244	635252	182.79	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 365.58%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	346285	210.92	ug/L	98
3) N-nitrosodimethylamine	3.42	42	121304	199.47	ug/L	100
4) Methylmethanesufonate	4.64	80	192492	188.39	ug/L	99
6) Ethylmethanesulfonate	5.36	79	280617	195.45	ug/L	99
8) Phenol	5.78	94	716956	192.39	ug/L	100
9) Aniline	5.87	93	351962	182.23	ug/L	97
10) bis(2-Chloroethyl)ether	5.90	63	676010	193.37	ug/L	99
11) 2-Chlorophenol	6.01	128	528382	191.17	ug/L	100
12) 1,3-Dichlorobenzene	6.18	146	503393	186.15	ug/L	99
13) 1,4-Dichlorobenzene	6.23	146	523611	187.29	ug/L	99
14) Benzyl alcohol	6.36	108	635387m	215.35	ug/L	
15) 1,2-Dichlorobenzene	6.46	146	483633	188.17	ug/L	100
16) 2-Methylphenol	6.48	108	541976	190.39	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	518240	186.73	ug/L	99
18) 3,4-Methylphenol	6.65	108	1408564	377.86	ug/L	100
19) n-Nitroso-di-n-propylamine	6.70	70	398201	197.22	ug/L	99
20) Hexachloroethane	6.83	117	290548	189.26	ug/L	99
23) Nitrobenzene	6.91	77	584220	185.83	ug/L	100
24) Isophorone	7.17	82	699988	184.41	ug/L	100
25) 2-Nitrophenol	7.30	139	315344	190.70	ug/L	99

= qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03573.D
Acq On : 08/16/01 13:09
Sample : BNA 200
Misc : S01161
MS Integration Params: rteint.p
Quant Time: Aug 17 06:44:08 2001

Vial: 3
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:43:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) 2,4-Dimethylphenol	7.29	107	688233	193.81 ug/L	100
27) Benzoic Acid	7.38	105	222787	231.70 ug/L	97
28) bis(2-Chloroethoxy)methane	7.41	93	587807	187.55 ug/L	98
29) 2,4-Dichlorophenol	7.57	162	468643	190.46 ug/L	100
30) 1,2,4-Trichlorobenzene	7.69	180	506753	182.07 ug/L	100
31) Naphthalene	7.77	128	976289	179.75 ug/L	100
32) 4-Chloroaniline	7.84	127	526889	180.87 ug/L	99
33) 2,6-Dichlorophenol	7.85	162	210788	182.97 ug/L	97
34) Hexachlorobutadiene	7.97	225	268863	180.22 ug/L	99
35) 4-Chloro-3-methylphenol	8.38	107	524043	189.38 ug/L	100
36) 2-Methylnaphthalene	8.62	142	938820	179.88 ug/L	99
37) 1-Methylnaphthalene	8.76	142	480346	182.74 ug/L	98
39) Hexachlorocyclopentadiene	8.89	237	230129	205.88 ug/L	100
40) 2,4,6-Trichlorophenol	8.98	196	337707	187.65 ug/L	100
41) 2,4,5-Trichlorophenol	9.03	196	379168	192.69 ug/L	99
43) 2-Chloronaphthalene	9.23	162	854698	185.45 ug/L	100
44) 2-Nitroaniline	9.37	65	536602	191.50 ug/L	100
45) Dimethylphthalate	9.60	163	649120	182.12 ug/L	100
46) Acenaphthylene	9.77	152	951212	183.57 ug/L	100
47) 2,6-Dinitrotoluene	9.70	165	261324	195.38 ug/L	100
48) 3-Nitroaniline	9.89	138	384851	186.23 ug/L	100
49) Acenaphthene	9.99	153	1160362	184.35 ug/L	100
50) 2,4-Dinitrophenol	10.01	184	675657	201.11 ug/L	100
51) 4-Nitrophenol	10.05	109	384330	195.37 ug/L	100
52) Dibenzofuran	10.19	168	922635	177.92 ug/L	99
53) 2,4-Dinitrotoluene	10.20	165	313607	189.35 ug/L	99
54) Diethylphthalate	10.48	149	759638	187.31 ug/L	100
55) 2,3,4,6-Tetrachlorophenol	10.38	232	117721	195.50 ug/L	98
56) Fluorene	10.62	166	1123060	179.28 ug/L	100
57) 4-Chlorophenyl-phenylether	10.59	204	497848	176.89 ug/L	100
58) 4-Nitroaniline	10.66	138	382910	180.76 ug/L	100
60) 4,6-Dinitro-2-methylphenol	10.71	198	225742	206.18 ug/L	99
61) n-Nitrosodiphenylamine	10.73	169	715208	188.10 ug/L	100
62) Azobenzene	10.79	77	783400	188.32 ug/L	99
64) 4-Bromophenyl-phenylether	11.20	248	378284	188.78 ug/L	99
65) Hexachlorobenzene	11.42	284	235855	184.37 ug/L	99
66) Pentachlorophenol	11.63	266	215294	207.30 ug/L	98
67) Phenanthrene	11.83	178	1008566	181.36 ug/L	100
68) Anthracene	11.89	178	996999	184.34 ug/L	100
69) Carbazole	12.07	167	767646	180.01 ug/L #	100
70) Di-n-butylphthalate	12.49	149	1102212	183.40 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03573.D
Acq On : 08/16/01 13:09
Sample : BNA 200
Misc : S01161
MS Integration Params: rteint.p
Quant Time: Aug 17 06:44:08 2001

Vial: 3
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:43:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Fluoranthene	13.34	202	984155	176.35	ug/L	100
72) Benzidine	13.46	184	97432	209.49	ug/L	99
74) Pyrene	13.63	202	1177335	182.03	ug/L	100
76) Butylbenzylphthalate	14.37	149	903056	191.97	ug/L	99
77) 3,3'-Dichlorobenzidine	15.10	252	276098	189.72	ug/L	98
78) Benzo[a]anthracene	15.17	228	1048196	184.09	ug/L	100
79) Chrysene	15.24	228	999270	179.98	ug/L	100
80) bis(2-Ethylhexyl)phthalate	15.12	149	830433	192.50	ug/L	100
82) Di-n-octylphthalate	16.11	149	1193897	192.99	ug/L	100
83) Benzo[b]fluoranthene	17.12	252	1005311	183.34	ug/L	100
84) Benzo[k]fluoranthene	17.17	252	911529	175.86	ug/L	99
85) Benzo[a]pyrene	17.87	252	932593	184.94	ug/L	99
86) Indeno[1,2,3-cd]pyrene	21.26	276	1071767	186.09	ug/L	100
87) Dibenz[a,h]anthracene	21.28	278	886617	189.51	ug/L	99
88) Benzo[g,h,i]perylene	22.24	276	1056577	192.01	ug/L	100

8/17/01

(#) = qualifier out of range (m) = manual tegration
C03573.D 8270.M Fri Aug 17 06:44:42 01

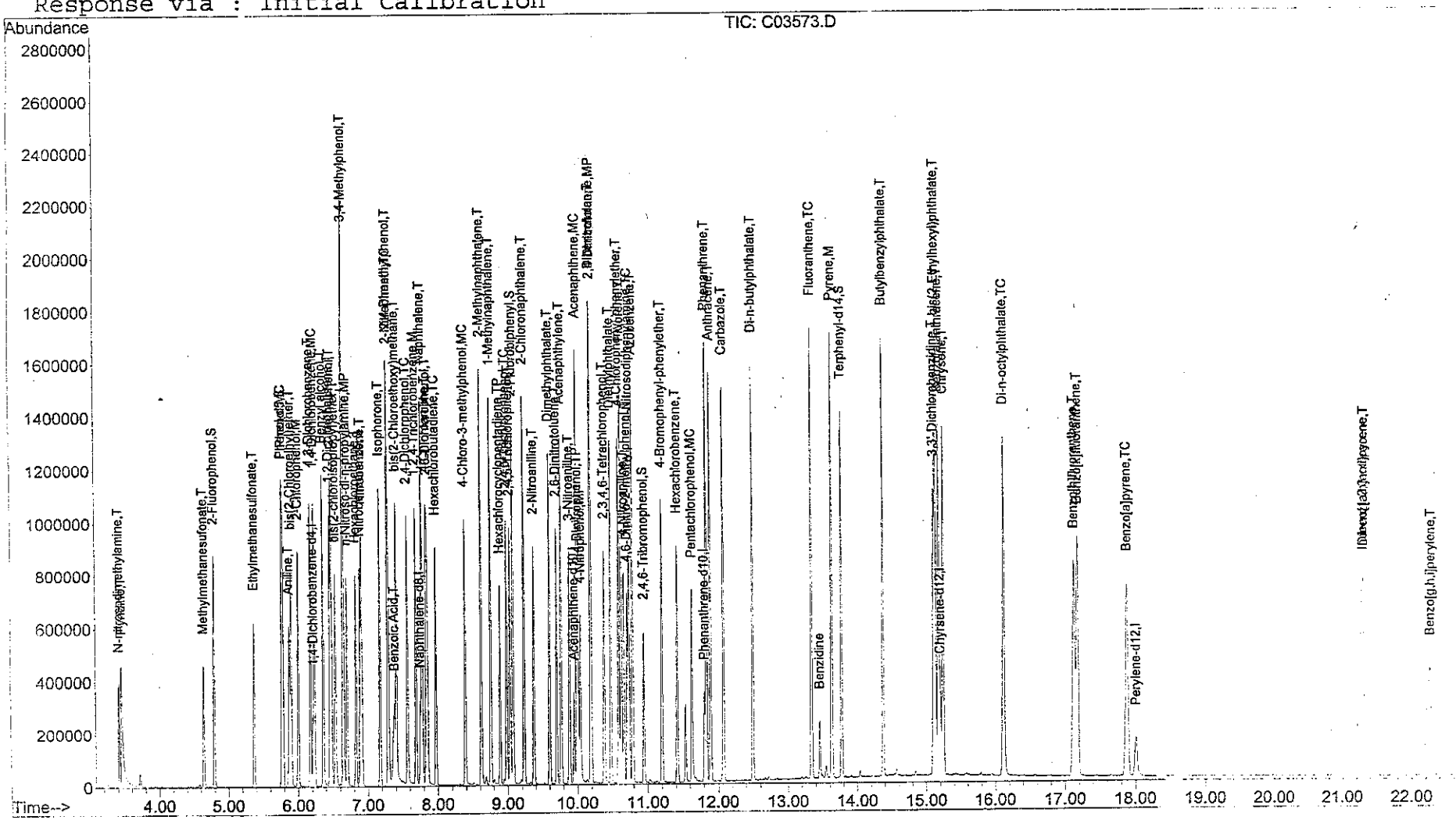
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03573.D
Acq On : 08/16/01 13:09
Sample : BNA 200
Misc : S01161
Integration Params: rteint.p
Quant Time: Aug 17 6:44 2001

Vial: 3
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:43:57 2001
Response via : Initial Calibration



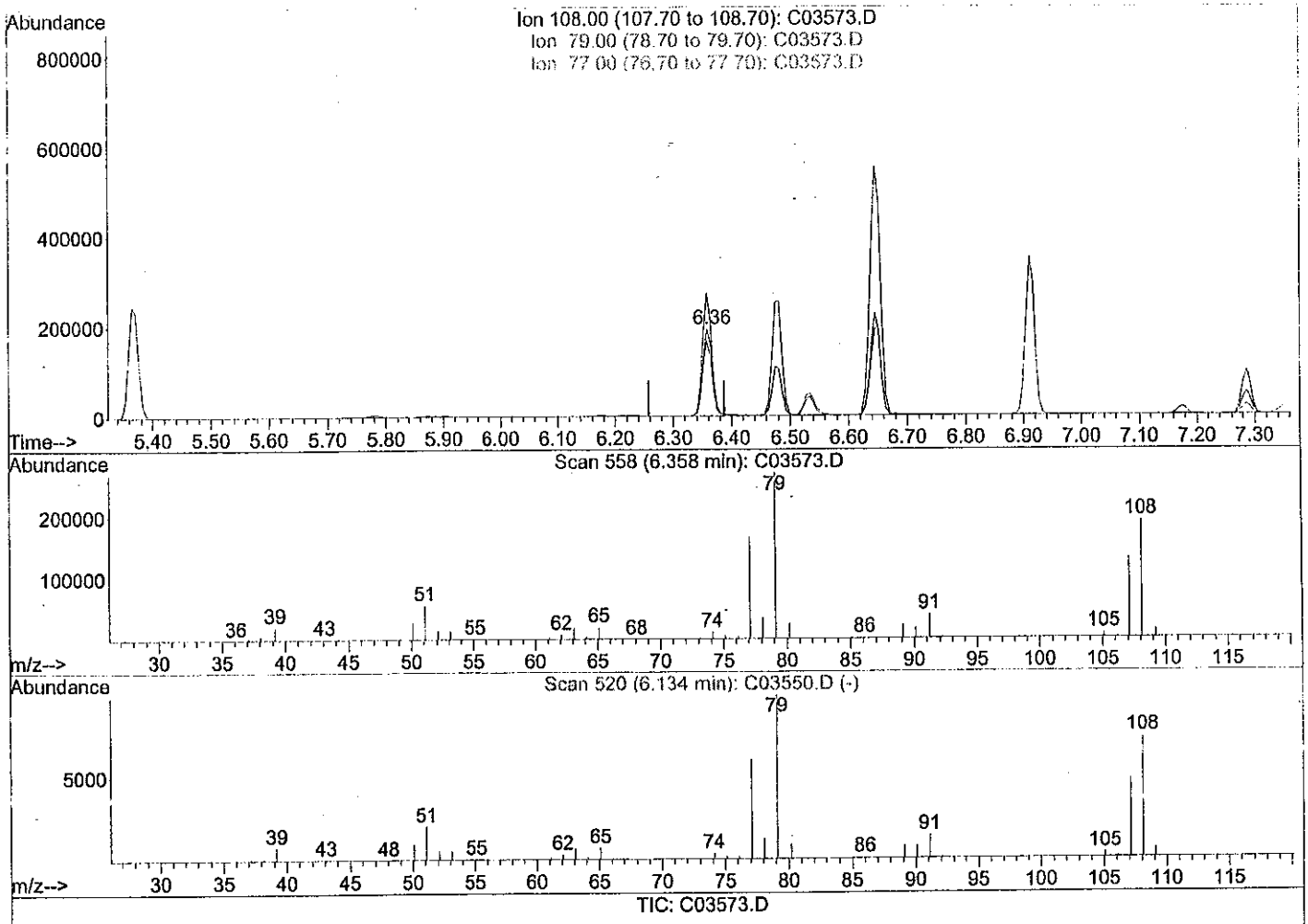
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03573.D
Acq On : 08/16/01 13:09
Sample : BNA 200
Misc : S01161
MS Integration Params: rteint.p
Quant Time: Aug 17 6:44 2001

Vial: 3
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:43:57 2001
Response via : Multiple Level Calibration



TIC: C03573.D

(14) Benzyl alcohol (T)

6.36min 215.35ug/L m

response 635387 SUMMED

Ion	Exp%	Act%	
108.00	100	100	
79.00	40.60	40.52	S
77.00	25.10	25.10	S
0.00	0.00	0.00	

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p
Quant Time: Aug 17 05:58:46 2001

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	85646	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	216646	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	276842	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	212158	40.00	ug/L	0.00
73) Chyrsene-d12	15.19	240	233954	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	203607	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	168241	47.40	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 47.40%			
7) Phenol-d5	5.76	99	197667	50.06	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 50.06%			
22) Nitrobenzene-d5	6.89	82	224030	50.39	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 100.78%#			
42) 2-Fluorobiphenyl	9.08	172	282924	51.91	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 103.82%			
63) 2,4,6-Tribromophenol	10.95	330	50078	51.99	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 51.99%			
75) Terphenyl-d14	13.77	244	239633	52.22	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 104.44%			
Target Compounds						Qvalue
2) Pyridine	3.46	79	110583	54.21	ug/L #	39
3) N-nitrosodimethylamine	3.42	42	38279	49.47	ug/L	95
4) Methylmethanesufonate	4.64	80	66961	51.50	ug/L	96
6) Ethylmethanesulfonate	5.36	79	92913	50.85	ug/L	96
8) Phenol	5.78	94	230642	48.64	ug/L	99
9) Aniline	5.86	93	113945	46.36	ug/L	95
10) bis(2-Chloroethyl)ether	5.90	63	221772	49.85	ug/L	97
11) 2-Chlorophenol	6.00	128	174621	49.65	ug/L	98
12) 1,3-Dichlorobenzene	6.18	146	169272	49.19	ug/L	99
13) 1,4-Dichlorobenzene	6.23	146	174883	49.16	ug/L	99
14) Benzyl alcohol	6.36	108	214518m	57.19	ug/L #	
15) 1,2-Dichlorobenzene	6.46	146	163461	49.98	ug/L	99
16) 2-Methylphenol	6.48	108	185325	51.16	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	180365	51.07	ug/L	98
18) 3,4-Methylphenol	6.64	108	483905	102.01	ug/L	100
19) n-Nitroso-di-n-propylamine	6.69	70	132692	51.64	ug/L	98
20) Hexachloroethane	6.83	117	96859	49.58	ug/L	97
23) Nitrobenzene	6.91	77	199818	51.10	ug/L	98
24) Isophorone	7.17	82	241575	51.17	ug/L	100
25) 2-Nitrophenol	7.2	139	103305	50.22	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p
Quant Time: Aug 17 05:58:46 2001

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	217972	49.35	ug/L		98
27)	Benzoic Acid	7.36	105	38960	32.58	ug/L	#	1
28)	bis(2-Chloroethoxy)methane	7.41	93	197710	50.72	ug/L		98
29)	2,4-Dichlorophenol	7.57	162	153553	50.17	ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	174751	50.48	ug/L		99
31)	Naphthalene	7.77	128	338308	50.08	ug/L		100
32)	4-Chloroaniline	7.83	127	184483	50.91	ug/L		99
33)	2,6-Dichlorophenol	7.85	162	72942	50.90	ug/L		96
34)	Hexachlorobutadiene	7.97	225	93524	50.40	ug/L		96
35)	4-Chloro-3-methylphenol	8.38	107	179241	52.08	ug/L		98
36)	2-Methylnaphthalene	8.62	142	332448	51.21	ug/L		100
37)	1-Methylnaphthalene	8.76	142	167989	51.38	ug/L		99
39)	Hexachlorocyclopentadiene	8.89	237	73439	51.96	ug/L		97
40)	2,4,6-Trichlorophenol	8.98	196	121571	53.42	ug/L		99
41)	2,4,5-Trichlorophenol	9.03	196	128144	51.50	ug/L		99
43)	2-Chloronaphthalene	9.23	162	298081	51.15	ug/L		99
44)	2-Nitroaniline	9.37	65	184125	51.96	ug/L		98
45)	Dimethylphthalate	9.60	163	235288	52.21	ug/L		98
46)	Acenaphthylene	9.77	152	343281	52.39	ug/L		97
47)	2,6-Dinitrotoluene	9.70	165	87448	51.70	ug/L		98
48)	3-Nitroaniline	9.88	138	131564	50.35	ug/L		99
49)	Acenaphthene	9.99	153	400065	50.26	ug/L		98
50)	2,4-Dinitrophenol	10.01	184	202431	47.65	ug/L		97
51)	4-Nitrophenol	10.04	109	125102	50.29	ug/L		99
52)	Dibenzofuran	10.19	168	335891	51.22	ug/L		99
53)	2,4-Dinitrotoluene	10.19	165	107760	51.45	ug/L		98
54)	Diethylphthalate	10.47	149	264426	51.56	ug/L		98
55)	2,3,4,6-Tetrachlorophenol	10.38	232	40117	52.69	ug/L		93
56)	Fluorene	10.62	166	393734	49.70	ug/L		100
57)	4-Chlorophenyl-phenylether	10.59	204	180437	50.70	ug/L		99
58)	4-Nitroaniline	10.66	138	140883	52.59	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.71	198	67571	48.60	ug/L		94
61)	n-Nitrosodiphenylamine	10.74	169	257445	53.32	ug/L		98
62)	Azobenzene	10.79	77	276632	52.37	ug/L		97
64)	4-Bromophenyl-phenylether	11.20	248	133466	52.45	ug/L		98
65)	Hexachlorobenzene	11.42	284	85906	52.89	ug/L		98
66)	Pentachlorophenol	11.63	266	68900	52.25	ug/L		99
67)	Phenanthrene	11.83	178	367248	52.01	ug/L		100
68)	Anthracene	11.89	178	355671	51.79	ug/L		98
69)	Carbazole	12.07	167	275510	50.88	ug/L	#	99
70)	Di-n-butylphthalate	12.49	149	405441	53.13	ug/L		99

(# = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p
Quant Time: Aug 17 05:58:46 2001

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71) Fluoranthene	13.34	202	362732	51.19 ug/L	99
72) Benzidine	13.46	184	15473	26.20 ug/L #	93
74) Pyrene	13.63	202	442662	51.83 ug/L	99
76) Butylbenzylphthalate	14.37	149	322026	51.84 ug/L	97
77) 3,3'-Dichlorobenzidine	15.10	252	99785	51.93 ug/L	99
78) Benzo[a]anthracene	15.17	228	386258	51.37 ug/L	99
79) Chrysene	15.24	228	372777	50.84 ug/L	99
80) bis(2-Ethylhexyl)phthalate	15.12	149	296737	52.09 ug/L	98
82) Di-n-octylphthalate	16.11	149	407962	51.97 ug/L	99
83) Benzo[b]fluoranthene	17.11	252	366103	52.62 ug/L	97
84) Benzo[k]fluoranthene	17.16	252	324928	49.40 ug/L	97
85) Benzo[a]pyrene	17.87	252	319507	49.93 ug/L	96
86) Indeno[1,2,3-cd]pyrene	21.24	276	367319	50.26 ug/L	95
87) Dibenz[a,h]anthracene	21.27	278	306107	51.56 ug/L	94
88) Benzo[g,h,i]perylene	22.21	276	355743	50.95 ug/L	90

8/17/01

(#) = qualifier out of range (m) = manual integration
C03579.D 8270.M Fri Aug 17 06:08:[illegible] 2001

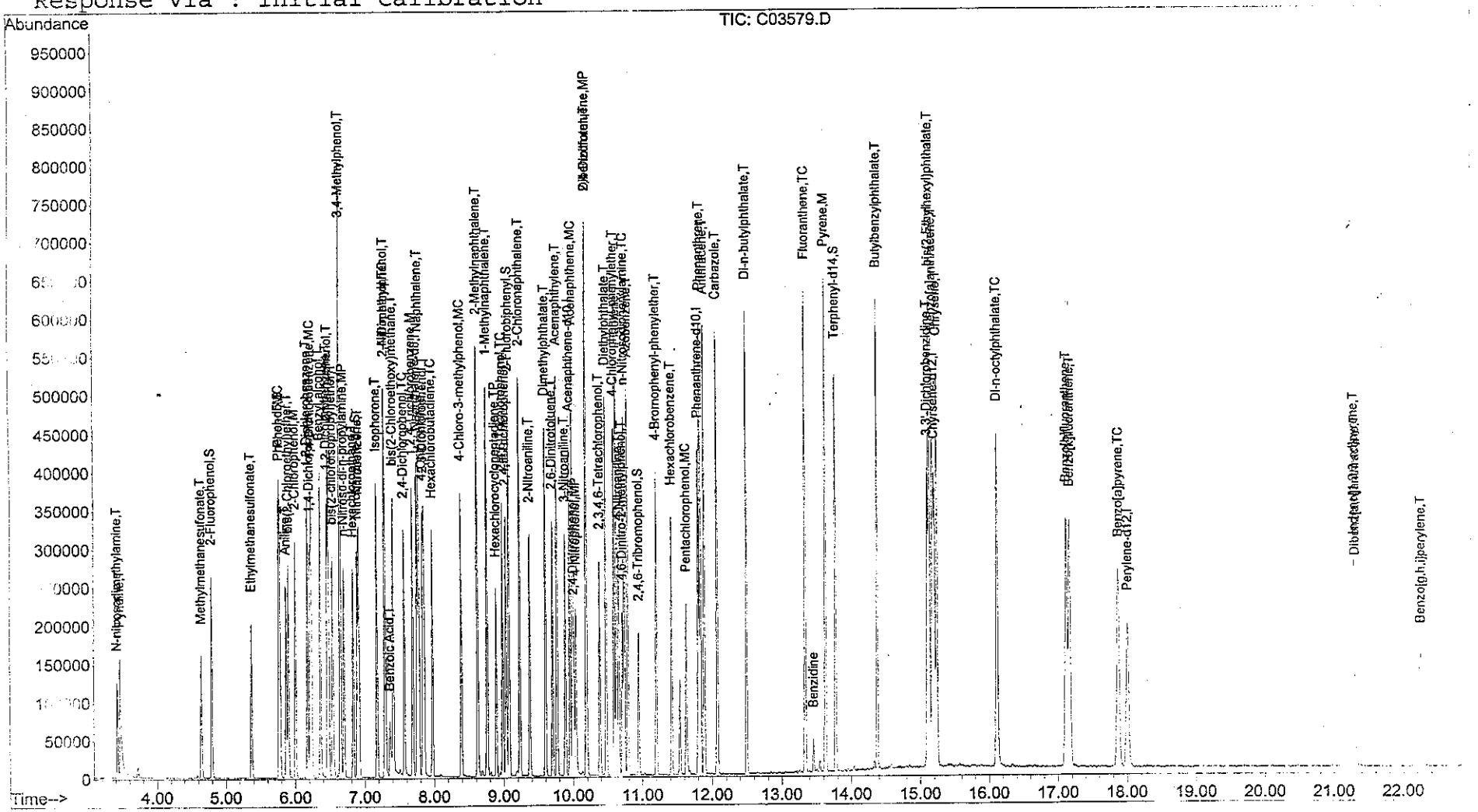
Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p
Quant Time: Aug 17 5:58 2001

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration



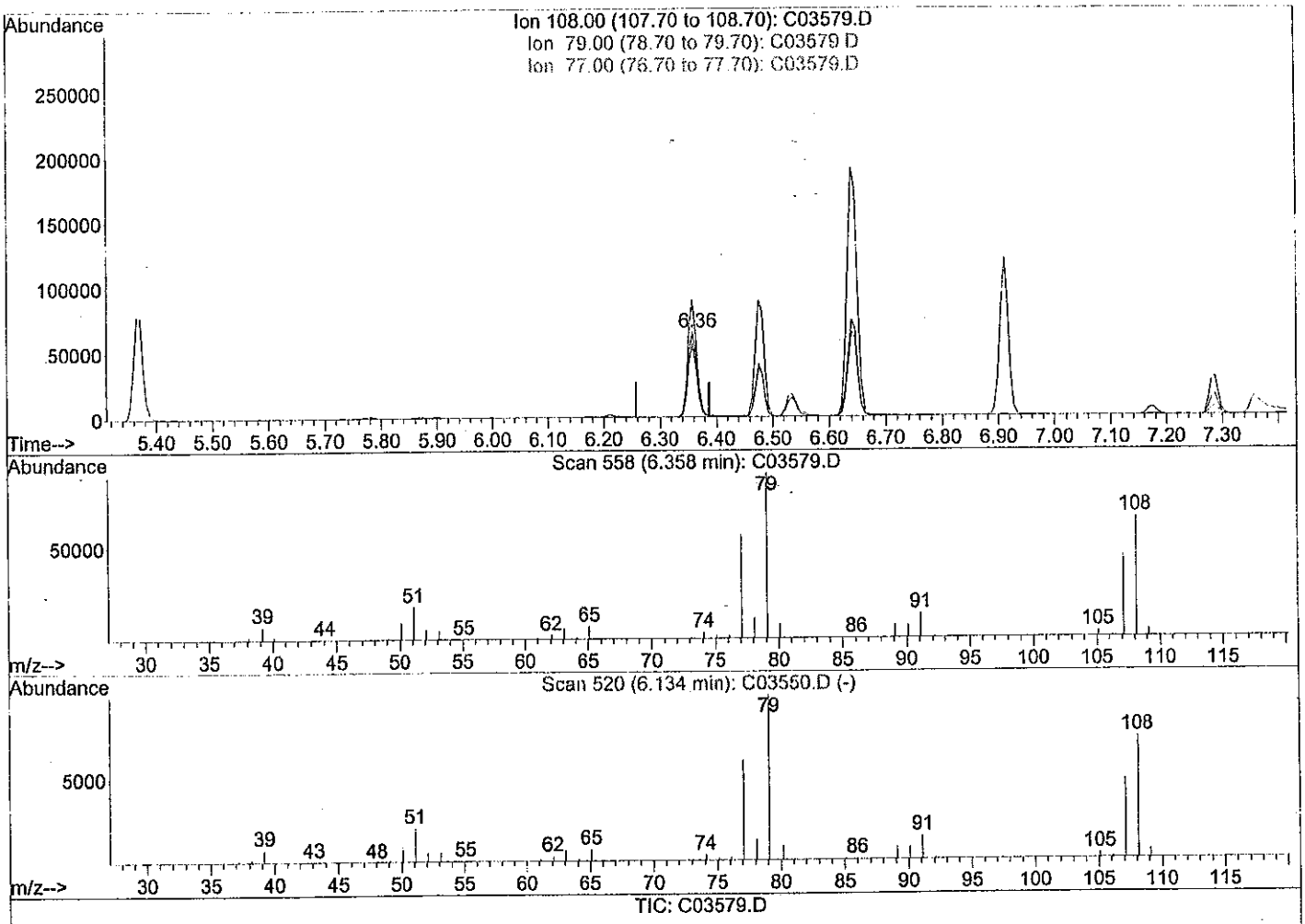
Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p
Quant Time: Aug 17 5:58 2001

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Multiple Level Calibration



TIC: C03579.D

(14) Benzyl alcohol (T)

6.36min 57.19ug/L m

response 214518 SUMMED

Ion	Exp%	Act%
108.00	100	100
79.00	0.00	40.38# S
77.00	0.00	25.46# S
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	145	0.00
2	T	Pyridine	0.953	1.033	-8.4	156	0.00
3	T	N-nitrosodimethylamine	0.361	0.358	0.8	149	0.00
4	T	Methylmethanesufonate	0.607	0.625	-3.0	159	0.00
5	S	2-Fluorophenol	1.658	1.572	5.2	138	0.00
6	T	Ethylmethanesulfonate	0.853	0.868	-1.8	153	0.00
7	S	Phenol-d5	1.844	1.846	-0.1	151	0.00
8	MC	Phenol	2.215	2.154	2.8	145	0.00
9	T	Aniline	1.148	1.064	7.3	136	0.00
10	T	bis(2-Chloroethyl)ether	2.078	2.072	0.3	145	0.00
11	M	2-Chlorophenol	1.643	1.631	0.7	147	0.00
12	T	1,3-Dichlorobenzene	1.607	1.581	1.6	144	0.00
13	MC	1,4-Dichlorobenzene	1.662	1.634	1.7	150	0.00
14	T	Benzyl alcohol	1.752	2.004	-14.4	155	0.00
15	T	1,2-Dichlorobenzene	1.528	1.527	0.1	150	0.00
16	T	2-Methylphenol	1.692	1.731	-2.3	153	0.00
17	T	bis(2-chloroisopropyl)ether	1.649	1.685	-2.2	150	0.00
18	T	3,4-Methylphenol	2.215	2.260	-2.0	152	0.00
19	MP	n-Nitroso-di-n-propylamine	1.200	1.239	-3.3	153	0.00
20	T	Hexachloroethane	0.912	0.905	0.8	148	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	146	0.00
22	S	Nitrobenzene-d5	0.821	0.827	-0.7	154	0.00
23	T	Nitrobenzene	0.722	0.738	-2.2	154	0.00
24	T	Isophorone	0.872	0.892	-2.3	155	0.00
25	TC	2-Nitrophenol	0.380	0.381	-0.3	153	0.00
26	T	2,4-Dimethylphenol	0.815	0.805	1.2	142	0.00
27	T	Benzoic Acid	0.221	0.144	34.8#	182	0.00
28	T	bis(2-Chloroethoxy)methane	0.720	0.730	-1.4	155	0.00
29	TC	2,4-Dichlorophenol	0.565	0.567	-0.4	154	0.00
30	M	1,2,4-Trichlorobenzene	0.639	0.645	-0.9	155	0.00
31	T	Naphthalene	1.247	1.249	-0.2	152	0.00
32	T	4-Chloroaniline	0.669	0.681	-1.8	152	0.00
33	T	2,6-Dichlorophenol	0.265	0.269	-1.5	154	0.00
34	TC	Hexachlorobutadiene	0.343	0.345	-0.6	153	0.00
35	MC	4-Chloro-3-methylphenol	0.635	0.662	-4.3	155	0.00
36	T	2-Methylnaphthalene	1.199	1.228	-2.4	155	0.00
37	T	1-Methylnaphthalene	0.604	0.620	-2.6	161	0.00
38	I	Acenaphthene-d1[illegible]	1.000	1.000	0.0	146	0.00
39	T	Hexachloro[illegible]yclopentadiene	0.204	0.212	-3.9	164	0.00

(#) = O[illegible]t o[illegible] Range

Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.329	0.351	-6.7	163	0.00
41	T	2,4,5-Trichlorophenol	0.360	0.370	-2.8	157	0.00
42	S	2-Fluorobiphenyl	0.787	0.818	-3.9	160	0.00
43	T	2-Chloronaphthalene	0.842	0.861	-2.3	156	0.00
44	T	2-Nitroaniline	0.512	0.532	-3.9	164	0.00
45	T	Dimethylphthalate	0.651	0.680	-4.5	161	0.00
46	T	Acenaphthylene	0.947	0.992	-4.8	159	0.00
47	T	2,6-Dinitrotoluene	0.244	0.253	-3.7	162	0.00
48	T	3-Nitroaniline	0.378	0.380	-0.5	153	0.00
49	MC	Acenaphthene	1.150	1.156	-0.5	154	0.00
50	TP	2,4-Dinitrophenol	0.614	0.585	4.7	145	0.00
51	MP	4-Nitrophenol	0.359	0.362	-0.8	155	0.00
52	T	Dibenzofuran	0.947	0.971	-2.5	157	0.00
53	MP	2,4-Dinitrotoluene	0.303	0.311	-2.6	158	0.00
54	T	Diethylphthalate	0.741	0.764	-3.1	160	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.110	0.116	-5.5	162	0.00
56	T	Fluorene	1.145	1.138	0.6	156	0.00
57	T	4-Chlorophenyl-phenylether	0.514	0.521	-1.4	156	0.00
58	T	4-Nitroaniline	0.387	0.407	-5.2	164	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	143	0.00
60	T	4,6-Dinitro-2-methylphenol	0.262	0.255	2.7	163	0.00
61	TC	n-Nitrosodiphenylamine	0.910	0.971	-6.7	159	0.00
62	T	Azobenzene	0.996	1.043	-4.7	160	0.00
63	S	2,4,6-Tribromophenol	0.182	0.189	-3.8	155	0.00
64	T	4-Bromophenyl-phenylether	0.480	0.503	-4.8	158	0.00
65	T	Hexachlorobenzene	0.306	0.324	-5.9	157	0.00
66	MC	Pentachlorophenol	0.249	0.260	-4.4	169	0.00
67	T	Phenanthrene	1.331	1.385	-4.1	154	0.00
68	T	Anthracene	1.295	1.341	-3.6	155	0.00
69	T	Carbazole	1.021	1.039	-1.8	153	0.00
70	T	Di-n-butylphthalate	1.439	1.529	-6.3	161	0.00
71	TC	Fluoranthene	1.336	1.368	-2.4	155	0.00
72		Benzidine	0.111	0.058	47.7#	50	0.00
73	I	Chyrsene-d12	1.000	1.000	0.0	142	0.00
74	M	Pyrene	1.460	1.514	-3.7	155	0.00
75	S	Terphenyl-d14	0.785	0.819	-4.3	155	0.00
76	T	Butylbenzylphthalate	1.062	1.101	-3.7	154	0.00
77	T	3,3'-Dichlorobenzidine	0.329	0.341	-3.6	156	0.00
78	T	Benzo[a]anthracene	1.286	1.321	-2.7	155	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03579.D
Acq On : 08/16/01 16:34
Sample : BNA 50 ICV
Misc : S01156
MS Integration Params: rteint.p

Vial: 9
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	Chrysene	1.254	1.275	-1.7	150	0.00
80	T	bis(2-Ethylhexyl)phthalate	0.974	1.015	-4.2	151	0.00
81	I	Perylene-d12	1.000	1.000	0.0	137	0.00
82	TC	Di-n-octylphthalate	1.542	1.603	-4.0	151	0.00
83	T	Benzo[b]fluoranthene	1.367	1.438	-5.2	156	0.00
84	T	Benzo[k]fluoranthene	1.292	1.277	1.2	141	0.00
85	TC	Benzo[a]pyrene	1.257	1.255	0.2	145	0.00
86	T	Indeno[1,2,3-cd]pyrene	1.436	1.443	-0.5	135	0.01
87	T	Dibenz[a,h]anthracene	1.166	1.203	-3.2	139	0.02
88	T	Benzo[g,h,i]perylene	1.372	1.398	-1.9	133	0.00

8/17/01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
C03579.D 8270.M Fri Aug 17 06:08:40 2001 Page 3

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p
Quant Time: Aug 17 05:59:53 2001

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.21	152	60853	40.00	ug/L	0.00
21) Naphthalene-d8	7.75	136	147206	40.00	ug/L	0.00
38) Acenaphthene-d10	9.95	164	180130	40.00	ug/L	0.00
59) Phenanthrene-d10	11.80	188	139956	40.00	ug/L	0.00
73) Chyrsene-d12	15.19	240	162670	40.00	ug/L	0.00
81) Perylene-d12	18.00	264	134240	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.79	112	136866	54.28	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 54.28%			
7) Phenol-d5	5.76	99	146535	52.23	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 52.23%			
22) Nitrobenzene-d5	6.89	82	162049	53.64	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 107.28%#			
42) 2-Fluorobiphenyl	9.07	172	200100	56.43	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 112.86%			
63) 2,4,6-Tribromophenol	10.95	330	34797	54.77	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 54.77%			
75) Terphenyl-d14	13.77	244	167830	52.60	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 105.20%			
Target Compounds						Qvalue
2) Pyridine	3.46	79	78788	54.36	ug/L #	41
3) N-nitrosodimethylamine	3.42	42	28421	51.69	ug/L	99
4) Methylmethanesufonate	4.64	80	49352	53.42	ug/L	95
6) Ethylmethanesulfonate	5.36	79	69073	53.21	ug/L	97
8) Phenol	5.78	94	176730	52.45	ug/L	98
9) Aniline	5.86	93	84535	48.41	ug/L	93
10) bis(2-Chloroethyl)ether	5.90	63	168227	53.22	ug/L	96
11) 2-Chlorophenol	6.01	128	133808	53.55	ug/L	99
12) 1,3-Dichlorobenzene	6.18	146	129210	52.85	ug/L	99
13) 1,4-Dichlorobenzene	6.23	146	133045	52.63	ug/L	98
14) Benzyl alcohol	6.36	108	152137m	57.09	ug/L #	
15) 1,2-Dichlorobenzene	6.46	146	123228	53.03	ug/L	99
16) 2-Methylphenol	6.48	108	134813	52.38	ug/L	100
17) bis(2-chloroisopropyl)ethe	6.53	45	133037	53.02	ug/L	98
18) 3,4-Methylphenol	6.64	108	356823	105.87	ug/L	100
19) n-Nitroso-di-n-propylamine	6.69	70	97584	53.45	ug/L	97
20) Hexachloroethane	6.83	117	74578	53.73	ug/L	99
23) Nitrobenzene	6.91	77	142912	53.79	ug/L	99
24) Isophorone	7.17	82	168692	52.58	ug/L	100
25) 2-Nitrophenol	7.30	139	74744	53.48	ug/L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p
Quant Time: Aug 17 05:59:53 2001

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.29	107	162737	54.22	ug/L		98
27)	Benzoic Acid	7.36	105	24742	30.45	ug/L	#	1
28)	bis(2-Chloroethoxy)methane	7.41	93	140724	53.13	ug/L		98
29)	2,4-Dichlorophenol	7.57	162	109388	52.60	ug/L		99
30)	1,2,4-Trichlorobenzene	7.69	180	128374	54.57	ug/L		99
31)	Naphthalene	7.77	128	250533	54.58	ug/L		100
32)	4-Chloroaniline	7.83	127	127166	51.65	ug/L		99
33)	2,6-Dichlorophenol	7.85	162	50723	52.09	ug/L		96
34)	Hexachlorobutadiene	7.97	225	68974	54.70	ug/L		97
35)	4-Chloro-3-methylphenol	8.38	107	124558	53.26	ug/L		99
36)	2-Methylnaphthalene	8.62	142	239152	54.22	ug/L		99
37)	1-Methylnaphthalene	8.76	142	117487	52.89	ug/L		97
39)	Hexachlorocyclopentadiene	8.89	237	51760	56.28	ug/L		96
40)	2,4,6-Trichlorophenol	8.98	196	80659	54.47	ug/L		97
41)	2,4,5-Trichlorophenol	9.03	196	89017	54.98	ug/L		99
43)	2-Chloronaphthalene	9.23	162	208069	54.87	ug/L		99
44)	2-Nitroaniline	9.37	65	123637	53.63	ug/L		97
45)	Dimethylphthalate	9.60	163	161402	55.04	ug/L		98
46)	Acenaphthylene	9.77	152	237083	55.61	ug/L		97
47)	2,6-Dinitrotoluene	9.70	165	60259	54.76	ug/L		97
48)	3-Nitroaniline	9.88	138	90764	53.38	ug/L		99
49)	Acenaphthene	9.99	153	283639	54.77	ug/L		98
50)	2,4-Dinitrophenol	10.01	184	151394	54.77	ug/L		94
51)	4-Nitrophenol	10.04	109	83857	51.81	ug/L		98
52)	Dibenzofuran	10.19	168	227949	53.43	ug/L		98
53)	2,4-Dinitrotoluene	10.19	165	73738	54.11	ug/L		100
54)	Diethylphthalate	10.47	149	178362	53.45	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.38	232	26792	54.08	ug/L		93
56)	Fluorene	10.62	166	285396	55.37	ug/L		99
57)	4-Chlorophenyl-phenylether	10.59	204	126076	54.45	ug/L		99
58)	4-Nitroaniline	10.65	138	92464	53.05	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.71	198	43498	47.43	ug/L		92
61)	n-Nitrosodiphenylamine	10.73	169	176189	55.32	ug/L		98
62)	Azobenzene	10.78	77	192969	55.38	ug/L		98
64)	4-Bromophenyl-phenylether	11.20	248	90285	53.79	ug/L		98
65)	Hexachlorobenzene	11.42	284	57436	53.60	ug/L		98
66)	Pentachlorophenol	11.63	266	43639	50.16	ug/L		98
67)	Phenanthrene	11.83	178	246318	52.88	ug/L		99
68)	Anthracene	11.89	178	246443	54.40	ug/L		98
69)	Carbazole	12.07	167	193332	54.12	ug/L	#	97
70)	Di-n-butylphthalate	12.49	149	272978	54.23	ug/L		99

(#) = qualifier out of r ge (al integration

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p
Quant Time: Aug 17 05:59:53 2001

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: 8270.RES

Quant Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
71) Fluoranthene	13.34	202	248485	53.16 ug/L		99
72) Benzidine	13.46	184	15721	40.35 ug/L	#	96
74) Pyrene	13.63	202	314611	52.98 ug/L		98
76) Butylbenzylphthalate	14.37	149	233127	53.98 ug/L		98
77) 3,3'-Dichlorobenzidine	15.10	252	70343	52.65 ug/L		99
78) Benzo[a]anthracene	15.17	228	270984	51.83 ug/L		99
79) Chrysene	15.24	228	270255	53.01 ug/L		98
80) bis(2-Ethylhexyl)phthalate	15.12	149	207088	52.28 ug/L		98
82) Di-n-octylphthalate	16.11	149	285091	55.08 ug/L		98
83) Benzo[b]fluoranthene	17.10	252	257069	56.04 ug/L		98
84) Benzo[k]fluoranthene	17.16	252	243647	56.19 ug/L		97
85) Benzo[a]pyrene	17.86	252	232125	55.02 ug/L		98
86) Indeno[1,2,3-cd]pyrene	21.23	276	267295	55.47 ug/L		96
87) Dibenz[a,h]anthracene	21.26	278	219945	56.19 ug/L		95
88) Benzo[g,h,i]perylene	22.21	276	244783	53.17 ug/L		91

8/17/01

(#) = qualifier out of range (m) = manual integration

Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
2	T	Pyridine	0.953	1.036	-8.7	111	0.00
3	T	N-nitrosodimethylamine	0.361	0.374	-3.6	111	0.00
4	T	Methylmethanesufonate	0.607	0.649	-6.9	117	0.00
5	S	2-Fluorophenol	1.658	1.799	-8.5	112	0.00
6	T	Ethylmethanesulfonate	0.853	0.908	-6.4	114	0.00
7	S	Phenol-d5	1.844	1.926	-4.4	112	0.00
8	MC	Phenol	2.215	2.323	-4.9	111	0.00
9	T	Aniline	1.148	1.111	3.2	101	0.00
10	T	bis(2-Chloroethyl)ether	2.078	2.212	-6.4	110	0.00
11	M	2-Chlorophenol	1.643	1.759	-7.1	113	0.00
12	T	1,3-Dichlorobenzene	1.607	1.699	-5.7	110	0.00
13	MC	1,4-Dichlorobenzene	1.662	1.749	-5.2	114	0.00
14	T	Benzyl alcohol	1.752	2.000	-14.2	110	0.00
15	T	1,2-Dichlorobenzene	1.528	1.620	-6.0	113	0.00
16	T	2-Methylphenol	1.692	1.772	-4.7	111	0.00
17	T	bis(2-chloroisopropyl)ether	1.649	1.749	-6.1	111	0.00
18	T	3,4-Methylphenol	2.215	2.345	-5.9	112	0.00
19	MP	n-Nitroso-di-n-propylamine	1.200	1.283	-6.9	113	0.00
20	T	Hexachloroethane	0.912	0.980	-7.5	114	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	99	0.00
22	S	Nitrobenzene-d5	0.821	0.881	-7.3	111	0.00
23	T	Nitrobenzene	0.722	0.777	-7.6	110	0.00
24	T	Isophorone	0.872	0.917	-5.2	108	0.00
25	TC	2-Nitrophenol	0.380	0.406	-6.8	111	0.00
26	T	2,4-Dimethylphenol	0.815	0.884	-8.5	106	0.00
27	T	Benzoic Acid	0.221	0.134	39.4#	116	0.00
28	T	bis(2-Chloroethoxy)methane	0.720	0.765	-6.3	110	0.00
29	TC	2,4-Dichlorophenol	0.565	0.594	-5.1	110	0.00
30	M	1,2,4-Trichlorobenzene	0.639	0.698	-9.2	114	0.00
31	T	Naphthalene	1.247	1.362	-9.2	113	0.00
32	T	4-Chloroaniline	0.669	0.691	-3.3	105	0.00
33	T	2,6-Dichlorophenol	0.265	0.276	-4.2	107	0.00
34	TC	Hexachlorobutadiene	0.343	0.375	-9.3	112	0.00
35	MC	4-Chloro-3-methylphenol	0.635	0.677	-6.6	108	0.00
36	T	2-Methylnaphthalene	1.199	1.300	-8.4	111	0.00
37	T	1-Methylnaphthalene	0.604	0.638	-5.6	112	0.00
38	I	Acenaphthene-d10	1.000	1.000	0.0	95	0.00
39	TP	Hexachlorocyclopentadiene	0.204	0.230	-12.7	116	0.00

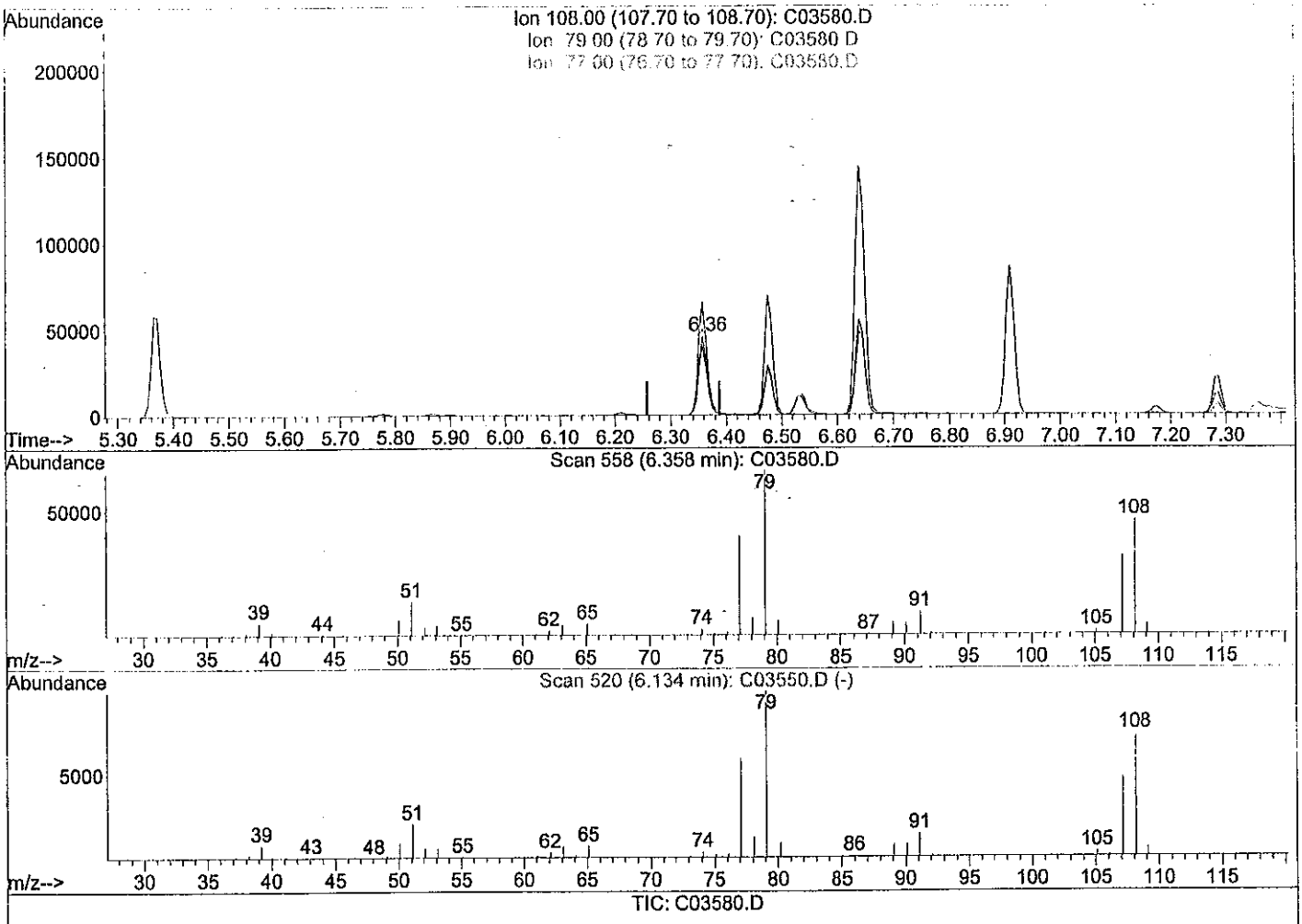
( ) Out of Range

Quantitation Report (Qedit)

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p
Quant Time: Aug 17 6:00 2001

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 06:44:49 2001
Response via : Multiple Level Calibration



TIC: C03580.D

(14) Benzyl alcohol (T)

6.36min 57.09ug/L m

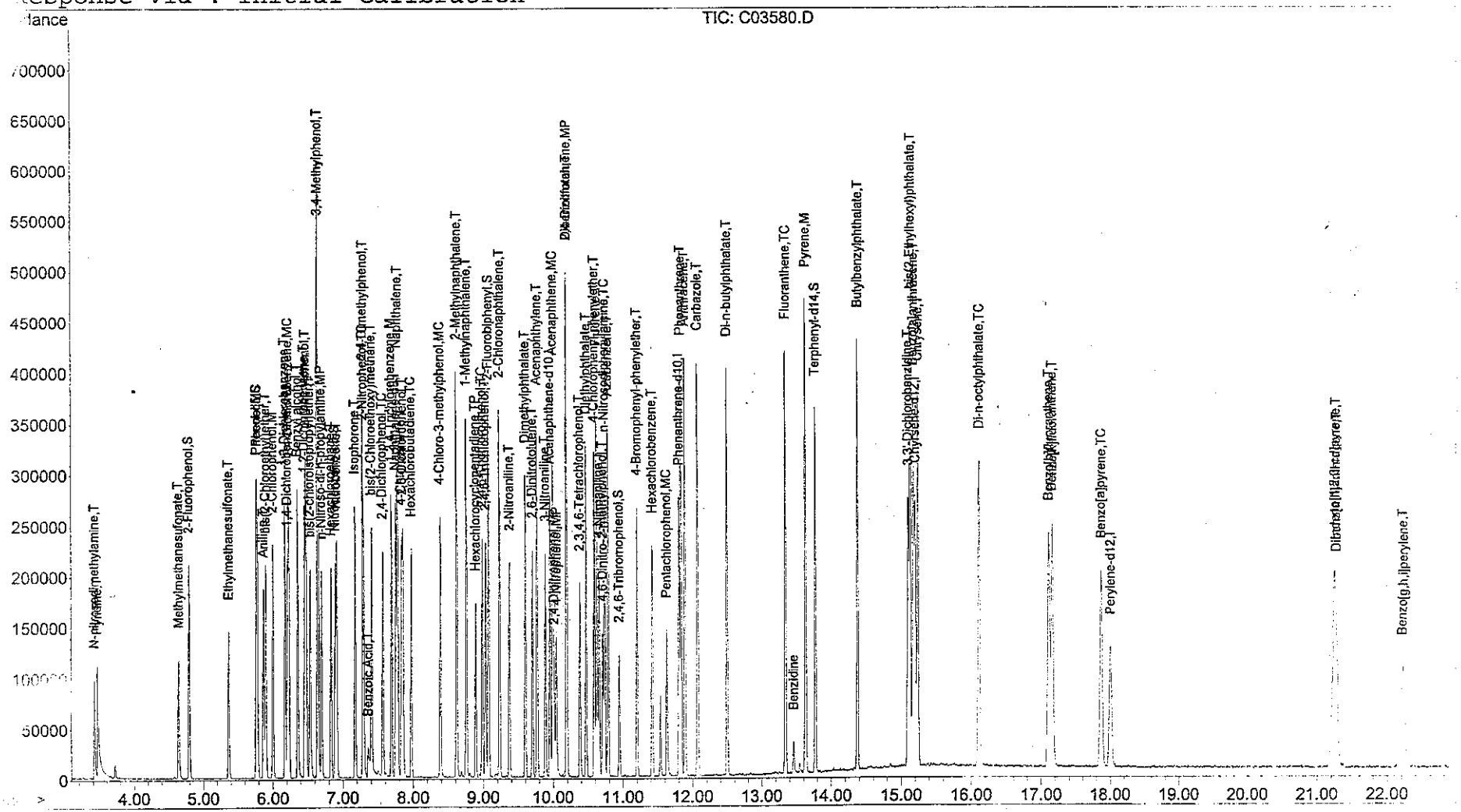
response 152137 SUMMED

Ion	Exp%	Act%
108.00	100	100
79.00	0.00	41.32# S
77.00	0.00	.23# S
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : G:\DATA\081601\C03580.D Vial: 10
Acq On : 08/16/01 17:08 Operator: DMB/DG
Sample : BNA 50 ICV Inst : AG-MSC
Misc : S01170 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 17 6:00 2001 Quant Results File: 8270.RES

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	TC	2,4,6-Trichlorophenol	0.329	0.358	-8.8	108	0.00
41	T	2,4,5-Trichlorophenol	0.360	0.395	-9.7	109	0.00
42	S	2-Fluorobiphenyl	0.787	0.889	-13.0	113	0.00
43	T	2-Chloronaphthalene	0.842	0.924	-9.7	109	0.00
44	T	2-Nitroaniline	0.512	0.549	-7.2	110	0.00
45	T	Dimethylphthalate	0.651	0.717	-10.1	110	0.00
46	T	Acenaphthylene	0.947	1.053	-11.2	110	0.00
47	T	2,6-Dinitrotoluene	0.244	0.268	-9.8	112	0.00
48	T	3-Nitroaniline	0.378	0.403	-6.6	106	0.00
49	MC	Acenaphthene	1.150	1.260	-9.6	109	0.00
50	TP	2,4-Dinitrophenol	0.614	0.672	-9.4	108	0.00
51	MP	4-Nitrophenol	0.359	0.372	-3.6	104	0.00
52	T	Dibenzofuran	0.947	1.012	-6.9	107	0.00
53	MP	2,4-Dinitrotoluene	0.303	0.327	-7.9	108	0.00
54	T	Diethylphthalate	0.741	0.792	-6.9	108	0.00
55	T	2,3,4,6-Tetrachlorophenol	0.110	0.119	-8.2	108	0.00
56	T	Fluorene	1.145	1.268	-10.7	113	0.00
57	T	4-Chlorophenyl-phenylether	0.514	0.560	-8.9	109	0.00
58	T	4-Nitroaniline	0.387	0.411	-6.2	108	0.00
59	I	Phenanthrene-d10	1.000	1.000	0.0	95	0.00
60	T	4,6-Dinitro-2-methylphenol	0.262	0.249	5.0	105	0.00
61	TC	n-Nitrosodiphenylamine	0.910	1.007	-10.7	109	0.00
62	T	Azobenzene	0.996	1.103	-10.7	111	0.00
63	S	2,4,6-Tribromophenol	0.182	0.199	-9.3	108	0.00
64	T	4-Bromophenyl-phenylether	0.480	0.516	-7.5	107	0.00
65	T	Hexachlorobenzene	0.306	0.328	-7.2	105	0.00
66	MC	Pentachlorophenol	0.249	0.249	0.0	107	0.00
67	T	Phenanthrene	1.331	1.408	-5.8	103	0.00
68	T	Anthracene	1.295	1.409	-8.8	108	0.00
69	T	Carbazole	1.021	1.105	-8.2	107	0.00
70	T	Di-n-butylphthalate	1.439	1.560	-8.4	109	0.00
71	TC	Fluoranthene	1.336	1.420	-6.3	106	0.00
72		Benzidine	0.111	0.090	18.9	51	0.00
73	I	Chyrsene-d12	1.000	1.000	0.0	99	0.00
74	M	Pyrene	1.460	1.547	-6.0	110	0.00
75	S	Terphenyl-d14	0.785	0.825	-5.1	109	0.00
76	T	Butylbenzylphthalate	1.062	1.147	-8.0	111	0.00
77	T	3,3'-Dichlorobenzidine	0.329	0.346	-5.2	110	0.00
78	T	Benzo[a]anthracene	1.286	1.333	-3.7	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : G:\DATA\081601\C03580.D
Acq On : 08/16/01 17:08
Sample : BNA 50 ICV
Misc : S01170
MS Integration Params: rteint.p

Vial: 10
Operator: DMB/DG
Inst : AG-MSC
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Aug 17 05:57:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	Chrysene	1.254	1.329	-6.0	109	0.00
80	T	bis(2-Ethylhexyl)phthalate	0.974	1.018	-4.5	106	0.00
81	I	Perylene-d12	1.000	1.000	0.0	91	0.00
82	TC	Di-n-octylphthalate	1.542	1.699	-10.2	106	0.00
83	T	Benzo[b]fluoranthene	1.367	1.532	-12.1	109	0.00
84	T	Benzo[k]fluoranthene	1.292	1.452	-12.4	106	0.00
85	TC	Benzo[a]pyrene	1.257	1.383	-10.0	105	0.00
86	T	Indeno[1,2,3-cd]pyrene	1.436	1.593	-10.9	98	0.00
87	T	Dibenz[a,h]anthracene	1.166	1.311	-12.4	100	0.00
88	T	Benzo[g,h,i]perylene	1.372	1.459	-6.3	91	0.00

D 8/17/01

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------	----------	ISTD	----------	----------	----------		
2)	T	Pyridine	0.982	1.181	1.157	1.089	1.081	1.004	1.079	6.79
3)	T	N-nitrosodimeth	0.410	0.423	0.452	0.431	0.392	0.396	0.417	4.97
4)	T	Methylmethanesu	0.651	0.723	0.717	0.680	0.706	0.647	0.677	6.05
5)	S	2-Fluorophenol	1.561	1.973	1.851	1.792	1.676	1.682	1.746	7.81
6)	T	Ethylmethanesul	0.749	0.824	0.813	0.778	0.868	0.774	0.792	5.76
7)	S	Phenol-d5	1.803	1.982	1.924	1.829	1.907	1.800	1.852	4.84
8)	MC	Phenol	2.231	2.452	2.436	2.306	2.409	2.257	2.314	5.45
9)	T	Aniline	1.360	1.520	1.381	1.339	1.380	1.311	1.345	8.80
10)	T	bis(2-Chloroeth	1.835	2.075	1.999	1.934	1.959	1.877	1.943	4.07
11)	M	2-Chlorophenol	1.515	1.789	1.724	1.641	1.642	1.592	1.627	6.59
12)	T	1,3-Dichloroben	1.598	1.838	1.778	1.689	1.586	1.592	1.664	6.45
13)	MC	1,4-Dichloroben	1.767	1.950	1.773	1.705	1.632	1.645	1.727	6.74
14)	T	Benzyl alcohol	1.796	2.110	2.134	2.011	2.219	2.117	2.044	7.11
15)	T	1,2-Dichloroben	1.562	1.715	1.620	1.634	1.522	1.513	1.571	5.94
16)	T	2-Methylphenol	1.508	1.720	1.641	1.656	1.706	1.596	1.611	6.24
17)	T	bis(2-chloroiso	1.431	1.600	1.490	1.473	1.543	1.459	1.483	4.80
18)	T	3,4-Methylpheno	2.011	2.345	2.195	2.176	2.328	2.135	2.165	6.65
19)	MP	n-Nitroso-di-n-	1.070	1.209	1.224	1.183	1.336	1.213	1.190	7.49
20)	T	Hexachloroethan	0.909	1.108	1.040	1.016	0.957	0.994	0.995	6.76
21)	I	Naphthalene-d8	----------	----------	ISTD	----------	----------	----------		
22)	S	Nitrobenzene-d5	0.852	0.972	0.943	0.886	0.879	0.880	0.895	5.10
23)	T	Nitrobenzene	0.747	0.877	0.805	0.774	0.756	0.734	0.773	6.91
24)	T	Isophorone	0.840	1.026	0.923	0.909	0.981	0.926	0.924	6.99
25)	TC	2-Nitrophenol	0.384	0.445	0.442	0.415	0.427	0.429	0.420	5.33
26)	T	2,4-Dimethylphe	0.798	0.925	0.952	0.894	0.915	0.914	0.895	5.58
27)	T	Benzoic Acid			0.245	0.245	0.284	0.277	0.257	8.80
28)	T	bis(2-Chloroeth	0.681	0.823	0.753	0.719	0.749	0.710	0.732	6.54
29)	TC	2,4-Dichlorophe	0.559	0.651	0.607	0.604	0.626	0.609	0.604	5.19
30)	M	1,2,4-Trichloro	0.762	0.879	0.775	0.742	0.733	0.734	0.760	7.67
31)	T	Naphthalene	1.303	1.522	1.387	1.288	1.277	1.286	1.327	7.40
32)	T	4-Chloroaniline	0.683	0.796	0.736	0.704	0.731	0.693	0.713	6.53
33)	T	2,6-Dichlorophe	0.277	0.307	0.292	0.278	0.294	0.282	0.285	5.13
34)	TC	Hexachlorobutad	0.453	0.501	0.465	0.436	0.424	0.433	0.448	6.15
35)	MC	4-Chloro-3-meth	0.645	0.734	0.681	0.651	0.757	0.700	0.689	6.28
36)	T	2-Methylnaphtha	1.210	1.391	1.284	1.254	1.291	1.245	1.260	5.99
37)	T	1-Methylnaphtha	0.606	0.729	0.627	0.613	0.646	0.613	0.631	7.41
38)	I	Acenaphthene-d10	----------	----------	ISTD	----------	----------	----------		
39)	TP	Hexachlorocyclo	0.300	0.318	0.303	0.289	0.252	0.284	0.290	7.11
40)	TC	2,4,6-Trichloro	0.356	0.435	0.384	0.380	0.358	0.362	0.376	7.58
41)	T	2,4,5-Trichloro	0.398	0.440	0.432	0.416	0.398	0.401	0.411	4.41

= Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
42)	S	2-Fluorobipheny	0.891	0.991	0.880	0.867	0.764	0.808	0.858	8.77
43)	T	2-Chloronaphtha	0.887	0.996	0.885	0.864	0.779	0.811	0.864	8.17
44)	T	2-Nitroaniline		0.534	0.520	0.500	0.523	0.500	0.510	3.73
45)	T	Dimethylphthala	0.649	0.768	0.686	0.659	0.695	0.642	0.677	6.76
46)	T	Acenaphthylene	0.959	1.127	1.010	0.972	0.940	0.946	0.986	6.72
47)	T	2,6-Dinitrotolu	0.215	0.273	0.255	0.250	0.276	0.249	0.252	8.07
48)	T	3-Nitroaniline		0.410	0.374	0.357	0.404	0.363	0.380	5.76
49)	MC	Acenaphthene	1.261	1.493	1.305	1.302	1.239	1.209	1.289	7.60
50)	TP	2,4-Dinitrophen			0.725	0.730	0.748	0.717	0.726	1.97
51)	MP	4-Nitrophenol		0.393	0.379	0.385	0.438	0.375	0.394	5.80
52)	T	Dibenzofuran	1.039	1.187	1.020	0.991	0.982	0.938	1.012	8.62
53)	MP	2,4-Dinitrotolu	0.273	0.337	0.325	0.307	0.351	0.311	0.317	7.83
54)	T	Diethylphthalat	0.686	0.855	0.760	0.750	0.807	0.752	0.764	7.03
55)	T	2,3,4,6-Tetrach	0.110	0.150	0.134	0.131	0.150	0.138	0.135	10.03
56)	T	Fluorene	1.136	1.376	1.214	1.185	1.193	1.134	1.196	7.19
57)	T	4-Chlorophenyl-	0.573	0.664	0.608	0.586	0.596	0.565	0.592	6.15
58)	T	4-Nitroaniline		0.402	0.401	0.370	0.437	0.376	0.397	5.93
59)	I	Phenanthrene-d10	----------	ISTD	----------					
60)	T	4,6-Dinitro-2-m			0.222	0.230	0.268	0.259	0.245	7.78
61)	TC	n-Nitrosodiphen	0.880	1.036	0.915	0.886	0.854	0.860	0.891	8.10
62)	T	Azobenzene	0.951	1.130	1.029	0.941	0.906	0.929	0.965	9.16
63)	S	2,4,6-Tribromop	0.162	0.214	0.189	0.183	0.194	0.193	0.188	8.37
64)	T	4-Bromophenyl-p	0.507	0.605	0.555	0.510	0.490	0.503	0.521	8.63
65)	T	Hexachlorobenze	0.362	0.361	0.336	0.314	0.312	0.304	0.326	8.25
66)	MC	Pentachlorophen		0.244	0.235	0.236	0.278	0.267	0.253	7.03
67)	T	Phenanthrene	1.435	1.572	1.477	1.426	1.384	1.353	1.434	5.10
68)	T	Anthracene	1.386	1.572	1.453	1.395	1.385	1.331	1.412	5.65
69)	T	Carbazole	0.981	1.092	1.047	0.967	0.999	0.929	1.001	5.35
70)	T	Di-n-butylphtha	1.146	1.464	1.393	1.339	1.437	1.336	1.354	7.65
71)	TC	Fluoranthene	1.312	1.569	1.497	1.442	1.436	1.355	1.448	6.30
72)		Benzidine	0.171	0.136	0.143	0.144	0.161	0.176	0.155	10.68
73)	I	Chyrsene-d12	----------	ISTD	----------					
74)	M	Pyrene	1.367	1.601	1.452	1.351	1.334	1.392	1.385	8.83
75)	S	Terphenyl-d14	0.785	0.883	0.782	0.730	0.753	0.771	0.768	8.37
76)	T	Butylbenzylphth	0.762	1.009	0.969	0.940	0.993	1.006	0.941	9.23
77)	T	3,3'-Dichlorobe	0.261	0.309	0.329	0.312	0.313	0.334	0.309	7.60
78)	T	Benzo[a]anthrac	1.320	1.580	1.494	1.392	1.348	1.378	1.404	7.00
79)	T	Chrysene	1.402	1.558	1.459	1.373	1.318	1.368	1.392	6.88
80)	T	bis(2-Ethylhexy	0.659	0.848	0.865	0.877	0.864	0.900	0.833	9.66
81)	I	Perylene-d12	----------	ISTD	----------					
82)	TC	Di-n-octylphtha	0.825	1.254	1.332	1.383	1.470	1.522	1.325	18.08

(#) = Out of Range ### Number of calibration levels exceeded

Response Factor Report AG-MSC

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration

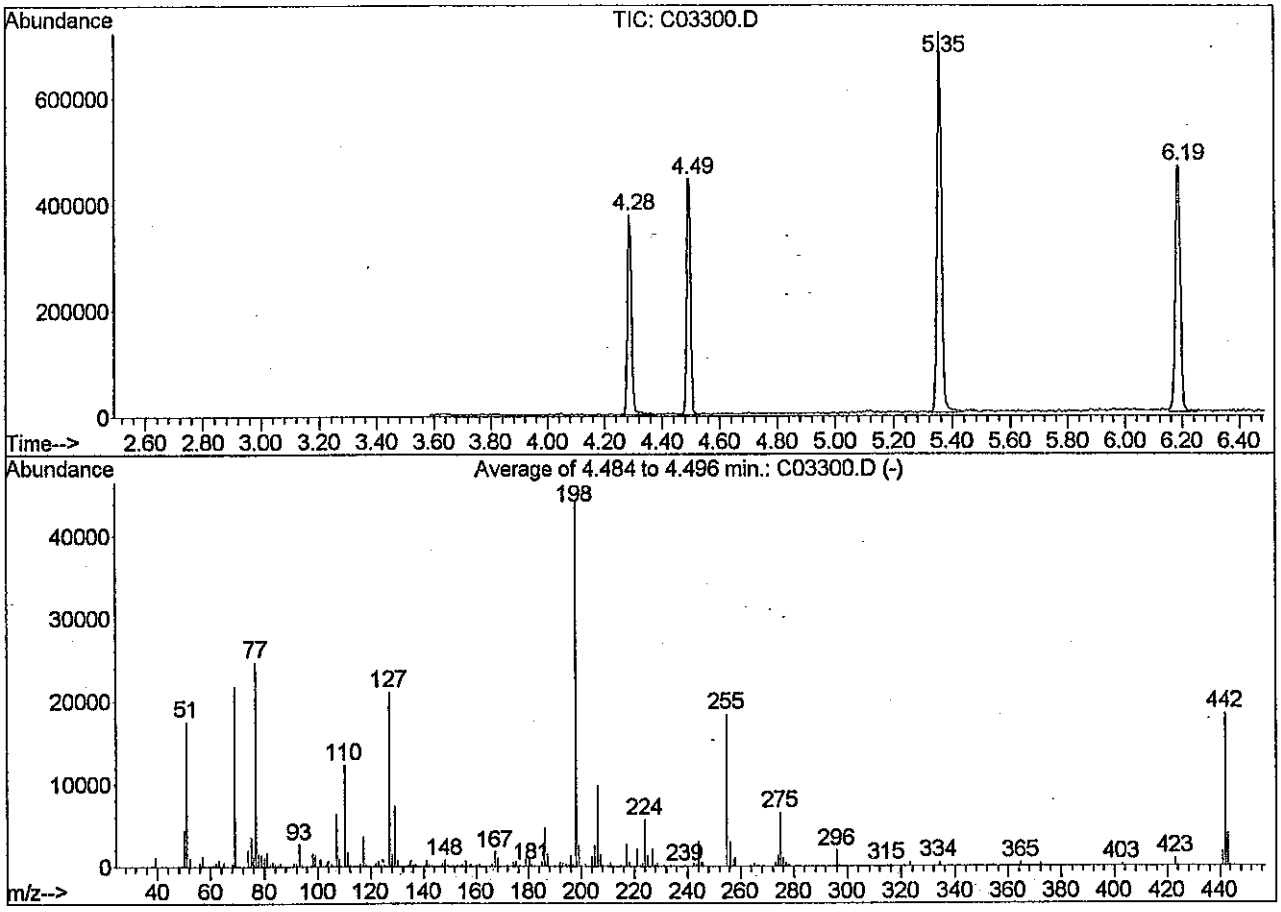
Calibration Files
10 =C03307.D 20 =C03306.D 50 =C03308.D
80 =C03304.D 120 =C03303.D 160 =C03302.D

		Compound	10	20	50	80	120	160	Avg	%RSD
83)	T	Benzo[b]fluoran	1.167	1.529	1.470	1.419	1.348	1.443	1.398	8.29
84)	T	Benzo[k]fluoran	1.171	1.587	1.438	1.405	1.371	1.434	1.396	8.87
85)	TC	Benzo[a]pyrene	1.067	1.390	1.351	1.344	1.284	1.334	1.298	8.23
86)	T	Indeno[1,2,3-cd	1.028	1.323	1.344	1.325	1.478	1.579	1.370	13.26
87)	T	Dibenz[a,h]anth	0.809	1.110	1.276	1.220	1.171	1.250	1.150	13.88
88)	T	Benzo[g,h,i]per	1.153	1.408	1.493	1.173	1.409	1.544	1.377	11.15

DFTPP

Data File : D:\MSDCHEM\1\DATA\072601\C03300.D
Acq On : 07/26/01 09:55
Sample : DFTPP 50 S01132
Misc :
MS Integration Params: rteint.p
Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method

Vial: 1
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00



AutoFind: Scans 154, 155, 156; Background Corrected with Scan 150

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.4	17538	PASS
68	69	0.00	2	1.6	344	PASS
69	198	0.00	100	49.1	21839	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	47.5	21148	PASS
197	198	0.00	1	0.5	243	PASS
198	198	100	100	100.0	44485	PASS
199	198	5	9	5.9	2608	PASS
275	198	10	30	14.6	6480	PASS
365	198	1	100	1.0	467	PASS
441	443	0.01	100	45.9	1819	PASS
442	198	40	100	41.5	18482	PASS
443	442	17	23	21.5	3966	PASS

1	4.284	rBV	0.123	363467	4.255	4.378
2	4.490	rBV	0.076	398465	4.455	4.531
3	5.354	rBV	0.123	726946	5.312	5.436
4	6.188	rVB	0.100	590184	6.153	6.253

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	39010	40.00	ug/L	0.00
21) Naphthalene-d8	7.60	136	89734	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	112862	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	98057	40.00	ug/L	0.00
73) Chyrsene-d12	15.18	240	153019	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	124365	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	328718	193.07	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 193.07%#			
7) Phenol-d5	5.61	99	335447	185.70	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 185.70%#			
22) Nitrobenzene-d5	6.75	82	381933	190.26	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 380.52%#			
42) 2-Fluorobiphenyl	8.93	172	452589	187.05	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 374.10%#			
63) 2,4,6-Tribromophenol	10.81	330	87714	190.45	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 190.45%#			
75) Terphenyl-d14	13.65	244	513672	174.84	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 349.68%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	205983	195.79	ug/L	98
3) N-nitrosodimethylamine	3.41	42	81163	199.45	ug/L	99
4) Methylmethanesufonate	4.54	80	119739	181.38	ug/L	96
6) Ethylmethanesulfonate	5.24	79	143996	186.40	ug/L	99
8) Phenol	5.62	94	411173	182.19	ug/L	99
9) Aniline	5.73	93	218937	166.95	ug/L	95
10) bis(2-Chloroethyl)ether	5.75	63	374568	198.45	ug/L	96
11) 2-Chlorophenol	5.86	128	290457	183.01	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	305180	188.10	ug/L	100
13) 1,4-Dichlorobenzene	6.09	146	315750	187.43	ug/L	98
14) Benzyl alcohol	6.21	108	374342m	187.81	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	279271	182.28	ug/L	99
16) 2-Methylphenol	6.32	108	282808	179.98	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	270102	186.76	ug/L	98
18) 3,4-Methylphenol	6.48	108	766965	363.26	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	212855	183.48	ug/L	99
20) Hexachloroethane	6.69	117	183356	189.01	ug/L	99
23) Nitrobenzene	6.76	77	322967	186.17	ug/L	99
24) Isophorone	7.02	82	385988	186.27	ug/L	99
25) 2-Nitrophenol	7.15	139	179174	190.07	ug/L	00

(#) = qualifier out of range = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	389177	193.80	ug/L		99
27)	Benzoic Acid	7.17	105	104129	180.77	ug/L		93
28)	bis(2-Chloroethoxy)methane	7.25	93	311095	189.33	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	255618	188.78	ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	311475	182.71	ug/L		99
31)	Naphthalene	7.63	128	550518	184.92	ug/L		99
32)	4-Chloroaniline	7.68	127	291936	182.47	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	117669	184.22	ug/L		99
34)	Hexachlorobutadiene	7.82	225	191043	189.97	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	294979	190.73	ug/L		99
36)	2-Methylnaphthalene	8.47	142	514400	181.95	ug/L		100
37)	1-Methylnaphthalene	8.62	142	262661	185.44	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	161715	197.41	ug/L		100
40)	2,4,6-Trichlorophenol	8.84	196	201076	189.55	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	222969	192.05	ug/L		98
43)	2-Chloronaphthalene	9.09	162	465438	190.99	ug/L		99
44)	2-Nitroaniline	9.23	65	272041	189.09	ug/L		100
45)	Dimethylphthalate	9.45	163	360037	188.52	ug/L		99
46)	Acenaphthylene	9.63	152	536007	192.58	ug/L		100
47)	2,6-Dinitrotoluene	9.55	165	137593	193.87	ug/L		99
48)	3-Nitroaniline	9.74	138	209911	195.80	ug/L		99
49)	Acenaphthene	9.86	153	684533	188.24	ug/L		99
50)	2,4-Dinitrophenol	9.87	184	400962	195.72	ug/L		97
51)	4-Nitrophenol	9.88	109	220893	198.91	ug/L		97
52)	Dibenzofuran	10.05	168	523252	183.24	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	176527	197.52	ug/L		98
54)	Diethylphthalate	10.32	149	416758	193.32	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	74560	195.64	ug/L		97
56)	Fluorene	10.49	166	638347	189.23	ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	313358	187.50	ug/L		97
58)	4-Nitroaniline	10.52	138	223307	199.42	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.57	198	120909	201.08	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	395524	181.09	ug/L		99
62)	Azobenzene	10.65	77	424492	179.53	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	232569	182.21	ug/L		100
65)	Hexachlorobenzene	11.29	284	145097	181.34	ug/L		99
66)	Pentachlorophenol	11.49	266	127697	205.55	ug/L		95
67)	Phenanthrene	11.71	178	681081	192.75	ug/L		99
68)	Anthracene	11.76	178	668136	193.01	ug/L		98
69)	Carbazole	11.95	167	487163	198.46	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	668253	201.32	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:11 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

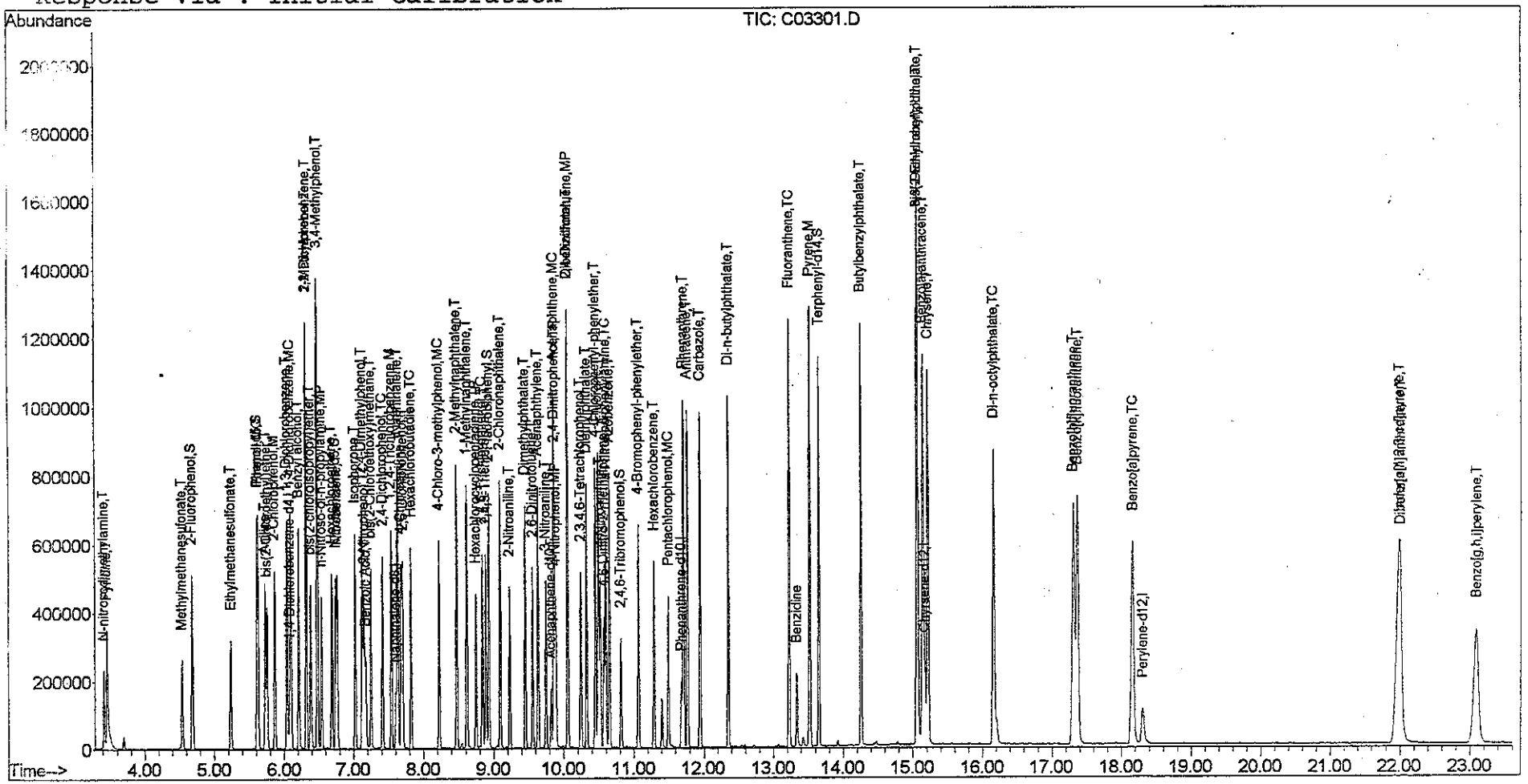
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	746727	210.41	ug/L		99
72)	Benzidine	13.33	184	104250	274.31	ug/L	#	97
74)	Pyrene	13.52	202	917727	173.18	ug/L		99
76)	Butylbenzylphthalate	14.25	149	696415	193.37	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	234920	198.25	ug/L		97
78)	Benzo[a]anthracene	15.14	228	1007129	187.51	ug/L		99
79)	Chrysene	15.21	228	967239	181.68	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	627372	228.96	ug/L		99
82)	Di-n-octylphthalate	16.16	149	924330	224.43	ug/L		99
83)	Benzo[b]fluoranthene	17.30	252	877280	201.81	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	850386	195.90	ug/L		98
85)	Benzo[a]pyrene	18.16	252	817718	202.66	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.97	276	941265	220.99	ug/L		70
87)	Dibenz[a,h]anthracene	22.00	278	753330	210.75	ug/L		99
88)	Benzo[g,h,i]perylene	23.09	276	906972	211.84	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03301.D Vial: 2
Acq On : 07/26/01 10:48 Operator: DMB
Sample : BNA 200 S01161 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:15 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	70776	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	173727	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	236381	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	193628	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	221453	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	184459	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	476259	154.18	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 154.18%#			
7) Phenol-d5	5.61	99	509699	155.52	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 155.52%#			
22) Nitrobenzene-d5	6.75	82	611794	157.42	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 314.84%#			
42) 2-Fluorobiphenyl	8.93	172	764087	150.78	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 301.56%#			
63) 2,4,6-Tribromophenol	10.82	330	149863	164.79	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 164.79%#			
75) Terphenyl-d14	13.65	244	683018	160.64	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 321.28%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	284295	148.94	ug/L	99
3) N-nitrosodimethylamine	3.41	42	112205	151.98	ug/L	99
4) Methylmethanesufonate	4.54	80	183201	152.96	ug/L	98
6) Ethylmethanesulfonate	5.24	79	219221	156.41	ug/L	99
8) Phenol	5.63	94	638998	156.06	ug/L	99
9) Aniline	5.73	93	371059	155.95	ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	531295	155.15	ug/L	99
11) 2-Chlorophenol	5.87	128	450632	156.50	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	450654	153.10	ug/L	100
13) 1,4-Dichlorobenzene	6.09	146	465752	152.39	ug/L	100
14) Benzyl alcohol	6.21	108	599363m	165.74	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	428234	154.06	ug/L	99
16) 2-Methylphenol	6.32	108	451918	158.52	ug/L	98
17) bis(2-chloroisopropyl)ethe	6.38	45	413174	157.46	ug/L	99
18) 3,4-Methylphenol	6.48	108	1208682	315.53	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	343344	163.13	ug/L	99
20) Hexachloroethane	6.69	117	281453	159.92	ug/L	99
23) Nitrobenzene	6.77	77	510224	151.92	ug/L	99
24) Isophorone	7.03	82	643297	160.35	ug/L	99
25) 2-Nitrophenol	7.15	139	297996	163.28	ug/L	99

(#) = qualifier out of range (m) = manu gration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	635210	163.38	ug/L		99
27)	Benzoic Acid	7.19	105	192350	172.48	ug/L		96
28)	bis(2-Chloroethoxy)methane	7.25	93	493104	155.01	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	423053	161.38	ug/L		98
30)	1,2,4-Trichlorobenzene	7.54	180	510210	154.59	ug/L		99
31)	Naphthalene	7.63	128	893695	155.05	ug/L		99
32)	4-Chloroaniline	7.69	127	481310	155.39	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	196090	158.57	ug/L		98
34)	Hexachlorobutadiene	7.82	225	301030	154.62	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	486504	162.48	ug/L		99
36)	2-Methylnaphthalene	8.48	142	865317	158.09	ug/L		99
37)	1-Methylnaphthalene	8.62	142	425964	155.34	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	268323	156.39	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	342324	154.08	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	379389	156.02	ug/L		98
43)	2-Chloronaphthalene	9.09	162	766432	150.16	ug/L		100
44)	2-Nitroaniline	9.23	65	473099	157.01	ug/L		100
45)	Dimethylphthalate	9.45	163	607419	151.86	ug/L		99
46)	Acenaphthylene	9.63	152	894852	153.51	ug/L		100
47)	2,6-Dinitrotoluene	9.55	165	235390	158.36	ug/L		99
48)	3-Nitroaniline	9.74	138	343105	152.80	ug/L		99
49)	Acenaphthene	9.86	153	1142867	150.05	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	677638	157.93	ug/L		95
51)	4-Nitrophenol	9.88	109	354585	152.45	ug/L		100
52)	Dibenzofuran	10.05	168	886717	148.26	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	294073	157.10	ug/L		99
54)	Diethylphthalate	10.32	149	710580	157.38	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	130876	163.96	ug/L		97
56)	Fluorene	10.49	166	1072151	151.75	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	533781	152.50	ug/L		99
58)	4-Nitroaniline	10.52	138	355820	151.72	ug/L		99
60)	4,6-Dinitro-2-methylphenol	10.57	198	200446	168.81	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	665786	154.38	ug/L		99
62)	Azobenzene	10.65	77	719567	154.12	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	389477	154.53	ug/L		99
65)	Hexachlorobenzene	11.29	284	235439	149.01	ug/L		99
66)	Pentachlorophenol	11.49	266	206785	168.57	ug/L		96
67)	Phenanthrene	11.71	178	1047908	150.19	ug/L		98
68)	Anthracene	11.77	178	1030661	150.78	ug/L		99
69)	Carbazole	11.95	167	719272	148.39	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	1034889	157.89	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:15 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

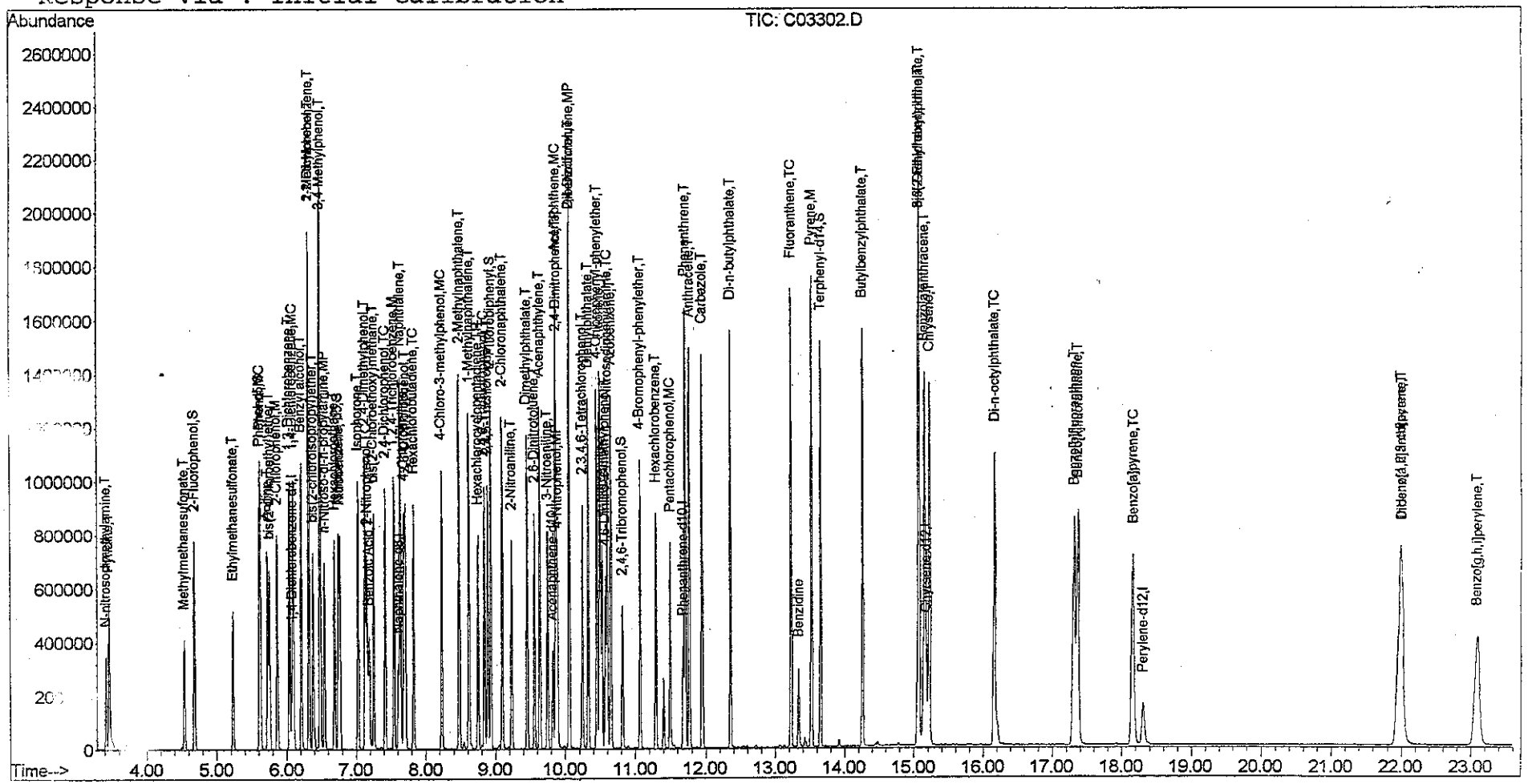
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	1049545	149.77	ug/L		99
72)	Benzidine	13.33	184	136220	181.52	ug/L	#	98
74)	Pyrene	13.52	202	1232707	160.74	ug/L		99
76)	Butylbenzylphthalate	14.25	149	891453	171.04	ug/L		100
77)	3,3'-Dichlorobenzidine	15.05	252	295480	172.30	ug/L		97
78)	Benzo[a]anthracene	15.14	228	1220473	157.01	ug/L		99
79)	Chrysene	15.22	228	1211557	157.25	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	797069	201.00	ug/L		100
82)	Di-n-octylphthalate	16.16	149	1122835	183.81	ug/L		98
83)	Benzo[b]fluoranthene	17.31	252	1064382	165.08	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	1058249	164.36	ug/L		99
85)	Benzo[a]pyrene	18.16	252	984137	164.44	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.98	276	1164747	184.37	ug/L		70
87)	Dibenz[a,h]anthracene	22.00	278	922490	174.00	ug/L		99
88)	Benzo[g,h,i]perylene	23.09	276	1139099	179.38	ug/L		99

(#) = qualifier out range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03302.D Vial: 3
Acq On : 07/26/01 11:23 Operator: DMB
Sample : BNA 160 S01162 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:15 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	423481	122.69	ug/L		99
27)	Benzoic Acid	7.17	105	131612	132.93	ug/L		95
28)	bis(2-Chloroethoxy)methane	7.25	93	346369	122.64	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	289476	124.38	ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	338984	115.69	ug/L		99
31)	Naphthalene	7.63	128	590813	115.46	ug/L		99
32)	4-Chloroaniline	7.68	127	338463	123.08	ug/L		100
33)	2,6-Dichlorophenol	7.70	162	136206	124.06	ug/L		97
34)	Hexachlorobutadiene	7.83	225	196194	113.50	ug/L		98
35)	4-Chloro-3-methylphenol	8.23	107	350424	131.82	ug/L		99
36)	2-Methylnaphthalene	8.48	142	597307	122.92	ug/L		99
37)	1-Methylnaphthalene	8.62	142	299057	122.84	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	177913	104.04	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	253188	114.33	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	281049	115.96	ug/L		98
43)	2-Chloronaphthalene	9.09	162	550584	108.22	ug/L		99
44)	2-Nitroaniline	9.23	65	369504	123.03	ug/L		100
45)	Dimethylphthalate	9.45	163	491568	123.30	ug/L		99
46)	Acenaphthylene	9.63	152	664482	114.36	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	194959	131.59	ug/L		99
48)	3-Nitroaniline	9.74	138	285518	127.58	ug/L		99
49)	Acenaphthene	9.86	153	875921	115.38	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	528648	123.61	ug/L		94
51)	4-Nitrophenol	9.88	109	309564	133.53	ug/L		100
52)	Dibenzofuran	10.05	168	693904	116.41	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	247821	132.83	ug/L		97
54)	Diethylphthalate	10.32	149	570538	126.78	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	105734	132.90	ug/L		97
56)	Fluorene	10.49	166	843534	119.79	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	420940	120.66	ug/L		99
58)	4-Nitroaniline	10.52	138	308528	131.99	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	175513	131.23	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	558613	114.99	ug/L		99
62)	Azobenzene	10.65	77	592750	112.71	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	320414	112.86	ug/L		99
65)	Hexachlorobenzene	11.29	284	203965	114.61	ug/L		99
66)	Pentachlorophenol	11.49	266	182105	131.79	ug/L		98
67)	Phenanthrene	11.71	178	905766	115.25	ug/L		99
68)	Anthracene	11.77	178	906514	117.74	ug/L		99
69)	Carbazole	11.95	167	653713	119.73	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	940174	127.34	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	50939	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	119361	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	147585	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	122633	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	160255	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	133641	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	182582	82.13	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 82.13%			
7) Phenol-d5	5.61	99	186380	79.01	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 79.01%			
22) Nitrobenzene-d5	6.75	82	211552	79.23	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 158.46%#			
42) 2-Fluorobiphenyl	8.93	172	255849	80.86	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 161.72%#			
63) 2,4,6-Tribromophenol	10.82	330	44897	77.95	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 77.95%			
75) Terphenyl-d14	13.65	244	233883	76.01	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 152.02%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	110953	80.77	ug/L	99
3) N-nitrosodimethylamine	3.41	42	43887	82.59	ug/L	98
4) Methylmethanesufonate	4.54	80	69327	80.42	ug/L	98
6) Ethylmethanesulfonate	5.24	79	79226	78.54	ug/L	98
8) Phenol	5.63	94	234980	79.73	ug/L	98
9) Aniline	5.73	93	136458	79.69	ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	196991	79.93	ug/L	100
11) 2-Chlorophenol	5.87	128	167178	80.67	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	172063	81.22	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	173686	78.96	ug/L	99
14) Benzyl alcohol	6.21	108	204910m	78.73	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	166474	83.21	ug/L	99
16) 2-Methylphenol	6.32	108	168726	82.23	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	150081	79.47	ug/L	99
18) 3,4-Methylphenol	6.48	108	443288	160.79	ug/L	100
19) n-Nitroso-di-n-propylamine	6.54	70	120548	79.58	ug/L	100
20) Hexachloroethane	6.69	117	103475	81.69	ug/L	98
23) Nitrobenzene	6.77	77	184856	80.11	ug/L	100
24) Isophorone	7.03	82	217097	78.76	ug/L	99
25) 2-Nitrophenol	7.15	139	99010	78.96	ug/L	99

(#) = qualifier out of nge (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	58880	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	154238	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	235606	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	218100	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	283187	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	242143	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	296121	115.23	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 115.23%#			
7) Phenol-d5	5.61	99	336934	123.58	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 123.58%#			
22) Nitrobenzene-d5	6.75	82	406601	117.84	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 235.68%#			
42) 2-Fluorobiphenyl	8.93	172	539743	106.86	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 213.72%#			
63) 2,4,6-Tribromophenol	10.82	330	126980	123.96	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 123.96%			
75) Terphenyl-d14	13.65	244	639911	117.69	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 235.38%#			
Target Compounds						Qvalue
2) Pyridine	3.46	79	190946	120.25	ug/L	99
3) N-nitrosodimethylamine	3.41	42	69259	112.76	ug/L	96
4) Methylmethanesufonate	4.54	80	124687	125.14	ug/L	99
6) Ethylmethanesulfonate	5.24	79	153325	131.50	ug/L	97
8) Phenol	5.63	94	425460	124.90	ug/L	99
9) Aniline	5.73	93	243743	123.14	ug/L	99
10) bis(2-Chloroethyl)ether	5.76	63	346065	121.47	ug/L	98
11) 2-Chlorophenol	5.87	128	290021	121.07	ug/L	99
12) 1,3-Dichlorobenzene	6.04	146	280183	114.42	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	288334	113.40	ug/L	99
14) Benzyl alcohol	6.21	108	391941m	130.28	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	268880	116.27	ug/L	100
16) 2-Methylphenol	6.32	108	301346	127.06	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	272604	124.88	ug/L	98
18) 3,4-Methylphenol	6.48	108	822448	258.08	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	236064	134.82	ug/L	99
20) Hexachloroethane	6.69	117	169019	115.44	ug/L	99
23) Nitrobenzene	6.77	77	349814	117.32	ug/L	100
24) Isophorone	7.02	82	454081	127.49	ug/L	99
25) 2-Nitrophenol	7.15	139	197488	121.89	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

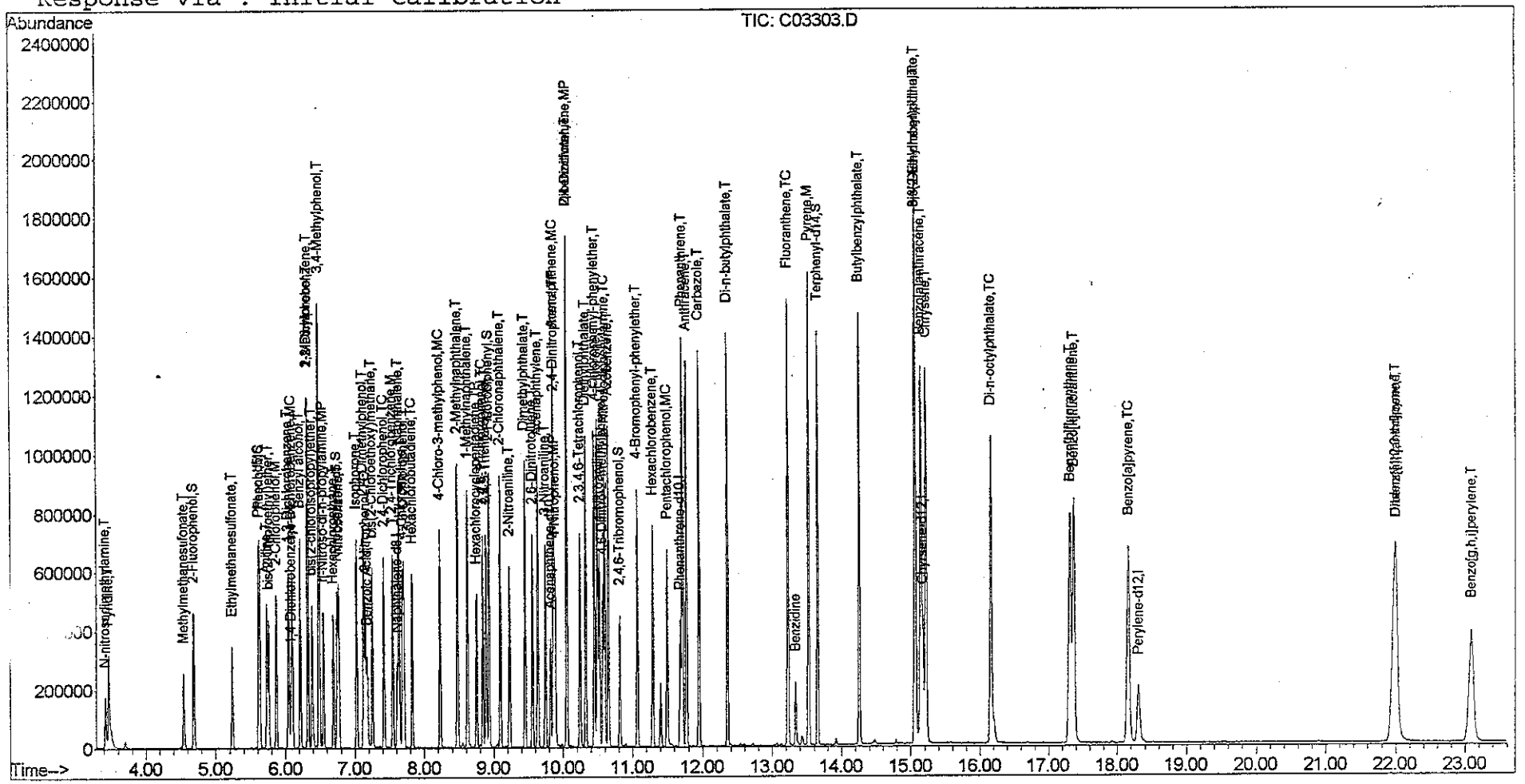
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	939603	119.03	ug/L		99
72)	Benzidine	13.33	184	105194	124.45	ug/L	#	98
74)	Pyrene	13.52	202	1133162	115.55	ug/L		99
76)	Butylbenzylphthalate	14.25	149	843902	126.62	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	266119	121.35	ug/L		96
78)	Benzo[a]anthracene	15.14	228	1145450	115.23	ug/L		99
79)	Chrysene	15.22	228	1119670	113.64	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	734105	144.76	ug/L		100
82)	Di-n-octylphthalate	16.16	149	1067647	133.14	ug/L		98
83)	Benzo[b]fluoranthene	17.31	252	979430	115.72	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	995837	117.82	ug/L		99
85)	Benzo[a]pyrene	18.16	252	932575	118.70	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.98	276	1073488	129.45	ug/L		71
87)	Dibenz[a,h]anthracene	22.00	278	850859	122.26	ug/L		99
88)	Benzo[g,h,i]perylene	23.09	276	1023821	122.82	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03303.D Vial: 4
Acq On : 07/26/01 12:00 Operator: DMB
Sample : BNA 120 S01163 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	213522	79.93	ug/L		98
27)	Benzoic Acid	7.17	105	58591	76.47	ug/L		95
28)	bis(2-Chloroethoxy)methane	7.25	93	171704	78.56	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	144203	80.06	ug/L		99
30)	1,2,4-Trichlorobenzene	7.54	180	177069	78.09	ug/L		100
31)	Naphthalene	7.63	128	307393	77.62	ug/L		98
32)	4-Chloroaniline	7.68	127	167982	78.93	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	66262	77.99	ug/L		99
34)	Hexachlorobutadiene	7.83	225	103999	77.75	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	155486	75.58	ug/L		99
36)	2-Methylnaphthalene	8.48	142	299386	79.61	ug/L		100
37)	1-Methylnaphthalene	8.62	142	146417	77.71	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	85392	79.71	ug/L		99
40)	2,4,6-Trichlorophenol	8.84	196	112105	80.81	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	122846	80.91	ug/L		97
43)	2-Chloronaphthalene	9.09	162	255159	80.07	ug/L		100
44)	2-Nitroaniline	9.23	65	147653	78.49	ug/L		99
45)	Dimethylphthalate	9.45	163	194600	77.92	ug/L		99
46)	Acenaphthylene	9.63	152	286927	78.83	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	73757	79.47	ug/L		99
48)	3-Nitroaniline	9.74	138	105468	75.23	ug/L		99
49)	Acenaphthene	9.86	153	384222	80.80	ug/L		99
50)	2,4-Dinitrophenol	9.87	184	215422	80.41	ug/L		99
51)	4-Nitrophenol	9.88	109	113595	78.22	ug/L		99
52)	Dibenzofuran	10.05	168	292475	78.33	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	90519	77.45	ug/L		99
54)	Diethylphthalate	10.32	149	221303	78.50	ug/L		100
55)	2,3,4,6-Tetrachlorophenol	10.24	232	38799	77.85	ug/L		98
56)	Fluorene	10.49	166	349768	79.29	ug/L		99
57)	4-Chlorophenyl-phenylether	10.45	204	172999	79.16	ug/L		98
58)	4-Nitroaniline	10.52	138	109153	74.54	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.57	198	56514	75.15	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	217321	79.56	ug/L		98
62)	Azobenzene	10.65	77	230781	78.04	ug/L		99
64)	4-Bromophenyl-phenylether	11.06	248	125120	78.38	ug/L		99
65)	Hexachlorobenzene	11.29	284	77028	76.98	ug/L		99
66)	Pentachlorophenol	11.49	266	57940	74.57	ug/L		97
67)	Phenanthrene	11.71	178	349654	79.12	ug/L		99
68)	Anthracene	11.76	178	342105	79.02	ug/L		98
69)	Carbazole	11.95	167	237292	77.30	ug/L	#	97
70)	Di-n-butylphthalate	12.35	149	328351	79.10	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:22 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

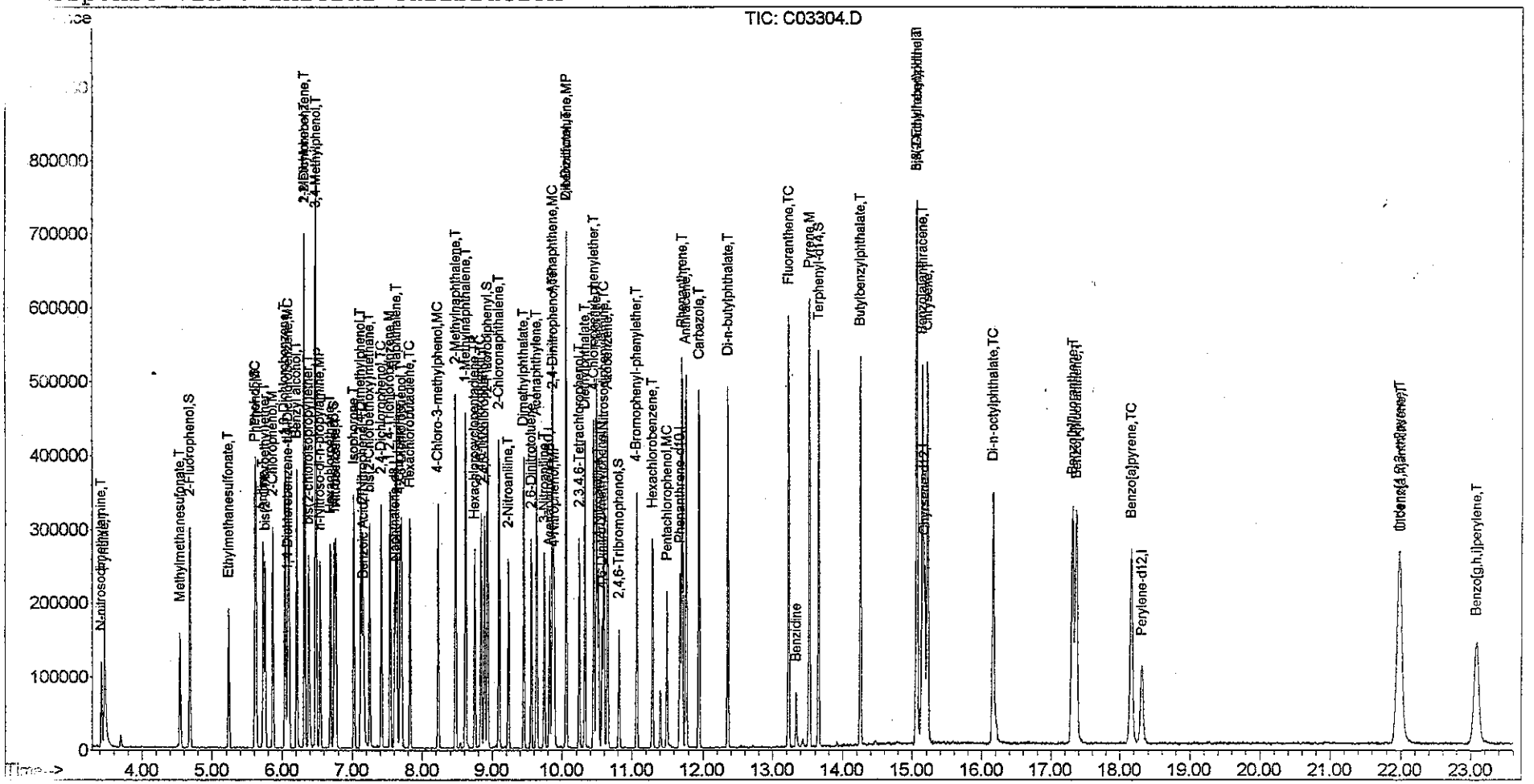
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	353651	79.68	ug/L		99
72)	Benzidine	13.33	184	35401	74.48	ug/L	#	96
74)	Pyrene	13.52	202	433060	78.03	ug/L		99
76)	Butylbenzylphthalate	14.25	149	301155	79.85	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	100060	80.63	ug/L		96
78)	Benzo[a]anthracene	15.14	228	446218	79.33	ug/L		99
79)	Chrysene	15.21	228	439962	78.91	ug/L		100
80)	bis(2-Ethylhexyl)phthalate	15.07	149	280993	97.92	ug/L		99
82)	Di-n-octylphthalate	16.16	149	369751	83.54	ug/L		97
83)	Benzo[b]fluoranthene	17.30	252	379226	81.18	ug/L		98
84)	Benzo[k]fluoranthene	17.36	252	375532	80.50	ug/L		99
85)	Benzo[a]pyrene	18.15	252	359216	82.85	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.96	276	354068	77.36	ug/L		97
87)	Dibenz[a,h]anthracene	21.99	278	326008	84.87	ug/L		98
88)	Benzo[g,h,i]perylene	23.06	276	313630	68.17	ug/L		82

(# ualifier out of range (m) = manual integr

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03304.D Vial: 5
Acq On : 07/26/01 12:36 Operator: DMB
Sample : BNA 80 S01164 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	75996	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	175539	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	218687	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	172639	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	213727	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	187336	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	175789	52.98	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 52.98%			
7) Phenol-d5	5.61	99	182790	52.03	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 52.03%			
22) Nitrobenzene-d5	6.75	82	206855	52.91	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 105.82%#			
42) 2-Fluorobiphenyl	8.93	172	240567	51.61	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 103.22%			
63) 2,4,6-Tribromophenol	10.82	330	40892	50.08	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 50.08%			
75) Terphenyl-d14	13.65	244	208945	50.78	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 101.56%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	109918	53.78	ug/L	99
3) N-nitrosodimethylamine	3.42	42	42977	54.68	ug/L	96
4) Methylmethanesufonate	4.54	80	68077	53.26	ug/L	97
6) Ethylmethanesulfonate	5.24	79	77239	51.55	ug/L	99
8) Phenol	5.63	94	231445	52.72	ug/L	99
9) Aniline	5.73	93	131219	51.49	ug/L	98
10) bis(2-Chloroethyl)ether	5.76	63	189914	51.47	ug/L	98
11) 2-Chlorophenol	5.87	128	163783	53.32	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	168872	53.65	ug/L	100
13) 1,4-Dichlorobenzene	6.10	146	168422	51.52	ug/L	99
14) Benzyl alcohol	6.21	108	202736m	52.35	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	153861	51.59	ug/L	99
16) 2-Methylphenol	6.32	108	155927	50.76	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	141501	49.94	ug/L	100
18) 3,4-Methylphenol	6.48	108	416985	100.90	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	116281	51.25	ug/L	97
20) Hexachloroethane	6.69	117	98751	52.06	ug/L	99
23) Nitrobenzene	6.77	77	176594	51.99	ug/L	99
24) Isophorone	7.03	82	202489	49.55	ug/L	99
25) 2-Nitrophenol	7.15	139	97016	52.68	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.13	107	208784	53.48	ug/L		99
27)	Benzoic Acid	7.16	105	53777	47.03	ug/L		97
28)	bis(2-Chloroethoxy)methane	7.25	93	165130	51.19	ug/L		99
29)	2,4-Dichlorophenol	7.42	162	133179	49.97	ug/L		98
30)	1,2,4-Trichlorobenzene	7.54	180	170159	51.04	ug/L		100
31)	Naphthalene	7.63	128	304277	52.50	ug/L		98
32)	4-Chloroaniline	7.69	127	161411	51.41	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	64163	51.01	ug/L		97
34)	Hexachlorobutadiene	7.83	225	102001	52.04	ug/L		99
35)	4-Chloro-3-methylphenol	8.23	107	149338	48.71	ug/L		100
36)	2-Methylnaphthalene	8.48	142	281724	50.58	ug/L		100
37)	1-Methylnaphthalene	8.62	142	137604	49.28	ug/L		98
39)	Hexachlorocyclopentadiene	8.75	237	82827	53.15	ug/L		100
40)	2,4,6-Trichlorophenol	8.84	196	104845	51.44	ug/L		98
41)	2,4,5-Trichlorophenol	8.88	196	118108	52.92	ug/L		99
43)	2-Chloronaphthalene	9.10	162	241811	51.40	ug/L		99
44)	2-Nitroaniline	9.23	65	142040	50.28	ug/L		100
45)	Dimethylphthalate	9.45	163	187506	50.16	ug/L		99
46)	Acenaphthylene	9.63	152	276100	51.12	ug/L		100
47)	2,6-Dinitrotoluene	9.55	165	69574	49.50	ug/L		99
48)	3-Nitroaniline	9.74	138	102102	48.06	ug/L		98
49)	Acenaphthene	9.86	153	356857	50.31	ug/L		98
50)	2,4-Dinitrophenol	9.87	184	198276	48.90	ug/L		97
51)	4-Nitrophenol	9.88	109	103640	46.52	ug/L		100
52)	Dibenzofuran	10.05	168	278766	50.12	ug/L		100
53)	2,4-Dinitrotoluene	10.05	165	88930	50.34	ug/L		97
54)	Diethylphthalate	10.32	149	207889	48.18	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	36676	48.54	ug/L		100
56)	Fluorene	10.49	166	331759	50.08	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	166197	50.83	ug/L		98
58)	4-Nitroaniline	10.52	138	109554	48.86	ug/L		100
60)	4,6-Dinitro-2-methylphenol	10.57	198	47987	44.32	ug/L		100
61)	n-Nitrosodiphenylamine	10.59	169	197358	51.31	ug/L		99
62)	Azobenzene	10.65	77	222036	53.97	ug/L		100
64)	4-Bromophenyl-phenylether	11.07	248	119857	53.88	ug/L		99
65)	Hexachlorobenzene	11.29	284	72541	51.56	ug/L		98
66)	Pentachlorophenol	11.49	266	50687	45.46	ug/L		97
67)	Phenanthrene	11.71	178	318737	51.06	ug/L		99
68)	Anthracene	11.77	178	313510	51.08	ug/L		99
69)	Carbazole	11.95	167	226012	51.98	ug/L	#	99
70)	Di-n-butylphthalate	12.35	149	300515	50.66	ug/L		100

(ualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:10:20 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:09:51 2001
Response via : Initial Calibration
DataAcq Meth : 8270

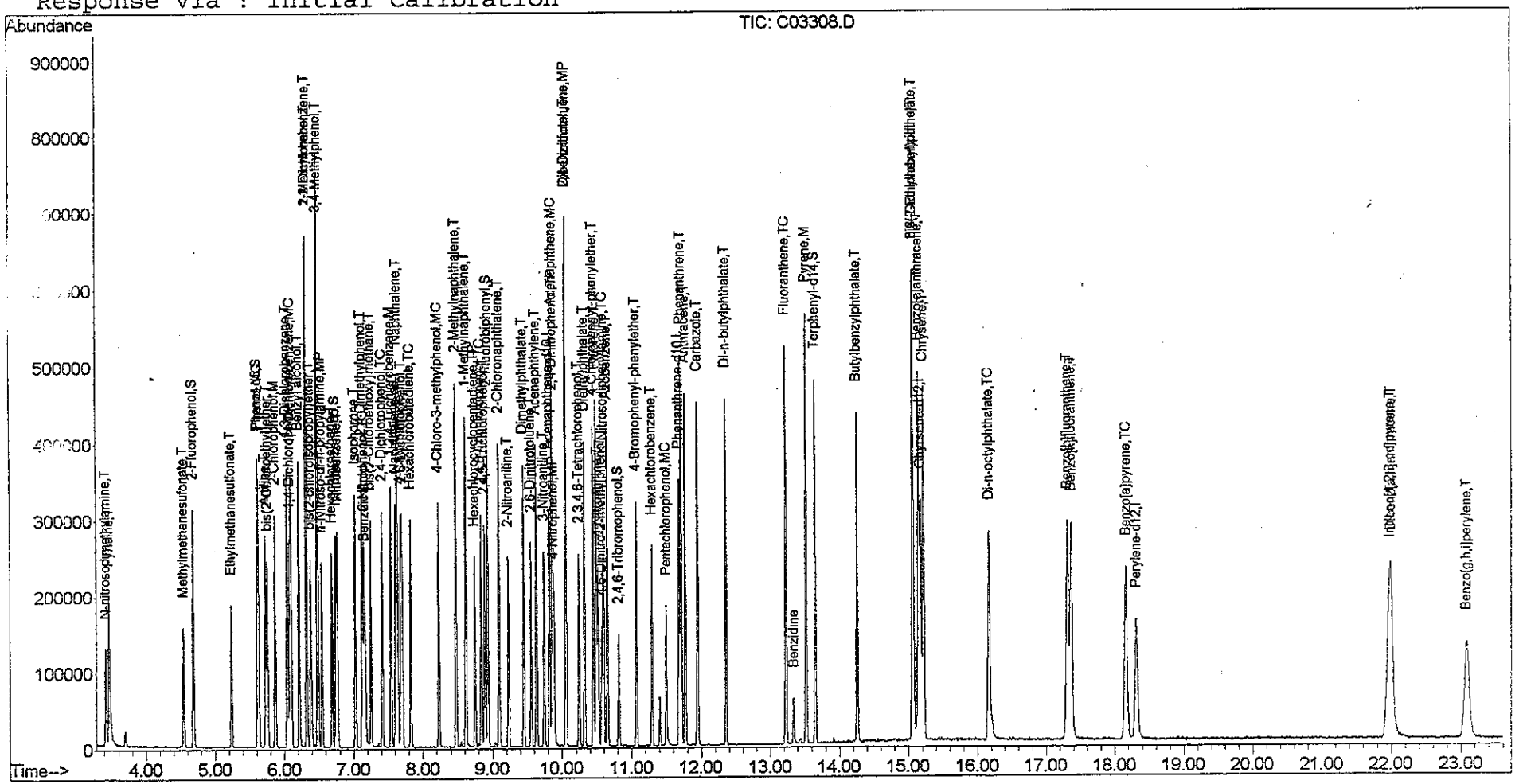
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.23	202	323152	50.94	ug/L		100
72)	Benzidine	13.33	184	30776	44.27	ug/L	#	95
74)	Pyrene	13.52	202	388033	52.62	ug/L		99
76)	Butylbenzylphthalate	14.25	149	258774	50.95	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	87924	52.95	ug/L		95
78)	Benzo[a]anthracene	15.14	228	399051	53.22	ug/L		99
79)	Chrysene	15.22	228	389836	52.44	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	231045	61.86	ug/L		79
82)	Di-n-octylphthalate	16.16	149	311937	49.74	ug/L		98
83)	Benzo[b]fluoranthene	17.30	252	344308	52.64	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	336675	51.29	ug/L		99
85)	Benzo[a]pyrene	18.16	252	316282	52.16	ug/L		99
86)	Indeno[1,2,3-cd]pyrene	21.96	276	314671	48.08	ug/L		77
87)	Dibenz[a,h]anthracene	21.99	278	298773	55.87	ug/L		98
88)	Benzo[g,h,i]perylene	23.07	276	349613	55.10	ug/L		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03308.D Vial: 9
Acq On : 07/26/01 15:05 Operator: DMB
Sample : BNA 50 S01170 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:10 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	74621	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	165749	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	206421	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	171123	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	199618	40.00	ug/L	0.00
81) Perylene-d12	18.30	264	166475	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	73620	22.61	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 22.61%#			
7) Phenol-d5	5.61	99	73938	21.40	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 21.40%#			
22) Nitrobenzene-d5	6.75	82	80567	21.73	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 43.46%			
42) 2-Fluorobiphenyl	8.93	172	102314	23.12	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 46.24%			
63) 2,4,6-Tribromophenol	10.82	330	18276	22.74	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 22.74%#			
75) Terphenyl-d14	13.65	244	88156	23.00	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 46.00%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	44081	21.90	ug/L	100
3) N-nitrosodimethylamine	3.42	42	15782	20.27	ug/L #	94
4) Methylmethanesufonate	4.54	80	26974	21.36	ug/L	95
6) Ethylmethanesulfonate	5.24	79	30752	20.81	ug/L	99
8) Phenol	5.62	94	91477	21.19	ug/L	97
9) Aniline	5.73	93	56696	22.60	ug/L	96
10) bis(2-Chloroethyl)ether	5.76	63	77432	21.45	ug/L	99
11) 2-Chlorophenol	5.87	128	66748	21.99	ug/L	98
12) 1,3-Dichlorobenzene	6.04	146	68559	22.09	ug/L	99
13) 1,4-Dichlorobenzene	6.10	146	72757	22.58	ug/L	98
14) Benzyl alcohol	6.21	108	78718m	20.65	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	63981	21.83	ug/L	99
16) 2-Methylphenol	6.32	108	64188	21.35	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	59692	21.58	ug/L	99
18) 3,4-Methylphenol	6.48	108	174965	43.32	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	45096	20.32	ug/L	99
20) Hexachloroethane	6.69	117	41337	22.28	ug/L	99
23) Nitrobenzene	6.77	77	72674	22.68	ug/L	100
24) Isophorone	7.03	82	85048	22.22	ug/L	99
25) 2-Nitrophenol	7.15	139	36920	21.20	ug/L	98

(#) = qualifier out of range (m) = manual in[illegible]matic

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	76665	20.67	ug/L		99
27)	Benzoic Acid	7.16	105	17905	16.83	ug/L	#	88
28)	bis(2-Chloroethoxy)methane	7.25	93	68210	22.47	ug/L		98
29)	2,4-Dichlorophenol	7.42	162	53939	21.57	ug/L		98
30)	1,2,4-Trichlorobenzene	7.54	180	72821	23.13	ug/L		99
31)	Naphthalene	7.63	128	126132	22.94	ug/L		99
32)	4-Chloroaniline	7.68	127	65942	22.31	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	25462	21.58	ug/L		98
34)	Hexachlorobutadiene	7.82	225	41524	22.35	ug/L		97
35)	4-Chloro-3-methylphenol	8.23	107	60846	21.30	ug/L		99
36)	2-Methylnaphthalene	8.48	142	115251	22.07	ug/L		99
37)	1-Methylnaphthalene	8.62	142	60391	23.08	ug/L		97
39)	Hexachlorocyclopentadiene	8.75	237	32796	21.89	ug/L		97
40)	2,4,6-Trichlorophenol	8.84	196	44936	23.16	ug/L		99
41)	2,4,5-Trichlorophenol	8.88	196	45378	21.37	ug/L		95
43)	2-Chloronaphthalene	9.09	162	102759	23.05	ug/L		98
44)	2-Nitroaniline	9.23	65	55138	20.96	ug/L		97
45)	Dimethylphthalate	9.45	163	79284	22.70	ug/L		99
46)	Acenaphthylene	9.63	152	116340	22.85	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	28168	21.70	ug/L		99
48)	3-Nitroaniline	9.74	138	42332	21.59	ug/L		100
49)	Acenaphthene	9.86	153	154095	23.17	ug/L		99
50)	2,4-Dinitrophenol	9.87	184	80713	21.54	ug/L		97
51)	4-Nitrophenol	9.88	109	40575	19.98	ug/L		97
52)	Dibenzofuran	10.05	168	122558	23.47	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	34833	21.31	ug/L		99
54)	Diethylphthalate	10.32	149	88249	22.38	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	15471	22.20	ug/L		95
56)	Fluorene	10.49	166	141973	23.01	ug/L		100
57)	4-Chlorophenyl-phenylether	10.45	204	68525	22.42	ug/L		98
58)	4-Nitroaniline	10.52	138	41495	20.26	ug/L		97
60)	4,6-Dinitro-2-methylphenol	10.56	198	19705	18.78	ug/L		98
61)	n-Nitrosodiphenylamine	10.59	169	88654	23.26	ug/L		99
62)	Azobenzene	10.65	77	96709	23.44	ug/L		98
64)	4-Bromophenyl-phenylether	11.07	248	51798	23.25	ug/L		98
65)	Hexachlorobenzene	11.29	284	30896	22.13	ug/L		97
66)	Pentachlorophenol	11.50	266	20847	19.23	ug/L		97
67)	Phenanthrene	11.76	178	134544	21.82	ug/L		97
68)	Anthracene	11.76	178	134544	22.27	ug/L		97
69)	Carbazole	11.95	167	93439	21.81	ug/L		97
70)	Di-n-butylphthalate	12.35	149	125303	21.63	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:25 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

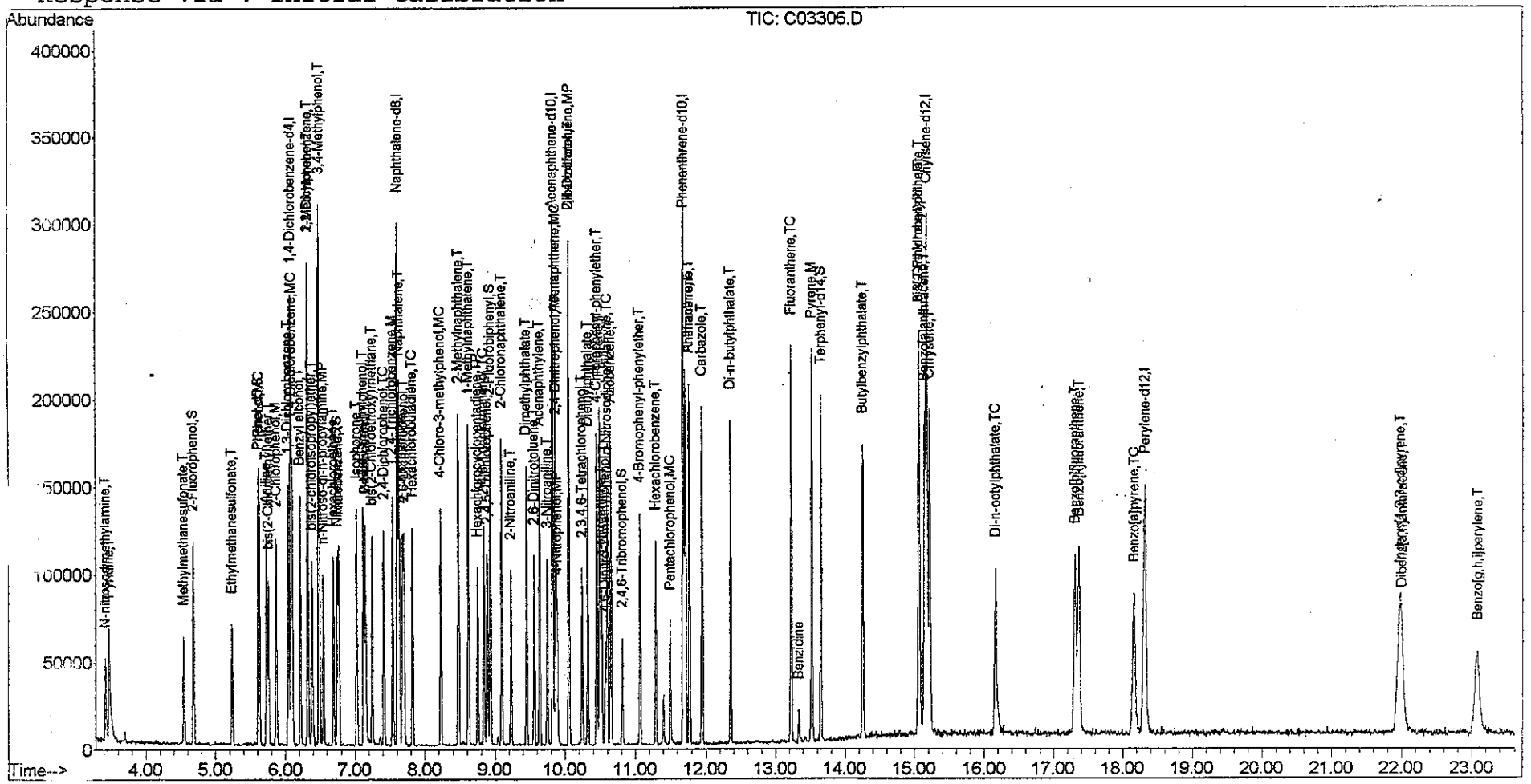
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	134207	21.67	ug/L		97
72)	Benzidine	13.33	184	11599	17.49	ug/L	#	89
74)	Pyrene	13.52	202	159810	23.12	ug/L		99
76)	Butylbenzylphthalate	14.25	149	100742	21.44	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	30858	19.96	ug/L		96
78)	Benzo[a]anthracene	15.14	228	157739	22.51	ug/L		99
79)	Chrysene	15.21	228	155516	22.39	ug/L		99
80)	bis(2-Ethylhexyl)phthalate	15.07	149	84650	23.68	ug/L		99
82)	Di-n-octylphthalate	16.16	149	104411	18.94	ug/L		99
83)	Benzo[b]fluoranthene	17.30	252	127255	21.87	ug/L		99
84)	Benzo[k]fluoranthene	17.36	252	132117	22.74	ug/L		97
85)	Benzo[a]pyrene	18.15	252	115720	21.42	ug/L		98
86)	Indeno[1,2,3-cd]pyrene	21.96	276	110155	19.32	ug/L		99
87)	Dibenz[a,h]anthracene	21.99	278	92390	19.31	ug/L		84
88)	Benzo[g,h,i]perylene	23.07	276	117208	20.45	ug/L		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03306.D Vial: 7
Acq On : 07/26/01 13:50 Operator: DMB
Sample : BNA 20 S01166 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:16 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	77116	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	178276	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	221487	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	174371	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	203007	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	178031	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	30087	8.94	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 8.94%#			
7) Phenol-d5	5.61	99	34757	9.73	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 9.73%#			
22) Nitrobenzene-d5	6.75	82	37992	9.53	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 19.06%#			
42) 2-Fluorobiphenyl	8.93	172	49326	10.39	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 20.78%#			
63) 2,4,6-Tribromophenol	10.82	330	7083	8.65	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 8.65%#			
75) Terphenyl-d14	13.65	244	39851	10.22	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 20.44%#			
Target Compounds						Qvalue
2) Pyridine	3.48	79	18938	9.11	ug/L	94
3) N-nitrosodimethylamine	3.43	42	7906	9.83	ug/L #	90
4) Methylmethanesufonate	4.54	80	12558	9.62	ug/L	92
6) Ethylmethanesulfonate	5.24	79	14445	9.46	ug/L	97
8) Phenol	5.62	94	43007	9.64	ug/L	98
9) Aniline	5.73	93	26211	10.11	ug/L	97
10) bis(2-Chloroethyl)ether	5.76	63	35382	9.48	ug/L	98
11) 2-Chlorophenol	5.87	128	29205	9.31	ug/L	97
12) 1,3-Dichlorobenzene	6.05	146	30816	9.61	ug/L	97
13) 1,4-Dichlorobenzene	6.09	146	34070	10.23	ug/L	95
14) Benzyl alcohol	6.21	108	34621m	8.79	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	30106	9.94	ug/L	99
16) 2-Methylphenol	6.32	108	29080	9.36	ug/L	97
17) bis(2-chloroisopropyl)ethe	6.38	45	27585	9.65	ug/L	96
18) 3,4-Methylphenol	6.48	108	77528	18.57	ug/L	99
19) n-Nitroso-di-n-propylamine	6.54	70	20634	9.00	ug/L	97
20) Hexachloroethane	6.69	117	17518	9.14	ug/L	98
23) Nitrobenzene	6.76	77	33288	9.66	ug/L	97
24) Isophorone	7.03	82	37445	9.10	ug/L	97
25) 2-Nitrophenol	7.15	139	17117	9.14	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	2,4-Dimethylphenol	7.12	107	35587	8.92	ug/L		95
27)	Benzoic Acid	7.15	105	6792	5.94	ug/L		94
28)	bis(2-Chloroethoxy)methane	7.25	93	30334	9.29	ug/L		100
29)	2,4-Dichlorophenol	7.42	162	24917	9.26	ug/L		96
30)	1,2,4-Trichlorobenzene	7.54	180	33981	10.03	ug/L		99
31)	Naphthalene	7.63	128	58089	9.82	ug/L		99
32)	4-Chloroaniline	7.69	127	30420	9.57	ug/L		99
33)	2,6-Dichlorophenol	7.70	162	12346	9.73	ug/L		95
34)	Hexachlorobutadiene	7.82	225	20205	10.11	ug/L		95
35)	4-Chloro-3-methylphenol	8.23	107	28743	9.35	ug/L		98
36)	2-Methylnaphthalene	8.48	142	53944	9.60	ug/L		100
37)	1-Methylnaphthalene	8.62	142	27001	9.60	ug/L		99
39)	Hexachlorocyclopentadiene	8.75	237	16624	10.34	ug/L		98
40)	2,4,6-Trichlorophenol	8.84	196	19739	9.48	ug/L		97
41)	2,4,5-Trichlorophenol	8.89	196	22064	9.68	ug/L		98
43)	2-Chloronaphthalene	9.09	162	49114	10.27	ug/L		99
44)	2-Nitroaniline	9.23	65	23365	8.28	ug/L		97
45)	Dimethylphthalate	9.45	163	35925	9.59	ug/L		98
46)	Acenaphthylene	9.63	152	53126	9.73	ug/L		99
47)	2,6-Dinitrotoluene	9.55	165	11894	8.54	ug/L		93
48)	3-Nitroaniline	9.74	138	17490	8.31	ug/L		99
49)	Acenaphthene	9.86	153	69802	9.78	ug/L		100
50)	2,4-Dinitrophenol	9.87	184	36432	9.06	ug/L		94
51)	4-Nitrophenol	9.88	109	15737	7.22	ug/L		98
52)	Dibenzofuran	10.05	168	57554	10.27	ug/L		99
53)	2,4-Dinitrotoluene	10.05	165	15134	8.63	ug/L		98
54)	Diethylphthalate	10.32	149	37968	8.97	ug/L		99
55)	2,3,4,6-Tetrachlorophenol	10.24	232	6083	8.13	ug/L		98
56)	Fluorene	10.49	166	62911	9.50	ug/L		98
57)	4-Chlorophenyl-phenylether	10.45	204	31714	9.67	ug/L		98
58)	4-Nitroaniline	10.52	138	17709	8.06	ug/L		98
60)	4,6-Dinitro-2-methylphenol	10.57	198	7100	6.64	ug/L		99
61)	n-Nitrosodiphenylamine	10.59	169	38350	9.87	ug/L		98
62)	Azobenzene	10.65	77	41447	9.86	ug/L		97
64)	4-Bromophenyl-phenylether	11.06	248	22094	9.73	ug/L		98
65)	Hexachlorobenzene	11.29	284	15772	11.08	ug/L		95
66)	Pentachlorophenol	11.49	266	7359	6.66	ug/L		91
67)	Phenanthrene	11.71	178	62553	9.96	ug/L		98
68)	Anthracene	11.77	178	60405	9.81	ug/L		98
69)	Carbazole	11.95	167	42767	9.80	ug/L	#	99
70)	Di-n-butylphthalate	12.35	149	49974	8.47	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:12:29 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:10:57 2001
Response via : Initial Calibration
DataAcq Meth : 8270

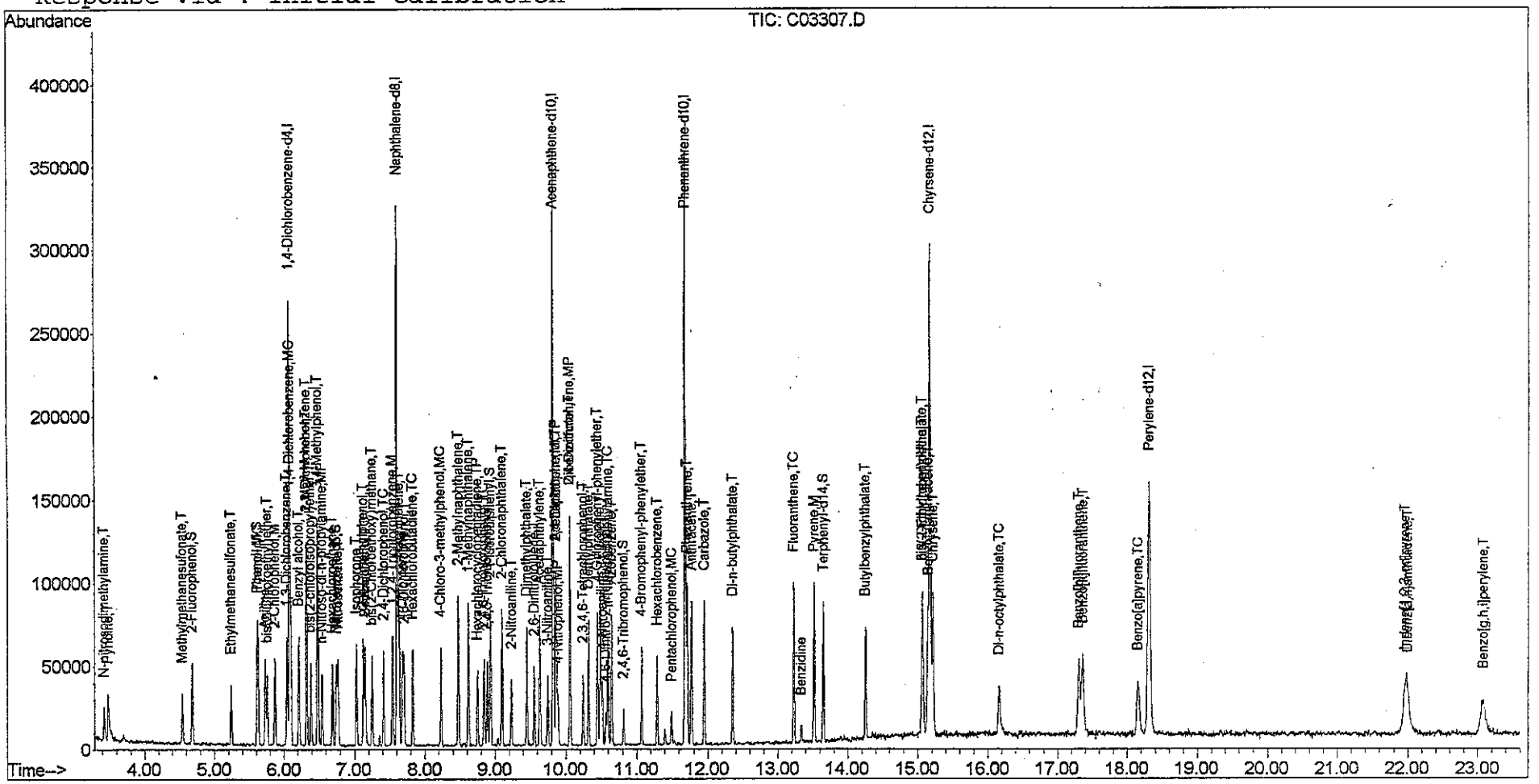
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	Fluoranthene	13.22	202	57187	9.06	ug/L		96
72)	Benzidine	13.33	184	7455	11.03	ug/L	#	92
74)	Pyrene	13.51	202	69379	9.87	ug/L		97
76)	Butylbenzylphthalate	14.25	149	38695	8.10	ug/L		99
77)	3,3'-Dichlorobenzidine	15.05	252	13260	8.43	ug/L		97
78)	Benzo[a]anthracene	15.14	228	66972	9.40	ug/L		98
79)	Chrysene	15.21	228	71142	10.07	ug/L		98
80)	bis(2-Ethylhexyl)phthalate	15.07	149	33464	9.21	ug/L		98
82)	Di-n-octylphthalate	16.16	149	36714	6.23	ug/L		98
83)	Benzo[b]fluoranthene	17.30	252	51959	8.35	ug/L		91
84)	Benzo[k]fluoranthene	17.36	252	52105	8.38	ug/L		98
85)	Benzo[a]pyrene	18.15	252	47492	8.22	ug/L		90
86)	Indeno[1,2,3-cd]pyrene	21.95	276	45732	7.50	ug/L		85
87)	Dibenz[a,h]anthracene	21.99	278	36015	7.04	ug/L		79
88)	Benzo[g,h,i]perylene	23.07	276	51323	8.37	ug/L		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03307.D Vial: 8
Acq On : 07/26/01 14:28 Operator: DMB
Sample : BNA 10 S01167 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 8:17 2001 Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:22:03 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D Vial: 10
Acq On : 07/26/01 15:43 Operator: DMB
Sample : ICV BNA 50 S01156 Inst : AG-MSC
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001 Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.08	152	82851	40.00	ug/L	0.00
21) Naphthalene-d8	7.61	136	192899	40.00	ug/L	0.00
38) Acenaphthene-d10	9.82	164	252107	40.00	ug/L	0.00
59) Phenanthrene-d10	11.68	188	214162	40.00	ug/L	0.00
73) Chyrsene-d12	15.17	240	230847	40.00	ug/L	0.00
81) Perylene-d12	18.31	264	175164	40.00	ug/L	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.68	112	172112	47.60	ug/L	0.00
Spiked Amount 100.000	Range 24 - 101		Recovery = 47.60%			
7) Phenol-d5	5.61	99	182635	47.60	ug/L	0.00
Spiked Amount 100.000	Range 26 - 104		Recovery = 47.60%			
22) Nitrobenzene-d5	6.75	82	209907	48.64	ug/L	0.00
Spiked Amount 50.000	Range 39 - 99		Recovery = 97.28%			
42) 2-Fluorobiphenyl	8.93	172	267304	49.46	ug/L	0.00
Spiked Amount 50.000	Range 27 - 121		Recovery = 98.92%			
63) 2,4,6-Tribromophenol	10.82	330	47002	46.73	ug/L	0.00
Spiked Amount 100.000	Range 25 - 127		Recovery = 46.73%			
75) Terphenyl-d14	13.65	244	232170	52.38	ug/L	0.00
Spiked Amount 50.000	Range 28 - 139		Recovery = 104.76%			
Target Compounds						Qvalue
2) Pyridine	3.47	79	106535m	47.68	ug/L	
3) N-nitrosodimethylamine	3.42	42	39862	46.12	ug/L #	99
4) Methylmethanesufonate	4.55	80	69823	49.80	ug/L	99
6) Ethylmethanesulfonate	5.24	79	78226	47.68	ug/L	100
8) Phenol	5.63	94	225815	47.11	ug/L	99
9) Aniline	5.74	93	119083	42.75	ug/L	100
10) bis(2-Chloroethyl)ether	5.76	63	195489	48.58	ug/L	98
11) 2-Chlorophenol	5.87	128	162866	48.32	ug/L	99
12) 1,3-Dichlorobenzene	6.05	146	167518	48.62	ug/L	100
13) 1,4-Dichlorobenzene	6.10	146	173509	48.50	ug/L	99
14) Benzyl alcohol	6.21	108	215173m	50.83	ug/L	
15) 1,2-Dichlorobenzene	6.32	146	155710	47.85	ug/L	99
16) 2-Methylphenol	6.32	108	164924	49.42	ug/L	99
17) bis(2-chloroisopropyl)ethe	6.38	45	146251	47.61	ug/L	99
18) 3,4-Methylphenol	6.48	108	430799	96.07	ug/L	100
19) n-Nitroso-di-n-propylamine	6.55	70	117217	47.57	ug/L	99
20) Hexachloroethane	6.69	117	100214	48.64	ug/L	99
23) Nitrobenzene	6.77	77	187004	50.15	ug/L	99
24) Isophorone	7.03	82	219623	49.30	ug/L	100
25) 2-Nitrophenol	7.15	139	99535	49.12	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D
Acq On : 07/26/01 15:43
Sample : ICV BNA 50 S01156
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001

Vial: 10
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) 2,4-Dimethylphenol	7.13	107	205436	47.59 ug/L	99
27) Benzoic Acid	7.17	105	54156	43.74 ug/L	94
28) bis(2-Chloroethoxy)methane	7.25	93	176859	50.07 ug/L	100
29) 2,4-Dichlorophenol	7.42	162	144815	49.75 ug/L	99
30) 1,2,4-Trichlorobenzene	7.55	180	180654	49.30 ug/L	99
31) Naphthalene	7.63	128	311854	48.73 ug/L	98
32) 4-Chloroaniline	7.69	127	166300	48.35 ug/L	99
33) 2,6-Dichlorophenol	7.70	162	69256	50.44 ug/L	98
34) Hexachlorobutadiene	7.83	225	110609	51.17 ug/L	99
35) 4-Chloro-3-methylphenol	8.23	107	167067	50.25 ug/L	100
36) 2-Methylnaphthalene	8.48	142	313123	51.52 ug/L	99
37) 1-Methylnaphthalene	8.62	142	152139	49.97 ug/L	99
39) Hexachlorocyclopentadiene	8.75	237	87779	47.97 ug/L	99
40) 2,4,6-Trichlorophenol	8.84	196	114649	48.38 ug/L	99
41) 2,4,5-Trichlorophenol	8.88	196	126948	48.95 ug/L	96
43) 2-Chloronaphthalene	9.10	162	271986	49.96 ug/L	100
44) 2-Nitroaniline	9.23	65	156428	48.68 ug/L	99
45) Dimethylphthalate	9.45	163	205906	48.27 ug/L	99
46) Acenaphthylene	9.63	152	307161	49.40 ug/L	100
47) 2,6-Dinitrotoluene	9.55	165	77688	49.00 ug/L	98
48) 3-Nitroaniline	9.74	138	111344	46.49 ug/L	98
49) Acenaphthene	9.86	153	405690	49.94 ug/L	100
50) 2,4-Dinitrophenol	9.87	184	227942	49.81 ug/L	99
51) 4-Nitrophenol	9.88	109	120023	48.38 ug/L	99
52) Dibenzofuran	10.05	168	316309	49.59 ug/L	100
53) 2,4-Dinitrotoluene	10.05	165	98575	49.38 ug/L	99
54) Diethylphthalate	10.32	149	239516	49.74 ug/L	99
55) 2,3,4,6-Tetrachlorophenol	10.24	232	41552	48.81 ug/L	90
56) Fluorene	10.49	166	371735	49.33 ug/L	99
57) 4-Chlorophenyl-phenylether	10.45	204	184433	49.40 ug/L	98
58) 4-Nitroaniline	10.52	138	120555	48.20 ug/L	98
60) 4,6-Dinitro-2-methylphenol	10.57	198	56101	42.72 ug/L	96
61) n-Nitrosodiphenylamine	10.59	169	230355	48.29 ug/L	98
62) Azobenzene	10.65	77	252416	48.88 ug/L	98
64) 4-Bromophenyl-phenylether	11.07	248	133484	47.88 ug/L	98
65) Hexachlorobenzene	11.29	284	83849	47.98 ug/L	97
66) Pentachlorophenol	11.49	266	62090	45.76 ug/L	96
67) Phenanthrene	11.71	178	372961	48.58 ug/L	99
68) Anthracene	11.77	178	362856	47.99 ug/L	99
69) Carbazole	11.95	167	251053	46.83 ug/L #	98
70) Di-n-butylphthalate	12.35	149	342759	47.28 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D
Acq On : 07/26/01 15:43
Sample : ICV BNA 50 S01156
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 27 08:30:18 2001

Vial: 10
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Quant Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration
DataAcq Meth : 8270

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) Fluoranthene	13.23	202	351441	45.34	ug/L		99
72) Benzidine	13.34	184	13083	15.76	ug/L	#	100
74) Pyrene	13.52	202	423897	53.02	ug/L		99
76) Butylbenzylphthalate	14.25	149	288656	53.13	ug/L		100
77) 3,3'-Dichlorobenzidine	15.06	252	83236	46.62	ug/L		95
78) Benzo[a]anthracene	15.14	228	416431	51.39	ug/L		100
79) Chrysene	15.22	228	399781	49.78	ug/L		100
80) bis(2-Ethylhexyl)phthalate	15.07	149	248748	51.73	ug/L		99
82) Di-n-octylphthalate	16.16	149	313178	53.99	ug/L		97
83) Benzo[b]fluoranthene	17.30	252	304449	49.73	ug/L		98
84) Benzo[k]fluoranthene	17.36	252	320111	52.36	ug/L		97
85) Benzo[a]pyrene	18.16	252	281422	49.52	ug/L		100
86) Indeno[1,2,3-cd]pyrene	21.97	276	295167	49.20	ug/L		71
87) Dibenz[a,h]anthracene	22.00	278	213228	42.35	ug/L		90
88) Benzo[g,h,i]perylene	23.07	276	275454	45.68	ug/L		99

(#) = qualifier out of range (m) = manual integration

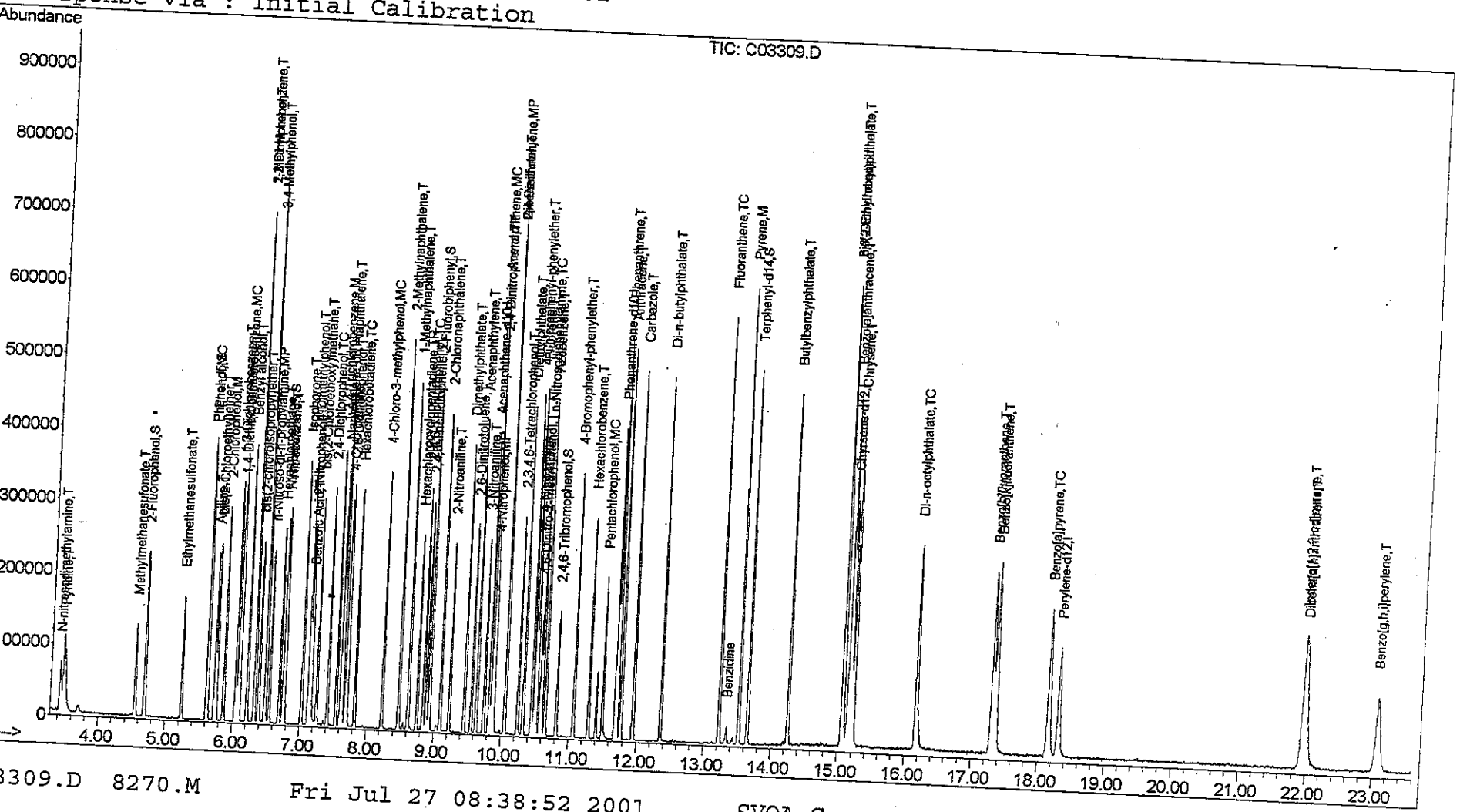
Quantitation Report (QT Reviewed)

Data File : D:\MSDCHEM\1\DATA\072601\C03309.D
Acq On : 07/26/01 15:43
Sample : ICV BNA 50 S01156
Misc :
MS Integration Params: rteint.p
Quant Time: Jul 27 8:37 2001

Vial: 10
Operator: DMB
Inst : AG-MSC
Multiplr: 1.00

Quant Results File: 8270.RES

Method : D:\MSDCHEM\1\METHODS\8270.M (RTE Integrator)
Title : SW-846 Method 8270 Calibration Method
Last Update : Fri Jul 27 08:29:53 2001
Response via : Initial Calibration



VOA GC/MS DATA CHECKLIST
SW-846-8260B

PROJECT #: 28530	METHOD: 8260B
MATRIX: WATER	

INITIAL ANALYST ASSESSMENT

Are all standards within expiration dates for both stock and serial standards?	Y	N	NA
Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results, or target analyte drift results acceptable for CCV?	Y	N	NA
Are all SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas within -50% to +100% of initial calibration midlevel standard?	Y	N	NA
Are all CCV Internal Standard retention times within 30 seconds of initial cal. midlevel standard?	Y	N	NA
Are all sample Internal Standard areas w/in -50% to +100% of that in the CCV?	Y	N	NA
Are all sample Internal Standard retention times w/in 30 seconds of that in the CCV?	Y	N	NA
Is/Are blank result(s) less than 1/2 RDL for all analytes of interest?	Y	N	NA
Are all spike recoveries acceptable for the LCS?	Y	N	NA
If all spike recoveries were not acceptable, was a Quality Notice Form completed?	Y	N	NA
Are all surrogate standard recoveries acceptable (Blank, LCS, samples)?	Y	N	NA
If Internal Standard, surrogate, or LCS are unacceptable was re-injection performed to confirm?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
If sample analyses were not performed within holding times, was a Quality Notice Form completed?	Y	N	NA
Were analyses performed such that carryover was not a problem?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all requested analytes below the upper calibration limit?	Y	N	NA
If interfering ions are present, was identification made by looking at characteristic ions only?	Y	N	NA
Was the Modified 5035 method used? Was a Temporary Method Deviation form completed?	Y	N	NA
Were TICS required? If so, were steps in section 7.6.2 followed in 8260B?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Have the samples been reviewed, and **all** false positives deleted?	Y	N	NA
Are all samples and supporting data (QNF, QC Charts, Runlog and Batchbook Copies) in the folder?	Y	N	NA

Analyst: VRR

Date: 8-9-01 Time: 10:50

PEER REVIEW

Are Tuning results compliant with method?	Y	N	NA
Are all CCC drift results and SPCC Response Factors acceptable for CCV?	Y	N	NA
Are all CCV Internal Standard areas and retention times within method limits?	Y	N	NA
Are all sample Internal Standard areas and retention times within method limits?	Y	N	NA
Are all blank and QC results acceptable?	Y	N	NA
Are all surrogate standard recoveries acceptable?	Y	N	NA
Are quantitations based on the latest acceptable initial calibration?	Y	N	NA
Are all calculations correct and reported in the proper units?	Y	N	NA
Were sample analyses performed within holding times?	Y	N	NA
Is the run log completely filled out (including review signature/date)?	Y	N	NA
Are pHs recorded for all water samples?	Y	N	NA
Are all applicable runlog sheets signed, dated, and included?	Y	N	NA
Have all samples and supporting data been included in the folder?	Y	N	NA
Have all LIMS entries been checked for accuracy?	Y	N	NA

Reviewer: DAT

Date: 8-9-01 Time: 13:20

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8·7·01
Calib. Method: 080601W.M
ACQ. Method: 080701W.M
BFB Std.ID #: VC1081
IS/Surr Std. ID # VC1076/VC1071

	CCV IS RT	CCV IS AREAS
#1	6.70	219634
#2	12.08	255172
#3	15.31	126943
#4		

MS Conditions
EMV: 1906
Tune File: BFBC1.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 CCV	50ppm	VC1083
8260 Add Mix	50ppm	VC1073

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
JCC856	BFB 50ng	—	—	2ml	—	—	—	—	1013	
JCC857	CCV 10ppb	—	W	25ml	1	1	—	-	1035	
JCC858	IJ080701MB	—			1	2	—	-	1115	
JCC859	IJ080701LCS	—			1	3	—	—	1151	
JCC860	28512 AC17885	—		12.5ml	2	4	1	x	1225	
JCC861	AC17886ms	—			2	5	1	x	1258	
JCC862	AC17886msd	—			2	6	1	x	1324	
JCC863	BLANK	—			2	7	—	—	1350	
JCC864	28507 AC17843	—		25ml	1	8	1	x	1416	
JCC865	AC17841	—		5ml	5	9	1	x	1442	
JCC866	AC17842	—		25ml	1	10	1	x	1508	
JCC867	28512 AC17888	—			1	11	1	x	1534	
JCC868	AC17890	—			1	12	1	x	1600	
JCC869	AC17891	—			1	13	1	x	1626	NDIL 1:10
JCC870	AC17889	—			1	14	1	x	1652	NRI to confirm Toluene
JCC871	28515 AC17926	—			1	15	1	x	1718	
JCC872	28530 AC17780	—			1	16	1	x	1745	
JCC873	AC17982	—			1	1	1	x	1811	
JCC874	28518 AC17919	—			1	2	1	x	1838	RI
JCC875	AC17920	—			1	3	1	x	1905	RI
JCC876	AC17921	—			1	4	1	x	1931	NDIL 1:2
JCC877	AC17922	—			1	5	1	x	1958	RI to confirm TCE
JCC878	AC17923	—			1	6	1	x	2025	RI
JCC879	AC17924	—			1	7	1	x	2051	RI
JCC880	AC17925	—			1	8	1	x	2118	
JCC881	28530 AC17978	—			1	9	1	x	2144	

Analyst/Date: VRR 8-8-01
Reviewer/Date: _____

Accura Analytical Laboratory, Inc.

6017 Financial Drive, Norcross, GA 30071

VOLATILE GC/MS RUNLOG FOR INSTRUMENT HP-MSJ

Date: 8-8-01
Calib. Method: 08C8C1W.M
ACQ. Method: 08C8C1W.M
BFB Std.ID #: VC1C81
IS/Surr Std. ID # VC1C70/VC1C71

	CCV IS RT	CCV IS AREAS
#1	6.70	200 339
#2	12.08	224653
#3	15.31	113619
#4		

MS Conditions
EMV: 1906
Tune File: BFB01.U
Solvent Delay: 0.5 min

Std. Mix	Conc.	AAL #
8260 CCV	50ppm	VC1C53
8260 Add Mix	50ppm	VC1C73

File Name	Lab Sample ID	Cleint Sample ID	Matrix	Vol.	DF	ALS#	pH	-Cl	Inj. Time	Comments
Jcc882	BFB 50ng	—	—	—	—	—	—	-	9:17	
Jcc883	CCV 50 PPb	—	W	25 ml	1	1	—	—	939	
Jcc884	IJC8C8C1 MB	—			1	2	—	—	1020	
Jcc885	IJC8C8C1 MB	—			1	2	—	—	1047	
Jcc886	IJC8C8C1LCS	—			1	3	—	—	1117	
Jcc887	28530 AC17978MS	—			1	4	1	X	1149	
Jcc888	AC17978MSD	—			1	5	1	X	1215	
Jcc889	28498 AC17786	—			1	6	1	X	1241	NDIL 1:5
Jcc890	28512 AC17889	—		2.5 ml	1	7	1	X	1307	
Jcc891	AC17891	—		25 ml	10	8	1	X	1333	
Jcc892	28518 AC17926	—			1	9	1	X	1359	
Jcc893	AC17919	—			1	10	1	X	1426	
Jcc894	AC17920	—		12.5 ml	2	11	1	X	1452	
Jcc895	AC17921	—		25 ml	1	12	1	X	1519	
Jcc896	AC17922	—			1	13	1	X	1545	
Jcc897	AC17923	—			1	14	1	X	1612	
Jcc898	AC17924	—			1	15	1	X	1638	
Jcc899	28530 AC17979	—			1	16	1	X	1705	
Jcc900	AC17981	—			1	1	1	X	1732	
Jcc901	AC17980	—			1	2	1	X	1758	
Jcc902	AC17982	—		5 ml	5	3	1	X	1825	
Jcc903	28498 AC17786	—		12.5 ml	2	4	1	X	1851	
Jcc904	28518 AC17920	—				5	1	X	1918	

Analyst/Date: VRR 8-9-01
Reviewer/Date: _____

Logbook ID#: VOC-128

Batch ID: W 080801 A Instrument ID: HP MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28501 AC17839	8·6·01		8·8·01	25 ml Purge
AC17840				
AC17841		NDIL 1:5		
AC17842		NRI		
AC17843		NRI		
28512 AC17883				
AC17884				
AC17885				
AC17888	8·7·01			
AC17889				
AC17890				
AC17891				
28518 AC17919		NRI		
AC17920		NAI		
AC17921		NRI		
AC17922		NRI		
AC17923		NRI		
AC17924		NRI		
AC17925				
AC17926		NRI		
AC17886 MS				
AC17887 MSD				
DUP				

Batch ID: W 080701 A Instrument ID: HP-MS J

Accura Sample ID	Initial Analysis	Reanalysis Needed	Review	Comments
28530 AC17978	8·7·01		8·8·01	25 ml Purge
AC17979	8·8·01			
AC17980	8·7·01			
AC17981	8·8·01			
AC17982	8·7·01			
28473 AC17986	88·01			
AC17978 MS	8·8·01		8·8·01	
AC17978 MSD				
DUP				

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D Vial: 9
Acq On : 08/07/01 21:44 Operator:
Sample : AC17978 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:41 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	133866	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	180420	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.31	152	86569	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	74354	13.20	ug\L	-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 132.00%#			
46) Toluene-d8	10.01	98	258133	9.77	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.70%			
66) Bromofluorobenzene	13.71	95	97817	10.15	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.50%			
Target Compounds						Qvalue
3) Chloromethane	1.65	50	4315	0.85	ug\L	90
47) Toluene	10.12	92	21177	1.24	ug\L	99

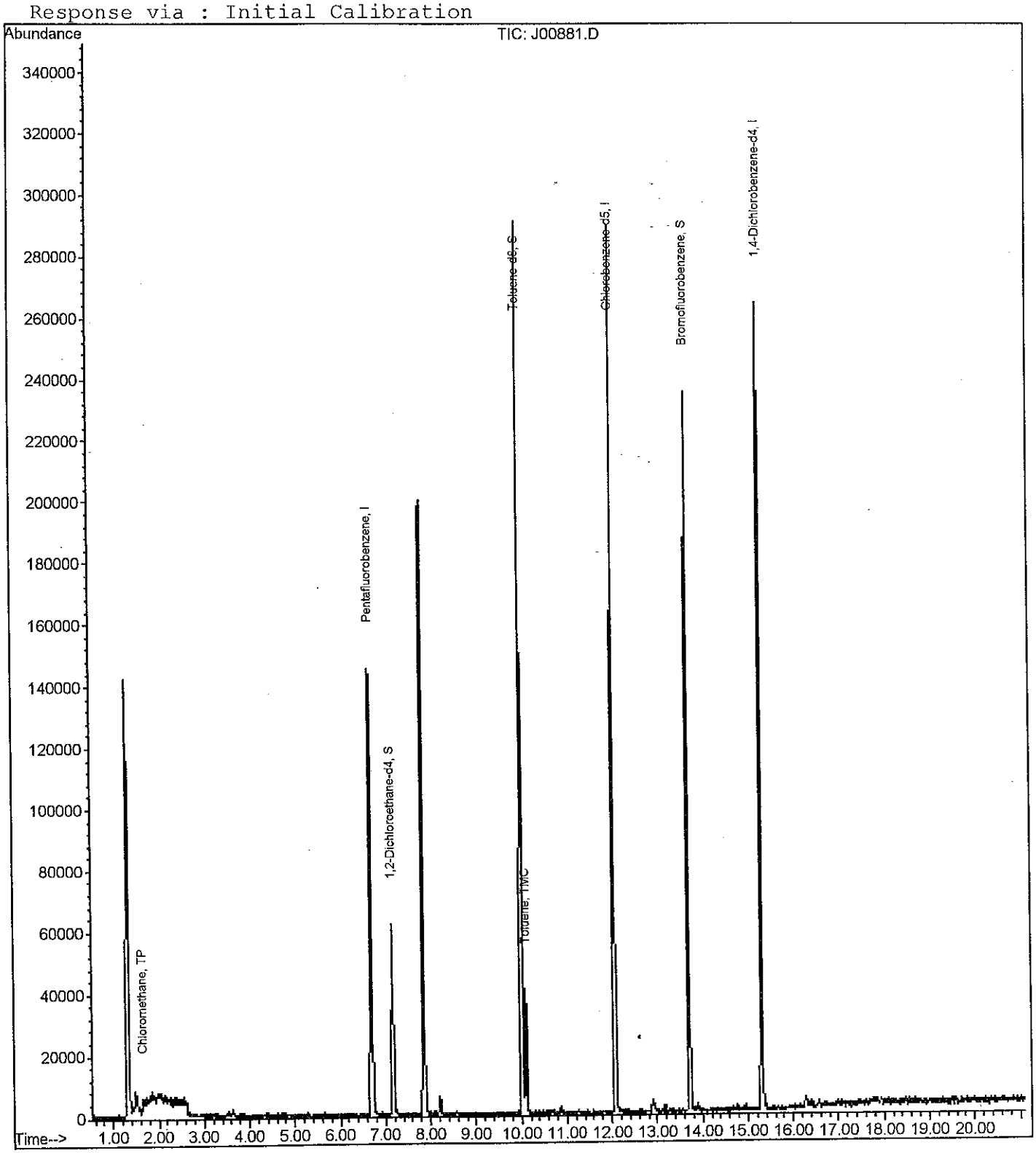
VRA
8-8-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D Vial: 9
Acq On : 08/07/01 21:44 Operator:
Sample : AC17978 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:41 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D Vial: 9
Acq On : 08/07/01 21:44 Operator:
Sample : AC17978 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

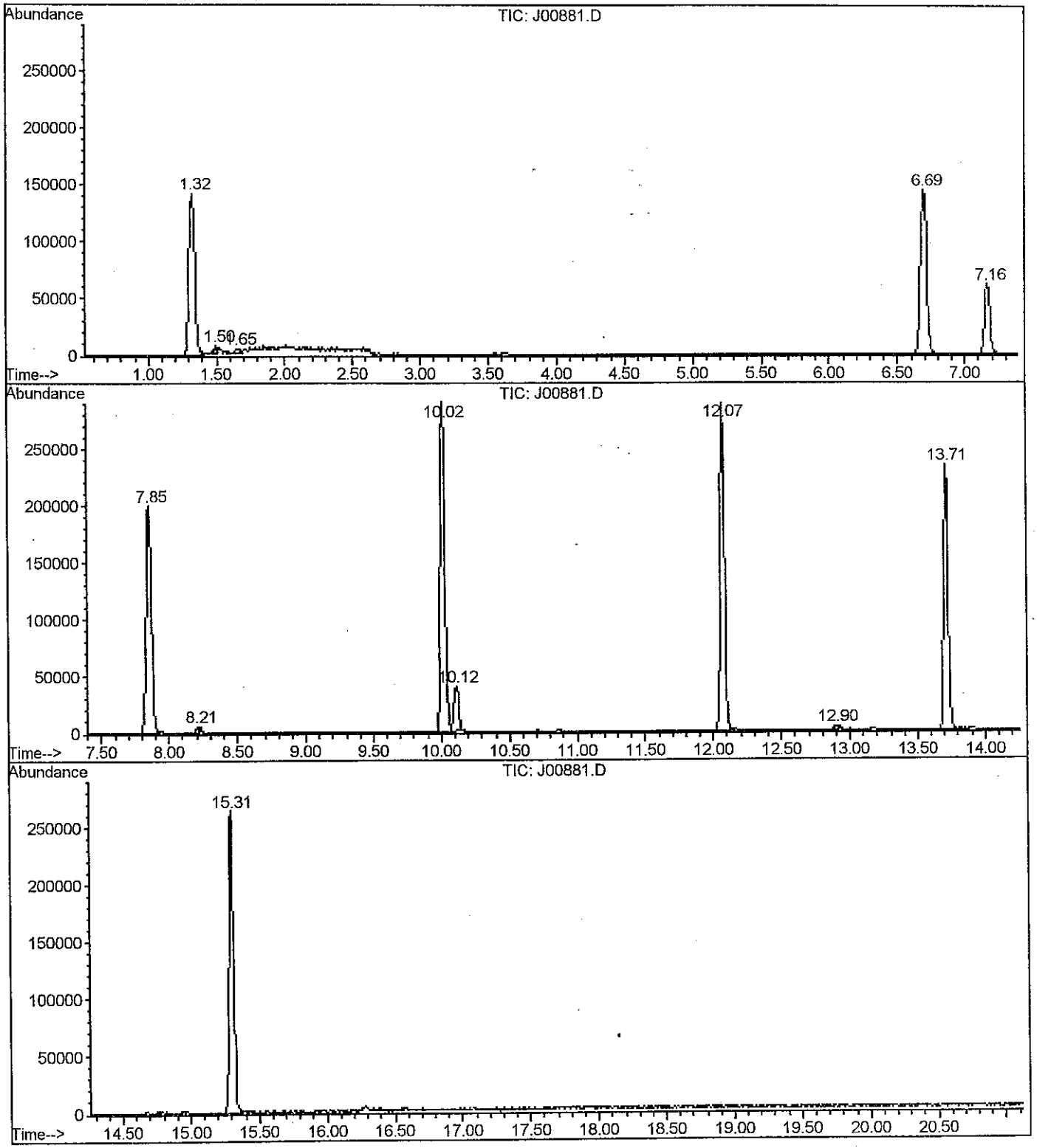
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.322	118	133	148	rBV	142526	456580	65.84%	11.027%
2	1.497	155	162	164	rBV	6431	10135	1.46%	0.245%
3	1.653	183	188	193	rBV3	4716	12372	1.78%	0.299%
4	6.693	1013	1026	1041	rBV2	145602	451547	65.11%	10.905%
5	7.162	1094	1104	1115	rBV2	62005	176364	25.43%	4.259%
6	7.854	1208	1219	1232	rBV	199867	526725	75.95%	12.721%
7	8.209	1271	1278	1279	rBV3	6074	7481	1.08%	0.181%
8	10.019	1568	1579	1588	rBV	291006	693498	100.00%	16.749%
9	10.115	1588	1595	1601	rVB2	39131	93049	13.42%	2.247%
10	12.070	1910	1920	1932	rBV	289114	611881	88.23%	14.778%
11	12.900	2052	2058	2061	rBV5	4004	8319	1.20%	0.201%
12	13.712	2184	2193	2203	rBV2	234876	505789	72.93%	12.215%
13	15.305	2447	2458	2469	rBV	263597	586834	84.62%	14.173%

Sum of corrected areas: 4140574

J00881.D 08070125.M Wed Aug 08 10:19:59 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00881.D
Operator :
Acquired : 7 Aug 2001 21:44 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17978 25ml DF=1
Misc Info : 28530/W080701A
Vial Number: 9
Quant File :08070125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D
Acq On : 08/07/01 21:44
Sample : AC17978 25ml DF=1
Misc : 28530/W080701A
MS Integration Params: LSCINT.P

Vial: 9
Operator:
Inst : HP-MSJ
Multiplr: 1.00

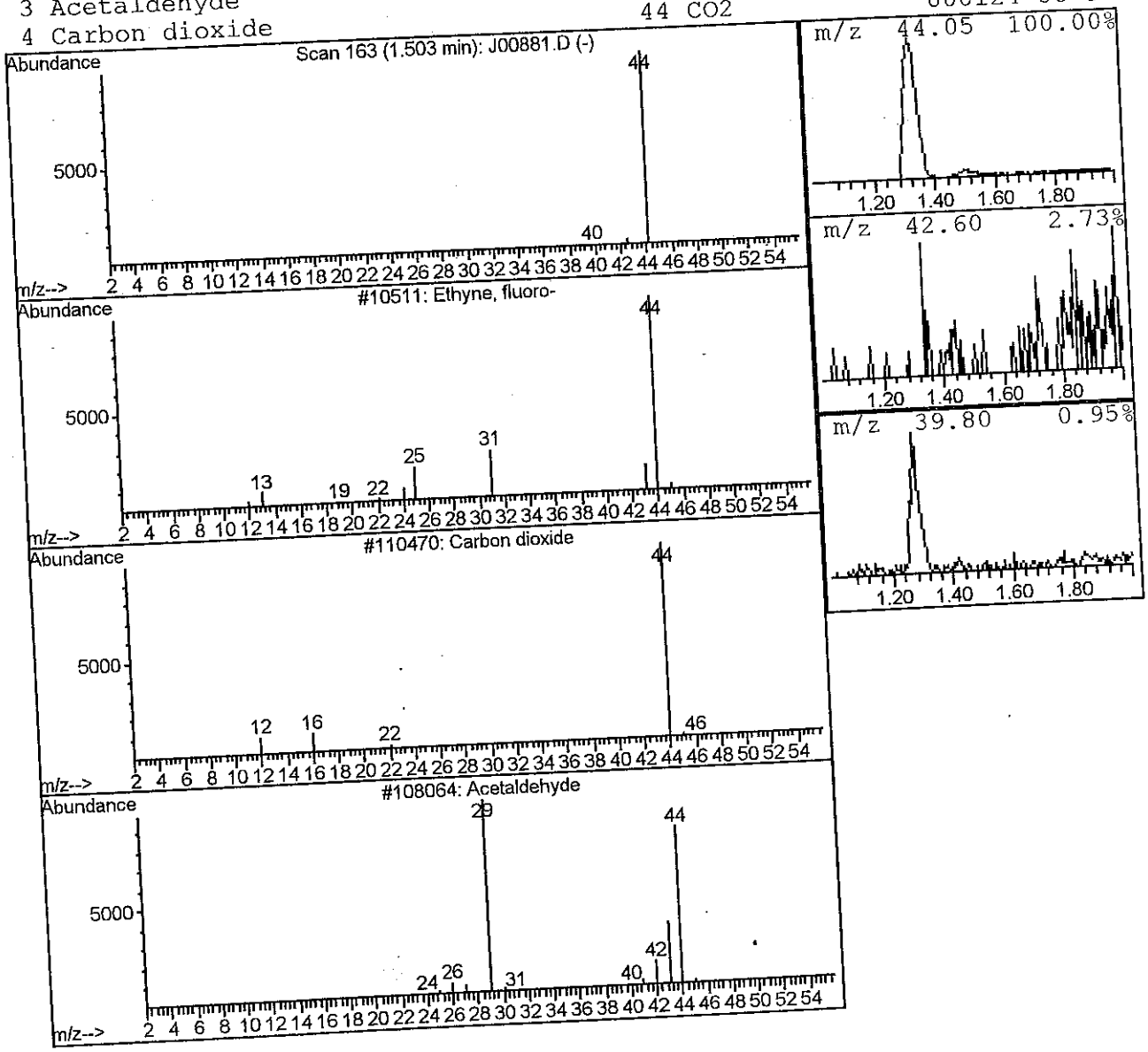
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Ethyne, fluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.50	101350.00 ug\L	10135	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyne, fluoro-	44	C2HF	002713-09-9	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Acetaldehyde	44	C2H4O	000075-07-0	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 21:44
Data File: C:\HPCHEM\1\DATA\1J080701\J00881.D
Name: AC17978 25ml DF=1
Misc: 28530/W080701A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethyne, fluoro-	1.50	101350.0	ug\L	10135	ISTD01	0.00	1	10.0

J00881.D 08070125.M Wed Aug 08 10:20:00 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00899.D Vial: 16
Acq On : 08/08/01 17:05 Operator:
Sample : AC17979 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:29 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	142257	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	182557	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	84157	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	75461	12.61	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.10%#			
46) Toluene-d8	10.02	98	252133	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.30%			
66) Bromofluorobenzene	13.72	95	96092	10.26	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.60%			
Target Compounds						Qvalue
47) Toluene	10.12	92	14810	0.86	ug\L	99

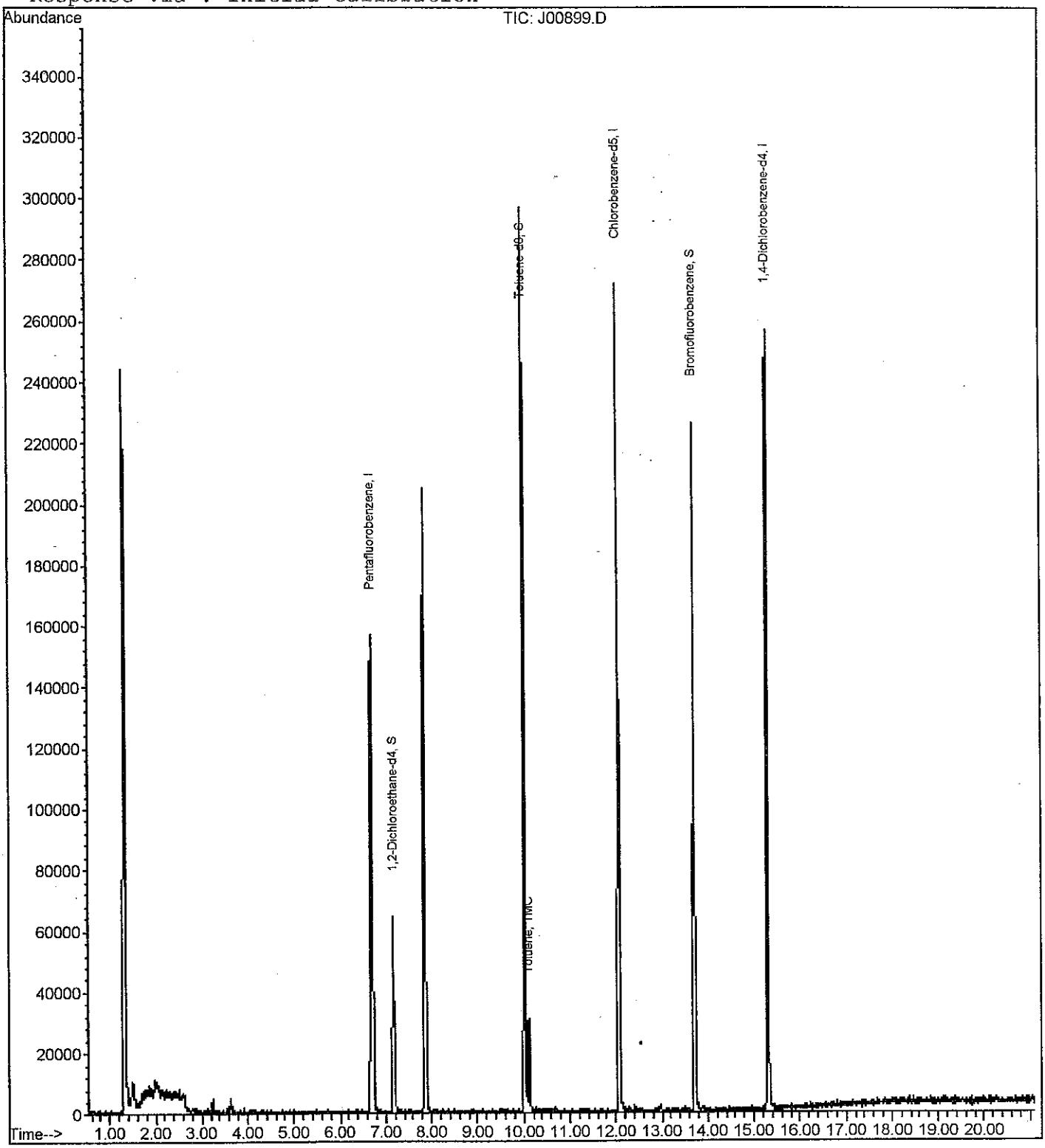
√ RR
8-9-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00899.D Vial: 16
Acq On : 08/08/01 17:05 Operator:
Sample : AC17979 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:29 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00899.D Vial: 16
Acq On : 08/08/01 17:05 Operator:
Sample : AC17979 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

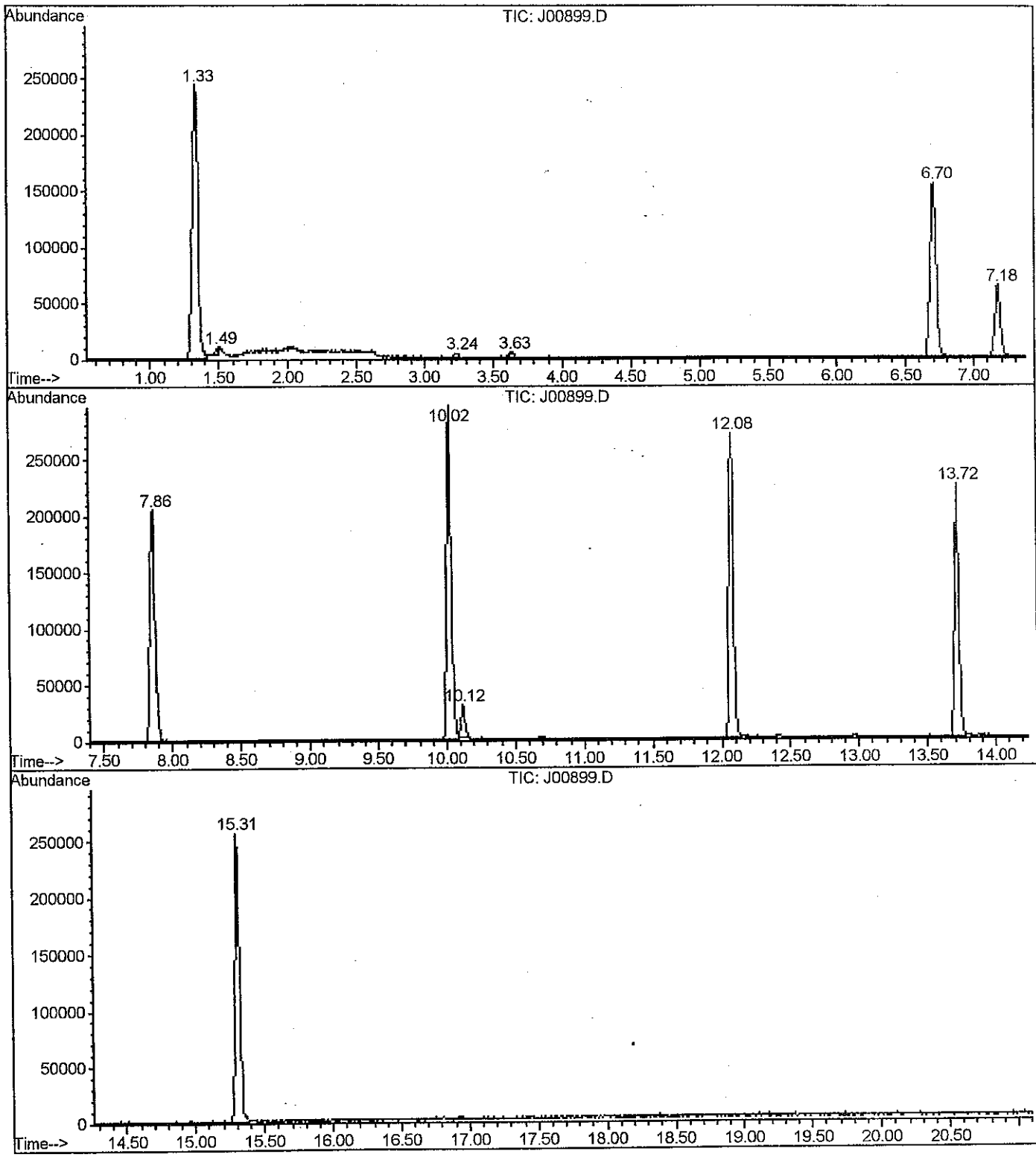
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.332	120	134	147	rBV	243779	719643	100.00%	16.422%
2	1.488	154	160	161	rBV	6508	9487	1.32%	0.216%
3	3.244	447	452	458	rVB2	4263	7979	1.11%	0.182%
4	3.629	510	516	524	rVB4	4264	10241	1.42%	0.234%
5	6.702	1015	1027	1041	rBV	156261	488655	67.90%	11.151%
6	7.177	1092	1106	1121	rBV2	64150	180273	25.05%	4.114%
7	7.863	1210	1220	1232	rBV	204454	535766	74.45%	12.226%
8	10.022	1570	1579	1589	rBV	295880	676873	94.06%	15.446%
9	10.118	1589	1595	1602	rVB2	28796	62776	8.72%	1.433%
10	12.079	1910	1921	1932	rBV	271680	623257	86.61%	14.223%
11	13.721	2184	2194	2203	rBV	226065	488644	67.90%	11.151%
12	15.309	2447	2458	2471	rBV2	256112	578497	80.39%	13.201%

Sum of corrected areas: 4382091

J00899.D 08080125.M Thu Aug 09 07:30:51 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00899.D
Operator :
Acquired : 8 Aug 2001 17:05 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17979 25ml DF=1
Misc Info : 28530/W080701A
Vial Number: 16
Quant File :08080125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00899.D Vial: 16
Acq On : 08/08/01 17:05 Operator:
Sample : AC17979 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

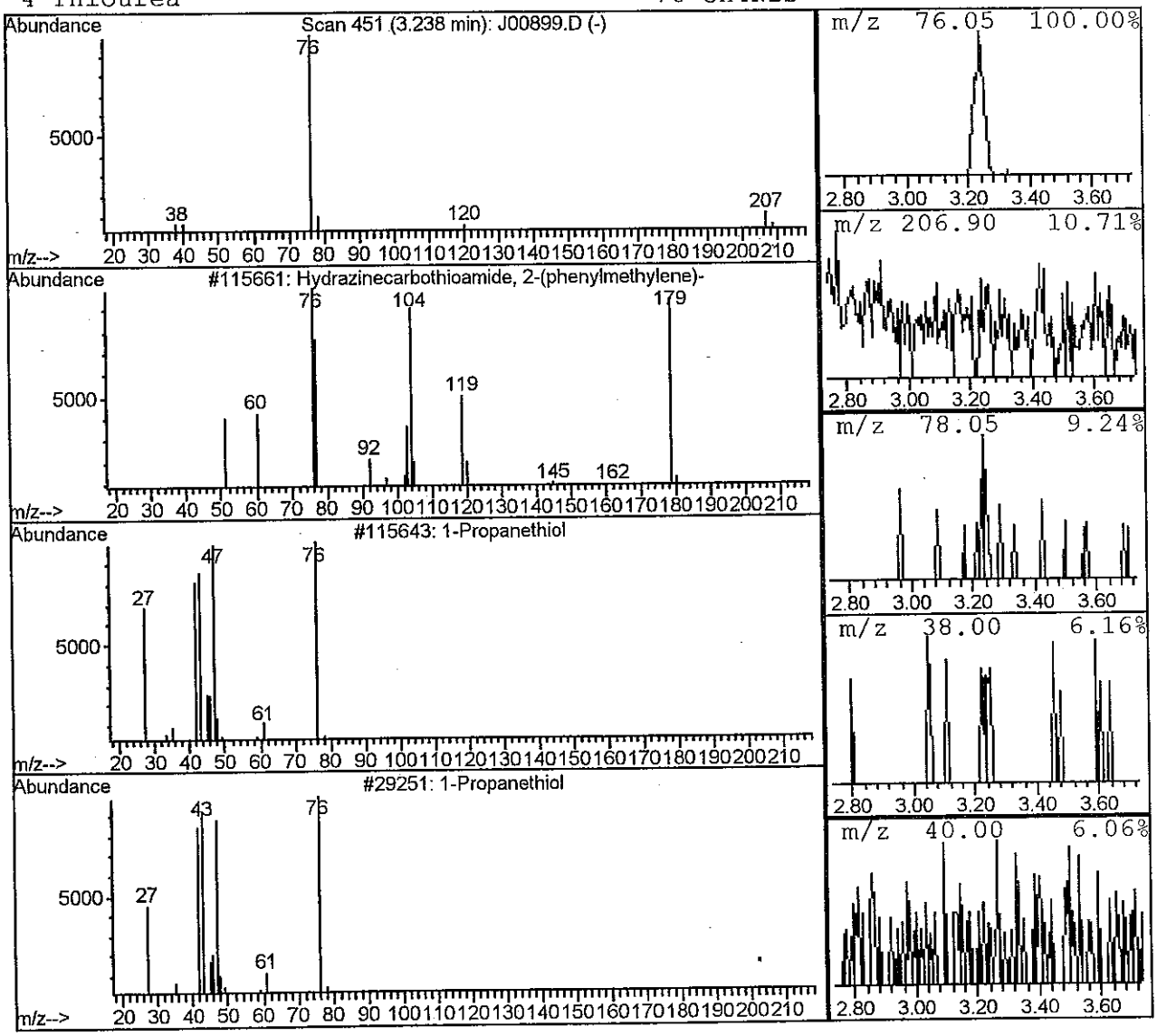
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Hydrazinecarbothioamide, 2-(ph Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.24	79790.00 ug\L	7979	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazinecarbothioamide, 2-(phenylm	179	C8H9N3S	001627-73-2	9
2	1-Propanethiol	76	C3H8S	000107-03-9	4
3	1-Propanethiol	76	C3H8S	000107-03-9	4
4	Thiourea	76	CH4N2S	000062-56-6	4



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 17:05
Data File: C:\HPCHEM\1\DATA\1J080801\J00899.D
Name: AC17979 25ml DF=1
Misc: 28530/W080701A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Hydrazinecarbothioam	3.24	79790.0	ug\L	7979	ISTD01	0.00	1	10.0

J00899.D 08080125.M Thu Aug 09 07:30:52 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00872.D
Acq On : 08/07/01 17:45
Sample : AC17980 25ml DF=1
Misc : 28530/W080701A
MS Integration Params: rteint.p
Quant Time: Aug 8 7:27 2001

Vial: 16
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	142086	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	171191	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	78924	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	70661	11.82	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 118.20%			
46) Toluene-d8	10.02	98	258357	10.31	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 103.10%			
66) Bromofluorobenzene	13.71	95	93501	10.65	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 106.50%			
Target Compounds						Qvalue
3) Chloromethane	1.67	50	3613	0.67	ug\L	95
7) Trichlorofluoromethane	2.40	101	6862	0.50	ug\L #	100
47) Toluene	10.12	92	177652	10.97	ug\L	99

√ RR
8.8.01

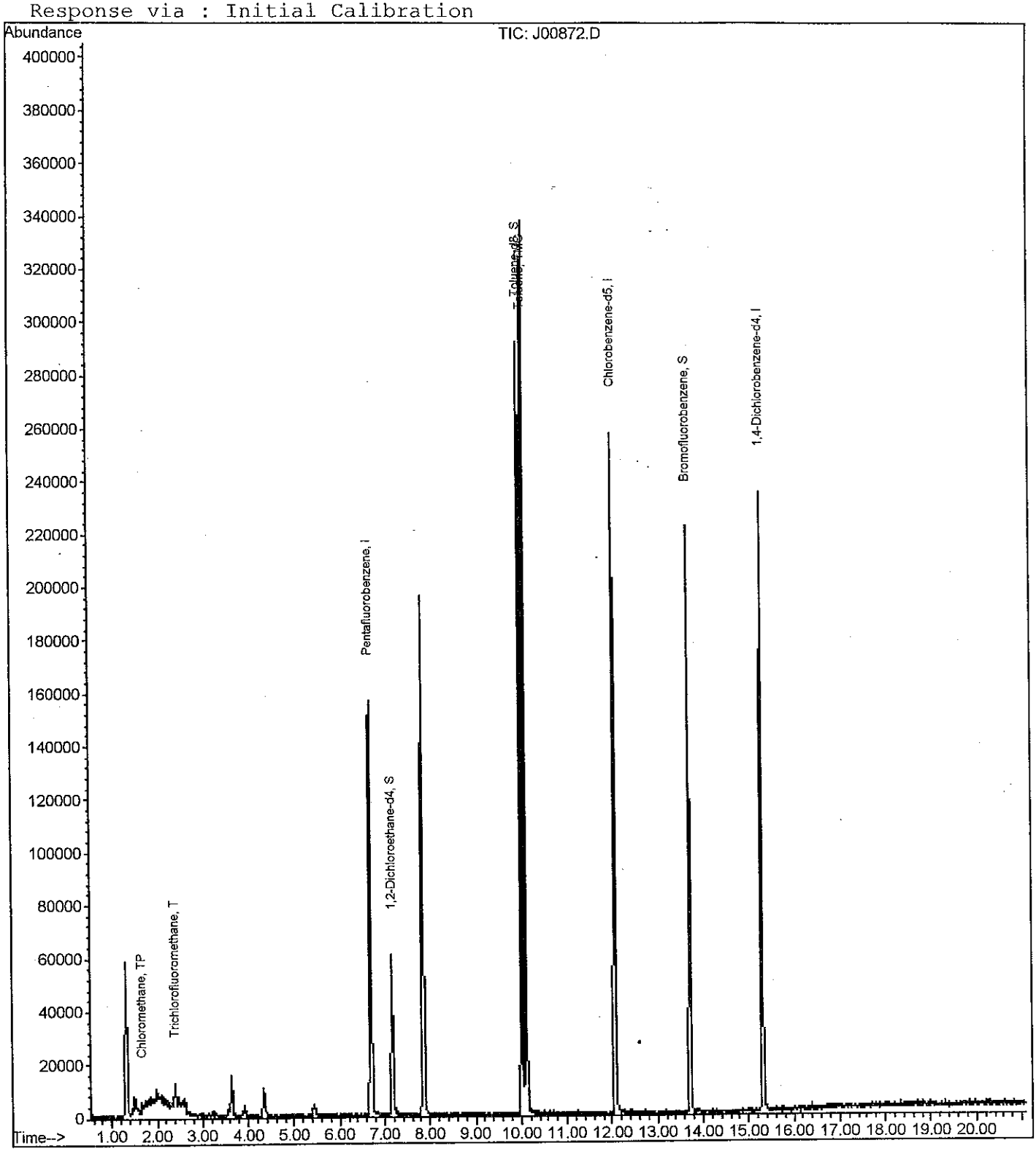
RI to confirm Toluene
(Confirmed with J00901)

(#) = qualifier out of range (m) = manual integration
J00872.D 08070125.M Wed Aug 08 10:20:10 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00872.D Vial: 16
Acq On : 08/07/01 17:45 Operator:
Sample : AC17980 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:27 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00872.D Vial: 16
Acq On : 08/07/01 17:45 Operator:
Sample : AC17980 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

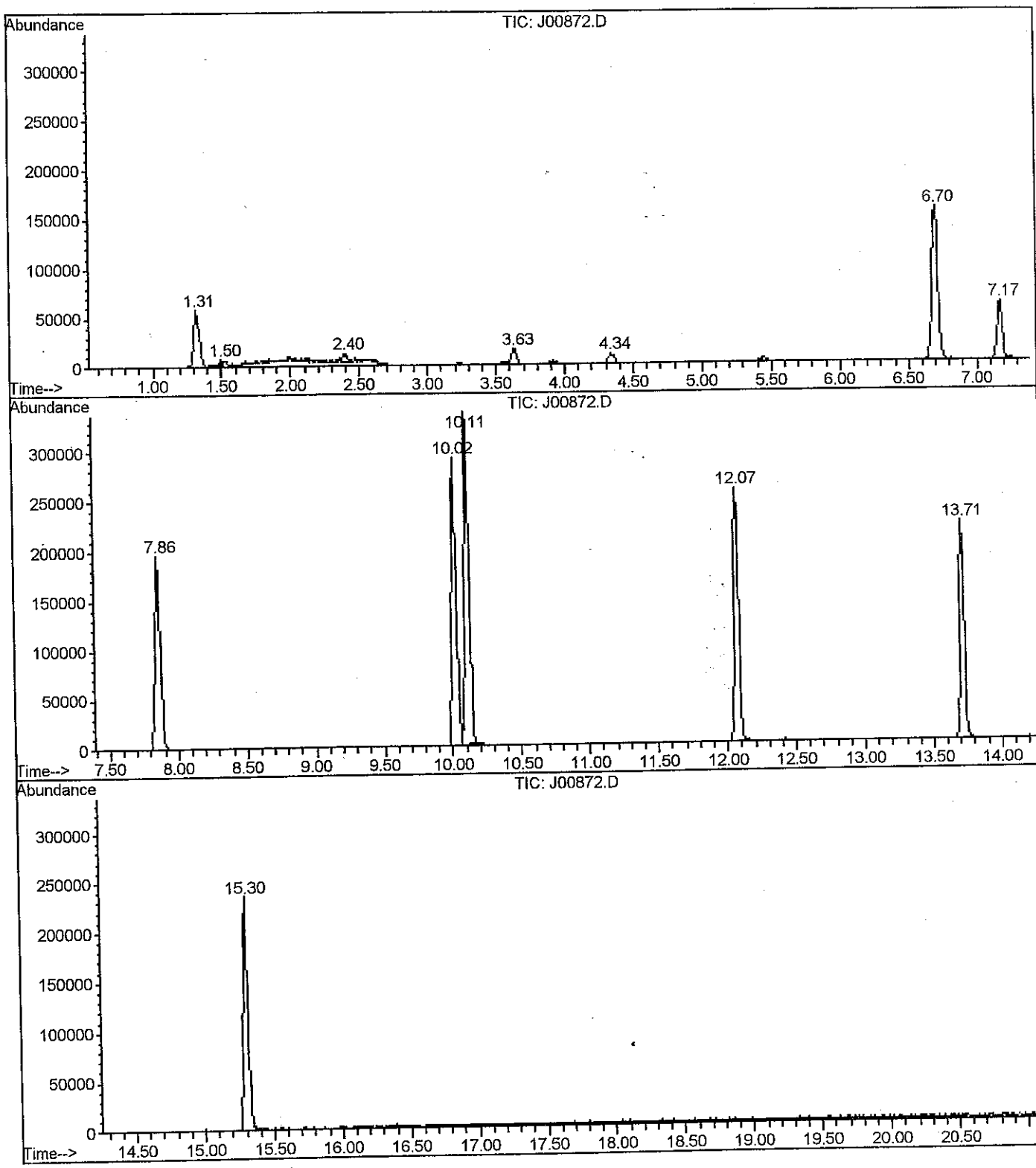
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	121	131	145	rBV	57718	170607	21.54%	3.789%
2	1.499	153	162	163	rBV	6059	10274	1.30%	0.228%
3	2.395	306	311	316	rVB3	7929	15838	2.00%	0.352%
4	3.634	509	517	525	rVB3	15222	39930	5.04%	0.887%
5	4.338	626	634	643	rBV3	9710	29082	3.67%	0.646%
6	6.695	1013	1026	1041	rBV2	156461	476801	60.20%	10.589%
7	7.170	1092	1105	1115	rBV2	60734	170513	21.53%	3.787%
8	7.856	1207	1219	1234	rBV	195946	511784	64.62%	11.366%
9	10.015	1569	1578	1586	rBV	291825	691769	87.34%	15.363%
10	10.111	1586	1594	1605	rVB	335832	792029	100.00%	17.590%
11	12.072	1909	1920	1934	rBV	257767	589067	74.37%	13.082%
12	13.714	2184	2193	2209	rVB	221562	478143	60.37%	10.619%
13	15.302	2448	2457	2466	rBV2	233974	527002	66.54%	11.704%

Sum of corrected areas: 4502839

J00872.D 08070125.M Wed Aug 08 10:20:16 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00872.D
Operator :
Acquired : 7 Aug 2001 17:45 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17980 25ml DF=1
Misc Info : 28530/W080701A
Vial Number: 16
Quant File :08070125.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 17:45
Data File: C:\HPCHEM\1\DATA\1J080701\J00872.D
Name: AC17980 25ml DF=1
Misc: 28530/W080701A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00872.D 08070125.M Wed Aug 08 10:20:17 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00901.D Vial: 2
Acq On : 08/08/01 17:58 Operator:
Sample : AC17980 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:33 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	144220	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	195751	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	87691	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	83906	13.83	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 138.30%#			
46) Toluene-d8	10.02	98	258721	9.02	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 90.20%			
66) Bromofluorobenzene	13.72	95	99962	10.24	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.40%			
Target Compounds						Qvalue
47) Toluene	10.12	92	167542	9.05	ug\L	97

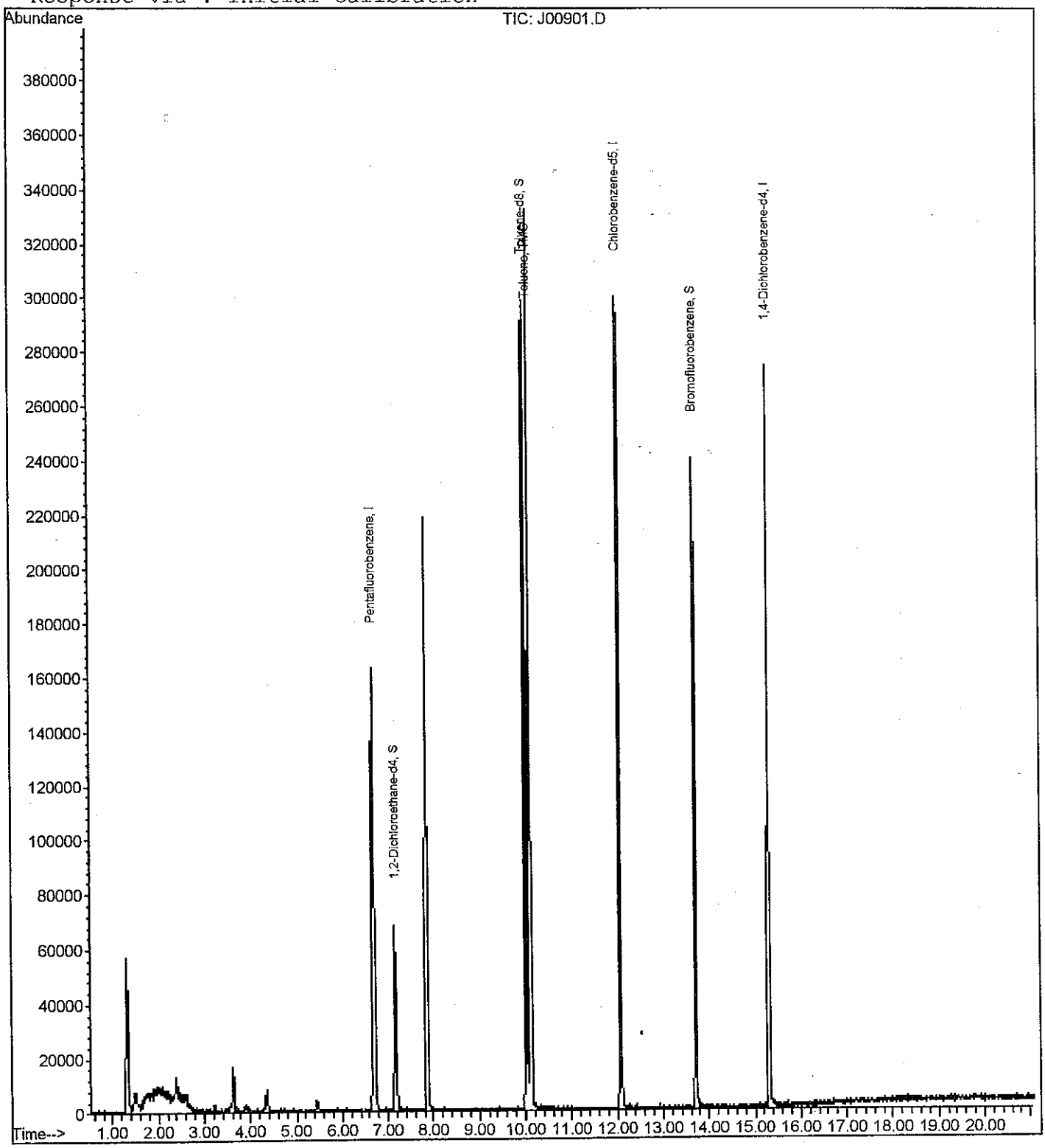
VCK
8-9-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00901.D Vial: 2
Acq On : 08/08/01 17:58 Operator:
Sample : AC17980 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:33 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00900.D Vial: 1
Acq On : 08/08/01 17:32 Operator:
Sample : AC17981 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:32 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	150181	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	194472	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	90157	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	79722	12.61	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.10%#			
46) Toluene-d8	10.02	98	275388	9.67	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 96.70%			
66) Bromofluorobenzene	13.72	95	105251	10.49	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.90%			
Target Compounds						Qvalue
11) Acetone	3.10	58	50144	424.20	ug\L	96
14) Carbon Disulfide	3.23	76	10643	0.54	ug\L	96
23) cis-1,2-Dichloroethene	5.78	96	61726	8.80	ug\L	84
37) Trichloroethene	8.22	95	162849	19.22	ug\L	98

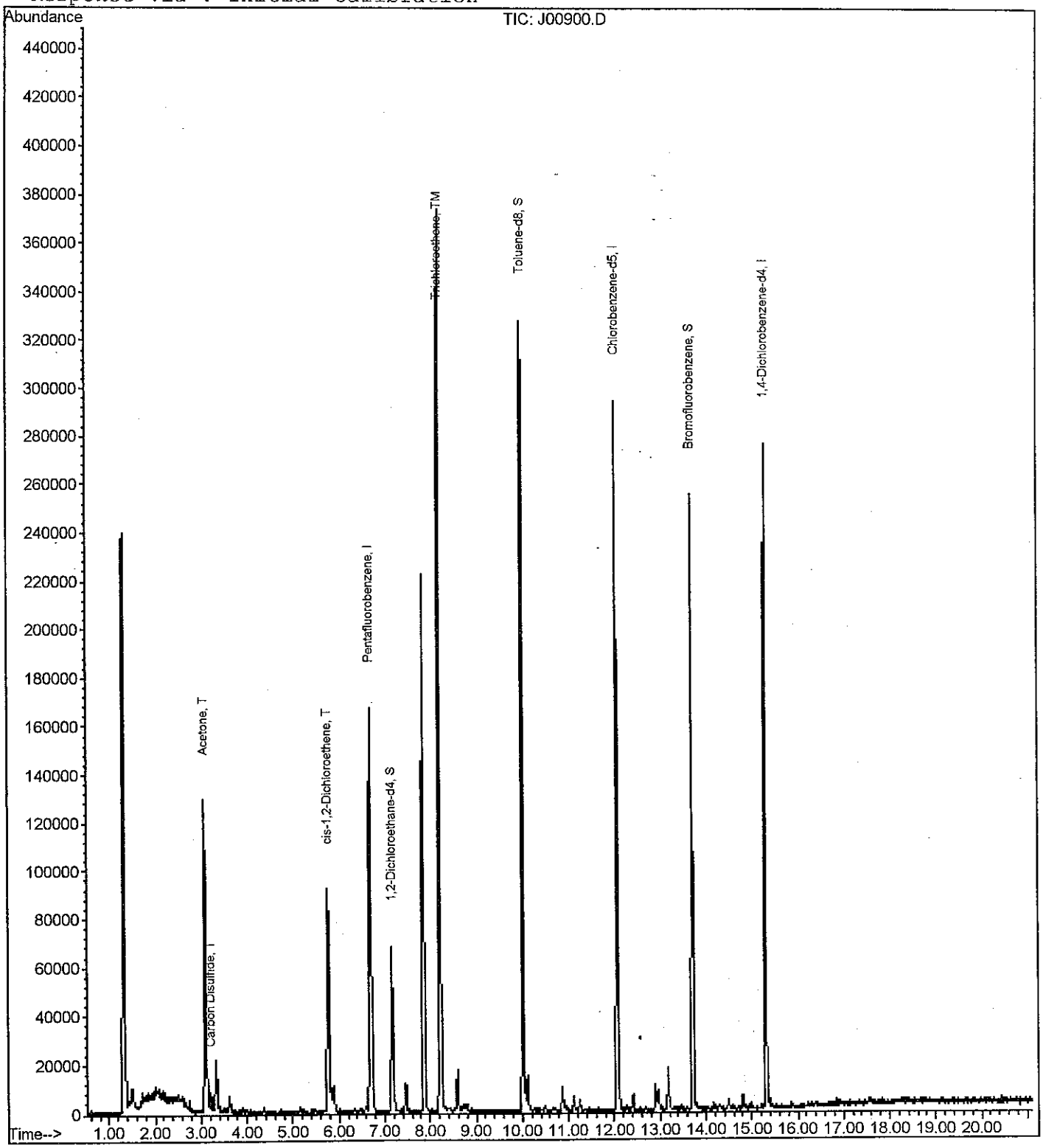
VRP
8.9.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00900.D Vial: 1
Acq On : 08/08/01 17:32 Operator:
Sample : AC17981 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:32 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00900.D
Acq On : 08/08/01 17:32
Sample : AC17981 25ml DF=1
Misc : 28530/W080701A
MS Integration Params: LSCINT.P

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

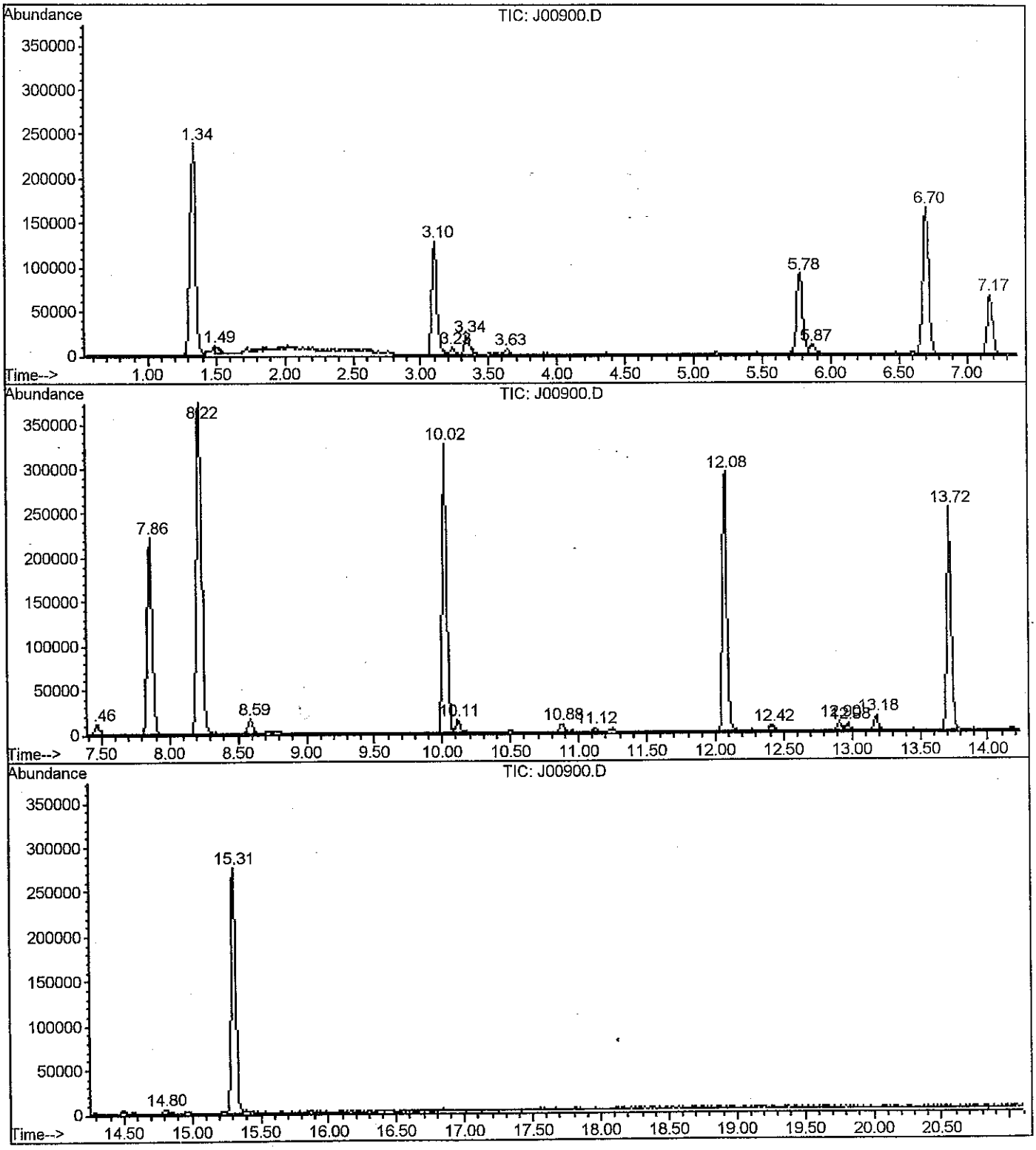
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.339	121	136	149	rBV	238807	691363	70.17%	10.609%
2	1.495	160	162	173	rVB	7077	17777	1.80%	0.273%
3	3.101	420	429	445	rBV	128769	338599	34.37%	5.196%
4	3.227	445	450	460	rVB2	7236	16041	1.63%	0.246%
5	3.335	460	468	477	rBV2	20513	54923	5.57%	0.843%
6	3.630	510	517	524	rVB5	5975	14240	1.45%	0.219%
7	5.777	861	874	884	rBV2	91074	287918	29.22%	4.418%
8	5.867	884	889	898	rVB3	9229	27605	2.80%	0.424%
9	6.697	1017	1027	1046	rVB	166564	505550	51.31%	7.758%
10	7.172	1091	1106	1118	rBV2	67945	195965	19.89%	3.007%
11	7.461	1146	1154	1164	rBV4	11332	33699	3.42%	0.517%
12	7.858	1210	1220	1236	rBV	222776	571493	58.00%	8.770%
13	8.225	1270	1281	1294	rBV	373141	985270	100.00%	15.119%
14	8.592	1332	1342	1351	rBV2	16827	40724	4.13%	0.625%
15	10.023	1570	1580	1590	rBV	328130	747053	75.82%	11.464%
16	10.113	1590	1595	1604	rVB2	13913	35066	3.56%	0.538%
17	10.877	1714	1722	1730	rBV7	9826	25934	2.63%	0.398%
18	11.118	1756	1762	1769	rVB4	5537	11540	1.17%	0.177%
19	12.080	1912	1922	1931	rBV	294197	658381	66.82%	10.103%
20	12.417	1969	1978	1983	rBV4	6638	16557	1.68%	0.254%
21	12.904	2049	2059	2065	rBV4	10560	25101	2.55%	0.385%
22	12.976	2067	2071	2075	rVB3	6812	10863	1.10%	0.167%
23	13.181	2097	2105	2117	rBV3	17374	38380	3.90%	0.589%
24	13.716	2184	2194	2204	rBV	254541	537698	54.57%	8.251%
25	14.804	2368	2375	2382	rBV5	4871	11805	1.20%	0.181%
26	15.310	2450	2459	2469	rBV2	275303	617247	62.65%	9.472%

Sum of corrected areas: 6516792

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00900.D
Operator :
Acquired : 8 Aug 2001 17:32 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: AC17981 25ml DF=1
Misc Info : 28530/W080701A
Vial Number: 1
Quant File :08080125.RES (RTE Integrator)



J00900.D 08080125.M Thu Aug 09 07:32:43 2001

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00900.D
Acq On : 08/08/01 17:32
Sample : AC17981 25ml DF=1
Misc : 28530/W080701A
MS Integration Params: LSCINT.P

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

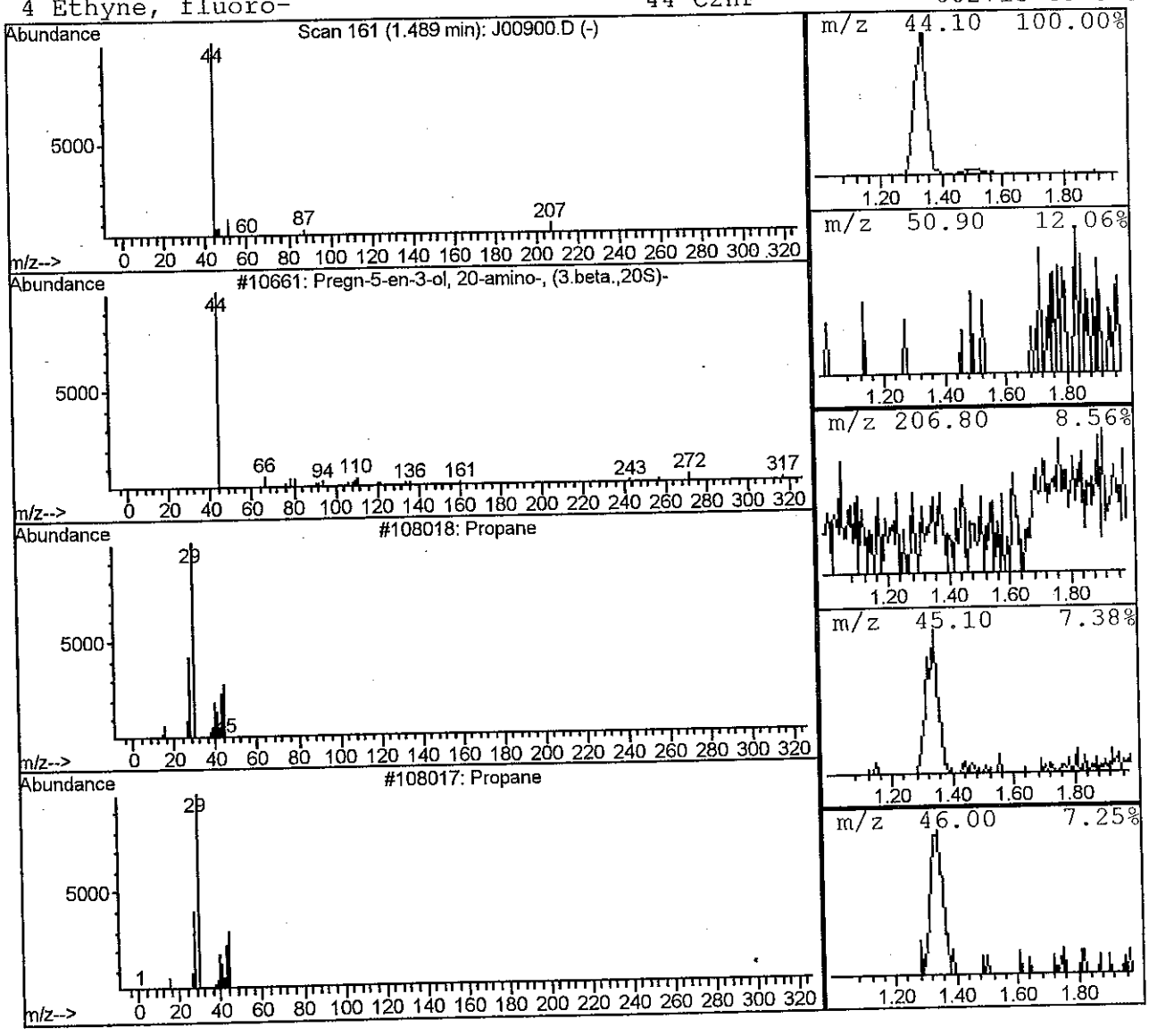
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Pregn-5-en-3-ol, 20-amino-, (3 Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.49	177770.00 ug\L	17777	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pregn-5-en-3-ol, 20-amino-, (3.beta	317	C21H35NO	005035-10-9	4
2	Propane	44	C3H8	000074-98-6	3
3	Propane	44	C3H8	000074-98-6	2
4	Ethyne, fluoro-	44	C2HF	002713-09-9	2



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00900.D Vial: 1
Acq On : 08/08/01 17:32 Operator:
Sample : AC17981 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

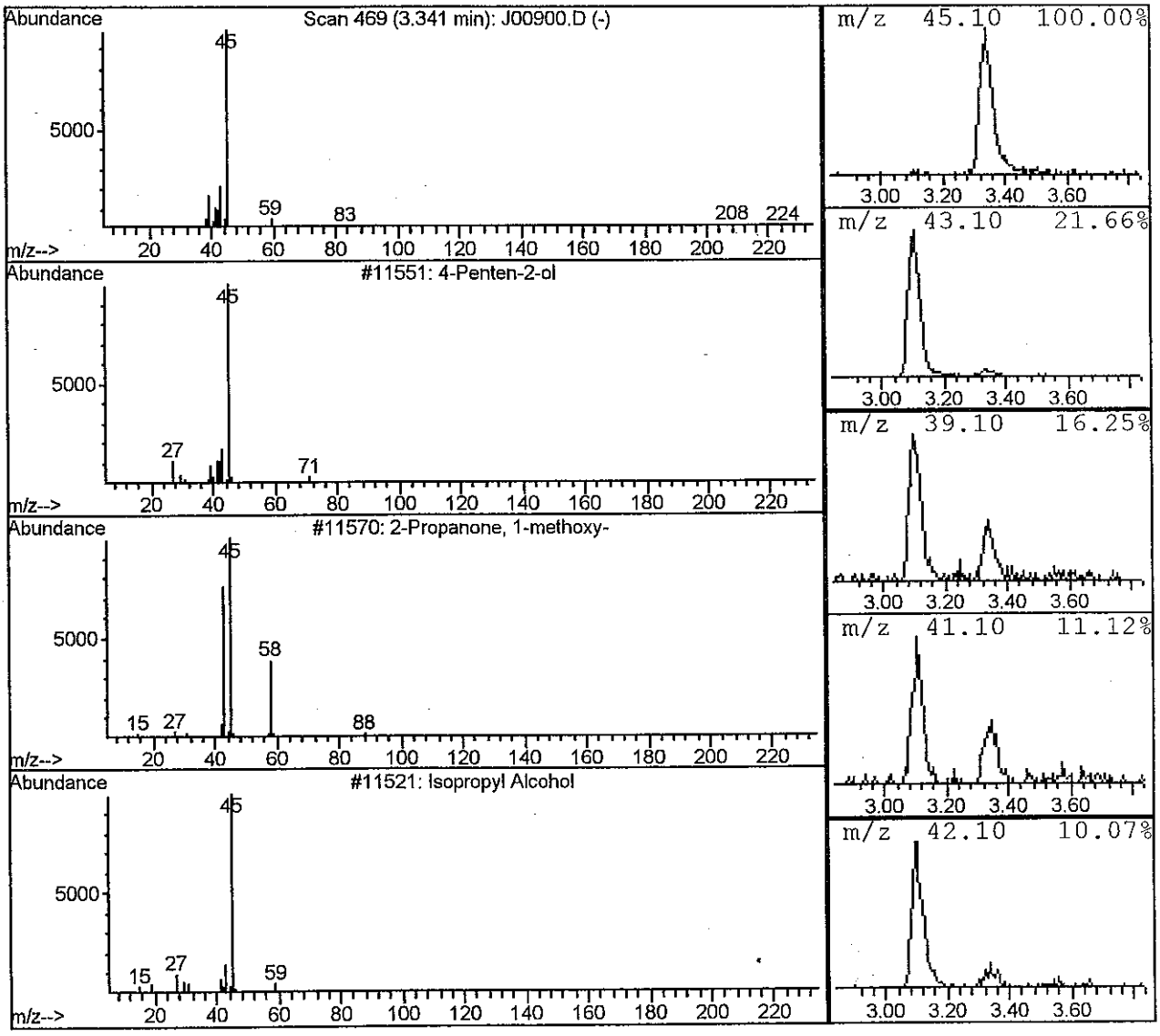
Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 4-Penten-2-ol Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.34	549230.00 ug\L	54923	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Penten-2-ol	86	C5H10O	000625-31-0	39
2	2-Propanone, 1-methoxy-	88	C4H8O2	005878-19-3	9
3	Isopropyl Alcohol	60	C3H8O	000067-63-0	9
4	4-Penten-2-ol	86	C5H10O	000625-31-0	9



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 17:32
Data File: C:\HPCHEM\1\DATA\1J080801\J00900.D
Name: AC17981 25ml DF=1
Misc: 28530/W080701A
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Pregn-5-en-3-ol, 20-	1.49	177770.0	ug\L	17777	ISTD01	0.00	1	10.0
4-Penten-2-ol	3.34	549230.0	ug\L	54923	ISTD01	0.00	1	10.0

J00900.D 08080125.M Thu Aug 09 07:32:44 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00873.D Vial: 1
Acq On : 08/07/01 18:11 Operator:
Sample : AC17982 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:28 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	139515	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.07	117	166645	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.30	152	79679	10.00	ug\L	-0.01
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	71662	12.21	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.10%#			
46) Toluene-d8	10.01	98	254056	10.41	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.10%			
66) Bromofluorobenzene	13.71	95	95280	10.75	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 107.50%			
Target Compounds						Qvalue
3) Chloromethane	1.66	50	3516	0.67	ug\L	92
47) Toluene	10.11	92	25889	1.64	ug\L	95

VRL
8.8.01

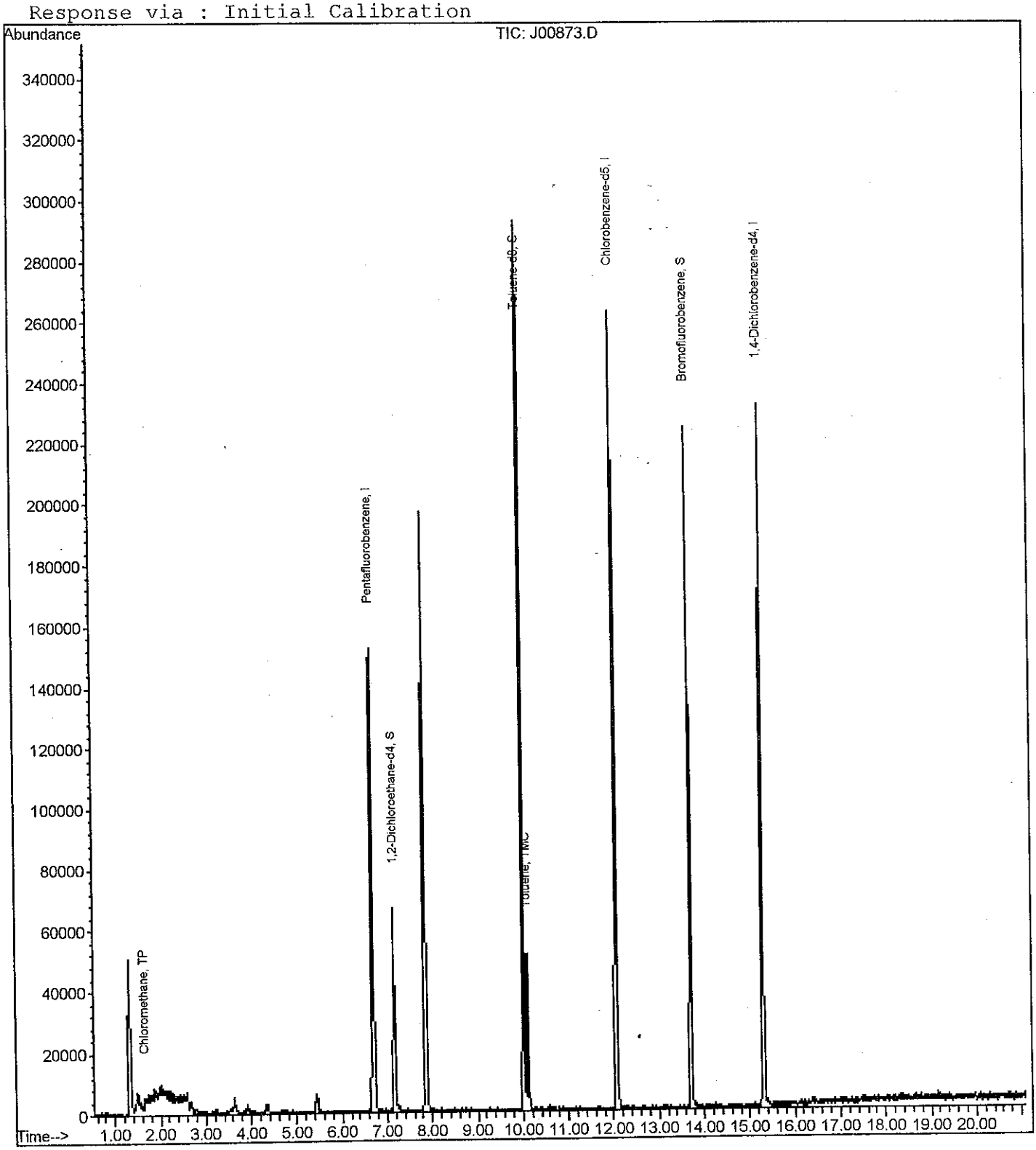
RI to confirm Toluene
(confirmed with J00902)

(#) = qualifier out of range (m) = manual integration
J00873.D 08070125.M Wed Aug 08 10:20:26 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00873.D Vial: 1
Acq On : 08/07/01 18:11 Operator:
Sample : AC17982 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:28 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00873.D
Acq On : 08/07/01 18:11
Sample : AC17982 25ml DF=1
Misc : 28530/W080701A
MS Integration Params: LSCINT.P

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON
Sampling : 1
Start Thrs: 0.02
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

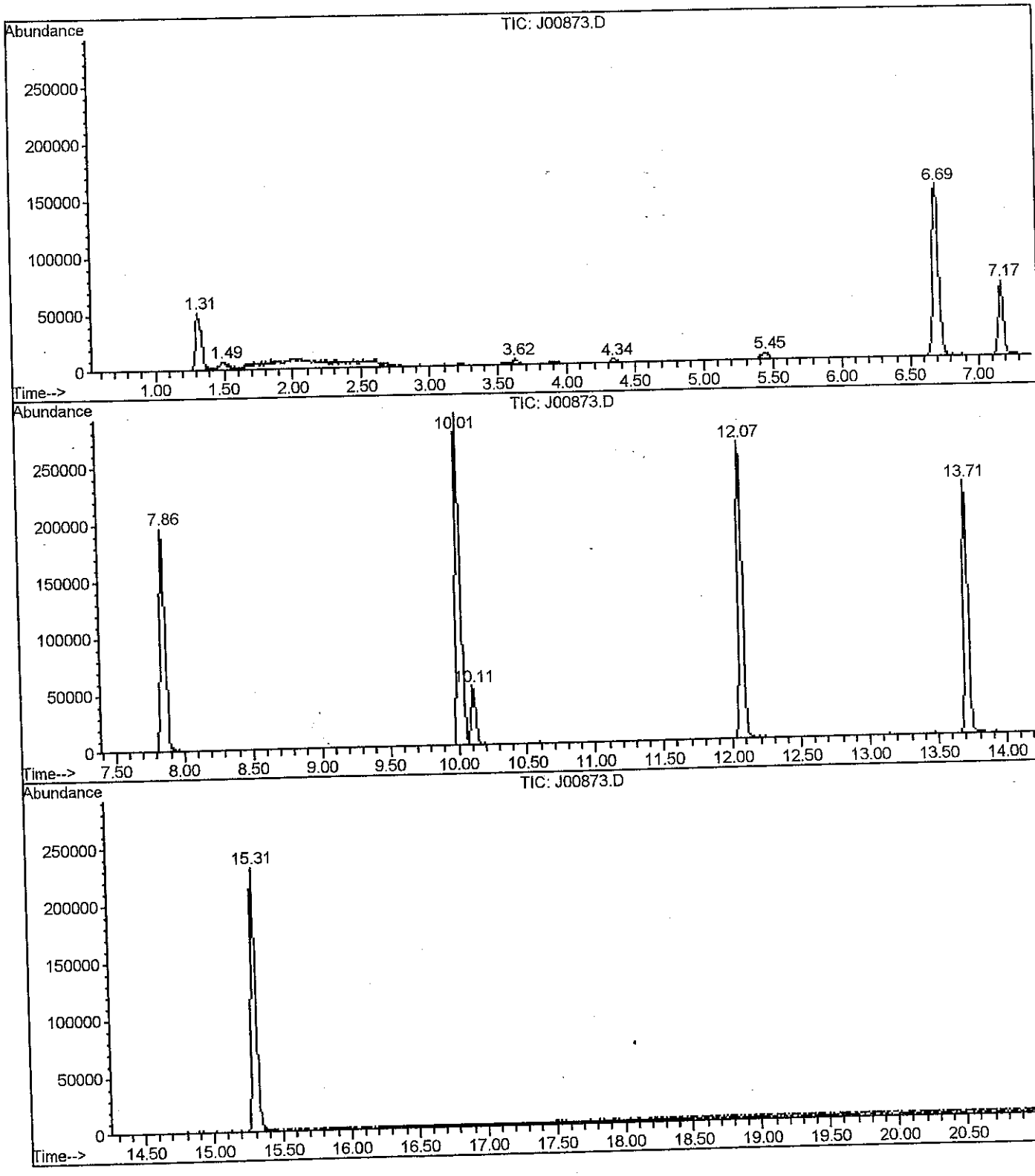
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.312	120	131	145	rBV	50676	156841	22.51%	4.111%
2	1.492	147	161	170	rBV	6106	24949	3.58%	0.654%
3	3.621	508	515	523	rBV4	4412	9775	1.40%	0.256%
4	4.337	627	634	644	rBV7	3119	10314	1.48%	0.270%
5	5.450	805	819	822	rBV6	6136	19323	2.77%	0.506%
6	6.694	1013	1026	1042	rBV2	152141	472533	67.82%	12.386%
7	7.170	1095	1105	1116	rBV	66030	174315	25.02%	4.569%
8	7.855	1207	1219	1232	rBV	196955	518512	74.42%	13.591%
9	10.014	1567	1578	1588	rBV	292938	696715	100.00%	18.262%
10	10.111	1588	1594	1604	rVB	51092	125088	17.95%	3.279%
11	12.071	1907	1920	1935	rBV	263102	587816	84.37%	15.408%
12	13.713	2183	2193	2205	rBV	224133	478814	68.72%	12.550%
13	15.307	2448	2458	2468	rBV	231517	540133	77.53%	14.158%

Sum of corrected areas: 3815128

J00873.D 08070125.M Wed Aug 08 10:20:30 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00873.D
Operator :
Acquired : 7 Aug 2001 18:11 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: AC17982 25ml DF=1
Misc Info : 28530/W080701A
Vial Number: 1
Quant File :08070125.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00873.D Vial: 1
Acq On : 08/07/01 18:11 Operator:
Sample : AC17982 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: LSCINT.P

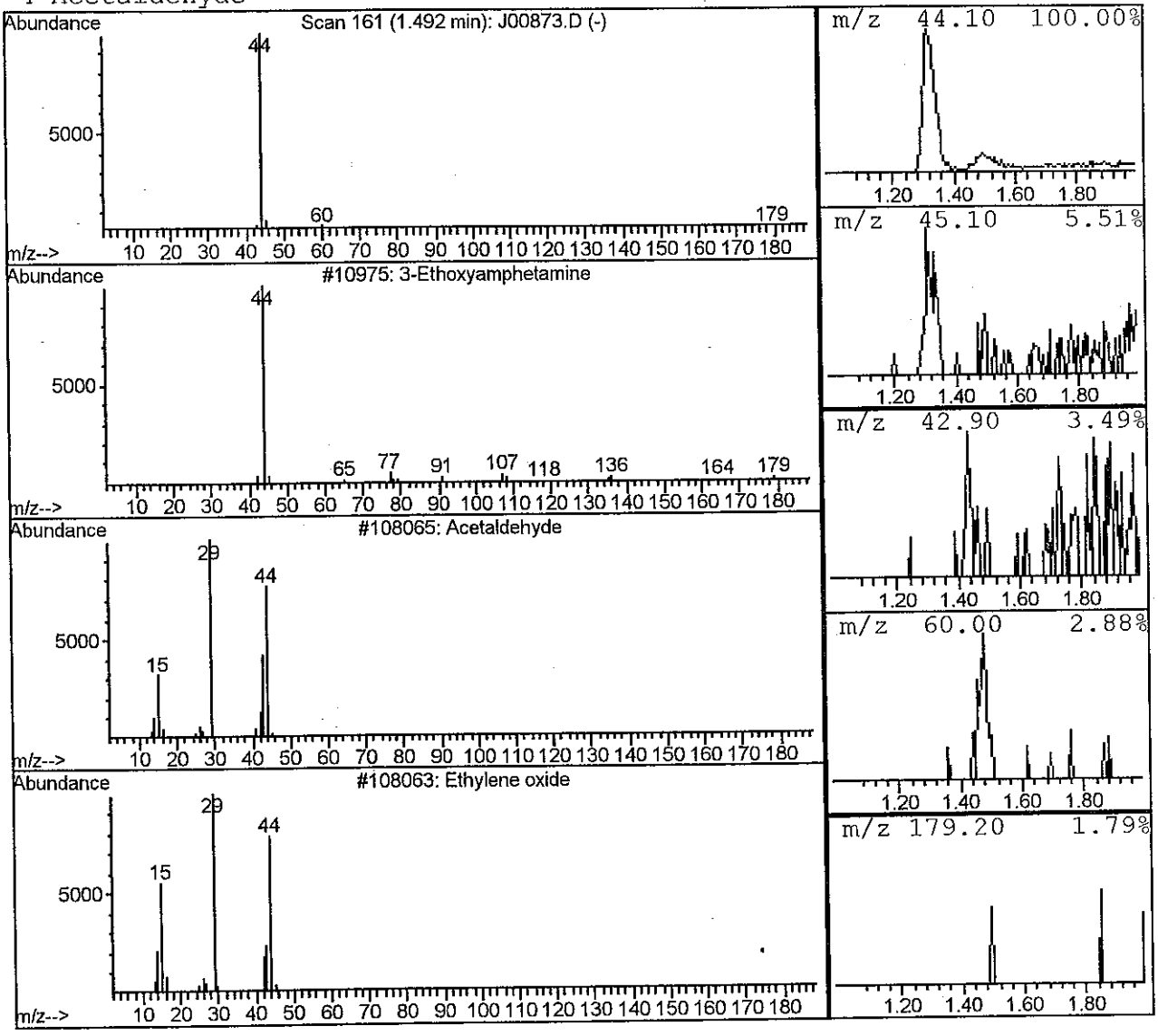
Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 3-Ethoxyamphetamine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.49	249490.00 ug\L	24949	1.4-Difluorobenzene	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Ethoxyamphetamine	179	C11H17NO	135014-86-7	4
2	Acetaldehyde	44	C2H4O	000075-07-0	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Acetaldehyde	44	C2H4O	000075-07-0	3



Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 18:11
Data File: C:\HPCHEM\1\DATA\1J080701\J00873.D
Name: AC17982 25ml DF=1
Misc: 28530/W080701A
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Ethoxyamphetamine	1.49	249490.0	ug\L	24949	ISTD01	0.00	1	10.0

J00873.D 08070125.M Wed Aug 08 10:20:31 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00902.D Vial: 3
Acq On : 08/08/01 18:25 Operator:
Sample : AC17982 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:34 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

File copy

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	123380	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	169642	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	78123	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	73144	14.09	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 140.90%#			
46) Toluene-d8	10.02	98	230333	9.27	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 92.70%			
66) Bromofluorobenzene	13.72	95	90612	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			
Target Compounds						Qvalue
47) Toluene	10.12	92	22060	1.37	ug\L	100

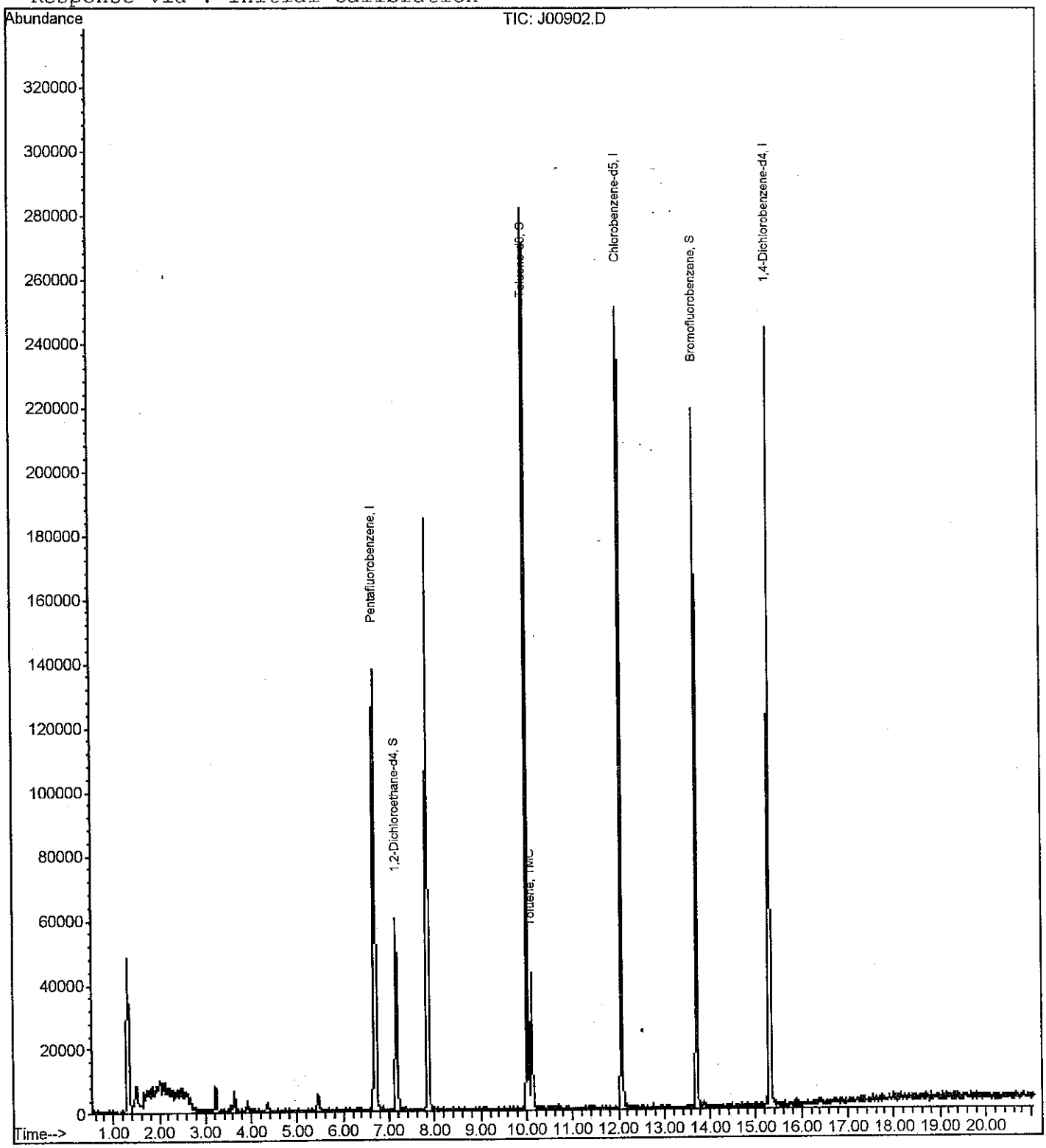
VRR
8-9-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00902.D Vial: 3
Acq On : 08/08/01 18:25 Operator:
Sample : AC17982 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 7:34 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Acq On : 08/07/01 11:15
Sample : 1J080701MB
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001

Vial: 2
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			

Target Compounds Qvalue

VRA 8.8.01

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Wed Aug 08 10:21:04 2001

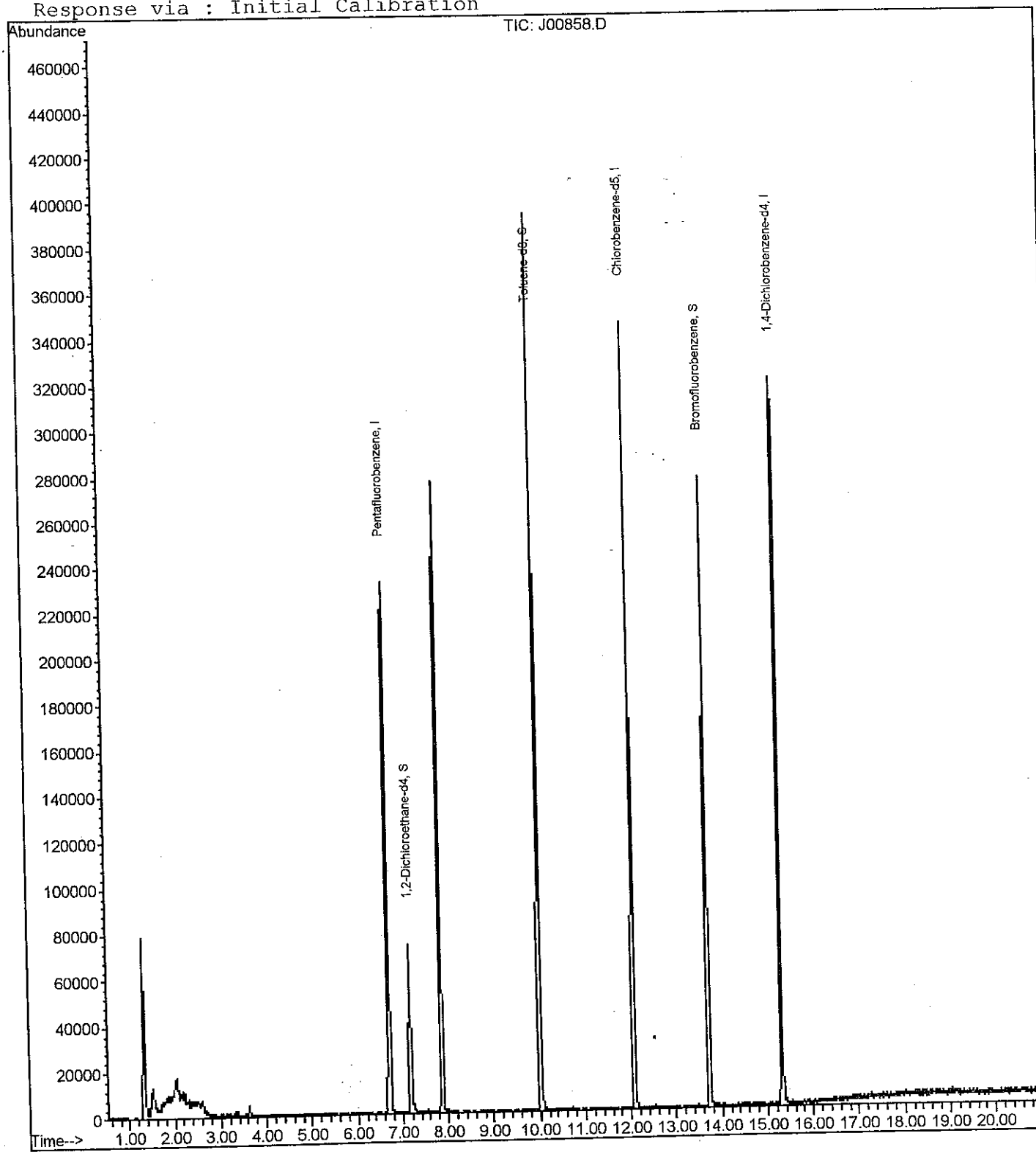
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Acq On : 08/07/01 11:15
Sample : 1J080701MB
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001

Vial: 2
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

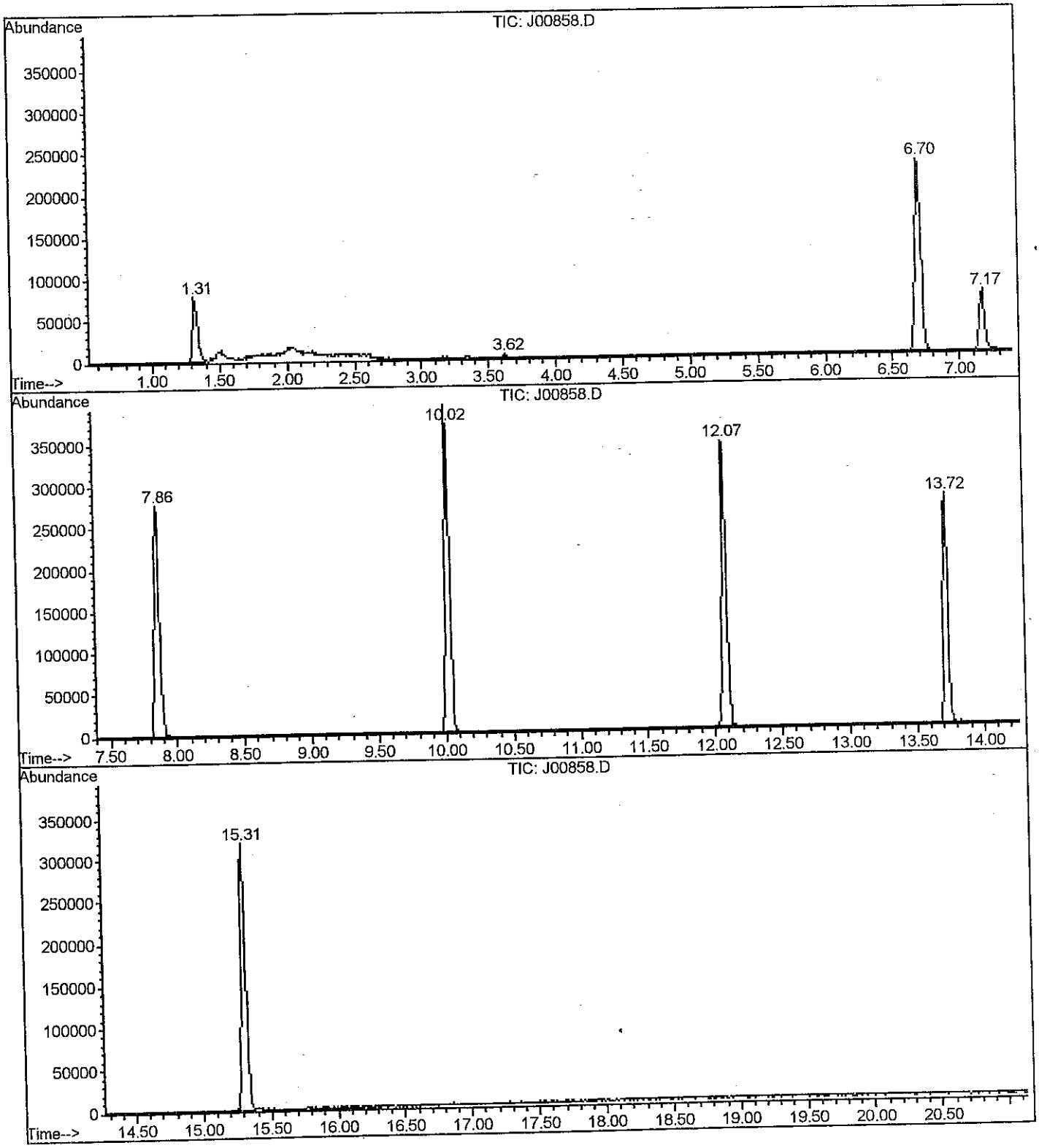
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 10:21:08 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



J00858.D 08070125.M Wed Aug 08 10:21:08 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

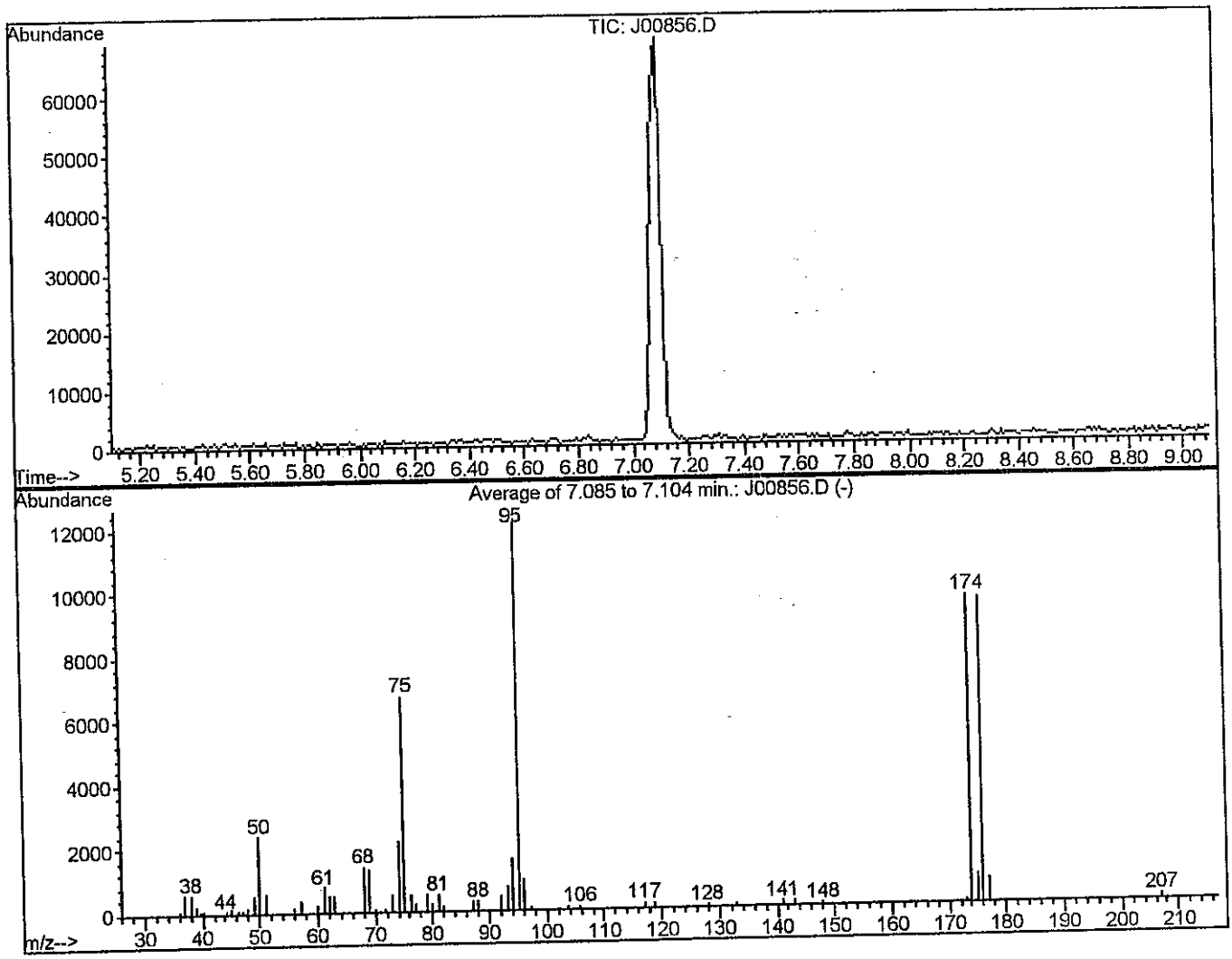
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 10:21:08 2001

BFB

Data File : C:\HPCHEM\1\DATA\1J080701\J00856.D
Acq On : 08/07/01 10:13
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : c:\hpchem\1\methods\BFB01.M (RTE Integrator)
Title :

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 587

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	2364	PASS
75	95	30	60	55.4	6714	PASS
95	95	100	100	100.0	12123	PASS
96	95	5	9	7.7	934	PASS
173	174	0.00	2	0.6	61	PASS
174	95	50	100	79.7	9656	PASS
175	174	5	9	8.7	838	PASS
176	174	95	101	99.3	9587	PASS
177	176	5	9	7.2	693	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	219634	10.00	ug\L	-0.01
45) Chlorobenzene-d5	12.08	117	255172	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	126943	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.85	116	588	10.00	ug\L	-0.26
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	92347	9.99	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
46) Toluene-d8	10.02	98	388775	10.40	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	138775	9.82	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	175386	10.46	ug\L	100
3) Chloromethane	1.67	50	86062	10.34	ug\L	98
4) Vinyl Chloride	1.74	62	119953	10.47	ug\L	98
5) Bromomethane	2.04	94	28706	8.31	ug\L	100
6) Chloroethane	2.14	64	64895	10.56	ug\L	99
7) Trichlorofluoromethane	2.38	101	222834	10.57	ug\L #	100
8) Acrolein	2.91	56	5167	18.66	ug\L #	86
9) Acrylonitrile	4.05	53	14875	22.45	ug\L	90
10) 1,1-Dichloroethene	2.96	96	106094	10.59	ug\L	97
11) Acetone	3.12	58	1727	9.99	ug\L	98
12) Iodomethane	3.17	142	118706m	8.86	ug\L	
13) Allylchloride	3.43	39	127546	10.58	ug\L	95
14) Carbon Disulfide	3.23	76	270288	9.35	ug\L	99
15) Acetonitrile	3.44	41	128237	99.80	ug\L	94
16) Methylene Chloride	3.63	86	55710	8.97	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	111612	10.38	ug\L	99
18) MethylTertButylEther	3.97	73	132630	10.26	ug\L	100
19) 1,1-Dichloroethane	4.69	63	166500	10.32	ug\L	99
20) Isopropyl Ether	4.77	45	17628	10.47	ug\L #	93
21) Vinyl Acetate	4.82	43	72146	8.93	ug\L	99
22) 2,2-Dichloropropane	5.72	77	199606	10.49	ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	104605	10.20	ug\L	96
24) 2-Butanone	5.85	72	1966m	9.38	ug\L	
25) Propionitrile	6.02	54	21955	99.23	ug\L	98
26) Methacrylonitrile	6.24	41	131016	101.31	ug\L	98
27) Bromochloromethane	6.20	128	36255	9.77	ug\L	99
28) Chloroform	6.37	83	204983	10.37	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	234352	10.28	ug\L	98

(#) = qualifier out of range (m) = manua[illegible]tegration

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	220780	10.34 ug\L	99
31) 1,4-Dioxane	8.84	88	4740	206.21 ug\L #	89
32) 1,1-Dichloropropene	6.85	77	48571	10.64 ug\L	99
34) Benzene	7.20	78	355362	10.09 ug\L	100
35) Isobutyl alcohol	7.32	43	11065m	181.36 ug\L	
36) 1,2-Dichloroethane	7.30	62	105489	10.01 ug\L	100
37) Trichloroethene	8.22	95	124564	10.05 ug\L	98
38) 1,2-Dichloropropane	8.59	63	65410	9.94 ug\L	100
39) Dibromomethane	8.79	93	38221	9.84 ug\L	96
40) Methylmethacrylate	8.81	69	17553	10.01 ug\L	95
41) Bromodichloromethane	9.05	83	126490	10.00 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	8646	7.16 ug\L	98
43) cis-1,3-Dichloropropene	9.69	75	115842	9.84 ug\L	96
44) 4-Methyl-2-Pentanone	9.92	85	4050	8.59 ug\L #	1
47) Toluene	10.12	92	248251	10.28 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	88881	9.98 ug\L	95
49) Ethylmethacrylate	10.62	69	42447	10.13 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	36640	10.40 ug\L	99
51) Tetrachloroethene	10.87	164	111457	10.63 ug\L	98
52) 1,3-Dichloropropane	10.99	76	77373	10.35 ug\L	98
53) 2-Hexanone	11.12	43	11508	8.61 ug\L	100
54) Dibromochloromethane	11.32	129	75098	10.36 ug\L	96
55) 1,2-Dibromoethane	11.45	107	46761	10.25 ug\L	96
56) Chlorobenzene	12.11	112	266716	9.98 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	104648	10.44 ug\L	98
58) Ethylbenzene	12.25	91	543669	10.46 ug\L	98
59) total-Xylene	12.42	106	571672m	31.63 ug\L #	
60) Styrene	13.00	104	279291	10.57 ug\L	98
62) Bromoform	13.31	173	35042	9.56 ug\L	99
63) Isopropylbenzene	13.47	105	539808	9.96 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.04	53	16330	11.29 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.04	53	16330	10.60 ug\L #	42
67) Bromobenzene	13.93	156	104972	10.11 ug\L #	96
68) 1,1,2,2-Tetrachloroethane	13.97	83	41310	10.34 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	50023	9.92 ug\L	100
70) n-Propylbenzene	14.05	91	659930	10.18 ug\L	99
71) 2-Chlorotoluene	14.18	91	386840	10.14 ug\L	99
72) 4-Chlorotoluene	14.33	91	453510	10.23 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	496120	10.19 ug\L	99
74) Pentachloroethane	14.80	167	67695	10.05 ug\L	97
75) tert-Butylbenzene	14.73	119	412220	10.03 ug\L	98
76) 1,2,4-Trimethylbenzene	14.80	105	494364	10.28 ug\L	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00
Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	614818	10.09 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	220497	10.35 ug\L	97
79) Isopropyltoluene	15.23	119	512085	10.29 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	208898	9.75 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	170639	10.28 ug\L	98
82) n-Butylbenzene	15.80	91	478982	10.43 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	7651	9.53 ug\L	96
84) 1,2,4-trichlorobenzene	18.23	180	116183	9.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	113430	10.86 ug\L	100
86) Naphthalene	18.69	128	123765	9.83 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	87823	10.22 ug\L	98

(#) = qualifier out of range (m) = manual integration

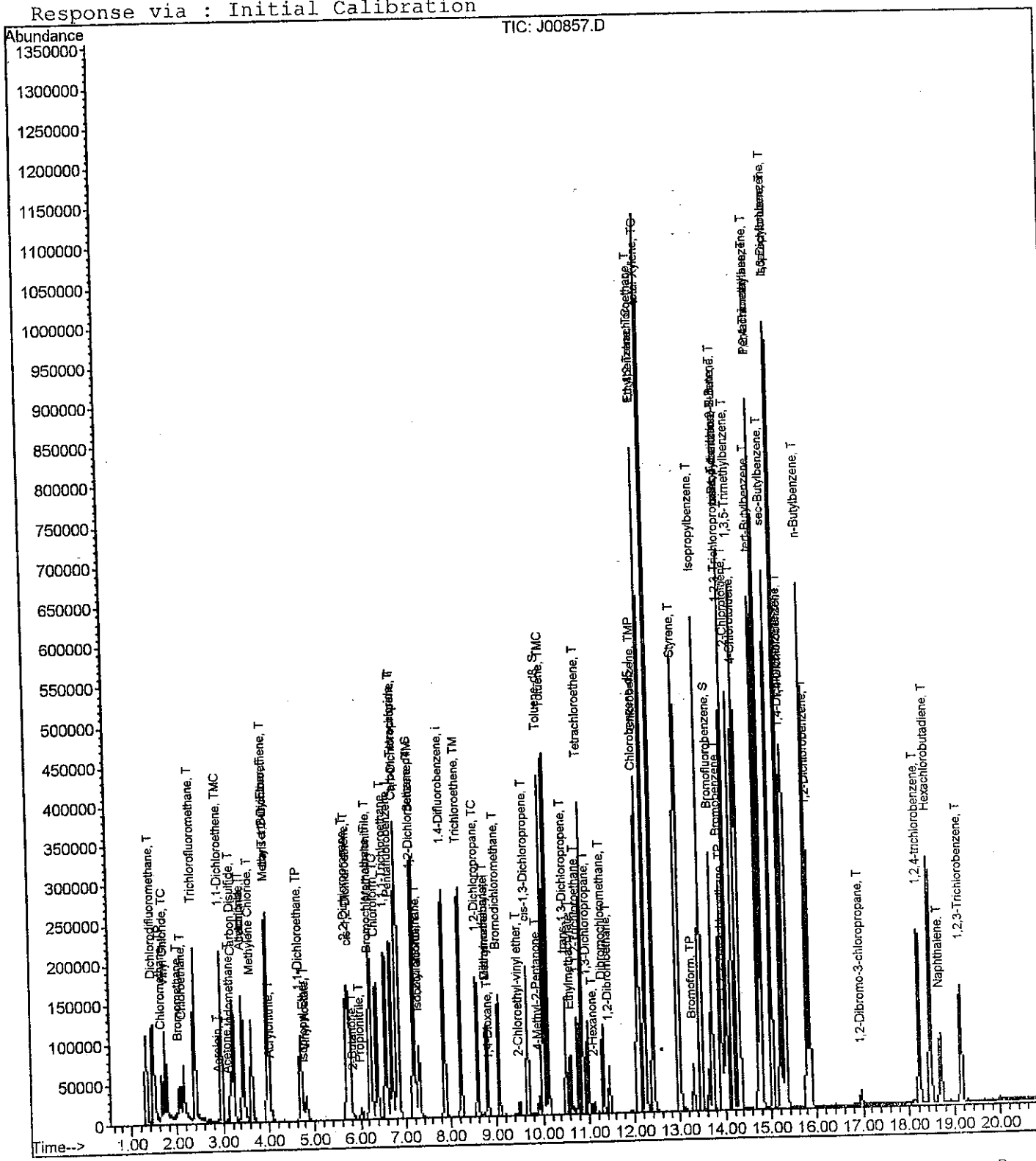
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D
Acq On : 08/07/01 10:35
Sample : CCV 10 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 10:58 2001

Vial: 1
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	-0.01
2	T	Dichlorodifluoromethane	0.764	0.799	-4.6	117	0.00
3	TP	Chloromethane	0.379	0.392	-3.4	115	0.00
4	TC	Vinyl Chloride	0.522	0.546	-4.6	117	0.00
5	T	Bromomethane	0.157	0.131	16.6	92	0.00
6	T	Chloroethane	0.280	0.295	-5.4	113	-0.01
7	T	Trichlorofluoromethane	0.960	1.015	-5.7	112	-0.01
8	T	Acrolein	0.013	0.012	7.7	112	0.00
9	T	Acrylonitrile	0.030	0.034	-13.3	126	0.00
10	TMC	1,1-Dichloroethene	0.456	0.483	-5.9	117	-0.02
11	T	Acetone	0.008	0.008	0.0	112	0.02
12	T	Iodomethane	0.610	0.540	11.5	94	-0.01
13	T	Allylchloride	0.549	0.581	-5.8	113	-0.01
14	T	Carbon Disulfide	1.317	1.231	6.5	108	-0.01
15	T	Acetonitrile	0.059	0.058	1.7	106	-0.01
16	T	Methylene Chloride	0.304	0.254	16.4	97	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.508	-3.7	113	-0.01
18	T	MethylTertButylEther	0.589	0.604	-2.5	112	-0.03
19	TP	1,1-Dichloroethane	0.735	0.758	-3.1	113	-0.02
20	T	Isopropyl Ether	0.077	0.080	-3.9	116	-0.02
21	T	Vinyl Acetate	0.368	0.328	10.9	101	0.00
22	T	2,2-Dichloropropane	0.867	0.909	-4.8	113	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.476	-1.9	113	-0.02
24	T	2-Butanone	0.010	0.009	10.0	125	-0.02
25	T	Propionitrile	0.010	0.010	0.0	108	-0.02
26	T	Methacrylonitrile	0.059	0.060	-1.7	108	0.00
27	T	Bromochloromethane	0.169	0.165	2.4	107	-0.02
28	TC	Chloroform	0.900	0.933	-3.7	110	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.067	-2.8	110	-0.01
30	T	Carbon Tetrachloride	0.973	1.005	-3.3	111	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	122	-0.02
32	T	1,1-Dichloropropene	0.208	0.221	-6.3	112	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.420	0.2	109	-0.02
34	TM	Benzene	1.604	1.618	-0.9	110	-0.01
35	T	Isobutyl alcohol	0.003	0.003	0.0	86	-0.02
36	T	1,2-Dichloroethane	0.480	0.480	0.0	107	-0.01
37	TM	Trichloroethene	0.564	0.567	-0.5	109	-0.01
38	TC	1,2-Dichloropropane	0.300	0.298	0.7	109	-0.01
39	T	Dibromomethane	0.177	0.174	1.7	104	-0.01
40	T	Methylmethacrylate	0.080	0.080	0.0	110	-0.01
41	T	Bromodichloromethane	0.576	0.576	0.0	108	-0.01
42	T	2-Chloroethyl-vinyl ether	0.055	0.039	29.1#	82	0.00

= Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.527	1.7	105	-0.01
44	T	4-Methyl-2-Pentanone	0.021	0.018	14.3	108	-0.01
45	I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
46	S	Toluene-d8	1.464	1.524	-4.1	112	-0.01
47	TMC	Toluene	0.946	0.973	-2.9	109	-0.01
48	T	trans-1,3-Dichloropropene	0.349	0.348	0.3	104	-0.01
49	T	Ethylmethacrylate	0.164	0.166	-1.2	107	0.00
50	T	1,1,2-Trichloroethane	0.138	0.144	-4.3	112	0.00
51	T	Tetrachloroethene	0.411	0.437	-6.3	112	-0.01
52	T	1,3-Dichloropropane	0.293	0.303	-3.4	112	-0.01
53	T	2-Hexanone	0.052	0.045	13.5	105	0.00
54	T	Dibromochloromethane	0.284	0.294	-3.5	111	0.00
55	T	1,2-Dibromoethane	0.179	0.183	-2.2	108	0.00
56	TMP	Chlorobenzene	1.048	1.045	0.3	107	-0.01
57	T	1,1,1,2-Tetrachloroethane	0.393	0.410	-4.3	108	0.00
58	TC	Ethylbenzene	2.037	2.131	-4.6	111	-0.01
59	TG	total-Xylene	0.708	0.747	-5.5	110	0.00
60	T	Styrene	1.035	1.095	-5.8	109	-0.01
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
62	TP	Bromoform	0.289	0.276	4.5	106	-0.01
63	T	Isopropylbenzene	4.269	4.252	0.4	107	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.129	-13.2	117	0.39
65	T	trans-1,4-dichloro-2-Butene	0.121	0.129	-6.6	115	-0.01
66	S	Bromofluorobenzene	1.113	1.093	1.8	106	0.00
67	T	Bromobenzene	0.818	0.827	-1.1	106	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.325	-3.2	109	-0.01
69	T	1,2,3-Trichloropropane	0.397	0.394	0.8	108	-0.01
70	T	n-Propylbenzene	5.106	5.199	-1.8	108	0.00
71	T	2-Chlorotoluene	3.006	3.047	-1.4	107	0.00
72	T	4-Chlorotoluene	3.492	3.573	-2.3	108	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.908	-1.9	108	0.00
74	T	Pentachloroethane	0.531	0.533	-0.4	103	0.00
75	T	tert-Butylbenzene	3.237	3.247	-0.3	107	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.894	-2.7	109	-0.01
77	T	sec-Butylbenzene	4.798	4.843	-0.9	108	0.00
78	T	1,3-Dichlorobenzene	1.679	1.737	-3.5	108	0.00
79	T	Isopropyltoluene	3.921	4.034	-2.9	110	-0.01
80	T	1,4-Dichlorobenzene	1.688	1.646	2.5	106	0.00
81	T	1,2-Dichlorobenzene	1.308	1.344	-2.8	110	0.00
82	T	n-Butylbenzene	3.616	3.773	-4.3	111	0.00

(#) = Out of R ge

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00857.D Vial: 1
Acq On : 08/07/01 10:35 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.060	4.8	108	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.915	0.1	105	-0.02
85	T	Hexachlorobutadiene	0.823	0.894	-8.6	112	0.00
86	T	Naphthalene	0.992	0.975	1.7	106	-0.01
87	T	1,2,3-Trichlorobenzene	0.677	0.692	-2.2	109	-0.01
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.26

Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	226452	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	236674	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	110310	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84767	8.90	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 89.00%			
46) Toluene-d8	10.02	98	345137	9.96	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.60%			
66) Bromofluorobenzene	13.72	95	119069	9.70	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.00%			

Target Compounds Qvalue

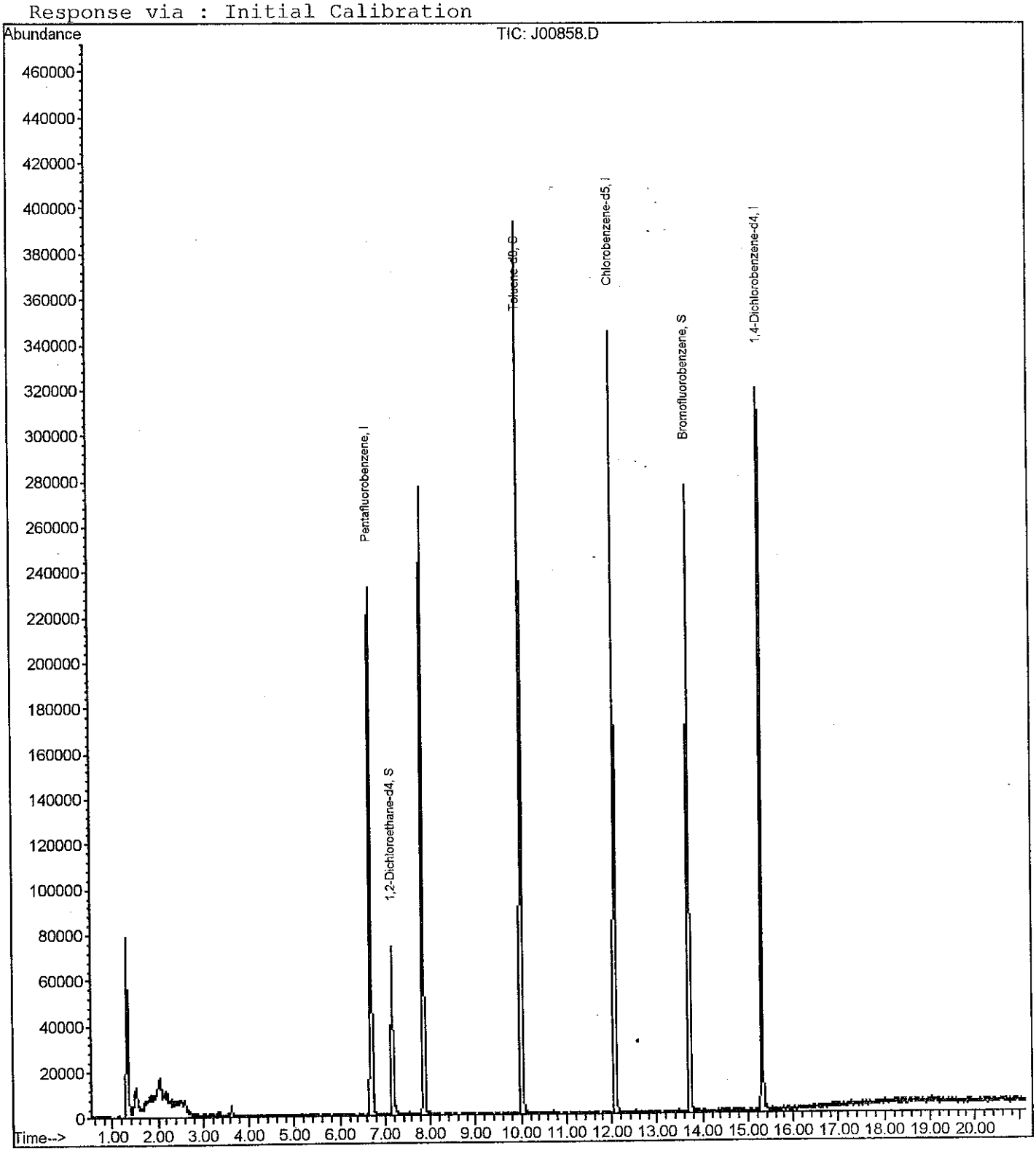
VLK
8-9-01

(#) = qualifier out of range (m) = manual integration
J00858.D 08070125.M Thu Aug 09 07:55:33 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 9:31 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00858.D Vial: 2
Acq On : 08/07/01 11:15 Operator:
Sample : 1J080701MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

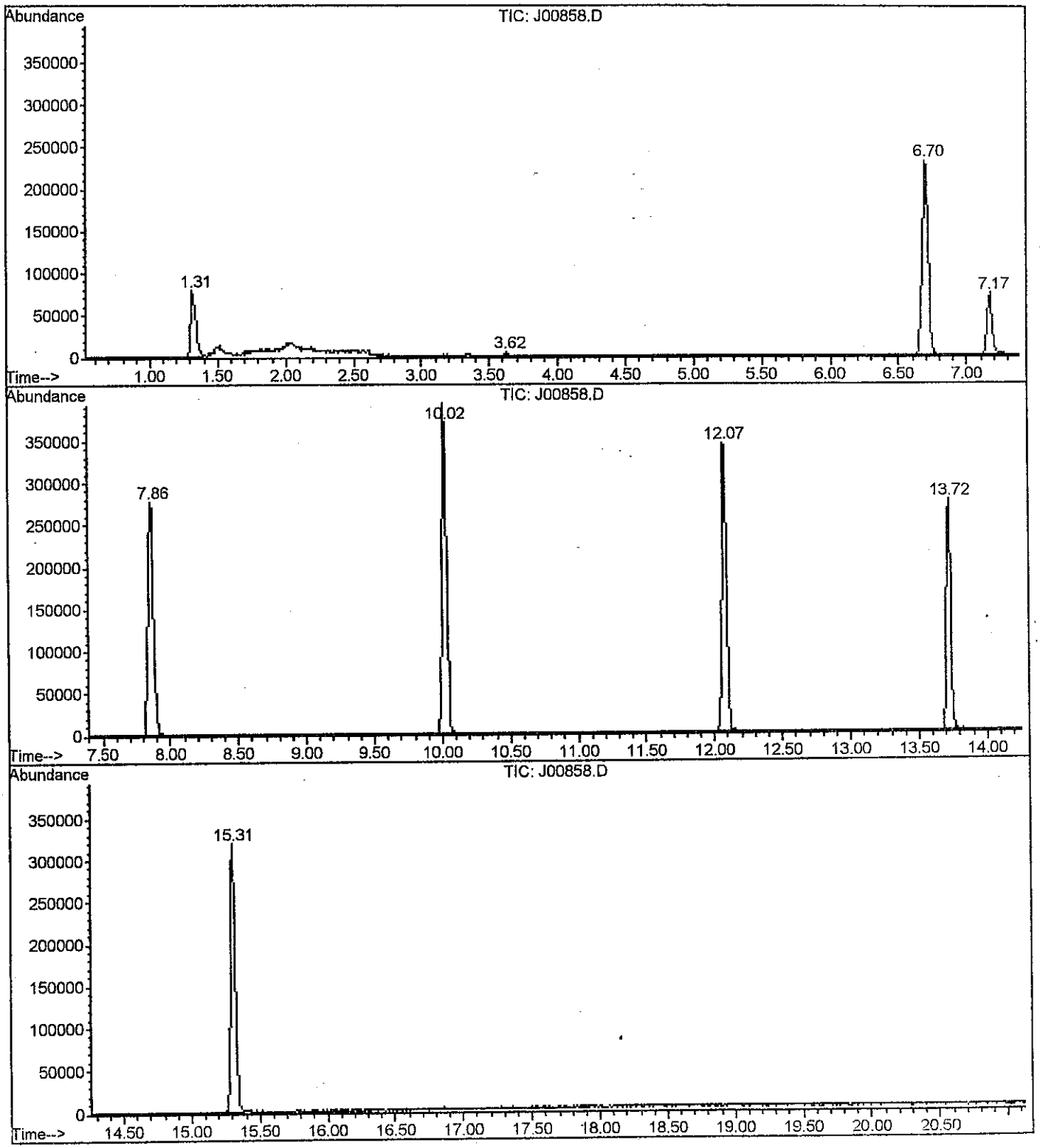
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.313	125	132	146	rBV	78247	224932	24.40%	4.574%
2	3.622	508	516	522	rVB5	4712	10142	1.10%	0.206%
3	6.695	1016	1027	1043	rBV	232042	702770	76.25%	14.292%
4	7.170	1096	1106	1127	rBV2	73540	208949	22.67%	4.249%
5	7.856	1210	1220	1231	rBV	276610	736991	79.96%	14.988%
6	10.021	1570	1580	1593	rBV	393167	921691	100.00%	18.744%
7	12.072	1912	1921	1935	rBV	345042	781283	84.77%	15.889%
8	13.720	2186	2195	2209	rBV	276604	604758	65.61%	12.299%
9	15.308	2448	2459	2471	rBV	318259	725618	78.73%	14.757%

Sum of corrected areas: 4917134

J00858.D 08070125.M Wed Aug 08 09:11:35 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080701\J00858.D
Operator :
Acquired : 7 Aug 2001 11:15 using AcqMethod 08070125
Instrument : HP-MSJ
Sample Name: 1J080701MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08070125.RES (RTE Integrator)



J00858.D 08070125.M Wed Aug 08 09:11:36 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 7 Aug 2001 11:15
Data File: C:\HPCHEM\1\DATA\1J080701\J00858.D
Name: 1J080701MB
Misc: WATER 25ml
Method: C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00858.D 08070125.M Wed Aug 08 09:11:36 2001

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

Target Compounds Qvalue

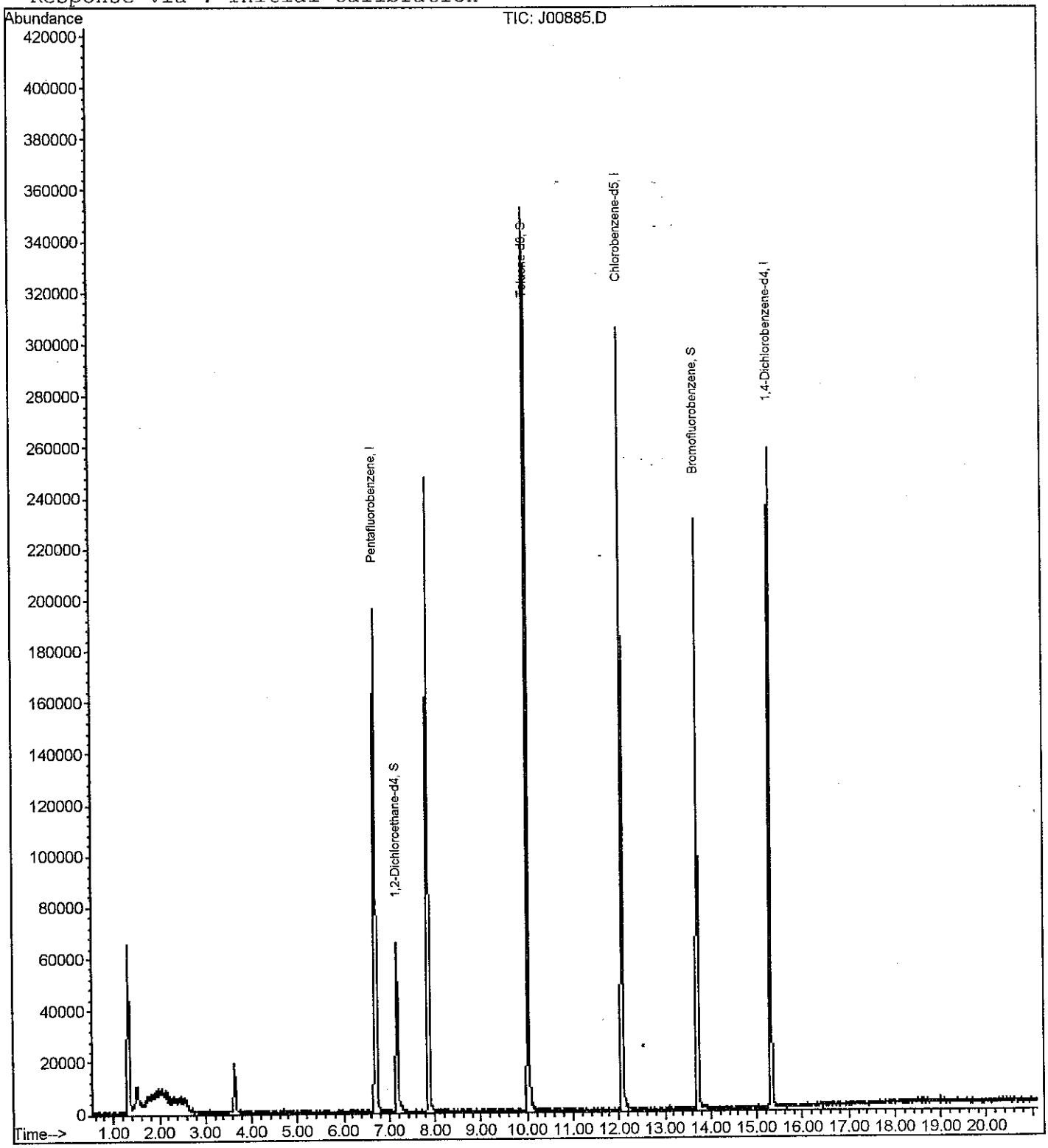
VRP
8.9.01

(#) = qualifier out of range (m) = manual integration
J00885.D 08080125.M Thu Aug 09 07:40:57 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

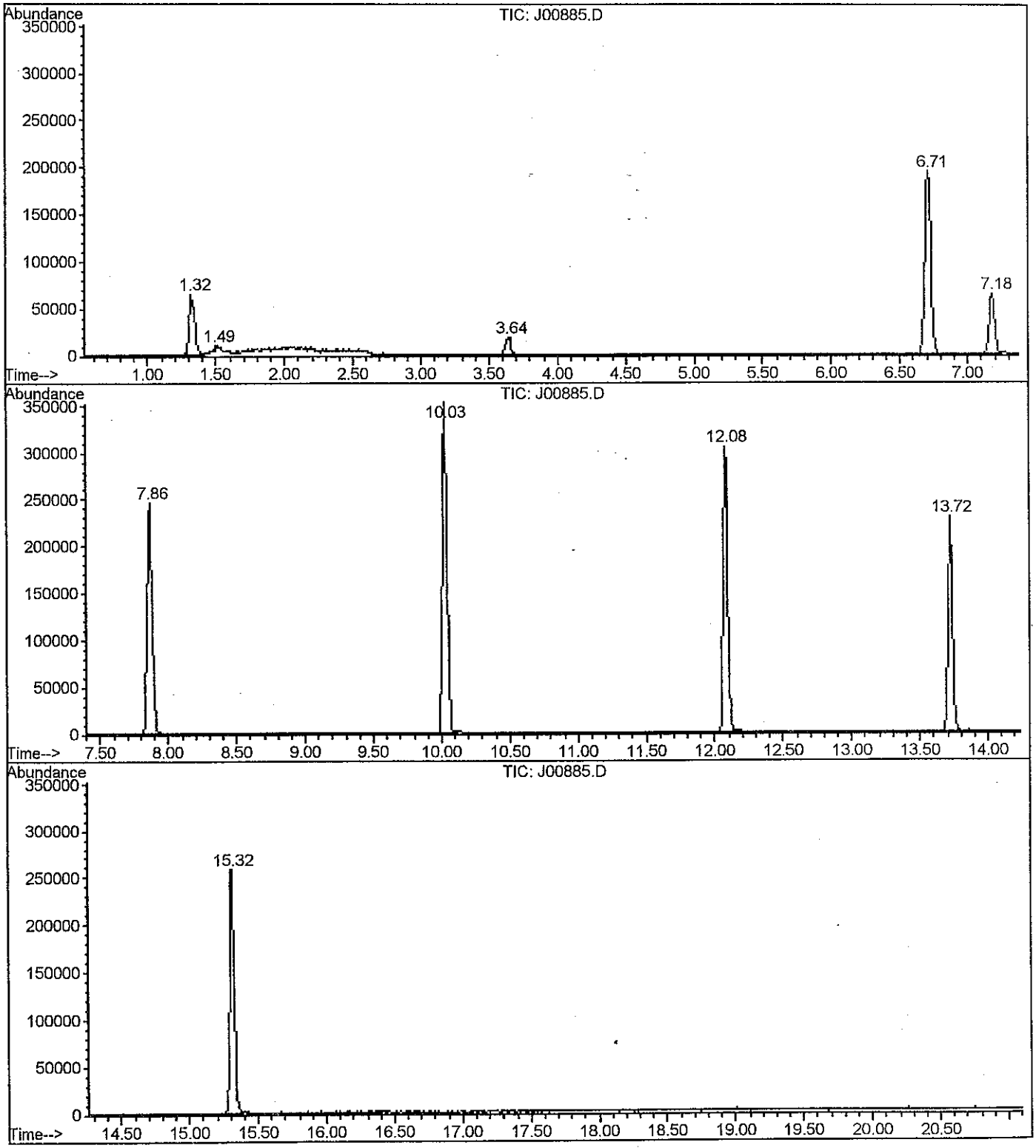
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.320	120	132	147	rBV	65651	207230	24.67%	4.755%
2	1.494	156	161	162	rBV	6999	8704	1.04%	0.200%
3	3.636	506	517	530	rVB4	18731	50613	6.03%	1.161%
4	6.709	1015	1028	1042	rBV2	196229	626496	74.58%	14.374%
5	7.184	1096	1107	1118	rBV2	65157	191906	22.84%	4.403%
6	7.864	1210	1220	1237	rBV	246881	651774	77.59%	14.954%
7	10.029	1570	1580	1593	rBV	352692	840039	100.00%	19.274%
8	12.079	1912	1921	1931	rBV	305069	676065	80.48%	15.512%
9	13.721	2185	2194	2205	rBV2	229631	512598	61.02%	11.761%
10	15.315	2450	2459	2469	rBV2	258140	592975	70.59%	13.605%

Sum of corrected areas: 4358400

J00885.D 08080125.M Thu Aug 09 07:41:01 2001

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\1J080801\J00885.D
Operator :
Acquired : 8 Aug 2001 10:47 using AcqMethod 08080125
Instrument : HP-MSJ
Sample Name: 1J080801MB
Misc Info : WATER 25ml
Vial Number: 2
Quant File :08080125.RES (RTE Integrator)



J00885.D 08080125.M Thu Aug 09 07:41:02 2001

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 8 Aug 2001 10:47
Data File: C:\HPCHEM\1\DATA\1J080801\J00885.D
Name: 1J080801MB
Misc: WATER 25ml
Method: c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title: 8260 CALIBRATION FOR 25ML WATER
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

J00885.D 08080125.M Thu Aug 09 07:41:02 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	198549	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.07	117	232910	10.00	ug\L		-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	115519	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.87	116	254	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	83406	9.98	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
46) Toluene-d8	10.02	98	326206	9.56	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%				
66) Bromofluorobenzene	13.71	95	120738	9.39	ug\L		-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	152545	10.06	ug\L		100
3) Chloromethane	1.66	50	70978	9.43	ug\L		96
4) Vinyl Chloride	1.74	62	103810	10.02	ug\L		99
5) Bromomethane	2.03	94	23858	7.64	ug\L		95
6) Chloroethane	2.14	64	59738	10.75	ug\L		99
7) Trichlorofluoromethane	2.38	101	205122	10.76	ug\L	#	100
8) Acrolein	2.90	56	4262	17.02	ug\L	#	98
9) Acrylonitrile	4.05	53	12105	20.21	ug\L		96
10) 1,1-Dichloroethene	2.96	96	94103	10.39	ug\L		96
11) Acetone	3.09	58	1463	9.36	ug\L		96
12) Iodomethane	3.17	142	108723	8.97	ug\L		99
13) Allylchloride	3.43	39	111544	10.24	ug\L		98
14) Carbon Disulfide	3.23	76	260882	9.98	ug\L		99
15) Acetonitrile	3.43	41	117249	100.94	ug\L		98
16) Methylene Chloride	3.62	86	50301	8.96	ug\L		97
17) trans-1,2-Dichloroethene	3.98	96	99705	10.26	ug\L		100
18) MethylTertButylEther	3.98	73	121538	10.40	ug\L	#	82
19) 1,1-Dichloroethane	4.69	63	147212	10.09	ug\L		99
20) Isopropyl Ether	4.78	45	14585	9.58	ug\L	#	98
21) Vinyl Acetate	4.81	43	73102	10.01	ug\L		98
22) 2,2-Dichloropropane	5.72	77	182353	10.60	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	95167	10.27	ug\L		95
24) 2-Butanone	5.87	72	989	5.81	ug\L	#	100
25) Propionitrile	6.01	54	20647	103.23	ug\L	#	93
26) Methacrylonitrile	6.23	41	119238	102.00	ug\L		98
27) Bromochloromethane	6.21	128	34868	10.39	ug\L		97
28) Chloroform	6.37	83	186427	10.43	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	211268	10.25	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	201034	10.41 ug\L	97
31) 1,4-Dioxane	8.84	88	4277	205.83 ug\L #	75
32) 1,1-Dichloropropene	6.85	77	43141	10.45 ug\L	100
34) Benzene	7.19	78	320799	10.07 ug\L	100
35) Isobutyl alcohol	7.31	43	10435	188.67 ug\L #	87
36) 1,2-Dichloroethane	7.29	62	97287	10.21 ug\L	100
37) Trichloroethene	8.22	95	110904	9.90 ug\L	99
38) 1,2-Dichloropropane	8.58	63	58669	9.86 ug\L	97
39) Dibromomethane	8.79	93	36266	10.33 ug\L	97
40) Methylmethacrylate	8.80	69	15949	10.06 ug\L	96
41) Bromodichloromethane	9.05	83	116029	10.15 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	9216	8.44 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	108603	10.20 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4167	9.78 ug\L #	1
47) Toluene	10.11	92	221665	10.06 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	79946	9.83 ug\L	96
49) Ethylmethacrylate	10.62	69	37424	9.79 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	32275	10.03 ug\L	98
51) Tetrachloroethene	10.87	164	97943	10.23 ug\L	98
52) 1,3-Dichloropropane	10.99	76	69643	10.21 ug\L	99
53) 2-Hexanone	11.11	43	12002	9.84 ug\L	94
54) Dibromochloromethane	11.32	129	68054	10.28 ug\L	100
55) 1,2-Dibromoethane	11.45	107	41326	9.92 ug\L #	99
56) Chlorobenzene	12.11	112	242461	9.94 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	94167	10.30 ug\L	100
58) Ethylbenzene	12.25	91	481905	10.16 ug\L	99
59) total-Xylene	12.42	106	505157m	30.63 ug\L #	
60) Styrene	13.00	104	245510	10.18 ug\L	97
62) Bromoform	13.31	173	34658	10.39 ug\L	95
63) Isopropylbenzene	13.47	105	494898	10.04 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	14618	11.11 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.03	53	14618	10.43 ug\L #	41
67) Bromobenzene	13.92	156	93256	9.87 ug\L	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	37278	10.25 ug\L	95
69) 1,2,3-Trichloropropane	14.02	75	46835	10.21 ug\L	95
70) n-Propylbenzene	14.04	91	595125	10.09 ug\L	99
71) 2-Chlorotoluene	14.18	91	345537	9.95 ug\L	99
72) 4-Chlorotoluene	14.33	91	408683	10.13 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	445549	10.06 ug\L	99
74) Pentachloroethane	14.80	167	62015	10.11 ug\L	98
75) tert-Butylbenzene	14.73	119	375964	10.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	442781	10.11 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

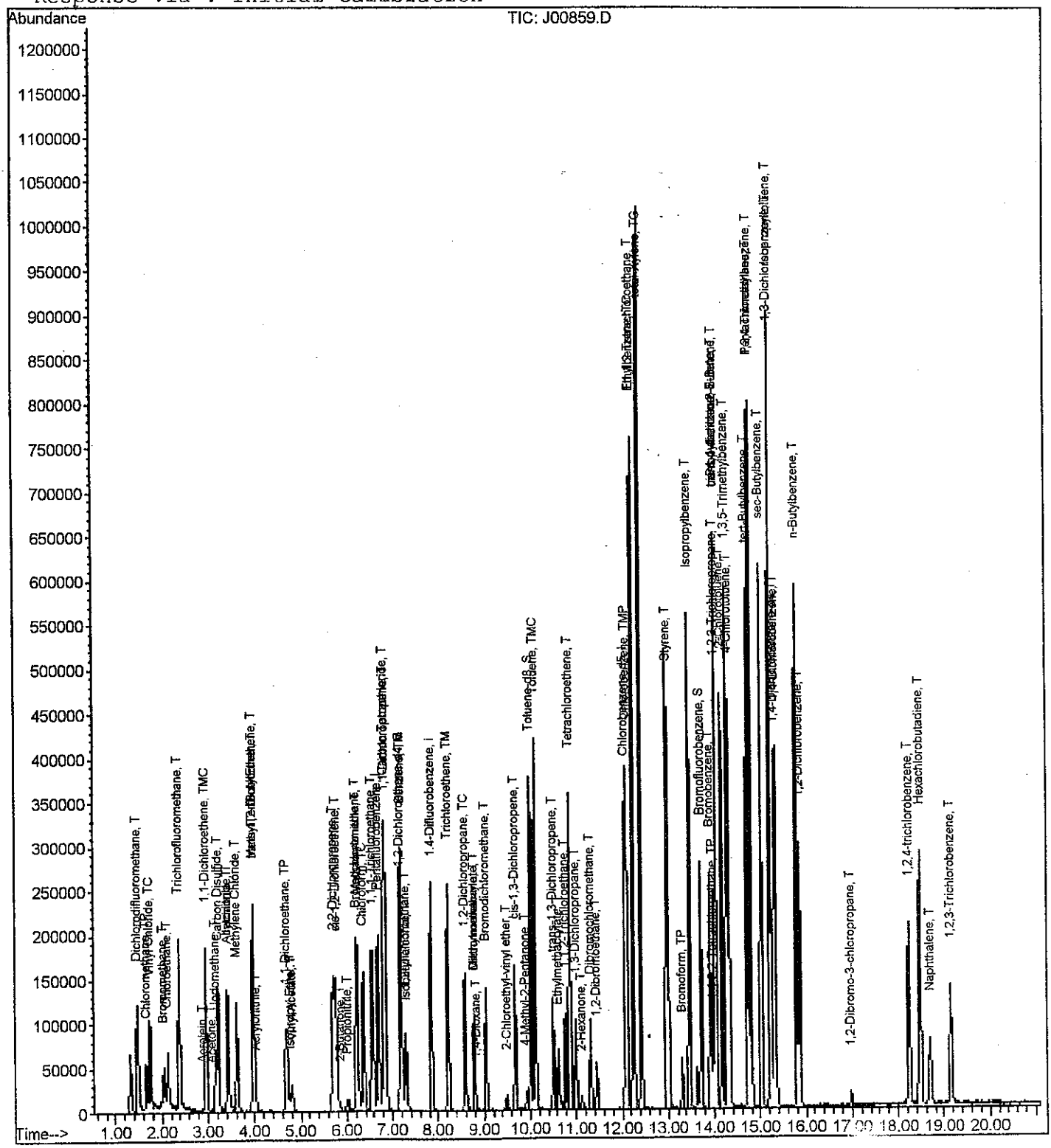
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.03	105	556049	10.03	ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	198219	10.22	ug\L	97
79) Isopropyltoluene	15.23	119	454257	10.03	ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	193320	9.91	ug\L	100
81) 1,2-Dichlorobenzene	15.86	146	154411	10.22	ug\L	98
82) n-Butylbenzene	15.80	91	421701	10.09	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	7070	9.68	ug\L	97
84) 1,2,4-trichlorobenzene	18.23	180	105443	9.96	ug\L	100
85) Hexachlorobutadiene	18.48	225	101754	10.71	ug\L	100
86) Naphthalene	18.69	128	109386	9.55	ug\L	100
87) 1,2,3-Trichlorobenzene	19.14	180	76434	9.77	ug\L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00859.D Vial: 3
Acq On : 08/07/01 11:51 Operator:
Sample : 1J080701LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 12:12 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



VOA GC/MS CALIBRATION CHECKLIST
SW-846-8260B

DATE / INSTRUMENT: 8/6/2001/HP-MS5	METHOD: 8260B
MATRIX: WATER - 25 ml	

Are all standards within expiration dates for both stock and serial standards? ~~Y~~ N NA

Are Tuning results compliant with method? ~~Y~~ N NA

Are all Initial Calibration RSDs compliant for CCCs and non-CCC compounds? Y ~~N~~ NA

If RSDs are non-compliant, was initial calibration curve constructed using one of the alternative methods from method 8000B? (List analytes below) ~~Y~~ N NA

Methylene chloride — linear

2-Butanone — linear

Isobutyl alcohol — linear

Is the runlog completely filled out (including review signature/date)? ~~Y~~ N NA

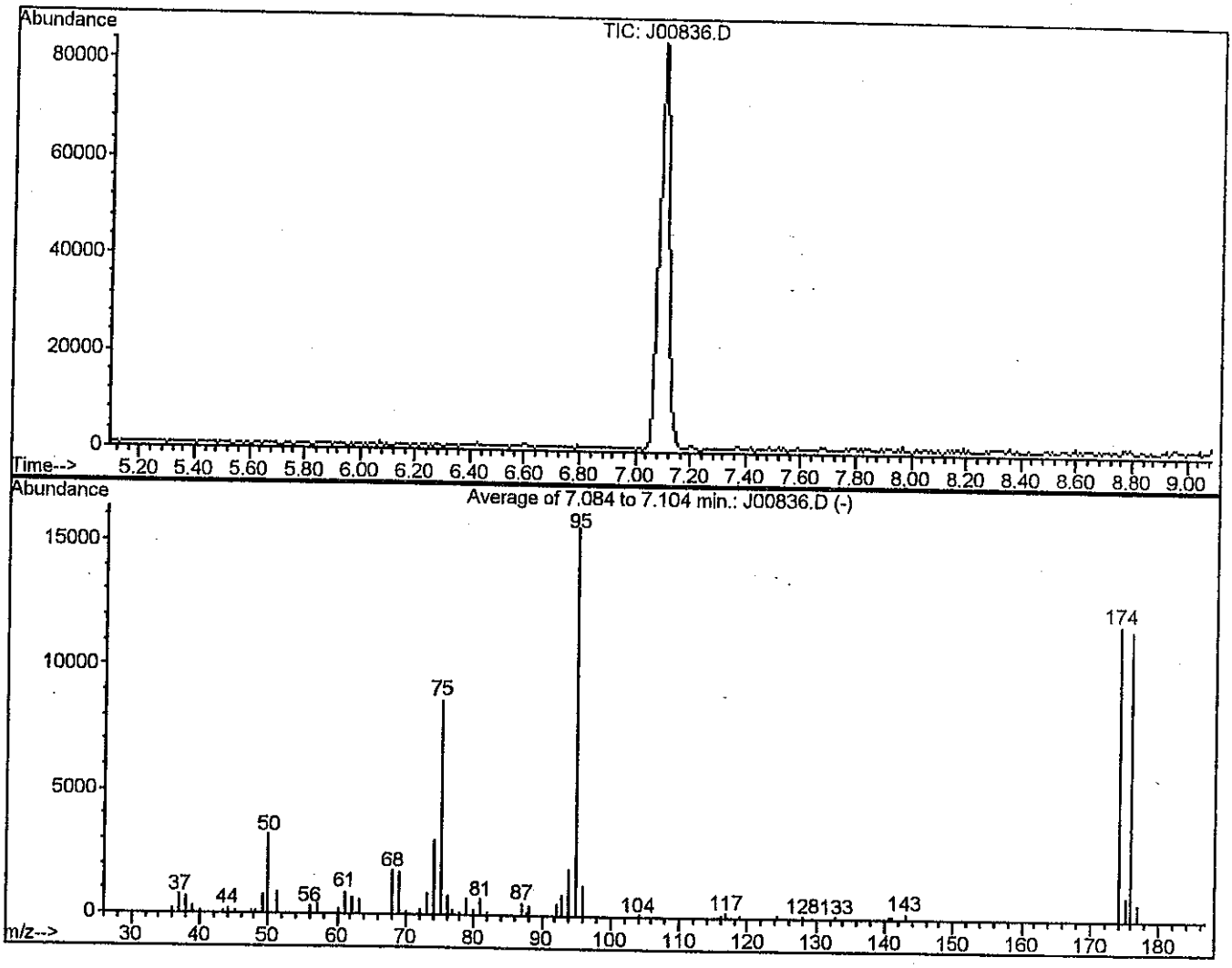
Are all mistakes single lined, initialled, and dated? ~~Y~~ N NA

Analyst: VRH	Reviewer:
Date: 8-6-01 Time: 16:50	Date: 08.07.2001 Time: 1025

BFB

Data File : C:\HPCHEM\1\DATA\1J080601\J00836.D
Acq On : 08/06/01 09:57
Sample : BFB 50ng
Misc :
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER

Vial: 1
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00



AutoFind: Scans 595, 596, 597; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	3141	PASS
75	95	30	60	55.4	8663	PASS
95	95	100	100	100.0	15641	PASS
96	95	5	9	7.5	1166	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.4	11953	PASS
175	174	5	9	8.0	959	PASS
176	174	95	101	97.8	11692	PASS
177	176	5	9	5.9	685	PASS

Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	RSD
1)	I	Pentafluorobenzene	ISTD							
2)	T	Dichlorodifluoromet	0.850	0.776	0.740	0.768	0.718	0.731	0.764	6.23
3)	TP	Chloromethane	0.487	0.379	0.372	0.361	0.345	0.329	0.379	14.78
4)	TC	Vinyl Chloride	0.594	0.530	0.509	0.510	0.493	0.494	0.522	7.27
5)	T	Bromomethane	0.203	0.140	0.155	0.149	0.150	0.147	0.157	14.60
6)	T	Chloroethane	0.300	0.283	0.285	0.281	0.266	0.263	0.280	4.83
7)	T	Trichlorofluorometh	0.931	1.028	0.984	0.984	0.939	0.893	0.960	5.03
8)	T	Acrolein	0.016	0.012	0.011	0.012	0.012	0.012	0.013	12.38
9)	T	Acrylonitrile	0.028	0.032	0.029	0.032	0.030	0.030	0.030	5.51
10)	TMC	1,1-Dichloroethene	0.511	0.452	0.447	0.453	0.441	0.432	0.456	6.13
11)	T	Acetone		0.009	0.008	0.009	0.007	0.007	0.008	10.18
12)	T	Iodomethane	0.465	0.586	0.628	0.694	0.643	0.646	0.610	12.96
13)	T	Allylchloride	0.525	0.556	0.560	0.564	0.546	0.543	0.549	2.60
14)	T	Carbon Disulfide	1.602	1.239	1.242	1.323	1.250	1.244	1.317	10.91
15)	T	Acetonitrile	0.057	0.060	0.060	0.060	0.058	0.057	0.059	2.64
16)	T	Methylene Chloride	0.376	0.422	0.286	0.253	0.245	0.244	0.304	25.06
17)	T	trans-1,2-Dichloroe	0.541	0.470	0.490	0.493	0.479	0.465	0.490	5.59
18)	T	MethylTertButylEthe	0.608	0.560	0.588	0.586	0.594	0.595	0.589	2.71
19)	TP	1,1-Dichloroethane	0.757	0.729	0.729	0.742	0.731	0.721	0.735	1.75
20)	T	Isopropyl Ether	0.081	0.074	0.075	0.074	0.078	0.079	0.077	3.66
21)	T	Vinyl Acetate	0.364	0.345	0.352	0.386	0.376	0.384	0.368	4.64
22)	T	2,2-Dichloropropane	0.924	0.862	0.875	0.871	0.849	0.820	0.867	3.96
23)	T	cis-1,2-Dichloroeth	0.489	0.471	0.460	0.471	0.457	0.454	0.467	2.75
24)	T	2-Butanone	0.010	0.007	0.008	0.010	0.011	0.011	0.010	16.34
25)	T	Propionitrile	0.009	0.010	0.010	0.010	0.011	0.011	0.010	5.58
26)	T	Methacrylonitrile	0.059	0.058	0.060	0.059	0.058	0.059	0.059	1.26
27)	T	Bromochloromethane	0.171	0.171	0.167	0.171	0.171	0.163	0.169	1.97
28)	TC	Chloroform	0.890	0.903	0.920	0.917	0.898	0.874	0.900	1.92
29)	T	1,1,1-Trichloroetha	1.021	1.050	1.056	1.062	1.029	1.009	1.038	2.04
30)	T	Carbon Tetrachlorid	0.961	0.984	0.981	1.000	0.964	0.945	0.973	2.03
31)	T	1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	5.94
32)	T	1,1-Dichloropropene	0.197	0.204	0.216	0.217	0.208	0.206	0.208	3.56
33)	S	1,2-Dichloroethane-	0.433	0.405	0.421	0.436	0.423	0.407	0.421	3.06
34)	TM	Benzene	1.571	1.605	1.603	1.640	1.609	1.597	1.604	1.40
35)	T	Isobutyl alcohol	0.002	0.002	0.003	0.003	0.003	0.003	0.003	17.98
36)	T	1,2-Dichloroethane	0.486	0.472	0.489	0.488	0.469	0.474	0.480	1.86
37)	TM	Trichloroethene	0.558	0.547	0.565	0.582	0.570	0.562	0.564	2.04
38)	TC	1,2-Dichloropropane	0.287	0.301	0.296	0.307	0.306	0.301	0.300	2.46
39)	T	Dibromomethane	0.164	0.176	0.182	0.181	0.179	0.178	0.177	3.62
40)	T	Methylmethacrylate	0.070	0.072	0.079	0.083	0.087	0.088	0.080	9.75
41)	T	Bromodichloromethan	0.561	0.547	0.582	0.593	0.582	0.589	0.576	3.09
42)	T	2-Chloroethyl-vinyl	0.059	0.049	0.052	0.059	0.057	0.054	0.055	7.05
43)	T	cis-1,3-Dichloropro	0.498	0.500	0.546	0.561	0.551	0.559	0.536	5.39
44)	T	4-Methyl-2-Pentanon	0.024	0.019	0.019	0.022	0.023	0.023	0.021	10.53

(#) = Out of Range

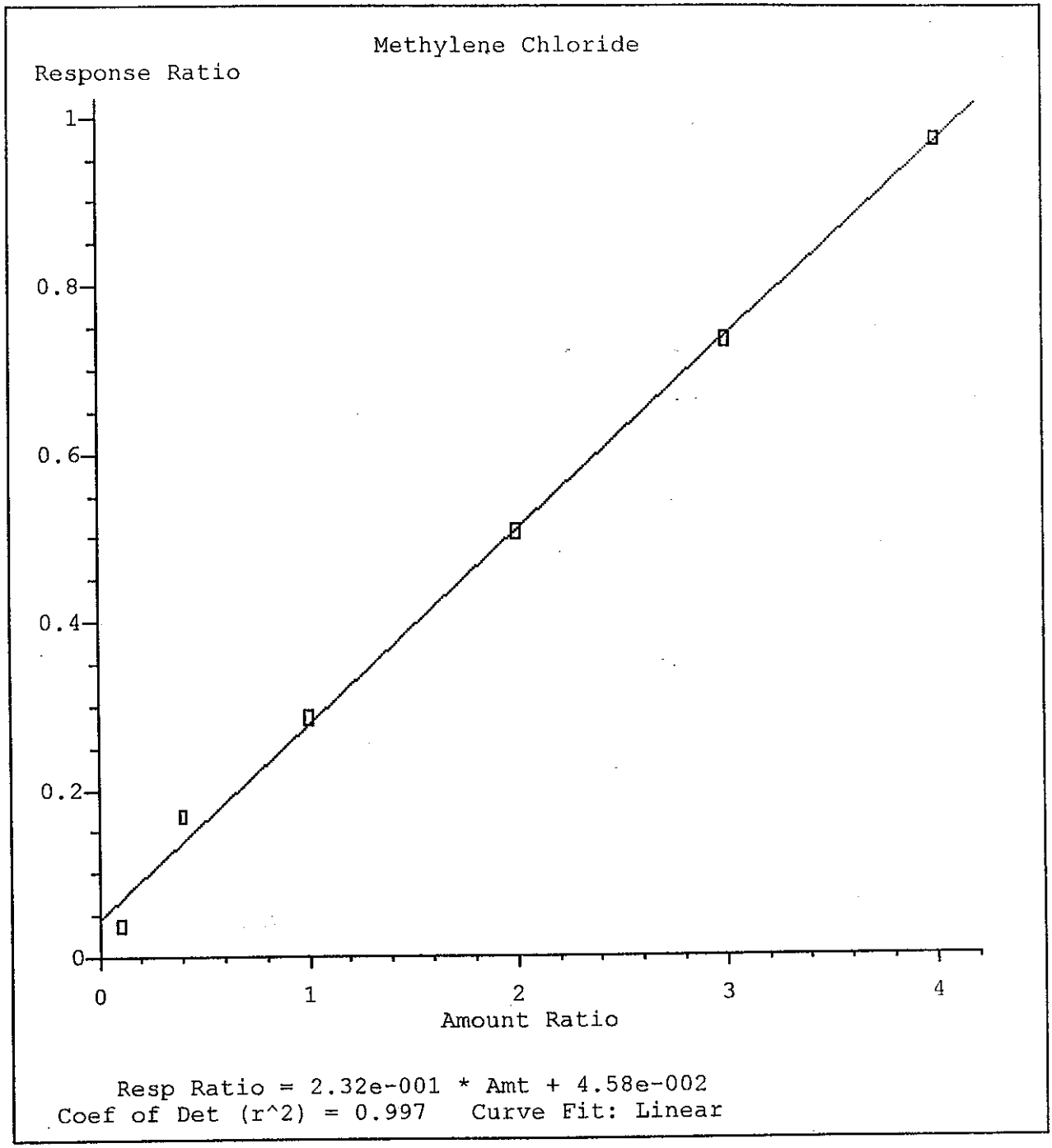
Response Factor Report HP-MSJ

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration

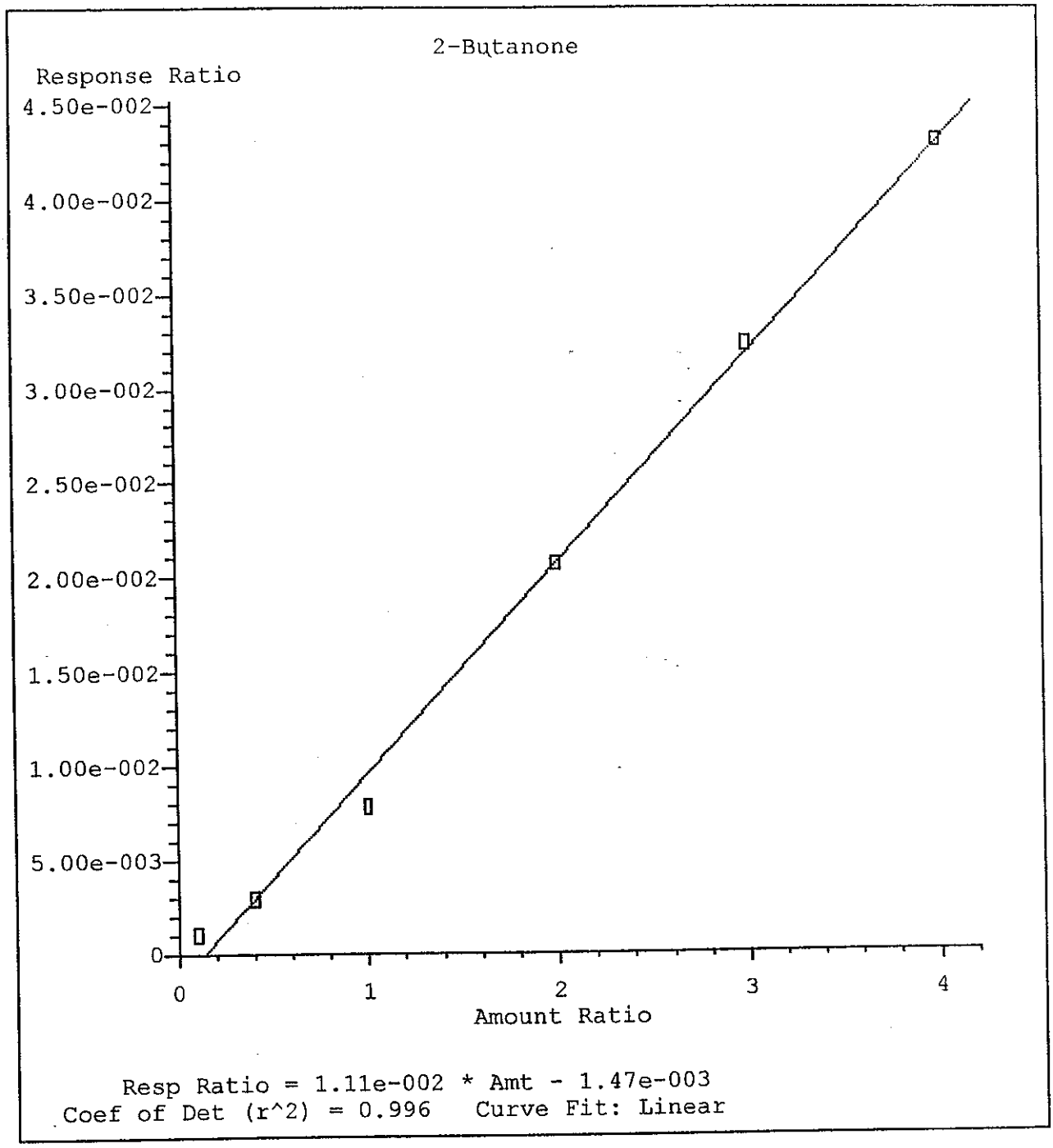
Calibration Files
1 =J00843.D 4 =J00838.D 10 =J00839.D
20 =J00840.D 30 =J00841.D 40 =J00842.D

		Compound	1	4	10	20	30	40	Avg	%RSD
45)	I	Chlorobenzene-d5	ISTD							
46)	S	Toluene-d8	1.453	1.476	1.482	1.505	1.448	1.424	1.464	1.97
47)	TMC	Toluene	0.922	0.953	0.970	0.969	0.936	0.926	0.946	2.23
48)	T	trans-1,3-Dichlorop	0.327	0.326	0.363	0.362	0.356	0.360	0.349	4.99
49)	T	Ethylmethacrylate	0.139	0.152	0.169	0.170	0.174	0.182	0.164	9.69
50)	T	1,1,2-Trichloroetha	0.149	0.127	0.139	0.140	0.135	0.138	0.138	5.09
51)	T	Tetrachloroethene	0.407	0.426	0.425	0.416	0.396	0.396	0.411	3.23
52)	T	1,3-Dichloropropane	0.285	0.295	0.295	0.297	0.288	0.297	0.293	1.74
53)	T	2-Hexanone	0.060	0.046	0.047	0.054	0.054	0.054	0.052	9.83
54)	T	Dibromochloromethan	0.254	0.268	0.289	0.301	0.295	0.299	0.284	6.67
55)	T	1,2-Dibromoethane	0.172	0.171	0.184	0.180	0.182	0.184	0.179	3.34
56)	TMP	Chlorobenzene	1.051	1.072	1.057	1.060	1.037	1.009	1.048	2.11
57)	T	1,1,1,2-Tetrachloro	0.369	0.395	0.411	0.406	0.387	0.388	0.393	3.81
58)	TC	Ethylbenzene	1.976	2.058	2.088	2.097	2.034	1.969	2.037	2.69
59)	TG	total-Xylene	0.698	0.714	0.736	0.727	0.705	0.670	0.708	3.31
60)	T	Styrene	0.915	1.047	1.092	1.099	1.087	0.970	1.035	7.34
61)	I	1,4-Dichlorobenzene-d	ISTD							
62)	TP	Bromoform	0.266	0.267	0.280	0.305	0.305	0.310	0.289	7.08
63)	T	Isopropylbenzene	4.169	4.354	4.285	4.391	4.260	4.155	4.269	2.24
64)	T	cis-1,4-dichloro-2-	0.101	0.105	0.118	0.118	0.121	0.120	0.114	7.73
65)	T	trans-1,4-dichloro-	0.106	0.120	0.121	0.128	0.128	0.125	0.121	6.77
66)	S	Bromofluorobenzene	1.099	1.140	1.113	1.163	1.112	1.050	1.113	3.47
67)	T	Bromobenzene	0.777	0.791	0.839	0.865	0.826	0.808	0.818	3.95
68)	TP	1,1,2,2-Tetrachloro	0.285	0.308	0.321	0.334	0.323	0.317	0.315	5.39
69)	T	1,2,3-Trichloroprop	0.403	0.378	0.391	0.408	0.404	0.400	0.397	2.77
70)	T	n-Propylbenzene	4.992	5.107	5.154	5.275	5.139	4.967	5.106	2.22
71)	T	2-Chlorotoluene	3.003	2.992	3.066	3.083	2.987	2.905	3.006	2.11
72)	T	4-Chlorotoluene	3.493	3.463	3.549	3.615	3.490	3.340	3.492	2.64
73)	T	1,3,5-Trimethylbenz	3.695	3.845	3.903	3.989	3.880	3.702	3.836	3.03
74)	T	Pentachloroethane	0.500	0.519	0.557	0.550	0.541	0.517	0.531	4.21
75)	T	tert-Butylbenzene	3.163	3.274	3.276	3.336	3.262	3.110	3.237	2.58
76)	T	1,2,4-Trimethylbenz	3.767	3.815	3.845	3.908	3.770	3.635	3.790	2.43
77)	T	sec-Butylbenzene	4.777	4.769	4.841	4.966	4.807	4.631	4.798	2.27
78)	T	1,3-Dichlorobenzene	1.606	1.696	1.729	1.725	1.697	1.622	1.679	3.14
79)	T	Isopropyltoluene	3.826	3.977	3.957	4.065	3.925	3.778	3.921	2.66
80)	T	1,4-Dichlorobenzene	1.830	1.685	1.677	1.684	1.641	1.612	1.688	4.45
81)	T	1,2-Dichlorobenzene	1.324	1.297	1.317	1.321	1.304	1.284	1.308	1.20
82)	T	n-Butylbenzene	3.461	3.581	3.660	3.768	3.673	3.555	3.616	2.96
83)	T	1,2-Dibromo-3-chlor	0.080	0.065	0.060	0.058	0.057	0.060	0.063	13.68
84)	T	1,2,4-trichlorobenz	0.916	0.899	0.937	0.953	0.897	0.895	0.916	2.62
85)	T	Hexachlorobutadiene	0.799	0.902	0.855	0.858	0.774	0.749	0.823	7.05
86)	T	Naphthalene	0.888	0.886	0.993	1.067	1.059	1.058	0.992	8.62
87)	T	1,2,3-Trichlorobenz	0.684	0.659	0.683	0.700	0.679	0.658	0.677	2.39

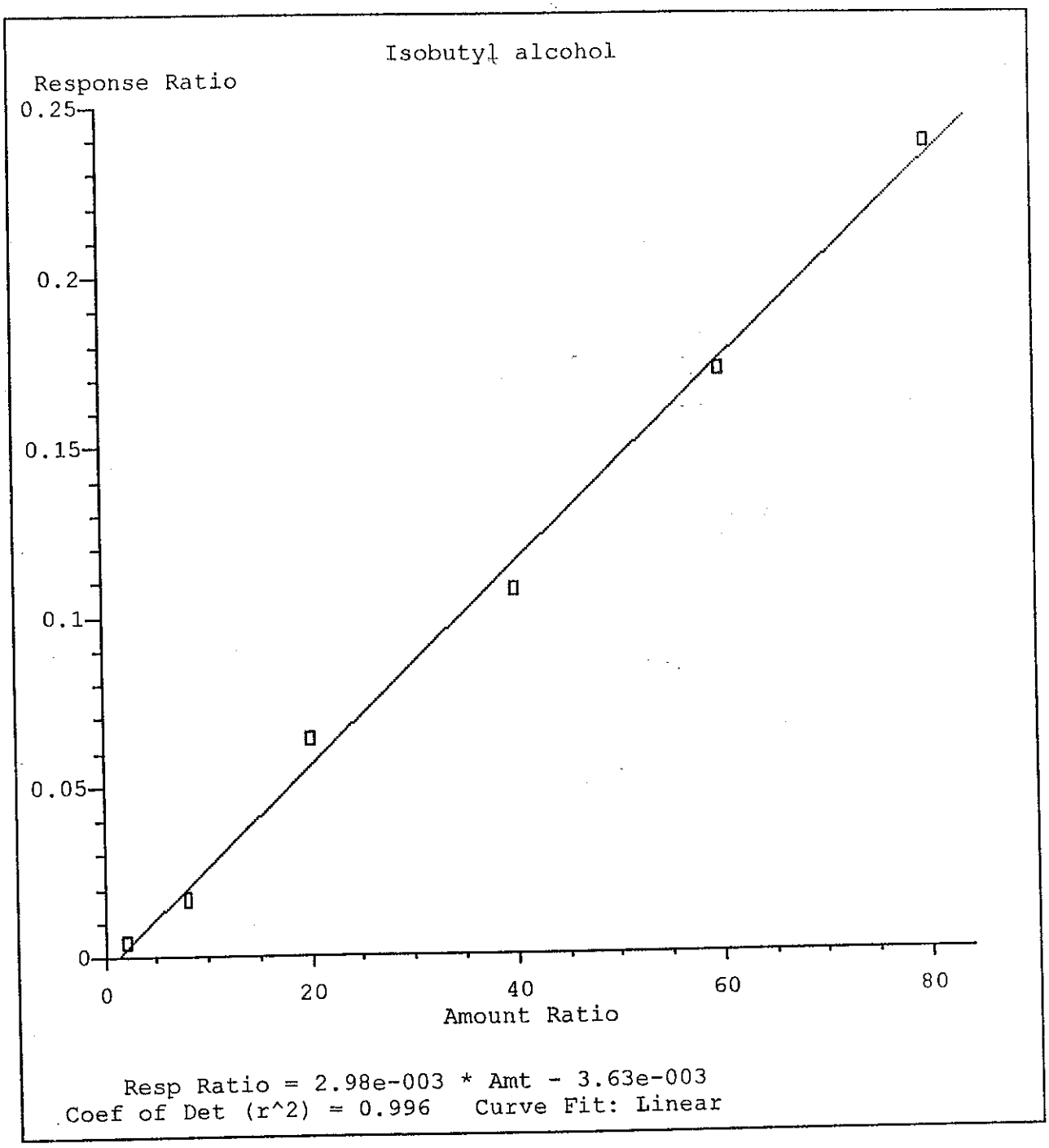
(#) = Out of Range



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001



Method Name: C:\HPCHEM\1\DATA\1J080601\08060125.M
Calibration Table Last Updated: Mon Aug 06 15:57:28 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236236	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	265458	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.30	152	125288	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.06	116	.42	10.00	ug\L	-0.05
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	10238	1.03	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 10.30%#			
46) Toluene-d8	10.02	98	38560	0.99	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 9.90%#			
66) Bromofluorobenzene	13.72	95	13775	0.99	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 9.90%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	20075	1.11	ug\L	100
3) Chloromethane	1.66	50	11509	1.29	ug\L	97
4) Vinyl Chloride	1.74	62	14039	1.14	ug\L	100
5) Bromomethane	2.03	94	4797	1.29	ug\L	96
6) Chloroethane	2.13	64	7091	1.07	ug\L	94
7) Trichlorofluoromethane	2.38	101	21987	0.97	ug\L #	100
8) Acrolein	2.92	56	281	0.94	ug\L #	10
9) Acrylonitrile	4.04	53	1321	1.85	ug\L #	82
10) 1,1-Dichloroethene	2.96	96	12069	1.12	ug\L	94
12) Iodomethane	3.17	142	10991	0.76	ug\L #	95
13) Allylchloride	3.43	39	12393	0.96	ug\L #	96
14) Carbon Disulfide	3.22	76	37856	1.22	ug\L #	95
15) Acetonitrile	3.43	41	13403	9.70	ug\L	98
17) trans-1,2-Dichloroethene	3.98	96	12780	1.10	ug\L	98
18) MethylTertButylEther	3.98	73	14359	1.03	ug\L	99
19) 1,1-Dichloroethane	4.70	63	17891	1.03	ug\L #	97
21) Vinyl Acetate	4.82	43	8589	0.99	ug\L #	83
22) 2,2-Dichloropropane	5.72	77	21820	1.07	ug\L	94
23) cis-1,2-Dichloroethene	5.77	96	11543	1.05	ug\L #	77
24) 2-Butanone	5.89	72	56	1.53	ug\L #	100
25) Propionitrile	6.03	54	2152	9.04	ug\L #	71
26) Methacrylonitrile	6.23	41	13877	9.98	ug\L	98
27) Bromochloromethane	6.21	128	2139	0.54	ug\L #	1
28) Chloroform	6.37	83	21019	0.99	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	24120	0.98	ug\L	97
30) Carbon Tetrachloride	6.82	119	22706	0.99	ug\L	100
31) 1,4-Dioxane	8.86	88	477	19.29	ug\L #	53
32) 1,1-Dichloropropene	6.84	77	4654	0.95	ug\L	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) Benzene	7.20	78	37103	0.98 ug\L	100
35) Isobutyl alcohol	7.32	43	432	18.34 ug\L	89
36) 1,2-Dichloroethane	7.30	62	11470	1.01 ug\L	98
37) Trichloroethene	8.21	95	13181	0.99 ug\L	98
38) 1,2-Dichloropropane	8.59	63	6782	0.96 ug\L	100
39) Dibromomethane	8.79	93	3883	0.93 ug\L	95
40) Methylmethacrylate	8.80	69	1647	0.87 ug\L	90
41) Bromodichloromethane	9.04	83	13242	0.97 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.49	63	1387	1.07 ug\L #	84
43) cis-1,3-Dichloropropene	9.68	75	11774	0.93 ug\L	98
44) 4-Methyl-2-Pentanone	9.92	85	567	1.12 ug\L #	1
47) Toluene	10.11	92	24466	0.97 ug\L	100
48) trans-1,3-Dichloropropene	10.50	75	8693	0.94 ug\L	92
49) Ethylmethacrylate	10.63	69	3679	0.84 ug\L #	55
50) 1,1,2-Trichloroethane	10.77	83	3953	1.08 ug\L	90
51) Tetrachloroethene	10.87	164	10796	0.99 ug\L	96
52) 1,3-Dichloropropane	10.99	76	7576	0.97 ug\L	95
53) 2-Hexanone	11.11	43	1588	1.14 ug\L #	87
54) Dibromochloromethane	11.31	129	6744	0.89 ug\L	99
55) 1,2-Dibromoethane	11.46	107	4555	0.96 ug\L #	95
56) Chlorobenzene	12.12	112	27897	1.00 ug\L	92
57) 1,1,1,2-Tetrachloroethane	12.25	131	9807	0.94 ug\L	100
58) Ethylbenzene	12.26	91	52447	0.97 ug\L	98
59) total-Xylene	12.42	106	55563m	2.96 ug\L #	
60) Styrene	13.00	104	24291	0.88 ug\L	93
62) Bromoform	13.31	173	3328	0.92 ug\L	99
63) Isopropylbenzene	13.48	105	52230	0.98 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	1265	0.89 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.03	53	1331	0.88 ug\L #	53
67) Bromobenzene	13.92	156	9730	0.95 ug\L #	1
68) 1,1,2,2-Tetrachloroethane	13.98	83	3567	0.90 ug\L #	77
69) 1,2,3-Trichloropropane	14.02	75	5044	1.01 ug\L	89
70) n-Propylbenzene	14.04	91	62542	0.98 ug\L	98
71) 2-Chlorotoluene	14.17	91	37629	1.00 ug\L	100
72) 4-Chlorotoluene	14.33	91	43767	1.00 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	46293	0.96 ug\L	97
74) Pentachloroethane	14.80	167	6260	0.94 ug\L #	89
75) tert-Butylbenzene	14.73	119	39625	0.98 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	47202	0.99 ug\L	98
77) sec-Butylbenzene	15.03	105	59844	1.00 ug\L	98
78) 1,3-Dichlorobenzene	15.21	146	20116	0.96 ug\L	97
79) Isopropyltoluene	15.23	119	47931	0.98 ug\L	100

(#) qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

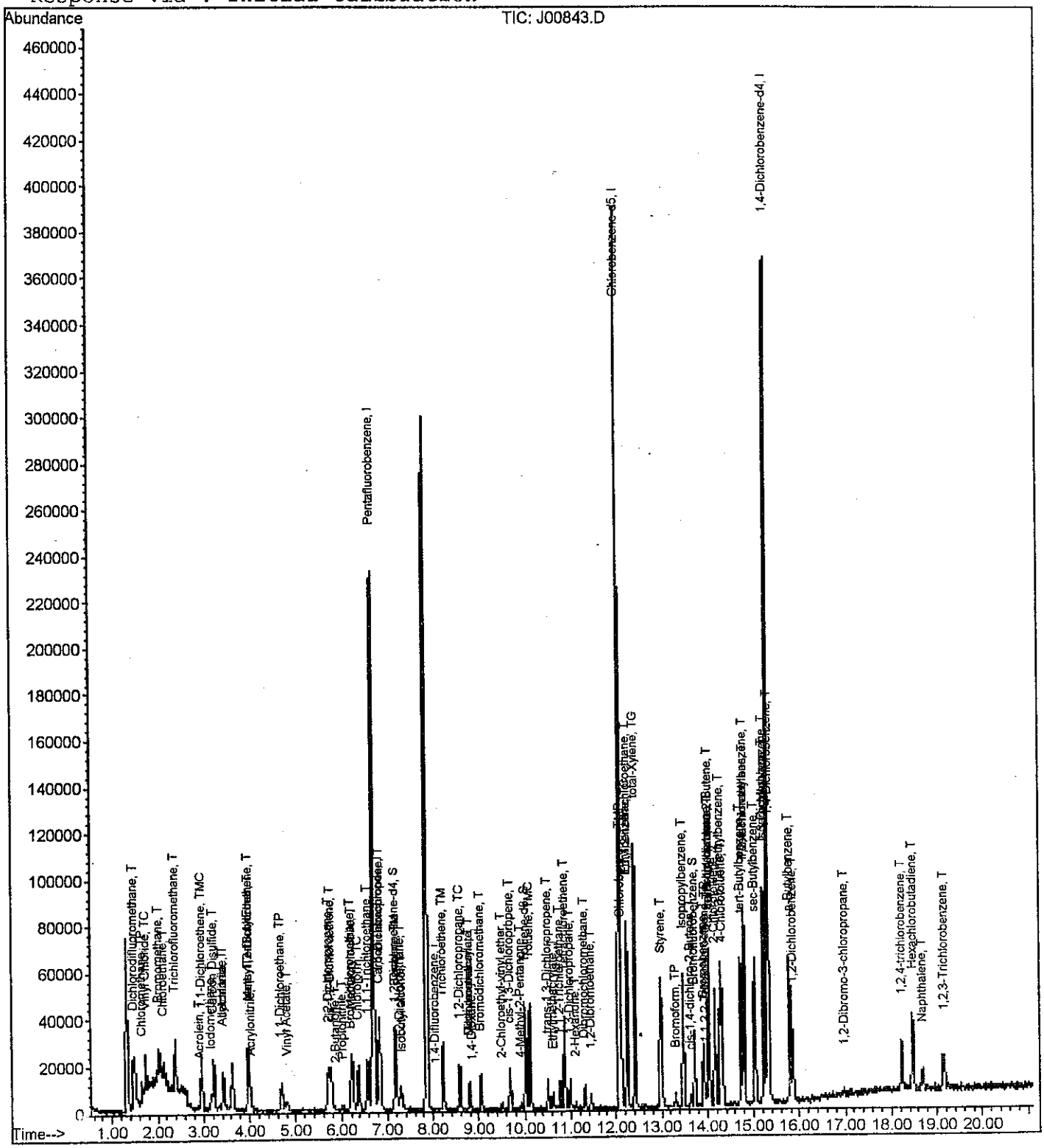
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	15.34	146	22924	1.08 ug\L	97
81) 1,2-Dichlorobenzene	15.86	146	16585	1.01 ug\L	100
82) n-Butylbenzene	15.79	91	43358	0.96 ug\L	97
83) 1,2-Dibromo-3-chloropropan	16.98	75	602	0.76 ug\L #	42
84) 1,2,4-trichlorobenzene	18.23	180	11481	1.00 ug\L	100
85) Hexachlorobutadiene	18.48	225	10015	0.97 ug\L	100
86) Naphthalene	18.68	128	11121	0.89 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	8565	1.01 ug\L #	58

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00843.D Vial: 7
Acq On : 08/06/01 15:31 Operator:
Sample : ICAL 1 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.72	168	214177	10.00	ug\L		0.00
45) Chlorobenzene-d5	12.09	117	246940	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	120687	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.15	116	40	10.00	ug\L		0.05
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.19	65	34711	3.85	ug\L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 38.50%#				
46) Toluene-d8	10.03	98	145804	4.03	ug\L		0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 40.30%#				
66) Bromofluorobenzene	13.73	95	55048	4.10	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 41.00%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.48	85	66483	4.06	ug\L		99
3) Chloromethane	1.67	50	31236	3.85	ug\L		97
4) Vinyl Chloride	1.75	62	44864	4.01	ug\L		98
5) Bromomethane	2.05	94	11228	3.34	ug\L		98
6) Chloroethane	2.14	64	24269	4.05	ug\L		98
7) Trichlorofluoromethane	2.39	101	88083	4.28	ug\L	#	100
8) Acrolein	2.92	56	2077	7.69	ug\L	#	97
9) Acrylonitrile	4.05	53	3196	4.95	ug\L	#	34
10) 1,1-Dichloroethene	2.97	96	38500	3.94	ug\L		99
11) Acetone	3.11	58	737	4.37	ug\L		100
12) Iodomethane	3.18	142	50205	3.84	ug\L		98
13) Allylchloride	3.45	39	47661	4.05	ug\L		99
14) Carbon Disulfide	3.24	76	106125	3.76	ug\L		100
15) Acetonitrile	3.45	41	51351	40.98	ug\L		99
16) Methylene Chloride	3.64	86	36126	5.30	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	40296	3.84	ug\L		93
18) MethylTertButylEther	3.99	73	47960	3.80	ug\L		99
19) 1,1-Dichloroethane	4.72	63	62447	3.97	ug\L		98
20) Isopropyl Ether	4.78	45	4368	2.66	ug\L	#	44
21) Vinyl Acetate	4.84	43	29528	3.75	ug\L		99
22) 2,2-Dichloropropane	5.73	77	73807	3.98	ug\L	#	78
23) cis-1,2-Dichloroethene	5.79	96	39985	4.00	ug\L		97
24) 2-Butanone	5.87	72	272	2.46	ug\L	#	100
25) Propionitrile	6.04	54	8412	38.99	ug\L	#	91
26) Methacrylonitrile	6.26	41	49603	39.33	ug\L		99
27) Bromochloromethane	6.21	128	14655	4.05	ug\L		96
28) Chloroform	6.38	83	77385	4.01	ug\L	#	1
29) 1,1,1-Trichloroethane	6.59	97	89991	4.05	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.85	119	84332	4.05 ug\L	99
31) 1,4-Dioxane	8.85	88	1706	76.11 ug\L #	66
32) 1,1-Dichloropropene	6.86	77	17476	3.92 ug\L	91
34) Benzene	7.21	78	137459	4.00 ug\L	100
35) Isobutyl alcohol	7.33	43	3593	68.53 ug\L #	82
36) 1,2-Dichloroethane	7.32	62	40434	3.94 ug\L	97
37) Trichloroethene	8.24	95	46901	3.88 ug\L	99
38) 1,2-Dichloropropane	8.61	63	25753	4.01 ug\L	98
39) Dibromomethane	8.80	93	15107	3.99 ug\L	98
40) Methylmethacrylate	8.82	69	6162	3.60 ug\L	95
41) Bromodichloromethane	9.07	83	46904	3.80 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	4216	3.58 ug\L #	89
43) cis-1,3-Dichloropropene	9.70	75	42870	3.73 ug\L	96
44) 4-Methyl-2-Pentanone	9.94	85	1616	3.51 ug\L #	1
47) Toluene	10.13	92	94191	4.03 ug\L	98
48) trans-1,3-Dichloropropene	10.52	75	32229	3.74 ug\L	98
49) Ethylmethacrylate	10.62	69	14996	3.70 ug\L	96
50) 1,1,2-Trichloroethane	10.79	83	12589	3.69 ug\L	95
51) Tetrachloroethene	10.88	164	42091	4.15 ug\L	97
52) 1,3-Dichloropropane	11.00	76	29182	4.03 ug\L	98
53) 2-Hexanone	11.12	43	4582	3.54 ug\L #	93
54) Dibromochloromethane	11.33	129	26470	3.77 ug\L	97
55) 1,2-Dibromoethane	11.46	107	16892	3.83 ug\L	99
56) Chlorobenzene	12.13	112	105929	4.09 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.26	131	39031	4.02 ug\L	97
58) Ethylbenzene	12.26	91	203401	4.04 ug\L	99
59) total-Xylene	12.43	106	210562m	12.04 ug\L #	
60) Styrene	13.02	104	103434	4.05 ug\L	99
62) Bromoform	13.32	173	12883	3.70 ug\L	100
63) Isopropylbenzene	13.49	105	210207	4.08 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	5802	4.22 ug\L	93
65) trans-1,4-dichloro-2-Buten	14.05	53	5802	3.96 ug\L #	43
67) Bromobenzene	13.94	156	38184	3.87 ug\L #	92
68) 1,1,2,2-Tetrachloroethane	13.98	83	14885	3.92 ug\L #	96
69) 1,2,3-Trichloropropane	14.05	75	18240	3.81 ug\L	98
70) n-Propylbenzene	14.05	91	246544	4.00 ug\L	99
71) 2-Chlorotoluene	14.18	91	142919	3.94 ug\L	98
72) 4-Chlorotoluene	14.34	91	167739	3.98 ug\L	99
73) 1,3,5-Trimethylbenzene	14.30	105	185633	4.01 ug\L	99
74) Pentachloroethane	14.81	167	25034	3.91 ug\L	95
75) tert-Butylbenzene	14.74	119	158062	4.05 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	184177	4.03 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

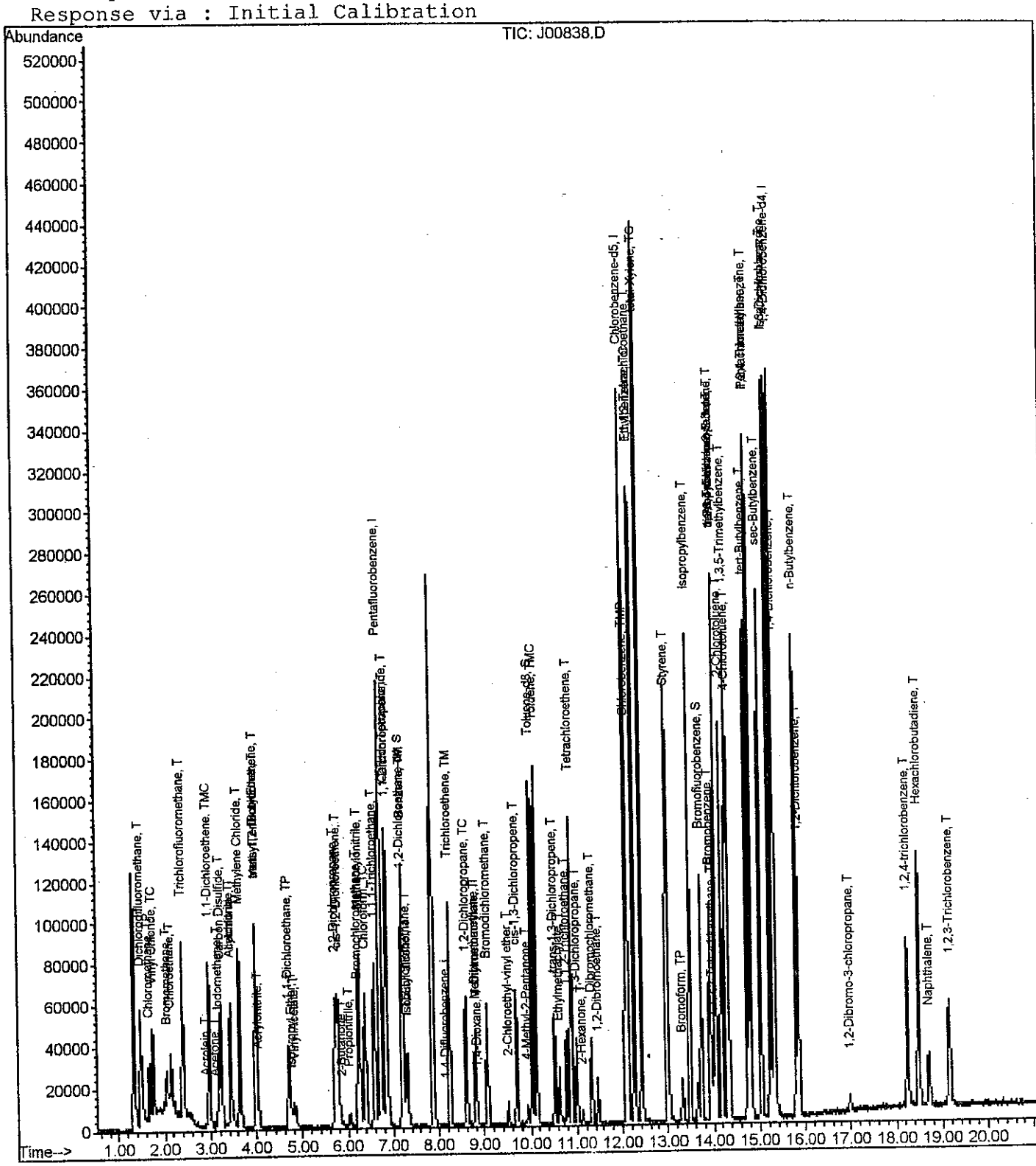
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	230202	3.98 ug\L	99
78) 1,3-Dichlorobenzene	15.23	146	81524	4.02 ug\L	96
79) Isopropyltoluene	15.24	119	191984	4.06 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	81338	3.99 ug\L	97
81) 1,2-Dichlorobenzene	15.87	146	62621	3.97 ug\L	99
82) n-Butylbenzene	15.81	91	172874	3.96 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.99	75	3119	4.09 ug\L	93
84) 1,2,4-trichlorobenzene	18.24	180	43387	3.92 ug\L	100
85) Hexachlorobutadiene	18.49	225	43531	4.38 ug\L	100
86) Naphthalene	18.71	128	42263	3.53 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	31804	3.89 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00838.D Vial: 2
Acq On : 08/06/01 10:48 Operator: JP/VRR/DAT
Sample : ICAL 4 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	201922	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	235398	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	118033	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	474	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	85055	10.01	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.10%			
46) Toluene-d8	10.03	98	348457	10.11	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.10%			
66) Bromofluorobenzene	13.73	95	131369	10.00	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	149435	9.69	ug\L	100
3) Chloromethane	1.67	50	73080	9.55	ug\L	98
4) Vinyl Chloride	1.75	62	102684	9.75	ug\L	100
5) Bromomethane	2.05	94	31233	9.84	ug\L	100
6) Chloroethane	2.15	64	57448	10.17	ug\L	100
7) Trichlorofluoromethane	2.40	101	198768	10.25	ug\L #	100
8) Acrolein	2.92	56	4604	18.08	ug\L #	100
9) Acrylonitrile	4.06	53	11794	19.36	ug\L	100
10) 1,1-Dichloroethene	2.98	96	90313	9.81	ug\L	100
11) Acetone	3.10	58	1481	9.32	ug\L	93
12) Iodomethane	3.18	142	126707	10.28	ug\L	100
13) Allylchloride	3.44	39	112982	10.20	ug\L	100
14) Carbon Disulfide	3.24	76	250721	9.43	ug\L	100
15) Acetonitrile	3.45	41	120839	102.29	ug\L	100
16) Methylene Chloride	3.64	86	57706	10.35	ug\L	100
17) trans-1,2-Dichloroethene	4.00	96	99024	10.02	ug\L	100
18) MethylTertButylEther	4.00	73	118748	9.99	ug\L	100
19) 1,1-Dichloroethane	4.71	63	147096	9.91	ug\L	100
20) Isopropyl Ether	4.79	45	15229	9.84	ug\L #	100
21) Vinyl Acetate	4.83	43	70469	9.49	ug\L	100
22) 2,2-Dichloropropane	5.73	77	176710	10.10	ug\L	100
23) cis-1,2-Dichloroethene	5.80	96	92802	9.84	ug\L	100
24) 2-Butanone	5.87	72	1578	8.36	ug\L #	100
25) Propionitrile	6.04	54	20397	100.28	ug\L	100
26) Methacrylonitrile	6.25	41	121263	102.00	ug\L	100
27) Bromochloromethane	6.22	128	33773	9.90	ug\L	100
28) Chloroform	6.38	83	185348	10.20	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	213173	10.17	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30) Carbon Tetrachloride	6.84	119	198115	10.09	ug\L		100
31) 1,4-Dioxane	8.86	88	3882	183.70	ug\L	#	100
32) 1,1-Dichloropropene	6.86	77	43542	10.37	ug\L		100
34) Benzene	7.21	78	323624	9.99	ug\L		100
35) Isobutyl alcohol	7.33	43	10273	183.03	ug\L	#	78
36) 1,2-Dichloroethane	7.31	62	98830	10.20	ug\L		100
37) Trichloroethene	8.24	95	114163	10.02	ug\L		100
38) 1,2-Dichloropropane	8.60	63	59552	9.84	ug\L		100
39) Dibromomethane	8.80	93	36760	10.29	ug\L		100
40) Methylmethacrylate	8.82	69	15930	9.88	ug\L		100
41) Bromodichloromethane	9.06	83	117560	10.11	ug\L		100
42) 2-Chloroethyl-vinyl ether	9.51	63	10536	9.49	ug\L		100
43) cis-1,3-Dichloropropene	9.70	75	110210	10.18	ug\L		100
44) 4-Methyl-2-Pentanone	9.93	85	3749	8.65	ug\L	#	1
47) Toluene	10.13	92	228147	10.24	ug\L		100
48) trans-1,3-Dichloropropene	10.52	75	85376	10.39	ug\L		100
49) Ethylmethacrylate	10.62	69	39820	10.30	ug\L		100
50) 1,1,2-Trichloroethane	10.78	83	32796	10.09	ug\L		100
51) Tetrachloroethene	10.88	164	99814	10.32	ug\L		100
52) 1,3-Dichloropropane	11.00	76	69262	10.05	ug\L		100
53) 2-Hexanone	11.13	43	10780	8.74	ug\L		99
54) Dibromochloromethane	11.33	129	67859	10.15	ug\L		100
55) 1,2-Dibromoethane	11.46	107	43281	10.28	ug\L		100
56) Chlorobenzene	12.13	112	248499	10.08	ug\L		100
57) 1,1,1,2-Tetrachloroethane	12.25	131	96633	10.45	ug\L		100
58) Ethylbenzene	12.27	91	490838	10.24	ug\L		100
59) total-Xylene	12.43	106	518556m	31.11	ug\L	#	
60) Styrene	13.02	104	256776	10.54	ug\L		100
62) Bromoform	13.32	173	33018	9.69	ug\L		100
63) Isopropylbenzene	13.48	105	505825	10.04	ug\L		100
64) cis-1,4-dichloro-2-Butene	14.05	53	14277	10.62	ug\L		97
65) trans-1,4-dichloro-2-Buten	14.05	53	14277	9.97	ug\L	#	48
67) Bromobenzene	13.93	156	99049	10.26	ug\L		100
68) 1,1,2,2-Tetrachloroethane	13.99	83	37851	10.19	ug\L		100
69) 1,2,3-Trichloropropane	14.04	75	46157	9.85	ug\L		100
70) n-Propylbenzene	14.05	91	608339	10.09	ug\L		100
71) 2-Chlorotoluene	14.18	91	358416	10.10	ug\L		99
72) 4-Chlorotoluene	14.34	91	419438	10.18	ug\L		100
73) 1,3,5-Trimethylbenzene	14.29	105	460711	10.18	ug\L		100
74) Pentachloroethane	14.81	167	65795	10.50	ug\L		100
75) tert-Butylbenzene	14.74	119	386667	10.12	ug\L		100
76) 1,2,4-Trimethylbenzene	14.82	105	453819	10.14	ug\L		100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

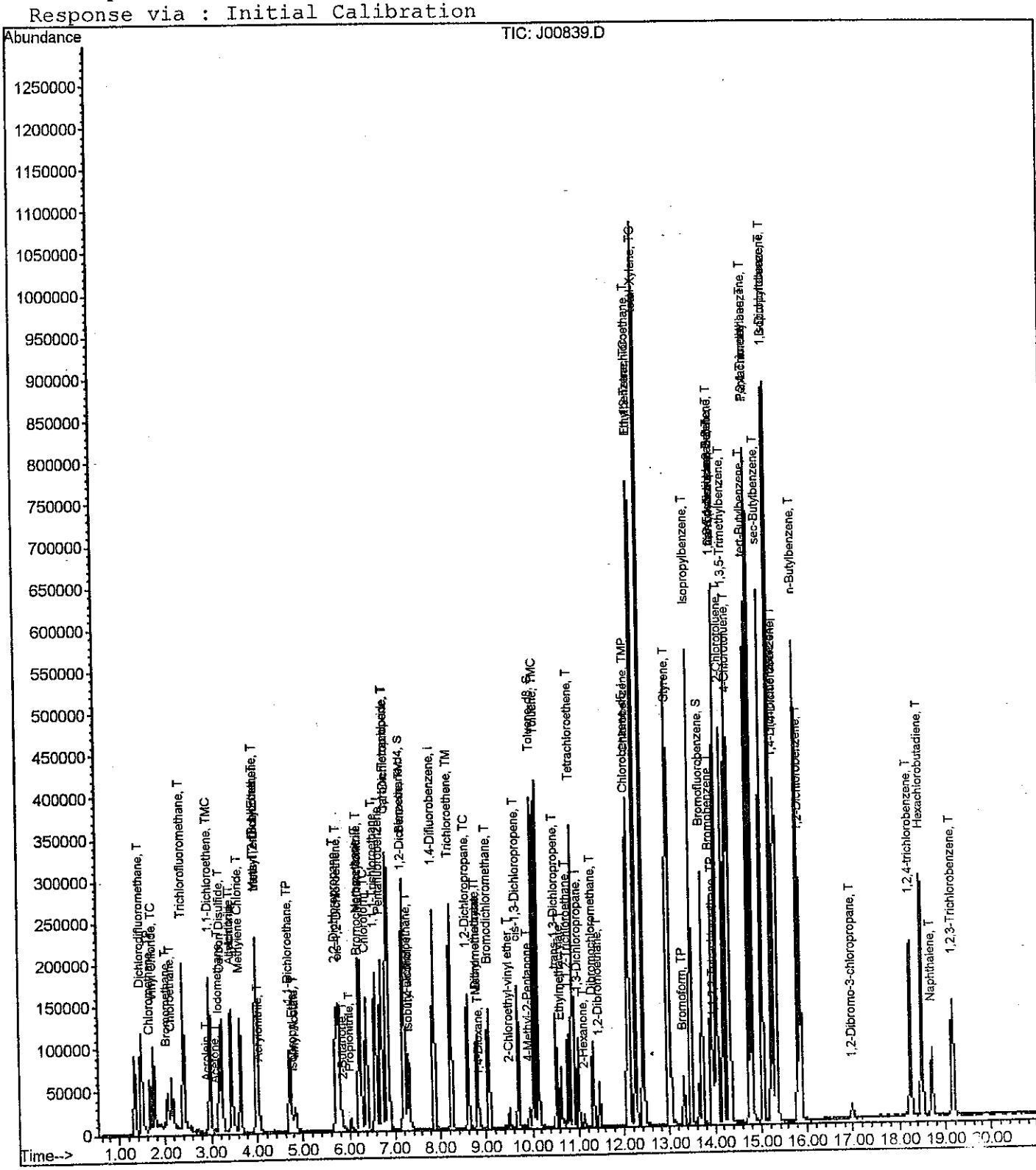
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.04	105	571426	10.09	ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	204190	10.30	ug\L	98
79) Isopropyltoluene	15.24	119	467090	10.09	ug\L	100
80) 1,4-Dichlorobenzene	15.35	146	197999	9.94	ug\L	100
81) 1,2-Dichlorobenzene	15.87	146	155458	10.07	ug\L	100
82) n-Butylbenzene	15.80	91	431971	10.12	ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7080	9.49	ug\L	100
84) 1,2,4-trichlorobenzene	18.24	180	110590	10.23	ug\L	100
85) Hexachlorobutadiene	18.48	225	100900	10.39	ug\L	100
86) Naphthalene	18.70	128	117222	10.01	ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	80572	10.08	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00839.D Vial: 3
Acq On : 08/06/01 11:13 Operator: JP/VRR/DAT
Sample : ICAL 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	209421	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.09	117	250420	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	122077	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	281	10.00	ug\L	-0.22
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	182510	20.71	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 207.10%#			
46) Toluene-d8	10.03	98	753850	20.56	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 205.60%#			
66) Bromofluorobenzene	13.73	95	283929	20.90	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 209.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.48	85	321467	20.10	ug\L	100
3) Chloromethane	1.66	50	151083	19.04	ug\L	98
4) Vinyl Chloride	1.75	62	213735	19.56	ug\L	98
5) Bromomethane	2.05	94	62319	18.93	ug\L	99
6) Chloroethane	2.14	64	117818	20.11	ug\L	97
7) Trichlorofluoromethane	2.40	101	412252	20.51	ug\L #	100
8) Acrolein	2.91	56	10150	38.43	ug\L #	86
9) Acrylonitrile	4.05	53	26956	42.67	ug\L	94
10) 1,1-Dichloroethene	2.97	96	189664	19.86	ug\L	99
11) Acetone	3.11	58	3685	22.36	ug\L	68
12) Iodomethane	3.18	142	290779	22.75	ug\L	99
13) Allylchloride	3.45	39	236060	20.54	ug\L	98
14) Carbon Disulfide	3.24	76	554079	20.09	ug\L	99
15) Acetonitrile	3.45	41	250033	204.08	ug\L	99
16) Methylene Chloride	3.64	86	106099	19.88	ug\L	99
17) trans-1,2-Dichloroethene	4.00	96	206306	20.12	ug\L	98
18) MethylTertButylEther	3.99	73	245575	19.92	ug\L	99
19) 1,1-Dichloroethane	4.71	63	310774	20.19	ug\L	99
20) Isopropyl Ether	4.79	45	30842	19.21	ug\L #	74
21) Vinyl Acetate	4.83	43	161546	20.98	ug\L	99
22) 2,2-Dichloropropane	5.73	77	364651	20.09	ug\L	99
23) cis-1,2-Dichloroethene	5.79	96	197233	20.17	ug\L	97
24) 2-Butanone	5.87	72	4331	19.94	ug\L #	100
25) Propionitrile	6.03	54	42719	202.50	ug\L	96
26) Methacrylonitrile	6.25	41	248316	201.38	ug\L	98
27) Bromochloromethane	6.22	128	71482	20.20	ug\L	98
28) Chloroform	6.38	83	384187	20.38	ug\L #	1
29) 1,1,1-Trichloroethane	6.58	97	444851	20.46	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	418970	20.57 ug\L	100
31) 1,4-Dioxane	8.85	88	8937	407.77 ug\L #	75
32) 1,1-Dichloropropene	6.86	77	90753	20.84 ug\L	97
34) Benzene	7.21	78	686987	20.45 ug\L	100
35) Isobutyl alcohol	7.33	43	22547	373.71 ug\L #	92
36) 1,2-Dichloroethane	7.31	62	204333	20.34 ug\L	99
37) Trichloroethene	8.24	95	243596	20.62 ug\L	99
38) 1,2-Dichloropropane	8.60	63	128532	20.48 ug\L	99
39) Dibromomethane	8.80	93	75637	20.42 ug\L	96
40) Methylmethacrylate	8.81	69	34722	20.77 ug\L	94
41) Bromodichloromethane	9.06	83	248414	20.61 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	24543	21.31 ug\L	99
43) cis-1,3-Dichloropropene	9.69	75	235018	20.94 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	9097	20.24 ug\L #	1
47) Toluene	10.13	92	485146	20.48 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	181095	20.72 ug\L	98
49) Ethylmethacrylate	10.62	69	84910	20.65 ug\L	98
50) 1,1,2-Trichloroethane	10.78	83	70117	20.27 ug\L	97
51) Tetrachloroethene	10.88	164	208383	20.25 ug\L	98
52) 1,3-Dichloropropane	11.00	76	148746	20.28 ug\L	99
53) 2-Hexanone	11.12	43	26850	20.47 ug\L	97
54) Dibromochloromethane	11.33	129	150637	21.17 ug\L	100
55) 1,2-Dibromoethane	11.46	107	90388	20.19 ug\L	99
56) Chlorobenzene	12.12	112	530931	20.24 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	203444	20.69 ug\L	99
58) Ethylbenzene	12.26	91	1050268	20.59 ug\L	100
59) total-Xylene	12.43	106	1092314m	61.59 ug\L #	
60) Styrene	13.02	104	550566	21.24 ug\L	100
62) Bromoform	13.32	173	74458	21.12 ug\L	99
63) Isopropylbenzene	13.48	105	1072114	20.57 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.05	53	31295	22.50 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.05	53	31295	21.12 ug\L #	45
67) Bromobenzene	13.93	156	211098	21.15 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.99	83	81628	21.25 ug\L	97
69) 1,2,3-Trichloropropane	14.03	75	99589	20.54 ug\L	99
70) n-Propylbenzene	14.05	91	1287982	20.66 ug\L	100
71) 2-Chlorotoluene	14.18	91	752694	20.51 ug\L	98
72) 4-Chlorotoluene	14.34	91	882636	20.71 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	973868	20.80 ug\L	100
74) Pentachloroethane	14.81	167	134377	20.74 ug\L	97
75) tert-Butylbenzene	14.74	119	814484	20.61 ug\L	100
76) 1,2,4-Trimethylbenzene	14.82	105	954111	20.62 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

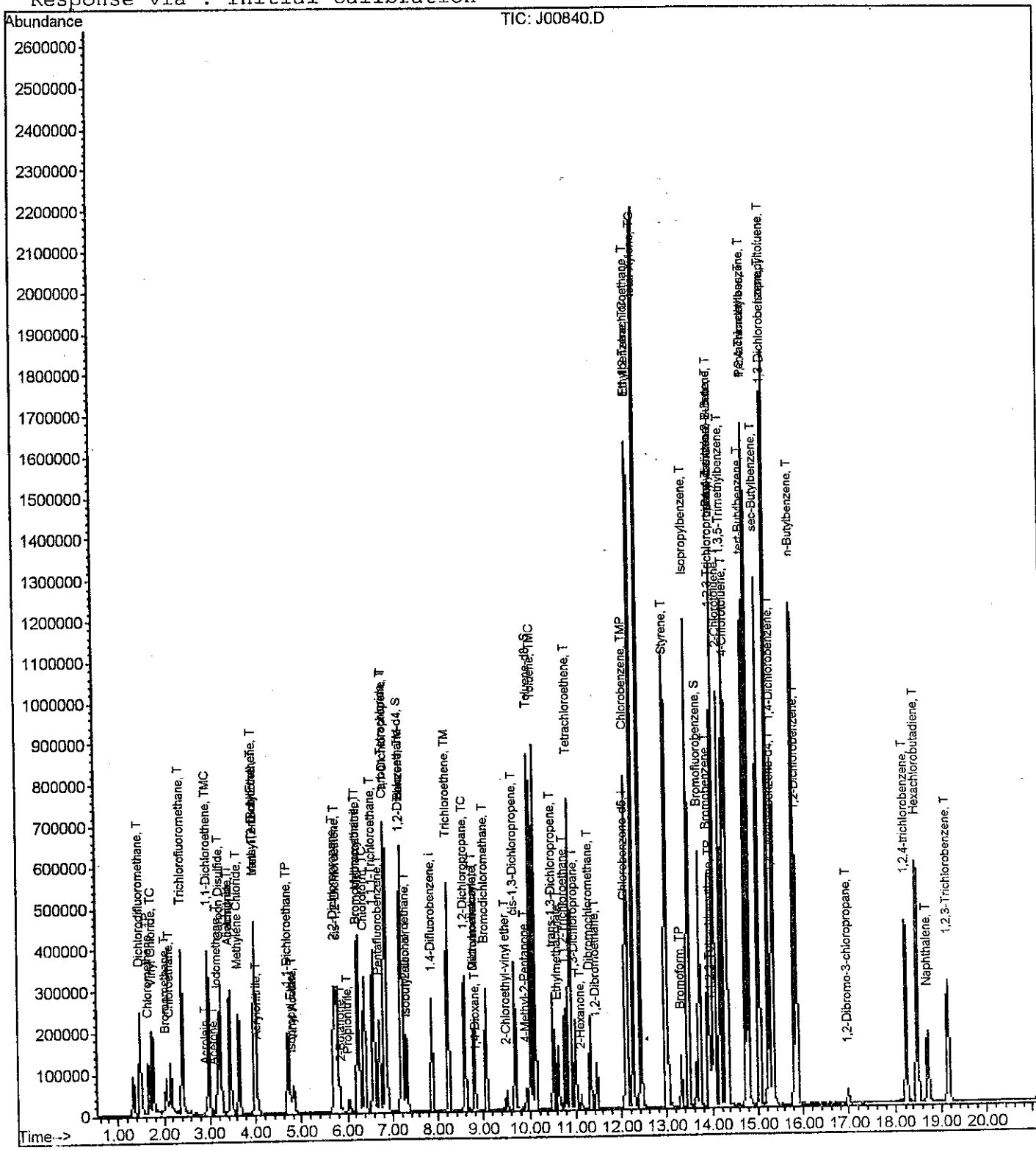
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.04	105	1212451	20.70 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	421222	20.55 ug\L	96
79) Isopropyltoluene	15.24	119	992368	20.73 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	411156	19.95 ug\L	99
81) 1,2-Dichlorobenzene	15.87	146	322633	20.21 ug\L	98
82) n-Butylbenzene	15.80	91	919856	20.84 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	14260	18.47 ug\L	86
84) 1,2,4-trichlorobenzene	18.24	180	232595	20.80 ug\L	100
85) Hexachlorobutadiene	18.48	225	209391	20.85 ug\L	100
86) Naphthalene	18.70	128	260452	21.51 ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	171000	20.68 ug\L	99

(#) = qualifier out of range (m) = manual integration
J00840.D 08060125.M Mon Aug 06 16:4[illegible]55 [illegible]01 Page [illegible]

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00840.D Vial: 4
Acq On : 08/06/01 11:39 Operator: JP/VRR/DAT
Sample : ICAL 20 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:40 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	228150	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	275102	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	132491	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.87	116	421	10.00	ug\L	-0.23
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	289312	30.13	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 301.30%#			
46) Toluene-d8	10.03	98	1195016	29.66	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 296.60%#			
66) Bromofluorobenzene	13.72	95	441958	29.97	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 299.70%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	491561	28.21	ug\L	100
3) Chloromethane	1.67	50	236367	27.34	ug\L	98
4) Vinyl Chloride	1.74	62	337526	28.35	ug\L	99
5) Bromomethane	2.04	94	102458	28.57	ug\L	83
6) Chloroethane	2.15	64	182075	28.53	ug\L	98
7) Trichlorofluoromethane	2.39	101	642815	29.35	ug\L #	100
8) Acrolein	2.91	56	16595	57.68	ug\L #	90
9) Acrylonitrile	4.05	53	40878	59.39	ug\L	99
10) 1,1-Dichloroethene	2.98	96	301695	29.00	ug\L	99
11) Acetone	3.10	58	5047	28.10	ug\L	97
12) Iodomethane	3.18	142	440095	31.61	ug\L	96
13) Allylchloride	3.45	39	373603	29.84	ug\L	99
14) Carbon Disulfide	3.24	76	855766	28.49	ug\L	100
15) Acetonitrile	3.45	41	397963	298.16	ug\L	99
16) Methylene Chloride	3.64	86	167807	29.76	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	327745	29.34	ug\L	99
18) MethylTertButylEther	3.99	73	406778	30.29	ug\L	100
19) 1,1-Dichloroethane	4.70	63	500096	29.83	ug\L	99
20) Isopropyl Ether	4.78	45	53169	30.40	ug\L #	23
21) Vinyl Acetate	4.83	43	257631	30.71	ug\L	100
22) 2,2-Dichloropropane	5.73	77	581182	29.39	ug\L	97
23) cis-1,2-Dichloroethene	5.79	96	312550	29.34	ug\L	97
24) 2-Butanone	5.88	72	7372	30.42	ug\L #	100
25) Propionitrile	6.04	54	72946	317.40	ug\L	98
26) Methacrylonitrile	6.25	41	399632	297.49	ug\L	98
27) Bromochloromethane	6.22	128	116884	30.32	ug\L	94
28) Chloroform	6.38	83	614493	29.92	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	704600	29.75	ug\L	99

(#) = qualifier out o range (m) = manual integration
J00841.D 08060125.M on Aug 06 16:41:04 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D
Acq On : 08/06/01 12:05
Sample : ICAL 30 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 5
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	659615	29.73 ug\L	98
31) 1,4-Dioxane	8.85	88	15503	649.28 ug\L #	67
32) 1,1-Dichloropropene	6.86	77	142531	30.05 ug\L	95
34) Benzene	7.21	78	1101272	30.09 ug\L	100
35) Isobutyl alcohol	7.33	43	39294	590.50 ug\L	88
36) 1,2-Dichloroethane	7.31	62	321030	29.33 ug\L	100
37) Trichloroethene	8.23	95	390312	30.32 ug\L	99
38) 1,2-Dichloropropane	8.60	63	209691	30.67 ug\L	99
39) Dibromomethane	8.80	93	122706	30.41 ug\L	98
40) Methylmethacrylate	8.82	69	59735	32.79 ug\L	98
41) Bromodichloromethane	9.06	83	398143	30.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.51	63	39267	31.30 ug\L	98
43) cis-1,3-Dichloropropene	9.70	75	377356	30.86 ug\L	99
44) 4-Methyl-2-Pentanone	9.93	85	15406	31.46 ug\L #	1
47) Toluene	10.13	92	772677	29.69 ug\L	99
48) trans-1,3-Dichloropropene	10.52	75	294117	30.63 ug\L	98
49) Ethylmethacrylate	10.62	69	143762	31.83 ug\L	99
50) 1,1,2-Trichloroethane	10.78	83	111359	29.31 ug\L	96
51) Tetrachloroethene	10.89	164	327047	28.93 ug\L	99
52) 1,3-Dichloropropane	11.00	76	237454	29.47 ug\L	100
53) 2-Hexanone	11.12	43	44352	30.78 ug\L	98
54) Dibromochloromethane	11.32	129	243349	31.13 ug\L	100
55) 1,2-Dibromoethane	11.46	107	150308	30.56 ug\L	97
56) Chlorobenzene	12.12	112	855952	29.70 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.25	131	319261	29.55 ug\L	97
58) Ethylbenzene	12.26	91	1678406	29.95 ug\L	100
59) total-Xylene	12.43	106	1744747m	89.55 ug\L #	
60) Styrene	13.01	104	897316	31.51 ug\L	98
62) Bromoform	13.32	173	121354	31.72 ug\L	99
63) Isopropylbenzene	13.48	105	1693119	29.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.05	53	51009	33.79 ug\L	90
65) trans-1,4-dichloro-2-Buten	14.05	53	51009	31.72 ug\L #	39
67) Bromobenzene	13.93	156	328377	30.31 ug\L	96
68) 1,1,2,2-Tetrachloroethane	13.98	83	128342	30.78 ug\L	95
69) 1,2,3-Trichloropropane	14.04	75	160548	30.51 ug\L	95
70) n-Propylbenzene	14.05	91	2042742	30.20 ug\L	100
71) 2-Chlorotoluene	14.19	91	1187401	29.81 ug\L	98
72) 4-Chlorotoluene	14.34	91	1387227	29.99 ug\L	100
73) 1,3,5-Trimethylbenzene	14.30	105	1542146	30.35 ug\L	100
74) Pentachloroethane	14.81	167	215082	30.59 ug\L	97
75) tert-Butylbenzene	14.74	119	1296474	30.23 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	1498427	29.84 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

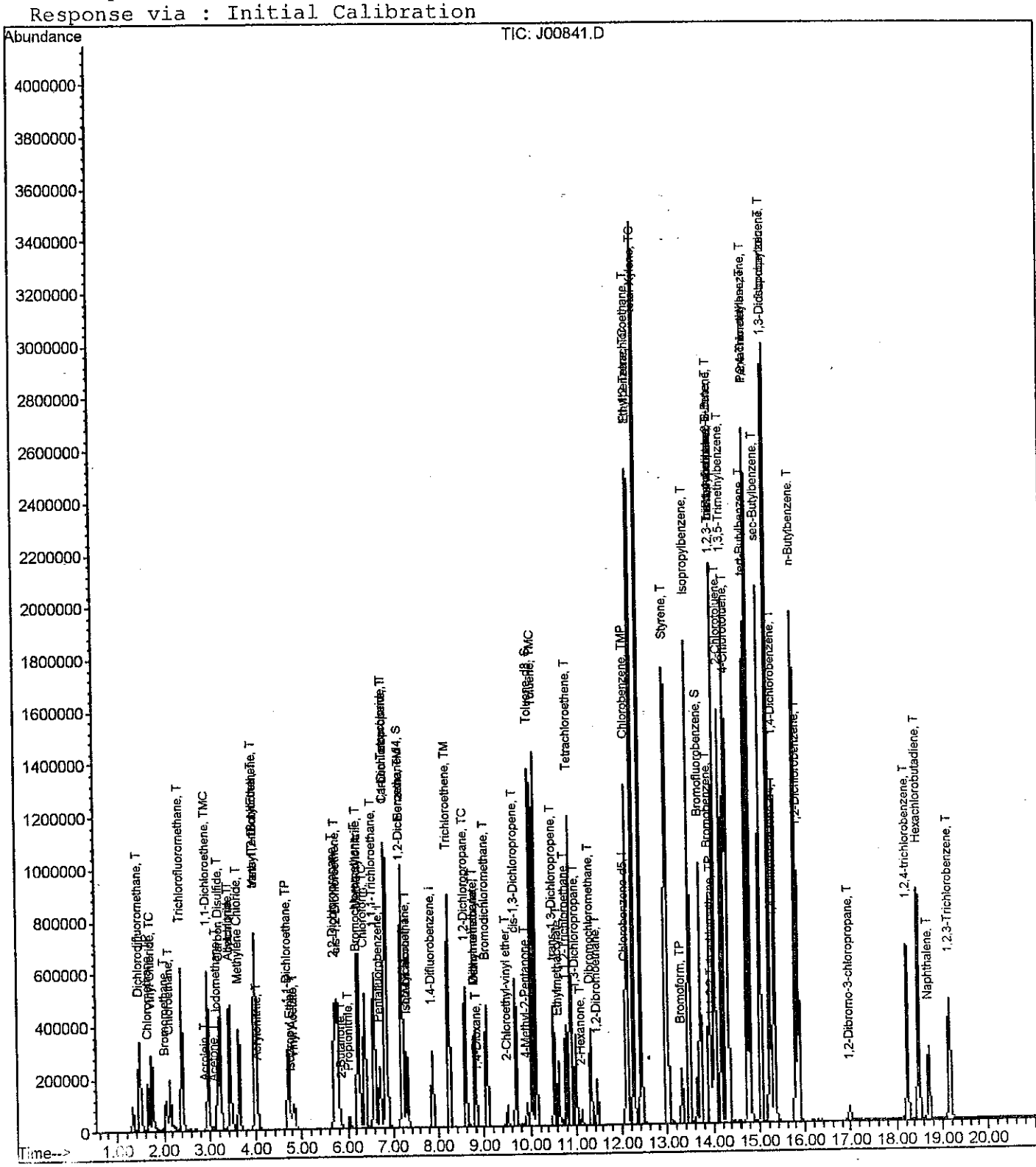
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.04	105	1910656	30.05	ug\L		100
78) 1,3-Dichlorobenzene	15.22	146	674357	30.32	ug\L		98
79) Isopropyltoluene	15.24	119	1560231	30.03	ug\L		100
80) 1,4-Dichlorobenzene	15.35	146	652092	29.16	ug\L		98
81) 1,2-Dichlorobenzene	15.87	146	518139	29.90	ug\L		99
82) n-Butylbenzene	15.81	91	1460079	30.47	ug\L		100
83) 1,2-Dibromo-3-chloropropan	16.98	75	22579	26.95	ug\L	#	82
84) 1,2,4-trichlorobenzene	18.24	180	356537	29.37	ug\L		100
85) Hexachlorobutadiene	18.48	225	307516	28.21	ug\L		100
86) Naphthalene	18.70	128	420803	32.02	ug\L		100
87) 1,2,3-Trichlorobenzene	19.16	180	270049	30.10	ug\L		99

(#) = qualifier out of range (m) = manual integration
J00841.D C 060125.M Mon Aug 06 16:41 05 2001 Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00841.D Vial: 5
Acq On : 08/06/01 12:05 Operator: JP/VRR/DAT
Sample : ICAL 30 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.72	168	236977	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.10	117	283507	10.00	ug\L	0.01
61) 1,4-Dichlorobenzene-d4	15.33	152	126023	10.00	ug\L	0.02
88) 1.4-Difluorobenzene	7.87	116	380	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.19	65	385440	38.65	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 386.50%#			
46) Toluene-d8	10.05	98	1614379	38.88	ug\L	0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 388.80%#			
66) Bromofluorobenzene	13.74	95	529059	37.72	ug\L	0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 377.20%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	692564	38.27	ug\L	99
3) Chloromethane	1.66	50	312292	34.78	ug\L	94
4) Vinyl Chloride	1.75	62	468705	37.90	ug\L	99
5) Bromomethane	2.05	94	138965	37.31	ug\L	85
6) Chloroethane	2.14	64	249551	37.64	ug\L	99
7) Trichlorofluoromethane	2.39	101	846276	37.20	ug\L #	100
8) Acrolein	2.91	56	22585	75.58	ug\L #	89
9) Acrylonitrile	4.05	53	56343	78.81	ug\L #	94
10) 1,1-Dichloroethene	2.97	96	409885	37.93	ug\L	100
11) Acetone	3.11	58	6573	35.24	ug\L	95
12) Iodomethane	3.18	142	612141	42.33	ug\L	96
13) Allylchloride	3.44	39	514739	39.58	ug\L	98
14) Carbon Disulfide	3.24	76	1179036	37.79	ug\L	99
15) Acetonitrile	3.45	41	537021	387.36	ug\L	97
16) Methylene Chloride	3.64	86	230823	40.05	ug\L	98
17) trans-1,2-Dichloroethene	4.00	96	440624	37.97	ug\L	97
18) MethylTertButylEther	3.98	73	563877	40.43	ug\L	99
19) 1,1-Dichloroethane	4.71	63	683438	39.24	ug\L	99
20) Isopropyl Ether	4.78	45	74635	41.09	ug\L #	27
21) Vinyl Acetate	4.83	43	364053	41.77	ug\L	99
22) 2,2-Dichloropropane	5.73	77	776884	37.83	ug\L	96
23) cis-1,2-Dichloroethene	5.79	96	430587	38.92	ug\L	97
24) 2-Butanone	5.88	72	10204	40.10	ug\L #	100
25) Propionitrile	6.05	54	100038	419.07	ug\L	98
26) Methacrylonitrile	6.25	41	558385	400.19	ug\L	97
27) Bromochloromethane	6.22	128	154414	38.56	ug\L	98
28) Chloroform	6.39	83	828379	38.83	ug\L #	1
29) 1,1,1-Trichloroethane	6.59	97	956613	38.89	ug\L	9[illegible]

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D
Acq On : 08/06/01 12:30
Sample : ICAL 40 PPb (V01083,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001

Vial: 6
Operator: JP/VRR/DAT
Inst : HP-MSJ
Multiplr: 1.00
Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.84	119	895735	38.86 ug\L	100
31) 1,4-Dioxane	8.86	88	20699	834.61 ug\L #	68
32) 1,1-Dichloropropene	6.87	77	195288	39.63 ug\L	95
34) Benzene	7.21	78	1513451	39.82 ug\L	100
35) Isobutyl alcohol	7.33	43	56629	814.58 ug\L	95
36) 1,2-Dichloroethane	7.32	62	449661	39.56 ug\L	100
37) Trichloroethene	8.25	95	533085	39.87 ug\L	99
38) 1,2-Dichloropropane	8.62	63	285359	40.18 ug\L	99
39) Dibromomethane	8.82	93	169143	40.36 ug\L	99
40) Methylmethacrylate	8.83	69	83734	44.26 ug\L	97
41) Bromodichloromethane	9.07	83	558222	40.92 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.52	63	51039	39.17 ug\L	95
43) cis-1,3-Dichloropropene	9.70	75	529866	41.71 ug\L	99
44) 4-Methyl-2-Pentanone	9.95	85	21934	43.12 ug\L #	1
47) Toluene	10.14	92	1050622	39.17 ug\L	100
48) trans-1,3-Dichloropropene	10.53	75	408043	41.23 ug\L	99
49) Ethylmethacrylate	10.64	69	205861	44.23 ug\L	98
50) 1,1,2-Trichloroethane	10.79	83	156378	39.94 ug\L	97
51) Tetrachloroethene	10.90	164	449566	38.58 ug\L	98
52) 1,3-Dichloropropane	11.02	76	337307	40.62 ug\L	98
53) 2-Hexanone	11.14	43	61503	41.41 ug\L	99
54) Dibromochloromethane	11.34	129	338783	42.05 ug\L	98
55) 1,2-Dibromoethane	11.48	107	208182	41.07 ug\L	98
56) Chlorobenzene	12.14	112	1144230	38.52 ug\L	99
57) 1,1,1,2-Tetrachloroethane	12.27	131	439758	39.50 ug\L	99
58) Ethylbenzene	12.28	91	2233211	38.67 ug\L	100
59) total-Xylene	12.44	106	2279293m	113.52 ug\L #	
60) Styrene	13.03	104	1100246	37.49 ug\L	97
62) Bromoform	13.33	173	156316	42.95 ug\L	99
63) Isopropylbenzene	13.50	105	2094320	38.93 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.06	53	62865	43.78 ug\L	91
65) trans-1,4-dichloro-2-Buten	14.06	53	62865	41.10 ug\L #	39
67) Bromobenzene	13.94	156	407509	39.55 ug\L	98
68) 1,1,2,2-Tetrachloroethane	14.00	83	159651	40.25 ug\L	96
69) 1,2,3-Trichloropropane	14.05	75	201442	40.25 ug\L	93
70) n-Propylbenzene	14.06	91	2503911	38.91 ug\L	100
71) 2-Chlorotoluene	14.20	91	1464559	38.66 ug\L	98
72) 4-Chlorotoluene	14.35	91	1683484	38.26 ug\L	99
73) 1,3,5-Trimethylbenzene	14.31	105	1866159	38.61 ug\L	100
74) Pentachloroethane	14.82	167	260835	39.00 ug\L	98
75) tert-Butylbenzene	14.76	119	1567887	38.44 ug\L	100
76) 1,2,4-Trimethylbenzene	14.83	105	1832348	38.36 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

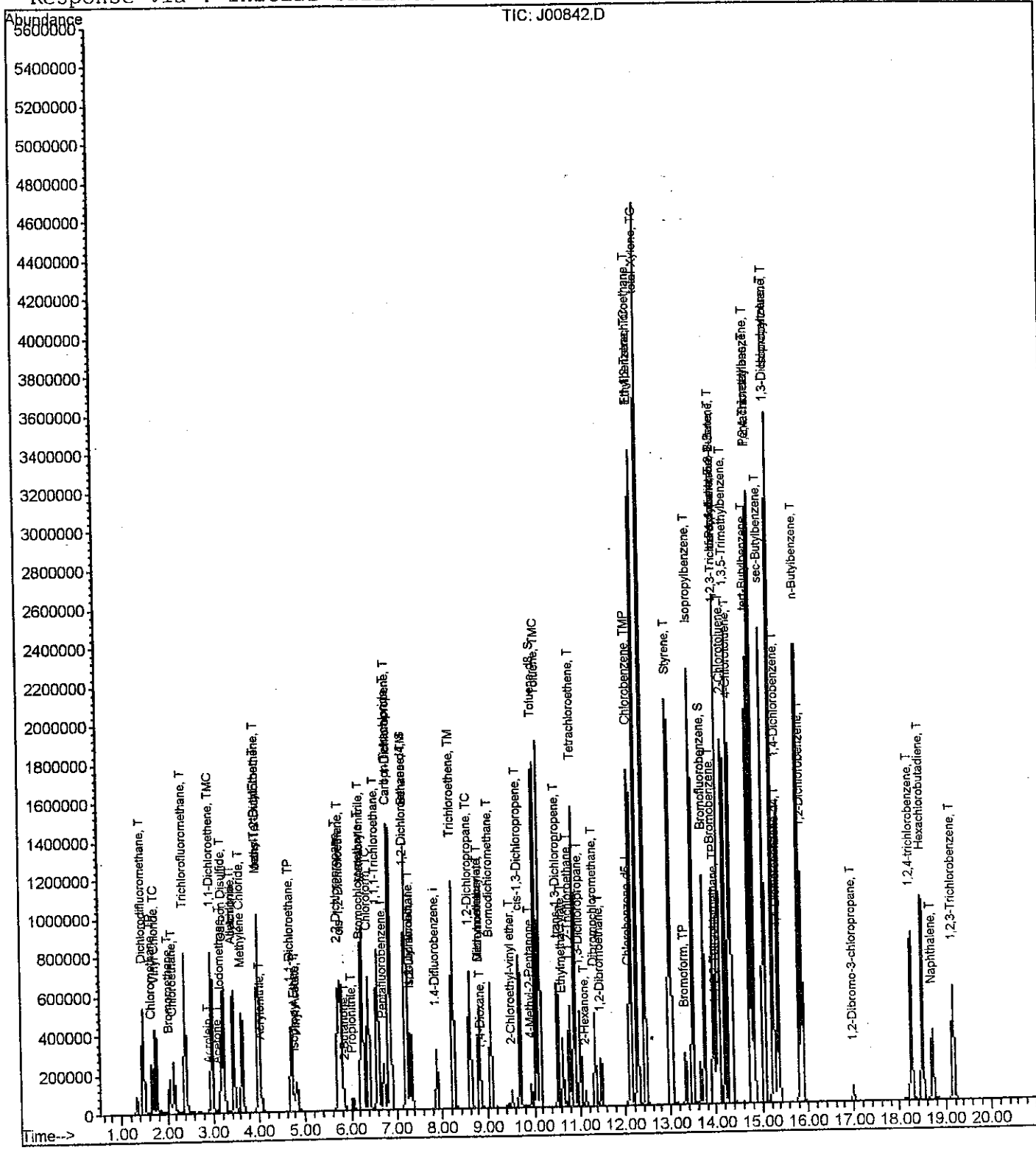
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77) sec-Butylbenzene	15.06	105	2334501	38.61	ug\L		99
78) 1,3-Dichlorobenzene	15.24	146	817537	38.64	ug\L		97
79) Isopropyltoluene	15.26	119	1904586	38.54	ug\L		99
80) 1,4-Dichlorobenzene	15.36	146	812646	38.20	ug\L		99
81) 1,2-Dichlorobenzene	15.89	146	647087	39.26	ug\L		99
82) n-Butylbenzene	15.82	91	1791846	39.32	ug\L		99
83) 1,2-Dibromo-3-chloropropan	16.99	75	29998	37.65	ug\L	#	84
84) 1,2,4-trichlorobenzene	18.25	180	451116	39.07	ug\L		100
85) Hexachlorobutadiene	18.50	225	377795	36.44	ug\L		100
86) Naphthalene	18.71	128	533546	42.69	ug\L		100
87) 1,2,3-Trichlorobenzene	19.18	180	331858	38.89	ug\L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00842.D Vial: 6
Acq On : 08/06/01 12:30 Operator: JP/VRR/DAT
Sample : ICAL 40 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:41 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:55:52 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.69	168	236749	10.00	ug\L		-0.02
45) Chlorobenzene-d5	12.08	117	271920	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	136085	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	8.11	116	46	10.00	ug\L		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.17	65	102936	10.33	ug\L		-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.30%				
46) Toluene-d8	10.02	98	402158	10.10	ug\L		-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.00%				
66) Bromofluorobenzene	13.72	95	149700	9.88	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 98.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	185478	10.26	ug\L		99
3) Chloromethane	1.66	50	89700	10.00	ug\L		97
4) Vinyl Chloride	1.74	62	126218	10.22	ug\L		100
5) Bromomethane	2.04	94	30971m	8.32	ug\L		
6) Chloroethane	2.13	64	67507	10.19	ug\L		100
7) Trichlorofluoromethane	2.38	101	221851	9.76	ug\L	#	100
8) Acrolein	2.90	56	5935	19.88	ug\L	#	90
9) Acrylonitrile	4.03	53	15303	21.43	ug\L		95
10) 1,1-Dichloroethene	2.96	96	110481	10.23	ug\L		95
11) Acetone	3.10	58	2424	13.01	ug\L	#	59
12) Iodomethane	3.17	142	144562	10.01	ug\L		97
13) Allylchloride	3.43	39	128977	9.93	ug\L		100
14) Carbon Disulfide	3.22	76	306632	9.84	ug\L		100
15) Acetonitrile	3.43	41	138391	99.92	ug\L		99
16) Methylene Chloride	3.63	86	61183	9.17	ug\L		98
17) trans-1,2-Dichloroethene	3.98	96	117661	10.15	ug\L		99
18) MethylTertButylEther	3.97	73	149459	10.73	ug\L		100
19) 1,1-Dichloroethane	4.70	63	170375	9.79	ug\L		99
20) Isopropyl Ether	4.77	45	18664m	10.28	ug\L		
21) Vinyl Acetate	4.80	43	89745	10.31	ug\L		97
22) 2,2-Dichloropropane	5.71	77	204482	9.97	ug\L		99
23) cis-1,2-Dichloroethene	5.77	96	110680	10.01	ug\L		97
24) 2-Butanone	5.86	72	2653m	11.41	ug\L		
25) Propionitrile	6.01	54	26079	109.35	ug\L		97
26) Methacrylonitrile	6.22	41	146128	104.83	ug\L		98
27) Bromochloromethane	6.20	128	41465	10.36	ug\L		98
28) Chloroform	6.36	83	214507	10.06	ug\L	#	1
29) 1,1,1-Trichloroethane	6.57	97	241792	9.84	ug\L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	226500	9.84 ug\L	99
31) 1,4-Dioxane	8.84	88	5614	226.58 ug\L #	72
32) 1,1-Dichloropropene	6.85	77	48923	9.94 ug\L	93
34) Benzene	7.19	78	380136	10.01 ug\L	100
35) Isobutyl alcohol	7.31	43	13593	204.98 ug\L #	85
36) 1,2-Dichloroethane	7.29	62	117398	10.34 ug\L	99
37) Trichloroethene	8.22	95	131207	9.82 ug\L	99
38) 1,2-Dichloropropane	8.58	63	67927	9.57 ug\L	99
39) Dibromomethane	8.79	93	41892	10.01 ug\L	95
40) Methylmethacrylate	8.80	69	20795	11.00 ug\L	98
41) Bromodichloromethane	9.04	83	139253	10.22 ug\L	98
42) 2-Chloroethyl-vinyl ether	9.50	63	13572	10.43 ug\L	96
43) cis-1,3-Dichloropropene	9.68	75	127539	10.05 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	4814	9.47 ug\L #	1
47) Toluene	10.11	92	254492	9.89 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	98236	10.35 ug\L	97
49) Ethylmethacrylate	10.61	69	46882	10.50 ug\L	98
50) 1,1,2-Trichloroethane	10.77	83	39079	10.41 ug\L	97
51) Tetrachloroethene	10.87	164	112026	10.02 ug\L	99
52) 1,3-Dichloropropane	10.99	76	83613	10.50 ug\L	97
53) 2-Hexanone	11.11	43	14740	10.35 ug\L	98
54) Dibromochloromethane	11.32	129	82748	10.71 ug\L	98
55) 1,2-Dibromoethane	11.45	107	51404	10.57 ug\L	97
56) Chlorobenzene	12.11	112	285350	10.02 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.24	131	110222	10.32 ug\L	99
58) Ethylbenzene	12.25	91	557285	10.06 ug\L	99
59) total-Xylene	12.42	106	572541m	29.73 ug\L #	
60) Styrene	13.01	104	292603	10.40 ug\L	99
62) Bromoform	13.31	173	38751	9.86 ug\L	99
63) Isopropylbenzene	13.47	105	568522	9.79 ug\L	100
64) cis-1,4-dichloro-2-Butene	14.04	53	16816	10.85 ug\L	95
65) trans-1,4-dichloro-2-Buten	14.04	53	16816	10.18 ug\L #	44
67) Bromobenzene	13.92	156	111009	9.98 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.98	83	44964	10.50 ug\L	98
69) 1,2,3-Trichloropropane	14.02	75	55094	10.19 ug\L	96
70) n-Propylbenzene	14.04	91	672093	9.67 ug\L	99
71) 2-Chlorotoluene	14.17	91	393728	9.62 ug\L	99
72) 4-Chlorotoluene	14.33	91	468656	9.86 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	500390	9.59 ug\L	99
74) Pentachloroethane	14.80	167	73416	10.16 ug\L	99
75) tert-Butylbenzene	14.73	119	427537	9.71 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	508226	9.85 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

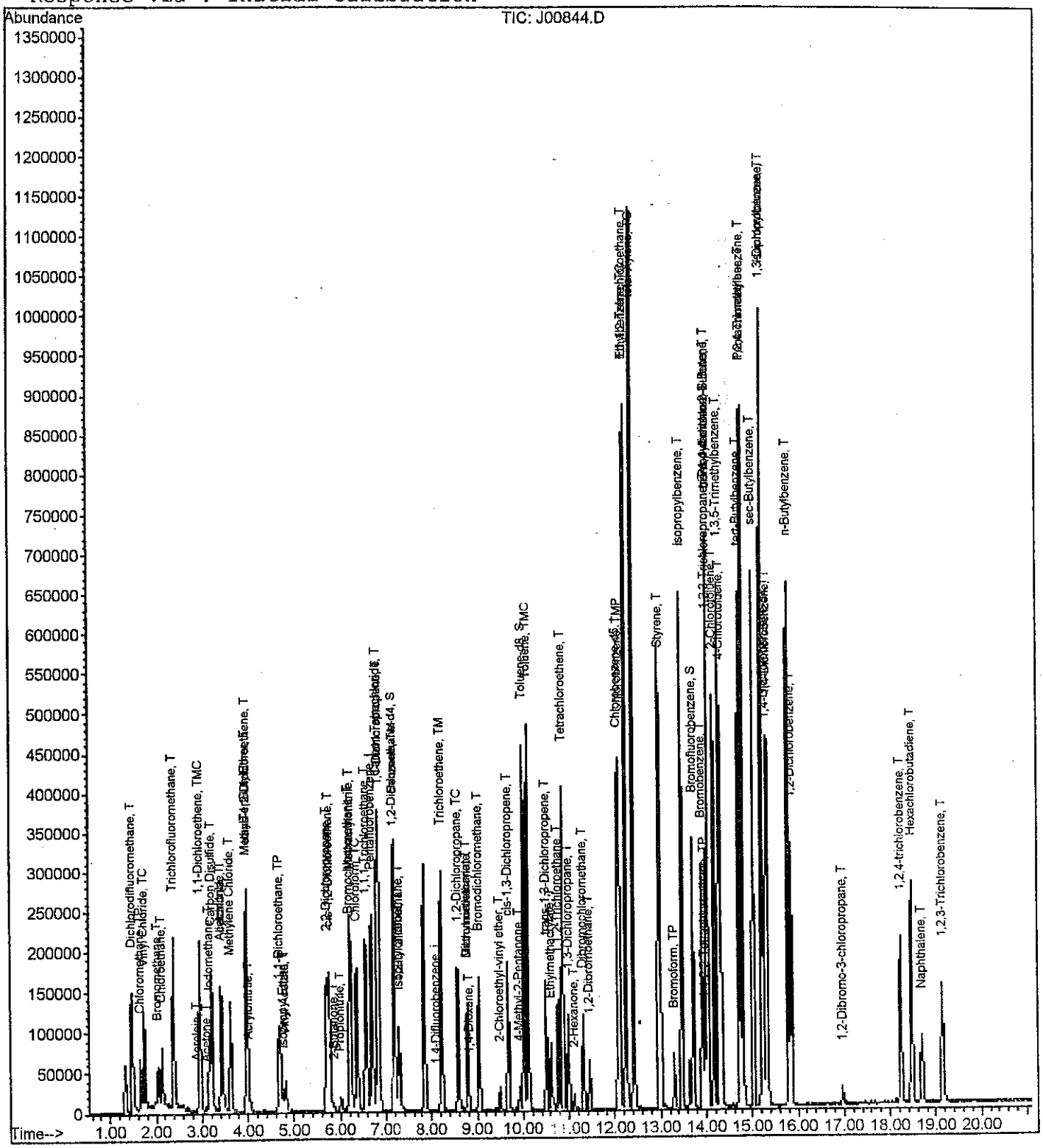
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	635434	9.73 ug\L	100
78) 1,3-Dichlorobenzene	15.21	146	227582	9.96 ug\L	98
79) Isopropyltoluene	15.23	119	521726	9.78 ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	224040	9.75 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	176920	9.94 ug\L	99
82) n-Butylbenzene	15.80	91	488303	9.92 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.98	75	7984	9.28 ug\L	89
84) 1,2,4-trichlorobenzene	18.23	180	112061	8.99 ug\L	100
85) Hexachlorobutadiene	18.48	225	97843	8.74 ug\L	100
86) Naphthalene	18.69	128	121746	9.02 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	83493	9.06 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 16:44 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	117	-0.02
2	T	Dichlorodifluoromethane	0.764	0.783	-2.5	124	0.00
3	TP	Chloromethane	0.379	0.379	0.0	119	0.00
4	TC	Vinyl Chloride	0.522	0.533	-2.1	123	0.00
5	T	Bromomethane	0.157	0.131	16.6	99	0.00
6	T	Chloroethane	0.280	0.285	-1.8	118	-0.02
7	T	Trichlorofluoromethane	0.960	0.937	2.4	112	-0.02
8	T	Acrolein	0.013	0.013	0.0	129	-0.02
9	T	Acrylonitrile	0.030	0.032	-6.7	130	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.467	-2.4	122	-0.02
11	T	Acetone	0.008	0.010	-25.0	157#	0.00
12	T	Iodomethane	0.610	0.611	-0.2	114	-0.01
13	T	Allylchloride	0.549	0.545	0.7	114	0.00
14	T	Carbon Disulfide	1.317	1.295	1.7	122	-0.02
15	T	Acetonitrile	0.059	0.058	1.7	115	-0.02
16	T	Methylene Chloride	0.304	0.258	15.1	106	-0.02
17	T	trans-1,2-Dichloroethene	0.490	0.497	-1.4	119	-0.02
18	T	MethylTertButylEther	0.589	0.631	-7.1	126	-0.03
19	TP	1,1-Dichloroethane	0.735	0.720	2.0	116	-0.02
20	T	Isopropyl Ether	0.077	0.079	-2.6	123	-0.02
21	T	Vinyl Acetate	0.368	0.379	-3.0	126	-0.02
22	T	2,2-Dichloropropane	0.867	0.864	0.3	116	-0.02
23	T	cis-1,2-Dichloroethene	0.467	0.467	0.0	119	-0.03
24	T	2-Butanone	0.010	0.011	-10.0	168#	0.00
25	T	Propionitrile	0.010	0.011	-10.0	128	-0.03
26	T	Methacrylonitrile	0.059	0.062	-5.1	121	-0.02
27	T	Bromochloromethane	0.169	0.175	-3.6	123	-0.02
28	TC	Chloroform	0.900	0.906	-0.7	115	-0.02
29	T	1,1,1-Trichloroethane	1.038	1.021	1.6	113	-0.02
30	T	Carbon Tetrachloride	0.973	0.957	1.6	114	-0.02
31	T	1,4-Dioxane	0.001	0.001	0.0	145	-0.02
32	T	1,1-Dichloropropene	0.208	0.207	0.5	112	-0.02
33	S	1,2-Dichloroethane-d4	0.421	0.435	-3.3	121	-0.02
34	TM	Benzene	1.604	1.606	-0.1	117	-0.02
35	T	Isobutyl alcohol	0.003	0.003	0.0	105	-0.03
36	T	1,2-Dichloroethane	0.480	0.496	-3.3	119	-0.02
37	TM	Trichloroethene	0.564	0.554	1.8	115	-0.02
38	TC	1,2-Dichloropropane	0.300	0.287	4.3	114	-0.02
39	T	Dibromomethane	0.177	0.177	0.0	114	0.00
40	T	Methylmethacrylate	0.080	0.088	-10.0	131	-0.02
41	T	Bromodichloromethane	0.576	0.588	-2.1	118	-0.02
42	T	2-Chloroethyl-vinyl ether	0.055	0.057	-3.6	129	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D
Acq On : 08/06/01 16:13
Sample : ICV 10 PPb (V01082,V01073)
Misc : WATER 25ml
MS Integration Params: rteint.p

Vial: 8
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 T	cis-1,3-Dichloropropene	0.536	0.539	-0.6	116	-0.02
44 T	4-Methyl-2-Pentanone	0.021	0.020	4.8	128	-0.01
45 I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
46 S	Toluene-d8	1.464	1.479	-1.0	115	-0.02
47 TMC	Toluene	0.946	0.936	1.1	112	-0.02
48 T	trans-1,3-Dichloropropene	0.349	0.361	-3.4	115	-0.02
49 T	Ethylmethacrylate	0.164	0.172	-4.9	118	0.00
50 T	1,1,2-Trichloroethane	0.138	0.144	-4.3	119	0.00
51 T	Tetrachloroethene	0.411	0.412	-0.2	112	0.00
52 T	1,3-Dichloropropane	0.293	0.307	-4.8	121	0.00
53 T	2-Hexanone	0.052	0.054	-3.8	135	-0.02
54 T	Dibromochloromethane	0.284	0.304	-7.0	122	0.00
55 T	1,2-Dibromoethane	0.179	0.189	-5.6	119	0.00
56 TMP	Chlorobenzene	1.048	1.049	-0.1	115	-0.02
57 T	1,1,1,2-Tetrachloroethane	0.393	0.405	-3.1	114	0.00
58 TC	Ethylbenzene	2.037	2.049	-0.6	114	-0.02
59 TG	total-Xylene	0.708	0.702	0.8	110	0.00
60 T	Styrene	1.035	1.076	-4.0	114	0.00
61 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00
62 TP	Bromoform	0.289	0.285	1.4	117	0.00
63 T	Isopropylbenzene	4.269	4.178	2.1	112	0.00
64 T	cis-1,4-dichloro-2-Butene	0.114	0.124	-8.8	120	0.39
65 T	trans-1,4-dichloro-2-Butene	0.121	0.124	-2.5	118	0.00
66 S	Bromofluorobenzene	1.113	1.100	1.2	114	0.00
67 T	Bromobenzene	0.818	0.816	0.2	112	0.00
68 TP	1,1,2,2-Tetrachloroethane	0.315	0.330	-4.8	119	0.00
69 T	1,2,3-Trichloropropane	0.397	0.405	-2.0	119	-0.02
70 T	n-Propylbenzene	5.106	4.939	3.3	110	0.00
71 T	2-Chlorotoluene	3.006	2.893	3.8	109	0.00
72 T	4-Chlorotoluene	3.492	3.444	1.4	112	0.00
73 T	1,3,5-Trimethylbenzene	3.836	3.677	4.1	109	0.00
74 T	Pentachloroethane	0.531	0.539	-1.5	112	0.00
75 T	tert-Butylbenzene	3.237	3.142	2.9	111	0.00
76 T	1,2,4-Trimethylbenzene	3.790	3.735	1.5	112	0.00
77 T	sec-Butylbenzene	4.798	4.669	2.7	111	0.00
78 T	1,3-Dichlorobenzene	1.679	1.672	0.4	112	0.00
79 T	Isopropyltoluene	3.921	3.834	2.2	112	-0.02
80 T	1,4-Dichlorobenzene	1.688	1.646	2.5	113	0.00
81 T	1,2-Dichlorobenzene	1.308	1.300	0.6	114	0.00
82 T	n-Butylbenzene	3.616	3.588	0.8	113	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00844.D Vial: 8
Acq On : 08/06/01 16:13 Operator:
Sample : ICV 10 PPb (V01082,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83 T	1,2-Dibromo-3-chloropropane	0.063	0.059	6.3	113	0.00
84 T	1,2,4-trichlorobenzene	0.916	0.823	10.2	101	0.00
85 T	Hexachlorobutadiene	0.823	0.719	12.6	97	0.00
86 T	Naphthalene	0.992	0.895	9.8	104	0.00
87 T	1,2,3-Trichlorobenzene	0.677	0.614	9.3	104	-0.02
88 i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D Vial: 9
Acq On : 08/06/01 16:55 Operator:
Sample : 1J080601MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	236342	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	251650	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.32	152	112805	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	93778	9.43	ug\L	-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.30%			
46) Toluene-d8	10.02	98	378738	10.28	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 102.80%			
66) Bromofluorobenzene	13.72	95	130835	10.42	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 104.20%			

Target Compounds Qvalue

VLR
8-7-01

(* = qualifier out of range (m) = manual integration

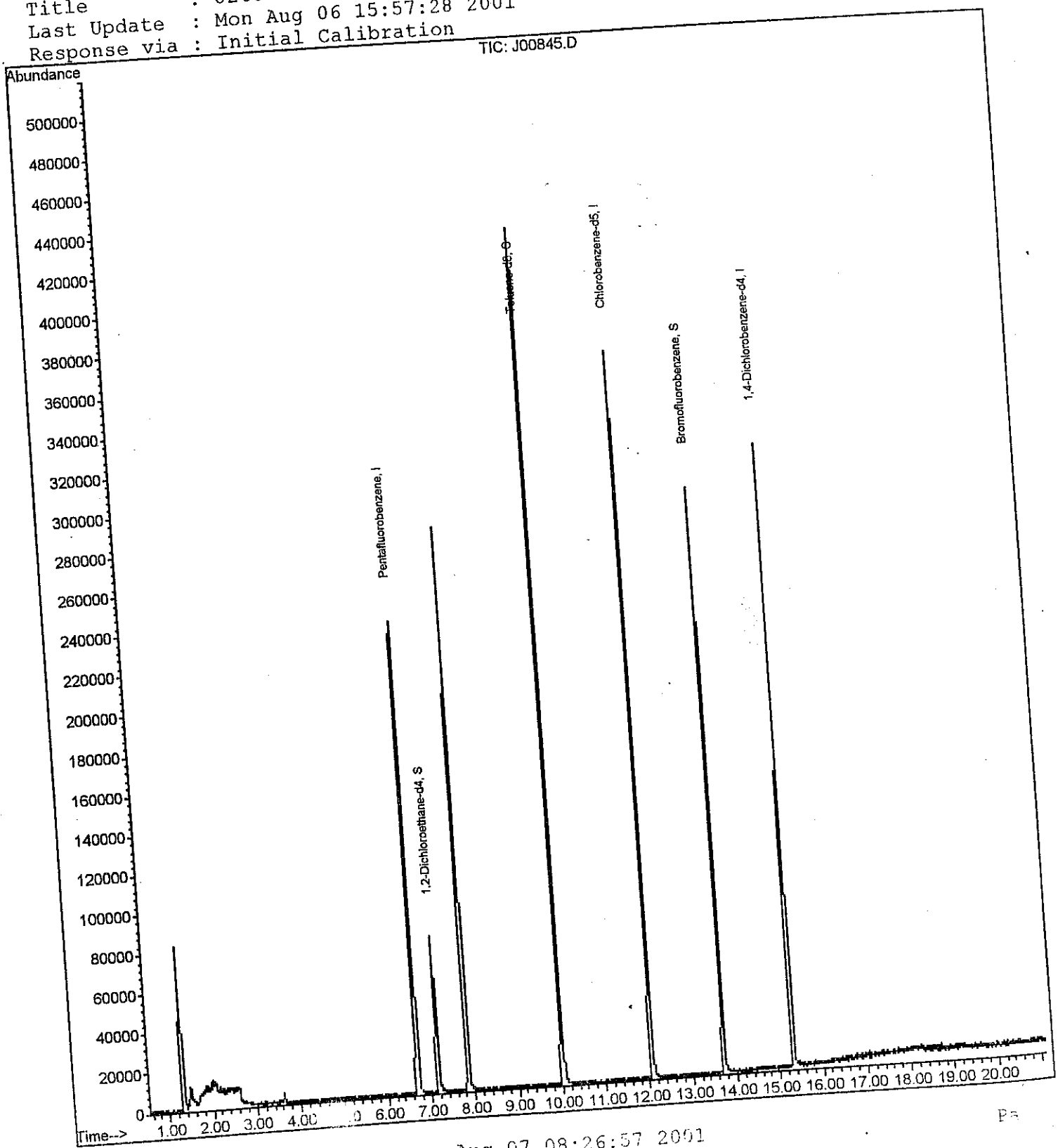
Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080601\J00845.D
Acq On : 08/06/01 16:55
Sample : 1J080601MB
Misc : WATER 25ml
MS Integration Params: rteint.p
Quant Time: Aug 7 8:26 2001

Vial: 9
Operator:
Inst : HP-MSJ
Multiplr: 1.00

Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Aug 07 08:26:57 2001

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	233724	10.00 ug\L	0.00
45) Chlorobenzene-d5	12.08	117	266294	10.00 ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	121257	10.00 ug\L	0.00
88) 1.4-Difluorobenzene	7.89	116	113	10.00 ug\L	-0.22
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4	7.17	65	91814	9.34 ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.40%		
46) Toluene-d8	10.02	98	372739	9.56 ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.60%		
66) Bromofluorobenzene	13.72	95	126712	9.39 ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.90%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.47	85	188464	10.56 ug\L	99
3) Chloromethane	1.65	50	87742	9.91 ug\L	99
4) Vinyl Chloride	1.74	62	125026	10.25 ug\L	100
5) Bromomethane	2.03	94	28499	7.76 ug\L	98
6) Chloroethane	2.13	64	67434	10.31 ug\L	100
7) Trichlorofluoromethane	2.38	101	225117	10.03 ug\L #	100
8) Acrolein	2.91	56	4757	16.14 ug\L #	10
9) Acrylonitrile	4.03	53	14090	19.98 ug\L	91
10) 1,1-Dichloroethene	2.96	96	105707	9.92 ug\L	98
11) Acetone	3.11	58	1826	9.93 ug\L	80
12) Iodomethane	3.17	142	124388	8.72 ug\L	97
13) Allylchloride	3.43	39	120530	9.40 ug\L	98
14) Carbon Disulfide	3.22	76	283366	9.21 ug\L	100
15) Acetonitrile	3.43	41	130302	95.30 ug\L	99
16) Methylene Chloride	3.63	86	75684	12.00 ug\L	98
17) trans-1,2-Dichloroethene	3.99	96	111235	9.72 ug\L	98
18) MethylTertButylEther	3.97	73	134807	9.80 ug\L	100
19) 1,1-Dichloroethane	4.69	63	163981	9.55 ug\L	98
20) Isopropyl Ether	4.77	45	17504	9.77 ug\L #	25
21) Vinyl Acetate	4.81	43	75311	8.76 ug\L	100
22) 2,2-Dichloropropane	5.71	77	205722	10.16 ug\L	98
23) cis-1,2-Dichloroethene	5.77	96	103481	9.48 ug\L	99
24) 2-Butanone	5.86	72	2439	10.72 ug\L #	100
25) Propionitrile	6.03	54	22045	93.63 ug\L #	94
26) Methacrylonitrile	6.24	41	131276	95.39 ug\L	98
27) Bromochloromethane	6.20	128	35746	9.05 ug\L	98
28) Chloroform	6.37	83	201405	9.57 ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	236941	9.77 ug\L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30) Carbon Tetrachloride	6.82	119	225318	9.91	ug\L		99
31) 1,4-Dioxane	8.83	88	4486	183.40	ug\L	#	86
32) 1,1-Dichloropropene	6.84	77	46863	9.64	ug\L		88
34) Benzene	7.20	78	359692	9.59	ug\L		100
35) Isobutyl alcohol	7.32	43	11073	171.28	ug\L	#	79
36) 1,2-Dichloroethane	7.30	62	105472	9.41	ug\L		99
37) Trichloroethene	8.23	95	125618	9.53	ug\L		99
38) 1,2-Dichloropropane	8.59	63	62462	8.92	ug\L		98
39) Dibromomethane	8.79	93	39746	9.62	ug\L		99
40) Methylmethacrylate	8.80	69	16703	8.95	ug\L		91
41) Bromodichloromethane	9.05	83	124715	9.27	ug\L		99
42) 2-Chloroethyl-vinyl ether	9.50	63	10629	8.27	ug\L		94
43) cis-1,3-Dichloropropene	9.68	75	118981	9.50	ug\L		99
44) 4-Methyl-2-Pentanone	9.92	85	4319	8.61	ug\L	#	1
47) Toluene	10.11	92	243381	9.66	ug\L		99
48) trans-1,3-Dichloropropene	10.51	75	91973	9.89	ug\L		99
49) Ethylmethacrylate	10.61	69	44341	10.14	ug\L		96
50) 1,1,2-Trichloroethane	10.77	83	34382	9.35	ug\L		95
51) Tetrachloroethene	10.87	164	107565	9.83	ug\L		98
52) 1,3-Dichloropropane	10.99	76	74731	9.58	ug\L		99
53) 2-Hexanone	11.12	43	12235	8.77	ug\L		93
54) Dibromochloromethane	11.32	129	74174	9.80	ug\L		100
55) 1,2-Dibromoethane	11.45	107	44624	9.37	ug\L		98
56) Chlorobenzene	12.12	112	258236	9.26	ug\L		99
57) 1,1,1,2-Tetrachloroethane	12.24	131	101990	9.75	ug\L		99
58) Ethylbenzene	12.26	91	525598	9.69	ug\L		99
59) total-Xylene	12.42	106	539877m	28.63	ug\L	#	
60) Styrene	13.01	104	263629	9.56	ug\L		99
62) Bromoform	13.31	173	31938	9.12	ug\L		100
63) Isopropylbenzene	13.48	105	494223	9.55	ug\L		100
64) cis-1,4-dichloro-2-Butene	14.04	53	13626	9.86	ug\L		95
65) trans-1,4-dichloro-2-Buten	14.04	53	13626	9.26	ug\L	#	56
67) Bromobenzene	13.92	156	93327	9.41	ug\L		94
68) 1,1,2,2-Tetrachloroethane	13.98	83	36078	9.45	ug\L		96
69) 1,2,3-Trichloropropane	14.03	75	45379	9.42	ug\L		97
70) n-Propylbenzene	14.04	91	598888	9.67	ug\L		99
71) 2-Chlorotoluene	14.17	91	346083	9.49	ug\L		99
72) 4-Chlorotoluene	14.33	91	411375	9.72	ug\L		99
73) 1,3,5-Trimethylbenzene	14.29	105	445948	9.59	ug\L		100
74) Pentachloroethane	14.80	167	63083	9.80	ug\L		98
75) tert-Butylbenzene	14.73	119	371461	9.46	ug\L		100
76) 1,2,4-Trimethylbenzene	14.81	105	443984	9.66	ug\L		99

(= qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Quant Method : c:\hpchem\1\data\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08060125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	557935	9.59 ug\L	99
78) 1,3-Dichlorobenzene	15.21	146	196156	9.64 ug\L	97
79) Isopropyltoluene	15.23	119	459077	9.65 ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	187744	9.17 ug\L	99
81) 1,2-Dichlorobenzene	15.86	146	147798	9.32 ug\L	97
82) n-Butylbenzene	15.80	91	435909	9.94 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	6442	8.40 ug\L #	84
84) 1,2,4-trichlorobenzene	18.23	180	102453	9.22 ug\L	100
85) Hexachlorobutadiene	18.48	225	97686	9.79 ug\L	100
86) Naphthalene	18.68	128	106590	8.86 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	74972	9.13 ug\L	99

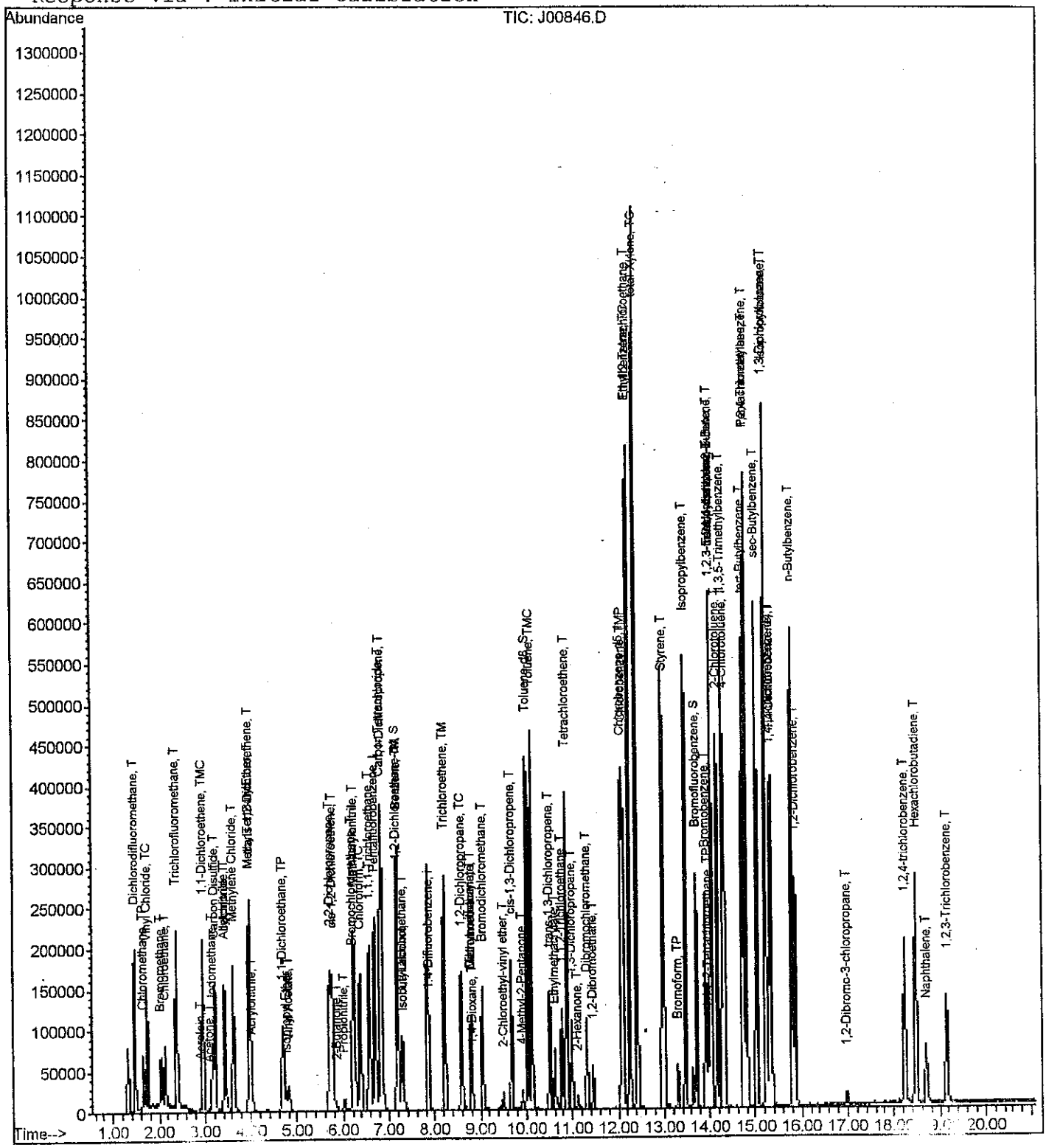
VRK 8.7.01

(# = qualifier out of range (m) = manual integration

Quantitation Report

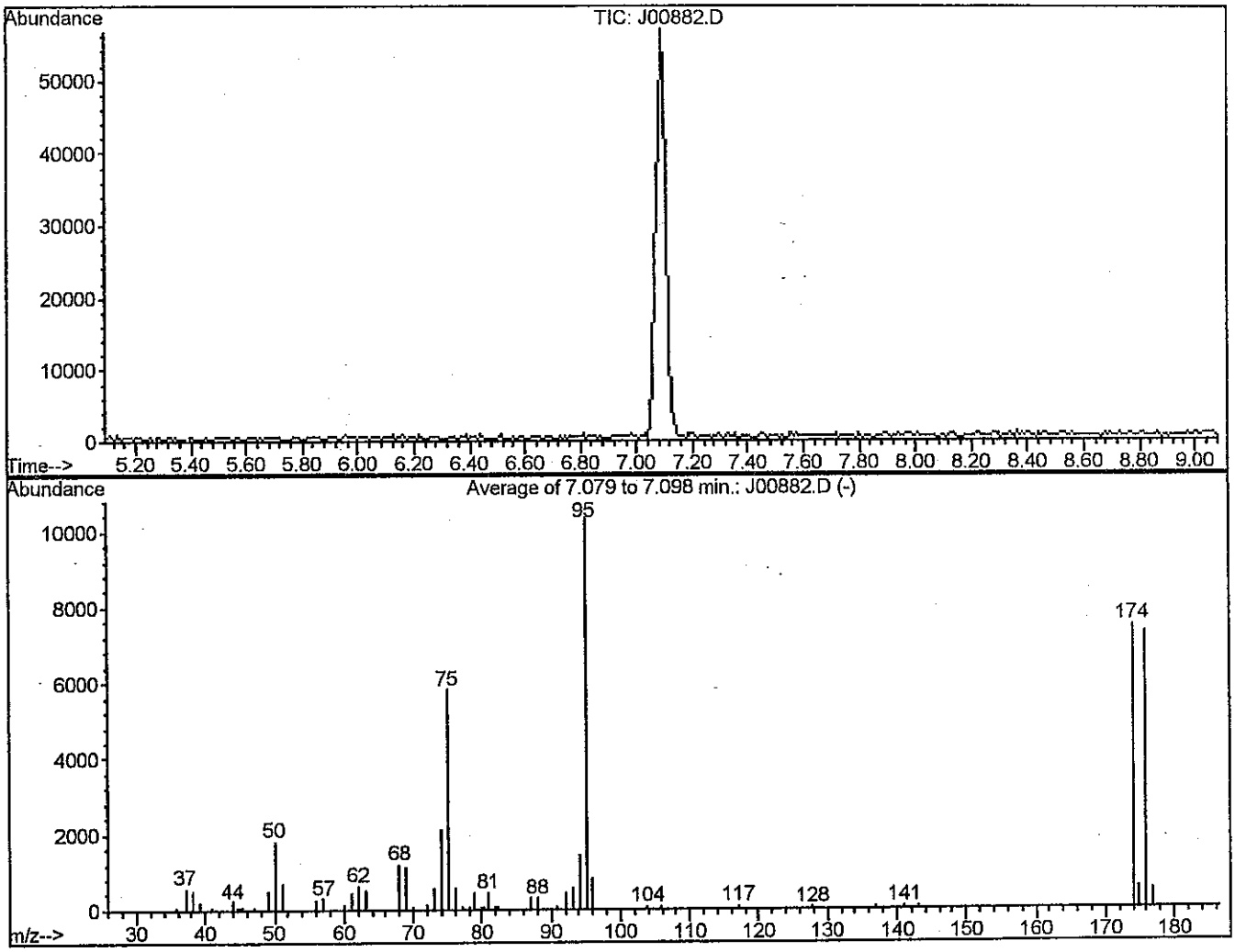
Data File : C:\HPCHEM\1\DATA\1J080601\J00846.D Vial: 10
Acq On : 08/06/01 17:29 Operator:
Sample : 1J080601LCS Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 6 17:50 2001 Quant Results File: 08060125.RES

Method : C:\HPCHEM\1\DATA\1J080601\08060125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



BFB

Data File : C:\HPCHEM\1\DATA\1J080801\J00882.D Vial: 1
Acq On : 08/08/01 09:17 Operator:
Sample : BFB 50ng Inst : HP-MSJ
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER



AutoFind: Scans 594, 595, 596; Background Corrected with Scan 588

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	1823	PASS
75	95	30	60	56.1	5800	PASS
95	95	100	100	100.0	10336	PASS
96	95	5	9	7.7	800	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.5	7494	PASS
175	174	5	9	7.5	565	PASS
176	174	95	101	97.9	7336	PASS
177	176	5	9	7.0	512	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.70	168	200339	10.00	ug\L		-0.01
45) Chlorobenzene-d5	12.08	117	224653	10.00	ug\L		0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	113619	10.00	ug\L		0.00
88) 1.4-Difluorobenzene	7.86	116	358	10.00	ug\L		-0.24
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	7.18	65	83004	9.85	ug\L		-0.01
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%				
46) Toluene-d8	10.02	98	334344	10.16	ug\L		-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 101.60%				
66) Bromofluorobenzene	13.72	95	123547	9.77	ug\L		0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 97.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.47	85	142707	9.33	ug\L		99
3) Chloromethane	1.66	50	66652	8.78	ug\L		99
4) Vinyl Chloride	1.74	62	100904	9.65	ug\L		98
5) Bromomethane	2.04	94	19980m	6.34	ug\L		
6) Chloroethane	2.14	64	58555	10.45	ug\L		99
7) Trichlorofluoromethane	2.38	101	206052	10.71	ug\L	#	100
8) Acrolein	2.89	56	4051	16.03	ug\L	#	86
9) Acrylonitrile	4.04	53	10698	17.70	ug\L		95
10) 1,1-Dichloroethene	2.97	96	88424	9.68	ug\L		97
11) Acetone	3.10	58	1691	10.72	ug\L		70
12) Iodomethane	3.18	142	101162	8.27	ug\L		99
13) Allylchloride	3.44	39	106304	9.67	ug\L		97
14) Carbon Disulfide	3.23	76	261033	9.90	ug\L		100
15) Acetonitrile	3.43	41	108396	92.49	ug\L		96
16) Methylene Chloride	3.63	86	47078	8.16	ug\L		99
17) trans-1,2-Dichloroethene	4.00	96	94798	9.66	ug\L		97
18) MethylTertButylEther	3.98	73	104047	8.82	ug\L		98
19) 1,1-Dichloroethane	4.70	63	141802	9.63	ug\L		98
20) Isopropyl Ether	4.79	45	12379	8.06	ug\L	#	24
21) Vinyl Acetate	4.81	43	61643	8.37	ug\L		100
22) 2,2-Dichloropropane	5.72	77	164987	9.50	ug\L		99
23) cis-1,2-Dichloroethene	5.78	96	86121	9.21	ug\L		99
24) 2-Butanone	5.87	72	1457m	7.87	ug\L		
25) Propionitrile	6.02	54	17526	86.84	ug\L	#	90
26) Methacrylonitrile	6.24	41	106597	90.37	ug\L		97
27) Bromochloromethane	6.21	128	32491	9.60	ug\L		97
28) Chloroform	6.37	83	177754	9.86	ug\L	#	1
29) 1,1,1-Trichloroethane	6.58	97	202759	9.75	ug\L		97

(#) = qualifie out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	193833	9.95 ug\L	98
31) 1,4-Dioxane	8.82	88	3877	184.91 ug\L #	91
32) 1,1-Dichloropropene	6.85	77	40995	9.84 ug\L	96
34) Benzene	7.20	78	304120	9.46 ug\L	100
35) Isobutyl alcohol	7.32	43	8105	148.04 ug\L #	82
36) 1,2-Dichloroethane	7.30	62	92546	9.63 ug\L	100
37) Trichloroethene	8.22	95	107272	9.49 ug\L	98
38) 1,2-Dichloropropane	8.60	63	53476	8.91 ug\L	100
39) Dibromomethane	8.80	93	33687	9.51 ug\L	99
40) Methylmethacrylate	8.81	69	13058	8.16 ug\L	89
41) Bromodichloromethane	9.05	83	107847	9.35 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	7476m	6.79 ug\L	
43) cis-1,3-Dichloropropene	9.68	75	96130	8.95 ug\L	94
44) 4-Methyl-2-Pentanone	9.93	85	3628	8.44 ug\L #	1
47) Toluene	10.12	92	208951	9.83 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	73935	9.43 ug\L	95
49) Ethylmethacrylate	10.62	69	33315	9.03 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	29798	9.60 ug\L	97
51) Tetrachloroethene	10.88	164	94228	10.21 ug\L	99
52) 1,3-Dichloropropane	10.99	76	62807	9.54 ug\L	99
53) 2-Hexanone	11.12	43	10389m	8.83 ug\L	
54) Dibromochloromethane	11.32	129	63167	9.90 ug\L	99
55) 1,2-Dibromoethane	11.45	107	38914	9.69 ug\L	98
56) Chlorobenzene	12.12	112	227259	9.66 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.25	131	87480	9.92 ug\L	97
58) Ethylbenzene	12.26	91	453331	9.91 ug\L	98
59) total-Xylene	12.42	106	468877m	29.47 ug\L #	
60) Styrene	13.01	104	235237	10.12 ug\L	100
62) Bromoform	13.32	173	29520	9.00 ug\L	100
63) Isopropylbenzene	13.48	105	473249	9.76 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	11931	9.22 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.05	53	13414	9.73 ug\L #	49
67) Bromobenzene	13.93	156	90492	9.74 ug\L	99
68) 1,1,2,2-Tetrachloroethane	13.98	83	34165	9.55 ug\L #	98
69) 1,2,3-Trichloropropane	14.03	75	43010	9.53 ug\L	99
70) n-Propylbenzene	14.05	91	566528	9.77 ug\L	98
71) 2-Chlorotoluene	14.18	91	339230	9.93 ug\L	99
72) 4-Chlorotoluene	14.33	91	403465	10.17 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	434619	9.97 ug\L	97
74) Pentachloroethane	14.81	167	56207	9.32 ug\L	94
75) tert-Butylbenzene	14.74	119	360123	9.79 ug\L	99
76) 1,2,4-Trimethylbenzene	14.81	105	419170	9.73 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

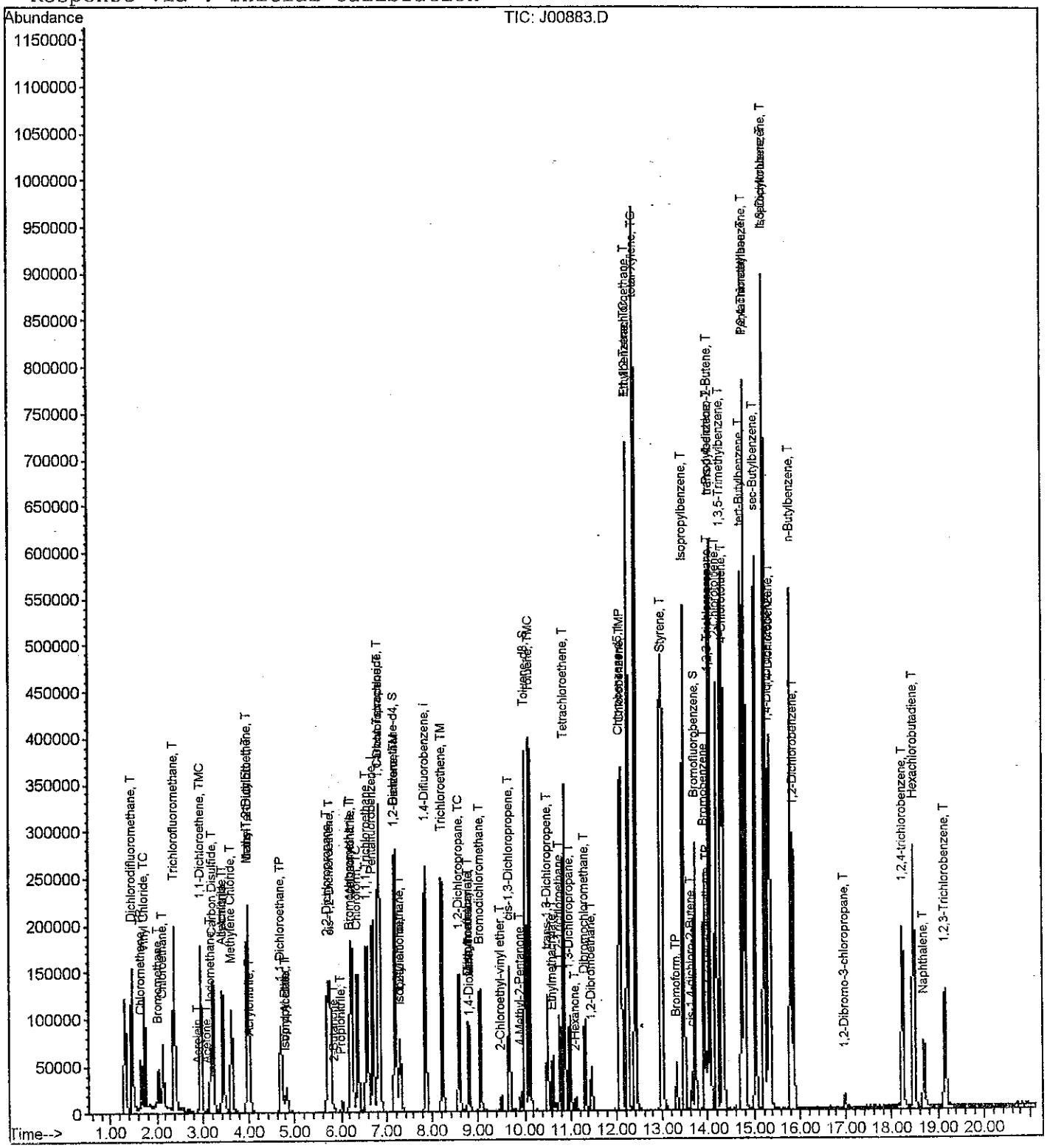
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) sec-Butylbenzene	15.04	105	536826	9.85	ug\L	99
78) 1,3-Dichlorobenzene	15.22	146	189842	9.95	ug\L	94
79) Isopropyltoluene	15.23	119	442621	9.93	ug\L	99
80) 1,4-Dichlorobenzene	15.35	146	182592	9.52	ug\L	98
81) 1,2-Dichlorobenzene	15.87	146	142719	9.60	ug\L	98
82) n-Butylbenzene	15.80	91	416863	10.15	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	5974	8.32	ug\L	94
84) 1,2,4-trichlorobenzene	18.24	180	98239	9.44	ug\L	100
85) Hexachlorobutadiene	18.48	225	94657	10.13	ug\L	100
86) Naphthalene	18.69	128	102140	9.06	ug\L	100
87) 1,2,3-Trichlorobenzene	19.16	180	71648	9.31	ug\L	97

(# = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 10:05 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	-0.01
2	T	Dichlorodifluoromethane	0.764	0.712	6.8	95	0.00
3	TP	Chloromethane	0.379	0.333	12.1	89	0.00
4	TC	Vinyl Chloride	0.522	0.504	3.4	98	0.00
5	T	Bromomethane	0.157	0.100	36.3#	64	0.00
6	T	Chloroethane	0.280	0.292	-4.3	102	-0.01
7	T	Trichlorofluoromethane	0.960	1.029	-7.2	104	-0.01
8	T	Acrolein	0.013	0.010	23.1	88	-0.02
9	T	Acrylonitrile	0.030	0.027	10.0	91	-0.02
10	TMC	1,1-Dichloroethene	0.456	0.441	3.3	98	-0.01
11	T	Acetone	0.008	0.008	0.0	110	0.00
12	T	Iodomethane	0.610	0.505	17.2	80	0.00
13	T	Allylchloride	0.549	0.531	3.3	94	0.00
14	T	Carbon Disulfide	1.317	1.303	1.1	104	-0.01
15	T	Acetonitrile	0.059	0.054	8.5	90	-0.02
16	T	Methylene Chloride	0.304	0.235	22.7	82	-0.01
17	T	trans-1,2-Dichloroethene	0.490	0.473	3.5	96	0.00
18	T	MethylTertButylEther	0.589	0.519	11.9	88	-0.02
19	TP	1,1-Dichloroethane	0.735	0.708	3.7	96	-0.01
20	T	Isopropyl Ether	0.077	0.062	19.5	81	0.00
21	T	Vinyl Acetate	0.368	0.308	16.3	87	-0.01
22	T	2,2-Dichloropropane	0.867	0.824	5.0	93	-0.01
23	T	cis-1,2-Dichloroethene	0.467	0.430	7.9	93	-0.02
24	T	2-Butanone	0.010	0.007	30.0#	92	0.00
25	T	Propionitrile	0.010	0.009	10.0	86	-0.02
26	T	Methacrylonitrile	0.059	0.053	10.2	88	0.00
27	T	Bromochloromethane	0.169	0.162	4.1	96	-0.01
28	TC	Chloroform	0.900	0.887	1.4	96	-0.01
29	T	1,1,1-Trichloroethane	1.038	1.012	2.5	95	-0.01
30	T	Carbon Tetrachloride	0.973	0.968	0.5	98	-0.01
31	T	1,4-Dioxane	0.001	0.001	0.0	100	-0.04
32	T	1,1-Dichloropropene	0.208	0.205	1.4	94	-0.01
33	S	1,2-Dichloroethane-d4	0.421	0.414	1.7	98	-0.01
34	TM	Benzene	1.604	1.518	5.4	94	0.00
35	T	Isobutyl alcohol	0.003	0.002	33.3#	63	-0.02
36	T	1,2-Dichloroethane	0.480	0.462	3.7	94	-0.01
37	TM	Trichloroethene	0.564	0.535	5.1	94	-0.01
38	TC	1,2-Dichloropropane	0.300	0.267	11.0	89	0.00
39	T	Dibromomethane	0.177	0.168	5.1	92	0.00
40	T	Methylmethacrylate	0.080	0.065	18.8	82	-0.01
41	T	Bromodichloromethane	0.576	0.538	6.6	92	0.00
42	T	2-Chloroethyl-vinyl ether	0.055	0.037	32.7#	71	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	T	cis-1,3-Dichloropropene	0.536	0.480	10.4	87	-0.01
44	T	4-Methyl-2-Pentanone	0.021	0.018	14.3	97	0.00
45	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
46	S	Toluene-d8	1.464	1.488	-1.6	96	-0.01
47	TMC	Toluene	0.946	0.930	1.7	92	-0.01
48	T	trans-1,3-Dichloropropene	0.349	0.329	5.7	87	-0.01
49	T	Ethylmethacrylate	0.164	0.148	9.8	84	0.00
50	T	1,1,2-Trichloroethane	0.138	0.133	3.6	91	0.00
51	T	Tetrachloroethene	0.411	0.419	-1.9	94	0.00
52	T	1,3-Dichloropropane	0.293	0.280	4.4	91	-0.01
53	T	2-Hexanone	0.052	0.046	11.5	95	-0.01
54	T	Dibromochloromethane	0.284	0.281	1.1	93	0.00
55	T	1,2-Dibromoethane	0.179	0.173	3.4	90	0.00
56	TMP	Chlorobenzene	1.048	1.012	3.4	91	0.00
57	T	1,1,1,2-Tetrachloroethane	0.393	0.389	1.0	91	0.00
58	TC	Ethylbenzene	2.037	2.018	0.9	92	0.00
59	TG	total-Xylene	0.708	0.696	1.7	90	0.00
60	T	Styrene	1.035	1.047	-1.2	92	0.00
61	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
62	TP	Bromoform	0.289	0.260	10.0	89	0.00
63	T	Isopropylbenzene	4.269	4.165	2.4	94	0.00
64	T	cis-1,4-dichloro-2-Butene	0.114	0.105	7.9	85	0.00
65	T	trans-1,4-dichloro-2-Butene	0.121	0.118	2.5	94	0.00
66	S	Bromofluorobenzene	1.113	1.087	2.3	94	0.00
67	T	Bromobenzene	0.818	0.796	2.7	91	0.00
68	TP	1,1,2,2-Tetrachloroethane	0.315	0.301	4.4	90	0.00
69	T	1,2,3-Trichloropropane	0.397	0.379	4.5	93	-0.01
70	T	n-Propylbenzene	5.106	4.986	2.4	93	0.00
71	T	2-Chlorotoluene	3.006	2.986	0.7	94	0.00
72	T	4-Chlorotoluene	3.492	3.551	-1.7	96	0.00
73	T	1,3,5-Trimethylbenzene	3.836	3.825	0.3	94	0.00
74	T	Pentachloroethane	0.531	0.495	6.8	85	0.00
75	T	tert-Butylbenzene	3.237	3.170	2.1	93	0.00
76	T	1,2,4-Trimethylbenzene	3.790	3.689	2.7	92	0.00
77	T	sec-Butylbenzene	4.798	4.725	1.5	94	0.00
78	T	1,3-Dichlorobenzene	1.679	1.671	0.5	93	0.00
79	T	Isopropyltoluene	3.921	3.896	0.6	95	-0.01
80	T	1,4-Dichlorobenzene	1.688	1.607	4.8	92	0.00
81	T	1,2-Dichlorobenzene	1.308	1.256	4.0	92	0.00
82	T	n-Butylbenzene	3.616	3.669	-1.5	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00883.D Vial: 1
Acq On : 08/08/01 09:39 Operator:
Sample : CCV 10 PPb (V01083,V01073) Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
83	T	1,2-Dibromo-3-chloropropane	0.063	0.053	15.9	84	0.00
84	T	1,2,4-trichlorobenzene	0.916	0.865	5.6	89	0.00
85	T	Hexachlorobutadiene	0.823	0.833	-1.2	94	0.00
86	T	Naphthalene	0.992	0.899	9.4	87	0.00
87	T	1,2,3-Trichlorobenzene	0.677	0.631	6.8	89	0.00
88	i	1.4-Difluorobenzene	1.000	1.000	0.0	0#	-0.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	191789	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	202651	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	89498	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.18	65	79785	9.89	ug\L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
46) Toluene-d8	10.03	98	308790	10.40	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 104.00%			
66) Bromofluorobenzene	13.72	95	102090	10.25	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 102.50%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00885.D Vial: 2
Acq On : 08/08/01 10:47 Operator:
Sample : 1J080801MB Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 14:39 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration

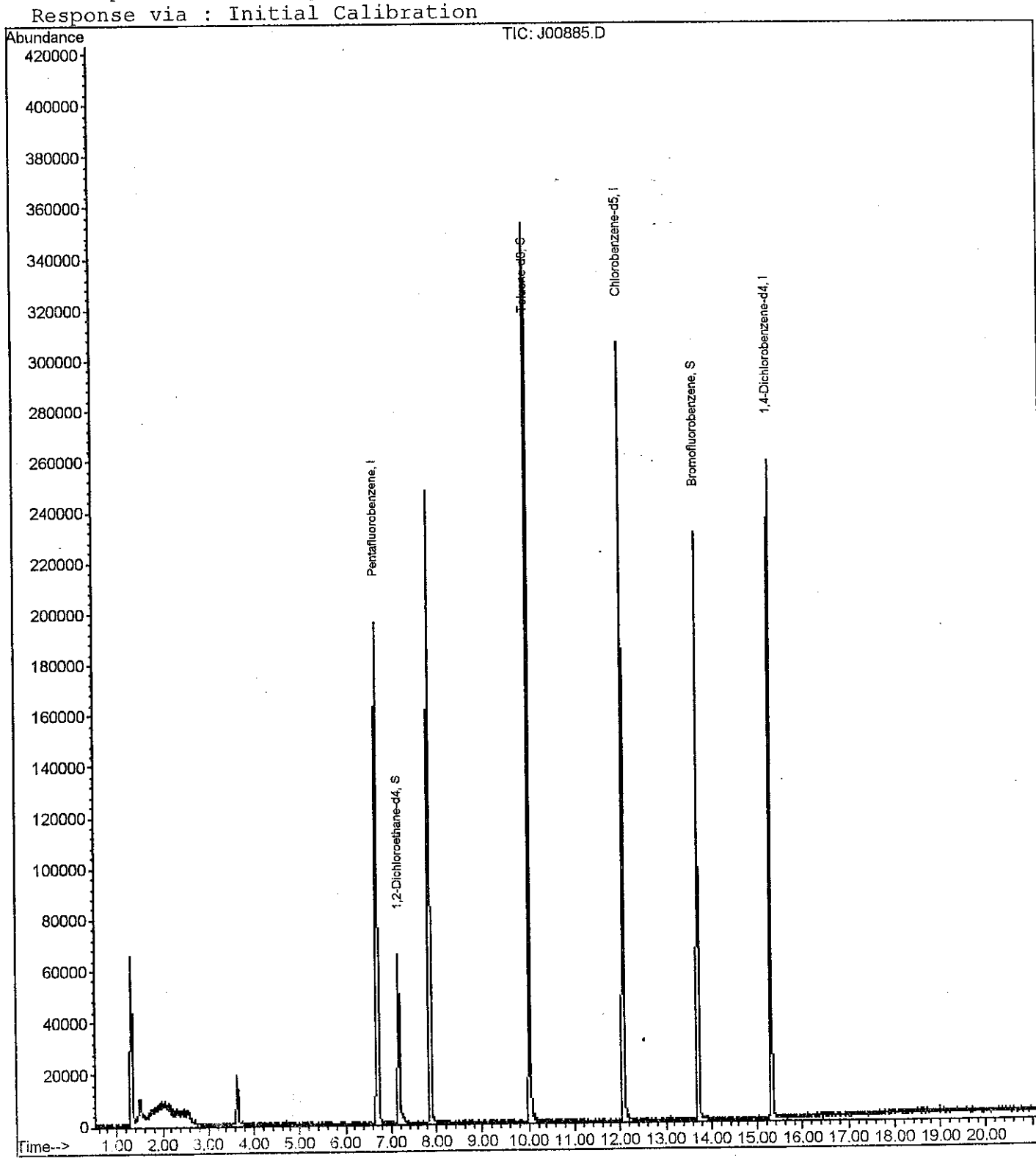


TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
	TCL VOLATILES BY GC/MS					%	%	%	%	%	%			%	%	%	%	%	%
8260B	Chloromethane	78	94			60-140	20-150	18%	#VALUE!	<30	<50	86		38-116	38-116			<50	<75
8260B	Bromomethane	63	76			60-140	20-150	19%	#VALUE!	<30	<50	62		49-117	49-117			<50	<75
8260B	Vinyl Chloride	85	98			60-140	20-150	14%	#VALUE!	<30	<50	85		31-121	31-121			<50	<75
8260B	Chloroethane	93	106			60-140	20-150	13%	#VALUE!	<30	<50	92		62-116	62-116			<50	<75
8260B	Methylene Chloride	87	110			60-140	20-150	24%	#VALUE!	<30	<50	87		55-126	55-126			<50	<75
8260B	Acetone	73	68			60-140	20-150	8%	#VALUE!	<30	<50	67		43-165	43-165			<50	<75
8260B	Carbon Disulfide	97	99			60-140	20-150	3%	#VALUE!	<30	<50	97		76-119	76-119			<50	<75
8260B	1,1-Dichloroethene	85	101			60-140	20-150	17%	#VALUE!	<30	<50	85		54-128	54-128			<50	<75
8260B	1,1-Dichloroethane	85	99			60-140	20-150	16%	#VALUE!	<30	<50	85		62-141	62-141			<50	<75
8260B	cis-1,2-Dichloroethene	88	102			60-140	20-150	15%	#VALUE!	<30	<50	88		70-131	60-141			<50	<75
8260B	trans-1,2-Dichloroethene	86	99			60-140	20-150	14%	#VALUE!	<30	<50	85		61-138	51-148			<50	<75
8260B	Chloroform	85	94			60-140	20-150	10%	#VALUE!	<30	<50	85		65-129	65-129			<50	<75
8260B	1,2-Dichloroethane	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		68-135	68-135			<50	<75
8260B	2-Butanone	84	100			60-140	20-150	18%	#VALUE!	<30	<50	83		50-163	50-163			<50	<75
8260B	1,1,1-Trichloroethane	88	95			60-140	20-150	8%	#VALUE!	<30	<50	88		68-135	68-135			<50	<75
8260B	Carbon Tetrachloride	87	96			60-140	20-150	10%	#VALUE!	<30	<50	87		67-125	67-125			<50	<75
8260B	Bromodichloromethane	85	95			60-140	20-150	11%	#VALUE!	<30	<50	85		68-135	58-145			<50	<75
8260B	1,2-Dichloropropane	85	95			60-140	20-150	10%	#VALUE!	<30	<50	76		76-132	76-132			<50	<75
8260B	Cis-1,3-Dichloropropene	82	90			60-140	20-150	10%	#VALUE!	<30	<50	82		70-122	70-122			<50	<75
8260B	Trichloroethylene	87	96			60-140	20-150	10%	#VALUE!	<30	<50	87		67-137	67-137			<50	<75
8260B	Dibromochloromethane	91	94			60-140	20-150	3%	#VALUE!	<30	<50	91		64-120	64-120			<50	<75
8260B	1,1,2-Trichloroethane	94	89			60-140	20-150	5%	#VALUE!	<30	<50	93		70-141	70-141			<50	<75
8260B	Benzene	84	91			60-140	20-150	8%	#VALUE!	<30	<50	89		51-139	51-139			<50	<75
8260B	trans-1,3-Dichloropropene	88	92			60-140	20-150	4%	#VALUE!	<30	<50	88		42-154	42-154			<50	<75
8260B	Bromoform	84	89			60-140	20-150	6%	#VALUE!	<30	<50	84		67-129	67-129			<50	<75
8260B	4-Methyl-2-Pentanone	75	99			60-140	20-150	27%	#VALUE!	<30	<50	74		77-119	77-119			<50	<75
8260B	2-Hexanone	99	103			60-140	20-150	3%	#VALUE!	<30	<50	99		47-165	47-165			<50	<75
8260B	Tetrachloroethylene	91	92			60-140	20-150	1%	#VALUE!	<30	<50	91		67-131	67-131			<50	<75
8260B	Toluene	89	91			60-140	20-150	3%	#VALUE!	<30	<50	101		31-137	31-137			<50	<75
8260B	1,1,2,2-Tetrachloroethane	87	94			60-140	20-150	8%	#VALUE!	<30	<50	86		55-138	55-138			<50	<75
8260B	Chlorobenzene	86	93			60-140	20-150	8%	#VALUE!	<30	<50	86		69-140	69-140			<50	<75
8260B	Ethylbenzene	88	94			60-140	20-150	6%	#VALUE!	<30	<50	88		59-140	59-140			<50	<75
8260B	Styrene	83	97			60-140	20-150	15%	#VALUE!	<30	<50	83		71-133	71-133			<50	<75
8260B	Xylenes, Total	84	94			60-140	20-150	11%	#VALUE!	<30	<50	84		68-133	68-133			<50	<75
8260B	4-Bromofluorobenzene (Surr)	93	90			75-125	65-135	4%	#VALUE!			93							
8260B	1,2-Dichloroethane-d4 (Surr)	86	93			62-139	52-149	8%	#VALUE!			86							
8260B	Toluene-d8 (Surr)	99	95			75-125	65-135	4%	#VALUE!			99							

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS Not Specified
NA Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL 28530

		Project Control Recoveries				Accuracy Limits		Project Control		Precision Limits		Project Control Recoveries		Accuracy Limits		Project Control		Precision Limits	
		MS	MSD	MS	MSD	MS/MSD Recoveries		MS/MSD % Deviation		MS/MSD Deviation		LCS	LCS	LCS Recoveries		Field Dup % Deviation		Field Dup Deviation	
Method No	Analyte / Component	Water		Soil		Water	Soil	Water	Soil	Water	Soil	Water	Soil	Water	Soil			Water	Soil
TCL VOLATILES BY GC/MS						%	%	%	%	%	%			%	%	%	%	%	%
8260B	Chloromethane	78	94			60-140	20-150	18%	#VALUE!	<30	<50	85		38-116	38-116			<50	<75
8260B	Bromomethane	63	76			60-140	20-150	19%	#VALUE!	<30	<50	67		49-117	49-117			<50	<75
8260B	Vinyl Chloride	85	98			60-140	20-150	14%	#VALUE!	<30	<50	89		31-121	31-121			<50	<75
8260B	Chloroethane	93	106			60-140	20-150	13%	#VALUE!	<30	<50	98		62-116	62-116			<50	<75
8260B	Methylene Chloride	87	110			60-140	20-150	24%	#VALUE!	<30	<50	96		55-126	55-126			<50	<75
8260B	Acetone	73	68			60-140	20-150	8%	#VALUE!	<30	<50	89		43-165	43-165			<50	<75
8260B	Carbon Disulfide	97	99			60-140	20-150	3%	#VALUE!	<30	<50	100		76-119	76-119			<50	<75
8260B	1,1-Dichloroethene	85	101			60-140	20-150	17%	#VALUE!	<30	<50	91		54-128	54-128			<50	<75
8260B	1,1-Dichloroethane	85	99			60-140	20-150	16%	#VALUE!	<30	<50	91		62-141	62-141			<50	<75
8260B	cis-1,2-Dichloroethene	88	102			60-140	20-150	15%	#VALUE!	<30	<50	95		70-131	60-141			<50	<75
8260B	trans-1,2-Dichloroethene	86	99			60-140	20-150	14%	#VALUE!	<30	<50	93		61-138	51-148			<50	<75
8260B	Chloroform	85	94			60-140	20-150	10%	#VALUE!	<30	<50	90		65-129	65-129			<50	<75
8260B	1,2-Dichloroethane	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		68-135	68-135			<50	<75
8260B	2-Butanone	84	100			60-140	20-150	18%	#VALUE!	<30	<50	90		50-163	50-163			<50	<75
8260B	1,1,1-Trichloroethane	88	95			60-140	20-150	8%	#VALUE!	<30	<50	95		68-135	68-135			<50	<75
8260B	Carbon Tetrachloride	87	96			60-140	20-150	10%	#VALUE!	<30	<50	97		67-125	67-125			<50	<75
8260B	Bromodichloromethane	85	95			60-140	20-150	11%	#VALUE!	<30	<50	83		68-135	58-145			<50	<75
8260B	1,2-Dichloropropane	85	95			60-140	20-150	10%	#VALUE!	<30	<50	84		76-132	76-132			<50	<75
8260B	Cis-1,3-Dichloropropene	82	90			60-140	20-150	10%	#VALUE!	<30	<50	90		70-122	70-122			<50	<75
8260B	Trichloroethylene	87	96			60-140	20-150	10%	#VALUE!	<30	<50	96		67-137	67-137			<50	<75
8260B	Dibromochloromethane	91	94			60-140	20-150	3%	#VALUE!	<30	<50	95		64-120	64-120			<50	<75
8260B	1,1,2-Trichloroethane	94	89			60-140	20-150	5%	#VALUE!	<30	<50	90		70-141	70-141			<50	<75
8260B	Benzene	84	91			60-140	20-150	8%	#VALUE!	<30	<50	89		51-139	51-139			<50	<75
8260B	trans-1,3-Dichloropropene	88	92			60-140	20-150	4%	#VALUE!	<30	<50	89		42-154	42-154			<50	<75
8260B	Bromoform	84	89			60-140	20-150	6%	#VALUE!	<30	<50	84		67-129	67-129			<50	<75
8260B	4-Methyl-2-Pentanone	75	99			60-140	20-150	27%	#VALUE!	<30	<50	88		77-119	77-119			<50	<75
8260B	2-Hexanone	99	103			60-140	20-150	3%	#VALUE!	<30	<50	93		47-165	47-165			<50	<75
8260B	Tetrachloroethylene	91	92			60-140	20-150	1%	#VALUE!	<30	<50	92		67-131	67-131			<50	<75
8260B	Toluene	89	91			60-140	20-150	3%	#VALUE!	<30	<50	90		31-137	31-137			<50	<75
8260B	1,1,2,2-Tetrachloroethane	87	94			60-140	20-150	8%	#VALUE!	<30	<50	92		55-138	55-138			<50	<75
8260B	Chlorobenzene	86	93			60-140	20-150	8%	#VALUE!	<30	<50	89		69-140	69-140			<50	<75
8260B	Ethylbenzene	88	94			60-140	20-150	6%	#VALUE!	<30	<50	93		59-140	59-140			<50	<75
8260B	Styrene	83	97			60-140	20-150	15%	#VALUE!	<30	<50	86		71-133	71-133			<50	<75
8260B	Xylenes, Total	84	94			60-140	20-150	11%	#VALUE!	<30	<50	88		68-133	68-133			<50	<75
8260B	4-Bromofluorobenzene (Surr)	93	90			75-125	65-135	4%	#VALUE!			90							
8260B	1,2-Dichloroethane-d4 (Surr)	86	93			62-139	52-149	8%	#VALUE!			93							
8260B	Toluene-d8 (Surr)	99	95			75-125	65-135	4%	#VALUE!			96							

Notes
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste solids

NS = Not Specified

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	185530	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.08	117	215498	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	101260	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	8.08	116	52	10.00	ug\L	-0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	77758	9.96	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
46) Toluene-d8	10.02	98	301381	9.55	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 95.50%			
66) Bromofluorobenzene	13.71	95	101839	9.04	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 90.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	119751	8.45	ug\L	99
3) Chloromethane	1.66	50	60165	8.56	ug\L	96
4) Vinyl Chloride	1.74	62	86256	8.91	ug\L	99
5) Bromomethane	2.04	94	21965m	7.53	ug\L	
6) Chloroethane	2.14	64	51218	9.87	ug\L	98
7) Trichlorofluoromethane	2.38	101	182119	10.23	ug\L #	100
8) Acrolein	2.91	56	3492	14.93	ug\L #	77
9) Acrylonitrile	4.04	53	10177	18.18	ug\L #	85
10) 1,1-Dichloroethene	2.97	96	77128	9.12	ug\L	100
11) Acetone	3.09	58	1381	9.46	ug\L	97
12) Iodomethane	3.17	142	95863	8.47	ug\L	95
13) Allylchloride	3.44	39	95736	9.40	ug\L	97
14) Carbon Disulfide	3.23	76	244086	9.99	ug\L	99
15) Acetonitrile	3.43	41	98594	90.84	ug\L	97
16) Methylene Chloride	3.63	86	49627	9.57	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	84503	9.30	ug\L	98
18) MethylTertButylEther	3.97	73	99020	9.07	ug\L	99
19) 1,1-Dichloroethane	4.69	63	123741	9.08	ug\L	99
20) Isopropyl Ether	4.77	45	12594	8.86	ug\L #	96
21) Vinyl Acetate	4.82	43	60243	8.83	ug\L	98
22) 2,2-Dichloropropane	5.71	77	153055	9.52	ug\L	100
23) cis-1,2-Dichloroethene	5.77	96	77800	8.98	ug\L	98
24) 2-Butanone	5.87	72	1637	9.27	ug\L #	100
25) Propionitrile	6.02	54	16808	89.93	ug\L	98
26) Methacrylonitrile	6.23	41	100066	91.60	ug\L	96
27) Bromochloromethane	6.20	128	28244	9.01	ug\L	99
28) Chloroform	6.37	83	159190	9.53	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	185783	9.65	ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	172459	9.56 ug\L	99
31) 1,4-Dioxane	8.85	88	3520	181.29 ug\L #	78
32) 1,1-Dichloropropene	6.85	77	35933	9.31 ug\L	97
34) Benzene	7.19	78	266061	8.94 ug\L	100
35) Isobutyl alcohol	7.33	43	8578	167.44 ug\L #	54
36) 1,2-Dichloroethane	7.30	62	85183	9.57 ug\L	97
37) Trichloroethene	8.22	95	97369	9.30 ug\L	97
38) 1,2-Dichloropropane	8.59	63	49360	8.88 ug\L	99
39) Dibromomethane	8.79	93	29831	9.09 ug\L	96
40) Methylmethacrylate	8.80	69	12332	8.33 ug\L	86
41) Bromodichloromethane	9.05	83	99426	9.31 ug\L	99
42) 2-Chloroethyl-vinyl ether	9.50	63	7014	6.88 ug\L	97
43) cis-1,3-Dichloropropene	9.68	75	89900	9.04 ug\L	97
44) 4-Methyl-2-Pentanone	9.93	85	3554	8.92 ug\L #	1
47) Toluene	10.12	92	183768	9.01 ug\L	99
48) trans-1,3-Dichloropropene	10.51	75	67139	8.92 ug\L	96
49) Ethylmethacrylate	10.62	69	29375	8.30 ug\L	97
50) 1,1,2-Trichloroethane	10.77	83	26870	9.03 ug\L	97
51) Tetrachloroethene	10.88	164	81681	9.22 ug\L	97
52) 1,3-Dichloropropane	11.00	76	58440	9.26 ug\L	100
53) 2-Hexanone	11.12	43	10528	9.33 ug\L #	95
54) Dibromochloromethane	11.32	129	58157	9.50 ug\L	100
55) 1,2-Dibromoethane	11.45	107	34304	8.90 ug\L #	96
56) Chlorobenzene	12.11	112	199707	8.85 ug\L	97
57) 1,1,1,2-Tetrachloroethane	12.25	131	80287	9.49 ug\L	98
58) Ethylbenzene	12.25	91	406711	9.27 ug\L	98
59) total-Xylene	12.42	106	403328m	26.43 ug\L #	
60) Styrene	13.00	104	191660	8.59 ug\L	98
62) Bromoform	13.31	173	24544	8.39 ug\L	99
63) Isopropylbenzene	13.47	105	378065	8.75 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	9475	8.21 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.04	53	12425	10.11 ug\L #	33
67) Bromobenzene	13.92	156	74945	9.05 ug\L	98
68) 1,1,2,2-Tetrachloroethane	13.97	83	29259	9.18 ug\L	99
69) 1,2,3-Trichloropropane	14.03	75	36025	8.96 ug\L	97
70) n-Propylbenzene	14.04	91	457624	8.85 ug\L	98
71) 2-Chlorotoluene	14.18	91	269928	8.87 ug\L	98
72) 4-Chlorotoluene	14.33	91	321503	9.09 ug\L	100
73) 1,3,5-Trimethylbenzene	14.29	105	350144	9.01 ug\L	99
74) Pentachloroethane	14.80	167	46526	8.66 ug\L	94
75) tert-Butylbenzene	14.73	119	287278	8.76 ug\L	100
76) 1,2,4-Trimethylbenzene	14.81	105	353106	9.20 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) sec-Butylbenzene	15.03	105	433111	8.91 ug\L	100
78) 1,3-Dichlorobenzene	15.22	146	155778	9.16 ug\L	98
79) Isopropyltoluene	15.23	119	356770	8.98 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	150532	8.81 ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	118648	8.96 ug\L	97
82) n-Butylbenzene	15.80	91	334729	9.14 ug\L	100
83) 1,2-Dibromo-3-chloropropan	16.97	75	5521	8.62 ug\L	98
84) 1,2,4-trichlorobenzene	18.23	180	79236	8.54 ug\L	100
85) Hexachlorobutadiene	18.48	225	78318	9.40 ug\L	100
86) Naphthalene	18.69	128	81597	8.12 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	56886	8.30 ug\L	94

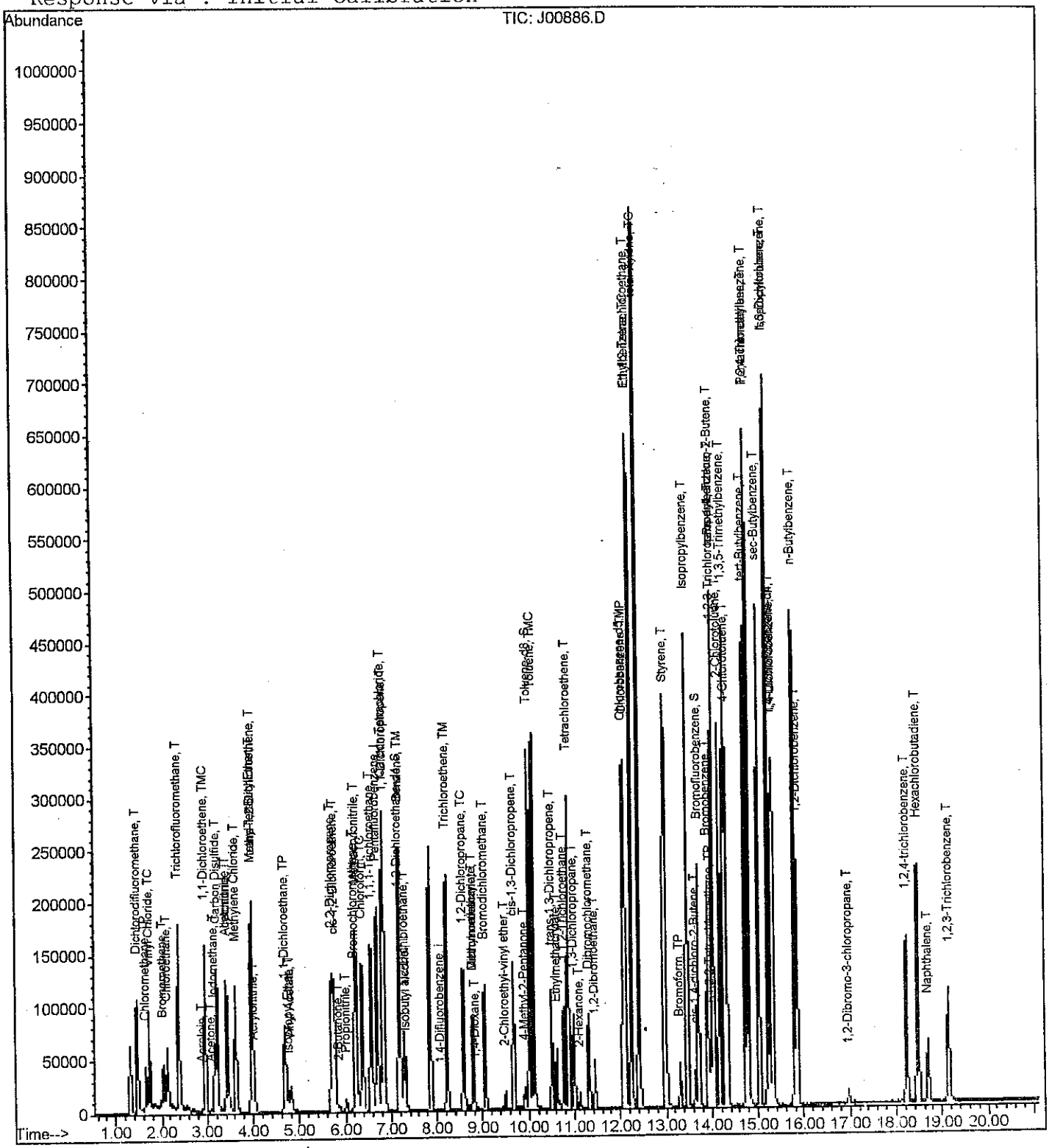
√ RA 8-8-01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00886.D Vial: 3
Acq On : 08/08/01 11:17 Operator:
Sample : 1J080801LCS 25ml DF=1 Inst : HP-MSJ
Misc : WATER 25ml Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 11:43 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D Vial: 9
Acq On : 08/07/01 21:44 Operator:
Sample : AC17978 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:41 2001 Quant Results File: 08070125.RES

Quant Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08070125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.69	168	133866	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	180420	10.00	ug\L	-0.02
61) 1,4-Dichlorobenzene-d4	15.31	152	86569	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	0.00	116	0m	10.00	ug\L	-8.11
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.16	65	74354	13.20	ug\L	-0.03
Spiked Amount 10.000	Range 80 - 120		Recovery = 132.00%#			
46) Toluene-d8	10.01	98	258133	9.77	ug\L	-0.02
Spiked Amount 10.000	Range 87 - 104		Recovery = 97.70%			
66) Bromofluorobenzene	13.71	95	97817	10.15	ug\L	-0.02
Spiked Amount 10.000	Range 84 - 110		Recovery = 101.50%			
Target Compounds						Qvalue
3) Chloromethane	1.65	50	4315	0.85	ug\L	90
47) Toluene	10.12	92	21177	1.24	ug\L	99

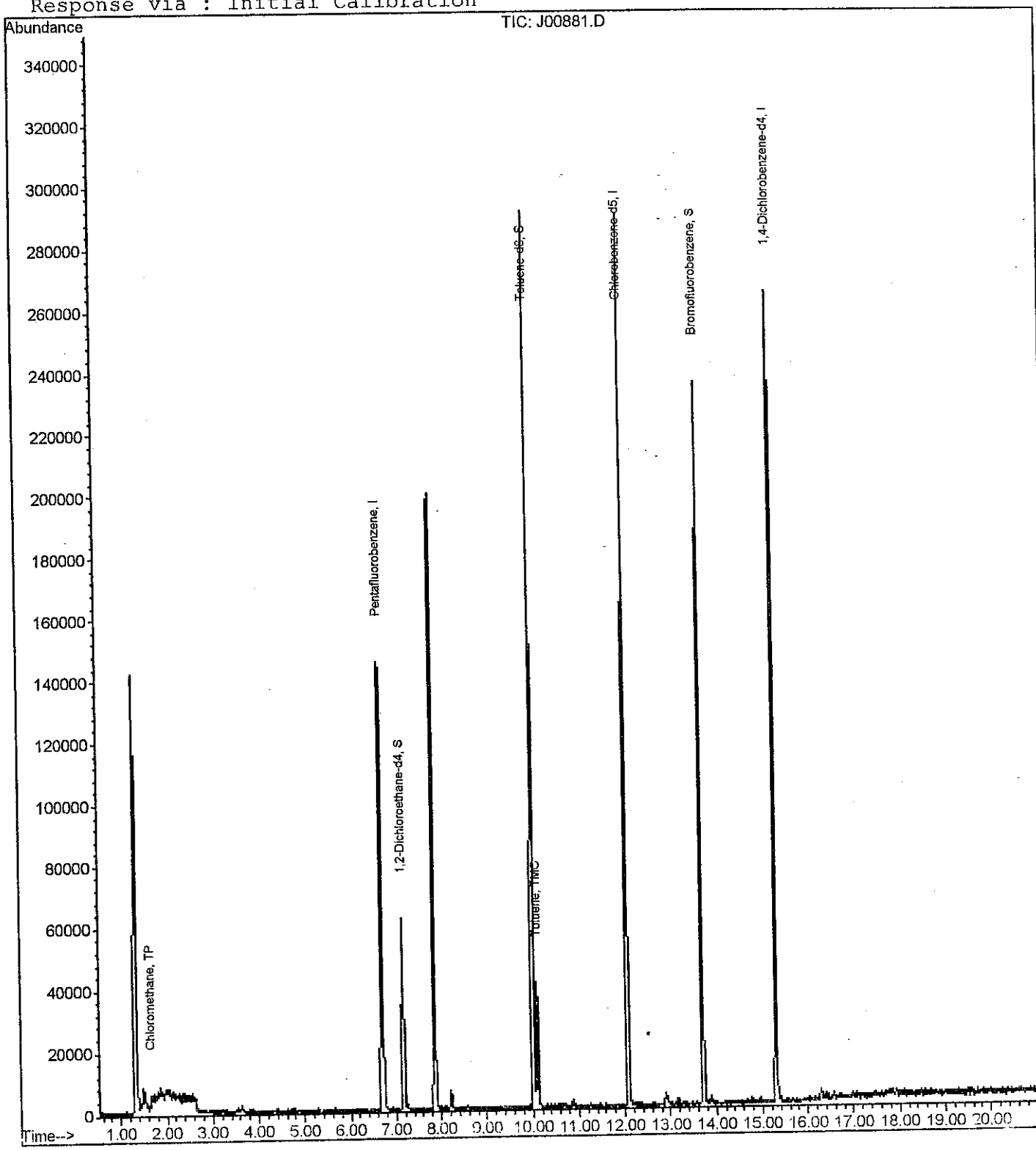
VRR 8-8-01

(#) = qualifier out of range (m) = manual integration
J00881.D 08070125.M Wed Aug 08 12:39:45 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080701\J00881.D Vial: 9
Acq On : 08/07/01 21:44 Operator:
Sample : AC17978 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 7:41 2001 Quant Results File: 08070125.RES

Method : C:\HPCHEM\1\DATA\1J080701\08070125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00887.D Vial: 4
Acq On : 08/08/01 11:49 Operator:
Sample : AC17978MS 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:11 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.70	168	210227	10.00	ug\L	-0.02
45) Chlorobenzene-d5	12.07	117	230644	10.00	ug\L	-0.01
61) 1,4-Dichlorobenzene-d4	15.31	152	109985	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.91	116	42	10.00	ug\L	-0.20
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	84715	9.58	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.80%			
46) Toluene-d8	10.02	98	334307	9.90	ug\L	-0.01
Spiked Amount 10.000	Range 87 - 104		Recovery = 99.00%			
66) Bromofluorobenzene	13.71	95	114376	9.34	ug\L	-0.01
Spiked Amount 10.000	Range 84 - 110		Recovery = 93.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	126069	7.85	ug\L	99
3) Chloromethane	1.66	50	68805	8.64	ug\L	98
4) Vinyl Chloride	1.74	62	93066	8.48	ug\L	99
5) Bromomethane	2.04	94	20709	6.27	ug\L	100
6) Chloroethane	2.13	64	54382	9.25	ug\L	96
7) Trichlorofluoromethane	2.38	101	186206	9.23	ug\L #	100
8) Acrolein	2.90	56	3609	13.61	ug\L #	97
9) Acrylonitrile	4.04	53	11104	17.51	ug\L	95
10) 1,1-Dichloroethene	2.96	96	81759	8.53	ug\L	99
11) Acetone	3.10	58	1208	7.30	ug\L #	43
12) Iodomethane	3.17	142	102137	7.96	ug\L	98
13) Allylchloride	3.43	39	100036	8.67	ug\L	99
14) Carbon Disulfide	3.23	76	267728	9.67	ug\L	100
15) Acetonitrile	3.43	41	106235	86.38	ug\L	99
16) Methylene Chloride	3.62	86	51810	8.66	ug\L	99
17) trans-1,2-Dichloroethene	3.98	96	88037	8.55	ug\L	100
18) MethylTertButylEther	3.97	73	107417	8.68	ug\L	97
19) 1,1-Dichloroethane	4.68	63	131113	8.49	ug\L	98
20) Isopropyl Ether	4.77	45	13246	8.22	ug\L #	67
21) Vinyl Acetate	4.81	43	69203	8.95	ug\L	99
22) 2,2-Dichloropropane	5.70	77	160678	8.82	ug\L	99
23) cis-1,2-Dichloroethene	5.78	96	81980	8.35	ug\L	98
24) 2-Butanone	5.88	72	755	4.55	ug\L #	100
25) Propionitrile	6.02	54	18421	86.99	ug\L #	95
26) Methacrylonitrile	6.23	41	107137	86.55	ug\L	98
27) Bromochloromethane	6.20	128	30234	8.51	ug\L	96
28) Chloroform	6.36	83	166985	8.82	ug\L #	1
29) 1,1,1-Trichloroethane	6.56	97	189708	8.69	ug\L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00887.D Vial: 4
Acq On : 08/08/01 11:49 Operator:
Sample : AC17978MS 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:11 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.82	119	181301	8.87 ug\L	100
31) 1,4-Dioxane	8.84	88	4083	185.58 ug\L #	62
32) 1,1-Dichloropropene	6.85	77	37690	8.62 ug\L	95
34) Benzene	7.19	78	283551	8.41 ug\L	100
35) Isobutyl alcohol	7.31	43	8918	154.64 ug\L #	88
36) 1,2-Dichloroethane	7.29	62	87603	8.69 ug\L	99
37) Trichloroethene	8.22	95	101339	8.54 ug\L	98
38) 1,2-Dichloropropane	8.59	63	52470	8.33 ug\L #	90
39) Dibromomethane	8.79	93	32840	8.83 ug\L	97
40) Methylmethacrylate	8.80	69	14206	8.46 ug\L	97
41) Bromodichloromethane	9.05	83	105252	8.70 ug\L	100
43) cis-1,3-Dichloropropene	9.69	75	92108	8.17 ug\L	94
44) 4-Methyl-2-Pentanone	9.92	85	3397	7.53 ug\L #	1
47) Toluene	10.11	92	220376	10.10 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	70617	8.77 ug\L	94
49) Ethylmethacrylate	10.62	69	33065	8.73 ug\L	96
50) 1,1,2-Trichloroethane	10.77	83	29783	9.35 ug\L	98
51) Tetrachloroethene	10.87	164	86026	9.08 ug\L	99
52) 1,3-Dichloropropane	10.99	76	60917	9.02 ug\L	99
53) 2-Hexanone	11.10	43	11974	9.91 ug\L #	93
54) Dibromochloromethane	11.32	129	59907	9.14 ug\L	100
55) 1,2-Dibromoethane	11.45	107	36269	8.79 ug\L	99
56) Chlorobenzene	12.12	112	207286	8.58 ug\L	98
57) 1,1,1,2-Tetrachloroethane	12.25	131	82905	9.15 ug\L	100
58) Ethylbenzene	12.25	91	413899	8.81 ug\L	100
59) total-Xylene	12.42	106	412621m	25.26 ug\L #	
60) Styrene	13.01	104	198663	8.32 ug\L	98
62) Bromoform	13.31	173	26712	8.41 ug\L	99
63) Isopropylbenzene	13.47	105	382074	8.14 ug\L	99
64) cis-1,4-dichloro-2-Butene	14.03	53	12286	9.80 ug\L	89
65) trans-1,4-dichloro-2-Buten	14.03	53	12286	9.20 ug\L #	37
67) Bromobenzene	13.92	156	76115	8.46 ug\L	95
68) 1,1,2,2-Tetrachloroethane	13.97	83	29958	8.65 ug\L	99
69) 1,2,3-Trichloropropane	14.02	75	38621	8.84 ug\L	93
70) n-Propylbenzene	14.04	91	476068	8.48 ug\L	98
71) 2-Chlorotoluene	14.18	91	283901	8.59 ug\L	99
72) 4-Chlorotoluene	14.33	91	331678	8.64 ug\L	99
73) 1,3,5-Trimethylbenzene	14.29	105	359522	8.52 ug\L	98
74) Pentachloroethane	14.80	167	50408	8.64 ug\L	98
75) tert-Butylbenzene	14.73	119	295854	8.31 ug\L	100
76) 1,2,4-Trimethylbenzene	14.80	105	360516	8.65 ug\L	99
77) sec-Butylbenzene	15.03	105	441331	8.36 ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00887.D Vial: 4
Acq On : 08/08/01 11:49 Operator:
Sample : AC17978MS 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:11 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) 1,3-Dichlorobenzene	15.22	146	162960	8.82	ug\L	96
79) Isopropyltoluene	15.23	119	367728	8.53	ug\L	99
80) 1,4-Dichlorobenzene	15.34	146	157792	8.50	ug\L	98
81) 1,2-Dichlorobenzene	15.86	146	123167	8.56	ug\L	96
82) n-Butylbenzene	15.79	91	338137	8.50	ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.97	75	5329	7.66	ug\L	86
84) 1,2,4-trichlorobenzene	18.23	180	82157	8.15	ug\L	100
85) Hexachlorobutadiene	18.47	225	82920	9.16	ug\L	100
86) Naphthalene	18.69	128	91281	8.37	ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	62533	8.40	ug\L	99

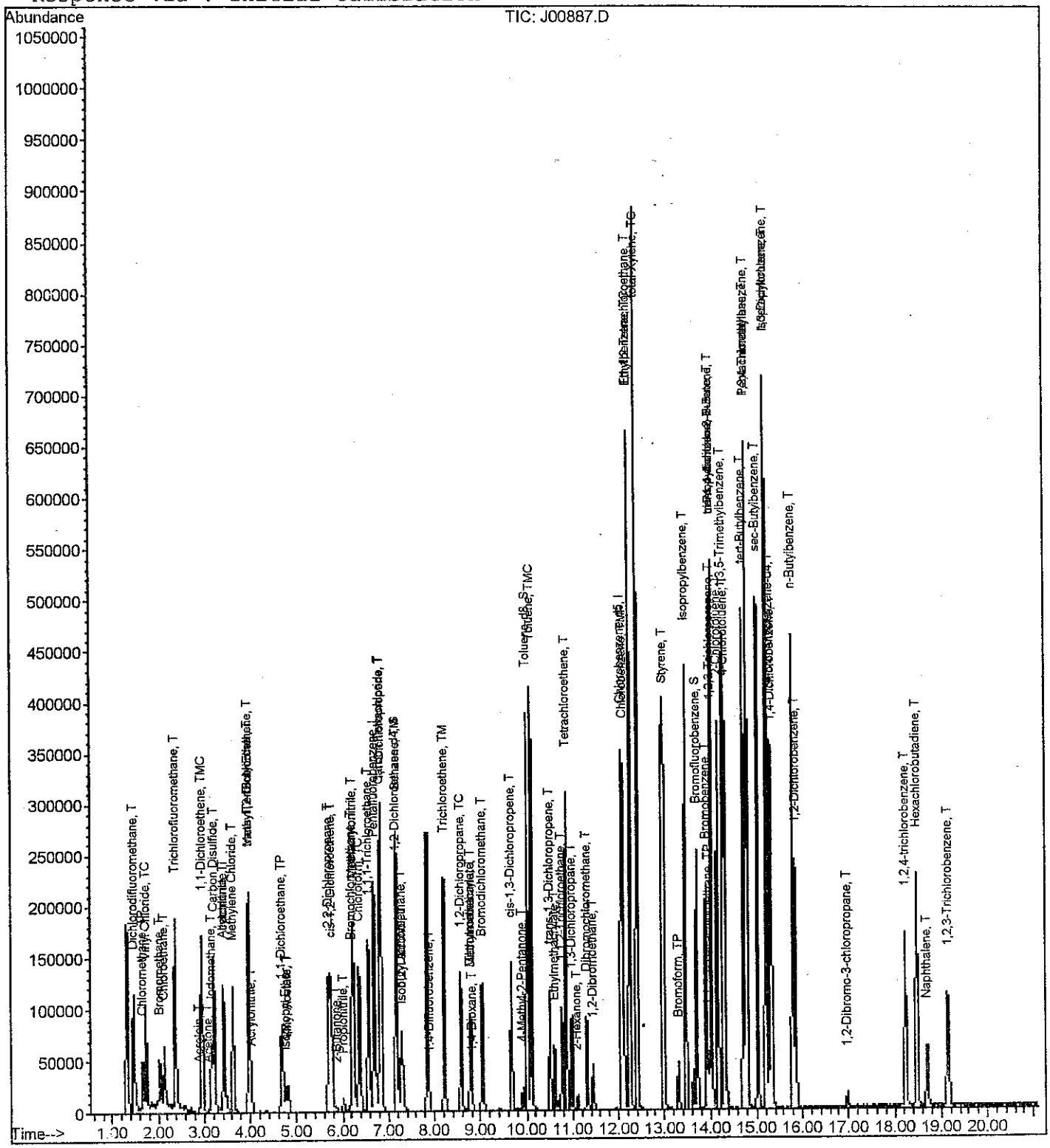
√ RB 8.8.01

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00887.D Vial: 4
Acq On : 08/08/01 11:49 Operator:
Sample : AC17978MS 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:11 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00888.D Vial: 5
Acq On : 08/08/01 12:15 Operator:
Sample : AC17978MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:36 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.71	168	186230	10.00	ug\L	0.00
45) Chlorobenzene-d5	12.08	117	222010	10.00	ug\L	0.00
61) 1,4-Dichlorobenzene-d4	15.31	152	115075	10.00	ug\L	0.00
88) 1.4-Difluorobenzene	7.86	116	419	10.00	ug\L	-0.24
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	7.17	65	76088	9.71	ug\L	-0.02
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.10%			
46) Toluene-d8	10.03	98	307889	9.47	ug\L	0.00
Spiked Amount 10.000	Range 87 - 104		Recovery = 94.70%			
66) Bromofluorobenzene	13.72	95	115101	8.99	ug\L	0.00
Spiked Amount 10.000	Range 84 - 110		Recovery = 89.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.47	85	130136	9.15	ug\L	99
3) Chloromethane	1.66	50	72107	10.22	ug\L	99
4) Vinyl Chloride	1.75	62	95233	9.80	ug\L	100
5) Bromomethane	2.04	94	22278	7.61	ug\L	96
6) Chloroethane	2.14	64	55130	10.58	ug\L	98
7) Trichlorofluoromethane	2.39	101	192473	10.77	ug\L #	100
8) Acrolein	2.91	56	4174	17.77	ug\L #	91
9) Acrylonitrile	4.05	53	11582	20.61	ug\L	92
10) 1,1-Dichloroethene	2.97	96	85835	10.11	ug\L	98
11) Acetone	3.10	58	993	6.77	ug\L #	1
12) Iodomethane	3.18	142	96666	8.51	ug\L	97
13) Allylchloride	3.44	39	107166	10.49	ug\L	98
14) Carbon Disulfide	3.24	76	243229	9.92	ug\L	99
15) Acetonitrile	3.44	41	111796	102.61	ug\L	97
16) Methylene Chloride	3.63	86	55956	10.99	ug\L	98
17) trans-1,2-Dichloroethene	3.99	96	90097	9.88	ug\L	96
18) MethylTertButylEther	3.98	73	118283	10.79	ug\L	98
19) 1,1-Dichloroethane	4.70	63	136017	9.94	ug\L	98
20) Isopropyl Ether	4.77	45	13748	9.63	ug\L #	84
21) Vinyl Acetate	4.82	43	71447	10.43	ug\L	96
22) 2,2-Dichloropropane	5.73	77	164814	10.21	ug\L	100
23) cis-1,2-Dichloroethene	5.78	96	86796	9.98	ug\L	97
24) 2-Butanone	5.88	72	2022	11.10	ug\L #	100
25) Propionitrile	6.03	54	18986	101.21	ug\L	98
26) Methacrylonitrile	6.24	41	104452	95.26	ug\L	98
27) Bromochloromethane	6.21	128	29667	9.43	ug\L	95
28) Chloroform	6.37	83	159948	9.54	ug\L #	1
29) 1,1,1-Trichloroethane	6.57	97	185321	9.59	ug\L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00888.D Vial: 5
Acq On : 08/08/01 12:15 Operator:
Sample : AC17978MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:36 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Carbon Tetrachloride	6.83	119	172550	9.53 ug\L	100
31) 1,4-Dioxane	8.85	88	3829	196.46 ug\L #	92
32) 1,1-Dichloropropene	6.85	77	36098	9.32 ug\L	98
34) Benzene	7.19	78	271745	9.10 ug\L	100
35) Isobutyl alcohol	7.32	43	9811	189.09 ug\L #	29
36) 1,2-Dichloroethane	7.29	62	86085	9.64 ug\L	97
37) Trichloroethene	8.22	95	99444	9.46 ug\L	98
38) 1,2-Dichloropropane	8.60	63	50562	9.06 ug\L	100
39) Dibromomethane	8.79	93	32999	10.02 ug\L	96
40) Methylmethacrylate	8.81	69	14111	9.49 ug\L	92
41) Bromodichloromethane	9.05	83	102794	9.59 ug\L	99
43) cis-1,3-Dichloropropene	9.69	75	90076	9.02 ug\L	97
44) 4-Methyl-2-Pentanone	9.92	85	3952	9.89 ug\L #	1
47) Toluene	10.12	92	217983	10.38 ug\L	100
48) trans-1,3-Dichloropropene	10.51	75	71092	9.17 ug\L	96
49) Ethylmethacrylate	10.62	69	34411	9.44 ug\L	98
50) 1,1,2-Trichloroethane	10.78	83	27355	8.92 ug\L	94
51) Tetrachloroethene	10.87	164	83675	9.17 ug\L	98
52) 1,3-Dichloropropane	10.99	76	59837	9.20 ug\L	100
53) 2-Hexanone	11.12	43	11935	10.26 ug\L #	96
54) Dibromochloromethane	11.32	129	59359	9.41 ug\L	97
55) 1,2-Dibromoethane	11.46	107	36917	9.30 ug\L	96
56) Chlorobenzene	12.11	112	217311	9.34 ug\L	100
57) 1,1,1,2-Tetrachloroethane	12.25	131	84973	9.75 ug\L	98
58) Ethylbenzene	12.25	91	424734	9.39 ug\L	99
59) total-Xylene	12.41	106	442325m	28.13 ug\L #	
60) Styrene	13.01	104	223009	9.70 ug\L	98
62) Bromoform	13.31	173	29695	8.94 ug\L	97
63) Isopropylbenzene	13.47	105	436888	8.89 ug\L	99
64) cis-1,4-dichloro-2-Butene	13.64	53	11472	8.75 ug\L #	1
65) trans-1,4-dichloro-2-Buten	14.04	53	12785	9.15 ug\L #	47
67) Bromobenzene	13.92	156	82476	8.77 ug\L	90
68) 1,1,2,2-Tetrachloroethane	13.98	83	34094	9.41 ug\L	100
69) 1,2,3-Trichloropropane	14.02	75	40728	8.91 ug\L	100
70) n-Propylbenzene	14.04	91	523129	8.90 ug\L	99
71) 2-Chlorotoluene	14.18	91	315000	9.11 ug\L	99
72) 4-Chlorotoluene	14.33	91	365846	9.10 ug\L	99
73) 1,3,5-Trimethylbenzene	14.28	105	401308	9.09 ug\L	98
74) Pentachloroethane	14.80	167	55344	9.06 ug\L	98
75) tert-Butylbenzene	14.73	119	328249	8.81 ug\L	99
76) 1,2,4-Trimethylbenzene	14.80	105	397547	9.12 ug\L	97
77) sec-Butylbenzene	15.03	105	490705	8.89 ug\L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\1J080801\J00888.D Vial: 5
Acq On : 08/08/01 12:15 Operator:
Sample : AC17978MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:36 2001 Quant Results File: 08080125.RES

Quant Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration
DataAcq Meth : 08080125

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
78) 1,3-Dichlorobenzene	15.22	146	179916	9.31 ug\L	97
79) Isopropyltoluene	15.23	119	404381	8.96 ug\L	100
80) 1,4-Dichlorobenzene	15.34	146	175961	9.06 ug\L	99
81) 1,2-Dichlorobenzene	15.87	146	136286	9.06 ug\L	98
82) n-Butylbenzene	15.79	91	376594	9.05 ug\L	99
83) 1,2-Dibromo-3-chloropropan	16.98	75	6102	8.39 ug\L	95
84) 1,2,4-trichlorobenzene	18.22	180	93479	8.87 ug\L	100
85) Hexachlorobutadiene	18.47	225	87215	9.21 ug\L	100
86) Naphthalene	18.69	128	99716	8.74 ug\L	100
87) 1,2,3-Trichlorobenzene	19.15	180	69289	8.89 ug\L	97

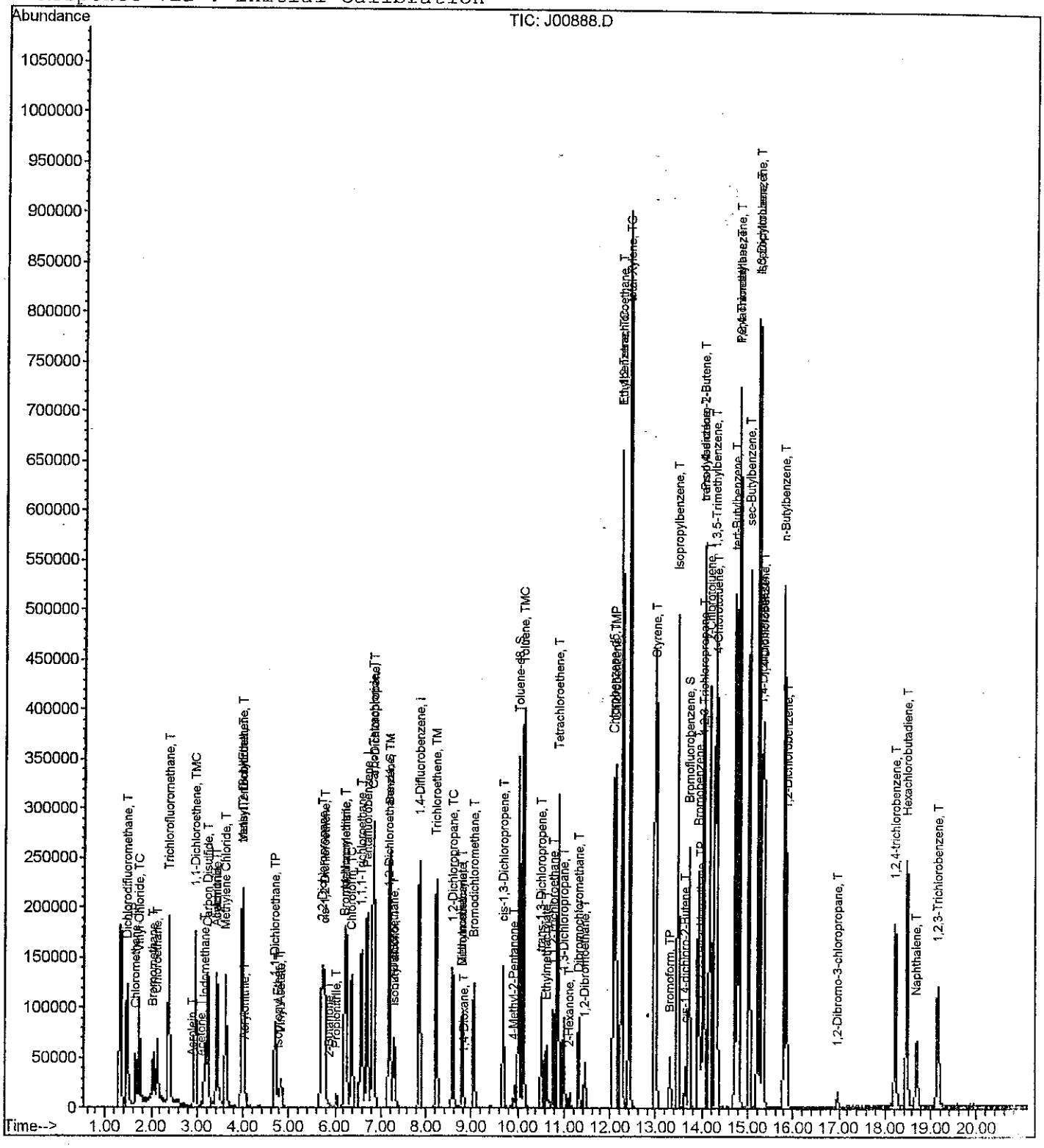
VRR
8.8.01

(#) = qualifier out of range (m) = manual integratic

Quantitation Report

Data File : C:\HPCHEM\1\DATA\1J080801\J00888.D Vial: 5
Acq On : 08/08/01 12:15 Operator:
Sample : AC17978MSD 25ml DF=1 Inst : HP-MSJ
Misc : 28530/W080701A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 8 12:36 2001 Quant Results File: 08080125.RES

Method : c:\hpchem\1\data\1J080801\08080125.M (RTE Integrator)
Title : 8260 CALIBRATION FOR 25ML WATER
Last Update : Mon Aug 06 15:57:28 2001
Response via : Initial Calibration



SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C107684
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
017-OLD-36-EB1-Q3-01	C107684-1
017-OLD-36-FB1-Q3-01	C107684-2
017-OLD-36-29B-Q3-01	C107684-3
017-OLD-36-28B-Q3-01	C107684-4

The above samples were received at STL Pensacola on July 31, 2001. The cooler temperature was 3°C.

All samples were analyzed for Sulfide and Dissolved Iron.

Rick Hayes
Senior Project Manager

8/14/01

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-07684
Received: 31 JUL 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165910814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
07684-1	017-OLD-36-EB1-Q3-01	07-30-01/12:00
07684-2	017-OLD-36-FB1-Q3-01	07-30-01/13:30
07684-3	017-OLD-36-29B-Q3-01	07-30-01/15:30
07684-4	017-OLD-36-28B-Q3-01	07-30-01/17:00

PARAMETER	07684-1	07684-2	07684-3	07684-4
Sulfide (376.1), mg/l	1.0U	1.0U	0.63B	2.6
Dilution Factor	1	1	1	1
Analysis Date	08.01.01	08.01.01	08.01.01	08.01.01
Analysis Time	13:50	13:50	13:50	13:50
Batch ID	FEW034	FEW034	FEW034	FEW034
Analyst	BH	BH	BH	BH
Iron, Dissolved (6010B), ug/l	100U	100U	450	410
Dilution Factor	1	1	1	1
Analysis Date	08.03.01	08.03.01	08.03.01	08.03.01
Analysis Time	20:05	20:11	20:16	20:22
Batch ID	PD085	PD085	PD085	PD085
Analyst	CH	CH	CH	CH

002

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-07684
Received: 31 JUL 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165910814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
07684-5	Method Blank	
07684-6	Lab Control Standard True Value	
07684-7	Lab Control Standard Result	
07684-8	Lab Control Standard % Recovery	
07684-9	LCS Accuracy Control Limit (%R)	

PARAMETER	07684-5	07684-6	07684-7	07684-8	07684-9
Sulfide (376.1), mg/l	1.0U	20.0	18.4	92 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	08.01.01	---	08.01.01	---	---
Analysis Time	13:50	---	13:50	---	---
Batch ID	FEW034	---	FEW034	---	---
Prep Method	---	FEW034	---	FEW034	FEW034
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100U	10000.0	10495.6	105 %	80-120
Dilution Factor	1	---	1	---	---
Analysis Date	08.03.01	---	08.03.01	---	---
Analysis Time	19:20	---	19:25	---	---
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	CH	---	CH	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-07684
Received: 31 JUL 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165910814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
07684-10	MS True Value	
07684-11	Matrix Spike Result	
07684-12	Matrix Spike % Recovery	
07684-13	MSD True Value	
07684-14	Matrix Spike Duplicate Result	

PARAMETER	07684-10	07684-11	07684-12	07684-13	07684-14
Sulfide (376.1), mg/l	10.0	10.2	102 %	NoMS	NoMS
Dilution Factor	---	1	---	---	---
Analysis Date	---	08.01.01	---	---	---
Analysis Time	---	13:50	---	---	---
Batch ID	---	FEW034	---	---	---
Prep Method	FEW034	---	FEW034	---	---
Analyst	---	BH	---	---	---
Iron, Dissolved (6010B), ug/l	10000.0	11118.0	106 %	10000.0	11076.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	08.03.01	---	---	08.03.01
Analysis Time	---	19:54	---	---	19:59
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	---	CH	---	---	CH

004

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-07684
Received: 31 JUL 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165910814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
07684-15	Matrix Spike Duplicate % Recovery	
07684-16	MS Accuracy Advisory Limit (%R)	
07684-17	Precision (%RPD) MS/MSD	
07684-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	07684-15	07684-16	07684-17	07684-18
Sulfide (376.1), mg/l	NoMS	NoMS	NoMS	NoMS
Iron, Dissolved (6010B), ug/l	105 %	75-125	0.4	20
Batch ID	PD085	PD085	PD085	PD085

Rick Hayes, Project Manager

Final Page Of Report

005

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a,response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags **are limited to** X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/01

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

***Foreign Soil Permit**, Permit No. S-37599*

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

*Commonwealth of **Kentucky**, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01*

*State of **Louisiana**, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01*

***Louisiana** Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)*

*State of **Maryland**, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/01*

*Commonwealth of **Massachusetts**, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02*

*State of **Michigan**, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/01*

***New Hampshire** DES ELAP, Laboratory ID No. 250599A (Wastewater), expires 08/16/01*

*State of **New Jersey**, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01*

*New **York State**, Department of Health, Laboratory ID No. 11503.(WW and Solids/Hazardous Waste), expires 04/01/01 – extension granted*

***North Carolina** Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01*

***North Dakota** DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02*

*State of **Oklahoma**, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01*

*Commonwealth of **Pennsylvania**, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01*

***South Carolina** DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01*

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/08/01

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/01

*State of **Washington**, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01*

***West Virginia** Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01*

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C107684 Date Received: 7-31-01

1.	Was there a Chain of Custody?	(Yes)	No♣	
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No♣	
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No♣	N/A
4.	Were all samples properly labeled and identified?	(Yes)	No♣	
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes♣	(No)	
6.	Were samples received in proper containers for analysis requested?	(Yes)	No♣	
7.	Were all sample containers received intact?	(Yes)	No♣	
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	(Yes)	No♣	N/A
9.	Is there sufficient volume for analysis requested?	(Yes)	No♣	N/A *(Can)*
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No♣	
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes♣	No	(N/A)
12.	If sent, were matrix spike bottles returned?	Yes	No♣	(N/A)
13.	Was Project Manager notified of problems? (initials:_____)	Yes	No♣	(N/A)

Airbill Number(s): 8285 1165 4870 **Shipped By:** FedEx

Cooler Number(s): client **Shipping Charges:** N/A

Cooler Weight(s): 30# **Cooler Temp(s) (°C):** 3°

(CCK11)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH **Date:** 7-31-01 **Logged By:** PAR **Date:** 7/31/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

C107684

[1] COC NUMBER: 0730-2

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12 01.08	BTL PENSACOLA RICK HAYES	STEVE TSANGARIS CCI	4350 W. CYPRESS ST. STE 600 TAMPA FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO-017		JEFF WILLMOTH CCI	115 PERIMETER CENTER PLACE NE STE 700 ATLANTA GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH	770-604-9182		JENNIFER OTTOSON CH2MHILL	205 INDIAN RIVER DR COCOA, FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	SULFIDE 376	DISS. FE @ 6010B							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36 FB1-Q3-01		W	7-30-01	1200	III	14	X	X								1 BOTTLE/PARAMETER	1
2	017-OLD-36-FB1-Q3-01		W	7-30-01	1330	↓	↓	X	X								↓	2
3	017-OLD-36-29B-Q3-01		W	7-30-01	1530	↓	↓	X	X								↓	3
4	017-OLD-36-28B-Q3-01		W	7-30-01	1700	↓	↓	X	X								↓	4
5																		
6																		
7																		
8																		
9																		
10																		

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
JENNIFER OTTOSON/I. LYNCH	FedEx 828511659870	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
	7-30-01	1830	Dorothe Howard / Dorothe Howard	7-31-01	0910
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001 Rev 06/00

C107 684

FedEx Express USA Airbill

FedEx Tracking Number 828511654870

Form I.D. No. 0200

Recipient's Copy

1 From

Date 7-30-0

Sender's Name ISAAC LYNCH Phone 352 3396820

Company CH2M HILL

Address 1060 WAREHOUSE RD

Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To

Recipient's Name SAMPLES RECVG Phone 8504741001

Company STL PENSACOLA LABS

Address 3355 McLemore Dr.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA, State FL ZIP 32514

828511654870

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] **NEW** FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg. — Declared value limit $500

6 Special Handling — Include FedEx address in Section 3.

- [ ] **SATURDAY Delivery** — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] **SUNDAY Delivery** — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] **HOLD Weekday at FedEx Location** — Not available with FedEx First Overnight
- [ ] **HOLD Saturday at FedEx Location** — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods incl. Dry ice cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment *Bill to:* — Enter FedEx Acct. No. or Credit Card No. below. — [ ] Obtain Recip. Acct. No.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	30	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

Rev. Date 12/00•Part #159915•©1994–2000 FedEx•PRINTED IN U.S.A. GBFE 5/01

404

011

Attach one file Label here

SAM[illegible]HECK LIST
STL Pensacola

Paperwork by: PR
Labeled by: DMH
Delivered by: DMH

CH2M-CONST-GA C107684
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						ZnAc/NaOH	4	BAL	7.31.01	1800
8 oz. Plastic		✓					HNO3	4			
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

SULFIDE 376.1

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 8/1/01 | Preparation[1] Time On: 1340 | Preparation[1] Time Off: 1350

Analysis Date: 8/1/01 | Analysis Time On: 1350 | Analysis Time Off: 1430

Batch #: FEN034

Chemist[2]: MA | Data Reviewed By: AB 8/6/01

RPD: 20
Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$= (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0239 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 ~~0.0239~~ 0.0247 PM 8/1/01 LOT # I_2 = 1094-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.88	0.025N $Na_2S_2O_3$ 9-15-01	0.02384	5	5.16	0.025N I_2 7-4-01	0.02466
5.87	↓	0.02388	5	5.17	↓	0.02471

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.19	ND	1.0
SF-LCS-S[7]- 9-18-01	N/A	0.2/100 ml	↓	10	5.52	18.4/20.0 =	1.0 92%
Prep Blank (distilled)	DI Water	100 ml	N/A				→
1 107004-3	Wa	200		5	~~3.49~~ 3.69 PM 8/1/01	2.8	
MS[6] (10 ppm) -3		2/200		10	3.88	12.3-2.8/10.0=	95%
MSD[6] (10 ppm) -3		2/200		10	3.82	12.5-2.8/10.0=	97%
2 -1		200		5	3.47	3.2	1.0
3 -2		200		5	3.70	2.8	
4 -4		200		5	3.55	3.1	
5 -5		200		5	5.54	ND	
6 ↓ -6		200		5	3.41	3.4	
7 107684-1		200		5	5.01	ND	↓
8 MS -1		2/200		10	5.02	~~ND~~ 10.2/10.0=	102%
-2		200		5	5.12	ND	1.0
10 ↓ -3	↓	200		5	4.84	ND (.525) PM 8/1/01	↓
SF-LCS-S[7]- 9-18-01	N/A	0.2/100 mls		10	5.50	~~9-21-01~~ 18.5/20.0=	93%
CCB (blank)	DI Water	100 mls		5	5.14	ND	1.0
DUP[5] 107684-3 PM 8/1/01	Wa	200		5	4.92	ND (.472)	
11 ↓ -4	↓	200	↓	5	3.81	2.6	↓
~~12~~							
13							
14							
15			PM 8/1/01				
16							
17							
18							
19							
20							
SF-LCS-S[7] 9-18-01	N/A	0.2/100 mls	N/A	10	5.51	18.4/20.0=	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.17	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = [(ml iodine x N iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16000 / ml of sample or g of sample = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide
(2) mg sulfide x 24.4 x 1000 / 32 = µl H_2S (3) µl H_2S / 20 L gas = ppmv H_2S

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. Please specify sample accession # or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

DISSOLVED IRON

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	10005	10000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Antimony	985	1000	98.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Arsenic	986	1000	98.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Barium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Beryllium	498	500	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Boron	987	1000	98.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cadmium	497	500	99.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Calcium	10058	10000	100.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Chromium	997	1000	99.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cobalt	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10066	10000	100.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10034	10000	100.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lead	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Magnesium	9899	10000	99.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Manganese	998	1000	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Nickel	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Potassium	9763	10000	97.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Selenium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Silver	499	500	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Sodium	9649	10000	96.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Strontium	1011	1000	101.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Thallium	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Tin	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Titanium	983	1000	98.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Vanadium	996	1000	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Zinc	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lithium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Antimony	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Arsenic	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Barium	991	1000	99.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Beryllium	500	500	100.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cadmium	501	500	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Calcium	10170	10000	101.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Chromium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cobalt	1008	1000	100.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10114	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10108	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lead	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Magnesium	9982	10000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Manganese	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Nickel	1011	1000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Potassium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Silver	502	500	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Sodium	9786	10000	97.9	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Strontium	1013	1000	101.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Thallium	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Tin	1004	1000	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Titanium	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Vanadium	998	1000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Zinc	1005	1000	100.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lithium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Aluminum	10225	10000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Antimony	991	1000	99.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Arsenic	1000	1000	100.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Barium	990	1000	99.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Boron	985	1000	98.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cadmium	506	500	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Calcium	10210	10000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Chromium	1005	1000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cobalt	1012	1000	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10184	10000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10167	10000	101.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lead	1021	1000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Magnesium	10047	10000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Molybdenum	980	1000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Nickel	1020	1000	102.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Silver	505	500	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Sodium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Strontium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Thallium	1022	1000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Tin	1010	1000	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Titanium	989	1000	98.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Vanadium	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Zinc	1014	1000	101.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lithium	1077	1000	107.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Antimony	996	1000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Arsenic	1001	1000	100.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Barium	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Beryllium	505	500	101.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cadmium	509	500	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Calcium	10214	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Chromium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cobalt	1018	1000	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10219	10000	102.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10207	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lead	1030	1000	103.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Magnesium	10084	10000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Manganese	1012	1000	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Molybdenum	983	1000	98.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Nickel	1024	1000	102.4	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Potassium	9961	10000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Selenium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Sodium	9900	10000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Strontium	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Thallium	1028	1000	102.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Tin	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Titanium	990	1000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Vanadium	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Zinc	1021	1000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4									
	Aluminum	10203	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Antimony	994	1000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Arsenic	997	1000	99.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Barium	987	1000	98.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Boron	991	1000	99.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cadmium	505	500	101.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Calcium	10196	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Chromium	1006	1000	100.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cobalt	1014	1000	101.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10183	10000	101.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10162	10000	101.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lead	1029	1000	102.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Magnesium	10017	10000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Molybdenum	981	1000	98.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Nickel	1019	1000	101.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Potassium	9994	10000	99.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Selenium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Sodium	9943	10000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Strontium	1020	1000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Thallium	1025	1000	102.5	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Titanium	988	1000	98.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Vanadium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Zinc	1012	1000	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV5									
	Aluminum	10359	10000	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Antimony	1018	1000	101.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Arsenic	1024	1000	102.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Barium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Beryllium	517	500	103.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Boron	1014	1000	101.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cadmium	520	500	104.0	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Calcium	10436	10000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Chromium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cobalt	1042	1000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Copper	1027	1000	102.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10456	10000	104.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10420	10000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lead	1052	1000	105.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Magnesium	10260	10000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Manganese	1035	1000	103.5	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Molybdenum	1006	1000	100.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Nickel	1048	1000	104.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Potassium	10132	10000	101.3	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Selenium	1029	1000	102.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Silver	518	500	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Sodium	10069	10000	100.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Strontium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Thallium	1051	1000	105.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Tin	1038	1000	103.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Vanadium	1026	1000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Zinc	1039	1000	103.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lithium	1096	1000	109.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6									
	Aluminum	10646	10000	106.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Antimony	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Arsenic	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Barium	997	1000	99.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Beryllium	525	500	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Boron	1026	1000	102.6	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cadmium	536	500	107.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Calcium	10605	10000	106.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cobalt	1075	1000	107.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Copper	1039	1000	103.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10696	10000	107.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10608	10000	106.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lead	1081	1000	108.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Magnesium	10415	10000	104.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Molybdenum	1028	1000	102.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Nickel	1083	1000	108.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Potassium	9930	10000	99.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Selenium	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Silver	524	500	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Sodium	10317	10000	103.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Strontium	1050	1000	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Thallium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Tin	1055	1000	105.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Titanium	1019	1000	101.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Zinc	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lithium	1074	1000	107.4	90.0 - 110.0	P	8/3/01	16:20	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV7									
	Aluminum	10524	10000	105.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Antimony	1039	1000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Arsenic	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Barium	996	1000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Beryllium	520	500	104.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Boron	1021	1000	102.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cadmium	530	500	106.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Calcium	10466	10000	104.7	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Chromium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cobalt	1063	1000	106.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Copper	1034	1000	103.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10586	10000	105.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10493	10000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lead	1073	1000	107.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Magnesium	10258	10000	102.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Manganese	1048	1000	104.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Molybdenum	1018	1000	101.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Nickel	1071	1000	107.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Potassium	9956	10000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Selenium	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Silver	522	500	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Sodium	10387	10000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Strontium	1049	1000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Thallium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Tin	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Vanadium	1036	1000	103.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Zinc	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8									
	Aluminum	10533	10000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Antimony	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Arsenic	1050	1000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Barium	1000	1000	100.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Beryllium	524	500	104.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Boron	1030	1000	103.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cadmium	535	500	107.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Calcium	10501	10000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cobalt	1076	1000	107.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Copper	1038	1000	103.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10660	10000	106.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10574	10000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lead	1079	1000	107.9	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Magnesium	10326	10000	103.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Molybdenum	1027	1000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Nickel	1084	1000	108.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Selenium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Silver	523	500	104.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Sodium	10268	10000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Strontium	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Thallium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Tin	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Titanium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Zinc	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lithium	1068	1000	106.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV9									
	Aluminum	10682	10000	106.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Antimony	1069	1000	106.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Arsenic	1066	1000	106.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Barium	1007	1000	100.7	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Beryllium	531	500	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Boron	1052	1000	105.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cadmium	545	500	109.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Calcium	10628	10000	106.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Chromium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cobalt	1096	1000	109.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Copper	1051	1000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10807	10000	108.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10721	10000	107.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lead	1098	1000	109.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Magnesium	10514	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Manganese	1073	1000	107.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Molybdenum	1046	1000	104.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Nickel	1103	1000	110.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Potassium	10035	10000	100.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Selenium	1062	1000	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Sodium	10512	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Strontium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Thallium	1104	1000	110.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Tin	1071	1000	107.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Titanium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Vanadium	1059	1000	105.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Zinc	1076	1000	107.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lithium	1088	1000	108.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10									
	Aluminum	10664	10000	106.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Antimony	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Arsenic	1078	1000	107.8	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Barium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Beryllium	535	500	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Boron	1063	1000	106.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cadmium	553	500	110.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Calcium	10698	10000	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Chromium	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cobalt	1113	1000	111.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Copper	1052	1000	105.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10862	10000	108.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10786	10000	107.9	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lead	1111	1000	111.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Magnesium	10640	10000	106.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Manganese	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Molybdenum	1057	1000	105.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Nickel	1117	1000	111.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Potassium	9925	10000	99.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Sodium	10402	10000	104.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Strontium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Thallium	1116	1000	111.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Tin	1082	1000	108.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Vanadium	1067	1000	106.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Zinc	1093	1000	109.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lithium	1080	1000	108.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11									
	Aluminum	10753	10000	107.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Antimony	1080	1000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Arsenic	1079	1000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Barium	995	1000	99.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Beryllium	536	500	107.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Boron	1064	1000	106.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cadmium	557	500	111.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Calcium	10787	10000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Chromium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cobalt	1118	1000	111.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Copper	1049	1000	104.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10872	10000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10825	10000	108.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lead	1121	1000	112.1	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Magnesium	10804	10000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Manganese	1084	1000	108.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Molybdenum	1062	1000	106.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Nickel	1125	1000	112.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Potassium	10024	10000	100.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Silver	528	500	105.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Sodium	10597	10000	106.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Strontium	1055	1000	105.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Thallium	1119	1000	111.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Tin	1090	1000	109.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Vanadium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Zinc	1108	1000	110.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lithium	1098	1000	109.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12									
	Aluminum	10907	10000	109.1	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Antimony	1099	1000	109.9	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Arsenic	1104	1000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Barium	984	1000	98.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Beryllium	546	500	109.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Boron	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cadmium	574	500	114.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Calcium	11037	10000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Chromium	1110	1000	111.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cobalt	1150	1000	115.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Copper	1053	1000	105.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11130	10000	111.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11063	10000	110.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lead	1153	1000	115.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Magnesium	11080	10000	110.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Manganese	1105	1000	110.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Molybdenum	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Nickel	1158	1000	115.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Potassium	9720	10000	97.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Selenium	1090	1000	109.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Silver	531	500	106.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Sodium	10445	10000	104.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Strontium	1057	1000	105.7	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Thallium	1154	1000	115.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Tin	1114	1000	111.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Titanium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Vanadium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Zinc	1135	1000	113.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	10:04	TAUG03A
	Antimony	2.32	+/-50.00	B	2.00	50.00	P	8/3/01	10:04	TAUG03A
	Arsenic	3.00	+/-5.00	B	3.00	5.00	P	8/3/01	10:04	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:04	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:04	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:04	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:04	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	10:04	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:04	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	10:04	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:04	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:04	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:04	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:04	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:04	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:04	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB1										
	Aluminum	58.2	+/-100.0	B	10.0	100.0	P	8/3/01	10:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	10:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	10:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:48	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	10:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Magnesium	10.21	+/-500.00	B	6.00	500.00	P	8/3/01	10:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB2										
	Aluminum	72.3	+/-100.0	B	10.0	100.0	P	8/3/01	11:55	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	11:55	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	11:55	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	11:55	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	11:55	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	11:55	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	11:55	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	11:55	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	11:55	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Magnesium	10.85	+/-500.00	B	6.00	500.00	P	8/3/01	11:55	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	11:55	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	11:55	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	11:55	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	11:55	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	11:55	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	11:55	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB3										
	Aluminum	65.4	+/-100.0	B	10.0	100.0	P	8/3/01	13:03	TAUG03A
	Antimony	2.25	+/-50.00	B	2.00	50.00	P	8/3/01	13:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	13:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	13:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	13:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	13:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	13:03	TAUG03A
	Iron	7.4	+/-100.0	B	7.0	100.0	P	8/3/01	13:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	13:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Magnesium	7.03	+/-500.00	B	6.00	500.00	P	8/3/01	13:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	13:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	13:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	13:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	13:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	13:03	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	13:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB4										
	Aluminum	62.7	+/-100.0	B	10.0	100.0	P	8/3/01	14:10	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	14:10	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	14:10	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	14:10	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	14:10	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	14:10	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	14:10	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	14:10	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	14:10	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Magnesium	7.46	+/-500.00	B	6.00	500.00	P	8/3/01	14:10	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	14:10	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	14:10	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	14:10	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	14:10	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	14:10	TAUG03A
	Lithium	1.02	+/-50.00	B	1.00	50.00	P	8/3/01	14:10	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB5										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	15:18	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	15:18	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	15:18	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	15:18	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	15:18	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	15:18	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	15:18	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	15:18	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	15:18	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	15:18	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	15:18	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	15:18	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	15:18	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	15:18	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	15:18	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	15:18	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB6										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	16:25	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	16:25	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	16:25	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	16:25	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	16:25	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	16:25	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	16:25	TAUG03A
	Iron	8.7	+/-100.0	B	7.0	100.0	P	8/3/01	16:25	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	16:25	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Magnesium	15.34	+/-500.00	B	6.00	500.00	P	8/3/01	16:25	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	16:25	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	16:25	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	16:25	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	16:25	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	16:25	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	16:25	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB7										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	17:33	TAUG03A
	Antimony	2.23	+/-50.00	B	2.00	50.00	P	8/3/01	17:33	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	17:33	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	17:33	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	17:33	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	17:33	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	17:33	TAUG03A
	Iron	8.0	+/-100.0	B	7.0	100.0	P	8/3/01	17:33	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	17:33	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Magnesium	14.14	+/-500.00	B	6.00	500.00	P	8/3/01	17:33	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	17:33	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	17:33	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	17:33	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	17:33	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	17:33	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	17:33	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB8										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	18:40	TAUG03A
	Antimony	2.00	+/-50.00	B	2.00	50.00	P	8/3/01	18:40	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	18:40	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	18:40	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	18:40	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	18:40	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	18:40	TAUG03A
	Iron	7.6	+/-100.0	B	7.0	100.0	P	8/3/01	18:40	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	18:40	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Magnesium	9.46	+/-500.00	B	6.00	500.00	P	8/3/01	18:40	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	18:40	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	18:40	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	18:40	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	18:40	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	18:40	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	18:40	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB9										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	19:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	19:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	19:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	19:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	19:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	19:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	19:48	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	19:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	19:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	19:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	19:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	19:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	19:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	19:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	19:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	19:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB10										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	20:56	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	20:56	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	20:56	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	20:56	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	20:56	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	20:56	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	20:56	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	20:56	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	20:56	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	20:56	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	20:56	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	20:56	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	20:56	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	20:56	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	20:56	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	20:56	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB11										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:03	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:03	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	22:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	22:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:03	TAUG03A
	Lithium	1.20	+/-50.00	B	1.00	50.00	P	8/3/01	22:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB12										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:54	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:54	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:54	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:54	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:54	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:54	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:54	TAUG03A
	Iron	12.2	+/-100.0	B	7.0	100.0	P	8/3/01	22:54	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:54	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Magnesium	27.95	+/-500.00	B	6.00	500.00	P	8/3/01	22:54	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:54	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:54	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:54	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:54	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:54	TAUG03A
	Lithium	1.50	+/-50.00	B	1.00	50.00	P	8/3/01	22:54	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	503029.7	500000.0	100.6	80 - 120	8/3/01	10:28	TAUG03A
	Antimony	-3.2			80 - 120	8/3/01	10:28	TAUG03A
	Arsenic	-0.3			80 - 120	8/3/01	10:28	TAUG03A
	Barium	1.1			80 - 120	8/3/01	10:28	TAUG03A
	Beryllium	1.0			80 - 120	8/3/01	10:28	TAUG03A
	Boron	1.7			80 - 120	8/3/01	10:28	TAUG03A
	Cadmium	0.4			80 - 120	8/3/01	10:28	TAUG03A
	Calcium	459448.1	500000.0	91.9	80 - 120	8/3/01	10:28	TAUG03A
	Chromium	-1.6			80 - 120	8/3/01	10:28	TAUG03A
	Cobalt	4.6			80 - 120	8/3/01	10:28	TAUG03A
	Copper	0.9			80 - 120	8/3/01	10:28	TAUG03A
	Iron	182247.1	200000.0	91.1	80 - 120	8/3/01	10:28	TAUG03A
	Iron	201616.5	200000.0	100.8	80 - 120	8/3/01	10:28	TAUG03A
	Lead	0.6			80 - 120	8/3/01	10:28	TAUG03A
	Magnesium	548652.9	500000.0	109.7	80 - 120	8/3/01	10:28	TAUG03A
	Manganese	3.7			80 - 120	8/3/01	10:28	TAUG03A
	Molybdenum	-1.0			80 - 120	8/3/01	10:28	TAUG03A
	Nickel	-3.3			80 - 120	8/3/01	10:28	TAUG03A
	Potassium	-12.4			80 - 120	8/3/01	10:28	TAUG03A
	Selenium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Silver	-0.4			80 - 120	8/3/01	10:28	TAUG03A
	Sodium	-110.2			80 - 120	8/3/01	10:28	TAUG03A
	Strontium	-1.5			80 - 120	8/3/01	10:28	TAUG03A
	Thallium	10.7			80 - 120	8/3/01	10:28	TAUG03A
	Tin	1.2			80 - 120	8/3/01	10:28	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Vanadium	-3.8			80 - 120	8/3/01	10:28	TAUG03A
	Zinc	3.0			80 - 120	8/3/01	10:28	TAUG03A
	Lithium	0.7			80 - 120	8/3/01	10:28	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB1								
	Aluminum	515234.9	510000.0	101.0	80 - 120	8/3/01	10:34	TAUG03A
	Antimony	1101.9	1000.0	110.2	80 - 120	8/3/01	10:34	TAUG03A
	Arsenic	1096.4	1000.0	109.6	80 - 120	8/3/01	10:34	TAUG03A
	Barium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Beryllium	537.8	500.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Boron	1103.0	1000.0	110.3	80 - 120	8/3/01	10:34	TAUG03A
	Cadmium	509.9	500.0	102.0	80 - 120	8/3/01	10:34	TAUG03A
	Calcium	468006.8	510000.0	91.8	80 - 120	8/3/01	10:34	TAUG03A
	Chromium	1037.8	1000.0	103.8	80 - 120	8/3/01	10:34	TAUG03A
	Cobalt	1021.6	1000.0	102.2	80 - 120	8/3/01	10:34	TAUG03A
	Copper	1120.8	1000.0	112.1	80 - 120	8/3/01	10:34	TAUG03A
	Iron	189932.3	210000.0	90.4	80 - 120	8/3/01	10:34	TAUG03A
	Iron	211877.0	210000.0	100.9	80 - 120	8/3/01	10:34	TAUG03A
	Lead	1030.6	1000.0	103.1	80 - 120	8/3/01	10:34	TAUG03A
	Magnesium	557813.3	510000.0	109.4	80 - 120	8/3/01	10:34	TAUG03A
	Manganese	1055.6	1000.0	105.6	80 - 120	8/3/01	10:34	TAUG03A
	Molybdenum	1066.1	1000.0	106.6	80 - 120	8/3/01	10:34	TAUG03A
	Nickel	1015.4	1000.0	101.5	80 - 120	8/3/01	10:34	TAUG03A
	Potassium	14587.3	10000.0	145.9	50 - 150	8/3/01	10:34	TAUG03A
	Selenium	1067.6	1000.0	106.8	80 - 120	8/3/01	10:34	TAUG03A
	Silver	573.0	500.0	114.6	80 - 120	8/3/01	10:34	TAUG03A
	Sodium	11410.1	10000.0	114.1	50 - 150	8/3/01	10:34	TAUG03A
	Strontium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Thallium	1052.3	1000.0	105.2	80 - 120	8/3/01	10:34	TAUG03A
	Tin	1042.1	1000.0	104.2	80 - 120	8/3/01	10:34	TAUG03A
	Titanium	1050.8	1000.0	105.1	80 - 120	8/3/01	10:34	TAUG03A
	Vanadium	1049.0	1000.0	104.9	80 - 120	8/3/01	10:34	TAUG03A
	Zinc	991.3	1000.0	99.1	80 - 120	8/3/01	10:34	TAUG03A
	Lithium	1092.1	1000.0	109.2	50 - 150	8/3/01	10:34	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A2								
	Aluminum	509786.1	500000.0	102.0	80 - 120	8/3/01	16:08	TAUG03A
	Antimony	0.3			80 - 120	8/3/01	16:08	TAUG03A
	Arsenic	2.3			80 - 120	8/3/01	16:08	TAUG03A
	Barium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Beryllium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Boron	3.5			80 - 120	8/3/01	16:08	TAUG03A
	Cadmium	0.1			80 - 120	8/3/01	16:08	TAUG03A
	Calcium	470379.3	500000.0	94.1	80 - 120	8/3/01	16:08	TAUG03A
	Chromium	-1.9			80 - 120	8/3/01	16:08	TAUG03A
	Cobalt	4.9			80 - 120	8/3/01	16:08	TAUG03A
	Copper	-0.3			80 - 120	8/3/01	16:08	TAUG03A
	Iron	186962.0	200000.0	93.5	80 - 120	8/3/01	16:08	TAUG03A
	Iron	205302.8	200000.0	102.7	80 - 120	8/3/01	16:08	TAUG03A
	Lead	3.1			80 - 120	8/3/01	16:08	TAUG03A
	Magnesium	556058.3	500000.0	111.2	80 - 120	8/3/01	16:08	TAUG03A
	Manganese	4.0			80 - 120	8/3/01	16:08	TAUG03A
	Molybdenum	-0.9			80 - 120	8/3/01	16:08	TAUG03A
	Nickel	-2.4			80 - 120	8/3/01	16:08	TAUG03A
	Potassium	-39.7			80 - 120	8/3/01	16:08	TAUG03A
	Selenium	-5.3			80 - 120	8/3/01	16:08	TAUG03A
	Silver	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Sodium	-233.8			80 - 120	8/3/01	16:08	TAUG03A
	Strontium	-1.6			80 - 120	8/3/01	16:08	TAUG03A
	Thallium	9.3			80 - 120	8/3/01	16:08	TAUG03A
	Tin	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Titanium	-2.3			80 - 120	8/3/01	16:08	TAUG03A
	Vanadium	-3.4			80 - 120	8/3/01	16:08	TAUG03A
	Zinc	1.8			80 - 120	8/3/01	16:08	TAUG03A
	Lithium	1.0			80 - 120	8/3/01	16:08	TAUG03A

Total Metals

- 4 -

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB2								
	Aluminum	533186.9	510000.0	104.5	80 - 120	8/3/01	16:14	TAUG03A
	Antimony	1154.0	1000.0	115.4	80 - 120	8/3/01	16:14	TAUG03A
	Arsenic	1146.4	1000.0	114.6	80 - 120	8/3/01	16:14	TAUG03A
	Barium	1089.2	1000.0	108.9	80 - 120	8/3/01	16:14	TAUG03A
	Beryllium	558.4	500.0	111.7	80 - 120	8/3/01	16:14	TAUG03A
	Boron	1128.0	1000.0	112.8	80 - 120	8/3/01	16:14	TAUG03A
	Cadmium	537.3	500.0	107.5	80 - 120	8/3/01	16:14	TAUG03A
	Calcium	488330.7	510000.0	95.8	80 - 120	8/3/01	16:14	TAUG03A
	Chromium	1080.7	1000.0	108.1	80 - 120	8/3/01	16:14	TAUG03A
	Cobalt	1073.2	1000.0	107.3	80 - 120	8/3/01	16:14	TAUG03A
	Copper	1145.2	1000.0	114.5	80 - 120	8/3/01	16:14	TAUG03A
	Iron	199554.0	210000.0	95.0	80 - 120	8/3/01	16:14	TAUG03A
	Iron	220469.8	210000.0	105.0	80 - 120	8/3/01	16:14	TAUG03A
	Lead	1083.4	1000.0	108.3	80 - 120	8/3/01	16:14	TAUG03A
	Magnesium	578245.2	510000.0	113.4	80 - 120	8/3/01	16:14	TAUG03A
	Manganese	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Molybdenum	1110.6	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Nickel	1070.0	1000.0	107.0	80 - 120	8/3/01	16:14	TAUG03A
	Potassium	14795.1	10000.0	148.0	50 - 150	8/3/01	16:14	TAUG03A
	Selenium	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Silver	592.3	500.0	118.5	80 - 120	8/3/01	16:14	TAUG03A
	Sodium	11951.0	10000.0	119.5	50 - 150	8/3/01	16:14	TAUG03A
	Strontium	1110.7	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Thallium	1112.5	1000.0	111.2	80 - 120	8/3/01	16:14	TAUG03A
	Tin	1085.6	1000.0	108.6	80 - 120	8/3/01	16:14	TAUG03A
	Titanium	1080.0	1000.0	108.0	80 - 120	8/3/01	16:14	TAUG03A
	Vanadium	1086.6	1000.0	108.7	80 - 120	8/3/01	16:14	TAUG03A
	Zinc	1036.8	1000.0	103.7	80 - 120	8/3/01	16:14	TAUG03A
	Lithium	1118.4	1000.0	111.8	50 - 150	8/3/01	16:14	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A3								
	Aluminum	528266.5	500000.0	105.7	80 - 120	8/3/01	22:37	TAUG03A
	Antimony	-0.2			80 - 120	8/3/01	22:37	TAUG03A
	Arsenic	0.5			80 - 120	8/3/01	22:37	TAUG03A
	Barium	1.1			80 - 120	8/3/01	22:37	TAUG03A
	Beryllium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Boron	2.5			80 - 120	8/3/01	22:37	TAUG03A
	Cadmium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Calcium	487332.5	500000.0	97.5	80 - 120	8/3/01	22:37	TAUG03A
	Chromium	-1.5			80 - 120	8/3/01	22:37	TAUG03A
	Cobalt	4.4			80 - 120	8/3/01	22:37	TAUG03A
	Copper	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Iron	195288.5	200000.0	97.6	80 - 120	8/3/01	22:37	TAUG03A
	Iron	212796.8	200000.0	106.4	80 - 120	8/3/01	22:37	TAUG03A
	Lead	2.1			80 - 120	8/3/01	22:37	TAUG03A
	Magnesium	584574.8	500000.0	116.9	80 - 120	8/3/01	22:37	TAUG03A
	Manganese	3.9			80 - 120	8/3/01	22:37	TAUG03A
	Molybdenum	-0.4			80 - 120	8/3/01	22:37	TAUG03A
	Nickel	-2.1			80 - 120	8/3/01	22:37	TAUG03A
	Potassium	-27.6			80 - 120	8/3/01	22:37	TAUG03A
	Selenium	-1.3			80 - 120	8/3/01	22:37	TAUG03A
	Silver	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Sodium	14.6			80 - 120	8/3/01	22:37	TAUG03A
	Strontium	-2.0			80 - 120	8/3/01	22:37	TAUG03A
	Thallium	3.7			80 - 120	8/3/01	22:37	TAUG03A
	Tin	0.4			80 - 120	8/3/01	22:37	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	22:37	TAUG03A
	Vanadium	-3.6			80 - 120	8/3/01	22:37	TAUG03A
	Zinc	2.6			80 - 120	8/3/01	22:37	TAUG03A
	Lithium	1.6			80 - 120	8/3/01	22:37	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB3								
	Aluminum	546032.6	510000.0	107.1	80 - 120	8/3/01	22:43	TAUG03A
	Antimony	1194.4	1000.0	119.4	80 - 120	8/3/01	22:43	TAUG03A
	Arsenic	1187.9	1000.0	118.8	80 - 120	8/3/01	22:43	TAUG03A
	Barium	1064.7	1000.0	106.5	80 - 120	8/3/01	22:43	TAUG03A
	Beryllium	575.4	500.0	115.1	80 - 120	8/3/01	22:43	TAUG03A
	Boron	1156.5	1000.0	115.6	80 - 120	8/3/01	22:43	TAUG03A
	Cadmium	570.5	500.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Calcium	503427.4	510000.0	98.7	80 - 120	8/3/01	22:43	TAUG03A
	Chromium	1123.4	1000.0	112.3	80 - 120	8/3/01	22:43	TAUG03A
	Cobalt	1133.7	1000.0	113.4	80 - 120	8/3/01	22:43	TAUG03A
	Copper	1147.2	1000.0	114.7	80 - 120	8/3/01	22:43	TAUG03A
	Iron	206742.6	210000.0	98.4	80 - 120	8/3/01	22:43	TAUG03A
	Iron	226705.8	210000.0	108.0	80 - 120	8/3/01	22:43	TAUG03A
	Lead	1141.0	1000.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Magnesium	605249.2	510000.0	118.7	80 - 120	8/3/01	22:43	TAUG03A
	Manganese	1135.6	1000.0	113.6	80 - 120	8/3/01	22:43	TAUG03A
	Molybdenum	1158.7	1000.0	115.9	80 - 120	8/3/01	22:43	TAUG03A
	Nickel	1122.2	1000.0	112.2	80 - 120	8/3/01	22:43	TAUG03A
	Potassium	14257.6	10000.0	142.6	50 - 150	8/3/01	22:43	TAUG03A
	Selenium	1137.9	1000.0	113.8	80 - 120	8/3/01	22:43	TAUG03A
	Silver	595.0	500.0	119.0	80 - 120	8/3/01	22:43	TAUG03A
	Sodium	11971.5	10000.0	119.7	50 - 150	8/3/01	22:43	TAUG03A
	Strontium	1105.2	1000.0	110.5	80 - 120	8/3/01	22:43	TAUG03A
	Thallium	1165.6	1000.0	116.6	80 - 120	8/3/01	22:43	TAUG03A
	Tin	1133.0	1000.0	113.3	80 - 120	8/3/01	22:43	TAUG03A
	Titanium	1092.4	1000.0	109.2	80 - 120	8/3/01	22:43	TAUG03A
	Vanadium	1118.3	1000.0	111.8	80 - 120	8/3/01	22:43	TAUG03A
	Zinc	1099.5	1000.0	110.0	80 - 120	8/3/01	22:43	TAUG03A
	Lithium	1098.8	1000.0	109.9	50 - 150	8/3/01	22:43	TAUG03A

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C108004
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
017-OLD-36-27A-Q3-01	C108004-1
017-OLD-36-FD1-Q3-01	C108004-2
017-OLD-36-31C-Q3-01	C108004-3
017-OLD-36-30C-Q3-01	C108004-4
017-OLD-36-07A-Q3-01	C108004-5
017-OLD-36-09C-Q3-01	C108004-6

The above samples were received at STL Pensacola on August 1, 2001. The cooler temperature was 3°C.

All samples were analyzed for Sulfide and Dissolved Iron.

Rick Hayes
Senior Project Manager

8/14/01

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08004
Received: 01 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.33.01.03.30

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164710814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
08004-1	017-OLD-36-27A-Q3-01	07-31-01/09:30
08004-2	017-OLD-36-FD1-Q3-01	07-31-01
08004-3	017-OLD-36-31C-Q3-01	07-31-01/11:30
08004-4	017-OLD-36-30C-Q3-01	07-31-01/11:20
08004-5	017-OLD-36-07A-Q3-01	07-31-01/15:20

PARAMETER	08004-1	08004-2	08004-3	08004-4	08004-5
Sulfide (376.1), mg/l	3.2	2.8	2.8	3.1	1.0U
Dilution Factor	1	1	1	1	1
Analysis Date	08.01.01	08.01.01	08.01.01	08.01.01	08.01.01
Analysis Time	13:50	13:50	13:50	13:50	13:50
Batch ID	FEW034	FEW034	FEW034	FEW034	FEW034
Analyst	BH	BH	BH	BH	BH
Iron, Dissolved (6010B), ug/l	490	360	570	350	60B
Dilution Factor	1	1	1	1	1
Analysis Date	08.03.01	08.03.01	08.03.01	08.03.01	08.03.01
Analysis Time	20:28	20:33	19:31	20:39	20:44
Batch ID	PS085	PD085	PD085	PD085	PD085
Analyst	CH	CH	CH	CH	CH

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08004
Received: 01 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.33.01.03.30

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164710814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
08004-6	017-OLD-36-09C-Q3-01	07-31-01/15:50

PARAMETER	08004-6
Sulfide (376.1), mg/l	3.4
Dilution Factor	1
Analysis Date	08.01.01
Analysis Time	13:50
Batch ID	FEW034
Analyst	BH
Iron, Dissolved (6010B), ug/l	11B
Dilution Factor	1
Analysis Date	08.03.01
Analysis Time	21:01
Batch ID	PD085
Analyst	CH

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08004
Received: 01 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.33.01.03.30

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164710814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08004-7	Method Blank	
08004-8	Lab Control Standard True Value	
08004-9	Lab Control Standard Result	
08004-10	Lab Control Standard % Recovery	
08004-11	LCS Accuracy Control Limit (%R)	

PARAMETER	08004-7	08004-8	08004-9	08004-10	08004-11
Sulfide (376.1), mg/l	100U	20.0	18.4	92 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	08.01.01	---	08.01.01	---	---
Analysis Time	13:50	---	13:50	---	---
Batch ID	FEW034	---	FEW034	---	---
Prep Method	---	FEW034	---	FEW034	FEW034
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100U	10000.0	10495.6	105 %	80-120
Dilution Factor	1	---	1	---	---
Analysis Date	08.03.01	---	08.03.01	---	---
Analysis Time	19:20	---	19:25	---	---
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	CH	---	CH	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08004
Received: 01 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.33.01.03.30

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164710814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08004-12	MS True Value	
08004-13	Matrix Spike Result	
08004-14	Matrix Spike % Recovery	
08004-15	MSD True Value	
08004-16	Matrix Spike Duplicate Result	

PARAMETER	08004-12	08004-13	08004-14	08004-15	08004-16
Sulfide (376.1), mg/l	10.0	12.3	95 %	10.0	12.5
Dilution Factor	---	1	---	---	1
Analysis Date	---	08.01.01	---	---	08.01.01
Analysis Time	---	13:50	---	---	13:50
Batch ID	---	FEW034	---	---	FEW034
Prep Method	FEW034	---	FEW034	FEW034	---
Analyst	---	BH	---	---	BH
Iron, Dissolved (6010B), ug/l	10000.0	11118.0	106 %	10000.0	11076.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	08.03.01	---	---	08.03.01
Analysis Time	---	19:54	---	---	19:59
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	---	CH	---	---	---

005

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08004
Received: 01 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2622

Requisition: 152044.33.01.03.30

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164710814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08004-17	Matrix Spike Duplicate % Recovery	
08004-18	MS Accuracy Advisory Limit (%R)	
08004-19	Precision (%RPD) MS/MSD	
08004-20	MS Precision Advisory Limit (%RPD)	

PARAMETER	08004-17	08004-18	08004-19	08004-20
Sulfide (376.1), mg/l	97 %	79-102	2	20
Prep Method	FEW034	FEW034	FEW034	FEW034
Iron, Dissolved (6010B), ug/l	105 %	75-125	0.4	20
Batch ID	PD085	PD085	PD085	PD085

Rick Hayes, Project Manager

Final Page Of Report

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SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags **are limited to** X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/01

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/01

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/01

New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater), expires 08/16/01

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503.(WW and Solids/Hazardous Waste), expires 04/01/01 – extension granted

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/08/01

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/01

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C108004 Date Received: 8-1-01

1.	Was there a Chain of Custody?	(Yes)	No*	
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*	
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No*	N/A
4.	Were all samples properly labeled and identified?	(Yes)	No*	
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes*	(No)	
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*	
7.	Were all sample containers received intact?	(Yes)	No*	
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace!+*	(Yes)	No*	N/A
9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A (Can)
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*	
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No	(N/A)
12.	If sent, were matrix spike bottles returned?	(Yes)	No*	8-1-01 (N/A)
13.	Was Project Manager notified of problems? (initials:_____)	Yes	No*	(N/A)

Airbill Number(s): 8280 4148 1320

Cooler Number(s): CLIENT

Cooler Weight(s): 46#

Shipped By: FED EX

Shipping Charges: N/A

Cooler Temp(s) (°C): 3°C (CCKS)
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

12. MS/MSD RETURNED FOR -31C-Q3-01 FOR SULFIDE AND D-Fe. 8-1-01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: JC Date: 8-1-01 **Logged By:** PBG Date: 8/1/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

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CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: C108004 0731-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	STL PENSACOLA / RICK HAYES	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	COD DISS FE(II) 376 SULFIDE	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-27A-Q3-01		W	7-31-01	0930	III	14	1 1			1
2	017-OLD-36-FD1-Q3-01				—			1 1			2
3	017-OLD-36-31C-Q3-01				1130			1 1			3
4	017-OLD-36-31C MS-Q3-01				1130			1 1			4
5	017-OLD-36-31C MSD-Q3-01				1130			1 1			5
6	017-OLD-36-30C-Q3-01				1120			1 1			6 4
7	017-OLD-36-07A-Q3-01				1520			1 1			7 5
8	017-OLD-36-09C-Q3-01		↓	↓	1550	↓	↓	1 1			8 6
9											PE 8/1/01
10											

[29] SAMPLER(S) AND COMPANY: (please print): ISAAC LYNCH / CARLTON IVERY

[30] COURIER AND SHIPPING NUMBER: FedEx 828049148320

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Isaac Lynch	7-31-01	1730	Printed Name and Signature: F. Coburger Holmes STL-DNS	8-1-01	0910
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

C 108004

FedEx Express USA Airbill

FedEx Tracking Number 828041481320

Form I.D. No. 0200

Recipient's Copy

1 From

Date 7-31-01

Sender's Name ISAAC LYNCH Phone 3523396820

Company CH2M HILL

Address 1060 WAREHOUSE RD Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08 7933

3 To

Recipient's Name SAMPLES RECVNG Phone 8504741001

Company STL PENSACOLA LABS

Address 3355 McLemore Dr

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8280 4148 1320

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. — Obtain Recipient Acct. No.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	46	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

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2,10

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: JC
Labeled by: JC
Delivered by: JC

CH2M-CONST-GA C108004
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						ZnAc/NaOH	8	RB	8-1-01	1055
8 oz. Plastic		✓					HNO3	8			
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

SULFIDE 376.1

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 8/1/01 | Preparation[1] Time On: 1340 | Preparation[1] Time Off: 1350
Analysis Date: 8/1/01 | Analysis Time On: 1350 | Analysis Time Off: 1430
Batch #: FEN034 | RPD: 20
Chemist[2]: MN | Data Reviewed By: AB 8/6/01 | Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$ = (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0239 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 ~~0.0234~~ 0.0241 ml 8/1/01 LOT # I_2 = 1094-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.88	0.025N $Na_2S_2O_3$ 9-15-01	0.02384	5	5.16	0.025N I_2 7-4-01	0.02466
5.87	↓	0.02388	5	5.17	↓	0.02471

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.19	ND	1.0
SF-LCS-S[7] 9-18-01	N/A	0.2/100 ml	↓	10	5.52	18.4/20.0 =	1.0 92%
Prep Blank (distilled)	DI Water	100 ml	N/A				→
1 108001-3	NA	200		5	~~3.49~~ 3.69 ml 8/1/01	2.8	
MS[6] (10 ppm) -3		.2/200		10	3.88	12.3-2.8/10.0=	95%
MSD[6] (10 ppm) -3		.2/200		10	3.82	12.5-2.8/10.0=	97%
2 -1		200		5	3.47	3.2	1.0
3 -2		200		5	3.70	2.8	
4 -4		200		5	3.55	3.1	
5 -5		200		5	5.54	ND	
6 ↓ -6		200		5	3.41	3.4	
7 107684-1		200		5	5.01	ND	↓
8 MS -1		.2/200		10	5.02	~~ND~~ 10.2/10.0=	102%
-2		200		5	5.12	ND	1.0
10 ↓ -3	↓	200	↓	5	4.84	ND Initial dilution	↓
SF-LCS-S[7] 9-18-01	N/A	0.2/100 mls		10	5.50	~~9-21 LCS~~ 18.5/20.0 =	93%
CCB (blank)	DI Water	100 mls		5	5.14	ND	1.0
DUP[5] 107684-13 ml 8/1/01	NA	200		5	4.92	ND	↓
11 ↓ -4	↓	200	↓	5	3.81	2.4	↓
12							
13							
14							
15							
16							
17							
18							
19							
20							
SF-LCS-S[7] 9-18-01	N/A	0.2/100 mls	N/A	10	5.51	18.4/20.0 =	1.092%
CCB (blank)	DI Water	100 mls	↓	5	5.17	ND	1.0

PAT 8/1/01

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide
(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20 \text{ L gas}}$ = ppmv H_2S

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. Please specify sample accession # or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

DISSOLVED IRON

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	10005	10000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Antimony	985	1000	98.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Arsenic	986	1000	98.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Barium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Beryllium	498	500	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Boron	987	1000	98.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cadmium	497	500	99.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Calcium	10058	10000	100.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Chromium	997	1000	99.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cobalt	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10066	10000	100.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10034	10000	100.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lead	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Magnesium	9899	10000	99.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Manganese	998	1000	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Nickel	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Potassium	9763	10000	97.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Selenium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Silver	499	500	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Sodium	9649	10000	96.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Strontium	1011	1000	101.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Thallium	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Tin	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Titanium	983	1000	98.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Vanadium	996	1000	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Zinc	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lithium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Antimony	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Arsenic	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Barium	991	1000	99.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Beryllium	500	500	100.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cadmium	501	500	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Calcium	10170	10000	101.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Chromium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cobalt	1008	1000	100.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10114	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10108	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lead	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Magnesium	9982	10000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Manganese	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Nickel	1011	1000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Potassium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Silver	502	500	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Sodium	9786	10000	97.9	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Strontium	1013	1000	101.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Thallium	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Tin	1004	1000	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Titanium	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Vanadium	998	1000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Zinc	1005	1000	100.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lithium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Aluminum	10225	10000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Antimony	991	1000	99.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Arsenic	1000	1000	100.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Barium	990	1000	99.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Boron	985	1000	98.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cadmium	506	500	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Calcium	10210	10000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Chromium	1005	1000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cobalt	1012	1000	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10184	10000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10167	10000	101.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lead	1021	1000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Magnesium	10047	10000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Molybdenum	980	1000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Nickel	1020	1000	102.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Silver	505	500	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Sodium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Strontium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Thallium	1022	1000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Tin	1010	1000	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Titanium	989	1000	98.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Vanadium	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Zinc	1014	1000	101.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lithium	1077	1000	107.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Antimony	996	1000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Arsenic	1001	1000	100.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Barium	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Beryllium	505	500	101.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cadmium	509	500	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Calcium	10214	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Chromium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cobalt	1018	1000	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10219	10000	102.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10207	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lead	1030	1000	103.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Magnesium	10084	10000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Manganese	1012	1000	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Molybdenum	983	1000	98.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Nickel	1024	1000	102.4	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Potassium	9961	10000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Selenium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Sodium	9900	10000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Strontium	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Thallium	1028	1000	102.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Tin	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Titanium	990	1000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Vanadium	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Zinc	1021	1000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4									
	Aluminum	10203	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Antimony	994	1000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Arsenic	997	1000	99.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Barium	987	1000	98.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Boron	991	1000	99.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cadmium	505	500	101.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Calcium	10196	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Chromium	1006	1000	100.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cobalt	1014	1000	101.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10183	10000	101.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10162	10000	101.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lead	1029	1000	102.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Magnesium	10017	10000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Molybdenum	981	1000	98.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Nickel	1019	1000	101.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Potassium	9994	10000	99.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Selenium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Sodium	9943	10000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Strontium	1020	1000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Thallium	1025	1000	102.5	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Titanium	988	1000	98.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Vanadium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Zinc	1012	1000	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV5									
	Aluminum	10359	10000	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Antimony	1018	1000	101.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Arsenic	1024	1000	102.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Barium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Beryllium	517	500	103.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Boron	1014	1000	101.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cadmium	520	500	104.0	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Calcium	10436	10000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Chromium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cobalt	1042	1000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Copper	1027	1000	102.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10456	10000	104.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10420	10000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lead	1052	1000	105.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Magnesium	10260	10000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Manganese	1035	1000	103.5	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Molybdenum	1006	1000	100.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Nickel	1048	1000	104.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Potassium	10132	10000	101.3	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Selenium	1029	1000	102.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Silver	518	500	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Sodium	10069	10000	100.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Strontium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Thallium	1051	1000	105.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Tin	1038	1000	103.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Vanadium	1026	1000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Zinc	1039	1000	103.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lithium	1096	1000	109.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6									
	Aluminum	10646	10000	106.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Antimony	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Arsenic	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Barium	997	1000	99.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Beryllium	525	500	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Boron	1026	1000	102.6	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cadmium	536	500	107.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Calcium	10605	10000	106.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cobalt	1075	1000	107.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Copper	1039	1000	103.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10696	10000	107.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10608	10000	106.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lead	1081	1000	108.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Magnesium	10415	10000	104.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Molybdenum	1028	1000	102.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Nickel	1083	1000	108.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Potassium	9930	10000	99.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Selenium	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Silver	524	500	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Sodium	10317	10000	103.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Strontium	1050	1000	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Thallium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Tin	1055	1000	105.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Titanium	1019	1000	101.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Zinc	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lithium	1074	1000	107.4	90.0 - 110.0	P	8/3/01	16:20	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV7									
	Aluminum	10524	10000	105.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Antimony	1039	1000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Arsenic	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Barium	996	1000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Beryllium	520	500	104.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Boron	1021	1000	102.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cadmium	530	500	106.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Calcium	10466	10000	104.7	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Chromium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cobalt	1063	1000	106.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Copper	1034	1000	103.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10586	10000	105.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10493	10000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lead	1073	1000	107.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Magnesium	10258	10000	102.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Manganese	1048	1000	104.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Molybdenum	1018	1000	101.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Nickel	1071	1000	107.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Potassium	9956	10000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Selenium	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Silver	522	500	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Sodium	10387	10000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Strontium	1049	1000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Thallium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Tin	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Vanadium	1036	1000	103.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Zinc	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8									
	Aluminum	10533	10000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Antimony	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Arsenic	1050	1000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Barium	1000	1000	100.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Beryllium	524	500	104.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Boron	1030	1000	103.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cadmium	535	500	107.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Calcium	10501	10000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cobalt	1076	1000	107.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Copper	1038	1000	103.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10660	10000	106.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10574	10000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lead	1079	1000	107.9	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Magnesium	10326	10000	103.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Molybdenum	1027	1000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Nickel	1084	1000	108.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Selenium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Silver	523	500	104.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Sodium	10268	10000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Strontium	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Thallium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Tin	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Titanium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Zinc	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lithium	1068	1000	106.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV9									
	Aluminum	10682	10000	106.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Antimony	1069	1000	106.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Arsenic	1066	1000	106.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Barium	1007	1000	100.7	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Beryllium	531	500	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Boron	1052	1000	105.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cadmium	545	500	109.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Calcium	10628	10000	106.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Chromium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cobalt	1096	1000	109.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Copper	1051	1000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10807	10000	108.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10721	10000	107.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lead	1098	1000	109.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Magnesium	10514	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Manganese	1073	1000	107.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Molybdenum	1046	1000	104.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Nickel	1103	1000	110.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Potassium	10035	10000	100.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Selenium	1062	1000	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Sodium	10512	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Strontium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Thallium	1104	1000	110.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Tin	1071	1000	107.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Titanium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Vanadium	1059	1000	105.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Zinc	1076	1000	107.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lithium	1088	1000	108.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10									
	Aluminum	10664	10000	106.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Antimony	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Arsenic	1078	1000	107.8	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Barium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Beryllium	535	500	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Boron	1063	1000	106.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cadmium	553	500	110.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Calcium	10698	10000	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Chromium	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cobalt	1113	1000	111.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Copper	1052	1000	105.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10862	10000	108.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10786	10000	107.9	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lead	1111	1000	111.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Magnesium	10640	10000	106.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Manganese	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Molybdenum	1057	1000	105.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Nickel	1117	1000	111.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Potassium	9925	10000	99.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Sodium	10402	10000	104.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Strontium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Thallium	1116	1000	111.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Tin	1082	1000	108.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Vanadium	1067	1000	106.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Zinc	1093	1000	109.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lithium	1080	1000	108.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11									
	Aluminum	10753	10000	107.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Antimony	1080	1000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Arsenic	1079	1000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Barium	995	1000	99.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Beryllium	536	500	107.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Boron	1064	1000	106.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cadmium	557	500	111.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Calcium	10787	10000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Chromium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cobalt	1118	1000	111.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Copper	1049	1000	104.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10872	10000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10825	10000	108.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lead	1121	1000	112.1	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Magnesium	10804	10000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Manganese	1084	1000	108.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Molybdenum	1062	1000	106.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Nickel	1125	1000	112.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Potassium	10024	10000	100.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Silver	528	500	105.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Sodium	10597	10000	106.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Strontium	1055	1000	105.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Thallium	1119	1000	111.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Tin	1090	1000	109.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Vanadium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Zinc	1108	1000	110.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lithium	1098	1000	109.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12									
	Aluminum	10907	10000	109.1	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Antimony	1099	1000	109.9	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Arsenic	1104	1000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Barium	984	1000	98.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Beryllium	546	500	109.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Boron	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cadmium	574	500	114.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Calcium	11037	10000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Chromium	1110	1000	111.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cobalt	1150	1000	115.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Copper	1053	1000	105.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11130	10000	111.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11063	10000	110.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lead	1153	1000	115.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Magnesium	11080	10000	110.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Manganese	1105	1000	110.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Molybdenum	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Nickel	1158	1000	115.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Potassium	9720	10000	97.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Selenium	1090	1000	109.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Silver	531	500	106.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Sodium	10445	10000	104.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Strontium	1057	1000	105.7	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Thallium	1154	1000	115.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Tin	1114	1000	111.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Titanium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Vanadium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Zinc	1135	1000	113.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	10:04	TAUG03A
	Antimony	2.32	+/-50.00	B	2.00	50.00	P	8/3/01	10:04	TAUG03A
	Arsenic	3.00	+/-5.00	B	3.00	5.00	P	8/3/01	10:04	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:04	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:04	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:04	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:04	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	10:04	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:04	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	10:04	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:04	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:04	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:04	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:04	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:04	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:04	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB1										
	Aluminum	58.2	+/-100.0	B	10.0	100.0	P	8/3/01	10:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	10:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	10:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:48	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	10:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Magnesium	10.21	+/-500.00	B	6.00	500.00	P	8/3/01	10:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB2										
	Aluminum	72.3	+/-100.0	B	10.0	100.0	P	8/3/01	11:55	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	11:55	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	11:55	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	11:55	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	11:55	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	11:55	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	11:55	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	11:55	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	11:55	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Magnesium	10.85	+/-500.00	B	6.00	500.00	P	8/3/01	11:55	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	11:55	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	11:55	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	11:55	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	11:55	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	11:55	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	11:55	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB3										
	Aluminum	65.4	+/-100.0	B	10.0	100.0	P	8/3/01	13:03	TAUG03A
	Antimony	2.25	+/-50.00	B	2.00	50.00	P	8/3/01	13:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	13:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	13:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	13:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	13:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	13:03	TAUG03A
	Iron	7.4	+/-100.0	B	7.0	100.0	P	8/3/01	13:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	13:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Magnesium	7.03	+/-500.00	B	6.00	500.00	P	8/3/01	13:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	13:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	13:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	13:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	13:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	13:03	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	13:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB4										
	Aluminum	62.7	+/-100.0	B	10.0	100.0	P	8/3/01	14:10	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	14:10	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	14:10	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	14:10	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	14:10	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	14:10	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	14:10	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	14:10	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	14:10	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Magnesium	7.46	+/-500.00	B	6.00	500.00	P	8/3/01	14:10	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	14:10	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	14:10	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	14:10	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	14:10	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	14:10	TAUG03A
	Lithium	1.02	+/-50.00	B	1.00	50.00	P	8/3/01	14:10	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB5										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	15:18	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	15:18	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	15:18	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	15:18	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	15:18	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	15:18	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	15:18	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	15:18	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	15:18	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	15:18	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	15:18	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	15:18	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	15:18	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	15:18	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	15:18	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	15:18	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB6										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	16:25	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	16:25	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	16:25	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	16:25	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	16:25	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	16:25	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	16:25	TAUG03A
	Iron	8.7	+/-100.0	B	7.0	100.0	P	8/3/01	16:25	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	16:25	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Magnesium	15.34	+/-500.00	B	6.00	500.00	P	8/3/01	16:25	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	16:25	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	16:25	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	16:25	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	16:25	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	16:25	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	16:25	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB7										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	17:33	TAUG03A
	Antimony	2.23	+/-50.00	B	2.00	50.00	P	8/3/01	17:33	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	17:33	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	17:33	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	17:33	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	17:33	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	17:33	TAUG03A
	Iron	8.0	+/-100.0	B	7.0	100.0	P	8/3/01	17:33	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	17:33	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Magnesium	14.14	+/-500.00	B	6.00	500.00	P	8/3/01	17:33	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	17:33	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	17:33	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	17:33	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	17:33	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	17:33	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	17:33	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB8										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	18:40	TAUG03A
	Antimony	2.00	+/-50.00	B	2.00	50.00	P	8/3/01	18:40	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	18:40	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	18:40	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	18:40	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	18:40	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	18:40	TAUG03A
	Iron	7.6	+/-100.0	B	7.0	100.0	P	8/3/01	18:40	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	18:40	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Magnesium	9.46	+/-500.00	B	6.00	500.00	P	8/3/01	18:40	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	18:40	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	18:40	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	18:40	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	18:40	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	18:40	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	18:40	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB9										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	19:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	19:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	19:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	19:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	19:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	19:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	19:48	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	19:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	19:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	19:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	19:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	19:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	19:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	19:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	19:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	19:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB10										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	20:56	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	20:56	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	20:56	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	20:56	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	20:56	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	20:56	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	20:56	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	20:56	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	20:56	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	20:56	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	20:56	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	20:56	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	20:56	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	20:56	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	20:56	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	20:56	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB11										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:03	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:03	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	22:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	22:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:03	TAUG03A
	Lithium	1.20	+/-50.00	B	1.00	50.00	P	8/3/01	22:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB12										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:54	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:54	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:54	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:54	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:54	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:54	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:54	TAUG03A
	Iron	12.2	+/-100.0	B	7.0	100.0	P	8/3/01	22:54	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:54	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Magnesium	27.95	+/-500.00	B	6.00	500.00	P	8/3/01	22:54	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:54	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:54	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:54	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:54	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:54	TAUG03A
	Lithium	1.50	+/-50.00	B	1.00	50.00	P	8/3/01	22:54	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	503029.7	500000.0	100.6	80 - 120	8/3/01	10:28	TAUG03A
	Antimony	-3.2			80 - 120	8/3/01	10:28	TAUG03A
	Arsenic	-0.3			80 - 120	8/3/01	10:28	TAUG03A
	Barium	1.1			80 - 120	8/3/01	10:28	TAUG03A
	Beryllium	1.0			80 - 120	8/3/01	10:28	TAUG03A
	Boron	1.7			80 - 120	8/3/01	10:28	TAUG03A
	Cadmium	0.4			80 - 120	8/3/01	10:28	TAUG03A
	Calcium	459448.1	500000.0	91.9	80 - 120	8/3/01	10:28	TAUG03A
	Chromium	-1.6			80 - 120	8/3/01	10:28	TAUG03A
	Cobalt	4.6			80 - 120	8/3/01	10:28	TAUG03A
	Copper	0.9			80 - 120	8/3/01	10:28	TAUG03A
	Iron	182247.1	200000.0	91.1	80 - 120	8/3/01	10:28	TAUG03A
	Iron	201616.5	200000.0	100.8	80 - 120	8/3/01	10:28	TAUG03A
	Lead	0.6			80 - 120	8/3/01	10:28	TAUG03A
	Magnesium	548652.9	500000.0	109.7	80 - 120	8/3/01	10:28	TAUG03A
	Manganese	3.7			80 - 120	8/3/01	10:28	TAUG03A
	Molybdenum	-1.0			80 - 120	8/3/01	10:28	TAUG03A
	Nickel	-3.3			80 - 120	8/3/01	10:28	TAUG03A
	Potassium	-12.4			80 - 120	8/3/01	10:28	TAUG03A
	Selenium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Silver	-0.4			80 - 120	8/3/01	10:28	TAUG03A
	Sodium	-110.2			80 - 120	8/3/01	10:28	TAUG03A
	Strontium	-1.5			80 - 120	8/3/01	10:28	TAUG03A
	Thallium	10.7			80 - 120	8/3/01	10:28	TAUG03A
	Tin	1.2			80 - 120	8/3/01	10:28	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Vanadium	-3.8			80 - 120	8/3/01	10:28	TAUG03A
	Zinc	3.0			80 - 120	8/3/01	10:28	TAUG03A
	Lithium	0.7			80 - 120	8/3/01	10:28	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB1								
	Aluminum	515234.9	510000.0	101.0	80 - 120	8/3/01	10:34	TAUG03A
	Antimony	1101.9	1000.0	110.2	80 - 120	8/3/01	10:34	TAUG03A
	Arsenic	1096.4	1000.0	109.6	80 - 120	8/3/01	10:34	TAUG03A
	Barium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Beryllium	537.8	500.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Boron	1103.0	1000.0	110.3	80 - 120	8/3/01	10:34	TAUG03A
	Cadmium	509.9	500.0	102.0	80 - 120	8/3/01	10:34	TAUG03A
	Calcium	468006.8	510000.0	91.8	80 - 120	8/3/01	10:34	TAUG03A
	Chromium	1037.8	1000.0	103.8	80 - 120	8/3/01	10:34	TAUG03A
	Cobalt	1021.6	1000.0	102.2	80 - 120	8/3/01	10:34	TAUG03A
	Copper	1120.8	1000.0	112.1	80 - 120	8/3/01	10:34	TAUG03A
	Iron	189932.3	210000.0	90.4	80 - 120	8/3/01	10:34	TAUG03A
	Iron	211877.0	210000.0	100.9	80 - 120	8/3/01	10:34	TAUG03A
	Lead	1030.6	1000.0	103.1	80 - 120	8/3/01	10:34	TAUG03A
	Magnesium	557813.3	510000.0	109.4	80 - 120	8/3/01	10:34	TAUG03A
	Manganese	1055.6	1000.0	105.6	80 - 120	8/3/01	10:34	TAUG03A
	Molybdenum	1066.1	1000.0	106.6	80 - 120	8/3/01	10:34	TAUG03A
	Nickel	1015.4	1000.0	101.5	80 - 120	8/3/01	10:34	TAUG03A
	Potassium	14587.3	10000.0	145.9	50 - 150	8/3/01	10:34	TAUG03A
	Selenium	1067.6	1000.0	106.8	80 - 120	8/3/01	10:34	TAUG03A
	Silver	573.0	500.0	114.6	80 - 120	8/3/01	10:34	TAUG03A
	Sodium	11410.1	10000.0	114.1	50 - 150	8/3/01	10:34	TAUG03A
	Strontium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Thallium	1052.3	1000.0	105.2	80 - 120	8/3/01	10:34	TAUG03A
	Tin	1042.1	1000.0	104.2	80 - 120	8/3/01	10:34	TAUG03A
	Titanium	1050.8	1000.0	105.1	80 - 120	8/3/01	10:34	TAUG03A
	Vanadium	1049.0	1000.0	104.9	80 - 120	8/3/01	10:34	TAUG03A
	Zinc	991.3	1000.0	99.1	80 - 120	8/3/01	10:34	TAUG03A
	Lithium	1092.1	1000.0	109.2	50 - 150	8/3/01	10:34	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A2								
	Aluminum	509786.1	500000.0	102.0	80 - 120	8/3/01	16:08	TAUG03A
	Antimony	0.3			80 - 120	8/3/01	16:08	TAUG03A
	Arsenic	2.3			80 - 120	8/3/01	16:08	TAUG03A
	Barium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Beryllium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Boron	3.5			80 - 120	8/3/01	16:08	TAUG03A
	Cadmium	0.1			80 - 120	8/3/01	16:08	TAUG03A
	Calcium	470379.3	500000.0	94.1	80 - 120	8/3/01	16:08	TAUG03A
	Chromium	-1.9			80 - 120	8/3/01	16:08	TAUG03A
	Cobalt	4.9			80 - 120	8/3/01	16:08	TAUG03A
	Copper	-0.3			80 - 120	8/3/01	16:08	TAUG03A
	Iron	186962.0	200000.0	93.5	80 - 120	8/3/01	16:08	TAUG03A
	Iron	205302.8	200000.0	102.7	80 - 120	8/3/01	16:08	TAUG03A
	Lead	3.1			80 - 120	8/3/01	16:08	TAUG03A
	Magnesium	556058.3	500000.0	111.2	80 - 120	8/3/01	16:08	TAUG03A
	Manganese	4.0			80 - 120	8/3/01	16:08	TAUG03A
	Molybdenum	-0.9			80 - 120	8/3/01	16:08	TAUG03A
	Nickel	-2.4			80 - 120	8/3/01	16:08	TAUG03A
	Potassium	-39.7			80 - 120	8/3/01	16:08	TAUG03A
	Selenium	-5.3			80 - 120	8/3/01	16:08	TAUG03A
	Silver	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Sodium	-233.8			80 - 120	8/3/01	16:08	TAUG03A
	Strontium	-1.6			80 - 120	8/3/01	16:08	TAUG03A
	Thallium	9.3			80 - 120	8/3/01	16:08	TAUG03A
	Tin	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Titanium	-2.3			80 - 120	8/3/01	16:08	TAUG03A
	Vanadium	-3.4			80 - 120	8/3/01	16:08	TAUG03A
	Zinc	1.8			80 - 120	8/3/01	16:08	TAUG03A
	Lithium	1.0			80 - 120	8/3/01	16:08	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB2								
	Aluminum	533186.9	510000.0	104.5	80 - 120	8/3/01	16:14	TAUG03A
	Antimony	1154.0	1000.0	115.4	80 - 120	8/3/01	16:14	TAUG03A
	Arsenic	1146.4	1000.0	114.6	80 - 120	8/3/01	16:14	TAUG03A
	Barium	1089.2	1000.0	108.9	80 - 120	8/3/01	16:14	TAUG03A
	Beryllium	558.4	500.0	111.7	80 - 120	8/3/01	16:14	TAUG03A
	Boron	1128.0	1000.0	112.8	80 - 120	8/3/01	16:14	TAUG03A
	Cadmium	537.3	500.0	107.5	80 - 120	8/3/01	16:14	TAUG03A
	Calcium	488330.7	510000.0	95.8	80 - 120	8/3/01	16:14	TAUG03A
	Chromium	1080.7	1000.0	108.1	80 - 120	8/3/01	16:14	TAUG03A
	Cobalt	1073.2	1000.0	107.3	80 - 120	8/3/01	16:14	TAUG03A
	Copper	1145.2	1000.0	114.5	80 - 120	8/3/01	16:14	TAUG03A
	Iron	199554.0	210000.0	95.0	80 - 120	8/3/01	16:14	TAUG03A
	Iron	220469.8	210000.0	105.0	80 - 120	8/3/01	16:14	TAUG03A
	Lead	1083.4	1000.0	108.3	80 - 120	8/3/01	16:14	TAUG03A
	Magnesium	578245.2	510000.0	113.4	80 - 120	8/3/01	16:14	TAUG03A
	Manganese	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Molybdenum	1110.6	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Nickel	1070.0	1000.0	107.0	80 - 120	8/3/01	16:14	TAUG03A
	Potassium	14795.1	10000.0	148.0	50 - 150	8/3/01	16:14	TAUG03A
	Selenium	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Silver	592.3	500.0	118.5	80 - 120	8/3/01	16:14	TAUG03A
	Sodium	11951.0	10000.0	119.5	50 - 150	8/3/01	16:14	TAUG03A
	Strontium	1110.7	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Thallium	1112.5	1000.0	111.2	80 - 120	8/3/01	16:14	TAUG03A
	Tin	1085.6	1000.0	108.6	80 - 120	8/3/01	16:14	TAUG03A
	Titanium	1080.0	1000.0	108.0	80 - 120	8/3/01	16:14	TAUG03A
	Vanadium	1086.6	1000.0	108.7	80 - 120	8/3/01	16:14	TAUG03A
	Zinc	1036.8	1000.0	103.7	80 - 120	8/3/01	16:14	TAUG03A
	Lithium	1118.4	1000.0	111.8	50 - 150	8/3/01	16:14	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A3								
	Aluminum	528266.5	500000.0	105.7	80 - 120	8/3/01	22:37	TAUG03A
	Antimony	-0.2			80 - 120	8/3/01	22:37	TAUG03A
	Arsenic	0.5			80 - 120	8/3/01	22:37	TAUG03A
	Barium	1.1			80 - 120	8/3/01	22:37	TAUG03A
	Beryllium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Boron	2.5			80 - 120	8/3/01	22:37	TAUG03A
	Cadmium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Calcium	487332.5	500000.0	97.5	80 - 120	8/3/01	22:37	TAUG03A
	Chromium	-1.5			80 - 120	8/3/01	22:37	TAUG03A
	Cobalt	4.4			80 - 120	8/3/01	22:37	TAUG03A
	Copper	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Iron	195288.5	200000.0	97.6	80 - 120	8/3/01	22:37	TAUG03A
	Iron	212796.8	200000.0	106.4	80 - 120	8/3/01	22:37	TAUG03A
	Lead	2.1			80 - 120	8/3/01	22:37	TAUG03A
	Magnesium	584574.8	500000.0	116.9	80 - 120	8/3/01	22:37	TAUG03A
	Manganese	3.9			80 - 120	8/3/01	22:37	TAUG03A
	Molybdenum	-0.4			80 - 120	8/3/01	22:37	TAUG03A
	Nickel	-2.1			80 - 120	8/3/01	22:37	TAUG03A
	Potassium	-27.6			80 - 120	8/3/01	22:37	TAUG03A
	Selenium	-1.3			80 - 120	8/3/01	22:37	TAUG03A
	Silver	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Sodium	14.6			80 - 120	8/3/01	22:37	TAUG03A
	Strontium	-2.0			80 - 120	8/3/01	22:37	TAUG03A
	Thallium	3.7			80 - 120	8/3/01	22:37	TAUG03A
	Tin	0.4			80 - 120	8/3/01	22:37	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	22:37	TAUG03A
	Vanadium	-3.6			80 - 120	8/3/01	22:37	TAUG03A
	Zinc	2.6			80 - 120	8/3/01	22:37	TAUG03A
	Lithium	1.6			80 - 120	8/3/01	22:37	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB3								
	Aluminum	546032.6	510000.0	107.1	80 - 120	8/3/01	22:43	TAUG03A
	Antimony	1194.4	1000.0	119.4	80 - 120	8/3/01	22:43	TAUG03A
	Arsenic	1187.9	1000.0	118.8	80 - 120	8/3/01	22:43	TAUG03A
	Barium	1064.7	1000.0	106.5	80 - 120	8/3/01	22:43	TAUG03A
	Beryllium	575.4	500.0	115.1	80 - 120	8/3/01	22:43	TAUG03A
	Boron	1156.5	1000.0	115.6	80 - 120	8/3/01	22:43	TAUG03A
	Cadmium	570.5	500.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Calcium	503427.4	510000.0	98.7	80 - 120	8/3/01	22:43	TAUG03A
	Chromium	1123.4	1000.0	112.3	80 - 120	8/3/01	22:43	TAUG03A
	Cobalt	1133.7	1000.0	113.4	80 - 120	8/3/01	22:43	TAUG03A
	Copper	1147.2	1000.0	114.7	80 - 120	8/3/01	22:43	TAUG03A
	Iron	206742.6	210000.0	98.4	80 - 120	8/3/01	22:43	TAUG03A
	Iron	226705.8	210000.0	108.0	80 - 120	8/3/01	22:43	TAUG03A
	Lead	1141.0	1000.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Magnesium	605249.2	510000.0	118.7	80 - 120	8/3/01	22:43	TAUG03A
	Manganese	1135.6	1000.0	113.6	80 - 120	8/3/01	22:43	TAUG03A
	Molybdenum	1158.7	1000.0	115.9	80 - 120	8/3/01	22:43	TAUG03A
	Nickel	1122.2	1000.0	112.2	80 - 120	8/3/01	22:43	TAUG03A
	Potassium	14257.6	10000.0	142.6	50 - 150	8/3/01	22:43	TAUG03A
	Selenium	1137.9	1000.0	113.8	80 - 120	8/3/01	22:43	TAUG03A
	Silver	595.0	500.0	119.0	80 - 120	8/3/01	22:43	TAUG03A
	Sodium	11971.5	10000.0	119.7	50 - 150	8/3/01	22:43	TAUG03A
	Strontium	1105.2	1000.0	110.5	80 - 120	8/3/01	22:43	TAUG03A
	Thallium	1165.6	1000.0	116.6	80 - 120	8/3/01	22:43	TAUG03A
	Tin	1133.0	1000.0	113.3	80 - 120	8/3/01	22:43	TAUG03A
	Titanium	1092.4	1000.0	109.2	80 - 120	8/3/01	22:43	TAUG03A
	Vanadium	1118.3	1000.0	111.8	80 - 120	8/3/01	22:43	TAUG03A
	Zinc	1099.5	1000.0	110.0	80 - 120	8/3/01	22:43	TAUG03A
	Lithium	1098.8	1000.0	109.9	50 - 150	8/3/01	22:43	TAUG03A

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C108048
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
017-OLD-36-06A-Q3-01	C108048-1
017-OLD-36-08B-Q3-01	C108048-2
017-OLD-36-FD2-Q3-01	C108048-3
017-OLD-36-10B-Q3-01	C108048-4
017-OLD-36-11C-Q3-01	C108048-5
017-OLD-36-32C-Q3-01	C108048-6
017-OLD-36-26A-Q3-01	C108048-7

The above samples were received in good condition at STL Pensacola on August 2, 2001. The cooler temperature was 2°C.

All samples were analyzed for Sulfide and Dissolved Iron.

Rick Hayes
Senior Project Manager

8/14/01

001
000

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08048
Received: 02 AUG 01
Reported: 10 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165610814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
08048-1	017-OLD-36-06A-Q3-01	08-01-01/09:05
08048-2	017-OLD-36-08B-Q3-01	08-01-01/09:20
08048-3	017-OLD-36-FD2-Q3-01	08-01-01
08048-4	017-OLD-36-10B-Q3-01	08-01-01/11:45
08048-5	017-OLD-36-11C-Q3-01	08-01-01/11:30

PARAMETER	08048-1	08048-2	08048-3	08048-4	08048-5
Sulfide (376.1), mg/l	1.0U	2.9	2.7	0.97B	1.0U
Dilution Factor	1	1	1	1	1
Analysis Date	08.03.01	08.03.01	08.03.01	08.03.01	08.03.01
Analysis Time	13:20	13:20	13:20	13:20	13:20
Batch ID	FEW035	FEW035	FEW035	FEW035	FEW035
Analyst	BH	BH	BH	BH	BH
Iron, Dissolved (6010B), ug/l	32B	450	450	81B	95B
Dilution Factor	1	1	1	1	1
Analysis Date	08.03.01	08.03.01	08.03.01	08.03.01	08.03.01
Analysis Time	21:07	21:13	21:18	21:24	21:30
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	CH	CH	CH	CH	CH

002

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-08048
Received: 02 AUG 01
Reported: 10 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165610814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
08048-6	017-OLD-36-32C-Q3-01	08-01-01/15:00
08048-7	017-OLD-36-26A-Q3-01	08-01-01/15:15

PARAMETER	08048-6	08048-7
Sulfide (376.1), mg/l	1.0U	1.3
Dilution Factor	1	1
Analysis Date	08.03.01	08.03.01
Analysis Time	13:20	13:20
Batch ID	FEW035	FEW035
Analyst	BH	BH
Iron, Dissolved (6010B), ug/l	210	470
Dilution Factor	1	1
Analysis Date	08.03.01	08.03.01
Analysis Time	21:35	21:41
Batch ID	PD085	PD085
Analyst	CH	CH

003

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-08048
Received: 02 AUG 01
Reported: 10 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165610814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08048-8	Method Blank	
08048-9	Lab Control Standard True Value	
08048-10	Lab Control Standard Result	
08048-11	Lab Control Standard % Recovery	
08048-12	LCS Accuracy Control Limit (%R)	

PARAMETER	08048-8	08048-9	08048-10	08048-11	08048-12
Sulfide (376.1), mg/l	1.0U	20.0	18.3	92 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	08.03.01	---	08.03.01	---	---
Analysis Time	13:20	---	13:20	---	---
Batch ID	FEW035	FEW035	FEW035	FEW035	FEW035
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100U	10000.0	10495.6	105 %	80-120
Dilution Factor	1	---	1	---	---
Analysis Date	08.03.01	---	08.03.01	---	---
Analysis Time	19:20	---	19:25	---	---
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	CH	---	CH	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

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SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-08048
Received: 02 AUG 01
Reported: 10 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165610814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08048-13	MS True Value	
08048-14	Matrix Spike Result	
08048-15	Matrix Spike % Recovery	
08048-16	MSD True Value	
08048-17	Matrix Spike Duplicate Result	

PARAMETER	08048-13	08048-14	08048-15	08048-16	08048-17
Sulfide (376.1), mg/l	10.0	13.0	101 %	NoMS	NoMS
Dilution Factor	---	1	---	---	---
Analysis Date	---	08.03.01	---	---	---
Analysis Time	---	13:20	---	---	---
Batch ID	FEW035	FEW035	FEW035	---	---
Analyst	---	BH	---	---	---
Iron, Dissolved (6010B), ug/l	10000.0	11118.0	106 %	10000.0	11076.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	08.03.01	---	---	08.03.01
Analysis Time	---	19:54	---	---	19:59
Batch ID	PD085	PD085	PD085	PD085	PD085
Analyst	---	CH	---	---	CH

005

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-08048
Received: 02 AUG 01
Reported: 10 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 165610814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08048-18	Matrix Spike Duplicate % Recovery	
08048-19	MS Accuracy Advisory Limit (%R)	
08048-20	Precision (%RPD) MS/MSD	
08048-21	MS Precision Advisory Limit (%RPD)	

PARAMETER	08048-18	08048-19	08048-20	08048-21
Sulfide (376.1), mg/l	NoMS	NoMS	NoMS	NoMS
Iron, Dissolved (6010B), ug/l	105 %	75-125	0	0
Batch ID	PD085	PD085	PD085	PD085

Rick Hayes, Project Manager

Final Page Of Report

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SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a,response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags **are limited to** X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/01

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/01

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/01

New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater), expires 08/16/01

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 04/01/01 -- extension granted

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/08/01

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/01

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C108048 Date Received: 8-201

1.	Was there a Chain of Custody?	(Yes)	No♣	
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No♣	
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No♣	N/A
4.	Were all samples properly labeled and identified?	(Yes)	No♣	
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes♣	(No)	
6.	Were samples received in proper containers for analysis requested?	(Yes)	No♣	
7.	Were all sample containers received intact?	(Yes)	No♣	
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	(Yes)	No♣	N/A
9.	Is there sufficient volume for analysis requested?	(Yes)	No♣	N/A *(Can)*
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No♣	
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes♣	No	(N/A)
12.	If sent, were matrix spike bottles returned?	Yes	No♣	N/A
13.	Was Project Manager notified of problems? (initials:_____)	Yes	No♣	(N/A)

Airbill Number(s): 8885 1165 4859

Shipped By: Fed Ex

Cooler Number(s): client

Shipping Charges: N/A

Cooler Weight(s): 49#

Cooler Temp(s) (°C): 2° (CCK3)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH **Date:** 8.2.01 **Logged By:** BE **Date:** 8/2/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD C108048

[1] COC NUMBER: 0801-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.08	STL PENSACOLA / RICK HAYES	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	[25] ANALYSES REQUIRED (Include Method Numbers): DISS. FROM 6010B	[25] SULFIDE 376	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	III	14	1	1			1
2	017-OLD-36-08B-Q3-01		"	"	0920	"	"	1	1			2
3	017-OLD-36-FD2-Q3-01		"	"	—	"	"	1	1			3
4	017-OLD-36-10B-Q3-01		"	"	1145	"	"	1	1			4
5	017-OLD-36-11C-Q3-01		"	"	1130	"	"	1	1			5
6	017-OLD-36-32C-Q3-01		"	"	1500	"	"	1	1			6
7	017-OLD-36-26A-Q3-01		"	"	1515	"	"	1	1			7
8												
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print): I. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

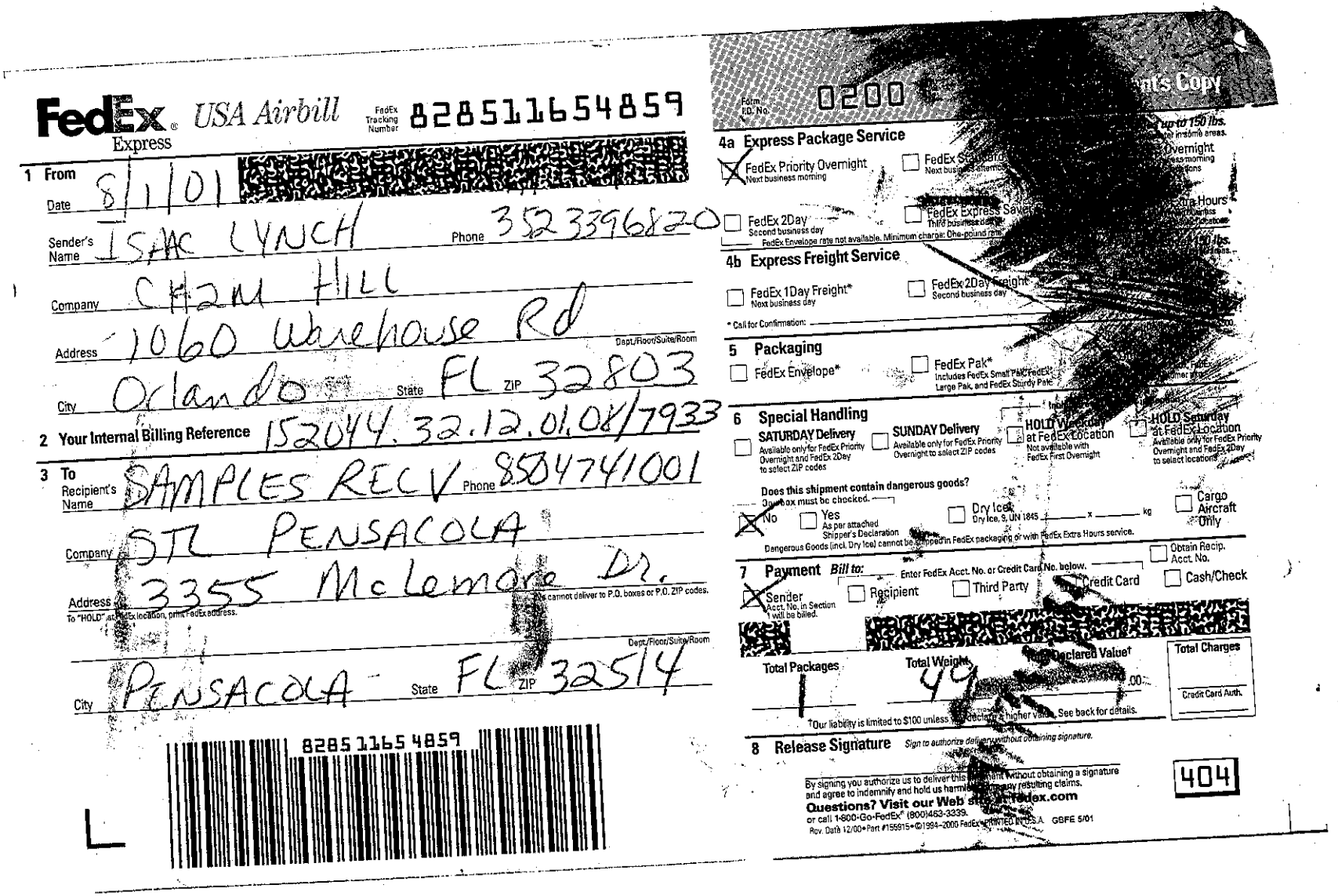
[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Eleanor Lynch	8-01-01	1730	Printed Name and Signature: Davette Howard / Davette Howard	8-2-01	0856
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

C1080 48



FedEx Express USA Airbill

FedEx Tracking Number 828511654859

Form ID No. 0200

Copy

1 From

Date 8/1/01

Sender's Name ISAAC LYNCH Phone 3523396820

Company CH2M HILL

Address 1060 Warehouse Rd Dept/Floor/Suite/Room

City Orlando State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08/7933

3 To

Recipient's Name SAMPLES RECV Phone 8503741001

Company STL PENSACOLA

Address 3355 McLemore Dr.

To "HOLD" at FedEx location, print FedEx address. Cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8285 1165 4859

4a Express Package Service

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight* — Second business day

* Call for Confirmation:

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak

6 Special Handling

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check
- [ ] Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	49	.00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

210 012

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: [illegible]
Labeled by: DMH
Delivered by: DMH

CH2M-CONST-GA C100048
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						~~HCl~~ ZnAc	7	BH	8.2.01	1215
8 oz. Plastic		✓					~~HNO3~~	7			
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											

COMMENTS

SULFIDE 376.1

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 8/3/01 Preparation[1] Time On: 1210 Preparation[1] Time Off: 1220

Analysis Date: 8/3/01 Analysis Time On: 1320 Analysis Time Off: 1400

Batch #: FEW035

Chemist[2]: BAT Data Reviewed By: AB 8/6/01

RPD: 20
Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$ = (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0238 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0246 LOT # I_2 = 1094-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.91	0.025N $Na_2S_2O_3$ 9-15-01	0.02372	5	5.17	0.025N I_2 4-4-01	0.02460
5.89	↓	0.02380	5	5.16	↓	0.02456

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.18	ND	1.0
SF-LCS-S[7] 9-18-01	N/A	0.2/100 ml	↓	10	5.53	18.3/20.0=	1.0 92%
Prep Blank (distilled)	DI Water	100 ml	N/A	—	—	—	→
1 108048-2	Wa	200	↓	5	3.62	2.9	
MS[6] (10 ppm) ↓ -2	↓	.2/200	↓	10	3.51	13.0-2.9/10.0=	101%
~~MSD[6] (10 ppm)~~		BAT	8/3/01				→
2 108048-1	Wa	200	N/A	5	4.92	ND	1.0
3 -3	↓	200	↓	5	3.73	2.7	↓
4 -4		200		5	4.66	ND (0.967)	
5 -5		200		5	4.93	ND	
6 -6		200		5	5.03	ND	
7 -7	↓	200	↓	5	4.49	1.3	↓
8			BAT 8/3/01				
9							
10							
SF-LCS-S[7] 9-18-01	N/A	0.2/100 mls	N/A BAT 8/3/01	10	5.50	18.4/20.0=	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.19	ND	1.0
~~DUP[5]~~							
11							
12							
13							
14							
15							
16			BAT 8/3/01				
17							
18							
19							
20							
SF-LCS-S[7]	N/A	0.2/100 mls					1.0
~~CCB (blank)~~	~~DI Water~~	~~100 mls~~					~~1.0~~

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20\text{ L gas}}$ = ppmv H_2S

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

DISSOLVED IRON

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	10005	10000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Antimony	985	1000	98.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Arsenic	986	1000	98.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Barium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Beryllium	498	500	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Boron	987	1000	98.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cadmium	497	500	99.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Calcium	10058	10000	100.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Chromium	997	1000	99.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Cobalt	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10066	10000	100.7	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Iron	10034	10000	100.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lead	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Magnesium	9899	10000	99.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Manganese	998	1000	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Nickel	1005	1000	100.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Potassium	9763	10000	97.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Selenium	992	1000	99.2	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Silver	499	500	99.8	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Sodium	9649	10000	96.5	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Strontium	1011	1000	101.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Thallium	1004	1000	100.4	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Tin	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Titanium	983	1000	98.3	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Vanadium	996	1000	99.6	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Zinc	1000	1000	100.0	90.0 - 110.0	P	8/3/01	09:58	TAUG03A
	Lithium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	09:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Antimony	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Arsenic	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Barium	991	1000	99.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Beryllium	500	500	100.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cadmium	501	500	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Calcium	10170	10000	101.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Chromium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Cobalt	1008	1000	100.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10114	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Iron	10108	10000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lead	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Magnesium	9982	10000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Manganese	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Molybdenum	975	1000	97.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Nickel	1011	1000	101.1	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Potassium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Silver	502	500	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Sodium	9786	10000	97.9	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Strontium	1013	1000	101.3	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Thallium	1016	1000	101.6	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Tin	1004	1000	100.4	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Titanium	987	1000	98.7	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Vanadium	998	1000	99.8	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Zinc	1005	1000	100.5	90.0 - 110.0	P	8/3/01	10:42	TAUG03A
	Lithium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	10:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Aluminum	10225	10000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Antimony	991	1000	99.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Arsenic	1000	1000	100.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Barium	990	1000	99.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Boron	985	1000	98.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cadmium	506	500	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Calcium	10210	10000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Chromium	1005	1000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Cobalt	1012	1000	101.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10184	10000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Iron	10167	10000	101.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lead	1021	1000	102.1	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Magnesium	10047	10000	100.5	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Molybdenum	980	1000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Nickel	1020	1000	102.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Selenium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Silver	505	500	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Sodium	9803	10000	98.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Strontium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Thallium	1022	1000	102.2	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Tin	1010	1000	101.0	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Titanium	989	1000	98.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Vanadium	999	1000	99.9	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Zinc	1014	1000	101.4	90.0 - 110.0	P	8/3/01	11:50	TAUG03A
	Lithium	1077	1000	107.7	90.0 - 110.0	P	8/3/01	11:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Aluminum	10232	10000	102.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Antimony	996	1000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Arsenic	1001	1000	100.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Barium	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Beryllium	505	500	101.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Boron	988	1000	98.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cadmium	509	500	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Calcium	10214	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Chromium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Cobalt	1018	1000	101.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10219	10000	102.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Iron	10207	10000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lead	1030	1000	103.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Magnesium	10084	10000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Manganese	1012	1000	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Molybdenum	983	1000	98.3	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Nickel	1024	1000	102.4	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Potassium	9961	10000	99.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Selenium	1008	1000	100.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Sodium	9900	10000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Strontium	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Thallium	1028	1000	102.8	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Tin	1017	1000	101.7	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Titanium	990	1000	99.0	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Vanadium	1002	1000	100.2	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Zinc	1021	1000	102.1	90.0 - 110.0	P	8/3/01	12:57	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	12:57	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4									
	Aluminum	10203	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Antimony	994	1000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Arsenic	997	1000	99.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Barium	987	1000	98.7	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Boron	991	1000	99.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cadmium	505	500	101.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Calcium	10196	10000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Chromium	1006	1000	100.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Cobalt	1014	1000	101.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Copper	1002	1000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10183	10000	101.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Iron	10162	10000	101.6	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lead	1029	1000	102.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Magnesium	10017	10000	100.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Manganese	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Molybdenum	981	1000	98.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Nickel	1019	1000	101.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Potassium	9994	10000	99.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Selenium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Silver	506	500	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Sodium	9943	10000	99.4	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Strontium	1020	1000	102.0	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Thallium	1025	1000	102.5	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Titanium	988	1000	98.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Vanadium	1001	1000	100.1	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Zinc	1012	1000	101.2	90.0 - 110.0	P	8/3/01	14:05	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	14:05	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV5									
	Aluminum	10359	10000	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Antimony	1018	1000	101.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Arsenic	1024	1000	102.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Barium	1009	1000	100.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Beryllium	517	500	103.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Boron	1014	1000	101.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cadmium	520	500	104.0	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Calcium	10436	10000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Chromium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Cobalt	1042	1000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Copper	1027	1000	102.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10456	10000	104.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Iron	10420	10000	104.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lead	1052	1000	105.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Magnesium	10260	10000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Manganese	1035	1000	103.5	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Molybdenum	1006	1000	100.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Nickel	1048	1000	104.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Potassium	10132	10000	101.3	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Selenium	1029	1000	102.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Silver	518	500	103.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Sodium	10069	10000	100.7	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Strontium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Thallium	1051	1000	105.1	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Tin	1038	1000	103.8	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Vanadium	1026	1000	102.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Zinc	1039	1000	103.9	90.0 - 110.0	P	8/3/01	15:12	TAUG03A
	Lithium	1096	1000	109.6	90.0 - 110.0	P	8/3/01	15:12	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6									
	Aluminum	10646	10000	106.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Antimony	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Arsenic	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Barium	997	1000	99.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Beryllium	525	500	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Boron	1026	1000	102.6	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cadmium	536	500	107.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Calcium	10605	10000	106.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Cobalt	1075	1000	107.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Copper	1039	1000	103.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10696	10000	107.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Iron	10608	10000	106.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lead	1081	1000	108.1	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Magnesium	10415	10000	104.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Molybdenum	1028	1000	102.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Nickel	1083	1000	108.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Potassium	9930	10000	99.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Selenium	1048	1000	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Silver	524	500	104.8	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Sodium	10317	10000	103.2	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Strontium	1050	1000	105.0	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Thallium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Tin	1055	1000	105.5	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Titanium	1019	1000	101.9	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Zinc	1057	1000	105.7	90.0 - 110.0	P	8/3/01	16:20	TAUG03A
	Lithium	1074	1000	107.4	90.0 - 110.0	P	8/3/01	16:20	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV7									
	Aluminum	10524	10000	105.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Antimony	1039	1000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Arsenic	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Barium	996	1000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Beryllium	520	500	104.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Boron	1021	1000	102.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cadmium	530	500	106.0	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Calcium	10466	10000	104.7	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Chromium	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Cobalt	1063	1000	106.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Copper	1034	1000	103.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10586	10000	105.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Iron	10493	10000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lead	1073	1000	107.3	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Magnesium	10258	10000	102.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Manganese	1048	1000	104.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Molybdenum	1018	1000	101.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Nickel	1071	1000	107.1	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Potassium	9956	10000	99.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Selenium	1038	1000	103.8	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Silver	522	500	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Sodium	10387	10000	103.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Strontium	1049	1000	104.9	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Thallium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Tin	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Titanium	1012	1000	101.2	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Vanadium	1036	1000	103.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Zinc	1044	1000	104.4	90.0 - 110.0	P	8/3/01	17:27	TAUG03A
	Lithium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	17:27	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8									
	Aluminum	10533	10000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Antimony	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Arsenic	1050	1000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Barium	1000	1000	100.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Beryllium	524	500	104.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Boron	1030	1000	103.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cadmium	535	500	107.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Calcium	10501	10000	105.0	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Chromium	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Cobalt	1076	1000	107.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Copper	1038	1000	103.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10660	10000	106.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Iron	10574	10000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lead	1079	1000	107.9	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Magnesium	10326	10000	103.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Manganese	1057	1000	105.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Molybdenum	1027	1000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Nickel	1084	1000	108.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Potassium	9936	10000	99.4	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Selenium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Silver	523	500	104.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Sodium	10268	10000	102.7	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Strontium	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Thallium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Tin	1052	1000	105.2	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Titanium	1018	1000	101.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Vanadium	1043	1000	104.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Zinc	1053	1000	105.3	90.0 - 110.0	P	8/3/01	18:35	TAUG03A
	Lithium	1068	1000	106.8	90.0 - 110.0	P	8/3/01	18:35	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV9									
	Aluminum	10682	10000	106.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Antimony	1069	1000	106.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Arsenic	1066	1000	106.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Barium	1007	1000	100.7	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Beryllium	531	500	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Boron	1052	1000	105.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cadmium	545	500	109.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Calcium	10628	10000	106.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Chromium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Cobalt	1096	1000	109.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Copper	1051	1000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10807	10000	108.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Iron	10721	10000	107.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lead	1098	1000	109.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Magnesium	10514	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Manganese	1073	1000	107.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Molybdenum	1046	1000	104.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Nickel	1103	1000	110.3	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Potassium	10035	10000	100.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Selenium	1062	1000	106.2	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Sodium	10512	10000	105.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Strontium	1061	1000	106.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Thallium	1104	1000	110.4	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Tin	1071	1000	107.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Titanium	1031	1000	103.1	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Vanadium	1059	1000	105.9	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Zinc	1076	1000	107.6	90.0 - 110.0	P	8/3/01	19:42	TAUG03A
	Lithium	1088	1000	108.8	90.0 - 110.0	P	8/3/01	19:42	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10									
	Aluminum	10664	10000	106.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Antimony	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Arsenic	1078	1000	107.8	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Barium	1003	1000	100.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Beryllium	535	500	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Boron	1063	1000	106.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cadmium	553	500	110.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Calcium	10698	10000	107.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Chromium	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Cobalt	1113	1000	111.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Copper	1052	1000	105.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10862	10000	108.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Iron	10786	10000	107.9	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lead	1111	1000	111.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Magnesium	10640	10000	106.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Manganese	1081	1000	108.1	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Molybdenum	1057	1000	105.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Nickel	1117	1000	111.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Potassium	9925	10000	99.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Silver	530	500	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Sodium	10402	10000	104.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Strontium	1060	1000	106.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Thallium	1116	1000	111.6	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Tin	1082	1000	108.2	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Vanadium	1067	1000	106.7	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Zinc	1093	1000	109.3	90.0 - 110.0	P	8/3/01	20:50	TAUG03A
	Lithium	1080	1000	108.0	90.0 - 110.0	P	8/3/01	20:50	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11									
	Aluminum	10753	10000	107.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Antimony	1080	1000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Arsenic	1079	1000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Barium	995	1000	99.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Beryllium	536	500	107.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Boron	1064	1000	106.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cadmium	557	500	111.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Calcium	10787	10000	107.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Chromium	1087	1000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Cobalt	1118	1000	111.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Copper	1049	1000	104.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10872	10000	108.7	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Iron	10825	10000	108.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lead	1121	1000	112.1	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Magnesium	10804	10000	108.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Manganese	1084	1000	108.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Molybdenum	1062	1000	106.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Nickel	1125	1000	112.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Potassium	10024	10000	100.2	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Selenium	1076	1000	107.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Silver	528	500	105.6	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Sodium	10597	10000	106.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Strontium	1055	1000	105.5	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Thallium	1119	1000	111.9	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Tin	1090	1000	109.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Titanium	1034	1000	103.4	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Vanadium	1070	1000	107.0	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Zinc	1108	1000	110.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A
	Lithium	1098	1000	109.8	90.0 - 110.0	P	8/3/01	21:58	TAUG03A

Total Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12									
	Aluminum	10907	10000	109.1	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Antimony	1099	1000	109.9	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Arsenic	1104	1000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Barium	984	1000	98.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Beryllium	546	500	109.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Boron	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cadmium	574	500	114.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Calcium	11037	10000	110.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Chromium	1110	1000	111.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Cobalt	1150	1000	115.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Copper	1053	1000	105.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11130	10000	111.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Iron	11063	10000	110.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lead	1153	1000	115.3	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Magnesium	11080	10000	110.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Manganese	1105	1000	110.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Molybdenum	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Nickel	1158	1000	115.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Potassium	9720	10000	97.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Selenium	1090	1000	109.0	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Silver	531	500	106.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Sodium	10445	10000	104.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Strontium	1057	1000	105.7	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Thallium	1154	1000	115.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Tin	1114	1000	111.4	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Titanium	1042	1000	104.2	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Vanadium	1086	1000	108.6	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Zinc	1135	1000	113.5	90.0 - 110.0	P	8/3/01	22:49	TAUG03A
	Lithium	1078	1000	107.8	90.0 - 110.0	P	8/3/01	22:49	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	10:04	TAUG03A
	Antimony	2.32	+/-50.00	B	2.00	50.00	P	8/3/01	10:04	TAUG03A
	Arsenic	3.00	+/-5.00	B	3.00	5.00	P	8/3/01	10:04	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:04	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:04	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:04	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:04	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	10:04	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:04	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	10:04	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:04	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:04	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:04	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:04	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:04	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:04	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:04	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:04	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:04	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:04	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB1										
	Aluminum	58.2	+/-100.0	B	10.0	100.0	P	8/3/01	10:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	10:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	10:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	10:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	10:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	10:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	10:48	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	10:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	10:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Magnesium	10.21	+/-500.00	B	6.00	500.00	P	8/3/01	10:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	10:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	10:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	10:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	10:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	10:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	10:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	10:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	10:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	10:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	10:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB2										
	Aluminum	72.3	+/-100.0	B	10.0	100.0	P	8/3/01	11:55	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	11:55	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	11:55	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	11:55	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	11:55	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	11:55	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	11:55	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	11:55	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	11:55	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Magnesium	10.85	+/-500.00	B	6.00	500.00	P	8/3/01	11:55	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	11:55	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	11:55	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	11:55	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	11:55	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	11:55	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	11:55	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	11:55	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	11:55	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	11:55	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	11:55	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB3										
	Aluminum	65.4	+/-100.0	B	10.0	100.0	P	8/3/01	13:03	TAUG03A
	Antimony	2.25	+/-50.00	B	2.00	50.00	P	8/3/01	13:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	13:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	13:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	13:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	13:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	13:03	TAUG03A
	Iron	7.4	+/-100.0	B	7.0	100.0	P	8/3/01	13:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	13:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Magnesium	7.03	+/-500.00	B	6.00	500.00	P	8/3/01	13:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	13:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	13:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	13:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	13:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	13:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	13:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	13:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	13:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	13:03	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	13:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB4										
	Aluminum	62.7	+/-100.0	B	10.0	100.0	P	8/3/01	14:10	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	14:10	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	14:10	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	14:10	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	14:10	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	14:10	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	14:10	TAUG03A
	Iron	7.5	+/-100.0	B	7.0	100.0	P	8/3/01	14:10	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	14:10	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Magnesium	7.46	+/-500.00	B	6.00	500.00	P	8/3/01	14:10	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	14:10	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	14:10	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	14:10	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	14:10	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	14:10	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	14:10	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	14:10	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	14:10	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	14:10	TAUG03A
	Lithium	1.02	+/-50.00	B	1.00	50.00	P	8/3/01	14:10	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB5										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	15:18	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	15:18	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	15:18	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	15:18	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	15:18	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	15:18	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	15:18	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	15:18	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	15:18	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	15:18	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	15:18	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	15:18	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	15:18	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	15:18	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	15:18	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	15:18	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	15:18	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	15:18	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	15:18	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	15:18	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB6										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	16:25	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	16:25	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	16:25	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	16:25	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	16:25	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	16:25	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	16:25	TAUG03A
	Iron	8.7	+/-100.0	B	7.0	100.0	P	8/3/01	16:25	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	16:25	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Magnesium	15.34	+/-500.00	B	6.00	500.00	P	8/3/01	16:25	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	16:25	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	16:25	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	16:25	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	16:25	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	16:25	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	16:25	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	16:25	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	16:25	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	16:25	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	16:25	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB7										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	17:33	TAUG03A
	Antimony	2.23	+/-50.00	B	2.00	50.00	P	8/3/01	17:33	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	17:33	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	17:33	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	17:33	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	17:33	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	17:33	TAUG03A
	Iron	8.0	+/-100.0	B	7.0	100.0	P	8/3/01	17:33	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	17:33	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Magnesium	14.14	+/-500.00	B	6.00	500.00	P	8/3/01	17:33	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	17:33	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	17:33	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	17:33	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	17:33	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	17:33	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	17:33	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	17:33	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	17:33	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	17:33	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	17:33	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB8										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	18:40	TAUG03A
	Antimony	2.00	+/-50.00	B	2.00	50.00	P	8/3/01	18:40	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	18:40	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	18:40	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	18:40	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	18:40	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	18:40	TAUG03A
	Iron	7.6	+/-100.0	B	7.0	100.0	P	8/3/01	18:40	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	18:40	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Magnesium	9.46	+/-500.00	B	6.00	500.00	P	8/3/01	18:40	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	18:40	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	18:40	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	18:40	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	18:40	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	18:40	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	18:40	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	18:40	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	18:40	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	18:40	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	18:40	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB9										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	19:48	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	19:48	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	19:48	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	19:48	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	19:48	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	19:48	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	19:48	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	19:48	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	19:48	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	19:48	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	19:48	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	19:48	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	19:48	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	19:48	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	19:48	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	19:48	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	19:48	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	19:48	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	19:48	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	19:48	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB10										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	20:56	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	20:56	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	20:56	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	20:56	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	20:56	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	20:56	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	20:56	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	20:56	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	20:56	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	20:56	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	20:56	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	20:56	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	20:56	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	20:56	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	20:56	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	20:56	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	20:56	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	20:56	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	20:56	TAUG03A
	Lithium	1.00	+/-50.00	U	1.00	50.00	P	8/3/01	20:56	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB11										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:03	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:03	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:03	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:03	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:03	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:03	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:03	TAUG03A
	Iron	7.0	+/-100.0	U	7.0	100.0	P	8/3/01	22:03	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:03	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Magnesium	6.00	+/-500.00	U	6.00	500.00	P	8/3/01	22:03	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:03	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:03	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:03	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:03	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:03	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:03	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:03	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:03	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:03	TAUG03A
	Lithium	1.20	+/-50.00	B	1.00	50.00	P	8/3/01	22:03	TAUG03A

Total Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB12										
	Aluminum	10.0	+/-100.0	B	10.0	100.0	P	8/3/01	22:54	TAUG03A
	Antimony	2.00	+/-50.00	U	2.00	50.00	P	8/3/01	22:54	TAUG03A
	Arsenic	3.00	+/-5.00	U	3.00	5.00	P	8/3/01	22:54	TAUG03A
	Barium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Beryllium	1.00	+/-3.00	U	1.00	3.00	P	8/3/01	22:54	TAUG03A
	Boron	7.00	+/-100.00	U	7.00	100.00	P	8/3/01	22:54	TAUG03A
	Cadmium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Calcium	70.0	+/-500.0	U	70.0	500.0	P	8/3/01	22:54	TAUG03A
	Chromium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Cobalt	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Copper	3.00	+/-10.00	U	3.00	10.00	P	8/3/01	22:54	TAUG03A
	Iron	12.2	+/-100.0	B	7.0	100.0	P	8/3/01	22:54	TAUG03A
	Iron	20.0	+/-4000.0	U	20.0	4000.0	P	8/3/01	22:54	TAUG03A
	Lead	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Magnesium	27.95	+/-500.00	B	6.00	500.00	P	8/3/01	22:54	TAUG03A
	Manganese	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Molybdenum	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Nickel	2.00	+/-5.00	U	2.00	5.00	P	8/3/01	22:54	TAUG03A
	Potassium	60.0	+/-1000.0	U	60.0	1000.0	P	8/3/01	22:54	TAUG03A
	Selenium	5.00	+/-10.00	U	5.00	10.00	P	8/3/01	22:54	TAUG03A
	Silver	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Sodium	200.0	+/-1000.0	U	200.0	1000.0	P	8/3/01	22:54	TAUG03A
	Strontium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Thallium	4.00	+/-10.00	U	4.00	10.00	P	8/3/01	22:54	TAUG03A
	Tin	2.00	+/-10.00	U	2.00	10.00	P	8/3/01	22:54	TAUG03A
	Titanium	1.00	+/-5.00	U	1.00	5.00	P	8/3/01	22:54	TAUG03A
	Vanadium	1.00	+/-10.00	U	1.00	10.00	P	8/3/01	22:54	TAUG03A
	Zinc	6.00	+/-20.00	U	6.00	20.00	P	8/3/01	22:54	TAUG03A
	Lithium	1.50	+/-50.00	B	1.00	50.00	P	8/3/01	22:54	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	503029.7	500000.0	100.6	80 - 120	8/3/01	10:28	TAUG03A
	Antimony	-3.2			80 - 120	8/3/01	10:28	TAUG03A
	Arsenic	-0.3			80 - 120	8/3/01	10:28	TAUG03A
	Barium	1.1			80 - 120	8/3/01	10:28	TAUG03A
	Beryllium	1.0			80 - 120	8/3/01	10:28	TAUG03A
	Boron	1.7			80 - 120	8/3/01	10:28	TAUG03A
	Cadmium	0.4			80 - 120	8/3/01	10:28	TAUG03A
	Calcium	459448.1	500000.0	91.9	80 - 120	8/3/01	10:28	TAUG03A
	Chromium	-1.6			80 - 120	8/3/01	10:28	TAUG03A
	Cobalt	4.6			80 - 120	8/3/01	10:28	TAUG03A
	Copper	0.9			80 - 120	8/3/01	10:28	TAUG03A
	Iron	182247.1	200000.0	91.1	80 - 120	8/3/01	10:28	TAUG03A
	Iron	201616.5	200000.0	100.8	80 - 120	8/3/01	10:28	TAUG03A
	Lead	0.6			80 - 120	8/3/01	10:28	TAUG03A
	Magnesium	548652.9	500000.0	109.7	80 - 120	8/3/01	10:28	TAUG03A
	Manganese	3.7			80 - 120	8/3/01	10:28	TAUG03A
	Molybdenum	-1.0			80 - 120	8/3/01	10:28	TAUG03A
	Nickel	-3.3			80 - 120	8/3/01	10:28	TAUG03A
	Potassium	-12.4			80 - 120	8/3/01	10:28	TAUG03A
	Selenium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Silver	-0.4			80 - 120	8/3/01	10:28	TAUG03A
	Sodium	-110.2			80 - 120	8/3/01	10:28	TAUG03A
	Strontium	-1.5			80 - 120	8/3/01	10:28	TAUG03A
	Thallium	10.7			80 - 120	8/3/01	10:28	TAUG03A
	Tin	1.2			80 - 120	8/3/01	10:28	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	10:28	TAUG03A
	Vanadium	-3.8			80 - 120	8/3/01	10:28	TAUG03A
	Zinc	3.0			80 - 120	8/3/01	10:28	TAUG03A
	Lithium	0.7			80 - 120	8/3/01	10:28	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB1								
	Aluminum	515234.9	510000.0	101.0	80 - 120	8/3/01	10:34	TAUG03A
	Antimony	1101.9	1000.0	110.2	80 - 120	8/3/01	10:34	TAUG03A
	Arsenic	1096.4	1000.0	109.6	80 - 120	8/3/01	10:34	TAUG03A
	Barium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Beryllium	537.8	500.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Boron	1103.0	1000.0	110.3	80 - 120	8/3/01	10:34	TAUG03A
	Cadmium	509.9	500.0	102.0	80 - 120	8/3/01	10:34	TAUG03A
	Calcium	468006.8	510000.0	91.8	80 - 120	8/3/01	10:34	TAUG03A
	Chromium	1037.8	1000.0	103.8	80 - 120	8/3/01	10:34	TAUG03A
	Cobalt	1021.6	1000.0	102.2	80 - 120	8/3/01	10:34	TAUG03A
	Copper	1120.8	1000.0	112.1	80 - 120	8/3/01	10:34	TAUG03A
	Iron	189932.3	210000.0	90.4	80 - 120	8/3/01	10:34	TAUG03A
	Iron	211877.0	210000.0	100.9	80 - 120	8/3/01	10:34	TAUG03A
	Lead	1030.6	1000.0	103.1	80 - 120	8/3/01	10:34	TAUG03A
	Magnesium	557813.3	510000.0	109.4	80 - 120	8/3/01	10:34	TAUG03A
	Manganese	1055.6	1000.0	105.6	80 - 120	8/3/01	10:34	TAUG03A
	Molybdenum	1066.1	1000.0	106.6	80 - 120	8/3/01	10:34	TAUG03A
	Nickel	1015.4	1000.0	101.5	80 - 120	8/3/01	10:34	TAUG03A
	Potassium	14587.3	10000.0	145.9	50 - 150	8/3/01	10:34	TAUG03A
	Selenium	1067.6	1000.0	106.8	80 - 120	8/3/01	10:34	TAUG03A
	Silver	573.0	500.0	114.6	80 - 120	8/3/01	10:34	TAUG03A
	Sodium	11410.1	10000.0	114.1	50 - 150	8/3/01	10:34	TAUG03A
	Strontium	1075.9	1000.0	107.6	80 - 120	8/3/01	10:34	TAUG03A
	Thallium	1052.3	1000.0	105.2	80 - 120	8/3/01	10:34	TAUG03A
	Tin	1042.1	1000.0	104.2	80 - 120	8/3/01	10:34	TAUG03A
	Titanium	1050.8	1000.0	105.1	80 - 120	8/3/01	10:34	TAUG03A
	Vanadium	1049.0	1000.0	104.9	80 - 120	8/3/01	10:34	TAUG03A
	Zinc	991.3	1000.0	99.1	80 - 120	8/3/01	10:34	TAUG03A
	Lithium	1092.1	1000.0	109.2	50 - 150	8/3/01	10:34	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A2								
	Aluminum	509786.1	500000.0	102.0	80 - 120	8/3/01	16:08	TAUG03A
	Antimony	0.3			80 - 120	8/3/01	16:08	TAUG03A
	Arsenic	2.3			80 - 120	8/3/01	16:08	TAUG03A
	Barium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Beryllium	1.2			80 - 120	8/3/01	16:08	TAUG03A
	Boron	3.5			80 - 120	8/3/01	16:08	TAUG03A
	Cadmium	0.1			80 - 120	8/3/01	16:08	TAUG03A
	Calcium	470379.3	500000.0	94.1	80 - 120	8/3/01	16:08	TAUG03A
	Chromium	-1.9			80 - 120	8/3/01	16:08	TAUG03A
	Cobalt	4.9			80 - 120	8/3/01	16:08	TAUG03A
	Copper	-0.3			80 - 120	8/3/01	16:08	TAUG03A
	Iron	186962.0	200000.0	93.5	80 - 120	8/3/01	16:08	TAUG03A
	Iron	205302.8	200000.0	102.7	80 - 120	8/3/01	16:08	TAUG03A
	Lead	3.1			80 - 120	8/3/01	16:08	TAUG03A
	Magnesium	556058.3	500000.0	111.2	80 - 120	8/3/01	16:08	TAUG03A
	Manganese	4.0			80 - 120	8/3/01	16:08	TAUG03A
	Molybdenum	-0.9			80 - 120	8/3/01	16:08	TAUG03A
	Nickel	-2.4			80 - 120	8/3/01	16:08	TAUG03A
	Potassium	-39.7			80 - 120	8/3/01	16:08	TAUG03A
	Selenium	-5.3			80 - 120	8/3/01	16:08	TAUG03A
	Silver	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Sodium	-233.8			80 - 120	8/3/01	16:08	TAUG03A
	Strontium	-1.6			80 - 120	8/3/01	16:08	TAUG03A
	Thallium	9.3			80 - 120	8/3/01	16:08	TAUG03A
	Tin	-0.8			80 - 120	8/3/01	16:08	TAUG03A
	Titanium	-2.3			80 - 120	8/3/01	16:08	TAUG03A
	Vanadium	-3.4			80 - 120	8/3/01	16:08	TAUG03A
	Zinc	1.8			80 - 120	8/3/01	16:08	TAUG03A
	Lithium	1.0			80 - 120	8/3/01	16:08	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB2								
	Aluminum	533186.9	510000.0	104.5	80 - 120	8/3/01	16:14	TAUG03A
	Antimony	1154.0	1000.0	115.4	80 - 120	8/3/01	16:14	TAUG03A
	Arsenic	1146.4	1000.0	114.6	80 - 120	8/3/01	16:14	TAUG03A
	Barium	1089.2	1000.0	108.9	80 - 120	8/3/01	16:14	TAUG03A
	Beryllium	558.4	500.0	111.7	80 - 120	8/3/01	16:14	TAUG03A
	Boron	1128.0	1000.0	112.8	80 - 120	8/3/01	16:14	TAUG03A
	Cadmium	537.3	500.0	107.5	80 - 120	8/3/01	16:14	TAUG03A
	Calcium	488330.7	510000.0	95.8	80 - 120	8/3/01	16:14	TAUG03A
	Chromium	1080.7	1000.0	108.1	80 - 120	8/3/01	16:14	TAUG03A
	Cobalt	1073.2	1000.0	107.3	80 - 120	8/3/01	16:14	TAUG03A
	Copper	1145.2	1000.0	114.5	80 - 120	8/3/01	16:14	TAUG03A
	Iron	199554.0	210000.0	95.0	80 - 120	8/3/01	16:14	TAUG03A
	Iron	220469.8	210000.0	105.0	80 - 120	8/3/01	16:14	TAUG03A
	Lead	1083.4	1000.0	108.3	80 - 120	8/3/01	16:14	TAUG03A
	Magnesium	578245.2	510000.0	113.4	80 - 120	8/3/01	16:14	TAUG03A
	Manganese	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Molybdenum	1110.6	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Nickel	1070.0	1000.0	107.0	80 - 120	8/3/01	16:14	TAUG03A
	Potassium	14795.1	10000.0	148.0	50 - 150	8/3/01	16:14	TAUG03A
	Selenium	1099.2	1000.0	109.9	80 - 120	8/3/01	16:14	TAUG03A
	Silver	592.3	500.0	118.5	80 - 120	8/3/01	16:14	TAUG03A
	Sodium	11951.0	10000.0	119.5	50 - 150	8/3/01	16:14	TAUG03A
	Strontium	1110.7	1000.0	111.1	80 - 120	8/3/01	16:14	TAUG03A
	Thallium	1112.5	1000.0	111.2	80 - 120	8/3/01	16:14	TAUG03A
	Tin	1085.6	1000.0	108.6	80 - 120	8/3/01	16:14	TAUG03A
	Titanium	1080.0	1000.0	108.0	80 - 120	8/3/01	16:14	TAUG03A
	Vanadium	1086.6	1000.0	108.7	80 - 120	8/3/01	16:14	TAUG03A
	Zinc	1036.8	1000.0	103.7	80 - 120	8/3/01	16:14	TAUG03A
	Lithium	1118.4	1000.0	111.8	50 - 150	8/3/01	16:14	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A3								
	Aluminum	528266.5	500000.0	105.7	80 - 120	8/3/01	22:37	TAUG03A
	Antimony	-0.2			80 - 120	8/3/01	22:37	TAUG03A
	Arsenic	0.5			80 - 120	8/3/01	22:37	TAUG03A
	Barium	1.1			80 - 120	8/3/01	22:37	TAUG03A
	Beryllium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Boron	2.5			80 - 120	8/3/01	22:37	TAUG03A
	Cadmium	1.6			80 - 120	8/3/01	22:37	TAUG03A
	Calcium	487332.5	500000.0	97.5	80 - 120	8/3/01	22:37	TAUG03A
	Chromium	-1.5			80 - 120	8/3/01	22:37	TAUG03A
	Cobalt	4.4			80 - 120	8/3/01	22:37	TAUG03A
	Copper	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Iron	195288.5	200000.0	97.6	80 - 120	8/3/01	22:37	TAUG03A
	Iron	212796.8	200000.0	106.4	80 - 120	8/3/01	22:37	TAUG03A
	Lead	2.1			80 - 120	8/3/01	22:37	TAUG03A
	Magnesium	584574.8	500000.0	116.9	80 - 120	8/3/01	22:37	TAUG03A
	Manganese	3.9			80 - 120	8/3/01	22:37	TAUG03A
	Molybdenum	-0.4			80 - 120	8/3/01	22:37	TAUG03A
	Nickel	-2.1			80 - 120	8/3/01	22:37	TAUG03A
	Potassium	-27.6			80 - 120	8/3/01	22:37	TAUG03A
	Selenium	-1.3			80 - 120	8/3/01	22:37	TAUG03A
	Silver	0.6			80 - 120	8/3/01	22:37	TAUG03A
	Sodium	14.6			80 - 120	8/3/01	22:37	TAUG03A
	Strontium	-2.0			80 - 120	8/3/01	22:37	TAUG03A
	Thallium	3.7			80 - 120	8/3/01	22:37	TAUG03A
	Tin	0.4			80 - 120	8/3/01	22:37	TAUG03A
	Titanium	-2.6			80 - 120	8/3/01	22:37	TAUG03A
	Vanadium	-3.6			80 - 120	8/3/01	22:37	TAUG03A
	Zinc	2.6			80 - 120	8/3/01	22:37	TAUG03A
	Lithium	1.6			80 - 120	8/3/01	22:37	TAUG03A

Total Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C107684

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB3								
	Aluminum	546032.6	510000.0	107.1	80 - 120	8/3/01	22:43	TAUG03A
	Antimony	1194.4	1000.0	119.4	80 - 120	8/3/01	22:43	TAUG03A
	Arsenic	1187.9	1000.0	118.8	80 - 120	8/3/01	22:43	TAUG03A
	Barium	1064.7	1000.0	106.5	80 - 120	8/3/01	22:43	TAUG03A
	Beryllium	575.4	500.0	115.1	80 - 120	8/3/01	22:43	TAUG03A
	Boron	1156.5	1000.0	115.6	80 - 120	8/3/01	22:43	TAUG03A
	Cadmium	570.5	500.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Calcium	503427.4	510000.0	98.7	80 - 120	8/3/01	22:43	TAUG03A
	Chromium	1123.4	1000.0	112.3	80 - 120	8/3/01	22:43	TAUG03A
	Cobalt	1133.7	1000.0	113.4	80 - 120	8/3/01	22:43	TAUG03A
	Copper	1147.2	1000.0	114.7	80 - 120	8/3/01	22:43	TAUG03A
	Iron	206742.6	210000.0	98.4	80 - 120	8/3/01	22:43	TAUG03A
	Iron	226705.8	210000.0	108.0	80 - 120	8/3/01	22:43	TAUG03A
	Lead	1141.0	1000.0	114.1	80 - 120	8/3/01	22:43	TAUG03A
	Magnesium	605249.2	510000.0	118.7	80 - 120	8/3/01	22:43	TAUG03A
	Manganese	1135.6	1000.0	113.6	80 - 120	8/3/01	22:43	TAUG03A
	Molybdenum	1158.7	1000.0	115.9	80 - 120	8/3/01	22:43	TAUG03A
	Nickel	1122.2	1000.0	112.2	80 - 120	8/3/01	22:43	TAUG03A
	Potassium	14257.6	10000.0	142.6	50 - 150	8/3/01	22:43	TAUG03A
	Selenium	1137.9	1000.0	113.8	80 - 120	8/3/01	22:43	TAUG03A
	Silver	595.0	500.0	119.0	80 - 120	8/3/01	22:43	TAUG03A
	Sodium	11971.5	10000.0	119.7	50 - 150	8/3/01	22:43	TAUG03A
	Strontium	1105.2	1000.0	110.5	80 - 120	8/3/01	22:43	TAUG03A
	Thallium	1165.6	1000.0	116.6	80 - 120	8/3/01	22:43	TAUG03A
	Tin	1133.0	1000.0	113.3	80 - 120	8/3/01	22:43	TAUG03A
	Titanium	1092.4	1000.0	109.2	80 - 120	8/3/01	22:43	TAUG03A
	Vanadium	1118.3	1000.0	111.8	80 - 120	8/3/01	22:43	TAUG03A
	Zinc	1099.5	1000.0	110.0	80 - 120	8/3/01	22:43	TAUG03A
	Lithium	1098.8	1000.0	109.9	50 - 150	8/3/01	22:43	TAUG03A

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C108110
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
017-OLD-36-19A-Q3-01	C108110-1
017-OLD-36-24B-Q3-01	C108110-2
017-OLD-36-FB2-Q3-01	C108110-3

The above samples were received at STL Pensacola on August 3, 2001. The cooler temperature was 2°C.

All samples were analyzed for Sulfide and Dissolved Iron.

Rick Hayes
Senior Project Manager

8/14/01

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08110
Received: 03 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164410814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
08110-1	017-OLD-36-19A-Q3-01	08-02-01/09:40
08110-2	017-OLD-36-24B-Q3-01	08-02-01/10:00
08110-3	017-OLD-36-FB2-Q3-01	08-02-01/11:45

PARAMETER	08110-1	08110-2	08110-3
Sulfide (376.1), mg/l	1.0U	1.2	1.0U
Dilution Factor	1	1	1
Analysis Date	08.07.01	08.07.01	08.07.01
Analysis Time	13:40	13:40	13:40
Batch ID	FEW036	FEW036	FEW036
Analyst	BH	BH	BH
Iron, Dissolved (6010B), mg/l	100U	100	100U
Dilution Factor	1	1	1
Analysis Date	08.09.01	08.09.01	08.09.01
Analysis Time	14:43	15:19	15:25
Batch ID	PD088	PD088	PD088
Analyst	GSP	---	GSP

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08110
Received: 03 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164410814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08110-4	Method Blank	
08110-5	Lab Control Standard True Value	
08110-6	Lab Control Standard Result	
08110-7	Lab Control Standard % Recovery	
08110-8	LCS Accuracy Control Limit (%R)	

PARAMETER	08110-4	08110-5	08110-6	08110-7	08110-8
Sulfide (376.1), mg/l	1.0U	20.0	18.1	91 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	08.07.01	---	08.07.01	---	---
Analysis Time	13:40	---	13:40	---	---
Batch ID	FEW036	FEW036	FEW036	FEW036	FEW036
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), mg/l	100U	10000.0	10457.5	105 %	80-120
Dilution Factor	1	---	1	---	1
Analysis Date	08.09.01	---	08.09.01	---	---
Analysis Time	14:32	---	14:37	---	---
Batch ID	PD088	PD088	PD088	PD088	PD088
Analyst	GSP	---	GSP	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

003

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-08110
Received: 03 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164410814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08110-9	MS True Value	
08110-10	Matrix Spike Result	
08110-11	Matrix Spike % Recovery	
08110-12	MSD True Value	
08110-13	Matrix Spike Duplicate Result	

PARAMETER	08110-9	08110-10	08110-11	08110-12	08110-13
Sulfide (376.1), mg/l	10.0	9.4	94 %	NoMS	NoMS
Dilution Factor	---	1	---	---	---
Analysis Date	---	08.07.01	---	---	---
Analysis Time	---	13:40	---	---	---
Batch ID	FEW036	FEW036	FEW036	---	---
Analyst	---	BH	---	---	---
Iron, Dissolved (6010B), mg/l	10000.0	10383.8	104 %	10000.0	10512.4
Dilution Factor	---	1	---	1	1
Analysis Date	---	08.09.01	---	---	08.09.01
Analysis Time	---	15:08	---	---	15:14
Batch ID	PD088	PD088	PD088	PD088	PD088
Analyst	---	GSP	---	---	GSP

004

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-08110
Received: 03 AUG 01
Reported: 14 AUG 01

Mr. Jeff Wilmoth
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 164410814

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
08110-14	Matrix Spike Duplicate % Recovery	
08110-15	MS Accuracy Advisory Limit (%R)	
08110-16	Precision (%RPD) MS/MSD	
08110-17	MS Precision Advisory Limit (%RPD)	

PARAMETER	08110-14	08110-15	08110-16	08110-17
Sulfide (376.1), mg/l	NoMS	NoMS	NoMS	NoMS
Iron, Dissolved (6010B), mg/l	105 %	75-125	1.2	20
Batch ID	PD088	PD088	PD088	PD088

Rick Hayes, Project Manager

Final Page Of Report

005

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags **are limited to** X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/01

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

*State of **California**, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02*

*State of **Connecticut**, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01*

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

*Commonwealth of **Kentucky**, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01*

*State of **Louisiana**, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01*

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

*State of **Maryland**, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/01*

*Commonwealth of **Massachusetts**, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02*

*State of **Michigan**, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/01*

New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater), expires 08/16/01

*State of **New Jersey**, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01*

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 04/01/01 – extension granted

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

*State of **Oklahoma**, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01*

*Commonwealth of **Pennsylvania**, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01*

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/08/01

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/01

*State of **Washington**, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01*

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C108110 Date Received: 8-3-01

1.	Was there a Chain of Custody?	(Yes)	No♣	
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No♣	
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No♣	N/A
4.	Were all samples properly labeled and identified?	(Yes)	No♣	
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes♣	(No)	
6.	Were samples received in proper containers for analysis requested?	(Yes)	No♣	
7.	Were all sample containers received intact?	(Yes)	No♣	
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	(Yes)	No♣	N/A
9.	Is there sufficient volume for analysis requested?	(Yes)	No♣	N/A *(Can)*
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No♣	
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes♣	No	(N/A)
12.	If sent, were matrix spike bottles returned?	Yes	No♣	(N/A)
13.	Was Project Manager notified of problems? (initials:_____)	Yes	No♣	(N/A)

Airbill Number(s): 8285 1165 4886

Shipped By: Fed Ex

Cooler Number(s): Client

Shipping Charges: N/A

Cooler Weight(s): 40 #

Cooler Temp(s) (°C): 2°

(CCK9)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS) ☞

Inspected By: DMH **Date:** 8-3-01 **Logged By:** pke **Date:** 8/3/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD C/08/10

[1] COC NUMBER: 0802-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.32.12.01.08	STL Pensacola/Rick Hayes	Steve Tsangaris/TPA/CCI	4350 W. CYPRESS St. Ste 600, Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO 017		Jeff Wilmoth/ATL/CCI	115 Perimeter Center Place N.E., Ste 700, Atlanta, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Jeff Wilmoth/ATL/CCI	770/604-9182 Ext 268	850/474-1001	Jennifer Ottoson/TPA/CH2M HILL	205 Indian River Dr., Coca,FL 32922

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	DISSOLVED IRON 6010B		SULFIDE 376							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-36-19A-Q3-01		GW	08/02/01	0940	III	14	1		1							Grab		1
2	01-OLD-36-24B-Q3-01		GW	08/02/01	1000	III	14	1		1							Grab		2
3	017-OLD-36-FB2-Q3-01		AQ	08/02/01	1145	III	14	1		1							Grab		3
4																			
5																			
6																			
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Carlton R. Ivery/DFB CH2M HILL & Craig Haas/ORL/TPA	FEDEX Airbill # 828511654826	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Carlton Ivery Carlton Ivery	8/2/01	1800	Davette Howard / Davette Howard	8-3-01	0905
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

C108110

FedEx Express USA Airbill

FedEx Tracking Number 828511654826

Form ID No. 0200

Recipient's Copy

1 From

Date 8/2/01

Sender's Name CARLTON IVERY Phone 352 339-6820

Company CH2M HILL

Address 1060 WAREHOUSE RD

Dept/Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.R2.01.08/8414

3 To

Recipient's Name SAMPLE CUSTODY Phone 850 474-1001

Company STL PENSACOLA

Address 3355 McLEMORE DR.

To "HOLD" at FedEx location, print FedEx address.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

828511654826

4a Express Package Service

Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service

Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging

* Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling

Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Express service.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check
- [ ] Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	40	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

110

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: LE
Labeled by: DMH
Delivered by: DMH

CH2M-CONST-GA C100110
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						ZnAc/NaOH	3	CR	8-3-01	1707
8 oz. Plastic		✓					H1003	3			
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											

COMMENTS

SULFIDE 376.1

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 8/7/01 Preparation[1] Time On: 1320 Preparation[1] Time Off: 1340

Analysis Date: 8/7/01 Analysis Time On: 1340 Analysis Time Off: 1410

Batch #: PEN036

Chemist[2]: BA Data Reviewed By: AS 8/8/01

RPD: 20
Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$ = (28.04)(0.005) ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0237 LOT # $Na_2S_2O_3$ = 8100 KMRC.

N of Iodine = (mls titrant)(N titrant) 5 ml; Average of two N below = N of I_2 0.0244 LOT # I_2 = 1094-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.90	0.025N $Na_2S_2O_3$ 9-15-01	0.02376	5	5.14	0.025N I_2 4-4-02	0.02436
5.91	↓	0.02372	5	5.14	↓	0.02436

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.16	ND	1.0
SF-LCS-S[7] 9-18-01	N/A	0.2/100 ml	↓	10	5.51	18.1/20.0 =	1.0 91%
Prep Blank (distilled)	DI Water	100 ml	N/A				
1 10810-1	WA	200		5	5.06	ND	
MS[6] (10 ppm) ↓ -1	↓	.2/200	↓	10	5.33	9.4/10.0=	94%
~~MSD[6] (10 ppm)~~			BA 8/7/01				
2 10810-2	WA	200	N/A	5	4.49	1.2	1.0
3 ↓ -3	↓	200	↓	5	5.20	ND	↓
4							
5							
6							
7							
8			BA 8/7/01				
9							
10							
SF-LCS-S[7] 9-18-01	N/A	0.2/100 mls	N/A	10	5.51	18.1/20.0 =	1.0 91%
CCB (blank)	DI Water	100 mls	↓	5	5.20	ND	1.0
~~DUP[5]~~							
11							
12							
13							
14							
15			BA 8/7/01				
16							
17							
18							
19							
20							
SF-LCS-S[7]	N/A	0.2/100 mls					1.0
~~CCB (blank)~~	~~DI Water~~	~~100 mls~~					~~1.0~~

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20\text{ L gas}}$ = ppmv H_2S

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date , "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. Please specify sample accession # or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

DISSOLVED IRON

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	10024	10000	100.2	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Antimony	986	1000	98.6	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Arsenic	990	1000	99.0	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Barium	994	1000	99.4	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Beryllium	498	500	99.6	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Boron	990	1000	99.0	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Cadmium	496	500	99.2	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Calcium	10056	10000	100.6	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Chromium	995	1000	99.5	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Cobalt	1005	1000	100.5	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Copper	997	1000	99.7	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Iron	10017	10000	100.2	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Iron	10010	10000	100.1	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Lead	1008	1000	100.8	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Magnesium	9906	10000	99.1	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Manganese	996	1000	99.6	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Molybdenum	974	1000	97.4	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Nickel	1002	1000	100.2	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Potassium	9912	10000	99.1	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Selenium	998	1000	99.8	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Silver	498	500	99.6	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Sodium	9704	10000	97.0	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Strontium	1007	1000	100.7	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Thallium	1003	1000	100.3	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Tin	997	1000	99.7	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Titanium	982	1000	98.2	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Vanadium	995	1000	99.5	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Zinc	998	1000	99.8	90.0 - 110.0	P	8/9/01	08:48	TAUG09A
	Lithium	1017	1000	101.7	90.0 - 110.0	P	8/9/01	08:48	TAUG09A

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1									
	Aluminum	10270	10000	102.7	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Antimony	991	1000	99.1	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Arsenic	995	1000	99.5	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Barium	994	1000	99.4	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Beryllium	499	500	99.8	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Boron	986	1000	98.6	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Cadmium	500	500	100.0	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Calcium	10287	10000	102.9	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Chromium	999	1000	99.9	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Cobalt	1011	1000	101.1	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Copper	997	1000	99.7	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Iron	10107	10000	101.1	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Iron	10115	10000	101.2	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Lead	1014	1000	101.4	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Magnesium	10094	10000	100.9	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Manganese	1000	1000	100.0	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Molybdenum	977	1000	97.7	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Nickel	1009	1000	100.9	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Potassium	10075	10000	100.8	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Selenium	1001	1000	100.1	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Silver	498	500	99.6	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Sodium	9978	10000	99.8	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Strontium	1010	1000	101.0	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Thallium	1010	1000	101.0	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Tin	1002	1000	100.2	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Titanium	984	1000	98.4	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Vanadium	998	1000	99.8	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Zinc	1005	1000	100.5	90.0 - 110.0	P	8/9/01	09:43	TAUG09A
	Lithium	1032	1000	103.2	90.0 - 110.0	P	8/9/01	09:43	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Aluminum	10146	10000	101.5	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Antimony	990	1000	99.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Arsenic	992	1000	99.2	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Barium	990	1000	99.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Beryllium	497	500	99.4	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Boron	992	1000	99.2	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Cadmium	499	500	99.8	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Calcium	10158	10000	101.6	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Chromium	998	1000	99.8	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Cobalt	1010	1000	101.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Copper	993	1000	99.3	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Iron	10034	10000	100.3	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Iron	10025	10000	100.2	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Lead	1007	1000	100.7	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Magnesium	9999	10000	100.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Manganese	996	1000	99.6	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Molybdenum	978	1000	97.8	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Nickel	1010	1000	101.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Potassium	10127	10000	101.3	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Selenium	992	1000	99.2	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Silver	495	500	99.0	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Sodium	9833	10000	98.3	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Strontium	1004	1000	100.4	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Thallium	1007	1000	100.7	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Tin	1002	1000	100.2	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Titanium	977	1000	97.7	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Vanadium	995	1000	99.5	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Zinc	1005	1000	100.5	90.0 - 110.0	P	8/9/01	10:48	TAUG09A
	Lithium	1034	1000	103.4	90.0 - 110.0	P	8/9/01	10:48	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Aluminum	10258	10000	102.6	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Antimony	1007	1000	100.7	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Arsenic	1007	1000	100.7	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Barium	1009	1000	100.9	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Beryllium	506	500	101.2	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Boron	1011	1000	101.1	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Cadmium	507	500	101.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Calcium	10292	10000	102.9	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Chromium	1014	1000	101.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Cobalt	1026	1000	102.6	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Copper	1014	1000	101.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Iron	10213	10000	102.1	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Iron	10181	10000	101.8	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Lead	1025	1000	102.5	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Magnesium	10059	10000	100.6	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Manganese	1014	1000	101.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Molybdenum	994	1000	99.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Nickel	1027	1000	102.7	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Potassium	10036	10000	100.4	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Selenium	1017	1000	101.7	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Silver	503	500	100.6	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Sodium	10074	10000	100.7	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Strontium	1028	1000	102.8	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Thallium	1022	1000	102.2	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Tin	1010	1000	101.0	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Titanium	995	1000	99.5	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Vanadium	1013	1000	101.3	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Zinc	1006	1000	100.6	90.0 - 110.0	P	8/9/01	11:55	TAUG09A
	Lithium	1028	1000	102.8	90.0 - 110.0	P	8/9/01	11:55	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4									
	Aluminum	10377	10000	103.8	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Antimony	1009	1000	100.9	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Arsenic	1007	1000	100.7	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Barium	1014	1000	101.4	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Beryllium	506	500	101.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Boron	1004	1000	100.4	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Cadmium	506	500	101.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Calcium	10363	10000	103.6	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Chromium	1012	1000	101.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Cobalt	1022	1000	102.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Copper	1013	1000	101.3	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Iron	10237	10000	102.4	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Iron	10231	10000	102.3	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Lead	1025	1000	102.5	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Magnesium	10102	10000	101.0	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Manganese	1014	1000	101.4	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Molybdenum	993	1000	99.3	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Nickel	1025	1000	102.5	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Potassium	10274	10000	102.7	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Selenium	1014	1000	101.4	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Silver	506	500	101.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Sodium	10097	10000	101.0	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Strontium	1031	1000	103.1	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Thallium	1025	1000	102.5	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Titanium	999	1000	99.9	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Vanadium	1012	1000	101.2	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Zinc	1007	1000	100.7	90.0 - 110.0	P	8/9/01	13:02	TAUG09A
	Lithium	1050	1000	105.0	90.0 - 110.0	P	8/9/01	13:02	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV5									
	Aluminum	10355	10000	103.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Antimony	1007	1000	100.7	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Arsenic	1005	1000	100.5	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Barium	1018	1000	101.8	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Beryllium	507	500	101.4	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Boron	1001	1000	100.1	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Cadmium	507	500	101.4	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Calcium	10361	10000	103.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Chromium	1013	1000	101.3	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Cobalt	1020	1000	102.0	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Copper	1016	1000	101.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Iron	10260	10000	102.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Iron	10236	10000	102.4	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Lead	1029	1000	102.9	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Magnesium	10077	10000	100.8	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Manganese	1015	1000	101.5	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Molybdenum	990	1000	99.0	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Nickel	1023	1000	102.3	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Potassium	10259	10000	102.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Selenium	1015	1000	101.5	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Silver	509	500	101.8	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Sodium	10253	10000	102.5	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Strontium	1037	1000	103.7	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Thallium	1027	1000	102.7	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Titanium	1001	1000	100.1	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Vanadium	1013	1000	101.3	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Zinc	1006	1000	100.6	90.0 - 110.0	P	8/9/01	14:09	TAUG09A
	Lithium	1048	1000	104.8	90.0 - 110.0	P	8/9/01	14:09	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6									
	Aluminum	10352	10000	103.5	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Antimony	1006	1000	100.6	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Arsenic	1010	1000	101.0	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Barium	1020	1000	102.0	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Beryllium	510	500	102.0	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Boron	999	1000	99.9	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Cadmium	509	500	101.8	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Calcium	10377	10000	103.8	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Chromium	1017	1000	101.7	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Cobalt	1021	1000	102.1	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Copper	1017	1000	101.7	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Iron	10297	10000	103.0	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Iron	10269	10000	102.7	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Lead	1037	1000	103.7	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Magnesium	10127	10000	101.3	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Manganese	1020	1000	102.0	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Molybdenum	991	1000	99.1	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Nickel	1027	1000	102.7	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Potassium	10442	10000	104.4	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Selenium	1019	1000	101.9	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Silver	512	500	102.4	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Sodium	10365	10000	103.6	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Strontium	1043	1000	104.3	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Thallium	1033	1000	103.3	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Tin	1021	1000	102.1	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Titanium	1005	1000	100.5	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Vanadium	1015	1000	101.5	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Zinc	1015	1000	101.5	90.0 - 110.0	P	8/9/01	15:31	TAUG09A
	Lithium	1068	1000	106.8	90.0 - 110.0	P	8/9/01	15:31	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV7									
	Aluminum	10177	10000	101.8	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Antimony	987	1000	98.7	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Arsenic	989	1000	98.9	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Barium	1005	1000	100.5	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Beryllium	501	500	100.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Boron	977	1000	97.7	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Cadmium	499	500	99.8	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Calcium	10211	10000	102.1	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Chromium	999	1000	99.9	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Cobalt	1001	1000	100.1	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Copper	999	1000	99.9	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Iron	10119	10000	101.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Iron	10111	10000	101.1	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Lead	1019	1000	101.9	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Magnesium	9949	10000	99.5	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Manganese	1002	1000	100.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Molybdenum	972	1000	97.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Nickel	1006	1000	100.6	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Potassium	10370	10000	103.7	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Selenium	1000	1000	100.0	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Silver	506	500	101.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Sodium	10346	10000	103.5	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Strontium	1028	1000	102.8	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Thallium	1017	1000	101.7	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Tin	1002	1000	100.2	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Titanium	989	1000	98.9	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Vanadium	997	1000	99.7	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Zinc	996	1000	99.6	90.0 - 110.0	P	8/9/01	16:59	TAUG09A
	Lithium	1056	1000	105.6	90.0 - 110.0	P	8/9/01	16:59	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8									
	Aluminum	10343	10000	103.4	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Antimony	1002	1000	100.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Arsenic	1010	1000	101.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Barium	1024	1000	102.4	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Beryllium	510	500	102.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Boron	986	1000	98.6	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Cadmium	508	500	101.6	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Calcium	10474	10000	104.7	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Chromium	1016	1000	101.6	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Cobalt	1021	1000	102.1	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Copper	1011	1000	101.1	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Iron	10295	10000	103.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Iron	10296	10000	103.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Lead	1042	1000	104.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Magnesium	10217	10000	102.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Manganese	1017	1000	101.7	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Molybdenum	992	1000	99.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Nickel	1024	1000	102.4	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Potassium	10751	10000	107.5	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Selenium	1020	1000	102.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Silver	511	500	102.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Sodium	10355	10000	103.6	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Strontium	1044	1000	104.4	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Thallium	1035	1000	103.5	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Tin	1025	1000	102.5	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Titanium	1000	1000	100.0	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Vanadium	1014	1000	101.4	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Zinc	1022	1000	102.2	90.0 - 110.0	P	8/9/01	18:07	TAUG09A
	Lithium	1091	1000	109.1	90.0 - 110.0	P	8/9/01	18:07	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV9									
	Aluminum	10221	10000	102.2	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Antimony	998	1000	99.8	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Arsenic	1003	1000	100.3	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Barium	1007	1000	100.7	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Beryllium	504	500	100.8	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Boron	989	1000	98.9	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Cadmium	503	500	100.6	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Calcium	10243	10000	102.4	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Chromium	1006	1000	100.6	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Cobalt	1015	1000	101.5	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Copper	1004	1000	100.4	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Iron	10149	10000	101.5	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Iron	10151	10000	101.5	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Lead	1025	1000	102.5	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Magnesium	10010	10000	100.1	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Manganese	1007	1000	100.7	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Molybdenum	985	1000	98.5	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Nickel	1014	1000	101.4	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Potassium	10362	10000	103.6	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Selenium	1012	1000	101.2	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Silver	503	500	100.6	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Sodium	10024	10000	100.2	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Strontium	1027	1000	102.7	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Thallium	1020	1000	102.0	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Tin	1011	1000	101.1	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Titanium	988	1000	98.8	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Vanadium	1004	1000	100.4	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Zinc	1009	1000	100.9	90.0 - 110.0	P	8/9/01	19:14	TAUG09A
	Lithium	1052	1000	105.2	90.0 - 110.0	P	8/9/01	19:14	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10									
	Aluminum	10394	10000	103.9	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Antimony	1021	1000	102.1	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Arsenic	1020	1000	102.0	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Barium	1026	1000	102.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Beryllium	513	500	102.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Boron	1016	1000	101.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Cadmium	512	500	102.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Calcium	10440	10000	104.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Chromium	1028	1000	102.8	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Cobalt	1038	1000	103.8	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Copper	1024	1000	102.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Iron	10313	10000	103.1	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Iron	10316	10000	103.2	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Lead	1036	1000	103.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Magnesium	10241	10000	102.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Manganese	1025	1000	102.5	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Molybdenum	1004	1000	100.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Nickel	1033	1000	103.3	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Potassium	10575	10000	105.8	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Selenium	1023	1000	102.3	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Silver	510	500	102.0	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Sodium	10261	10000	102.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Strontium	1044	1000	104.4	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Thallium	1038	1000	103.8	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Tin	1030	1000	103.0	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Titanium	1006	1000	100.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Vanadium	1026	1000	102.6	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Zinc	1030	1000	103.0	90.0 - 110.0	P	8/9/01	20:22	TAUG09A
	Lithium	1073	1000	107.3	90.0 - 110.0	P	8/9/01	20:22	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11									
	Aluminum	10604	10000	106.0	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Antimony	1039	1000	103.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Arsenic	1045	1000	104.5	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Barium	1047	1000	104.7	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Beryllium	524	500	104.8	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Boron	1037	1000	103.7	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Cadmium	523	500	104.6	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Calcium	10672	10000	106.7	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Chromium	1049	1000	104.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Cobalt	1059	1000	105.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Copper	1044	1000	104.4	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Iron	10560	10000	105.6	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Iron	10549	10000	105.5	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Lead	1060	1000	106.0	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Magnesium	10506	10000	105.1	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Manganese	1046	1000	104.6	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Molybdenum	1029	1000	102.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Nickel	1055	1000	105.5	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Potassium	10811	10000	108.1	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Selenium	1049	1000	104.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Silver	522	500	104.4	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Sodium	10376	10000	103.8	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Strontium	1062	1000	106.2	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Thallium	1056	1000	105.6	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Tin	1054	1000	105.4	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Titanium	1029	1000	102.9	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Vanadium	1048	1000	104.8	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Zinc	1055	1000	105.5	90.0 - 110.0	P	8/9/01	21:18	TAUG09A
	Lithium	1095	1000	109.5	90.0 - 110.0	P	8/9/01	21:18	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12									
	Aluminum	10381	10000	103.8	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Antimony	1023	1000	102.3	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Arsenic	1032	1000	103.2	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Barium	1029	1000	102.9	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Beryllium	517	500	103.4	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Boron	1019	1000	101.9	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Cadmium	516	500	103.2	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Calcium	10527	10000	105.3	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Chromium	1032	1000	103.2	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Cobalt	1041	1000	104.1	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Copper	1025	1000	102.5	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Iron	10372	10000	103.7	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Iron	10395	10000	104.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Lead	1046	1000	104.6	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Magnesium	10401	10000	104.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Manganese	1030	1000	103.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Molybdenum	1008	1000	100.8	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Nickel	1040	1000	104.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Potassium	10735	10000	107.4	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Selenium	1038	1000	103.8	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Silver	515	500	103.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Sodium	10331	10000	103.3	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Strontium	1045	1000	104.5	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Thallium	1044	1000	104.4	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Tin	1040	1000	104.0	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Titanium	1011	1000	101.1	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Vanadium	1029	1000	102.9	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Zinc	1043	1000	104.3	90.0 - 110.0	P	8/9/01	22:26	TAUG09A
	Lithium	1087	1000	108.7	90.0 - 110.0	P	8/9/01	22:26	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV13									
	Aluminum	10448	10000	104.5	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Antimony	1028	1000	102.8	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Arsenic	1037	1000	103.7	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Barium	1034	1000	103.4	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Beryllium	519	500	103.8	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Boron	1026	1000	102.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Cadmium	519	500	103.8	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Calcium	10618	10000	106.2	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Chromium	1037	1000	103.7	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Cobalt	1048	1000	104.8	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Copper	1030	1000	103.0	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Iron	10428	10000	104.3	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Iron	10461	10000	104.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Lead	1055	1000	105.5	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Magnesium	10496	10000	105.0	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Manganese	1036	1000	103.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Molybdenum	1016	1000	101.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Nickel	1046	1000	104.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Potassium	10993	10000	109.9	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Selenium	1053	1000	105.3	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Silver	518	500	103.6	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Sodium	10601	10000	106.0	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Strontium	1048	1000	104.8	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Thallium	1055	1000	105.5	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Tin	1051	1000	105.1	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Titanium	1017	1000	101.7	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Vanadium	1035	1000	103.5	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Zinc	1054	1000	105.4	90.0 - 110.0	P	8/9/01	23:34	TAUG09A
	Lithium	1102	1000	110.2	90.0 - 110.0	P	8/9/01	23:34	TAUG09A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14									
	Aluminum	10570	10000	105.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Antimony	1028	1000	102.8	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Arsenic	1043	1000	104.3	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Barium	1034	1000	103.4	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Beryllium	520	500	104.0	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Boron	1028	1000	102.8	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Cadmium	521	500	104.2	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Calcium	10706	10000	107.1	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Chromium	1038	1000	103.8	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Cobalt	1049	1000	104.9	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Copper	1030	1000	103.0	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Iron	10466	10000	104.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Iron	10501	10000	105.0	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Lead	1057	1000	105.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Magnesium	10573	10000	105.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Manganese	1037	1000	103.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Molybdenum	1017	1000	101.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Nickel	1047	1000	104.7	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Potassium	11051	10000	110.5	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Selenium	1051	1000	105.1	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Silver	518	500	103.6	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Sodium	10395	10000	104.0	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Strontium	1046	1000	104.6	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Thallium	1052	1000	105.2	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Tin	1052	1000	105.2	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Titanium	1018	1000	101.8	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Vanadium	1035	1000	103.5	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Zinc	1058	1000	105.8	90.0 - 110.0	P	8/10/01	00:24	TAUG09A
	Lithium	1105	1000	110.5	90.0 - 110.0	P	8/10/01	00:24	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	08:53	TAUG09A
	Antimony	2.26	+/-50.00	B	2.00	50.00	P	8/9/01	08:53	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	08:53	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	08:53	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	08:53	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	08:53	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	08:53	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	08:53	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	08:53	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	08:53	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	08:53	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	08:53	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	08:53	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	08:53	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	08:53	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	08:53	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	08:53	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	08:53	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	08:53	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	08:53	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	08:53	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	08:53	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	08:53	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	08:53	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	08:53	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	08:53	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	08:53	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	08:53	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	08:53	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB1										
	Aluminum	52.0	+/-100.0	B	10.0	100.0	P	8/9/01	09:48	TAUG09A
	Antimony	2.47	+/-50.00	B	2.00	50.00	P	8/9/01	09:48	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	09:48	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	09:48	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	09:48	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	09:48	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	09:48	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	09:48	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	09:48	TAUG09A
	Cobalt	1.03	+/-10.00	B	1.00	10.00	P	8/9/01	09:48	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	09:48	TAUG09A
	Iron	27.7	+/-100.0	B	7.0	100.0	P	8/9/01	09:48	TAUG09A
	Iron	30.6	+/-4000.0	B	20.0	4000.0	P	8/9/01	09:48	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	09:48	TAUG09A
	Magnesium	60.84	+/-500.00	B	6.00	500.00	P	8/9/01	09:48	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	09:48	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	09:48	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	09:48	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	09:48	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	09:48	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	09:48	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	09:48	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	09:48	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	09:48	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	09:48	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	09:48	TAUG09A
	Vanadium	1.01	+/-10.00	B	1.00	10.00	P	8/9/01	09:48	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	09:48	TAUG09A
	Lithium	1.15	+/-50.00	B	1.00	50.00	P	8/9/01	09:48	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB2										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	10:53	TAUG09A
	Antimony	3.25	+/-50.00	B	2.00	50.00	P	8/9/01	10:53	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	10:53	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	10:53	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	10:53	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	10:53	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	10:53	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	10:53	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	10:53	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	10:53	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	10:53	TAUG09A
	Iron	10.4	+/-100.0	B	7.0	100.0	P	8/9/01	10:53	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	10:53	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	10:53	TAUG09A
	Magnesium	11.09	+/-500.00	B	6.00	500.00	P	8/9/01	10:53	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	10:53	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	10:53	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	10:53	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	10:53	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	10:53	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	10:53	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	10:53	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	10:53	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	10:53	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	10:53	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	10:53	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	10:53	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	10:53	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	10:53	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	12:01	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	12:01	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	12:01	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	12:01	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	12:01	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	12:01	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	12:01	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	12:01	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	12:01	TAUG09A
	Cobalt	1.10	+/-10.00	B	1.00	10.00	P	8/9/01	12:01	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	12:01	TAUG09A
	Iron	12.6	+/-100.0	B	7.0	100.0	P	8/9/01	12:01	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	12:01	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	12:01	TAUG09A
	Magnesium	14.96	+/-500.00	B	6.00	500.00	P	8/9/01	12:01	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	12:01	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	12:01	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	12:01	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	12:01	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	12:01	TAUG09A
	Silver	1.17	+/-5.00	B	1.00	5.00	P	8/9/01	12:01	TAUG09A
	Sodium	258.3	+/-1000.0	B	200.0	1000.0	P	8/9/01	12:01	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	12:01	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	12:01	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	12:01	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	12:01	TAUG09A
	Vanadium	1.26	+/-10.00	B	1.00	10.00	P	8/9/01	12:01	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	12:01	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	12:01	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB4										
	Aluminum	18.6	+/-100.0	B	10.0	100.0	P	8/9/01	13:07	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	13:07	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	13:07	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	13:07	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	13:07	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	13:07	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	13:07	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	13:07	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	13:07	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	13:07	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	13:07	TAUG09A
	Iron	14.5	+/-100.0	B	7.0	100.0	P	8/9/01	13:07	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	13:07	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	13:07	TAUG09A
	Magnesium	20.67	+/-500.00	B	6.00	500.00	P	8/9/01	13:07	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	13:07	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	13:07	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	13:07	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	13:07	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	13:07	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	13:07	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	13:07	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	13:07	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	13:07	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	13:07	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	13:07	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	13:07	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	13:07	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	13:07	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB5										
	Aluminum	20.9	+/-100.0	B	10.0	100.0	P	8/9/01	14:15	TAUG09A
	Antimony	3.62	+/-50.00	B	2.00	50.00	P	8/9/01	14:15	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	14:15	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	14:15	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	14:15	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	14:15	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	14:15	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	14:15	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	14:15	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	14:15	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	14:15	TAUG09A
	Iron	14.2	+/-100.0	B	7.0	100.0	P	8/9/01	14:15	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	14:15	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	14:15	TAUG09A
	Magnesium	19.64	+/-500.00	B	6.00	500.00	P	8/9/01	14:15	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	14:15	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	14:15	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	14:15	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	14:15	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	14:15	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	14:15	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	14:15	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	14:15	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	14:15	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	14:15	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	14:15	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	14:15	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	14:15	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	14:15	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB6										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	15:36	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	15:36	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	15:36	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	15:36	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	15:36	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	15:36	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	15:36	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	15:36	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	15:36	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	15:36	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	15:36	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	15:36	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	15:36	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	15:36	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	15:36	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	15:36	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	15:36	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	15:36	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	15:36	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	15:36	TAUG09A
	Silver	1.51	+/-5.00	B	1.00	5.00	P	8/9/01	15:36	TAUG09A
	Sodium	207.1	+/-1000.0	B	200.0	1000.0	P	8/9/01	15:36	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	15:36	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	15:36	TAUG09A
	Tin	2.10	+/-10.00	B	2.00	10.00	P	8/9/01	15:36	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	15:36	TAUG09A
	Vanadium	1.15	+/-10.00	B	1.00	10.00	P	8/9/01	15:36	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	15:36	TAUG09A
	Lithium	1.05	+/-50.00	B	1.00	50.00	P	8/9/01	15:36	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB7										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	17:05	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	17:05	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	17:05	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	17:05	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	17:05	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	17:05	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	17:05	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	17:05	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	17:05	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	17:05	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	17:05	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	17:05	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	17:05	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	17:05	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	17:05	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	17:05	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	17:05	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	17:05	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	17:05	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	17:05	TAUG09A
	Silver	1.09	+/-5.00	B	1.00	5.00	P	8/9/01	17:05	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	17:05	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	17:05	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	17:05	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	17:05	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	17:05	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	17:05	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	17:05	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	17:05	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB8										
	Aluminum	14.4	+/-100.0	B	10.0	100.0	P	8/9/01	18:12	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	18:12	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	18:12	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	18:12	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	18:12	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	18:12	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	18:12	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	18:12	TAUG09A
	Chromium	1.45	+/-5.00	B	1.00	5.00	P	8/9/01	18:12	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	18:12	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	18:12	TAUG09A
	Iron	9.7	+/-100.0	B	7.0	100.0	P	8/9/01	18:12	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	18:12	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	18:12	TAUG09A
	Magnesium	6.13	+/-500.00	B	6.00	500.00	P	8/9/01	18:12	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	18:12	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	18:12	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	18:12	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	18:12	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	18:12	TAUG09A
	Silver	1.03	+/-5.00	B	1.00	5.00	P	8/9/01	18:12	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	18:12	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	18:12	TAUG09A
	Thallium	4.38	+/-10.00	B	4.00	10.00	P	8/9/01	18:12	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	18:12	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	18:12	TAUG09A
	Vanadium	1.18	+/-10.00	B	1.00	10.00	P	8/9/01	18:12	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	18:12	TAUG09A
	Lithium	1.10	+/-50.00	B	1.00	50.00	P	8/9/01	18:12	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB9										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	19:20	TAUG09A
	Antimony	2.50	+/-50.00	B	2.00	50.00	P	8/9/01	19:20	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	19:20	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	19:20	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	19:20	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	19:20	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	19:20	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	19:20	TAUG09A
	Chromium	1.10	+/-5.00	B	1.00	5.00	P	8/9/01	19:20	TAUG09A
	Cobalt	1.13	+/-10.00	B	1.00	10.00	P	8/9/01	19:20	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	19:20	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	19:20	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	19:20	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	19:20	TAUG09A
	Magnesium	9.23	+/-500.00	B	6.00	500.00	P	8/9/01	19:20	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	19:20	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	19:20	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	19:20	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	19:20	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	19:20	TAUG09A
	Silver	1.34	+/-5.00	B	1.00	5.00	P	8/9/01	19:20	TAUG09A
	Sodium	295.3	+/-1000.0	B	200.0	1000.0	P	8/9/01	19:20	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	19:20	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	19:20	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	19:20	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	19:20	TAUG09A
	Vanadium	1.08	+/-10.00	B	1.00	10.00	P	8/9/01	19:20	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	19:20	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	19:20	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB10										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	20:27	TAUG09A
	Antimony	2.72	+/-50.00	B	2.00	50.00	P	8/9/01	20:27	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	20:27	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	20:27	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	20:27	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	20:27	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	20:27	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	20:27	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	20:27	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	20:27	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	20:27	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	20:27	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	20:27	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	20:27	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	20:27	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	20:27	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	20:27	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	20:27	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	20:27	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	20:27	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	20:27	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	20:27	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	20:27	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	20:27	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	20:27	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	20:27	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	20:27	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	20:27	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	20:27	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB11										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	21:24	TAUG09A
	Antimony	3.19	+/-50.00	B	2.00	50.00	P	8/9/01	21:24	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	21:24	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	21:24	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	21:24	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	21:24	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	21:24	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	21:24	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	21:24	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	21:24	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	21:24	TAUG09A
	Iron	7.9	+/-100.0	B	7.0	100.0	P	8/9/01	21:24	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	21:24	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	21:24	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	21:24	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	21:24	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	21:24	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	21:24	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	21:24	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	21:24	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	21:24	TAUG09A
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	8/9/01	21:24	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	21:24	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	21:24	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	21:24	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	21:24	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	21:24	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	21:24	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	21:24	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB12										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	22:31	TAUG09A
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	8/9/01	22:31	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	22:31	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	22:31	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	22:31	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	22:31	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	22:31	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	22:31	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	22:31	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	22:31	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	22:31	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	22:31	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	22:31	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	22:31	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	22:31	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	22:31	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	22:31	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	22:31	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	22:31	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	22:31	TAUG09A
	Silver	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	22:31	TAUG09A
	Sodium	231.2	+/-1000.0	B	200.0	1000.0	P	8/9/01	22:31	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	22:31	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	22:31	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	22:31	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	22:31	TAUG09A
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	22:31	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	22:31	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	22:31	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB13										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/9/01	23:39	TAUG09A
	Antimony	3.73	+/-50.00	B	2.00	50.00	P	8/9/01	23:39	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/9/01	23:39	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	23:39	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/9/01	23:39	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/9/01	23:39	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	23:39	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/9/01	23:39	TAUG09A
	Chromium	1.04	+/-5.00	B	1.00	5.00	P	8/9/01	23:39	TAUG09A
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	23:39	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/9/01	23:39	TAUG09A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	8/9/01	23:39	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/9/01	23:39	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	23:39	TAUG09A
	Magnesium	500.00	+/-500.00	U	6.00	500.00	P	8/9/01	23:39	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/9/01	23:39	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	23:39	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/9/01	23:39	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/9/01	23:39	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/9/01	23:39	TAUG09A
	Silver	1.54	+/-5.00	B	1.00	5.00	P	8/9/01	23:39	TAUG09A
	Sodium	259.3	+/-1000.0	B	200.0	1000.0	P	8/9/01	23:39	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	23:39	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/9/01	23:39	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/9/01	23:39	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/9/01	23:39	TAUG09A
	Vanadium	1.17	+/-10.00	B	1.00	10.00	P	8/9/01	23:39	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/9/01	23:39	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/9/01	23:39	TAUG09A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB14										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	8/10/01	00:30	TAUG09A
	Antimony	3.97	+/-50.00	B	2.00	50.00	P	8/10/01	00:30	TAUG09A
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	8/10/01	00:30	TAUG09A
	Barium	10.00	+/-10.00	U	1.00	10.00	P	8/10/01	00:30	TAUG09A
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	8/10/01	00:30	TAUG09A
	Boron	100.00	+/-100.00	U	7.00	100.00	P	8/10/01	00:30	TAUG09A
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	8/10/01	00:30	TAUG09A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	8/10/01	00:30	TAUG09A
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	8/10/01	00:30	TAUG09A
	Cobalt	1.00	+/-10.00	B	1.00	10.00	P	8/10/01	00:30	TAUG09A
	Copper	10.00	+/-10.00	U	3.00	10.00	P	8/10/01	00:30	TAUG09A
	Iron	7.6	+/-100.0	B	7.0	100.0	P	8/10/01	00:30	TAUG09A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	8/10/01	00:30	TAUG09A
	Lead	5.00	+/-5.00	U	2.00	5.00	P	8/10/01	00:30	TAUG09A
	Magnesium	17.14	+/-500.00	B	6.00	500.00	P	8/10/01	00:30	TAUG09A
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	8/10/01	00:30	TAUG09A
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	8/10/01	00:30	TAUG09A
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	8/10/01	00:30	TAUG09A
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	8/10/01	00:30	TAUG09A
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	8/10/01	00:30	TAUG09A
	Silver	1.26	+/-5.00	B	1.00	5.00	P	8/10/01	00:30	TAUG09A
	Sodium	247.4	+/-1000.0	B	200.0	1000.0	P	8/10/01	00:30	TAUG09A
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	8/10/01	00:30	TAUG09A
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	8/10/01	00:30	TAUG09A
	Tin	10.00	+/-10.00	U	2.00	10.00	P	8/10/01	00:30	TAUG09A
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	8/10/01	00:30	TAUG09A
	Vanadium	1.07	+/-10.00	B	1.00	10.00	P	8/10/01	00:30	TAUG09A
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	8/10/01	00:30	TAUG09A
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	8/10/01	00:30	TAUG09A

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INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	503368.2	500000.0	100.7	80 - 120	8/9/01	09:24	TAUG09A
	Antimony	1.7			80 - 120	8/9/01	09:24	TAUG09A
	Arsenic	-1.2			80 - 120	8/9/01	09:24	TAUG09A
	Barium	1.1			80 - 120	8/9/01	09:24	TAUG09A
	Beryllium	1.1			80 - 120	8/9/01	09:24	TAUG09A
	Boron	0.1			80 - 120	8/9/01	09:24	TAUG09A
	Cadmium	0.2			80 - 120	8/9/01	09:24	TAUG09A
	Calcium	458710.4	500000.0	91.7	80 - 120	8/9/01	09:24	TAUG09A
	Chromium	-0.6			80 - 120	8/9/01	09:24	TAUG09A
	Cobalt	4.2			80 - 120	8/9/01	09:24	TAUG09A
	Copper	1.6			80 - 120	8/9/01	09:24	TAUG09A
	Iron	184840.1	200000.0	92.4	80 - 120	8/9/01	09:24	TAUG09A
	Iron	202447.3	200000.0	101.2	80 - 120	8/9/01	09:24	TAUG09A
	Lead	-1.4			80 - 120	8/9/01	09:24	TAUG09A
	Magnesium	547468.4	500000.0	109.5	80 - 120	8/9/01	09:24	TAUG09A
	Manganese	3.7			80 - 120	8/9/01	09:24	TAUG09A
	Molybdenum	-0.7			80 - 120	8/9/01	09:24	TAUG09A
	Nickel	0.2			80 - 120	8/9/01	09:24	TAUG09A
	Potassium	2.6			80 - 120	8/9/01	09:24	TAUG09A
	Selenium	1.0			80 - 120	8/9/01	09:24	TAUG09A
	Silver	1.2			80 - 120	8/9/01	09:24	TAUG09A
	Sodium	278.6			80 - 120	8/9/01	09:24	TAUG09A
	Strontium	-1.5			80 - 120	8/9/01	09:24	TAUG09A
	Thallium	9.0			80 - 120	8/9/01	09:24	TAUG09A
	Tin	-0.9			80 - 120	8/9/01	09:24	TAUG09A
	Titanium	-2.6			80 - 120	8/9/01	09:24	TAUG09A
	Vanadium	-1.9			80 - 120	8/9/01	09:24	TAUG09A
	Zinc	4.2			80 - 120	8/9/01	09:24	TAUG09A
	Lithium	0.6			80 - 120	8/9/01	09:24	TAUG09A

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INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB1								
	Aluminum	513713.2	510000.0	100.7	80 - 120	8/9/01	09:30	TAUG09A
	Antimony	1092.5	1000.0	109.2	80 - 120	8/9/01	09:30	TAUG09A
	Arsenic	1084.4	1000.0	108.4	80 - 120	8/9/01	09:30	TAUG09A
	Barium	1059.3	1000.0	105.9	80 - 120	8/9/01	09:30	TAUG09A
	Beryllium	534.3	500.0	106.9	80 - 120	8/9/01	09:30	TAUG09A
	Boron	1094.2	1000.0	109.4	80 - 120	8/9/01	09:30	TAUG09A
	Cadmium	511.9	500.0	102.4	80 - 120	8/9/01	09:30	TAUG09A
	Calcium	467151.1	510000.0	91.6	80 - 120	8/9/01	09:30	TAUG09A
	Chromium	1040.9	1000.0	104.1	80 - 120	8/9/01	09:30	TAUG09A
	Cobalt	1027.7	1000.0	102.8	80 - 120	8/9/01	09:30	TAUG09A
	Copper	1102.3	1000.0	110.2	80 - 120	8/9/01	09:30	TAUG09A
	Iron	192639.7	210000.0	91.7	80 - 120	8/9/01	09:30	TAUG09A
	Iron	212164.7	210000.0	101.0	80 - 120	8/9/01	09:30	TAUG09A
	Lead	1021.9	1000.0	102.2	80 - 120	8/9/01	09:30	TAUG09A
	Magnesium	557022.9	510000.0	109.2	80 - 120	8/9/01	09:30	TAUG09A
	Manganese	1053.3	1000.0	105.3	80 - 120	8/9/01	09:30	TAUG09A
	Molybdenum	1062.6	1000.0	106.3	80 - 120	8/9/01	09:30	TAUG09A
	Nickel	1020.2	1000.0	102.0	80 - 120	8/9/01	09:30	TAUG09A
	Potassium	14508.7	10000.0	145.1	50 - 150	8/9/01	09:30	TAUG09A
	Selenium	1051.2	1000.0	105.1	80 - 120	8/9/01	09:30	TAUG09A
	Silver	561.6	500.0	112.3	80 - 120	8/9/01	09:30	TAUG09A
	Sodium	11126.6	10000.0	111.3	50 - 150	8/9/01	09:30	TAUG09A
	Strontium	1061.3	1000.0	106.1	80 - 120	8/9/01	09:30	TAUG09A
	Thallium	1047.4	1000.0	104.7	80 - 120	8/9/01	09:30	TAUG09A
	Tin	1032.1	1000.0	103.2	80 - 120	8/9/01	09:30	TAUG09A
	Titanium	1040.0	1000.0	104.0	80 - 120	8/9/01	09:30	TAUG09A
	Vanadium	1049.2	1000.0	104.9	80 - 120	8/9/01	09:30	TAUG09A
	Zinc	1002.0	1000.0	100.2	80 - 120	8/9/01	09:30	TAUG09A
	Lithium	927.9	1000.0	92.8	50 - 150	8/9/01	09:30	TAUG09A

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INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A2								
	Aluminum	501642.3	500000.0	100.3	80 - 120	8/9/01	12:46	TAUG09A
	Antimony	0.6			80 - 120	8/9/01	12:46	TAUG09A
	Arsenic	-1.4			80 - 120	8/9/01	12:46	TAUG09A
	Barium	1.3			80 - 120	8/9/01	12:46	TAUG09A
	Beryllium	1.0			80 - 120	8/9/01	12:46	TAUG09A
	Boron	-0.7			80 - 120	8/9/01	12:46	TAUG09A
	Cadmium	0.6			80 - 120	8/9/01	12:46	TAUG09A
	Calcium	456471.3	500000.0	91.3	80 - 120	8/9/01	12:46	TAUG09A
	Chromium	-0.9			80 - 120	8/9/01	12:46	TAUG09A
	Cobalt	4.6			80 - 120	8/9/01	12:46	TAUG09A
	Copper	1.3			80 - 120	8/9/01	12:46	TAUG09A
	Iron	184098.8	200000.0	92.0	80 - 120	8/9/01	12:46	TAUG09A
	Iron	201629.2	200000.0	100.8	80 - 120	8/9/01	12:46	TAUG09A
	Lead	-1.1			80 - 120	8/9/01	12:46	TAUG09A
	Magnesium	543210.4	500000.0	108.6	80 - 120	8/9/01	12:46	TAUG09A
	Manganese	3.8			80 - 120	8/9/01	12:46	TAUG09A
	Molybdenum	-1.1			80 - 120	8/9/01	12:46	TAUG09A
	Nickel	-0.1			80 - 120	8/9/01	12:46	TAUG09A
	Potassium	12.2			80 - 120	8/9/01	12:46	TAUG09A
	Selenium	1.4			80 - 120	8/9/01	12:46	TAUG09A
	Silver	1.1			80 - 120	8/9/01	12:46	TAUG09A
	Sodium	258.8			80 - 120	8/9/01	12:46	TAUG09A
	Strontium	-1.4			80 - 120	8/9/01	12:46	TAUG09A
	Thallium	12.1			80 - 120	8/9/01	12:46	TAUG09A
	Tin	2.2			80 - 120	8/9/01	12:46	TAUG09A
	Titanium	-2.7			80 - 120	8/9/01	12:46	TAUG09A
	Vanadium	-2.2			80 - 120	8/9/01	12:46	TAUG09A
	Zinc	4.3			80 - 120	8/9/01	12:46	TAUG09A
	Lithium	0.5			80 - 120	8/9/01	12:46	TAUG09A

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INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB2								
	Aluminum	509465.8	510000.0	99.9	80 - 120	8/9/01	12:51	TAUG09A
	Antimony	1091.3	1000.0	109.1	80 - 120	8/9/01	12:51	TAUG09A
	Arsenic	1085.1	1000.0	108.5	80 - 120	8/9/01	12:51	TAUG09A
	Barium	1054.0	1000.0	105.4	80 - 120	8/9/01	12:51	TAUG09A
	Beryllium	529.3	500.0	105.9	80 - 120	8/9/01	12:51	TAUG09A
	Boron	1089.0	1000.0	108.9	80 - 120	8/9/01	12:51	TAUG09A
	Cadmium	509.4	500.0	101.9	80 - 120	8/9/01	12:51	TAUG09A
	Calcium	461393.5	510000.0	90.5	80 - 120	8/9/01	12:51	TAUG09A
	Chromium	1031.5	1000.0	103.2	80 - 120	8/9/01	12:51	TAUG09A
	Cobalt	1020.1	1000.0	102.0	80 - 120	8/9/01	12:51	TAUG09A
	Copper	1098.1	1000.0	109.8	80 - 120	8/9/01	12:51	TAUG09A
	Iron	190613.6	210000.0	90.8	80 - 120	8/9/01	12:51	TAUG09A
	Iron	210219.6	210000.0	100.1	80 - 120	8/9/01	12:51	TAUG09A
	Lead	1016.1	1000.0	101.6	80 - 120	8/9/01	12:51	TAUG09A
	Magnesium	548014.9	510000.0	107.5	80 - 120	8/9/01	12:51	TAUG09A
	Manganese	1046.3	1000.0	104.6	80 - 120	8/9/01	12:51	TAUG09A
	Molybdenum	1054.5	1000.0	105.4	80 - 120	8/9/01	12:51	TAUG09A
	Nickel	1017.2	1000.0	101.7	80 - 120	8/9/01	12:51	TAUG09A
	Potassium	14537.0	10000.0	145.4	50 - 150	8/9/01	12:51	TAUG09A
	Selenium	1051.5	1000.0	105.2	80 - 120	8/9/01	12:51	TAUG09A
	Silver	560.6	500.0	112.1	80 - 120	8/9/01	12:51	TAUG09A
	Sodium	11121.7	10000.0	111.2	50 - 150	8/9/01	12:51	TAUG09A
	Strontium	1058.7	1000.0	105.9	80 - 120	8/9/01	12:51	TAUG09A
	Thallium	1040.4	1000.0	104.0	80 - 120	8/9/01	12:51	TAUG09A
	Tin	1021.1	1000.0	102.1	80 - 120	8/9/01	12:51	TAUG09A
	Titanium	1030.7	1000.0	103.1	80 - 120	8/9/01	12:51	TAUG09A
	Vanadium	1040.9	1000.0	104.1	80 - 120	8/9/01	12:51	TAUG09A
	Zinc	980.9	1000.0	98.1	80 - 120	8/9/01	12:51	TAUG09A
	Lithium	919.2	1000.0	91.9	50 - 150	8/9/01	12:51	TAUG09A

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INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A3								
	Aluminum	502939.2	500000.0	100.6	80 - 120	8/10/01	00:13	TAUG09A
	Antimony	0.3			80 - 120	8/10/01	00:13	TAUG09A
	Arsenic	0.4			80 - 120	8/10/01	00:13	TAUG09A
	Barium	1.3			80 - 120	8/10/01	00:13	TAUG09A
	Beryllium	1.2			80 - 120	8/10/01	00:13	TAUG09A
	Boron	0.8			80 - 120	8/10/01	00:13	TAUG09A
	Cadmium	0.2			80 - 120	8/10/01	00:13	TAUG09A
	Calcium	464880.4	500000.0	93.0	80 - 120	8/10/01	00:13	TAUG09A
	Chromium	-0.7			80 - 120	8/10/01	00:13	TAUG09A
	Cobalt	5.0			80 - 120	8/10/01	00:13	TAUG09A
	Copper	1.1			80 - 120	8/10/01	00:13	TAUG09A
	Iron	186426.3	200000.0	93.2	80 - 120	8/10/01	00:13	TAUG09A
	Iron	205138.6	200000.0	102.6	80 - 120	8/10/01	00:13	TAUG09A
	Lead	-2.0			80 - 120	8/10/01	00:13	TAUG09A
	Magnesium	561966.4	500000.0	112.4	80 - 120	8/10/01	00:13	TAUG09A
	Manganese	3.6			80 - 120	8/10/01	00:13	TAUG09A
	Molybdenum	-0.6			80 - 120	8/10/01	00:13	TAUG09A
	Nickel	0.6			80 - 120	8/10/01	00:13	TAUG09A
	Potassium	15.2			80 - 120	8/10/01	00:13	TAUG09A
	Selenium	-0.5			80 - 120	8/10/01	00:13	TAUG09A
	Silver	1.4			80 - 120	8/10/01	00:13	TAUG09A
	Sodium	235.1			80 - 120	8/10/01	00:13	TAUG09A
	Strontium	-1.6			80 - 120	8/10/01	00:13	TAUG09A
	Thallium	8.5			80 - 120	8/10/01	00:13	TAUG09A
	Tin	1.2			80 - 120	8/10/01	00:13	TAUG09A
	Titanium	-2.6			80 - 120	8/10/01	00:13	TAUG09A
	Vanadium	-1.7			80 - 120	8/10/01	00:13	TAUG09A
	Zinc	4.6			80 - 120	8/10/01	00:13	TAUG09A
	Lithium	0.6			80 - 120	8/10/01	00:13	TAUG09A

- 4 -

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C108110

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB3								
	Aluminum	515637.3	510000.0	101.1	80 - 120	8/10/01	00:19	TAUG09A
	Antimony	1111.3	1000.0	111.1	80 - 120	8/10/01	00:19	TAUG09A
	Arsenic	1114.5	1000.0	111.4	80 - 120	8/10/01	00:19	TAUG09A
	Barium	1068.5	1000.0	106.8	80 - 120	8/10/01	00:19	TAUG09A
	Beryllium	543.1	500.0	108.6	80 - 120	8/10/01	00:19	TAUG09A
	Boron	1101.6	1000.0	110.2	80 - 120	8/10/01	00:19	TAUG09A
	Cadmium	522.4	500.0	104.5	80 - 120	8/10/01	00:19	TAUG09A
	Calcium	475668.5	510000.0	93.3	80 - 120	8/10/01	00:19	TAUG09A
	Chromium	1056.1	1000.0	105.6	80 - 120	8/10/01	00:19	TAUG09A
	Cobalt	1043.5	1000.0	104.4	80 - 120	8/10/01	00:19	TAUG09A
	Copper	1109.4	1000.0	110.9	80 - 120	8/10/01	00:19	TAUG09A
	Iron	195024.9	210000.0	92.9	80 - 120	8/10/01	00:19	TAUG09A
	Iron	216370.8	210000.0	103.0	80 - 120	8/10/01	00:19	TAUG09A
	Lead	1048.7	1000.0	104.9	80 - 120	8/10/01	00:19	TAUG09A
	Magnesium	574826.3	510000.0	112.7	80 - 120	8/10/01	00:19	TAUG09A
	Manganese	1067.6	1000.0	106.8	80 - 120	8/10/01	00:19	TAUG09A
	Molybdenum	1077.6	1000.0	107.8	80 - 120	8/10/01	00:19	TAUG09A
	Nickel	1038.4	1000.0	103.8	80 - 120	8/10/01	00:19	TAUG09A
	Potassium	15564.2	10000.0	155.6	50 - 150	8/10/01	00:19	TAUG09A
	Selenium	1085.0	1000.0	108.5	80 - 120	8/10/01	00:19	TAUG09A
	Silver	569.8	500.0	114.0	80 - 120	8/10/01	00:19	TAUG09A
	Sodium	11277.2	10000.0	112.8	50 - 150	8/10/01	00:19	TAUG09A
	Strontium	1067.7	1000.0	106.8	80 - 120	8/10/01	00:19	TAUG09A
	Thallium	1061.3	1000.0	106.1	80 - 120	8/10/01	00:19	TAUG09A
	Tin	1062.4	1000.0	106.2	80 - 120	8/10/01	00:19	TAUG09A
	Titanium	1047.1	1000.0	104.7	80 - 120	8/10/01	00:19	TAUG09A
	Vanadium	1061.5	1000.0	106.2	80 - 120	8/10/01	00:19	TAUG09A
	Zinc	1035.1	1000.0	103.5	80 - 120	8/10/01	00:19	TAUG09A
	Lithium	955.0	1000.0	95.5	50 - 150	8/10/01	00:19	TAUG09A

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C109131
Project: CH2M Hill
CTO-017, NTC Orlando

STL Sample ID	Client Sample ID
017-OLD-39-35B-Q3-01	C106841-1
017-OLD-39-37C-Q3-01	C106841-2
017-OLD-39-42B-Q3-01	C106841-3
017-OLD-39-43B-Q3-01	C106841-4
017-OLD-39-44B-Q3-01	C106841-5
017-OLD-39-FB2-Q3-01	C106841-6

The above samples were received at STL Pensacola on September 7, 2001. The cooler temperature was 4°C.

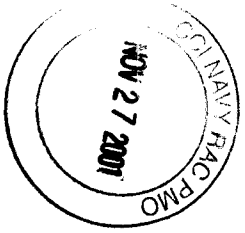
All samples were analyzed for Sulfide and Dissolved Iron.

Please reference CLP Data Qualifier sheets for flag information.

Please Note: This report has been revised for prep dates and corrections have been included in the EDD.

Rick Hayes
Senior Project Manager

11/19/01



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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09131
Received: 07 SEP 01
Reported: 20 SEP 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09131-1	017-OLD-39-35B-Q3-01	09-06-01/12:20	C109131
09131-2	017-OLD-39-37C-Q3-01	09-06-01/15:00	C109131
09131-3	017-OLD-39-42B-Q3-01	09-06-01/15:50	C109131
09131-4	017-OLD-39-43B-Q3-01	09-06-01/10:00	C109131
09131-5	017-OLD-39-44B-Q3-01	09-06-01/11:45	C109131

PARAMETER	09131-1	09131-2	09131-3	09131-4	09131-5
Sulfide (E376.1), mg/l	3.6	0.34B	1.2	2.3	5.3
Dilution Factor	1	1	1	1	1
Analysis Date	09.11.01	09.11.01	09.11.01	09.11.01	09.11.01
Analysis Time	10:00	10:00	10:00	10:00	10:00
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Analyst	BH	BH	BH	BH	BH
Iron, Dissolved (SW6010B), ug/l	470	180	280	200	92B
Dilution Factor	1	1	1	1	1
Analysis Date	09.12.01	09.12.01	09.12.01	09.12.01	09.12.01
Analysis Time	13:14	12:52	13:20	13:26	13:31
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	NA	NA	NA	NA	NA
Analyst	CH	CH	CH	CH	CH

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SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-09131
Received: 07 SEP 01
Reported: 20 SEP 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09131-6	017-OLD-39-FB2-Q3-01	09-06-01/17:30	C109131

PARAMETER	09131-6
Sulfide (E376.1), mg/l	0.48B
Dilution Factor	1
Analysis Date	09.11.01
Analysis Time	10:00
Batch ID	FEW041
Analyst	BH
Iron, Dissolved (SW6010B), ug/l	100U
Dilution Factor	1
Analysis Date	09.12.01
Analysis Time	13:48
Batch ID	PD108
Analyst	CH

000003

SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-09131
Received: 07 SEP 01
Reported: 20 SEP 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09131-7	Method Blank		C109131
09131-8	Lab Control Standard True Value		C109131
09131-9	Lab Control Standard Result		C109131
09131-10	Lab Control Standard % Recovery		C109131
09131-11	LCS Accuracy Control Limit (%R)		C109131

PARAMETER	09131-7	09131-8	09131-9	09131-10	09131-11
Sulfide (E376.1), mg/l	1.0U	20	20.8	104 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	09.11.01	---	09.11.01	---	---
Analysis Time	10:00	---	10:00	---	---
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Analyst	BH	---	BH	---	---
Iron, Dissolved (SW6010B), ug/l	15B	10000.0	10291.3	103 %	80-120
Dilution Factor	1	---	1	1	---
Prep Date	---	---	---	09.10.01	---
Prep Time	---	---	---	00:00	---
Analysis Date	09.12.01	---	09.12.01	09.12.01	---
Analysis Time	12:41	---	12:46	12:46	---
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	NA	---	NA	NA	---
Analyst	CH	---	CH	CH	---

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09131
Received: 07 SEP 01
Reported: 20 SEP 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09131-12	MS True Value		C109131
09131-13	Matrix Spike Result	09-06-01/15:00	C109131
09131-14	Matrix Spike % Recovery		C109131
09131-15	MSD True Value		C109131
09131-16	Matrix Spike Duplicate Result	09-06-01/15:00	C109131

PARAMETER	09131-12	09131-13	09131-14	09131-15	09131-16
Sulfide (E376.1), mg/l	10	10.2	102 %	10	10.1
Dilution Factor	---	1	---	---	1
Analysis Date	---	09.11.01	---	---	09.11.01
Analysis Time	---	10:00	---	---	10:00
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Analyst	---	BH	---	---	BH
Iron, Dissolved (SW6010B), ug/l	10000.0	10310.8	101 %	10000.0	10212.2
Dilution Factor	---	1	1	---	1
Analysis Date	---	09.12.01	09.12.01	---	09.12.01
Analysis Time	---	13:03	13:03	---	13:09
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	---	NA	---	---	NA
Analyst	---	CH	CH	---	CH

C00004

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09131
Received: 07 SEP 01
Reported: 20 SEP 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09131-17	Matrix Spike Duplicate % Recovery		C109131
09131-18	MS Accuracy Advisory Limit (%R)		C109131
09131-19	Precision (%RPD) MS/MSD		C109131
09131-20	MS Precision Advisory Limit (%RPD)		C109131

PARAMETER	09131-17	09131-18	09131-19	09131-20
Sulfide (E376.1), mg/l	101 %	79-102	1	20
Batch ID	FEW041	FEW041	FEW041	FEWE041
Iron, Dissolved (SW6010B), ug/l	100 %	75-125	1.0	20
Dilution Factor	1	---	---	---
Analysis Date	09.12.01	---	---	---
Analysis Time	13:09	---	---	---
Batch ID	PD108	PD108	PD108	PD108
Prep Method	NA	---	---	---
Analyst	CH	---	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

Final Page Of Report

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SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

000009

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

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STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, LELAP, Laboratory ID No. 02075, Agency Interest ID 30748 (Environmental, expires 6/30/02)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/02

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C109131 Date Received: 9/7/01

1.	Was there a Chain of Custody?	(Yes)	No*			
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*			
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No*	N/A		
4.	Were all samples properly labeled and identified?	(Yes)	No*			
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes*	(No)			
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*			
7.	Were all sample containers received intact?	(Yes)	No*			
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)+*	(Yes)	No*	N/A		
9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A *(Can)*		
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*			
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No	(N/A)		
12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)		
13.	Was Project Manager notified of problems? (initials:_____)	Yes	No*	(N/A)		

Airbill Number(s): 8264 4298 2997

Shipped By: FedEx

Cooler Number(s): Client

Shipping Charges: N/A

Cooler Weight(s): 56 #

Cooler Temp(s) (°C): 4°C

CCC3

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS Date: 9/7/01 Logged By: X Date: 9-7-01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

000012

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

C109131

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0906-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.33.01.03.30	STL Pensacola/Rick Hayes	Steve Tsangaris/TPA/CCI	4350 W. CYPRESS St. Ste 600, Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-39	CTO 017	2643	Christelle Newsome/ATL/CCI	115 Perimeter Center Place N.E., Ste 700, Atlanta, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Christelle Newsome/ATL/CCI	770/604-9182 Ext 268	850/474-1001	Jennifer Ottoson/TPA/CH2M HILL	205 Indian River Dr., Coca,FL 32922

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	DISSOLVED IRON 6010B		SULFIDE 376							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-39-35B-Q3-01	MW-35B	GW	09/06/01	1220	III	14	1		1							N		
2	017-OLD-39-37C-Q3-01	MW-37C	GW	09/06/01	1500	III	14	1		1							N		
3	017-OLD-39-42B-Q3-01	MW-42B	GW	09/06/01	1550	III	14	1		1							N		
4	017-OLD-39-43B-Q3-01	MW-43B	GW	09/06/01	1000	III	14	1		1							N		
5	017-OLD-39-44B-Q3-01	MW-44B	GW	09/06/01	1145	III	14	1		1							N		
6	017-OLD-39-37CMS-Q3-01	MATRIX SPIKE	GW	09/06/01	1500	III	14	1		1							MS		
7	017-OLD-39-37CMSD-Q3-01	MATRIX SPIKE DUPE	GW	09/06/01	1500	III	14	1		1							MSD		
8	017-OLD-39-FB2-Q3-01	FIELD BLANK 2	AQ	09/06/01	1730	III	14	1		1							FB		
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Isaac Lynch/GNV CH2M HILL, Carlton R. Ivery/DFB CH2M HILL & Craig Haas/ORL/CCI	FEDEX Airbill # 826442982997	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Carlton Ivery	6 SEP 01	1840	Printed Name and Signature: Mark Swafford	9/7/01	0915
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CC1001, Rev 06/00

C109131

FedEx Express USA Airbill

FedEx Tracking Number 826442982997

Form No. 0200 Recipient's Copy

1 From

Date 9-6-01

Sender's Name ISAAC LYNCH Phone 407 7092346

Company CH2M-HILL

Address 1060 WAREHOUSE RD

Dept/Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.33.01.03.30/7933

3 To

Recipient's Name RICK HAYES Phone 850 474-1001

Company SEVERN TRENT LABS

Address 3355 MCLEMORE DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8264 4298 2997

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation: _____

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope/Letter*
- [ ] FedEx Pak*
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg

Dangerous Goods cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment Bill to:

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	56	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at www.fedex.com or call 1-800-Go-FedEx® (800)463-3339.

Rev. Date 7/00•Part #154815•©1994–2000 FedEx•PRINTED IN U.S.A. GBFE 12/00

360

C109131

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: X
Labeled by: MH
Delivered by: MH

CH2M-CONST-GA C109131
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						~~ZnAc/NaOH~~	8	BH	9/7/01	1416
8 oz. Plastic		✓					HNO_3	8			
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

000015

\excel\sampctrl\smpcklst.xls July 13, 2001

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C109172
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
017-OLD-39-47A-Q3-01	C109172-1
017-OLD-39-48A-Q3-01	C109172-2
017-OLD-39-03A-Q3-01	C109172-3
017-OLD-39-08A-Q3-01	C109172-4
017-OLD-39-09A-Q3-01	C109172-5
017-OLD-39-FD2-Q3-01	C109172-6

The above samples were received at STL Pensacola on September 8, 2001. The cooler temperature was 4.5°C.

All samples were analyzed for Sulfide and Dissolved Iron.

Please reference CLP Data Qualifier sheets for flag information.

Please Note: This report has been revised to delete prep dates from Dissolved iron, corrected result for MSD percent recovery for sulfide. Corrections have been included in the EDD.

Rick Hayes
Senior Project Manager

CCI NAVY RAC PMO
NOV 27 2001

11/19/01

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09172
Received: 08 SEP 01
Reported: 20 SEP 01
Revised: 15 NOV 01
Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09172-1	017-OLD-39-47A-Q3-01	09-07-01/08:50	C109172
09172-2	017-OLD-39-48A-Q3-01	09-07-01/09:55	C109172
09172-3	017-OLD-39-03A-Q3-01	09-07-01/13:20	C109172
09172-4	017-OLD-39-08A-Q3-01	09-07-01/11:15	C109172
09172-5	017-OLD-39-09A-Q3-01	09-07-01/12:20	C109172

PARAMETER	09172-1	09172-2	09172-3	09172-4	09172-5
Sulfide (E376.1), mg/l	0.46B	0.44B	0.26B	1.0	0.30B
Dilution Factor	1	1	1	1	1
Analysis Date	09.11.01	09.11.01	09.11.01	09.11.01	09.11.01
Analysis Time	10:00	10:00	10:00	10:00	10:00
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Prep Method	NONE	NONE	NONE	NONE	NONE
Analyst	BH	BH	BH	BH	BH
Iron, Dissolved (SW6010B), ug/l	79B	100U	100U	500	100U
Dilution Factor	1	1	1	1	1
Analysis Date	09.12.01	09.12.01	09.12.01	09.12.01	09.12.01
Analysis Time	13:54	13:59	14:05	14:10	14:16
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	NONE	NONE	NONE	NONE	NONE
Analyst	CH	CH	CH	CH	CH

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09172
Received: 08 SEP 01
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Ms. Tatiana Romanova
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115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09172-6	017-OLD-39-FD2-Q3-01	09-07-01	C109172

PARAMETER	09172-6
Sulfide (E376.1), mg/l	0.44B
Dilution Factor	1
Analysis Date	09.11.01
Analysis Time	10:00
Batch ID	FEW041
Prep Method	NONE
Analyst	BH
Iron, Dissolved (SW6010B), ug/l	100U
Dilution Factor	1
Analysis Date	09.12.01
Analysis Time	14:22
Batch ID	PD108
Prep Method	NONE
Analyst	CH

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09172
Received: 08 SEP 01
Reported: 20 SEP 01
Revised: 15 NOV 01
Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09172-7	Method Blank		C109172
09172-8	Lab Control Standard True Value		C109172
09172-9	Lab Control Standard Result		C109172
09172-10	Lab Control Standard % Recovery		C109172
09172-11	LCS Accuracy Control Limit (%R)		C109172

PARAMETER	09172-7	09172-8	09172-9	09172-10	09172-11
Sulfide (E376.1), mg/l	1.0U	20	20.8	104 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	09.11.01	---	09.11.01	---	---
Analysis Time	10:00	---	10:00	---	---
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Prep Method	NONE	---	NONE	---	---
Analyst	BH	---	BH	---	---
Iron, Dissolved (SW6010B), ug/l	15B	10000.0	10291.3	103 %	80-120
Dilution Factor	1	---	1	1	---
Prep Date	---	---	---	09.10.01	---
Prep Time	---	---	---	00:00	---
Analysis Date	09.12.01	---	09.12.01	09.12.01	---
Analysis Time	12:41	---	12:46	12:46	---
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	NONE	---	NONE	NA	---
Analyst	CH	---	CH	CH	---

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09172
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Atlanta, GA 30346

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09172-12	MS True Value		C109172
09172-13	Matrix Spike Result	09-06-01/15:00	C109172
09172-14	Matrix Spike % Recovery		C109172
09172-15	MSD True Value		C109172
09172-16	Matrix Spike Duplicate Result	09-06-01/15:00	C109172

PARAMETER	09172-12	09172-13	09172-14	09172-15	09172-16
Sulfide (E376.1), mg/l	10	10.2	102 %	10	10.1
Dilution Factor	---	1	---	---	1
Analysis Date	---	09.11.01	---	---	09.11.01
Analysis Time	---	10:00	---	---	10:00
Batch ID	FEW041	FEW041	FEW041	FEW041	FEW041
Prep Method	---	NONE	---	---	NONE
Analyst	---	BH	---	---	BH
Iron, Dissolved (SW6010B), ug/l	10000.0	10310.8	101 %	10000.0	10212.2
Dilution Factor	---	1	1	---	1
Prep Date	---	---	09.10.01	---	---
Prep Time	---	---	00:00	---	---
Analysis Date	---	09.12.01	09.12.01	---	09.12.01
Analysis Time	---	13:03	13:03	---	13:09
Batch ID	PD108	PD108	PD108	PD108	PD108
Prep Method	---	NONE	NA	---	NONE
Analyst	---	CH	CH	---	CH

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-09172
Received: 08 SEP 01
Reported: 20 SEP 01
Revised: 15 NOV 01
Client PO. No.: 2643
Cl Project No: 152044.33.01.03.30
Requisition: 152044.32.12.01.08

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite
Atlanta, GA 30346

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 112211119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
09172-17	Matrix Spike Duplicate % Recovery		C109172
09172-18	MS Accuracy Advisory Limit (%R)		C109172
09172-19	Precision (%RPD) MS/MSD		C109172
09172-20	MS Precision Advisory Limit (%RPD)		C109172

PARAMETER	09172-17	09172-18	09172-19	09172-20
Sulfide (E376.1), mg/l	101 %	79-102	1	20
Batch ID	FEW041	FEW041	FEW041	FEW041
Iron, Dissolved (SW6010B), ug/l	100 %	75-125	1.0	20
Dilution Factor	1	---	---	---
Prep Date	09.10.01	---	---	---
Prep Time	00:00	---	---	---
Analysis Date	09.12.01	---	---	---
Analysis Time	13:09	---	---	---
Batch ID	PD108	PD108	PD108	PD108
Analyst	CH	---	---	---

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

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SULFIDE

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 9/11/01 | Preparation[1] Time On: 0940 | Preparation[1] Time Off: 0955

Analysis Date: 9/11/01 | Analysis Time On: 1000 | Analysis Time Off: 1110

Batch #: FEW041

RPD: 20
Spike: 79-102%
LCS: 90-110%

Chemist[2]: BH | Data Reviewed By: AB 9/12/01

N of $Na_2S_2O_3$ = $\frac{(28.04)(0.005)}{\text{ml titrants}}$; Average of two N below = N of $Na_2S_2O_3$ 0.0246 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = $\frac{(\text{mls titrant})(\text{N titrant})}{5\text{ ml}}$; Average of two N below = N of I_2 0.0252 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.70	0.025 N $Na_2S_2O_3$ 9-15-01	0.02459	5	5.11	0.025 N I_2 4-5-02	0.02517
5.70	↓	0.02459	5	5.13	↓	0.02519

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.13	ND	1.0
SF-LCS-S[7] 11-30-01	N/A	0.2/100 ml	↓	10	4.96	20.8/20.0 =	1.0 104%
Prep Blank (distilled)	DI Water	100 ml	N/A				→
1 109131-2A	WA	200		5	4.95	ND (0.338)	
MS[6] (10 ppm) -2B		.2/200		10	5.08	10.2/10.0 =	102%
MSD[6] (10 ppm) -2C		.2/200		10	5.11	10.1/10.0 =	101%
2 -3		200		5	4.49	1.2	1.0
3 -4		200		5	3.97	2.3	
4 -5		200		5	2.42	5.3	
5 ↓ -6		200		5	4.88	ND (0.476)	
6 109086-1		200		5	4.67	ND (0.448)	
7 -2		200		5	4.84	ND (0.554)	
8 -3		200		5	4.71	ND (0.810)	
-4		200		5	3.31	3.6	
10 ↓ -5	↓	200		5	4.60	1.0	↓
SF-LCS-S[7] 11-30-01	N/A	0.2/100 mls		10	5.08	~~ND~~ ~~20.3/20.0 =~~ 9/11/01	1.0 ~~102%~~
CCB (blank)	DI Water	100 mls		5	5.15	~~ND~~ ~~ND~~ ~~10.2/10.0 =~~	~~1.0 102%~~
DUP[5] 109086-5	WA	200		5	4.68	ND (0.869)	1.0
11 ↓ -6		200		5	4.84	ND (0.554)	
12 ↓ -7		200		5	5.01	ND	
13 109172-1		200		5	4.89	ND (0.436)	
14 -2		200		5	4.90	ND (0.436)	
15 -3		200		5	4.99	ND (0.254)	
16 -4		200		5	4.60	1.0 Iodine	
17 -5		200		5	4.97	ND (0.299)	
18 ↓ -6		200	↓	5	4.90	ND (0.436)	
19 109131-1	↓	200	N/A	5	3.28	3.6	↓
~~20~~		~~BH~~	9/11/01				
SF-LCS-S[7] 11-30-01	N/A	0.2/100 mls	N/A	10	5.10	20.2/20.0 =	1.0 101%
CCB (blank)	DI Water	100 mls	↓	5	5.16	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20\text{ L gas}}$ = ppmv H_2S

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down" initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

DISSOLVED IRON

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	10066	10000	100.7	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Antimony	1032	1000	103.2	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Arsenic	1036	1000	103.6	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Barium	1004	1000	100.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Beryllium	517	500	103.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Boron	1024	1000	102.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Cadmium	520	500	104.0	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Calcium	10313	10000	103.1	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Chromium	1033	1000	103.3	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Cobalt	1051	1000	105.1	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Copper	1018	1000	101.8	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Iron	10491	10000	104.9	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Iron	10372	10000	103.7	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Lead	1041	1000	104.1	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Magnesium	10241	10000	102.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Manganese	1034	1000	103.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Molybdenum	1021	1000	102.1	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Nickel	1050	1000	105.0	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Potassium	9785	10000	97.8	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Selenium	1030	1000	103.0	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Silver	510	500	102.0	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Sodium	9836	10000	98.4	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Strontium	1013	1000	101.3	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Thallium	1039	1000	103.9	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Tin	1049	1000	104.9	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Titanium	1022	1000	102.2	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Vanadium	1027	1000	102.7	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Zinc	1042	1000	104.2	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B
	Lithium	1109	1000	110.9	90.0 - 110.0	P	9/12/01	11:50	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1									
	Aluminum	10477	10000	104.8	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Antimony	1028	1000	102.8	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Arsenic	1035	1000	103.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Barium	993	1000	99.3	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Beryllium	516	500	103.2	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Boron	1019	1000	101.9	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Cadmium	521	500	104.2	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Calcium	10816	10000	108.2	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Chromium	1028	1000	102.8	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Cobalt	1048	1000	104.8	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Copper	1006	1000	100.6	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Iron	10665	10000	106.6	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Iron	10552	10000	105.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Lead	1041	1000	104.1	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Magnesium	10701	10000	107.0	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Manganese	1030	1000	103.0	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Molybdenum	1015	1000	101.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Nickel	1051	1000	105.1	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Potassium	9647	10000	96.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Selenium	1025	1000	102.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Silver	505	500	101.0	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Sodium	9545	10000	95.4	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Strontium	1002	1000	100.2	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Thallium	1040	1000	104.0	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Tin	1048	1000	104.8	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Titanium	1015	1000	101.5	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Vanadium	1020	1000	102.0	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Zinc	1046	1000	104.6	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B
	Lithium	1099	1000	109.9	90.0 - 110.0	P	9/12/01	12:30	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2									
	Aluminum	9989	10000	99.9	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Antimony	1031	1000	103.1	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Arsenic	1045	1000	104.5	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Barium	988	1000	98.8	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Beryllium	520	500	104.0	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Boron	1015	1000	101.5	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Cadmium	527	500	105.4	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Calcium	10435	10000	104.4	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Chromium	1033	1000	103.3	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Cobalt	1057	1000	105.7	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Copper	1000	1000	100.0	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Iron	10543	10000	105.4	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Iron	10442	10000	104.4	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Lead	1054	1000	105.4	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Magnesium	10315	10000	103.2	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Manganese	1036	1000	103.6	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Molybdenum	1020	1000	102.0	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Nickel	1060	1000	106.0	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Potassium	9607	10000	96.1	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Selenium	1037	1000	103.7	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Silver	506	500	101.2	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Sodium	9567	10000	95.7	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Strontium	999	1000	99.9	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Thallium	1048	1000	104.8	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Tin	1063	1000	106.3	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Titanium	1015	1000	101.5	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Vanadium	1023	1000	102.3	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Zinc	1061	1000	106.1	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B
	Lithium	1089	1000	108.9	90.0 - 110.0	P	9/12/01	13:37	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV3									
	Aluminum	10109	10000	101.1	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Antimony	1023	1000	102.3	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Arsenic	1036	1000	103.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Barium	985	1000	98.5	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Beryllium	517	500	103.4	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Boron	1014	1000	101.4	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Cadmium	526	500	105.2	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Calcium	10598	10000	106.0	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Chromium	1030	1000	103.0	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Cobalt	1054	1000	105.4	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Copper	995	1000	99.5	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Iron	10565	10000	105.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Iron	10470	10000	104.7	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Lead	1051	1000	105.1	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Magnesium	10416	10000	104.2	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Manganese	1032	1000	103.2	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Molybdenum	1016	1000	101.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Nickel	1057	1000	105.7	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Potassium	9627	10000	96.3	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Selenium	1027	1000	102.7	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Silver	503	500	100.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Sodium	9553	10000	95.5	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Strontium	996	1000	99.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Thallium	1046	1000	104.6	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Tin	1058	1000	105.8	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Titanium	1013	1000	101.3	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Vanadium	1019	1000	101.9	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Zinc	1060	1000	106.0	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B
	Lithium	1098	1000	109.8	90.0 - 110.0	P	9/12/01	14:44	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	B	10.0	100.0	P	9/12/01	11:56	TSEPT11B
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	9/12/01	11:56	TSEPT11B
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	9/12/01	11:56	TSEPT11B
	Barium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	11:56	TSEPT11B
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	9/12/01	11:56	TSEPT11B
	Boron	100.00	+/-100.00	U	7.00	100.00	P	9/12/01	11:56	TSEPT11B
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	11:56	TSEPT11B
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	9/12/01	11:56	TSEPT11B
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	11:56	TSEPT11B
	Cobalt	1.12	+/-10.00	B	1.00	10.00	P	9/12/01	11:56	TSEPT11B
	Copper	10.00	+/-10.00	U	3.00	10.00	P	9/12/01	11:56	TSEPT11B
	Iron	100.0	+/-100.0	U	7.0	100.0	P	9/12/01	11:56	TSEPT11B
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	9/12/01	11:56	TSEPT11B
	Lead	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	11:56	TSEPT11B
	Magnesium	6.96	+/-500.00	B	6.00	500.00	P	9/12/01	11:56	TSEPT11B
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	11:56	TSEPT11B
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	11:56	TSEPT11B
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	11:56	TSEPT11B
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	9/12/01	11:56	TSEPT11B
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	9/12/01	11:56	TSEPT11B
	Silver	1.03	+/-5.00	B	1.00	5.00	P	9/12/01	11:56	TSEPT11B
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	9/12/01	11:56	TSEPT11B
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	11:56	TSEPT11B
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	9/12/01	11:56	TSEPT11B
	Tin	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	11:56	TSEPT11B
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	11:56	TSEPT11B
	Vanadium	1.41	+/-10.00	B	1.00	10.00	P	9/12/01	11:56	TSEPT11B
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	9/12/01	11:56	TSEPT11B
	Lithium	1.39	+/-50.00	B	1.00	50.00	P	9/12/01	11:56	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB1										
	Aluminum	100.6	+/-100.0		10.0	100.0	P	9/12/01	12:35	TSEPT11B
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	9/12/01	12:35	TSEPT11B
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	9/12/01	12:35	TSEPT11B
	Barium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	12:35	TSEPT11B
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	9/12/01	12:35	TSEPT11B
	Boron	100.00	+/-100.00	U	7.00	100.00	P	9/12/01	12:35	TSEPT11B
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	12:35	TSEPT11B
	Calcium	144.6	+/-500.0	B	70.0	500.0	P	9/12/01	12:35	TSEPT11B
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	12:35	TSEPT11B
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	12:35	TSEPT11B
	Copper	10.00	+/-10.00	U	3.00	10.00	P	9/12/01	12:35	TSEPT11B
	Iron	70.8	+/-100.0	B	7.0	100.0	P	9/12/01	12:35	TSEPT11B
	Iron	70.2	+/-4000.0	B	20.0	4000.0	P	9/12/01	12:35	TSEPT11B
	Lead	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	12:35	TSEPT11B
	Magnesium	146.78	+/-500.00	B	6.00	500.00	P	9/12/01	12:35	TSEPT11B
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	12:35	TSEPT11B
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	12:35	TSEPT11B
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	12:35	TSEPT11B
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	9/12/01	12:35	TSEPT11B
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	9/12/01	12:35	TSEPT11B
	Silver	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	12:35	TSEPT11B
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	9/12/01	12:35	TSEPT11B
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	12:35	TSEPT11B
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	9/12/01	12:35	TSEPT11B
	Tin	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	12:35	TSEPT11B
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	12:35	TSEPT11B
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	12:35	TSEPT11B
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	9/12/01	12:35	TSEPT11B
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	9/12/01	12:35	TSEPT11B

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB2										
	Aluminum	100.0	+/-100.0	B	10.0	100.0	P	9/12/01	13:42	TSEPT11B
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	9/12/01	13:42	TSEPT11B
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	9/12/01	13:42	TSEPT11B
	Barium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	13:42	TSEPT11B
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	9/12/01	13:42	TSEPT11B
	Boron	100.00	+/-100.00	U	7.00	100.00	P	9/12/01	13:42	TSEPT11B
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	13:42	TSEPT11B
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	9/12/01	13:42	TSEPT11B
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	13:42	TSEPT11B
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	13:42	TSEPT11B
	Copper	10.00	+/-10.00	U	3.00	10.00	P	9/12/01	13:42	TSEPT11B
	Iron	14.0	+/-100.0	B	7.0	100.0	P	9/12/01	13:42	TSEPT11B
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	9/12/01	13:42	TSEPT11B
	Lead	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	13:42	TSEPT11B
	Magnesium	25.16	+/-500.00	B	6.00	500.00	P	9/12/01	13:42	TSEPT11B
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	13:42	TSEPT11B
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	13:42	TSEPT11B
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	13:42	TSEPT11B
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	9/12/01	13:42	TSEPT11B
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	9/12/01	13:42	TSEPT11B
	Silver	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	13:42	TSEPT11B
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	9/12/01	13:42	TSEPT11B
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	13:42	TSEPT11B
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	9/12/01	13:42	TSEPT11B
	Tin	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	13:42	TSEPT11B
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	13:42	TSEPT11B
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	13:42	TSEPT11B
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	9/12/01	13:42	TSEPT11B
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	9/12/01	13:42	TSEPT11B

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
CCB3										
	Aluminum	10.6	+/-100.0	B	10.0	100.0	P	9/12/01	14:50	TSEPT11B
	Antimony	50.00	+/-50.00	U	2.00	50.00	P	9/12/01	14:50	TSEPT11B
	Arsenic	5.00	+/-5.00	U	3.00	5.00	P	9/12/01	14:50	TSEPT11B
	Barium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	14:50	TSEPT11B
	Beryllium	3.00	+/-3.00	U	1.00	3.00	P	9/12/01	14:50	TSEPT11B
	Boron	100.00	+/-100.00	U	7.00	100.00	P	9/12/01	14:50	TSEPT11B
	Cadmium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	14:50	TSEPT11B
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	9/12/01	14:50	TSEPT11B
	Chromium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	14:50	TSEPT11B
	Cobalt	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	14:50	TSEPT11B
	Copper	10.00	+/-10.00	U	3.00	10.00	P	9/12/01	14:50	TSEPT11B
	Iron	28.5	+/-100.0	B	7.0	100.0	P	9/12/01	14:50	TSEPT11B
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	9/12/01	14:50	TSEPT11B
	Lead	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	14:50	TSEPT11B
	Magnesium	64.08	+/-500.00	B	6.00	500.00	P	9/12/01	14:50	TSEPT11B
	Manganese	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	14:50	TSEPT11B
	Molybdenum	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	14:50	TSEPT11B
	Nickel	5.00	+/-5.00	U	2.00	5.00	P	9/12/01	14:50	TSEPT11B
	Potassium	1000.0	+/-1000.0	U	60.0	1000.0	P	9/12/01	14:50	TSEPT11B
	Selenium	10.00	+/-10.00	U	5.00	10.00	P	9/12/01	14:50	TSEPT11B
	Silver	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	14:50	TSEPT11B
	Sodium	1000.0	+/-1000.0	U	200.0	1000.0	P	9/12/01	14:50	TSEPT11B
	Strontium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	14:50	TSEPT11B
	Thallium	10.00	+/-10.00	U	4.00	10.00	P	9/12/01	14:50	TSEPT11B
	Tin	10.00	+/-10.00	U	2.00	10.00	P	9/12/01	14:50	TSEPT11B
	Titanium	5.00	+/-5.00	U	1.00	5.00	P	9/12/01	14:50	TSEPT11B
	Vanadium	10.00	+/-10.00	U	1.00	10.00	P	9/12/01	14:50	TSEPT11B
	Zinc	20.00	+/-20.00	U	6.00	20.00	P	9/12/01	14:50	TSEPT11B
	Lithium	50.00	+/-50.00	U	1.00	50.00	P	9/12/01	14:50	TSEPT11B

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	547921.7	500000.0	109.6	80 - 120	9/12/01	12:18	TSEPT11B
	Antimony	1.8			80 - 120	9/12/01	12:18	TSEPT11B
	Arsenic	-0.5			80 - 120	9/12/01	12:18	TSEPT11B
	Barium	1.7			80 - 120	9/12/01	12:18	TSEPT11B
	Beryllium	0.9			80 - 120	9/12/01	12:18	TSEPT11B
	Boron	0.0			80 - 120	9/12/01	12:18	TSEPT11B
	Cadmium	0.1			80 - 120	9/12/01	12:18	TSEPT11B
	Calcium	487964.8	500000.0	97.6	80 - 120	9/12/01	12:18	TSEPT11B
	Chromium	-0.8			80 - 120	9/12/01	12:18	TSEPT11B
	Cobalt	4.0			80 - 120	9/12/01	12:18	TSEPT11B
	Copper	0.8			80 - 120	9/12/01	12:18	TSEPT11B
	Iron	181283.3	200000.0	90.6	80 - 120	9/12/01	12:18	TSEPT11B
	Iron	206763.2	200000.0	103.4	80 - 120	9/12/01	12:18	TSEPT11B
	Lead	5.1			80 - 120	9/12/01	12:18	TSEPT11B
	Magnesium	569563.6	500000.0	113.9	80 - 120	9/12/01	12:18	TSEPT11B
	Manganese	3.2			80 - 120	9/12/01	12:18	TSEPT11B
	Molybdenum	-0.6			80 - 120	9/12/01	12:18	TSEPT11B
	Nickel	-0.7			80 - 120	9/12/01	12:18	TSEPT11B
	Potassium	-24.6			80 - 120	9/12/01	12:18	TSEPT11B
	Selenium	-0.2			80 - 120	9/12/01	12:18	TSEPT11B
	Silver	0.2			80 - 120	9/12/01	12:18	TSEPT11B
	Sodium	119.1			80 - 120	9/12/01	12:18	TSEPT11B
	Strontium	-1.9			80 - 120	9/12/01	12:18	TSEPT11B
	Thallium	8.1			80 - 120	9/12/01	12:18	TSEPT11B
	Tin	1.6			80 - 120	9/12/01	12:18	TSEPT11B
	Titanium	-2.6			80 - 120	9/12/01	12:18	TSEPT11B
	Vanadium	-3.1			80 - 120	9/12/01	12:18	TSEPT11B
	Zinc	2.7			80 - 120	9/12/01	12:18	TSEPT11B
	Lithium	0.9			80 - 120	9/12/01	12:18	TSEPT11B

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB1								
	Aluminum	559740.0	510000.0	109.8	80 - 120	9/12/01	12:24	TSEPT11B
	Antimony	1078.2	1000.0	107.8	80 - 120	9/12/01	12:24	TSEPT11B
	Arsenic	1064.6	1000.0	106.5	80 - 120	9/12/01	12:24	TSEPT11B
	Barium	1163.8	1000.0	116.4	80 - 120	9/12/01	12:24	TSEPT11B
	Beryllium	531.8	500.0	106.4	80 - 120	9/12/01	12:24	TSEPT11B
	Boron	1083.9	1000.0	108.4	80 - 120	9/12/01	12:24	TSEPT11B
	Cadmium	497.5	500.0	99.5	80 - 120	9/12/01	12:24	TSEPT11B
	Calcium	501841.4	510000.0	98.4	80 - 120	9/12/01	12:24	TSEPT11B
	Chromium	1052.8	1000.0	105.3	80 - 120	9/12/01	12:24	TSEPT11B
	Cobalt	1011.0	1000.0	101.1	80 - 120	9/12/01	12:24	TSEPT11B
	Copper	1205.4	1000.0	120.5	80 - 120	9/12/01	12:24	TSEPT11B
	Iron	189977.2	210000.0	90.5	80 - 120	9/12/01	12:24	TSEPT11B
	Iron	218483.9	210000.0	104.0	80 - 120	9/12/01	12:24	TSEPT11B
	Lead	1033.2	1000.0	103.3	80 - 120	9/12/01	12:24	TSEPT11B
	Magnesium	583434.7	510000.0	114.4	80 - 120	9/12/01	12:24	TSEPT11B
	Manganese	1067.1	1000.0	106.7	80 - 120	9/12/01	12:24	TSEPT11B
	Molybdenum	1045.9	1000.0	104.6	80 - 120	9/12/01	12:24	TSEPT11B
	Nickel	988.0	1000.0	98.8	80 - 120	9/12/01	12:24	TSEPT11B
	Potassium	14171.3	10000.0	141.7	50 - 150	9/12/01	12:24	TSEPT11B
	Selenium	1037.2	1000.0	103.7	80 - 120	9/12/01	12:24	TSEPT11B
	Silver	589.1	500.0	117.8	80 - 120	9/12/01	12:24	TSEPT11B
	Sodium	13646.9	10000.0	136.5	50 - 150	9/12/01	12:24	TSEPT11B
	Strontium	1138.4	1000.0	113.8	80 - 120	9/12/01	12:24	TSEPT11B
	Thallium	1034.3	1000.0	103.4	80 - 120	9/12/01	12:24	TSEPT11B
	Tin	1083.4	1000.0	108.3	80 - 120	9/12/01	12:24	TSEPT11B
	Titanium	1100.8	1000.0	110.1	80 - 120	9/12/01	12:24	TSEPT11B
	Vanadium	1078.1	1000.0	107.8	80 - 120	9/12/01	12:24	TSEPT11B
	Zinc	990.8	1000.0	99.1	80 - 120	9/12/01	12:24	TSEPT11B
	Lithium	1632.6	1000.0	163.3	50 - 150	9/12/01	12:24	TSEPT11B

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A2								
	Aluminum	547507.1	500000.0	109.5	80 - 120	9/12/01	14:33	TSEPT11B
	Antimony	-2.6			80 - 120	9/12/01	14:33	TSEPT11B
	Arsenic	-1.5			80 - 120	9/12/01	14:33	TSEPT11B
	Barium	1.4			80 - 120	9/12/01	14:33	TSEPT11B
	Beryllium	0.9			80 - 120	9/12/01	14:33	TSEPT11B
	Boron	1.3			80 - 120	9/12/01	14:33	TSEPT11B
	Cadmium	-0.5			80 - 120	9/12/01	14:33	TSEPT11B
	Calcium	496640.8	500000.0	99.3	80 - 120	9/12/01	14:33	TSEPT11B
	Chromium	-1.6			80 - 120	9/12/01	14:33	TSEPT11B
	Cobalt	4.3			80 - 120	9/12/01	14:33	TSEPT11B
	Copper	-0.5			80 - 120	9/12/01	14:33	TSEPT11B
	Iron	182795.9	200000.0	91.4	80 - 120	9/12/01	14:33	TSEPT11B
	Iron	209362.5	200000.0	104.7	80 - 120	9/12/01	14:33	TSEPT11B
	Lead	2.9			80 - 120	9/12/01	14:33	TSEPT11B
	Magnesium	575170.3	500000.0	115.0	80 - 120	9/12/01	14:33	TSEPT11B
	Manganese	3.2			80 - 120	9/12/01	14:33	TSEPT11B
	Molybdenum	-0.6			80 - 120	9/12/01	14:33	TSEPT11B
	Nickel	-0.9			80 - 120	9/12/01	14:33	TSEPT11B
	Potassium	-41.6			80 - 120	9/12/01	14:33	TSEPT11B
	Selenium	-0.7			80 - 120	9/12/01	14:33	TSEPT11B
	Silver	-0.6			80 - 120	9/12/01	14:33	TSEPT11B
	Sodium	-45.2			80 - 120	9/12/01	14:33	TSEPT11B
	Strontium	-2.2			80 - 120	9/12/01	14:33	TSEPT11B
	Thallium	7.9			80 - 120	9/12/01	14:33	TSEPT11B
	Tin	1.5			80 - 120	9/12/01	14:33	TSEPT11B
	Titanium	-2.9			80 - 120	9/12/01	14:33	TSEPT11B
	Vanadium	-3.3			80 - 120	9/12/01	14:33	TSEPT11B
	Zinc	2.5			80 - 120	9/12/01	14:33	TSEPT11B
	Lithium	0.6			80 - 120	9/12/01	14:33	TSEPT11B

- 4 -

INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C109131

Contract: NTC ORLANDO **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-AB2								
	Aluminum	557169.3	510000.0	109.2	80 - 120	9/12/01	14:38	TSEPT11B
	Antimony	1081.7	1000.0	108.2	80 - 120	9/12/01	14:38	TSEPT11B
	Arsenic	1083.2	1000.0	108.3	80 - 120	9/12/01	14:38	TSEPT11B
	Barium	1154.1	1000.0	115.4	80 - 120	9/12/01	14:38	TSEPT11B
	Beryllium	537.7	500.0	107.5	80 - 120	9/12/01	14:38	TSEPT11B
	Boron	1087.2	1000.0	108.7	80 - 120	9/12/01	14:38	TSEPT11B
	Cadmium	508.7	500.0	101.7	80 - 120	9/12/01	14:38	TSEPT11B
	Calcium	511431.8	510000.0	100.3	80 - 120	9/12/01	14:38	TSEPT11B
	Chromium	1063.4	1000.0	106.3	80 - 120	9/12/01	14:38	TSEPT11B
	Cobalt	1026.0	1000.0	102.6	80 - 120	9/12/01	14:38	TSEPT11B
	Copper	1191.4	1000.0	119.1	80 - 120	9/12/01	14:38	TSEPT11B
	Iron	191998.0	210000.0	91.4	80 - 120	9/12/01	14:38	TSEPT11B
	Iron	221193.9	210000.0	105.3	80 - 120	9/12/01	14:38	TSEPT11B
	Lead	1053.8	1000.0	105.4	80 - 120	9/12/01	14:38	TSEPT11B
	Magnesium	590190.8	510000.0	115.7	80 - 120	9/12/01	14:38	TSEPT11B
	Manganese	1078.0	1000.0	107.8	80 - 120	9/12/01	14:38	TSEPT11B
	Molybdenum	1054.4	1000.0	105.4	80 - 120	9/12/01	14:38	TSEPT11B
	Nickel	1003.4	1000.0	100.3	80 - 120	9/12/01	14:38	TSEPT11B
	Potassium	14058.6	10000.0	140.6	50 - 150	9/12/01	14:38	TSEPT11B
	Selenium	1042.3	1000.0	104.2	80 - 120	9/12/01	14:38	TSEPT11B
	Silver	588.2	500.0	117.6	80 - 120	9/12/01	14:38	TSEPT11B
	Sodium	13538.9	10000.0	135.4	50 - 150	9/12/01	14:38	TSEPT11B
	Strontium	1131.8	1000.0	113.2	80 - 120	9/12/01	14:38	TSEPT11B
	Thallium	1045.8	1000.0	104.6	80 - 120	9/12/01	14:38	TSEPT11B
	Tin	1099.8	1000.0	110.0	80 - 120	9/12/01	14:38	TSEPT11B
	Titanium	1103.6	1000.0	110.4	80 - 120	9/12/01	14:38	TSEPT11B
	Vanadium	1083.8	1000.0	108.4	80 - 120	9/12/01	14:38	TSEPT11B
	Zinc	1019.2	1000.0	101.9	80 - 120	9/12/01	14:38	TSEPT11B
	Lithium	1627.1	1000.0	162.7	50 - 150	9/12/01	14:38	TSEPT11B

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C109172 Date Received: 9/8/01

1.	Was there a Chain of Custody?	(Yes)	No♣		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	(Yes) No♣ N/A
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No♣		9.	Is there sufficient volume for analysis requested?	(Yes) No♣ N/A *(Can)*
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No♣	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes) No♣
4.	Were all samples properly labeled and identified?	(Yes)	No♣		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes♣ No (N/A)
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes♣	(No)		12.	If sent, were matrix spike bottles returned?	Yes No♣ (N/A)
6.	Were samples received in proper containers for analysis requested?	(Yes)	No♣		13.	Was Project Manager notified of problems? (initials:_____)	Yes No♣ (N/A)
7.	Were all sample containers received intact?	(Yes)	No♣				

Airbill Number(s): 8264 4298 2986

Shipped By: FedEx

Cooler Number(s): Client

Shipping Charges: N/A

Cooler Weight(s): 33 #

Cooler Temp(s) (°C): 4.5°C

CCC3

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS **Date:** 9/8/01 **Logged By:** LJK **Date:** 08-Sept-01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 0907-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC Orlando	152044.33.01.03.30	STL Pensacola/Rick Hayes	Steve Tsangaris/TPA/CCI	4350 W. CYPRESS St. Ste 600, Tampa, FL 33607
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-39	CTO 017	2643	Christelle Newsome/ATL/CCI	115 Perimeter Center Place N.E., Ste 700, Atlanta, GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Christelle Newsome/ATL/CCI	770/604-9182 Ext 268	850/474-1001	Jennifer Ottoson/TPA/CH2M HILL	205 Indian River Dr., Coca,FL 32922 C109172

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	[25] ANALYSES REQUIRED (Include Method Numbers) DISSOLVED IRON 6010B		SULFIDE 376							[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	017-OLD-39-47A-Q3-01	MW-47A	GW	09/07/01	0850	III	14	1		1							N		
2	017-OLD-39-48A-Q3-01	MW-48A	GW	09/07/01	0955	III	14	1		1							N		
3	017-OLD-39-03A-Q3-01	MW-03A	GW	09/07/01	1320	III	14	1		1							N		
4	017-OLD-39-08A-Q3-01	MW-08A	GW	09/07/01	1115	III	14	1		1							N		
5	017-OLD-39-09A-Q3-01	MW-09A	GW	09/07/01	1220	III	14	1		1							N		
6	017-OLD-39-FD2-Q3-01	FIELD DUPE 2	GW	09/07/01	~	III	14	1		1							FD		
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print)
Isaac Lynch/GNV CH2M HILL, Carlton R. Ivery/DFB CH2M HILL & Craig Haas/ORL/CCI

[30] COURIER AND SHIPPING NUMBER:
FEDEX Airbill # 826442982986

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY Printed Name and Signature:	DATE	TIME	[33] RECEIVED BY Printed Name and Signature:	DATE	TIME
Carlton Ivery Carlton Ivery	9/7/01	1800	Mark Swafford Mark Swafford	9/8/01	1005
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

C109172

FedEx Express USA Airbill

FedEx Tracking Number 826442982986

0200 Recipient's Copy

1 From

Date

Sender's Name ISAAC LYNCH Phone 407 709 2346

Company CH2M HILL

Address 1060 Wave House

Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.33.01.03.30

3 To

Recipient's Name RICK HAYES Phone 850 474-1001

Company SEVELN TRENT LABS

Address 3355 McLEMORE DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8264 4298 2986

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate.

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation: _____

Declared value limit $500

5 Packaging

- [ ] FedEx Envelope/Letter*
- [ ] FedEx Pak*
- [X] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [X] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. [ ] Obtain Recip. Acct. No.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	35	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at www.fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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360

024

Attach one file Label here

SAMPLE CHECK
STL Pensacola

Paperwork by:
Labeled by: JMS
Delivered by: JMS

CH2M-CONST-GA C109172
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic	✓						~~NaOH~~ ZnAc	6	RB	9-8	3:37
8 oz. Plastic		✓					~~HNO3~~	6	—		
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial											
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

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A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags **are limited to** X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

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STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

3355 McLemore Drive • Pensacola, FL 32514 • Tel: 850 474 1001 • Fax: 850 478 2671 • www.stl-inc.com
STL Pensacola is a part of Severn Trent Laboratories, Inc.

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

*State of **California**, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02*

*State of **Connecticut**, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01*

***Delaware** Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted*

***Florida** DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02*

***Florida** DEP/DOH CompQAP # 980156*

***Florida**, Radioactive Materials License No. G0733-1, no expiration date assigned*

***Foreign Soil Permit**, Permit No. S-37599*

***Kansas** Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01*

*Commonwealth of **Kentucky**, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/01*

*State of **Louisiana**, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01*

***Louisiana** Department of Environmental Quality, LELAP, Laboratory ID No. 02075, Agency Interest ID 30748 (Environmental, expires 6/30/02)*

*State of **Maryland**, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02*

*Commonwealth of **Massachusetts**, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02*

*State of **Michigan**, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02*

***New Hampshire** DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02*

*State of **New Jersey**, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01*

***New York State**, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02*

***North Carolina** Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01*

***North Dakota** DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02*

*State of **Oklahoma**, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/02*

*Commonwealth of **Pennsylvania**, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01*

***South Carolina** DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01*

***Tennessee** Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04*

***Virginia** Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02*

*State of **Washington**, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01*

***West Virginia** Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01*

*American Industrial Hygiene Association **(AIHA)** Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04*

MICROSEEPS

Client Name:	Accura Analytical Labs	Page:	Page 1 of 4
Contact:	Bonnie Hogue	Order #:	P0108078
Address:	6017 Financial Drive	Report Date:	08/27/01
		Client Proj Name:	SA36,NTC Orlando
	Norcross, GA 30071	Client Proj #:	CH2MHill project
			AAL# 28530

Sample Identification

Lab Sample #	Client Sample ID
P0108078-01	AC17978
P0108078-02	AC17979
P0108078-03	AC17980

Approved By: Debbie Hallo

NOTES:These samples were analyzed with project P0108093 for the QA/QC requirements.

NON-CONFORMANCE FORM

Date: 8/6/01 **Receiver:** RRemaydo **Time of Receipt:** 10:40

Client: ACURA **Number Samples out of Conformance:** 4

Reason for Non-Conformance:

__ Samples rcvd. past holding time → Parameters _____

__ Broken Bottles → Description _____

__ Incorrect containers → Description _____

__ Incorrect preservative → Description _____

X Sample ID different from COC → Description Samples on COC are listed as AC17980 but came in labeled AC17982

__ Labels missing or unreadable → Description _____

__ Analysis not written on COC → Description _____

__ Sample received not on COC → Description _____

__ Sample on COC not received → Description _____

__ Hold time not observed internally → Description _____

Remarks _____

Asst. Lab. Dir. Initials: [illegible] Date: 8/6/01 (See other side for resolution)

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17978	Water	02 Aug. 01 9:40	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	150	5.0	ng/L	AM18
Ethene	5600	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	7.8	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17979	Water	02 Aug. 01 10:00	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	360	5.0	ng/L	AM18
Ethene	410	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	49	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Order #: P0108078
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client Proj #: CH2MHill project

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive
Norcross, GA 30071

Lab Sample #: P0108078-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17980	Water	02 Aug. 01 11:45	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Water				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	49	5.0	ng/L	AM18
Ethene	1300	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1.9	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs

Page -1 of 1

Contact: Bonnie Hogue

P0108078

Address: 6017 Financial Drive

Report Date: 08/27/01

Client Proj Name: SA36,NTC Orlando

Client Proj #: CH2MHill project

Norcross, GA 30071

Sample Identification

Lab Sample #	Client Sample ID
P0108078-01	AC17978
P0108078-02	AC17979
P0108078-03	AC17980

Approved By:

NOTES:These samples were analyzed with project P0108093 for the QA/QC requirements.

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-01

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received
AC17978	Water	##########	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	150	5.0	ng/L	AM18	rw	8/16/2001
Ethene	5600	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	7.8	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-02

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received
AC17979	Water	##########	06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	360	5.0	ng/L	AM18	rw	8/16/2001
Ethene	410	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	49	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

Client Name: Accura Analytical Labs

Lab Sample #: P0108078-03

Contact: Bonnie Hogue

Address: 6017 Financial Drive

Norcross, GA 30071

Sample Description	Matrix	Sampled Date/Time	Received

A0117980 Water ########## 06 Aug. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Butyric acid	< 1.0	1.0	mg/L		bc	8/24/2001
Ethane	49	5.0	ng/L	AM18	rw	8/16/2001
Ethene	1300	5.0	ng/L		rw	8/16/2001
Lactic Acid	< 25	25	mg/L	AM21G	bc	8/24/2001
Methane	1.9	0.015	ug/L	AM20GAX	rw	8/16/2001
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	8/24/2001
Pyruvic acid	< 10	10	mg/L		bc	8/24/2001

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

SUBCONTRACTOR CHAIN OF CUSTODY

PO1080783

SUBCONTRACTED TO: MICROSEEPS

Subcontracted by: ACCURA ANALYTICAL LABORATORY, INC
Address: 6017 Financial Drive, Norcross, GA 30071
Accura Lab Contact Name: **Bonnie J. Hogue**
Contact Phone # (770) 449 - 8800, **ext. 216**
Fax Number: (770) 449 - 5477

AAL PROJECT # 28530

For Laboratory Use Only
Custody Seal: Y N
QC Level: N 1 2 3 4
Entered into LIMS:
Sample Condition:
Page ____ OF ____
Init/Temp:
LAB Project #

	AAL #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Station Location:	No. of Containers	VFA's	MCL	Remarks	LAB #
01	AC 17978	8/6/01 09:40			GW		017-OLD-36-19A	4	✓	✓	See Attached original COC from AAL's client for detailed project requirements	
02	AC 17979	10:00			GW		-24B	4	✓	✓		
03	AC 17980	11:45			AQ		-	4	✓	✓		
	AC											
	AC											
	AC											
	AC											
	AC											
	AC											
	AC											

Relinquished By:	Date / Time	Received By:	Date / Time
Relinquished By:	Date / Time	Received By:	Date / Time

Special Requirements Or Remarks:
PLEASE FAX RESULTS!!
Turnaround Time Re...

Matrix Guide: (S = Soil) (W = Water) (L = Liquid)

MICROSEEPS

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Sample Identification

Lab Sample #	Client Sample ID
P0108093-01	AC17919
P0108093-02	AC17920
P0108093-03	AC17921
P0108093-04	AC17922
P0108093-05	AC17923
P0108093-06	AC17924
P0108093-07	AC17925

Approved By: Rebecca J. Stamps

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-01

Sample Description	Matrix	Sampled Date/Time	Received
AC17919	Water	01 Aug. 01 9:05	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	430	5.0	ng/L	AM18
Ethene	360	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	69	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-02

Sample Description	Matrix	Sampled Date/Time	Received
AC17920	Water	01 Aug. 01 9:20	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	24	1.0	mg/L	AM21G
Butyric acid	1.9	1.0	mg/L	
Ethane	900	5.0	ng/L	AM18
Ethene	5600	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	8900	0.015	ug/L	AM20GAX
Propionic acid	74	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-03

Sample Description	Matrix	Sampled Date/Time	Received
AC17921	Water	01 Aug. 01	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	21	1.0	mg/L	AM21G
Butyric acid	2.1	1.0	mg/L	
Ethane	920	5.0	ng/L	AM18
Ethene	4500	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	10000	0.015	ug/L	AM20GAX
Propionic acid	69	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-04

Sample Description	Matrix	Sampled Date/Time	Received
AC17922	Water	01 Aug. 01 11:45	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	62	5.0	ng/L	AM18
Ethene	76	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	490	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-05

Sample Description	Matrix	Sampled Date/Time	Received
AC17923	Water	01 Aug. 01 11:30	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	28	5.0	ng/L	AM18
Ethene	45	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	18	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-06

Sample Description	Matrix	Sampled Date/Time	Received
AC17924	Water	01 Aug. 01 15:00	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	39	5.0	ng/L	AM18
Ethene	42	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	5.7	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Lab Sample #: P0108093-07

Sample Description	Matrix	Sampled Date/Time	Received
AC17925	Water	01 Aug. 01 15:15	07 Aug. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	16	1.0	mg/L	AM21G
Butyric acid	4.6	1.0	mg/L	
Ethane	5200	5.0	ng/L	AM18
Ethene	23000	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2700	0.015	ug/L	AM20GAX
Propionic acid	24	1.0	mg/L	AM21G
Pyruvic acid	<10	10	mg/L	

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M010820032-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M010820032-LCS

	%Recovery	Ctl Limits
Ethene	103	89 - 115
Ethane	104	89 - 113

P0108086-01A-MS

	%Recovery	Ctl Limits
Ethene	105	70 - 130
Ethane	100	70 - 130

P0108086-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	100	70 - 130	5.13	0 - 20
Ethane	98	70 - 130	2.47	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M010820034-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M010820034-LCS

	%Recovery	Ctl Limits
Methane	97	90 - 108

P0108086-01A-MS

	%Recovery	Ctl Limits
Methane	100	70 - 130

P0108086-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	100	70 - 130	0.00	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M010824018-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M010824018-LCS

	%Recovery	Ctl Limits
Acetic Acid	82	70 - 130
Propionic acid	86	70 - 130
Butyric acid	88	70 - 130
Lactic Acid	87	70 - 130
Pyruvic acid	91	70 - 130

P0108167-01A-MS

	%Recovery	Ctl Limits
Acetic Acid	84	70 - 130
Propionic acid	87	70 - 130
Butyric acid	87	70 - 130
Lactic Acid	95	70 - 130
Pyruvic acid	87	70 - 130

P0108167-01A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	85	70 - 130	1.18	0 - 20
Propionic acid	97	70 - 130	10.87	0 - 20
Butyric acid	87	70 - 130	0.00	0 - 20
Lactic Acid	91	70 - 130	4.30	0 - 20
Pyruvic acid	88	70 - 130	1.14	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Accura Analytical Labs
Contact: Bonnie Hogue
Address: 6017 Financial Drive

Norcross, GA 30071

Lab Project #: P0108093
Report Date: 08/27/01
Client Proj Name: SA36,NTC Orlando
Client project #: CH2MHill project

Case Narrative:

LIMS # 68218 PO10007693 LP 8/7/01

CHAIN-OF-CUSTODY RECORD

CH2MHILL Constructors, Inc
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

[1] COC NUMBER: 0801-3

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No., and Fax No.):
NTC ORLANDO	152044.32.12.01.08	MICROSEEPS	STEVE TSANGARIS /CCI	4350 W. CYPRESS ST. STE 600 TAMPA, FL 33607
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[7] LAB PO NUMBER:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No., and Fax No.):
SA-36	CTO 017		JEFF WILMOTH /CCI	115 PERIMETER CENTER PLACE N.E. STE 700 ATLANTA, GA
[8] PROJECT CONTACT:	[9] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No., and Fax No.):
JEFF WILMOTH/ATL	770-604-9182 EXT.268		JENNIFER OTTOSON /CH2MHILL	205 INDIAN RIVER DR. COCOA, FL 32922

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	[25] ANALYSES REQUIRED (Include Method Numbers): VOC; FATTY ACIDS	METHANE, ETHANE, ETHENE	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS (AAL ID #s)	[28] LAB ID (for lab's use)
1	017-OLD-36-06A-Q3-01		W	8-1-01	0905	III	14	2	2		AC17919	
2	017-OLD-36-08B-Q3-01		"	"	0920	"	"	2	2		AC17920	
3	017-OLD-36-FD2-Q3-01		"	"	—	"	"	2	2		AC17921	
4	017-OLD-36-10B-Q3-01		"	"	1145	"	"	2	2		AC17922	
5	017-OLD-36-11C-Q3-01		"	"	1130	"	"	2	2		AC17923	
6	017-OLD-36-32C-Q3-01		"	"	1500	"	"	2	2		AC17924	
7	017-OLD-36-26A-Q3-01		↓	↓	1515	↓	↓	2	2		AC17925	
8												
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print)
I. LYNCH / C. IVERY

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY Printed Name and Signature:	DATE	TIME	[33] RECEIVED BY Printed Name and Signature:	DATE	TIME
[illegible]	8-01-01	1730	FEDEX		
FEDEX	08.02.01	0935	[illegible] /BRIAN BUENS	08.02.01	0935
[illegible] /BRIAN BUENS	08.02.01		UPS Tracy L Day	08.02.01 8-7-01	1140

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

Appendix C

Analytical Laboratory Reports
October 2001

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110655
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
17-3608B-Q401	C110655-1
17-3607A-Q401	C110655-2
17-3606A-Q401	C110655-3
17-36TB4-Q401	C110655-4

The above samples were received in good condition at STL Pensacola on October 26, 2001. The cooler temperature was 2°C.

Wet Chemistry:

Sample C110655-3 was received without an 8-oz. Bottle preserved with H2SO4. An analyst from the Wet Chemistry Department preserved an aliquot from one of the un-preserved bottles that was provided, to perform nitrate analysis.

Metals:

Sample C110v655-3 had two bottles sent for dissolved iron. The lighter bottle was marked with an "F" on the lid; therefore, was used for the analysis.

Please reference CLP and STL Pensacola data qualifier sheets for flag information.

Rick Hayes
Senior Project Manager

CCI NAVY FAC PMO NOV 13 2001

11/8/01

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	67	74	71
Dilution Factor	1	1	1
Analysis Date	10.26.01	10.26.01	10.26.01
Analysis Time	17:50	17:50	17:50
Batch ID	AEW059	AEW059	AEW059
Analyst	BE	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)			
Nitrate + Nitrite-N, mg/l	0.18	0.21	0.50R2
Nitrate-N, mg/l	0.18	0.21	0.50R2
Nitrite-N, mg/l	0.10U	2.5U@	2.5U@
Dilution Factor	1	1,25	1,25
Prep Date	10.26.01	10.26.01	10.26.01
Prep Time	17:00	17:00	17:00
Analysis Date	11.05.01	11.05.01	11.05.01
Analysis Time	08:00	08:00	08:00
Batch ID	N3W66B	N3W66B	N3W66B
Prep Method	4500-NO2B	4500-NO2B	4500-NO2B
Analyst	CR	CR	CR

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
Chloride (325.2/4500E/9251), mg/l	23	120@	73@
Dilution Factor	1	25	25
Prep Date	11.01.01	11.01.01	11.01.01
Prep Time	08:30	08:30	08:30
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	11:21	11:21	11:21
Batch ID	CKW60B	CKW60B	CKW60B
Prep Method	325.2	325.2	325.2
Analyst	AB	AB	AB
Total Dissolved Solids (160.1), mg/l	210	510	180
Dilution Factor	1	1	1
Prep Date	10.30.01	10.30.01	10.30.01
Prep Time	08:15	08:15	08:15
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	12:25	12:25	12:25
Batch ID	TDW095	TDW095	TDW095
Prep Method	160.1	160.1	160.1
Analyst	ST	ST	ST
Total Organic Carbon (9060), mg/l	83	78	21
Dilution Factor	5	5	5
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	10:19	11:00	11:11
Batch ID	TOW021A	TOW021A	TOW021A
Prep Method			
Analyst	AB	AB	AB

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
Sulfide (376.1), mg/l	2.9	1.0U	1.0U
Dilution Factor	1	1	1
Analysis Date	10.31.01	10.31.01	10.31.01
Analysis Time	10:20	10:20	10:20
Batch ID	FEW045	FEW045	FEW045
Analyst	BH	BH	BH
Iron, Dissolved (6010B), ug/l	400	720	120
Dilution Factor	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	12:32	12:37	12:54
Batch ID	PD131	PD131	PD131
Prep Method	3005A	3005A	3005A
Analyst	CH	CH	CH

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
Petroleum Hydrocarbons (FL-PRO)			
Petroleum Range Organics (FL-PRO), ug/l	4400	6500	100U
Surrogate - o-Terphenyl	105 %	124 %	101 %
Surrogate - Nonatriacontane (C39)	107 %	117 %	97 %
Dilution Factor	1	1	1
Prep Date	10.30.01	10.30.01	10.30.01
Prep Time	14:37	14:37	14:37
Analysis Date	11.02.01	11.02.01	11.02.01
Analysis Time	02:10	02:18	02:26
Batch ID	FLW191	FLW191	FLW191
Prep Method	3520C	3520C	3520C
Analyst	KA	KA	KA

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Ms. Tatiana Romanova
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Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
Volatile Organic Compounds (8260B)			
Benzene, ug/l	5.0U	0.78	5.0U
Bromobenzene, ug/l	5.0U	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U	5.0U
Bromofl orm, ug/l	5.0U	5.0U	5.0
Bromomethane (Methyl bromide), ug/	5.0U	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,3-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,4-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0UM2	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U	5.0U

005

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
1,1-Dichloroethene, ug/l	5.0U	5.0U	5.0U
cis-1,2-Dichloroethene, ug/l	26	37D	0.18J
trans-1,2-Dichloroethene, ug/l	0.32	0.52	5.0U
1,2-Dichloropropane, ug/l	5.0U	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U	5.0U
p-Isopropyltoluene, ug/l	0.35	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U	5.0U
n-Propylbenzene , ug/l	5.0U	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U	5.0U
Styrene, ug/l	5.0U	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
Tetrachloroethene, ug/l	5.0U	5.0U	5.0U
Toluene, ug/l	5.0U	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	5.0U	5.0U

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LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-1	17-3608B-Q401	10-25-01/11:00
10655-2	17-3607A-Q401	10-25-01/15:15
10655-3	17-3606A-Q401	10-25-01/15:45

PARAMETER	10655-1	10655-2	10655-3
1,1,2-Trichloroethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
Trichloroethene, ug/l	25	12	0.66
Trichlorofluoromethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
Vinyl chloride, ug/l	5.0U	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U	10U
Surrogate - Dibromofluoromethane	98 %	98 %	96 %
Surrogate - Toluene-d8	97 %	97 %	98 %
Surrogate - 4-Bromofluorobenzene	97 %	96 %	96 %
Dilution Factor	1	1,5	1
Analysis Date	11.02.01	11.02.01	11.02.01
Analysis Time	14:09	14:50	15:30
Batch ID	BUW149	BUW149	BUW149
Prep Method	5030B	5030B	5030B
Analyst	GH	GH	GH

007

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

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Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-4	17-36TB4-Q401	10-25-01

PARAMETER	10655-4
Volatile Organic Compounds (8260B)	
Benzene, ug/l	5.0U
Bromobenzene, ug/l	5.0U
Bromochloromethane, ug/l	5.0U
Bromodichloromethane, ug/l	5.0U
Bromoform, ug/l	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U
Carbon tetrachloride, ug/l	5.0U
Chlorobenzene, ug/l	5.0U
Chloroethane, ug/l	5.0U
Chloroform, ug/l	5.0U
Chloromethane, ug/l	5.0U
2-Chlorotoluene, ug/l	5.0U
4-Chlorotoluene, ug/l	5.0U
Dibromochloromethane, ug/l	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U
1,2-Dichlorobenzene, ug/l	5.0U
1,3-Dichlorobenzene, ug/l	5.0U
1,4-Dichlorobenzene, ug/l	5.0U
Dichlorodifluoromethane, ug/l	5.0U
1,1-Dichloroethane, ug/l	5.0U
1,2-Dichloroethane, ug/l	5.0U
1,1-Dichloroethene, ug/l	5.0U
cis-1,2-Dichloroethene, ug/l	5.0U

008

SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-4	17-36TB4-Q401	10-25-01

PARAMETER	10655-4
trans-1,2-Dichloroethene, ug/l	5.0U
1,2-Dichloropropane, ug/l	5.0U
1,3-Dichloropropane, ug/l	5.0U
2,2 Dichloropropane, ug/l	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U
Ethylbenzene, ug/l	5.0U
Hexachlorobutadiene, ug/l	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U
p-Isopropyltoluene, ug/l	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U
Naphthalene, ug/l	5.0U
n-Butylbenzene, ug/l	5.0U
n-Propylbenzene , ug/l	5.0U
sec-Butylbenzene, ug/l	5.0U
Styrene, ug/l	5.0U
t-Butylbenzene, ug/l	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U
Tetrachloroethene, ug/l	5.0U
Toluene, ug/l	5.0U
1,1,1-Trichloroethane, ug/l	5.0U
1,1,2-Trichloroethane, ug/l	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U
Trichloroethene, ug/l	5.0U

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SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-4	17-36TB4-Q401	10-25-01

PARAMETER	10655-4
Trichlorofluoromethane, ug/l	5.0U
1,2,3-Trichloropropane, ug/l	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U
Vinyl chloride, ug/l	5.0U
o-Xylene, ug/l	5.0U
m&p-Xylene, ug/l	10U
Surrogate - Dibromofluoromethane	90 %
Surrogate - Toluene-d8	97 %
Surrogate - 4-Bromofluorobenzene	91 %
Dilution Factor	1
Analysis Date	11.02.01
Analysis Time	16:11
Batch ID	BUW149
Prep Method	5030B
Analyst	GH

010

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	256	102 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.26.01	---	10.26.01	---	---
Analysis Time	17:50	---	17:50	---	---
Batch ID	AEW059	AEW059	AEW059	AEW059	AEW059
Analyst	BE	---	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	2.0	2.16	108 %	90-110
Nitrite-N, mg/l	0.10U	0.20	0.19	96 %	90-110
Nitrate-N, mg/l	---	---	2.0	---	---
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Prep Time	17:00	---	17:00	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	08:00	---	08:00	---	---
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B	N3W66B
Prep Method	4500-NO2B	---	4500-NO2B	---	---
Analyst	CR	---	CR	---	---

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Chloride (325.2/4500E/9251), mg/l	2.0U	50.0	49.0	98 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	11.01.01	---	11.01.01	---	---
Prep Time	08:30	---	08:30	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	11:21	---	11:21	---	---
Batch ID	CKW60B	CKW60B	CKW60B	CKW60B	CKW60B
Prep Method	325.2	---	325.2	---	---
Analyst	AB	---	AB	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	316	108 %	68-120
Dilution Factor	1		1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	08:15	00:00	08:15	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	12:25	00:00	12:25	---	---
Batch ID	TDW095	TDW095	TDW095	TDW095	TDW095
Prep Method	160.1		160.1	---	---
Analyst	ST		ST	---	---

012

SEVERN TRENT SERVICES

STL Pensacola

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Total Organic Carbon (9060), mg/l	<1.0	10	9.45	95 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	09:12	---	09:41	---	---
Batch ID	TOW021A	TOW021A	TOW021A	TOW021A	TOW021A
Prep Method					
Analyst	AB	---	AB	---	---
Sulfide (376.1), mg/l	1.0U	20	18.5	93 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	10:20	---	10:20	---	---
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100.0U	10000.0	9790.5	97.9 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	10:39	---	10:45	---	---
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method	3005A		3005A		
Analyst	CH	---	CH	---	---

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3690	109 %	55-118
Surrogate - o-Terphenyl	121 %	125	137	110 %	82-142
Surrogate - Nonatriacontane (C39)	121 %	50	43	86 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	14:37	---	14:37	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	01:14	---	01:22	---	---
Batch ID	FLW191	FLW191	FLW191	FLW191	FLW191
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

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10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Volatile Organic Compounds (8260B)					
Benzene, ug/l	5.0U	10	9.9	99 %	89-111
Bromobenzene, ug/l	5.0U	10	10.0	100 %	63-153
Bromochloromethane, ug/l	5.0U	10	10.1	101 %	91-129
Bromodichloromethane, ug/l	5.0U	10	9.9	99 %	87-119
Bromoform, ug/l	5.0U	10	10.3	103 %	52-127
Bromomethane (Methyl bromide), ug/l	5.0U	10	9.3	93 %	63-140
Carbon tetrachloride, ug/l	5.0U	10	9.7	97 %	73-116
Chlorobenzene, ug/l	5.0U	10	9.9	99 %	93-113
Chloroethane, ug/l	5.0U	10	9.8	98 %	76-116
Chloroform, ug/l	5.0U	10	9.7	97 %	90-115
Chloromethane, ug/l	5.0U	10	8.6	86 %	60-118
2-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	84-121
4-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	90-113
Dibromochloromethane, ug/l	5.0U	10	9.9	99 %	73-125
Dibromomethane (Methylene bromide), ug/l	5.0U	10	9.7	97 %	83-125
1,2-Dibromoethane (EDB), ug/l	5.0U	10	9.9	99 %	31-152
1,2-Dibromo-3-chloropropane, ug/l	5.0U	10	10.4	104 %	56-125
1,2-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	87-115
1,3-Dichlorobenzene, ug/l	5.0U	10	10.0	100 %	90-113

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REPORT OF RESULTS

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10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
1,4-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	92-113
Dichlorodifluoromethane, ug/l	5.0U	10	8.3	83 %	30-152
1,1-Dichloroethane, ug/l	5.0U	10	9.3	93 %	90-114
1,2-Dichloroethane, ug/l	5.0U	10	9.7	97 %	88-125
1,1-Dichloroethene, ug/l	5.0U	10	9.9	99 %	84-117
cis-1,2-Dichloroethene, ug/l	5.0U	10	10.3	103 %	90-117
trans-1,2-Dichloroethene, ug/l	5.0U	10	9.6	96 %	88-112
1,2-Dichloropropane, ug/l	5.0U	10	10.1	101 %	87-112
1,3-Dichloropropane, ug/l	5.0U	10	10.0	100 %	73-124
2,2 Dichloropropane, ug/l	5.0U	10	9.6	96 %	74-112
cis-1,3-Dichloropropene, ug/l	5.0U	10	9.8	98 %	61-133
trans-1,3-Dichloropropene, ug/l	5.0U	10	9.8	98 %	51-144
Ethylbenzene, ug/l	5.0U	10	9.9	99 %	69-123
Hexachlorobutadiene, ug/l	5.0U	10	12.1	121 %	74-140
Isopropylbenzene (Cumene), ug/l	5.0U	10	10.3	103 %	56-134
p-Isopropyltoluene, ug/l	5.0U	10	10.6	106 %	30-172
Methylene chloride (Dichloromethane), ug/l	5.0U	10	9.7	97 %	81-117
Naphthalene, ug/l	5.0U	10	10.9	109 %	18-229
n-Butylbenzene, ug/l	5.0U	10	10.9	109 %	1-237
n-Propylbenzene , ug/l	5.0U	10	10.4	104 %	73-116
sec-Butylbenzene, ug/l	5.0U	10	10.4	104 %	53-134

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LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9
Styrene, ug/l	5.0U	10	10.0	100 %	76-127
t-Butylbenzene, ug/l	5.0U	10	10.0	100 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	5.0U	10	10.2	102 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	5.0U	10	9.6	96 %	69-134
Tetrachloroethene, ug/l	5.0U	10	10.3	103 %	88-117
Toluene, ug/l	5.0U	10	9.9	99 %	85-117
1,1,1-Trichloroethane, ug/l	5.0U	10	10.3	103 %	88-117
1,1,2-Trichloroethane, ug/l	5.0U	10	9.7	97 %	86-121
1,2,3-Trichlorobenzene, ug/l	5.0U	10	10.9	109 %	43-204
1,2,4-Trichlorobenzene, ug/l	5.0U	10	11.2	112 %	31-211
Trichloroethene, ug/l	5.0U	10	9.9	99 %	85-108
Trichlorofluoromethane, ug/l	5.0U	10	10.3	103 %	84-118
1,2,3-Trichloropropane, ug/l	5.0U	10	10.1	101 %	38-159
1,2,4-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	63-142
1,3,5-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	84-125
Vinyl chloride, ug/l	5.0U	10	9.6	96 %	72-116
o-Xylene, ug/l	5.0U	10	10.2	102 %	73-122
m&p-Xylene, ug/l	10U	20	20.6	103 %	70-125
Surrogate - Dibromofluoromethane	100 %	10	9.64	96 %	77-119
Surrogate - Toluene-d8	100 %	10	10.01	100 %	78-118
Surrogate - 4-Bromofluorobenzene	97 %	10	10.02	100 %	79-116
Dilution Factor	1	---	1	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	10:35	---	11:19	---	---
Batch ID	BUW149	BUW149	BUW149	BUW149	BUW149
Prep Method	5030B	---	5030B	---	---
Analyst	GH	---	GH	---	---

017

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-5	Method Blank	
10655-6	Lab Control Standard True Value	
10655-7	Lab Control Standard Result	
10655-8	Lab Control Standard % Recovery	
10655-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10655-5	10655-6	10655-7	10655-8	10655-9

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	232	88 %	25	233
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.26.01	---	---	10.26.01
Analysis Time	---	17:50	---	---	17:50
Batch ID	AEW059	AEW059	AEW059	AEW059	AEW059
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.21	103 %	1.0	1.22
Nitrite-N, mg/l	0.20	0.16	82 %	0.20	0.17
Nitrate-N, mg/l	---	1.1	---	---	1.1
Dilution Factor	---	1	---	---	1
Prep Date	---	10.26.01	---	---	10.26.01
Prep Time	---	17:00	---	---	17:00
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	08:00	---	---	08:00
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B	N3W66B
Prep Method	---	4500-NO2B	---	---	4500-NO2B
Analyst	---	CR	---	---	CR

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Chloride (325.2/4500E/9251), mg/l	625	878	122 %	625	863
Dilution Factor	---	25	---	---	25
Prep Date	---	11.01.01	---	---	11.01.01
Prep Time	---	08:30	---	---	08:30
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	11:21	---	---	11:21
Batch ID	CKW60B	CKW60B	CKW60B	CKW60B	CKW60B
Prep Method	---	325.2	---	---	325.2
Analyst	---	AB	---	---	AB
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	50	133	100 %	50	120
Dilution Factor	---	1	---	---	1
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	13:07	---	---	13:18
Batch ID	TOW021A	TOW021A	TOW021A	TOW021A	TOW021A
Prep Method					
Analyst	---	AB	---	---	AB

020

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Sulfide (376.1), mg/l	10	12.8	86 %	10	13.5
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.31.01	---	---	10.31.01
Analysis Time	---	10:20	---	---	10:20
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	---	BH	---	---	BH
Iron, Dissolved (6010B), ug/l	10000.0	10117.5	100.6 %	10000.0	10237.0
Dilution Factor	---	1	---	---	1
Prep Date	---	10.26.01	---	---	10.26.01
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	11:02	---	---	11:07
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method		3005A			3005A
Analyst	---	CH	---	---	CH

021

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	3400	4031	116 %	3400	3816
Surrogate - o-Terphenyl	125	129	103 %	125	128
Surrogate - Nonatriacontane (C39)	50	53	106 %	50	41
Dilution Factor	---	1	---	---	1
Prep Date	---	10.30.01	---	---	10.30.01
Prep Time	---	14:37	---	---	14:37
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	01:30	---	---	01:38
Batch ID	FLW191	FLW191	FLW191	FLW191	FLW191
Prep Method	---	3520C	---	---	3520C
Analyst	---	KA	---	---	KA

022

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Volatile Organic Compounds (8260B)					
Benzene, ug/l	50	47	94 %	50	47
Bromobenzene, ug/l	50	48	96 %	50	48
Bromochloromethane, ug/l	50	46	92 %	50	51
Bromodichloromethane, ug/l	50	45	90 %	50	50
Bromoform, ug/l	50	47	94 %	50	55
Bromomethane (Methyl bromide), ug/l	50	44	88 %	50	43
Carbon tetrachloride, ug/l	50	45	90 %	50	44
Chlorobenzene, ug/l	50	48	96 %	50	48
Chloroethane, ug/l	50	45	90 %	50	45
Chloroform, ug/l	50	46	92 %	50	48
Chloromethane, ug/l	50	40	80 %	50	42
2-Chlorotoluene, ug/l	50	50	100 %	50	46
4-Chlorotoluene, ug/l	50	50	100 %	50	48
Dibromochloromethane, ug/l	50	45	90 %	50	52
Dibromomethane (Methylene bromide), ug/l	50	44	88 %	50	52
1,2-Dibromoethane (EDB), ug/l	50	44	88 %	50	52
1,2-Dibromo-3-chloropropane, ug/l	50	45	90 %	50	55
1,2-Dichlorobenzene, ug/l	50	4	50	49	
1,3-Dichlorobenzene, ug/l	50	48	96 %	50	47
7 94 % 1,4-Dichlorobenzene, ug/l		50	48	96 %	50

023

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
Dichlorodifluoromethane, ug/l	50	36	72 %	50	35
1,1-Dichloroethane, ug/l	50	44	88 %	50	44
1,2-Dichloroethane, ug/l	50	43	86 %	50	49
1,1-Dichloroethene, ug/l	50	46	92 %	50	46
cis-1,2-Dichloroethene, ug/l	50	80	94 %	50	85
trans-1,2-Dichloroethene, ug/l	50	45	90 %	50	45
1,2-Dichloropropane, ug/l	50	48	96 %	50	50
1,3-Dichloropropane, ug/l	50	45	90 %	50	54
2,2 Dichloropropane, ug/l	50	44	88 %	50	43
cis-1,3-Dichloropropene, ug/l	50	45	90 %	50	50
trans-1,3-Dichloropropene, ug/l	50	44	88 %	50	51
Ethylbenzene, ug/l	50	48	96 %	50	46
Hexachlorobutadiene, ug/l	50	60	120 %	50	55
Isopropylbenzene (Cumene), ug/l	50	50	100 %	50	47
p-Isopropyltoluene, ug/l	50	52	104 %	50	48
Methylene chloride (Dichloromethane), ug/l	50	45	90 %	50	49
Naphthalene, ug/l	50	50	100 %	50	60
n-Butylbenzene, ug/l	50	53	106 %	50	51
n-Propylbenzene , ug/l	50	51	102 %	50	47
sec-Butylbenzene, ug/l	50	51	102 %	50	46
Styrene, ug/l	50	47	94 %	50	48

024

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-10	MS True Value	
10655-11	Matrix Spike Result	
10655-12	Matrix Spike % Recovery	
10655-13	MSD True Value	
10655-14	Matrix Spike Duplicate Result	

PARAMETER	10655-10	10655-11	10655-12	10655-13	10655-14
t-Butylbenzene, ug/l	50	48	96 %	50	44
1,1,1,2-Tetrachloroethane, ug/l	50	48	96 %	50	50
1,1,2,2-Tetrachloroethane, ug/l	50	44	88 %	50	51
Tetrachloroethene, ug/l	50	49	98 %	50	47
Toluene, ug/l	50	47	94 %	50	46
1,1,1-Trichloroethane, ug/l	50	48	96 %	50	48
1,1,2-Trichloroethane, ug/l	50	44	88 %	50	51
1,2,3-Trichlorobenzene, ug/l	50	52	104 %	50	58
1,2,4-Trichlorobenzene, ug/l	50	53	106 %	50	57
Trichloroethene, ug/l	50	54	93 %	50	53
Trichlorofluoromethane, ug/l	50	45	90 %	50	45
1,2,3-Trichloropropane, ug/l	50	45	90 %	50	53
1,2,4-Trimethylbenzene, ug/l	50	51	102 %	50	47
1,3,5-Trimethylbenzene, ug/l	50	49	98 %	50	45
Vinyl chloride, ug/l	50	43	86 %	50	43
o-Xylene, ug/l	50	49	98 %	50	49
m&p-Xylene, ug/l	100	97	97 %	100	96
Surrogate - Dibromofluoromethane	50	9.20	92 %	50	10.16
Surrogate - Toluene-d8	50	9.93	99 %	50	9.98
Surrogate - 4-Bromofluorobenzene	50	9.92	99 %	50	10.07
Dilution Factor	---	5	---	---	5
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	12:03	---	---	12:44
Batch ID	BUW149	BUW149	BUW149	BUW149	BUW149
Prep Method	---	5030B	---	---	5030B
Analyst	---	GH	---	---	GH

025

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-15	Matrix Spike Duplicate % Recovery	
10655-16	MS Accuracy Advisory Limit (%R)	
10655-17	Precision (%RPD) MS/MSD	
10655-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10655-15	10655-16	10655-17	10655-18
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	92 %	90-110	4	20
Batch ID	AEW059	AEW059	AEW059	AEW059
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	104 %	67-126	1	N/A
Nitrite-N, mg/l	86 %	72-128	5	N/A
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B
Chloride (325.2/4500E/9251), mg/l	120 %	81-131	2	20
Batch ID	CKW60B	CKW60B	CKW60B	CKW60B
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	74 %	52-139	29H2	27
Batch ID	TOW021A	TOW021A	TOW021A	TOW021A
Prep Method				
Sulfide (376.1), mg/l	93 %	90-110	8	20
Batch ID	FEW045	FEW045	FEW045	FEW045
Iron, Dissolved (6010B), ug/l	101.8 %	75-125	1.2	20
Batch ID	PD131	PD131	PD131	PD131
Prep Method				

026

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-15	Matrix Spike Duplicate % Recovery	
10655-16	MS Accuracy Advisory Limit (%R)	
10655-17	Precision (%RPD) MS/MSD	
10655-18	MS Precision Advisory Limit (%RPD)	

PARAMETER		10655-15	10655-16	10655-17	10655-18
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l		110 %	41-101	20	6
Surrogate - o-Terphenyl		102 %	82-142	---	---
Surrogate - Nonatriacontane (C39)		82 %	42-193	---	---
Batch ID		FLW191	FLW191	FLW191	FLW191

027

SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-15	Matrix Spike Duplicate % Recovery	
10655-16	MS Accuracy Advisory Limit (%R)	
10655-17	Precision (%RPD) MS/MSD	
10655-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10655-15	10655-16	10655-17	10655-18
Volatile Organic Compounds (8260B)				
Benzene, ug/l	94 %	67-148	0	8
Bromobenzene, ug/l	96 %	73-140	0	14
Bromochloromethane, ug/l	102 %	85-130	10	18
Bromodichloromethane, ug/l	100 %	65-133	10	19
Bromoform, ug/l	110 %	62-124	16	29
Bromomethane (Methyl bromide), ug/l	86 %	59-152	2	17
Carbon tetrachloride, ug/l	88 %	78-121	2	11
Chlorobenzene, ug/l	96 %	66-156	0	10
Chloroethane, ug/l	90 %	73-123	0	10
Chloroform, ug/l	96 %	87-117	4	13
Chloromethane, ug/l	84 %	60-124	5	10
2-Chlorotoluene, ug/l	92 %	85-122	8	15
4-Chlorotoluene, ug/l	96 %	87-122	4	13
Dibromochloromethane, ug/l	104 %	83-122	14	27
Dibromomethane (Methylene bromide), ug/l	104 %	81-130	17	20
1,2-Dibromoethane (EDB), ug/l	104 %	36-153	17	26
1,2-Dibromo-3-chloropropane, ug/l	110 %	71-118	20	33
1,2-Dichlorobenzene, ug/l	98 %	86-120	4	12
1,3-Dichlorobenzene, ug/l	94 %	89-118	2	10
1,4-Dichlorobenzene, ug/l	94 %	78-138	2	10
Dichlorodifluoromethane, ug/l	70 %	35-160	3	12
1,1-Dichloroethane, ug/l	88 %	85-121	0	10

028

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10655
Received: 26 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17031117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10655-15	Matrix Spike Duplicate % Recovery	
10655-16	MS Accuracy Advisory Limit (%R)	
10655-17	Precision (%RPD) MS/MSD	
10655-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10655-15	10655-16	10655-17	10655-18
Toluene, ug/l	92 %	86-123	2	8
1,1,1-Trichloroethane, ug/l	96 %	90-120	0	10
1,1,2-Trichloroethane, ug/l	102 %	85-125	15	20
1,2,3-Trichlorobenzene, ug/l	116 %	49-214	11	33
1,2,4-Trichlorobenzene, ug/l	114 %	30-230	7	32
Trichloroethene, ug/l	91 %	86-115	2	11
Trichlorofluoromethane, ug/l	90 %	84-125	0	10
1,2,3-Trichloropropane, ug/l	106 %	75-127	16	26
1,2,4-Trimethylbenzene, ug/l	94 %	50-158	8	30
1,3,5-Trimethylbenzene, ug/l	90 %	72-140	9	25
Vinyl chloride, ug/l	86 %	74-125	0	9
o-Xylene, ug/l	98 %	76-127	0	13
m&p-Xylene, ug/l	96 %	76-129	1	20
Surrogate - Dibromofluoromethane	102 %	77-119	---	---
Surrogate - Toluene-d8	100 %	78-118	---	---
Surrogate - 4-Bromofluorobenzene	101 %	79-116	---	---
Batch ID	BUW149	BUW149	BUW149	BUW149

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes

Rick Hayes, Project Manager

Final Page Of Report

029

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110655 Date Received: 10-26-01

1.	Was there a Chain of Custody?	(Yes)	No+		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)+*	(Yes) No+ N/A
2.	Was Chain of Custody properly filled out and relinquished?	Yes	(No+)		9.	Is there sufficient volume for analysis requested?	(Yes) No+ N/A *(Can)*
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No+	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes) No+
4.	Were all samples properly labeled and identified?	(Yes)	No+		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes+ (No) N/A
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes+	(No)		12.	If sent, were matrix spike bottles returned?	Yes No+ (N/A)
6.	Were samples received in proper containers for analysis requested?	(Yes)	No+		13.	Was Project Manager notified of problems? (initials: JC) DSIF	(Yes) No+ N/A
7.	Were all sample containers received intact?	(Yes)	No+				

Airbill Number(s): 8307 0936 2087

Shipped By: FED EX

Cooler Number(s): CLIENT

Shipping Charges: N/A

Cooler Weight(s): 10 lb

Cooler Temp(s) (°C): 2°C

(CCK9)
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

2. FOR SAMPLE 12360GAQ401 NO 8oz PLASTIC WAS RECEIVED PRESERVED WITH H_2SO_4. INSTEAD 2 8oz WERE RECEIVED PRESERVED WITH HNO_3. JC 10-26-01

9. WC WILL NEED TO PRESERVE SOME OF THE UNPRESERVED SAMPLE TO RUN THE NNO_3 JC 10-26-01

WC Fla. Two bottles with Diss. Iron Was Received for 17-31606AQ401. One Was Clarker than the other. The lighter one had an "F" on the lid and was used to analyze 24 hr. (JC 10-26-01) (USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS) (DSIF 10)

Inspected By: JC Date: 10-26-01 Logged By: DSIF Date: 10/26/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

C110655

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 152044-7

[3] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.01.03	STL Pensacola Rick Hayes	Steve TSANGARIS Citizm Hill / CCI	4305 W. Cypress St. Ste. 600 TAMPA FL 33607
[4] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO-017	2643	Christelle Newsome CCI / ATL	115 PERIMETER CIR. DR STE. 700 ATLANTA GA
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Christelle Newsome	770-604-9182	850-474-1001	Jennifer Ottoson Citizm Hill	205 INDIAN River Dr. COCOA FL 32922

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs 8260B	NO3-300.1	NO2-300.1	Cl-300.1	Alk-310.1	TDS-160.1	TOC-9060	Sulfide	Flo Pro	Diss. Fe 6010B	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	17-3608BQ401	OLD-36-08B	W	10-25-01	1100	III	14	2	1	1	1	1	1	1	1	1	1	N		1
2	17-3607AQ401	OLD-36-07A	W	10-25-01	1515	III	14	2	1	1	1	1	1	1	1	1	1	N		2
3	17-3606AQ401	OLD-36-06A	W	10-25-01	1545	III	14	2	1	1	1	1	1	1	1	1	1	N		3
4	17-36TB4-Q401	TRIP BLANK	W	10-25-01	—	III	14	2										TB		4
5																				
6																				
7																				
8																				
9																				
10																				

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
ISAAC LYNCH	FED EX 830709367087	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
ISAAC LYNCH - Isaac Lynch	10-25-01	1800	F. Cox or A. Morgan	10-26-01	0915
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

C110655

032

FedEx Express USA Airbill

FedEx Tracking Number 830709367087

Form ID No. 0200

1 From

Date 10-25-01

Sender's Name ISAAC LYNCH Phone 352 339 6820

Company CH2M HILL FECI

Address 1060 WAREHOUSE RD Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To

Recipient's Name RICK HAYES Phone 850 474 1001

Company SVERNT TRENT LABS

Address 3355 MCLEMORE DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8307 0936 7087

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
2	10	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: [illegible]
Labeled by: [illegible]
Delivered by: [illegible]

CH2M-CONST-GA C110655
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
~~32~~ 8 oz. Plastic		✓					HNO_3	4	[illegible]		
16 oz. Plastic	✓						ZnAc/NaOH	3	~~AD~~	10.26.01	1610 ~~1600~~
8 oz. Plastic	✓						0 H_2SO_4	12 2	AD	10.26.01	1610
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCL	3	[illegible]		
500 ml Amber											
250 ml Amber											
~~120~~ 40 ml Amber	✓						H_2SO_4	6	AD	10.26.01	1600
40 ml Vial						✓	HCL	8	[illegible]	10.26.01	16:05
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

033

SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

034

Revised 06/19/01

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

3355 McLemore Drive • Pensacola, FL 32514 • Tel: 850 474 1001 • Fax: 850 478 2671 • www.stl-inc.com
STL Pensacola is a part of Severn Trent Laboratories, Inc.

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension grante

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/0

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

Total Dissolved Solids Worksheet

Method # 160.1, SM2540C

Batch #	TDW095
Prep Date	10/30/01 0815
Run Date	11/01/01 1225

Analyst	ST

	batch sample id's	Conductivity	tare number	sample volume (mls)	dish weight before (g)	dish weight final (g) @ 180c	TDS final result (mg/l)	
Prep Blank	PREP BLANK		411	50	56.0152	56.0154	4.0	ND
LCS-1	LCS 293 mg/l		22	50	56.2965	56.3123	316.0	108%
original 1	110681-1		401	50	50.4522	50.4635	226.0	RPD=
duplicate 1	110681-1		109	50	54.4150	54.4264	228.0	1%
2	-2		421	50	51.9947	52.0027	160.0	
3	-3		131	50	57.8777	57.8895	236.0	
4	110614-1		118	50	51.3138	51.3252	228.0	
5	110660A-1		23	50	56.8714	56.8880	332.0	
6	-2		125	50	54.4643	54.4800	314.0	
7	-3		406	50	52.1925	52.2063	276.0	
8	-4		17	50	55.3776	55.3904	256.0	
9	-5		12	50	61.6718	61.6974	512.0	
10	-6		11	50	55.0926	55.1070	288.0	
LCS-2	LCS 293 mg/l		415	50	49.5176	49.5331	310.0	106%
11	-7		414	50	51.1021	51.1310	578.0	RPD=
duplicate 11	-7		400	50	51.1092	51.1378	572.0	1%
12	-8		314	50	49.7095	49.7381	572.0	
13	-9		123	50	52.2793	52.3078	570.0	
14	-10		409	50	52.5760	52.5773	26.0	
15	110655-1		306	50	51.0210	51.0315	210.0	
16	-2		302	50	52.7715	52.7968	506.0	
17	-3		420	50	52.0843	52.0933	180.0	
18								
19					11-2-01			
20								

Custody for the above referenced samples was maintained by the analyst listed at the top of this page. ST

Q/C Limits		
	Reporting limit is	5 mg/L
	LCS Recovery range limit is	68-120%
	RPD limit is	19.

PROOFED BY AB

DATED 11-2-01

Printed : 11/1/01 12:29

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW059

Analysis Date: 10-26-01 Analysis Time On: 1750 Analysis Time Off: 1830 Data Reviewed By: AB 10/30/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0202

LOT # H_2SO_4 = T3268 Baker
LOT # 0.05N Na_2CO_3 = 7528 mall

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	23.30	H_2SO_4-N -12-10-01	0.02024
10 ml	Na_2CO_3-N- 12-11-01	23.39	H_2SO_4-N- 12-10-01	0.02016

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant HI (B)	ml Titrant LO (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.49	N/A	50 ml		~~0.40~~	12.70	256/>58	=1.0
1. 116611 -1 Q NI		10.54	WA	100		2.98		210	
MS[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 1A		12.70				23.00		232-216/25 = 88%	
MSD[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 1B		10.70				23.12		233-210/25 = 92%	
2. -2		6.87				34.90		350	
3. -3		7.89				5.65		57.0	
4. 116655 -1		5.61				6.59		66.5	
5. -2		5.58				7.37		74	
6. -3		5.68				7.02		70.9	
7.									
8.									
9.				BE 10-30-01					
10.									
[7]Alk-CCV-I- 12-01-01	N/A	10.42	QC	10 ml / 100 ml		25.07		253	1.0
CCB (blank)	N/A	5.60	DI Water			0.20	0.40	ND	
DUP[5]									
11.									
12.									
13.									
14.									
15.				BE 10-30-01					
16.									
17.									
18.									
19.									
20.									
[7]Alk-CCV-I-	N/A		QC	10 ml / 100 ml					
CCB (blank)	N/A		DI Water						

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or "↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

word\forms\alkalin\al-bench.doc (ab 07/03/01)

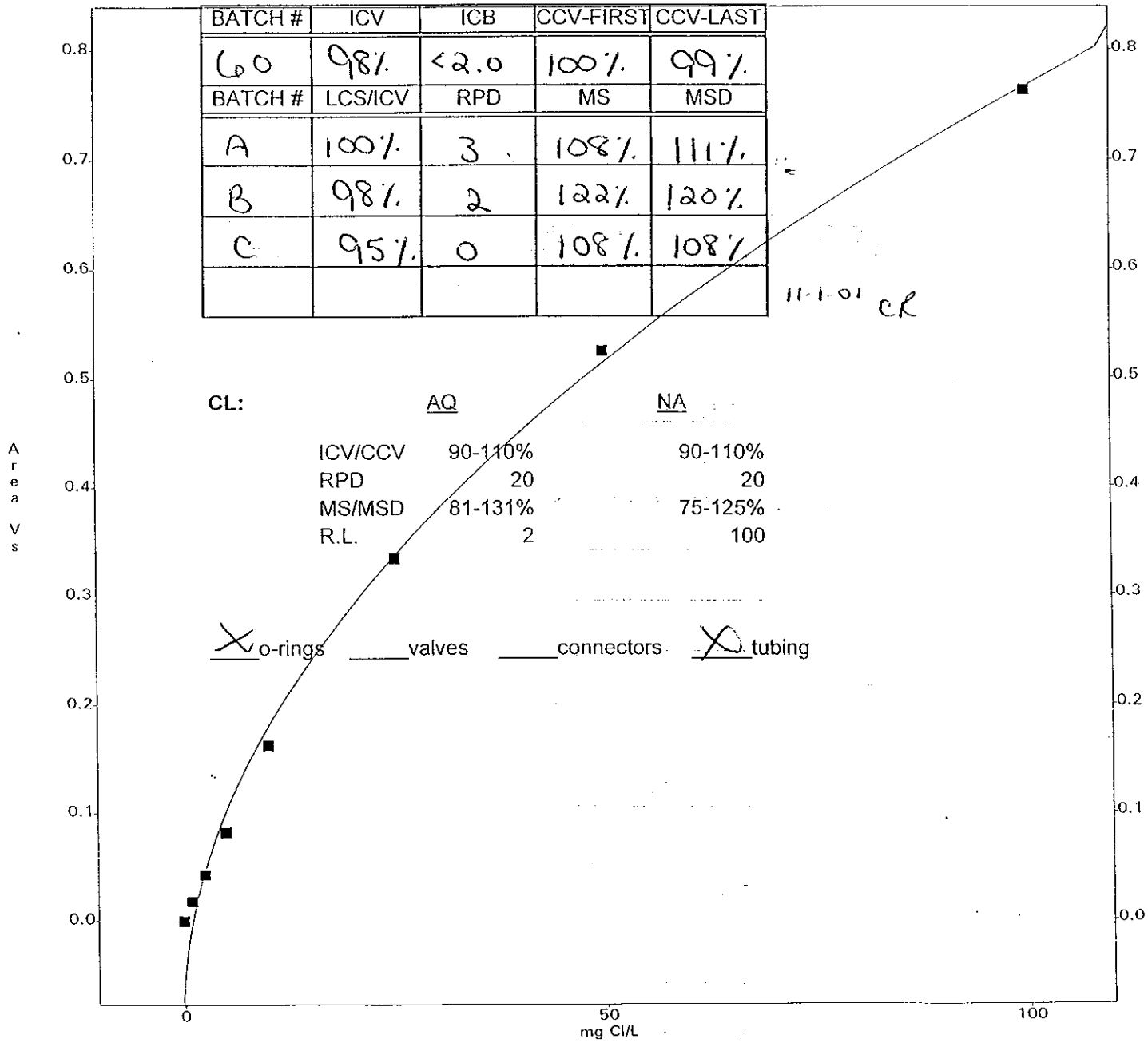
[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

CL 325.2/SM4500CL E/SW9251 CKW60A,B,C

	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	763710	100.0	763710	763710	763710	763710	763710	0.0	0.0	0.7
2	525748	50.0	525748	525748	525748	525748	525748	0.0	0.0	-3.5
3	334290	25.0	334290	334290	334290	334290	334290	0.0	0.0	1.4
4	163072	10.0	163072	163072	163072	163072	163072	0.0	0.0	12.3
5	82474	5.0	82474	82474	82474	82474	82474	0.0	0.0	19.0
6	43492	2.5	43492	43492	43492	43492	43492	0.0	0.0	4.3
7	18512	1.0	18512	18512	18512	18512	18512	0.0	0.0	-54.8
8	0	0.0	0	0	0	0	0	0.0	0.0	

2nd Order Poly
Conc = 1.352e-010 Area² + 2.543e-005 Area + 1.031e+000
r = 0.9996

Scaling: None - Weighting: None



BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
60	98%	<2.0	100%	99%
BATCH #	LCS/ICV	RPD	MS	MSD
A	100%	3	108%	111%
B	98%	2	122%	120%
C	95%	0	108%	108%

11-1-01 CK

CL:	AQ	NA
ICV/CCV	90-110%	90-110%
RPD	20	20
MS/MSD	81-131%	75-125%
R.L.	2	100

X o-rings ____valves ____connectors X tubing

Printed: Friday, November 02, 2001 - 08:31 AM

CKW60A; B; C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 9:58:06
DATA FILENAME: C:\OMNION\DATA\CKW60A.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60A.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	01 Nov 2001	09:58:08	1	763710.00
2	50.0 PPM CHLO	01 Nov 2001	09:58:45	1	525748.00
3	25.0 PPM CHLO	01 Nov 2001	09:59:23	1	334290.00
4	10.0 PPM CHLO	01 Nov 2001	10:00:01	1	163072.00
5	5.00 PPM CHLO	01 Nov 2001	10:00:39	1	82474.00
6	2.50 PPM CHLO	01 Nov 2001	10:01:18	1	43492.00
7	1.00 PPM CHLO	01 Nov 2001	10:01:57	1	18512.00
8	0.00 PPM CHLO	01 Nov 2001	10:02:37	1	0.00

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 – Cup Range: 1 to 90

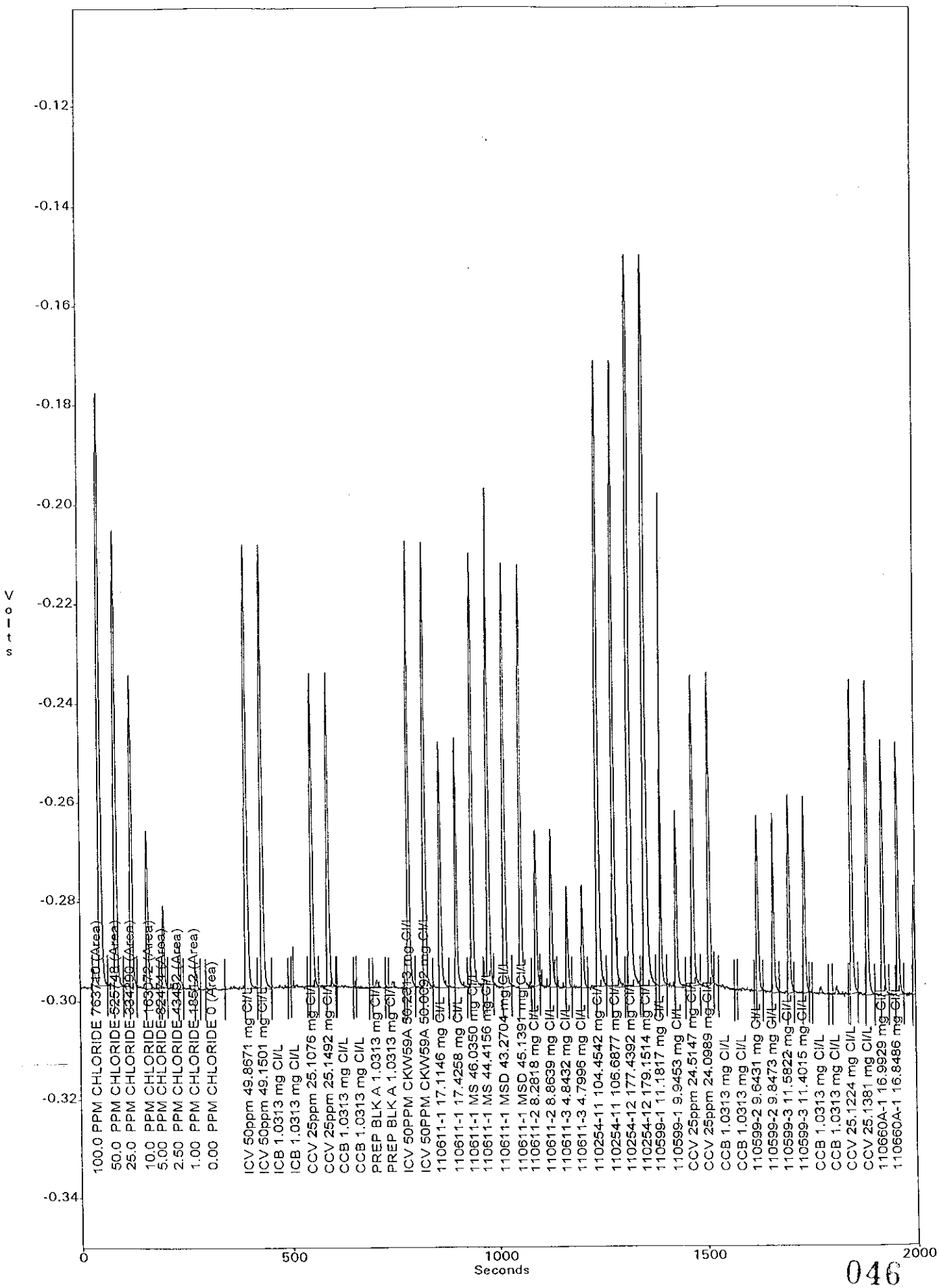
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	01 Nov 2001	10:09:10	1	~0 1.0313	1.0	1.00	1.00000	g
				10:09:48	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	10:10:27	1	100% 50.2313	1.0	1.00	1.00000	g
				10:11:05	2	50.0092				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	01 Nov 2001	10:11:43	1	17.1146	1.0	1.00	1.00000	g
				10:12:22	2	17.4258				
4	110611-1 MS	Spiked	01 Nov 2001	10:13:00	1	46.0350	1.0	1.00	1.00000	g
				10:13:39	2	108% 44.4156				
				Spike Level:		0.0000				
				% Spike Recovery:		RPD=3 100.0000				
5	110611-1 MSD	Dup1	01 Nov 2001	10:14:17	1	111% 43.2704	1.0	1.00	1.00000	g
				10:14:56	2	45.1391				
9	ICV 50ppm	RelChkStd	01 Nov 2001	10:03:55	1	49.8671	1.0	1.00	1.00000	g
				10:04:33	2	98% 49.1501				
				Known Concentration:		50.0000				
				% Difference:		-0.9827				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:06:32	1	25.1076	1.0	1.00	1.00000	g
				10:07:11	2	100% 25.1492				
				Known Concentration:		25.0000				
				% Difference:		0.5137				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:21:50	1	24.5147	1.0	1.00	1.00000	g
				10:22:30	2	96% 24.0989				
				Known Concentration:		25.0000				
				% Difference:		-2.7729				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:37:03	1	24.6973	1.0	1.00	1.00000	g
				10:37:43	2	97% 24.3433				
				Known Concentration:		25.0000				
				% Difference:		-1.9187				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:52:13	1	24.5435	1.0	1.00	1.00000	g
				10:52:52	2	98% 24.7698				
				Known Concentration:		25.0000				
				% Difference:		-1.3734				
16	ICB	Blank	01 Nov 2001	10:05:13	1	~0 1.0313	1.0	1.00	1.00000	g
				10:05:53	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:07:51	1	~0 1.0313	1.0	1.00	1.00000	g
				10:08:31	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:23:10	1	~0 1.0313	1.0	1.00	1.00000	g
				10:23:49	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:38:23	1	~0 1.0313	1.0	1.00	1.00000	g
				10:39:02	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:53:32	1	~0 1.0313	1.0	1.00	1.00000	g
				10:54:11	2	1.0313				

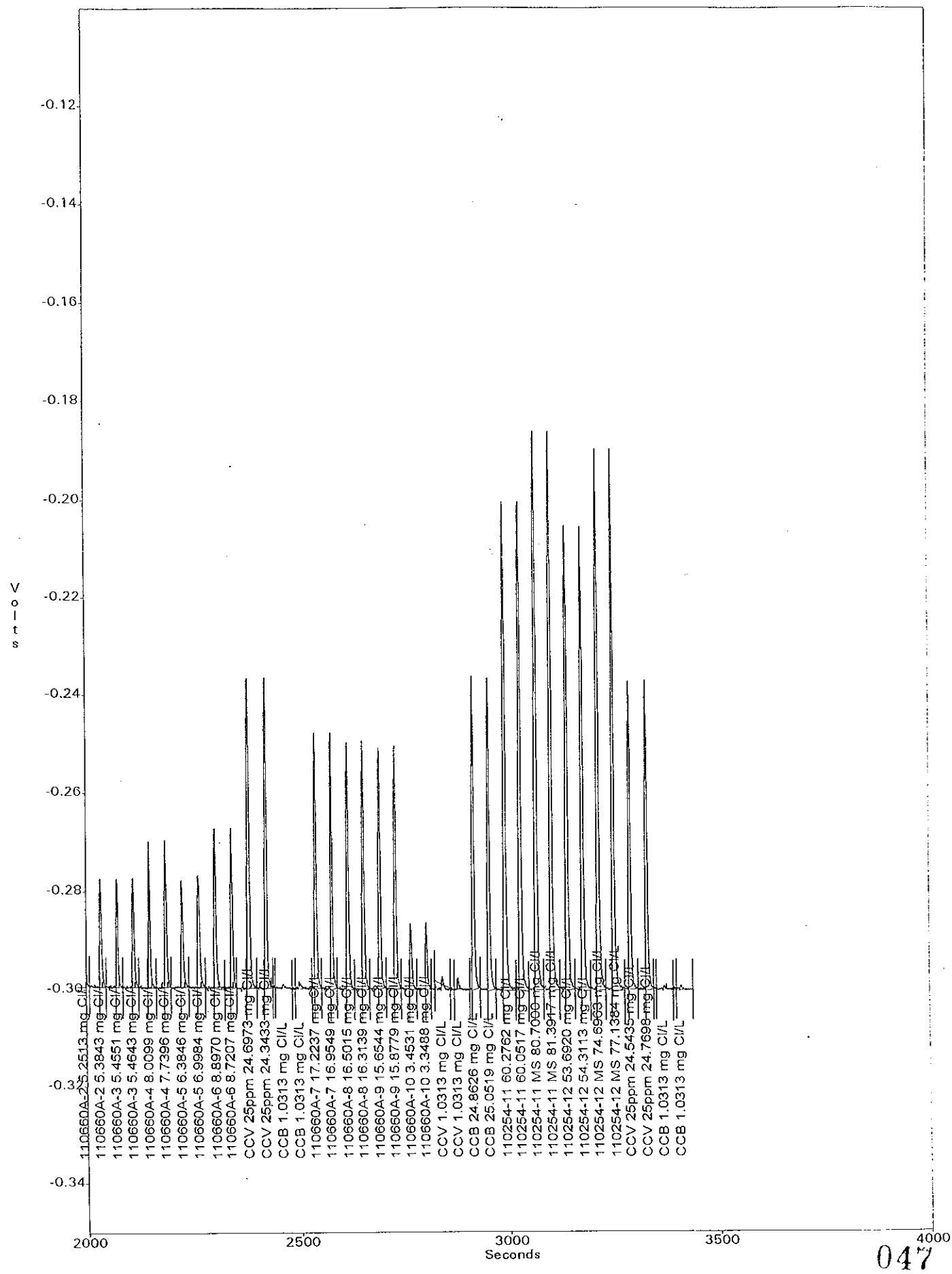
CKW60A, B, C

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110611-2	01 Nov 2001	10:15:34	1	8.2818	1.0	1.00	1.00000	g	
			10:16:11	2	8.8639					
7	110611-3	01 Nov 2001	10:16:49	1	48.4321 1/10	10.0 @	1.00	1.00000	g	
			10:17:26	2	47.9964					
8	110254-11	01 Nov 2001	10:18:03	1	104.4542	1.0	1.00	1.00000	g	See Cup 27
			10:18:41	2	106.6877					
9	110254-12	01 Nov 2001	10:19:18	1	177.4392	1.0	1.00	1.00000	g	29
			10:19:56	2	179.1514					
10	110599-1	01 Nov 2001	10:20:33	1	11.1817	1.0	1.00	1.00000	g	
			10:21:10	2	9.9453					
11	110599-2	01 Nov 2001	10:24:26	1	9.6431	1.0	1.00	1.00000	g	
			10:25:03	2	9.8473					
12	110599-3	01 Nov 2001	10:25:41	1	11.5822	1.0	1.00	1.00000	g	
			10:26:18	2	11.4015					
13	CCB	01 Nov 2001	10:26:55	1	~0 1.0313	1.0	1.00	1.00000	g	
			10:27:33	2	1.0313					
14	CCV	01 Nov 2001	10:28:10	1	100% 25.1224	1.0	1.00	1.00000	g	
			10:28:46	2	25.1381					
15	110660A-1	01 Nov 2001	10:29:23	1	16.9929	1.0	1.00	1.00000	g	
			10:29:59	2	16.8486					
16	110660A-2	01 Nov 2001	10:30:38	1	5.2513	1.0	1.00	1.00000	g	
			10:31:16	2	5.3843					
17	110660A-3	01 Nov 2001	10:31:55	1	5.4551	1.0	1.00	1.00000	g	
			10:32:33	2	5.4643					
18	110660A-4	01 Nov 2001	10:33:11	1	8.0099	1.0	1.00	1.00000	g	
			10:33:50	2	7.7396					
19	110660A-5	01 Nov 2001	10:34:28	1	6.3846	1.0	1.00	1.00000	g	
			10:35:07	2	6.9984					
20	110660A-6	01 Nov 2001	10:35:45	1	8.8970	1.0	1.00	1.00000	g	
			10:36:24	2	8.7207					
21	110660A-7	01 Nov 2001	10:39:40	1	17.2237	1.0	1.00	1.00000	g	
			10:40:19	2	16.9549					
22	110660A-8	01 Nov 2001	10:40:57	1	16.5015	1.0	1.00	1.00000	g	
			10:41:36	2	16.3139					
23	110660A-9	01 Nov 2001	10:42:14	1	15.6544	1.0	1.00	1.00000	g	
			10:42:51	2	15.8779					
24	110660A-10	01 Nov 2001	10:43:29	1	3.4531	1.0	1.00	1.00000	g	
			10:44:06	2	3.3488					
25	CCV 3 / CCB ✓ 11-9-01 CK	01 Nov 2001	10:44:43	1	~0 1.0313	1.0	1.00	1.00000	g	
			10:45:21	2	1.0313					
26		01 Nov 2001	10:45:58	1	100% 24.8626	1.0	1.00	1.00000	g	
			10:46:35	2	25.0519					
27	110254-11	01 Nov 2001	10:47:13	1	120.5524 5/10	2.0	1.00	1.00000	g	
			10:47:50	2	120.1033					
28	110254-11 MS	01 Nov 2001	10:48:28	1	84% 161.3999	↓ 2.0	1.00	1.00000	g	
			10:49:05	2	162.7834					
29	110254-12	01 Nov 2001	10:49:42	1	268.4598 2/10	5.0	1.00	1.00000	g	
			10:50:20	2	271.5565					
30	110254-12 MS	01 Nov 2001	10:50:57	1	91% 373.4813	↓ 5.0	1.00	1.00000	g	
			10:51:33	2	385.6922					

Channel 1 - CL 325.2/SM4500CL E/SW9251




Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
2000
2500
3000
3500
4000
Seconds
110660A-2 5.3843 mg Cl/L
110660A-3 5.4551 mg Cl/L
110660A-3 5.4643 mg Cl/L
110660A-4 8.0099 mg Cl/L
110660A-4 7.7396 mg Cl/L
110660A-5 6.3846 mg Cl/L
110660A-5 6.9984 mg Cl/L
110660A-6 8.8970 mg Cl/L
110660A-6 8.7207 mg Cl/L
CCV 25ppm 24.6973 mg Cl/L
CCV 25ppm 24.3433 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110660A-7 17.2237 mg Cl/L
110660A-7 16.9549 mg Cl/L
110660A-8 16.5015 mg Cl/L
110660A-8 16.3139 mg Cl/L
110660A-9 15.6544 mg Cl/L
110660A-9 15.8779 mg Cl/L
110660A-10 3.4531 mg Cl/L
110660A-10 3.3488 mg Cl/L
CCV 1.0313 mg Cl/L
CCV 1.0313 mg Cl/L
CCB 24.8626 mg Cl/L
CCB 25.0519 mg Cl/L
110254-11 60.2762 mg Cl/L
110254-11 60.0517 mg Cl/L
110254-11 MS 80.7000 mg Cl/L
110254-11 MS 81.3917 mg Cl/L
110254-12 53.6920 mg Cl/L
110254-12 54.3113 mg Cl/L
110254-12 MS 74.6903 mg Cl/L
110254-12 MS 77.1384 mg Cl/L
CCV 25ppm 24.5435 mg Cl/L
CCV 25ppm 24.7698 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

CKW60B

OPERATOR:	C ROBERTS
ACQ. TIME:	Nov 1, 2001 11:21:42
DATA FILENAME:	C:\OMNION\DATA\CKW60B.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW60B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 26, 2001 12:50:11

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK B	Blank	01 Nov 2001	11:24:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:25:02	2	1.0313				
2	ICV 50PPM CKW59B 10/11/01	RelChkStd	01 Nov 2001	11:25:40	1	47.8887	1.0	1.00	1.00000	g
				11:26:19	2	96% 49.0122				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110655-1	Dup1	01 Nov 2001	11:26:57	1	22.9695	1.0	1.00	1.00000	g
				11:27:36	2	22.5327				
4	110655-1 MS	Spiked	01 Nov 2001	11:28:14	1	60.3614	1.0	1.00	1.00000	g
				11:28:53	2	58.7929				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
5	110655-1 MSD	Dup1	01 Nov 2001	11:29:31	1	58.9417	1.0	1.00	1.00000	g
				11:30:09	2	58.7593				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:21:46	1	24.3954	1.0	1.00	1.00000	g
				11:22:26	2	98% 24.6708				
				Known Concentration:		25.0000				
				% Difference:		-1.8676				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:37:04	1	24.4495	1.0	1.00	1.00000	g
				11:37:43	2	97% 24.3504				
				Known Concentration:		25.0000				
				% Difference:		-2.4003				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:52:18	1	24.4839	1.0	1.00	1.00000	g
				11:52:58	2	97% 24.3551				
				Known Concentration:		25.0000				
				% Difference:		-2.3221				
15	CCV 25ppm	RelChkStd	01 Nov 2001	12:01:17	1	24.6365	1.0	1.00	1.00000	g
				12:01:57	2	98% 24.5930				
				Known Concentration:		25.0000				
				% Difference:		-1.5411				
16	CCB	Blank	01 Nov 2001	11:23:06	1	ND 1.0313	1.0	1.00	1.00000	g
				11:23:45	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:38:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:39:03	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:53:38	1	ND 1.0313	1.0	1.00	1.00000	g
				11:54:17	2	1.0313				
16	CCB	Blank	01 Nov 2001	12:02:37	1	ND 1.0313	1.0	1.00	1.00000	g
				12:03:17	2	1.0313				

See C. #24 Sampl spike

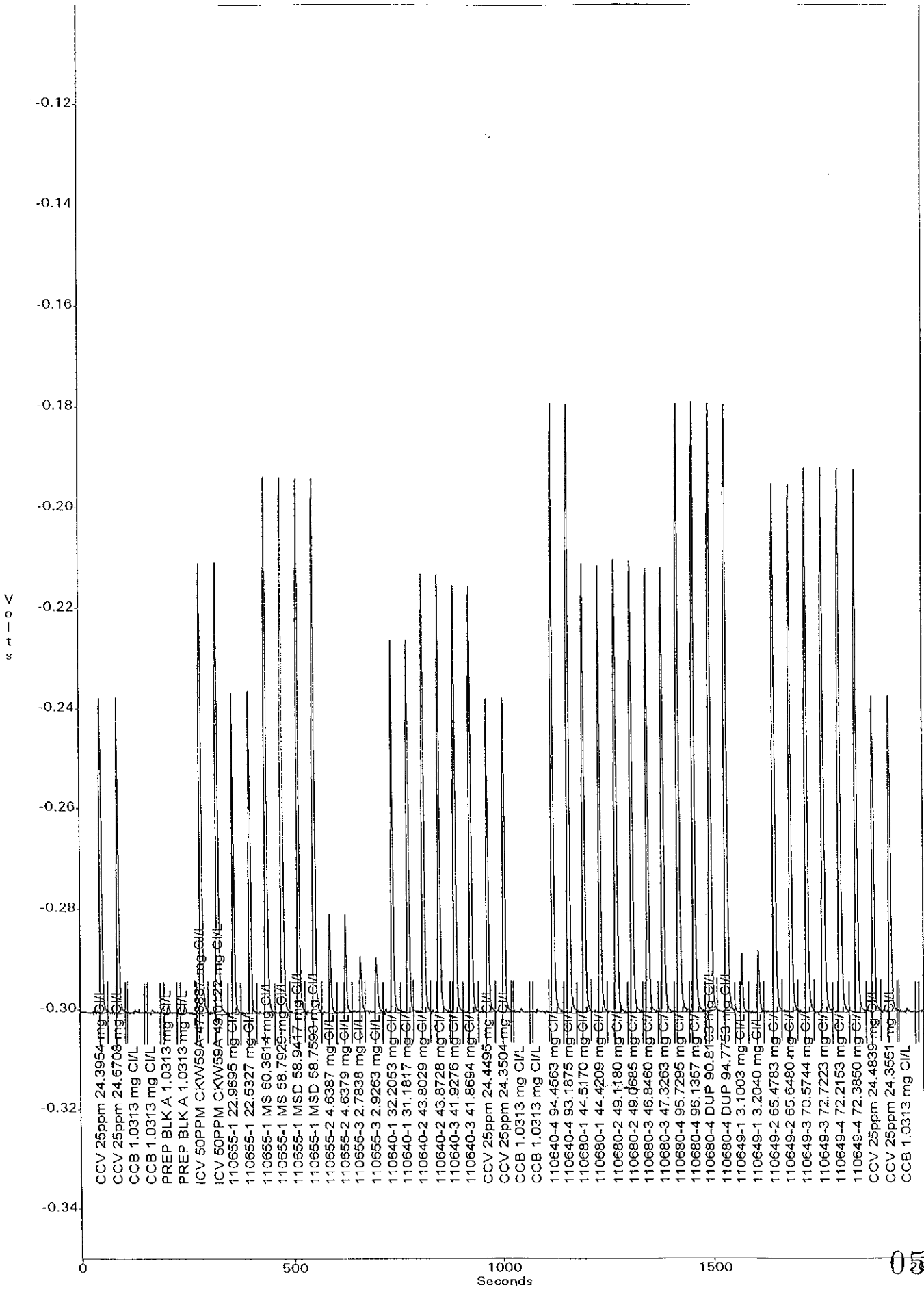
LKWOOD

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

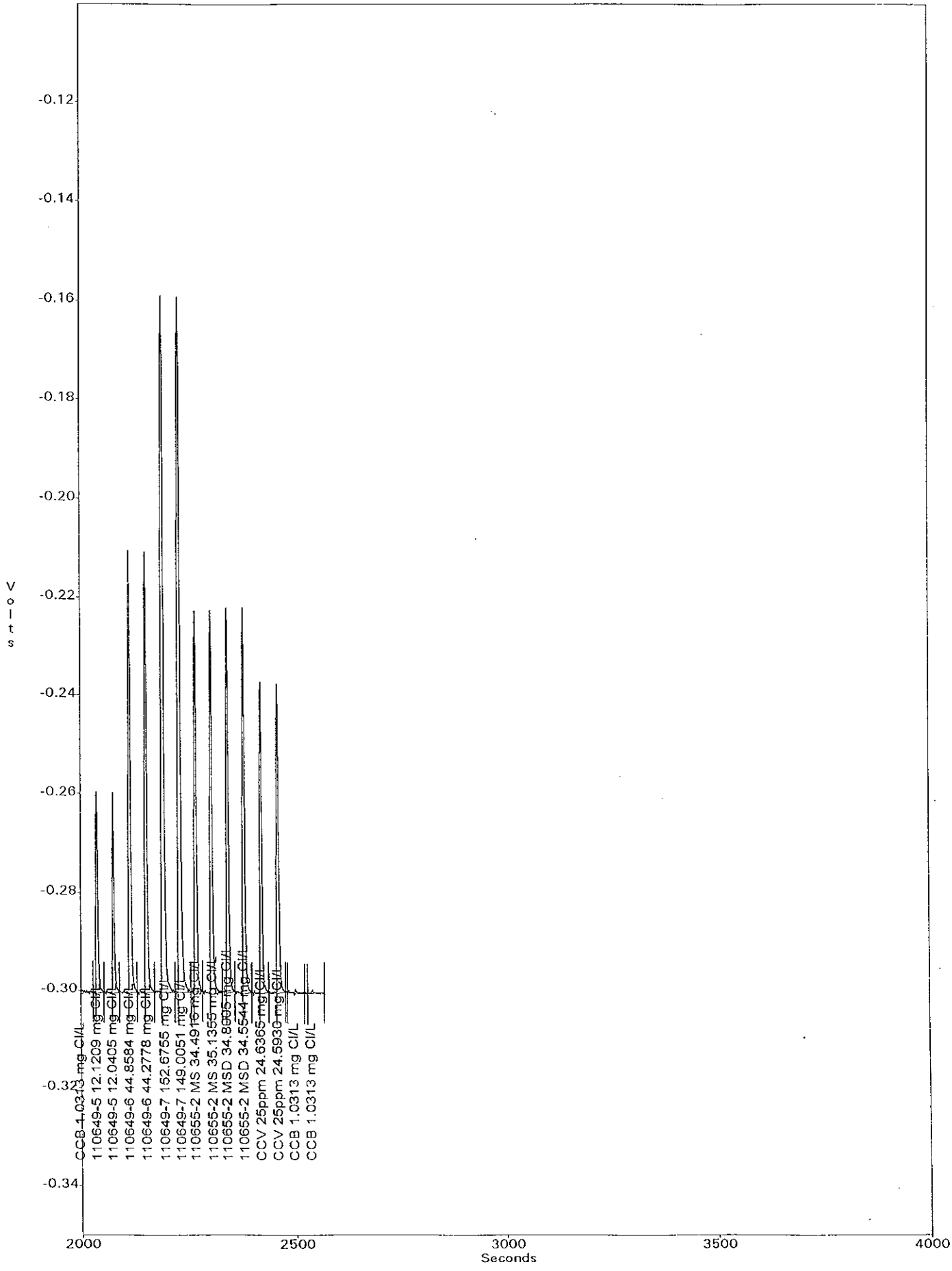
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110655-2	01 Nov 2001	11:30:47	1	115.9687	1/25 25.0	@ 1.00	1.00000	g	
			11:31:25	2	115.9483					
7	110655-3	01 Nov 2001	11:32:02	1	69.5947	↓ 25.0	@ 1.00	1.00000	g	
			11:32:40	2	73.1586					
8	110640-1	01 Nov 2001	11:33:17	1	644.1053	.5/10 20.0	1.00	1.00000	g	
			11:33:54	2	623.6337					
9	110640-2	01 Nov 2001	11:34:32	1	438.0289	1/10 10.0	1.00	1.00000	g	
			11:35:09	2	438.7276					
10	110640-3	01 Nov 2001	11:35:47	1	419.2757	↓ 10.0	1.00	1.00000	g	
			11:36:24	2	418.6936					
11	110640-4	01 Nov 2001	11:39:40	1	94.4563	1.0	1.00	1.00000	g	
			11:40:17	2	93.1875					
12	110680-1	01 Nov 2001	11:40:55	1	890.3407	.5/10 20.0	1.00	1.00000	g	
			11:41:32	2	888.4174					
13	110680-2	01 Nov 2001	11:42:10	1	491.1796	1/10 10.0	1.00	1.00000	g	
			11:42:47	2	490.6851					
14	110680-3	01 Nov 2001	11:43:24	1	468.4598	↓ 10.0	1.00	1.00000	g	
			11:44:01	2	473.2631					
15	110680-4	01 Nov 2001	11:44:37	1	95.7295	1.0	1.00	1.00000	g	
			11:45:14	2	96.1357					
16	110680-4 DUP	01 Nov 2001	11:45:52	1	90.8103	1.0	1.00	1.00000	g	
			11:46:31	2	94.7753					
17	110649-1	01 Nov 2001	11:47:09	1	3.1003	1.0	1.00	1.00000	g	
			11:47:48	2	3.2040					
18	110649-2	01 Nov 2001	11:48:26	1	65.4783	1.0	1.00	1.00000	g	
			11:49:04	2	65.6480					
19	110649-3	01 Nov 2001	11:49:43	1	70.5744	1.0	1.00	1.00000	g	
			11:50:21	2	72.7223					
20	110649-4	01 Nov 2001	11:51:00	1	72.2153	1.0	1.00	1.00000	g	
			11:51:38	2	72.3850					
21	110649-5	01 Nov 2001	11:54:55	1	12.1209	1.0	1.00	1.00000	g	
			11:55:33	2	12.0405					
22	110649-6	01 Nov 2001	11:56:12	1	44.8584	1.0	1.00	1.00000	g	
			11:56:51	2	44.2778					
23	110649-7	01 Nov 2001	11:57:29	1	152.6755	1.0	1.00	1.00000	g	See Cup # 24 Sam Ba
			11:58:08	2	149.0051					
24	110655-2 MS	01 Nov 2001	11:58:46	1	862.2911	1/25 25.0	1.00	1.00000	g	
			11:59:23	2	878.3884					
25	110655-2 MSD	01 Nov 2001	12:00:00	1	870.0118	↓ 25.0	1.00	1.00000	g	
			12:00:38	2	863.8592					

12% RPD=3 120%

Channel 1 - CL 325.2/SM4500CL E/SW9251



Channel 1 - CL 325.2/SM4500CL E/SW9251



052

CKW60C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 13:34:36
DATA FILENAME: C:\OMNION\DATA\CKW60C.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60C.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

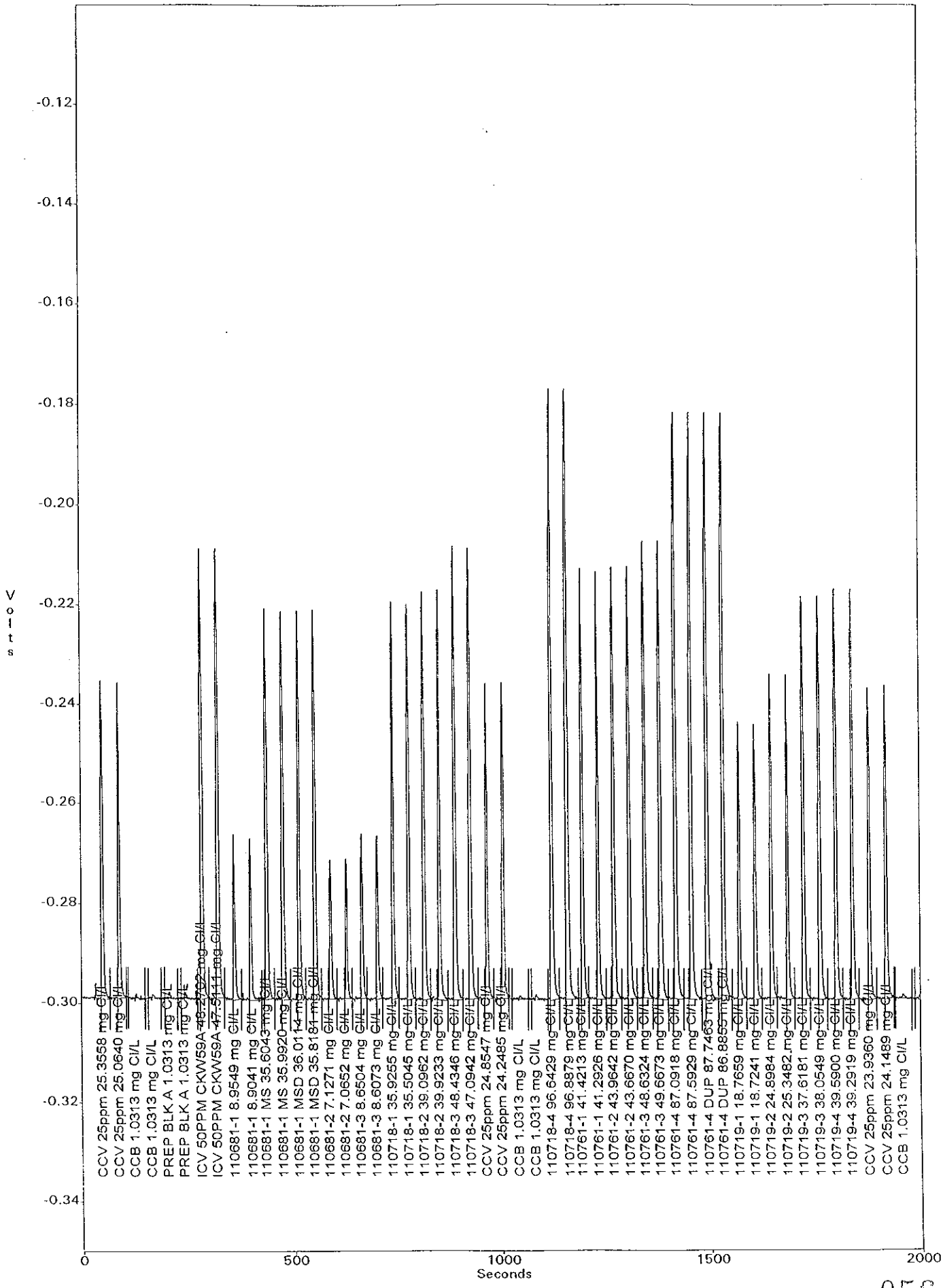
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK	Blank	01 Nov 2001	13:37:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:37:56	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	13:38:34	1	48.2702	1.0	1.00	1.00000	g
				13:39:13	2	95% 47.5111				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110681-1	Dup1	01 Nov 2001	13:39:51	1	8.9549	1.0	1.00	1.00000	g
				13:40:30	2	8.9041				
4	110681-1 MS	Spiked	01 Nov 2001	13:41:08	1	108% 35.6043	1.0	1.00	1.00000	g
				13:41:47	2	35.9920				
				Spike Level:		RPD=0 0.0000				
				% Spike Recovery:		100.0000				
5	110681-1 MSD	Dup1	01 Nov 2001	13:42:25	1	108% 36.0114	1.0	1.00	1.00000	g
				13:43:03	2	35.8181				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:34:40	1	25.3558	1.0	1.00	1.00000	g
				13:35:20	2	100% 25.0640				
				Known Concentration:		25.0000				
				% Difference:		0.8396				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:49:57	1	24.8547	1.0	1.00	1.00000	g
				13:50:37	2	97% 24.2485				
				Known Concentration:		25.0000				
				% Difference:		-1.7937				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:05:11	1	23.9360	1.0	1.00	1.00000	g
				14:05:50	2	96% 24.1489				
				Known Concentration:		25.0000				
				% Difference:		-3.8301				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:12:55	1	23.5740	1.0	1.00	1.00000	g
				14:13:35	2	94% 23.4090				
				Known Concentration:		25.0000				
				% Difference:		-6.0339				
16	CCB	Blank	01 Nov 2001	13:36:00	1	ND 1.0313	1.0	1.00	1.00000	g
				13:36:39	2	1.0313				
16	CCB	Blank	01 Nov 2001	13:51:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:51:57	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:06:30	1	ND 1.0313	1.0	1.00	1.00000	g
				14:07:10	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:14:15	1	ND 1.0313	1.0	1.00	1.00000	g
				14:14:54	2	1.0313				

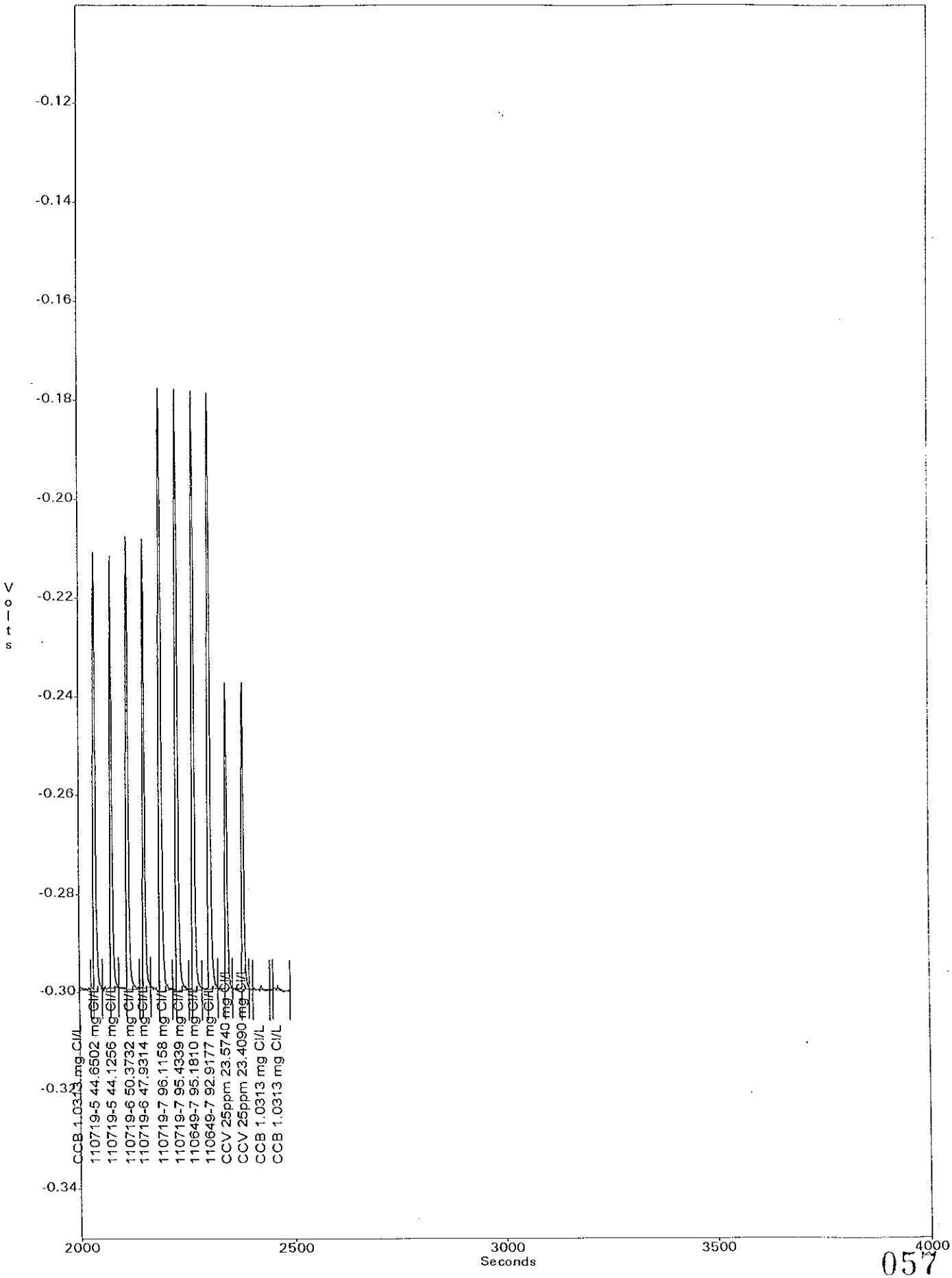
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110681-2	01 Nov 2001	13:43:41	1	7.1271	1.0	1.00	1.00000	g
			13:44:18	2	7.0652				
7	110681-3	01 Nov 2001	13:44:56	1	8.6504	1.0	1.00	1.00000	g
			13:45:33	2	8.6073				
8	110718-1	01 Nov 2001	13:46:11	1	718.5095	.5/10 20.0	1.00	1.00000	g
			13:46:48	2	710.0909				
9	110718-2	01 Nov 2001	13:47:25	1	390.9624	1/10 10.0	1.00	1.00000	g
			13:48:03	2	399.2334				
10	110718-3	01 Nov 2001	13:48:40	1	484.3456	1/10 10.0	1.00	1.00000	g
			13:49:18	2	470.9424				
11	110718-4	01 Nov 2001	13:52:33	1	96.6429	1.0	1.00	1.00000	g
			13:53:11	2	96.8879				
12	110761-1	01 Nov 2001	13:53:48	1	828.4258	.5/10 20.0	1.00	1.00000	g
			13:54:26	2	825.8515				
13	110761-2	01 Nov 2001	13:55:03	1	439.6416	1/10 10.0	1.00	1.00000	g
			13:55:40	2	436.6700				
14	110761-3	01 Nov 2001	13:56:17	1	486.3237	↓ 10.0	1.00	1.00000	g
			13:56:53	2	496.6732				
15	110761-4	01 Nov 2001	13:57:29	1	87.0918	1.0	1.00	1.00000	g
			13:58:06	2	87.5929				
16	110761-4 DUP	01 Nov 2001	13:58:45	1	87.7463	1.0	1.00	1.00000	g
			13:59:23	2	86.8855				
17	110719-1	01 Nov 2001	14:00:02	1	375.3183	.5/10 20.0	1.00	1.00000	g
			14:00:40	2	374.4811				
18	110719-2	01 Nov 2001	14:01:19	1	248.9843	1/10 10.0	1.00	1.00000	g
			14:01:57	2	253.4816				
19	110719-3	01 Nov 2001	14:02:36	1	376.1814	1/10 10.0	1.00	1.00000	g
			14:03:14	2	380.5491				
20	110719-4	01 Nov 2001	14:03:52	1	791.7993	.5/10 20.0	1.00	1.00000	g
			14:04:31	2	785.8374				
21	110719-5	01 Nov 2001	14:07:48	1	446.5019	1/10 10.0	1.00	1.00000	g
			14:08:26	2	441.2558				
22	110719-6	01 Nov 2001	14:09:05	1	503.7319	↓ 10.0	1.00	1.00000	g
			14:09:43	2	479.3140				
23	110719-7	01 Nov 2001	14:10:22	1	96.1158	1.0	1.00	1.00000	g
			14:11:00	2	95.4339				
24	110649-7	01 Nov 2001	14:11:38	1	190.3621	5/10 2.0	1.00	1.00000	g
			14:12:16	2	185.8354				

Channel 1 - CL 325.2/SM4500CL E/SW9251



Channel 1 - CL 325.2/SM4500CL E/SW9251



STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LB

Time 700

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-21-01	Prep Blk	Diwater	CKW160A
	ICV	↓	
	110611-1	WW	
	-2		
	-3		
	110254-11		
	-12		
	110599-1		
	-2		
	-3		
	110660A-1		
	2		
	3		
	4		
	-5		
	-6		
	-7		
	-8		
	-9		
↓	110660A -10	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LD

Tmc 830

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	Prep Blk	DI Wat	CKW60B
	ICV	↓	
	110655-1	ww	
	-2		
	-3		
	110640-1		
	-2		
	-3		
	-4		
	110680-1		
	2		
	3		
	4		
	110649-1		
	2		
	-3		
	-4		
	-5		
	-6		
↓	-7	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST RB Time 10:00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	PrepBlk	DI water	CKW60C
	ICV	↓	
	~~LCS~~ 110681-1	WW	
	-2		
	-3		
	110718-1		
	2		
	3		
	4		
	110761-1		
	2		
	3		
	4		
	110719-1		
	2		
	3		
	4		
	5		
	6		
↓	7	↓	

060

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/31/01 | Preparation[1] Time On: 0940 | Preparation[1] Time Off: 1015

Analysis Date: 10/31/01 | Analysis Time On: 1020 | Analysis Time Off: 1450

1#: FEN045

Chemist[2]: BH | Data Reviewed By: AB 11/2/01

RPD: 20
Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$= (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0244 LOT # $Na_2S_2O_3$ = 8180 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0248 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.74	0.025 N $Na_2S_2O_3$	0.02442	5	5.07	0.025 N I_2	0.02474
5.75	↓	0.02438	5	5.08	↓	0.02479

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.10	ND	1.0
SF-LCS-S[7] 12-28-01	N/A	0.2/100 ml	↓	10	5.42	18.5/20.0=	1.0 93%
Prep Blank (distilled)	DI Water	100 ml	N/A				
1 110611-1	Wa	200		5	2.93	4.2	1.0
MS[6] (10 ppm) -1B		.2/200		10	3.61	12.8-4.2/10.0=86%	
MSD[6] (10 ppm) -1A		.2/200		10	3.23	13.5-4.2/10.0=93%	
2 -2		200		5	3.98	2.2	1.0
3 -3		200		5	3.40	3.3	
4 110655-1		200		5	3.61	2.9	
5 -2		200		5	4.77	ND	
6 -3		200		5	5.12	ND	
7 110681-1		200		5	5.17	ND	
8 -2		200		5	5.14	ND	
9 -3		200		5	5.51	ND	
10 110649-1	↓	200		5	5.59	ND	↓
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls		10	5.40	18.6/20.0=	1.0 93%
CCB (blank)	DI Water	100 mls		5	5.05	ND	1.0
DUP[5] 110649-1	Wa	200		5	5.45	ND	
11 -2		200		5	5.10	ND	
12 -3		200		5	5.00	ND	
13 -4		200		5	4.92	ND	
14 110728-1	↓	200		5	5.11	ND	
15 110649-5	Wa	200	Wa	5	5.18	ND	
16 -6	↓	200	↓	5	5.61	ND	
17 -7	↓	200	↓	5	5.09	ND	↓
18 110728-1 MS	Wa	200	Wa	10	4.95	10.2/10.0=	102%
~~19~~			BH 10/31/01				
~~20~~							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	Wa	10	5.46	18.4/20.0=	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.04	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = [(ml iodine x N iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16000 / ml of sample or g of sample = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) mg sulfide x 24.4 x 1000 / 32 = µl H_2S (3) µl H_2S / 20 L gas = ppmv H_2S

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[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

" = Duplicate sample; please specify the laboratory sample accession number.(sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

N3S1665

N02N03 353.2/SM4500NO3 F

N3W66A;B

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	50490048	5.0	50490048					0.0	0.0	1.7
2	32248636	3.0	32248636					0.0	0.0	-4.0
3	11044707	1.0	11044707					0.0	0.0	-3.5
4	5613984	0.5	5613984					0.0	0.0	-0.2
5	1315818	0.1	1315818					0.0	0.0	21.7
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.837e-008 Area - 5.114e-002
r = 0.9993

Scaling: None - Weighting: None

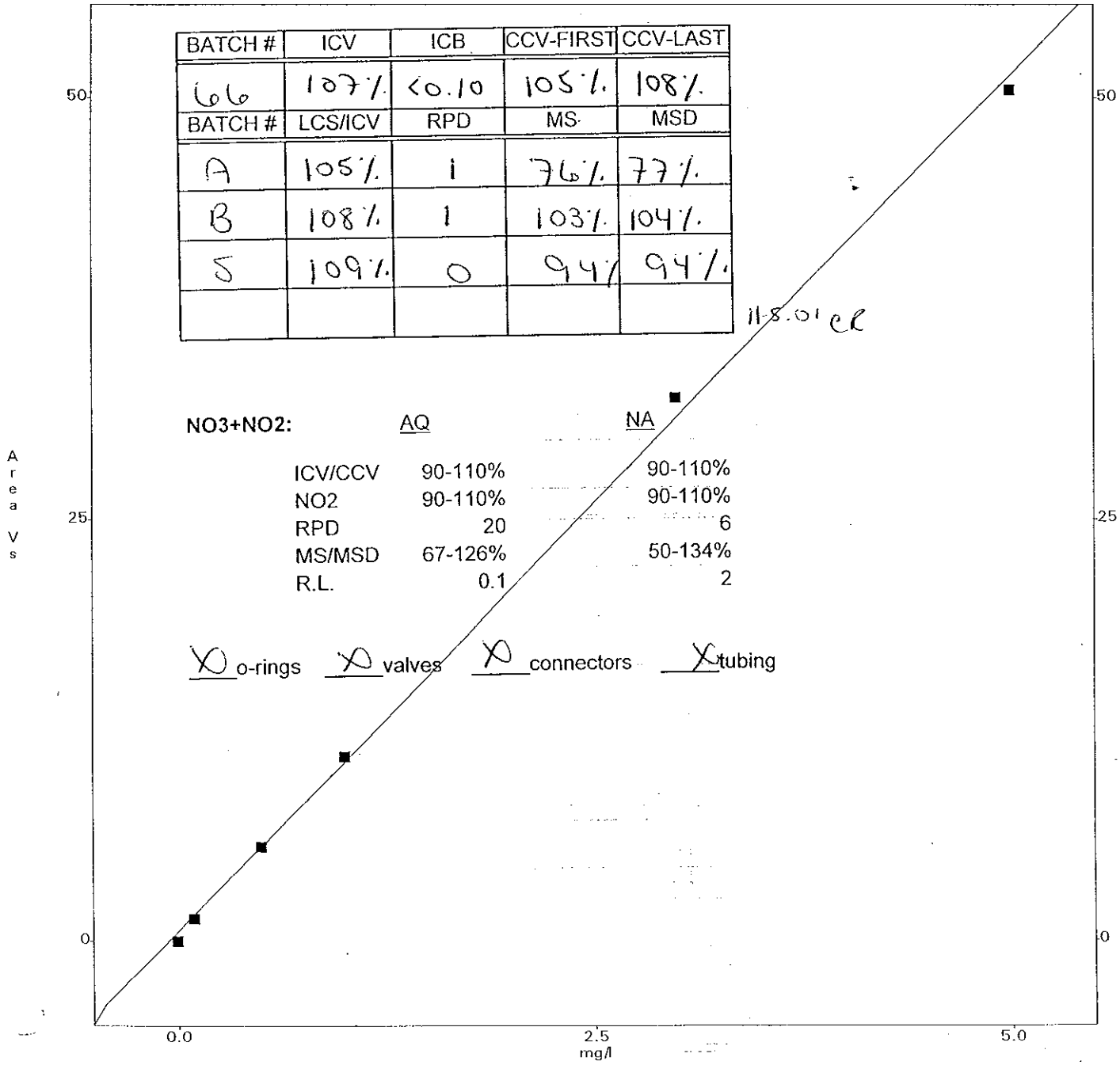
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
66	107%	<0.10	105%	108%
BATCH #	LCS/ICV	RPD	MS	MSD
A	105%	1	76%	77%
B	108%	1	103%	104%
5	109%	0	94%	94%

11-8-01 cl

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings X valves X connectors X tubing



Printed: Monday, November 05, 2001 - 08:37 AM

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N3S66S

OPERATOR: C ROBERTS
ACQ. TIME: Nov 5, 2001 8:00:07
DATA FILENAME: C:\OMNION\DATA\NO3\N3W66A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W66A.TRA

TRAY DESCRIPTION:
Created: Nov 5, 2001 7:46:22
Modified: Nov 5, 2001 10:23:57
N3W66A
DATA DESCRIPTION:
Created: Nov 5, 2001 8:00:07
Modified: Nov 5, 2001 8:00:07

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 29, 2001 14:23:06
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	05 Nov 2001	08:00:09	1	50490048.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	05 Nov 2001	08:01:01	1	32248636.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	05 Nov 2001	08:01:54	1	11044707.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	05 Nov 2001	08:02:47	1	5613984.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	05 Nov 2001	08:03:41	1	1315818.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	05 Nov 2001	08:04:34	1	0.00	1.0	1.00	1.00000	g

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N3W66A,B
N35665

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 15

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	05 Nov 2001	08:14:17	1	ND -0.0511	1.0	1.00	1.00000	g
				08:15:12	2	-0.0511				
2	ICV 2.0PPM N3W66A	RelChkStd	05 Nov 2001	08:16:04	1	105% 2.1287	1.0	1.00	1.00000	g
				08:16:58	2	2.0996				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110660A-3	Dup1	05 Nov 2001	08:17:50	1	3.8886	1.0	1.00	1.00000	g
				08:18:43	2	3.9171				
4	110660A-3 MS	Spiked	05 Nov 2001	08:19:36	1	76% 4.7417	1.0	1.00	1.00000	g
				08:20:29	2	4.6740				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD: 1 80.4942				
5	110660A-3 MSD	Spiked	05 Nov 2001	08:21:22	1	4.7392	1.0	1.00	1.00000	g
				08:22:15	2	77% 4.6859				
				Spike Level:		1.0000				
				% Spike Recovery:		80.9660				
7	ICV 2.0PPM	RelChkStd	05 Nov 2001	08:09:26	1	107% 2.1327	1.0	1.00	1.00000	g
				Known Concentration:		0.0000				
				% Difference:		0.0000				
8	NO2	RelChkStd	05 Nov 2001	08:12:11	1	5.0613	1.0	1.00	1.00000	g
				Known Concentration:		101% 5.0000				
				% Difference:		1.2263				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:06:42	1	3.1698	1.0	1.00	1.00000	g
				Known Concentration:		105% 3.0000				
				% Difference:		5.6585				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:31:56	1	3.1981	1.0	1.00	1.00000	g
				Known Concentration:		106% 3.0000				
				% Difference:		6.6045				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:52:15	1	3.2082	1.0	1.00	1.00000	g
				Known Concentration:		107% 3.0000				
				% Difference:		6.9389				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:12:30	1	3.1988	1.0	1.00	1.00000	g
				Known Concentration:		106% 3.0000				
				% Difference:		6.6277				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:33:02	1	3.2165	1.0	1.00	1.00000	g
				Known Concentration:		107% 3.0000				
				% Difference:		7.2181				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:55:13	1	3.2153	1.0	1.00	1.00000	g
				Known Concentration:		107% 3.0000				
				% Difference:		7.1757				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	10:15:35	1	3.2407	1.0	1.00	1.00000	g
				Known Concentration:		108% 3.0000				
				% Difference:		8.0225				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	10:29:05	1	3.2420	1.0	1.00	1.00000	g
				Known Concentration:		108% 3.0000				
				% Difference:		8.0658				

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N3S665

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 16 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
16	CCB Blank	Blank	05 Nov 2001	08:07:36	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:08:31	2	-0.0511					
16	ICB BLANK	Blank	05 Nov 2001	08:10:21	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:11:16	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	08:32:51	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:33:46	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	08:53:10	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:54:05	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:13:25	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:14:20	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:33:56	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:34:52	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:56:08	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:57:03	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	10:16:29	1	~ND -0.0511	1.0	1.00	1.00000	g	
				10:17:24	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	10:30:00	1	~ND -0.0511	1.0	1.00	1.00000	g	
				10:30:55	2	-0.0511					
26	PREP BLK B	Blank	05 Nov 2001	09:03:48	1	~ND -0.0462	1.0	1.00	1.00000	g	
				09:04:40	2	-0.0455					
27	ICV 2.0PPM N3W66B	RelChkStd	05 Nov 2001	09:05:32	1	2.1471	1.0	1.00	1.00000	g	
				09:06:24	2	108% 2.1621					
				Known Concentration:		0.0000					
				% Difference:		0.0000					
28	110655-1	Dup1	05 Nov 2001	09:07:16	1	0.1816	1.0	1.00	1.00000	g	See graph
				09:08:08	2	-0.0511					
29	110655-1 MS	Spiked	05 Nov 2001	09:09:00	1	1.2140	1.0	1.00	1.00000	g	
				09:09:52	2	103% 1.2102					
				Spike Level:		1.0000					
				% Spike Recovery:		RPD=1 114.6846					
30	110655-1 MSD	Spiked	05 Nov 2001	09:10:43	1	1.2223	1.0	1.00	1.00000	g	
				09:11:36	2	104% 1.2238					
				Spike Level:		1.0000					
				% Spike Recovery:		115.7786					
50	PREP BLK S	Blank	05 Nov 2001	09:51:39	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:52:32	2	-0.0511					
51	ICV 2.0PPM N3S66S	RelChkStd	05 Nov 2001	09:53:26	1	2.1709	1.0	1.00	1.00000	g	
				09:54:19	2	2.1726					
				Known Concentration:		109% 0.0000					
				% Difference:		0.0000					
52	110642-1	Dup1	05 Nov 2001	09:57:57	1	7.2059	20.0	1.00	1.00000	g	See Graph
				09:58:50	2	7.1796					
53	110642-1 MS	Spiked	05 Nov 2001	09:59:43	1	7.5603	20.0	1.00	1.00000	g	
				10:00:36	2	7.4756					
				Spike Level:		1.0000					
				% Spike Recovery:		32.5195					
54	110642-1 MSD	Spiked	05 Nov 2001	10:01:29	1	7.3976	20.0	1.00	1.00000	g	
				10:02:22	2	7.5464					
				Spike Level:		1.0000					
				% Spike Recovery:		27.9194					

N3&1665

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

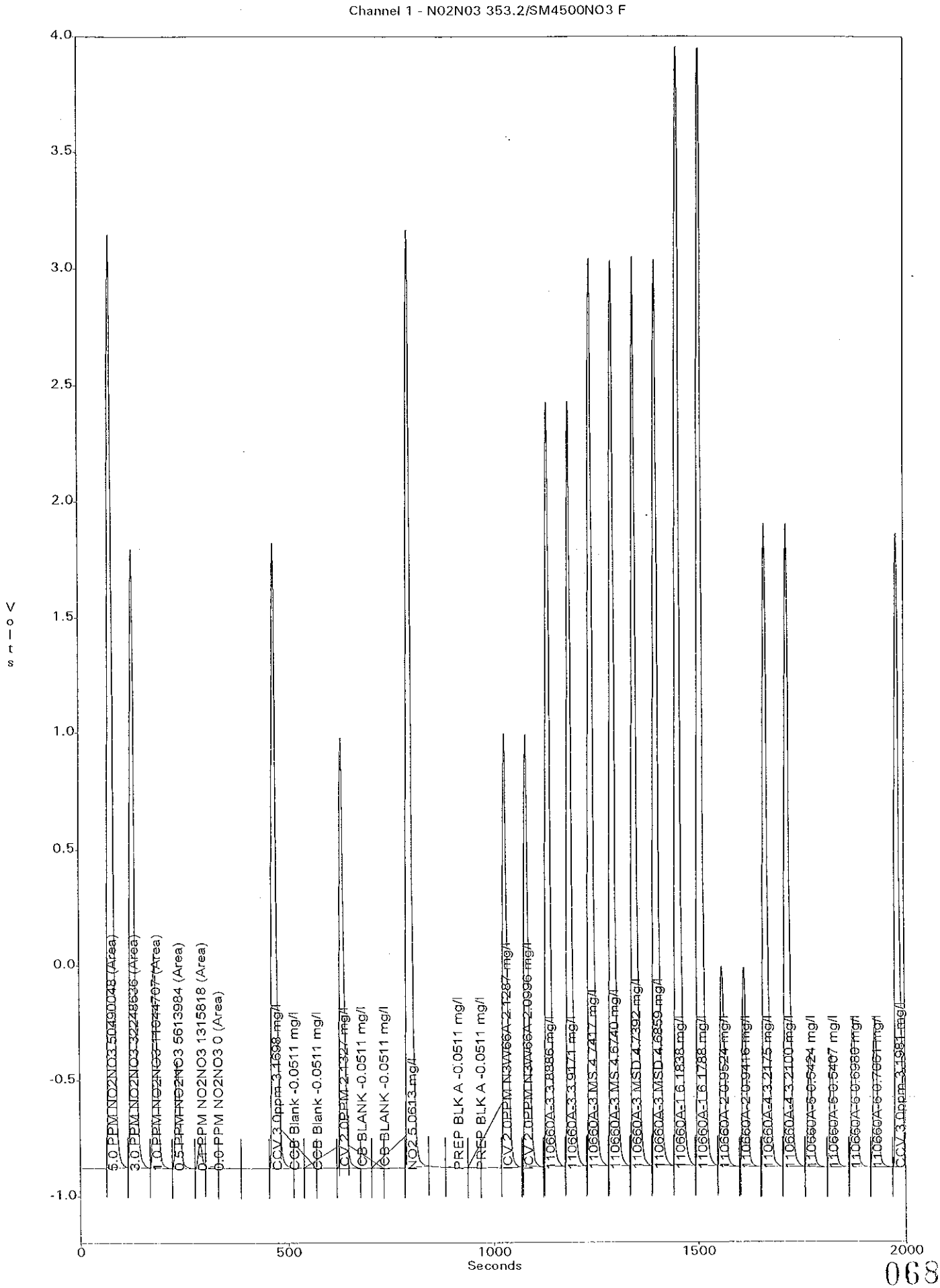
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110660A-1	05 Nov 2001	08:23:08	1	6.1838	1.0	1.00	1.00000	g	See Cup # 55
			08:24:01	2	6.1788					
7	110660A-2	05 Nov 2001	08:24:54	1	0.9524	1.0	1.00	1.00000	g	
			08:25:47	2	0.9416					
8	110660A-4	05 Nov 2001	08:26:40	1	3.2175	1.0	1.00	1.00000	g	
			08:27:33	2	3.2100					
9	110660A-5	05 Nov 2001	08:28:26	1	0.5424	1.0	1.00	1.00000	g	
			08:29:18	2	0.5407					
10	110660A-6	05 Nov 2001	08:30:10	1	0.6980	1.0	1.00	1.00000	g	
			08:31:02	2	0.7061					
11	110660A-7	05 Nov 2001	08:34:38	1	~D 0.0175	1.0	1.00	1.00000	g	
			08:35:30	2	0.0181					
12	110660A-8	05 Nov 2001	08:36:22	1	0.0101	1.0	1.00	1.00000	g	
			08:37:14	2	~D 0.0090					
13	110660A-9	05 Nov 2001	08:38:06	1	0.0348	1.0	1.00	1.00000	g	
			08:38:58	2	~D 0.0338					
14	110660A-10	05 Nov 2001	08:39:50	1	0.1046	1.0	1.00	1.00000	g	See graph
			08:40:42	2	-0.0511					
15	110781-2	05 Nov 2001	08:41:34	1	2.3721	1.0	1.00	1.00000	g	
			08:42:26	2	2.3982					
16	110781-2 DUP	05 Nov 2001	08:43:20	1	2.3961	1.0	1.00	1.00000	g	
			08:44:14	2	2.3928					
17	110680-1	05 Nov 2001	08:45:08	1	66.4934	.5/10 20.0	1.00	1.00000	g	
			08:46:02	2	66.0599					
18	110680-2	05 Nov 2001	08:46:56	1	25.3890	1/10 10.0	1.00	1.00000	g	
			08:47:49	2	25.1494					
19	110680-3	05 Nov 2001	08:48:42	1	40.0656	↓ 10.0	1.00	1.00000	g	
			08:49:35	2	40.4700					
20	110680-4	05 Nov 2001	08:50:28	1	3.1656	1.0	1.00	1.00000	g	
			08:51:21	2	3.1780					
21	110652-1	05 Nov 2001	08:54:58	1	8.0638	1.0	1.00	1.00000	g	See Cup # 63
			08:55:51	2	8.0297					
22	110718-1	05 Nov 2001	08:56:44	1	94.2400	.5/10 20.0	1.00	1.00000	g	
			08:57:37	2	94.4563					
23	110718-2	05 Nov 2001	08:58:30	1	20.2937	1/10 10.0	1.00	1.00000	g	
			08:59:23	2	20.1275					
24	110718-3	05 Nov 2001	09:00:16	1	25.3215	↓ 10.0	1.00	1.00000	g	
			09:01:09	2	25.3433					
25	110718-4	05 Nov 2001	09:02:02	1	3.1656	1.0	1.00	1.00000	g	
			09:02:55	2	3.2139					
31	110655-2	05 Nov 2001	09:15:14	1	0.2101	1.0	1.00	1.00000	g	
			09:16:08	2	0.2087					
32	110655-3	05 Nov 2001	09:17:02	1	0.4976	1.0	1.00	1.00000	g	See graph
			09:17:56	2	-0.0511					
33	110681-1	05 Nov 2001	09:18:50	1	9.1099	1.0	1.00	1.00000	g	See Cup # 58 ~ 5.0 cc
			09:19:44	2	9.1786					
34	110681-2	05 Nov 2001	09:20:38	1	0.8723	1.0	1.00	1.00000	g	See graph
			09:21:31	2	-0.0511					
35	110681-3	05 Nov 2001	09:22:24	1	9.0002	1.0	1.00	1.00000	g	See Cup # 58
			09:23:17	2	9.0145					

N3W660 A, D
N3S6665

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 36 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
36	110719-1	05 Nov 2001	09:24:10	1	70.1110	5/10 20.0	1.00	1.00000	g	
			09:25:03	2	70.0867					
37	110719-2	05 Nov 2001	09:25:56	1	35.5729	1/10 10.0	1.00	1.00000	g	
			09:26:49	2	35.7527					
38	110719-3	05 Nov 2001	09:27:42	1	34.8676	↓ 10.0	1.00	1.00000	g	
			09:28:35	2	34.7783					
39	110719-4	05 Nov 2001	09:29:28	1	80.8472	5/10 20.0	1.00	1.00000	g	
			09:30:21	2	80.4068					
40	110719-5	05 Nov 2001	09:31:14	1	31.7433	1/10 10.0	1.00	1.00000	g	
			09:32:07	2	32.0962					
41	110719-6	05 Nov 2001	09:35:44	1	32.1914	1/10 10.0	1.00	1.00000	g	
			09:36:37	2	31.8018					
42	110719-7	05 Nov 2001	09:37:29	1	3.1432	1.0	1.00	1.00000	g	
			09:38:21	2	3.1488					
43	110719-7 DUP	05 Nov 2001	09:39:13	1	3.1703	1.0	1.00	1.00000	g	
			09:40:05	2	3.1146					
44	110761-1	05 Nov 2001	09:40:57	1	125.1916	20.0	1.00	1.00000	g	See Cup # 59
			09:41:49	2	125.5837					
45	110761-2	05 Nov 2001	09:42:41	1	44.2010	1/10 10.0	1.00	1.00000	g	
			09:43:33	2	44.6336					
46	110761-3	05 Nov 2001	09:44:27	1	31.7355	↓ 10.0	1.00	1.00000	g	
			09:45:21	2	31.8924					
47	110761-4	05 Nov 2001	09:46:15	1	3.3430	1.0	1.00	1.00000	g	
			09:47:09	2	3.3537					
48	111022-1	05 Nov 2001	09:48:03	1	ND 0.0960	1.0	1.00	1.00000	g	
			09:48:57	2	0.0969					
49	111022-2	05 Nov 2001	09:49:51	1	0.1254	1.0	1.00	1.00000	g	
			09:50:45	2	0.1257					
55	110660A-1	05 Nov 2001	10:03:15	1	7.1687	5/10 2.0	1.00	1.00000	g	
			10:04:08	2	7.0814					
56	110652-1	05 Nov 2001	10:05:01	1	10.3714	2.0	1.00	1.00000	g	
			10:05:54	2	10.3765					
57	110681-1	05 Nov 2001	10:06:46	1	15.1449	2/10 5.0	1.00	1.00000	g	
			10:07:39	2	14.9652					
58	110681-3	05 Nov 2001	10:08:32	1	14.7713	2/10 5.0	1.00	1.00000	g	
			10:09:24	2	14.7484					
59	110761-1	05 Nov 2001	10:10:16	1	~~7.0475~~	40 ~~2.0~~	1.00	1.00000	g	
			10:11:08	2	139.6 ~~6.9807~~					
60	110642-1	05 Nov 2001	10:12:00	1	174.5639	5/10 40.0	1.00	1.00000	g	
			10:12:52	2	170.7976					
61	110642-1 MS	05 Nov 2001	10:13:46	1	204.8394	40.0	1.00	1.00000	g	
			10:14:40	2	207.5764					
62	110642-1 MSD	05 Nov 2001	10:18:19	1	207.9074	40.0	1.00	1.00000	g	
			10:19:13	2	206.3452					
63	110652-1	05 Nov 2001	10:20:07	1	11.1435	5/10 5/10 4.0	1.00	1.00000	g	
			10:21:01	2	10.9279					
64	110469-28	05 Nov 2001	10:21:55	1	6.6334	1.0	1.00	1.00000	g	See Cup # 67
			10:22:49	2	6.5299					
65	110642-1 MS	05 Nov 2001	10:23:43	1	286.9211	2/10 100.0	1.00	1.00000	g	
			10:24:37	2	287.9059					
66	110642-1 MSD	05 Nov 2001	10:25:31	1	288.2902	↓ 100.0	1.00	1.00000	g	
			10:26:24	2	288.5767					
67	110469-28	05 Nov 2001	10:27:18	1	7.6026	2.0	1.00	1.00000	g	
			10:28:11	2	7.5968					

067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Volts
Seconds
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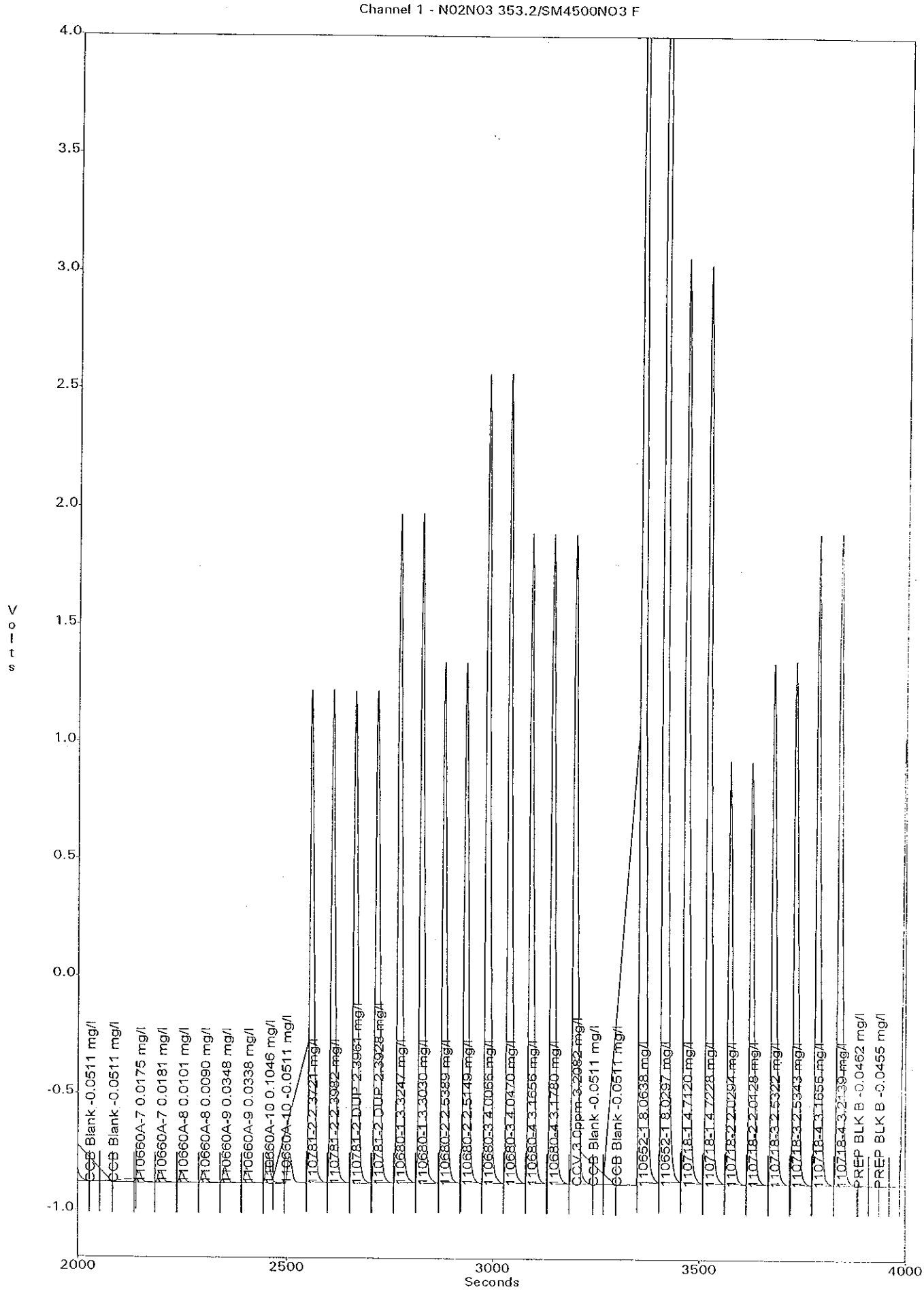
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
0
500
1000
1500
2000
5.0 PPM NO2NO3 5049.0048 (Area)
3.0 PPM NO2NO3 3224.8636 (Area)
1.0 PPM NO2NO3 1104.4707 (Area)
0.5 PPM NO2NO3 5613984 (Area)
0.2 PPM NO2NO3 1315818 (Area)
0.0 PPM NO2NO3 0 (Area)
CCV 3.0ppm 3.1698 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
CV 2.0PPM 2.1327 mg/l
CB BLANK -0.0511 mg/l
CB BLANK -0.0511 mg/l
NO2 5.0613 mg/l
PREP BLK A -0.0511 mg/l
PREP BLK A -0.0511 mg/l
CV 2.0PPM N3W66A 2.1287 mg/l
CV 2.0PPM N3W66A 2.0996 mg/l
110660A-3 3.8886 mg/l
110660A-3 3.9171 mg/l
110660A-3 MS 4.7417 mg/l
110660A-3 MS 4.6740 mg/l
110660A-3 MSD 4.7392 mg/l
110660A-3 MSD 4.6859 mg/l
110660A-1 6.1838 mg/l
110660A-1 6.1788 mg/l
110660A-2 0.9524 mg/l
110660A-2 0.9416 mg/l
110660A-4 3.2175 mg/l
110660A-4 3.2100 mg/l
110660A-5 0.5424 mg/l
110660A-5 0.5407 mg/l
110660A-6 0.6980 mg/l
110660A-6 0.7061 mg/l
CCV 3.0ppm 3.1981 mg/l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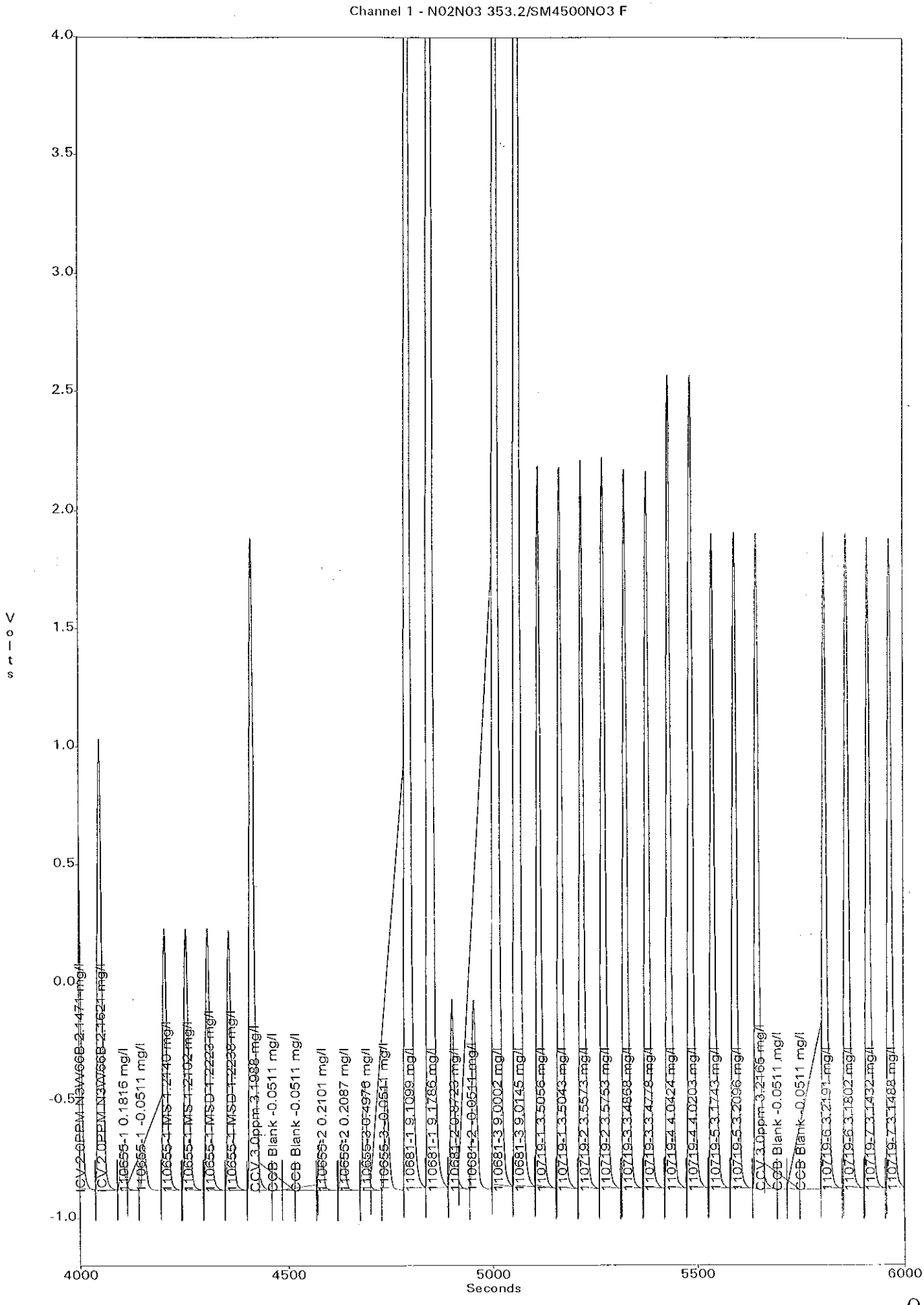
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
2000
2500
3000
3500
4000
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110660A-7 0.0175 mg/l
110660A-7 0.0181 mg/l
110660A-8 0.0101 mg/l
110660A-8 0.0090 mg/l
110660A-9 0.0348 mg/l
110660A-9 0.0338 mg/l
110660A-10 0.1046 mg/l
110660A-10 -0.0511 mg/l
110781-2 2.3721 mg/l
110781-2 2.3992 mg/l
110781-2 DUP 2.3961 mg/l
110781-2 DUP 2.3928 mg/l
110680-1 3.3247 mg/l
110680-1 3.3030 mg/l
110680-2 2.5389 mg/l
110680-2 2.5149 mg/l
110680-3 4.0055 mg/l
110680-3 4.0470 mg/l
110680-4 3.1656 mg/l
110680-4 3.1780 mg/l
CCV 3.0ppm 3.2082 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110652-1 8.0638 mg/l
110652-1 8.0297 mg/l
110718-1 4.7120 mg/l
110718-1 4.7228 mg/l
110718-2 2.0294 mg/l
110718-2 2.0428 mg/l
110718-3 2.5322 mg/l
110718-3 2.5343 mg/l
110718-4 3.1656 mg/l
110718-4 3.2139 mg/l
PREP BLK B -0.0462 mg/l
PREP BLK B -0.0455 mg/l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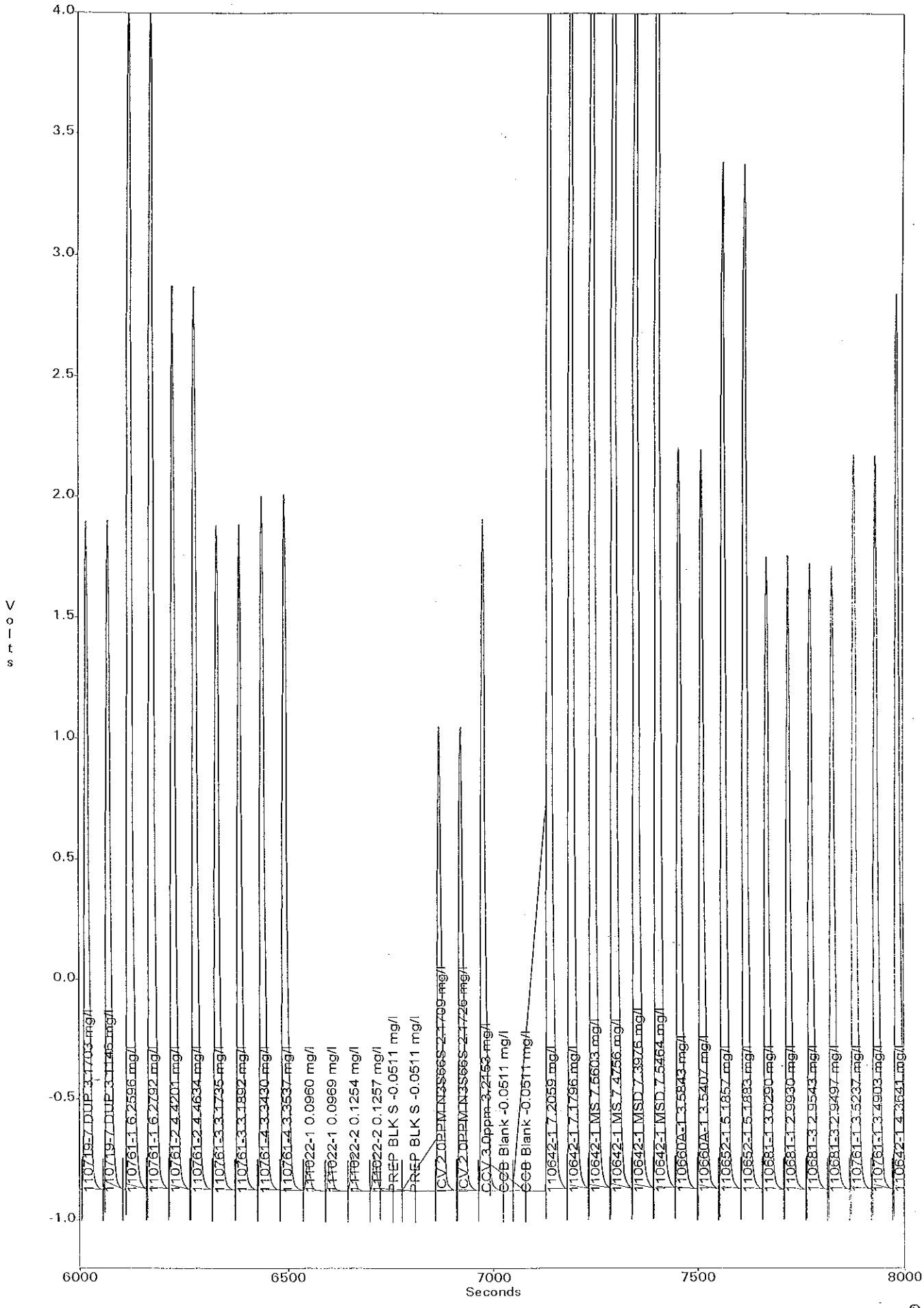
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
4000
4500
5000
5500
6000
Seconds
ICV 2.0PPM NWW66B 2.1474 mg/l
ICV 2.0PPM NWW66B 2.1621 mg/l
110655-1 0.1816 mg/l
110655-1 -0.0511 mg/l
110655-1 MS 1 2.140 mg/l
110655-1 MS 1 2.102 mg/l
110655-1 MSD 1 2.223 mg/l
110655-1 MSD 1 2.238 mg/l
CCV 3.0ppm 3.1988 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110655-2 0.2101 mg/l
110655-2 0.2087 mg/l
110655-3 0.4976 mg/l
110655-3 -0.0511 mg/l
110681-1 9.1099 mg/l
110681-1 9.1786 mg/l
110681-2 0.8723 mg/l
110681-2 -0.0511 mg/l
110681-3 9.0002 mg/l
110681-3 9.0145 mg/l
110719-1 3.5056 mg/l
110719-1 3.5043 mg/l
110719-2 3.5573 mg/l
110719-2 3.5753 mg/l
110719-3 3.4868 mg/l
110719-3 3.4778 mg/l
110719-4 4.0424 mg/l
110719-4 4.0203 mg/l
110719-5 3.1743 mg/l
110719-5 3.2096 mg/l
CCV 3.0ppm 3.2466 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110719-6 3.2191 mg/l
110719-6 3.1802 mg/l
110719-7 3.1432 mg/l
110719-7 3.1488 mg/l

070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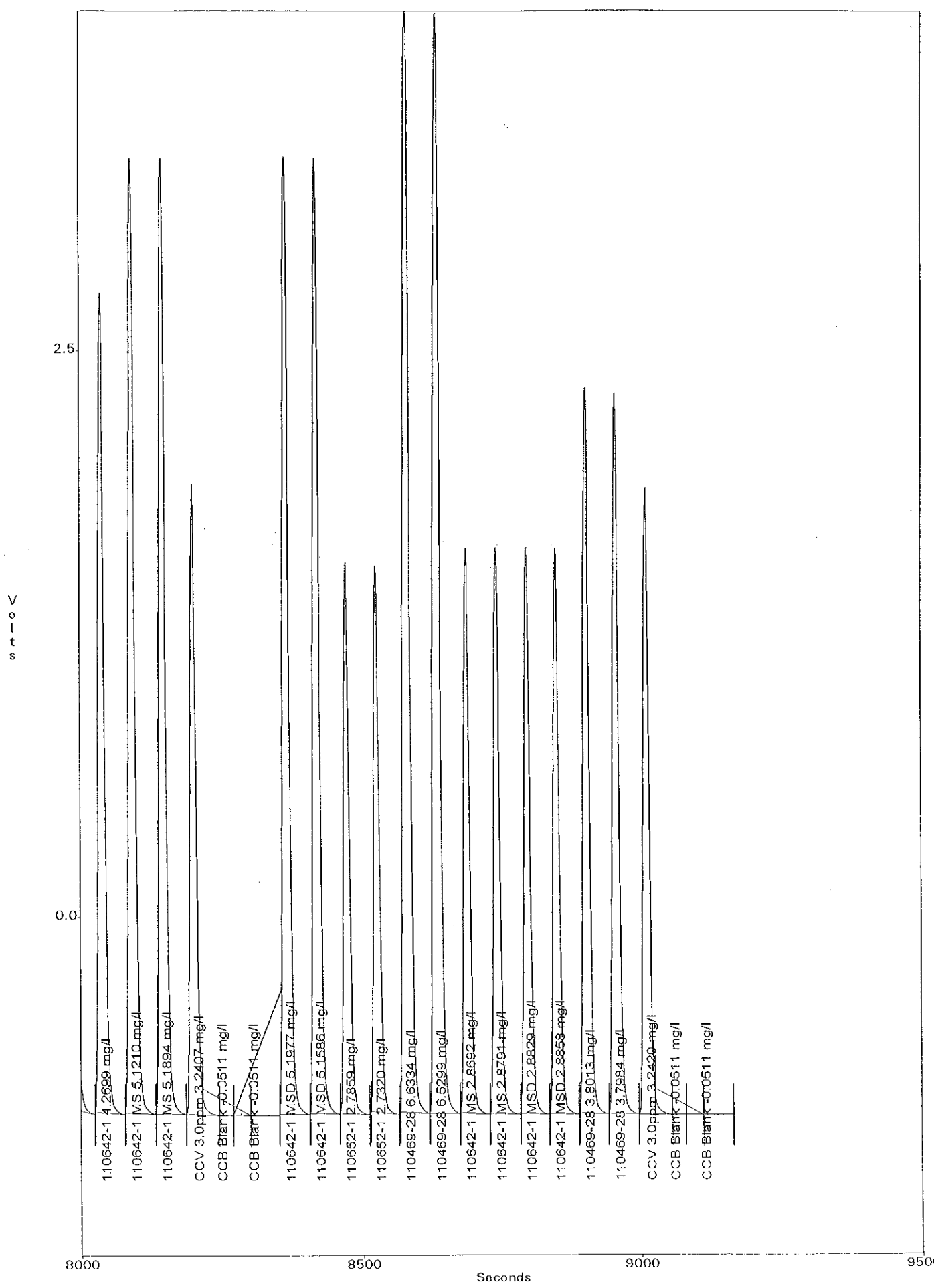
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
6000
6500
7000
7500
8000
110719-7 DUP 3.1703 mg/l
110719-7 DUP 3.1146 mg/l
110761-1 6.2596 mg/l
110761-1 6.2792 mg/l
110761-2 4.4201 mg/l
110761-2 4.4634 mg/l
110761-3 3.1735 mg/l
110761-3 3.1892 mg/l
110761-4 3.3430 mg/l
110761-4 3.3537 mg/l
110642-1 0.0960 mg/l
110642-1 0.0969 mg/l
110642-2 0.1254 mg/l
110642-2 0.1257 mg/l
PREP BLK S -0.0511 mg/l
PREP BLK S -0.0511 mg/l
ICV 2.0PPM N3S66S 2.1709 mg/l
CCV 2.0PPM N3S66S 2.1726 mg/l
CCV 3.0ppm 3.2453 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110642-1 7.2059 mg/l
110642-1 7.1796 mg/l
110642-1 MS 7.5603 mg/l
110642-1 MS 7.4756 mg/l
110642-1 MSD 7.3978 mg/l
110642-1 MSD 7.5464 mg/l
110660A-1 3.5843 mg/l
110660A-1 3.5407 mg/l
110652-1 5.1857 mg/l
110652-1 5.1883 mg/l
110681-1 3.0290 mg/l
110681-1 2.9930 mg/l
110681-2 2.9543 mg/l
110681-2 2.9497 mg/l
110761-1 3.5237 mg/l
110761-1 3.4903 mg/l
110642-1 4.3641 mg/l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2.5
0.0
Volts
8000
8500
9000
9500
Seconds
110642-1 4.2699 mg/l
110642-1 MS 5.1210 mg/l
110642-1 MS 5.1894 mg/l
CCV 3.0ppm 3.2407 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110642-1 MSD 5.1977 mg/l
110642-1 MSD 5.1586 mg/l
110652-1 2.7859 mg/l
110652-1 2.7320 mg/l
110469-28 6.6334 mg/l
110469-28 6.5299 mg/l
110642-1 MS 2.8692 mg/l
110642-1 MS 2.8791 mg/l
110642-1 MSD 2.8829 mg/l
110642-1 MSD 2.8858 mg/l
110469-28 3.8013 mg/l
110469-28 3.7984 mg/l
CCV 3.0ppm 3.2420 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-2-01	Prep Blk		0800 N3W66A
	ICV		
	1106600A-1	WA	
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	-9		
	-10		
	110781-2		
	1106800-1		
	-2		
	-3		
	-4		
	1106652-1		
	110718-1		
	-2		
	-3		
	-4		
	Prep Blk		N3366S
	ICV		
	110642-1	S1 5/100	

073

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-2-01	PrepBlk		0800 N3W666B
	ICV		
	110655-1	WA	
	-2		
	-3		
	110681-1		
	-2		
	-3		
	110719-1		
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	110761-1		
	-2		
	-3		
	-4		
	111022-1		
	-2		
11-5-01	110469-28		

074

REVIEWED AB 10/29/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

	Water	Soil
RPD	20	20
SPIKE	72-128%	70-127%
ICV/CCV	90-110%	90-110%

Chemist[1]: BE Batch #: N2W205

Analysis Date: 10-26-01 Analysis Time On: 1700 Analysis Time Off: 1830

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A	ND	0.10
ICV (0.2 ppm)	NO_2-ICV-I[4] 10-26-01	0.5/25 mL	N/A	0.500	0.191	N/A	0.191/0.20 =	0.10 96%
CCV LOW (0.2 ppm)	NO_2-CCV-I[5] 10-26-01	0.5/25 mL	N/A	0.510	0.195	N/A	0.195/0.2 =	0.10 98%
1 110655 - 1	WA	25	0.182	0.160	0.000	1	ND	0.10
MS[6] (0.2 ppm) - 1	NO_2-CCV-I[5] 10-26-01	0.5/25 mL	1	0.612	0.164	1	0.164/0.2 =	0.10 82%
MSD[6] (0.2 ppm) - 1	NO_2-CCV-I[5] 10-26-01	0.5/25 mL	V	0.632	0.172	↓	0.172/0.2 =	0.10 86% RPD: 4%
2 - 2	↓	1/25	0.081	0.067	0.000	X25	ND	0.10 2.5
3 - 3	↓	1/25	0.039	0.039	0.000	X25	ND	0.10 2.5
4 110660 - 1	↓	25	NA 0.018	0.067	0.004	NA	ND	0.10
5 - 2	↓	↓	NA	0.001	0.001	↓	ND	0.10
6 - 3	↓	↓	↓	0.003	0.002	↓	ND	0.10
7 - 4	↓	↓	↓	0.003	0.002	↓	ND	0.10
8 - 5	↓	↓	↓	0.019	0.008	↓	ND	0.10
9 - 6	↓	↓	↓	0.025	0.010	↓	ND	0.10
10 - 7	↓	↓	↓	0.012	0.005	↓	ND	0.10
NO_2-CCV-I (0.4 ppm)	CCV HIGH[5] 10-26-01	1.0/25mL	N/A	1.055	0.402	N/A	0.402/0.4 =	0.10 101%
DUP[7] - 7	Duplicate	↓	↓	0.011	0.005	↓	ND	0.10 RPD=NC
11 - 8	WA	↓	↓	0.010	0.004	↓	ND	0.10
12 - 9	↓	↓	↓	0.008	0.003	↓	ND	0.10
13 - 10	↓	↓	↓	0.000	0.000	↓	ND	0.10
14								0.10
15								0.10
16								0.10
17								0.10
18								0.10
19								0.10
20								0.10
NO_2-CCV-I	CCV LOW[5] 10-26-01	0.5/25mL	N/A	1.052	0.401	N/A	0.401/0.4 =	0.10 100%
ICB (Blank)	DI Water	25mL	N/A	0.000	0.000	N/A	ND	0.10

AB 10/29/01

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the ermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ↓".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

NO2

076

Calibration Curve Verification

Analysis: NO2 Method #: 354.1 / SM4500NO2B

Instrument: 50830 nm= 540

Compound: NANO2 Lot# 987709 Fisher

Date Rec: 3-23-99 Date Open: 10-5-01

Analyst: CR Date Prep: 10-5-01

Correlation Coefficient: 0.999974189

Approved: AB Date: 10-5-01

Std Conc	Absorp	Std Conc	Absorp
0.0 ppm	0.000		
0.1	0.254		
0.2	0.525		
0.3	0.787		
0.4	1.050		
0.5	1.308		

SSV

Absorbance

0.2 0.4 0.6 0.8 1.0 1.2 1.4

0.0 0.1 0.2 0.3 0.4 0.5

Concentrations (ppm)

****

** SEQUENCE **

****

TOW021 Wed Oct 31 13:00:11 2001

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	DEFAULT	Chk.	3	5.000	0	No	
2	ICV 10PPM	DEFAULT	Chk.	1	5.000	0	No	
3	CCV 15PPM	DEFAULT	Chk.	2	5.000	0	No	
✓4	110655-1	DEFAULT	Sample	1	5.000	0	No	
5	110655-1 MS	DEFAULT	Sample	1	5.000	0	No	
6	110655-1 MSD	DEFAULT	Sample	1	5.000	0	No	
✓7	110648-1	DEFAULT	Sample	1	5.000	0	No	
✓8	110641-1	DEFAULT	Sample	1	5.000	0	No	
✓9	110638-1	DEFAULT	Sample	1	5.000	0	No	
✓10	110658-1	DEFAULT	Sample	1	5.000	0	No	
✓11	110649-1	DEFAULT	Sample	1	5.000	0	No	
12	110649-2	DEFAULT	Sample	1	5.000	0	No	
13	110649-3	DEFAULT	Sample	1	5.000	0	No	
14	110649-4	DEFAULT	Sample	1	5.000	0	No	
15	110655-2	DEFAULT	Sample	1	5.000	0	No	
16	110655-3	DEFAULT	Sample	1	5.000	0	No	
17	CCB	DEFAULT	Chk.	3	5.000	0	No	
18	CCV 15PPM	DEFAULT	Chk.	2	5.000	0	No	
✓19	110728-1	DEFAULT	Sample	1	5.000	0	No	
20	110728-1 DUP	DEFAULT	Sample	1	5.000	0	No	
✓21	110743-1	DEFAULT	Sample	1	5.000	0	No	
22	110743-2	DEFAULT	Sample	1	5.000	0	No	
23	110743-3 X2	DEFAULT	Sample	1	5.000	0	No	
✓24	110735-1	DEFAULT	Sample	1	5.000	0	No	
25	110729-1	DEFAULT	Sample	1	5.000	0	No	
✓26	110717-1	DEFAULT	Sample	1	5.000	0	No	
27	CCB	DEFAULT	Chk.	3	5.000	0	No	
28	CCV 15PPM	DEFAULT	Chk.	2	5.000	0	No	

E-Autosampler or cover is off. 31Oct2001 12:43

E-Autosampler or cover is off. 31Oct2001 13:04

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021 Wed Oct 31 13:09:24 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 28

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110655-1	default	Sample	1	5.000	0	No	
5	110655-1 MS	default	Sample	1	5.000	0	No	
6	110655-1 MSD	default	Sample	1	5.000	0	No	
7	110648-1	default	Sample	1	5.000	0	No	
8	110641-1	default	Sample	1	5.000	0	No	
9	110638-1	default	Sample	1	5.000	0	No	
10	110658-1	default	Sample	1	5.000	0	No	
11	110649-1	default	Sample	1	5.000	0	No	
12	110649-2	default	Sample	1	5.000	0	No	
13	110649-3	default	Sample	1	5.000	0	No	
14	110649-4	default	Sample	1	5.000	0	No	
15	110655-2	default	Sample	1	5.000	0	No	

16	110655-3	default	Sample	1	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110728-1	default	Sample	1	5.000	0 No
20	110728-1 DUP	default	Sample	1	5.000	0 No
21	110743-1	default	Sample	1	5.000	0 No
22	110743-2	default	Sample	1	5.000	0 No
23	110743-3 X2	default	Sample	1	5.000	0 No
24	110735-1	default	Sample	1	5.000	0 No
25	110729-1	default	Sample	1	5.000	0 No
26	110717-1	default	Sample	1	5.000	0 No
27	CCB	default	Chk. 3	3	5.000	0 No
28	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****

** RESULTS - TOW021 **

****

Pos/Vial: 1 Name: PREP BLK Analyzed: 31Oct2001 13:09
Run ID: 5 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031148	921	-0.142	-0.0284
2	1031149	815	-0.263	-0.0527
3	1031150	688	-0.409	-0.0817
Avg		808	-0.271	-0.0543
Std.Dev.		116.66		
RSD (%)		14.44		

ND

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 31Oct2001 13:38
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031151	42027	46.845	9.3671
2	1031152	43273	48.269	9.6519
Avg		42650	47.557	9.5095
Std.Dev.		881.05		
RSD (%)		2.07		

95%

079

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 31Oct2001 13:57
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031153	64666	72.723	14.5416
2	1031154	61970	69.641	13.9254
Avg		63318	71.182	14.2335
Std.Dev.		1906.36		
RSD (%)		3.01		

95%

****

Pos/Vial: 4 Name: 110655-1 Analyzed: 31Oct2001 14:17
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031155	182051	207.808	41.5533

Dilute

A-Linear range exceeded (130ugC). 31Oct2001 14:27

****

Pos/Vial: 5 Name: 110655-1 MS Analyzed: 31Oct2001 14:27
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031156	203868	232.746	46.5400

Dilute

A-Linear range exceeded (130ugC). 31Oct2001 14:37

****

Pos/Vial: 6 Name: 110655-1 MSD Analyzed: 31Oct2001 14:37
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031157	200941	229.401	45.8709

Dilute

****

Pos/Vial: 7 Name: 110648-1 Analyzed: 31Oct2001 14:48
Run ID: 6 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031158	86042	98.063	19.6087

****

Pos/Vial: 8 Name: 110641-1 Analyzed: 31Oct2001 14:58
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031159	67669	77.061	15.4092

****

Pos/Vial: 9 Name: 110638-1 Analyzed: 31Oct2001 15:08
Run ID: 8 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031160	138688	158.241	31.6419

Dilute

****

Pos/Vial: 10 Name: 110658-1 Analyzed: 31Oct2001 15:18
Run ID: 9 Meth: default Vol (mL): 5.001

Tow021

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031161	9734	10.837	2.1671

****

Pos/Vial: 11 Name: 110649-1 Analyzed: 31Oct2001 15:29
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031162	1946	1.935	0.3870

****

Pos/Vial: 12 Name: 110649-2 Analyzed: 31Oct2001 15:39
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031163	34659	39.328	7.8641

****

Pos/Vial: 13 Name: 110649-3 Analyzed: 31Oct2001 15:49
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031164	22844	25.823	5.1636

****

Pos/Vial: 14 Name: 110649-4 Analyzed: 31Oct2001 16:00
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

Tow021

1	1031165	22686	25.643	5.1275

****

Pos/Vial: 15 Name: 110655-2 Analyzed: 31Oct2001 16:10
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031166	207357	236.734	47.3374

Dilute

****

Pos/Vial: 16 Name: 110655-3 Analyzed: 31Oct2001 16:20
Run ID: 15 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031167	97381	111.024	22.2004

Dilute

****

Pos/Vial: 17 Name: CCB Analyzed: 31Oct2001 16:30
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031168	1594	0.627	0.1254
2	1031169	969	-0.087	-0.0175
3	1031170	637	-0.467	-0.0934
Avg		1066	0.024	0.0048
Std.Dev.		485.92		
RSD (%)		45.55		

ND

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 31Oct2001 16:58
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2	TOC Area	TOC Mass	TOC Conc

Rep	Datafile	(cts)	(ugC)	Tow021 (ppm)
1	1031171	63164	71.006	14.1983
2	1031172	61485	69.087	13.8146
Avg		62324	70.046	14.0064
Std.Dev.		1187.23		
RSD (%)		1.90		

93%

****

Pos/Vial: 19 Name: 110728-1 Analyzed: 31Oct2001 17:18
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031173	15362	17.271	3.4534

****

Pos/Vial: 20 Name: 110728-1 DUP Analyzed: 31Oct2001 17:28
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031174	15523	17.455	3.4902

0.046

****

Pos/Vial: 21 Name: 110743-1 Analyzed: 31Oct2001 17:38
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031175	49469	56.257	11.2492

****

Pos/Vial: 22 Name: 110743-2 Analyzed: 31Oct2001 17:48
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES TOC TOC TOC

Rep	Datafile	Area (cts)	Mass (ugC)	Tow021 Conc (ppm)
1	1031176	73477	83.700	16.7367

****

Pos/Vial: 23 Name: 110743-3 X2 Analyzed: 31Oct2001 17:59
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031177	49230	55.984	11.1946

x 2 = 22.38

****

Pos/Vial: 24 Name: 110735-1 Analyzed: 31Oct2001 18:09
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031178	27468	31.109	6.2205

****

Pos/Vial: 25 Name: 110729-1 Analyzed: 31Oct2001 18:19
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031179	161310	184.100	36.8125

Dilute

****

Pos/Vial: 26 Name: 110717-1 Analyzed: 31Oct2001 18:30
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031180	8925	9.913	1.9821

****

Pos/Vial: 27 Name: CCB Analyzed: 31Oct2001 18:40
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031181	2421	1.572	0.3144
2	1031182	1296	0.286	0.0573
3	1031183	988	-0.066	-0.0131
Avg		1568	0.598	0.1195
Std.Dev.		754.32		
RSD (%)		48.10		

ND

****

Pos/Vial: 28 Name: CCV 15PPM Analyzed: 31Oct2001 19:08
Run ID: 27 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031184	61444	69.040	13.8052
2	1031185	62415	70.150	14.0271
Avg		61929	69.595	13.9162
Std.Dev.		686.60		
RSD (%)		1.11		

93%

****

** SEQUENCE **

****

TOW021A Thu Nov 01 08:46:43 2001

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
2	ICV 10 PPM	DEFAULT	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	DEFAULT	Chk. 2	2	5.000	0	No	
4	110655-1 X5	DEFAULT	Sample	1	5.000	0	No	
5	110655-1 MS X5	DEFAULT	Sample	1	5.000	0	No	
6	110655-1 MSD X5	DEFAULT	Sample	1	5.000	0	No	
7	110638-1 X5	DEFAULT	Sample	1	5.000	0	No	
8	110655-2 X5	DEFAULT	Sample	1	5.000	0	No	
9	110655-3 X5	DEFAULT	Sample	1	5.000	0	No	
10	110729-1 X5	DEFAULT	Sample	1	5.000	0	No	
11	110614-1	DEFAULT	Sample	1	5.000	0	No	
12	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
13	CCV 15 PPM	DEFAULT	Chk. 2	2	5.000	0	No	

E-Autosampler or cover is off. 01Nov2001 08:48

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021A Thu Nov 01 08:46:43 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 13

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	ICV 10 PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110655-1 X5	default	Sample	1	5.000	0	No	
5	110655-1 MS X5	default	Sample	1	5.000	0	No	
6	110655-1 MSD X5	default	Sample	1	5.000	0	No	
7	110638-1 X5	default	Sample	1	5.000	0	No	
8	110655-2 X5	default	Sample	1	5.000	0	No	
9	110655-3 X5	default	Sample	1	5.000	0	No	
10	110729-1 X5	default	Sample	1	5.000	0	No	
11	110614-1	default	Sample	1	5.000	0	No	
12	CCB	default	Chk. 3	3	5.000	0	No	
13	CCV 15 PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW021A **
****

Pos/Vial: 1 Name: CCB Analyzed: 01Nov2001 09:12

Tow021a

Run ID: 28 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A186	968	-0.089	-0.0177
2	1031A187	1025	-0.023	-0.0047
3	1031A188	791	-0.291	-0.0582
Avg		928	-0.134	-0.0268
Std.Dev.		122.02		
RSD (%)		13.15		

ND

****

Pos/Vial: 2 Name: ICV 10 PPM Analyzed: 01Nov2001 09:41
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A189	41789	46.573	9.3127
2	1031A190	43032	47.994	9.5968
Avg		42410	47.283	9.4547
Std.Dev.		878.93		
RSD (%)		2.07		

95%

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 01Nov2001 10:00
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A191	63158	70.999	14.1970
2	1031A192	62423	70.159	14.0290
Avg		62790	70.579	14.1130
Std.Dev.		519.72		
RSD (%)		0.83		

94%

****

Pos/Vial: 4 Name: 110655-1 X5 Analyzed: 01Nov2001 10:19
Run ID: 3 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A193	73213	83.398	16.6763

16.6763 × 5 = 83

****

Pos/Vial: 5 Name: 110655-1 MS X5 Analyzed: 01Nov2001 10:29
Run ID: 4 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A194	108353	123.566	24.7082

Dilute

****

Pos/Vial: 6 Name: 110655-1 MSD X5 Analyzed: 01Nov2001 10:40
Run ID: 5 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A195	109594	124.984	24.9919

Dilute

****

Pos/Vial: 7 Name: 110638-1 X5 Analyzed: 01Nov2001 10:50
Run ID: 6 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A196	25964	29.389	5.8767

5.8767 × 5 = 29

****

Pos/Vial: 8 Name: 110655-2 X5 Analyzed: 01Nov2001 11:00
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES TOC TOC TOC

Tow021a

Rep	Datafile	Area (cts)	Mass (ugC)	Conc (ppm)
1	1031A197	68470	77.977	15.5922

x 5 = 77.9

****

Pos/Vial: 9 Name: 110655-3 X5 Analyzed: 01Nov2001 11:11
Run ID: 8 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A198	18976	21.402	4.2795

x 5 = 21.3

****

Pos/Vial: 10 Name: 110729-1 X5 Analyzed: 01Nov2001 11:21
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A199	33488	37.990	7.5965

x 5 = 37.9

****

Pos/Vial: 11 Name: 110614-1 Analyzed: 01Nov2001 11:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A200	158789	181.218	36.2363

Dilute

A-Linear range exceeded (130ugC). 01Nov2001 11:41

****

Pos/Vial: 12 Name: CCB Analyzed: 01Nov2001 11:41
Run ID: 11 Meth: default Vol (mL): 5.001

CHK. 3	TOC	TOC	TOC

Rep	Datafile	Area (cts)	Mass (ugC)	Tow021a Conc (ppm)
1	1031A201	4366	3.796	0.7590
2	1031A202	1999	1.090	0.2179
3	1031A203	1639	0.678	0.1357
Avg		2668	1.855	0.3709
Std.Dev.		1481.49		
RSD (%)		55.53		

ND

****

Pos/Vial: 13 Name: CCV 15 PPM Analyzed: 01Nov2001 12:09
Run ID: 12 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A204	60778	68.279	13.6530
2	1031A205	63029	70.852	14.1675
Avg		61903	69.565	13.9102
Std.Dev.		1591.70		
RSD (%)		2.57		

93%

****
** SEQUENCE **
****

TOW021C Thu Nov 01 12:56:56 2001

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110655-1 MS X10	DEFAULT	Sample	1	5.000	0	No	
2	110655-1 MSDX10	DEFAULT	Sample	1	5.000	0	No	
3	110614-1 X5	DEFAULT	Sample	1	5.000	0	No	
4	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	DEFAULT	Sample	2	5.000	0	No	

E-Autosampler or cover is off. 01Nov2001 12:57

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021C Thu Nov 01 13:06:55 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110655-1 MS X10	default	Sample	1	5.000	0	No	
2	110655-1 MSDX10	default	Sample	1	5.000	0	No	
3	110614-1 X5	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW021C **
****

Pos/Vial: 1 Name: 110655-1 MS X10 Analyzed: 01Nov2001 13:07
Run ID: 13 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031B206	58743	66.858	13.3690

13.3690 x 10 = 133

$\frac{133 - 83}{50} = 100\%$

094

****

Pos/Vial: 2 Name: 110655-1 MSDX10 Analyzed: 01Nov2001 13:18
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B207	52837	60.107	12.0190×10=120

120-83/50 = 74%

****

Pos/Vial: 3 Name: 110614-1 X5 Analyzed: 01Nov2001 13:28
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B208	31791	36.050	7.2086

×5 = 36

****

Pos/Vial: 4 Name: CCB Analyzed: 01Nov2001 13:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B209	1663	0.706	0.1411
2	1031B210	1137	0.105	0.0209
3	1031B211	1012	-0.038	-0.0076
Avg		1270	0.257	0.0515
Std.Dev.		345.47		
RSD (%)		27.19		

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 01Nov2001 14:07
Run ID: 4 Meth: default Vol (mL): 5.001

CHK. 2		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)

				Tow021b
1	1031B212	62331	70.054	14.0079
2	1031B213	62755	70.538	14.1048
Avg		62543	70.296	14.0564
Std.Dev.		299.81		
RSD (%)		0.48		

DISSOLVED IRON

- Metals
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110557 **Method Type:** SW 846 **SAS No.:** N/A

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** N/A

Lab Sample ID	Client Sample ID
C110557-1	17-3610B-Q401
C110557-2	17-3611C-Q401
C110557-3	17-3629B-Q401
C110557-4	17-3632C-Q401
C110557-5	17-36FD1-Q401
C110557-6	17-36FB1-Q401
C110557-7	17-36EB1-Q401
C110599-1	17-3631C-Q401
C110599-2	17-3626A-Q401
C110599-3	17-3630C-Q401
C110611-1	17-3609C-Q401
C110611-2	17-3627A-Q401
C110611-3	17-3628B-Q401
C110655-1	17-3608B-Q401
C110655-2	17-3607A-Q401
C110655-3	17-3606A-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

All duplicate results reported on Form 6 are the matrix spike and matrix spike duplicate (MS/MSD) results. The acceptance limit for the duplicate is ±20%.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards Name: Marty Edwards

Date: 10/31/01 Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-1 **Client ID:** 17-3610B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	54	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-2 **Client ID:** 17-3611C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-3 **Client ID:** 17-3629B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	600	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-4 **Client ID:** 17-3632C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	190	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-5 **Client ID:** 17-36FD1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	74	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-6 **Client ID:** 17-36FB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-7 **Client ID:** 17-36EB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-1 **Client ID:** 17-3631C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	250	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-2 **Client ID:** 17-3626A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	280	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-3 **Client ID:** 17-3630C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	500	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-1 **Client ID:** 17-3609C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	27	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-2 **Client ID:** 17-3627A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-3 **Client ID:** 17-3628B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	330	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-1 **Client ID:** 17-3608B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	400	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-2 **Client ID:** 17-3607A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	720	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-3 **Client ID:** 17-3606A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	120	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Numb
ICV1									
	Aluminum	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT2
	Calcium	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT2
	Iron	10007	10000	100.1	90.0 - 110.0	P	10/29/01	09:45	TOCT2
	Iron	9969	10000	99.7	90.0 - 110.0	P	10/29/01	09:45	TOCT2
	Magnesium	9877	10000	98.8	90.0 - 110.0	P	10/29/01	09:45	TOCT2
CCV1									
	Aluminum	10066	10000	100.7	90.0 - 110.0	P	10/29/01	10:28	TOCT2
	Calcium	10065	10000	100.6	90.0 - 110.0	P	10/29/01	10:28	TOCT2
	Iron	10054	10000	100.5	90.0 - 110.0	P	10/29/01	10:28	TOCT2
	Iron	10041	10000	100.4	90.0 - 110.0	P	10/29/01	10:28	TOCT2
	Magnesium	9974	10000	99.7	90.0 - 110.0	P	10/29/01	10:28	TOCT2
CCV2									
	Aluminum	10069	10000	100.7	90.0 - 110.0	P	10/29/01	11:35	TOCT2
	Calcium	10107	10000	101.1	90.0 - 110.0	P	10/29/01	11:35	TOCT2
	Iron	10125	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT2
	Iron	10115	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT2
	Magnesium	10088	10000	100.9	90.0 - 110.0	P	10/29/01	11:35	TOCT2
CCV3									
	Aluminum	10145	10000	101.4	90.0 - 110.0	P	10/29/01	12:43	TOCT2
	Calcium	10189	10000	101.9	90.0 - 110.0	P	10/29/01	12:43	TOCT2
	Iron	10158	10000	101.6	90.0 - 110.0	P	10/29/01	12:43	TOCT2
	Iron	10178	10000	101.8	90.0 - 110.0	P	10/29/01	12:43	TOCT2
	Magnesium	10220	10000	102.2	90.0 - 110.0	P	10/29/01	12:43	TOCT2
CCV4									
	Aluminum	10402	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT2
	Calcium	10406	10000	104.1	90.0 - 110.0	P	10/29/01	13:16	TOCT2
	Iron	10336	10000	103.4	90.0 - 110.0	P	10/29/01	13:16	TOCT2
	Iron	10347	10000	103.5	90.0 - 110.0	P	10/29/01	13:16	TOCT2
	Magnesium	10395	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT2

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	09:51	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	09:51	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	09:51	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	09:51	TOCT29A
	Magnesium	9.26	+/-500.00	B	6.00	500.00	P	10/29/01	09:51	TOCT29A
CCB1										
	Aluminum	15.5	+/-100.0	B	10.0	100.0	P	10/29/01	10:34	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	10:34	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	10:34	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	10:34	TOCT29A
	Magnesium	16.08	+/-500.00	B	6.00	500.00	P	10/29/01	10:34	TOCT29A
CCB2										
	Aluminum	12.1	+/-100.0	B	10.0	100.0	P	10/29/01	11:41	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	11:41	TOCT29A
	Iron	10.3	+/-100.0	B	7.0	100.0	P	10/29/01	11:41	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	11:41	TOCT29A
	Magnesium	11.20	+/-500.00	B	6.00	500.00	P	10/29/01	11:41	TOCT29A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	12:48	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	12:48	TOCT29A
	Iron	9.4	+/-100.0	B	7.0	100.0	P	10/29/01	12:48	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	12:48	TOCT29A
	Magnesium	10.62	+/-500.00	B	6.00	500.00	P	10/29/01	12:48	TOCT29A
CCB4										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	13:22	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	13:22	TOCT29A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	13:22	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	13:22	TOCT29A
	Magnesium	7.25	+/-500.00	B	6.00	500.00	P	10/29/01	13:22	TOCT29A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD131			**WATER**							
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	10:39	TOCT29A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	505123.8	500000.0	101.0	80 - 120	10/29/01	10:14	TOCT29A
	Calcium	457432.4	500000.0	91.5	80 - 120	10/29/01	10:14	TOCT29A
	Iron	179365.8	200000.0	89.7	80 - 120	10/29/01	10:14	TOCT29A
	Iron	195817.1	200000.0	97.9	80 - 120	10/29/01	10:14	TOCT29A
	Magnesium	520278.3	500000.0	104.1	80 - 120	10/29/01	10:14	TOCT29A
ICS-AB1								
	Aluminum	518567.3	510000.0	101.7	80 - 120	10/29/01	10:19	TOCT29A
	Calcium	466097.7	510000.0	91.4	80 - 120	10/29/01	10:19	TOCT29A
	Iron	187095.4	210000.0	89.1	80 - 120	10/29/01	10:19	TOCT29A
	Iron	206396.8	210000.0	98.3	80 - 120	10/29/01	10:19	TOCT29A
	Magnesium	531834.0	510000.0	104.3	80 - 120	10/29/01	10:19	TOCT29A
ICS-A2								
	Aluminum	507448.8	500000.0	101.5	80 - 120	10/29/01	13:05	TOCT29A
	Calcium	467315.8	500000.0	93.5	80 - 120	10/29/01	13:05	TOCT29A
	Iron	182724.8	200000.0	91.4	80 - 120	10/29/01	13:05	TOCT29A
	Iron	200130.7	200000.0	100.1	80 - 120	10/29/01	13:05	TOCT29A
	Magnesium	538197.9	500000.0	107.6	80 - 120	10/29/01	13:05	TOCT29A
ICS-AB2								
	Aluminum	523991.0	510000.0	102.7	80 - 120	10/29/01	13:11	TOCT29A
	Calcium	479027.8	510000.0	93.9	80 - 120	10/29/01	13:11	TOCT29A
	Iron	191347.1	210000.0	91.1	80 - 120	10/29/01	13:11	TOCT29A
	Iron	211288.9	210000.0	100.6	80 - 120	10/29/01	13:11	TOCT29A
	Magnesium	551149.5	510000.0	108.1	80 - 120	10/29/01	13:11	TOCT29A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10117.5		53.6	B	10000.0	100.6		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10237.0		53.6	B	10000.0	101.8		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1S **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110557-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10117.5		10237.0		1.2		P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD131								
	Iron	ug/L	10000.0	9790.5		97.9	80.0 - 120.0	P

Metals

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SERIAL DILUTION SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Level:** LOW **Client ID:** 17-3610B-Q401L

Sample ID: C110557-1 **Serial Dilution ID:** C110557-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	53.6		63.9	B	19.2		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA
SA-36-CTO-017

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI SDG No.: C110557

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: NA SAS No.: NA

Instrument ID: TJA61E Trace Date: 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI SDG No.: C110557

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: NA SAS No.: NA

Instrument ID: TJA61E Trace Date: 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals
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LINEAR RANGES

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
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SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P

SA-36-CTO-017 **Case No.:** NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	PD131						
PBWPD131	PBWPD131	MB	WATER	10/26/01	50.0	50.0	
LCSWPD131	LCSWPD131	LCS	WATER	10/26/01	50.0	50.0	
C110557-1	17-3610B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-1S	17-3610B-Q401S	MS	WATER	10/26/01	50.0	50.0	
C110557-1SD	17-3610B-Q401SD	MSD	WATER	10/26/01	50.0	50.0	
C110557-2	17-3611C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-3	17-3629B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-4	17-3632C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-5	17-36FD1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-6	17-36FB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-7	17-36EB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-1	17-3631C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-2	17-3626A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-3	17-3630C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-1	17-3609C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-2	17-3627A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-3	17-3628B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-1	17-3608B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-2	17-3607A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-3	17-3606A-Q401	SAM	WATER	10/26/01	50.0	50.0	

DIGESTION LIQUIDS

Job No: 3625

Batch No: PD131

Job Date: 10.26.01

ANALYSIS

ICP | AA | HG

FLAME | TCLP

MISC

Date/Time Started: 10/26/01

Date/Time Completed: NA

Analyst: KW

Method/SOP: NA

Final Volume: NA

Acid Lot #(s): NA

NA

NA

Hood: NA

Bath Temp(Hg only): NA

Final Project Check: ME 10/26/01

	ID	LOT#	AMT (mL)	INIT
Spike		NA		
Spike		NA		
Spike		NA		
Spike		NA		

SAMPLE ID/MTX/DESCRIPTION	D-D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1. C110557*1/LI/017-OLD-3610B-Q401	11.02		ICP				*XNE| DISSOLVES
2. C110557*2/LI/017-OLD-3611C-Q401	11.02		ICP				*XNE|
3. C110557*3/LI/017-OLD-3629B-Q401	11.02		ICP				*XNE|
4. C110557*4/LI/017-OLD-3632C-Q401	11.02		ICP				*XNE|
5. C110557*5/LI/017-OLD-36FD1-Q401	11.02		ICP				*XNE|
6. C110557*6/LI/017-OLD-36FB1-Q401	11.02		ICP				*XNE|
7. C110557*7/LI/017-OLD-36EB1-Q401	11.02		ICP				*XNE|
8. C110599*1/LI/17-3631C-Q401	11.02		ICP				*XNE|
9. C110599*2/LI/17-3626A-Q401	11.02		ICP				*XNE|
10. C110599*3/LI/17-3630C-Q401	11.02		ICP				*XNE|
11. C110611*1/LI/17-3609C-Q401 A	11.05		ICP				*XNE| post spike
12. C110611*2/LI/17-3627A-Q401	11.05		ICP				*XNE|
13. C110611*3/LI/17-3628B-Q401	11.05		ICP				*XNE|
14. C110655*1/LI/17-3608B-Q401	11.05		ICP				*XNE|
15. C110655*2/LI/17-3607A-Q401	11.05		ICP				*XNE|
16. C110655*3/LI/17-3606A-Q401 B	11.05		ICP				*XNE|
17.							
18.							
19.							
20.							
Lab Blank							
Lab Spike #1							
Lab Spike #2							

10/26/01 KW

10/26/01 KW

Comments: Spike filtered & preserved

TJA Trace ICP (499890) Calibration/Maintenance/Run Log

File Name: Oct 29A Date: 10.29.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☑ Rotate Peri-Pump Tubing ☑ Other: back flushed neb.

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: 7.009907 Profile Intensity: 18169 Spectrum Shifter: 560

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 11447 Cu:Mn Ratio (Std 1): 9.6/11.0=.87

Standards Reference:

Std 1: M02739 ICV/CCV: M02750 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PD131	Level "C"		
PD130			
Pw378			
Pw376			

Comments:

File Name: _____ Date: _____ Analyst: _____

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☐ Rotate Peri-Pump Tubing ☐ Other: _____

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: _____ Profile Intensity: _____ Spectrum Shifter: _____

Nebulizer Pressure: _____ Purge Pressure: _____

Y Intensity (Std 1): _____ Cu:Mn Ratio (Std 1): _____

Standards Reference:

Std 1: _____ ICV/CCV: _____ ICSA: _____ ICSAB: _____

Batch ID's:

Batch #	Comments	Batch #	Comments

Comments:

10.4.01 Vendor: High Purity M02735
Q STD: Cal STD #2-R2
Conc: See COC
Exp: 11/02
Cat # Cal STD #2-R2
Lot # 127117

10.04.01 RLCHKS1 exp 10.05.01 M02736
QPP Place 19.95mls of blank/diluent into a 25ml A/S cup.
Add 0.05mls of Std 1 & mix well.

RLCHKS2 exp 10.05.01 M02737
Place 19.90mls of blank/diluent into a 25ml A/S cup.
Add 0.1mls of Std 1 & mix well.

10.05.01 ICV/CCV Exp 11.05.01 M02738
C+ To A 1000 ml vol flask Add ~300ml type I H_2O. Add 50ml conc HCl & 'Dil' to vol w/ HNO_3. Add STD listed below & bring to vol w/ H_2O

5.0ml	STD #1	M02681	Exp 1/03
5.0mL	STD #2	M02685	Exp 1/03

10.05.01 STD 1 exp 11.05.01 M02739
QPP Do a clean 500ml vol flask add ~200mls Blank/diluent soln. Add stds listed below & bring to volume w/diluent.

5.0mls	Cal Std 1B-R1	M02670	exp 08.31.02
5.0mls	Cal Std #2-R2	M02682	exp 09.31.02

10.05.01 RLCHKS1 Exp 10.6.01 M02740
C+ Place 19.95ml of Blk/Rin Soln into a 25ml A/S Cup
Add .05ml of STD1 & mix well.

10.6.01 RLCHKS1 Exp 10.7.01 M02741
Q Place 19.95ml of Blk/Rin Soln into a 25 ml A/S Cup. Add .05ml of STD1 & mix well.

Continued on Page

Read and Understood By

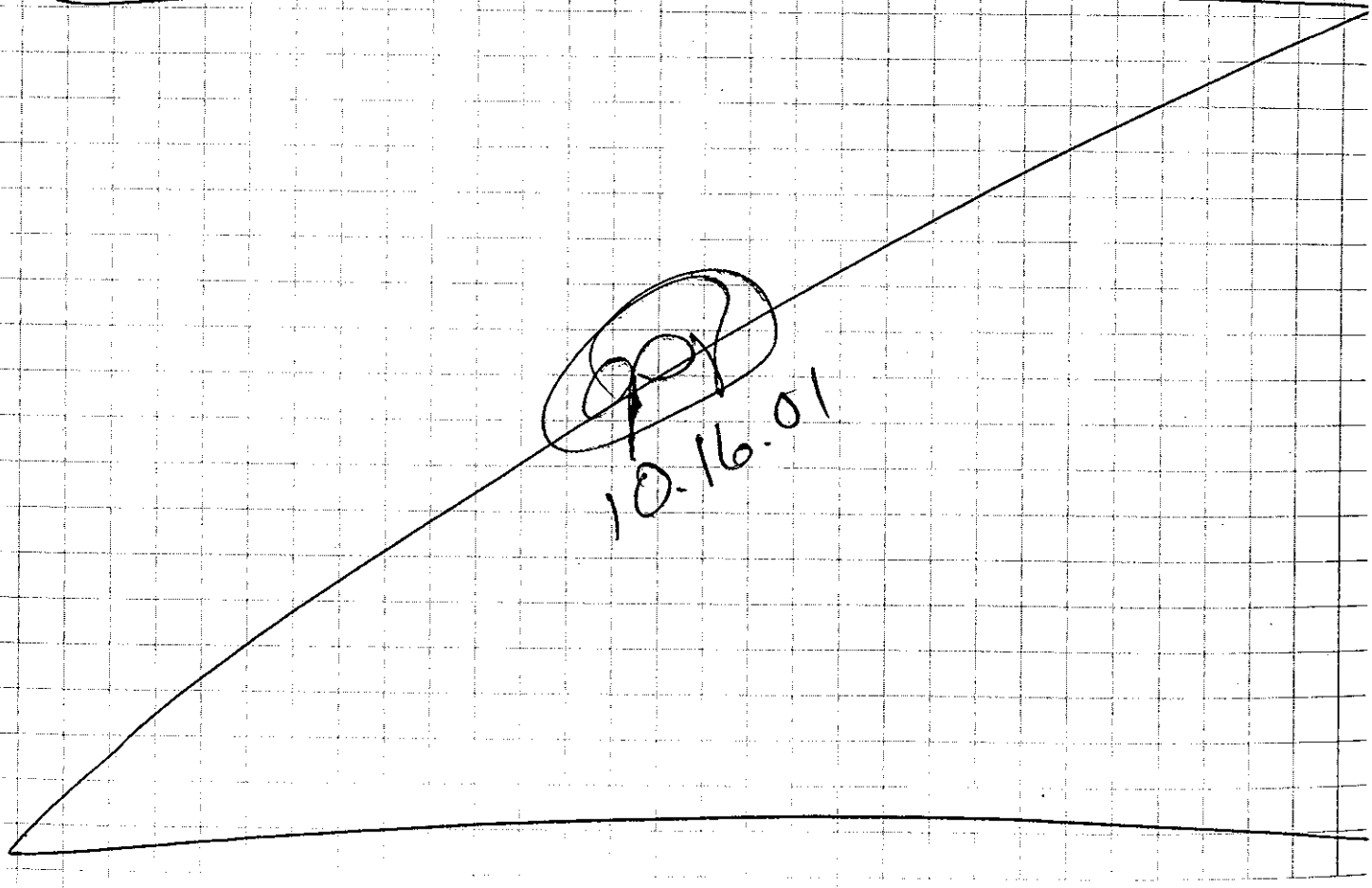
10.6.01

Signed Date Signed Date

10.15.01 RLCHKS1 exp 10.16.01 M02746
(GP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 M0274
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA Exp 11.16.01 M02748
GP To a Clean 500 ml Vol Flask Add ~300ml of type I H_2O. Add 50 ml conc HCL & 10 ml of conc HNO_3.
Add STD Listed below & QS to volume w/ type I H_2O.
50.0 mL CLP-INF-1 M02734 Exp 11/02



Continued on Page _____

Read and Understood By

Gary LaPere Signed
10.16.01 Date
_____ Signed
_____ Date

10.19.01 ICV/CCV Exp 10.19.01 MO 2750
CH To A clean 1000 ml vol flask Add ~300 ml blk/R.W Soln. Add STD Listed below & Bring to volume
5.6 STL #1 MO2664 Exp 1/03
50 STL #2 MO2665 Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO2751
(CH) Place 19.90 mls of blank/diluent into a 25 ml A/S cup. Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO2752
(CH) Place 19.95 mls of blank/diluent into a 25 ml A/S cup. Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO275
(CH) Do a clean 500 ml vol flask add ~300 mls of blank/diluent soln. Add Stds listed below & bring to volume with diluent
50.0 mls CLP-INF-1 MO2734 exp 11.2002
2.5 mls CAL STD 1B-R1 MO2670 exp 08.2002
2.5 mls CAL STD #2-R2 MO2735 exp 11.2002

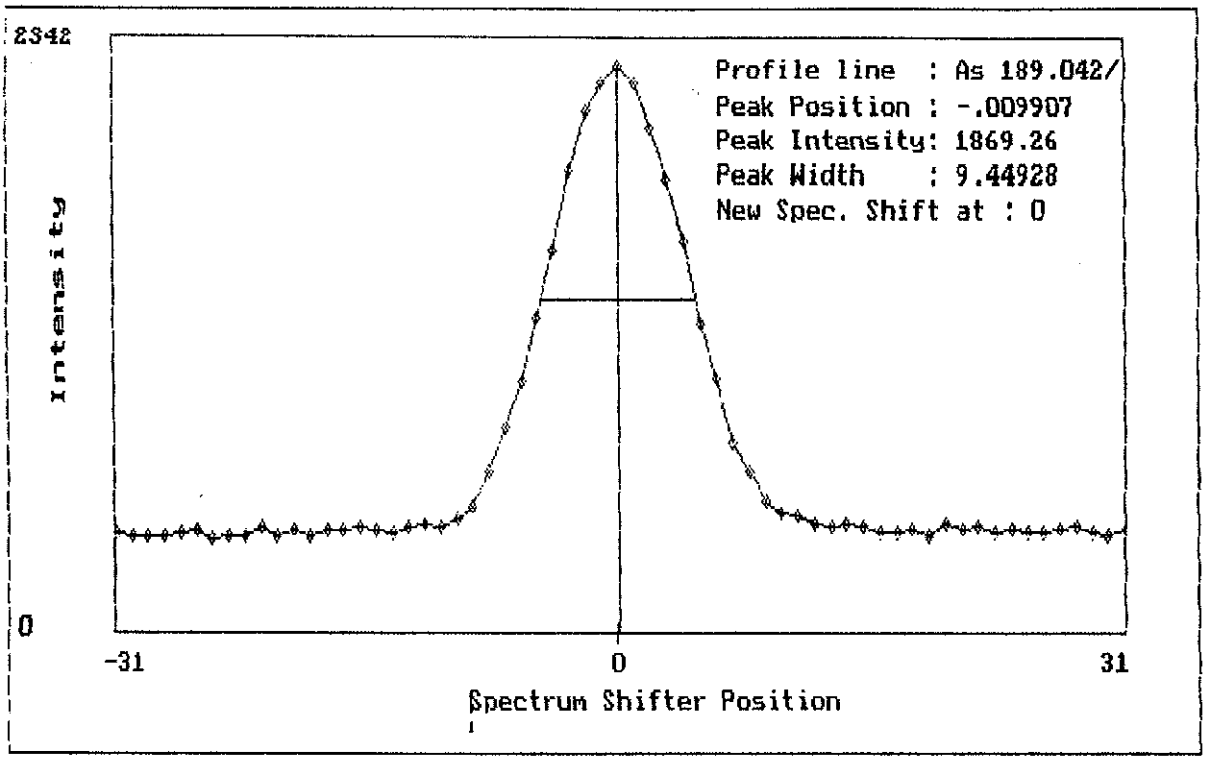
10.25.01 RLCHS1 Exp 10.26.01 MO2754
CH PLACE 19.95 mls of blk/d.L into A 25ml A/S Cup Add 0.05 mls of STD 1 & mix well.

10.25.01
CH

Continued on Page

Read and Understood By

Signed Date Signed Date


2342
Intensity
0
Profile line : As 189.042/
Peak Position : -.009907
Peak Intensity: 1869.26
Peak Width : 9.44928
New Spec. Shift at : 0
-31
0
31
Spectrum Shifter Position

10.29.01

Method: 60102007 Standard: CAL BLK
Run Time: 10/29/01 09:29:05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00337	.05276	-.00825	.00126	.00048	.07444	.01525
SDev	.00697	.00355	.00714	.01021	.00165	.00016	.00106
%RSD	206.55	6.7313	86.549	810.25	346.48	.21168	6.9400
#1	.00830	.05527	-.00320	.00848	.00164	.07455	.01600
#2	-.00155	.05024	-.01330	-.00596	-.00069	.07433	.01450

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00419	-.00255	.00104	.02200	-.00203	.00303	-.60641
SDev	.00092	.00421	.00550	.00718	.00299	.00367	.03099
%RSD	21.996	165.44	528.64	32.630	147.45	121.25	5.1099
#1	.00484	.00043	.00493	.02707	.00009	.00562	-.58450
#2	.00354	-.00553	-.00285	.01692	-.00414	.00043	-.62832

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	.00139	.00000	.00039	.00334	-.00194	-.00034	.00376
SDev	.00416	.00073	.00006	.01974	.00568	.01246	.00092
%RSD	300.07	154310.	15.841	591.09	292.70	3692.4	24.509
#1	.00432	.00052	.00043	.01730	.00208	.00848	.00441
#2	-.00155	-.00052	.00035	-.01062	-.00596	-.00915	.00311

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	.00030	-.01447	-.00116	.00039	.00026	.08501	-.01972
SDev	.00312	.01300	.01155	.00214	.00232	.03659	.02398
%RSD	1023.7	89.841	996.21	548.15	890.63	43.040	121.61
#1	.00251	-.00528	.00701	.00190	.00190	.11088	-.03667
#2	-.00190	-.02365	-.00932	-.00112	-.00138	.05914	-.00276

Elem	1960/1	1960/2	Li6707
Avge	.00297	.00821	-.00034
SDev	.02254	.00072	.00134
%RSD	759.89	8.8028	389.76
#1	-.01297	.00770	.00061
#2	.01891	.00872	-.00129

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11573	--	--	--	--	--	--
SDev	14.99840	--	--	--	--	--	--
%RSD	.1296021	--	--	--	--	--	--
#1	11562	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: 60102007 Standard: STD 1
Run Time: 10/29/01 09:34:43

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1870	7.9700	9.1680	7.6022	6.8206	18.683	11.828
SDev	.0150	.0151	.0742	.0691	.0358	.110	.037
%RSD	.47110	.18887	.80945	.90869	.52422	.59042	.31144
#1	3.1764	7.9594	9.1156	7.5534	6.7953	18.605	11.802
#2	3.1976	7.9807	9.2205	7.6511	6.8459	18.761	11.854

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.837	10.877	11.428	9.5706	4.5592	82.174	47.199
SDev	.100	.054	.050	.0535	.0164	.372	.005
%RSD	.37325	.49628	.43697	.55851	.36008	.45235	.01118
#1	26.766	10.839	11.393	9.5328	4.5476	81.911	47.195
#2	26.908	10.916	11.463	9.6084	4.5708	82.437	47.203

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.542	11.004	6.8335	.85475	12.047	5.2021	7.1293
SDev	.032	.045	.0414	.00817	.048	.0312	.0265
%RSD	.27422	.40986	.60569	.95563	.40000	.60068	.37184
#1	11.520	10.972	6.8042	.86053	12.013	5.1800	7.1106
#2	11.565	11.035	6.8627	.84897	12.081	5.2242	7.1480

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	38.836	50.738	8.8389	3.1290	10.082	57.039	35.706
SDev	.199	.184	.0513	.0143	.036	.167	.084
%RSD	.51151	.36336	57985	.45613	.36036	.29193	.23491
#1	38.695	50.607	8.8026	3.1189	10.056	57.157	35.647
#2	38.976	50.868	8.8751	3.1391	10.108	56.922	35.765

Elem	1960/1	1960/2	Li6707
Avge	11.472	10.323	70.305
SDev	.040	.019	.270
%RSD	.34504	.18510	.38373
#1	11.500	10.309	70.496
#2	11.444	10.336	70.114

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11447	--	--	--	--	--	--
SDev	12.21555	--	--	--	--	--	--
%RSD	.1067125	--	--	--	--	--	--
#1	11456	--	--	--	--	--	--
#2	11439	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 10/29/01 09:40:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0043	20.025	2.0151	2.0143	2.0072	1.0073	20.032
SDev	.0021	.031	.0010	.0005	.0042	.0017	.033
%RSD	.20909	.15370	.04736	.02509	.21024	.16835	.16573
#1	1.0028	20.003	2.0144	2.0139	2.0042	1.0061	20.008
#2	1.0057	20.047	2.0157	2.0146	2.0102	1.0085	20.055
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0044	2.0040	2.0064	2.0100	20.062	20.067	19.951
SDev	.0024	.0031	.0028	.0034	.035	.031	.013
%RSD	.24199	.15606	.13855	.16682	.17304	.15369	.06383
#1	1.0027	2.0018	2.0045	2.0076	20.037	20.046	19.960
#2	1.0061	2.0063	2.0084	2.0124	20.086	20.089	19.942
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	20.029	2.0048	2.0093	19.852	2.0091	2.0018	2.0111
SDev	.024	.0042	.0032	.093	.0043	.0056	.0082
%RSD	.11862	.21121	.16037	.46896	.21600	.27735	.40719
#1	20.012	2.0018	2.0070	19.918	2.0061	1.9979	2.0053
#2	20.045	2.0078	2.0116	19.787	2.0122	2.0058	2.0168
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0122	2.0079	2.0111	2.0058	2.0106	2.0080	2.0011
SDev	.0008	.0002	.0048	.0036	.0009	.0044	.0022
%RSD	.03986	.01210	.23750	.18148	.04332	.21681	.10899
#1	2.0117	2.0077	2.0077	2.0032	2.0100	2.0049	1.9996
#2	2.0128	2.0081	2.0145	2.0083	2.0113	2.0111	2.0027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0038	2.0009	2.0182	2.0075	1.9783		
SDev	.0068	.0049	.0058	.0094	.0023		
%RSD	.33734	.24736	.28549	.46828	.11754		
#1	1.9990	1.9974	2.0142	2.0008	1.9766		
#2	2.0085	2.0044	2.0223	2.0141	1.9799		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					2.0000		
Range					5.0000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11469	--	--	--	--	--	--
SDev	58.20027	--	--	--	--	--	--
%RSD	.5074367	--	--	--	--	--	--
#1	11511	--	--	--	--	--	--
#2	11428	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 10/29/01 09:45:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50171	9.9188	.98549	.98407	.97214	.49282	9.9192
SDev	.00084	.0170	.00998	.00678	.00413	.00278	.0250
%RSD	.16826	.17171	1.0128	.68912	.42438	.56471	.25175
#1	.50231	9.9308	.99255	.98887	.97506	.49479	9.9369
#2	.50112	9.9067	.97844	.97928	.96923	.49086	9.9016
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49479	1.0012	.99063	.98667	9.9689	10.007	9.5642
SDev	.00187	.0057	.00315	.00536	.0410	.055	.0018
%RSD	.37897	.57180	.31844	.54317	.41099	.55368	.01833
#1	.49612	1.0052	.99286	.99046	9.9979	10.046	9.5629
#2	.49346	.99715	.98840	.98288	9.9399	9.9673	9.5654
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.8768	.98852	.99783	9.6660	1.0022	.99715	.98893
SDev	.0326	.00398	.00403	.2665	.0028	.00119	.00211
%RSD	.32989	.40316	.40385	2.7575	.27983	.11895	.21331
#1	9.8999	.99134	1.0007	9.4775	1.0042	.99798	.99042
#2	9.8538	.98570	.99498	9.8544	1.0002	.99631	.98744
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0050	1.0052	.98325	1.0059	.99724	.98710	.98634
SDev	.0036	.0040	.00358	.0041	.00250	.00362	.00310
%RSD	.36013	.39891	.36447	.40761	.25096	.36682	.31399
#1	1.0076	1.0081	.98578	1.0088	.99901	.98966	.98853
#2	1.0025	1.0024	.98072	1.0030	.99547	.98454	.98415
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99692	.99726	.99410	.98685	1.0128		
SDev	.00623	.00133	.00955	.00161	.0043		
%RSD	.62527	.13374	.96183	.16277	.42761		
#1	1.0016	.99632	.99986	.98572	1.0097		
#2	.99251	.99820	.98635	.98799	1.0159		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11585	--	--	--	--	--	--
SDev	22.07292	--	--	--	--	--	--
%RSD	.1905248	--	--	--	--	--	--
#1	11601	--	--	--	--	--	--
#2	11570	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator: GSP
Run Time: 10/29/01 09:51:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	.00716	.00077	.00223	.00108	.00059	.01233
SDev	.00086	.00430	.00016	.00128	.00021	.00001	.00074
%RSD	94.829	60.126	21.452	57.256	19.709	1.8389	5.9754
#1	.00151	.01020	.00089	.00314	.00123	.00058	.01285
#2	.00030	.00411	.00065	.00133	.00093	.00060	.01181
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00143	.00139	.00105	.00831	.01020	.03179
SDev	.00021	.00019	.00025	.00060	.01205	.00055	.00160
%RSD	34.455	13.209	18.211	57.105	144.91	5.3502	5.0174
#1	.00076	.00156	.00157	.00148	.01683	.00982	.03292
#2	.00046	.00130	.00121	.00063	-.00020	.01059	.03066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00926	.00111	.00165	.15038	.00112	.00125	.00003
SDev	.00632	.00010	.00091	.03219	.00013	.00099	.00047
%RSD	68.239	8.7780	54.846	21.406	11.572	79.357	1360.1
#1	.01373	.00117	.00230	.17314	.00121	.00195	.00037
#2	.00479	.00104	.00101	.12761	.00103	.00055	-.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	.00183	.00123	.00108	-.00013	.00138	.00126
SDev	.00320	.00078	.00009	.00047	.00185	.00004	.00030
%RSD	276.78	42.757	6.9238	44.008	1411.3	2.8096	23.804
#1	.00342	.00238	.00129	.00142	.00118	.00140	.00147
#2	-.00111	.00128	.00117	.00074	-.00144	.00135	.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00191	.00092	.00385	-.00187	.00138		
SDev	.00138	.00080	.00283	.00212	.00013		
%RSD	72.150	86.825	73.670	113.44	9.5640		
#1	.00288	.00148	.00184	-.00037	.00148		
#2	.00093	.00035	.00585	-.00337	.00129		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11583	--	--	--	--	--	--
SDev	27.26090	--	--	--	--	--	--
%RSD	.2353488	--	--	--	--	--	--
#1	11602	--	--	--	--	--	--
#2	11564	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator: GSP
Run Time: 10/29/01 09:57:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.00172	0.08758	0.00471	0.09164	0.00903	0.00478	0.45712
SDev	.00057	.00518	.00152	.00073	.00026	.00002	.00097
%RSD	33.149	5.9187	32.196	.79177	2.9148	.33867	.21278
#1	0.00213	0.09125	.00578	0.09215	0.00922	0.00476	0.45643
#2	0.00132	0.08392	0.00364	0.09113	0.00884	0.00479	0.45781
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.00462	0.00935	0.00414	0.00749	.08864	0.09598	0.84076
SDev	.00005	.00053	.00015	.00036	.00712	.00058	.00777
%RSD	1.1369	5.6677	3.6489	4.7825	8.0273	.59984	.92389
#1	0.00459	0.00972	0.00425	0.00774	.09367	0.09558	0.83527
#2	0.00466	0.00897	0.00404	0.00724	.08361	0.09639	0.84625
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	0.45664	0.00955	0.00937	0.36012	0.00458	0.00400	0.00958
SDev	.00041	.00014	.00022	.01187	.00097	.00110	.00034
%RSD	.08912	1.4505	2.3449	3.2955	21.086	27.570	3.5209
#1	0.45693	0.00945	0.00953	0.35173	.00526	0.00322	0.00982
#2	0.45635	0.00965	0.00922	0.36852	0.00390	0.00478	0.00935
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.04787	0.00384	0.00457	0.00465	0.00702	0.00806	0.01924
SDev	.00123	.00006	.00007	.00024	.00044	.00016	.00009
%RSD	2.5753	1.5620	1.5326	5.0724	6.2004	2.0154	.47799
#1	0.04700	0.00388	0.00452	0.00481	0.00671	0.00818	0.01917
#2	0.04875	0.00380	0.00462	0.00448	0.00732	0.00795	0.01930
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.00590	.00756	.01060	Q.04628
SDev	.00227	.00052	.00312	.00206	.00000
%RSD	1227.5	8.8203	41.337	19.488	.00098
#1	-.00142	.00553	.00535	.01206	Q.04628
#2	.00179	.00627	.00976	.00914	Q.04628
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail
Value					.10000
Range					50.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11577	--	--	--	--	--	--
SDev	60.98313	--	--	--	--	--	--
%RSD	.5267724	--	--	--	--	--	--
#1	11534	--	--	--	--	--	--
#2	11620	--	--	--	--	--	--

Method: 60102007 Sample Name: AL500 Operator: GSP
Run Time: 10/29/01 10:02:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	498.35	-.00118	.00078	.00054	.00047	.01552
SDev	.00010	1.21	.00423	.00138	.00032	.00003	.00060
%RSD	8.2169	.24293	358.67	176.68	58.615	6.2303	3.8773
#1	-.00117	497.50	.00181	-.00019	.00076	.00045	.01594
#2	-.00132	499.21	-.00417	.00176	.00032	.00049	.01509
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00027	.03058	.00182	.11153	.12281	.02946
SDev	.00018	.00060	.00013	.00021	.01515	.00012	.01403
%RSD	18.279	217.58	.43578	11.804	13.584	.09541	47.613
#1	-.00086	.00015	.03049	.00197	.12224	.12289	.03938
#2	-.00111	-.00070	.03068	.00167	.10082	.12272	.01954
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00162	.00180	.01010	.14830	.00564	-.00388	-.00368
SDev	.00277	.00009	.00079	.01502	.00145	.00006	.00138
%RSD	171.01	5.2063	7.8312	10.127	25.713	1.5506	37.555
#1	.00357	.00186	.01066	.15891	.00667	-.00384	-.00466
#2	-.00034	.00173	.00954	.13768	.00462	-.00392	-.00270
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00377	-.00203	.00013	-.00003	.00540	.00034	.00297
SDev	.00098	.00157	.00001	.00018	.00199	.00025	.00042
%RSD	26.022	77.118	6.8151	644.85	36.762	71.625	13.964
#1	-.00308	-.00314	.00014	.00010	.00681	.00052	.00326
#2	-.00446	-.00092	.00013	-.00015	.00400	.00017	.00268
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	Q.01208	Q-.01185	Q.00789	Q-.00946	.00026
SDev	.00449	.00233	.00868	.00226	.00004
%RSD	37.167	19.676	110.02	23.924	14.185
#1	Q.00891	Q-.01020	.00175	Q-.00786	.00029
#2	Q.01526	Q-.01350	Q.01403	Q-.01106	.00023

Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00300	.00300	.00500	.00500	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10975	--	--	--	--	--	--
SDev	71.78377	--	--	--	--	--	--
%RSD	.6540930	--	--	--	--	--	--
#1	11025	--	--	--	--	--	--
#2	10924	--	--	--	--	--	--

Method: 60102007 Sample Name: FE500 Operator: GSP
Run Time: 10/29/01 10:08:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.12625	.00256	-.00021	.00055	.00055	-.00689
SDev	.00089	.04292	.00223	.00060	.00034	.00001	.00064
%RSD	140.22	33.992	87.273	290.89	61.526	2.5794	9.3229
#1	.00126	.15660	Q.00414	.00022	.00078	.00056	-.00644
#2	.00001	.09591	.00098	-.00063	.00031	.00054	-.00735
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00300				.10000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00159	.00010	.00384	-.00122	542.17	391.03	.03360
SDev	.00003	.00010	.00021	.00023	1.30	1.07	.01337
%RSD	1.8181	102.77	5.4811	18.779	.23918	.27297	39.774
#1	Q.00157	.00003	-.00369	-.00106	543.08	391.78	.04305
#2	Q.00161	.00017	-.00399	-.00139	541.25	390.27	.02415
Errors	QC Fail	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04036	-.00297	-.00128	.03566	-.00771	-.00182	.00158
SDev	.00335	.00005	.00009	.04857	.00026	.00056	.00025
%RSD	8.3085	1.8340	7.1463	136.20	3.4148	30.646	15.941
#1	-.03798	-.00293	-.00135	.07000	-.00790	-.00143	.00176
#2	-.04273	-.00301	-.00122	.00132	-.00752	-.00221	.00140
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	.00252	-.00034	-.00018	Q-.00534	.00044	-.00400
SDev	.00194	.00050	.00004	.00027	.00316	.00032	.00022
%RSD	63.555	19.748	11.790	147.45	59.254	74.174	5.4161
#1	-.00168	.00288	-.00031	.00001	Q-.00310	.00021	-.00416
#2	-.00443	.00217	-.00037	-.00037	Q-.00758	.00066	-.00385
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00027	Q-.00287	-.00034	.00254	.00007		
SDev	.00004	.00082	.00058	.00009	.00003		
%RSD	14.181	28.504	171.99	3.4855	40.397		
#1	.00030	Q-.00229	.00007	.00260	.00009		
#2	.00025	Q-.00344	-.00075	.00248	.00005		
Errors	QC Pass	QC Fail	QC Pass	QC Pass	NOCHECK		
Value	.00000	.00000	.00000	.00000			
Range	.00200	.00200	.00300	.00300			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10591	--	--	--	--	--	--
SDev	32.92052	--	--	--	--	--	--
%RSD	.3108262	--	--	--	--	--	--
#1	10568	--	--	--	--	--	--
#2	10615	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator: GSP
Run Time: 10/29/01 10:14:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	505.12	.00143	.00436	.00197	.00083	457.43
SDev	.00030	.54	.00179	.00072	.00007	.00001	.61
%RSD	115.20	.10745	125.81	16.432	3.3315	.70717	.13442
#1	-.00005	504.74	.00016	.00385	.00202	.00083	457.00
#2	-.00048	505.51	.00270	.00487	.00193	.00084	457.87
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00064	.00363	-.00185	.00035	195.82	179.37	.02642
SDev	.00002	.00023	.00035	.00097	.02	.01	.00634
%RSD	3.2127	6.4588	18.765	277.01	.00874	.00463	24.015
#1	-.00063	.00346	-.00160	.00104	195.80	179.37	.03091
#2	-.00065	.00380	-.00209	-.00034	195.83	179.36	.02194
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	520.28	.00347	-.00128	.10097	-.00127	.00215	-.00030
SDev	.60	.00004	.00056	.23112	.00049	.00054	.00415
%RSD	.11442	1.2538	43.617	228.89	39.090	24.993	1376.1
#1	519.86	.00344	-.00167	.26439	-.00092	.00177	-.00323
#2	520.70	.00350	-.00088	-.06245	-.00162	.00254	.00263
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00047	-.00130	-.00275	.00448	-.00360	.00391
SDev	.00228	.00083	.00012	.00038	.00122	.00072	.00020
%RSD	147.38	177.68	9.3614	13.651	27.198	19.881	5.1686
#1	.00316	-.00105	-.00122	-.00302	.00362	-.00310	.00377
#2	-.00007	.00012	-.00139	-.00249	.00534	-.00411	.00405
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.02161	.01402	-.00322	.00115	.00042
SDev	.00420	.00290	.00086	.00579	.00003
%RSD	19.431	20.713	26.577	501.52	7.6979
#1	-.01864	.01196	-.00382	-.00294	.00044
#2	-.02457	.01607	-.00261	.00525	.00039
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					.00000
Range					.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10267	--	--	--	--	--	--
SDev	19.24311	--	--	--	--	--	--
%RSD	.1874341	--	--	--	--	--	--
#1	10253	--	--	--	--	--	--
#2	10280	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator: GSP
Run Time: 10/29/01 10:19:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57129	518.57	1.0195	1.0367	1.1253	.51551	466.10
SDev	.00103	.27	.0018	.0043	.0015	.00049	.53
%RSD	.18033	.05286	.17556	.41381	.13682	.09446	.11276
#1	.57202	518.76	1.0207	1.0336	1.1264	.51585	466.47
#2	.57057	518.37	1.0182	1.0397	1.1242	.51516	465.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47311	.94920	.99681	1.1030	206.40	187.10	14.114
SDev	.00051	.00076	.00112	.0012	.26	.33	.019
%RSD	.10826	.08007	.11256	.11295	.12575	.17633	.13606
#1	.47347	.94973	.99760	1.1038	206.58	187.33	14.127
#2	.47275	.94866	.99601	1.1021	206.21	186.86	14.100
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	531.83	1.0159	1.0334	11.619	.93315	.95829	1.0186
SDev	.78	.0015	.0000	.025	.00065	.00345	.0071
%RSD	.14707	.14932	.00281	.21819	.07019	.36030	.69919
#1	532.39	1.0170	1.0334	11.601	.93361	.96073	1.0236
#2	531.28	1.0149	1.0333	11.636	.93268	.95585	1.0135
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0560	1.0102	1.0973	1.0716	.98411	1.0273	.93687
SDev	.0042	.0017	.0005	.0015	.00035	.0011	.00211
%RSD	.39583	.16436	.04542	.14252	.03515	.10823	.22486
#1	1.0589	1.0090	1.0977	1.0727	.98386	1.0280	.93836
#2	1.0530	1.0114	1.0970	1.0705	.98435	1.0265	.93538
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.92829	.97327	1.0128	1.0214	1.0998
SDev	.00559	.00539	.0020	.0117	.0002
%RSD	.38631	.54792	.20012	1.1444	.01868
#1	.93082	.97567	1.0114	1.0297	1.1000
#2	.92575	.97088	1.0142	1.0132	1.0997
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10334	--	--	--	--	--	--
SDev	21.31747	--	--	--	--	--	--
%RSD	.2062925	--	--	--	--	--	--
#1	10319	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 10:28:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50459	10.066	.98612	.98262	.97624	.49294	10.065
SDev	.00137	.018	.00005	.00048	.00182	.00053	.024
%RSD	.27172	.17976	.00459	.04879	.18666	.10670	.23577
#1	.50556	10.053	.98615	.98296	.97753	.49332	10.048
#2	.50362	10.078	.98609	.98228	.97496	.49257	10.082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49544	.99890	.98874	.98692	10.041	10.054	9.5845
SDev	.00007	.00086	.00123	.00127	.012	.002	.0149
%RSD	.01348	.08618	.12459	.12881	.12135	.02391	.15567
#1	.49539	.99951	.98962	.98782	10.050	10.052	9.5950
#2	.49548	.99829	.98787	.98602	10.033	10.056	9.5739
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9738	.98924	.99865	9.6367	1.0003	.99944	.99262
SDev	.0233	.00147	.00079	.0953	.0028	.00222	.00151
%RSD	.23399	.14865	.07887	.98850	.27801	.22170	.15190
#1	9.9573	.99028	.99810	9.5694	.99834	.99788	.99155
#2	9.9903	.98820	.99921	9.7041	1.0023	1.0010	.99369
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0098	1.0021	.98783	1.0075	.99755	.98752	.98364
SDev	.0019	.0014	.00106	.0008	.00631	.00064	.00038
%RSD	.18626	.13741	.10748	.07771	.63248	.06518	.03813
#1	1.0112	1.0011	.98858	1.0081	1.0020	.98798	.98338
#2	1.0085	1.0031	.98708	1.0070	.99309	.98707	.98391
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99406	1.0021	1.0001	.98887	1.0130		
SDev	.00096	.0028	.0037	.00412	.0021		
%RSD	.09621	.28384	.37234	.41660	.20831		
#1	.99338	1.0001	1.0028	.98595	1.0115		
#2	.99473	1.0041	.99750	.99178	1.0145		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11589	--	--	--	--	--	--
SDev	20.84584	--	--	--	--	--	--
%RSD	.1798721	--	--	--	--	--	--
#1	11604	--	--	--	--	--	--
#2	11575	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 10:34:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.01551	.00101	.00153	.00056	.00042	.01676
SDev	.00015	.00998	.00020	.00024	.00005	.00006	.01455
%RSD	70.093	64.389	19.453	15.813	9.6732	13.631	86.805
#1	.00011	.00845	.00115	.00170	.00052	.00038	.00647
#2	.00033	.02257	.00087	.00136	.00060	.00046	.02704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00077	.00033	-.00043	.01612	.01023	.01764
SDev	.00006	.00014	.00052	.00051	.00107	.00608	.00535
%RSD	37.415	17.659	154.11	119.49	6.6601	59.411	30.336
#1	.00011	.00087	-.00003	-.00007	.01688	.00593	.01386
#2	.00019	.00068	.00070	-.00079	.01536	.01453	.02142
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01609	.00058	.00090	.03335	.00076	.00011	-.00106
SDev	.01042	.00008	.00056	.07711	.00019	.00022	.00031
%RSD	64.772	13.573	61.699	231.18	25.359	198.09	28.992
#1	.00872	.00052	.00129	-.02117	.00062	.00027	-.00127
#2	.02345	.00063	.00051	.08787	.00090	-.00004	-.00084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00410	.00124	.00048	.00070	-.00097	.00045	.00065
SDev	.00165	.00136	.00011	.00004	.00100	.00019	.00002
%RSD	40.176	109.20	22.111	6.2044	102.56	43.628	3.6911
#1	.00527	.00221	.00041	.00067	-.00168	.00058	.00067
#2	.00294	.00028	.00056	.00073	-.00027	.00031	.00064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00162	.00097	.00001	-.00159	.00052
SDev	.00153	.00110	.00056	.00074	.00012
%RSD	94.945	112.61	4991.0	46.377	22.816
#1	-.00270	.00175	.00040	-.00211	.00044
#2	-.00053	.00020	-.00038	-.00107	.00060
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11531	--	--	--	--	--	--
SDev	3.018324	--	--	--	--	--	--
%RSD	.0261751	--	--	--	--	--	--
#1	11533	--	--	--	--	--	--
#2	11529	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD131 Operator:
Run Time: 10/29/01 10:39:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00030	.01083	-.00010	.00050	.00011	.00019	.01421
SDev	.00030	.01389	.00284	.00040	.00014	.00006	.01033
%RSD	100.68	128.24	2792.1	80.507	126.22	29.826	72.724
#1	-.00052	.00101	-.00211	.00021	.00001	.00015	.00690
#2	-.00009	.02065	.00191	.00078	.00021	.00023	.02152
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00050	-.00003	-.00063	.00549	.00605	.02090
SDev	.00002	.00072	.00009	.00000	.00054	.00541	.00136
%RSD	308.43	143.78	272.89	.67188	9.8553	89.437	6.5260
#1	-.00001	-.00001	.00003	-.00063	.00511	.00222	.02186
#2	.00002	.00101	-.00009	-.00062	.00588	.00988	.01994
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00811	.00023	-.00015	.03439	.00000	-.00019	-.00045
SDev	.01212	.00014	.00034	.02813	.00023	.00026	.00146
%RSD	149.38	63.216	222.94	81.786	21800.	138.36	325.14
#1	-.00046	.00013	-.00039	.01450	-.00016	-.00037	.00058
#2	.01668	.00033	.00009	.05428	.00017	-.00000	-.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	-.00044	.00017	.00016	-.00297	-.00019	.00307
SDev	.00164	.00008	.00010	.00020	.00006	.00023	.00028
%RSD	108.08	19.167	56.009	121.77	2.0720	121.34	9.1928
#1	.00036	-.00050	.00010	.00002	-.00302	-.00003	.00287
#2	.00268	-.00038	.00024	.00030	-.00293	-.00036	.00327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00125	.00035	.00189	-.00162	.00016		
SDev	.00168	.00123	.00573	.00067	.00012		
%RSD	134.33	355.44	304.05	41.665	77.000		
#1	-.00006	.00052	.00594	-.00209	.00007		
#2	-.00244	.00121	-.00217	-.00114	.00025		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11606	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2133388	--	--	--	--	--	--
#1	11589	--	--	--	--	--	--
#2	11624	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD131 Operator:
Run Time: 10/29/01 10:45:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48741	9.7452	.98010	.96828	.96383	.48860	9.7974
SDev	.00036	.0114	.00604	.00064	.00006	.00026	.0144
%RSD	.07311	.11690	.61652	.06635	.00616	.05302	.14690
#1	.48767	9.7532	.97583	.96783	.96387	.48879	9.8075
#2	.48716	9.7371	.98437	.96874	.96379	.48842	9.7872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49331	.97400	.97689	.96367	L9.7927	9.7905	9.4551
SDev	.00032	.00047	.00164	.00007	.0012	.0101	.0578
%RSD	.06402	.04871	.16772	.00743	.01229	.10354	.61111
#1	.49354	.97434	.97804	.96362	L9.7919	9.7977	9.4960
#2	.49309	.97367	.97573	.96372	L9.7936	9.7833	9.4143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.7209	.97567	.98472	9.4709	.98434	.98570	.98234
SDev	.0091	.00113	.00081	.0416	.00045	.00558	.00642
%RSD	.09410	.11548	.08232	.43880	.04558	.56592	.65353
#1	9.7274	.97647	.98415	9.4415	.98466	.98964	.98688
#2	9.7144	.97487	.98529	9.5003	.98403	.98175	.97780
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97125	.99358	.97689	.98119	.98107	.97004	.98554
SDev	.00139	.00184	.00047	.00086	.00190	.00086	.00197
%RSD	.14299	.18558	.04830	.08729	.19361	.08910	.19933
#1	.97027	.99489	.97723	.98179	.98242	.97065	.98693
#2	.97223	.99228	.97656	.98058	.97973	.96943	.98415
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.97917	.98896	.98684	.98009	.99751
SDev	.00839	.00418	.00826	.00550	.00370
%RSD	.85639	.42235	.83659	.56151	.37146
#1	.98510	.99191	.99268	.98398	1.0001
#2	.97324	.98600	.98100	.97620	.99489
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11668	--	--	--	--	--	--
SDev	63.52982	--	--	--	--	--	--
%RSD	.5444667	--	--	--	--	--	--
#1	11623	--	--	--	--	--	--
#2	11713	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1 Operator:
Run Time: 10/29/01 10:51:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.54150	.00107	.02567	.00216	.00016	12.139
SDev	.00050	.00310	.00041	.00123	.00001	.00000	.081
%RSD	523.55	.57265	38.745	4.7821	.42116	.43285	.66716
#1	.00045	.53930	.00136	.02654	.00216	.00016	12.082
#2	-.00026	.54369	.00078	.02481	.00215	.00016	12.196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	-.00002	.00053	-.00003	L.04733	.05358	3.5392
SDev	.00003	.00026	.00004	.00001	.00093	.00051	.0068
%RSD	17.195	1185.1	7.4011	28.632	1.9640	.95865	.19112
#1	.00013	-.00021	.00056	-.00002	L.04667	.05395	3.5344
#2	.00017	.00016	.00050	-.00003	L.04799	.05322	3.5440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.82471	.00182	.00025	5.2648	.00057	-.00007	.00131
SDev	.00720	.00010	.00038	.0309	.00023	.00016	.00060
%RSD	.87342	5.6164	149.80	.58663	40.094	230.82	45.982
#1	.81962	.00189	-.00001	5.2429	.00073	.00004	.00174
#2	.82981	.00175	.00052	5.2866	.00041	-.00018	.00089
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00227	.00381	.16457	.00384	-.00252	.00103	.01614
SDev	.00015	.00010	.00067	.00010	.00015	.00019	.00011
%RSD	6.4040	2.6228	.40395	2.7097	5.7935	18.027	.66183
#1	-.00217	.00388	.16410	.00377	-.00242	.00116	.01621
#2	-.00238	.00373	.16504	.00392	-.00262	.00090	.01606
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00071	.00589	-.00097	.01333
SDev	.00106	.00029	.00354	.00086	.00003
%RSD	86.381	40.233	60.111	88.836	.20647
#1	.00197	-.00092	.00839	-.00158	.01334
#2	.00048	-.00051	.00339	-.00036	.01331
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	43.57960	--	--	--	--	--	--
%RSD	.3690444	--	--	--	--	--	--
#1	11840	--	--	--	--	--	--
#2	11778	--	--	--	--	--	--

Method: e0102007 Sample Name: 110577-1L Operator:
Run Time: 10/29/01 10:56:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	.10850	.00052	.00618	.00043	.00017	2.4817
SDev	.00152	.00042	.00183	.00102	.00016	.00002	.0019
%RSD	186.22	.38546	350.09	16.548	37.635	8.8439	.07668
#1	.00026	.10879	.00182	.00691	.00054	.00018	2.4804
#2	-.00189	.10820	-.00077	.00546	.00031	.00016	2.4830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.00010	.00033	-.00074	L.00514	.01278	.71347
SDev	.00006	.00013	.00095	.00017	.00053	.00011	.00756
%RSD	1957.3	128.07	291.31	22.555	10.373	.86108	1.0593
#1	.00004	.00020	.00100	-.00062	L.00476	.01286	.71881
#2	-.00005	.00001	-.00035	-.00086	L.00552	.01271	.70812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.16534	.00040	-.00036	.99653	.00066	-.00043	-.00108
SDev	.00177	.00007	.00000	.18384	.00005	.00016	.00026
%RSD	1.0674	16.462	.04574	18.448	7.5778	36.646	24.230
#1	.16659	.00045	-.00036	1.1265	.00069	-.00055	-.00089
#2	.16410	.00036	-.00036	.86653	.00062	-.00032	-.00126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00044	-.00033	.03291	.00080	-.00108	-.00019	.00757
SDev	.00091	.00071	.00004	.00029	.00369	.00054	.00010
%RSD	207.91	213.41	.12891	36.476	341.02	281.08	1.3295
#1	.00021	-.00084	.03288	.00101	.00153	.00019	.00764
#2	-.00108	.00017	.03294	.00060	-.00369	-.00057	.00750
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	.00006	-.00073	-.00125	.00286
SDev	.00090	.00069	.00258	.00168	.00002
%RSD	63.351	1144.9	353.83	134.49	.65353
#1	-.00079	-.00043	-.00255	-.00006	.00287
#2	-.00206	.00055	.00109	-.00243	.00285
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11674	--	--	--	--	--	--
SDev	5.942735	--	--	--	--	--	--
%RSD	.0509053	--	--	--	--	--	--
#1	11670	--	--	--	--	--	--
#2	11678	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1S Operator:
Run Time: 10/29/01 11:02:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49817	10.487	1.0247	1.0171	.99034	.49991	22.178
SDev	.00271	.076	.0051	.0096	.00753	.00410	.150
%RSD	.54398	.72782	.49943	.94420	.76033	.81998	.67506
#1	.49626	10.433	1.0211	1.0103	.98502	.49701	22.072
#2	.50009	10.541	1.0283	1.0239	.99567	.50281	22.284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50679	1.0007	1.0004	.98877	L10.090	10.118	14.322
SDev	.00406	.0075	.0070	.00638	.076	.078	.087
%RSD	.80136	.75350	.70420	.64566	.75124	.76831	.61056
#1	.50391	.99536	.99543	.98426	L10.036	10.063	14.261
#2	.50966	1.0060	1.0054	.99329	L10.143	10.172	14.384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.779	1.0018	1.0084	15.119	1.0104	1.0181	1.0436
SDev	.064	.0074	.0120	.156	.0068	.0055	.0051
%RSD	.59529	.73514	1.1936	1.0350	.67159	.54504	.49275
#1	10.733	.99661	.99991	15.230	1.0056	1.0142	1.0400
#2	10.824	1.0070	1.0169	15.009	1.0152	1.0220	1.0472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97190	.99058	1.1640	1.0089	1.0107	.99978	1.0375
SDev	.05032	.01534	.0084	.0085	.0093	.00605	.0076
%RSD	5.1777	1.5489	.71970	.84464	.91816	.60561	.72785
#1	.93632	.97974	1.1581	1.0029	1.0042	.99550	1.0321
#2	1.0075	1.0014	1.1700	1.0149	1.0173	1.0041	1.0428
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0120	1.0211	1.0503	1.0403	.97297
SDev	.0070	.0048	.0075	.0040	.00555
%RSD	.69212	.47226	.71244	.38201	.57065
#1	1.0071	1.0177	1.0450	1.0375	.96904
#2	1.0170	1.0245	1.0556	1.0431	.97690
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11640	--	--	--	--	--	--
SDev	91.21471	--	--	--	--	--	--
%RSD	.7836079	--	--	--	--	--	--
#1	11705	--	--	--	--	--	--
#2	11576	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1SD Operator:
Run Time: 10/29/01 11:07:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50378	10.600	1.0312	1.0306	1.0007	.50596	22.236
SDev	.00122	.037	.0012	.0031	.0015	.00067	.017
%RSD	.24244	.35365	.11927	.30169	.14666	.13183	.07641
#1	.50464	10.627	1.0303	1.0284	1.0017	.50643	22.224
#2	.50291	10.574	1.0321	1.0328	.99966	.50549	22.248
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51279	1.0116	1.0129	1.0005	L10.211	10.237	14.309
SDev	.00089	.0033	.0032	.0018	.040	.029	.006
%RSD	.17258	.32660	.31495	.18362	.38700	.28576	.04299
#1	.51342	1.0139	1.0152	1.0018	L10.239	10.258	14.314
#2	.51217	1.0092	1.0107	.99919	L10.183	10.216	14.305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.880	1.0128	1.0210	15.340	1.0210	1.0273	1.0508
SDev	.026	.0028	.0042	.343	.0030	.0067	.0111
%RSD	.24142	.27797	.40702	2.2348	.28918	.65049	1.0528
#1	10.898	1.0148	1.0181	15.582	1.0231	1.0320	1.0586
#2	10.861	1.0108	1.0240	15.097	1.0190	1.0226	1.0430
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98733	1.0039	1.1749	1.0216	1.0158	1.0119	1.0472
SDev	.04425	.0060	.0004	.0027	.0015	.0024	.0039
%RSD	4.4814	.60005	.03817	.26398	.14915	.23269	.37131
#1	.95604	.99969	1.1753	1.0197	1.0148	1.0135	1.0500
#2	1.0186	1.0082	1.1746	1.0235	1.0169	1.0102	1.0445
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0191	1.0314	1.0588	1.0468	.97818
SDev	.0082	.0059	.0133	.0100	.00675
%RSD	.80627	.57364	1.2519	.95224	.68992
#1	1.0249	1.0356	1.0681	1.0539	.98295
#2	1.0133	1.0272	1.0494	1.0398	.97341
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11571	--	--	--	--	--	--
SDev	16.55486	--	--	--	--	--	--
%RSD	.1430718	--	--	--	--	--	--
#1	11559	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: e0102007 Sample Name: 110557-2 Operator:
Run Time: 10/29/01 11:13:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.18679	.00244	.02647	.00523	.00027	5.8823
SDev	.00011	.00268	.00009	.00099	.00032	.00002	.0070
%RSD	16.250	1.4354	3.5993	3.7309	6.0420	6.0286	.11923
#1	.00074	.18869	.00250	.02717	.00546	.00028	5.8773
#2	.00058	.18490	.00238	.02577	.00501	.00026	5.8872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00056	.00137	.00040	L.07465	.07722	1.7251
SDev	.00008	.00072	.00026	.00063	.00085	.00125	.0070
%RSD	40.767	129.82	18.623	156.76	1.1417	1.6195	.40434
#1	.00026	.00107	.00119	-.00004	L.07525	.07810	1.7201
#2	.00015	.00005	.00155	.00084	L.07404	.07633	1.7300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72012	.00114	.00193	5.0480	.00095	.00059	-.00014
SDev	.00294	.00008	.00059	.0968	.00049	.00055	.00134
%RSD	.40849	7.3221	30.377	1.9170	51.917	93.624	962.89
#1	.71804	.00120	.00235	4.9795	.00130	.00098	-.00109
#2	.72220	.00108	.00152	5.1164	.00060	.00020	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00539	.01908	.00264	-.00229	.00168	.01246
SDev	.00007	.00040	.00009	.00032	.00091	.00004	.00014
%RSD	54.448	7.4910	.47716	11.974	39.763	2.6043	1.1264
#1	.00008	.00510	.01914	.00286	-.00293	.00165	.01256
#2	.00018	.00568	.01902	.00241	-.00164	.00171	.01236
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00088	.00044	.00644	-.00342	.00120
SDev	.00288	.00227	.00497	.00047	.00009
%RSD	325.41	509.30	77.170	13.647	7.0776
#1	-.00115	.00205	.00292	-.00309	.00126
#2	.00292	-.00116	.00995	-.00375	.00114
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11870	--	--	--	--	--	--
SDev	34.76010	--	--	--	--	--	--
%RSD	.2928309	--	--	--	--	--	--
#1	11895	--	--	--	--	--	--
#2	11846	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-3 Operator:
Run Time: 10/29/01 11:19:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	2.1485	.00194	.03336	.01145	.00021	4.8813
SDev	.00034	.0094	.00067	.00003	.00006	.00002	.0230
%RSD	1508.8	.43827	34.586	.08815	.56144	11.457	.47027
#1	.00022	2.1418	.00146	.03338	.01140	.00019	4.8651
#2	-.00026	2.1552	.00241	.03334	.01149	.00022	4.8975
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	-.00027	.00135	-.00046	L.58650	.60423	3.2135
SDev	.00000	.00023	.00005	.00005	.00110	.00257	.0336
%RSD	20.947	87.265	3.7749	11.760	.18793	.42575	1.0465
#1	-.00002	-.00010	.00139	-.00050	L.58572	.60241	3.1897
#2	-.00002	-.00043	.00132	-.00042	L.58728	.60605	3.2372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.56758	.00286	.00031	9.9876	.00050	-.00024	.00234
SDev	.00316	.00003	.00037	.0694	.00016	.00048	.00058
%RSD	.55756	1.0440	119.62	.69491	32.250	203.46	24.810
#1	.56534	.00288	.00057	10.037	.00038	-.00057	.00193
#2	.56981	.00284	.00005	9.9385	.00061	.00010	.00275
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00294	.00311	.04944	.01895	-.00271	.00161	.01331
SDev	.00137	.00082	.00019	.00001	.00358	.00026	.00012
%RSD	46.651	26.367	.37958	.04015	132.28	16.457	.88170
#1	-.00197	.00369	.04930	.01895	-.00017	.00180	.01340
#2	-.00390	.00253	.04957	.01894	-.00524	.00142	.01323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00181	-.00126	.00872	-.00084	.00115
SDev	.00065	.00104	.00021	.00098	.00002
%RSD	35.726	82.851	2.4120	115.88	1.7346
#1	.00227	-.00200	.00887	-.00153	.00113
#2	.00135	-.00052	.00857	-.00015	.00116
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11804	--	--	--	--	--	--
SDev	11.79087	--	--	--	--	--	--
%RSD	.0998845	--	--	--	--	--	--
#1	11813	--	--	--	--	--	--
#2	11796	--	--	--	--	--	--

Method: 6010200/ Sample Name: 110557-4 Operator:
Run Time: 10/29/01 11:24:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.19134	.00182	.02392	.01270	.00012	5.0255
SDev	.00077	.00061	.00043	.00072	.00010	.00003	.0016
%RSD	177.41	.31932	23.494	3.0125	.81999	20.327	.03100
#1	-.00098	.19178	.00152	.02443	.01277	.00011	5.0266
#2	.00011	.19091	.00213	.02341	.01263	.00014	5.0244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	-.00001	.00022	-.00065	L.18699	.19379	2.1106
SDev	.00002	.00046	.00022	.00087	.00970	.00388	.0182
%RSD	85.920	8366.5	98.315	133.08	5.1895	2.0023	.86226
#1	-.00005	-.00033	.00007	-.00127	L.18013	.19104	2.0977
#2	-.00001	.00032	.00038	-.00004	L.19385	.19653	2.1235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.54167	.00263	-.00034	7.7958	.00019	.00011	.00092
SDev	.00027	.00001	.00034	.2078	.00005	.00040	.00083
%RSD	.05060	.27068	99.554	2.6659	26.576	380.80	90.169
#1	.54148	.00263	-.00058	7.6488	.00015	.00039	.00033
#2	.54187	.00262	-.00010	7.9427	.00022	-.00018	.00150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00339	.00255	.06263	.00307	-.00336	.00045	.01198
SDev	.00061	.00020	.00014	.00021	.00112	.00100	.00008
%RSD	18.001	7.6901	.22784	6.8808	33.213	220.36	.64412
#1	-.00383	.00269	.06273	.00292	-.00415	-.00025	.01203
#2	-.00296	.00242	.06253	.00322	-.00257	.00115	.01192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00046	.00580	-.00152	.01302
SDev	.00129	.00125	.00167	.00041	.00009
%RSD	104.76	273.33	28.751	26.750	.69450
#1	.00032	.00043	.00462	-.00181	.01296
#2	.00214	-.00134	.00698	-.00123	.01309
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11819	--	--	--	--	--	--
SDev	17.21501	--	--	--	--	--	--
%RSD	.1456603	--	--	--	--	--	--
#1	11831	--	--	--	--	--	--
#2	11806	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-5 Operator:
Run Time: 10/29/01 11:30:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00029	.19452	.00277	.02489	.00499	.00020	6.2414
SDev	.00023	.00655	.00072	.00105	.00035	.00002	.0209
%RSD	79.217	3.3682	25.857	4.2019	7.0314	11.727	.33443
#1	-.00013	.19915	.00328	.02563	.00524	.00022	6.2267
#2	-.00045	.18988	.00227	.02415	.00474	.00019	6.2562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00051	.00031	-.00016	L.07594	.07415	1.7075
SDev	.00003	.00099	.00023	.00013	.01414	.00013	.0170
%RSD	32.756	194.06	75.867	80.148	18.620	.18117	.99837
#1	.00008	.00121	.00047	-.00007	L.08594	.07424	1.7195
#2	.00013	-.00019	.00014	-.00025	L.06594	.07405	1.6954
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72580	.00352	-.00013	4.9992	.00045	-.00006	.00151
SDev	.00202	.00011	.00078	.0790	.00058	.00113	.00101
%RSD	.27901	3.1135	594.77	1.5811	128.66	1984.1	66.715
#1	.72723	.00360	.00042	4.9433	.00086	.00074	.00080
#2	.72437	.00345	-.00068	5.0551	.00004	-.00086	.00222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00115	.00326	.01935	.00267	-.00094	.00082	.01996
SDev	.00437	.00037	.00006	.00068	.00176	.00020	.00009
%RSD	381.03	11.434	.32696	25.672	187.41	24.055	.43616
#1	.00194	.00299	.01930	.00315	.00030	.00096	.01990
#2	-.00424	.00352	.01939	.00218	-.00218	.00068	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.00024	.00487	-.00017	.00088
SDev	.00335	.00337	.00364	.00031	.00006
%RSD	512.96	1400.1	74.806	183.94	6.5458
#1	-.00302	.00262	.00229	.00005	.00092
#2	.00172	-.00214	.00744	-.00039	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	39.57036	--	--	--	--	--	--
%RSD	.3350978	--	--	--	--	--	--
#1	11781	--	--	--	--	--	--
#2	11837	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 11:35:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50893	10.069	1.0034	.98960	.97464	.49722	10.107
SDev	.00032	.030	.0049	.00543	.00317	.00178	.023
%RSD	.06245	.29369	.48910	.54918	.32494	.35746	.23131
#1	.50870	10.048	.99991	.98576	.97240	.49596	10.090
#2	.50915	10.090	1.0069	.99345	.97688	.49848	10.124
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50488	1.0107	.99767	.98631	10.115	10.125	9.7692
SDev	.00083	.0037	.00319	.00300	.017	.032	.0359
%RSD	.16479	.36577	.31994	.30430	.16901	.31270	.36751
#1	.50429	1.0081	.99541	.98419	10.103	10.102	9.7945
#2	.50547	1.0133	.99993	.98843	10.127	10.147	9.7438
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.088	.99704	1.0065	9.6640	1.0176	1.0187	1.0157
SDev	.014	.00286	.0065	.1388	.0013	.0034	.0025
%RSD	.13749	.28656	.65003	1.4367	.12954	.33502	.24518
#1	10.078	.99502	1.0018	9.7622	1.0167	1.0163	1.0140
#2	10.098	.99906	1.0111	9.5658	1.0185	1.0212	1.0175
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0187	1.0209	.98922	1.0115	1.0153	.99199	1.0049
SDev	.0044	.0010	.00362	.0027	.0024	.00220	.0009
%RSD	.42907	.09406	.36572	.26844	.23352	.22142	.09345
#1	1.0156	1.0202	.98666	1.0095	1.0137	.99043	1.0043
#2	1.0218	1.0215	.99178	1.0134	1.0170	.99354	1.0056
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0116	1.0223	1.0209	1.0131	1.0449		
SDev	.0017	.0060	.0004	.0039	.0010		
%RSD	.17098	.58497	.03826	.38777	.09516		
#1	1.0128	1.0181	1.0212	1.0104	1.0456		
#2	1.0103	1.0266	1.0206	1.0159	1.0442		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11641	--	--	--	--	--	--
SDev	50.37100	--	--	--	--	--	--
%RSD	.4327003	--	--	--	--	--	--
#1	11677	--	--	--	--	--	--
#2	11605	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 11:41:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00052	.01215	.00142	.00088	.00043	.00049	.01636
SDev	.00171	.00742	.00056	.00015	.00016	.00005	.00082
%RSD	327.49	61.091	39.154	16.728	37.841	10.070	4.9898
#1	.00069	.00690	.00103	.00077	.00031	.00046	.01579
#2	-.00173	.01739	.00182	.00098	.00054	.00053	.01694
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00024	.00029	.00031	-.00034	.00025	.01034	.01831
SDev	.00009	.00028	.00055	.00041	.00583	.00205	.04330
%RSD	39.271	96.879	176.10	119.90	2309.3	19.806	236.42
#1	.00031	.00009	.00070	-.00005	-.00387	.00889	.04893
#2	.00017	.00048	-.00008	-.00063	.00438	.01179	-.01230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01120	.00061	.00096	-.12591	.00003	.00024	-.00132
SDev	.00434	.00018	.00022	.29085	.00035	.00017	.00014
%RSD	38.741	29.226	23.385	231.00	1133.9	69.961	10.274
#1	.00814	.00048	.00080	.07975	-.00022	.00036	-.00141
#2	.01427	.00073	.00112	-.33158	.00028	.00012	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	-.00020	.00058	.00055	-.00087	.00005	.00048
SDev	.00101	.00059	.00001	.00022	.00100	.00081	.00020
%RSD	219.68	294.76	.84298	40.552	115.00	1580.7	42.395
#1	-.00025	.00022	.00058	.00039	-.00016	.00062	.00034
#2	.00117	-.00062	.00058	.00071	-.00158	-.00052	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00046	.00013	.00212	-.00303	.00076		
SDev	.00533	.00240	.00519	.00279	.00005		
%RSD	1159.4	1783.5	245.07	92.121	5.9217		
#1	.00423	-.00157	.00579	-.00501	.00073		
#2	-.00331	.00183	-.00155	-.00106	.00079		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11659	--	--	--	--	--	--
SDev	27.07169	--	--	--	--	--	--
%RSD	.2321898	--	--	--	--	--	--
#1	11678	--	--	--	--	--	--
#2	11640	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-6 Operator:
Run Time: 10/29/01 11:47:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00456	.00078	.00077	.00027	.00028	.01535
SDev	.00026	.00029	.00140	.00007	.00002	.00002	.00216
%RSD	81.095	6.4093	179.33	9.2920	5.5515	8.4151	14.099
#1	-.00014	.00436	-.00021	.00082	.00028	.00030	.01688
#2	-.00050	.00477	.00177	.00072	.00026	.00027	.01382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00093	.00017	-.00049	L.01003	.00268	.03674
SDev	.00021	.00024	.00073	.00026	.00734	.00104	.05383
%RSD	314.91	26.160	428.61	52.789	73.174	38.741	146.50
#1	.00021	.00076	.00069	-.00031	L.00484	.00342	.07480
#2	-.00008	.00111	-.00035	-.00068	L.01522	.00195	-.00132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00565	.00033	-.00008	.11701	.00048	-.00058	-.00056
SDev	.00005	.00010	.00026	.08354	.00033	.00026	.00038
%RSD	.90929	29.029	337.59	71.397	67.461	45.289	68.776
#1	.00561	.00040	.00011	.17608	.00071	-.00039	-.00029
#2	.00569	.00026	-.00026	.05793	.00025	-.00076	-.00083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00256	-.00013	.00022	.00042	.00002	.00007	.01171
SDev	.00080	.00110	.00019	.00003	.00091	.00068	.00000
%RSD	31.399	818.84	85.559	5.9900	4654.2	910.01	.03051
#1	.00199	.00064	.00036	.00040	.00066	.00056	.01170
#2	.00312	-.00091	.00009	.00044	-.00062	-.00041	.01171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00229	.00028	.00169	-.00168	.00019
SDev	.00458	.00189	.00358	.00122	.00021
%RSD	199.52	683.04	212.07	72.553	110.85
#1	.00094	-.00106	.00422	-.00253	.00034
#2	-.00553	.00161	-.00084	-.00082	.00004
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11841	--	--	--	--	--	--
SDev	75.55685	--	--	--	--	--	--
%RSD	.6381212	--	--	--	--	--	--
#1	11894	--	--	--	--	--	--
#2	11787	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-7 Operator:
Run Time: 10/29/01 11:52:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00447	-.00075	-.00027	-.00007	.00013	.00050
SDev	.00096	.00226	.00035	.00090	.00014	.00005	.00045
%RSD	132.15	50.496	46.946	336.41	207.94	36.693	89.509
#1	.00140	-.00287	-.00100	.00037	.00003	.00010	.00082
#2	.00005	-.00606	-.00050	-.00091	-.00016	.00017	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	-.00010	.00044	-.00027	L-.01147	.00001	.05403
SDev	.00002	.00015	.00026	.00043	.00815	.00030	.02019
%RSD	15.754	148.92	58.147	157.99	71.040	5719.6	37.372
#1	.00012	-.00021	.00062	.00003	L-.00571	.00022	.03976
#2	.00015	.00001	.00026	-.00058	L-.01724	-.00021	.06831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00422	.00001	-.00019	.17921	-.00014	-.00032	.00066
SDev	.00196	.00005	.00029	.07974	.00014	.00044	.00085
%RSD	46.400	713.50	147.26	44.494	102.51	137.64	127.13
#1	-.00283	.00005	.00001	.23559	-.00004	-.00063	.00126
#2	-.00560	-.00003	-.00040	.12283	-.00024	-.00001	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00087	.00010	-.00021	.00073	.00063	.01165
SDev	.00199	.00112	.00004	.00014	.00020	.00041	.00011
%RSD	183.83	129.03	43.667	68.706	27.971	65.767	.94524
#1	.00032	.00166	.00013	-.00011	.00058	.00092	.01172
#2	-.00249	.00008	.00007	-.00031	.00087	.00034	.01157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00377	-.00236	.00759	-.00279	.00006		
SDev	.00124	.00128	.00078	.00088	.00003		
%RSD	32.885	54.231	10.263	31.448	49.322		
#1	.00465	-.00327	.00814	-.00217	.00004		
#2	.00289	-.00146	.00704	-.00341	.00007		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11961	--	--	--	--	--	--
SDev	67.44445	--	--	--	--	--	--
%RSD	.5638739	--	--	--	--	--	--
#1	12009	--	--	--	--	--	--
#2	11913	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-1 Operator:
Run Time: 10/29/01 11:58:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	.16075	.00151	.02615	.00228	.00006	1.1798
SDev	.00043	.00712	.00018	.00117	.00017	.00004	.0163
%RSD	44.244	4.4276	11.698	4.4723	7.3907	66.194	1.3802
#1	-.00066	.16578	.00163	.02697	.00240	.00009	1.1913
#2	-.00127	.15572	.00138	.02532	.00216	.00003	1.1683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00048	.00024	-.00099	L.25156	.25177	1.0327
SDev	.00006	.00035	.00028	.00035	.00433	.00401	.0537
%RSD	101.15	72.148	120.71	35.934	1.7209	1.5912	5.1965
#1	-.00002	.00073	.00044	-.00073	L.25462	.25461	1.0706
#2	-.00011	.00024	.00003	-.00124	L.24850	.24894	.99472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.26558	.00143	-.00043	6.2094	.00092	-.00008	.00209
SDev	.00438	.00004	.00010	.1419	.00049	.00072	.00036
%RSD	1.6473	2.7440	23.221	2.2845	52.761	915.53	17.272
#1	.26868	.00146	-.00050	6.3097	.00127	.00043	.00234
#2	.26249	.00141	-.00036	6.1091	.00058	-.00059	.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00084	.00231	.00641	.00235	-.00176	.00043	.01276
SDev	.00010	.00079	.00014	.00042	.00019	.00005	.00014
%RSD	12.253	34.093	2.2483	17.665	10.513	10.722	1.0746
#1	-.00077	.00287	.00652	.00264	-.00189	.00047	.01286
#2	-.00092	.00175	.00631	.00206	-.00163	.00040	.01266
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00152	.00064	.00358	.00134	.00023
SDev	.00038	.00089	.00064	.00086	.00011
%RSD	25.219	138.87	17.821	63.971	48.616
#1	-.00125	.00127	.00313	.00195	.00031
#2	-.00179	.00001	.00403	.00074	.00015
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11991	--	--	--	--	--	--
SDev	150.0289	--	--	--	--	--	--
%RSD	1.251225	--	--	--	--	--	--
#1	11884	--	--	--	--	--	--
#2	12097	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-2 Operator:
Run Time: 10/29/01 12:03:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.57648	.00256	.02609	.00300	.00010	4.7344
SDev	.00100	.00344	.00002	.00021	.00010	.00001	.0041
%RSD	230.66	.59582	.64722	.79822	3.4724	10.961	.08566
#1	-.00114	.57405	.00255	.02594	.00292	.00009	4.7373
#2	.00027	.57891	.00257	.02624	.00307	.00011	4.7316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00126	.00084	-.00026	1.28056	.28122	1.2823
SDev	.00005	.00003	.00055	.00094	.01488	.00033	.0050
%RSD	63.542	2.5035	64.803	359.00	5.3026	.11733	.38794
#1	.00005	.00124	.00046	-.00093	1.27004	.28099	1.2787
#2	.00012	.00128	.00123	.00040	1.29108	.28145	1.2858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.90048	.00266	-.00012	2.2505	.00059	-.00071	.00250
SDev	.00133	.00000	.00017	.2896	.00027	.00041	.00040
%RSD	.14748	.05432	139.13	12.869	45.209	57.807	16.000
#1	.89954	.00266	-.00000	2.0457	.00040	-.00100	.00222
#2	.90142	.00266	-.00024	2.4553	.00078	-.00042	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00191	.00935	.00690	-.00237	.00056	.01730
SDev	.00066	.00211	.00005	.00045	.00159	.00096	.00017
%RSD	2647.0	110.29	.58003	6.5432	67.031	171.64	.98689
#1	.00049	.00042	.00932	.00658	-.00350	-.00012	.01718
#2	-.00044	.00340	.00939	.00722	-.00125	.00124	.01743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00166	-.00024	.00302	.00224	.00059
SDev	.00318	.00098	.00153	.00016	.00002
%RSD	192.22	413.42	50.494	7.2621	3.1587
#1	-.00391	.00045	.00194	.00235	.00057
#2	.00060	-.00093	.00410	.00212	.00060
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11774	--	--	--	--	--	--
SDev	5.754219	--	--	--	--	--	--
%RSD	.0488702	--	--	--	--	--	--
#1	11770	--	--	--	--	--	--
#2	11779	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-3 Operator:
Run Time: 10/29/01 12:09:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.15118	.00012	.02815	.00619	.00009	6.1267
SDev	.00026	.00211	.00139	.00110	.00005	.00002	.0111
%RSD	81.883	1.3939	1130.1	3.9105	.85348	19.295	.18072
#1	-.00013	.15267	.00111	.02893	.00623	.00008	6.1189
#2	-.00050	.14969	-.00086	.02737	.00616	.00010	6.1345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00014	.00057	-.00049	L.49090	.49570	1.4175
SDev	.00006	.00021	.00006	.00010	.00262	.00107	.0051
%RSD	68.021	145.06	10.625	20.028	.53420	.21500	.35753
#1	-.00005	.00029	.00061	-.00056	L.49275	.49495	1.4139
#2	-.00013	-.00000	.00053	-.00042	L.48904	.49646	1.4211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.53955	.00353	-.00067	6.5772	.00048	.00074	.00369
SDev	.00050	.00003	.00014	.0723	.00023	.00038	.00271
%RSD	.09270	.95650	20.649	1.0991	47.832	50.919	73.517
#1	.53991	.00356	-.00077	6.6283	.00064	.00047	.00177
#2	.53920	.00351	-.00057	6.5261	.00031	.00100	.00561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	.00211	.01703	.00202	-.00363	.00070	.01199
SDev	.00370	.00026	.00003	.00014	.00031	.00023	.00029
%RSD	198.29	12.335	.14529	6.9256	8.4656	32.806	2.3938
#1	.00075	.00192	.01702	.00211	-.00341	.00054	.01219
#2	-.00449	.00229	.01705	.00192	-.00385	.00086	.01179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00118	.00052	.00675	.00216	.00324
SDev	.00046	.00033	.00012	.00413	.00000
%RSD	39.306	64.126	1.7139	190.76	.05965
#1	.00085	.00028	.00683	-.00075	.00324
#2	.00151	.00075	.00667	.00508	.00324
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11849	--	--	--	--	--	--
SDev	32.02490	--	--	--	--	--	--
%RSD	.2702792	--	--	--	--	--	--
#1	11871	--	--	--	--	--	--
#2	11826	--	--	--	--	--	--

Analysis Report 10/29/01 12:20:40 PM page

Method: 60102007 Sample Name: 110611-1 Operator:
Run Time: 10/29/01 12:15:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00103	6.0627	.00328	.03158	.01865	.00009	76.725
SDev	.00069	.0011	.00052	.00070	.00018	.00002	.105
%RSD	66.518	.01851	15.919	2.2163	.95327	20.251	.13704
#1	-.00152	6.0635	.00365	.03207	.01877	.00010	76.651
#2	-.00055	6.0619	.00291	.03108	.01852	.00007	76.799
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00029	-.00018	-.00070	1.01833	.02664	5.0115
SDev	.00013	.00021	.00060	.00063	.00535	.00029	.0085
%RSD	66.876	73.564	327.00	90.071	29.192	1.0810	.17022
#1	-.00030	.00044	-.00060	-.00114	1.02211	.02684	5.0054
#2	-.00011	.00014	.00024	-.00025	1.01454	.02644	5.0175
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.30325	.00068	.00123	8.5397	.00141	.00025	.00161
SDev	.00184	.00001	.00012	.1268	.00036	.00039	.00084
%RSD	.60544	1.8144	9.6378	1.4848	25.962	157.57	51.852
#1	.30454	.00068	.00131	8.4501	.00167	.00052	.00102
#2	.30195	.00067	.00114	8.6294	.00115	-.00003	.00220
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00210	.00106	.73213	-.00001	-.00264	.00219	.01440
SDev	.00204	.00070	.00084	.00014	.00005	.00042	.00002
%RSD	97.357	65.898	.11523	1542.7	1.8640	19.180	.15057
#1	-.00354	.00056	.73154	.00009	-.00260	.00190	.01438
#2	-.00065	.00155	.73273	-.00011	-.00267	.00249	.01441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00024	.00542	-.00029	.00363
SDev	.00477	.00297	.00662	.00205	.00000
%RSD	387.31	1223.2	122.07	701.59	.09104
#1	-.00214	.00186	.00074	.00116	.00363
#2	.00460	-.00234	.01010	-.00174	.00362
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11629	--	--	--	--	--	--
SDev	21.74215	--	--	--	--	--	--
%RSD	.1869653	--	--	--	--	--	--
#1	11614	--	--	--	--	--	--
#2	11644	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-2 Operator:
Run Time: 10/29/01 12:20:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	.30567	.00176	.03336	.00651	.00008	50.260
SDev	.00004	.00151	.00104	.00076	.00017	.00002	.185
%RSD	11.404	.49308	59.001	2.2683	2.6666	20.016	.36850
#1	-.00037	.30460	.00103	.03283	.00638	.00007	50.129
#2	-.00032	.30673	.00250	.03390	.00663	.00009	50.391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00008	.00104	.00002	L.06721	.07670	11.543
SDev	.00004	.00029	.00021	.00012	.01087	.00026	.049
%RSD	677.61	367.05	19.742	625.92	16.176	.33792	.42663
#1	-.00003	.00028	.00119	-.00007	L.05952	.07651	11.508
#2	.00002	-.00012	.00090	.00011	L.07490	.07688	11.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.4474	.00768	.00137	16.632	-.00013	-.00004	.00314
SDev	.0120	.00009	.00032	.062	.00061	.00002	.00088
%RSD	.49050	1.2281	23.233	.37577	484.79	43.899	27.930
#1	2.4389	.00761	.00114	16.588	-.00056	-.00005	.00376
#2	2.4559	.00774	.00159	16.676	.00031	-.00003	.00252
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00093	.00426	.04932	.00879	-.00455	.00799	.01141
SDev	.00113	.00033	.00008	.00023	.00104	.00017	.00015
%RSD	121.13	7.7694	.16171	2.5807	22.794	2.1853	1.2765
#1	-.00173	.00403	.04926	.00863	-.00382	.00787	.01131
#2	-.00013	.00450	.04937	.00895	-.00529	.00812	.01151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00295	-.00153	.00892	.00026	.00761
SDev	.00008	.00006	.00035	.00114	.00007
%RSD	2.5603	4.0647	3.9548	442.40	.86551
#1	.00301	-.00157	.00916	.00106	.00756
#2	.00290	-.00149	.00867	-.00055	.00765
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11846	--	--	--	--	--	--
SDev	28.53424	--	--	--	--	--	--
%RSD	.2408844	--	--	--	--	--	--
#1	11866	--	--	--	--	--	--
#2	11825	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-3 Operator:
Run Time: 10/29/01 12:26:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	.96787	.00179	.03515	.00829	.00016	14.343
SDev	.00072	.00153	.00037	.00007	.00004	.00004	.014
%RSD	104.15	.15782	20.729	.20315	.49290	22.228	.09748
#1	-.00119	.96679	.00205	.03520	.00832	.00014	14.353
#2	-.00018	.96895	.00153	.03510	.00826	.00019	14.333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00013	.00007	.00076	-.00060	L.31687	.32849	8.8912
SDev	.00001	.00018	.00028	.00059	.00284	.00073	.0095
%RSD	6.9043	242.01	37.257	97.373	.89573	.22331	.10732
#1	-.00012	-.00005	.00056	-.00102	L.31887	.32901	8.8844
#2	-.00013	.00020	.00096	-.00019	L.31486	.32798	8.8979
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.52459	.00313	-.00067	12.934	.00039	.00014	.00157
SDev	.00172	.00003	.00038	.156	.00103	.00009	.00048
%RSD	.32836	1.1136	56.695	1.2057	260.21	60.280	30.463
#1	.52338	.00315	-.00093	12.824	-.00033	.00020	.00190
#2	.52581	.00310	-.00040	13.044	.00112	.00008	.00123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00208	.00313	.06117	.00903	-.00062	.00103	.01452
SDev	.00028	.00033	.00009	.00016	.00217	.00023	.00011
%RSD	13.351	10.662	.14316	1.7424	348.72	22.186	.72336
#1	-.00228	.00290	.06123	.00892	-.00216	.00087	.01459
#2	-.00189	.00337	.06111	.00914	.00091	.00119	.01444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00081	-.00019	.00562	-.00046	.00085
SDev	.00208	.00117	.00441	.00292	.00000
%RSD	255.55	607.28	78.535	637.07	.46967
#1	-.00066	.00063	.00250	.00161	.00085
#2	.00228	-.00102	.00874	-.00252	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	7.970834	--	--	--	--	--	--
%RSD	.0676129	--	--	--	--	--	--
#1	11783	--	--	--	--	--	--
#2	11795	--	--	--	--	--	--

Method: 60102007 Sample Name: 010655-1 Operator:
Run Time: 10/29/01 12:32:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00028	.30389	.00235	.03677	.02131	.00014	28.581
SDev	.00175	.00144	.00464	.00041	.00000	.00002	.070
%RSD	623.04	.47359	197.62	1.1089	.01708	11.716	.24535
#1	-.00152	.30287	-.00093	.03706	.02131	.00013	28.631
#2	.00096	.30491	.00563	.03648	.02131	.00016	28.532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00007	.00047	.00023	-.00039	L.39412	.40251	3.6119
SDev	.00006	.00022	.00058	.00105	.00100	.00027	.0134
%RSD	78.307	46.937	254.90	272.21	.25263	.06714	.37028
#1	-.00011	.00032	-.00018	-.00113	L.39482	.40270	3.6025
#2	-.00003	.00063	.00064	.00036	L.39341	.40232	3.6214
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0773	.00412	-.00043	5.2546	.00076	.00029	.00234
SDev	.0022	.00004	.00045	.2726	.00032	.00098	.00140
%RSD	.10414	1.0496	104.26	5.1880	42.478	332.50	60.112
#1	2.0789	.00415	-.00011	5.0618	.00053	.00099	.00333
#2	2.0758	.00409	-.00075	5.4473	.00098	-.00040	.00134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00253	.00443	.28323	.00490	-.00563	.00068	.01499
SDev	.00218	.00192	.00111	.00006	.00022	.00069	.00009
%RSD	86.124	43.337	.39254	1.2768	3.9150	102.03	.58151
#1	-.00099	.00307	.28402	.00486	-.00547	.00019	.01493
#2	-.00407	.00579	.28244	.00495	-.00578	.00117	.01505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00140	-.00026	.00876	-.00087	.01272
SDev	.00355	.00324	.00278	.00349	.00006
%RSD	252.71	1253.5	31.698	400.94	.43642
#1	-.00110	.00203	.00680	.00160	.01268
#2	.00391	-.00255	.01073	-.00334	.01276
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11690	--	--	--	--	--	--
SDev	1.981142	--	--	--	--	--	--
%RSD	.0169475	--	--	--	--	--	--
#1	11691	--	--	--	--	--	--
#2	11688	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-2 Operator:
Run Time: 10/29/01 12:37:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	4.1140	.00054	.01945	.00688	.00027	14.853
SDev	.00053	.0017	.00181	.00118	.00019	.00002	.019
%RSD	69.753	.04032	334.01	6.0561	2.8283	6.9759	.13014
#1	-.00114	4.1128	-.00074	.01861	.00674	.00026	14.866
#2	-.00039	4.1151	.00182	.02028	.00702	.00029	14.839
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00043	.00253	.00013	1.70380	.71738	12.294
SDev	.00016	.00094	.00068	.00023	.00975	.00170	.002
%RSD	183.48	215.96	26.813	177.24	1.3855	.23746	.01871
#1	-.00020	-.00023	.00205	-.00003	1.69690	.71858	12.296
#2	.00003	.00109	.00301	.00029	1.71069	.71617	12.292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.7242	.00774	-.00058	14.469	.00072	-.00034	.00164
SDev	.0021	.00008	.00011	.262	.00073	.00028	.00005
%RSD	.05644	.98433	18.416	1.8115	102.51	83.264	3.0100
#1	3.7257	.00769	-.00065	14.284	.00020	-.00053	.00161
#2	3.7228	.00779	-.00050	14.654	.00124	-.00014	.00168
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00278	.00353	.07709	.02284	-.00387	.00412	.01767
SDev	.00178	.00031	.00016	.00047	.00144	.00043	.00026
%RSD	64.104	8.6952	.21300	2.0692	37.136	10.375	1.4885
#1	-.00404	.00375	.07720	.02250	-.00489	.00382	.01749
#2	-.00152	.00331	.07697	.02317	-.00286	.00442	.01786
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00049	-.00075	.00457	.00018	.00713
SDev	.00026	.00029	.00099	.00042	.00005
%RSD	53.824	38.530	21.718	230.04	.73798
#1	.00030	-.00095	.00387	.00048	.00709
#2	.00067	-.00054	.00527	-.00011	.00717
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11670	--	--	--	--	--	--
SDev	1.320301	--	--	--	--	--	--
%RSD	.0113134	--	--	--	--	--	--
#1	11669	--	--	--	--	--	--
#2	11671	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 12:43:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50832	10.145	1.0060	.98468	.97042	.49761	10.189
SDev	.00002	.019	.0002	.00212	.00136	.00050	.022
%RSD	.00371	.19033	.02024	.21521	.14032	.10019	.21824
#1	.50834	10.132	1.0061	.98618	.96946	.49726	10.173
#2	.50831	10.159	1.0058	.98318	.97138	.49796	10.204
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51046	1.0164	1.0015	.98180	10.178	10.158	9.9273
SDev	.00018	.0008	.0014	.00027	.019	.012	.0267
%RSD	.03626	.08283	.14127	.02736	.18256	.11712	.26849
#1	.51033	1.0158	1.0005	.98199	10.165	10.149	9.9085
#2	.51059	1.0170	1.0025	.98161	10.192	10.166	9.9462
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.220	1.0004	1.0075	10.042	1.0251	1.0379	1.0219
SDev	.026	.0014	.0031	.057	.0011	.0004	.0010
%RSD	.25825	.14482	.30704	.56957	.11031	.03866	.10146
#1	10.201	.99933	1.0053	10.082	1.0243	1.0376	1.0226
#2	10.238	1.0014	1.0097	10.002	1.0259	1.0382	1.0211
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0168	1.0310	.98712	1.0134	1.0241	.99414	1.0189
SDev	.0029	.0001	.00088	.0019	.0003	.00098	.0011
%RSD	.28576	.00553	.08887	.18495	.03013	.09902	.10595
#1	1.0189	1.0310	.98650	1.0121	1.0243	.99345	1.0182
#2	1.0148	1.0311	.98774	1.0147	1.0239	.99484	1.0197
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0296	1.0421	1.0318	1.0169	1.0817		
SDev	.0017	.0002	.0024	.0004	.0058		
%RSD	.16510	.02372	.22815	.03728	.53329		
#1	1.0284	1.0422	1.0335	1.0171	1.0777		
#2	1.0308	1.0419	1.0302	1.0166	1.0858		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11675	--	--	--	--	--	--
SDev	28.34573	--	--	--	--	--	--
%RSD	.2427803	--	--	--	--	--	--
#1	11696	--	--	--	--	--	--
#2	11655	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 12:48:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00751	.00166	.00130	.00032	.00056	.01574
SDev	.00028	.00787	.00020	.00069	.00037	.00005	.00345
%RSD	381.99	104.78	11.912	53.456	115.14	9.6435	21.898
#1	.00027	.01308	.00180	.00179	.00058	.00060	.01818
#2	-.00013	.00195	.00152	.00081	.00006	.00052	.01331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00062	.00038	-.00067	.00014	.00945	.00176
SDev	.00009	.00018	.00029	.00035	.01923	.00185	.00765
%RSD	56.871	28.205	76.855	52.164	13740.	19.631	434.09
#1	.00023	.00075	.00059	-.00043	.01374	.01076	.00717
#2	.00010	.00050	.00017	-.00092	-.01346	.00813	-.00365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01063	.00056	.00087	-.02628	.00039	.00103	.00068
SDev	.00739	.00022	.00048	.00562	.00089	.00008	.00085
%RSD	69.519	39.232	55.263	21.401	229.93	8.1790	125.14
#1	.01585	.00071	.00122	-.02231	.00101	.00109	.00008
#2	.00540	.00040	.00053	-.03026	-.00024	.00097	.00127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00055	.00054	.00047	-.00043	.00016	.00055
SDev	.00370	.00184	.00014	.00048	.00201	.00012	.00042
%RSD	285.81	331.72	25.395	102.57	468.51	76.399	76.360
#1	.00391	.00185	.00063	.00080	-.00185	.00024	.00084
#2	-.00132	-.00075	.00044	.00013	.00099	.00007	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00136	.00546	-.00171	.00067
SDev	.00125	.00075	.00299	.00022	.00013
%RSD	342.92	55.357	54.711	13.058	19.736
#1	-.00052	.00189	.00335	-.00156	.00076
#2	.00125	.00083	.00758	-.00187	.00057
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11772	--	--	--	--	--	--
SDev	2.782852	--	--	--	--	--	--
%RSD	.0236398	--	--	--	--	--	--
#1	11774	--	--	--	--	--	--
#2	11770	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-3 Operator:
Run Time: 10/29/01 12:54:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	3.1656	.00158	.01308	.00145	.00031	6.9078
SDev	.00051	.0022	.00101	.00045	.00010	.00002	.0047
%RSD	403.16	.06911	63.978	3.4470	7.0689	5.7253	.06874
#1	-.00023	3.1640	.00230	.01276	.00153	.00029	6.9044
#2	.00049	3.1671	.00087	.01340	.00138	.00032	6.9112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00089	.00473	.00090	L.12053	.12423	.61194
SDev	.00010	.00013	.00061	.00012	.00453	.00115	.00549
%RSD	121.81	14.467	12.920	13.633	3.7617	.92314	.89798
#1	.00001	.00098	.00516	.00081	L.12374	.12341	.60805
#2	.00015	.00080	.00429	.00099	L.11733	.12504	.61583
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98521	.00171	.00179	.67460	.00087	.00057	.00037
SDev	.00279	.00002	.00023	.06445	.00018	.00085	.00097
%RSD	.28270	1.0864	12.976	9.5540	20.700	148.91	257.38
#1	.98718	.00173	.00162	.72017	.00074	.00118	.00106
#2	.98324	.00170	.00195	.62902	.00100	-.00003	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.00147	.01186	.08760	.00132	.00512	.02005
SDev	.00019	.00008	.00002	.00112	.00072	.00026	.00005
%RSD	5.9938	5.3978	.13168	1.2751	54.702	5.0634	.23571
#1	.00323	.00152	.01185	.08839	.00081	.00530	.02008
#2	.00297	.00141	.01188	.08681	.00183	.00494	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00102	.00425	-.00156	.00018
SDev	.00059	.00158	.00141	.00215	.00001
%RSD	187.34	154.86	33.212	137.87	6.6363
#1	-.00073	.00213	.00325	-.00004	.00018
#2	.00010	-.00010	.00525	-.00308	.00019
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11783	--	--	--	--	--	--
SDev	21.36512	--	--	--	--	--	--
%RSD	.1813228	--	--	--	--	--	--
#1	11798	--	--	--	--	--	--
#2	11768	--	--	--	--	--	--

Method: 60102007 Sample Name: CR1 Operator:
Run Time: 10/29/01 13:00:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00804	.18479	.00949	.18007	.01766	.00964	.93167
SDev	.00102	.00034	.00271	.00020	.00001	.00000	.00196
%RSD	12.743	.18284	28.543	.11355	.03224	.01501	.21074
#1	.00731	.18456	.01141	.18021	.01766	.00964	.93306
#2	.00876	.18503	.00758	.17992	.01765	.00964	.93029
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00970	.01924	.00919	.01731	.18610	.19085	1.7483
SDev	.00005	.00021	.00030	.00032	.00003	.00043	.0104
%RSD	.55852	1.1050	3.2923	1.8660	.01675	.22309	.59569
#1	.00966	.01939	.00897	.01709	.18608	.19115	1.7409
#2	.00974	.01909	.00940	.01754	.18612	.19055	1.7556
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.93842	.01887	.01900	1.6989	.00941	.00974	.01805
SDev	.00185	.00002	.00052	.1191	.00011	.00085	.00126
%RSD	.19759	.10029	2.7184	7.0094	1.1427	8.7645	6.9826
#1	.93973	.01886	.01937	1.6147	.00933	.01035	.01894
#2	.93711	.01889	.01864	1.7831	.00948	.00914	.01716
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09439	.01004	.00903	.00925	.02076	.01802	.03939
SDev	.00052	.00066	.00003	.00015	.00064	.00028	.00009
%RSD	.54828	6.5665	.38248	1.6051	3.0712	1.5661	.23230
#1	.09402	.00957	.00901	.00936	.02121	.01782	.03933
#2	.09475	.01050	.00905	.00915	.02030	.01822	.03946
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01138	.00892	.02160	.01627	.10438		
SDev	.00017	.00136	.00006	.00186	.00014		
%RSD	1.4862	15.292	.27999	11.424	.13733		
#1	.01126	.00989	.02164	.01759	.10448		
#2	.01150	.00796	.02156	.01496	.10428		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11791	--	--	--	--	--	--
SDev	15.42308	--	--	--	--	--	--
%RSD	.1308091	--	--	--	--	--	--
#1	11780	--	--	--	--	--	--
#2	11801	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator:
Run Time: 10/29/01 13:05:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	507.45	-.00019	.00459	.00188	.00115	467.32
SDev	.00118	.06	.00172	.00054	.00059	.00005	.41
%RSD	126.13	.01274	886.30	11.684	31.664	3.9071	.08762
#1	.00177	507.49	-.00141	.00497	.00230	.00118	467.61
#2	.00010	507.40	.00102	.00421	.00146	.00112	467.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00442	-.00135	.00012	200.13	182.72	.01217
SDev	.00000	.00070	.00086	.00136	.08	.11	.05542
%RSD	.23215	15.859	64.051	1105.2	.04017	.05990	455.34
#1	-.00108	.00492	-.00074	.00109	200.19	182.80	.05136
#2	-.00108	.00393	-.00196	-.00084	200.07	182.65	-.02701
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	538.20	.00345	-.00158	.19802	-.00062	.00084	.00100
SDev	.05	.00004	.00037	.31921	.00075	.00099	.00341
%RSD	.00974	1.1163	23.224	161.20	119.90	117.97	342.23
#1	538.23	.00348	-.00184	.42374	-.00009	.00014	.00341
#2	538.16	.00343	-.00132	-.02770	-.00115	.00154	-.00142
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00053	.00060	-.00163	-.00280	.00733	-.00186	.00433
SDev	.00203	.00120	.00009	.00069	.00272	.00036	.00035
%RSD	385.91	199.63	5.7465	24.672	37.145	19.384	8.0186
#1	-.00196	-.00025	-.00157	-.00231	.00541	-.00161	.00409
#2	.00091	.00145	-.00170	-.00328	.00926	-.00212	.00458
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00094	.00079	-.00468	.00383	.00053		
SDev	.00059	.00119	.00117	.00453	.00017		
%RSD	62.607	150.92	24.989	118.36	31.995		
#1	.00052	-.00005	-.00385	.00703	.00065		
#2	.00135	.00163	-.00550	.00062	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10491	--	--	--	--	--	--
SDev	84.32939	--	--	--	--	--	--
%RSD	.8038586	--	--	--	--	--	--
#1	10431	--	--	--	--	--	--
#2	10550	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 10/29/01 13:11:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57548	523.99	1.0468	1.0369	1.1180	.52214	479.03
SDev	.00171	1.22	.0012	.0037	.0048	.00221	.82
%RSD	.29715	.23220	.11572	.35842	.43323	.42361	.17014
#1	.57669	524.85	1.0477	1.0395	1.1215	.52370	479.60
#2	.57427	523.13	1.0460	1.0342	1.1146	.52058	478.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49186	.97159	1.0156	1.0915	211.29	191.35	14.817
SDev	.00188	.00420	.0035	.0064	.74	.48	.034
%RSD	.38220	.43271	.34736	.58959	.35048	.25190	.22778
#1	.49319	.97457	1.0181	1.0961	211.81	191.69	14.793
#2	.49053	.96862	1.0131	1.0870	210.77	191.01	14.841
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	551.15	1.0322	1.0496	12.042	.96252	.99928	1.0382
SDev	2.24	.0036	.0014	.122	.00156	.00089	.0034
%RSD	.40698	.35014	.12981	1.0093	.16237	.08952	.32631
#1	552.74	1.0348	1.0506	11.956	.96363	.99991	1.0406
#2	549.56	1.0297	1.0486	12.128	.96142	.99865	1.0358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0656	1.0422	1.0986	1.0794	1.0093	1.0398	.97983
SDev	.0033	.0007	.0043	.0039	.0002	.0029	.00199
%RSD	.31406	.06436	.38970	.35670	.01705	.28145	.20362
#1	1.0680	1.0417	1.1016	1.0822	1.0095	1.0419	.98124
#2	1.0632	1.0426	1.0956	1.0767	1.0092	1.0378	.97842
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.98490	1.0065	1.0356	1.0396	1.1746
SDev	.00324	.0003	.0045	.0028	.0007
%RSD	.32922	.02759	.43676	.27137	.06093
#1	.98719	1.0063	1.0388	1.0416	1.1751
#2	.98261	1.0067	1.0324	1.0376	1.1741
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10427	--	--	--	--	--	--
SDev	20.13873	--	--	--	--	--	--
%RSD	.1931456	--	--	--	--	--	--
#1	10412	--	--	--	--	--	--
#2	10441	--	--	--	--	--	--

Method: 6010200/ Sample Name: CCV1 Operator:
Run Time: 10/29/01 13:16:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51641	10.402	1.0156	1.0017	.98656	.50504	10.406
SDev	.00021	.028	.0033	.0043	.00104	.00008	.030
%RSD	.04002	.27195	.32726	.42636	.10585	.01613	.29083
#1	.51626	10.422	1.0132	.99872	.98730	.50498	10.427
#2	.51655	10.382	1.0179	1.0048	.98582	.50510	10.384
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51907	1.0307	1.0182	.99579	10.347	10.336	10.168
SDev	.00019	.0003	.0007	.00114	.008	.016	.028
%RSD	.03641	.03055	.06509	.11491	.08006	.15726	.27197
#1	.51920	1.0305	1.0177	.99499	10.353	10.348	10.149
#2	.51894	1.0309	1.0186	.99660	10.341	10.325	10.188
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.395	1.0168	1.0248	10.066	1.0426	1.0500	1.0277
SDev	.024	.0005	.0011	.294	.0006	.0041	.0037
%RSD	.23528	.04961	.10603	2.9202	.05372	.39519	.35955
#1	10.413	1.0172	1.0256	9.8579	1.0422	1.0529	1.0303
#2	10.378	1.0165	1.0241	10.274	1.0430	1.0470	1.0251
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0319	1.0448	1.0049	1.0310	1.0436	1.0099	1.0353
SDev	.0006	.0036	.0012	.0003	.0034	.0007	.0010
%RSD	.05402	.34560	.12355	.02848	.32188	.07147	.09244
#1	1.0316	1.0422	1.0058	1.0312	1.0412	1.0094	1.0346
#2	1.0323	1.0473	1.0040	1.0308	1.0460	1.0104	1.0360
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0392	1.0553	1.0330	1.0250	Q1.1261		
SDev	.0029	.0048	.0010	.0050	.0005		
%RSD	.28232	.45069	.10123	.48952	.04277		
#1	1.0413	1.0587	1.0337	1.0286	Q1.1257		
#2	1.0372	1.0520	1.0323	1.0215	Q1.1264		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11621	--	--	--	--	--	--
SDev	82.48981	--	--	--	--	--	--
%RSD	.7098396	--	--	--	--	--	--
#1	11563	--	--	--	--	--	--
#2	11679	--	--	--	--	--	--

Method: 60102007 Sample Name: CCB1 Operator:
Run Time: 10/29/01 13:22:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00315	.00094	.00001	.00022	.00046	.01496
SDev	.00059	.00668	.00238	.00058	.00037	.00001	.00153
%RSD	89.664	211.97	254.45	4637.1	167.43	1.4543	10.247
#1	.00024	.00787	.00262	.00042	.00048	.00047	.01604
#2	.00107	-.00157	-.00075	-.00040	-.00004	.00046	.01388
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.00057	.00070	-.00012	-.00613	.00581	.00855
SDev	.00006	.00052	.00005	.00028	.01497	.00117	.00819
%RSD	33.291	90.583	7.2413	232.33	244.20	20.029	95.732
#1	.00022	.00094	.00073	.00008	.00445	.00664	.00276
#2	.00014	.00020	.00066	-.00032	-.01671	.00499	.01434
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00726	.00036	.00125	.23627	.00005	.00052	.00029
SDev	.00806	.00016	.00044	.22734	.00011	.00035	.00282
%RSD	111.03	44.899	35.386	96.223	220.57	67.325	961.83
#1	.01296	.00048	.00157	.07551	-.00003	.00027	-.00170
#2	.00156	.00025	.00094	.39702	.00013	.00076	.00229
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00001	.00039	.00026	.00002	.00061	.00061
SDev	.00343	.00020	.00004	.00037	.00091	.00000	.00037
%RSD	27925.	1629.0	10.124	139.89	4082.2	.39698	59.990
#1	.00241	-.00013	.00041	.00052	.00066	.00061	.00087
#2	-.00244	.00016	.00036	.00000	-.00062	.00061	.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00366	-.00105	.00664	-.00288	.00040		
SDev	.00399	.00147	.00615	.00116	.00001		
%RSD	109.00	139.78	92.560	40.504	3.1817		
#1	.00084	-.00001	.00229	-.00370	.00041		
#2	.00648	-.00209	.01099	-.00205	.00039		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11831	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2092845	--	--	--	--	--	--
#1	11849	--	--	--	--	--	--
#2	11814	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD130 Operator:
Run Time: 10/29/01 13:28:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00236	.00297	.00059	.00011	.00031	.00607
SDev	.00050	.00300	.00174	.00244	.00025	.00000	.00132
%RSD	254.19	127.12	58.476	410.15	226.88	1.0991	21.770
#1	.00016	.00024	.00174	-.00113	-.00007	.00030	.00701
#2	-.00055	.00448	.00420	.00232	.00028	.00031	.00514
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00001	.00011	-.00072	.00484	.00247	.01568
SDev	.00018	.00032	.00011	.00038	.01256	.00028	.00816
%RSD	676.30	3141.0	107.87	51.917	259.55	11.384	51.999
#1	.00010	-.00021	.00019	-.00046	-.00404	.00267	.02145
#2	-.00015	.00023	.00003	-.00099	.01372	.00227	.00992
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00390	.00017	.00010	-.02870	.00024	-.00051	-.00072
SDev	.00271	.00000	.00049	.00573	.00053	.00008	.00026
%RSD	69.519	.21593	511.33	19.959	224.20	16.133	36.135
#1	.00198	.00017	.00044	-.03275	-.00014	-.00057	-.00054
#2	.00582	.00017	-.00025	-.02465	.00062	-.00045	-.00091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00046	.00012	.00022	-.00017	.00016	.00317
SDev	.00341	.00053	.00002	.00025	.00031	.00095	.00020
%RSD	405.04	115.32	14.597	110.87	184.82	610.76	6.2935
#1	-.00157	.00084	.00014	.00005	-.00039	.00082	.00302
#2	.00325	.00009	.00011	.00040	.00005	-.00051	.00331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	-.00038	.00310	-.00263	.00016
SDev	.00382	.00203	.00407	.00164	.00004
%RSD	501.33	529.77	131.35	62.324	24.914
#1	.00194	-.00182	.00598	-.00380	.00018
#2	-.00346	.00105	.00022	-.00147	.00013
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11837	--	--	--	--	--	--
SDev	35.23174	--	--	--	--	--	--
%RSD	.2976387	--	--	--	--	--	--
#1	11862	--	--	--	--	--	--
#2	11812	--	--	--	--	--	--

Method: 6010200/ Sample Name: ICSWPD150 Operator:
Run Time: 10/29/01 13:55:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49987	10.049	1.0075	.98892	.97953	.50128	10.127
SDev	.00017	.016	.0032	.00557	.00171	.00062	.013
%RSD	.03440	.16270	.31273	.56364	.17489	.12385	.12608
#1	.49975	10.038	1.0052	.98498	.97831	.50084	10.118
#2	.49999	10.061	1.0097	.99286	.98074	.50172	10.136
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51400	1.0032	1.0036	.97798	L10.092	10.100	9.9670
SDev	.00006	.0017	.0016	.00054	.018	.014	.0095
%RSD	.01265	.16946	.15690	.05508	.18253	.13666	.09508
#1	.51405	1.0020	1.0025	.97760	L10.079	10.090	9.9603
#2	.51396	1.0044	1.0047	.97836	L10.105	10.109	9.9737
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.092	1.0025	1.0144	9.8394	1.0209	1.0285	1.0121
SDev	.026	.0015	.0035	.1132	.0010	.0010	.0056
%RSD	.25590	.14637	.34588	1.1506	.09427	.10200	.55773
#1	10.074	1.0015	1.0119	9.9194	1.0216	1.0277	1.0081
#2	10.111	1.0035	1.0169	9.7593	1.0202	1.0292	1.0161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99697	1.0316	.99836	1.0054	1.0186	.99377	1.0288
SDev	.00168	.0017	.00202	.0023	.0008	.00136	.0009
%RSD	.16881	.16439	.20189	.22675	.07765	.13715	.09170
#1	.99578	1.0328	.99693	1.0037	1.0191	.99281	1.0282
#2	.99816	1.0304	.99978	1.0070	1.0180	.99473	1.0295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0207	1.0323	1.0249	1.0057	1.0781
SDev	.0001	.0015	.0019	.0075	.0027
%RSD	.00856	.14812	.18332	.74822	.25495
#1	1.0206	1.0313	1.0236	1.0004	1.0762
#2	1.0208	1.0334	1.0263	1.0111	1.0800
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11684	--	--	--	--	--	--
SDev	2.640602	--	--	--	--	--	--
%RSD	.0226011	--	--	--	--	--	--
#1	11682	--	--	--	--	--	--
#2	11685	--	--	--	--	--	--

Method: 60102007 Sample Name: 110538-1 Operator:
Run Time: 10/29/01 13:39:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.09463	.09834	.06229	.00513	.00037	19.888
SDev	.00103	.00538	.00259	.00113	.00025	.00001	.001
%RSD	532.77	5.6874	2.6328	1.8108	4.8083	3.7014	.00294
#1	-.00053	.09083	.09651	.06149	.00495	.00038	19.888
#2	.00092	.09844	.10017	.06309	.00530	.00036	19.889
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00066	.00064	.00165	L.02399	.02003	2.2476
SDev	.00011	.00064	.00052	.00065	.01094	.00023	.0295
%RSD	56.855	97.582	81.039	39.371	45.599	1.1686	1.3118
#1	.00012	.00020	.00027	.00119	L.01625	.02019	2.2268
#2	.00028	.00112	.00101	.00211	L.03172	.01986	2.2685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.3798	.00189	.00220	H136.05	.00089	.00119	.00407
SDev	.0001	.00002	.00005	.09	.00023	.00015	.00070
%RSD	.00502	1.1942	2.3165	.06257	25.510	12.580	17.244
#1	2.3799	.00187	.00223	H135.99	.00105	.00108	.00358
#2	2.3797	.00190	.00216	H136.11	.00073	.00129	.00457
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00153	.00066	.09717	.00213	-.00147	.00676	.06069
SDev	.00089	.00100	.00002	.00019	.00141	.00023	.00014
%RSD	57.997	150.69	.01972	9.1653	95.678	3.4665	.23105
#1	.00090	-.00004	.09719	.00199	-.00247	.00660	.06059
#2	.00215	.00137	.09716	.00226	-.00048	.00693	.06079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00151	.00728	.00247	.00022
SDev	.00122	.00084	.00060	.00075	.00002
%RSD	224.46	55.396	8.3000	30.407	6.9998
#1	.00141	.00092	.00686	.00194	.00021
#2	-.00032	.00210	.00771	.00300	.00023
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11915	--	--	--	--	--	--
SDev	6.602886	--	--	--	--	--	--
%RSD	.0554187	--	--	--	--	--	--
#1	11919	--	--	--	--	--	--
#2	11910	--	--	--	--	--	--

PETROLEUM HYDROCARBONS
FL-PRO

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110655
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/25/01
Dry Weight	N/A	Date Extracted:	10/30/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	17-3608B-Q401	C110655-1	5201076.D	1		4400
2	17-3607A-Q401	C110655-2	5301077.D	1		6500
3	17-3606A-Q401	C110655-3	5401078.D	1	U	100

225

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola Contract: NTC ORLANDO SA-36-CTO-017

Lab Code: STL PN SDG No.: C110655

Instrument ID: FLASH FL PRO Detector: FID

Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 291	121%	121%		
02		LCS FLW 291	110%	86%		
03	17-3609C-Q401	C110611-1 MS	103%	106%		
04	17-3909C-Q401	C110611-1 MSD	102%	82%		
05	17-3608B-Q401	C110655-1	105%	107%		
06	17-3607A-Q401	C110655-2	124%	117%		
07	17-3606A-Q401	C110655-3	101%	97%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

CLP Like Form 3

FL PRO Matrix Spike / Matrix Spike Duplicate Summary Sheet

Lab Name: STL Pensacola Contract: NTC ORLANDO SA-36-CTO-017

Lab Code: STL PN SDG No.: C110655

FL PRO Detector: FID Lab Sample ID: C110611-1

Instrument ID: FLASH Matrix: Water

NOTE: NO MS/MSD FOR THIS BATCH

Parameter	Sample Results	Spike Amount (ppb)	MS Results (ppb)	MS %Rec	MSD Results (ppb)	MSD %Rec	MS/MSD %Rec Limits	MS/MSD RPD	MS/MSD RPD Limits
FL PRO	79.800	3400.00	4031.00	116	3816.00	110	41-101	6	20

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK FLW 291

Lab File ID:	4501069.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110655
Matrix:	Water	Date Extracted:	10/30/01
Prep Method:	3520 C	Date Analyzed:	11/2/01
Instrument ID:	FLASH	Time Analyzed:	1:14
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 291	11/2/01
02		LCS FLW 291	11/2/01
03	17-3609C-Q401	C110611-1 MS	11/2/01
04	17-3909C-Q401	C110611-1 MSD	11/2/01
05	17-3608B-Q401	C110655-1	11/2/01
06	17-3607A-Q401	C110655-2	11/2/01
07	17-3606A-Q401	C110655-3	11/2/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110655
Instrument ID:	FLASH	Date Analyzed	11/2/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Last Modified: Fri Nov 02 06:19:15 2001

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min.

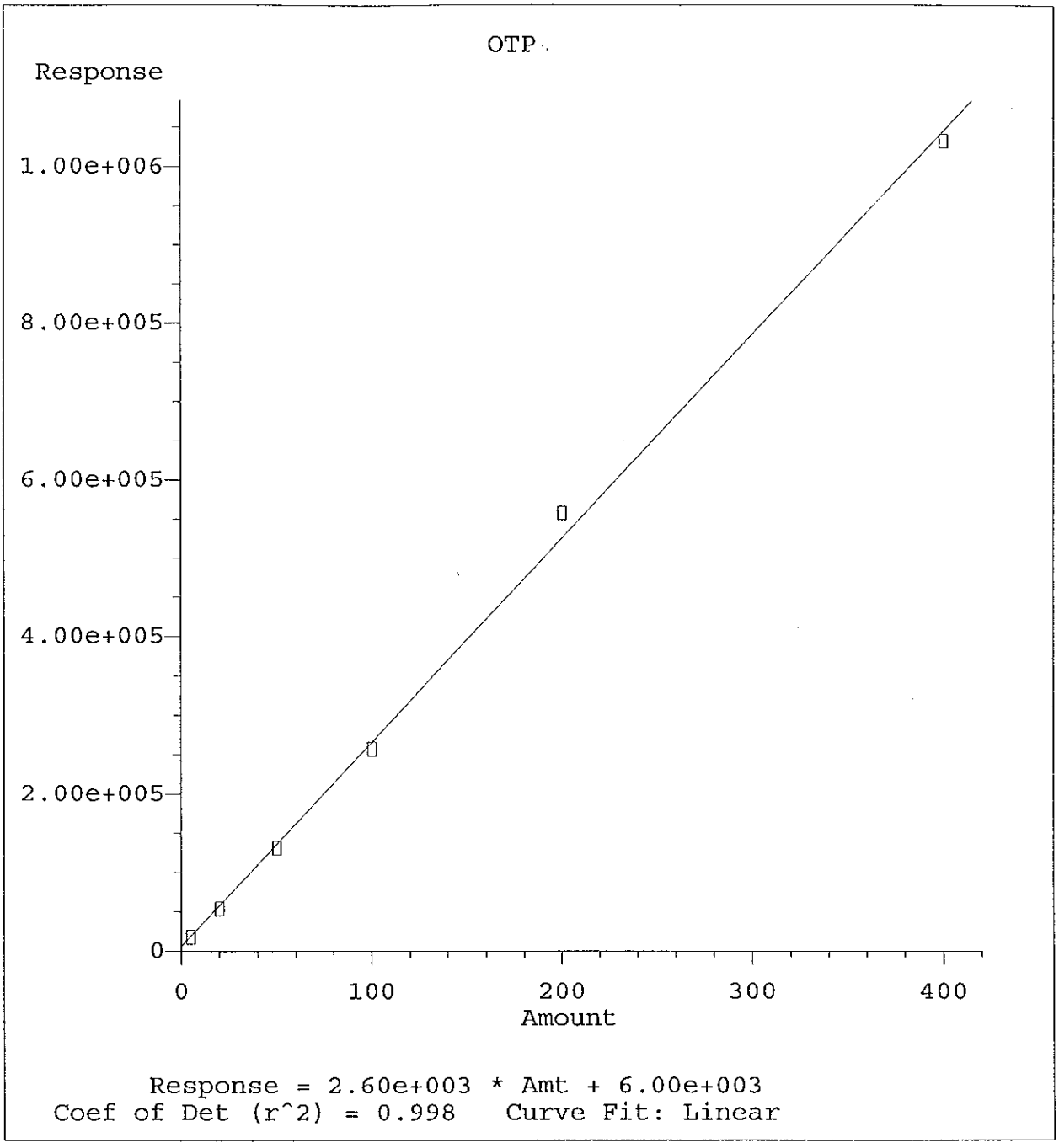
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

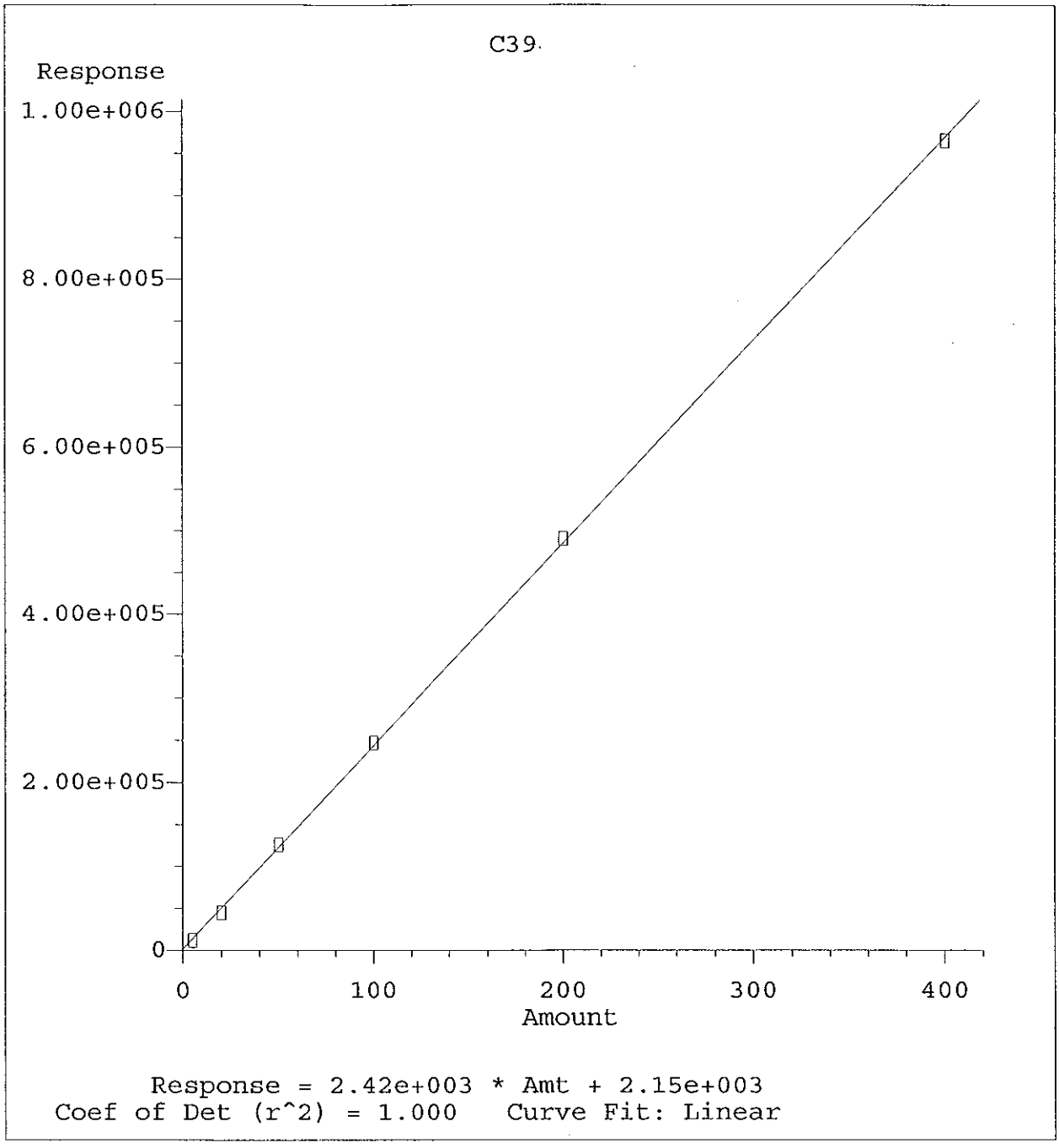
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

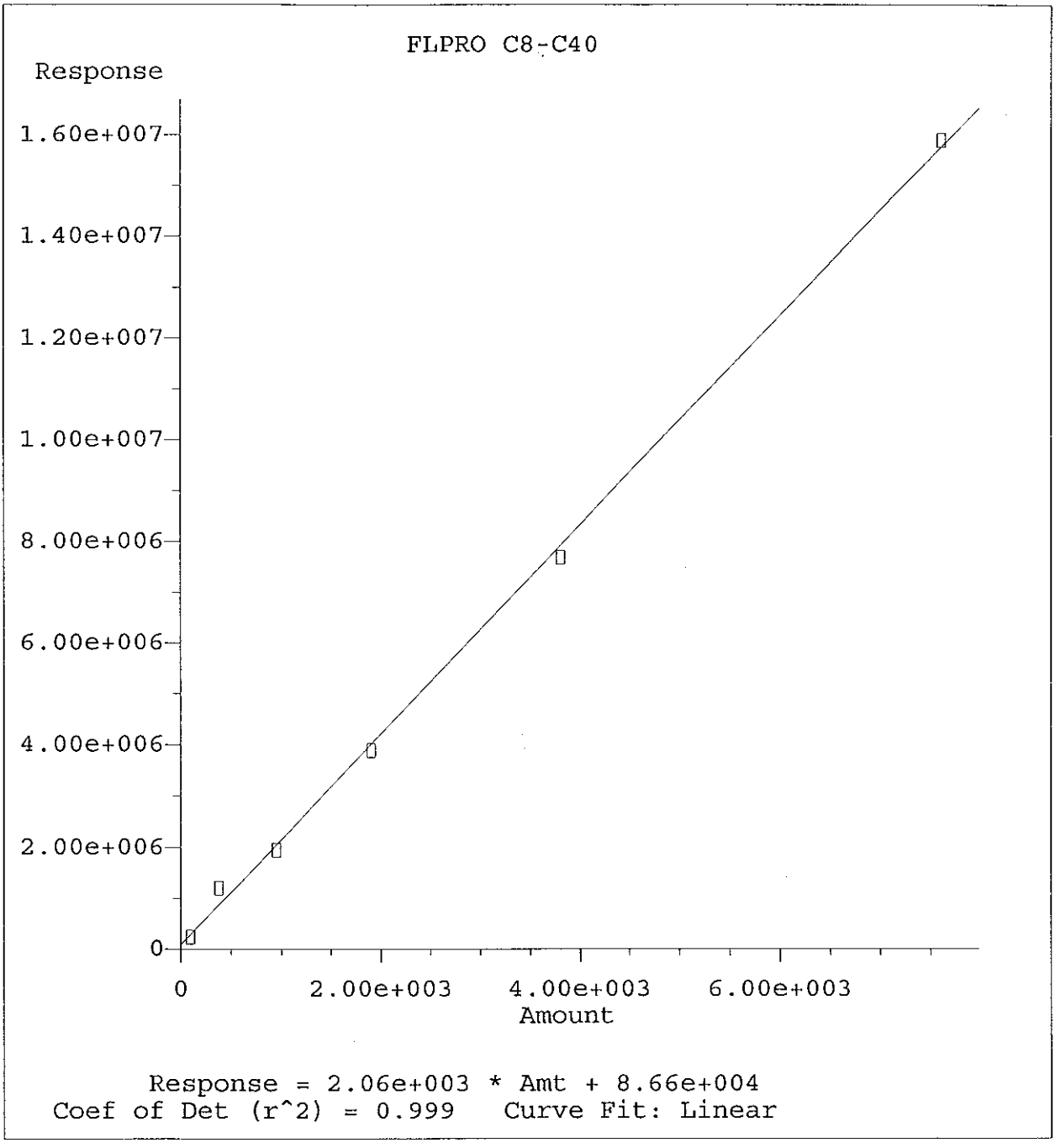
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

EXTRACTION LOG

241

Job No: 820
Batch No: 291
Date Extracted: 10.30.01
Start Time: 1437
Stop Time:
Analysis Required: FHLO
Prep Method: 3520
Analyst/Activity Code*
Initial Project Check:
Final Project Check:
Date Concentrated:
Initials:
Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	d-o-dcw	0190-2	1ml	
Surr.				
Spike	d-o-dcw	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments:
Solvent(s) Lot No:
Meds V31E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D.D	H.D	COMMENTS
1. C110611*1/17-3609C-Q401 A		LI	1L	1		2	11.05	10.31	Strong odor
2. C110611*2/17-3627A-Q401		LI	1L	1		1	11.05	10.31	
3. C110611*3/17-3628B-Q401		LI	1L	1		1	11.05	10.31	
4. C110655*1/17-3608B-Q401		LI	1L	1		1	11.05	11.01	
5. C110655*2/17-3607A-Q401		LI	1L	1		1	11.05	11.01	
6. C110655*3/17-3606A-Q401		LI	1L	1		1	11.05	11.01	
7. C110681*1/17-3619A-Q401		LI	1L	1		1	11.06	11.02	
8. C110681*2/17-3624B-Q401		LI	1L	1		1	11.06	11.02	
9. C110681*3/17-36FD2-Q401		LI	1L	1		1	11.06	11.02	
10. 110728-1			1L	1		2			
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		1			
Lab Spike #2 110611-1 ms			1L	1		1			
-1 msd			1L	1		2			

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

GC/Organics Department Extracts Cleanup Logbook

Date: 10-31-01 **Analyst(s):** SB

Method: FLPRO Silica Gel, MAEPH Fractionation, Other (Specify) _____

Solvent 1: _____ **Lot #:** _____ **Solvent 2:** _____ **Lot #:** _____

Surrogate: _____ **Amount:** _____

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW290	1.7 SB	
2	LCS		~~2.0~~ 1.9 10-13-01	
3	634-5 MS		1.9	
4	634-5 MD		1.7	
5	634-1		1.7	
6	-2		1.9	
7	-3		2.0	
8	-4		1.7	
9	-5		1.9	
10	-6		1.8	
11	-7		1.8	
12	-8		1.5	
13	-9		1.7	
14	-10		1.7	
15	-11		1.8	
16	-12	↓	1.9	
17	BLK	FLW291	1.7	
18	LCS		1.8	
19	611-1 MS		1.9	
20	611-1 MD		2.0	
21	611-1		1.6	
22	-2		1.9	
23	-3		1.9	
24	655-1		2.0	
25	-2		1.7	
26	-3		2.0	
27	681-1		2.0	
28	-2		1.9	
29	-3		1.8	
30	708-1	↓	1.8	
31				
32			SB	
33			1031	

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL PRO Spike Standard ID: 4-ORGW0189- 1

Prèparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% C52 MI0964881

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	4000 ml	100 mls	200 ppm ea
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: Expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100% Meck V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OT? A	04-ORGN045-1	10,000	6500 ml	250 mls	250 ppm each
B					
C	04-ORGN044-1	5617	6295 ml		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires ~~10~~ 4-3-02

KA 10/3/01

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ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: 100% meth

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 04-Org.0045-1	10,000 ppm	6500 ml	250mls	250 ppm each
	B				
	C				
C00	D 04-Org.0044-1	9617 ppm	6.25ml		
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: EXPIRES 4-17-02

Solution Name: FUPRO Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Org's hood

Preparation Analyst: KA 1:1 C52/meth Solvent Lot #: MI0964814E V34E34

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org.0045-1	10,000	6250ml	250mls	250ppm
	B				
	C				
C39	D 4-Org.044-3	2500	10,000ml		100 ppm
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: EXPIRES ~~4-22-02~~ KA 10/22/01
4-22-02

244

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1. Book 4/Page 190

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	397913	150.760 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 120.61% ✓	
2) S C39	2.08	149017	60.744 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 121.49% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	40387	N.D. ppb

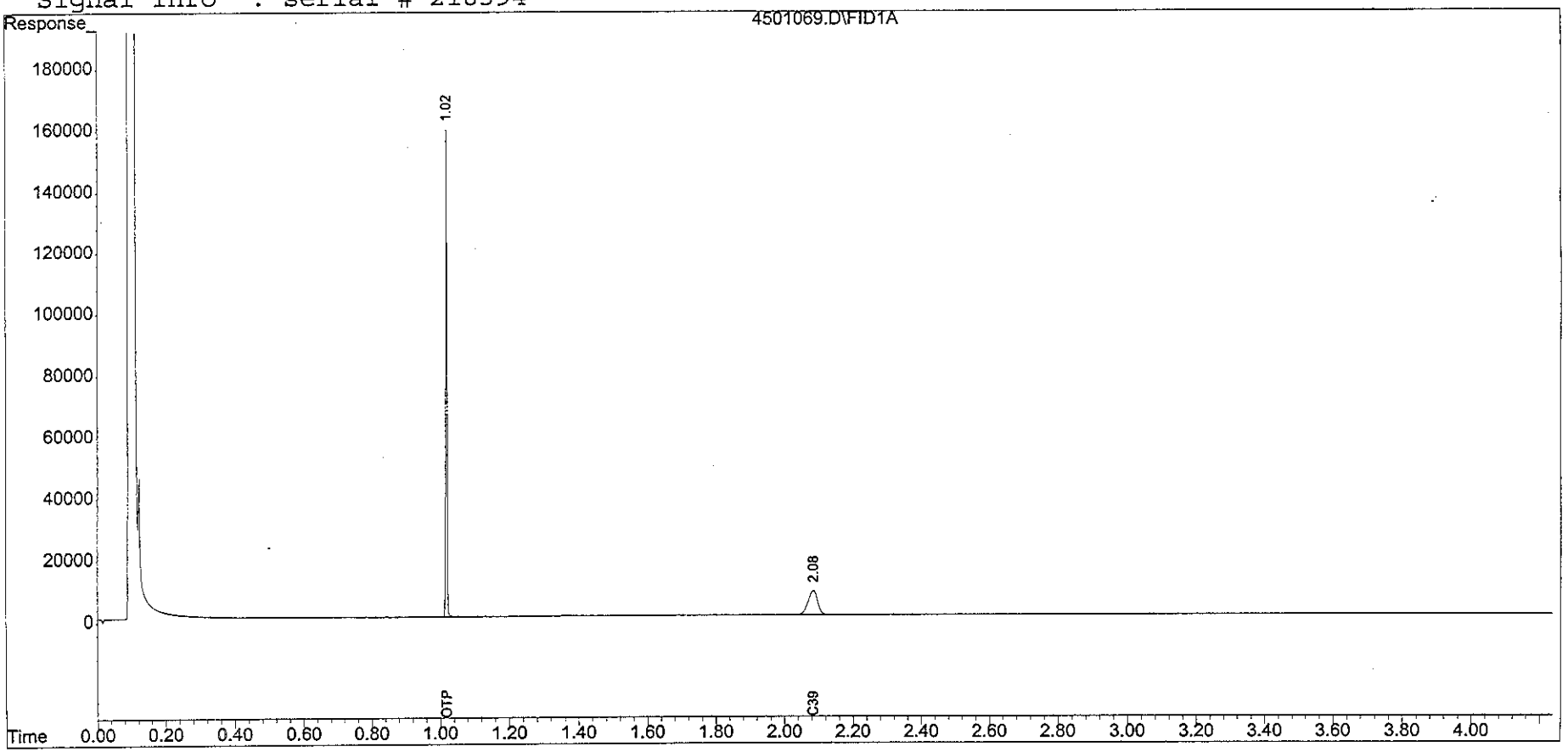
2.10

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



246

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	361962	136.931 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 109.54%		
2) S C39	2.09	106556	43.182 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 86.36%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4313575	3689.666 ppb

1091.

247

(f)=RT Delta > 1/2 Window (m)=manual int.

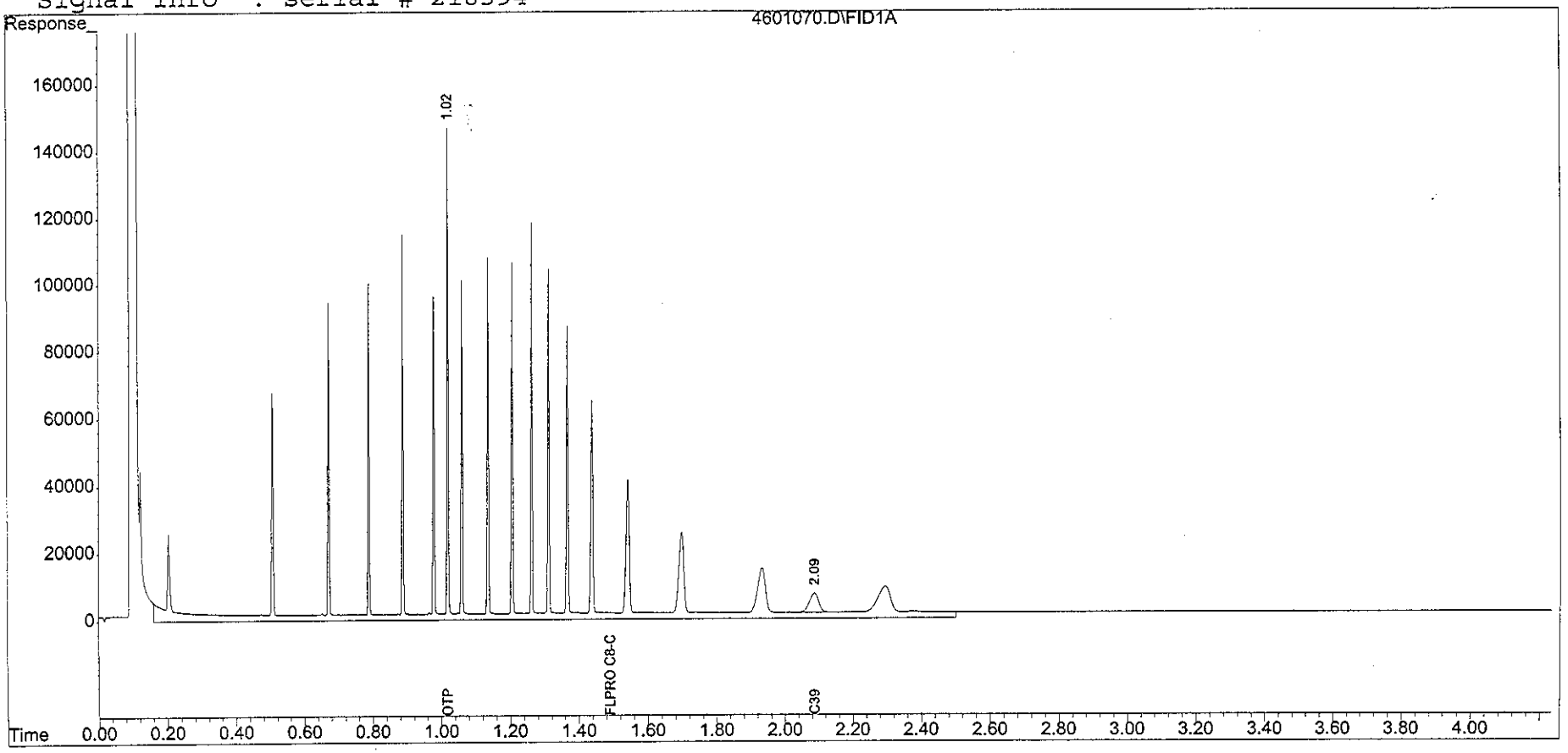
Quantitation Report

Data File : F:\2\DATA\1101CAL\4601070.D
Acq On : 2 Nov 2001 1:22
Sample : FLW LCS 291
Misc : FL WATER 290
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Vial: 46
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.80

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



243

Spike Recovery and RPD Summary Report - WATER

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration

Non-Spiked Sample: 4901073.D

	Spike Sample	Spike Duplicate Sample
File ID :	4701071.D	4801072.D
Sample :	C110611-1 MS	C110611-1 MSD
Acq Time:	2 Nov 2001 1:30	2 Nov 2001 1:38

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
FLPRO C8-C40	79.8	3400	4031	3816	116#	110#	6	20	41-101

- Fails Limit Check

FL-PRO12.M Fri Nov 02 09:23:24 2001

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	341260	128.967 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 103.17%		
2) S C39	2.08	130063	52.905 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 105.81%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4242425	4030.623 ppb

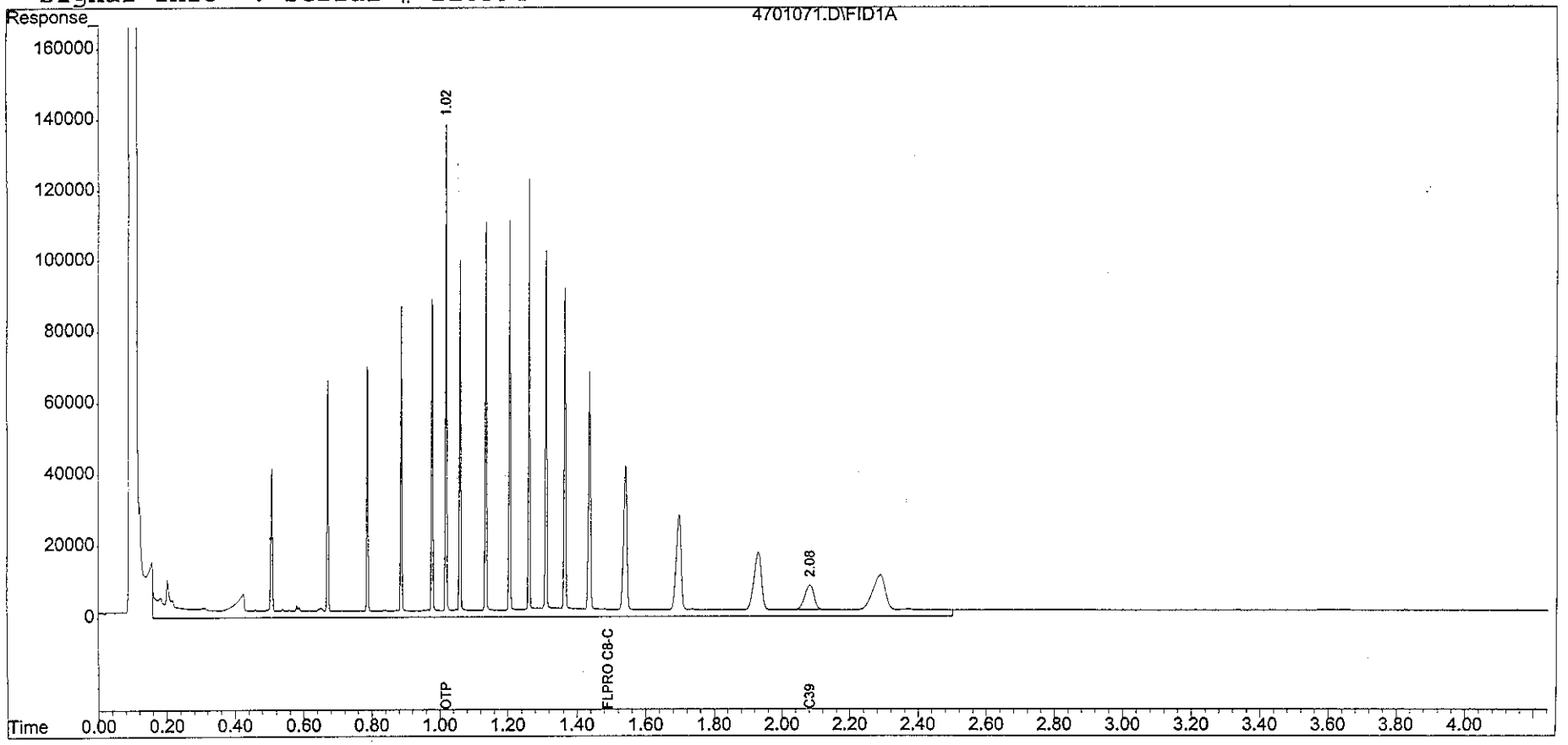
250

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



23

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	337874	127.665 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 102.13%		
2) S C39	2.08	100875	40.833 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 81.67%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4020991	3815.858 ppb

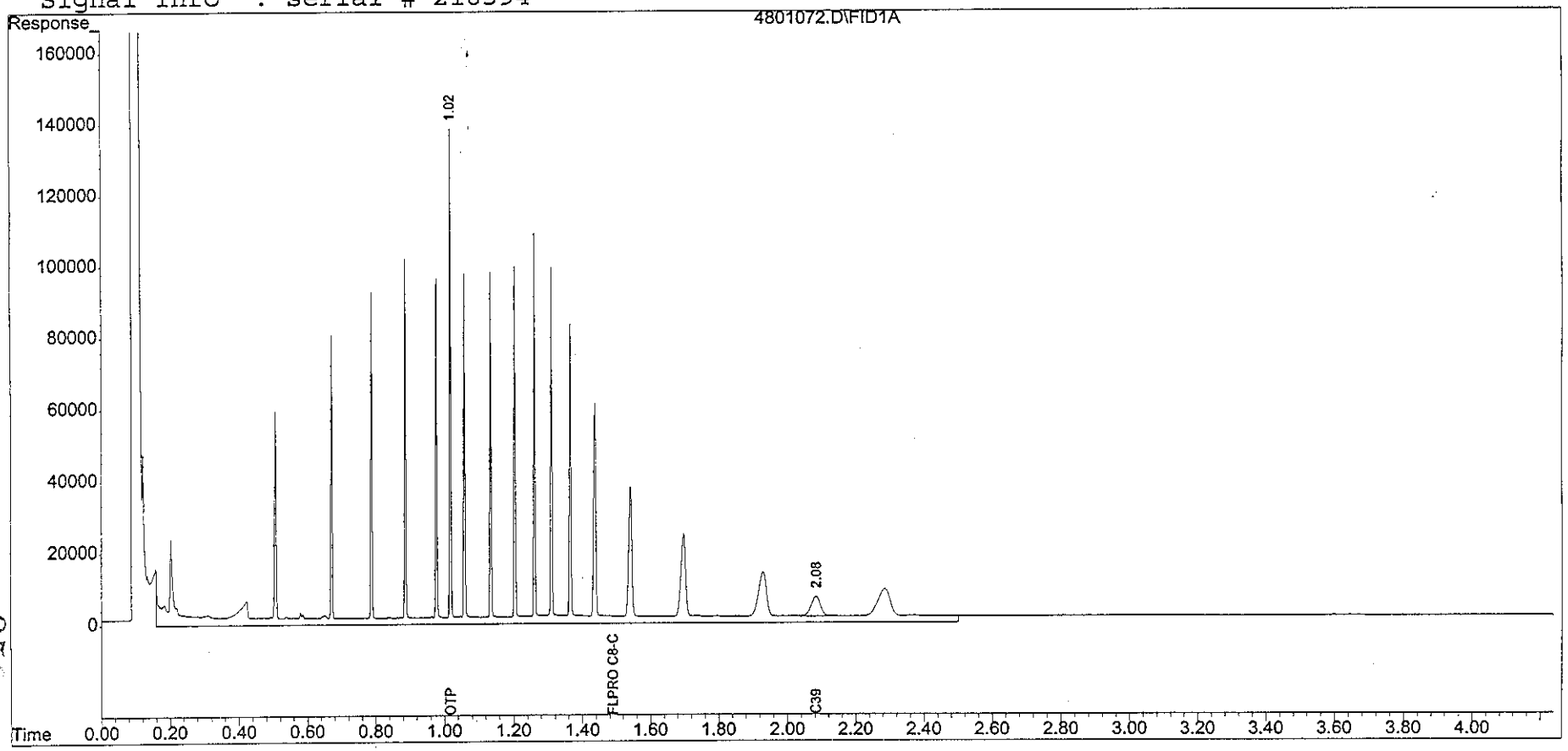
252

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



252

Data File : D:\HPCHEM\2\DATA\1101CAL\5201076.D Vial: 52
Acq On : 2 Nov 2001 2:10 am Operator: IE\KJA
Sample : C110655-1 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:04 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	346207	130.870 ug/ml
Spiked Amount 125.000 Range 82 - 142	Recovery = 104.70%		
2) S C39	2.08	130911	53.256 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 106.51%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4662225	4437.780 ppb

254

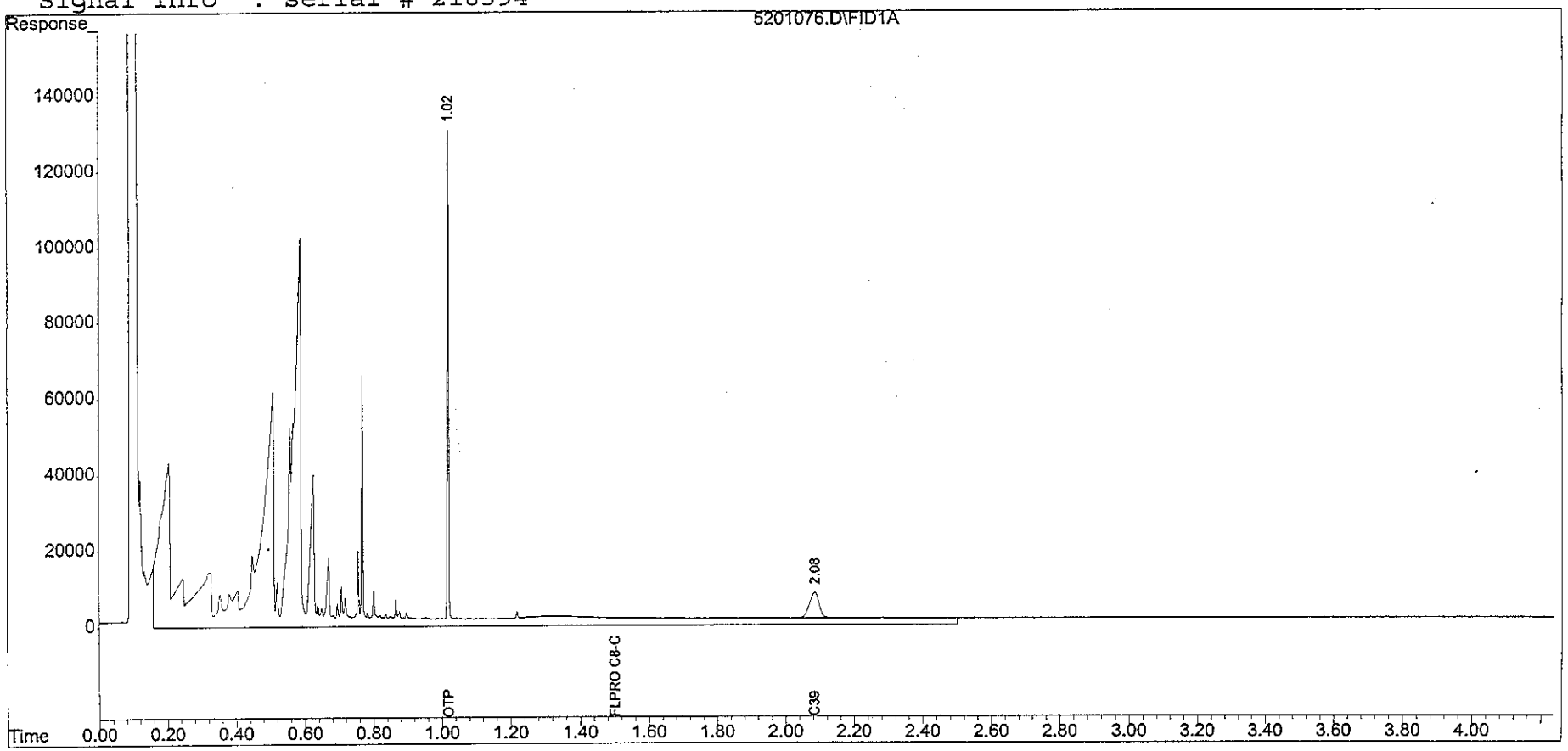
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5201076.D Vial: 52
Acq On : 2 Nov 2001 2:10 am Operator: IE\KJA
Sample : C110655-1 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:04 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



255

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\2\DATA\1101CAL\5301077.D Vial: 53
Acq On : 2 Nov 2001 2:18 am Operator: IE\KJA
Sample : C110655-2 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:06 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	409359	155.163 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 124.13%		
2) S C39	2.09	143728	58.557 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 117.11%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	6750978	6463.625 ppb

256

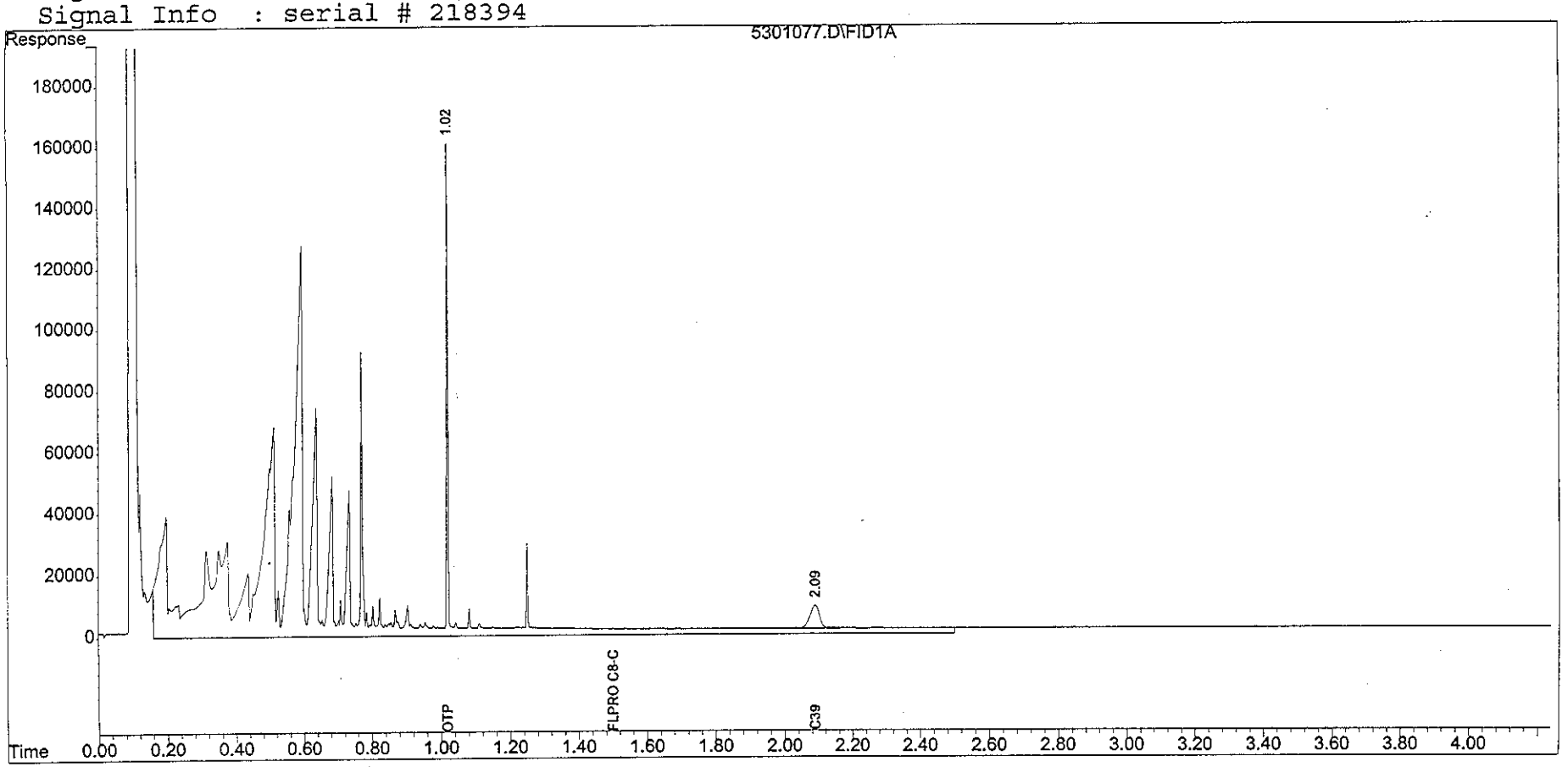
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5301077.D Vial: 53
Acq On : 2 Nov 2001 2:18 am Operator: IE\KJA
Sample : C110655-2 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:06 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



251

Data File : D:\HPCHEM\2\DATA\1101CAL\5401078.D Vial: 54
Acq On : 2 Nov 2001 2:26 am Operator: IE\KJA
Sample : C110655-3 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:07 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	335071	126.586 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 101.27%	
2) S C39	2.08	119908	48.705 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 97.41%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	105790	18.572 ppb

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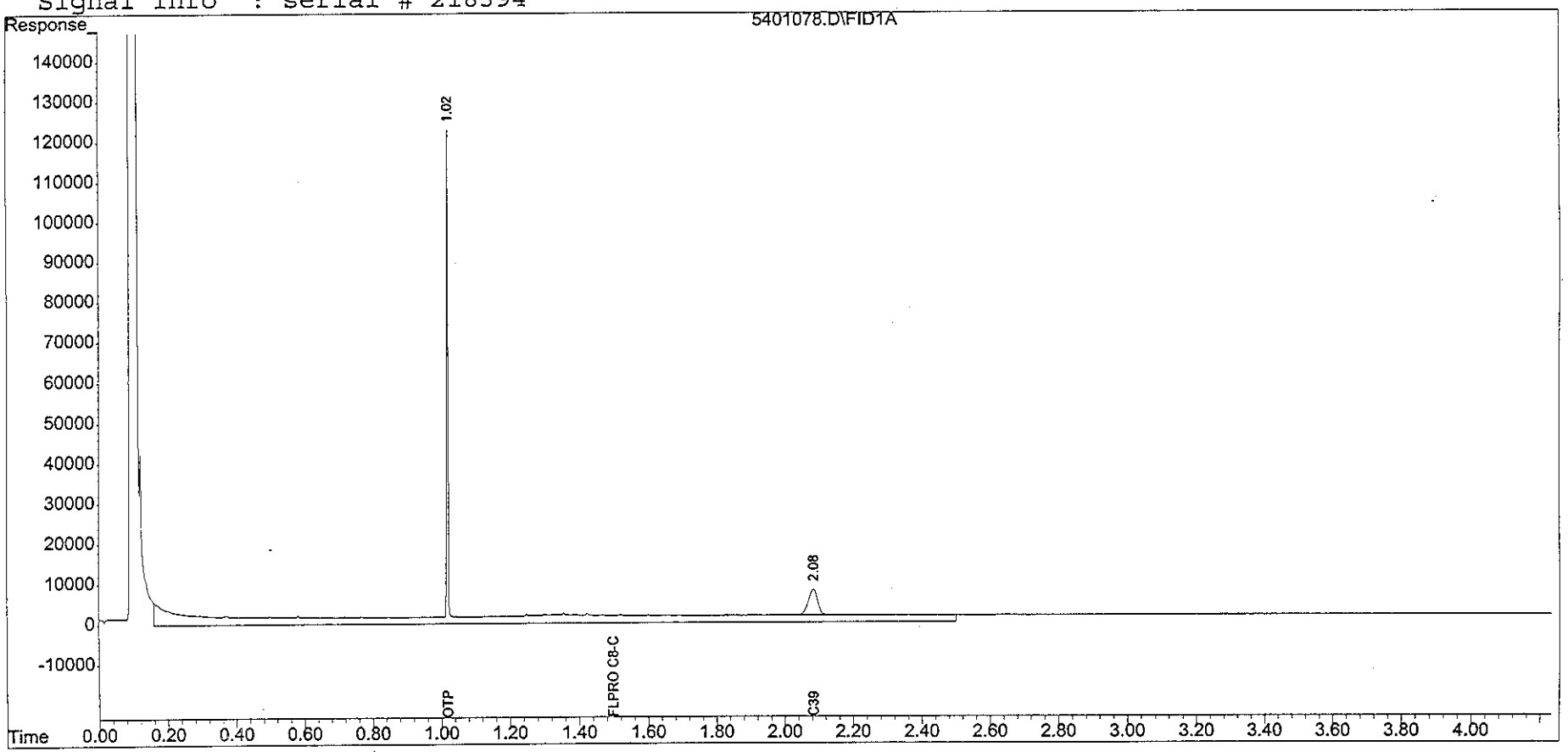
Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5401078.D Vial: 54
Acq On : 2 Nov 2001 2:26 am Operator: IE\KJA
Sample : C110655-3 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:07 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



253

VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110655
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 26, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3608B-Q401	110655-1	3608B
17-3607A-Q401	110655-2	3607A
17-3606A-Q401	110655-3	3606A
17-36TB4-Q401	110655-4	36TB4

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 6, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3608B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747008.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3		0.32
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	26		
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	25		
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3608B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747008.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3		0.35
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3608B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747008.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000096-47-9	Furan, tetrahydro-2-methyl-	8.40	1	JN
2. 000107-87-9	2-Pentanone	10.21	1	JN
3. 000110-43-0	2-Heptanone	17.76	8	JN
4. 000543-49-7	2-Heptanol	18.39	2	JN

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747009.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	m2
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 u
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.5		0.52
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	37	E	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.8		0.78
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	12		
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	265
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747009.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3607A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747009.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 7

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000107-87-9	2-Pentanone	10.21	1	JN
2. 000066-25-1	Hexanal	14.20	4	JN
3. 000111-27-3	1-Hexanol	17.25	6	JN
4. 000110-43-0	2-Heptanone	17.77	13	JN
5. 000106-68-3	3-Octanone	22.01	4	JN
6. 000111-13-7	2-Octanone	22.34	7	JN
7. 000821-55-6	2-Nonanone	25.98	1	JN

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	37	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	0.9	JD
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	14	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

1.5 U
2.6 U
1.5 U
1.5 U
1.5 U
1.5 U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	2	U
96-18-4	1,2,3-Trichloropropane	8	U
103-65-1	n-Propylbenzene	2	U
95-49-8	2-Chlorotoluene	2	U
106-43-4	4-Chlorotoluene	2	U
108-67-8	1,3,5-Trimethylbenzene	2	U
98-06-6	tert-Butylbenzene	2	U
95-63-6	1,2,4-Trimethylbenzene	2	U
135-98-8	sec-Butylbenzene	2	U
541-73-1	1,3-Dichlorobenzene	2	U
99-87-6	p-Isopropyltoluene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U
104-51-8	n-Butylbenzene	2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	2	U
87-68-3	Hexachlorobutadiene	2	U
91-20-3	Naphthalene	2	U
87-67-6	1,2,3-Trichlorobenzene	2	U

1.5 U
1.5 U
9.5 U
1.5 U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-43-0	2-Heptanone	17.75	36	JND

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3606A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747010.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	0.2	J	0.18 J
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	0.7		0.66
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3606A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747010.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3606A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747010.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB4

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747011.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53U

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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB4

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747011.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB4

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747011.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

276

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

277

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.6 U

1.9 U

278

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 u

280

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

281

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

284

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	21	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW150ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748004.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. _____ Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	9	
540-59-0	trans-1,2-Dichloroethene	9	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	9	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	9	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	9	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	9	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	9	
79-00-5	1,1,2-Trichloroethane	9	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	9	
124-48-1	Dibromochloromethane	9	
106-93-4	1,2-Dibromoethane	9	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: BUW150ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748004.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	9	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	9	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	9	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	10	
87-67-6	1,2,3-Trichlorobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	33	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	8	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

1.5 U
↓
2.6 U
1.5 U

1.5 U

1.5 U

285

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	2	U
96-18-4	1,2,3-Trichloropropane	8	U
103-65-1	n-Propylbenzene	2	U
95-49-8	2-Chlorotoluene	2	U
106-43-4	4-Chlorotoluene	2	U
108-67-8	1,3,5-Trimethylbenzene	2	U
98-06-6	tert-Butylbenzene	2	U
95-63-6	1,2,4-Trimethylbenzene	2	U
135-98-8	sec-Butylbenzene	2	U
541-73-1	1,3-Dichlorobenzene	2	U
99-87-6	p-Isopropyltoluene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U
104-51-8	n-Butylbenzene	2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	2	U
87-68-3	Hexachlorobutadiene	2	U
91-20-3	Naphthalene	2	U
87-67-6	1,2,3-Trichlorobenzene	2	U

1.5 U
8.0 U
1.5 U
↓
9.5 U
1.5 U
↓

290

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	36	D
74-87-3	Chloromethane	40	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	44	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	45	D
540-59-0	trans-1,2-Dichloroethene	45	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	44	D
156-59-2	cis-1,2-Dichloroethene	80	D
74-97-5	Bromochloromethane	46	D
67-66-3	Chloroform	46	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	45	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	43	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	48	D
74-95-3	Dibromomethane	44	D
75-27-4	Bromodichloromethane	45	D
10061-01-5	cis-1,3-Dichloropropene	45	D
108-88-3	Toluene	47	D
10061-02-6	trans-1,3-Dichloropropene	44	D
79-00-5	1,1,2-Trichloroethane	44	D
127-18-4	Tetrachloroethene	48	D
142-28-9	1,3-Dichloropropane	45	D
124-48-1	Dibromochloromethane	46	D
106-93-4	1,2-Dibromoethane	44	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	48	D
100-41-4	Ethylbenzene	48	D
	m,p-Xylene	97	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	47	D
75-25-2	Bromoform	47	D
98-82-8	Isopropylbenzene	50	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	44	D
96-18-4	1,2,3-Trichloropropane	45	D
103-65-1	n-Propylbenzene	51	D
95-49-8	2-Chlorotoluene	50	D
106-43-4	4-Chlorotoluene	50	D
108-67-8	1,3,5-Trimethylbenzene	48	D
98-06-6	tert-Butylbenzene	48	D
95-63-6	1,2,4-Trimethylbenzene	50	D
135-98-8	sec-Butylbenzene	51	D
541-73-1	1,3-Dichlorobenzene	48	D
99-87-6	p-Isopropyltoluene	52	D
106-46-7	1,4-Dichlorobenzene	48	D
95-50-1	1,2-Dichlorobenzene	47	D
104-51-8	n-Butylbenzene	53	D
96-12-8	1,2-Dibromo-3-chloropropane	45	D
120-82-1	1,2,4-Trichlorobenzene	53	D
87-68-3	Hexachlorobutadiene	60	D
91-20-3	Naphthalene	51	D
87-67-6	1,2,3-Trichlorobenzene	52	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	35	D
74-87-3	Chloromethane	42	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	43	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	49	D
540-59-0	trans-1,2-Dichloroethene	46	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	43	D
156-59-2	cis-1,2-Dichloroethene	85	D
74-97-5	Bromochloromethane	51	D
67-66-3	Chloroform	48	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	44	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	49	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	52	D
75-27-4	Bromodichloromethane	50	D
10061-01-5	cis-1,3-Dichloropropene	50	D
108-88-3	Toluene	46	D
10061-02-6	trans-1,3-Dichloropropene	52	D
79-00-5	1,1,2-Trichloroethane	52	D
127-18-4	Tetrachloroethene	47	D
142-28-9	1,3-Dichloropropane	54	D
124-48-1	Dibromochloromethane	52	D
106-93-4	1,2-Dibromoethane	52	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	50	D
100-41-4	Ethylbenzene	46	D
	m,p-Xylene	96	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	48	D
75-25-2	Bromoform	55	D
98-82-8	Isopropylbenzene	47	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

79-34-5	1,1,2,2-Tetrachloroethane	51	D
96-18-4	1,2,3-Trichloropropane	53	D
103-65-1	n-Propylbenzene	47	D
95-49-8	2-Chlorotoluene	46	D
106-43-4	4-Chlorotoluene	48	D
108-67-8	1,3,5-Trimethylbenzene	45	D
98-06-6	tert-Butylbenzene	44	D
95-63-6	1,2,4-Trimethylbenzene	47	D
135-98-8	sec-Butylbenzene	46	D
541-73-1	1,3-Dichlorobenzene	47	D
99-87-6	p-Isopropyltoluene	48	D
106-46-7	1,4-Dichlorobenzene	47	D
95-50-1	1,2-Dichlorobenzene	49	D
104-51-8	n-Butylbenzene	51	D
96-12-8	1,2-Dibromo-3-chloropropane	55	D
120-82-1	1,2,4-Trichlorobenzene	57	D
87-68-3	Hexachlorobutadiene	55	D
91-20-3	Naphthalene	60	D
87-67-6	1,2,3-Trichlorobenzene	58	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748005.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	44	D
74-87-3	Chloromethane	45	D
75-01-4	Vinyl chloride	48	D
74-83-9	Bromomethane	47	D
75-00-3	Chloroethane	50	D
75-69-4	Trichlorofluoromethane	50	D
75-35-4	1,1-Dichloroethene	50	D
75-09-2	Methylene chloride	50	D
540-59-0	trans-1,2-Dichloroethene	47	D
75-34-4	1,1-Dichloroethane	47	D
594-20-7	2,2-Dichloropropane	47	D
156-59-2	cis-1,2-Dichloroethene	92	D
74-97-5	Bromochloromethane	50	D
67-66-3	Chloroform	49	D
71-55-6	1,1,1-Trichloroethane	50	D
56-23-5	Carbon tetrachloride	46	D
71-43-2	Benzene	49	D
107-06-2	1,2-Dichloroethane	50	D
79-01-6	Trichloroethene	61	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	52	D
75-27-4	Bromodichloromethane	50	D
10061-01-5	cis-1,3-Dichloropropene	51	D
108-88-3	Toluene	48	D
10061-02-6	trans-1,3-Dichloropropene	52	D
79-00-5	1,1,2-Trichloroethane	52	D
127-18-4	Tetrachloroethene	49	D
142-28-9	1,3-Dichloropropane	54	D
124-48-1	Dibromochloromethane	52	D
106-93-4	1,2-Dibromoethane	53	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	50	D
100-41-4	Ethylbenzene	47	D
	m,p-Xylene	97	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	47	D
75-25-2	Bromoform	55	D
98-82-8	Isopropylbenzene	49	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748005.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	51	D
96-18-4	1,2,3-Trichloropropane	54	D
103-65-1	n-Propylbenzene	49	D
95-49-8	2-Chlorotoluene	47	D
106-43-4	4-Chlorotoluene	49	D
108-67-8	1,3,5-Trimethylbenzene	46	D
98-06-6	tert-Butylbenzene	46	D
95-63-6	1,2,4-Trimethylbenzene	48	D
135-98-8	sec-Butylbenzene	48	D
541-73-1	1,3-Dichlorobenzene	47	D
99-87-6	p-Isopropyltoluene	49	D
106-46-7	1,4-Dichlorobenzene	47	D
95-50-1	1,2-Dichlorobenzene	48	D
104-51-8	n-Butylbenzene	52	D
96-12-8	1,2-Dibromo-3-chloropropane	56	D
120-82-1	1,2,4-Trichlorobenzene	55	D
87-68-3	Hexachlorobutadiene	55	D
91-20-3	Naphthalene	58	D
87-67-6	1,2,3-Trichlorobenzene	56	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748006.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	31	D
74-87-3	Chloromethane	48	D
75-01-4	Vinyl chloride	50	D
74-83-9	Bromomethane	48	D
75-00-3	Chloroethane	51	D
75-69-4	Trichlorofluoromethane	52	D
75-35-4	1,1-Dichloroethene	52	D
75-09-2	Methylene chloride	49	D
540-59-0	trans-1,2-Dichloroethene	49	D
75-34-4	1,1-Dichloroethane	48	D
594-20-7	2,2-Dichloropropane	47	D
156-59-2	cis-1,2-Dichloroethene	86	D
74-97-5	Bromochloromethane	48	D
67-66-3	Chloroform	49	D
71-55-6	1,1,1-Trichloroethane	52	D
56-23-5	Carbon tetrachloride	49	D
71-43-2	Benzene	51	D
107-06-2	1,2-Dichloroethane	44	D
79-01-6	Trichloroethene	63	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	46	D
75-27-4	Bromodichloromethane	48	D
10061-01-5	cis-1,3-Dichloropropene	48	D
108-88-3	Toluene	50	D
10061-02-6	trans-1,3-Dichloropropene	48	D
79-00-5	1,1,2-Trichloroethane	46	D
127-18-4	Tetrachloroethene	52	D
142-28-9	1,3-Dichloropropane	47	D
124-48-1	Dibromochloromethane	47	D
106-93-4	1,2-Dibromoethane	45	D
108-90-7	Chlorobenzene	51	D
630-20-6	1,1,1,2-Tetrachloroethane	51	D
100-41-4	Ethylbenzene	51	D
	m,p-Xylene	110	D
95-47-6	o-Xylene	52	D
100-42-5	Styrene	48	D
75-25-2	Bromoform	48	D
98-82-8	Isopropylbenzene	53	D
108-86-1	Bromobenzene	50	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748006.D

Level: (low/med) LOW Date Received: 10/26/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	46	D
96-18-4	1,2,3-Trichloropropane	48	D
103-65-1	n-Propylbenzene	54	D
95-49-8	2-Chlorotoluene	53	D
106-43-4	4-Chlorotoluene	53	D
108-67-8	1,3,5-Trimethylbenzene	51	D
98-06-6	tert-Butylbenzene	52	D
95-63-6	1,2,4-Trimethylbenzene	53	D
135-98-8	sec-Butylbenzene	55	D
541-73-1	1,3-Dichlorobenzene	51	D
99-87-6	p-Isopropyltoluene	56	D
106-46-7	1,4-Dichlorobenzene	51	D
95-50-1	1,2-Dichlorobenzene	50	D
104-51-8	n-Butylbenzene	58	D
96-12-8	1,2-Dibromo-3-chloropropane	49	D
120-82-1	1,2,4-Trichlorobenzene	56	D
87-68-3	Hexachlorobutadiene	65	D
91-20-3	Naphthalene	53	D
87-67-6	1,2,3-Trichlorobenzene	56	D

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	100	100	97	0
03	LCS 1	96	100	100	0
04	3628BDLMS	92	99	99	0
05	3628BDLMSD	102	100	101	0
06	3628BDL	91	99	89	0
07	3608B	98	97	97	0
08	3607A	98	97	96	0
09	3606A	96	98	96	0
10	36TB4	90	97	91	0
11	VBLKBB	100	101	98	0
12	LCS 2	93	100	100	0
13	3607ADLMS	100	100	101	0
14	3607ADLMSD	92	98	99	0
15	3607ADL	87	98	92	0

			QC LIMITS
SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

300

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128% [ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169% [ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123% [ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125% [ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122% [ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127% [ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127% [ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134% [ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159% [ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116% [ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142% [ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115% [ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211% [ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140% [ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204% [ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.31	10.00	93.08	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.00	10.00	100.00	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.09	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.99	10.00	89.85	30 to 152%	[ ]
3)	PM	Chloromethane	8.78	10.00	87.76	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.60	10.00	96.03	72 to 116%	[ ]
5)	T	Bromomethane	9.37	10.00	93.73	63 to 140%	[ ]
6)	T	Chloroethane	9.80	10.00	98.02	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.13	10.00	101.26	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.96	10.00	99.55	84 to 117%	[ ]
9)	T	Acetone	14.72	20.00	73.59	24 to 158%	[ ]
10)	T	Iodomethane	9.81	10.00	98.15	60 to 135%	[ ]
11)	T	Carbon disulfide	10.58	10.00	105.77	79 to 118%	[ ]
12)	T	Methylene chloride	9.18	10.00	91.82	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.32	10.00	93.20	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	8.64	10.00	86.37	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.14	10.00	91.43	90 to 114%	[ ]
16)	T	Vinyl acetate	13.65	20.00	68.27	75 to 114%	[*]
17)	T	Isopropyl ether	9.61	10.00	96.07	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.32	10.00	93.16	74 to 112%	[ ]
19)	T	2-Butanone	17.66	20.00	88.31	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.06	10.00	100.61	90 to 117%	[ ]
21)	T	Bromochloromethane	9.72	10.00	97.17	91 to 129%	[ ]
22)	CM	Chloroform	9.38	10.00	93.76	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	9.94	10.00	99.40	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.51	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.68	10.00	106.85	84 to 112%	[ ]
28)	T	Benzene	9.72	10.00	97.16	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.11	10.00	91.13	88 to 125%	[ ]
30)	T	Trichloroethene	9.89	10.00	98.92	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	9.78	10.00	97.81	87 to 112%	[ ]
32)	T	Dibromomethane	9.13	10.00	91.27	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.72	10.00	7.16	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.32	10.00	93.25	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.49	10.00	94.92	61 to 133%	[ ]
37)	CM	Toluene	9.66	10.00	96.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.34	10.00	93.43	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.19	10.00	91.94	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.00	10.00	99.96	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	9.45	10.00	94.50	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.27	10.00	92.69	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.10	10.00	91.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	16.63	20.00	83.15	70 to 128% [ ]
45)	T	2-Hexanone	16.24	20.00	81.21	28 to 169% [ ]
47)	PM	Chlorobenzene	9.80	10.00	98.02	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	9.80	10.00	97.99	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.87	10.00	98.73	69 to 123% [ ]
51)	T	m,p-Xylene	20.13	20.00	100.66	70 to 125% [ ]
52)	T	o-Xylene	10.12	10.00	101.22	73 to 122% [ ]
53)	T	Styrene	9.81	10.00	98.14	76 to 127% [ ]
54)	PM	Bromoform	9.70	10.00	96.97	52 to 127% [ ]
55)	T	Isopropylbenzene	10.25	10.00	102.52	56 to 134% [ ]
58)	T	Bromobenzene	9.63	10.00	96.28	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	8.84	10.00	88.44	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	9.32	10.00	93.23	38 to 159% [ ]
61)	T	n-Propylbenzene	10.28	10.00	102.78	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.92	10.00	99.22	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.22	10.00	102.17	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.83	10.00	98.33	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.90	10.00	99.02	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.06	10.00	100.63	63 to 142% [ ]
67)	T	sec-Butylbenzene	10.30	10.00	102.98	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.62	10.00	96.15	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.53	10.00	105.30	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.63	10.00	96.32	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.42	10.00	94.18	87 to 115% [ ]
72)	T	n-Butylbenzene	10.92	10.00	109.17	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	9.11	10.00	91.08	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.53	10.00	105.28	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.86	10.00	118.56	74 to 140% [ ]
76)	T	Naphthalene	9.86	10.00	98.59	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.04	10.00	100.37	43 to 204% [ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128% [ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169% [ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123% [ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125% [ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122% [ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127% [ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127% [ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134% [ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159% [ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140% [ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204% [ ]

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	50	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	50	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	50	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	50	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	50	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	50	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	50	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	50	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	50	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	50	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	50	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	50	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	50	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	50	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	50	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	50	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	50	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	50	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	50	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	50	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	50	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	50	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	50	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	50	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	50	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	50	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	50	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	50	44.46	51.49	89	103	14.7	20	85-125
Tetrachloroet	0.0	50	48.51	47.23	97	94	2.7	13	87-131
1,3-Dichlorop	0.0	50	45.37	53.65	91	107	16.7	19	73-126

Dibromochloro	0.0	50	45.49	52.17	91	104	13.7	27	83-122
1,2-Dibromoet	0.0	50	44.37	51.97	89	104	15.8	26	36-153
4-Methyl-2-pe	0.0	100	76.76	103.04	77	103	29.2	35	64-133
2-Hexanone	0.0	100	81.06	105.10	81	105	25.8	36	49-144
Chlorobenzene	0.0	50	48.02	48.06	96	96	0.1	10	66-156
1,1,1,2-Tetra	0.0	50	48.01	49.75	96	100	3.6	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.87	45.93	96	92	4.1	14	78-132
m,p-Xylene	0.0	100	97.05	95.62	97	96	1.5	20	76-129
o-Xylene	0.0	50	48.73	48.61	97	97	0.2	13	76-127
Styrene	0.0	50	47.00	48.45	94	97	3.0	43	55-138
Bromoform	0.0	50	47.26	55.03	95	110	15.2	29	62-124
Isopropylbenz	0.0	50	49.89	47.34	100	95	5.2	20	65-149
Bromobenzene	0.0	50	47.88	48.05	96	96	0.4	14	73-140
1,1,2,2-Tetra	0.0	50	43.80	50.74	88	101	14.7	25	75-127
1,2,3-Trichlo	0.0	50	45.39	52.74	91	105	15.0	26	75-127
n-Propylbenze	0.0	50	51.13	46.79	102	94	8.9	16	76-123
2-Chlorotolue	0.0	50	49.64	46.31	99	93	6.9	15	85-122
4-Chlorotolue	0.0	50	50.37	48.23	101	96	4.3	13	87-122
1,3,5-Trimeth	0.0	50	48.51	45.41	97	91	6.6	25	72-140
tert-Butylben	0.0	50	48.30	44.28	97	89	8.7	16	73-113
1,2,4-Trimeth	0.0	50	50.52	47.25	101	94	6.7	30	50-158
sec-Butylbenz	0.0	50	50.66	46.32	101	93	8.9	18	62-144
1,3-Dichlorob	0.0	50	48.11	47.44	96	95	1.4	10	89-118
p-Isopropylto	0.0	50	51.94	48.33	104	97	7.2	22	35-190
1,4-Dichlorob	0.0	50	48.48	46.70	97	93	3.7	10	78-138
1,2-Dichlorob	0.0	50	47.18	49.06	94	98	3.9	12	86-120
n-Butylbenzen	0.0	50	53.21	50.54	106	101	5.2	40	0-270
1,2-Dibromo-3	0.0	50	45.16	54.85	90	110	19.4	33	71-118
1,2,4-Trichlo	0.0	50	53.27	56.92	107	114	6.6	32	30-230
Hexachlorobut	0.0	50	60.38	54.77	121	110	9.7	18	70-156
Naphthalene	0.0	50	50.56	59.78	101	120	16.7	42	17-260
1,2,3-Trichlo	0.0	50	51.73	57.72	103	115	11.0	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Non-Spiked Sample: 30748007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30748005.D	30748006.D
Sample :	110655-2 MS 5.00ml 5X	110655-2 MSD 5.00ml 5X
Acq Time:	5 Nov 2001 10:25	5 Nov 2001 11:06

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	8.7	10	87	10.0	100	9.2	92	77-119
s-Toluene-d8	9.8	10	98	9.9	99	9.8	98	78-118
s-4-Bromofluorobenze	9.1	10	91	10.1	101	9.9	99	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	44.10	30.85	88	62	35.4#	12	35-160
Chloromethane	0.0	50	45.17	48.13	90	96	6.3	10	60-124
Vinyl chlorid	0.0	50	48.01	50.25	96	101	4.6	9	74-125
Bromomethane	0.0	50	46.95	47.98	94	96	2.2	17	59-152
Chloroethane	0.0	50	50.44	50.95	101	102	1.0	10	73-123
Trichlorofluo	0.0	50	50.49	51.85	101	104	2.6	10	84-125
1,1-Dichloroe	0.0	50	49.91	52.31	100	105	4.7	13	84-119
Acetone	0.0	100	95.25	74.60	95	75	24.3	44	19-201
Iodomethane	0.0	50	47.16	49.49	94	99	4.8	15	53-154
Carbon disulf	0.0	50	53.36	56.07	107	112	5.0	12	79-123
Methylene chl	0.0	50	49.80	48.74	100	97	2.1	18	81-121
trans-1,2-Dic	0.0	50	47.34	48.89	95	98	3.2	9	87-115
Methyl tert-b	0.0	50	52.64	43.96	105	88	18.0	32	68-133
1,1-Dichloroe	0.0	50	46.71	47.48	93	95	1.6	10	85-121
Vinyl acetate	0.0	100	80.58	71.31	81	71	12.2	20	69-122
Isopropyl eth	0.0	50	53.62	49.13	107	98	8.7	18	79-118
2,2-Dichlorop	0.0	50	46.71	47.19	93	94	1.0	10	78-116
2-Butanone	0.0	100	128.57	99.21	129	99	25.8	47	65-133
cis-1,2-Dichl	37.2	50	92.04	85.52	110	97	12.7	14	88-122
Bromochlorome	0.0	50	49.76	48.10	100	96	3.4	18	85-130
Chloroform	0.0	50	48.66	48.64	97	97	0.0	13	87-117
1,1,1-Trichlo	0.0	50	50.30	52.25	101	104	3.8	10	90-120
Carbon tetrac	0.0	50	45.92	48.97	92	98	6.4	11	78-121
1,1-Dichlorop	0.0	50	49.21	56.99	98	114	14.7#	12	84-118
Benzene	0.9	50	48.98	50.67	96	99	3.5	8	67-148
1,2-Dichloroe	0.0	50	49.89	44.30	100	89	11.9	17	85-129
Trichloroethe	14.4	50	60.98	63.15	93	98	4.6	11	86-115
1,2-Dichlorop	0.0	50	50.47	49.96	101	100	1.0	12	88-114
Dibromomethan	0.0	50	51.95	46.40	104	93	11.3	20	81-130

2-Chloroethyl	0.0	50	4.19	0.00	8#	0#	200.0#	30	50-150
Bromodichloro	0.0	50	50.01	47.92	100	96	4.3	15	87-121
cis-1,3-Dichl	0.0	50	50.91	48.35	102	97	5.2	19	65-133
Toluene	0.0	50	47.71	49.85	95	100	4.4	8	86-123
trans-1,3-Dic	0.0	50	52.49	47.84	105	96	9.3	19	53-144
1,1,2-Trichlo	0.0	50	52.07	46.48	104	93	11.3	20	85-125
Tetrachloroet	0.0	50	48.94	52.10	98	104	6.3	13	87-131
1,3-Dichlorop	0.0	50	53.52	47.08	107	94	12.8	19	73-126
Dibromochloro	0.0	50	52.21	46.98	104	94	10.5	27	83-122
1,2-Dibromoet	0.0	50	52.72	45.36	105	91	15.0	26	36-153
4-Methyl-2-pe	0.0	100	105.85	82.87	106	83	24.4	35	64-133
2-Hexanone	0.0	100	117.33	88.83	117	89	27.7	36	49-144
Chlorobenzene	0.0	50	48.01	50.71	96	101	5.5	10	66-156
1,1,1,2-Tetra	0.0	50	49.54	50.62	99	101	2.2	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.30	51.29	95	103	8.1	14	78-132
m,p-Xylene	0.0	100	96.58	105.46	97	105	8.8	20	76-129
o-Xylene	0.0	50	48.80	51.93	98	104	6.2	13	76-127
Styrene	0.0	50	46.99	48.27	94	97	2.7	43	55-138
Bromoform	0.0	50	55.04	48.06	110	96	13.5	29	62-124
Isopropylbenz	0.0	50	48.64	53.33	97	107	9.2	20	65-149
Bromobenzene	0.0	50	48.38	50.21	97	100	3.7	14	73-140
1,1,2,2-Tetra	0.0	50	51.20	46.51	102	93	9.6	25	75-127
1,2,3-Trichlo	0.0	50	53.51	47.95	107	96	11.0	26	75-127
n-Propylbenze	0.0	50	48.62	54.30	97	109	11.0	16	76-123
2-Chlorotolue	0.0	50	47.34	52.85	95	106	11.0	15	85-122
4-Chlorotolue	0.0	50	48.69	53.43	97	107	9.3	13	87-122
1,3,5-Trimeth	0.0	50	45.69	51.09	91	102	11.2	25	72-140
tert-Butylben	0.0	50	46.21	51.99	92	104	11.8	16	73-113
1,2,4-Trimeth	0.0	50	48.03	53.03	96	106	9.9	30	50-158
sec-Butylbenz	0.0	50	47.81	54.88	96	110	13.8	18	62-144
1,3-Dichlorob	0.0	50	47.37	50.70	95	101	6.8	10	89-118
p-Isopropylto	0.0	50	48.78	55.56	98	111	13.0	22	35-190
1,4-Dichlorob	0.0	50	47.29	50.77	95	102	7.1	10	78-138
1,2-Dichlorob	0.0	50	48.27	49.60	97	99	2.7	12	86-120
n-Butylbenzen	0.0	50	51.56	58.15	103	116	12.0	40	0-270
1,2-Dibromo-3	0.0	50	55.95	48.64	112	97	14.0	33	71-118
1,2,4-Trichlo	0.0	50	55.44	56.23	111	112	1.4	32	30-230
Hexachlorobut	0.0	50	55.39	64.74	111	129	15.6	18	70-156
Naphthalene	0.0	50	58.26	52.97	117	106	9.5	42	17-260
1,2,3-Trichlo	0.0	50	55.62	56.37	111	113	1.3	33	49-214

- Fails Limit Check

V82625B1.M Tue Nov 06 14:00:39 2001

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID: 30747003.D Lab Sample ID: BUW149ABK BLA

Date Analyzed: 11/2/01 Time Analyzed: 10:35

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 1	BUW149ALCS LCS 11-02	30747004.D	11:19
02	3628BDLMS	110611-3 MS 5.00ML 5X	30747005.D	12:03
03	3628BDLMSD	110611-3 MSD 5.00ML 5	30747006.D	12:44
04	3628BDL	110611-3 5.00ML 5X	30747007.D	13:25
05	3608B	110655-1	30747008.D	14:09
06	3607A	110655-2	30747009.D	14:50
07	3606A	110655-3	30747010.D	15:30
08	36TB4	110655-4	30747011.D	16:11

COMMENTS

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID: 30748003.D Lab Sample ID: BUW150ABK BLA

Date Analyzed: 11/5/01 Time Analyzed: 9:05

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 2	BUW150ALCS LCS 11-05	30748004.D	9:46
02	3607ADLMS	110655-2 MS 5.00ML 5X	30748005.D	10:25
03	3607ADLMSD	110655-2 MSD 5.00ML 5	30748006.D	11:06
04	3607ADL	110655-2 5.00ML 5X	30748007.D	11:48

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID: 30747001.D BFB Injection Date: 11/2/01

Instrument ID: BUBBA BFB Injection Time: 9:13

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.1
75	30.0 - 66.0% of mass 95	43.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	69.1
175	4.0 - 9.0% of mass 174	4.8 (7.0)1
176	93.0 - 101.0% of mass 174	68.6 (99.2)1
177	5.0 - 9.0% of mass 176	4.3 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30747002.D	11/2/01	9:55
02	VBLKBA	BUW149ABK BLANK 11-	30747003.D	11/2/01	10:35
03	LCS 1	BUW149ALCS LCS 11-02	30747004.D	11/2/01	11:19
04	3628BDLMS	110611-3 MS 5.00ML 5X	30747005.D	11/2/01	12:03
05	3628BDLMSD	110611-3 MSD 5.00ML 5	30747006.D	11/2/01	12:44
06	3628BDL	110611-3 5.00ML 5X	30747007.D	11/2/01	13:25
07	3608B	110655-1	30747008.D	11/2/01	14:09
08	3607A	110655-2	30747009.D	11/2/01	14:50
09	3606A	110655-3	30747010.D	11/2/01	15:30
10	36TB4	110655-4	30747011.D	11/2/01	16:11

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID: 30748001.D BFB Injection Date: 11/5/01

Instrument ID: BUBBA BFB Injection Time: 7:45

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	67.7
175	4.0 - 9.0% of mass 174	4.9 (7.2)1
176	93.0 - 101.0% of mass 174	66.2 (97.8)1
177	5.0 - 9.0% of mass 176	4.1 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BB	10PPB VOA STD	30748002.D	11/5/01	8:24
02	VBLKBB	BUW150ABK BLANK 11-	30748003.D	11/5/01	9:05
03	LCS 2	BUW150ALCS LCS 11-05	30748004.D	11/5/01	9:46
04	3607ADLMS	110655-2 MS 5.00ML 5X	30748005.D	11/5/01	10:25
05	3607ADLMSD	110655-2 MSD 5.00ML 5	30748006.D	11/5/01	11:06
06	3607ADL	110655-2 5.00ML 5X	30748007.D	11/5/01	11:48

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------	ISTD	----------					
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------	ISTD	----------					
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	ISTD							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	ISTD							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
							L	M= 0.351	R^2=0.999	
								B= 0.002		
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
							L	M= 0.742	R^2=0.999	
								B= 0.030		

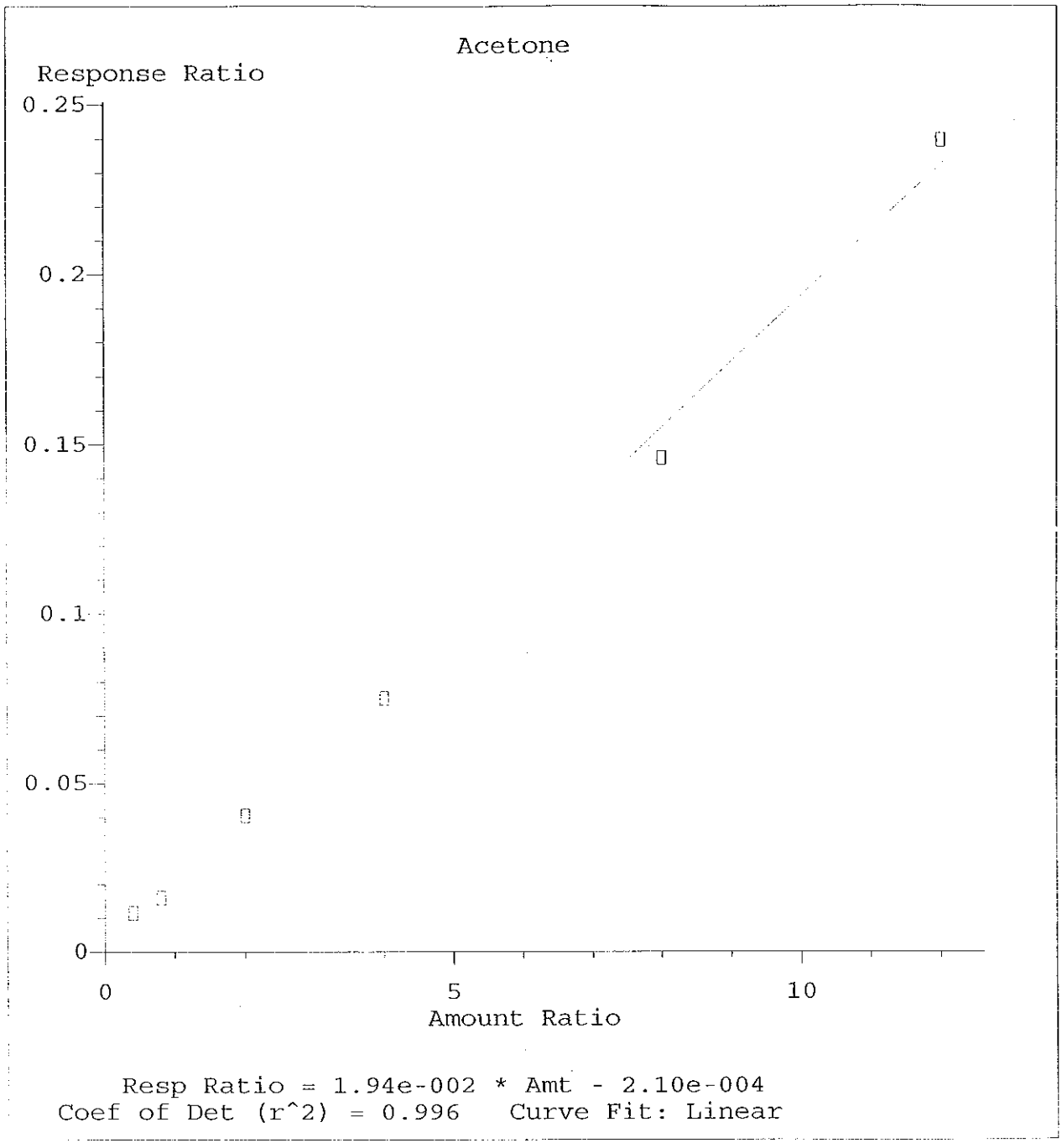
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

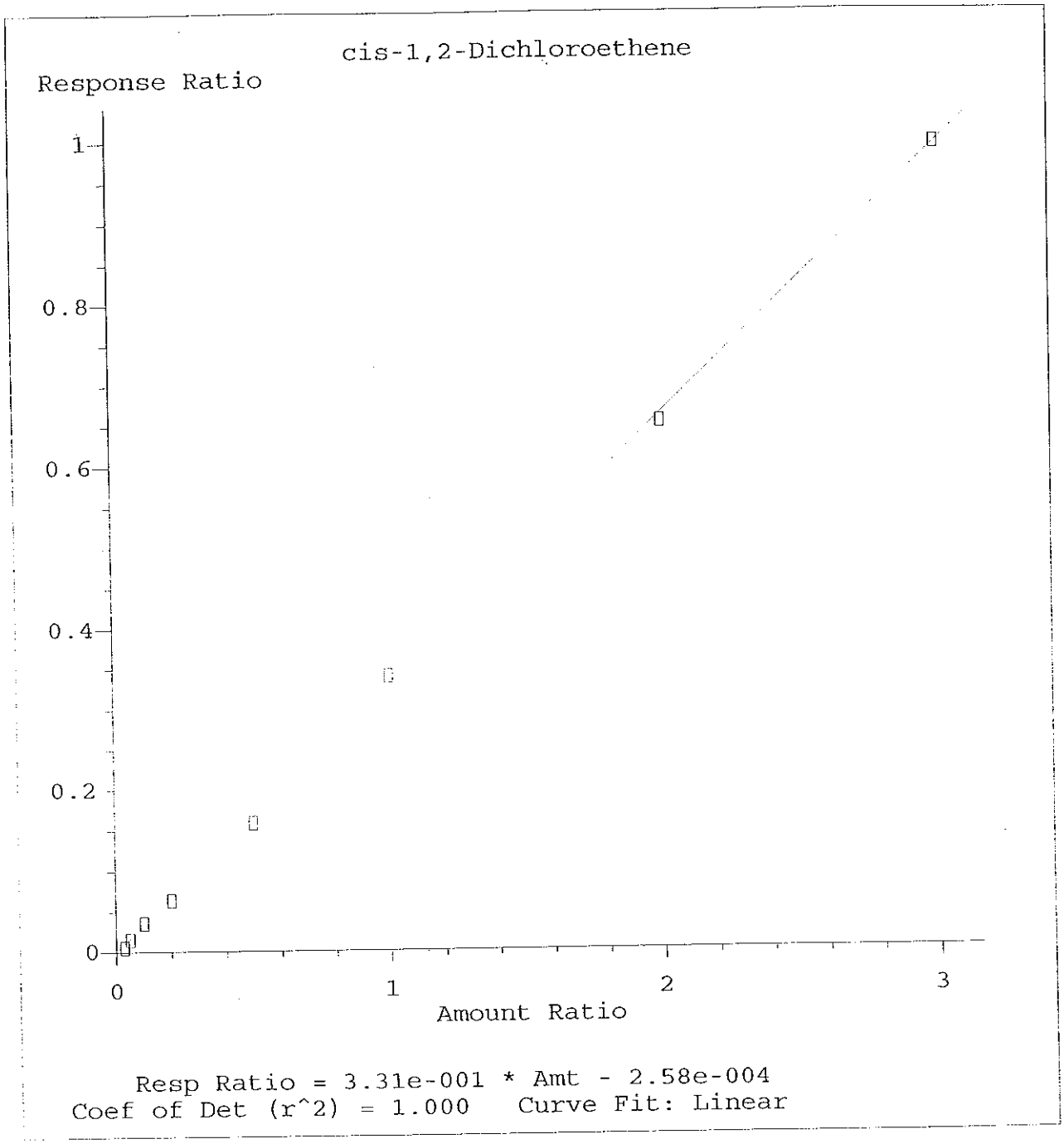
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

	Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76) TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77) TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

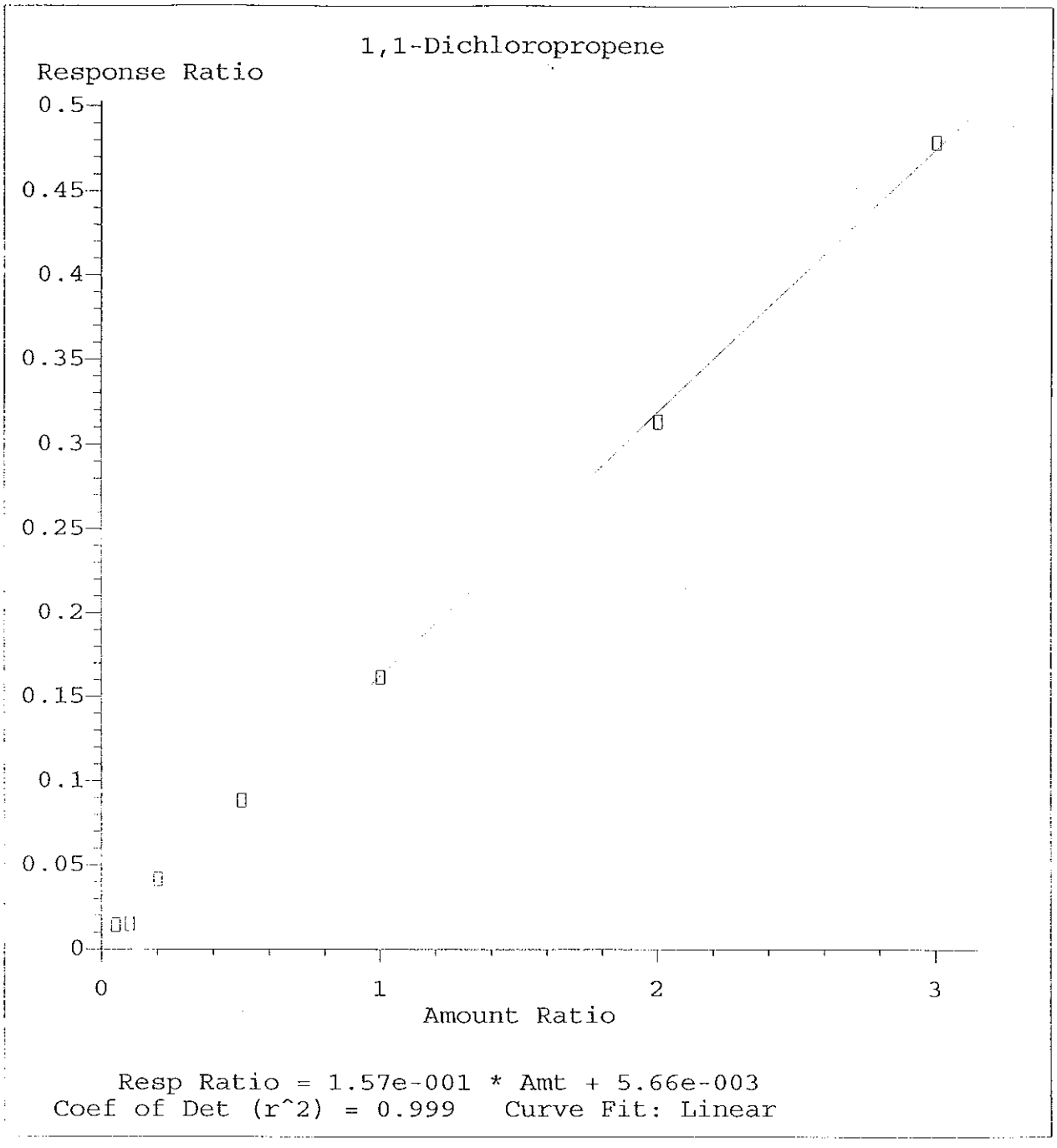
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



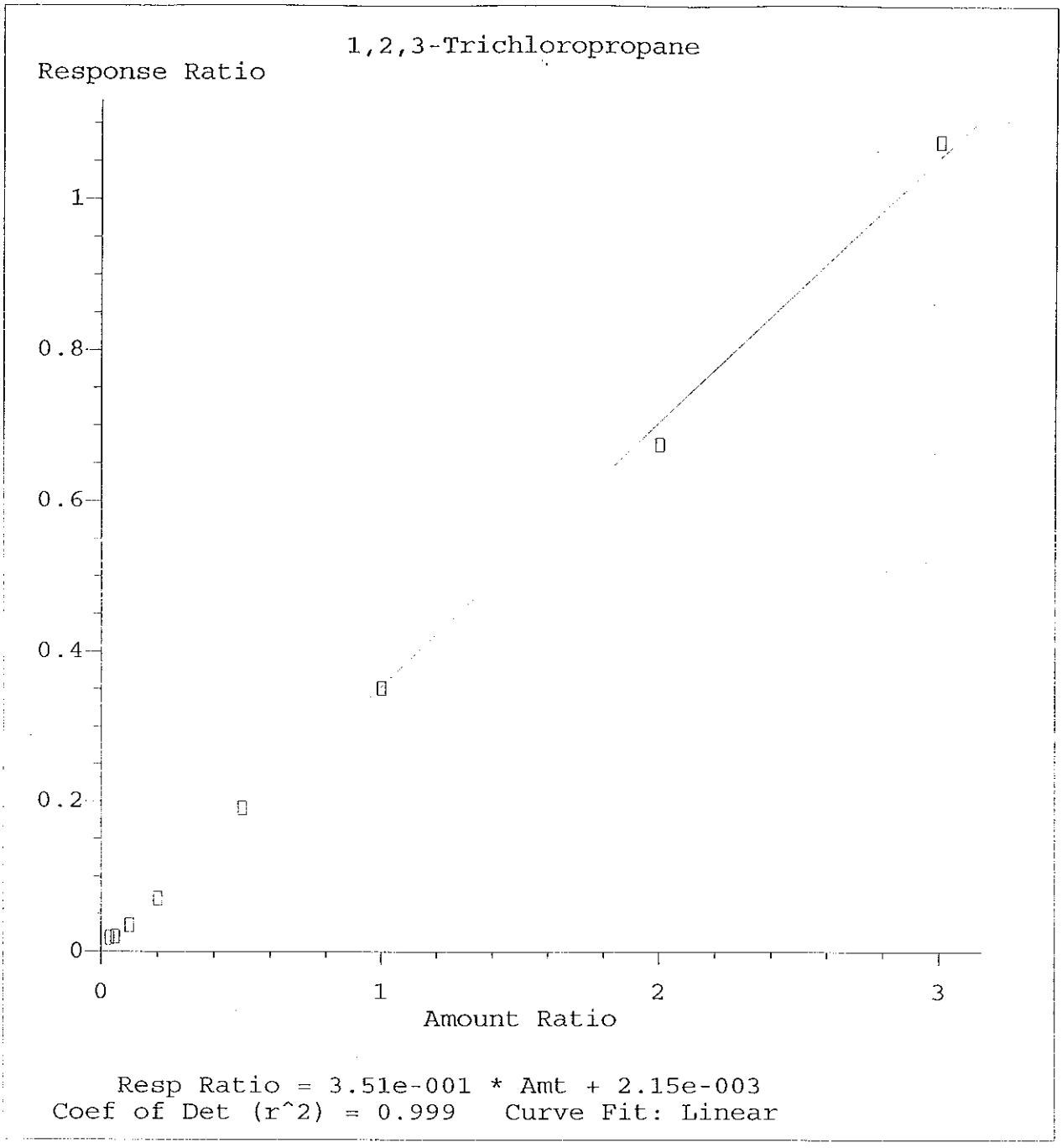
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



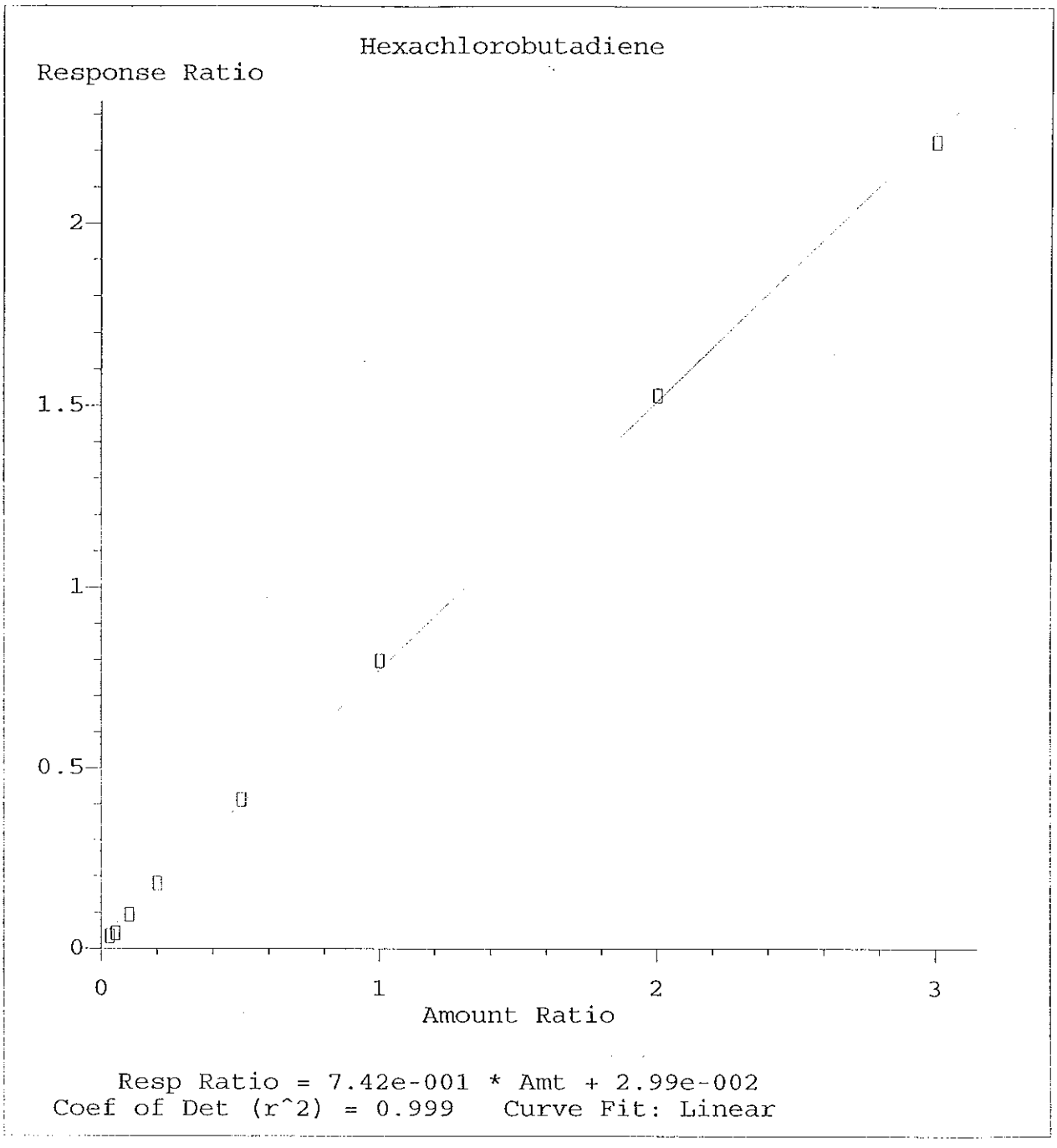
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.00
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.00
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.00
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.00
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.00
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.00
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.00
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.00
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	0.00
37	CM	Toluene	0.699	0.656	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	0.00
45	TM	2-Hexanone	0.069	0.073	-5.8	106	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	0.00
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 6
30747002.D V82625B1.M Mon Nov 05 15:16:33 2001 Page 2

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.00
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.00
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.00
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.00
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.00
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.00
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.00
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.00
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.00
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	0.00
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	0.00
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	0.00
37	CM	Toluene	10.000	9.383	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	0.00
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	0.00
45	TM	2-Hexanone	40.000	42.488	-6.2	106	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	0.00
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	0.00
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

320

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	TM	Dichlorodifluoromethane	0.508	0.440	13.4	89	0.00
3	PM	Chloromethane	0.324	0.301	7.1	92	0.00
4	CM	Vinyl chloride	0.340	0.320	5.9#	96	0.00
5	TM	Bromomethane	0.307	0.279	9.1	92	0.00
6	TM	Chloroethane	0.199	0.190	4.5	95	0.00
7	TM	Trichlorofluoromethane	0.557	0.529	5.0	94	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	97	0.00
9	TM	Acetone	0.021	0.019#	9.5	101	0.00
10	TM	Iodomethane	0.403	0.391	3.0	94	0.00
11	TM	Carbon disulfide	1.028	0.997	3.0	96	0.00
12	TM	Methylene chloride	0.267	0.271	-1.5	98	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.354	2.5	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.394	1.3	97	0.00
15	PM	1,1-Dichloroethane	0.645	0.629	2.5	95	0.00
16	TM	Vinyl acetate	0.489	0.490	-0.2	97	0.00
17	TM	Isopropyl ether	1.015	1.040	-2.5	98	0.00
18	TM	2,2-Dichloropropane	0.478	0.457	4.4	92	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	100	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.339	-9.0	97	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	99	0.00
22	CM	Chloroform	0.645	0.636	1.4#	97	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.532	1.3	95	0.00
24	S	s-Dibromofluoromethane	0.463	0.461	0.4	96	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	97	0.00
26	TM	Carbon tetrachloride	0.500	0.453	9.4	96	0.00
27	TM	1,1-Dichloropropene	0.186	0.167	10.2	100	0.00
28	TM	Benzene	1.086	1.068	1.7	97	0.00
29	TM	1,2-Dichloroethane	0.217	0.213	1.8	97	0.00
30	TM	Trichloroethene	0.437	0.425	2.7	97	0.00
31	CM	1,2-Dichloropropane	0.363	0.361	0.6#	98	0.00
32	TM	Dibromomethane	0.162	0.162	0.0	99	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.065	-8.3	100	0.00
34	TM	Bromodichloromethane	0.502	0.497	1.0	97	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.388	0.8	96	0.00
36	S	s-Toluene-d8	0.947	0.958	-1.2	98	0.00
37	CM	Toluene	0.699	0.681	2.6#	97	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.246	-2.1	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.161	0.6	99	0.00
40	TM	Tetrachloroethene	0.505	0.489	3.2	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.308	0.3	98	0.00
42	TM	Dibromochloromethane	0.295	0.298	-1.0	98	0.00
43	TM	1,2-Dibromoethane	0.200	0.204	-2.0	98	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.112	1.8	100	0.00
45	TM	2-Hexanone	0.069	0.071	-2.9	100	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
47	PM	Chlorobenzene	1.050	1.026	2.3	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.460	1.1	97	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	103	0.00
50	CM	Ethylbenzene	0.567	0.544	4.1#	97	0.00
51	TM	m,p-Xylene	0.683	0.677	0.9	97	0.00
52	TM	o-Xylene	0.635	0.621	2.2	96	0.00
53	TM	Styrene	1.007	1.024	-1.7	98	0.00
54	PM	Bromoform	0.245	0.260	-6.1	101	0.00
55	TM	Isopropylbenzene	2.040	2.014	1.3	97	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	97	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
58	TM	Bromobenzene	0.928	0.886	4.5	99	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.614	4.7	98	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.357	9.6	99	0.00
61	TM	n-Propylbenzene	0.909	0.867	4.6	94	0.00
62	TM	2-Chlorotoluene	0.856	0.809	5.5	98	0.00
63	TM	4-Chlorotoluene	2.990	2.941	1.6	100	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.668	4.2	98	0.00
65	TM	tert-Butylbenzene	1.825	1.724	5.5	98	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.464	-0.9	98	0.00
67	TM	sec-Butylbenzene	4.012	3.919	2.3	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.638	4.2	98	0.00
69	TM	p-Isopropyltoluene	3.020	3.034	-0.5	98	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.585	2.8	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	98	0.00
72	TM	n-Butylbenzene	2.797	2.946	-5.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	100	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.823	-7.9	101	0.00
75	TM	Hexachlorobutadiene	0.873	0.834	4.5	102	0.00
76	TM	Naphthalene	0.582	0.636	-9.3	105	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.613	-7.7	102	0.00

32

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	97	0.00
2	TM	Dichlorodifluoromethane	10.000	8.658	13.4	89	0.00
3	PM	Chloromethane	10.000	9.277	7.2	92	0.00
4	CM	Vinyl chloride	10.000	9.420	5.8#	96	0.00
5	TM	Bromomethane	10.000	9.076	9.2	92	0.00
6	TM	Chloroethane	10.000	9.528	4.7	95	0.00
7	TM	Trichlorofluoromethane	10.000	9.502	5.0	94	0.00
8	CM	1,1-Dichloroethene	10.000	9.633	3.7#	97	0.00
9	TM	Acetone	40.000	39.900	0.3	101	0.00
10	TM	Iodomethane	10.000	9.714	2.9	94	0.00
11	TM	Carbon disulfide	10.000	9.691	3.1	96	0.00
12	TM	Methylene chloride	10.000	10.136	-1.4	98	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.752	2.5	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.871	1.3	97	0.00
15	PM	1,1-Dichloroethane	10.000	9.750	2.5	95	0.00
16	TM	Vinyl acetate	20.000	20.061	-0.3	97	0.00
17	TM	Isopropyl ether	10.000	10.251	-2.5	98	0.00
18	TM	2,2-Dichloropropane	10.000	9.551	4.5	92	0.00
19	TM	2-Butanone	40.000	40.267	-0.7	100	0.00
20	TM	cis-1,2-Dichloroethene	10.000	10.292	-2.9	97	0.00
21	TM	Bromochloromethane	10.000	10.169	-1.7	99	0.00
22	CM	Chloroform	10.000	9.860	1.4#	97	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.857	1.4	95	0.00
24	S	s-Dibromofluoromethane	10.000	9.957	0.4	96	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	97	0.00
26	TM	Carbon tetrachloride	10.000	9.072	9.3	96	0.00
27	TM	1,1-Dichloropropene	10.000	10.283	-2.8	100	0.00
28	TM	Benzene	10.000	9.842	1.6	97	0.00
29	TM	1,2-Dichloroethane	10.000	9.801	2.0	97	0.00
30	TM	Trichloroethene	10.000	9.713	2.9	97	0.00
31	CM	1,2-Dichloropropane	10.000	9.959	0.4#	98	0.00
32	TM	Dibromomethane	10.000	9.991	0.1	99	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.848	-8.5	100	0.00
34	TM	Bromodichloromethane	10.000	9.894	1.1	97	0.00
35	TM	cis-1,3-Dichloropropene	10.000	9.934	0.7	96	0.00
36	S	s-Toluene-d8	10.000	10.107	-1.1	98	0.00
37	CM	Toluene	10.000	9.739	2.6#	97	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.223	-2.2	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.936	0.6	99	0.00
40	TM	Tetrachloroethene	10.000	9.682	3.2	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.966	0.3	98	0.00
42	TM	Dibromochloromethane	10.000	10.118	-1.2	98	0.00
43	TM	1,2-Dibromoethane	10.000	10.180	-1.8	98	0.00
44	TM	4-Methyl-2-pentanone	40.000	39.331	1.7	100	0.00
45	TM	2-Hexanone	40.000	41.605	-4.0	100	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	97	0.00
47	PM	Chlorobenzene	10.000	9.770	2.3	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.889	1.1	97	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	103	0.00
50	CM	Ethylbenzene	10.000	9.588	4.1#	97	0.00
51	TM	m,p-Xylene	20.000	19.823	0.9	97	0.00
52	TM	o-Xylene	10.000	9.779	2.2	96	0.00
53	TM	Styrene	10.000	10.167	-1.7	98	0.00
54	PM	Bromoform	10.000	10.632	-6.3	101	0.00
55	TM	Isopropylbenzene	10.000	9.872	1.3	97	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.143	-1.4	97	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	97	0.00
58	TM	Bromobenzene	10.000	9.545	4.6	99	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.530	4.7	98	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.082	-0.8	99	0.00
61	TM	n-Propylbenzene	10.000	9.545	4.6	94	0.00
62	TM	2-Chlorotoluene	10.000	9.452	5.5	98	0.00
63	TM	4-Chlorotoluene	10.000	9.836	1.6	100	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.586	4.1	98	0.00
65	TM	tert-Butylbenzene	10.000	9.447	5.5	98	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	10.090	-0.9	98	0.00
67	TM	sec-Butylbenzene	10.000	9.770	2.3	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.586	4.1	98	0.00
69	TM	p-Isopropyltoluene	10.000	10.046	-0.5	98	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.721	2.8	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.578	4.2	98	0.00
72	TM	n-Butylbenzene	10.000	10.533	-5.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.957	0.4	100	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.784	-7.8	101	0.00
75	TM	Hexachlorobutadiene	10.000	10.887	-8.9	102	0.00
76	TM	Naphthalene	10.000	10.919	-9.2	105	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.781	-7.8	102	0.00

330

(#) = Out of Range SPCC's out = 0 CCC's out = 6

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID (Standard): 30747002.D Date Analyzed: 11/2/01

Instrument ID: BUBBA Time Analyzed: 9:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2992359	7.21	3040284	9.04	2141284	15.30
	UPPER LIMIT	5984718	7.71	6080568	9.54	4282568	15.80
	LOWER LIMIT	1496180	6.71	1520142	8.54	1070642	14.80
	EPA SAMPLE NO.						
01	VBLKBA	3178649	7.23	3115359	9.05	2224472	15.31
02	LCS 1	3030766	7.22	3009380	9.06	2091671	15.31
03	3628BDLMS	3092066	7.22	3041235	9.04	2078003	15.30
04	3628BDLMSD	3136655	7.24	3157024	9.05	2246131	15.32
05	3628BDL	2847498	7.23	2706882	9.05	1838266	15.31
06	3608B	3095736	7.23	3044663	9.06	2166775	15.31
07	3607A	2792216	7.24	2749255	9.06	1952081	15.32
08	3606A	3117425	7.24	3060651	9.06	2116458	15.33
09	36TB4	2983542	7.23	2870801	9.06	1941523	15.32

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

33

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID (Standard): 30747002.D Date Analyzed: 11/02/01

Instrument ID: BUBBA Time Analyzed: 09:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1216124	22.67				
	UPPER LIMIT	2432248	22.17				
	LOWER LIMIT	608062	23.17				
	EPA SAMPLE NO.						
01	VBLKBA	1077862	22.68				
02	LCS 1	1152357	22.68				
03	3628BDLMS	1130970	22.66				
04	3628BDLMSD	1272483	22.69				
05	3628BDL	825003	22.68				
06	3608B	1059555	22.68				
07	3607A	970343	22.70				
08	3606A	1003889	22.69				
09	36TB4	893778	22.69				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID (Standard): 30748002.D Date Analyzed: 11/5/01

Instrument ID: BUBBA Time Analyzed: 8:24

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2887930	7.24	2928016	9.06	2076225	15.34
	UPPER LIMIT	5775860	7.74	5856032	9.56	4152450	15.84
	LOWER LIMIT	1443965	6.74	1464008	8.56	1038113	14.84
	EPA SAMPLE NO.						
01	VBLKBB	3036543	7.24	2981059	9.06	2142947	15.31
02	LCS 2	3015599	7.23	2960551	9.05	2033147	15.31
03	3607ADLMS	2825056	7.25	2850829	9.07	2015573	15.31
04	3607ADLMSD	2710424	7.25	2667351	9.07	1806751	15.31
05	3607ADL	2425218	7.23	2304698	9.06	1523084	15.30

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

333

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110655

Lab File ID (Standard): 30748002.D Date Analyzed: 11/05/01

Instrument ID: BUBBA Time Analyzed: 08:24

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1170394	22.70				
	UPPER LIMIT	2340788	22.20				
	LOWER LIMIT	585197	23.20				
	EPA SAMPLE NO.						
01	VBLKBB	1045036	22.69				
02	LCS 2	1122792	22.68				
03	3607ADLMS	1135243	22.69				
04	3607ADLMSD	977365	22.68				
05	3607ADL	673662	22.67				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Contract :
Project :
Site :
Location :
Group :
Lab File ID (Standard): 30744002.D
Date Analyzed : 30 Oct 2001
Instrument ID : Bubba
Time Analyzed : 9:23
GC Column :
ID : (mm)
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

336

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30744002.D Date Analyzed : 30 Oct 2001
Instrument ID : Bubba Time Analyzed : 9:23
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1203723		22.66		0		0.00		0		0.00	
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00	
LOWER LIMIT	601862		22.16		0		0.00		0		0.00	
File ID Sample												
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00	
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00	
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00	
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00	
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00	
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00	
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00	
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00	
30744011 BLANK	784520		22.66		0		0.00		0		0.00	
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

337

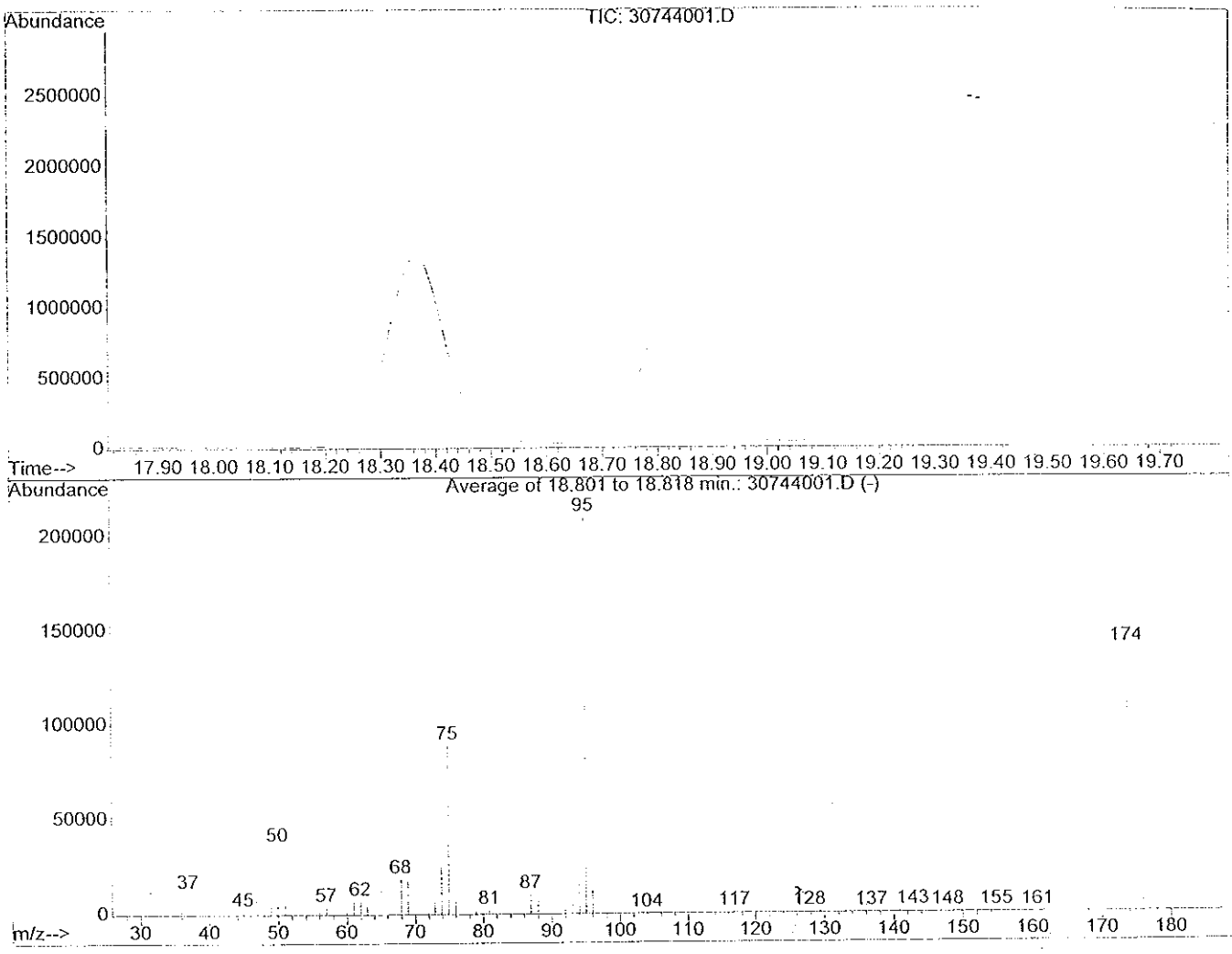
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration
30744002.D V82625B1.M Wed Oct 31 05:34:49 2001

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09	ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77	ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70	ug/L	100
28)	Benzene	7.87	78	3218196	10.14	ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84	ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96	ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47	ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22	ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59	ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30	ug/L	99
37)	Toluene	12.46	92	2053124	10.21	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12	ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95	ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81	ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93	ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11	ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30	ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08	ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68	ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15	ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80	ug/L	99
53)	Styrene	17.16	104	2162622	9.89	ug/L	100
54)	Bromoform	17.61	173	532882	10.82	ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52	ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84	ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36	ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57	ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56	ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

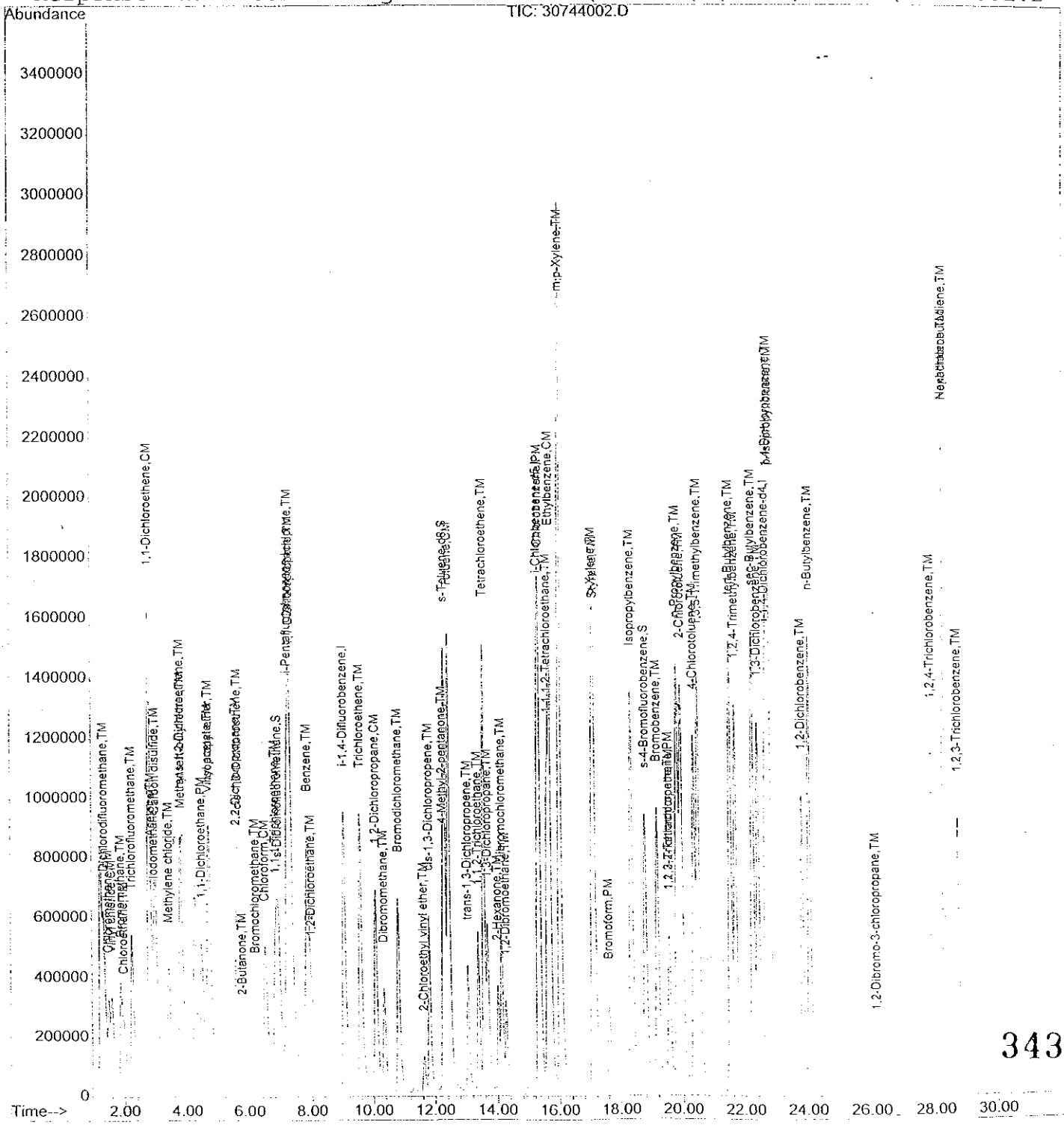
Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72)	n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74)	1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75)	Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76)	Naphthalene	28.32	128	709233	10.75	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D



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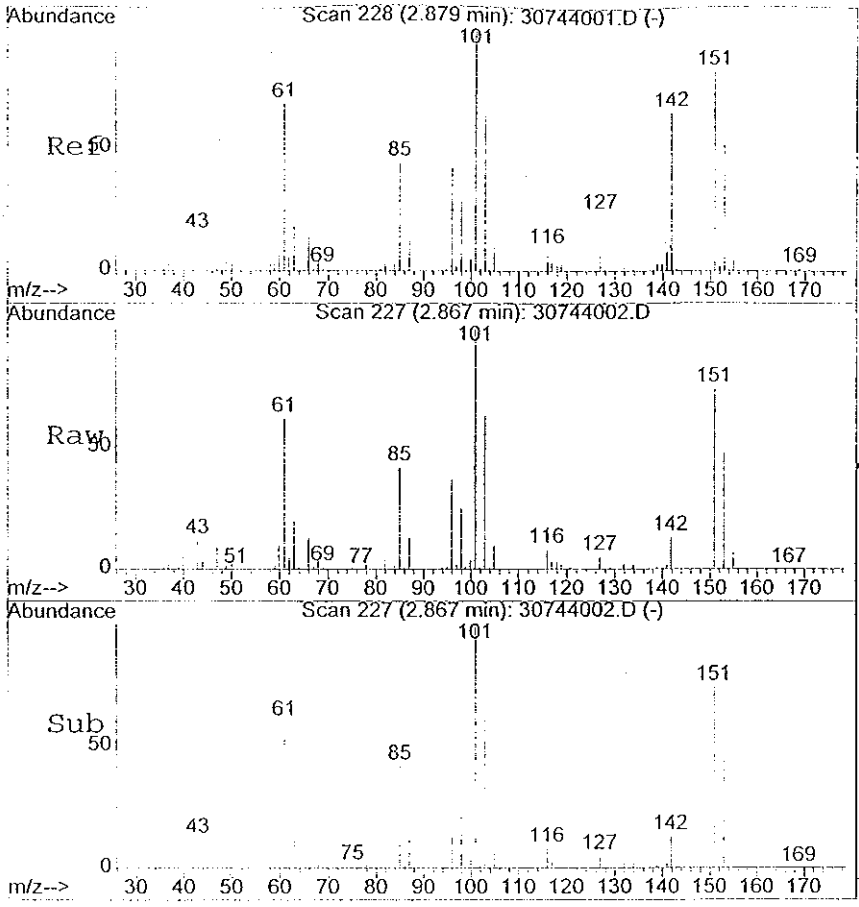
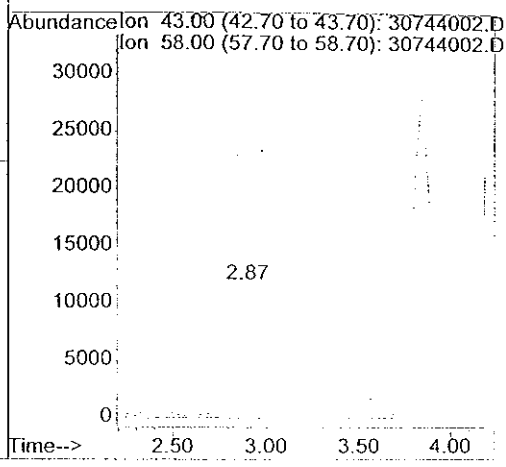


#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

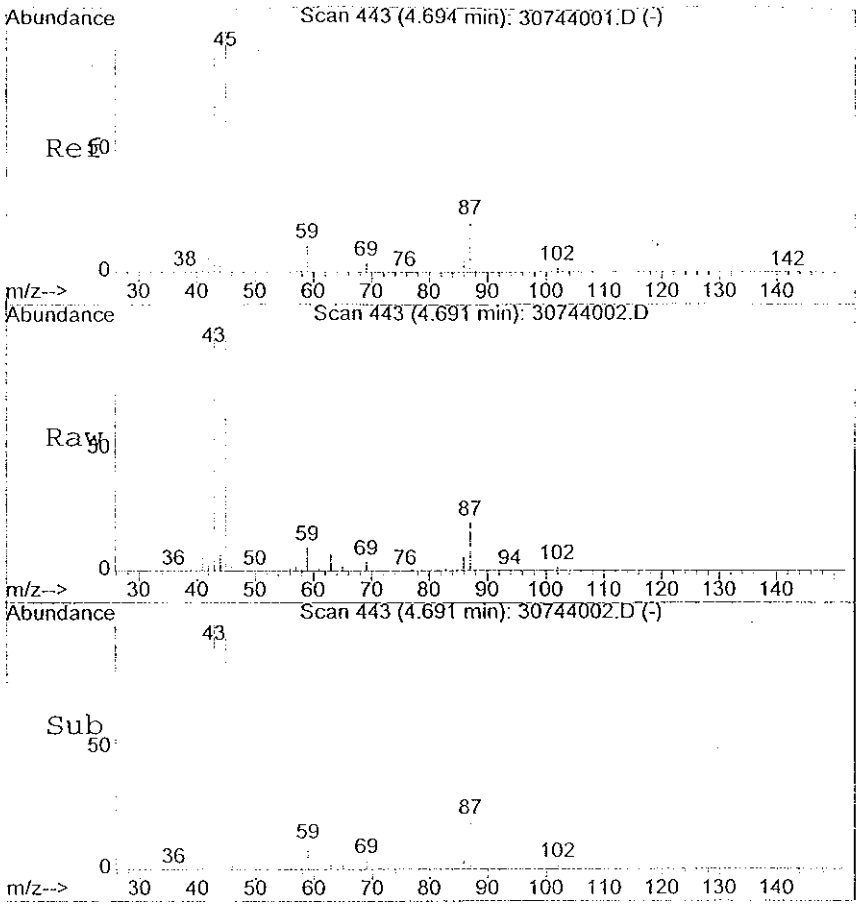
Tgt Ion: 43 Resp: 222836

Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



10-31

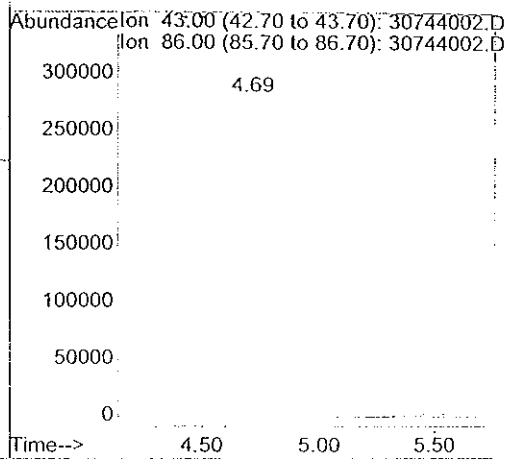
30744002.D V82625B1.M Acq :30 Oct 2001 9:23
Sample = 10ppb VOA STD Misc = 10ppb VOA STD



#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 2908842

Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



10-31

for 11-1-01

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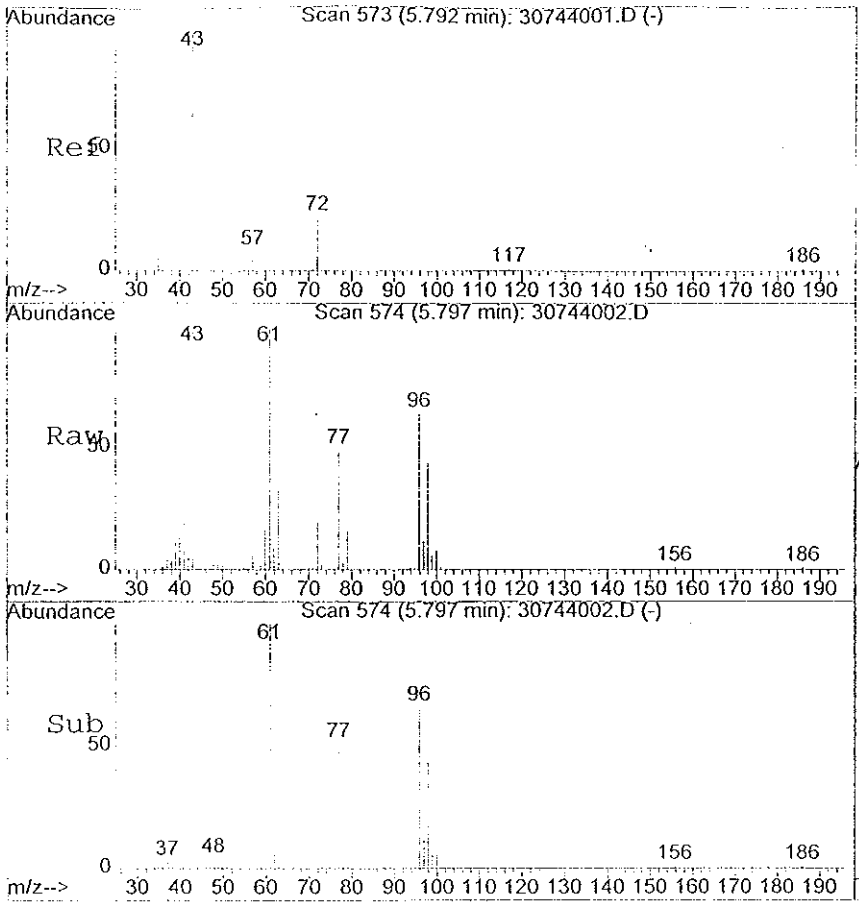
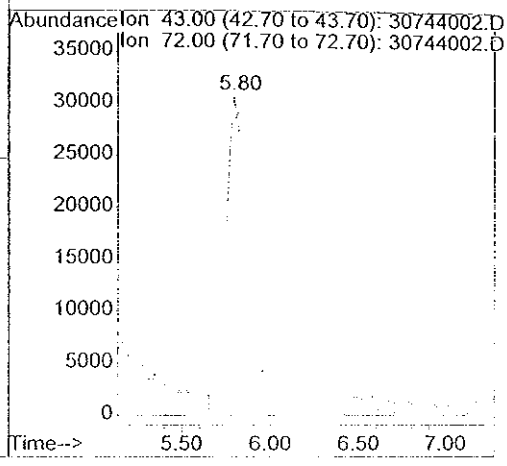


#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 472562

Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



10-31

10-31-01

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30744002.D V82625B1.M Acq :30 Oct 2001 9:23
Sample = 10ppb VOA STD Misc = 10ppb VOA STD

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26) Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27) 1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28) Benzene	7.87	78	1633119	5.05	ug/L	98
29) 1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30) Trichloroethene	9.59	95	648267	5.04	ug/L	98
31) 1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32) Dibromomethane	10.36	93	249630	5.17	ug/L	98
33) 2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34) Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35) cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37) Toluene	12.45	92	1033568	5.01	ug/L	98
38) trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40) Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41) 1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42) Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43) 1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44) 4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45) 2-Hexanone	14.01	43	437726	20.75	ug/L	99
47) Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50) Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51) m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52) o-Xylene	17.06	106	679324	5.08	ug/L	98
53) Styrene	17.13	104	1097998	5.11	ug/L	100
54) Bromoform	17.59	173	270430	5.10	ug/L	97
55) Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58) Bromobenzene	19.17	156	530064	5.23	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60) 1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61) n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62) 2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63) 4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64) 1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65) tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66) 1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67) sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68) 1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69) p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70) 1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

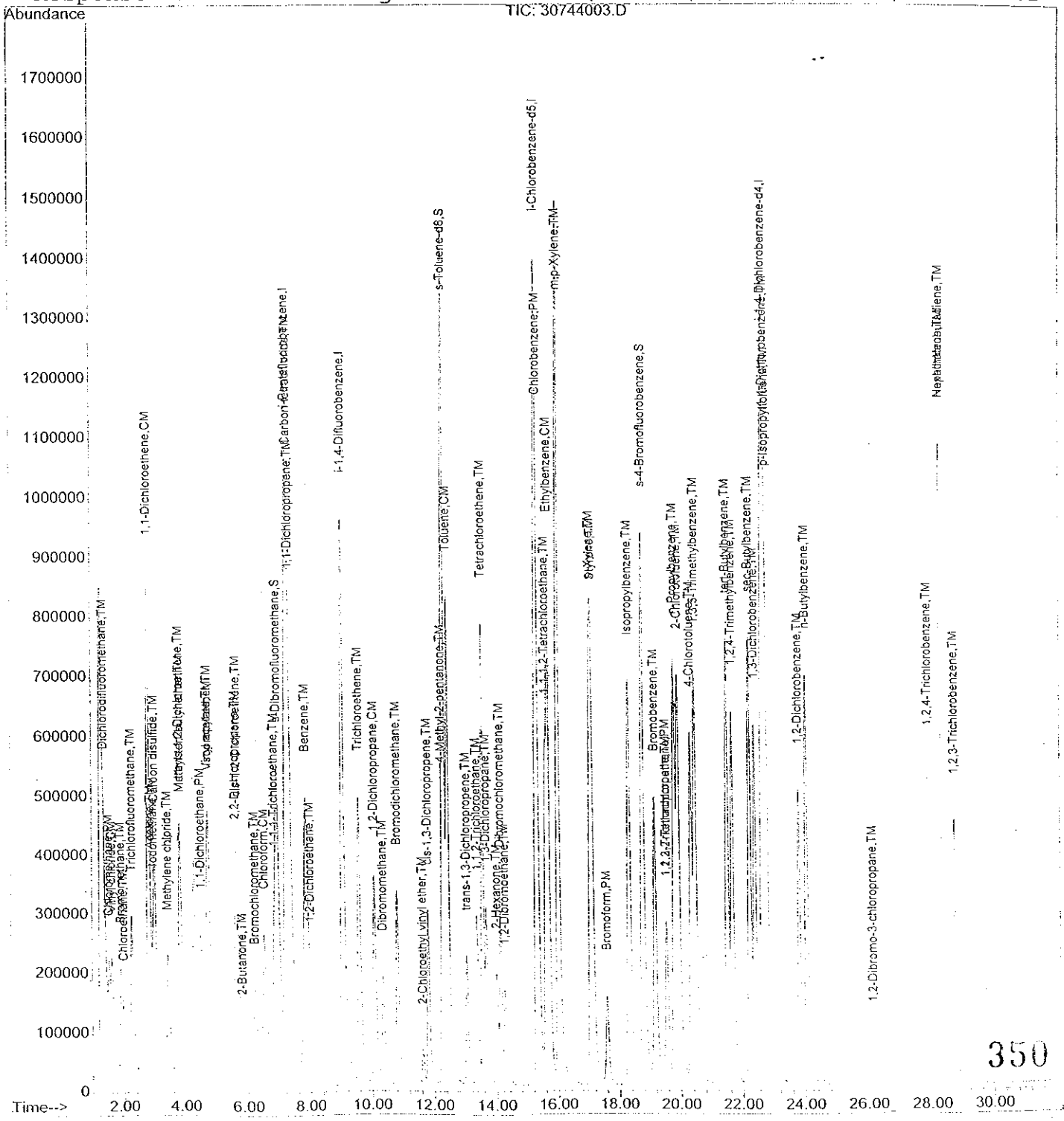
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72)	n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74)	1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75)	Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76)	Naphthalene	28.32	128	336450	4.89	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

(#) = qualifier out of range (m) = manual integration
30744003.D V82625B1.M Wed Oct 31 05:35:00 2001 Page 3

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D



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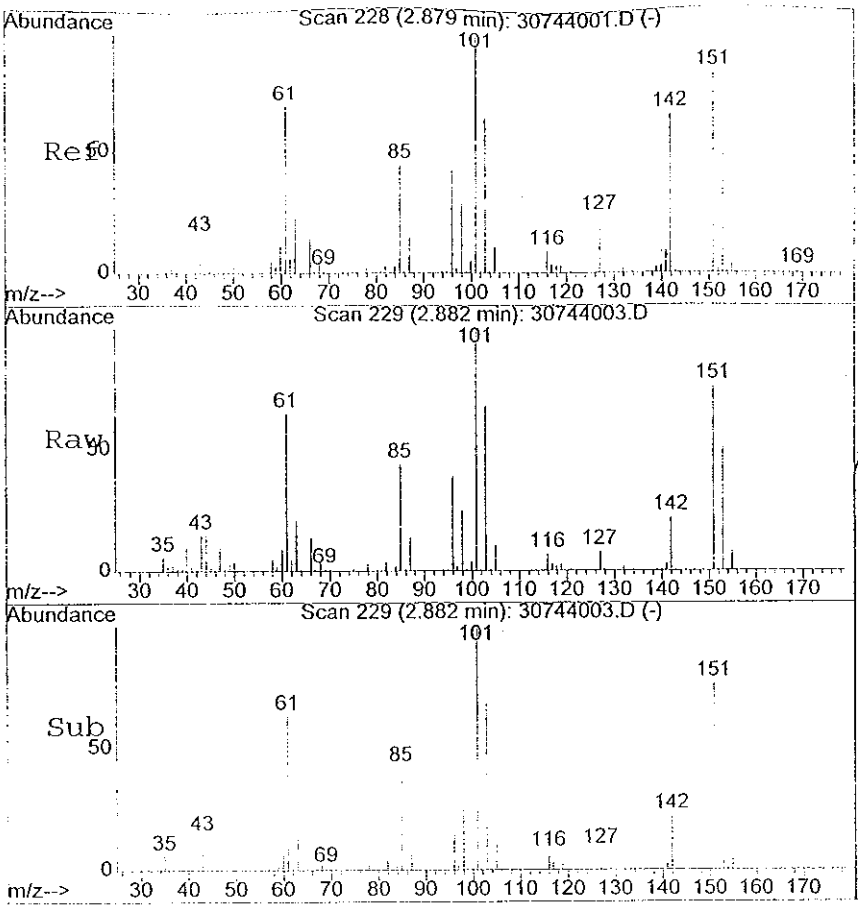
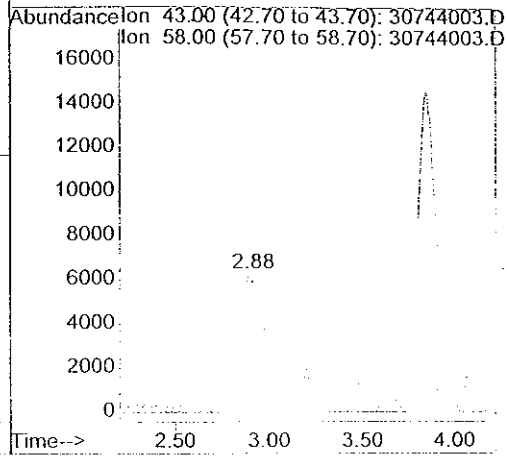


#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 123507

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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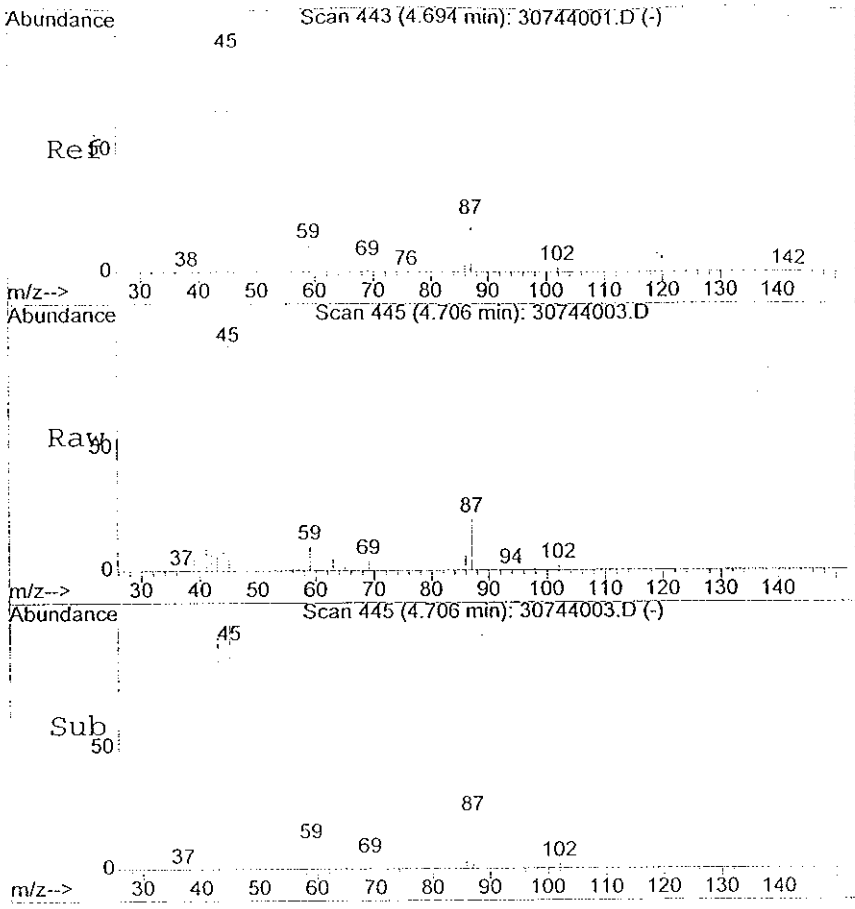
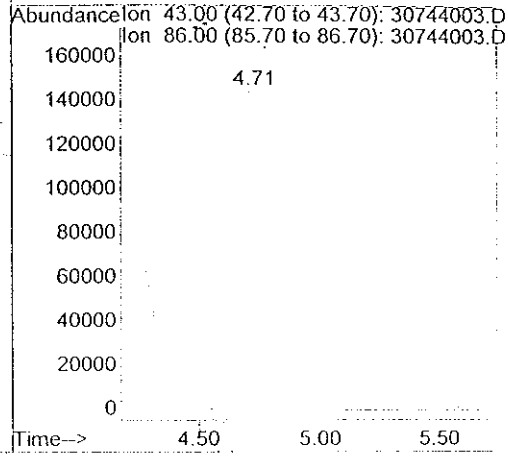


#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 1483176

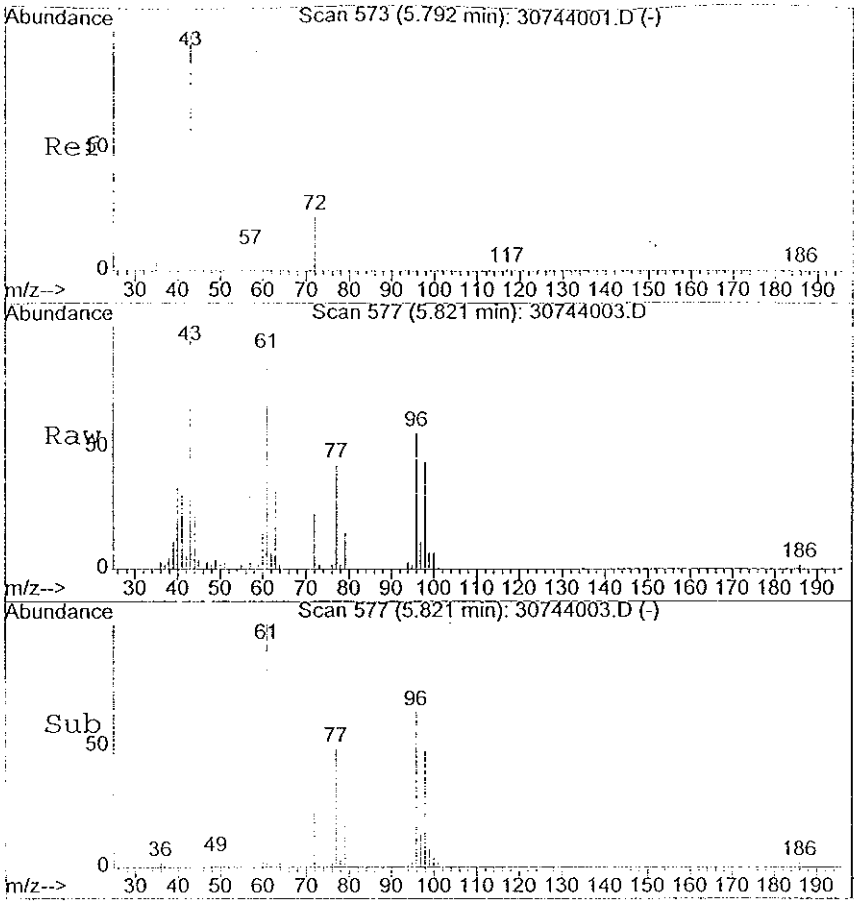
Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



10-31

10-31-01

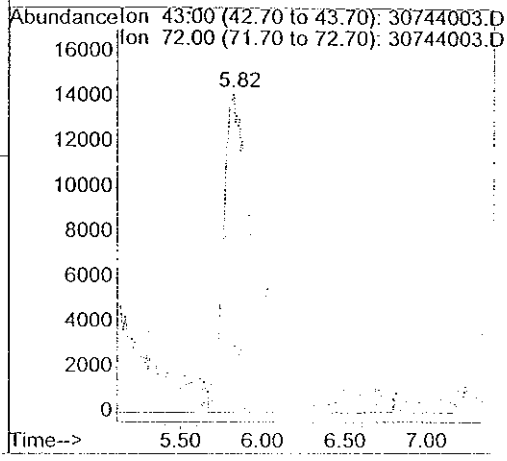
352



#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 252935

Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



10-31

10-31-01

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Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26) Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27) 1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28) Benzene	7.87	78	675144	2.07	ug/L	99
29) 1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30) Trichloroethene	9.58	95	265106	2.05	ug/L	97
31) 1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32) Dibromomethane	10.35	93	93729	1.92	ug/L	100
33) 2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34) Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37) Toluene	12.44	92	425380	2.04	ug/L	96
38) trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39) 1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40) Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41) 1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42) Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43) 1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44) 4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45) 2-Hexanone	14.01	43	141858	6.67	ug/L	99
47) Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48) 1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50) Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51) m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52) o-Xylene	17.07	106	269886	2.06	ug/L	97
53) Styrene	17.13	104	412466	1.96	ug/L	99
54) Bromoform	17.59	173	94103	1.81	ug/L	99
55) Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58) Bromobenzene	19.18	156	205095	2.16	ug/L	94
59) 1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60) 1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61) n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62) 2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63) 4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65) tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66) 1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67) sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68) 1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69) p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70) 1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72)	n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73)	1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74)	1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75)	Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76)	Naphthalene	28.32	128	112451	1.74	ug/L		100
77)	1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

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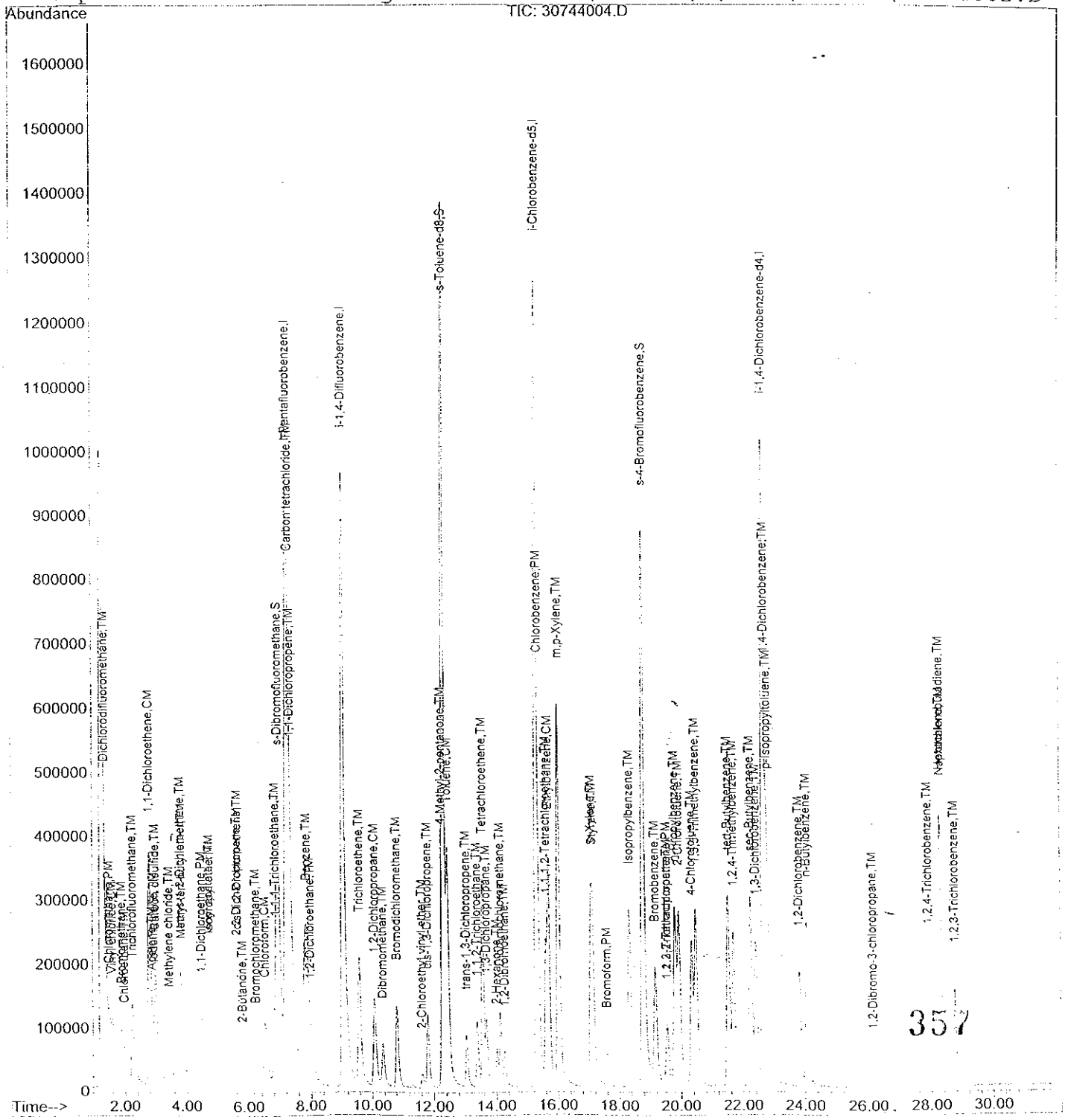
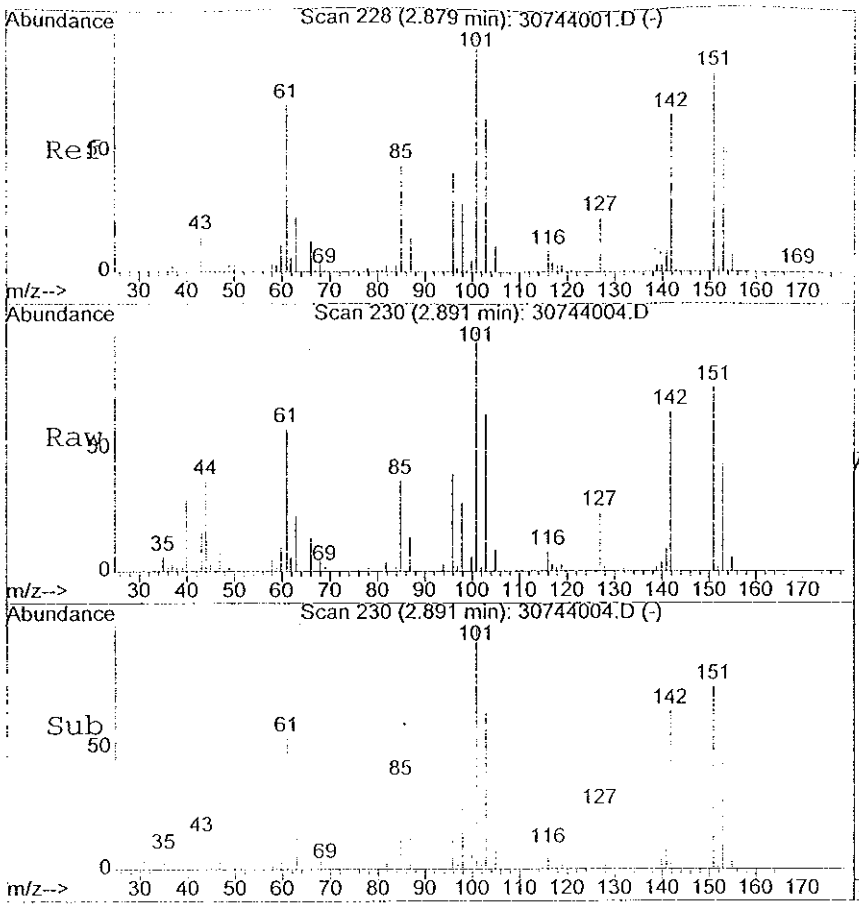
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

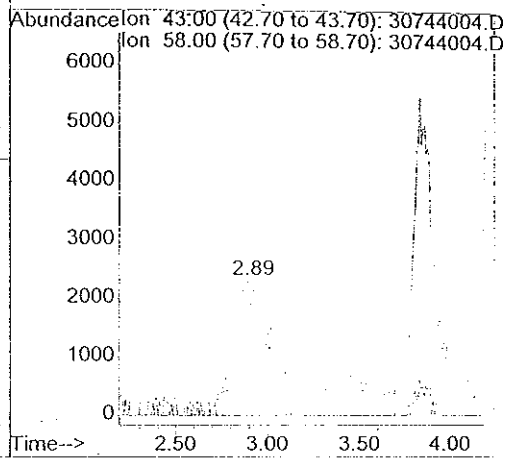




#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



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11-31-01

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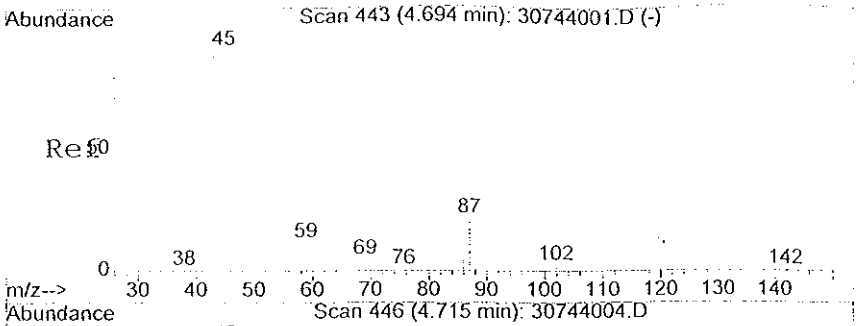
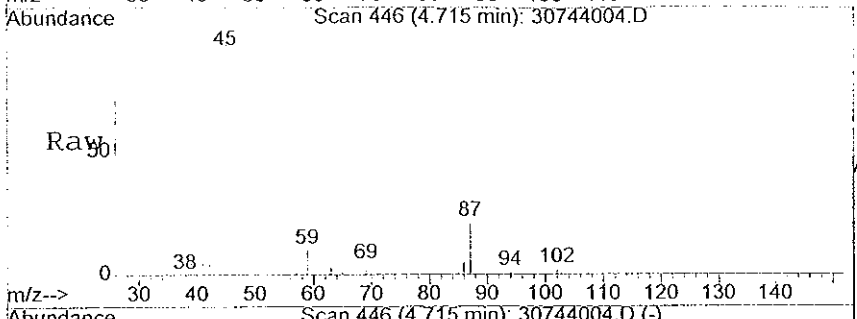
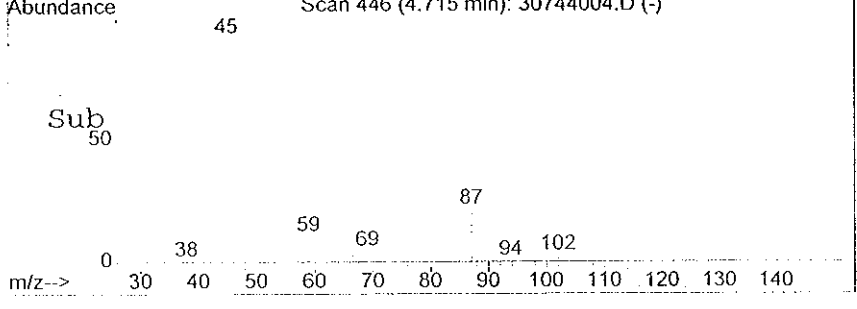


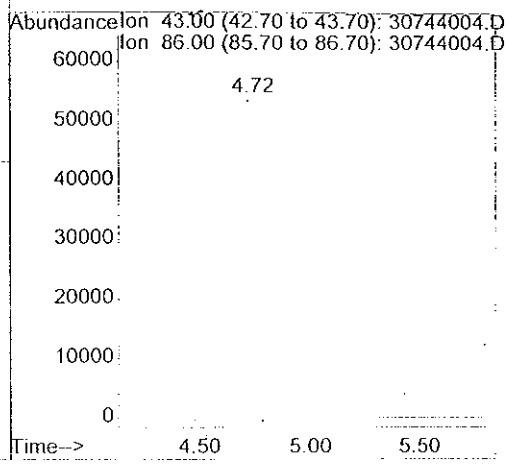




#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 566802

Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9



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bw 10-31-01

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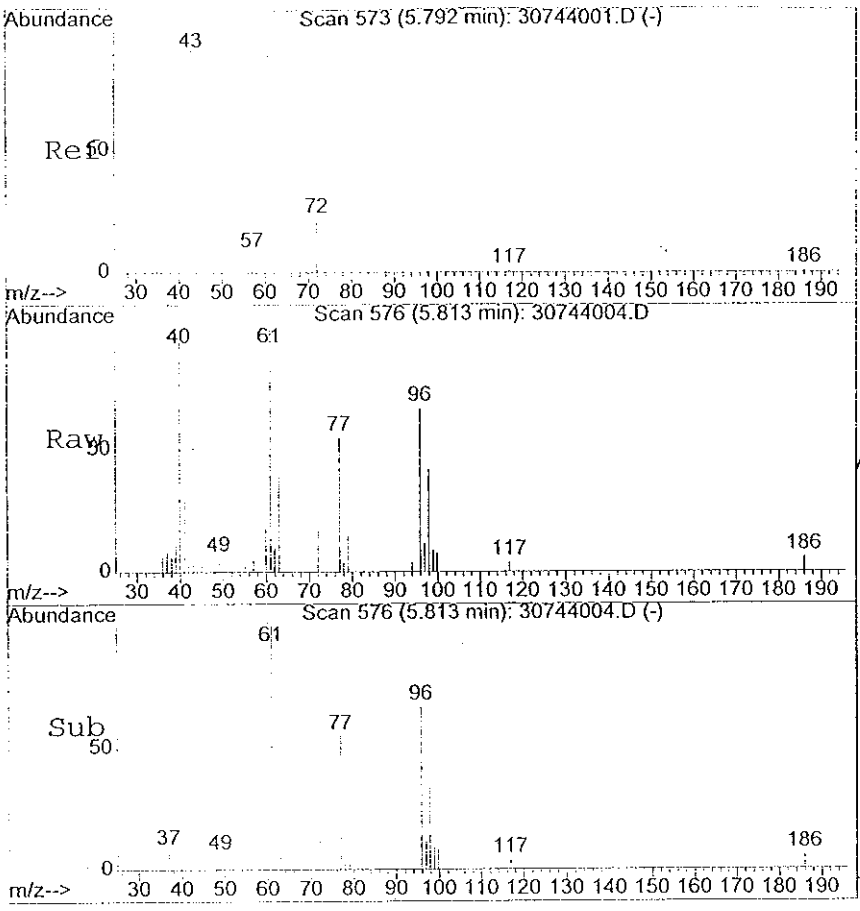
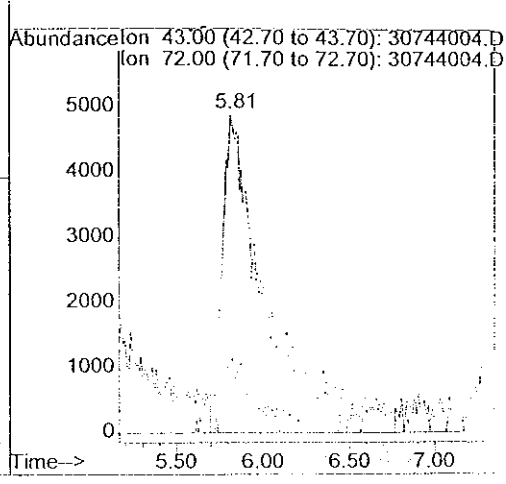


#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 90514

Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	94
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	96
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	9
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	9
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	9
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	8
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	9
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	9
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	9
22) Chloroform	6.49	83	197755	1.03	ug/L	

(#) = qualifier out of range (m) = manual integration
30744005.D V82625B1.M Wed Oct 31 05:35:20 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	160704	0.98	ug/L	97
26) Carbon tetrachloride	7.27	119	156850	1.13	ug/L	28
27) 1,1-Dichloropropene	7.32	110	45627	0.93	ug/L	100
28) Benzene	7.86	78	328909	1.02	ug/L	98
29) 1,2-Dichloroethane	7.98	62	67098	1.05	ug/L	94
30) Trichloroethene	9.58	95	137400	1.07	ug/L	91
31) 1,2-Dichloropropane	10.08	63	113727	1.06	ug/L	98
32) Dibromomethane	10.34	93	49811	1.04	ug/L	98
33) 2-Chloroethyl vinyl ether	11.61	63	17709	0.93	ug/L	96
34) Bromodichloromethane	10.81	83	152578	1.01	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	119952	1.02	ug/L	97
37) Toluene	12.45	92	217555	1.06	ug/L	95
38) trans-1,3-Dichloropropene	13.03	75	73674	0.99	ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	49836	1.04	ug/L	96
40) Tetrachloroethene	13.56	166	155924	1.06	ug/L	96
41) 1,3-Dichloropropane	13.68	76	95524	1.04	ug/L	98
42) Dibromochloromethane	14.12	129	89919	1.01	ug/L	98
43) 1,2-Dibromoethane	14.27	107	61862	1.02	ug/L	100
44) 4-Methyl-2-pentanone	12.26	43	149476	4.54	ug/L	93
45) 2-Hexanone	14.02	43	81218	3.87	ug/L	97
47) Chlorobenzene	15.35	112	226960	1.05	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04	ug/L	96
50) Ethylbenzene	15.70	106	123576	1.07	ug/L	100
51) m,p-Xylene	16.01	106	298103	2.09	ug/L	99
52) o-Xylene	17.07	106	137776	1.04	ug/L	89
53) Styrene	17.13	104	207557	0.97	ug/L	100
54) Bromoform	17.58	173	51970	0.99	ug/L	95
55) Isopropylbenzene	18.34	105	434393	1.02	ug/L	100
58) Bromobenzene	19.16	156	106700	1.12	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12	ug/L	87
60) 1,2,3-Trichloropropane	19.54	75	38655	1.01	ug/L	88
61) n-Propylbenzene	19.79	120	98095	1.00	ug/L	100
62) 2-Chlorotoluene	19.92	126	96679	1.10	ug/L	100
63) 4-Chlorotoluene	20.33	91	348446	1.11	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	316067	1.09	ug/L	97
65) tert-Butylbenzene	21.50	91	211087	1.12	ug/L	96
66) 1,2,4-Trimethylbenzene	21.68	105	268480	1.00	ug/L	98
67) sec-Butylbenzene	22.24	105	435328	1.02	ug/L	98
68) 1,3-Dichlorobenzene	22.39	146	197666	1.11	ug/L	99
69) p-Isopropyltoluene	22.78	119	328183	1.00	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	184452	1.12	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72) n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73) 1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74) 1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75) Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76) Naphthalene	28.34	128	64010	0.99	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

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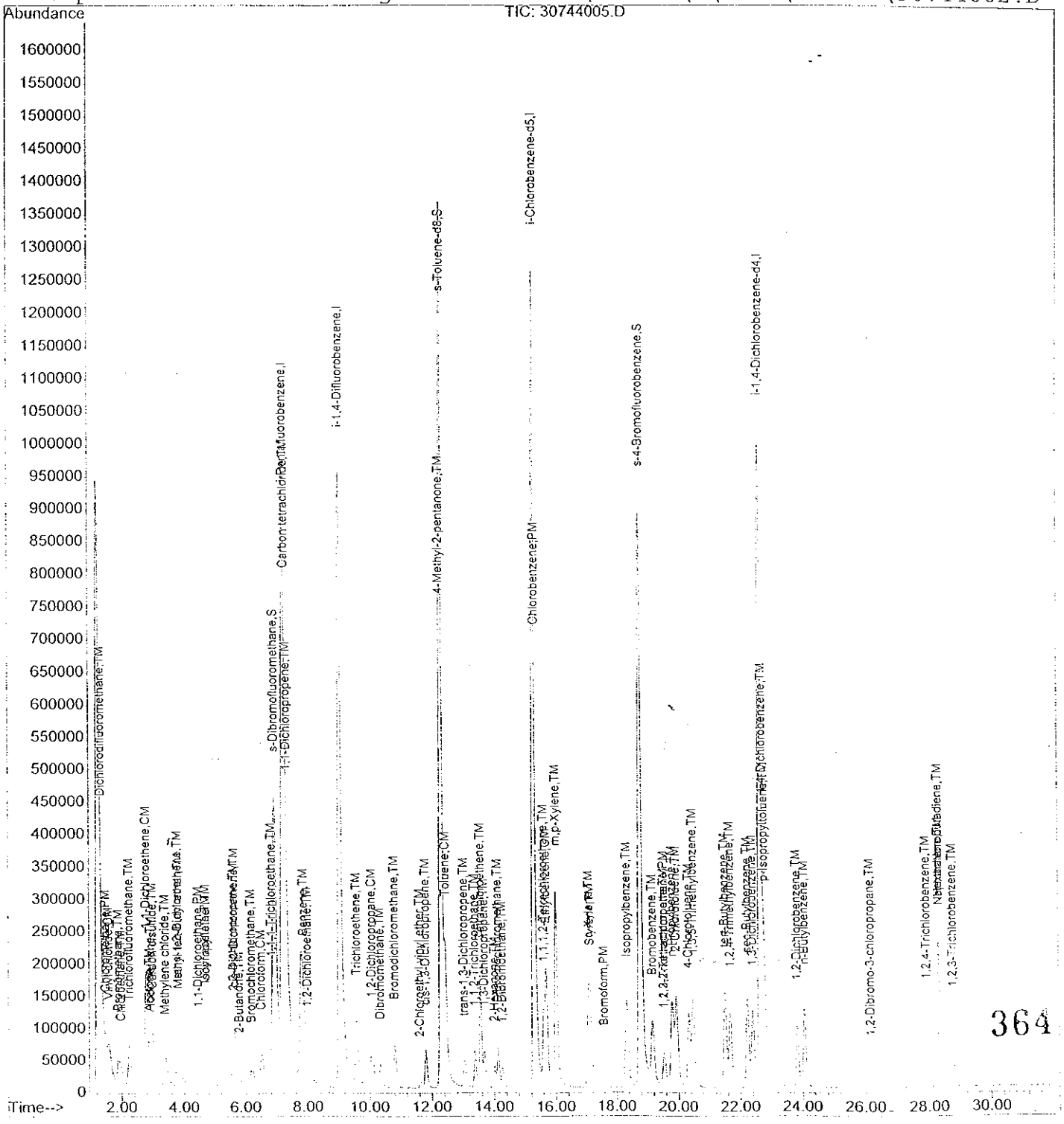
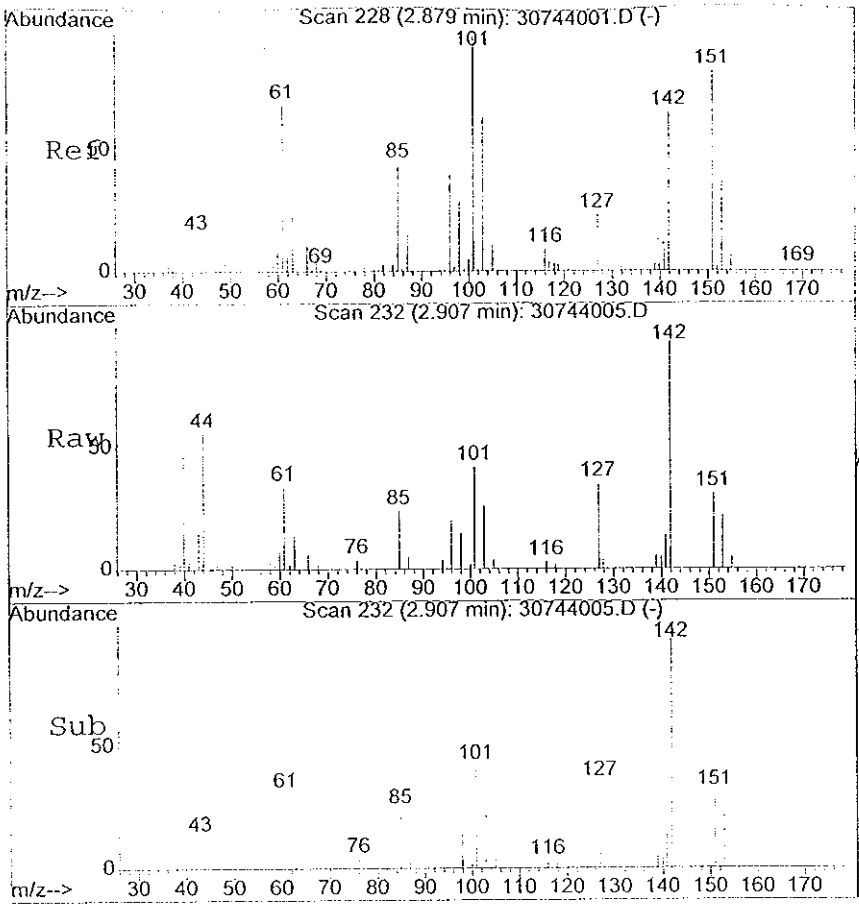
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

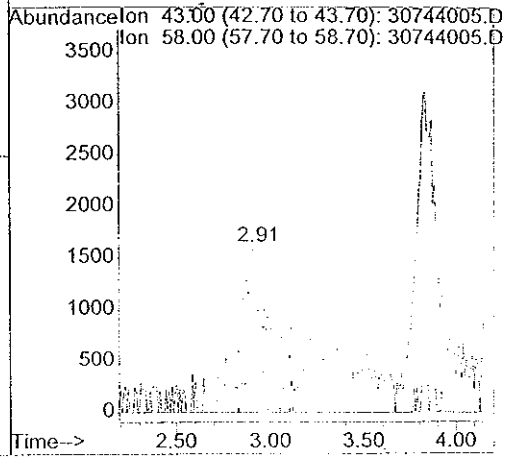




#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



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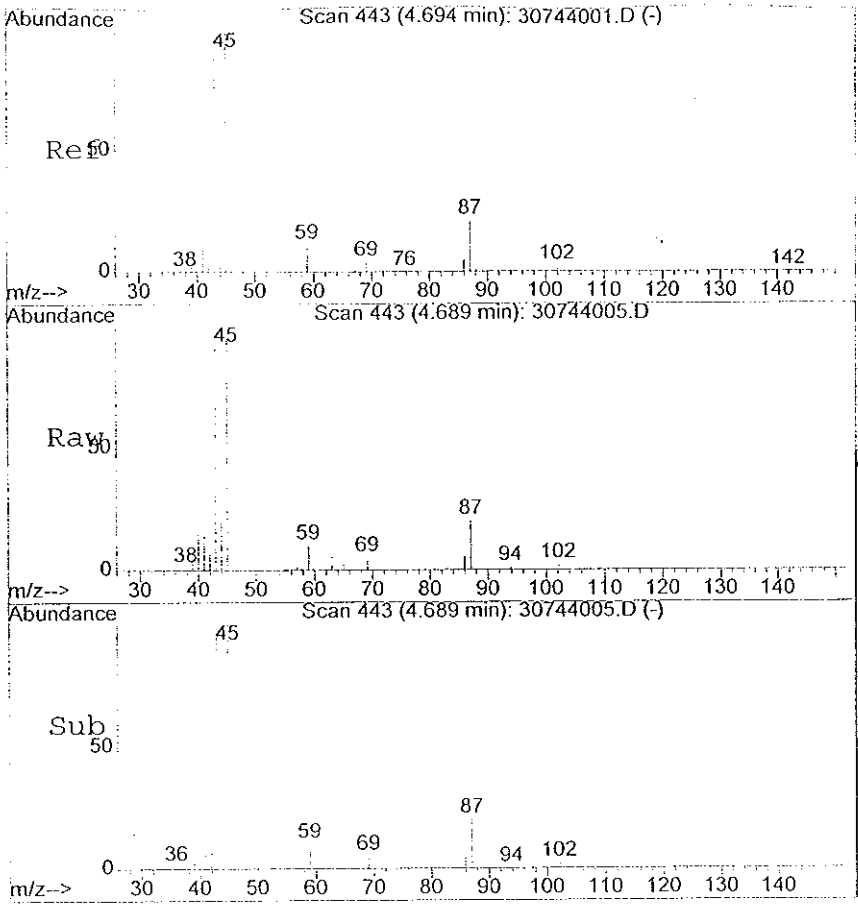
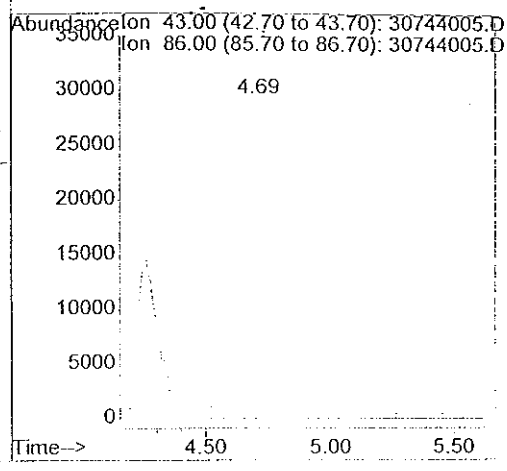


#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. -0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9



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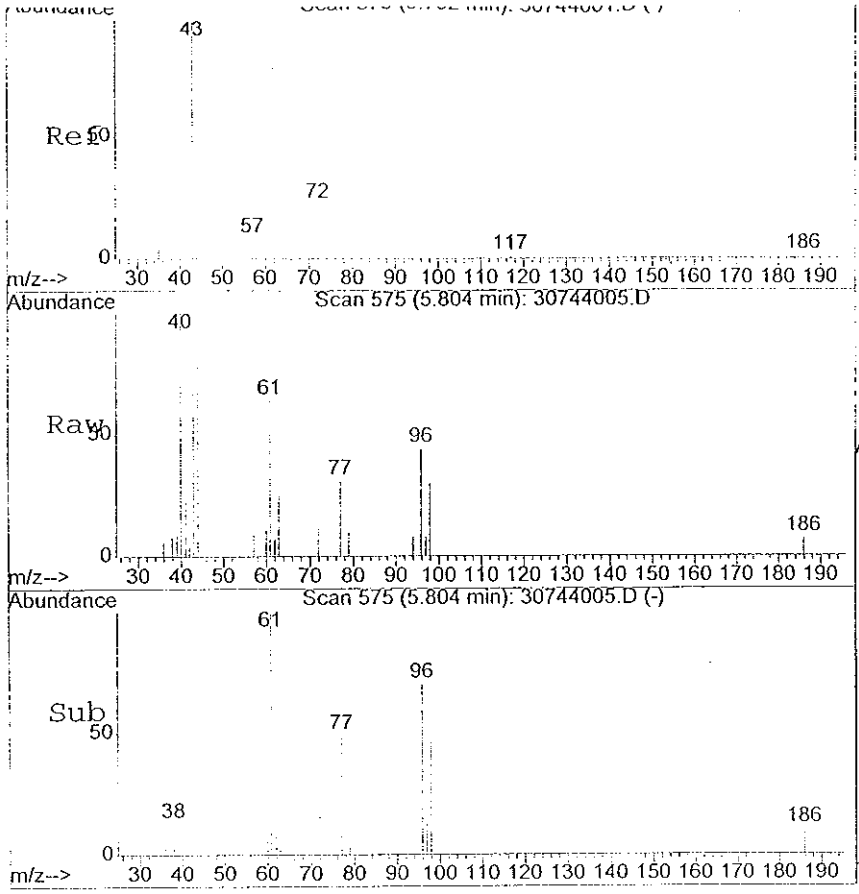
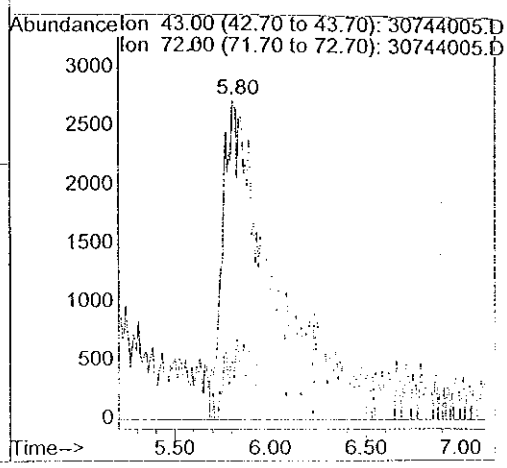


#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43	Resp:	53339	
Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



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30744005.D V82625B1.M Acq :30 Oct 2001 11:26
Sample = 1.0ppb VOA STD Misc = 1.0ppb VOA STD

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L		0.00 / 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L		0.00 / 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L		0.00 / 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L		0.02 / 86.94%
System Monitoring Compounds							
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L		0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%				
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L		0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%				
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L		0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L		99
3) Chloromethane	1.50	50	36159m	0.[illegible]	ug/L		[illegible]
4) Vinyl chloride	1.60	62	36552	0.36	ug/L		92
5) Bromomethane	1.89	96	35015	0.38	ug/L		97
6) Chloroethane	2.00	64	20942	0.35	ug/L		84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L		93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L	#	85
10) Iodomethane	2.94	142	40544	0.32	ug/L		100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L		100
12) Methylene chloride	3.41	84	26091	0.31	ug/L		91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L		98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L		42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L		98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L		94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L		99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L		94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L	#	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L		92
22) Chloroform	6.51	83	64718	0.33	ug/L		93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L		94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L	#	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
27) 1,1-Dichloropropene	7.33	110	35089m	0.70	ug/L		100
28) Benzene	7.89	78	114261	0.35	ug/L		93
29) 1,2-Dichloroethane	8.00	62	23568	0.36	ug/L		92
30) Trichloroethene	9.60	95	46357	0.36	ug/L		92
31) 1,2-Dichloropropane	10.10	63	39985	0.37	ug/L		98
32) Dibromomethane	10.35	93	17027	0.35	ug/L		94
33) 2-Chloroethyl vinyl ether	11.62	63	5704	0.29	ug/L		94
34) Bromodichloromethane	10.81	83	52711	0.34	ug/L		90
35) cis-1,3-Dichloropropene	11.83	75	39813	0.33	ug/L		88
37) Toluene	12.46	92	74994	0.36	ug/L		99
38) trans-1,3-Dichloropropene	13.07	75	22608	0.30	ug/L		98
39) 1,1,2-Trichloroethane	13.39	83	17217	0.36	ug/L	#	78
40) Tetrachloroethene	13.57	166	54802	0.37	ug/L		94
41) 1,3-Dichloropropane	13.70	76	31625	0.34	ug/L		99
42) Dibromochloromethane	14.15	129	29043	0.32	ug/L		99
43) 1,2-Dibromoethane	14.29	107	20047	0.32	ug/L		95
47) Chlorobenzene	15.37	112	76094	0.35	ug/L		95
48) 1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33	ug/L		96
50) Ethylbenzene	15.72	106	41978	0.36	ug/L		100
51) m,p-Xylene	16.03	106	96766	0.67	ug/L		96
52) o-Xylene	17.09	106	44284	0.33	ug/L	#	85
53) Styrene	17.16	104	69328	0.32	ug/L		99
54) Bromoform	17.63	173	16043	0.30	ug/L		100
55) Isopropylbenzene	18.36	105	143324	0.33	ug/L		96
58) Bromobenzene	19.21	156	34447	0.38	ug/L		93
59) 1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38	ug/L		88
60) 1,2,3-Trichloropropane	19.59	75	19472	0.53	ug/L		98
61) n-Propylbenzene	19.85	120	32615	0.35	ug/L		100
62) 2-Chlorotoluene	19.97	126	32953	0.39	ug/L		100
63) 4-Chlorotoluene	20.39	91	96642	0.32	ug/L		98
64) 1,3,5-Trimethylbenzene	20.51	105	101910	0.37	ug/L		98
65) tert-Butylbenzene	21.55	91	67600	0.38	ug/L		93
66) 1,2,4-Trimethylbenzene	21.71	105	84737	0.33	ug/L		94
67) sec-Butylbenzene	22.28	105	142616	0.35	ug/L		95
68) 1,3-Dichlorobenzene	22.45	146	64255	0.38	ug/L		99
69) p-Isopropyltoluene	22.82	119	101423	0.32	ug/L		97
70) 1,4-Dichlorobenzene	22.76	146	63283	0.40	ug/L		98
71) 1,2-Dichlorobenzene	23.85	146	50172	0.37	ug/L		90
72) n-Butylbenzene	24.10	91	87558	0.28	ug/L		98
73) 1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34	ug/L	#	88
74) 1,2,4-Trichlorobenzene	27.95	180	26621	0.32	ug/L		94

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76)	Naphthalene	28.35	128	20463	0.33	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

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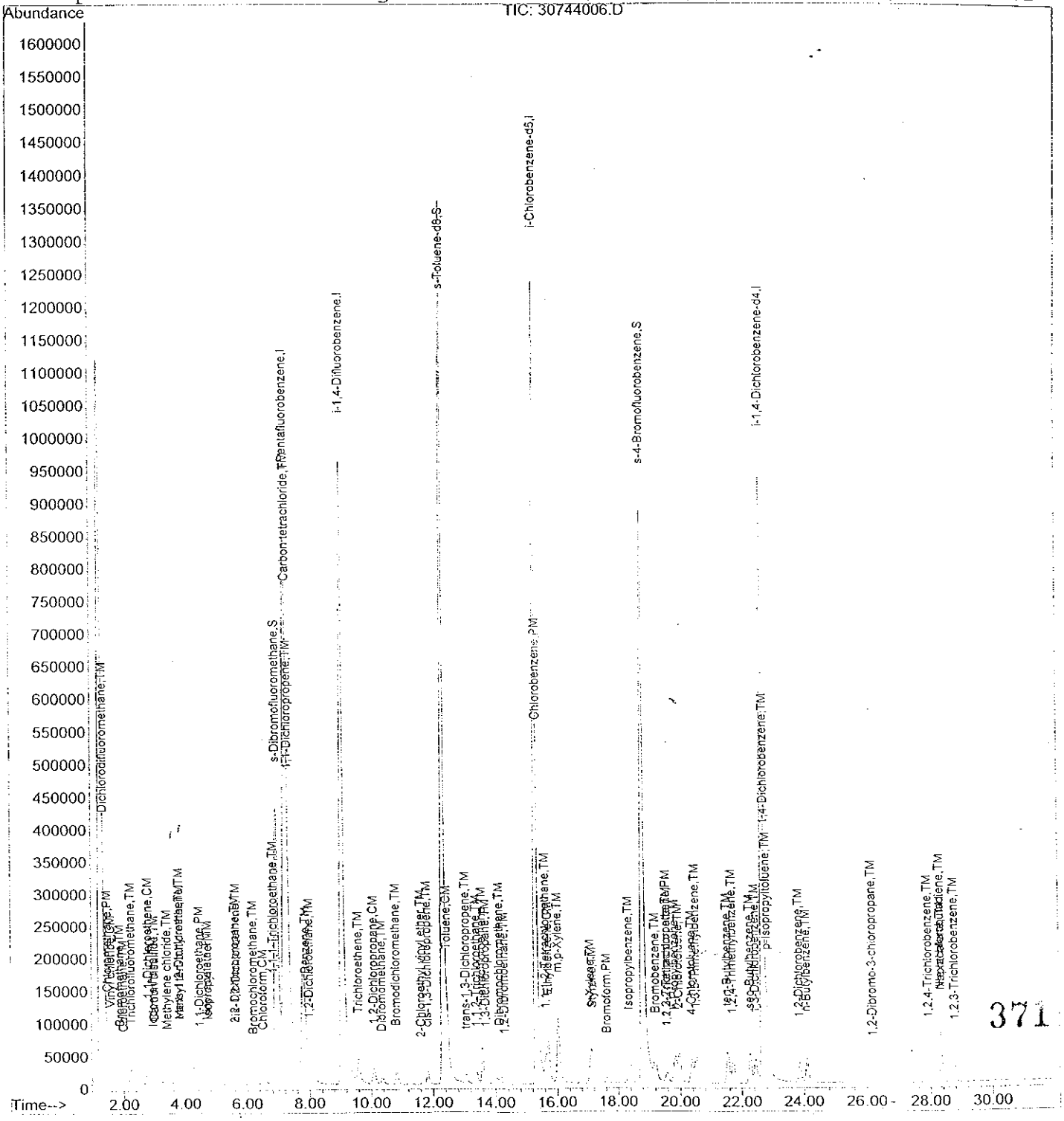
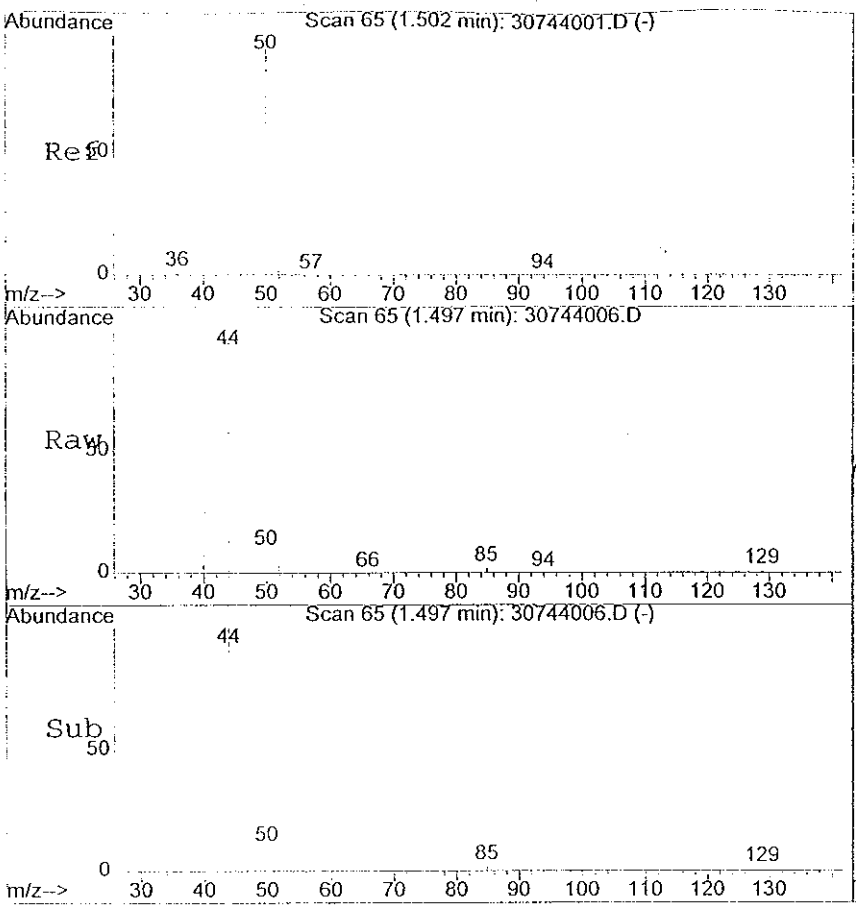
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

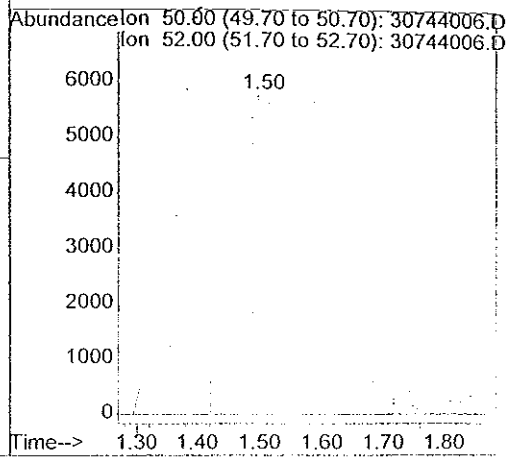




#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0



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fm 10-31-01

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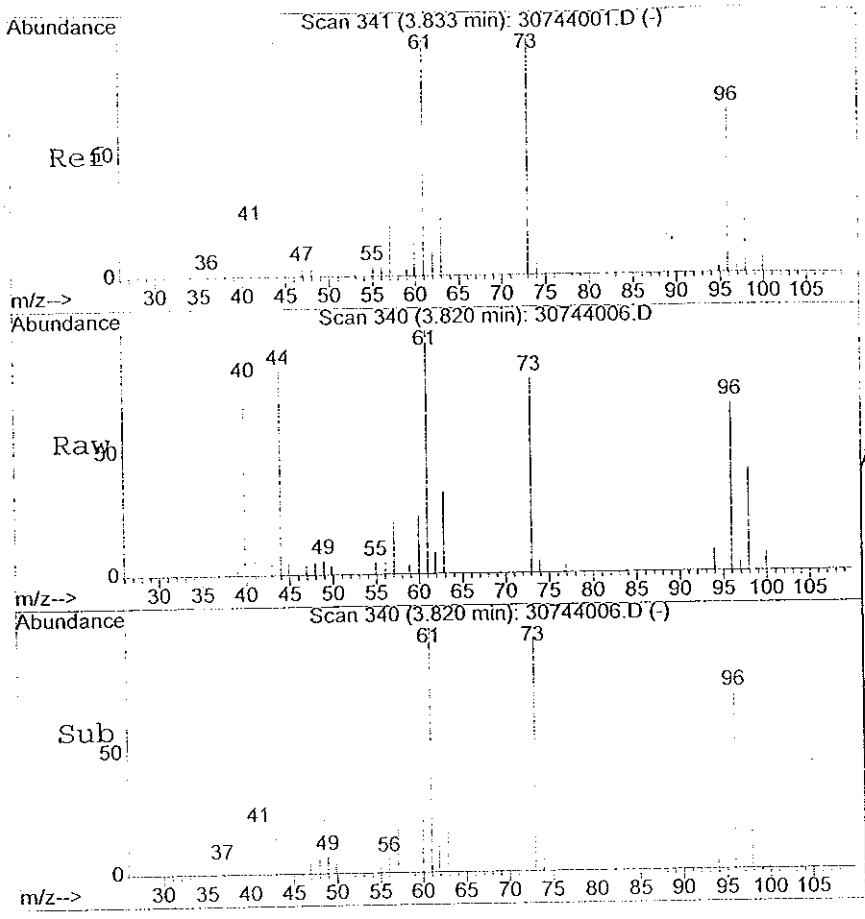
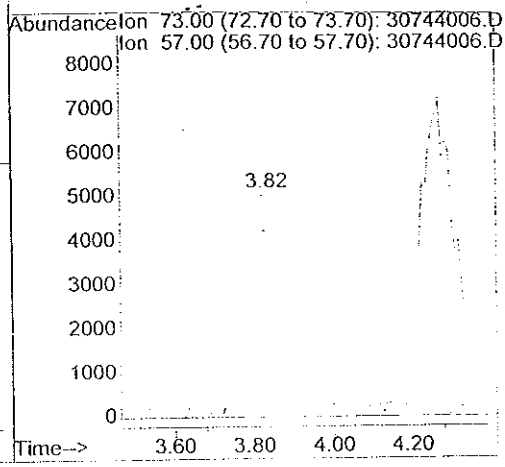


#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6



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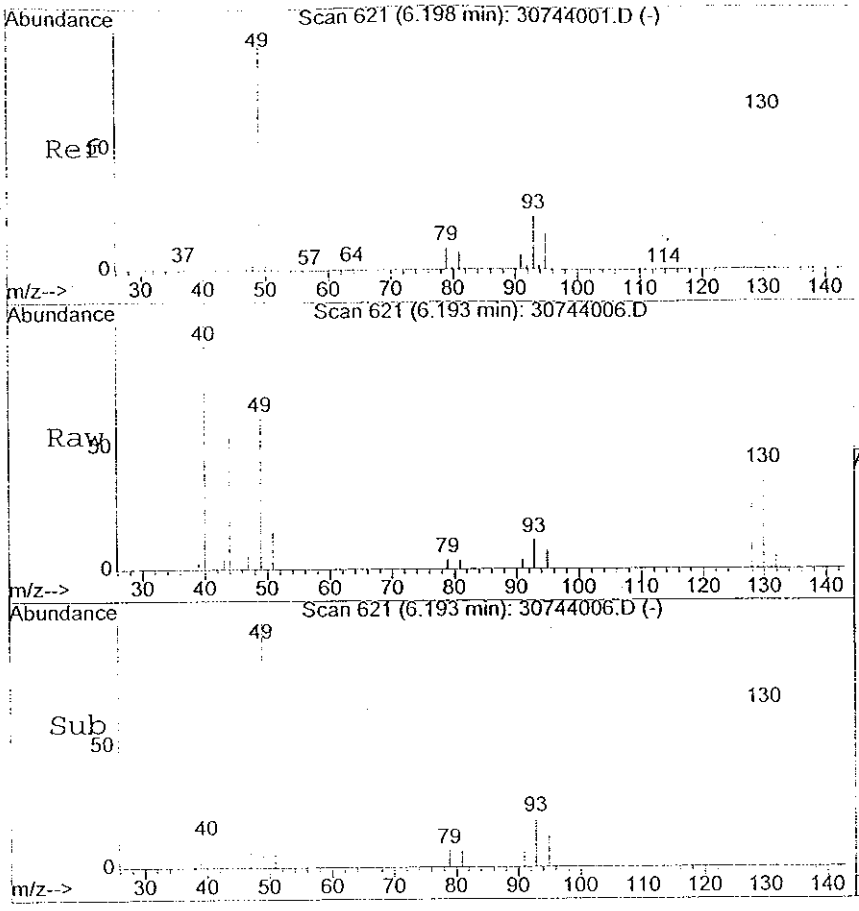
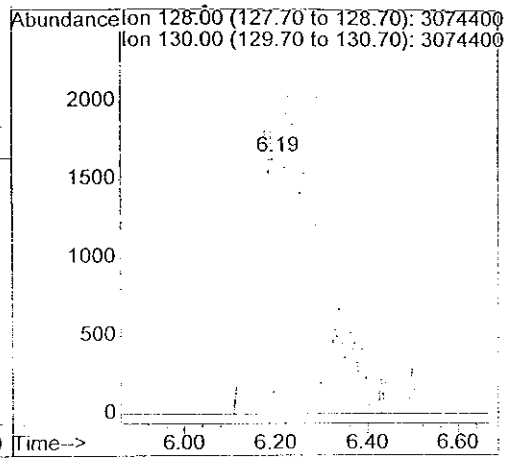


#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:128 Resp: 13540

Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0



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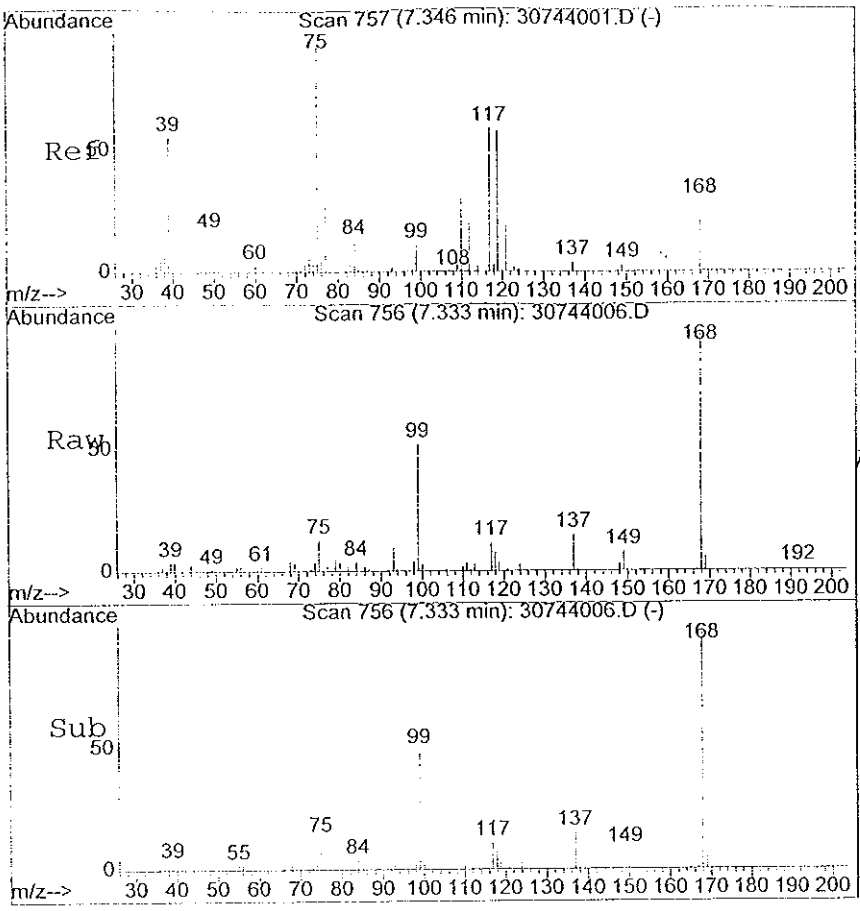
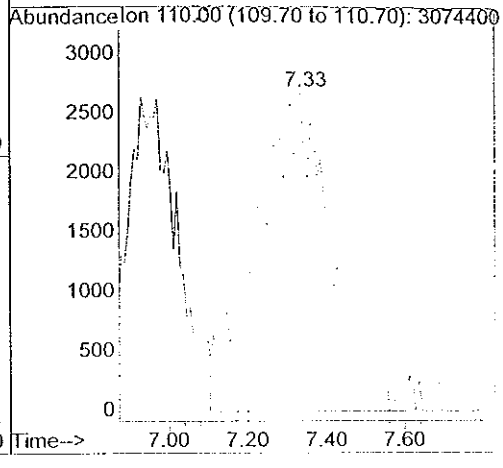


#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



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10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00	ug/L	0.02 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00	ug/L	0.02 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00	ug/L	0.00 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00	ug/L	0.04 93.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1490634	9.78	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%			
36) s-Toluene-d8	12.34	98	3048951	9.94	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54	ug/L	95
3) Chloromethane	1.51	50	57047	0.55	ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56	ug/L	95
5) Bromomethane	1.89	96	50840	0.53	ug/L	93
6) Chloroethane	2.00	64	32710	0.51	ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52	ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51	ug/L	96
10) Iodomethane	2.95	142	61980	0.47	ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50	ug/L	100
12) Methylene chloride	3.42	84	42127	0.48	ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50	ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46	ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50	ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85	ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46	ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46	ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46	ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45	ug/L	99
22) Chloroform	6.55	83	108615m	0.52	ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47	ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58	ug/L #	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
27) 1,1-Dichloropropene	7.37	110	45959m	0.88 ug/L	100
28) Benzene	7.89	78	175270	0.51 ug/L	97
29) 1,2-Dichloroethane	8.01	62	36739	0.54 ug/L	94
30) Trichloroethene	9.60	95	72610	0.53 ug/L	92
31) 1,2-Dichloropropane	10.09	63	54961	0.48 ug/L	100
32) Dibromomethane	10.36	93	25641	0.50 ug/L	93
33) 2-Chloroethyl vinyl ether	11.65	63	9558	0.47 ug/L	90
34) Bromodichloromethane	10.82	83	80038	0.50 ug/L	89
35) cis-1,3-Dichloropropene	11.83	75	61200	0.49 ug/L	96
37) Toluene	12.47	92	115598	0.53 ug/L	92
38) trans-1,3-Dichloropropene	13.07	75	37014	0.47 ug/L	95
39) 1,1,2-Trichloroethane	13.40	83	27199	0.54 ug/L	92
40) Tetrachloroethene	13.59	166	83043	0.53 ug/L	98
41) 1,3-Dichloropropane	13.71	76	49118	0.50 ug/L	92
42) Dibromochloromethane	14.16	129	45286	0.48 ug/L	97
43) 1,2-Dibromoethane	14.29	107	30668	0.47 ug/L	89
44) 4-Methyl-2-pentanone	12.29	43	80377	2.29 ug/L	84
45) 2-Hexanone	14.05	43	42639	1.90 ug/L	91
47) Chlorobenzene	15.39	112	116784	0.51 ug/L	95
48) 1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49 ug/L	96
50) Ethylbenzene	15.73	106	63777	0.52 ug/L	100
51) m,p-Xylene	16.04	106	150249	1.00 ug/L	96
52) o-Xylene	17.11	106	69489	0.50 ug/L	96
53) Styrene	17.17	104	108692	0.48 ug/L	98
54) Bromoform	17.64	173	24986	0.45 ug/L	97
55) Isopropylbenzene	18.39	105	225817	0.50 ug/L	99
58) Bromobenzene	19.22	156	55086	0.56 ug/L	96
59) 1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54 ug/L	94
60) 1,2,3-Trichloropropane	19.59	75	22893	0.58 ug/L	99
61) n-Propylbenzene	19.87	120	51067	0.51 ug/L	100
62) 2-Chlorotoluene	19.98	126	49909	0.55 ug/L	100
63) 4-Chlorotoluene	20.39	91	176547	0.54 ug/L	97
64) 1,3,5-Trimethylbenzene	20.53	105	157487	0.52 ug/L	100
65) tert-Butylbenzene	21.55	91	105846	0.54 ug/L	90
66) 1,2,4-Trimethylbenzene	21.73	105	130302	0.47 ug/L	96
67) sec-Butylbenzene	22.29	105	223693	0.51 ug/L	98
68) 1,3-Dichlorobenzene	22.45	146	95809	0.52 ug/L	98
69) p-Isopropyltoluene	22.82	119	161812	0.48 ug/L	95
70) 1,4-Dichlorobenzene	22.76	146	94624	0.56 ug/L	96
71) 1,2-Dichlorobenzene	23.87	146	78043	0.53 ug/L	99
72) n-Butylbenzene	24.10	91	134579	0.40 ug/L	98

377

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

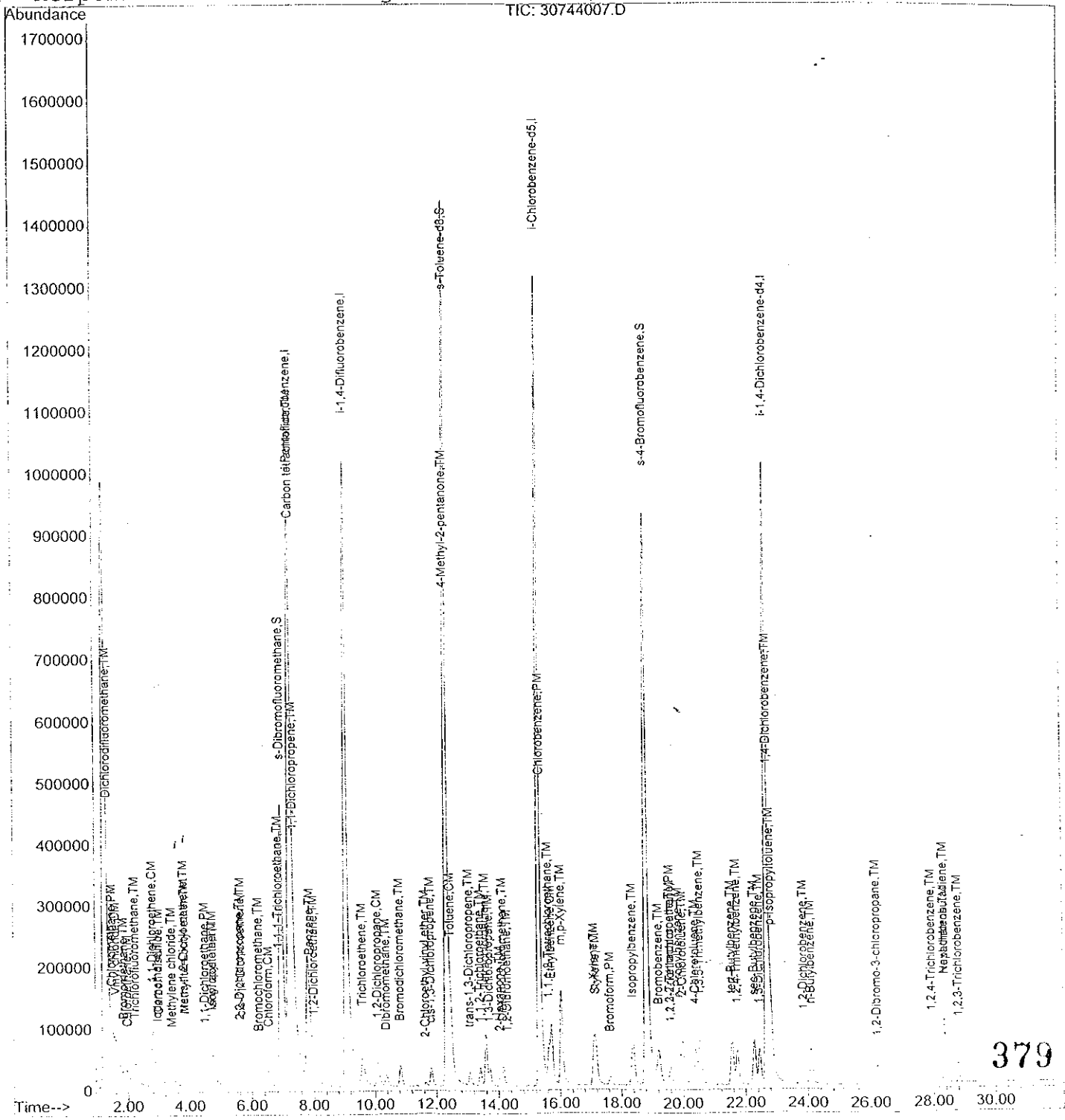
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73) 1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52 ug/L #	86
74) 1,2,4-Trichlorobenzene	27.94	180	36654	0.41 ug/L	100
75) Hexachlorobutadiene	28.33	225	48563	0.54 ug/L	98
76) Naphthalene	28.34	128	27310	0.41 ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	26742	0.40 ug/L	92

(#) = qualifier out of range (m) = manual integration
30744007.D V82625B1.M Wed Oct 31 05:35:41 2001 Page 3

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D



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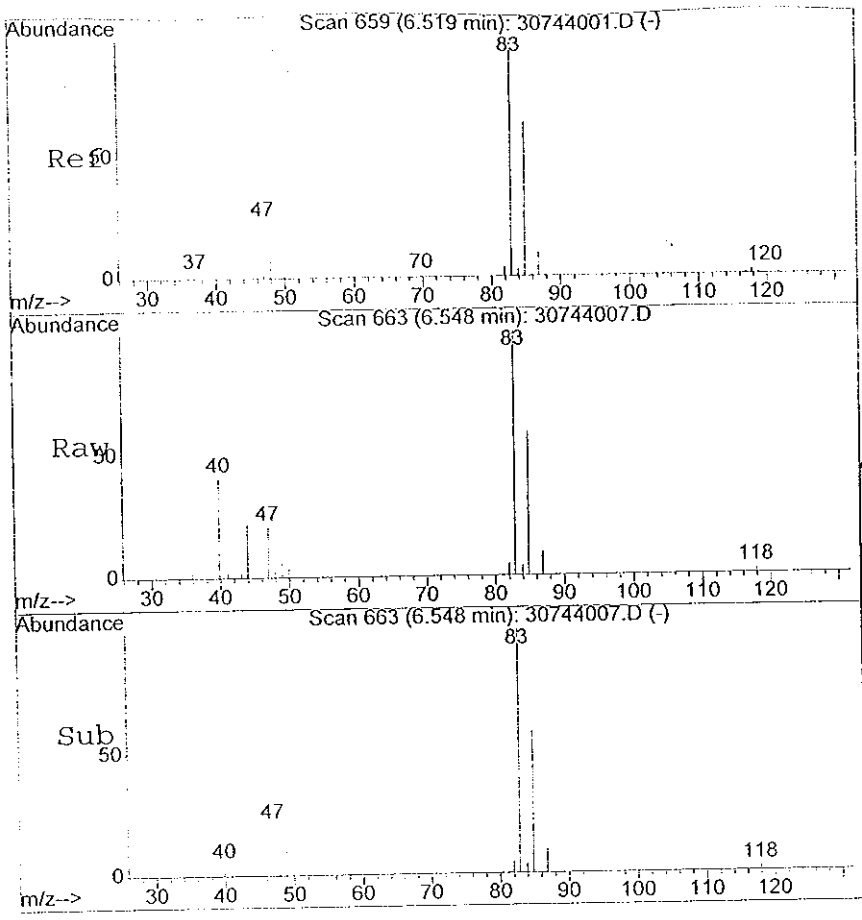
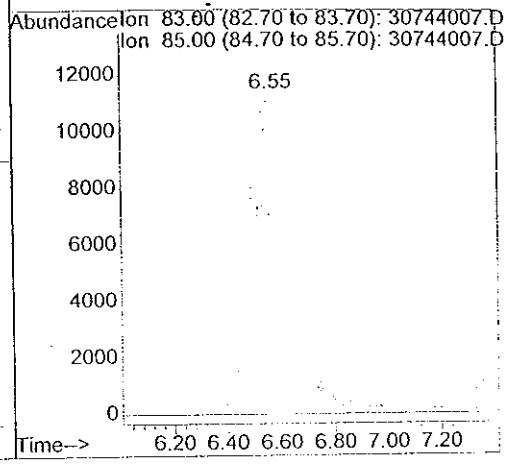


#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

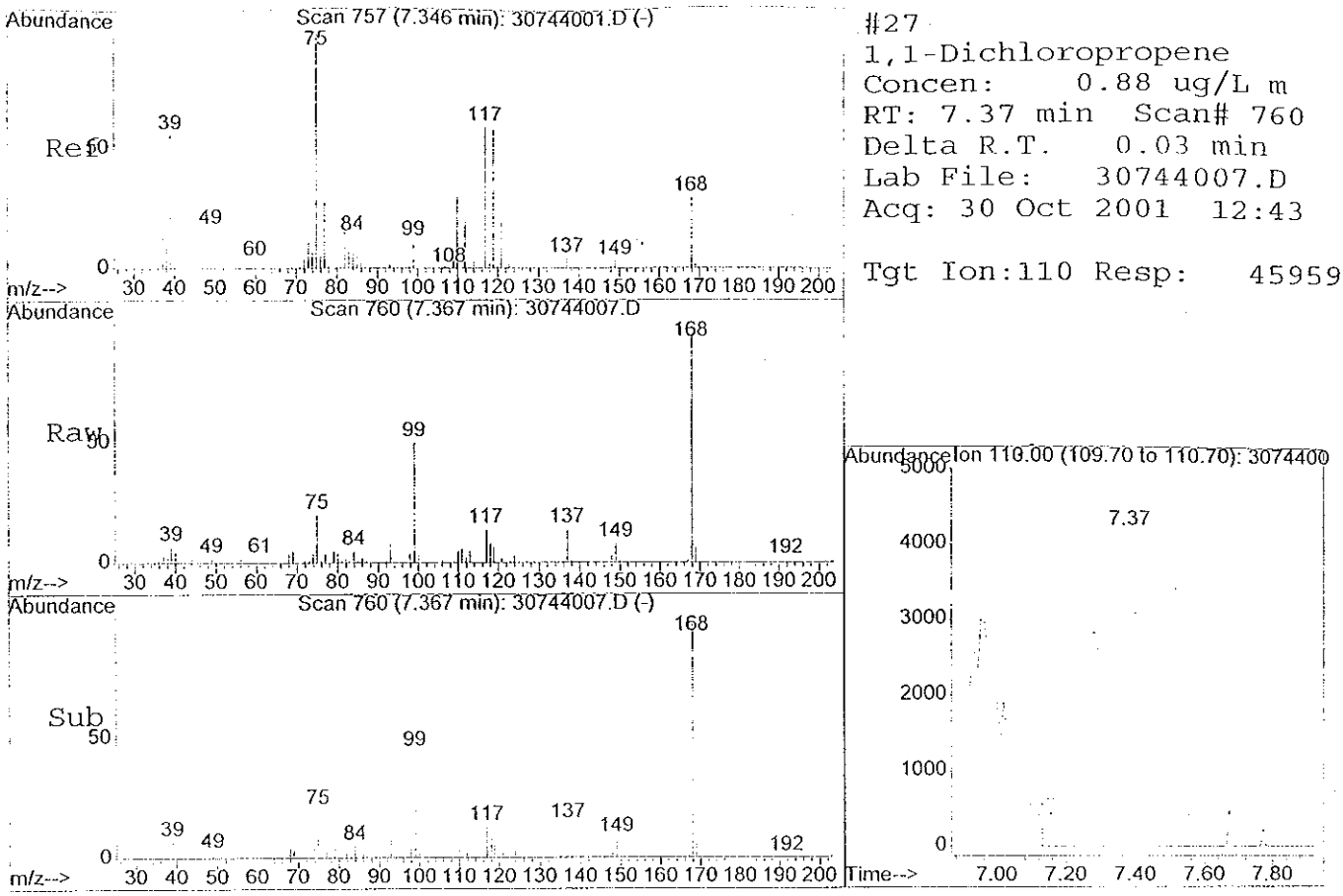
Tgt Ion: 83 Resp: 108615

Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6



10-31
10-31-01

380



#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959

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10-31-01

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30744007.D V82625B1.M Acq :30 Oct 2001 12:43
Sample = 0.5ppb VOA STD Misc = 0.5ppb VOA STD

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26)	Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27)	1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28)	Benzene	7.87	78	6215127	19.11	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30)	Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31)	1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32)	Dibromomethane	10.35	93	939957	19.35	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34)	Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35)	cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37)	Toluene	12.47	92	3949672	19.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40)	Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42)	Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43)	1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45)	2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47)	Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50)	Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51)	m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52)	o-Xylene	17.10	106	2595783	19.18	ug/L	98
53)	Styrene	17.16	104	4271963	19.62	ug/L	100
54)	Bromoform	17.63	173	1061009	19.77	ug/L	99
55)	Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58)	Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61)	n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62)	2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63)	4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64)	1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65)	tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67)	sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68)	1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69)	p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72) n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74) 1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75) Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76) Naphthalene	28.33	128	1514801	20.78	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

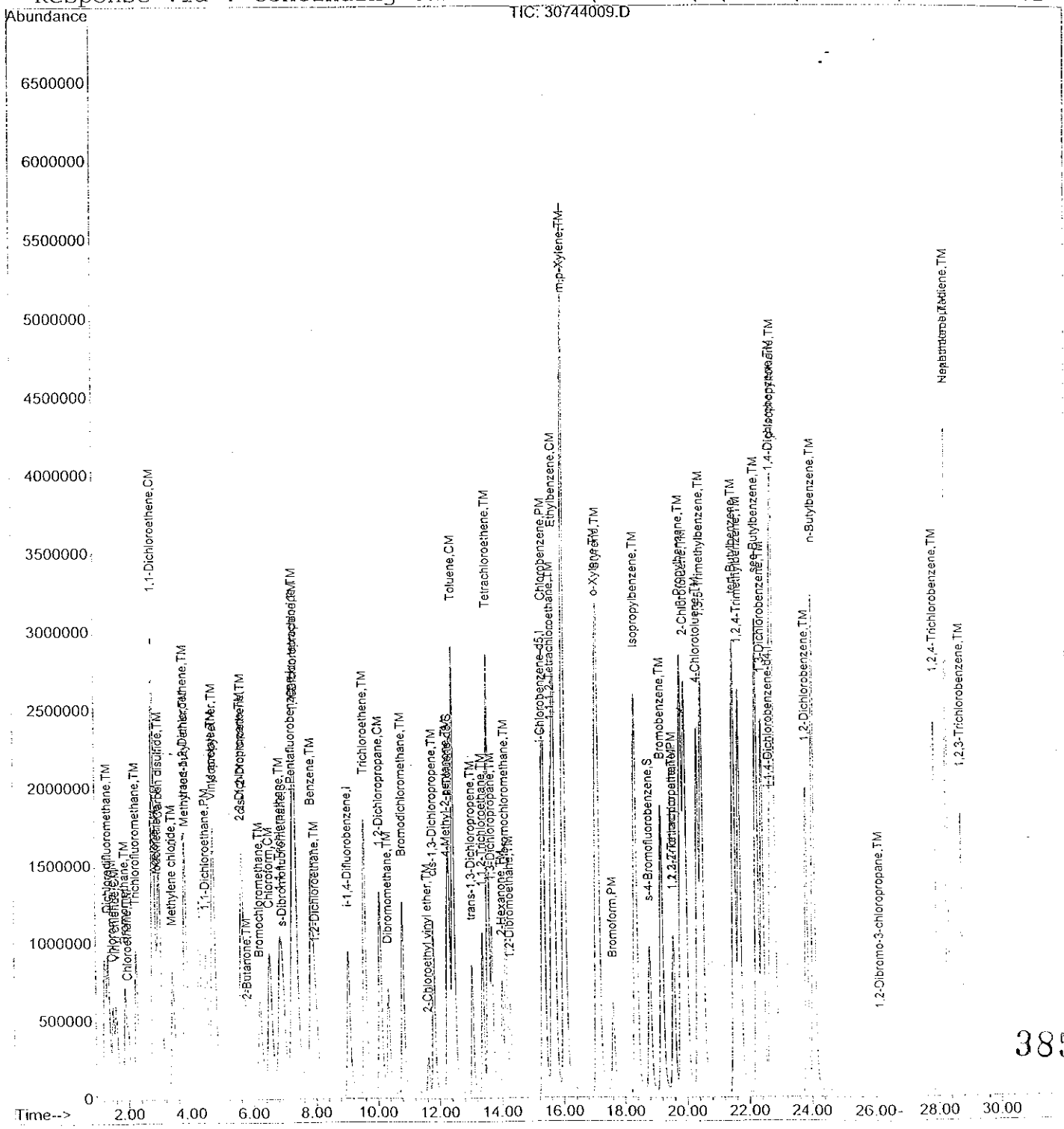
(#) = qualifier out of range (m) = manual integration

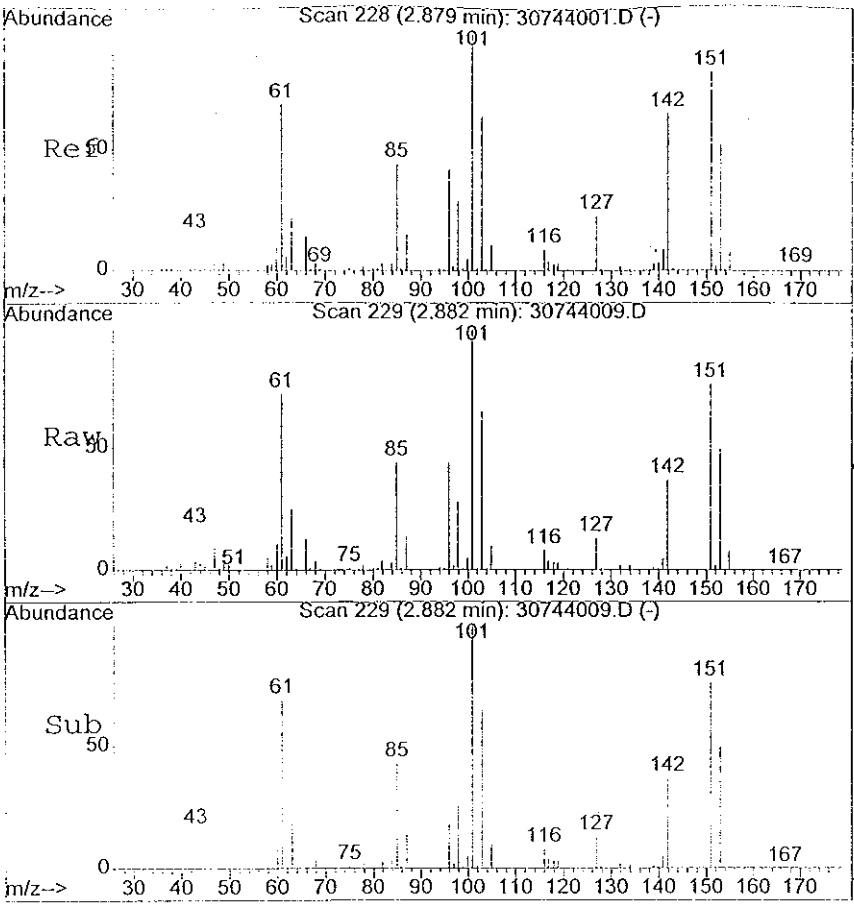
Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

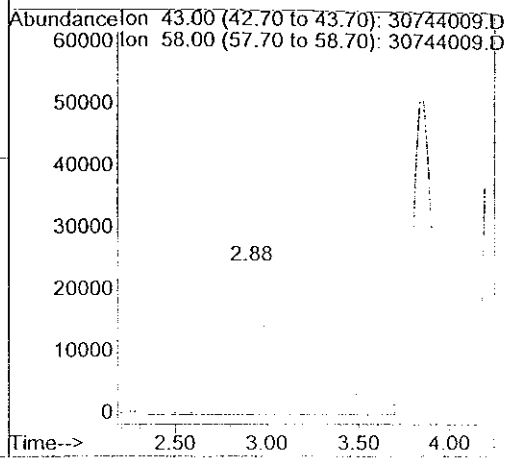




#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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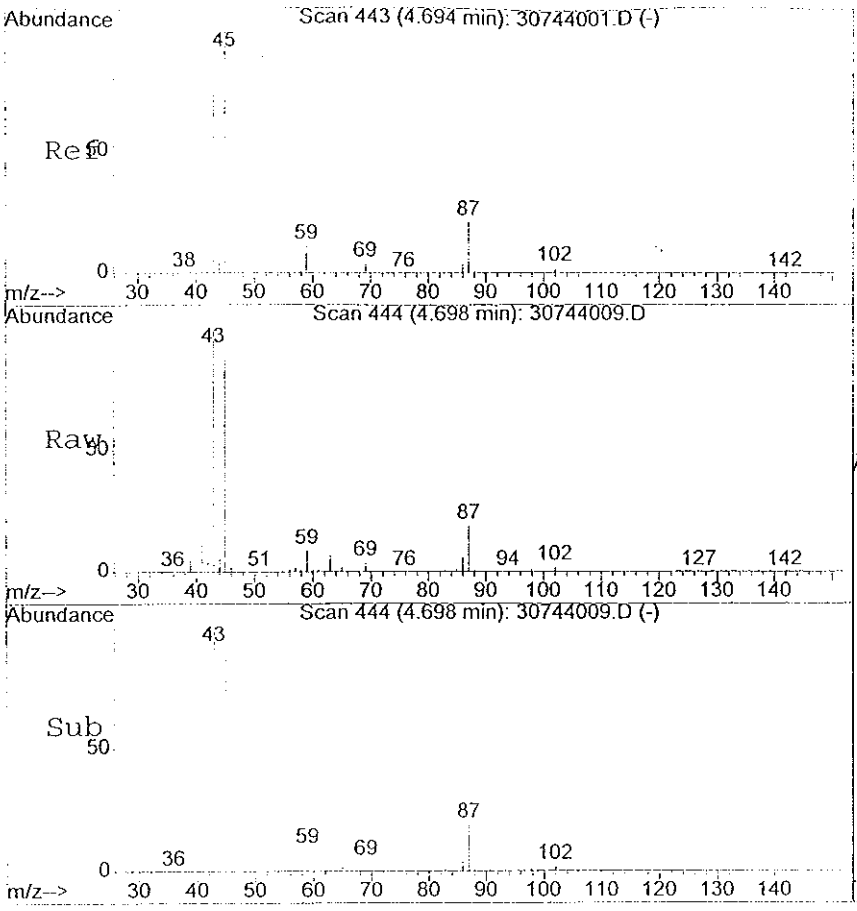
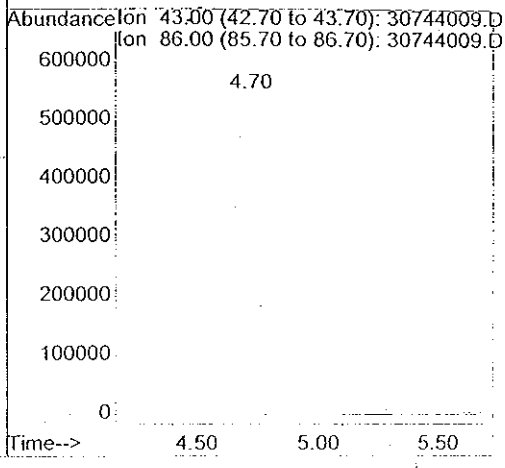
30744009.D V82625B1.M Acq :30 Oct 2001 14:05
Sample = 20ppb VOA STD Misc = 20ppb VOA STD



#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



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11-11-01

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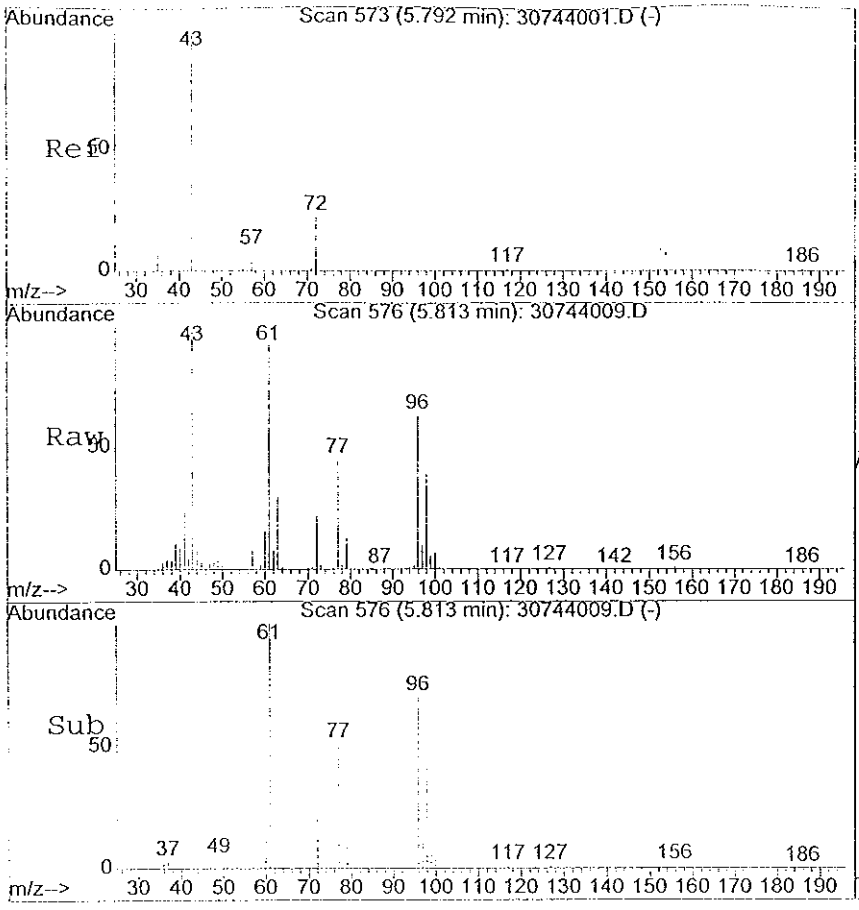
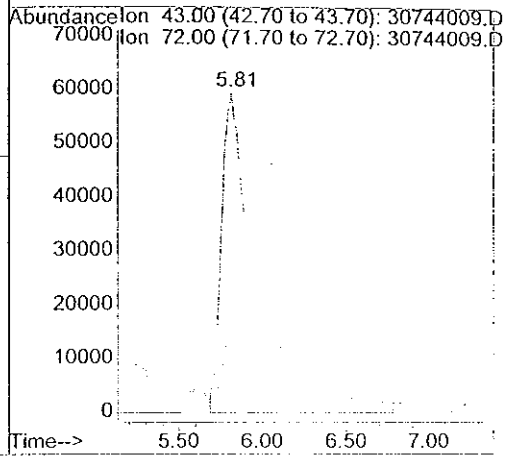


#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



10-31
for 10-31-01

388

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26) Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27) 1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28) Benzene	7.88	78	9780889	29.34	ug/L	100
29) 1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30) Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31) 1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32) Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33) 2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34) Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35) cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37) Toluene	12.48	92	6204841	29.18	ug/L	100
38) trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39) 1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40) Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41) 1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42) Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43) 1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44) 4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45) 2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47) Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50) Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51) m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52) o-Xylene	17.12	106	4111508	29.27	ug/L	98
53) Styrene	17.19	104	6844185	30.28	ug/L	100
54) Bromoform	17.64	173	1805093	32.41	ug/L	100
55) Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58) Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59) 1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60) 1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61) n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62) 2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63) 4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64) 1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65) tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66) 1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67) sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68) 1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69) p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70) 1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72) n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74) 1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75) Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76) Naphthalene	28.35	128	2562909	32.91	ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

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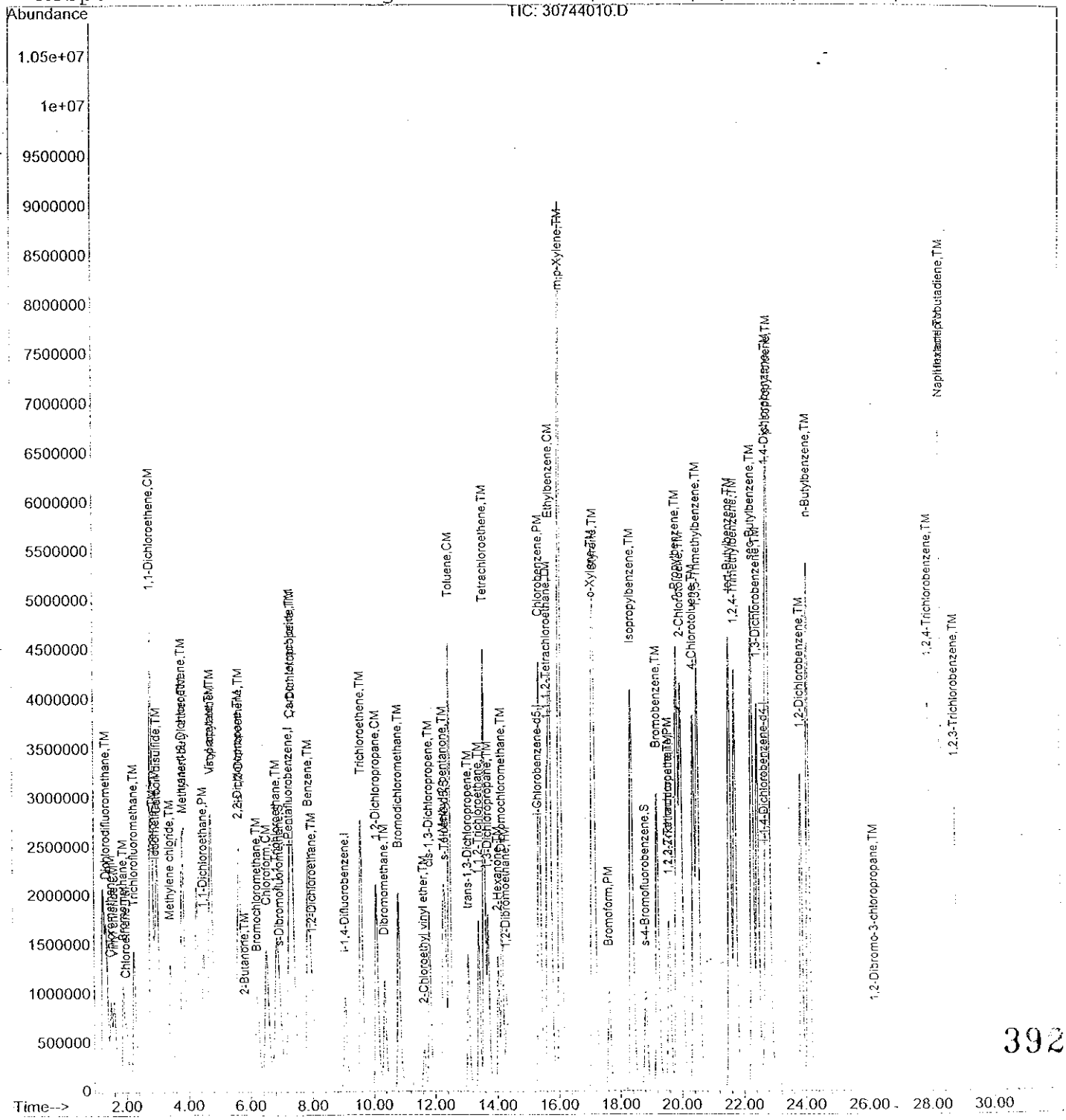
(#) = qualifier out of range (m) = manual integration

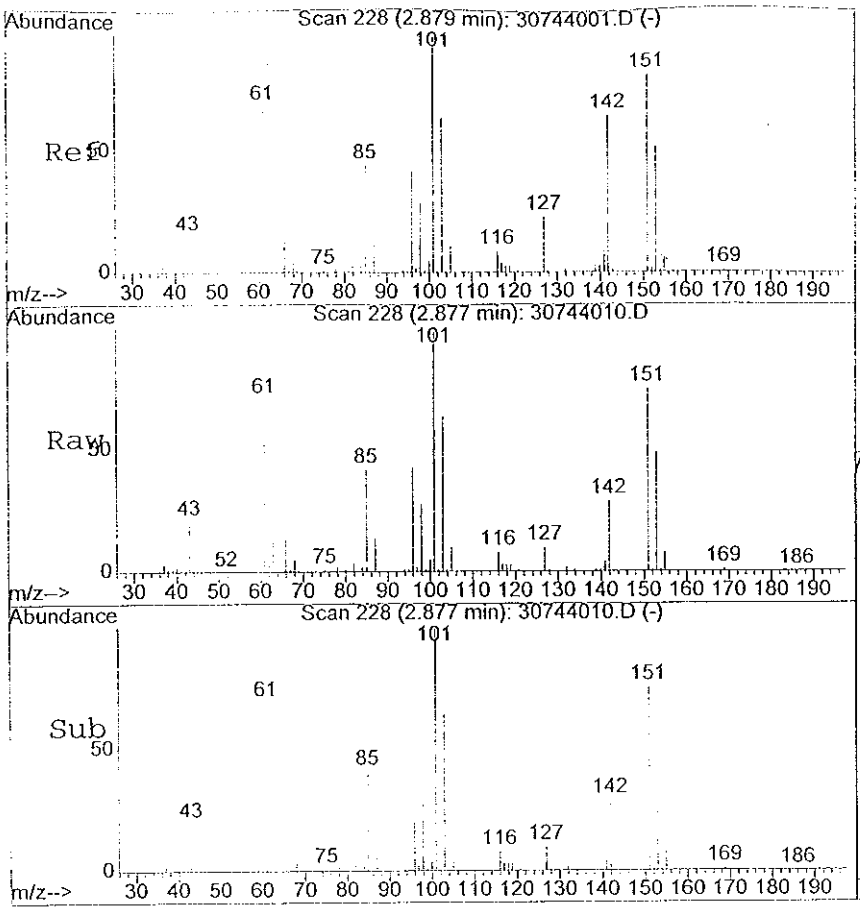
Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

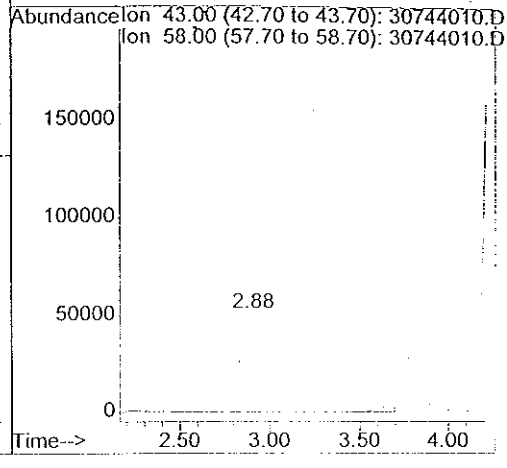




#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



10-31
for 10-31-01

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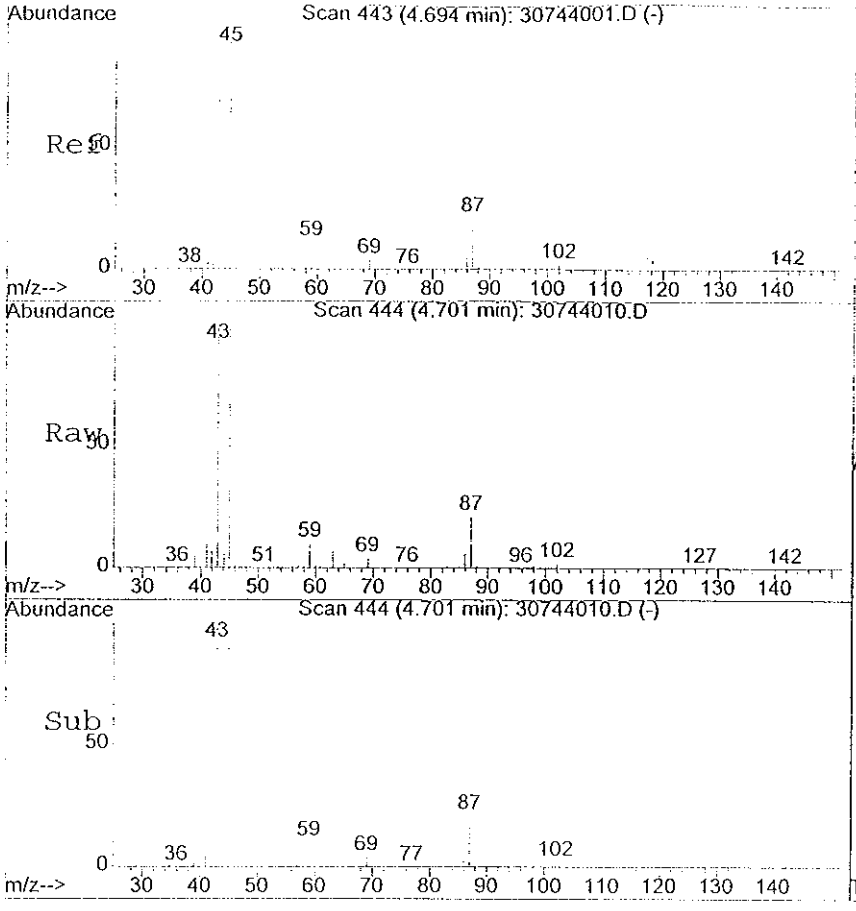
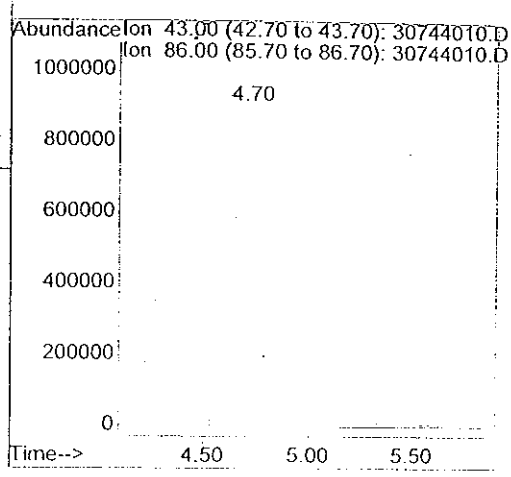
30744010.D V82625B1.M Acq :30 Oct 2001 14:43
Sample = 30ppb VOA STD Misc = 30ppb VOA STD



#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9



10-31
10.31.01

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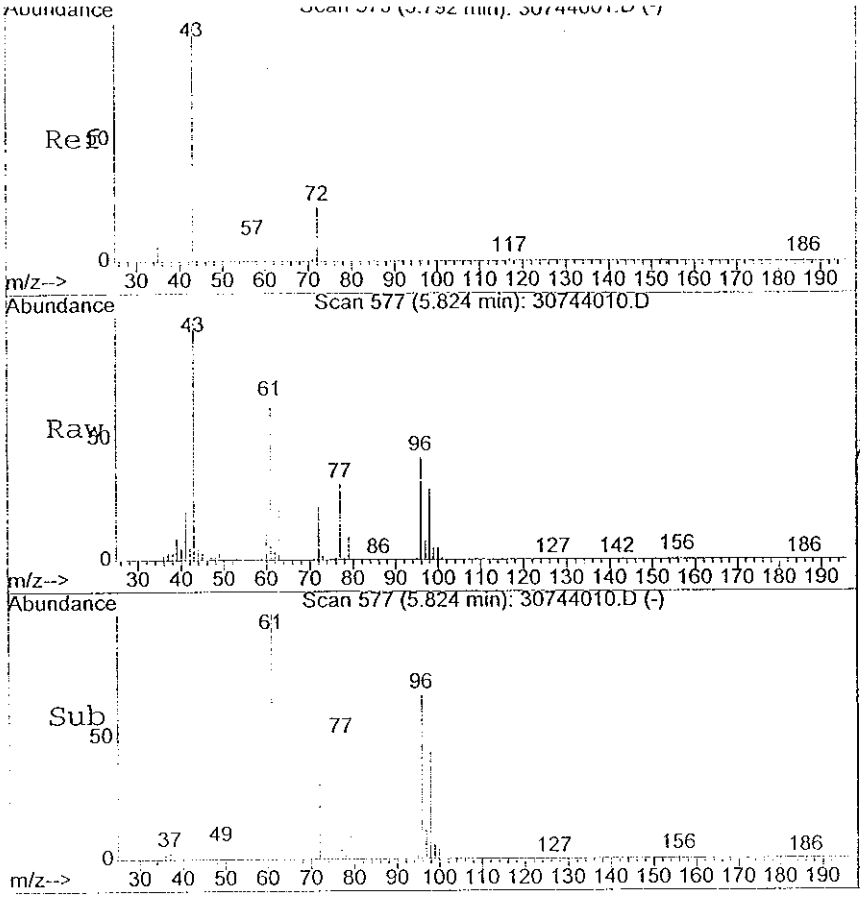
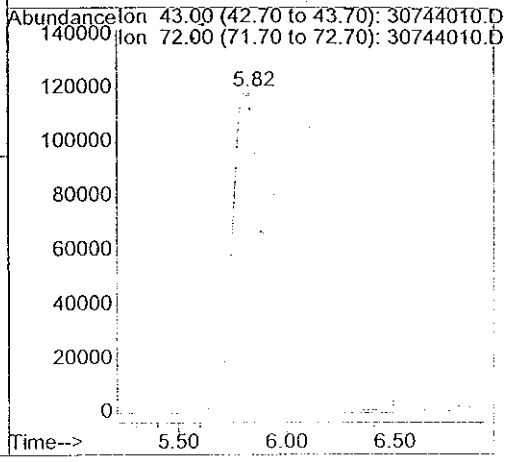


#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



10-31
11-7-01

395

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits
Wed Oct 31 05:36:32 2001

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

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* = out of control limits

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26)	Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27)	1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28)	Benzene	7.87	78	3192959	9.73	ug/L	99
29)	1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30)	Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32)	Dibromomethane	10.35	93	503678	10.29	ug/L	99
33)	2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34)	Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35)	cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37)	Toluene	12.46	92	2053379	9.72	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40)	Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41)	1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42)	Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43)	1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45)	2-Hexanone	14.01	43	421508	20.32	ug/L	99
47)	Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50)	Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51)	m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52)	o-Xylene	17.08	106	1353170	10.02	ug/L	98
53)	Styrene	17.15	104	2130325	9.94	ug/L	99
54)	Bromoform	17.61	173	551199	10.58	ug/L	100
55)	Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58)	Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61)	n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62)	2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63)	4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67)	sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69)	p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

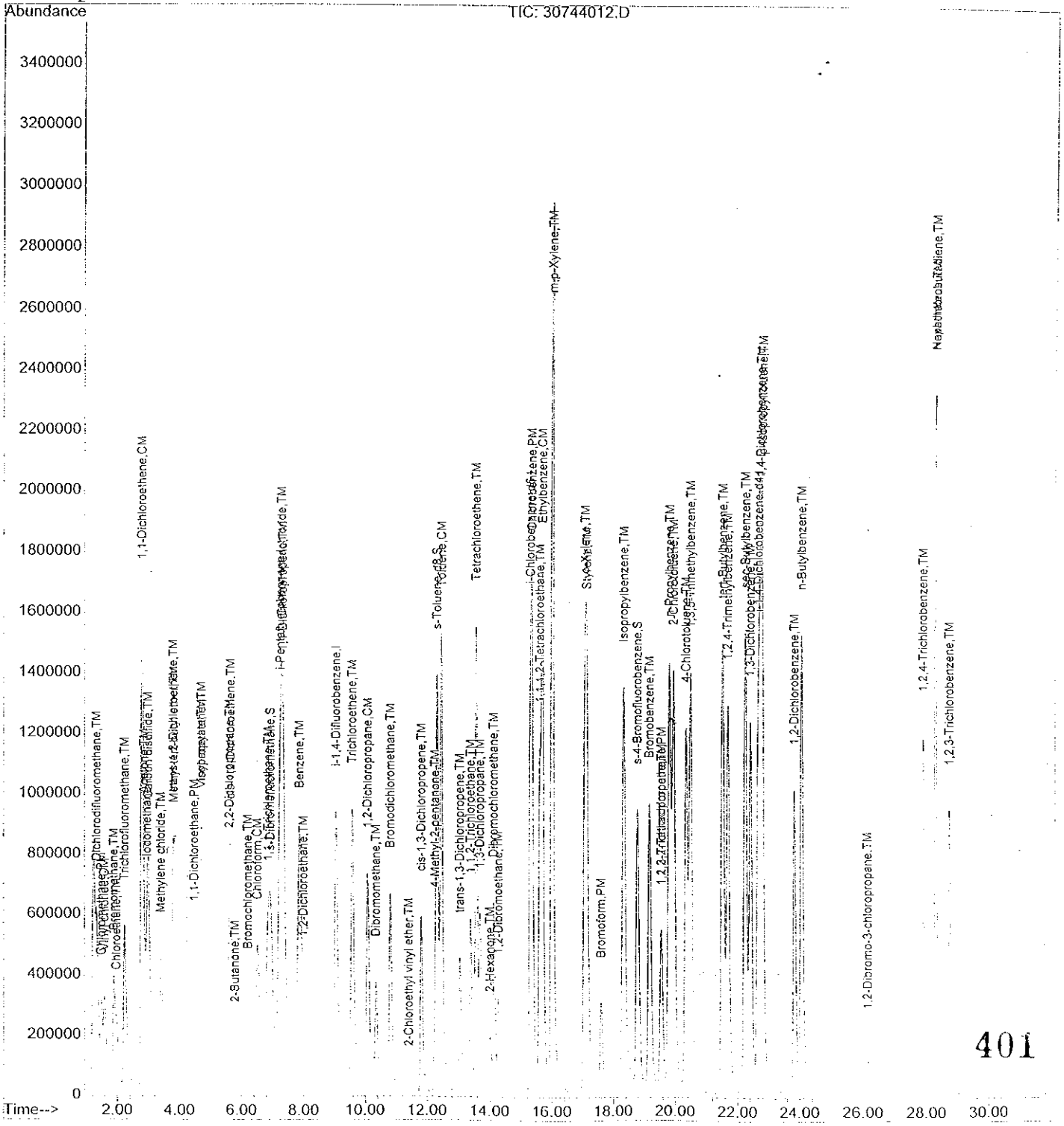
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72) n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74) 1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75) Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76) Naphthalene	28.32	128	757496	10.96	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

400

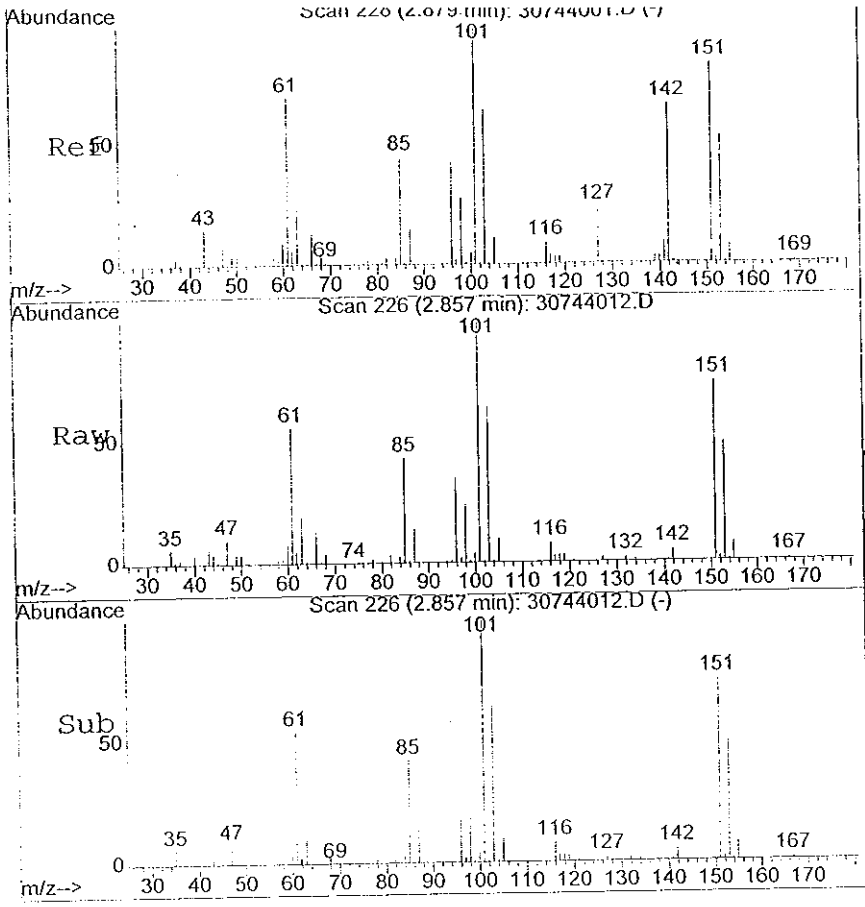
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration



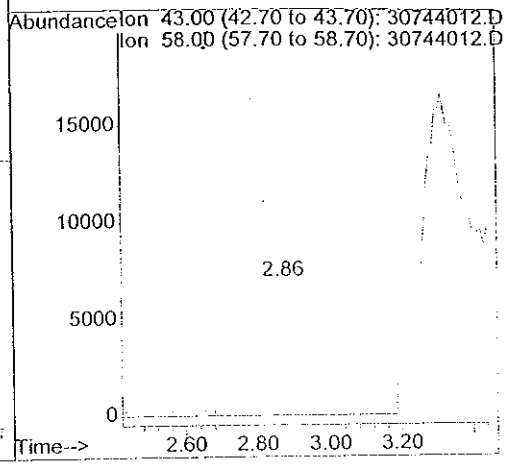
401



#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

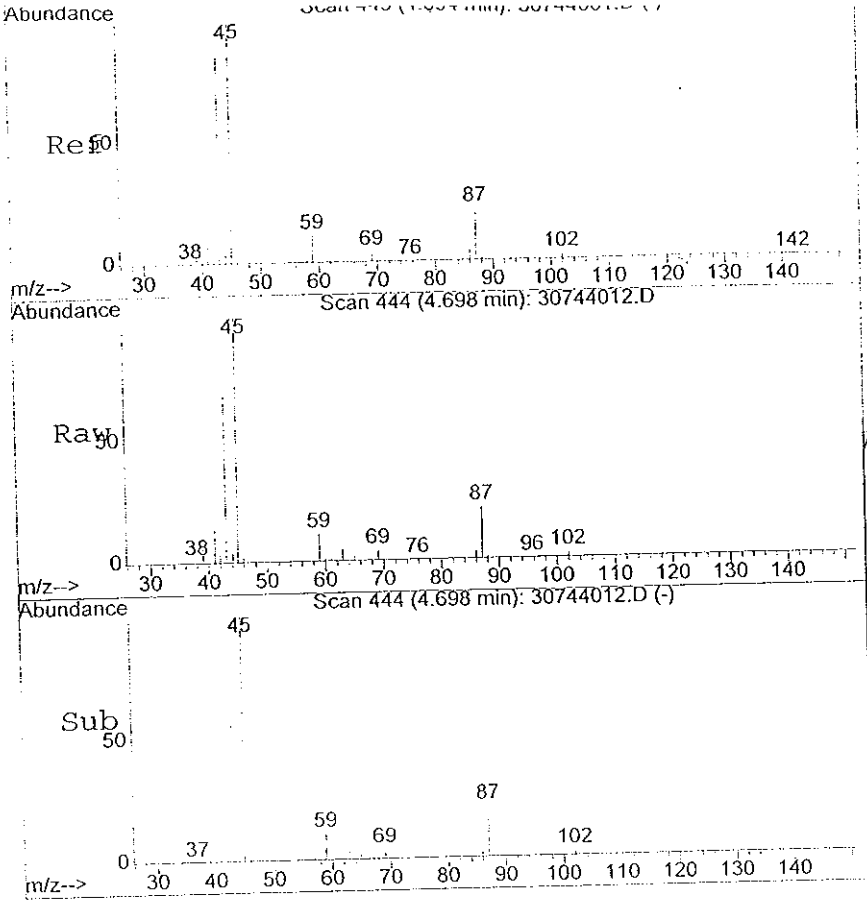
Tgt Ion: 43 Resp: 93381

Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



10-31
10-31-01

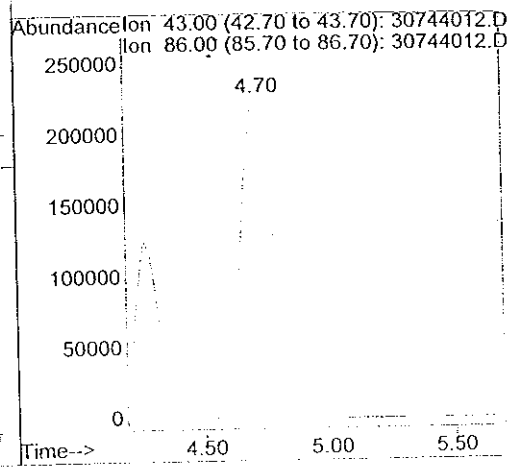
402



#10
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 2328403

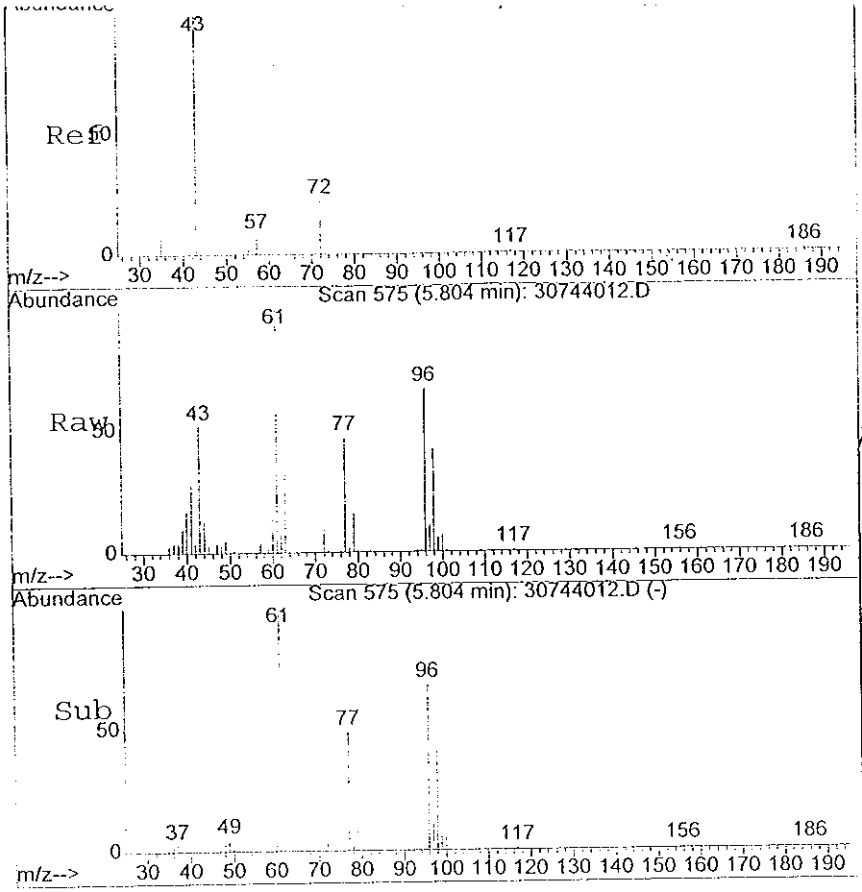
Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9



10-31

10-31-01

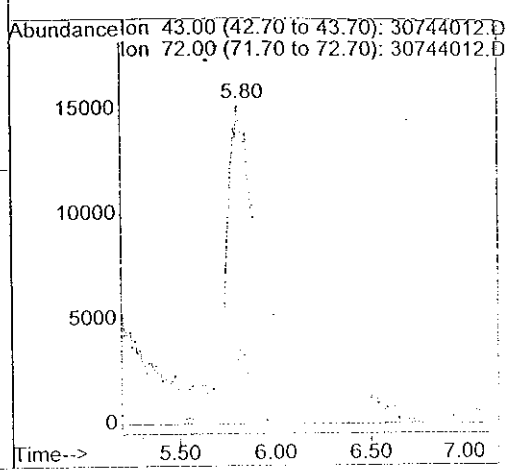
403



2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 250575

Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
MW 10-31-01

404

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. VC 10-31-01

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------			ISTD	----------			
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------			ISTD	----------			
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

405

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

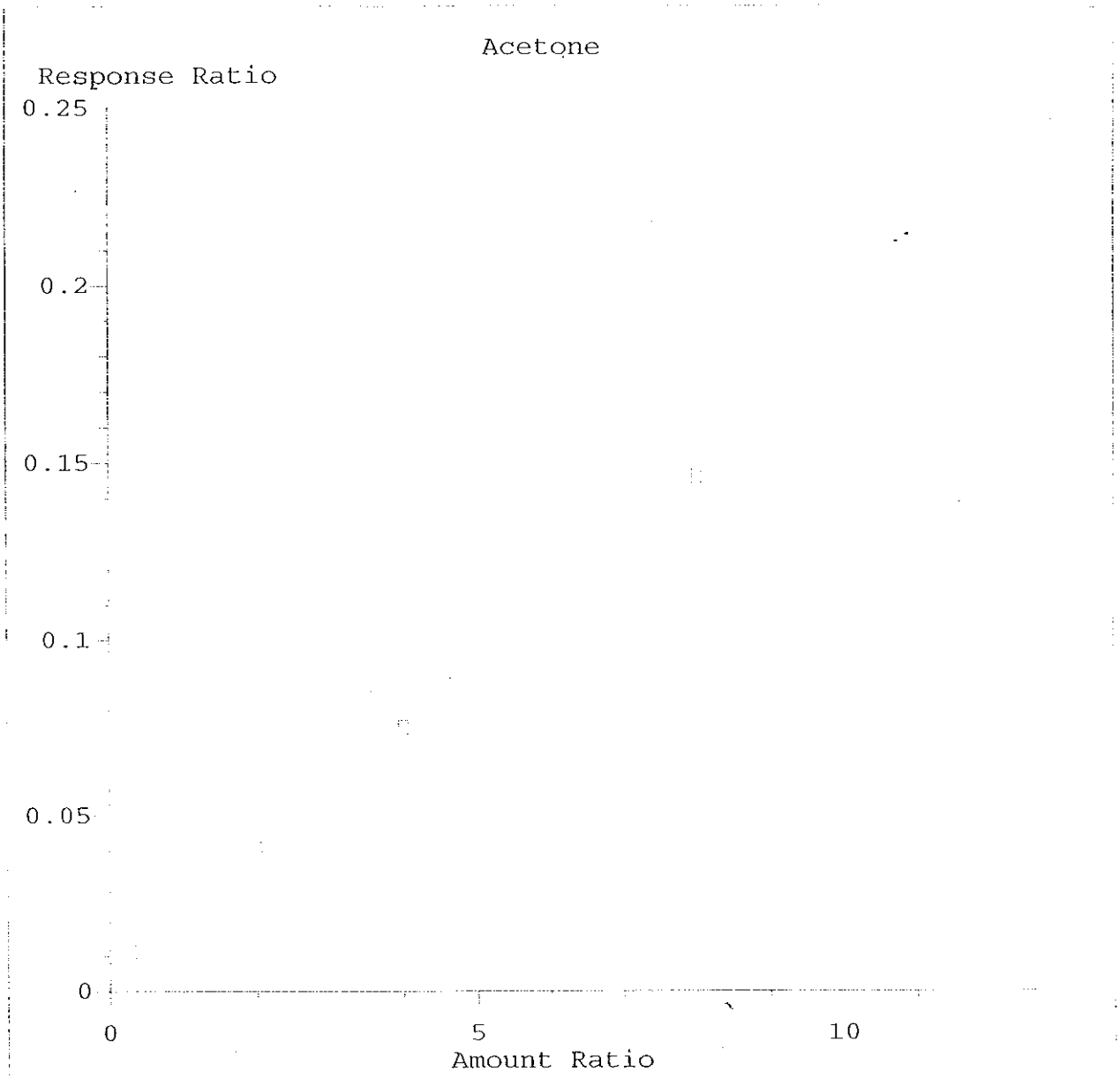
Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

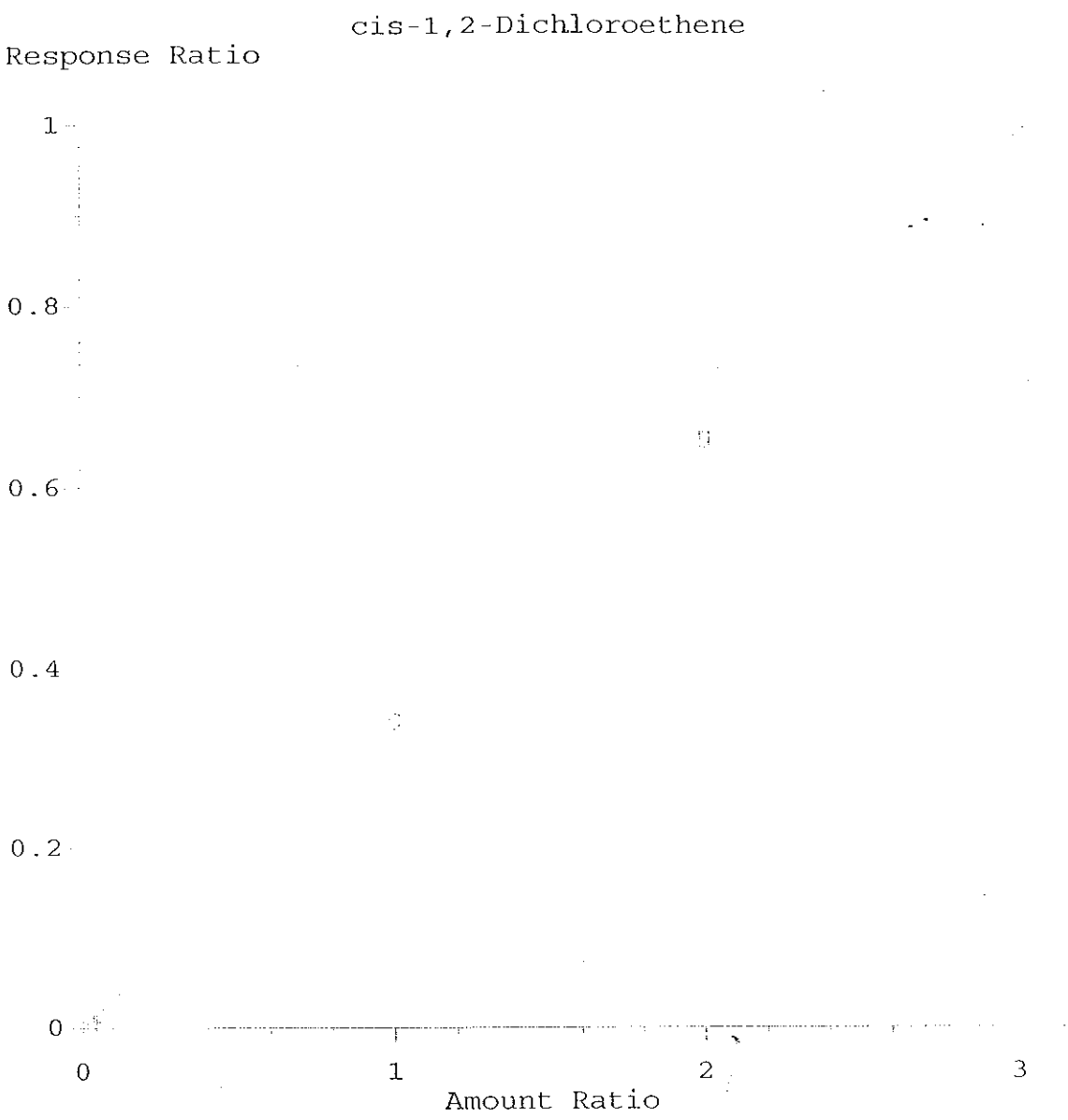
	Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD	%RS
CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43	0.17
TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62	9.43
TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67	
TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13	
TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26	
TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77	
TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52	
TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64	
TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17	
I	i-Chlorobenzene-d5	----------			ISTD	----------				
PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90	
TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08	
TM	1-Chlorohexane							0.000#	-1.00	
CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57	
TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85	
TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37	
TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54	
PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96	
TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85	
S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27	
I	i-1,4-Dichlorobenzene	----------			ISTD	----------				
TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50	
PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88	
TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----		
							L	M= 0.351	R^2=0.999	
								B= 0.002		
TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86	
TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19	
TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26	
TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62	
TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44	
TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74	
TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11	
TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45	
TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88	
TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53	
TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53	
TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52	
TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74	
TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03	
TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----		
							L	M= 0.742	R^2=0.999	
								B= 0.030		

Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
= Out of Range ### Number of calibration levels exceeded format ###



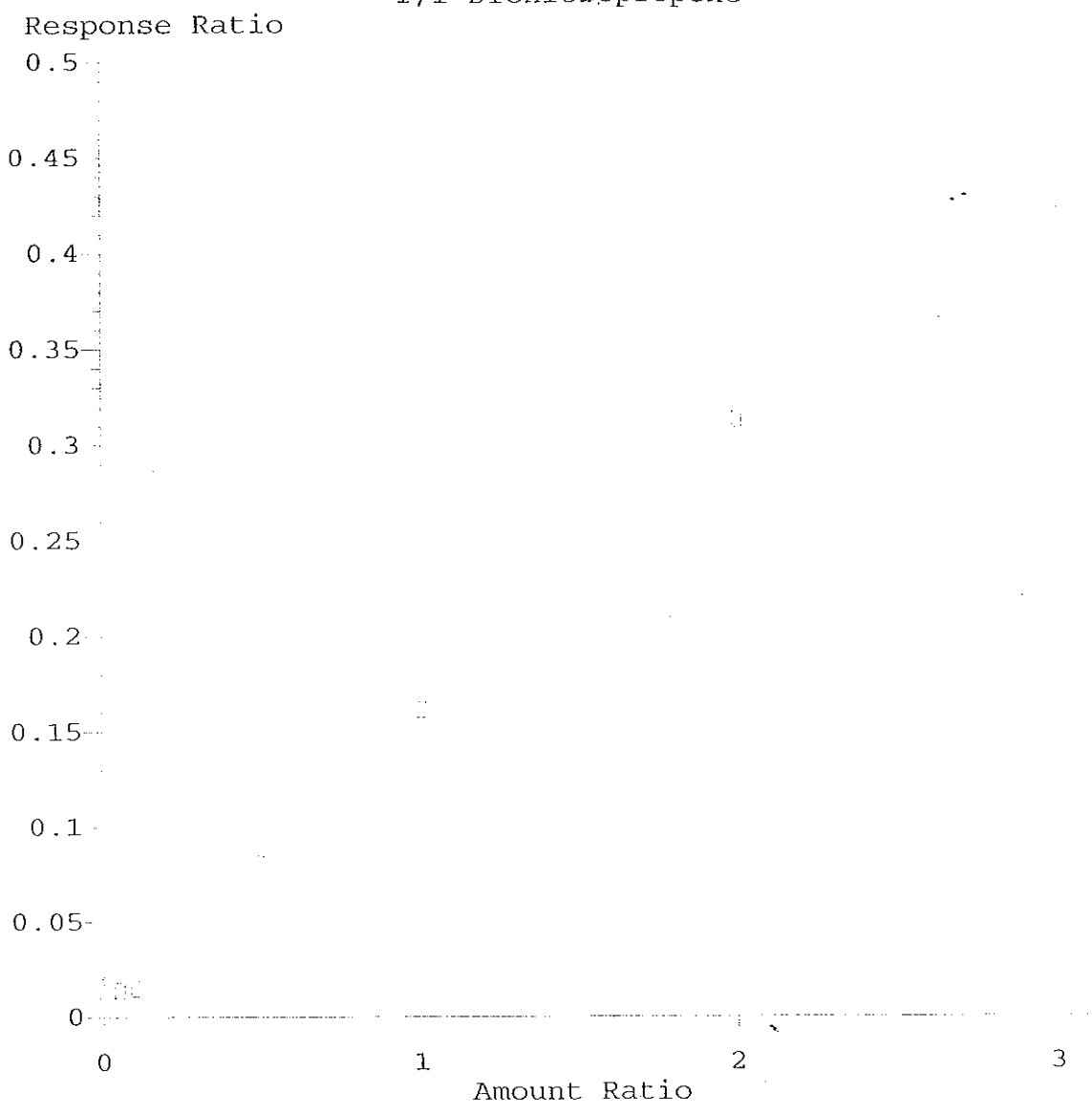
Resp Ratio = 1.94e-002 * Amt - 2.10e-004
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



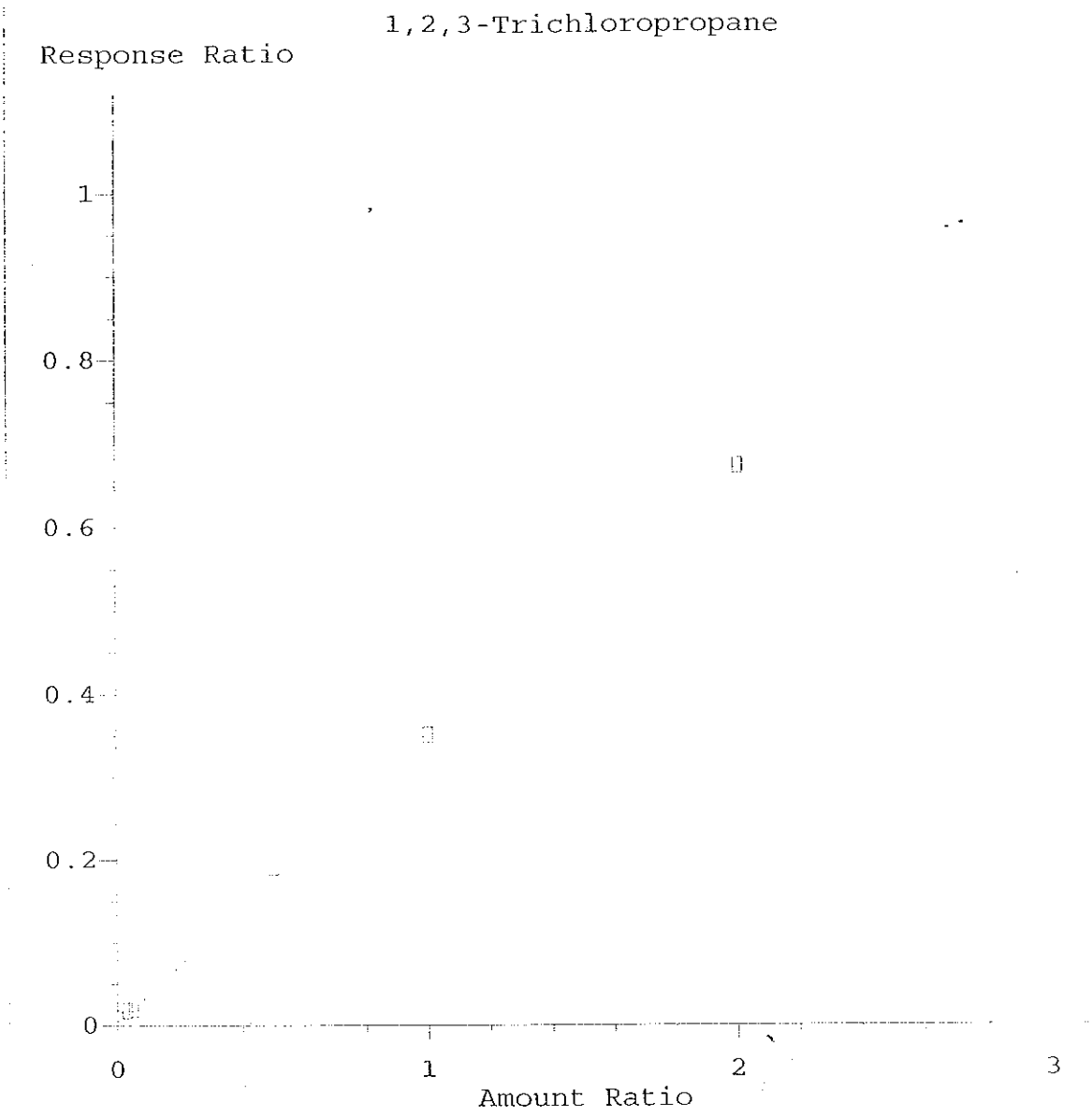
Resp Ratio = 3.31e-001 * Amt - 2.58e-004
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



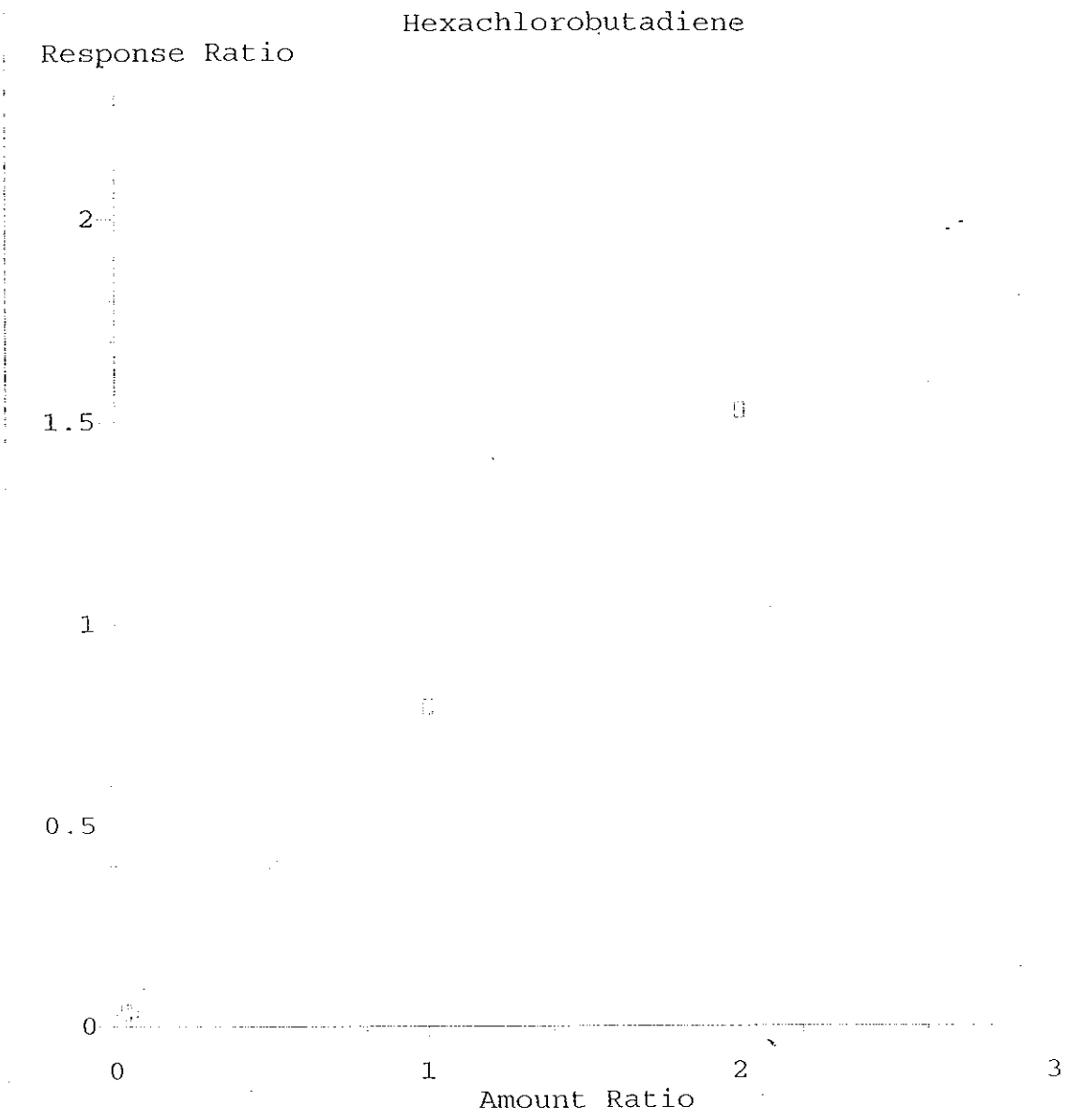
Resp Ratio = 1.57e-001 * Amt + 5.66e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 3.51e-001 * Amt + 2.15e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 7.42e-001 * Amt + 2.99e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

Comment: 11-02-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110201\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30747001	V82625A	TUNE
3	Sample	15	30747002	V82625A	10ppb VOA STD
4	Sample	16	30747003	V82625A	BUW149ABK BLANK 11-02-01
5	Sample	1	30747004	V82625A	BUW149ALCS LCS 11-02-01
6	Sample	2	30747005	V82625A	110611-3 MS 5.00ml 5X
7	Sample	3	30747006	V82625A	110611-3 MSD 5.00ml 5X
8	Sample	4	30747007	V82625A	110611-3 5.00ml 5X
9	Sample	5	30747008	V82625A	110655-1 -
10	Sample	6	30747009	V82625A	110655-2 -
11	Sample	7	30747010	V82625A	110655-3 -
12	Sample	8	30747011	V82625A	110655-4 -
13	Sample	9	30747012	V82625A	110681-1
14	Sample	10	30747013	V82625A	110681-2
15	Sample	11	30747014	V82625A	110681-3
16	Sample	12	30747015	V82625A	110681-4
17	Sample	13	BLANK	V82625A	BLANK

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30747002.D Date Analyzed : 2 Nov 2001
Instrument ID : Bubba Time Analyzed : 9:55
GC Column : ID : (mm) Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30747003	BUW149ABK BLANK	100	100	97	0	0	0	0
30747004	BUW149ALCS LCS	96	100	100	0	0	0	0
30747005	110611-3 MS 5.0	92	99	99	0	0	0	0
30747006	110611-3 MSD 5.	102	100	101	0	0	0	0
30747007	110611-3 5.00ml	91	99	89	0	0	0	0
30747008	110655-1	98	97	97	0	0	0	0
30747009	110655-2	98	97	96	0	0	0	0
30747010	110655-3	96	98	96	0	0	0	0
30747011	110655-4	90	97	91	0	0	0	0
30747012	110681-1	102	99	98	0	0	0	0
30747013	110681-2	109	99	98	0	0	0	0
30747014	110681-3	102	98	97	0	0	0	0
30747015	110681-4	107	97	98	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

413

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30747002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 2 Nov 2001
Time Analyzed : 9:55
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2992359		7.21		3040284		9.04		2141284		15.30	
UPPER LIMIT	5984718		7.71		6080568		9.54		4282568		15.80	
LOWER LIMIT	1496180		6.71		1520142		8.54		1070642		14.80	
File ID Sample												
30747003 BUW149ABK	3178649		7.23		3115359		9.05		2224472		15.31	
30747004 BUW149ALC	3030766		7.22		3009380		9.06		2091671		15.31	
30747005 110611-3	3092066		7.22		3041235		9.04		2078003		15.30	
30747006 110611-3	3136655		7.24		3157024		9.05		2246131		15.32	
30747007 110611-3	2847498		7.23		2706882		9.05		1838266		15.31	
30747008 110655-1	3095736		7.23		3044663		9.06		2166775		15.31	
30747009 110655-2	2792216		7.24		2749255		9.06		1952081		15.32	
30747010 110655-3	3117425		7.24		3060651		9.06		2116458		15.33	
30747011 110655-4	2983542		7.23		2870801		9.06		1941523		15.32	
30747012 110681-1	2945492		7.24		2935106		9.06		2093397		15.32	
30747013 110681-2	2949276		7.23		2980277		9.06		2249344		15.31	
30747014 110681-3	2775287		7.22		2812628		9.05		2000796		15.30	
30747015 110681-4	2830547		7.21		2976088		9.05		2154939		15.29	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

414

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30747002.D Date Analyzed : 2 Nov 2001
Instrument ID : Bubba Time Analyzed : 9:55
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1216124		22.67		0		0.00		0		0.00	
UPPER LIMIT	2432248		23.17		0		0.00		0		0.00	
LOWER LIMIT	608062		22.17		0		0.00		0		0.00	
File ID Sample												
30747003 BUW149ABK	1077862		22.68		0		0.00		0		0.00	
30747004 BUW149ALC	1152357		22.68		0		0.00		0		0.00	
30747005 110611-3	1130970		22.66		0		0.00		0		0.00	
30747006 110611-3	1272483		22.69		0		0.00		0		0.00	
30747007 110611-3	825003		22.68		0		0.00		0		0.00	
30747008 110655-1	1059555		22.68		0		0.00		0		0.00	
30747009 110655-2	970343		22.70		0		0.00		0		0.00	
30747010 110655-3	1003889		22.69		0		0.00		0		0.00	
30747011 110655-4	893778		22.69		0		0.00		0		0.00	
30747012 110681-1	1008218		22.68		0		0.00		0		0.00	
30747013 110681-2	1071416		22.68		0		0.00		0		0.00	
30747014 110681-3	941416		22.65		0		0.00		0		0.00	
30747015 110681-4	1024600		22.66		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

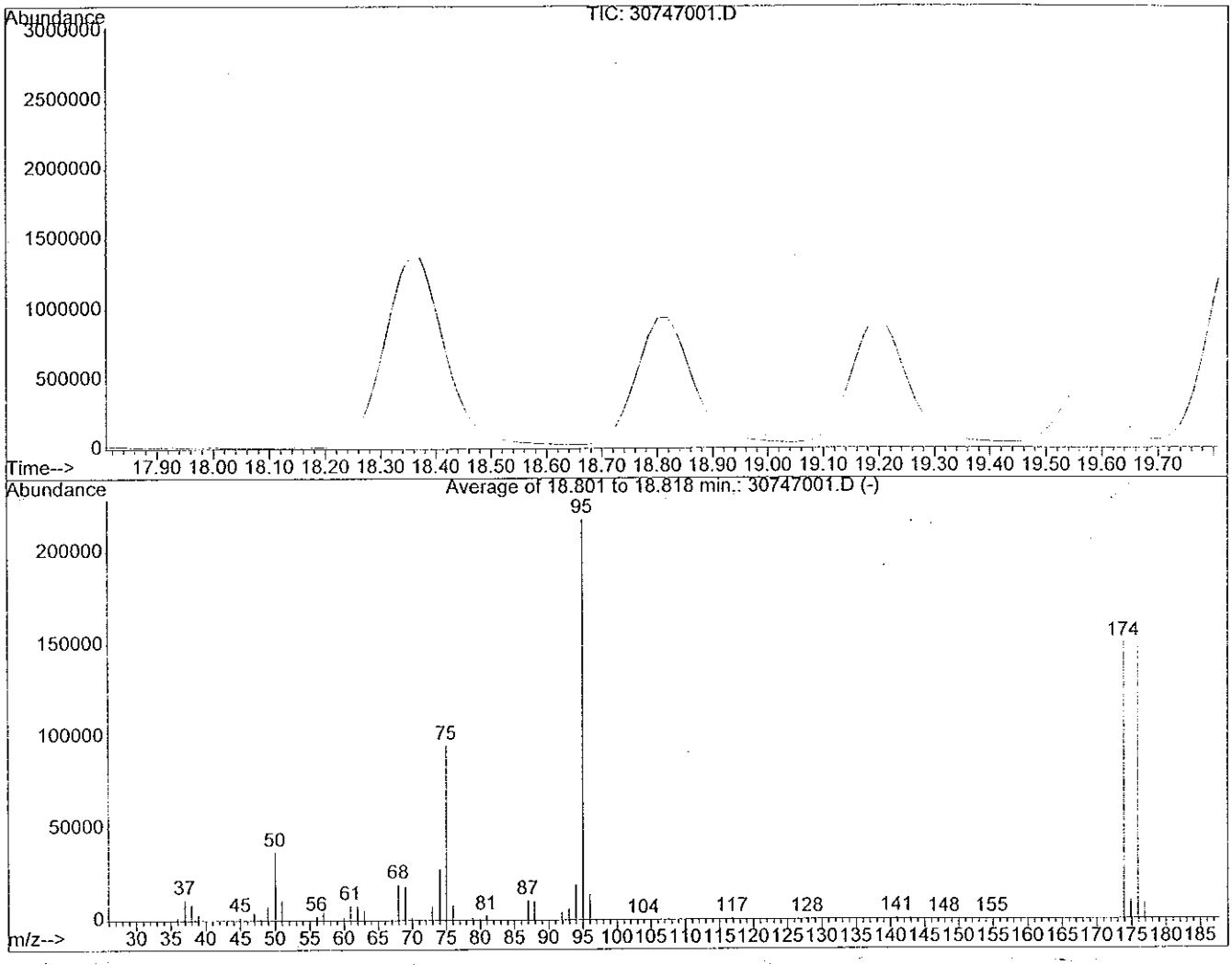
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\110201\30747001.D
Acq On : 2 Nov 2001 9:13
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	37213	PASS
75	95	30	60	43.7	95144	PASS
95	95	100	100	100.0	217792	PASS
96	95	5	9	6.4	13890	PASS
173	174	0	2	0.2	283	PASS
174	95	50	100	69.1	150464	PASS
175	174	5	9	7.0	10493	PASS
176	174	95	101	99.2	149312	PASS
177	176	5	9	6.2	9274	PASS

30747001.D V82625B1.M Fri Nov 02 09:41:52 2001

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	1994	59.95	1778	78.90	1753	175.90	149312
36.95	11368	60.95	8163	80.90	2648	176.90	9274
37.95	9204	61.95	7850	86.95	10726		
38.95	3235	62.95	5398	87.90	10485		
44.95	2022	67.95	19555	91.95	4232		
46.90	4325	68.95	18515	92.95	6366		
48.95	7845	69.95	1595	93.95	19621		
50.00	37213	72.90	7660	95.00	217792		
51.00	10937	74.00	28077	96.00	13890		
56.00	2402	75.00	95144	173.90	150464		
57.00	4737	76.00	8397	174.90	10493		

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.02
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.02
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.02
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.02
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.02
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.03
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.03
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.02
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.02
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.02
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	-0.02
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	-0.02
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	-0.02
37	CM	Toluene	10.000	9.383	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range
30747002.D V82625B1.M Fri Nov 02 10:34:40 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	-0.02
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	-0.02
45	TM	2-Hexanone	40.000	42.488	-6.2	106	-0.02
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	-0.02
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	-0.02
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

419

(#) = Out of Range SPCC's out = 0 CCC's out = 6
30747002.D V82625B1.M Fri Nov 02 10:34:41 2001 Page 2

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.02
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.02
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.02
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.02
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.02
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.03
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.03
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.02
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.02
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.02
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	-0.02
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	-0.02
37	CM	Toluene	0.699	0.656	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	-0.02
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	-0.02
45	TM	2-Hexanone	0.069	0.073	-5.8	106	-0.02
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	-0.02
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	-0.02
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

421

(#) = Out of Range SPCC's out = 1 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2992359	10.00	ug/L	0.00 98.84%
25) i-1,4-Difluorobenzene	9.04	114	3040284	10.00	ug/L	0.00 99.89%
46) i-Chlorobenzene-d5	15.30	117	2141284	10.00	ug/L	-0.02 98.47%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1216124	10.00	ug/L	0.00 98.55%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1458722	10.53	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 105.30%			
36) s-Toluene-d8	12.31	98	2881280	10.00	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.80	95	1650047	10.14	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1342962	8.83	ug/L	99
3) Chloromethane	1.50	50	853940	8.81	ug/L	99
4) Vinyl chloride	1.60	62	927620	9.11	ug/L	99
5) Bromomethane	1.89	96	832899	9.06	ug/L	99
6) Chloroethane	1.99	64	558628	9.37	ug/L	99
7) Trichlorofluoromethane	2.23	101	1542881	9.26	ug/L	99
8) 1,1-Dichloroethene	2.78	96	931879	9.52	ug/L	97
9) Acetone	2.87	43	237147m	40.76	ug/L	94
10) Iodomethane	2.93	142	1091440	9.06	ug/L	100
11) Carbon disulfide	2.99	76	2920954	9.49	ug/L	100
12) Methylene chloride	3.41	84	789248	9.87	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1024839	9.44	ug/L	100
14) Methyl tert-butyl ether	3.84	73	1190740	9.97	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1838790	9.53	ug/L	98
16) Vinyl acetate	4.70	43	2875373m	19.65	ug/L	100
17) Isopropyl ether	4.72	45	3056176	10.06	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1308328	9.14	ug/L	100
19) 2-Butanone	5.80	43	494525m	40.86	ug/L	89
20) cis-1,2-Dichloroethene	5.64	96	971540	9.85	ug/L	97
21) Bromochloromethane	6.19	128	393500	10.14	ug/L	98
22) Chloroform	6.50	83	1856938	9.61	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	1536102	9.52	ug/L	97
26) Carbon tetrachloride	7.27	119	1317204	8.67	ug/L	97
27) 1,1-Dichloropropene	7.34	110	496176	10.04	ug/L	100
28) Benzene	7.86	78	3154851	9.56	ug/L	98
29) 1,2-Dichloroethane	7.98	62	641256	9.72	ug/L	99
30) Trichloroethene	9.57	95	1248481	9.39	ug/L	99
31) 1,2-Dichloropropane	10.06	63	1066074	9.66	ug/L	99
32) Dibromomethane	10.33	93	486612	9.88	ug/L	99
33) 2-Chloroethyl vinyl ether	11.61	63	194906	10.68	ug/L	97
34) Bromodichloromethane	10.80	83	1498346	9.81	ug/L	99
35) cis-1,3-Dichloropropene	11.80	75	1150092	9.68	ug/L	99
37) Toluene	12.44	92	1993825	9.38	ug/L	98
38) trans-1,3-Dichloropropene	13.04	75	722704	9.86	ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	484223	9.84	ug/L	98
40) Tetrachloroethene	13.57	166	1449950	9.44	ug/L	100
41) 1,3-Dichloropropane	13.68	76	931059	9.90	ug/L	99
42) Dibromochloromethane	14.13	129	904336	10.08	ug/L	98
43) 1,2-Dibromoethane	14.27	107	598977	9.83	ug/L	99
44) 4-Methyl-2-pentanone	12.24	43	1387101	40.07	ug/L	100
45) 2-Hexanone	14.00	43	886389	42.49	ug/L	99
47) Chlorobenzene	15.36	112	2137390	9.50	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.62	131	977395	9.82	ug/L	99
50) Ethylbenzene	15.70	106	1140328	9.39	ug/L	100
51) m,p-Xylene	16.02	106	2828879	19.35	ug/L	100
52) o-Xylene	17.08	106	1314910	9.67	ug/L	98
53) Styrene	17.15	104	2167866	10.05	ug/L	99
54) Bromoform	17.61	173	554722	10.58	ug/L	99
55) Isopropylbenzene	18.35	105	4211066	9.64	ug/L	99
58) Bromobenzene	19.19	156	1055103	9.35	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.57	83	756757	9.66	ug/L	99
60) 1,2,3-Trichloropropane	19.57	75	437850	10.18	ug/L	97
61) n-Propylbenzene	19.83	120	1043877	9.45	ug/L	100
62) 2-Chlorotoluene	19.96	126	944616	9.07	ug/L	100
63) 4-Chlorotoluene	20.36	91	3391576	9.33	ug/L	100
64) 1,3,5-Trimethylbenzene	20.51	105	3123239	9.23	ug/L	99
65) tert-Butylbenzene	21.53	91	2050829	9.24	ug/L	95
66) 1,2,4-Trimethylbenzene	21.70	105	2822185	9.50	ug/L	98
67) sec-Butylbenzene	22.26	105	4597773	9.42	ug/L	100
68) 1,3-Dichlorobenzene	22.42	146	1961280	9.44	ug/L	100
69) p-Isopropyltoluene	22.80	119	3560291	9.69	ug/L	100
70) 1,4-Dichlorobenzene	22.75	146	1858477	9.37	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

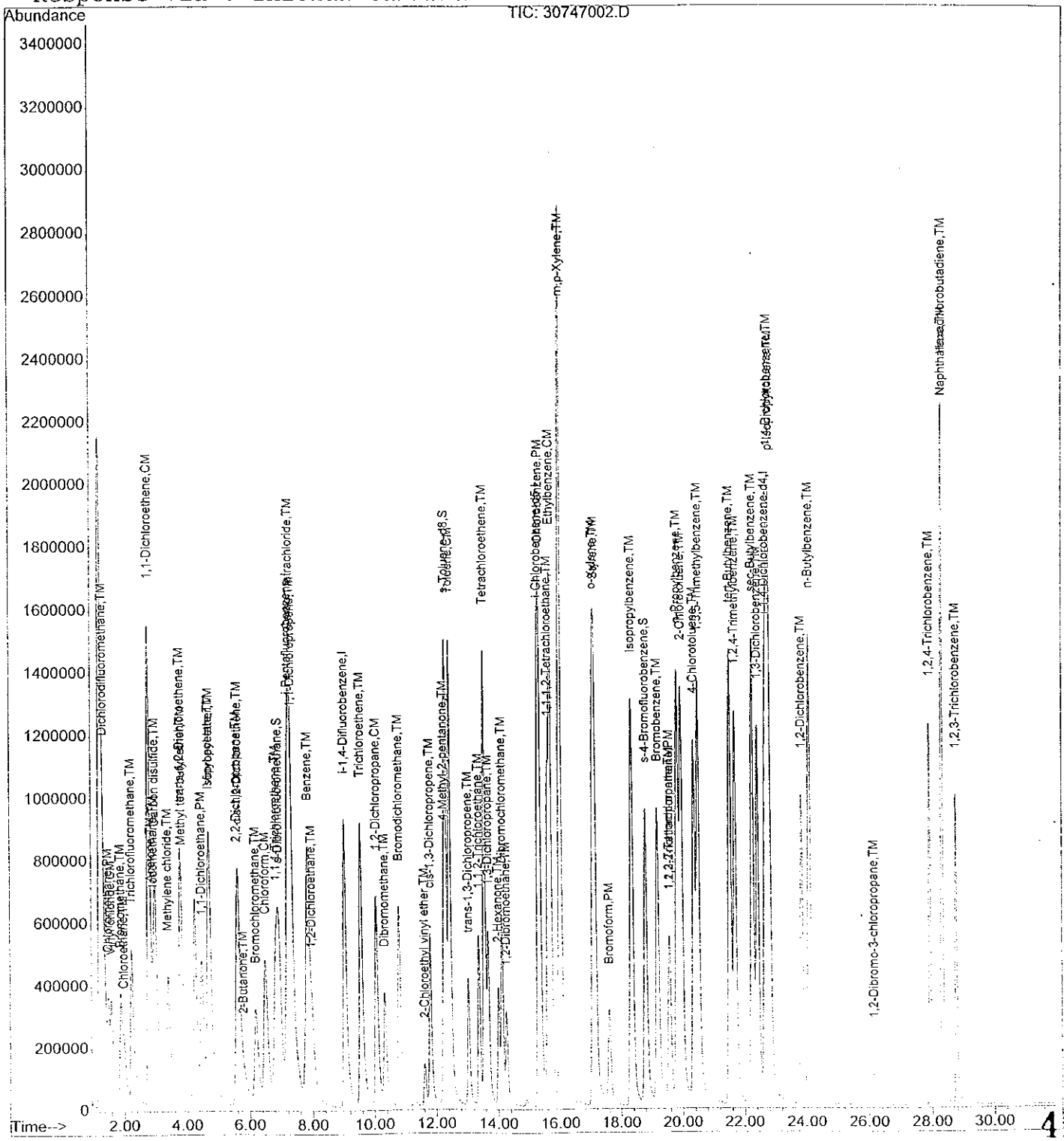
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.84	146	1582928	9.57	ug/L	99
72)	n-Butylbenzene	24.08	91	3479174	10.23	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.15	75	103534	9.79	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	1002540	10.80	ug/L	99
75)	Hexachlorobutadiene	28.32	225	995236	10.67	ug/L	96
76)	Naphthalene	28.34	128	786121	11.11	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	761225	11.00	ug/L	100

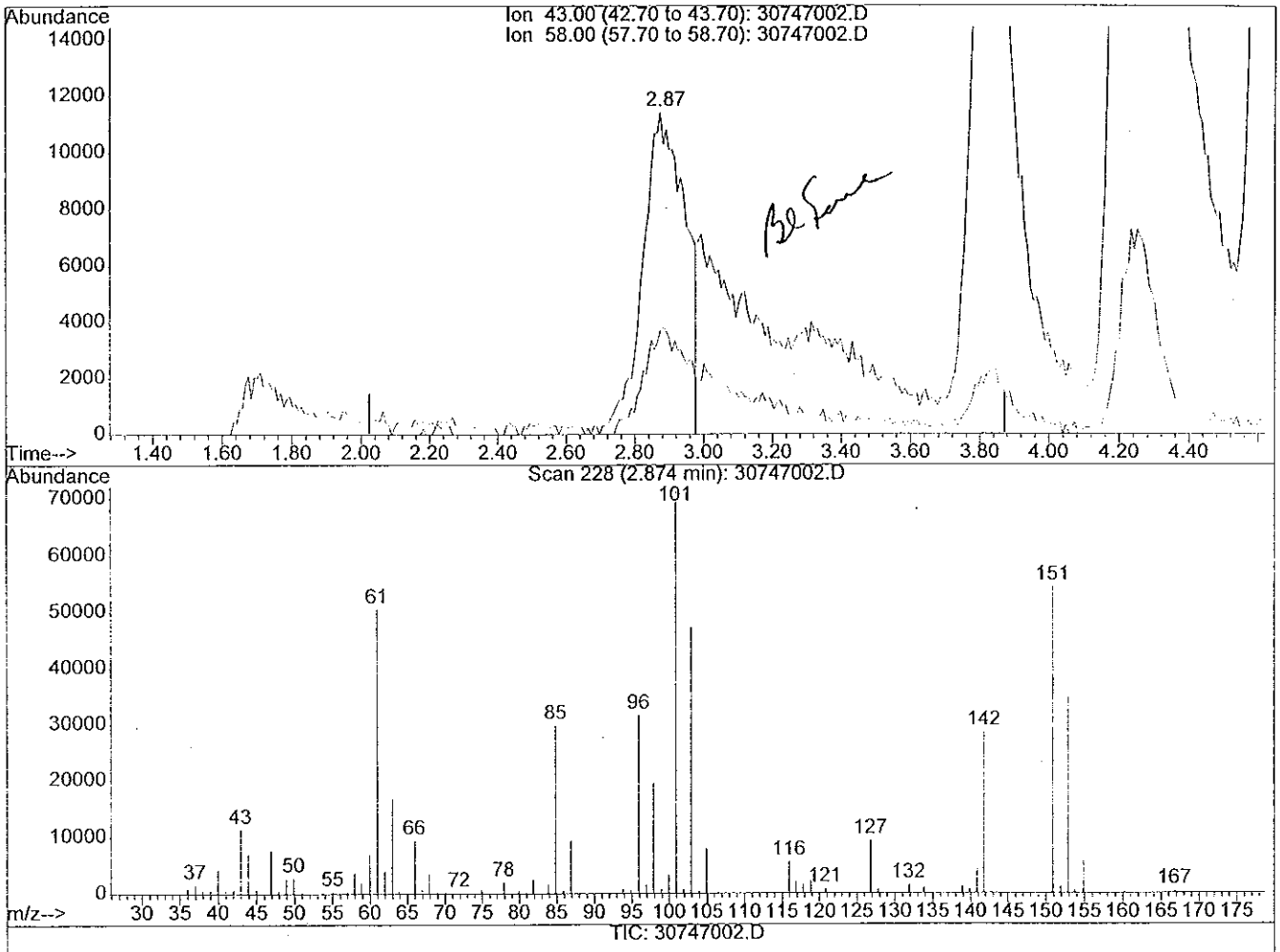
Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 16.75ug/L

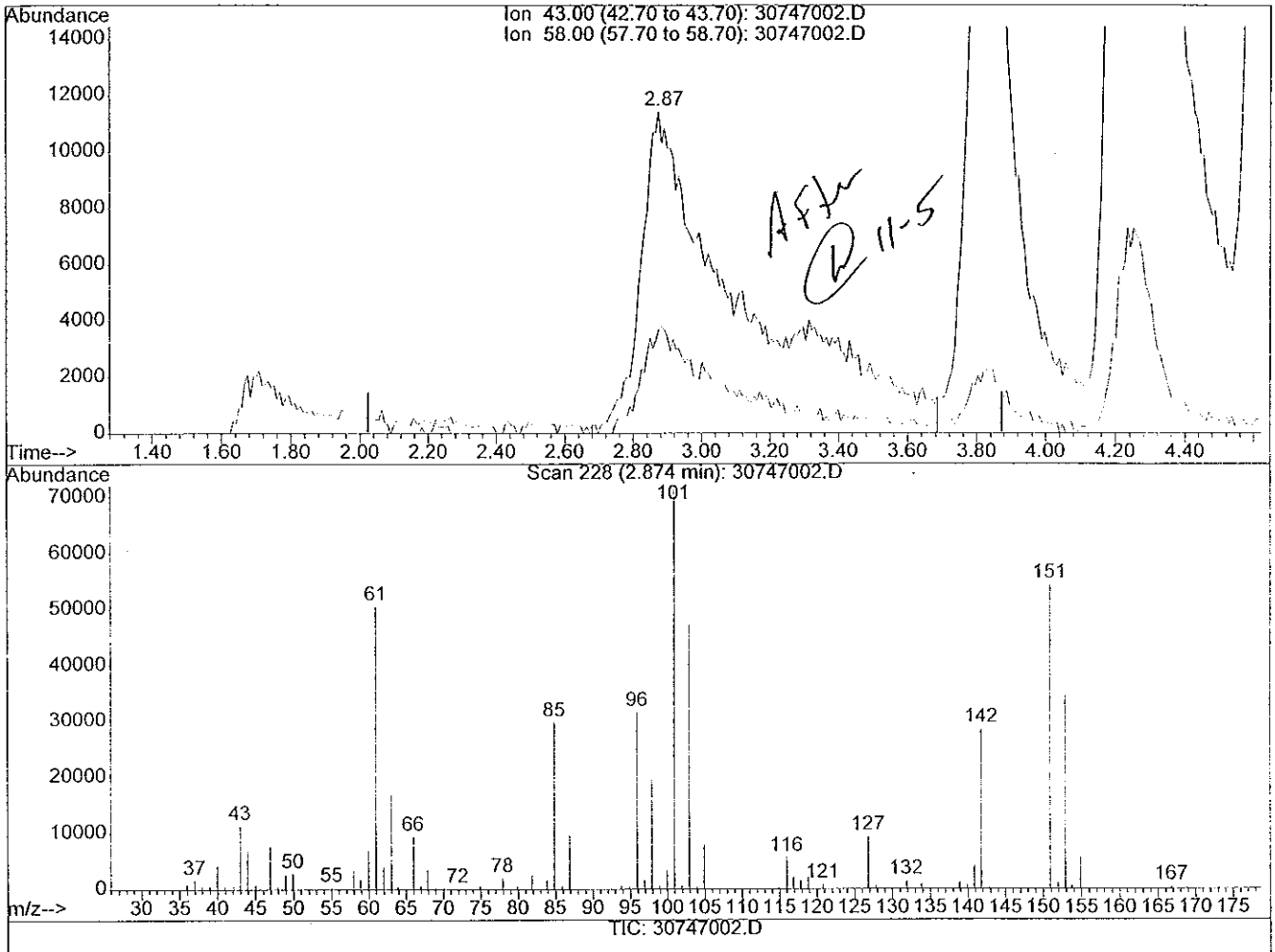
response 97796

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

30747002.D V82625B1.M Fri Nov 02 10:33:43 2001

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30747002.D

(9) Acetone (TM)

2.87min 40.76ug/L m

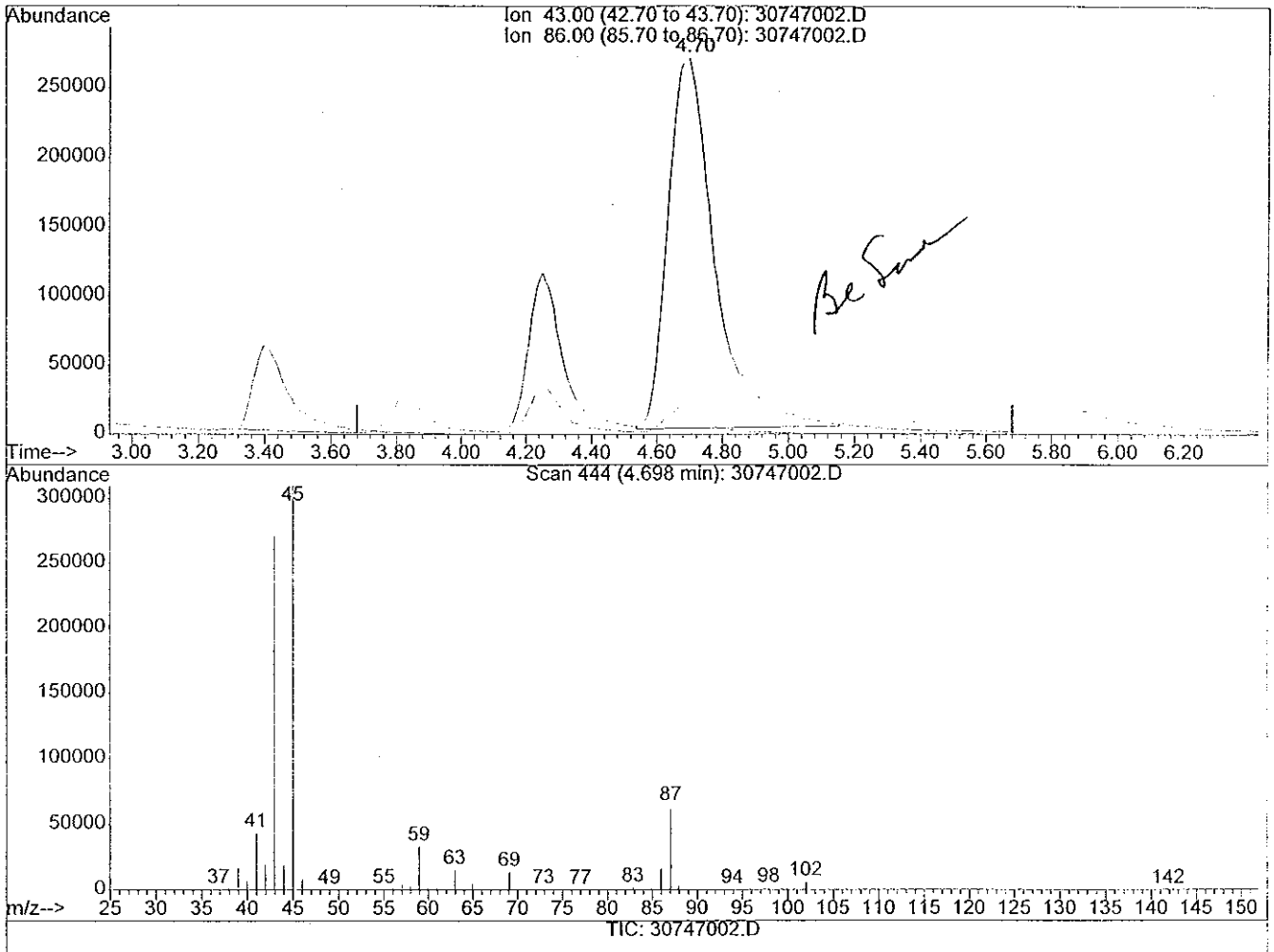
response 237147

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

30747002.D V82625B1.M Fri Nov 02 10:33:50 2001

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30747002.D

(16) Vinyl acetate (TM)

4.70min 18.11ug/L

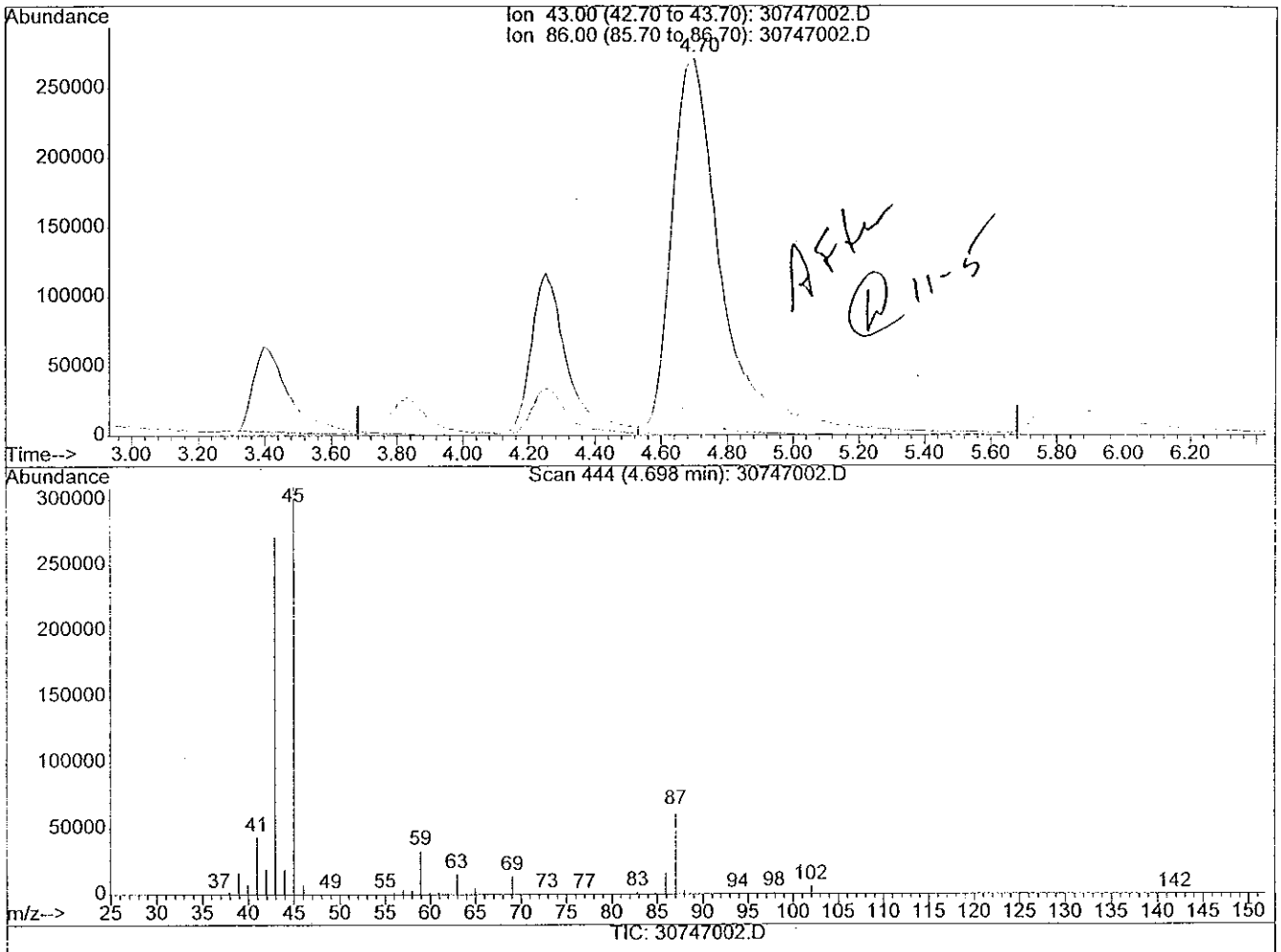
response 2648833

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.93
0.00	0.00	0.00
0.00	0.00	0.00

428

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



AFL 11-5

(16) Vinyl acetate (TM)

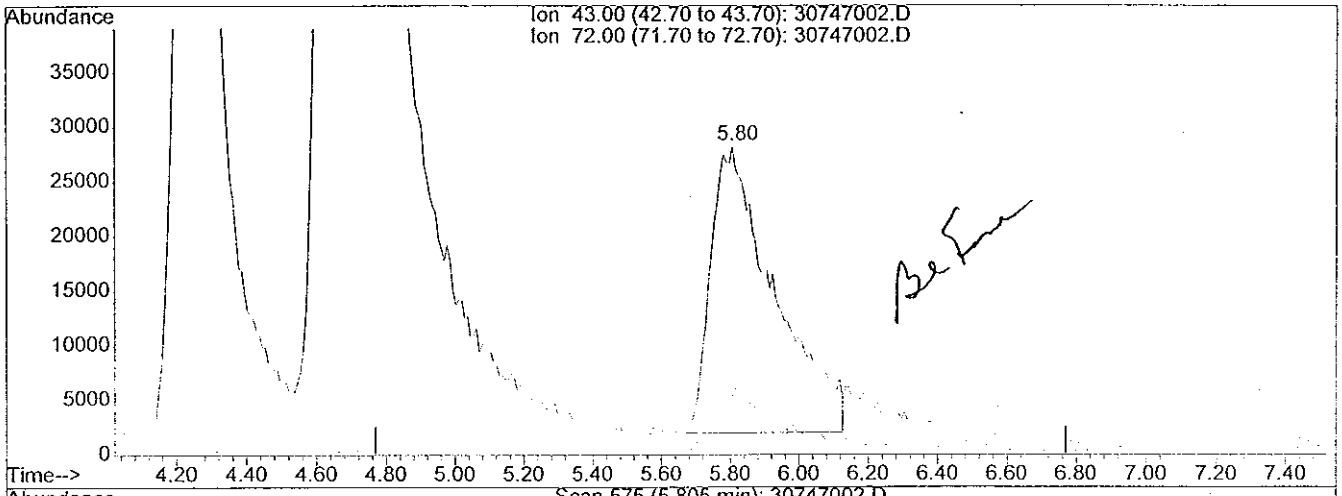
4.70min 19.65ug/L m

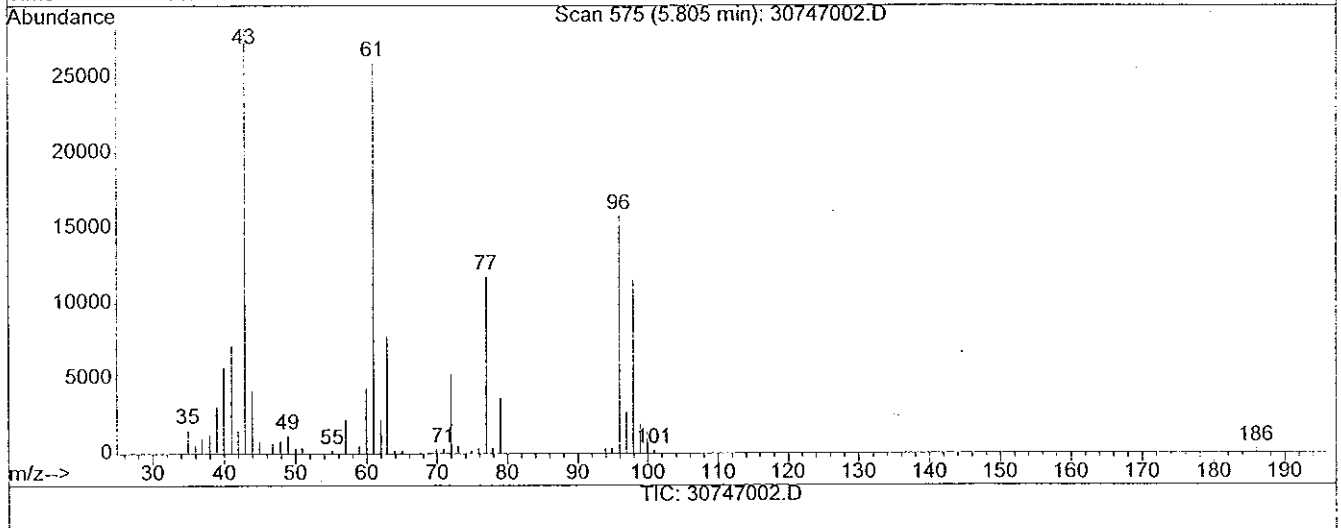
response 2875373

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.98
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30747002.D

(19) 2-Butanone (TM)

5.80min 27.61ug/L

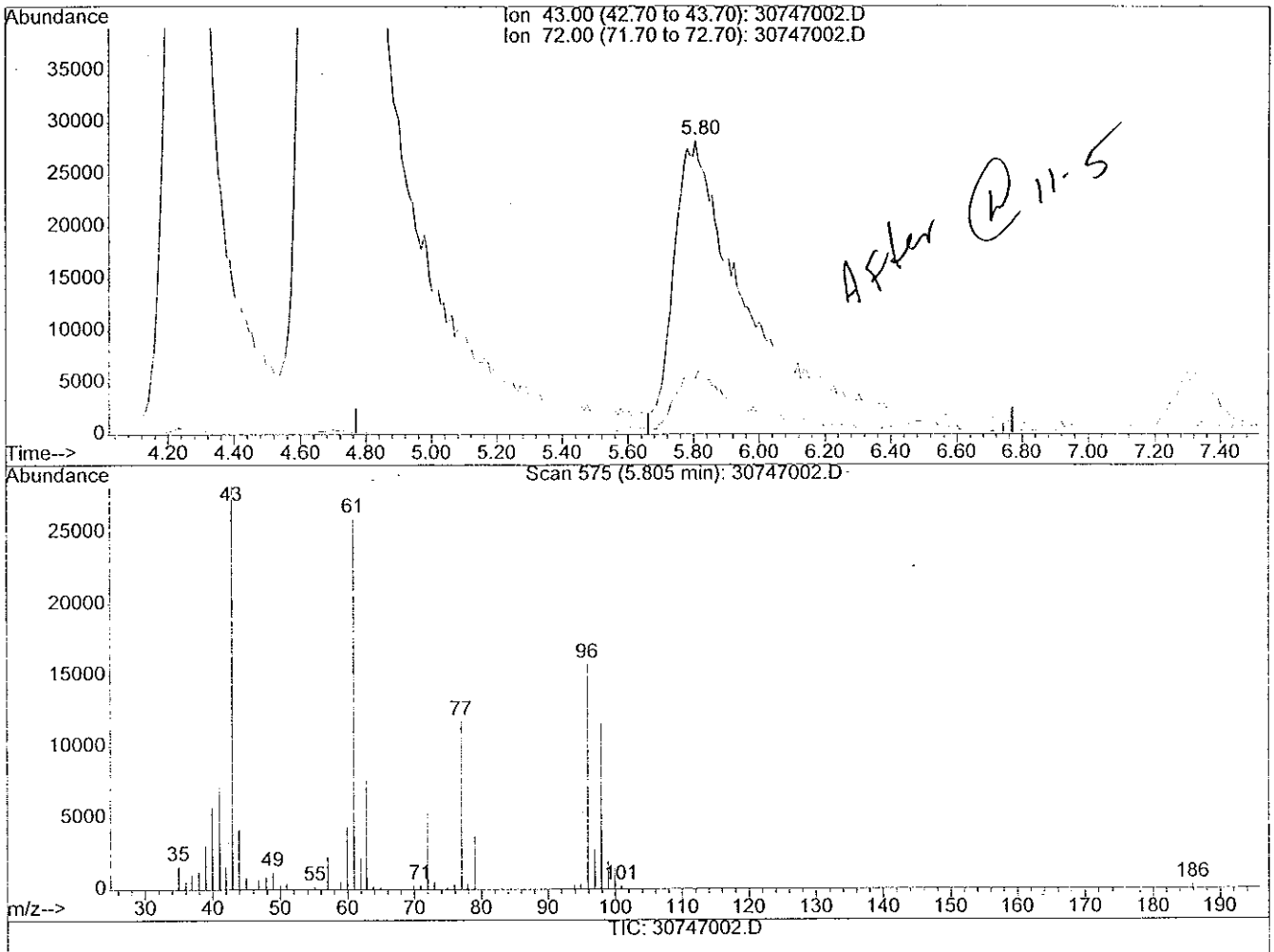
response 334117

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.11
0.00	0.00	0.00
0.00	0.00	0.00

430

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30747002.D

(19) 2-Butanone (TM)

5.80min 40.86ug/L m

response 494525

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	19.00
0.00	0.00	0.00
0.00	0.00	0.00

30747002.D V82625B1.M Fri Nov 02 10:34:29 2001

Data File : D:\HPCHEM\1\DATA\110201\30747003.D Vial: 16
Acq On : 2 Nov 2001 10:35 Operator: GRH
Sample : BUW149ABK BLANK 11-02-01 Inst : Bubba
Misc : BUW149ABK BLANK 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

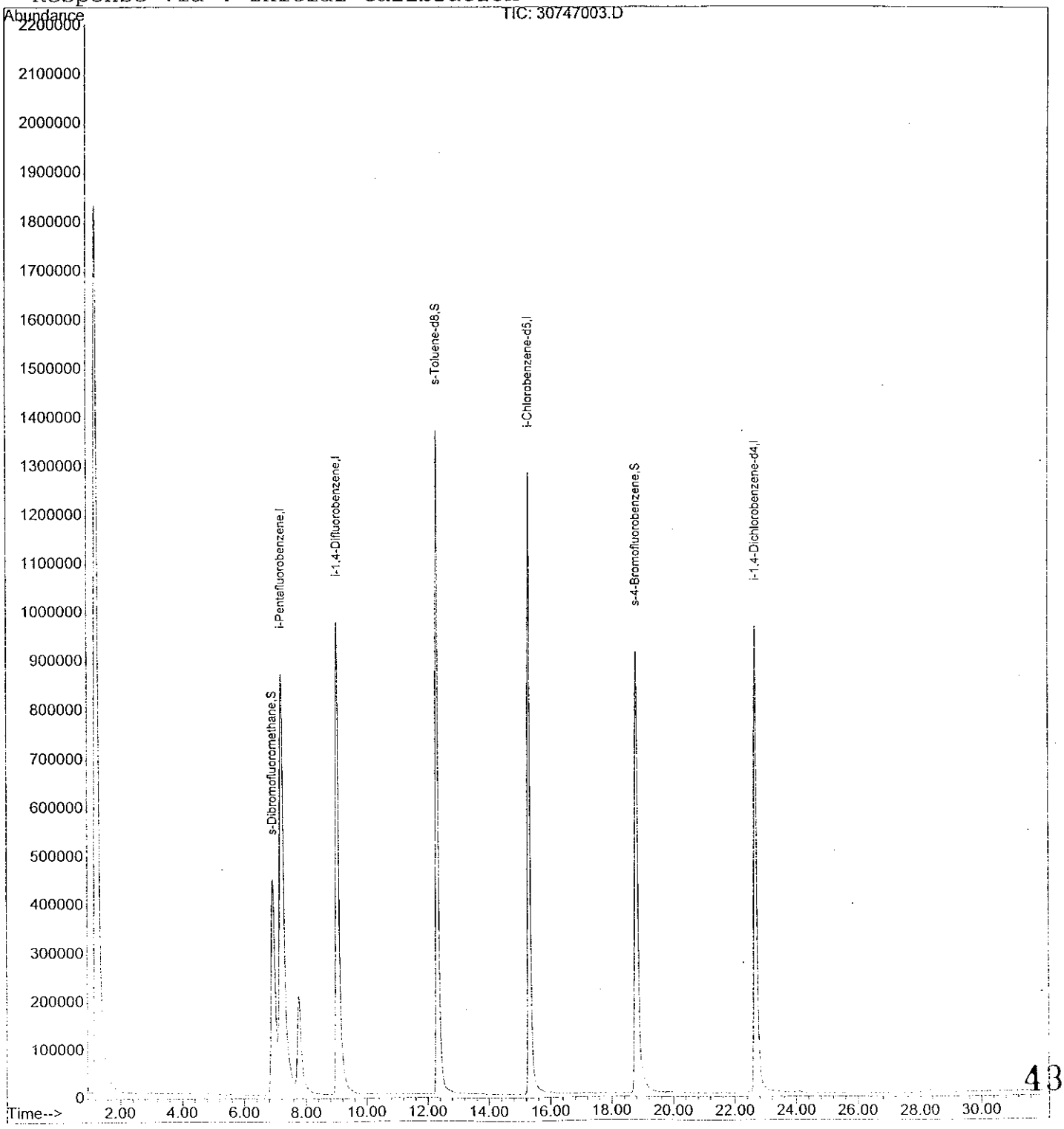
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3178649	10.00	ug/L	0.02 / 106.23%
25) i-1,4-Difluorobenzene	9.05	114	3115359	10.00	ug/L	0.00 / 102.47%
46) i-Chlorobenzene-d5	15.31	117	2224472	10.00	ug/L	0.02 / 103.89%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1077862	10.00	ug/L	0.00 / 88.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476371	10.03	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.30%			
36) s-Toluene-d8	12.32	98	2939245	9.96	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.60%			
56) s-4-Bromofluorobenzene	18.82	95	1635375	9.67	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.70%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
30747003.D V82625B1.M Fri Nov 02 11:25:06 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110201\30747003.D Vial: 16
Acq On : 2 Nov 2001 10:35 Operator: GRH
Sample : BUW149ABK BLANK 11-02-01 Inst : Bubba
Misc : BUW149ABK BLANK 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 10:35
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747003.D
Name: BUW149ABK BLANK 11-02-01
Misc: BUW149ABK BLANK 11-02-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747003.D V82625B1.M Mon Nov 05 15:17:15 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

* = out of control limits

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128%	[ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123%	[ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125%	[ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122%	[ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127%	[ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134%	[ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140%	[ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204%	[ ]

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3030766	10.00	ug/L	0.00 101.28%
25) i-1,4-Difluorobenzene	9.06	114	3009380	10.00	ug/L	0.02 98.98%
46) i-Chlorobenzene-d5	15.31	117	2091671	10.00	ug/L	0.02 97.68%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1152357	10.00	ug/L	0.00 94.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1352471	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.32	98	2854139	10.01	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.81	95	1593244	10.02	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1282468	8.33	ug/L	99
3) Chloromethane	1.50	50	841618	8.57	ug/L	100
4) Vinyl chloride	1.59	62	988137	9.59	ug/L	100
5) Bromomethane	1.88	96	863225	9.27	ug/L	98
6) Chloroethane	1.98	64	591716	9.79	ug/L	98
7) Trichlorofluoromethane	2.22	101	1736743	10.30	ug/L	99
8) 1,1-Dichloroethene	2.77	96	983938	9.92	ug/L	99
9) Acetone	2.88	43	89233m	15.08	ug/L	93
10) Iodomethane	2.93	142	1176503	9.64	ug/L	100
11) Carbon disulfide	2.99	76	3331617	10.69	ug/L	100
12) Methylene chloride	3.41	84	783218	9.67	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1054555	9.59	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1124986	9.30	ug/L	98
15) 1,1-Dichloroethane	4.48	63	1810151	9.26	ug/L	98
16) Vinyl acetate	4.71	43	2191884m	14.79	ug/L	93
17) Isopropyl ether	4.72	45	3138972	10.21	ug/L	98
18) 2,2-Dichloropropane	5.60	77	1394782	9.62	ug/L	98
19) 2-Butanone	5.80	43	240087m	19.59	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	1032490	10.33	ug/L	98
21) Bromochloromethane	6.20	128	398181	10.13	ug/L	98
22) Chloroform	6.50	83	1905575	9.74	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1680725	10.28	ug/L	99
26)	Carbon tetrachloride	7.29	119	1464043	9.74	ug/L	98
27)	1,1-Dichloropropene	7.34	110	510645	10.46	ug/L	100
28)	Benzene	7.86	78	3218463	9.85	ug/L	100
29)	1,2-Dichloroethane	7.98	62	630118	9.65	ug/L	99
30)	Trichloroethene	9.58	95	1308563	9.94	ug/L	99
31)	1,2-Dichloropropane	10.08	63	1097792	10.05	ug/L	100
32)	Dibromomethane	10.35	93	473385	9.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.40	63	13641	0.76	ug/L	48
34)	Bromodichloromethane	10.81	83	1489475	9.86	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1149901	9.77	ug/L	99
37)	Toluene	12.46	92	2082205	9.90	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	711018	9.80	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	469944	9.65	ug/L	99
40)	Tetrachloroethene	13.57	166	1560711	10.27	ug/L	100
41)	1,3-Dichloropropane	13.70	76	934423	10.04	ug/L	99
42)	Dibromochloromethane	14.15	129	874543	9.85	ug/L	99
43)	1,2-Dibromoethane	14.27	107	594922	9.87	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	619957	18.09	ug/L	100
45)	2-Hexanone	14.02	43	387687	18.77	ug/L	96
47)	Chlorobenzene	15.37	112	2180885	9.93	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	992161	10.21	ug/L	100
50)	Ethylbenzene	15.72	106	1179030	9.94	ug/L	100
51)	m,p-Xylene	16.03	106	2938526	20.58	ug/L	98
52)	o-Xylene	17.09	106	1358012	10.22	ug/L	99
53)	Styrene	17.15	104	2105408	9.99	ug/L	98
54)	Bromoform	17.63	173	528781	10.32	ug/L	100
55)	Isopropylbenzene	18.35	105	4406503	10.33	ug/L	99
58)	Bromobenzene	19.20	156	1073392	10.03	ug/L	97
59)	1,1,2,2-Tetrachloroethane	19.57	83	714126	9.62	ug/L	100
60)	1,2,3-Trichloropropane	19.56	75	412855	10.13	ug/L	97
61)	n-Propylbenzene	19.83	120	1088289	10.39	ug/L	100
62)	2-Chlorotoluene	19.97	126	1011841	10.26	ug/L	100
63)	4-Chlorotoluene	20.36	91	3555470	10.32	ug/L	100
64)	1,3,5-Trimethylbenzene	20.51	105	3220819	10.04	ug/L	100
65)	tert-Butylbenzene	21.54	91	2091418	9.95	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2826904	10.04	ug/L	100
67)	sec-Butylbenzene	22.26	105	4818859	10.42	ug/L	100
68)	1,3-Dichlorobenzene	22.43	146	1959057	9.95	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3698577	10.63	ug/L	100
70)	1,4-Dichlorobenzene	22.74	146	1855007	9.88	ug/L	99

438

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

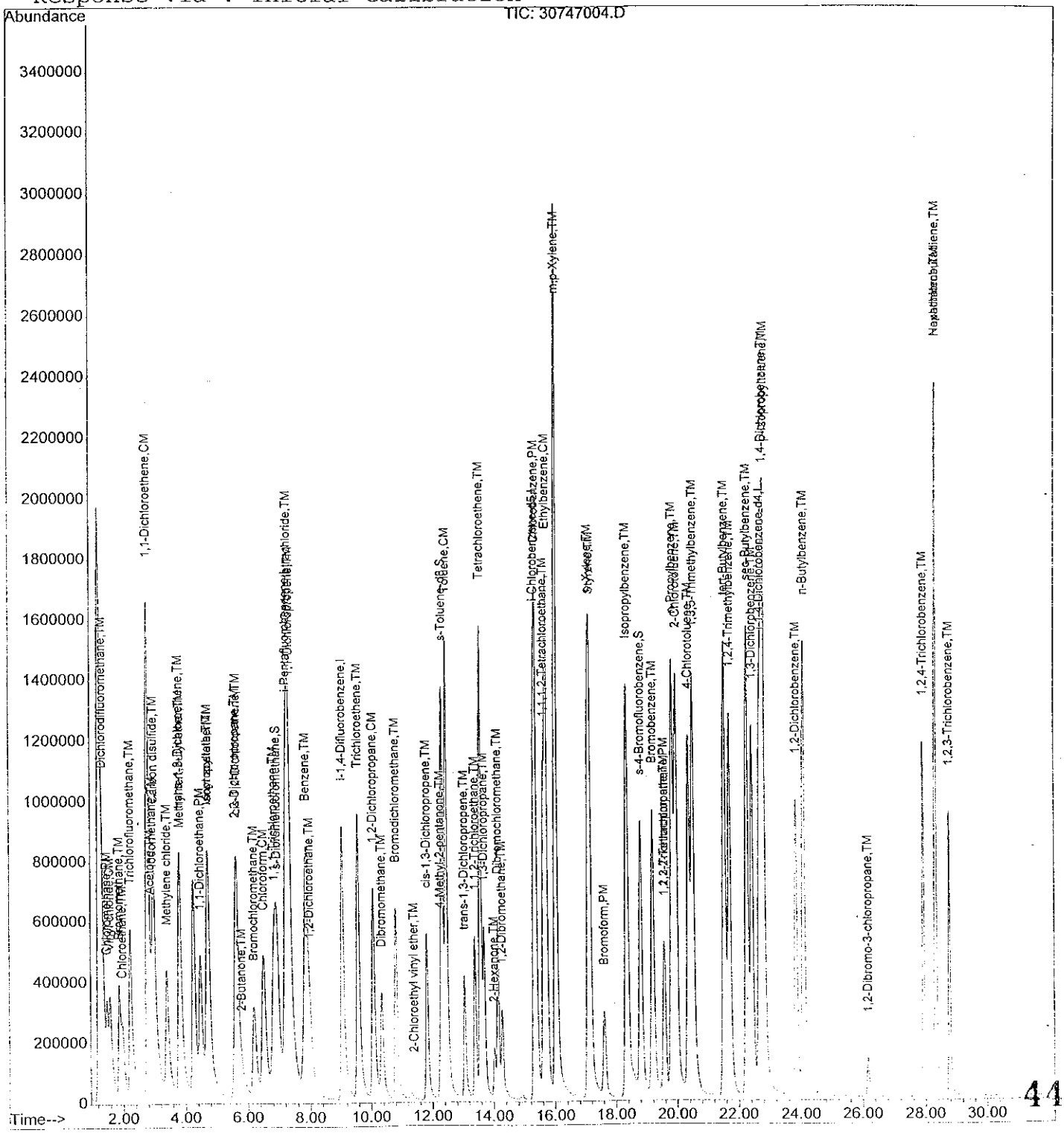
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.84	146	1544198	9.86	ug/L	99
72) n-Butylbenzene	24.08	91	3521895	10.93	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	103685	10.35	ug/L	95
74) 1,2,4-Trichlorobenzene	27.92	180	981039	11.16	ug/L	99
75) Hexachlorobutadiene	28.32	225	1067761	12.13	ug/L	98
76) Naphthalene	28.33	128	731684	10.91	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	715539	10.91	ug/L	100

(#) = qualifier out of range (m) = manual integration

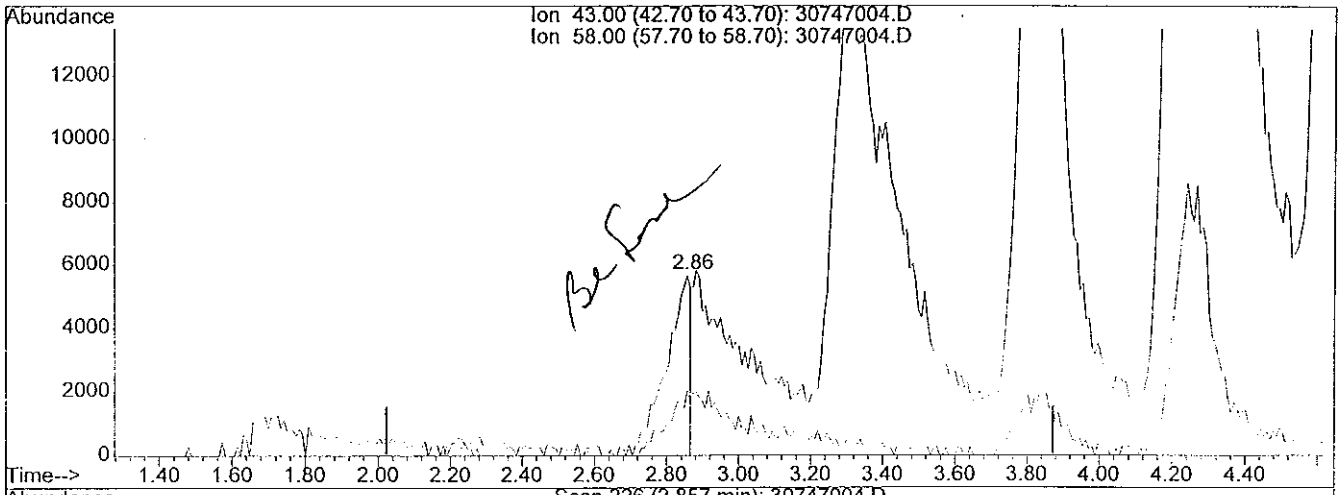
Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

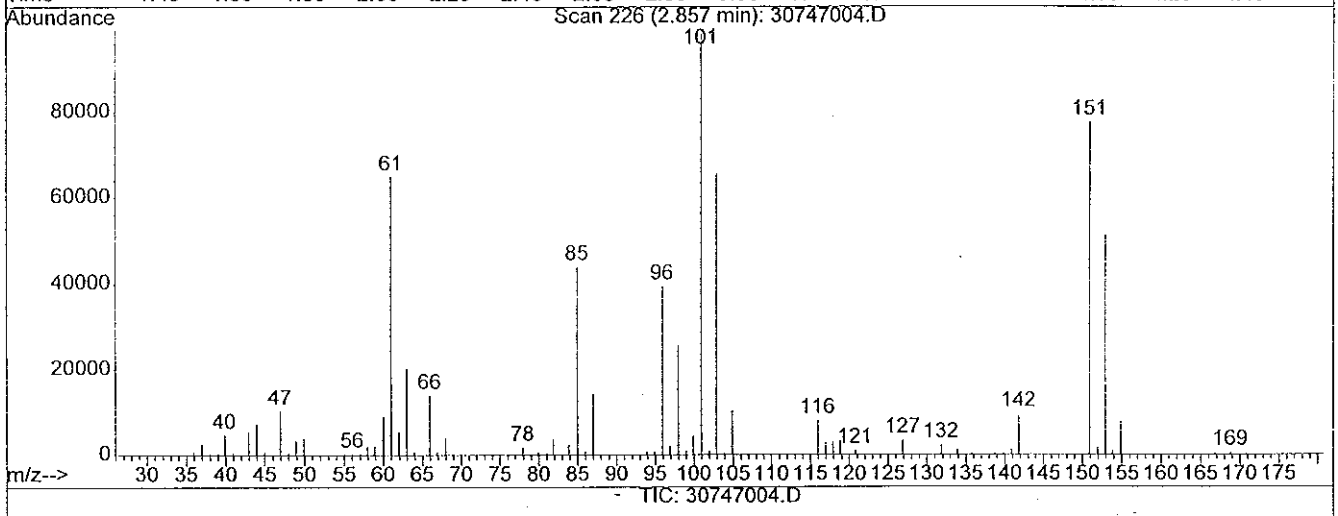
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(9) Acetone (TM)

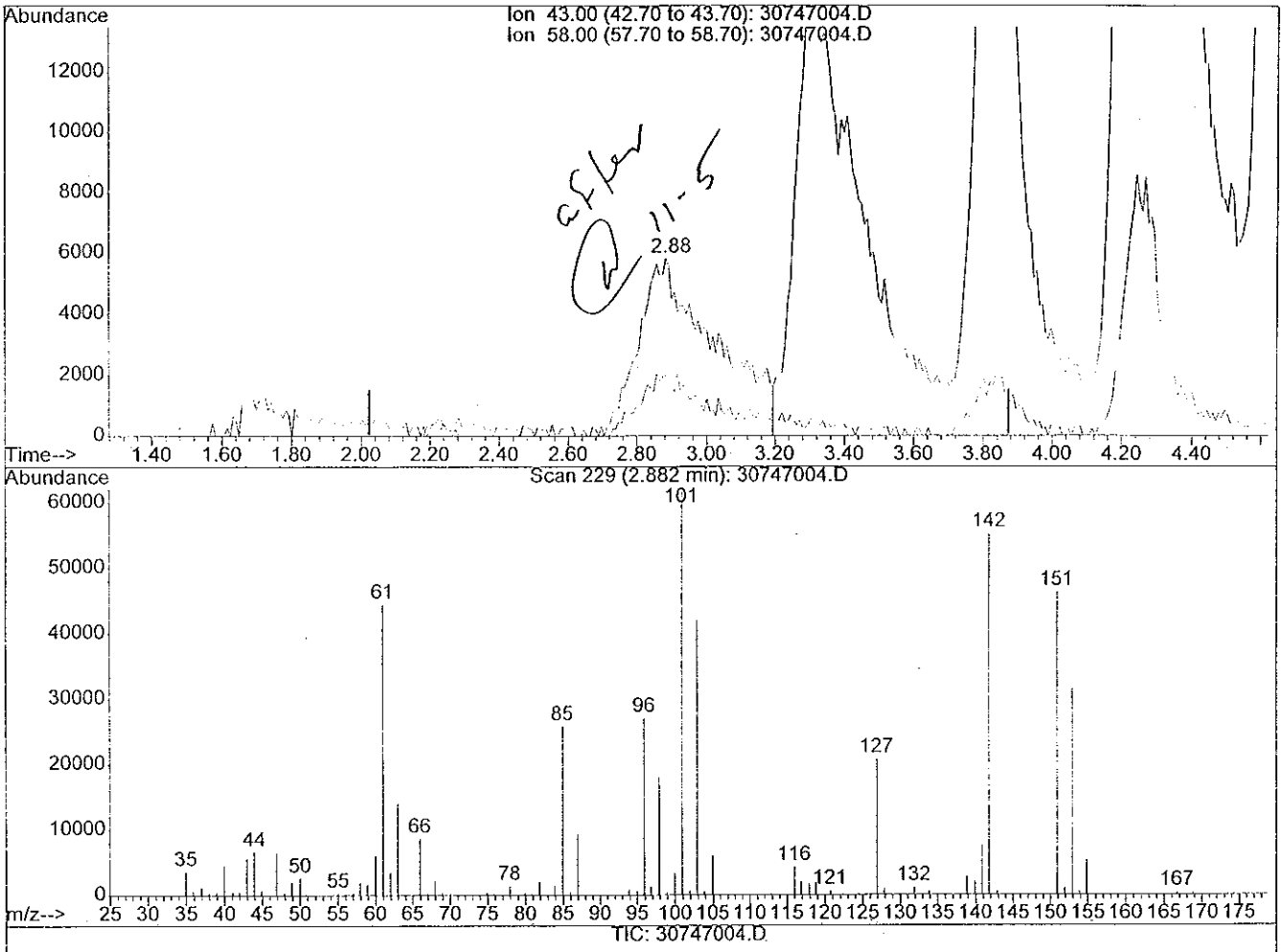
2.86min 4.41ug/L

response 26554

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.12
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

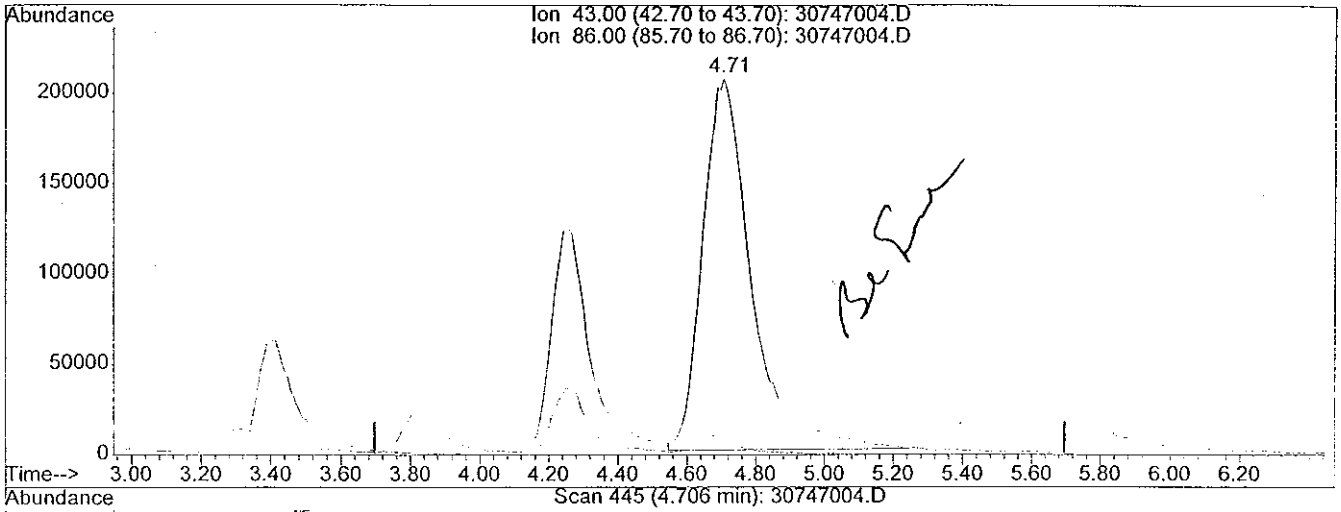
2.88min 15.08ug/L m

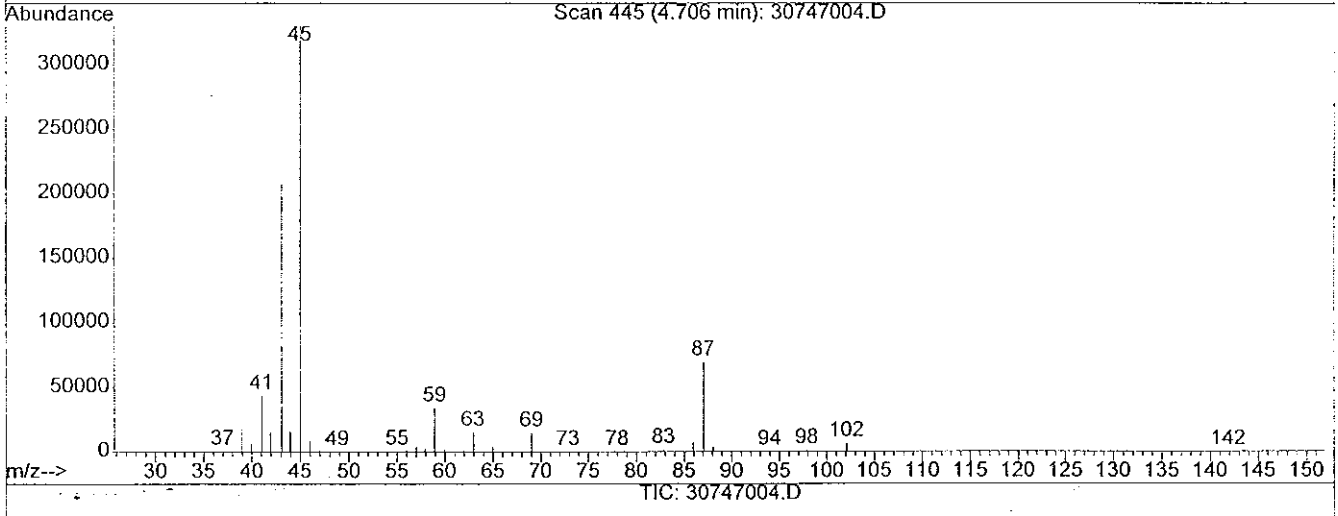
response 89233

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	34.38
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

4.71min 13.75ug/L

response 2037582

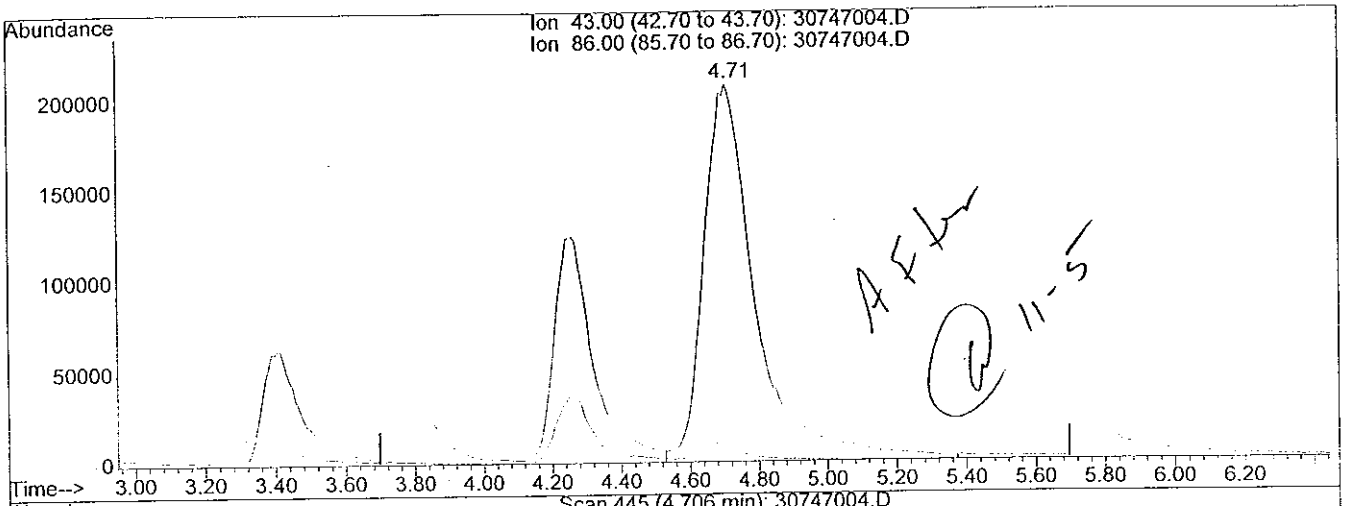
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.71
0.00	0.00	0.00
0.00	0.00	0.00

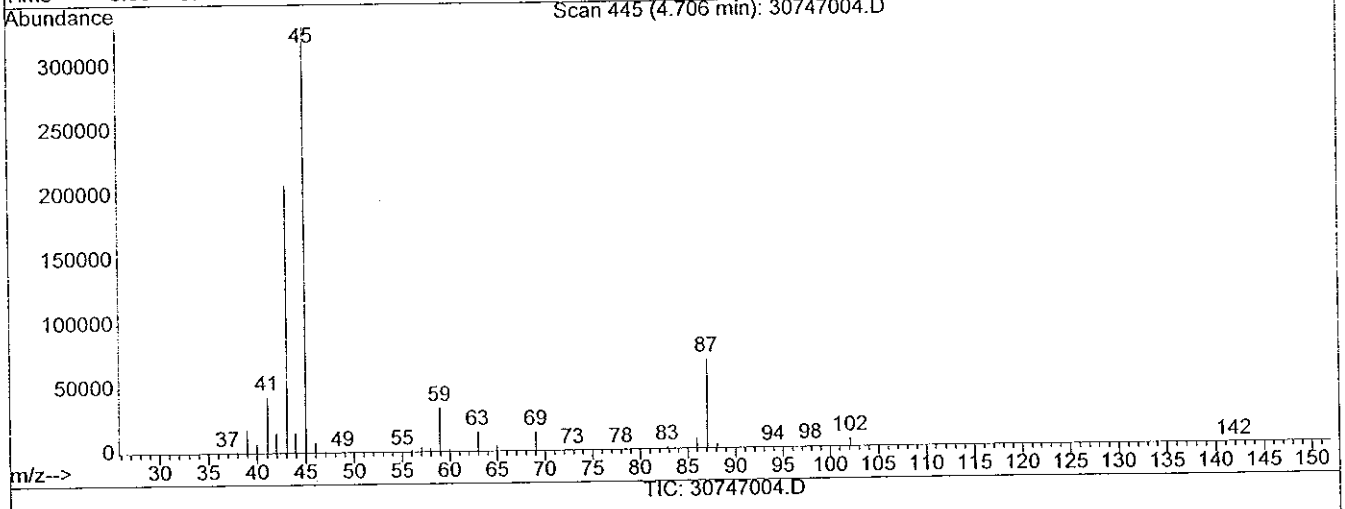
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

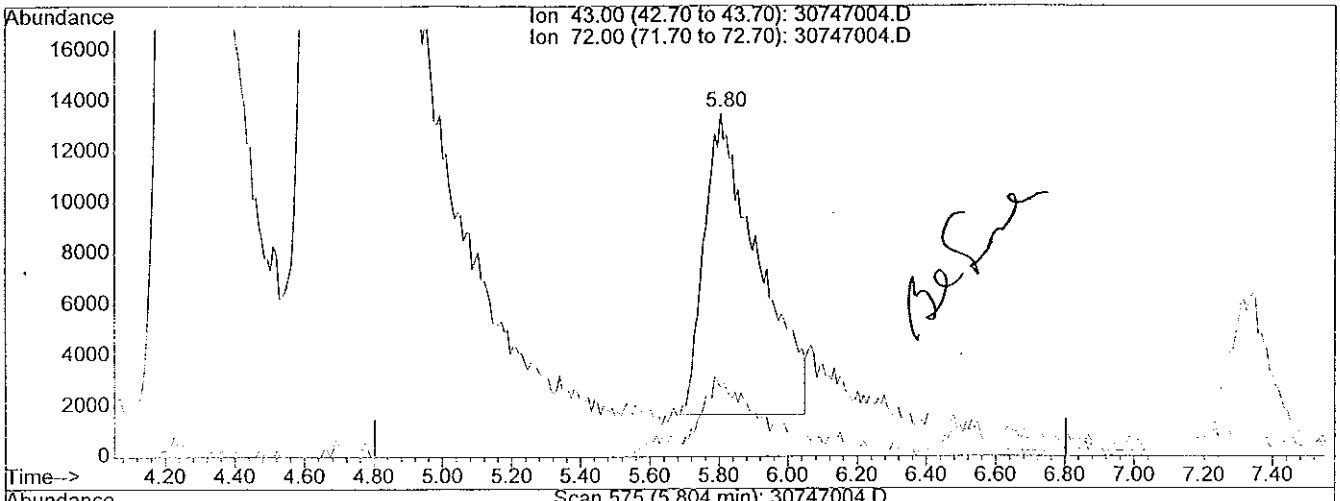
4.71min 14.79ug/L m

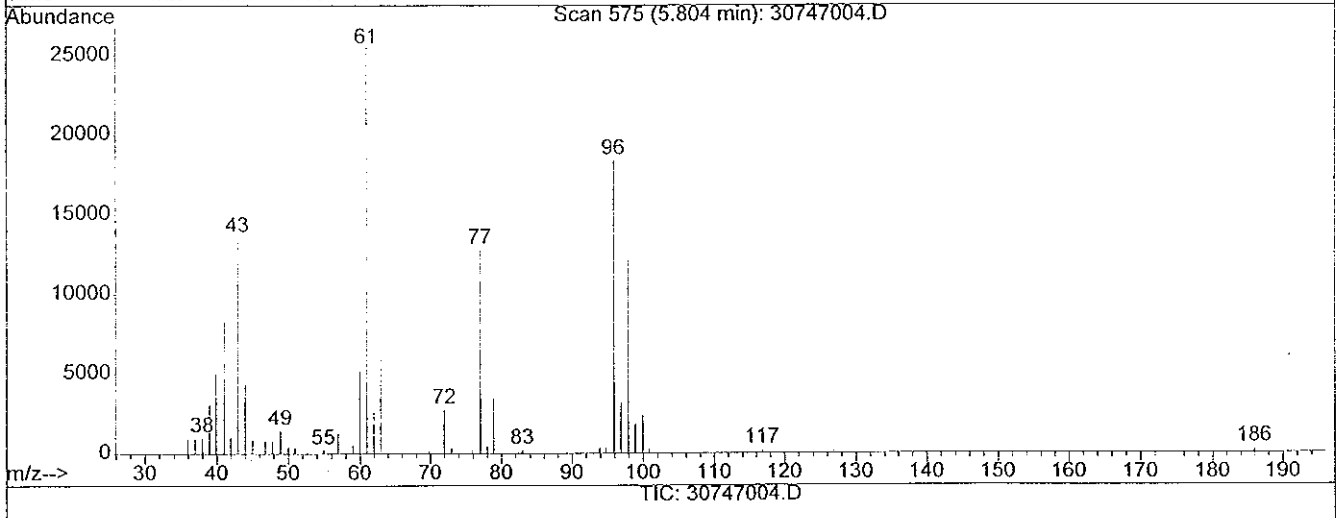
response 2191884

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.79
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

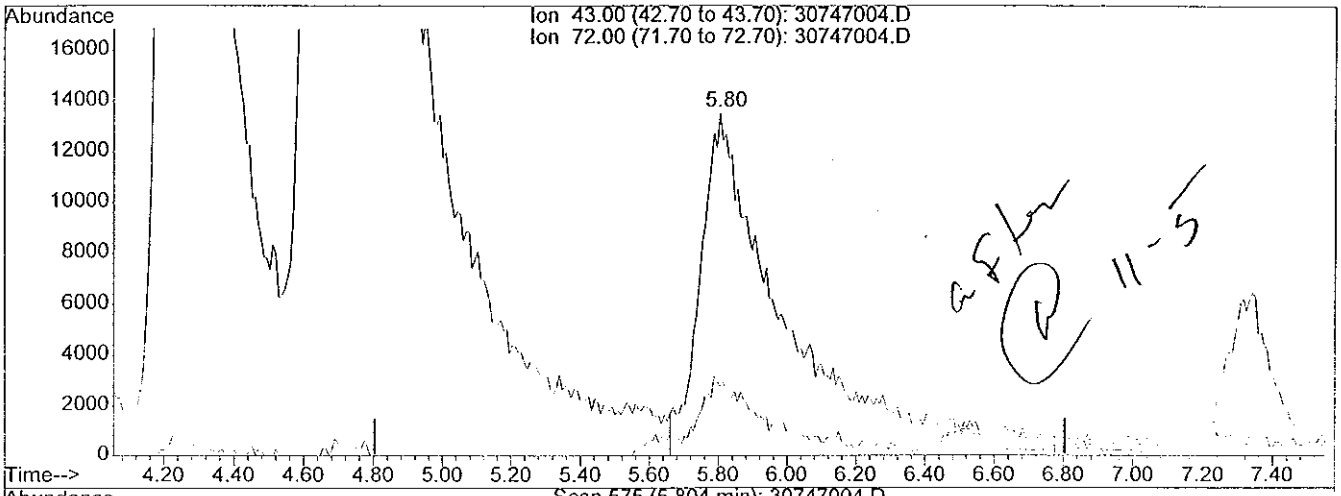
5.80min 10.44ug/L

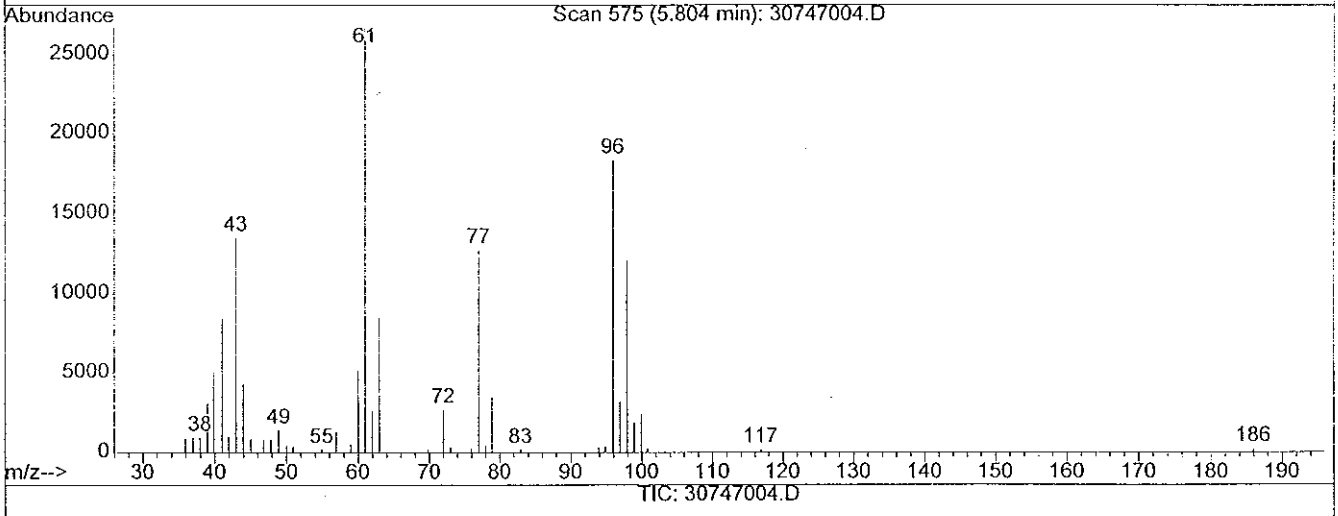
response 127926

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	17.55
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

5.80min 19.59ug/L m

response 240087

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.27
0.00	0.00	0.00
0.00	0.00	0.00

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	50	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	50	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	50	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	50	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	50	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	50	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	50	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	50	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	50	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	50	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	50	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	50	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	50	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	50	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	50	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	50	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	50	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	50	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	50	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	50	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	50	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	50	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	50	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	50	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	50	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	50	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	50	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	50	44.46	51.49	89	103	14.7	20	85-125
Tetrachloroet	0.0	50	48.51	47.23	97	94	2.7	13	87-131
1,3-Dichlorop	0.0	50	45.37	53.65	91	107	16.7	19	73-126

Dibromochloro	0.0	50	45.49	52.17	91	104	13.7	27	83-122
1,2-Dibromoet	0.0	50	44.37	51.97	89	104	15.8	26	36-153
4-Methyl-2-pe	0.0	100	76.76	103.04	77	103	29.2	35	64-133
2-Hexanone	0.0	100	81.06	105.10	81	105	25.8	36	49-144
Chlorobenzene	0.0	50	48.02	48.06	96	96	0.1	10	66-156
1,1,1,2-Tetra	0.0	50	48.01	49.75	96	100	3.6	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.87	45.93	96	92	4.1	14	78-132
m,p-Xylene	0.0	100	97.05	95.62	97	96	1.5	20	76-129
o-Xylene	0.0	50	48.73	48.61	97	97	0.2	13	76-127
Styrene	0.0	50	47.00	48.45	94	97	3.0	43	55-138
Bromoform	0.0	50	47.26	55.03	95	110	15.2	29	62-124
Isopropylbenz	0.0	50	49.89	47.34	100	95	5.2	20	65-149
Bromobenzene	0.0	50	47.88	48.05	96	96	0.4	14	73-140
1,1,2,2-Tetra	0.0	50	43.80	50.74	88	101	14.7	25	75-127
1,2,3-Trichlo	0.0	50	45.39	52.74	91	105	15.0	26	75-127
n-Propylbenze	0.0	50	51.13	46.79	102	94	8.9	16	76-123
2-Chlorotolue	0.0	50	49.64	46.31	99	93	6.9	15	85-122
4-Chlorotolue	0.0	50	50.37	48.23	101	96	4.3	13	87-122
1,3,5-Trimeth	0.0	50	48.51	45.41	97	91	6.6	25	72-140
tert-Butylben	0.0	50	48.30	44.28	97	89	8.7	16	73-113
1,2,4-Trimeth	0.0	50	50.52	47.25	101	94	6.7	30	50-158
sec-Butylbenz	0.0	50	50.66	46.32	101	93	8.9	18	62-144
1,3-Dichlorob	0.0	50	48.11	47.44	96	95	1.4	10	89-118
p-Isopropylto	0.0	50	51.94	48.33	104	97	7.2	22	35-190
1,4-Dichlorob	0.0	50	48.48	46.70	97	93	3.7	10	78-138
1,2-Dichlorob	0.0	50	47.18	49.06	94	98	3.9	12	86-120
n-Butylbenzen	0.0	50	53.21	50.54	106	101	5.2	40	0-270
1,2-Dibromo-3	0.0	50	45.16	54.85	90	110	19.4	33	71-118
1,2,4-Trichlo	0.0	50	53.27	56.92	107	114	6.6	32	30-230
Hexachlorobut	0.0	50	60.38	54.77	121	110	9.7	18	70-156
Naphthalene	0.0	50	50.56	59.78	101	120	16.7	42	17-260
1,2,3-Trichlo	0.0	50	51.73	57.72	103	115	11.0	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	36.20	ug/L	99
3) Chloromethane	1.50	50	808429	40.36	ug/L	100
4) Vinyl chloride	1.59	62	898505	42.72	ug/L	99
5) Bromomethane	1.88	96	845473	44.48	ug/L	99
6) Chloroethane	1.98	64	550544	44.66	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	45.46	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	46.34	ug/L	98
9) Acetone	2.86	43	92468m	76.57	ug/L	92
10) Iodomethane	2.93	142	1102043	44.26	ug/L	100
11) Carbon disulfide	2.99	76	3130247	49.22	ug/L	100
12) Methylene chloride	3.41	84	742882	44.96	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	45.13	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	41.26	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	43.61	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	66.64	ug/L	94
17) Isopropyl ether	4.72	45	2898382	46.18	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	43.89	ug/L	98
19) 2-Butanone	5.79	43	262444m	104.94	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	80.17	ug/L	93
21) Bromochloromethane	6.19	128	372269	46.41	ug/L	97
22) Chloroform	6.49	83	1824238	45.70	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1595711	47.86	ug/L	99
26)	Carbon tetrachloride	7.27	119	1369481	45.07	ug/L	98
27)	1,1-Dichloropropene	7.32	110	484547	48.98	ug/L	100
28)	Benzene	7.86	78	3099834	46.95	ug/L	100
29)	1,2-Dichloroethane	7.97	62	568894	43.11	ug/L	99
30)	Trichloroethene	9.56	95	1428605	53.69	ug/L	98
31)	1,2-Dichloropropane	10.06	63	1053193	47.71	ug/L	100
32)	Dibromomethane	10.33	93	430433	43.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.39	63	12666	3.47	ug/L	48
34)	Bromodichloromethane	10.80	83	1383436	45.29	ug/L	98
35)	cis-1,3-Dichloropropene	11.80	75	1070618	45.03	ug/L	98
37)	Toluene	12.44	92	1999709	47.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.03	75	645661	44.04	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	437882	44.46	ug/L	99
40)	Tetrachloroethene	13.57	166	1490678	48.51	ug/L	100
41)	1,3-Dichloropropane	13.68	76	853619	45.37	ug/L	99
42)	Dibromochloromethane	14.13	129	816167	45.49	ug/L	99
43)	1,2-Dibromoethane	14.27	107	540747	44.37	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	531665	76.76	ug/L	100
45)	2-Hexanone	14.00	43	338312	81.06	ug/L	97
47)	Chlorobenzene	15.36	112	2095861	48.02	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	927285	48.01	ug/L	99
50)	Ethylbenzene	15.70	106	1128271	47.87	ug/L	100
51)	m,p-Xylene	16.01	106	2753749	97.05	ug/L	98
52)	o-Xylene	17.08	106	1286050	48.73	ug/L	99
53)	Styrene	17.15	104	1967872	47.00	ug/L	99
54)	Bromoform	17.61	173	480947	47.26	ug/L	99
55)	Isopropylbenzene	18.35	105	4229958	49.89	ug/L	100
58)	Bromobenzene	19.19	156	1005303	47.88	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	638170	43.80	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	363503	45.39	ug/L	97
61)	n-Propylbenzene	19.83	120	1050715	51.13	ug/L	100
62)	2-Chlorotoluene	19.96	126	961010	49.64	ug/L	100
63)	4-Chlorotoluene	20.36	91	3406043	50.37	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3054092	48.51	ug/L	100
65)	tert-Butylbenzene	21.53	91	1993355	48.30	ug/L	99
66)	1,2,4-Trimethylbenzene	21.70	105	2790588	50.52	ug/L	99
67)	sec-Butylbenzene	22.26	105	4596634	50.66	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1859484	48.11	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3548456	51.94	ug/L	99
70)	1,4-Dichlorobenzene	22.74	146	1787390	48.48	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00

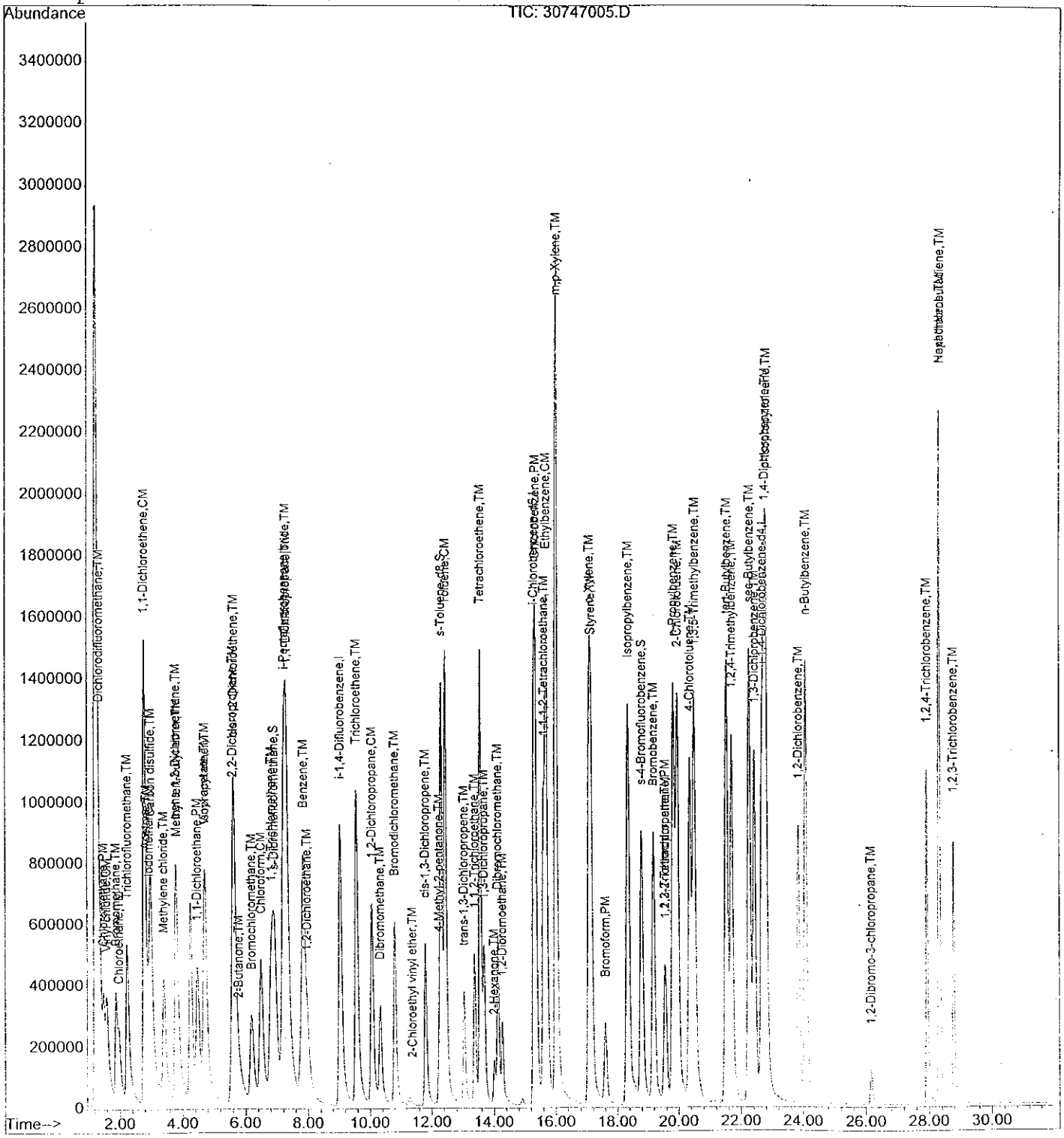
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1450779	47.18	ug/L	99
72) n-Butylbenzene	24.08	91	3366620	53.21	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	88830	45.16	ug/L	97
74) 1,2,4-Trichlorobenzene	27.93	180	919629	53.27	ug/L	97
75) Hexachlorobutadiene	28.33	225	1043138	60.38	ug/L	98
76) Naphthalene	28.34	128	665728	50.56	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	665661	51.73	ug/L	100

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	7.24	ug/L	99
3) Chloromethane	1.50	50	808429	8.07	ug/L	100
4) Vinyl chloride	1.59	62	898505	8.54	ug/L	99
5) Bromomethane	1.88	96	845473	8.90	ug/L	99
6) Chloroethane	1.98	64	550544	8.93	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	9.09	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	9.27	ug/L	98
9) Acetone	2.86	43	92468m	15.31	ug/L	92
10) Iodomethane	2.93	142	1102043	8.85	ug/L	100
11) Carbon disulfide	2.99	76	3130247	9.84	ug/L	100
12) Methylene chloride	3.41	84	742882	8.99	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	9.03	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	8.25	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	8.72	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	13.33	ug/L	94
17) Isopropyl ether	4.72	45	2898382	9.24	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	8.78	ug/L	98
19) 2-Butanone	5.79	43	262444m	20.99	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	16.03	ug/L	93
21) Bromochloromethane	6.19	128	372269	9.28	ug/L	97
22) Chloroform	6.49	83	1824238	9.14	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1595711	9.57	ug/L	99
26)	Carbon tetrachloride	7.27	119	1369481	9.01	ug/L	98
27)	1,1-Dichloropropene	7.32	110	484547	9.80	ug/L	100
28)	Benzene	7.86	78	3099834	9.39	ug/L	100
29)	1,2-Dichloroethane	7.97	62	568894	8.62	ug/L	99
30)	Trichloroethene	9.56	95	1428605	10.74	ug/L	98
31)	1,2-Dichloropropane	10.06	63	1053193	9.54	ug/L	100
32)	Dibromomethane	10.33	93	430433	8.74	ug/L	98
33)	2-Chloroethyl vinyl ether	11.39	63	12666	0.69	ug/L	48
34)	Bromodichloromethane	10.80	83	1383436	9.06	ug/L	98
35)	cis-1,3-Dichloropropene	11.80	75	1070618	9.01	ug/L	98
37)	Toluene	12.44	92	1999709	9.41	ug/L	100
38)	trans-1,3-Dichloropropene	13.03	75	645661	8.81	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	437882	8.89	ug/L	99
40)	Tetrachloroethene	13.57	166	1490678	9.70	ug/L	100
41)	1,3-Dichloropropane	13.68	76	853619	9.07	ug/L	99
42)	Dibromochloromethane	14.13	129	816167	9.10	ug/L	99
43)	1,2-Dibromoethane	14.27	107	540747	8.87	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	531665	15.35	ug/L	100
45)	2-Hexanone	14.00	43	338312	16.21	ug/L	97
47)	Chlorobenzene	15.36	112	2095861	9.60	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	927285	9.60	ug/L	99
50)	Ethylbenzene	15.70	106	1128271	9.57	ug/L	100
51)	m,p-Xylene	16.01	106	2753749	19.41	ug/L	98
52)	o-Xylene	17.08	106	1286050	9.75	ug/L	99
53)	Styrene	17.15	104	1967872	9.40	ug/L	99
54)	Bromoform	17.61	173	480947	9.45	ug/L	99
55)	Isopropylbenzene	18.35	105	4229958	9.98	ug/L	100
58)	Bromobenzene	19.19	156	1005303	9.58	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	638170	8.76	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	363503	9.08	ug/L	97
61)	n-Propylbenzene	19.83	120	1050715	10.23	ug/L	100
62)	2-Chlorotoluene	19.96	126	961010	9.93	ug/L	100
63)	4-Chlorotoluene	20.36	91	3406043	10.07	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3054092	9.70	ug/L	100
65)	tert-Butylbenzene	21.53	91	1993355	9.66	ug/L	99
66)	1,2,4-Trimethylbenzene	21.70	105	2790588	10.10	ug/L	99
67)	sec-Butylbenzene	22.26	105	4596634	10.13	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1859484	9.62	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3548456	10.39	ug/L	99
70)	1,4-Dichlorobenzene	22.74	146	1787390	9.70	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

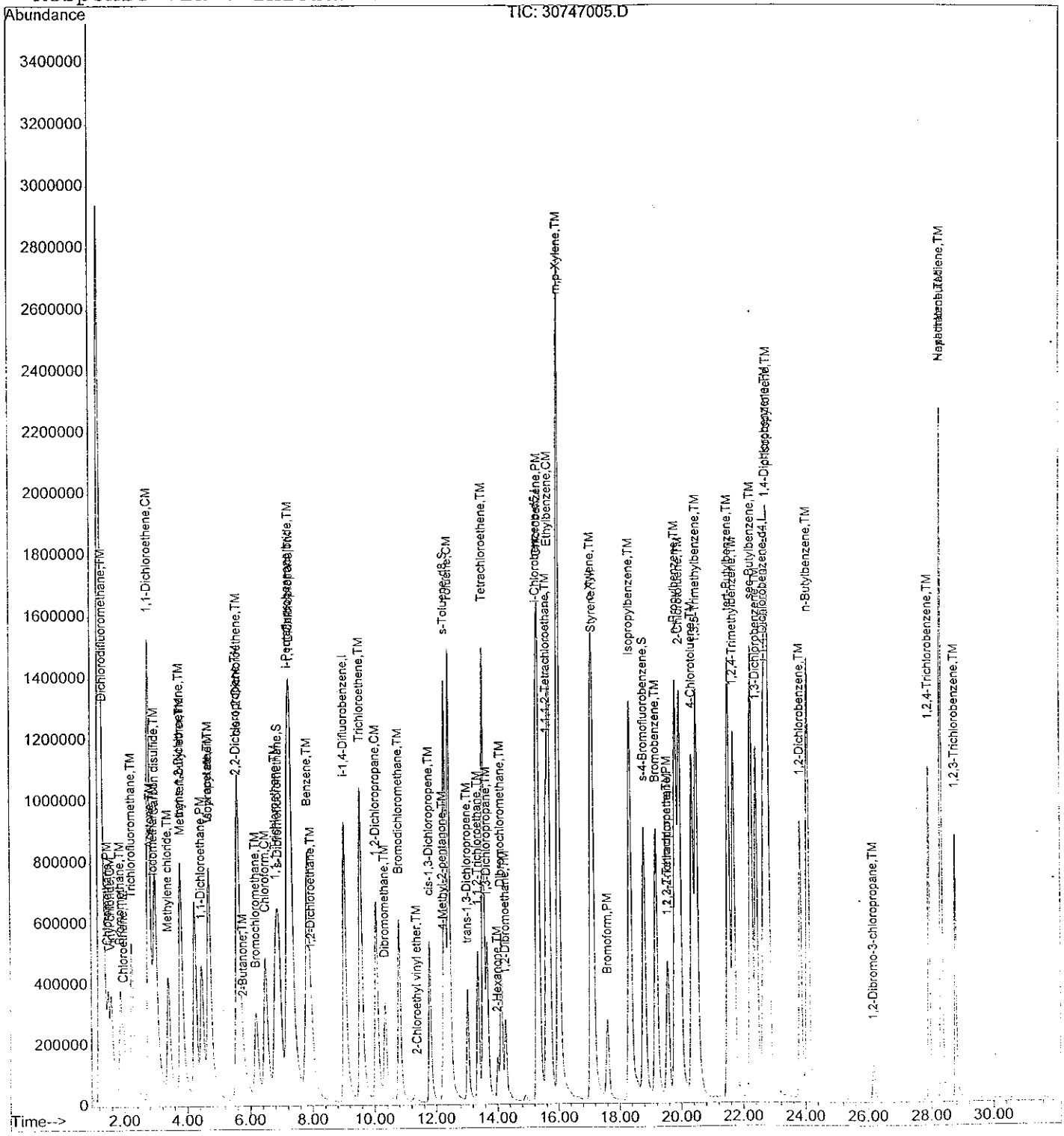
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1450779	9.44	ug/L	99
72)	n-Butylbenzene	24.08	91	3366620	10.64	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	88830	9.03	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	919629	10.65	ug/L	97
75)	Hexachlorobutadiene	28.33	225	1043138	12.08	ug/L	98
76)	Naphthalene	28.34	128	665728	10.11	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	665661	10.35	ug/L	100

(#) = qualifier out of range (m) = manual integration
30747005.D V82625B1.M Fri Nov 02 13:59:16 2001 Page 3

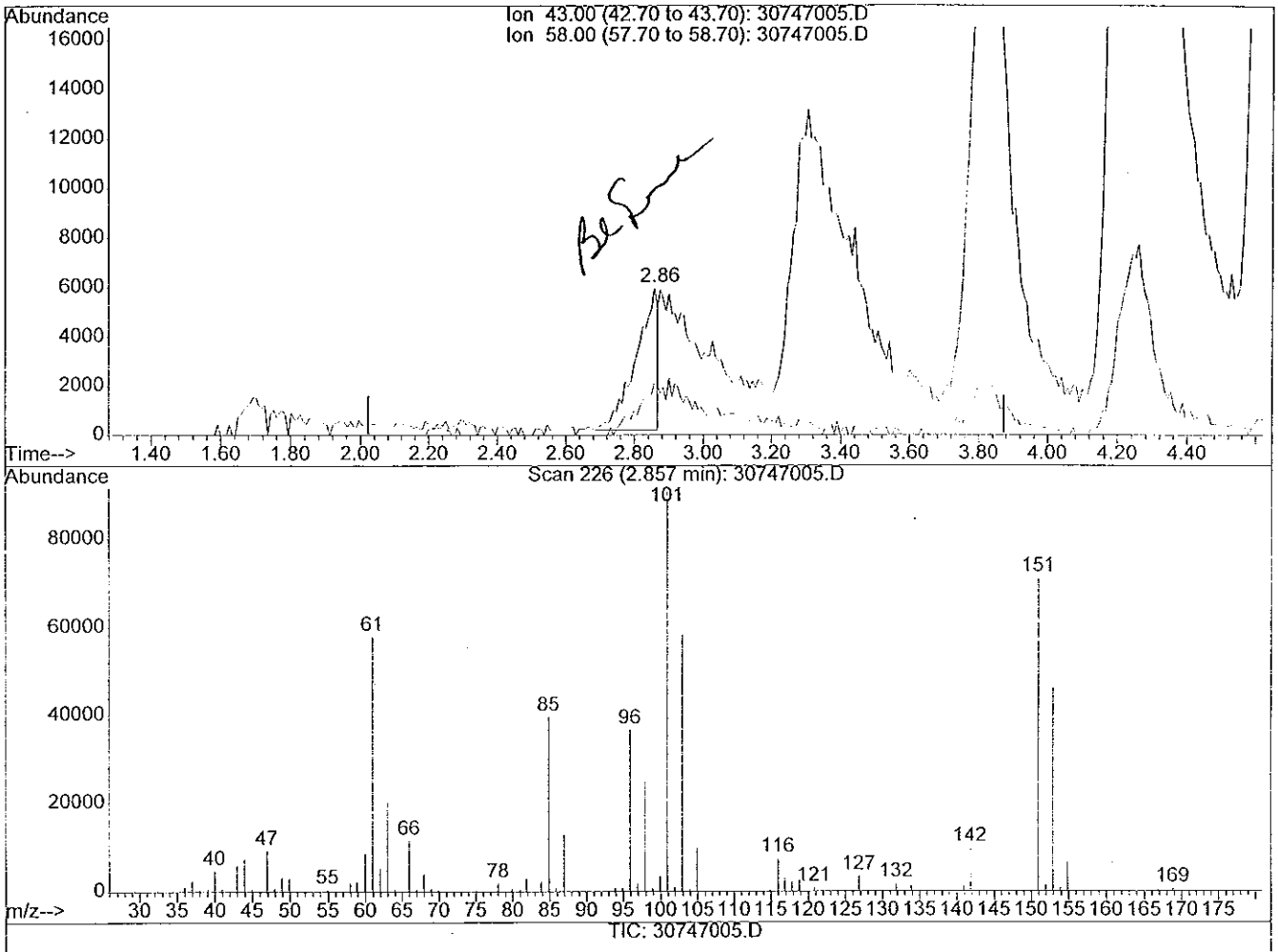
Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

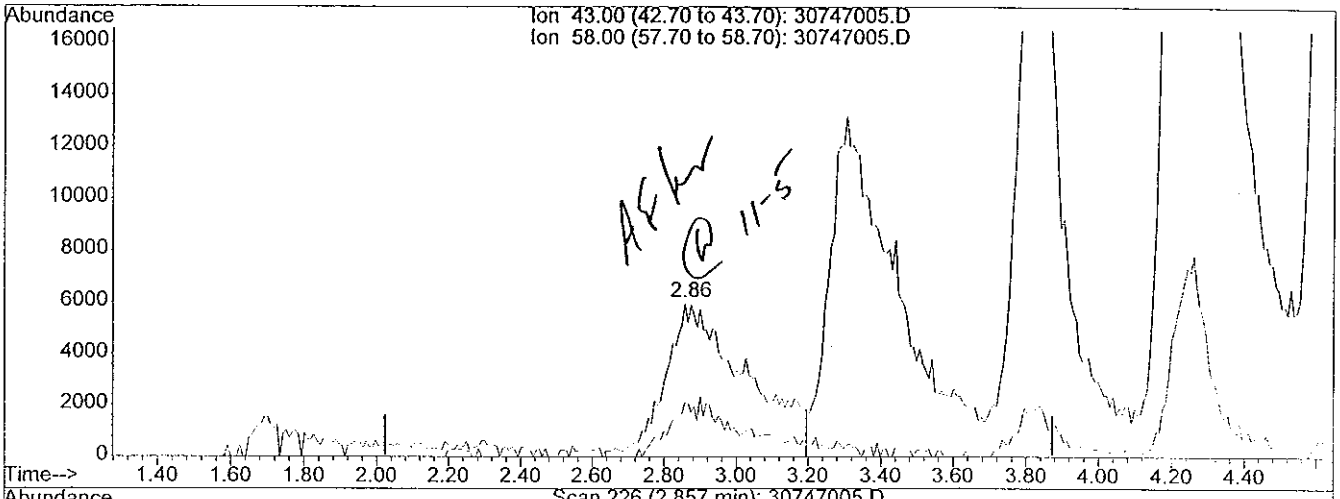
2.86min 4.01ug/L

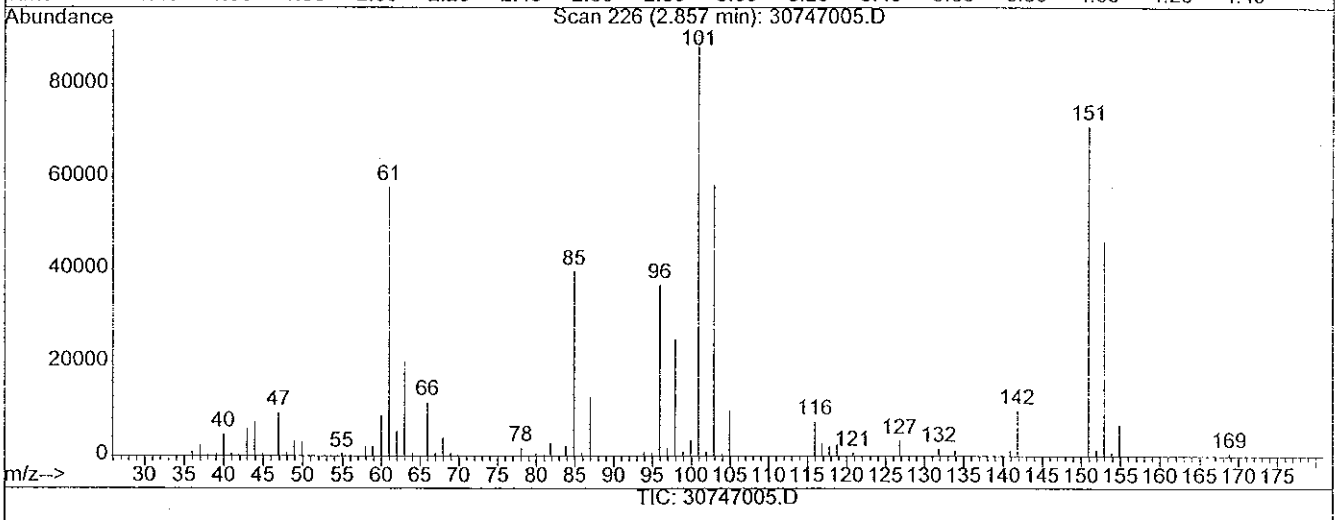
response 24690

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.69
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(9) Acetone (TM)

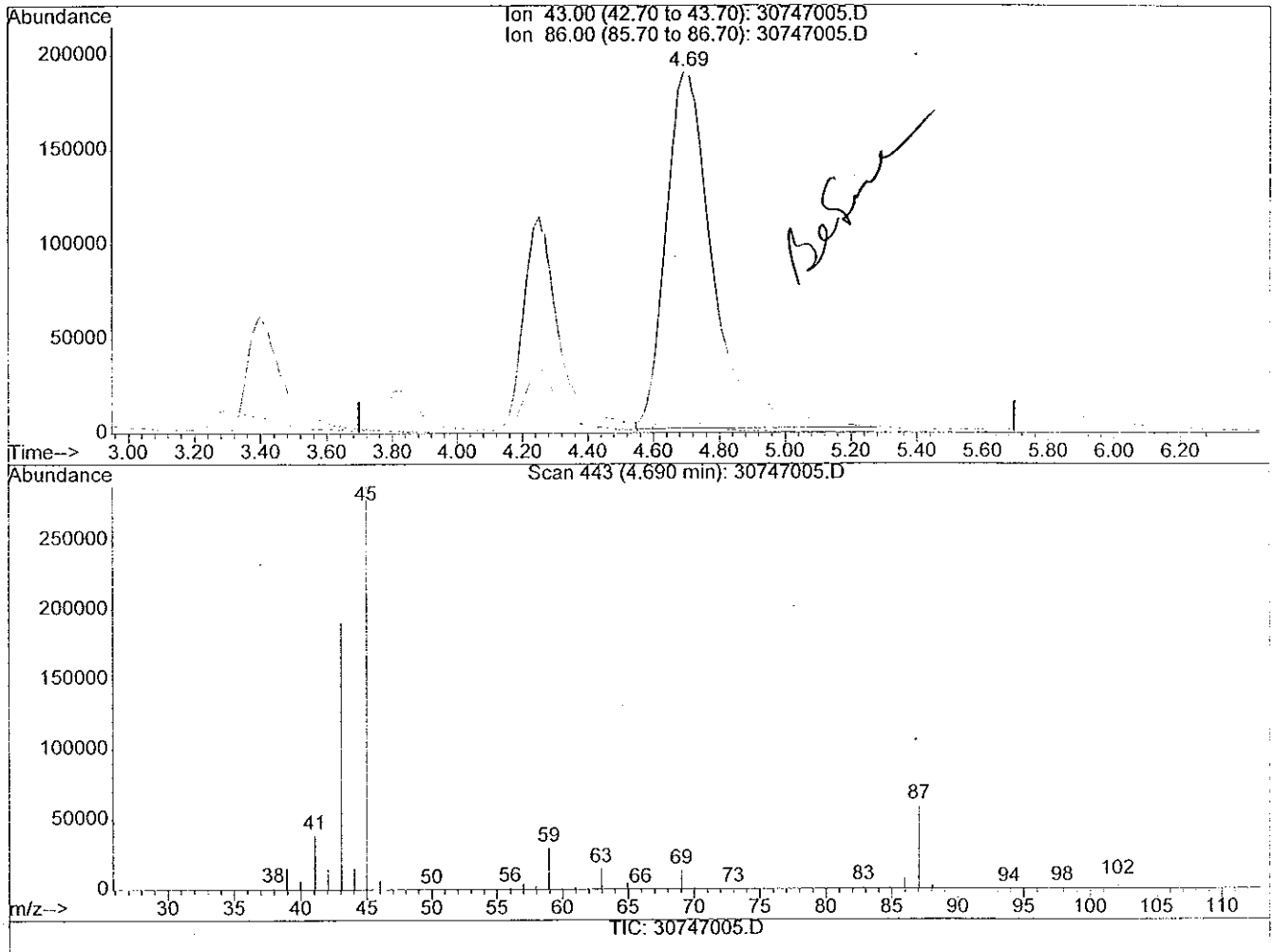
2.86min 15.31ug/L m

response 92468

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	35.40
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747005.D

(16) Vinyl acetate (TM)

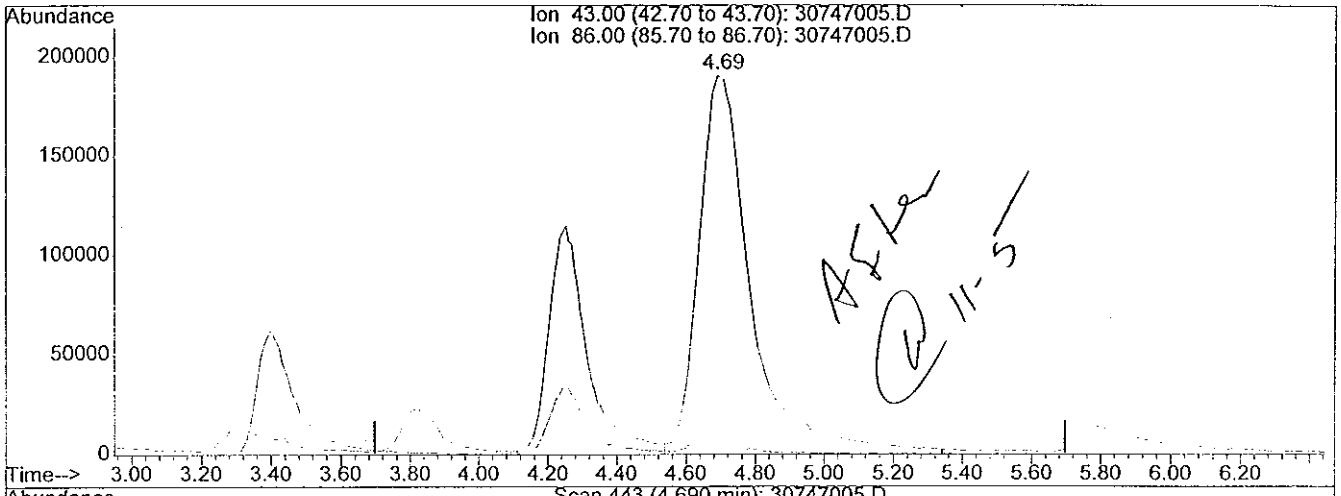
4.69min 12.50ug/L

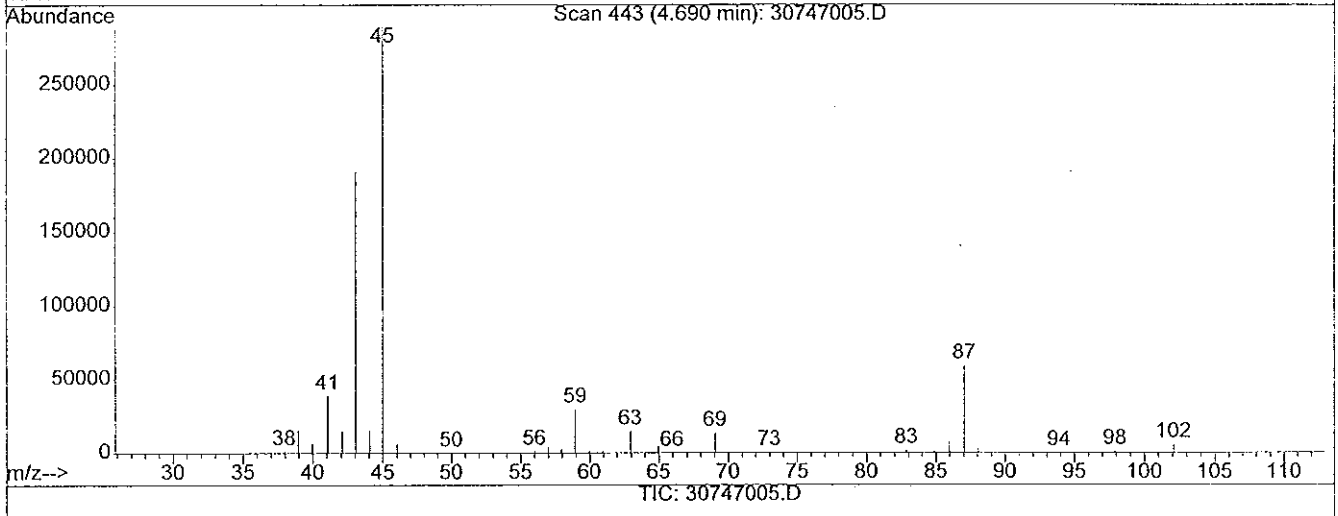
response 1889227

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.12
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(16) Vinyl acetate (TM)

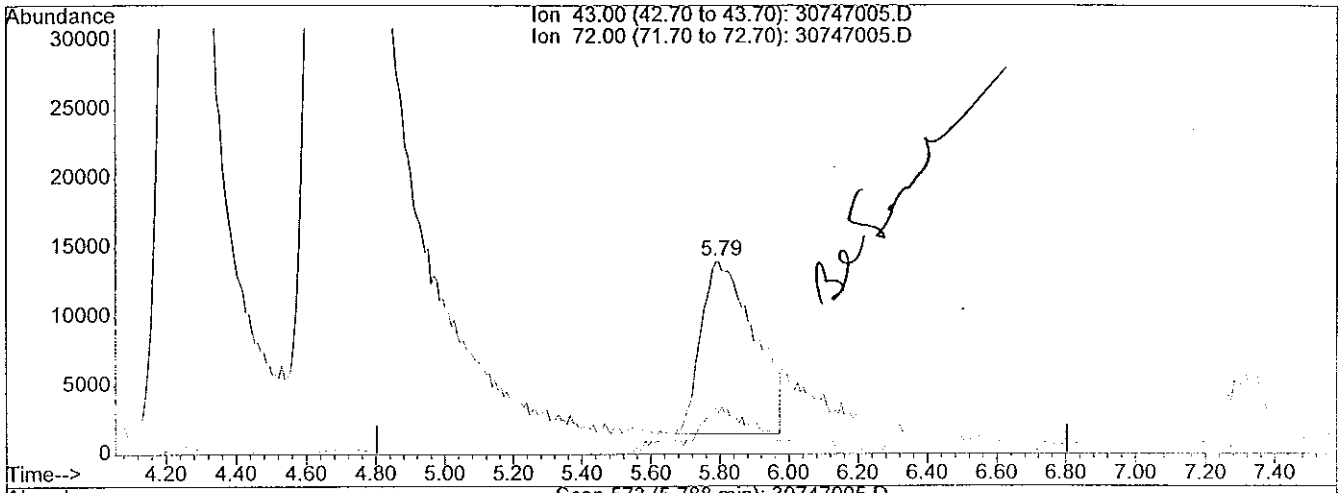
4.69min 13.33ug/L m

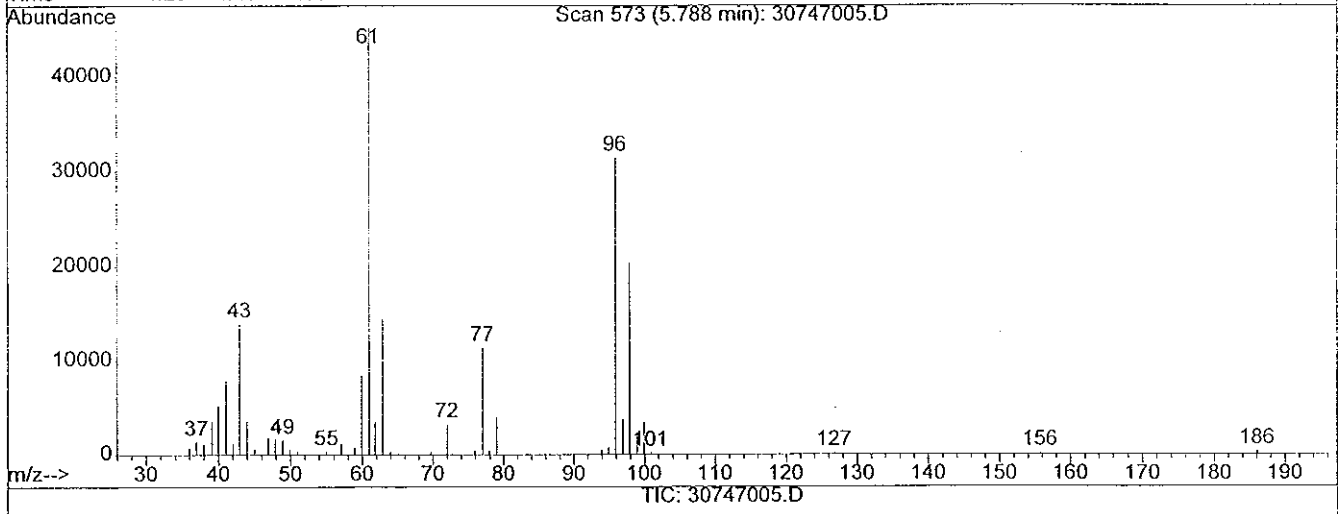
response 2014827

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.06
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(19) 2-Butanone (TM)

5.79min 10.80ug/L

response 135036

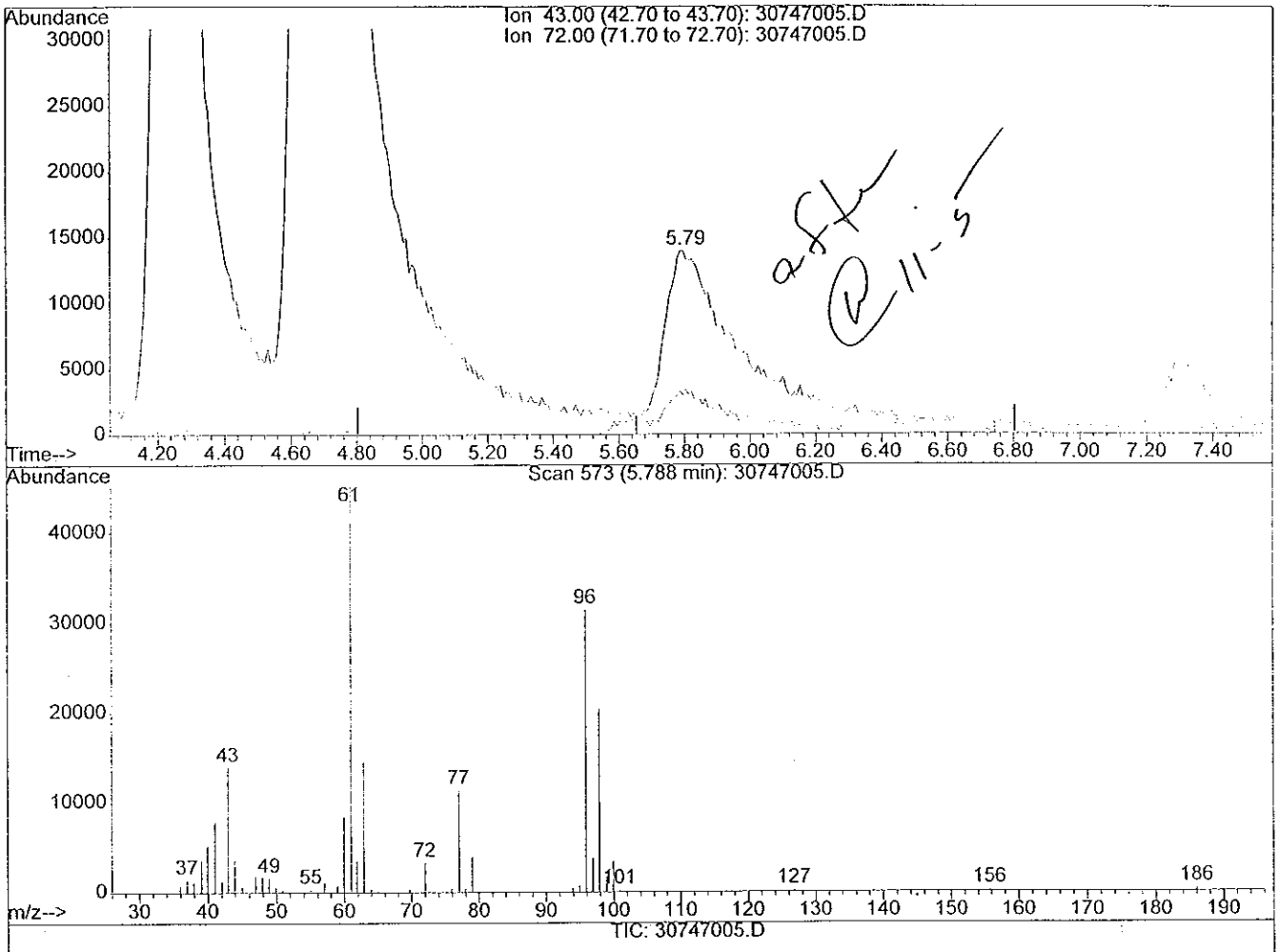
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.75
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747005.D

(19) 2-Butanone (TM)

5.79min 20.99ug/L m

response 262444

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.62
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	35.28	ug/L	99
3) Chloromethane	1.50	50	847802	41.72	ug/L	98
4) Vinyl chloride	1.59	62	919226	43.08	ug/L	99
5) Bromomethane	1.88	96	837518	43.44	ug/L	98
6) Chloroethane	1.98	64	563679	45.08	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	44.65	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	46.21	ug/L	99
9) Acetone	2.88	43	111536m	91.15	ug/L	91
10) Iodomethane	2.93	142	1145433	45.34	ug/L	100
11) Carbon disulfide	2.99	76	3185450	49.38	ug/L	100
12) Methylene chloride	3.40	84	826647	49.32	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	45.48	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	52.95	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	44.03	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	79.33	ug/L	96
17) Isopropyl ether	4.72	45	3419126	53.71	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	43.31	ug/L	98
19) 2-Butanone	5.81	43	340951m	134.39	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	84.73	ug/L	96
21) Bromochloromethane	6.21	128	416179	51.15	ug/L	99
22) Chloroform	6.50	83	1954022	48.26	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	48.01	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	43.98	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	47.60	ug/L	100
28)	Benzene	7.87	78	3237186	47.23	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	48.55	ug/L	99
30)	Trichloroethene	9.59	95	1477525	53.49	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	50.32	ug/L	99
32)	Dibromomethane	10.35	93	528751	51.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	1.96	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	49.83	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	49.90	ug/L	98
37)	Toluene	12.47	92	2048291	46.41	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	51.49	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	51.49	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	47.23	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	53.65	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	52.17	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	51.97	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	103.04	ug/L	98
45)	2-Hexanone	14.03	43	455354	105.10	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	48.06	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	49.75	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	45.93	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	95.62	ug/L	97
52)	o-Xylene	17.09	106	1386888	48.61	ug/L	99
53)	Styrene	17.16	104	2192457	48.45	ug/L	97
54)	Bromoform	17.62	173	605296	55.03	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	47.34	ug/L	100
58)	Bromobenzene	19.21	156	1135299	48.05	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	50.74	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	52.74	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	46.79	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	46.31	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	48.23	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	45.41	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	44.28	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	47.25	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	46.32	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	47.44	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	48.33	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	46.70	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

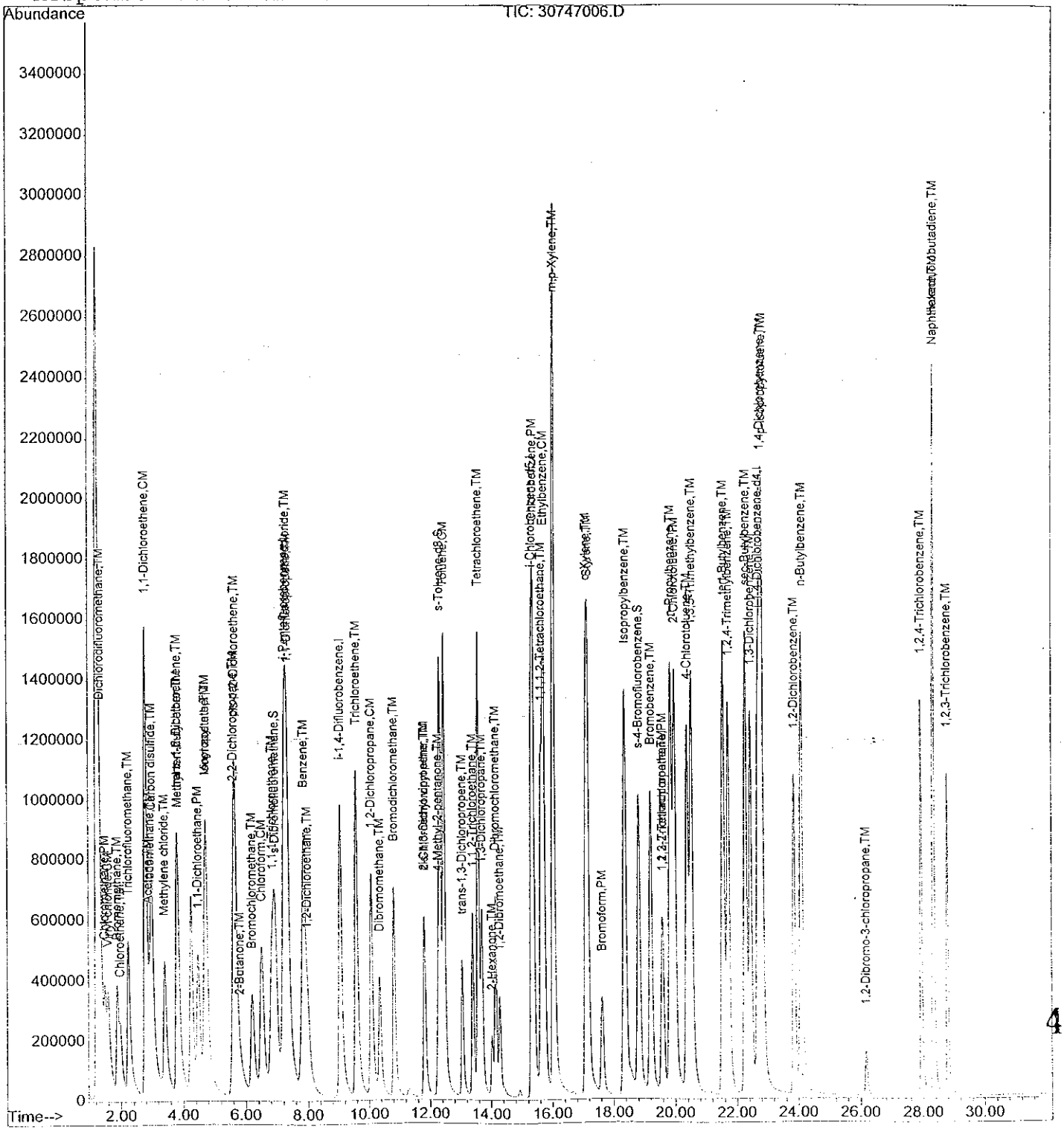
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1697184	49.06	ug/L	100
72)	n-Butylbenzene	24.10	91	3597663	50.54	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	121389	54.85	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1105521	56.92	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1067782	54.77	ug/L	99
76)	Naphthalene	28.34	128	885573	59.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	835794	57.72	ug/L	98

(#) = qualifier out of range (m) = manual integration
30747006.D V82625B1.M Mon Nov 05 09:50:16 2001 Page 3

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	7.06	ug/L	99
3) Chloromethane	1.50	50	847802	8.34	ug/L	98
4) Vinyl chloride	1.59	62	919226	8.62	ug/L	99
5) Bromomethane	1.88	96	837518	8.69	ug/L	98
6) Chloroethane	1.98	64	563679	9.02	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	8.93	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	9.24	ug/L	99
9) Acetone	2.88	43	111536m	18.23	ug/L	91
10) Iodomethane	2.93	142	1145433	9.07	ug/L	100
11) Carbon disulfide	2.99	76	3185450	9.88	ug/L	100
12) Methylene chloride	3.40	84	826647	9.86	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	9.10	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	10.59	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	8.81	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	15.87	ug/L	96
17) Isopropyl ether	4.72	45	3419126	10.74	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	8.66	ug/L	98
19) 2-Butanone	5.81	43	340951m	26.88	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	16.95	ug/L	96
21) Bromochloromethane	6.21	128	416179	10.23	ug/L	99
22) Chloroform	6.50	83	1954022	9.65	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	9.60	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	8.80	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	9.52	ug/L	100
28)	Benzene	7.87	78	3237186	9.45	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	9.71	ug/L	99
30)	Trichloroethene	9.59	95	1477525	10.70	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	10.06	ug/L	99
32)	Dibromomethane	10.35	93	528751	10.34	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	0.39	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	9.97	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	9.98	ug/L	98
37)	Toluene	12.47	92	2048291	9.28	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	10.30	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	10.30	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	9.45	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	10.73	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	10.43	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	10.39	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	20.61	ug/L	98
45)	2-Hexanone	14.03	43	455354	21.02	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	9.61	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	9.95	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	9.19	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	19.12	ug/L	97
52)	o-Xylene	17.09	106	1386888	9.72	ug/L	99
53)	Styrene	17.16	104	2192457	9.69	ug/L	97
54)	Bromoform	17.62	173	605296	11.01	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	9.47	ug/L	100
58)	Bromobenzene	19.21	156	1135299	9.61	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	10.15	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	10.55	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	9.36	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	9.26	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	9.65	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	9.08	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	8.86	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	9.45	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	9.49	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	9.67	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	9.34	ug/L	99

(#) = qualifier out of range (m) = manual integration

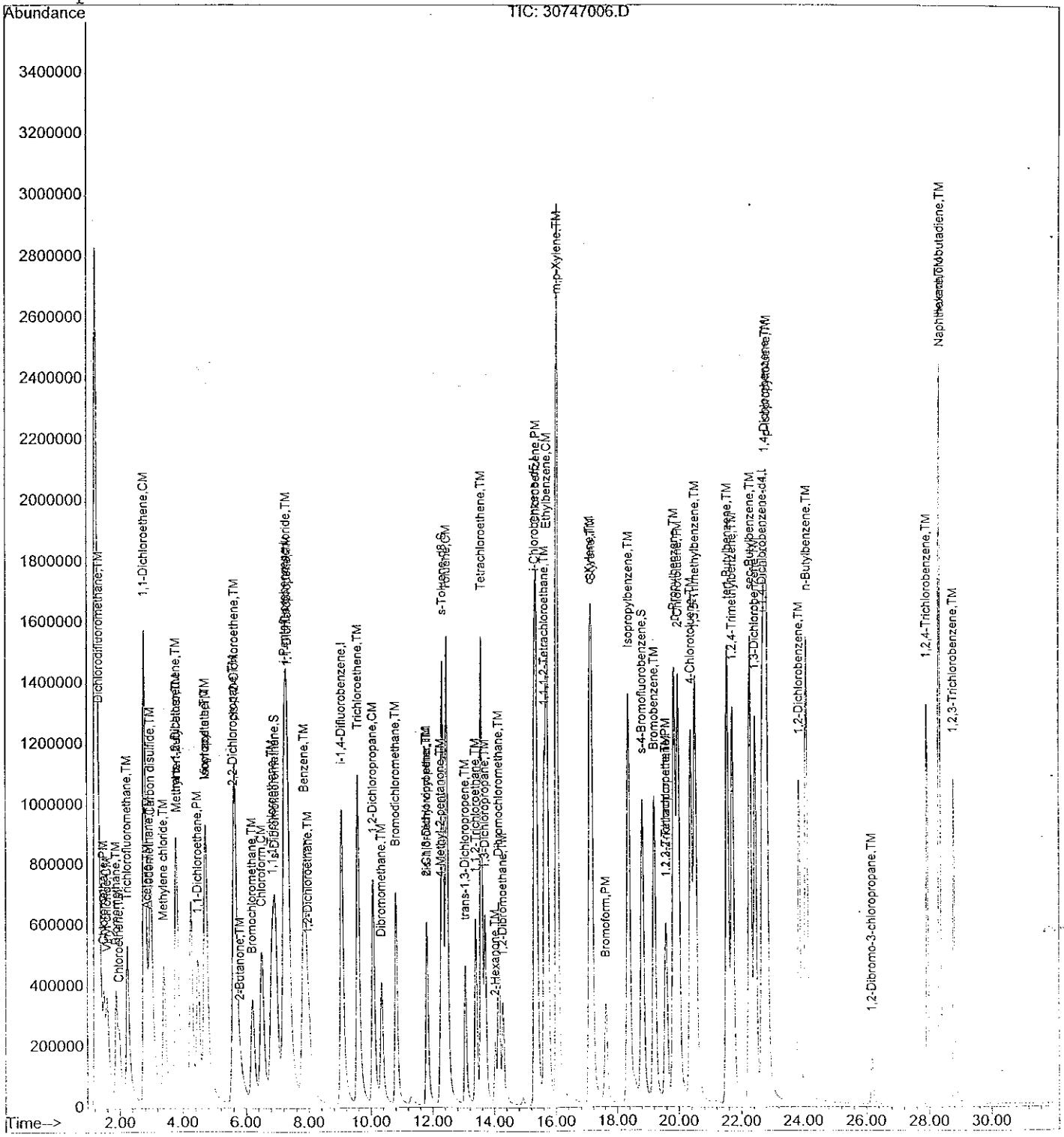
Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.86	146	1697184	9.81	ug/L	100
72) n-Butylbenzene	24.10	91	3597663	10.11	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.17	75	121389	10.97	ug/L	95
74) 1,2,4-Trichlorobenzene	27.94	180	1105521	11.38	ug/L	100
75) Hexachlorobutadiene	28.33	225	1067782	10.95	ug/L	99
76) Naphthalene	28.34	128	885573	11.96	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	835794	11.54	ug/L	98

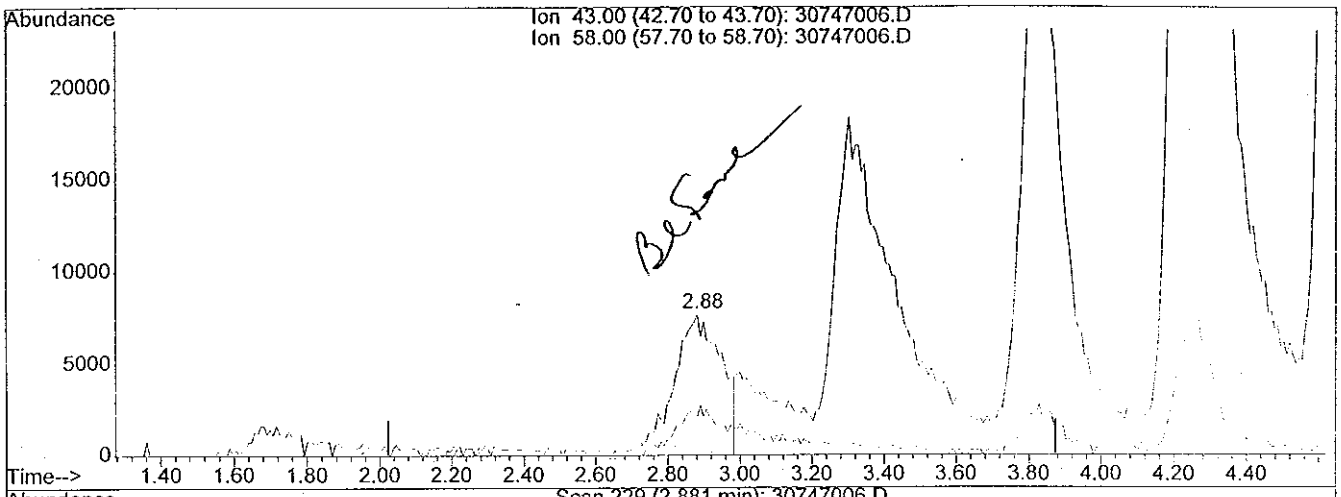
Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

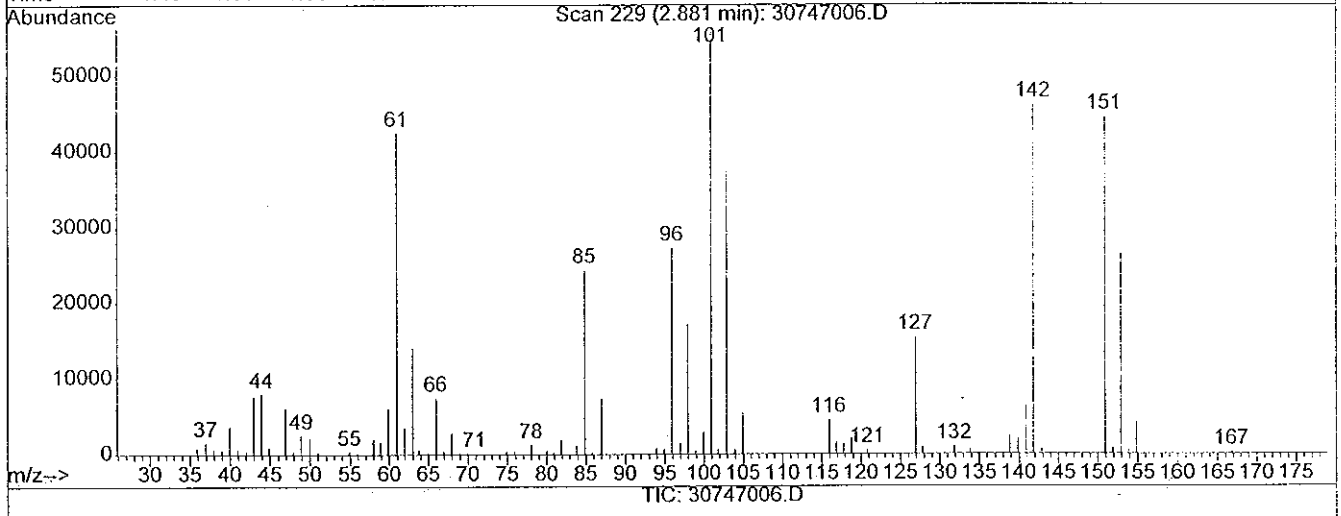
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(9) Acetone (TM)

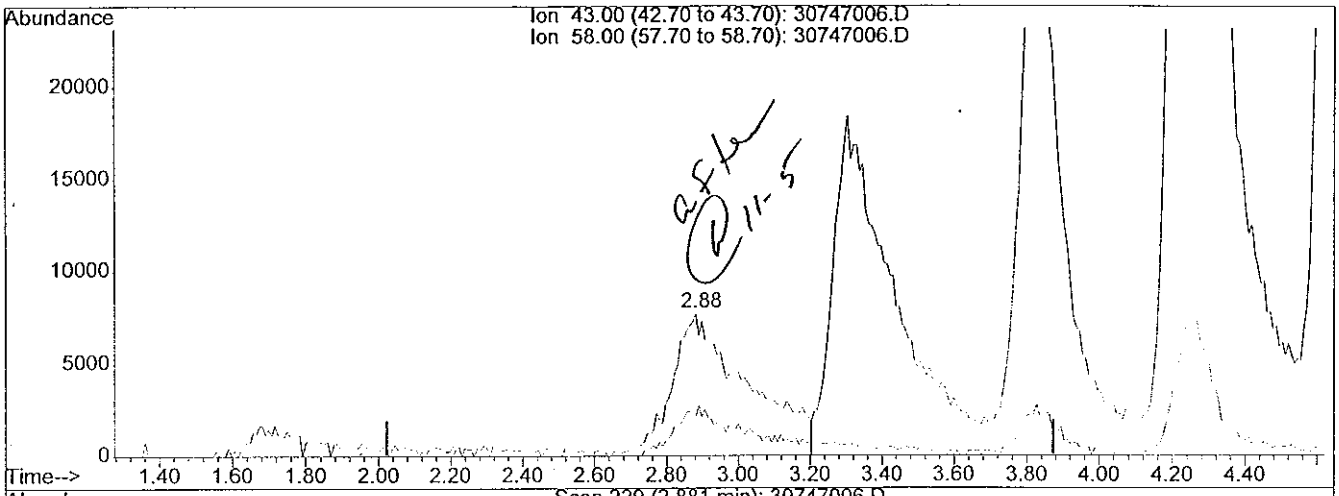
2.88min 11.58ug/L

response 71106

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747006.D

(9) Acetone (TM)

2.88min 18.23ug/L m

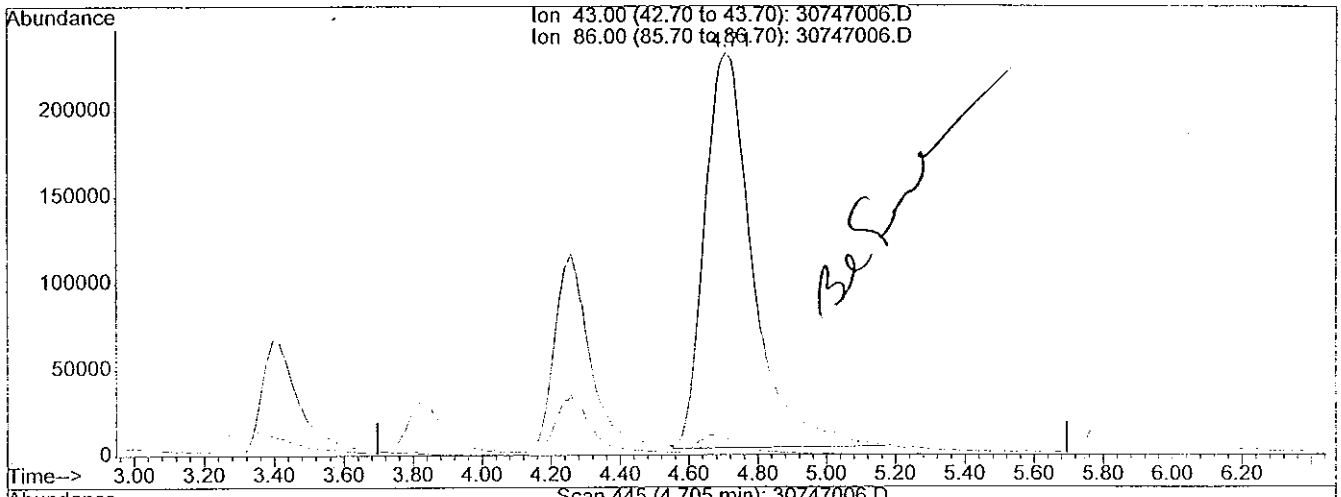
response 111536

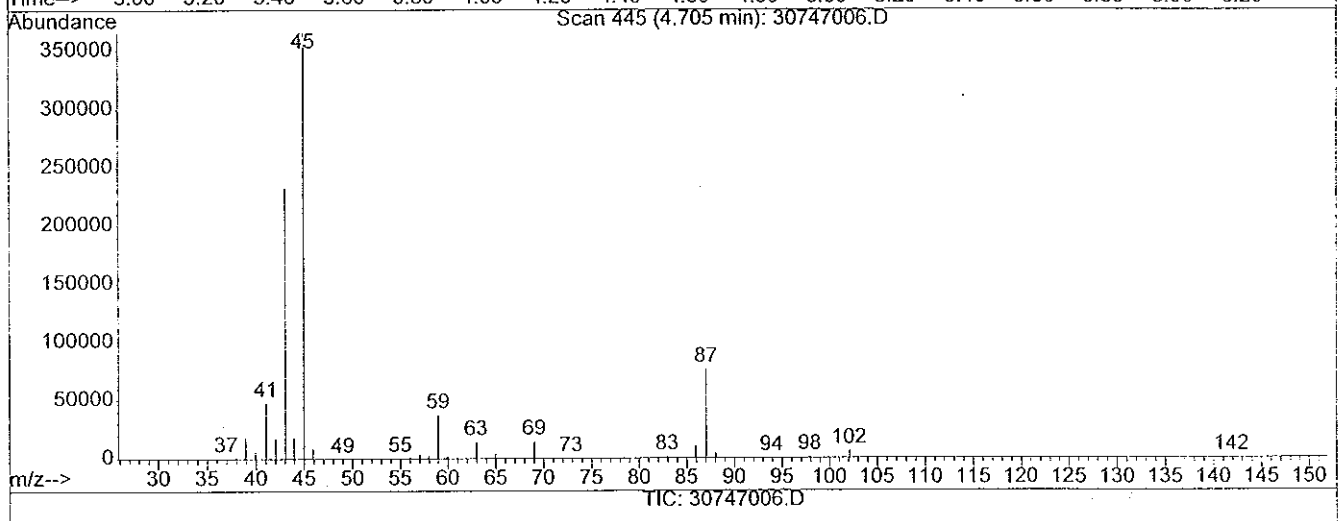
Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(16) Vinyl acetate (TM)

4.71min 14.43ug/L

response 2212814

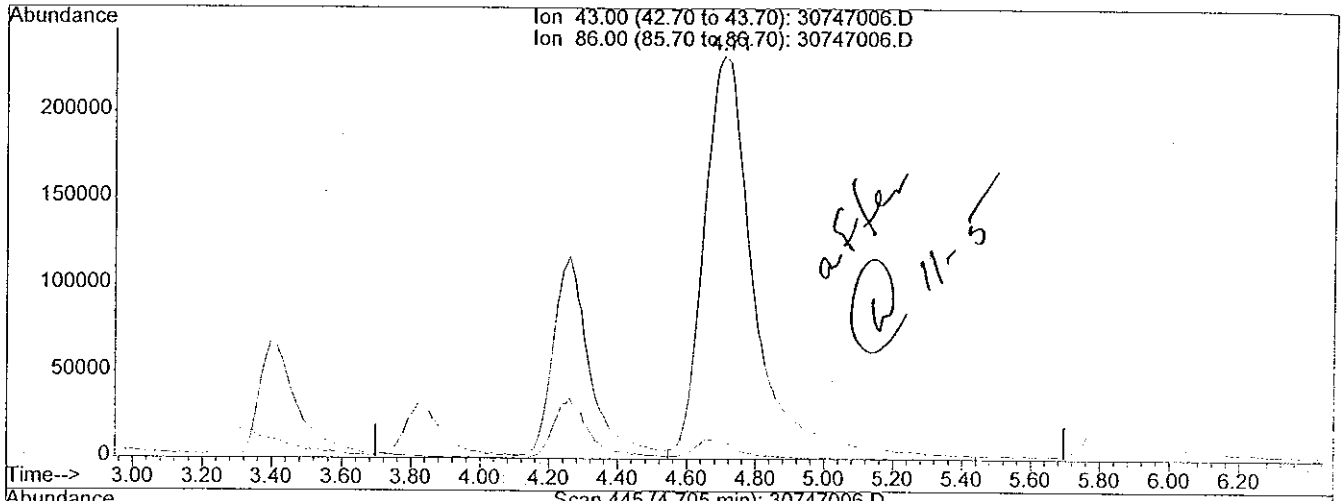
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.61
0.00	0.00	0.00
0.00	0.00	0.00

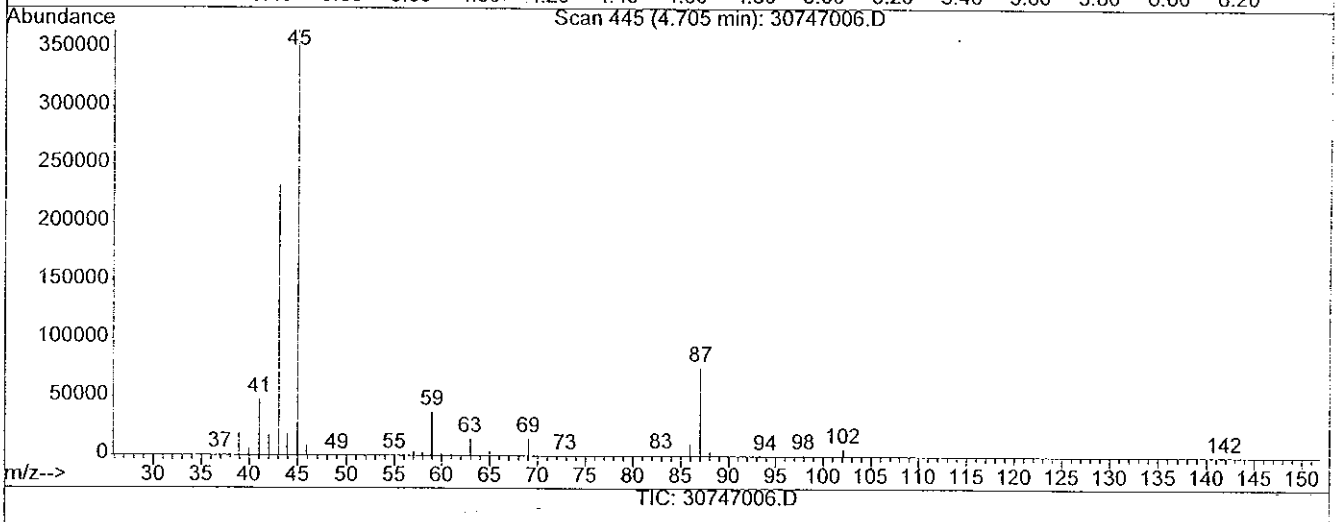
Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(16) Vinyl acetate (TM)

4.71min 15.87ug/L m

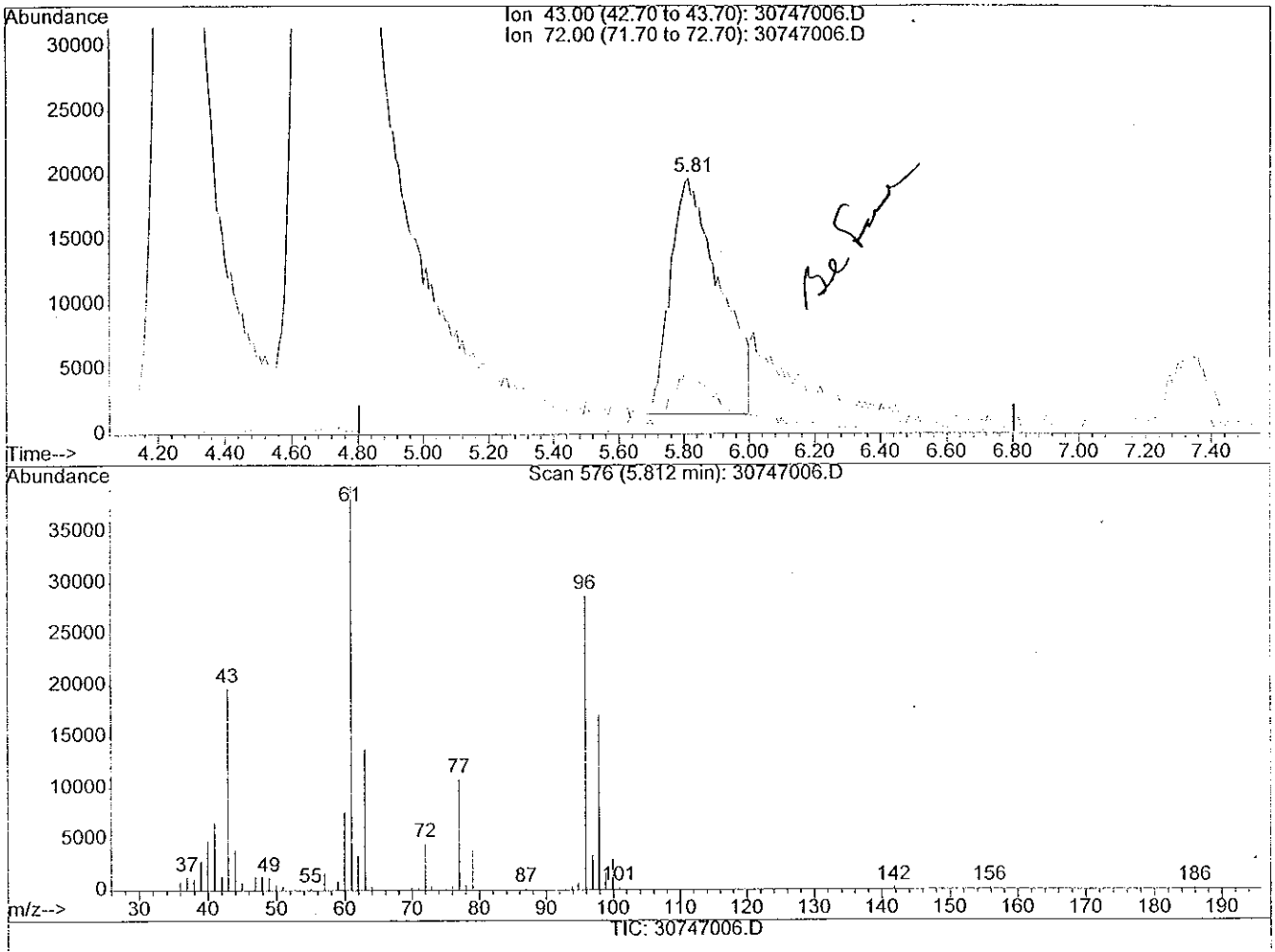
response 2433202

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.66
0.00	0.00	0.00
0.00	0.00	0.00

474

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747006.D

(19) 2-Butanone (TM)

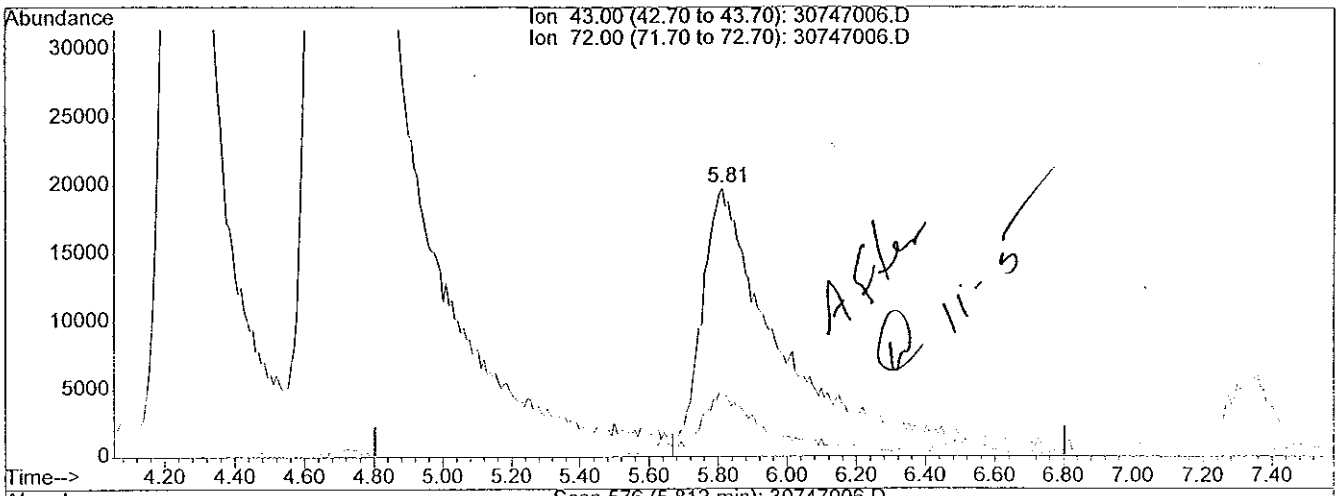
5.81min 15.01ug/L

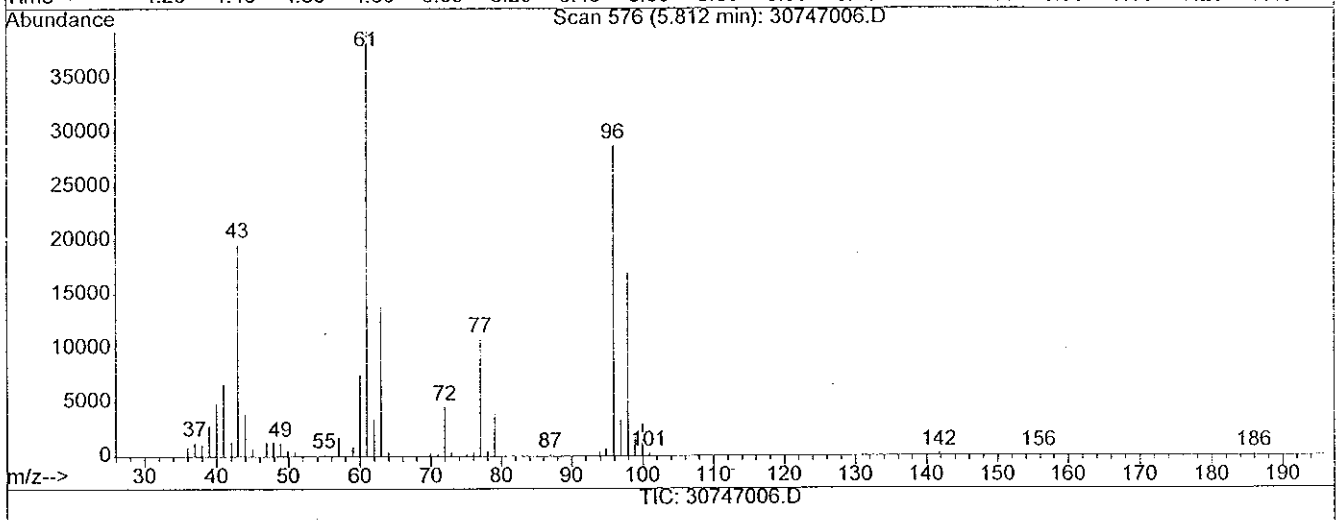
response 190344

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	21.04
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(19) 2-Butanone (TM)

5.81min 26.88ug/L m

response 340951

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.32
0.00	0.00	0.00
0.00	0.00	0.00

30747006.D V82625B1.M Fri Nov 02 13:25:03 2001

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

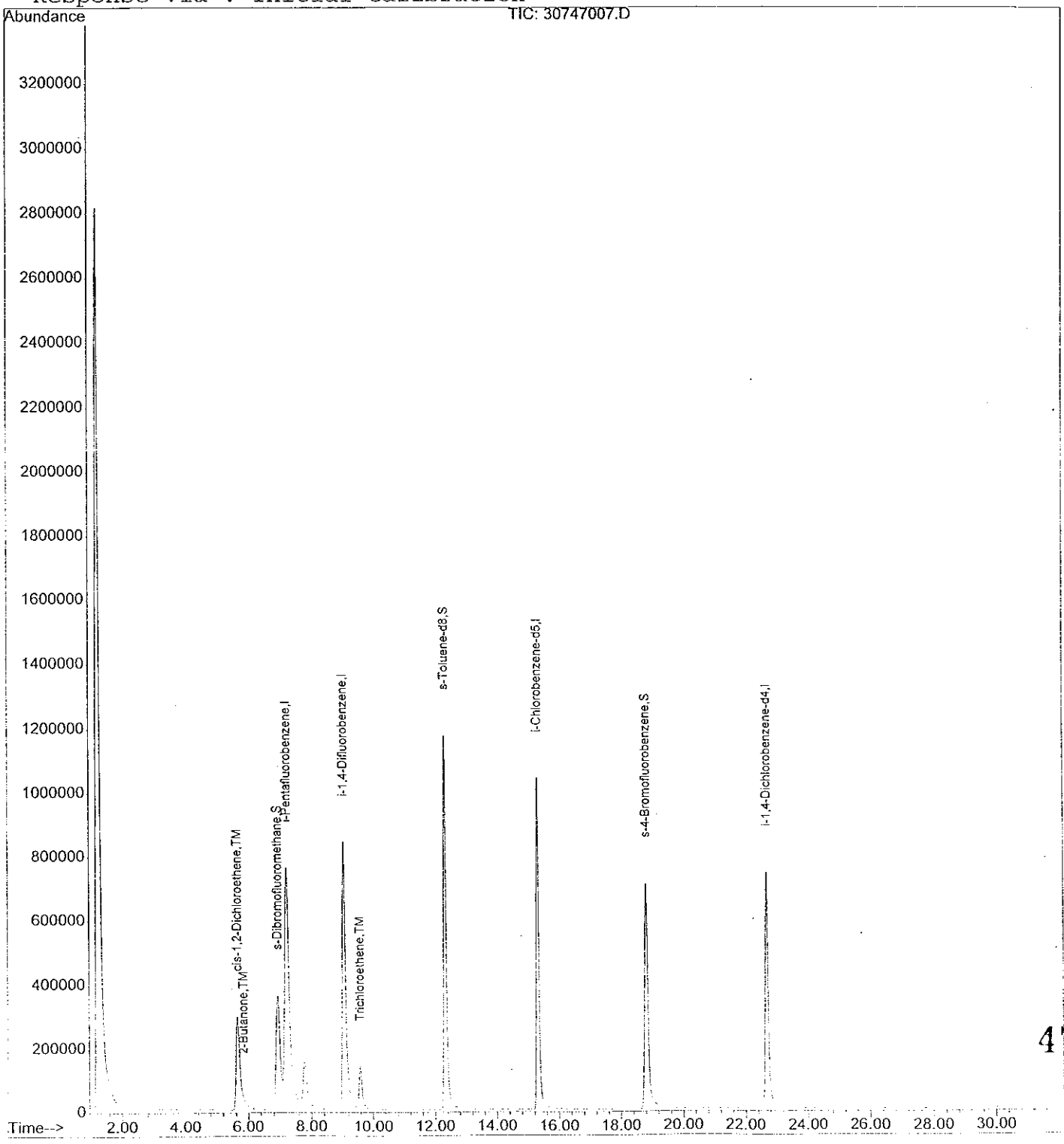
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	20.77	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	32.85	ug/L	95
30) Trichloroethene	9.58	95	177959	7.51	ug/L	97

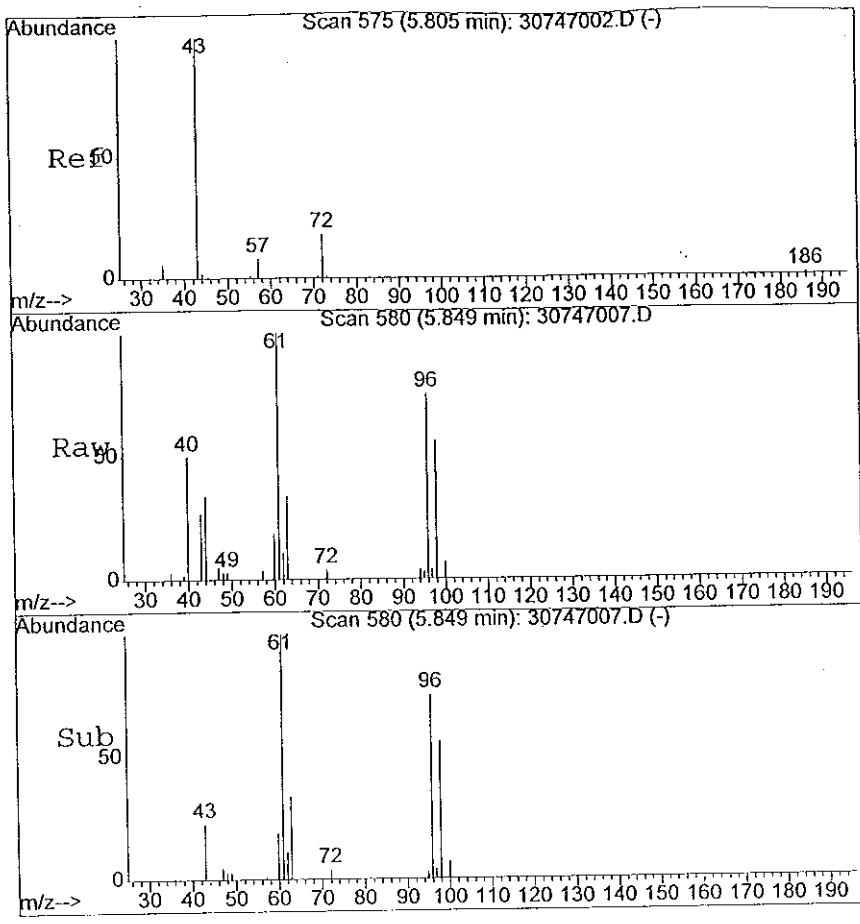
(#) = qualifier out of range (m) = manual integration
30747007.D V82625B1.M Mon Nov 05 09:50:32 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



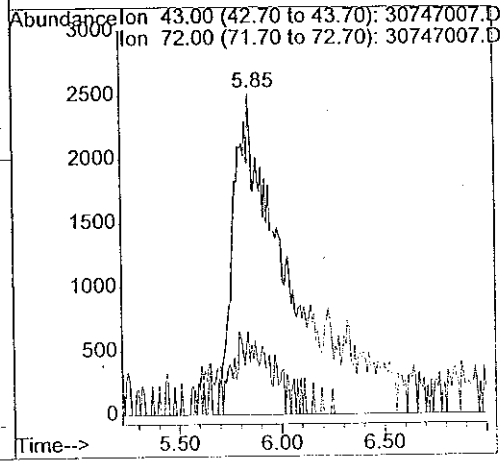
478

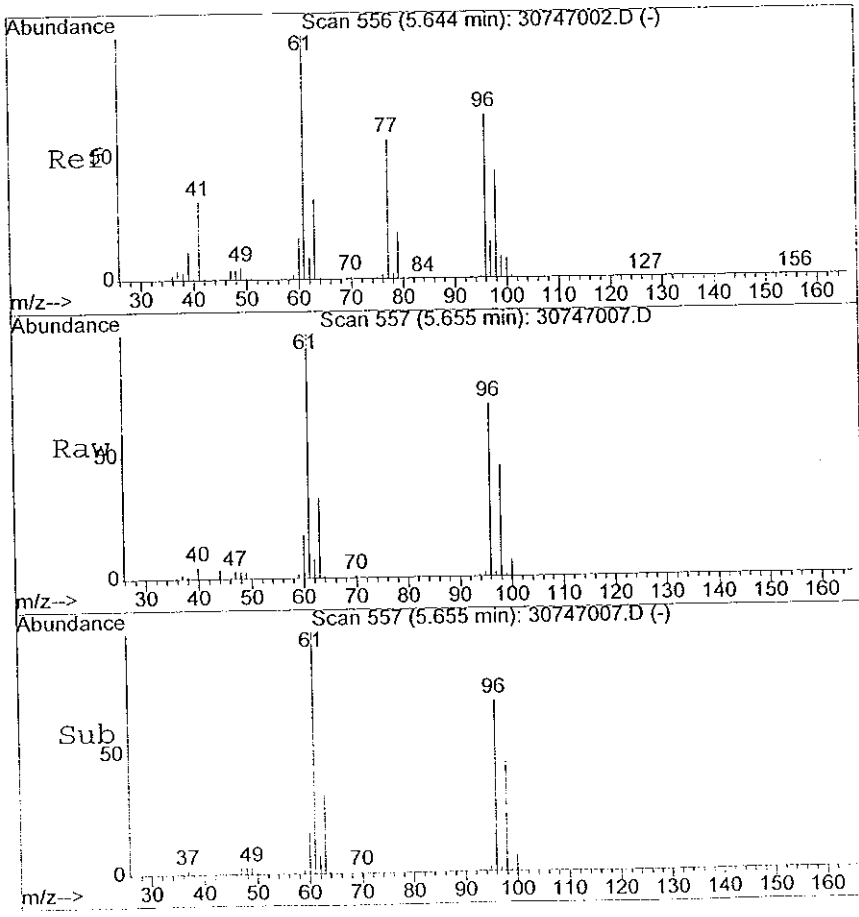


#19
2-Butanone
Concen: 20.77 ug/L m
RT: 5.85 min Scan# 580
Delta R.T. 0.04 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 43 Resp: 47831

Ion	Ratio	Lower	Upper
43	100		
72	16.1	0.0	119.0

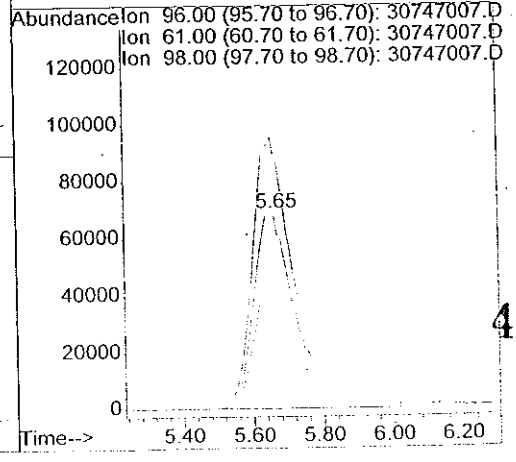




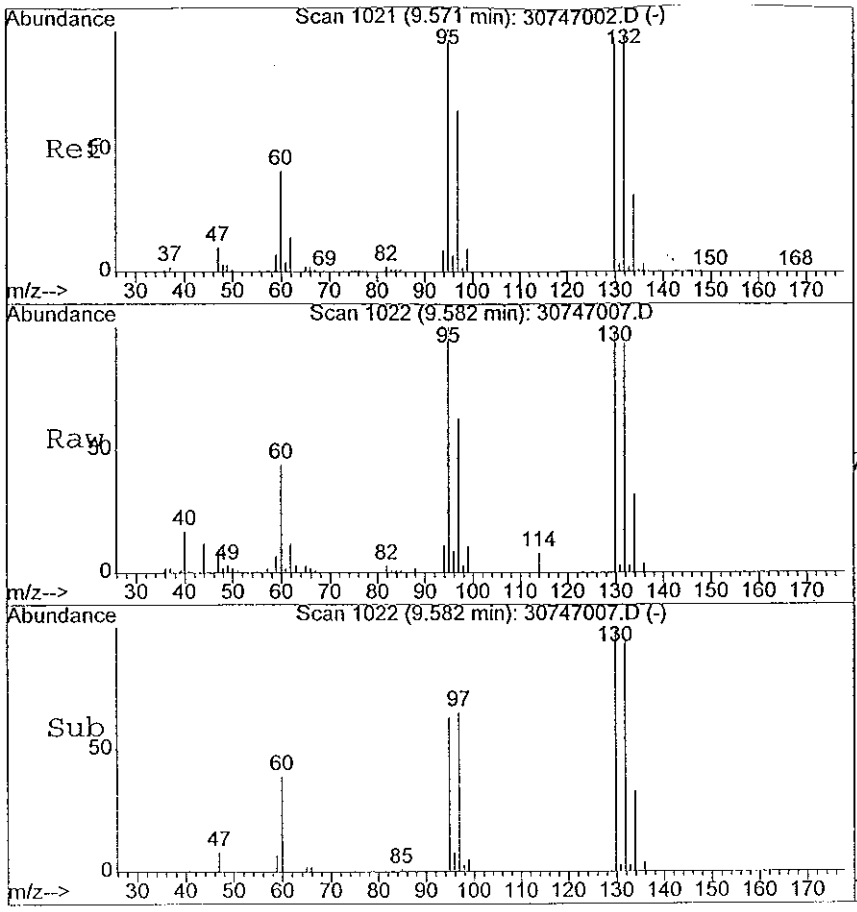
#20
cis-1,2-Dichloroethene
Concen: 32.85 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 96 Resp: 615329

Ion	Ratio	Lower	Upper
96	100		
61	139.9	128.7	168.7
98	64.6	45.8	85.8



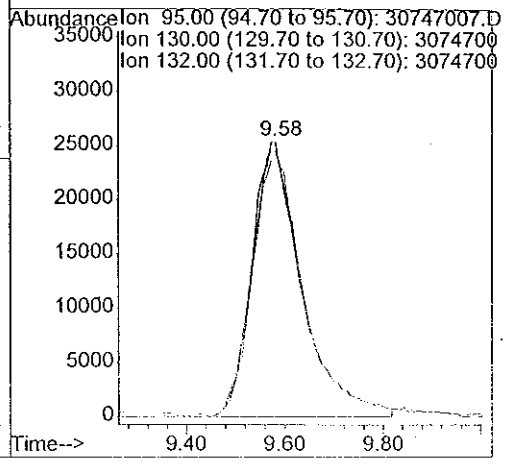
479



#30
Trichloroethene
Concen: 7.51 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 95 Resp: 177959

Ion	Ratio	Lower	Upper
95	100		
130	96.6	76.7	116.7
132	93.0	78.1	118.1



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	4.15	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	6.57	ug/L	95
30) Trichloroethene	9.58	95	177959	1.50	ug/L	97

481

(#) = qualifier out of range (m) = manual integration

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 13:25
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747007.D
Name: 110611-3 5.00ml 5X
Misc: CH2MHILL 3628B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747007.D V82625B1.M Mon Nov 05 15:22:53 2001

Sequence Name: D:\HPCHEM\1\SEQUENCE\110501.S
Comment: 11-05-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110501\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30748001	V82625A	TUNE
3	Sample	15	30748002	V82625A	10ppb VOA STD
4	Sample	16	30748003	V82625A	BUW150ABK BLANK 11-05-01
5	Sample	1	30748004	V82625A	BUW150ALCS LCS 11-05-01
6	Sample	2	30748005	V82625A	110655-2 MS 5.00ml 5X
7	Sample	3	30748006	V82625A	110655-2 MSD 5.00ml 5X
8	Sample	4	30748007	V82625A	110655-2 5.00ml 5X
9	Sample	5	30748008	V82625A	110738-1
10	Sample	6	30748009	V82625A	110728-1
11	Sample	7	30748010	V82625A	110728-2
12	Sample	13	BLANK	V82625A	BLANK

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30748002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 5 Nov 2001
Time Analyzed : 8:24
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2887930		7.24		2928016		9.06		2076225		15.34	
UPPER LIMIT	5775860		7.74		5856032		9.56		4152450		15.84	
LOWER LIMIT	1443965		6.74		1464008		8.56		1038113		14.84	
File ID Sample												
30748003 BUW150ABK	3036543		7.24		2981059		9.06		2142947		15.31	
30748004 BUW150ALC	3015599		7.23		2960551		9.05		2033147		15.31	
30748005 110655-2	2825056		7.25		2850829		9.07		2015573		15.31	
30748006 110655-2	2710424		7.25		2667351		9.07		1806751		15.31	
30748007 110655-2	2425218		7.23		2304698		9.06		1523084		15.30	
30748008 110738-1	2692193		7.23		2707465		9.06		1942651		15.30	
30748009 110728-1	2812324		7.24		2849618		9.06		2067657		15.31	
30748010 110728-2	2883415		7.24		2873856		9.06		2011801		15.32	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

484

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30748002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 5 Nov 2001
Time Analyzed : 8:24
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1170394		22.70		0		0.00		0		0.00	
UPPER LIMIT	2340788		23.20		0		0.00		0		0.00	
LOWER LIMIT	585197		22.20		0		0.00		0		0.00	
File ID Sample												
30748003 BUW150ABK	1045036		22.69		0		0.00		0		0.00	
30748004 BUW150ALC	1122792		22.68		0		0.00		0		0.00	
30748005 110655-2	1135243		22.69		0		0.00		0		0.00	
30748006 110655-2	977365		22.68		0		0.00		0		0.00	
30748007 110655-2	673662		22.67		0		0.00		0		0.00	
30748008 110738-1	946792		22.66		0		0.00		0		0.00	
30748009 110728-1	1035048		22.69		0		0.00		0		0.00	
30748010 110728-2	973311		22.70		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

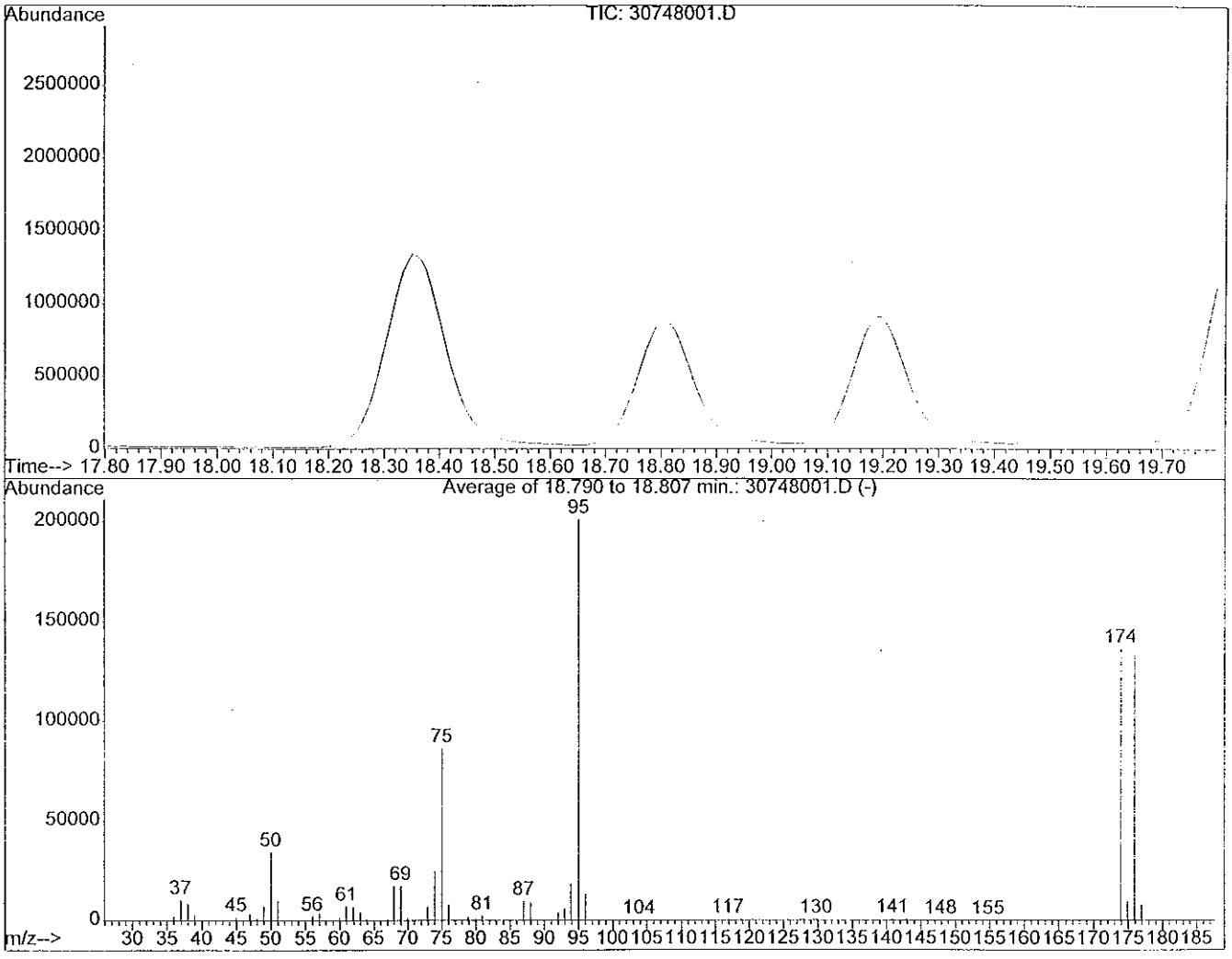
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

485

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\110501\30748001.D Vial: 14
Acq On : 5 Nov 2001 7:45 Operator: GRH
Sample : TUNE Inst : Bubba
Misc : 50ng BFB Multiplr: 1.00
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A



Peak Apex is scan: 2113 (18.80 min)
Average of 3 scans: 2112,2113,2114 minus background scan 2093 (18.63 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	34577	PASS
75	95	30	60	43.0	86549	PASS
95	95	100	100	100.0	201259	PASS
96	95	5	9	6.6	13340	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	67.7	136277	PASS
175	174	5	9	7.2	9840	PASS
176	174	95	101	97.8	133240	PASS
177	176	5	9	6.3	8334	PASS

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	2018	57.00	3888	76.00	7811	174.90	9840
36.95	10383	59.95	1456	78.90	1894	175.90	133240
37.95	8756	60.95	7169	80.90	2631	176.90	8334
38.95	2815	61.95	6858	86.95	9874		
44.95	1852	62.95	4357	87.95	9228		
46.90	3347	67.95	17520	91.95	4064		
47.95	1085	68.95	17568	92.95	6145		
48.95	7258	69.95	1325	93.90	18645		
50.00	34577	72.90	7016	95.00	201259		
51.00	9901	74.00	25192	96.00	13340		
56.00	2206	75.00	86549	173.90	136277		

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	97	0.02
2	TM	Dichlorodifluoromethane	0.508	0.440	13.4	89	0.02
3	PM	Chloromethane	0.324	0.301	7.1	92	0.00
4	CM	Vinyl chloride	0.340	0.320	5.9#	96	0.00
5	TM	Bromomethane	0.307	0.279	9.1	92	0.00
6	TM	Chloroethane	0.199	0.190	4.5	95	0.00
7	TM	Trichlorofluoromethane	0.557	0.529	5.0	94	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	97	0.00
9	TM	Acetone	0.021	0.019#	9.5	101	0.02
10	TM	Iodomethane	0.403	0.391	3.0	94	0.00
11	TM	Carbon disulfide	1.028	0.997	3.0	96	0.00
12	TM	Methylene chloride	0.267	0.271	-1.5	98	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.354	2.5	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.394	1.3	97	0.00
15	PM	1,1-Dichloroethane	0.645	0.629	2.5	95	0.00
16	TM	Vinyl acetate	0.489	0.490	-0.2	97	0.00
17	TM	Isopropyl ether	1.015	1.040	-2.5	98	0.00
18	TM	2,2-Dichloropropane	0.478	0.457	4.4	92	0.02
19	TM	2-Butanone	0.040	0.041#	-2.5	100	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.339	-9.0	97	0.02
21	TM	Bromochloromethane	0.130	0.132	-1.5	99	0.02
22	CM	Chloroform	0.645	0.636	1.4#	97	0.02
23	TM	1,1,1-Trichloroethane	0.539	0.532	1.3	95	0.02
24	S	s-Dibromofluoromethane	0.463	0.461	0.4	96	0.02
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	97	0.02
26	TM	Carbon tetrachloride	0.500	0.453	9.4	96	0.02
27	TM	1,1-Dichloropropene	0.186	0.167	10.2	100	0.02
28	TM	Benzene	1.086	1.068	1.7	97	0.02
29	TM	1,2-Dichloroethane	0.217	0.213	1.8	97	0.02
30	TM	Trichloroethene	0.437	0.425	2.7	97	0.02
31	CM	1,2-Dichloropropane	0.363	0.361	0.6#	98	0.02
32	TM	Dibromomethane	0.162	0.162	0.0	99	0.03
33	TM	2-Chloroethyl vinyl ether	0.060	0.065	-8.3	100	0.02
34	TM	Bromodichloromethane	0.502	0.497	1.0	97	0.03
35	TM	cis-1,3-Dichloropropene	0.391	0.388	0.8	96	0.03
36	S	s-Toluene-d8	0.947	0.958	-1.2	98	0.03
37	CM	Toluene	0.699	0.681	2.6#	97	0.03
38	TM	trans-1,3-Dichloropropene	0.241	0.246	-2.1	97	0.03
39	TM	1,1,2-Trichloroethane	0.162	0.161	0.6	99	0.02
40	TM	Tetrachloroethene	0.505	0.489	3.2	97	0.02

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110501\30748002.D
Acq On : 5 Nov 2001 8:24
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.308	0.3	98	0.02
42	TM	Dibromochloromethane	0.295	0.298	-1.0	98	0.02
43	TM	1,2-Dibromoethane	0.200	0.204	-2.0	98	0.03
44	TM	4-Methyl-2-pentanone	0.114	0.112	1.8	100	0.03
45	TM	2-Hexanone	0.069	0.071	-2.9	100	0.03
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	97	0.04
47	PM	Chlorobenzene	1.050	1.026	2.3	97	0.02
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.460	1.1	97	0.03
49	TM	1-Chlorohexane	0.000	0.000#	0.0	103	0.02
50	CM	Ethylbenzene	0.567	0.544	4.1#	97	0.04
51	TM	m,p-Xylene	0.683	0.677	0.9	97	0.03
52	TM	o-Xylene	0.635	0.621	2.2	96	0.03
53	TM	Styrene	1.007	1.024	-1.7	98	0.04
54	PM	Bromoform	0.245	0.260	-6.1	101	0.03
55	TM	Isopropylbenzene	2.040	2.014	1.3	97	0.04
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	97	0.03
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.03
58	TM	Bromobenzene	0.928	0.886	4.5	99	0.04
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.614	4.7	98	0.03
60	TM	1,2,3-Trichloropropane	0.395	0.357	9.6	99	0.02
61	TM	n-Propylbenzene	0.909	0.867	4.6	94	0.03
62	TM	2-Chlorotoluene	0.856	0.809	5.5	98	0.03
63	TM	4-Chlorotoluene	2.990	2.941	1.6	100	0.03
64	TM	1,3,5-Trimethylbenzene	2.784	2.668	4.2	98	0.03
65	TM	tert-Butylbenzene	1.825	1.724	5.5	98	0.03
66	TM	1,2,4-Trimethylbenzene	2.442	2.464	-0.9	98	0.03
67	TM	sec-Butylbenzene	4.012	3.919	2.3	98	0.02
68	TM	1,3-Dichlorobenzene	1.709	1.638	4.2	98	0.03
69	TM	p-Isopropyltoluene	3.020	3.034	-0.5	98	0.03
70	TM	1,4-Dichlorobenzene	1.630	1.585	2.8	103	0.02
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	98	0.02
72	TM	n-Butylbenzene	2.797	2.946	-5.3	97	0.03
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	100	0.04
74	TM	1,2,4-Trichlorobenzene	0.763	0.823	-7.9	101	0.02
75	TM	Hexachlorobutadiene	0.873	0.834	4.5	102	0.02
76	TM	Naphthalene	0.582	0.636	-9.3	105	0.02
77	TM	1,2,3-Trichlorobenzene	0.569	0.613	-7.7	102	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	97	0.02
2	TM	Dichlorodifluoromethane	10.000	8.658	13.4	89	0.02
3	PM	Chloromethane	10.000	9.277	7.2	92	0.00
4	CM	Vinyl chloride	10.000	9.420	5.8#	96	0.00
5	TM	Bromomethane	10.000	9.076	9.2	92	0.00
6	TM	Chloroethane	10.000	9.528	4.7	95	0.00
7	TM	Trichlorofluoromethane	10.000	9.502	5.0	94	0.00
8	CM	1,1-Dichloroethene	10.000	9.633	3.7#	97	0.00
9	TM	Acetone	40.000	39.900	0.3	101	0.02
10	TM	Iodomethane	10.000	9.714	2.9	94	0.00
11	TM	Carbon disulfide	10.000	9.691	3.1	96	0.00
12	TM	Methylene chloride	10.000	10.136	-1.4	98	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.752	2.5	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.871	1.3	97	0.00
15	PM	1,1-Dichloroethane	10.000	9.750	2.5	95	0.00
16	TM	Vinyl acetate	20.000	20.061	-0.3	97	0.00
17	TM	Isopropyl ether	10.000	10.251	-2.5	98	0.00
18	TM	2,2-Dichloropropane	10.000	9.551	4.5	92	0.02
19	TM	2-Butanone	40.000	40.267	-0.7	100	0.00
20	TM	cis-1,2-Dichloroethene	10.000	10.292	-2.9	97	0.02
21	TM	Bromochloromethane	10.000	10.169	-1.7	99	0.02
22	CM	Chloroform	10.000	9.860	1.4#	97	0.02
23	TM	1,1,1-Trichloroethane	10.000	9.857	1.4	95	0.02
24	S	s-Dibromofluoromethane	10.000	9.957	0.4	96	0.02
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	97	0.02
26	TM	Carbon tetrachloride	10.000	9.072	9.3	96	0.02
27	TM	1,1-Dichloropropene	10.000	10.283	-2.8	100	0.02
28	TM	Benzene	10.000	9.842	1.6	97	0.02
29	TM	1,2-Dichloroethane	10.000	9.801	2.0	97	0.02
30	TM	Trichloroethene	10.000	9.713	2.9	97	0.02
31	CM	1,2-Dichloropropane	10.000	9.959	0.4#	98	0.02
32	TM	Dibromomethane	10.000	9.991	0.1	99	0.03
33	TM	2-Chloroethyl vinyl ether	10.000	10.848	-8.5	100	0.02
34	TM	Bromodichloromethane	10.000	9.894	1.1	97	0.03
35	TM	cis-1,3-Dichloropropene	10.000	9.934	0.7	96	0.03
36	S	s-Toluene-d8	10.000	10.107	-1.1	98	0.03
37	CM	Toluene	10.000	9.739	2.6#	97	0.03
38	TM	trans-1,3-Dichloropropene	10.000	10.223	-2.2	97	0.03
39	TM	1,1,2-Trichloroethane	10.000	9.936	0.6	99	0.02
40	TM	Tetrachloroethene	10.000	9.682	3.2	97	0.02

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.966	0.3	98	0.02
42	TM	Dibromochloromethane	10.000	10.118	-1.2	98	0.02
43	TM	1,2-Dibromoethane	10.000	10.180	-1.8	98	0.03
44	TM	4-Methyl-2-pentanone	40.000	39.331	1.7	100	0.03
45	TM	2-Hexanone	40.000	41.605	-4.0	100	0.03
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	97	0.04
47	PM	Chlorobenzene	10.000	9.770	2.3	97	0.02
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.889	1.1	97	0.03
49	TM	1-Chlorohexane	-1.000	0.000	0.0	103	0.02
50	CM	Ethylbenzene	10.000	9.588	4.1#	97	0.04
51	TM	m,p-Xylene	20.000	19.823	0.9	97	0.03
52	TM	o-Xylene	10.000	9.779	2.2	96	0.03
53	TM	Styrene	10.000	10.167	-1.7	98	0.04
54	PM	Bromoform	10.000	10.632	-6.3	101	0.03
55	TM	Isopropylbenzene	10.000	9.872	1.3	97	0.04
56	S	s-4-Bromofluorobenzene	10.000	10.143	-1.4	97	0.03
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	97	0.03
58	TM	Bromobenzene	10.000	9.545	4.6	99	0.04
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.530	4.7	98	0.03
60	TM	1,2,3-Trichloropropane	10.000	10.082	-0.8	99	0.02
61	TM	n-Propylbenzene	10.000	9.545	4.6	94	0.03
62	TM	2-Chlorotoluene	10.000	9.452	5.5	98	0.03
63	TM	4-Chlorotoluene	10.000	9.836	1.6	100	0.03
64	TM	1,3,5-Trimethylbenzene	10.000	9.586	4.1	98	0.03
65	TM	tert-Butylbenzene	10.000	9.447	5.5	98	0.03
66	TM	1,2,4-Trimethylbenzene	10.000	10.090	-0.9	98	0.03
67	TM	sec-Butylbenzene	10.000	9.770	2.3	98	0.02
68	TM	1,3-Dichlorobenzene	10.000	9.586	4.1	98	0.03
69	TM	p-Isopropyltoluene	10.000	10.046	-0.5	98	0.03
70	TM	1,4-Dichlorobenzene	10.000	9.721	2.8	103	0.02
71	TM	1,2-Dichlorobenzene	10.000	9.578	4.2	98	0.02
72	TM	n-Butylbenzene	10.000	10.533	-5.3	97	0.03
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.957	0.4	100	0.04
74	TM	1,2,4-Trichlorobenzene	10.000	10.784	-7.8	101	0.02
75	TM	Hexachlorobutadiene	10.000	10.887	-8.9	102	0.02
76	TM	Naphthalene	10.000	10.919	-9.2	105	0.02
77	TM	1,2,3-Trichlorobenzene	10.000	10.781	-7.8	102	0.02

Data File : D:\HPCHEM\1\DATA\110501\30748002.D
Acq On : 5 Nov 2001 8:24
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 5 10:04 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2887930	10.00	ug/L	0.02 96.51%
25) i-1,4-Difluorobenzene	9.06	114	2928016	10.00	ug/L	0.02 96.31%
46) i-Chlorobenzene-d5	15.34	117	2076225	10.00	ug/L	0.04 96.96%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1170394	10.00	ug/L	0.03 96.24%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1331664	9.96	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.60%			
36) s-Toluene-d8	12.34	98	2803686	10.11	ug/L	0.03
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.83	95	1600489	10.14	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1270461	8.66	ug/L	99
3) Chloromethane	1.51	50	867871	9.28	ug/L	100
4) Vinyl chloride	1.60	62	925286	9.42	ug/L	98
5) Bromomethane	1.89	96	805539	9.08	ug/L	99
6) Chloroethane	1.99	64	548473	9.53	ug/L	99
7) Trichlorofluoromethane	2.24	101	1527370	9.50	ug/L	100
8) 1,1-Dichloroethene	2.78	96	910198	9.63	ug/L	97
9) Acetone	2.89	43	224053m	39.90	ug/L	96
10) Iodomethane	2.93	142	1129678	9.71	ug/L	100
11) Carbon disulfide	3.00	76	2877881	9.69	ug/L	100
12) Methylene chloride	3.41	84	782082	10.14	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1022091	9.75	ug/L	99
14) Methyl tert-butyl ether	3.84	73	1137828	9.87	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1816183	9.75	ug/L	97
16) Vinyl acetate	4.70	43	2832449m	20.06	ug/L	100
17) Isopropyl ether	4.72	45	3004255	10.25	ug/L	98
18) 2,2-Dichloropropane	5.61	77	1319280	9.55	ug/L	99
19) 2-Butanone	5.81	43	470290m	40.27	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	979834	10.29	ug/L	98
21) Bromochloromethane	6.22	128	380907	10.17	ug/L	96
22) Chloroform	6.51	83	1837935	9.86	ug/L	99

492

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748002.D
Acq On : 5 Nov 2001 8:24
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 5 10:04 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	1534967	9.86	ug/L	99
26) Carbon tetrachloride	7.30	119	1327125	9.07	ug/L	99
27) 1,1-Dichloropropene	7.36	110	488834	10.28	ug/L	100
28) Benzene	7.88	78	3128182	9.84	ug/L	100
29) 1,2-Dichloroethane	8.01	62	622703	9.80	ug/L	97
30) Trichloroethene	9.59	95	1244151	9.71	ug/L	97
31) 1,2-Dichloropropane	10.09	63	1058373	9.96	ug/L	99
32) Dibromomethane	10.36	93	473798	9.99	ug/L	99
33) 2-Chloroethyl vinyl ether	11.64	63	190658	10.85	ug/L	92
34) Bromodichloromethane	10.83	83	1454903	9.89	ug/L	99
35) cis-1,3-Dichloropropene	11.83	75	1137073	9.93	ug/L	100
37) Toluene	12.48	92	1993190	9.74	ug/L	100
38) trans-1,3-Dichloropropene	13.08	75	721550	10.22	ug/L	100
39) 1,1,2-Trichloroethane	13.40	83	471034	9.94	ug/L	99
40) Tetrachloroethene	13.59	166	1432123	9.68	ug/L	99
41) 1,3-Dichloropropane	13.71	76	902555	9.97	ug/L	100
42) Dibromochloromethane	14.16	129	873983	10.12	ug/L	100
43) 1,2-Dibromoethane	14.30	107	597240	10.18	ug/L	97
44) 4-Methyl-2-pentanone	12.27	43	1311367	39.33	ug/L	99
45) 2-Hexanone	14.04	43	835909	41.60	ug/L	100
47) Chlorobenzene	15.39	112	2130326	9.77	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.65	131	954200	9.89	ug/L	98
50) Ethylbenzene	15.74	106	1128995	9.59	ug/L	100
51) m,p-Xylene	16.06	106	2809929	19.82	ug/L	99
52) o-Xylene	17.11	106	1289438	9.78	ug/L	99
53) Styrene	17.19	104	2126560	10.17	ug/L	98
54) Bromoform	17.64	173	540512	10.63	ug/L	98
55) Isopropylbenzene	18.39	105	4181639	9.87	ug/L	99
58) Bromobenzene	19.23	156	1037028	9.54	ug/L	97
59) 1,1,2,2-Tetrachloroethane	19.60	83	718481	9.53	ug/L	100
60) 1,2,3-Trichloropropane	19.59	75	417492	10.08	ug/L	96
61) n-Propylbenzene	19.86	120	1015012	9.55	ug/L	100
62) 2-Chlorotoluene	19.99	126	946882	9.45	ug/L	100
63) 4-Chlorotoluene	20.40	91	3441558	9.84	ug/L	99
64) 1,3,5-Trimethylbenzene	20.54	105	3123087	9.59	ug/L	99
65) tert-Butylbenzene	21.56	91	2017354	9.45	ug/L	98
66) 1,2,4-Trimethylbenzene	21.73	105	2883911	10.09	ug/L	100
67) sec-Butylbenzene	22.29	105	4586908	9.77	ug/L	100
68) 1,3-Dichlorobenzene	22.46	146	1916998	9.59	ug/L	100
69) p-Isopropyltoluene	22.84	119	3551101	10.05	ug/L	100
70) 1,4-Dichlorobenzene	22.77	146	1854539	9.72	ug/L	98

(#) = qualifier out of range (m) = manual integration
30748002.D V82625B1.M Mon Nov 05 10:04:57 2001 Page 2

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:04 2001 Quant Results File: V82625B1.RES

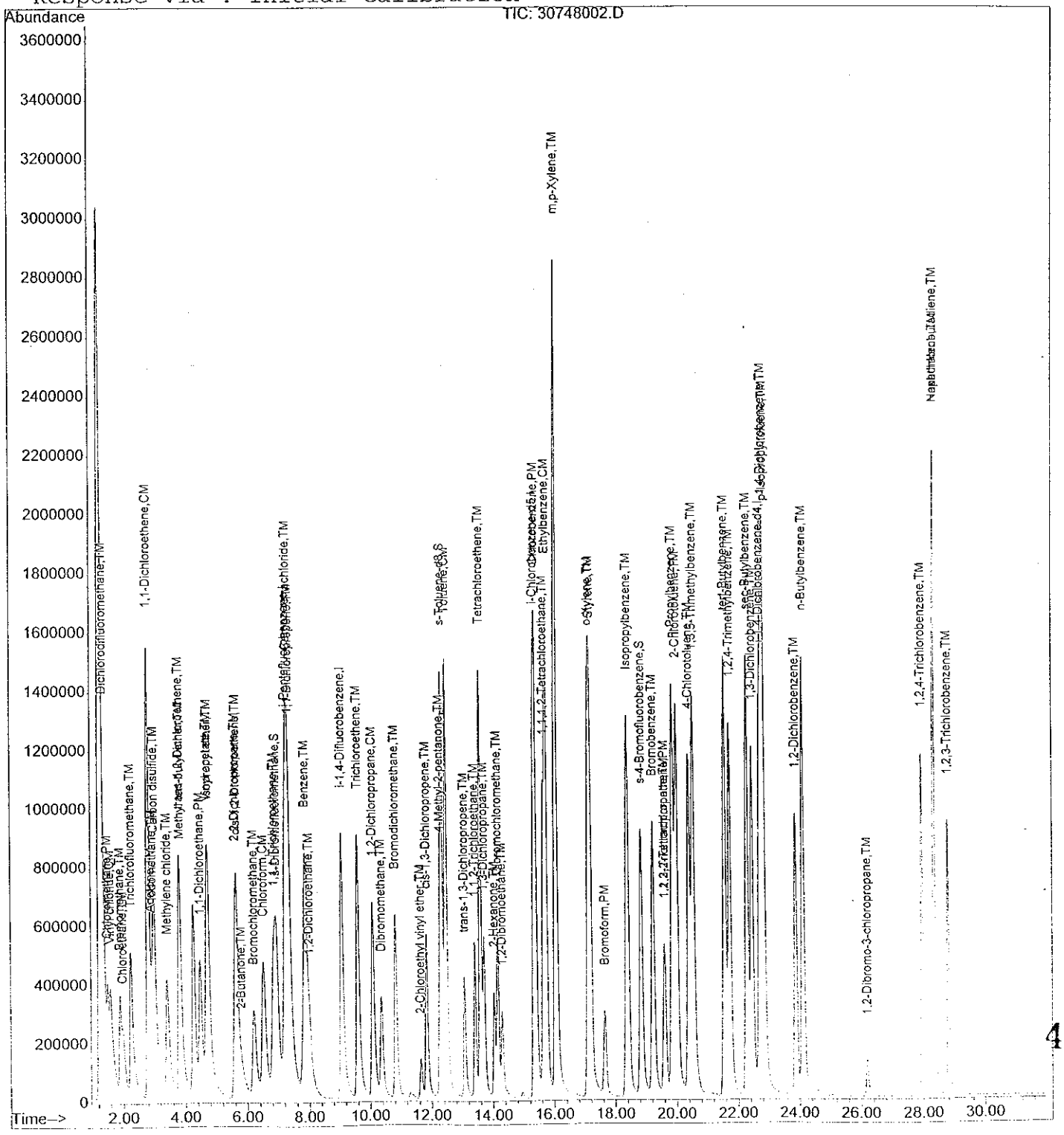
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.87	146	1524005	9.58	ug/L	99
72)	n-Butylbenzene	24.11	91	3448513	10.53	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.19	75	101337	9.96	ug/L	97
74)	1,2,4-Trichlorobenzene	27.95	180	963220	10.78	ug/L	100
75)	Hexachlorobutadiene	28.34	225	976326	10.89	ug/L	98
76)	Naphthalene	28.35	128	743870	10.92	ug/L	100
77)	1,2,3-Trichlorobenzene	28.79	180	717836	10.78	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:04 2001 Quant Results File: V82625B1.RES

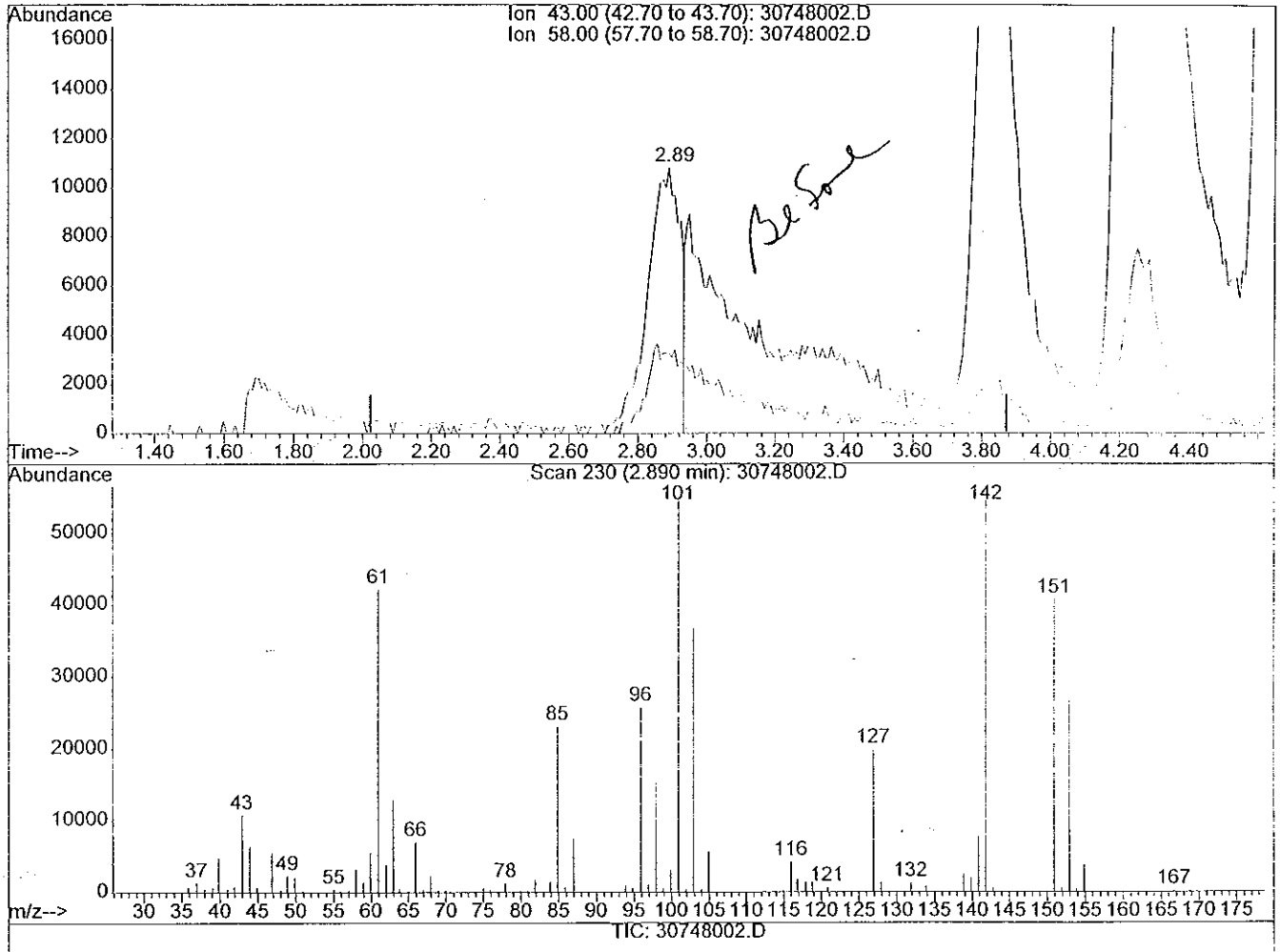
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110501\30748002.D
Acq On : 5 Nov 2001 8:24
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 5 8:54 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30748002.D

(9) Acetone (TM)

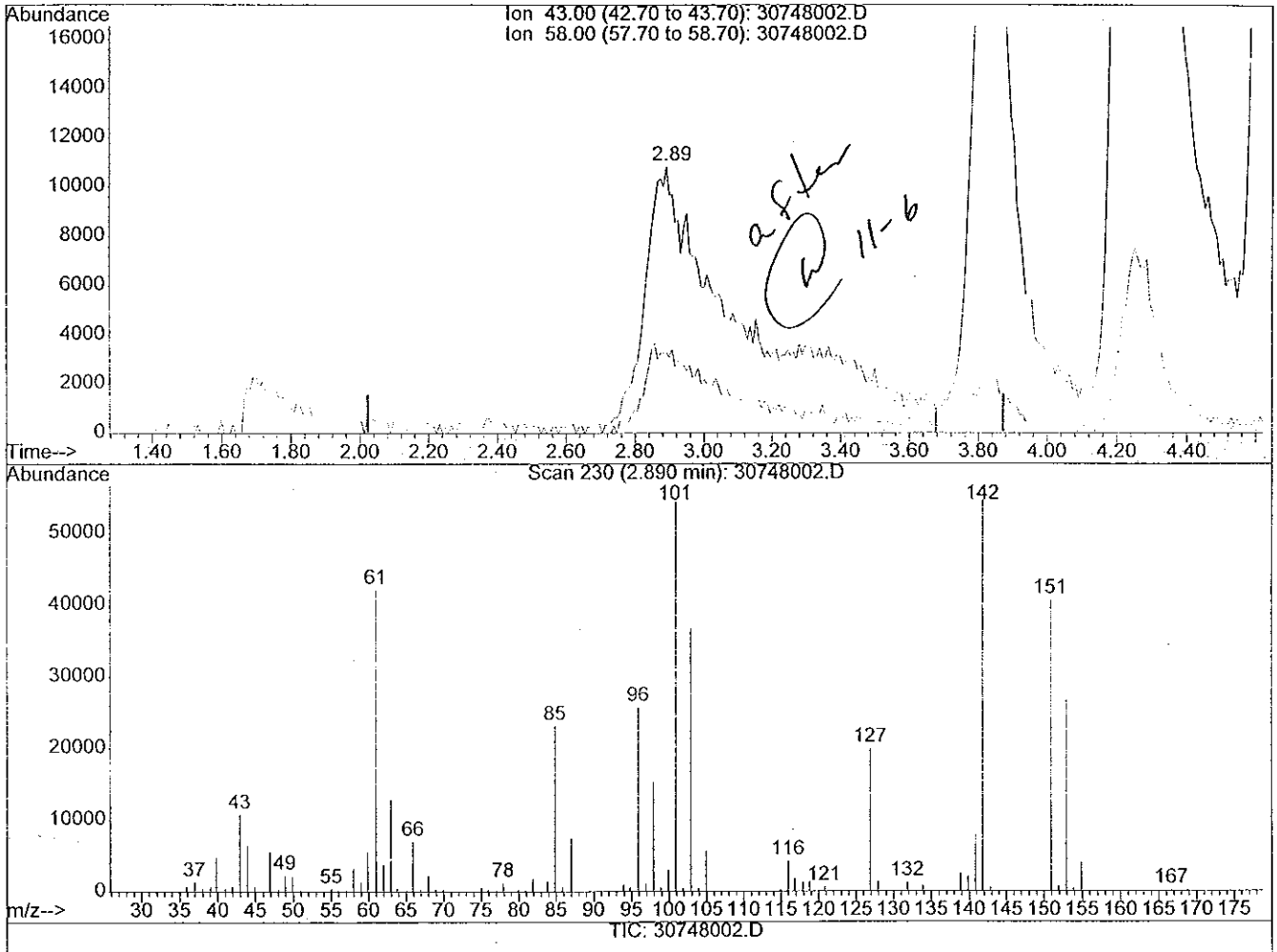
2.89min 12.63ug/L

response 71316

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	30.27
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:03 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

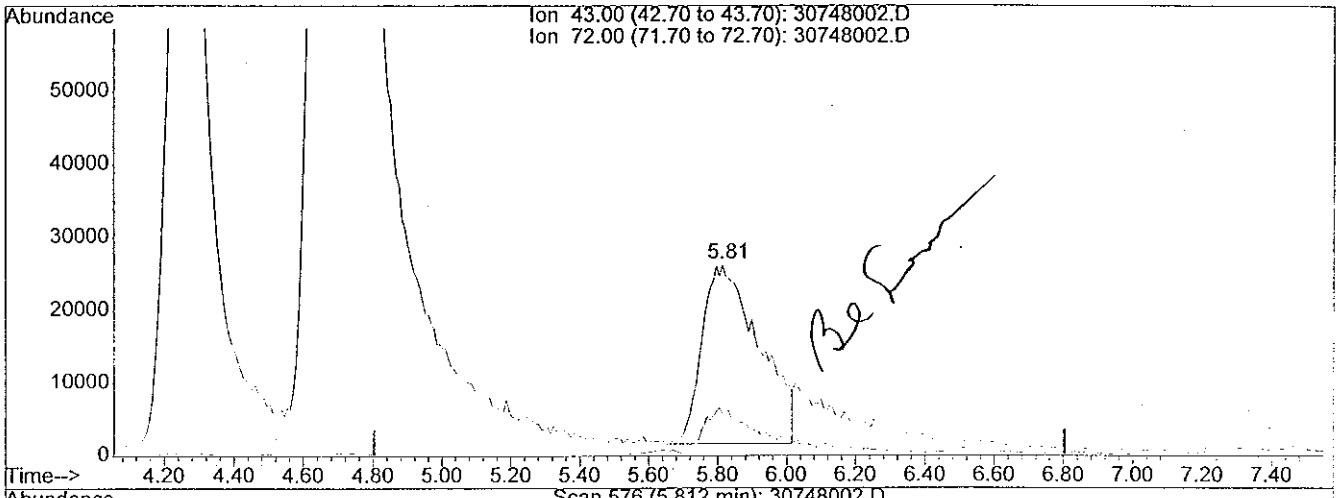
2.89min 39.90ug/L m

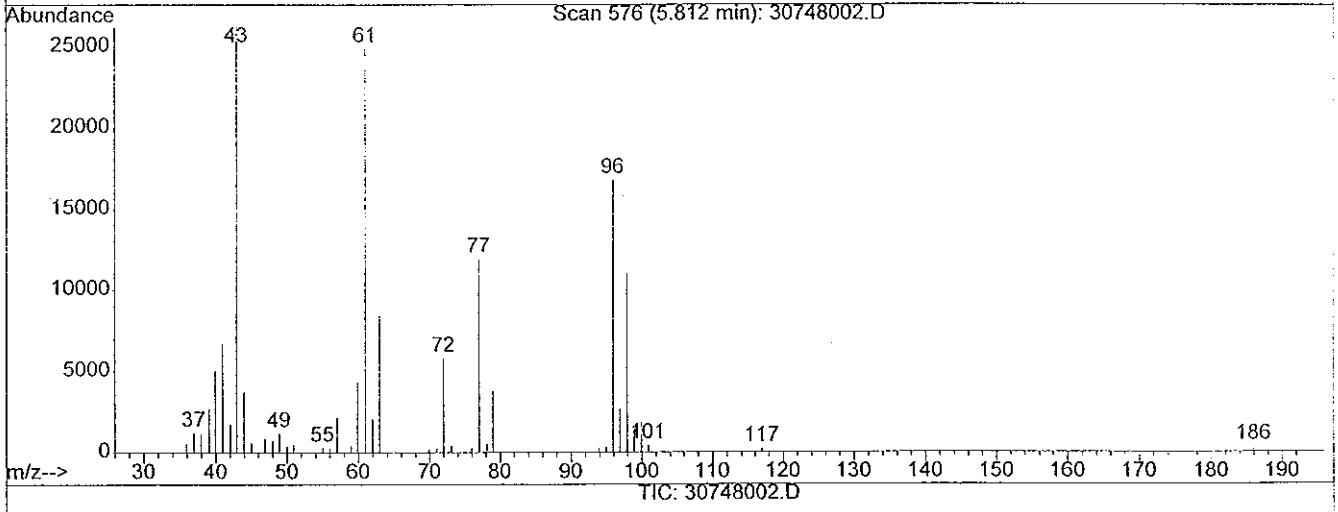
response 224053

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	30.27
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:03 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30748002.D

(19) 2-Butanone (TM)

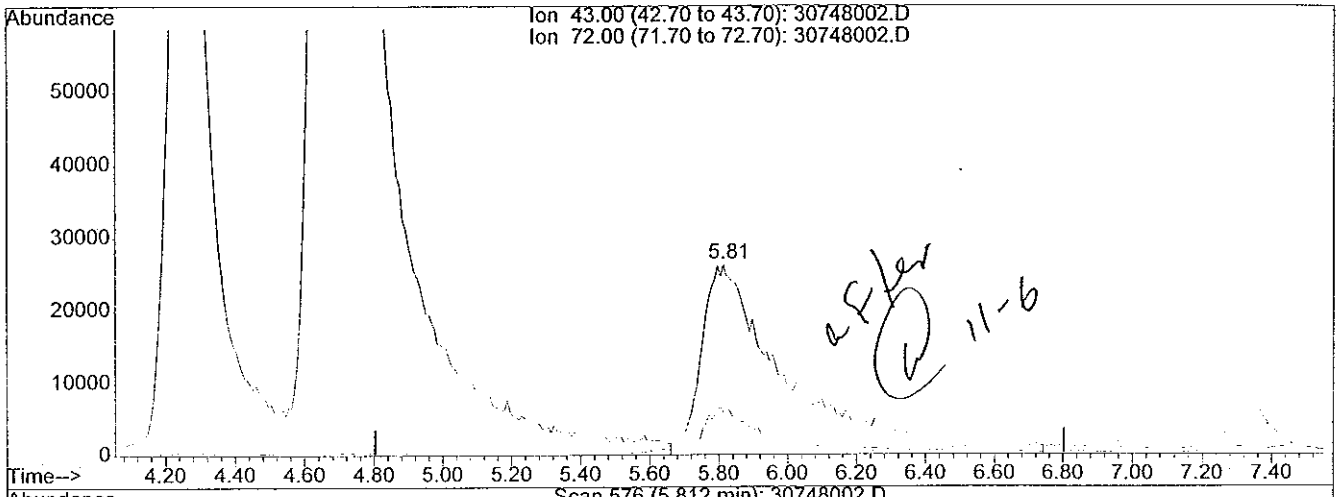
5.81min 24.03ug/L

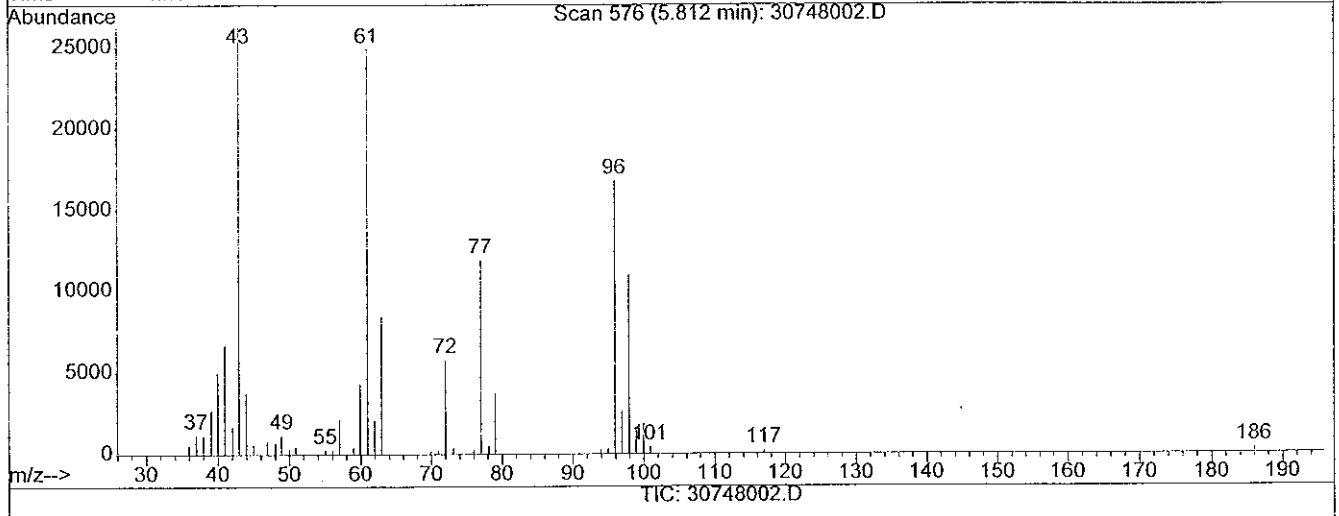
response 280637

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.88
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:03 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30748002.D

(19) 2-Butanone (TM)

5.81min 40.27ug/L m

response 470290

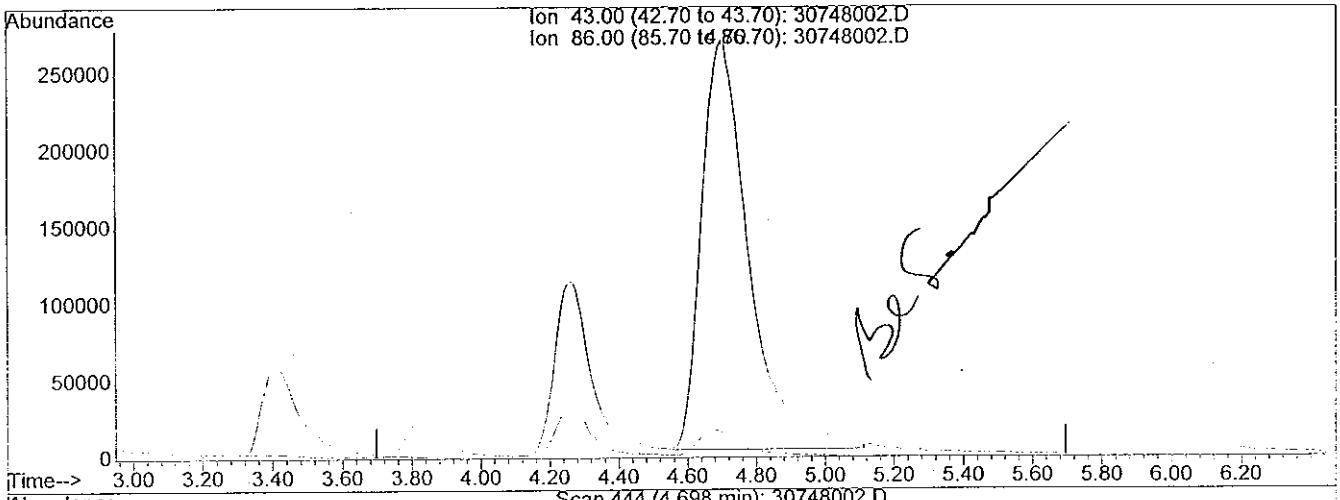
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	22.15
0.00	0.00	0.00
0.00	0.00	0.00

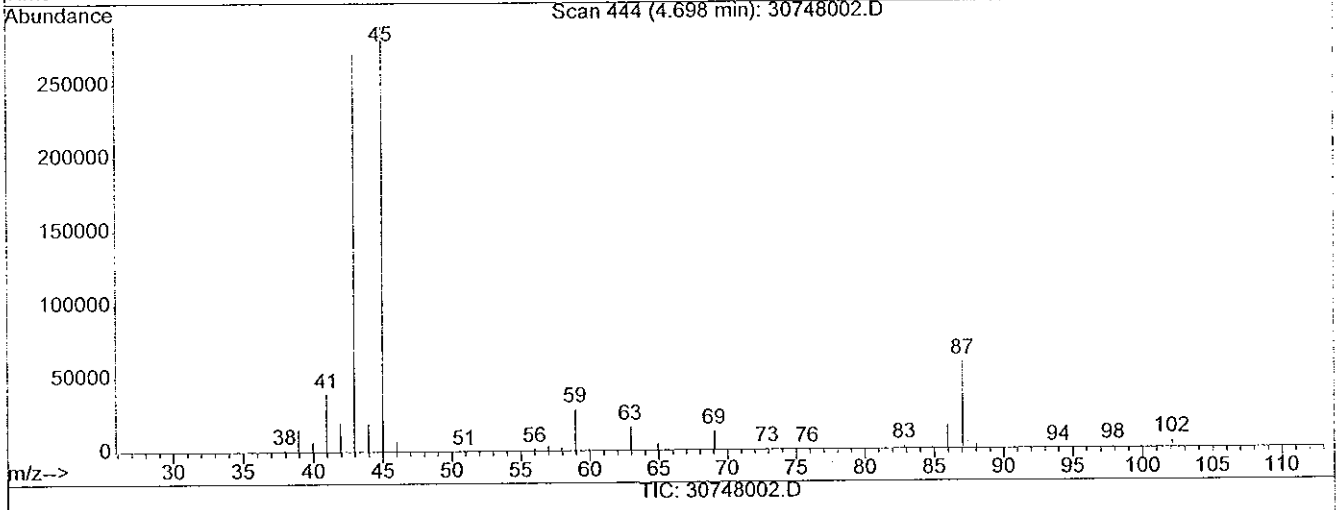
Data File : D:\HPCHEM\1\DATA\110501\30748002.D
Acq On : 5 Nov 2001 8:24
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 5 10:03 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30748002.D

(16) Vinyl acetate (TM)

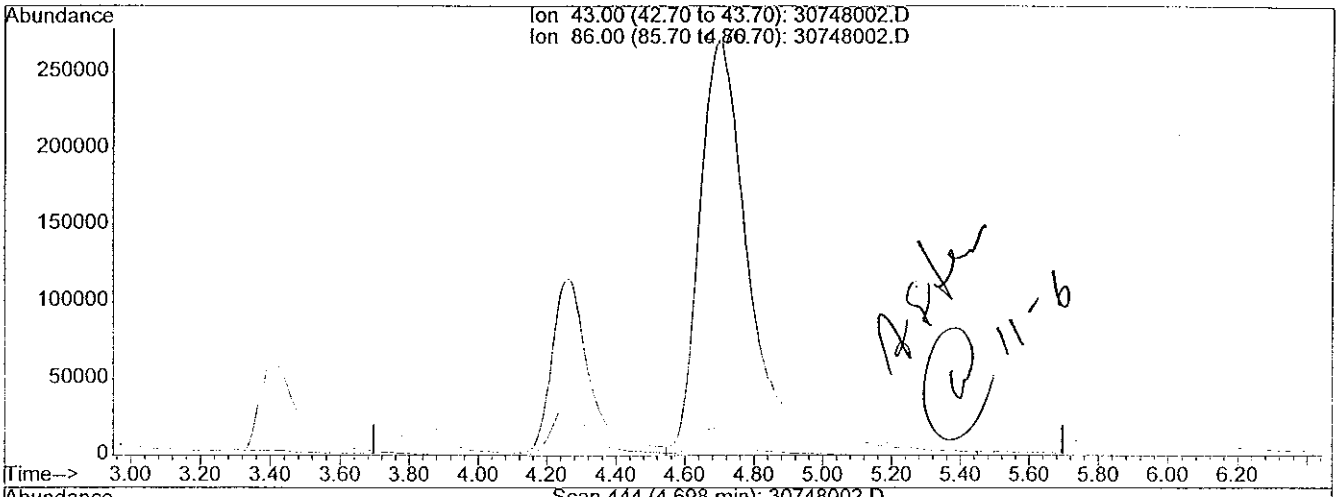
4.70min 18.12ug/L

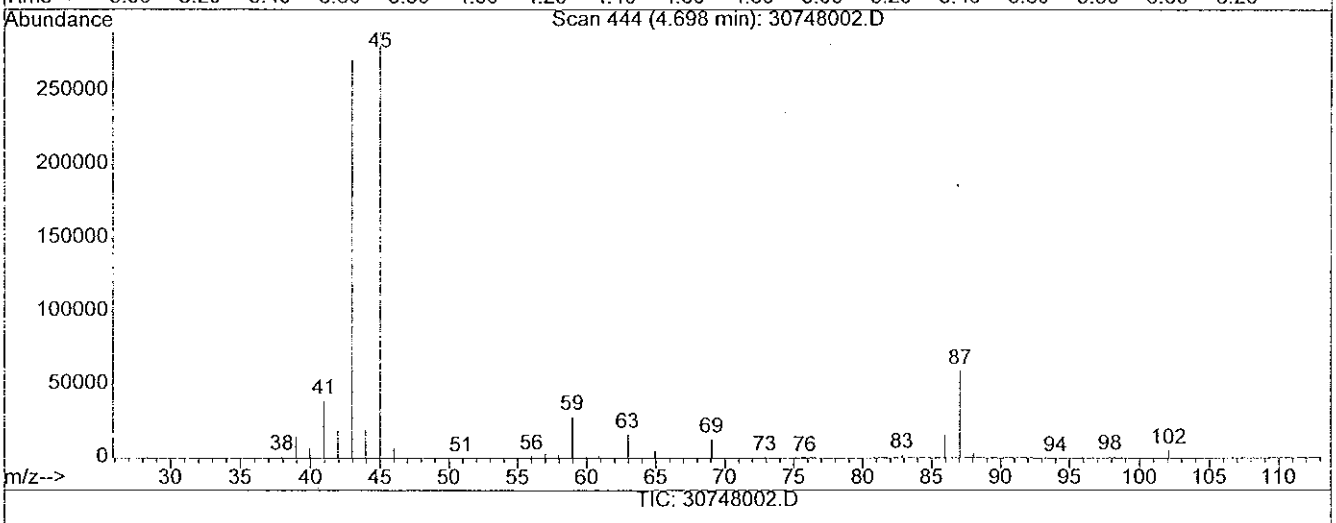
response 2557806

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	6.10
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:04 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30748002.D

(16) Vinyl acetate (TM)

4.70min 20.06ug/L m

response 2832449

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	6.14
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748003.D
Acq On : 5 Nov 2001 9:05
Sample : BUW150ABK BLANK 11-05-01
Misc : BUW150ABK BLANK 11-05-01
MS Integration Params: rteint.p
Quant Time: Nov 5 10:05 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3036543	10.00	ug/L	0.00 / 105.15%
25) i-1,4-Difluorobenzene	9.06	114	2981059	10.00	ug/L	0.00 / 101.81%
46) i-Chlorobenzene-d5	15.31	117	2142947	10.00	ug/L	-0.03 / 103.21%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1045036	10.00	ug/L	-0.02 / 89.29%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1407789	10.01	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.10%			
36) s-Toluene-d8	12.32	98	2841250	10.06	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.60%			
56) s-4-Bromofluorobenzene	18.82	95	1594204	9.79	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.90%			

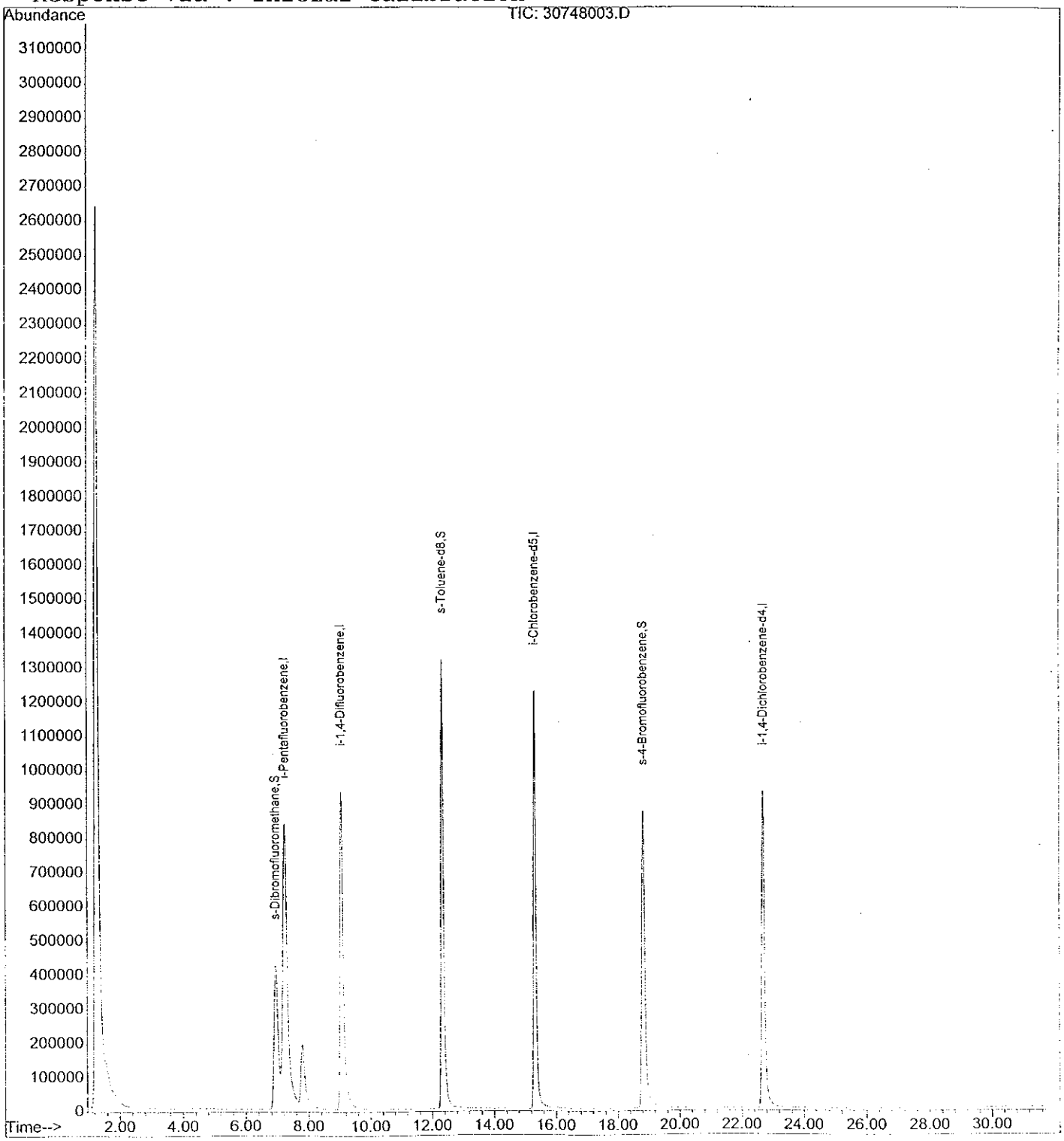
Target Compounds Qvalue

502

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748003.D Vial: 16
Acq On : 5 Nov 2001 9:05 Operator: GRH
Sample : BUW150ABK BLANK 11-05-01 Inst : Bubba
Misc : BUW150ABK BLANK 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:05 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



50.

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 5 Nov 2001 9:05
Data File: D:\HPCHEM\1\DATA\BUBBA\110501\30748003.D
Name: BUW150ABK BLANK 11-05-01
Misc: BUW150ABK BLANK 11-05-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30748003.D V82625B1.M Tue Nov 06 13:42:52 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.31	10.00	93.08	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.00	10.00	100.00	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.09	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.99	10.00	89.85	30 to 152%	[ ]
3)	PM	Chloromethane	8.78	10.00	87.76	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.60	10.00	96.03	72 to 116%	[ ]
5)	T	Bromomethane	9.37	10.00	93.73	63 to 140%	[ ]
6)	T	Chloroethane	9.80	10.00	98.02	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.13	10.00	101.26	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.96	10.00	99.55	84 to 117%	[ ]
9)	T	Acetone	14.72	20.00	73.59	24 to 158%	[ ]
10)	T	Iodomethane	9.81	10.00	98.15	60 to 135%	[ ]
11)	T	Carbon disulfide	10.58	10.00	105.77	79 to 118%	[ ]
12)	T	Methylene chloride	9.18	10.00	91.82	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.32	10.00	93.20	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	8.64	10.00	86.37	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.14	10.00	91.43	90 to 114%	[ ]
16)	T	Vinyl acetate	13.65	20.00	68.27	75 to 114%	[*]
17)	T	Isopropyl ether	9.61	10.00	96.07	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.32	10.00	93.16	74 to 112%	[ ]
19)	T	2-Butanone	17.66	20.00	88.31	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.06	10.00	100.61	90 to 117%	[ ]
21)	T	Bromochloromethane	9.72	10.00	97.17	91 to 129%	[ ]
22)	CM	Chloroform	9.38	10.00	93.76	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	9.94	10.00	99.40	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.51	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.68	10.00	106.85	84 to 112%	[ ]
28)	T	Benzene	9.72	10.00	97.16	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.11	10.00	91.13	88 to 125%	[ ]
30)	T	Trichloroethene	9.89	10.00	98.92	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	9.78	10.00	97.81	87 to 112%	[ ]
32)	T	Dibromomethane	9.13	10.00	91.27	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.72	10.00	7.16	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.32	10.00	93.25	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.49	10.00	94.92	61 to 133%	[ ]
37)	CM	Toluene	9.66	10.00	96.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.34	10.00	93.43	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.19	10.00	91.94	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.00	10.00	99.96	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	9.45	10.00	94.50	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.27	10.00	92.69	73 to 125%	[ ]

505

* = out of control limits

Data File : D:\HPCHEM\1\DATA\110501\30748004.D
Acq On : 5 Nov 2001 9:46
Sample : BUW150ALCS LCS 11-05-01
Misc : BUW150ALCS LCS 11-05-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.10	10.00	91.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	16.63	20.00	83.15	70 to 128%	[ ]
45)	T	2-Hexanone	16.24	20.00	81.21	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.80	10.00	98.02	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	9.80	10.00	97.99	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.87	10.00	98.73	69 to 123%	[ ]
51)	T	m,p-Xylene	20.13	20.00	100.66	70 to 125%	[ ]
52)	T	o-Xylene	10.12	10.00	101.22	73 to 122%	[ ]
53)	T	Styrene	9.81	10.00	98.14	76 to 127%	[ ]
54)	PM	Bromoform	9.70	10.00	96.97	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.25	10.00	102.52	56 to 134%	[ ]
58)	T	Bromobenzene	9.63	10.00	96.28	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	8.84	10.00	88.44	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	9.32	10.00	93.23	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.28	10.00	102.78	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.92	10.00	99.22	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.22	10.00	102.17	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.83	10.00	98.33	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.90	10.00	99.02	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.06	10.00	100.63	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.30	10.00	102.98	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.62	10.00	96.15	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.53	10.00	105.30	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.63	10.00	96.32	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.42	10.00	94.18	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.92	10.00	109.17	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	9.11	10.00	91.08	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.53	10.00	105.28	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.86	10.00	118.56	74 to 140%	[ ]
76)	T	Naphthalene	9.86	10.00	98.59	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.04	10.00	100.37	43 to 204%	[ ]

596

* = out of control limits

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3015599	10.00	ug/L	0.00 104.42%
25) i-1,4-Difluorobenzene	9.05	114	2960551	10.00	ug/L	0.00 101.11%
46) i-Chlorobenzene-d5	15.31	117	2033147	10.00	ug/L	-0.03 97.92%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1122792	10.00	ug/L	-0.02 95.93%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1299988	9.31	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 93.10%			
36) s-Toluene-d8	12.32	98	2804673	10.00	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.81	95	1546507	10.01	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1376786	8.99	ug/L	99
3) Chloromethane	1.50	50	857290	8.78	ug/L	100
4) Vinyl chloride	1.59	62	984979	9.60	ug/L	97
5) Bromomethane	1.89	96	868700	9.37	ug/L	99
6) Chloroethane	1.99	64	589195	9.80	ug/L	100
7) Trichlorofluoromethane	2.24	101	1699674	10.13	ug/L	99
8) 1,1-Dichloroethene	2.78	96	982230	9.96	ug/L	99
9) Acetone	2.88	43	86690m	14.72	ug/L	98
10) Iodomethane	2.94	142	1191814	9.81	ug/L	100
11) Carbon disulfide	3.00	76	3279763	10.58	ug/L	100
12) Methylene chloride	3.41	84	739772	9.18	ug/L	96
13) trans-1,2-Dichloroethene	3.78	96	1020021	9.32	ug/L	98
14) Methyl tert-butyl ether	3.84	73	1039674	8.64	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1778451	9.14	ug/L	100
16) Vinyl acetate	4.71	43	2013024m	13.65	ug/L	92
17) Isopropyl ether	4.72	45	2940109	9.61	ug/L	98
18) 2,2-Dichloropropane	5.60	77	1343735	9.32	ug/L	99
19) 2-Butanone	5.79	43	215396m	17.66	ug/L	91
20) cis-1,2-Dichloroethene	5.64	96	1000068	10.06	ug/L	98
21) Bromochloromethane	6.21	128	380077m	9.72	ug/L	100
22) Chloroform	6.51	83	1824861	9.38	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748004.D
Acq On : 5 Nov 2001 9:46
Sample : BUW150ALCS LCS 11-05-01
Misc : BUW150ALCS LCS 11-05-01
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	1616183	9.94	ug/L	99
26) Carbon tetrachloride	7.29	119	1407378	9.51	ug/L	99
27) 1,1-Dichloropropene	7.34	110	512876	10.68	ug/L	100
28) Benzene	7.86	78	3122434	9.72	ug/L	100
29) 1,2-Dichloroethane	7.99	62	585435	9.11	ug/L	100
30) Trichloroethene	9.58	95	1281098	9.89	ug/L	98
31) 1,2-Dichloropropane	10.08	63	1050977	9.78	ug/L	99
32) Dibromomethane	10.34	93	437616	9.13	ug/L	98
33) 2-Chloroethyl vinyl ether	11.39	63	12723	0.72	ug/L	53
34) Bromodichloromethane	10.81	83	1386450	9.32	ug/L	99
35) cis-1,3-Dichloropropene	11.82	75	1098588	9.49	ug/L	98
37) Toluene	12.46	92	1998959	9.66	ug/L	100
38) trans-1,3-Dichloropropene	13.05	75	666722	9.34	ug/L	98
39) 1,1,2-Trichloroethane	13.40	83	440714	9.19	ug/L	96
40) Tetrachloroethene	13.58	166	1494892	10.00	ug/L	100
41) 1,3-Dichloropropane	13.70	76	865294	9.45	ug/L	98
42) Dibromochloromethane	14.15	129	809483	9.27	ug/L	99
43) 1,2-Dibromoethane	14.28	107	539838	9.10	ug/L	97
44) 4-Methyl-2-pentanone	12.26	43	560619	16.63	ug/L	99
45) 2-Hexanone	14.03	43	329975	16.24	ug/L	97
47) Chlorobenzene	15.37	112	2092857	9.80	ug/L	100
48) 1,1,1,2-Tetrachloroethane	15.62	131	925909	9.80	ug/L	97
50) Ethylbenzene	15.72	106	1138459	9.87	ug/L	100
51) m,p-Xylene	16.03	106	2794377	20.13	ug/L	100
52) o-Xylene	17.09	106	1307020	10.12	ug/L	100
53) Styrene	17.15	104	2010082	9.81	ug/L	99
54) Bromoform	17.63	173	482741	9.70	ug/L	98
55) Isopropylbenzene	18.35	105	4252521	10.25	ug/L	100
58) Bromobenzene	19.20	156	1003583	9.63	ug/L	97
59) 1,1,2,2-Tetrachloroethane	19.58	83	639636	8.84	ug/L	99
60) 1,2,3-Trichloropropane	19.56	75	370572	9.32	ug/L	100
61) n-Propylbenzene	19.84	120	1048489	10.28	ug/L	100
62) 2-Chlorotoluene	19.97	126	953616	9.92	ug/L	100
63) 4-Chlorotoluene	20.37	91	3429731	10.22	ug/L	100
64) 1,3,5-Trimethylbenzene	20.51	105	3073273	9.83	ug/L	100
65) tert-Butylbenzene	21.54	91	2028686	9.90	ug/L	99
66) 1,2,4-Trimethylbenzene	21.71	105	2759354	10.06	ug/L	98
67) sec-Butylbenzene	22.27	105	4638438	10.30	ug/L	100
68) 1,3-Dichlorobenzene	22.44	146	1844603	9.62	ug/L	99
69) p-Isopropyltoluene	22.81	119	3570668	10.53	ug/L	100
70) 1,4-Dichlorobenzene	22.74	146	1762905	9.63	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

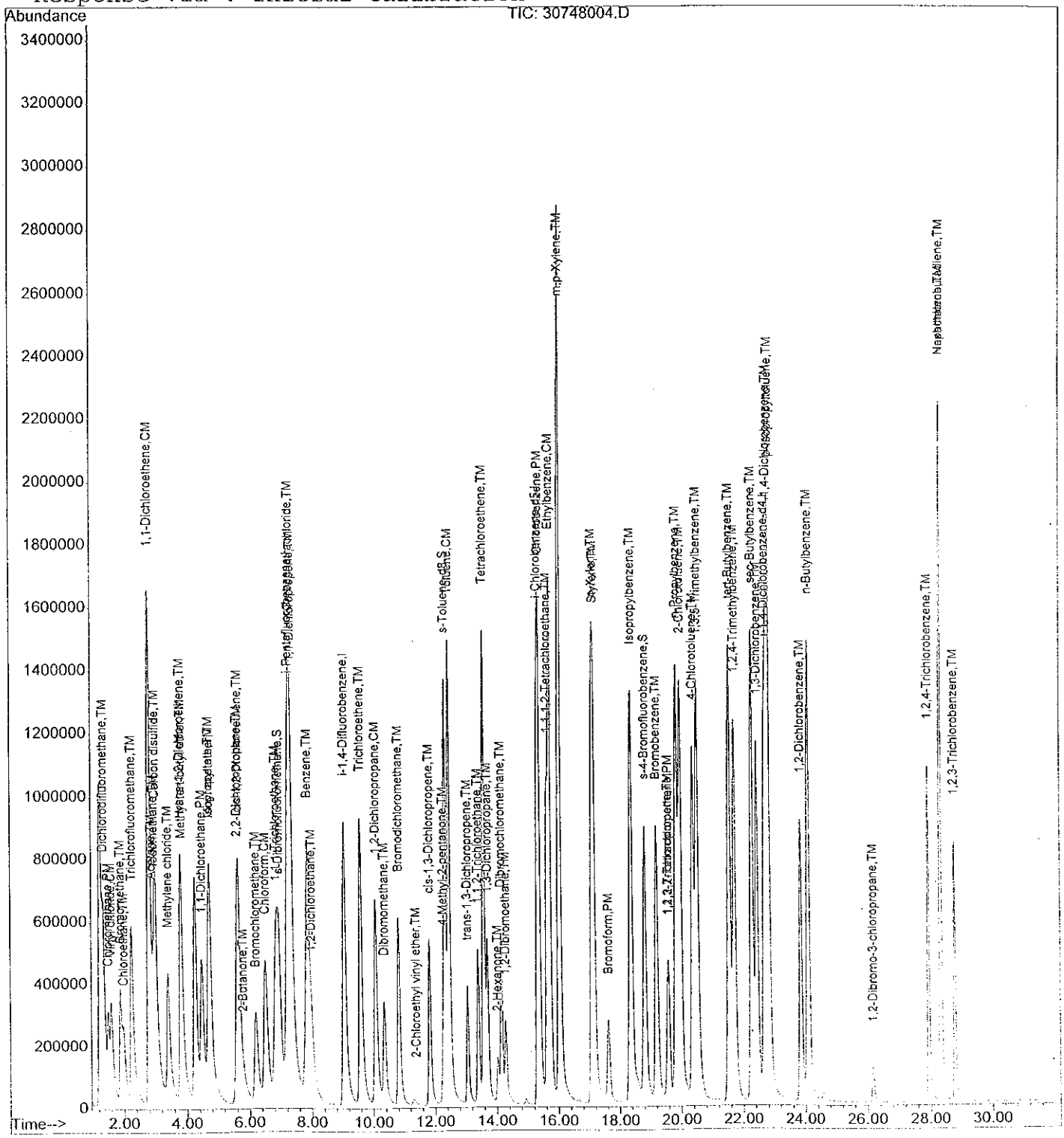
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.85	146	1437572	9.42	ug/L	98
72)	n-Butylbenzene	24.09	91	3428700	10.92	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	88929	9.11	ug/L	94
74)	1,2,4-Trichlorobenzene	27.93	180	902140	10.53	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1017325	11.86	ug/L	99
76)	Naphthalene	28.33	128	644362	9.86	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	641146	10.04	ug/L	100

509

(#) = qualifier out of range (m) = manual integration

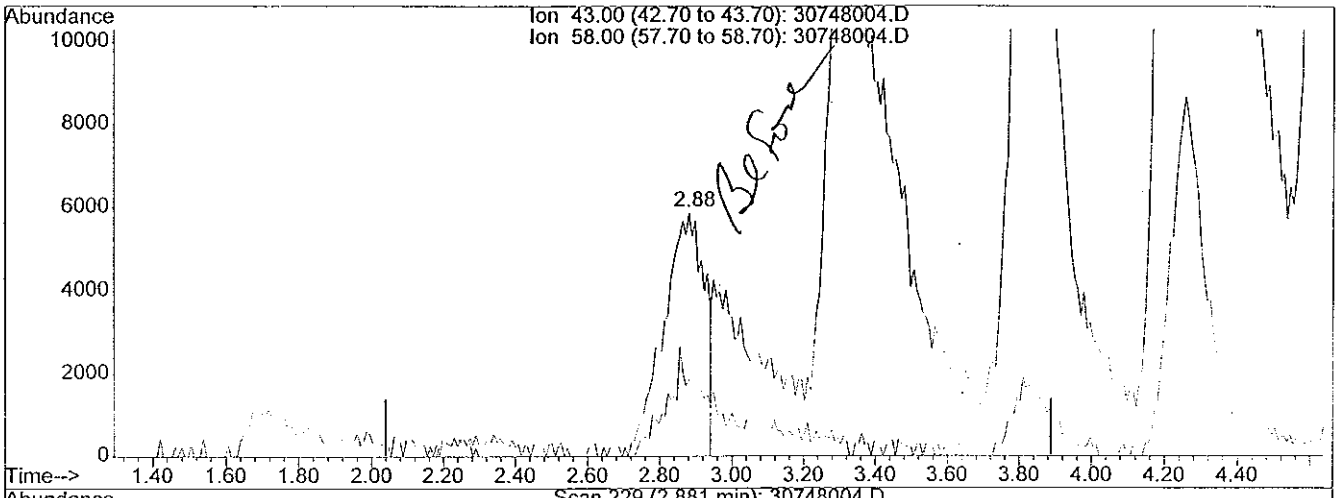
Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001 Quant Results File: V82625B1.RES

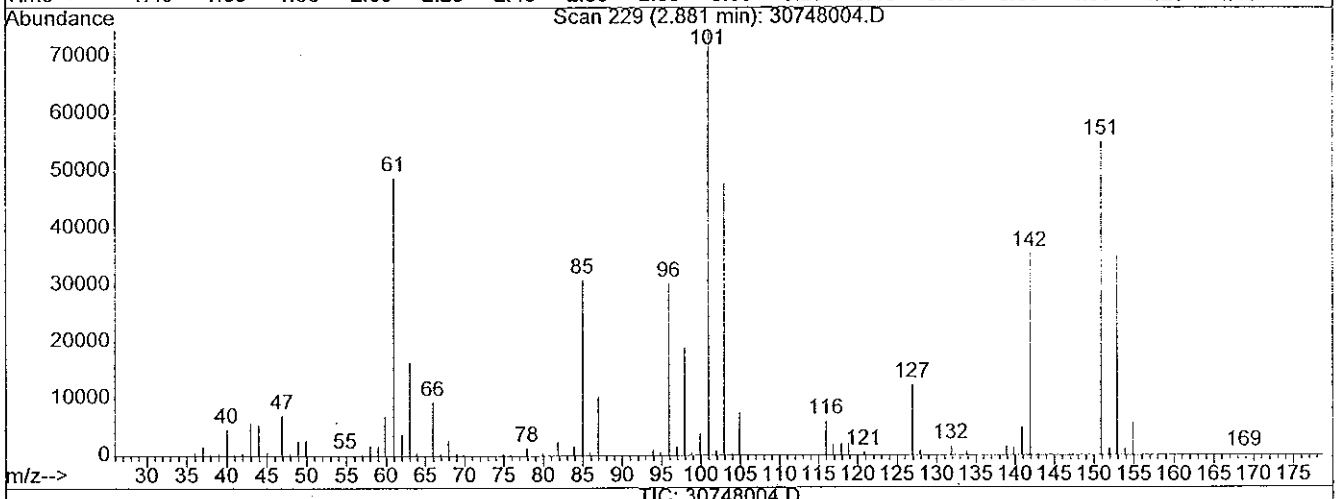
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748004.D

(9) Acetone (TM)

2.88min 7.80ug/L

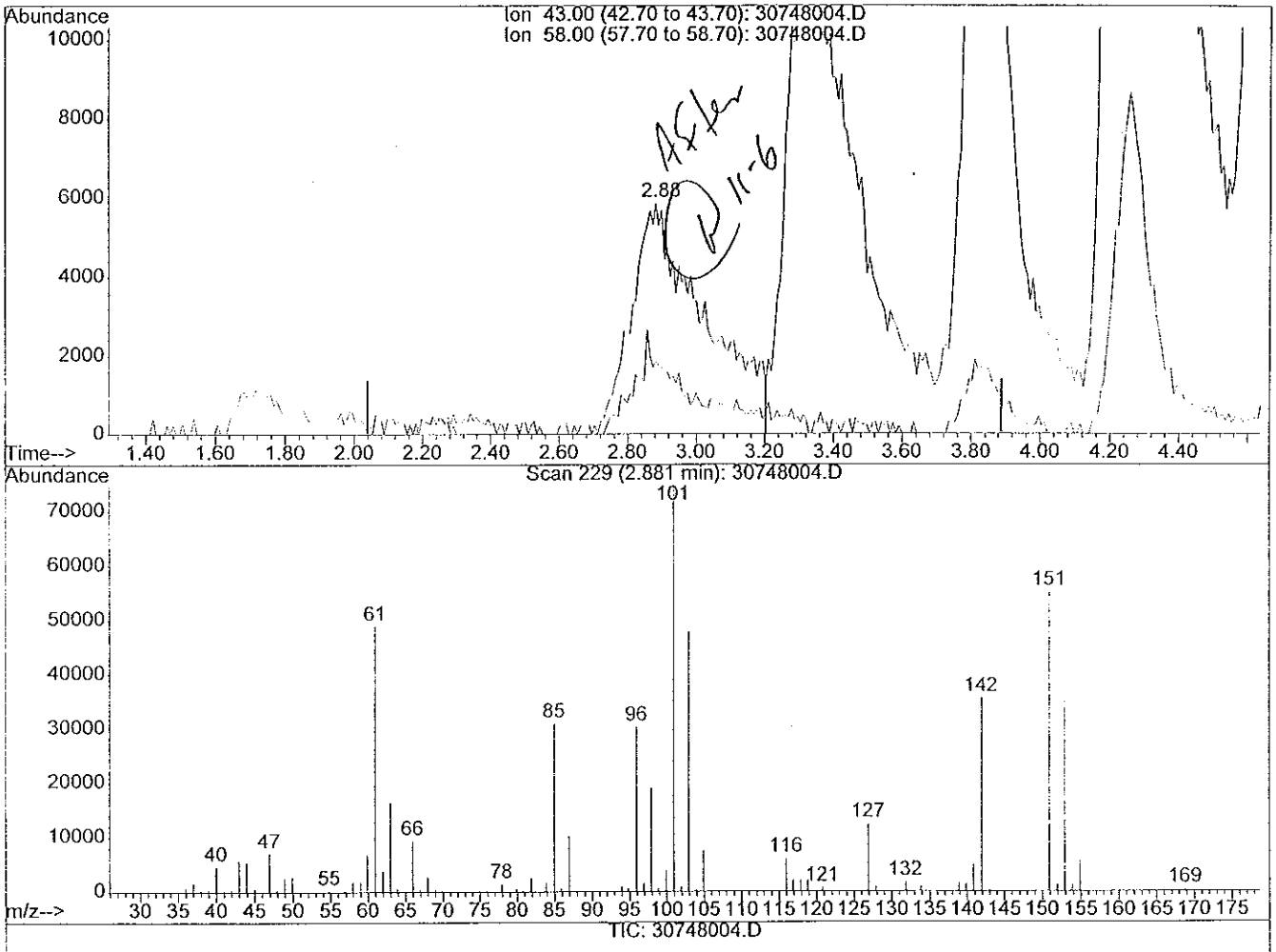
response 46225

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	31.58
0.00	0.00	0.00
0.00	0.00	0.00

30748004.D V82625B1.M Mon Nov 05 10:19:29 2001

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

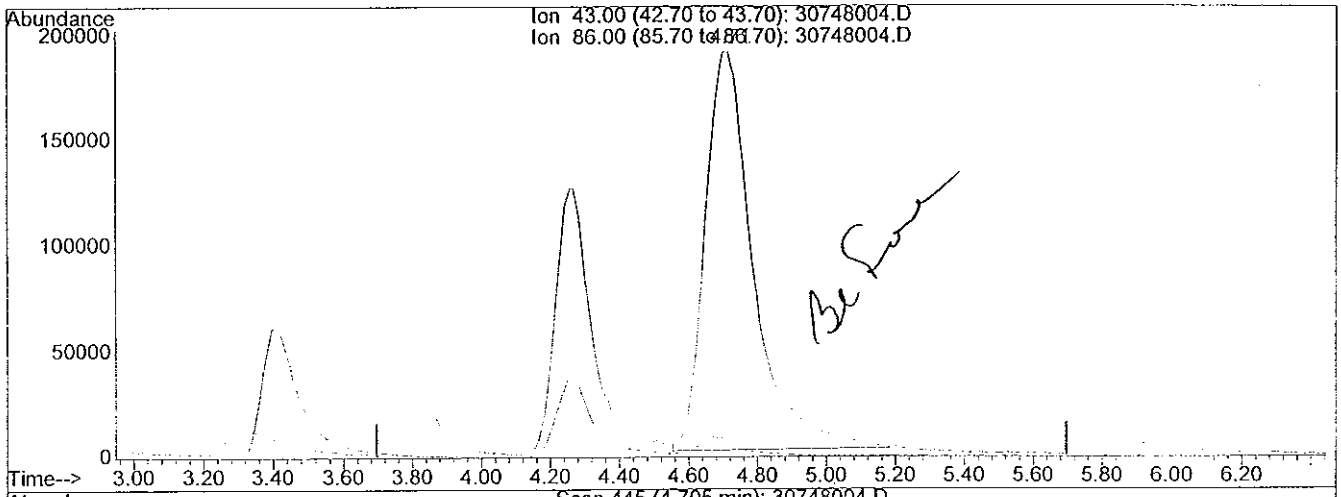
2.88min 14.72ug/L m

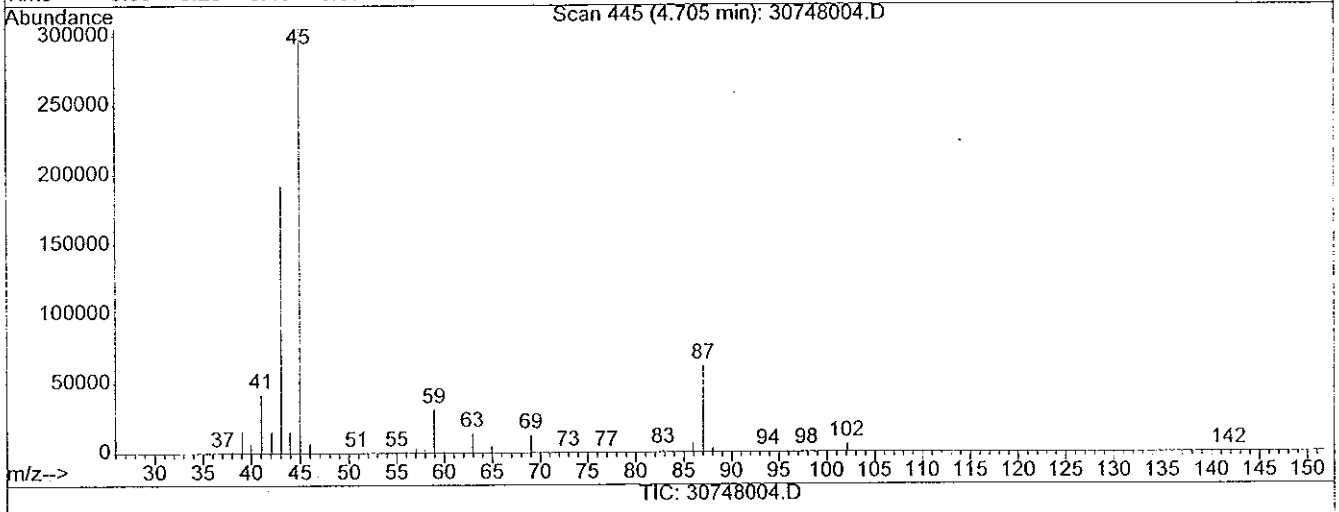
response 86690

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	31.58
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748004.D

(16) Vinyl acetate (TM)

4.71min 12.53ug/L

response 1847106

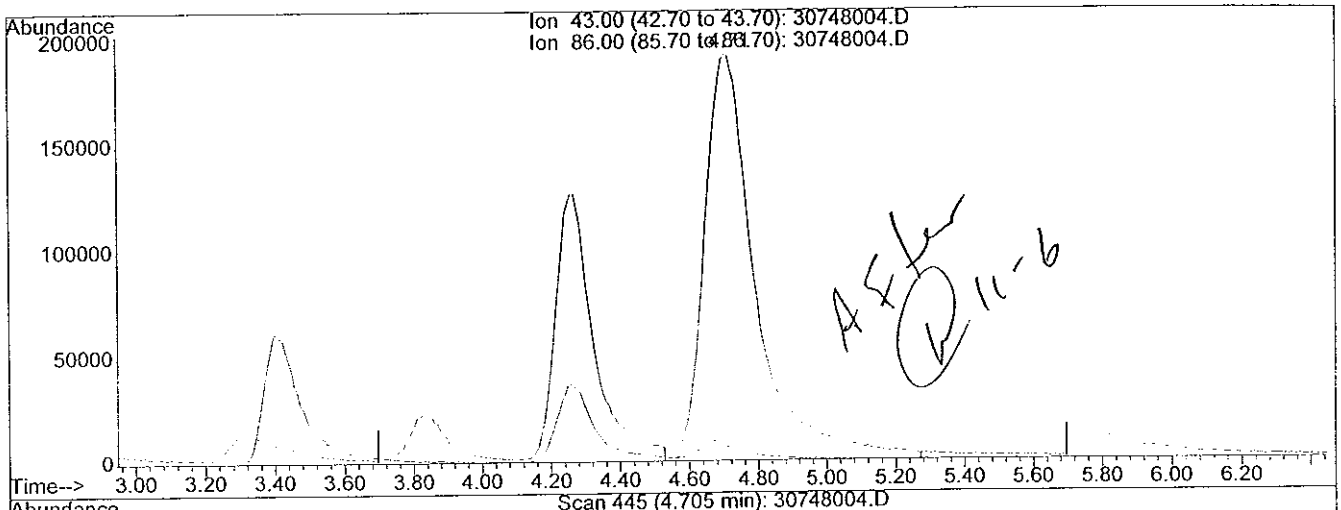
Ion	Exp%	Act%
43.00	100	100
86.00	6.10	3.52
0.00	0.00	0.00
0.00	0.00	0.00

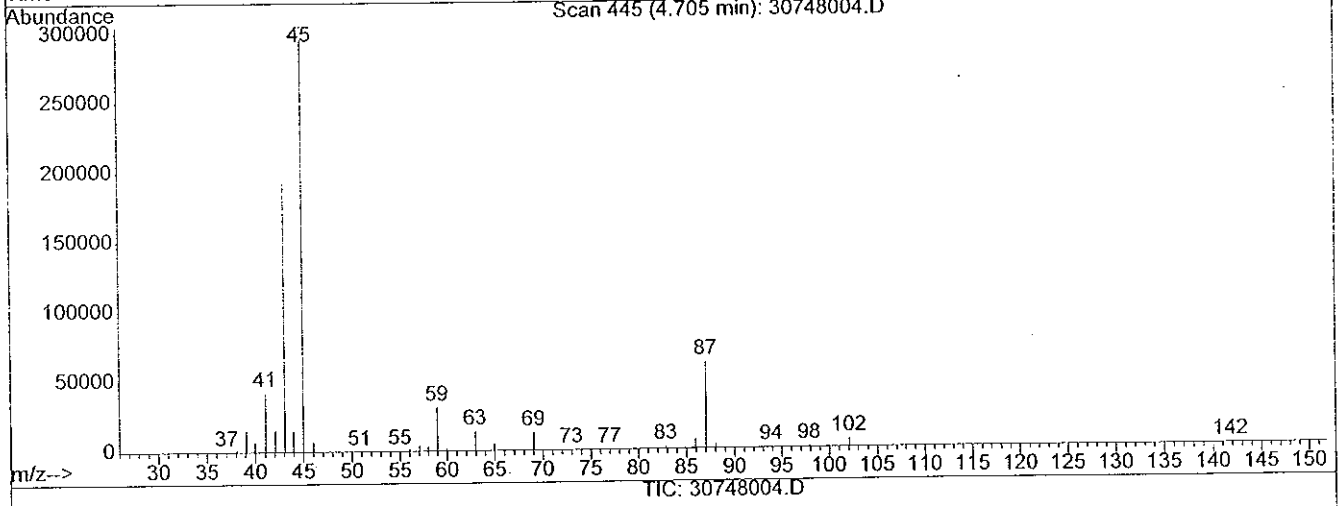
Data File : D:\HPCHEM\1\DATA\110501\30748004.D
Acq On : 5 Nov 2001 9:46
Sample : BUW150ALCS LCS 11-05-01
Misc : BUW150ALCS LCS 11-05-01
MS Integration Params: rteint.p
Quant Time: Nov 5 10:19 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748004.D

(16) Vinyl acetate (TM)

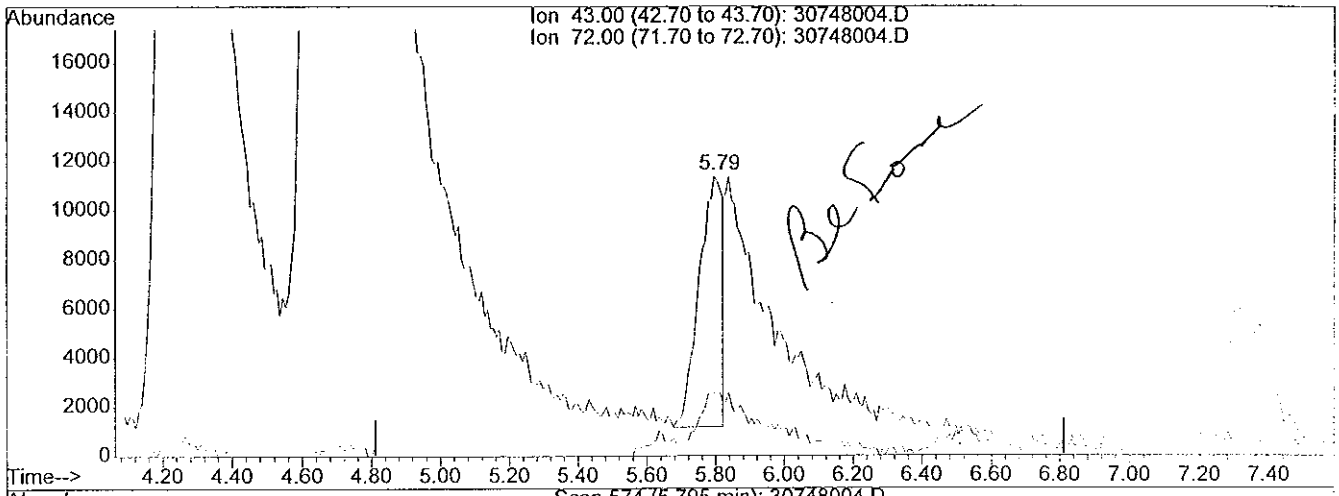
4.71min 13.65ug/L m

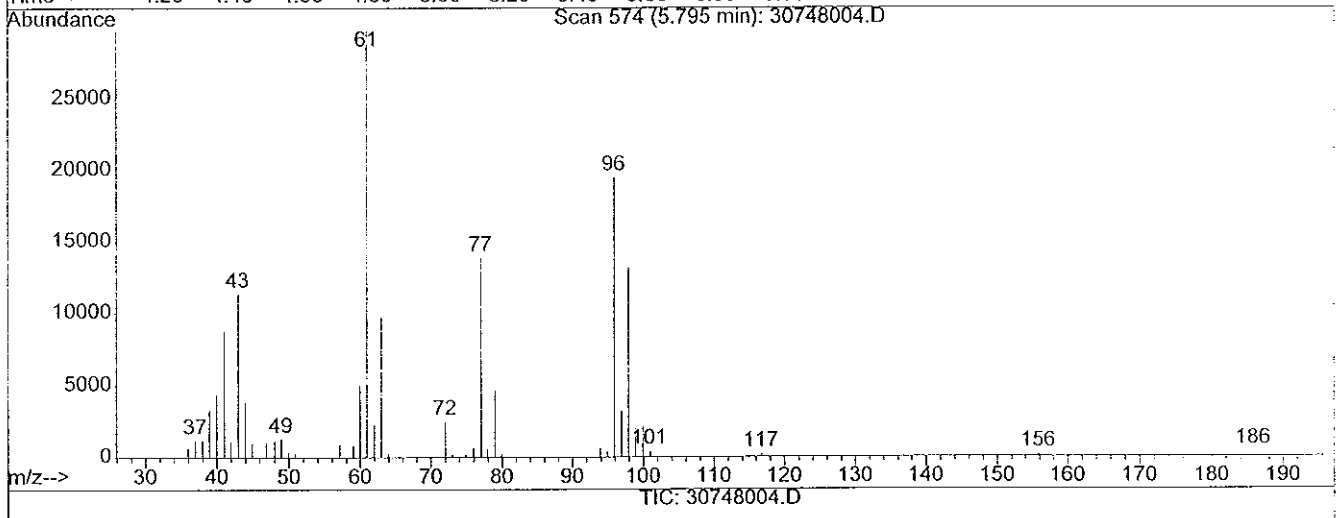
response 2013024

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	3.60
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748004.D

(19) 2-Butanone (TM)

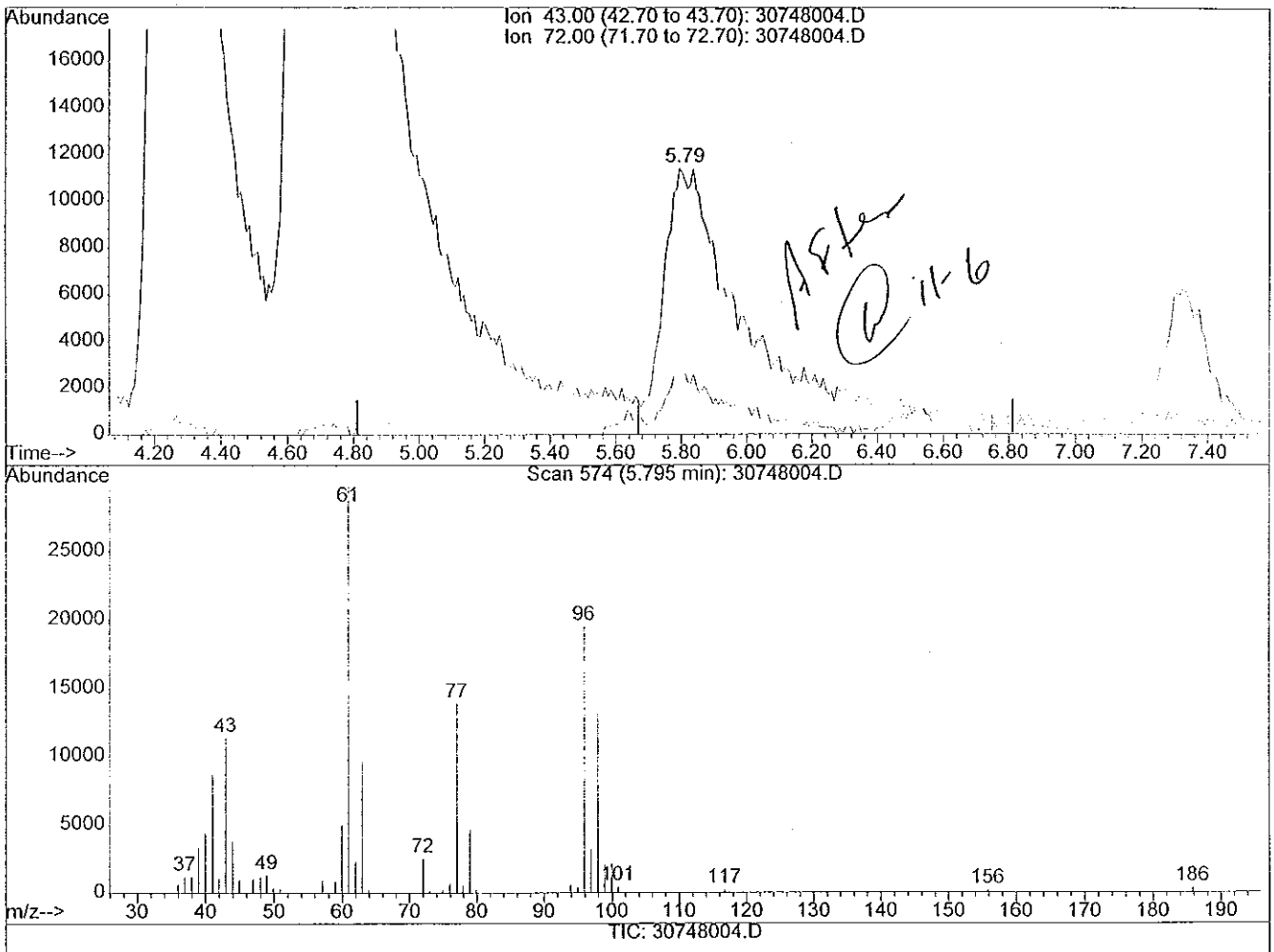
5.79min 3.94ug/L

response 48040

Ion	Exp%	Act%
43.00	100	100
72.00	22.10	17.87
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

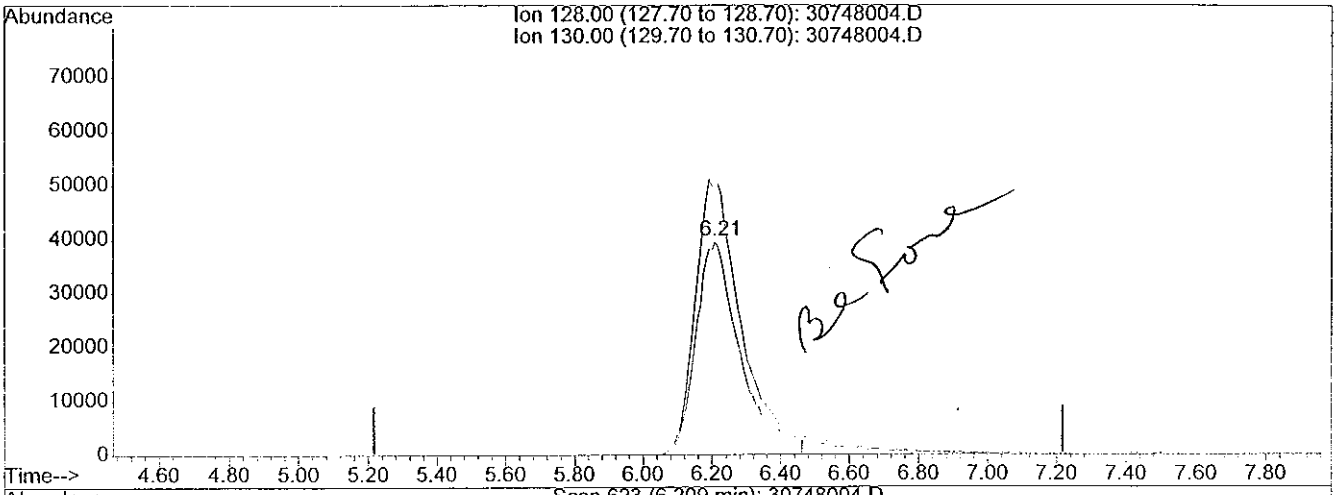
5.79min 17.66ug/L m

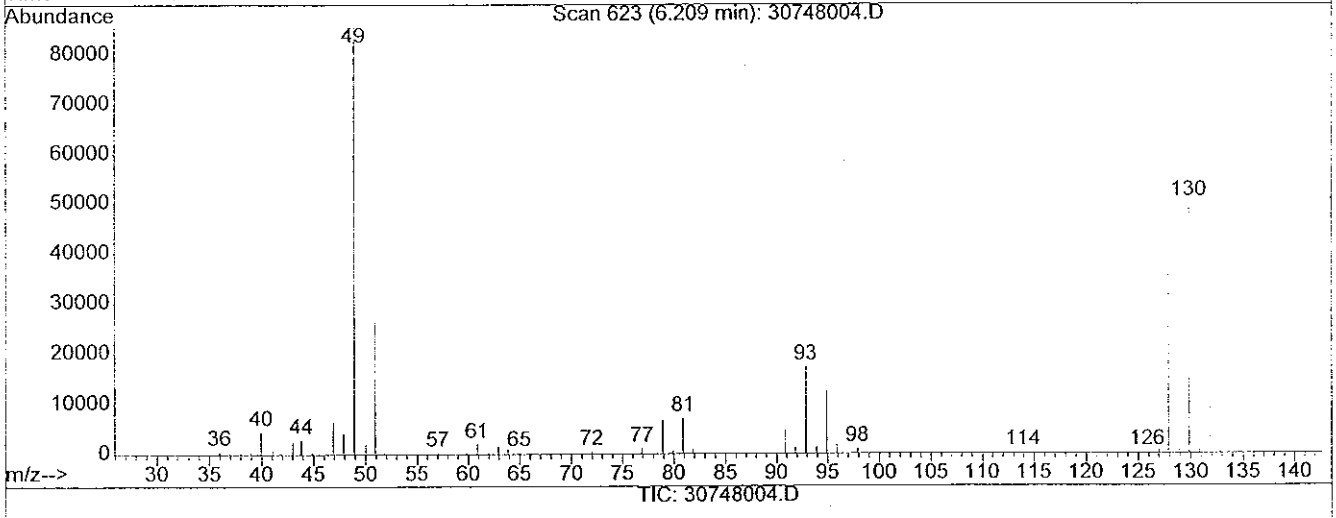
response 215396

Ion	Exp%	Act%
43.00	100	100
72.00	22.10	22.25
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748004.D

(21) Bromochloromethane (TM)

6.21min 9.10ug/L

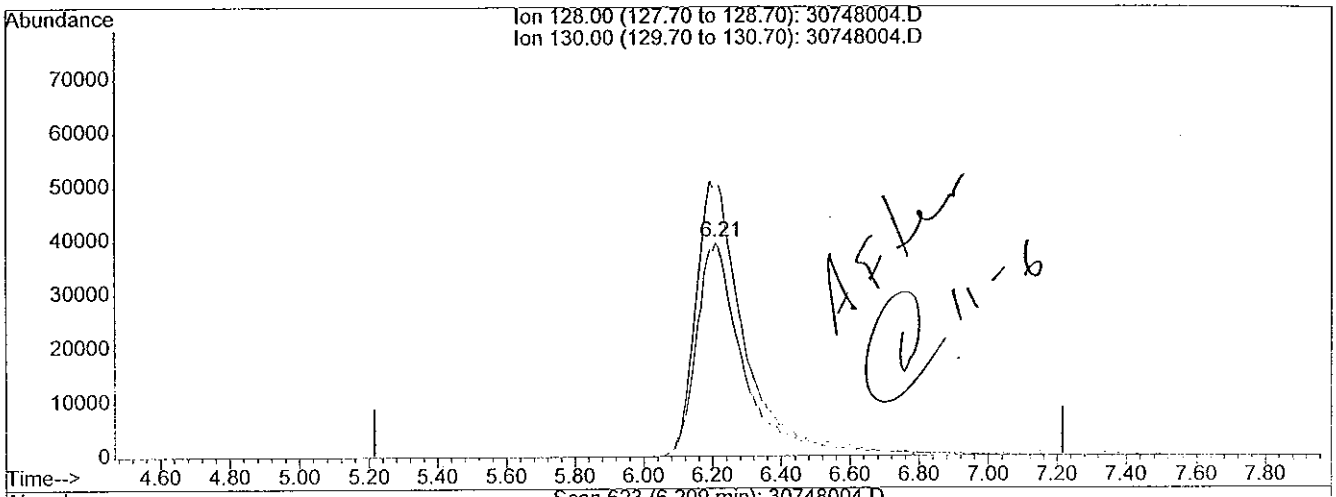
response 355764

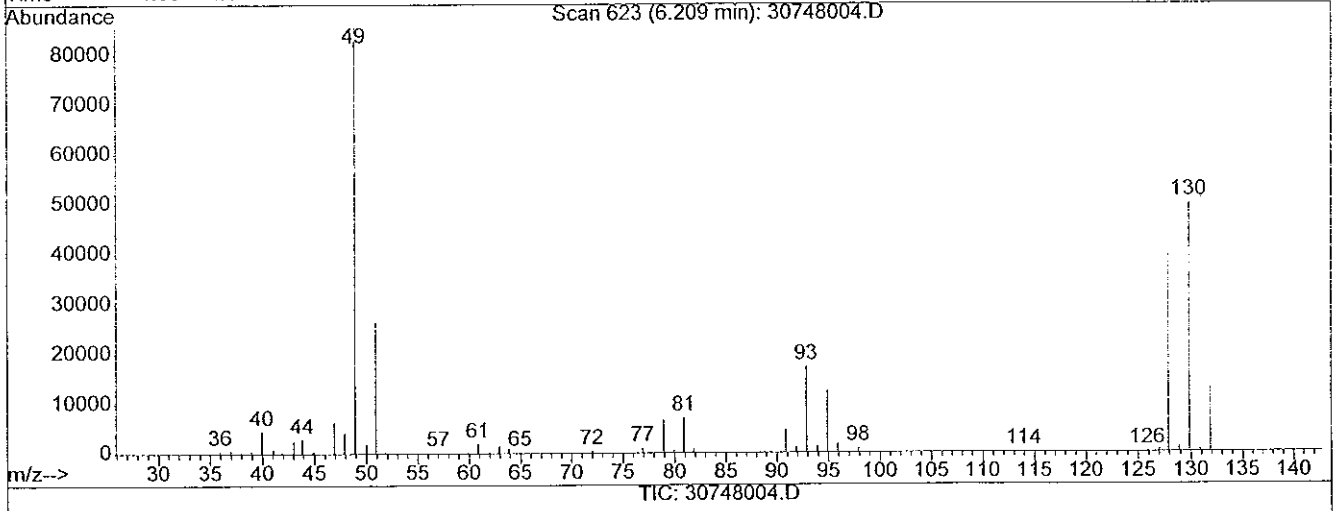
Ion	Exp%	Act%
128.00	100	100
130.00	127.00	126.60
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748004.D
Acq On : 5 Nov 2001 9:46
Sample : BUW150ALCS LCS 11-05-01
Misc : BUW150ALCS LCS 11-05-01
MS Integration Params: rteint.p
Quant Time: Nov 5 10:20 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





(21) Bromochloromethane (TM)

6.21min 9.72ug/L m

response 380077

Ion	Exp%	Act%
128.00	100	100
130.00	127.00	126.60
0.00	0.00	0.00
0.00	0.00	0.00

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Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Non-Spiked Sample: 30748007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30748005.D	30748006.D
Sample :	110655-2 MS 5.00ml 5X	110655-2 MSD 5.00ml 5X
Acq Time:	5 Nov 2001 10:25	5 Nov 2001 11:06

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	8.7	10	87	10.0	100	9.2	92	77-119
s-Toluene-d8	9.8	10	98	9.9	99	9.8	98	78-118
s-4-Bromofluorobenze	9.1	10	91	10.1	101	9.9	99	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	44.10	30.85	88	62	35.4#	12	35-160
Chloromethane	0.0	50	45.17	48.13	90	96	6.3	10	60-124
Vinyl chlorid	0.0	50	48.01	50.25	96	101	4.6	9	74-125
Bromomethane	0.0	50	46.95	47.98	94	96	2.2	17	59-152
Chloroethane	0.0	50	50.44	50.95	101	102	1.0	10	73-123
Trichlorofluo	0.0	50	50.49	51.85	101	104	2.6	10	84-125
1,1-Dichloroe	0.0	50	49.91	52.31	100	105	4.7	13	84-119
Acetone	0.0	100	95.25	74.60	95	75	24.3	44	19-201
Iodomethane	0.0	50	47.16	49.49	94	99	4.8	15	53-154
Carbon disulf	0.0	50	53.36	56.07	107	112	5.0	12	79-123
Methylene chl	0.0	50	49.80	48.74	100	97	2.1	18	81-121
trans-1,2-Dic	0.0	50	47.34	48.89	95	98	3.2	9	87-115
Methyl tert-b	0.0	50	52.64	43.96	105	88	18.0	32	68-133
1,1-Dichloroe	0.0	50	46.71	47.48	93	95	1.6	10	85-121
Vinyl acetate	0.0	100	80.58	71.31	81	71	12.2	20	69-122
Isopropyl eth	0.0	50	53.62	49.13	107	98	8.7	18	79-118
2,2-Dichlorop	0.0	50	46.71	47.19	93	94	1.0	10	78-116
2-Butanone	0.0	100	128.57	99.21	129	99	25.8	47	65-133
cis-1,2-Dichl	37.2	50	92.04	85.52	110	97	12.7	14	88-122
Bromochlorome	0.0	50	49.76	48.10	100	96	3.4	18	85-130
Chloroform	0.0	50	48.66	48.64	97	97	0.0	13	87-117
1,1,1-Trichlo	0.0	50	50.30	52.25	101	104	3.8	10	90-120
Carbon tetrac	0.0	50	45.92	48.97	92	98	6.4	11	78-121
1,1-Dichlorop	0.0	50	49.21	56.99	98	114	14.7#	12	84-118
Benzene	0.9	50	48.98	50.67	96	99	3.5	8	67-148
1,2-Dichloroe	0.0	50	49.89	44.30	100	89	11.9	17	85-129
Trichloroethe	14.4	50	60.98	63.15	93	98	4.6	11	86-115
1,2-Dichlorop	0.0	50	50.47	49.96	101	100	1.0	12	88-114
Dibromomethan	0.0	50	51.95	46.40	104	93	11.3	20	81-130

2-Chloroethyl	0.0	50	4.19	0.00	8#	0#	200.0#	30	50-150
Bromodichloro	0.0	50	50.01	47.92	100	96	4.3	15	87-121
cis-1,3-Dichl	0.0	50	50.91	48.35	102	97	5.2	19	65-133
Toluene	0.0	50	47.71	49.85	95	100	4.4	8	86-123
trans-1,3-Dic	0.0	50	52.49	47.84	105	96	9.3	19	53-144
1,1,2-Trichlo	0.0	50	52.07	46.48	104	93	11.3	20	85-125
Tetrachloroet	0.0	50	48.94	52.10	98	104	6.3	13	87-131
1,3-Dichlorop	0.0	50	53.52	47.08	107	94	12.8	19	73-126
Dibromochloro	0.0	50	52.21	46.98	104	94	10.5	27	83-122
1,2-Dibromoet	0.0	50	52.72	45.36	105	91	15.0	26	36-153
4-Methyl-2-pe	0.0	100	105.85	82.87	106	83	24.4	35	64-133
2-Hexanone	0.0	100	117.33	88.83	117	89	27.7	36	49-144
Chlorobenzene	0.0	50	48.01	50.71	96	101	5.5	10	66-156
1,1,1,2-Tetra	0.0	50	49.54	50.62	99	101	2.2	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.30	51.29	95	103	8.1	14	78-132
m,p-Xylene	0.0	100	96.58	105.46	97	105	8.8	20	76-129
o-Xylene	0.0	50	48.80	51.93	98	104	6.2	13	76-127
Styrene	0.0	50	46.99	48.27	94	97	2.7	43	55-138
Bromoform	0.0	50	55.04	48.06	110	96	13.5	29	62-124
Isopropylbenz	0.0	50	48.64	53.33	97	107	9.2	20	65-149
Bromobenzene	0.0	50	48.38	50.21	97	100	3.7	14	73-140
1,1,2,2-Tetra	0.0	50	51.20	46.51	102	93	9.6	25	75-127
1,2,3-Trichlo	0.0	50	53.51	47.95	107	96	11.0	26	75-127
n-Propylbenze	0.0	50	48.62	54.30	97	109	11.0	16	76-123
2-Chlorotolue	0.0	50	47.34	52.85	95	106	11.0	15	85-122
4-Chlorotolue	0.0	50	48.69	53.43	97	107	9.3	13	87-122
1,3,5-Trimeth	0.0	50	45.69	51.09	91	102	11.2	25	72-140
tert-Butylben	0.0	50	46.21	51.99	92	104	11.8	16	73-113
1,2,4-Trimeth	0.0	50	48.03	53.03	96	106	9.9	30	50-158
sec-Butylbenz	0.0	50	47.81	54.88	96	110	13.8	18	62-144
1,3-Dichlorob	0.0	50	47.37	50.70	95	101	6.8	10	89-118
p-Isopropylto	0.0	50	48.78	55.56	98	111	13.0	22	35-190
1,4-Dichlorob	0.0	50	47.29	50.77	95	102	7.1	10	78-138
1,2-Dichlorob	0.0	50	48.27	49.60	97	99	2.7	12	86-120
n-Butylbenzen	0.0	50	51.56	58.15	103	116	12.0	40	0-270
1,2-Dibromo-3	0.0	50	55.95	48.64	112	97	14.0	33	71-118
1,2,4-Trichlo	0.0	50	55.44	56.23	111	112	1.4	32	30-230
Hexachlorobut	0.0	50	55.39	64.74	111	129	15.6	18	70-156
Naphthalene	0.0	50	58.26	52.97	117	106	9.5	42	17-260
1,2,3-Trichlo	0.0	50	55.62	56.37	111	113	1.3	33	49-214

- Fails Limit Check

V82625B1.M Tue Nov 06 14:00:39 2001

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2825056	10.00	ug/L	0.00 97.82%
25) i-1,4-Difluorobenzene	9.07	114	2850829	10.00	ug/L	0.00 97.36%
46) i-Chlorobenzene-d5	15.31	117	2015573	10.00	ug/L	-0.02 97.08%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1135243	10.00	ug/L	-0.02 97.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1305920	9.98	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.80%			
36) s-Toluene-d8	12.33	98	2687140	9.95	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.50%			
56) s-4-Bromofluorobenzene	18.81	95	1552252	10.13	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1266080	44.10	ug/L	99
3) Chloromethane	1.49	50	826767	45.17	ug/L	97
4) Vinyl chloride	1.59	62	922706	48.01	ug/L	97
5) Bromomethane	1.89	96	815251	46.95	ug/L	98
6) Chloroethane	1.98	64	568105	50.44	ug/L	99
7) Trichlorofluoromethane	2.23	101	1587851	50.49	ug/L	98
8) 1,1-Dichloroethene	2.77	96	922708	49.91	ug/L	97
9) Acetone	2.87	43	104950m	95.25	ug/L	94
10) Iodomethane	2.93	142	1072983	47.16	ug/L	100
11) Carbon disulfide	2.99	76	3100348	53.36	ug/L	100
12) Methylene chloride	3.41	84	751780	49.80	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	970674	47.34	ug/L	100
14) Methyl tert-butyl ether	3.83	73	1187090	52.64	ug/L	98
15) 1,1-Dichloroethane	4.48	63	1702493	46.71	ug/L	99
16) Vinyl acetate	4.71	43	2225874m	80.58	ug/L	94
17) Isopropyl ether	4.73	45	3074450	53.62	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1262290	46.71	ug/L	97
19) 2-Butanone	5.81	43	293781m	128.57	ug/L	89
20) cis-1,2-Dichloroethene	5.67	96	1717281	92.04	ug/L	93
21) Bromochloromethane	6.22	128	364704	49.76	ug/L	98
22) Chloroform	6.52	83	1774522	48.66	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748005.D
Acq On : 5 Nov 2001 10:25
Sample : 110655-2 MS 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1532548	50.30	ug/L	99
26)	Carbon tetrachloride	7.32	119	1307940	45.92	ug/L	99
27)	1,1-Dichloropropene	7.35	110	456191	49.21	ug/L	100
28)	Benzene	7.89	78	3031452	48.98	ug/L	100
29)	1,2-Dichloroethane	8.00	62	617183	49.89	ug/L	98
30)	Trichloroethene	9.60	95	1520906	60.98	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1044507	50.47	ug/L	99
32)	Dibromomethane	10.36	93	479746	51.95	ug/L	99
33)	2-Chloroethyl vinyl ether	11.41	63	14345	4.19	ug/L	53
34)	Bromodichloromethane	10.82	83	1432168	50.01	ug/L	100
35)	cis-1,3-Dichloropropene	11.82	75	1134765	50.91	ug/L	98
37)	Toluene	12.47	92	1901395	47.71	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	721460	52.49	ug/L	98
39)	1,1,2-Trichloroethane	13.40	83	480689	52.07	ug/L	98
40)	Tetrachloroethene	13.58	166	1409462	48.94	ug/L	99
41)	1,3-Dichloropropane	13.70	76	943841	53.52	ug/L	99
42)	Dibromochloromethane	14.14	129	878242	52.21	ug/L	99
43)	1,2-Dibromoethane	14.28	107	602247	52.72	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	687245	105.85	ug/L	97
45)	2-Hexanone	14.02	43	459057	117.33	ug/L	98
47)	Chlorobenzene	15.37	112	2032687	48.01	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	928151	49.54	ug/L	98
50)	Ethylbenzene	15.72	106	1081358	47.30	ug/L	100
51)	m,p-Xylene	16.03	106	2658192	96.58	ug/L	100
52)	o-Xylene	17.10	106	1249398	48.80	ug/L	98
53)	Styrene	17.17	104	1908387	46.99	ug/L	97
54)	Bromoform	17.63	173	543292	55.04	ug/L	98
55)	Isopropylbenzene	18.36	105	4000358	48.64	ug/L	99
58)	Bromobenzene	19.21	156	1019775	48.38	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	748760	51.20	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	429703	53.51	ug/L	93
61)	n-Propylbenzene	19.85	120	1002928	48.62	ug/L	100
62)	2-Chlorotoluene	19.98	126	920063	47.34	ug/L	100
63)	4-Chlorotoluene	20.37	91	3305145	48.69	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	2887518	45.69	ug/L	99
65)	tert-Butylbenzene	21.55	91	1914372	46.21	ug/L	98
66)	1,2,4-Trimethylbenzene	21.71	105	2663149	48.03	ug/L	99
67)	sec-Butylbenzene	22.27	105	4354845	47.81	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	1837740	47.37	ug/L	98
69)	p-Isopropyltoluene	22.82	119	3345008	48.78	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1750169	47.29	ug/L	98

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(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748005.D
Acq On : 5 Nov 2001 10:25
Sample : 110655-2 MS 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

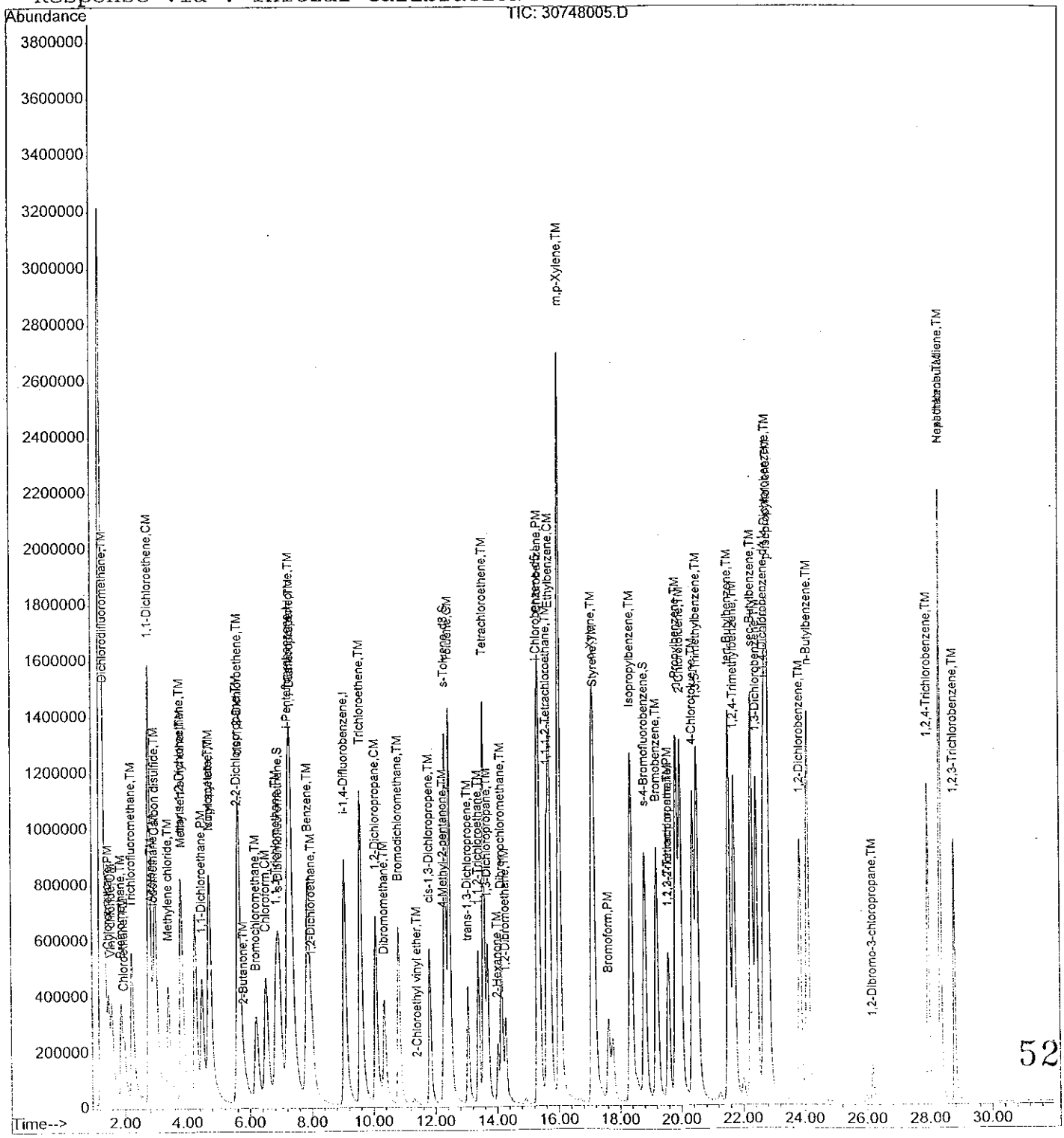
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1489758	48.27	ug/L	98
72)	n-Butylbenzene	24.09	91	3274418	51.56	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	110462	55.95	ug/L	96
74)	1,2,4-Trichlorobenzene	27.94	180	960669	55.44	ug/L	99
75)	Hexachlorobutadiene	28.33	225	963107	55.39	ug/L	100
76)	Naphthalene	28.34	128	769981	58.26	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	718442	55.62	ug/L	100

523

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



524

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2825056	10.00	ug/L	0.00 97.82%
25) i-1,4-Difluorobenzene	9.07	114	2850829	10.00	ug/L	0.00 97.36%
46) i-Chlorobenzene-d5	15.31	117	2015573	10.00	ug/L	-0.02 97.08%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1135243	10.00	ug/L	-0.02 97.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1305920	9.98	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.80%			
36) s-Toluene-d8	12.33	98	2687140	9.95	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.50%			
56) s-4-Bromofluorobenzene	18.81	95	1552252	10.13	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1266080	8.82	ug/L	99
3) Chloromethane	1.49	50	826767	9.03	ug/L	97
4) Vinyl chloride	1.59	62	922706	9.60	ug/L	97
5) Bromomethane	1.89	96	815251	9.39	ug/L	98
6) Chloroethane	1.98	64	568105	10.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	1587851	10.10	ug/L	98
8) 1,1-Dichloroethene	2.77	96	922708	9.98	ug/L	97
9) Acetone	2.87	43	104950m	19.05	ug/L	94
10) Iodomethane	2.93	142	1072983	9.43	ug/L	100
11) Carbon disulfide	2.99	76	3100348	10.67	ug/L	100
12) Methylene chloride	3.41	84	751780	9.96	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	970674	9.47	ug/L	100
14) Methyl tert-butyl ether	3.83	73	1187090	10.53	ug/L	98
15) 1,1-Dichloroethane	4.48	63	1702493	9.34	ug/L	99
16) Vinyl acetate	4.71	43	2225874m	16.12	ug/L	94
17) Isopropyl ether	4.73	45	3074450	10.72	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1262290	9.34	ug/L	97
19) 2-Butanone	5.81	43	293781m	25.71	ug/L	89
20) cis-1,2-Dichloroethene	5.67	96	1717281	18.41	ug/L	93
21) Bromochloromethane	6.22	128	364704	9.95	ug/L	98
22) Chloroform	6.52	83	1774522	9.73	ug/L	99

525

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748005.D
Acq On : 5 Nov 2001 10:25
Sample : 110655-2 MS 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1532548	10.06	ug/L	99
26)	Carbon tetrachloride	7.32	119	1307940	9.18	ug/L	99
27)	1,1-Dichloropropene	7.35	110	456191	9.84	ug/L	100
28)	Benzene	7.89	78	3031452	9.80	ug/L	100
29)	1,2-Dichloroethane	8.00	62	617183	9.98	ug/L	98
30)	Trichloroethene	9.60	95	1520906	12.20	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1044507	10.09	ug/L	99
32)	Dibromomethane	10.36	93	479746	10.39	ug/L	99
33)	2-Chloroethyl vinyl ether	11.41	63	14345	0.84	ug/L	53
34)	Bromodichloromethane	10.82	83	1432168	10.00	ug/L	100
35)	cis-1,3-Dichloropropene	11.82	75	1134765	10.18	ug/L	98
37)	Toluene	12.47	92	1901395	9.54	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	721460	10.50	ug/L	98
39)	1,1,2-Trichloroethane	13.40	83	480689	10.41	ug/L	98
40)	Tetrachloroethene	13.58	166	1409462	9.79	ug/L	99
41)	1,3-Dichloropropane	13.70	76	943841	10.70	ug/L	99
42)	Dibromochloromethane	14.14	129	878242	10.44	ug/L	99
43)	1,2-Dibromoethane	14.28	107	602247	10.54	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	687245	21.17	ug/L	97
45)	2-Hexanone	14.02	43	459057	23.47	ug/L	98
47)	Chlorobenzene	15.37	112	2032687	9.60	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	928151	9.91	ug/L	98
50)	Ethylbenzene	15.72	106	1081358	9.46	ug/L	100
51)	m,p-Xylene	16.03	106	2658192	19.32	ug/L	100
52)	o-Xylene	17.10	106	1249398	9.76	ug/L	98
53)	Styrene	17.17	104	1908387	9.40	ug/L	97
54)	Bromoform	17.63	173	543292	11.01	ug/L	98
55)	Isopropylbenzene	18.36	105	4000358	9.73	ug/L	99
58)	Bromobenzene	19.21	156	1019775	9.68	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	748760	10.24	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	429703	10.70	ug/L	93
61)	n-Propylbenzene	19.85	120	1002928	9.72	ug/L	100
62)	2-Chlorotoluene	19.98	126	920063	9.47	ug/L	100
63)	4-Chlorotoluene	20.37	91	3305145	9.74	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	2887518	9.14	ug/L	99
65)	tert-Butylbenzene	21.55	91	1914372	9.24	ug/L	98
66)	1,2,4-Trimethylbenzene	21.71	105	2663149	9.61	ug/L	99
67)	sec-Butylbenzene	22.27	105	4354845	9.56	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	1837740	9.47	ug/L	98
69)	p-Isopropyltoluene	22.82	119	3345008	9.76	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1750169	9.46	ug/L	98

526

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748005.D
Acq On : 5 Nov 2001 10:25
Sample : 110655-2 MS 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

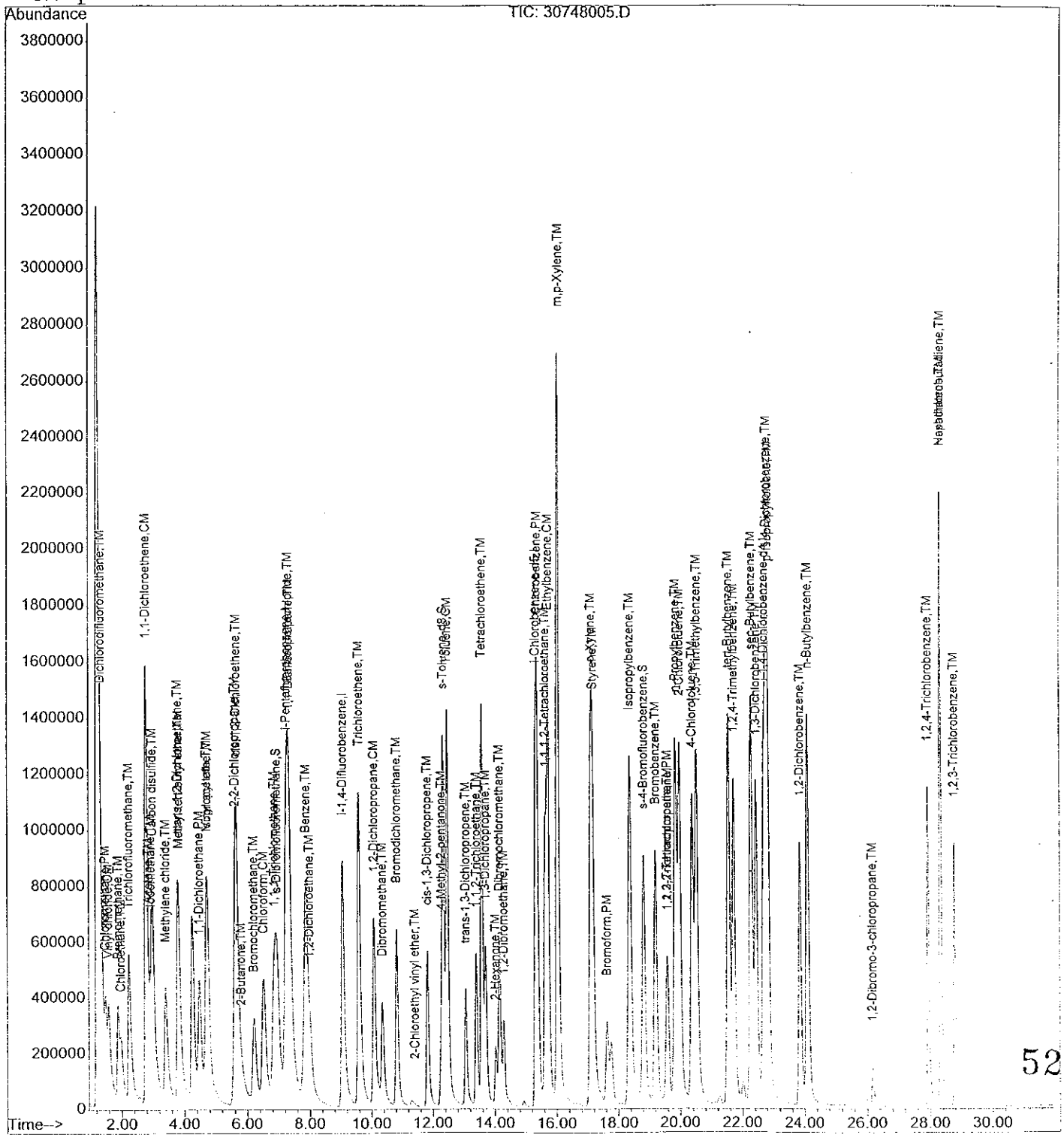
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1489758	9.65	ug/L	98
72)	n-Butylbenzene	24.09	91	3274418	10.31	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	110462	11.19	ug/L	96
74)	1,2,4-Trichlorobenzene	27.94	180	960669	11.09	ug/L	99
75)	Hexachlorobutadiene	28.33	225	963107	11.08	ug/L	100
76)	Naphthalene	28.34	128	769981	11.65	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	718442	11.12	ug/L	100

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: V82625B1.RES

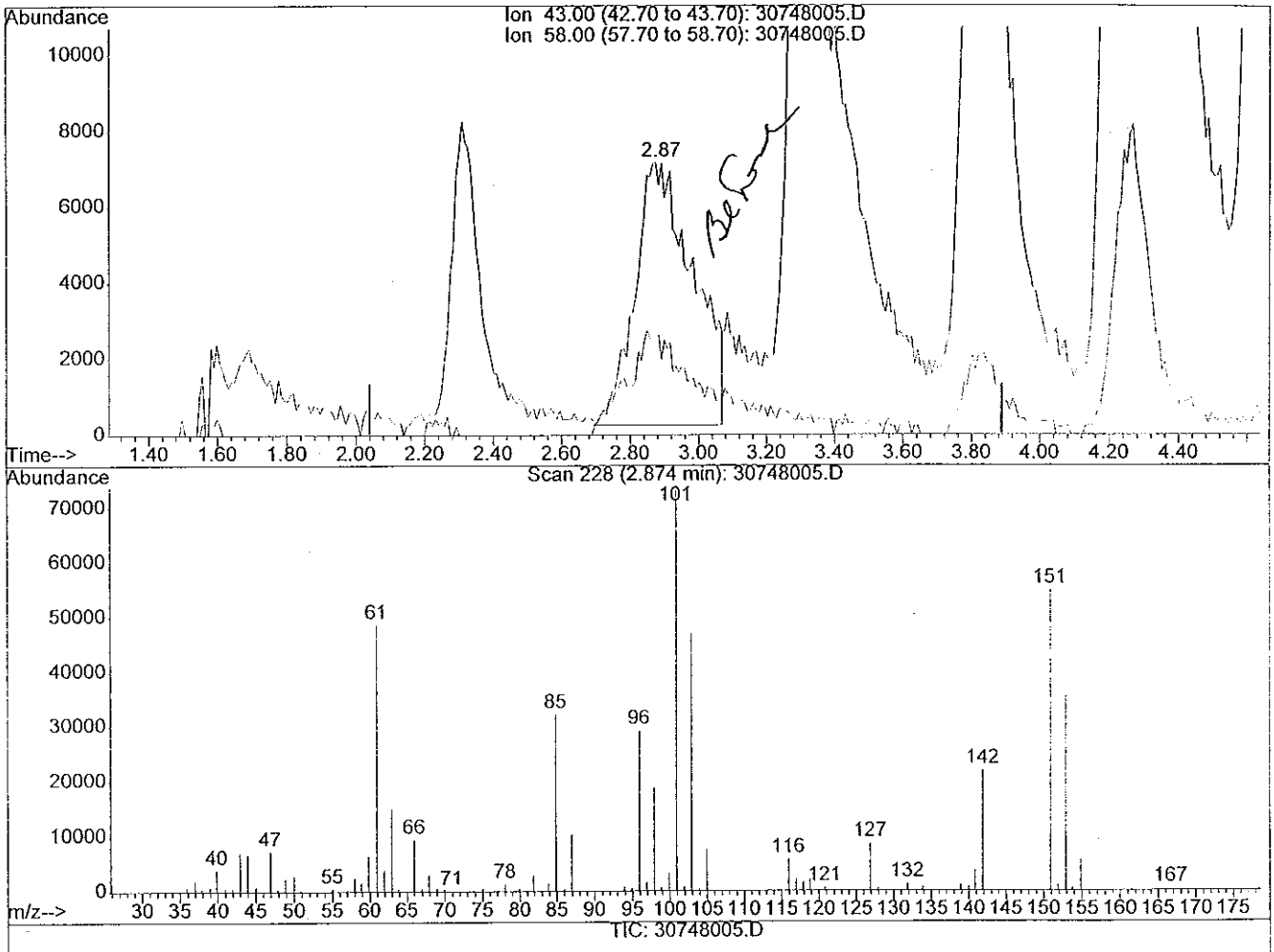
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



528

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:31 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



TIC: 30748005.D

(9) Acetone (TM)

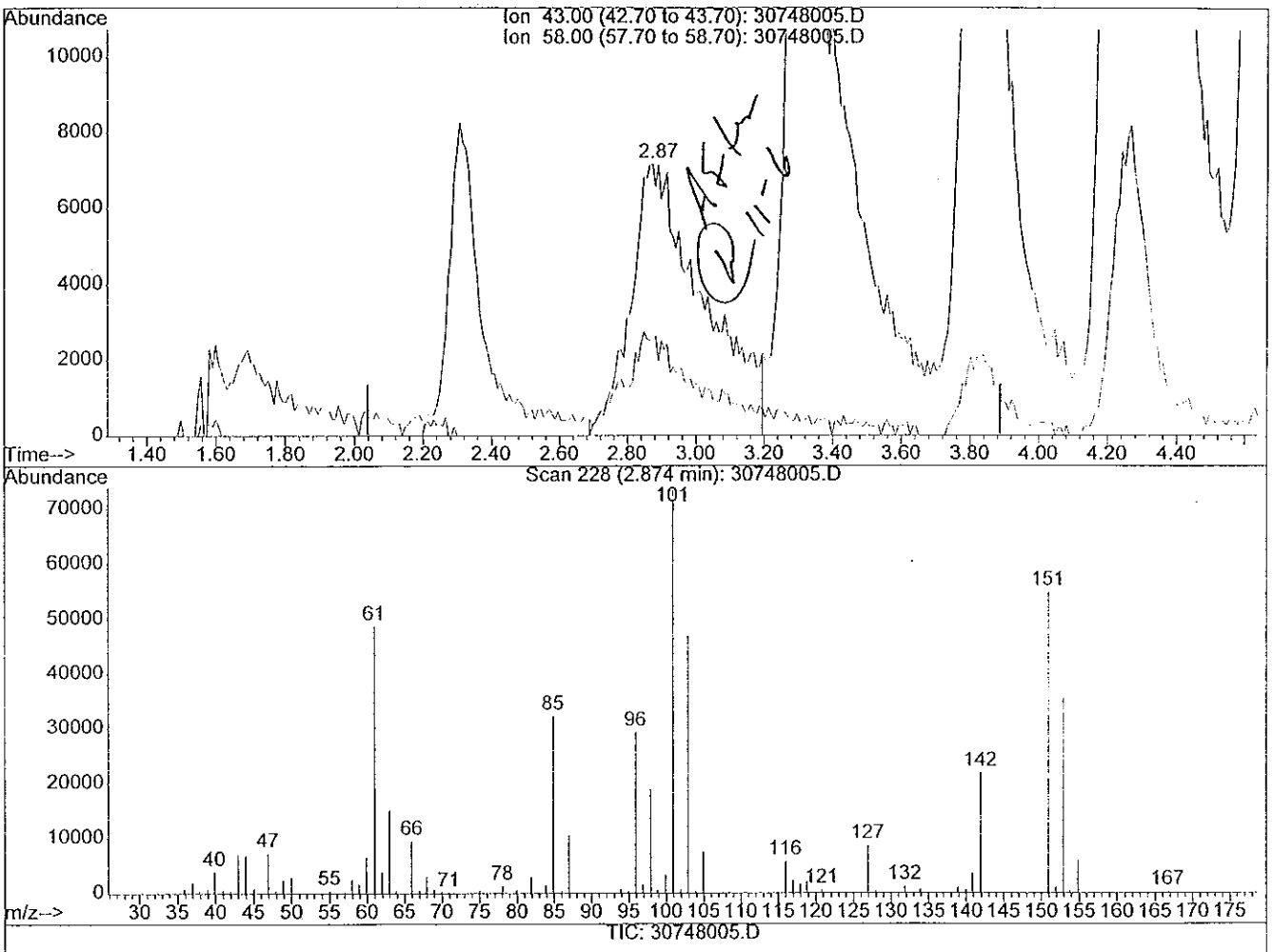
2.87min 14.80ug/L

response 81645

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	33.48
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:31 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



TIC: 30748005.D

(9) Acetone (TM)

2.87min 19.05ug/L m

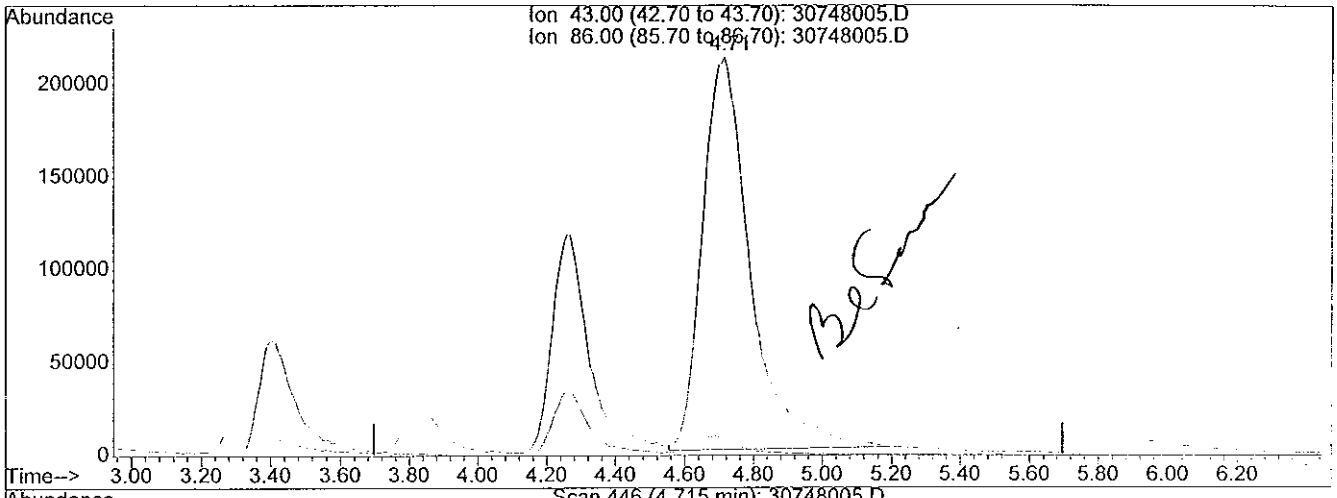
response 104950

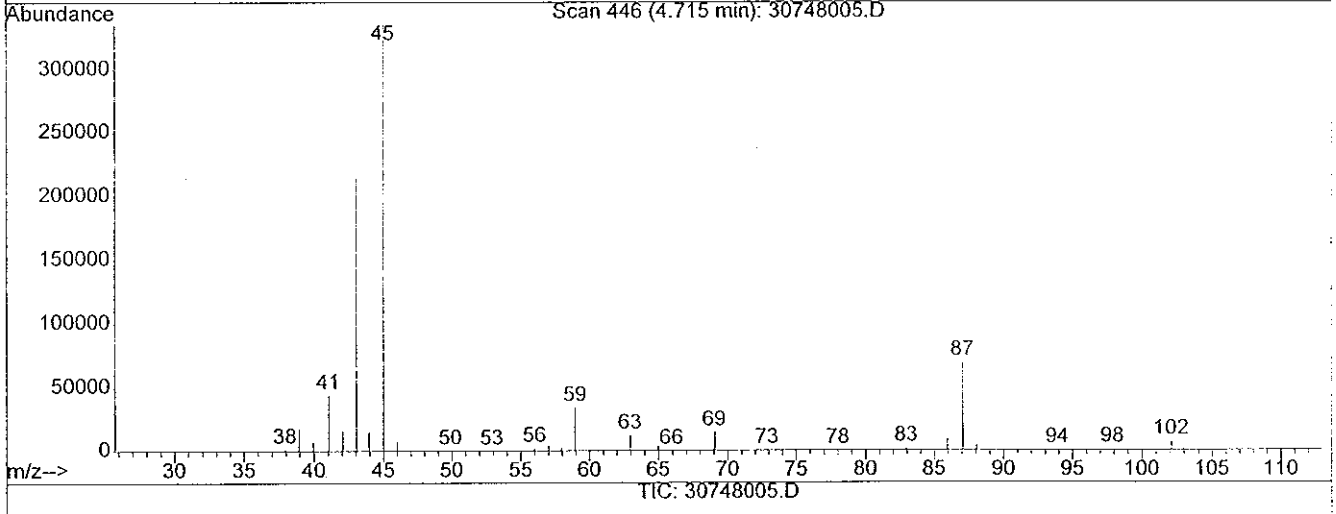
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	35.83
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748005.D
Acq On : 5 Nov 2001 10:25
Sample : 110655-2 MS 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:31 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748005.D

(16) Vinyl acetate (TM)

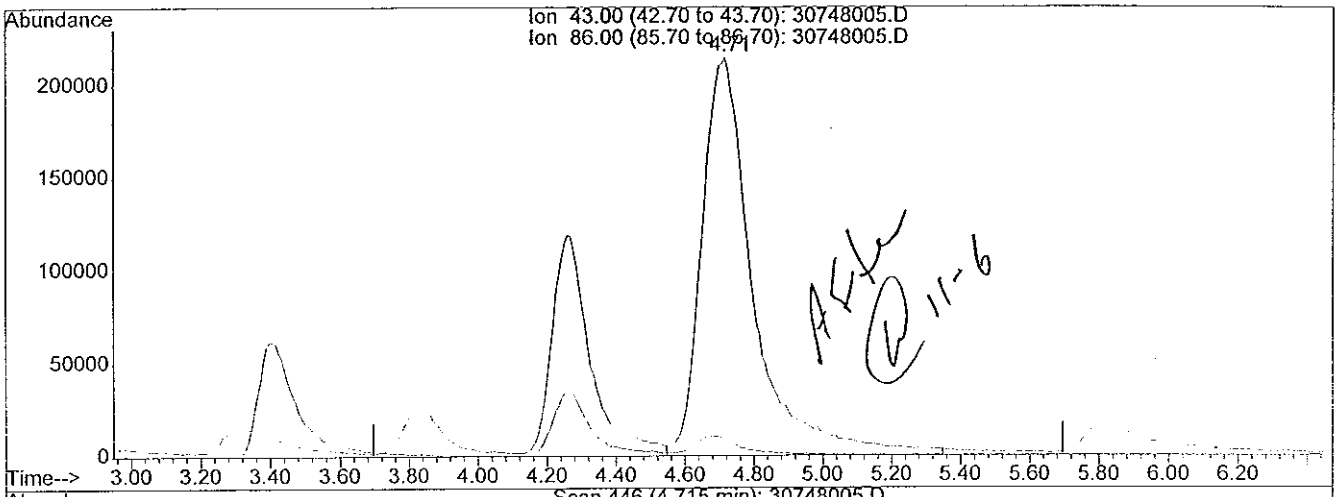
4.71min 14.82ug/L

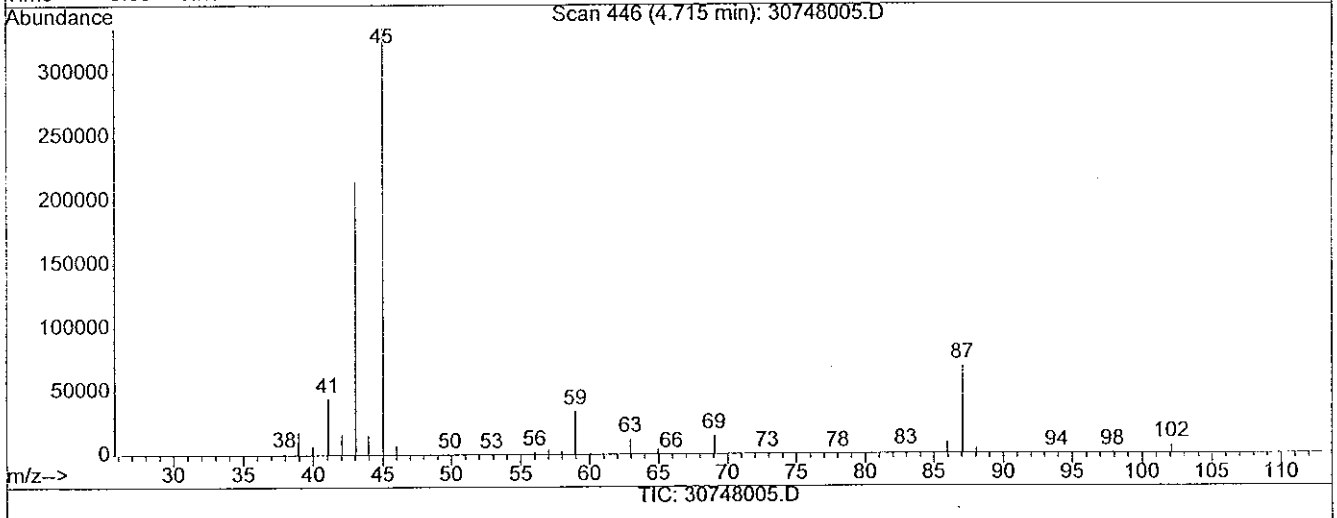
response 2047259

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	4.18
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748005.D

(16) Vinyl acetate (TM)

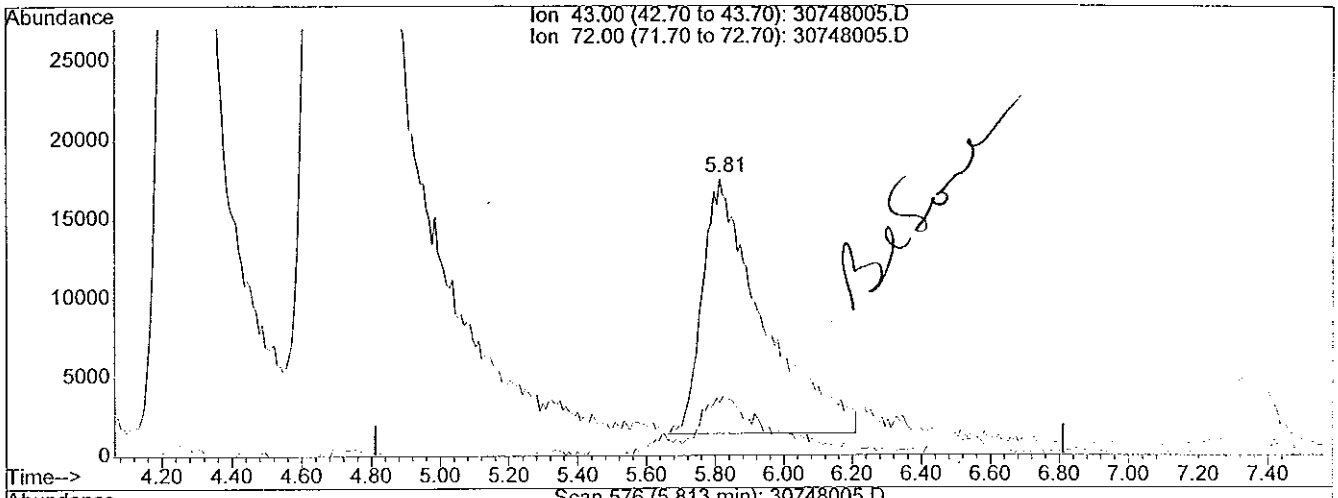
4.71min 16.12ug/L m

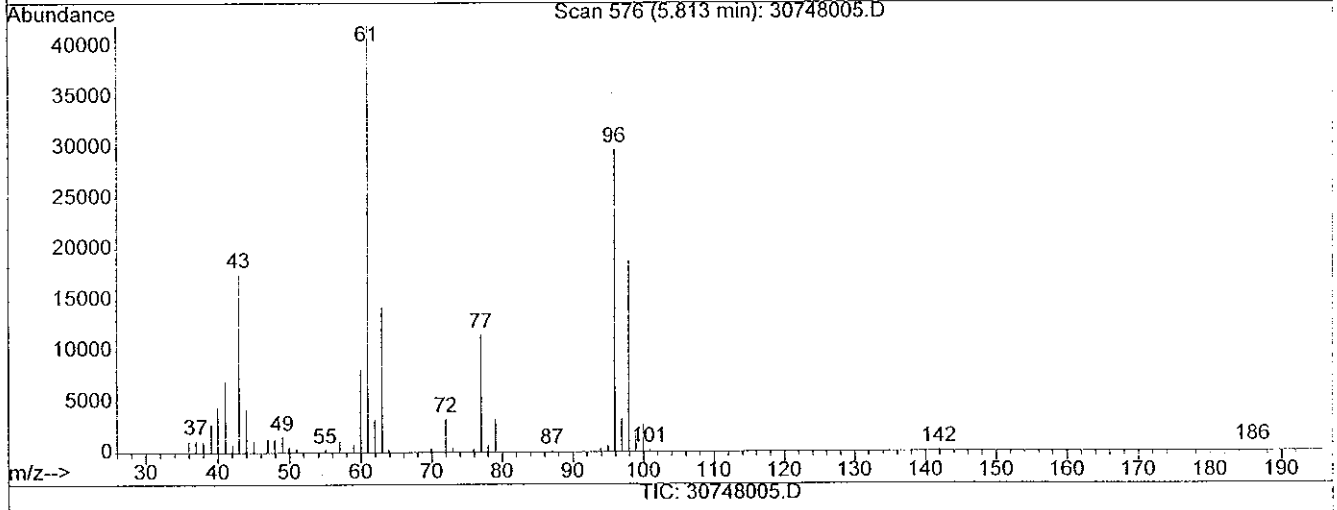
response 2225874

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	4.22
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748005.D

(19) 2-Butanone (TM)

5.81min 17.27ug/L

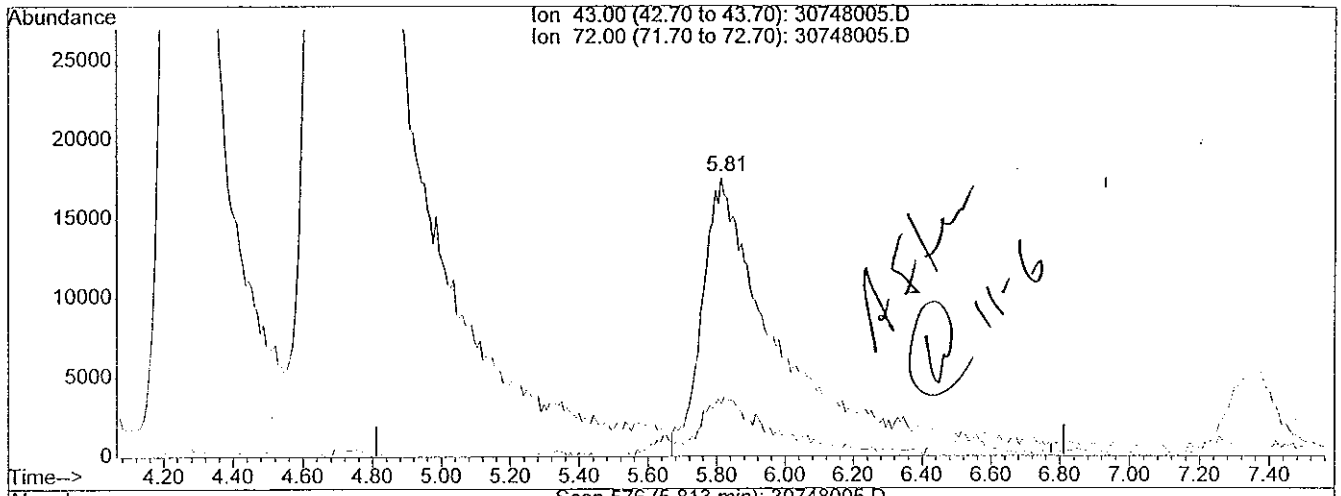
response 197335

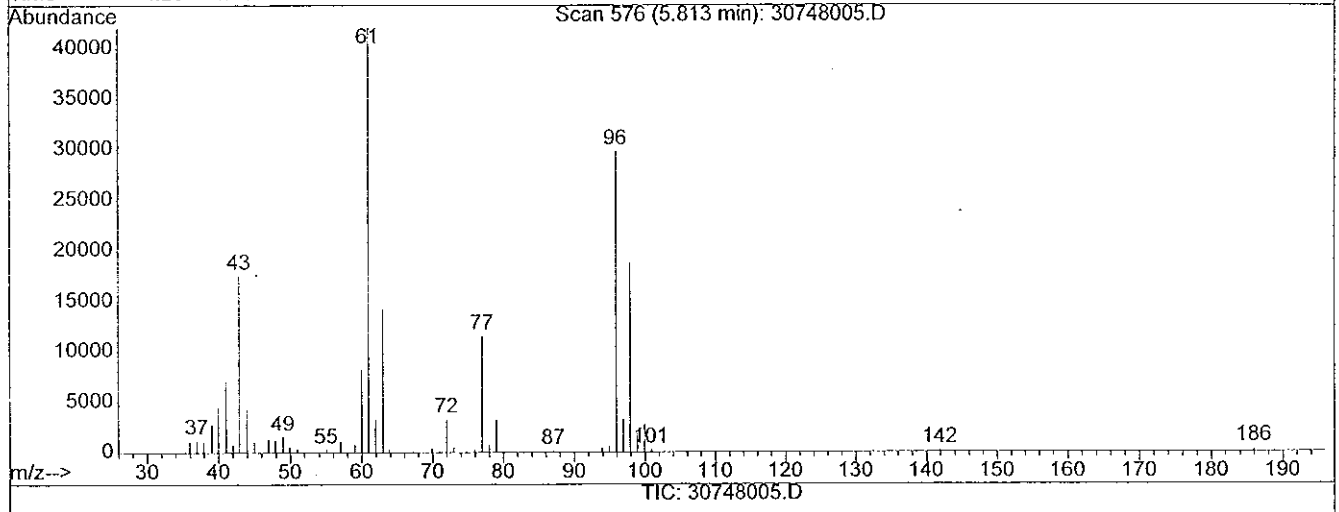
Ion	Exp%	Act%
43.00	100	100
72.00	22.10	17.06
0.00	0.00	0.00
0.00	0.00	0.00

533

Data File : D:\HPCHEM\1\DATA\110501\30748005.D Vial: 2
Acq On : 5 Nov 2001 10:25 Operator: GRH
Sample : 110655-2 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748005.D

(19) 2-Butanone (TM)

5.81min 25.71ug/L m

response 293781

Ion	Exp%	Act%
43.00	100	100
72.00	22.10	18.90
0.00	0.00	0.00
0.00	0.00	0.00

534

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2710424	10.00	ug/L	0.01 93.85%
25) i-1,4-Difluorobenzene	9.07	114	2667351	10.00	ug/L	0.00 91.10%
46) i-Chlorobenzene-d5	15.31	117	1806751	10.00	ug/L	-0.03 87.02%
57) i-1,4-Dichlorobenzene-d4	22.68	152	977365	10.00	ug/L	-0.02 83.51%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1159773	9.24	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.40%			
36) s-Toluene-d8	12.33	98	2481396	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1360836	9.91	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.37	85	849711	30.85	ug/L	98
3) Chloromethane	1.50	50	845117	48.13	ug/L	98
4) Vinyl chloride	1.60	62	926527	50.25	ug/L	100
5) Bromomethane	1.90	96	799438	47.98	ug/L	99
6) Chloroethane	1.99	64	550579	50.95	ug/L	98
7) Trichlorofluoromethane	2.24	101	1564302	51.85	ug/L	99
8) 1,1-Dichloroethene	2.78	96	927673	52.31	ug/L	97
9) Acetone	2.89	43	78987m	74.60	ug/L	84
10) Iodomethane	2.94	142	1080255	49.49	ug/L	100
11) Carbon disulfide	2.99	76	3125635	56.07	ug/L	100
12) Methylene chloride	3.42	84	705955	48.74	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	961795	48.89	ug/L	97
14) Methyl tert-butyl ether	3.84	73	951256	43.96	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1660267	47.48	ug/L	99
16) Vinyl acetate	4.73	43	1889782m	71.31	ug/L	93
17) Isopropyl ether	4.73	45	2702902	49.13	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1223522	47.19	ug/L	98
19) 2-Butanone	5.82	43	217492m	99.21	ug/L	83
20) cis-1,2-Dichloroethene	5.66	96	1530585	85.52	ug/L	94
21) Bromochloromethane	6.23	128	338166	48.10	ug/L	100
22) Chloroform	6.52	83	1701883	48.64	ug/L	100

535

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1527098	52.25	ug/L	99
26)	Carbon tetrachloride	7.31	119	1305094	48.97	ug/L	99
27)	1,1-Dichloropropene	7.37	110	491898	56.99	ug/L	100
28)	Benzene	7.88	78	2934092	50.67	ug/L	99
29)	1,2-Dichloroethane	8.01	62	512736	44.30	ug/L	99
30)	Trichloroethene	9.60	95	1473806	63.15	ug/L	97
31)	1,2-Dichloropropane	10.09	63	967335	49.96	ug/L	99
32)	Dibromomethane	10.36	93	400888	46.40	ug/L	97
34)	Bromodichloromethane	10.82	83	1283751	47.92	ug/L	100
35)	cis-1,3-Dichloropropene	11.82	75	1008246	48.35	ug/L	100
37)	Toluene	12.46	92	1858660	49.85	ug/L	99
38)	trans-1,3-Dichloropropene	13.05	75	615190	47.84	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	401501	46.48	ug/L	99
40)	Tetrachloroethene	13.58	166	1404123	52.10	ug/L	99
41)	1,3-Dichloropropane	13.70	76	776777	47.08	ug/L	98
42)	Dibromochloromethane	14.14	129	739395	46.98	ug/L	99
43)	1,2-Dibromoethane	14.28	107	484910	45.36	ug/L	95
44)	4-Methyl-2-pentanone	12.27	43	503420	82.87	ug/L	99
45)	2-Hexanone	14.02	43	325168	88.83	ug/L	99
47)	Chlorobenzene	15.37	112	1924216	50.71	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	850081	50.62	ug/L	98
50)	Ethylbenzene	15.71	106	1051033	51.29	ug/L	100
51)	m,p-Xylene	16.03	106	2601806	105.46	ug/L	98
52)	o-Xylene	17.08	106	1191661	51.93	ug/L	99
53)	Styrene	17.15	104	1756931	48.27	ug/L	98
54)	Bromoform	17.61	173	425244	48.06	ug/L	94
55)	Isopropylbenzene	18.36	105	3931800	53.33	ug/L	99
58)	Bromobenzene	19.19	156	911175	50.21	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	585655	46.51	ug/L	98
60)	1,2,3-Trichloropropane	19.57	75	331716	47.95	ug/L	93
61)	n-Propylbenzene	19.83	120	964337	54.30	ug/L	100
62)	2-Chlorotoluene	19.96	126	884316	52.85	ug/L	100
63)	4-Chlorotoluene	20.37	91	3122472	53.43	ug/L	99
64)	1,3,5-Trimethylbenzene	20.51	105	2780107	51.09	ug/L	99
65)	tert-Butylbenzene	21.54	91	1854395	51.99	ug/L	99
66)	1,2,4-Trimethylbenzene	21.71	105	2531552	53.03	ug/L	98
67)	sec-Butylbenzene	22.27	105	4302997	54.88	ug/L	99
68)	1,3-Dichlorobenzene	22.44	146	1693449	50.70	ug/L	99
69)	p-Isopropyltoluene	22.82	119	3279853	55.56	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1617852	50.77	ug/L	97
71)	1,2-Dichlorobenzene	23.85	146	1318002	49.60	ug/L	98

(#) = qualifier out of range (m) = manual integration

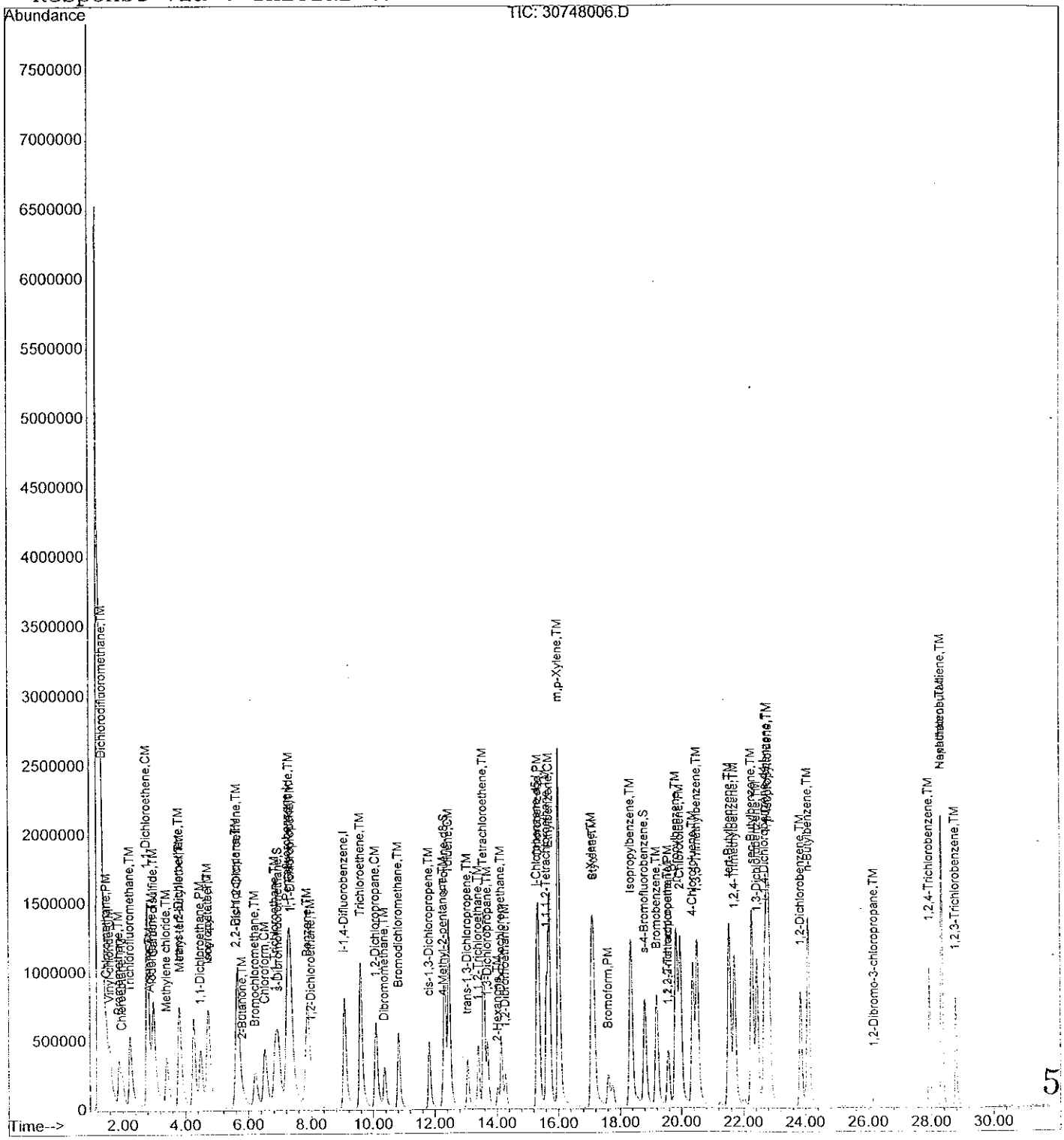
Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72) n-Butylbenzene	24.09	91	3179716	58.15	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.18	75	82679	48.64	ug/L	97
74) 1,2,4-Trichlorobenzene	27.94	180	838880	56.23	ug/L	99
75) Hexachlorobutadiene	28.34	225	964633	64.74	ug/L	100
76) Naphthalene	28.35	128	602694	52.97	ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	626865	56.37	ug/L	97

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2710424	10.00	ug/L	0.01 93.85%
25) i-1,4-Difluorobenzene	9.07	114	2667351	10.00	ug/L	0.00 91.10%
46) i-Chlorobenzene-d5	15.31	117	1806751	10.00	ug/L	-0.03 87.02%
57) i-1,4-Dichlorobenzene-d4	22.68	152	977365	10.00	ug/L	-0.02 83.51%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1159773	9.24	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.40%			
36) s-Toluene-d8	12.33	98	2481396	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1360836	9.91	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.37	85	849711	6.17	ug/L	98
3) Chloromethane	1.50	50	845117	9.63	ug/L	98
4) Vinyl chloride	1.60	62	926527	10.05	ug/L	100
5) Bromomethane	1.90	96	799438	9.60	ug/L	99
6) Chloroethane	1.99	64	550579	10.19	ug/L	98
7) Trichlorofluoromethane	2.24	101	1564302	10.37	ug/L	99
8) 1,1-Dichloroethene	2.78	96	927673	10.46	ug/L	97
9) Acetone	2.89	43	78987m	14.92	ug/L	84
10) Iodomethane	2.94	142	1080255	9.90	ug/L	100
11) Carbon disulfide	2.99	76	3125635	11.21	ug/L	100
12) Methylene chloride	3.42	84	705955	9.75	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	961795	9.78	ug/L	97
14) Methyl tert-butyl ether	3.84	73	951256	8.79	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1660267	9.50	ug/L	99
16) Vinyl acetate	4.73	43	1889782m	14.26	ug/L	93
17) Isopropyl ether	4.73	45	2702902	9.83	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1223522	9.44	ug/L	98
19) 2-Butanone	5.82	43	217492m	19.84	ug/L	83
20) cis-1,2-Dichloroethene	5.66	96	1530585	17.10	ug/L	94
21) Bromochloromethane	6.23	128	338166	9.62	ug/L	100
22) Chloroform	6.52	83	1701883	9.73	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1527098	10.45	ug/L	99
26)	Carbon tetrachloride	7.31	119	1305094	9.79	ug/L	99
27)	1,1-Dichloropropene	7.37	110	491898	11.40	ug/L	100
28)	Benzene	7.88	78	2934092	10.13	ug/L	99
29)	1,2-Dichloroethane	8.01	62	512736	8.86	ug/L	99
30)	Trichloroethene	9.60	95	1473806	12.63	ug/L	97
31)	1,2-Dichloropropane	10.09	63	967335	9.99	ug/L	99
32)	Dibromomethane	10.36	93	400888	9.28	ug/L	97
34)	Bromodichloromethane	10.82	83	1283751	9.58	ug/L	100
35)	cis-1,3-Dichloropropene	11.82	75	1008246	9.67	ug/L	100
37)	Toluene	12.46	92	1858660	9.97	ug/L	99
38)	trans-1,3-Dichloropropene	13.05	75	615190	9.57	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	401501	9.30	ug/L	99
40)	Tetrachloroethene	13.58	166	1404123	10.42	ug/L	99
41)	1,3-Dichloropropane	13.70	76	776777	9.42	ug/L	98
42)	Dibromochloromethane	14.14	129	739395	9.40	ug/L	99
43)	1,2-Dibromoethane	14.28	107	484910	9.07	ug/L	95
44)	4-Methyl-2-pentanone	12.27	43	503420	16.57	ug/L	99
45)	2-Hexanone	14.02	43	325168	17.77	ug/L	99
47)	Chlorobenzene	15.37	112	1924216	10.14	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	850081	10.12	ug/L	98
50)	Ethylbenzene	15.71	106	1051033	10.26	ug/L	100
51)	m,p-Xylene	16.03	106	2601806	21.09	ug/L	98
52)	o-Xylene	17.08	106	1191661	10.39	ug/L	99
53)	Styrene	17.15	104	1756931	9.65	ug/L	98
54)	Bromoform	17.61	173	425244	9.61	ug/L	94
55)	Isopropylbenzene	18.36	105	3931800	10.67	ug/L	99
58)	Bromobenzene	19.19	156	911175	10.04	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	585655	9.30	ug/L	98
60)	1,2,3-Trichloropropane	19.57	75	331716	9.59	ug/L	93
61)	n-Propylbenzene	19.83	120	964337	10.86	ug/L	100
62)	2-Chlorotoluene	19.96	126	884316	10.57	ug/L	100
63)	4-Chlorotoluene	20.37	91	3122472	10.69	ug/L	99
64)	1,3,5-Trimethylbenzene	20.51	105	2780107	10.22	ug/L	99
65)	tert-Butylbenzene	21.54	91	1854395	10.40	ug/L	99
66)	1,2,4-Trimethylbenzene	21.71	105	2531552	10.61	ug/L	98
67)	sec-Butylbenzene	22.27	105	4302997	10.98	ug/L	99
68)	1,3-Dichlorobenzene	22.44	146	1693449	10.14	ug/L	99
69)	p-Isopropyltoluene	22.82	119	3279853	11.11	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1617852	10.15	ug/L	97
71)	1,2-Dichlorobenzene	23.85	146	1318002	9.92	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

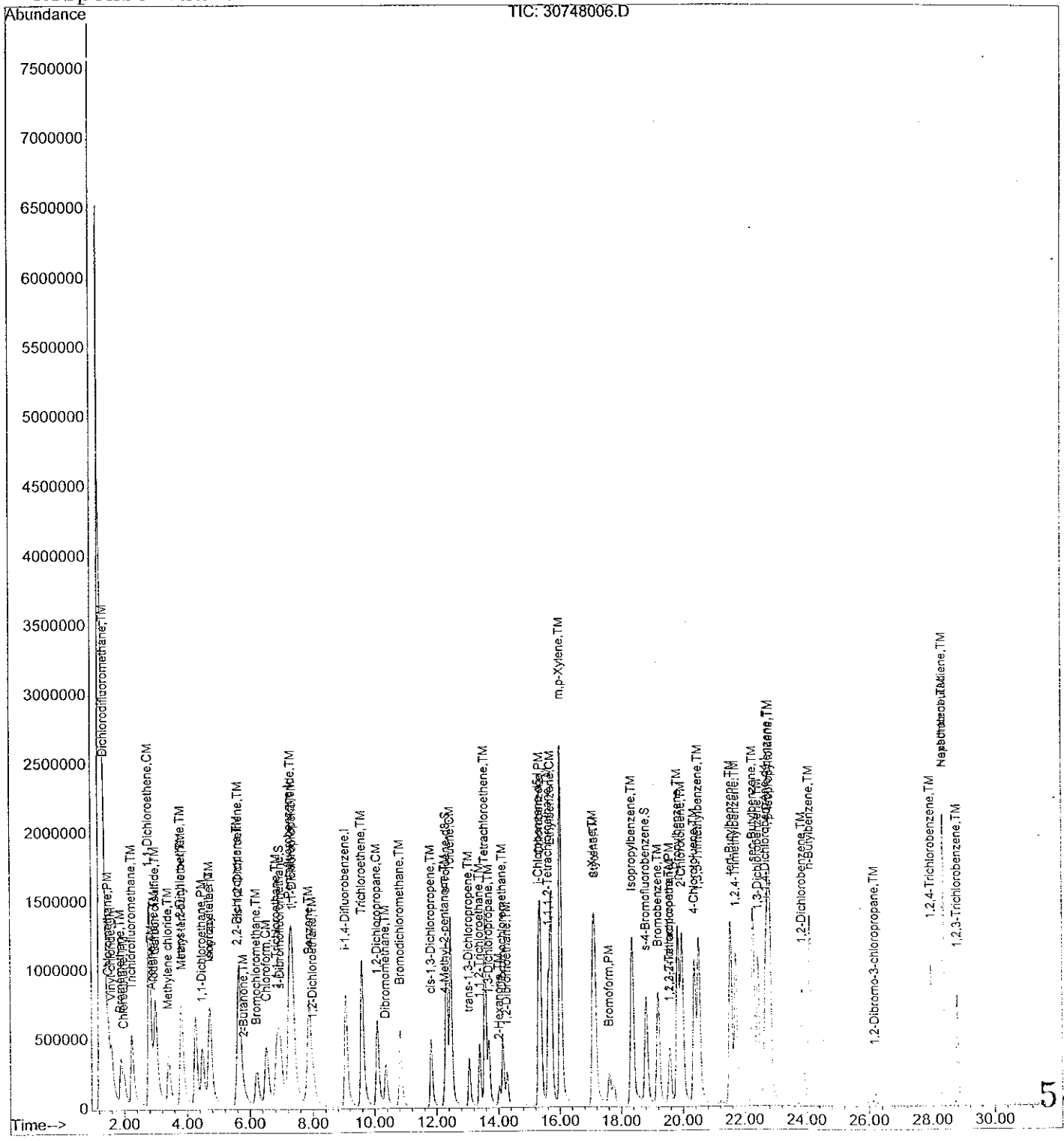
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.09	91	3179716	11.63	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.18	75	82679	9.73	ug/L	97
74)	1,2,4-Trichlorobenzene	27.94	180	838880	11.25	ug/L	99
75)	Hexachlorobutadiene	28.34	225	964633	12.95	ug/L	100
76)	Naphthalene	28.35	128	602694	10.59	ug/L	100
77)	1,2,3-Trichlorobenzene	28.79	180	626865	11.27	ug/L	97

541

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: V82625B1.RES

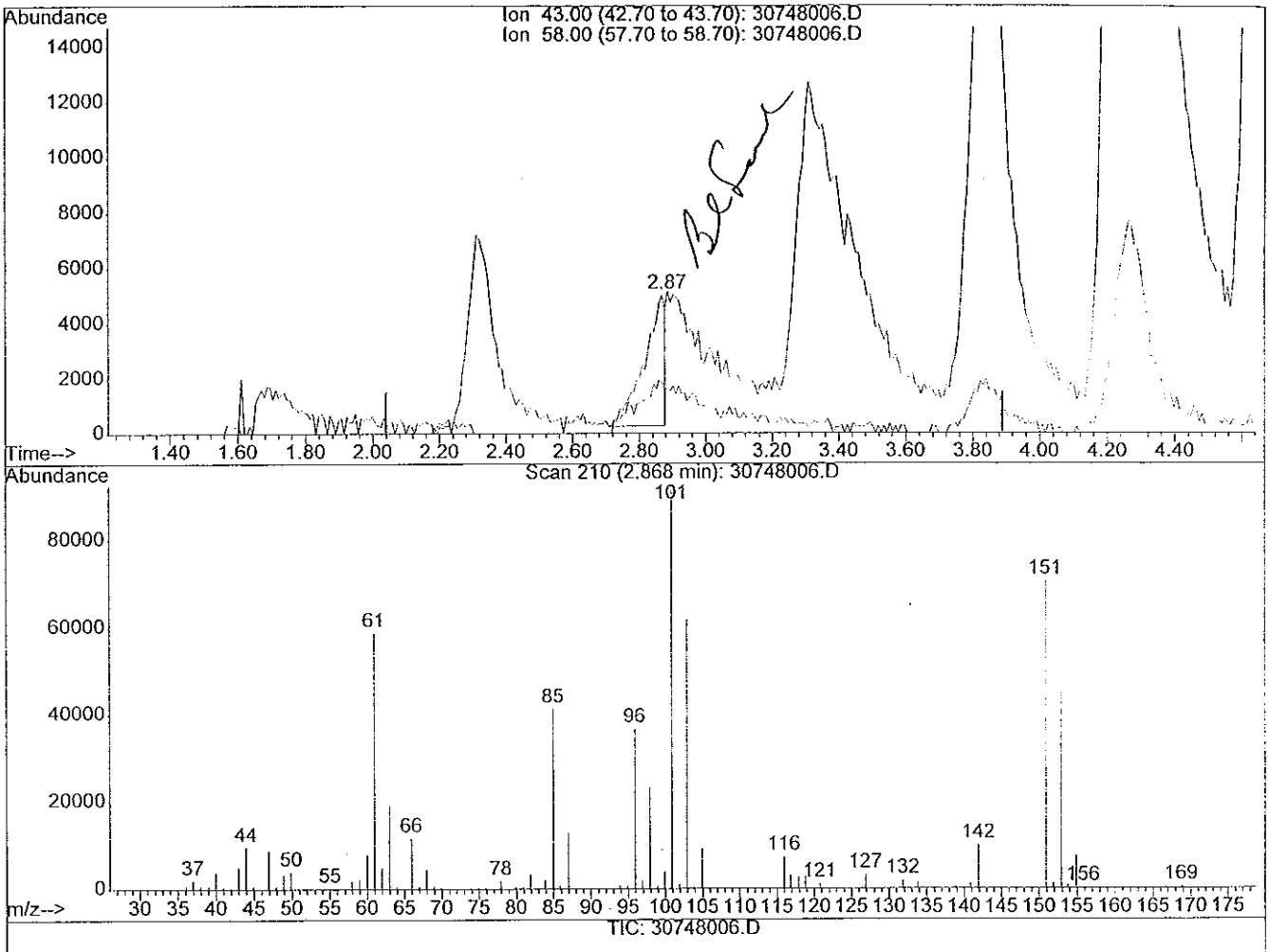
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



542

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



TIC: 30748006.D

(9) Acetone (TM)

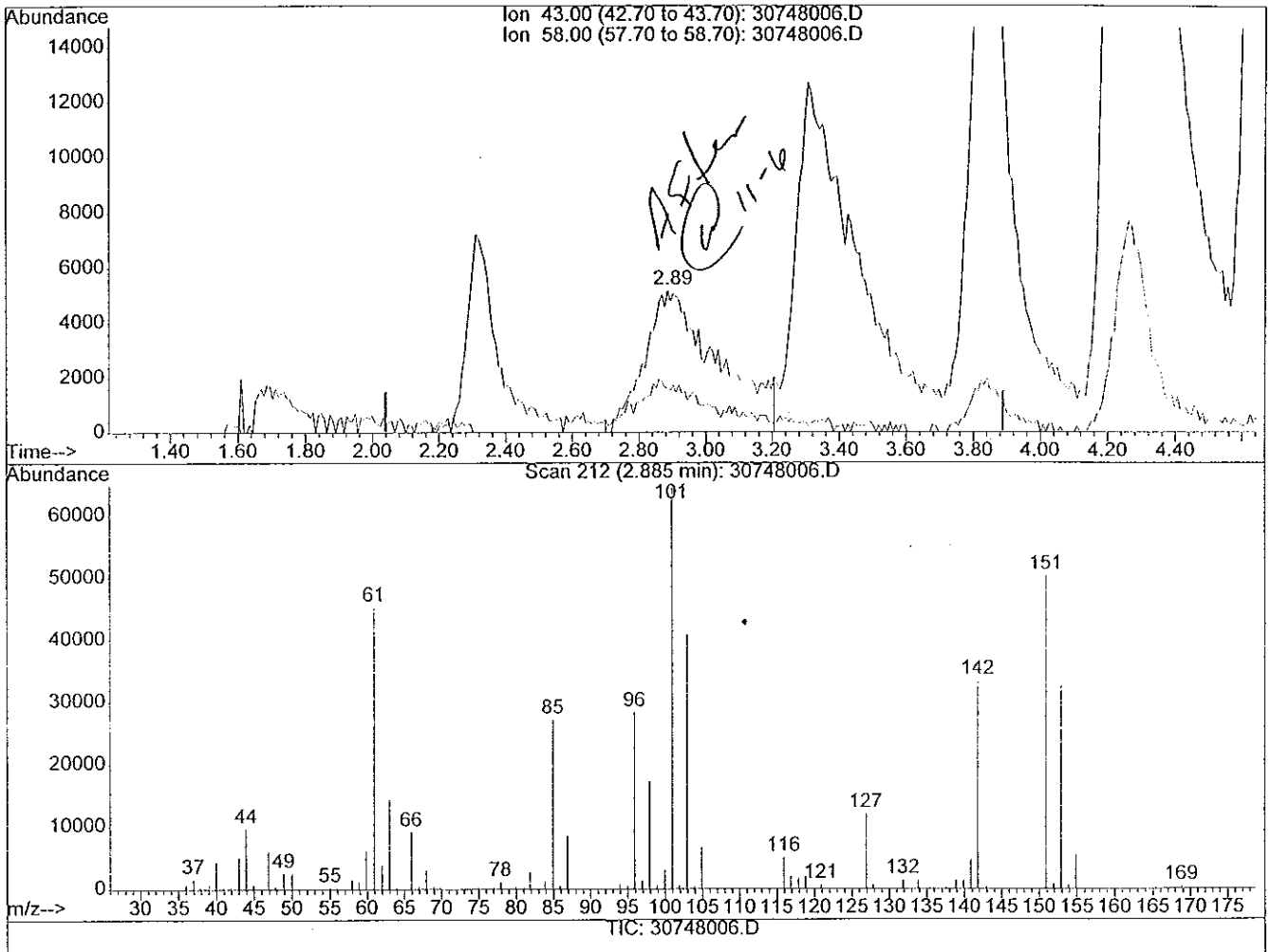
2.87min 3.84ug/L

response 20734

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	39.06
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



TIC: 30748006.D

(9) Acetone (TM)

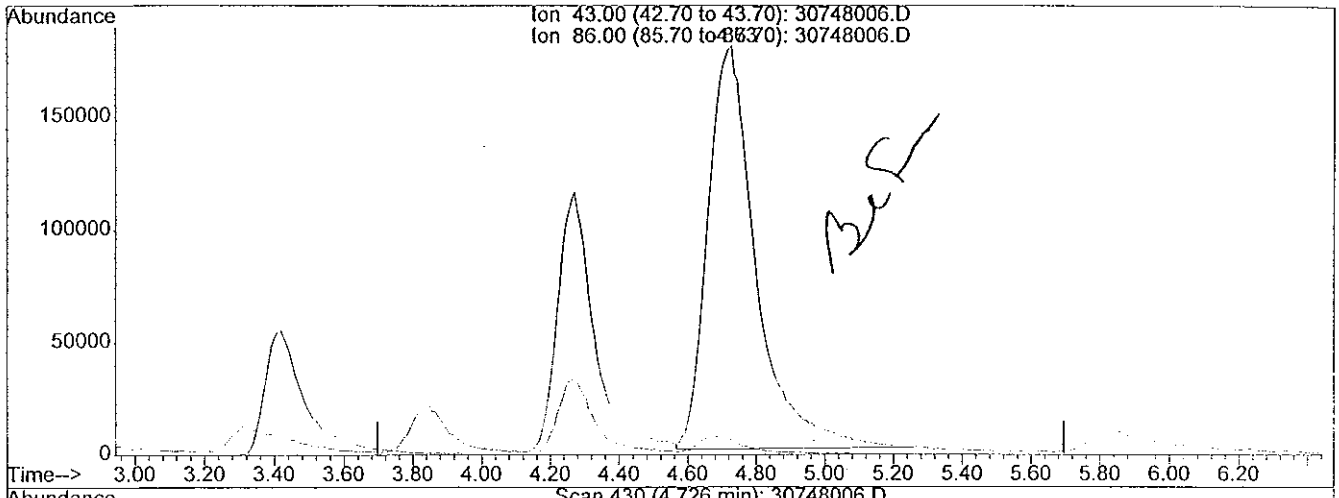
2.89min 14.92ug/L m

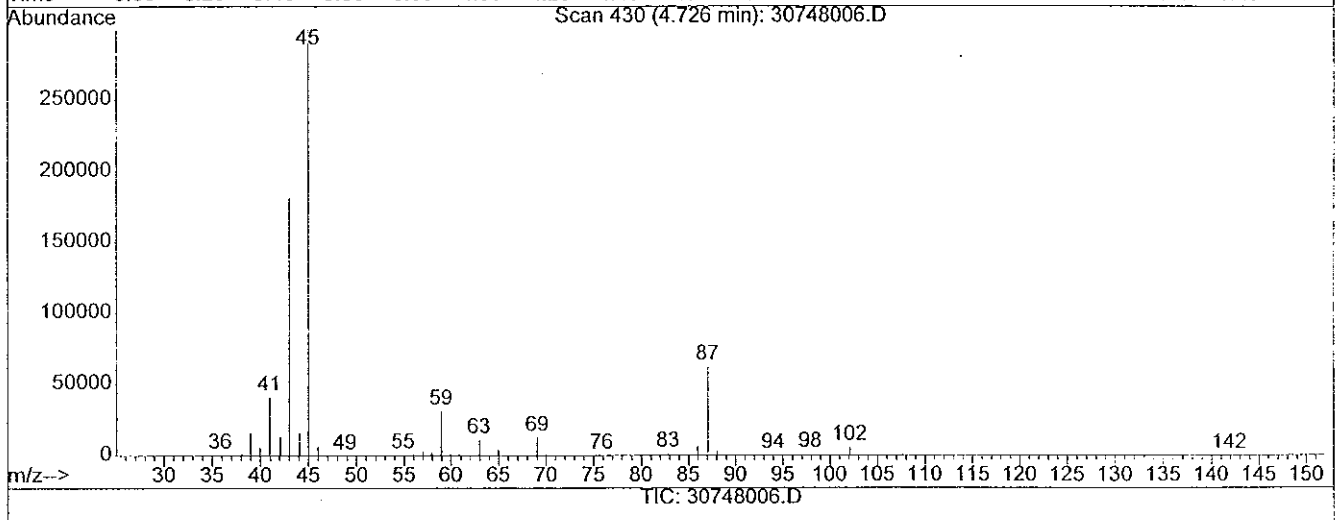
response 78987

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	31.62
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:32 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748006.D

(16) Vinyl acetate (TM)

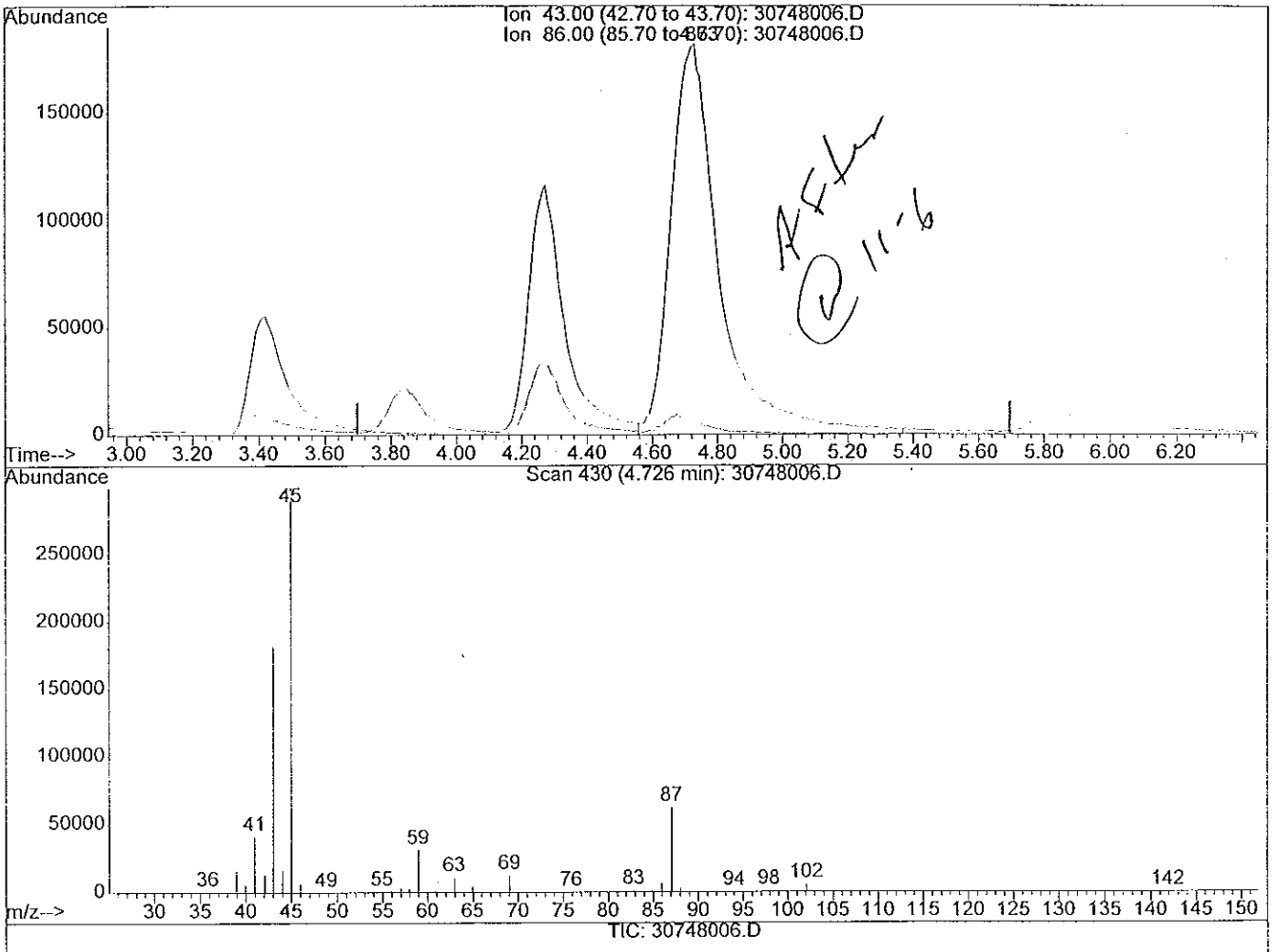
4.73min 13.24ug/L

response 1754414

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	3.80
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

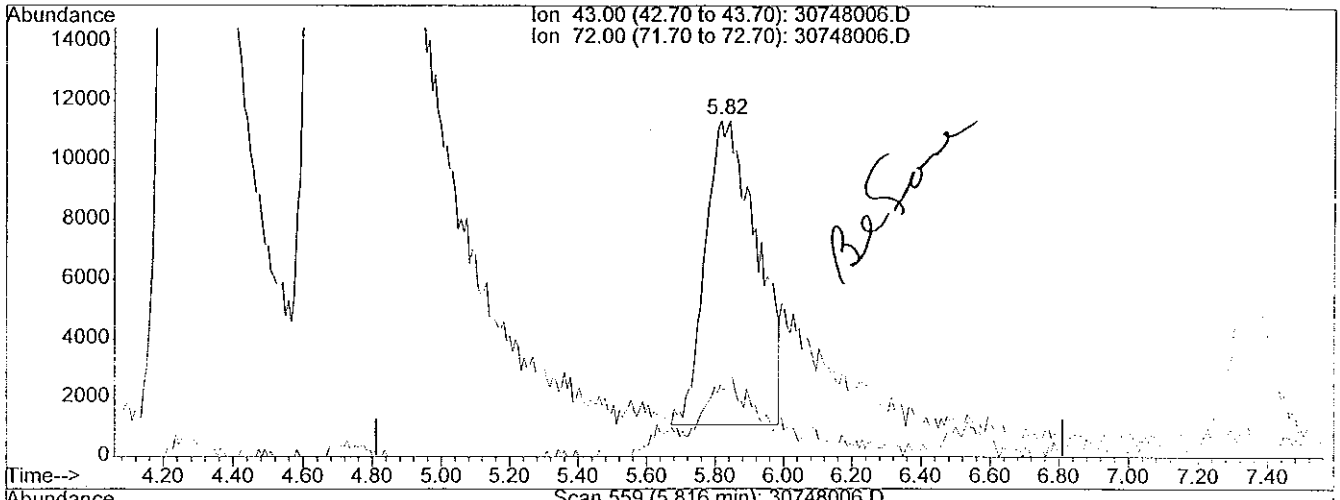
4.73min 14.26ug/L m

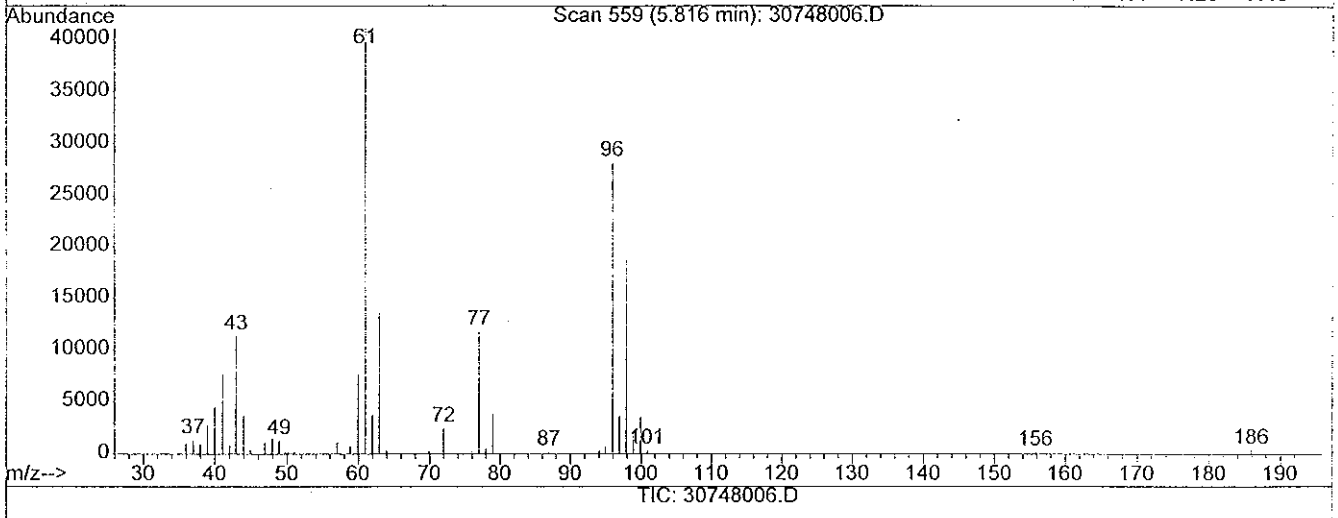
response 1889782

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	3.74
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748006.D Vial: 3
Acq On : 5 Nov 2001 11:06 Operator: GRH
Sample : 110655-2 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748006.D

(19) 2-Butanone (TM)

5.82min 9.75ug/L

response 106824

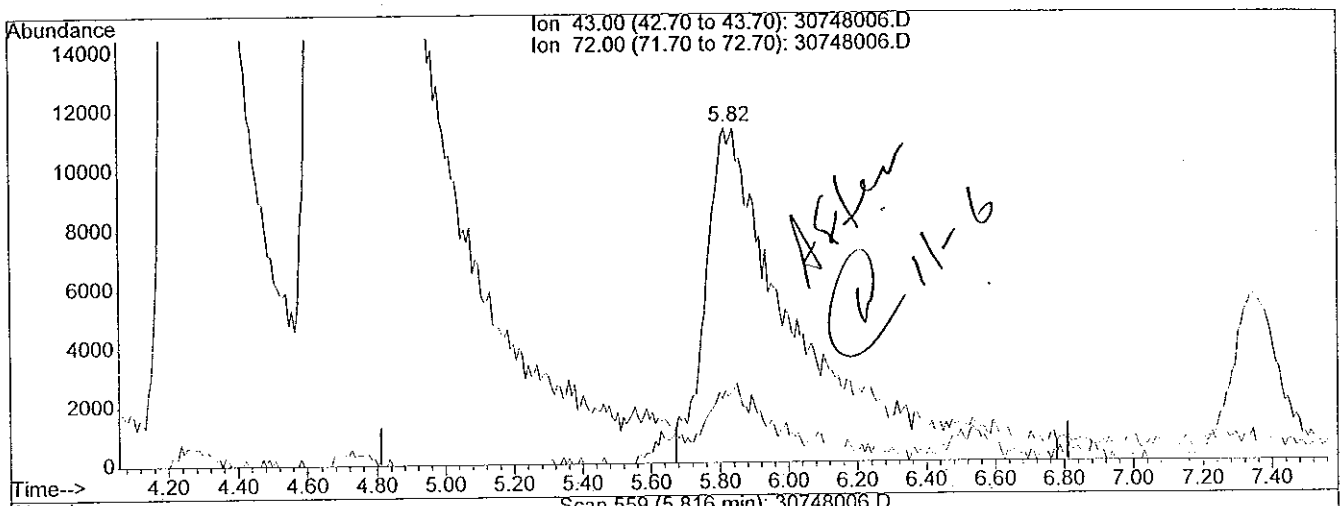
Ion	Exp%	Act%
43.00	100	100
72.00	22.10	14.21
0.00	0.00	0.00
0.00	0.00	0.00

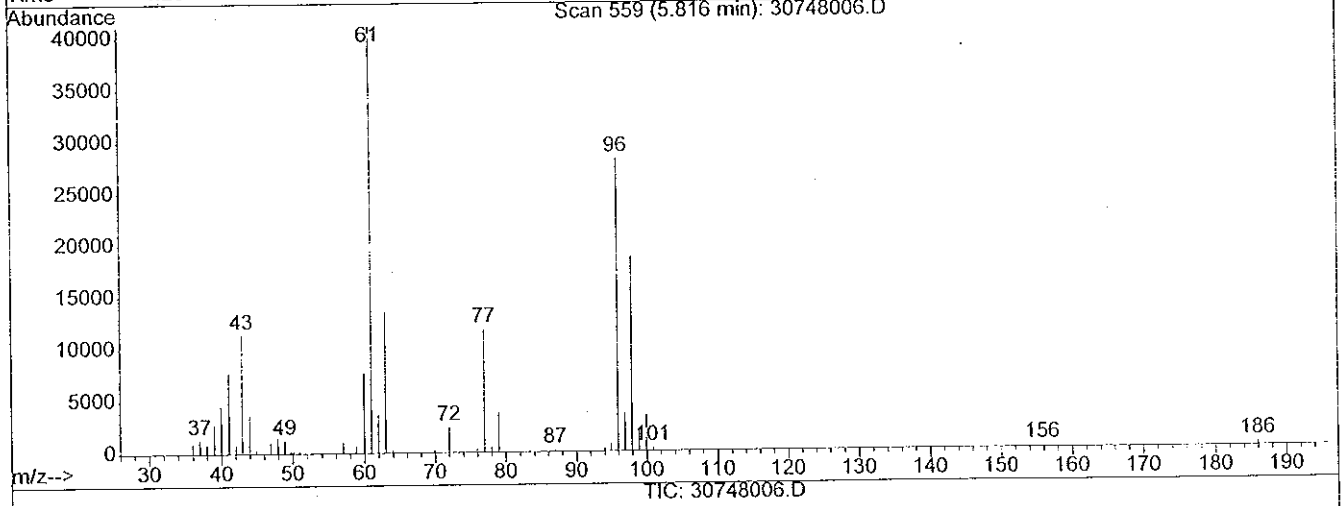
Data File : D:\HPCHEM\1\DATA\110501\30748006.D
Acq On : 5 Nov 2001 11:06
Sample : 110655-2 MSD 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:33 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748006.D

(19) 2-Butanone (TM)

5.82min 19.84ug/L m

response 217492

Ion	Exp%	Act%
43.00	100	100
72.00	22.10	21.58
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

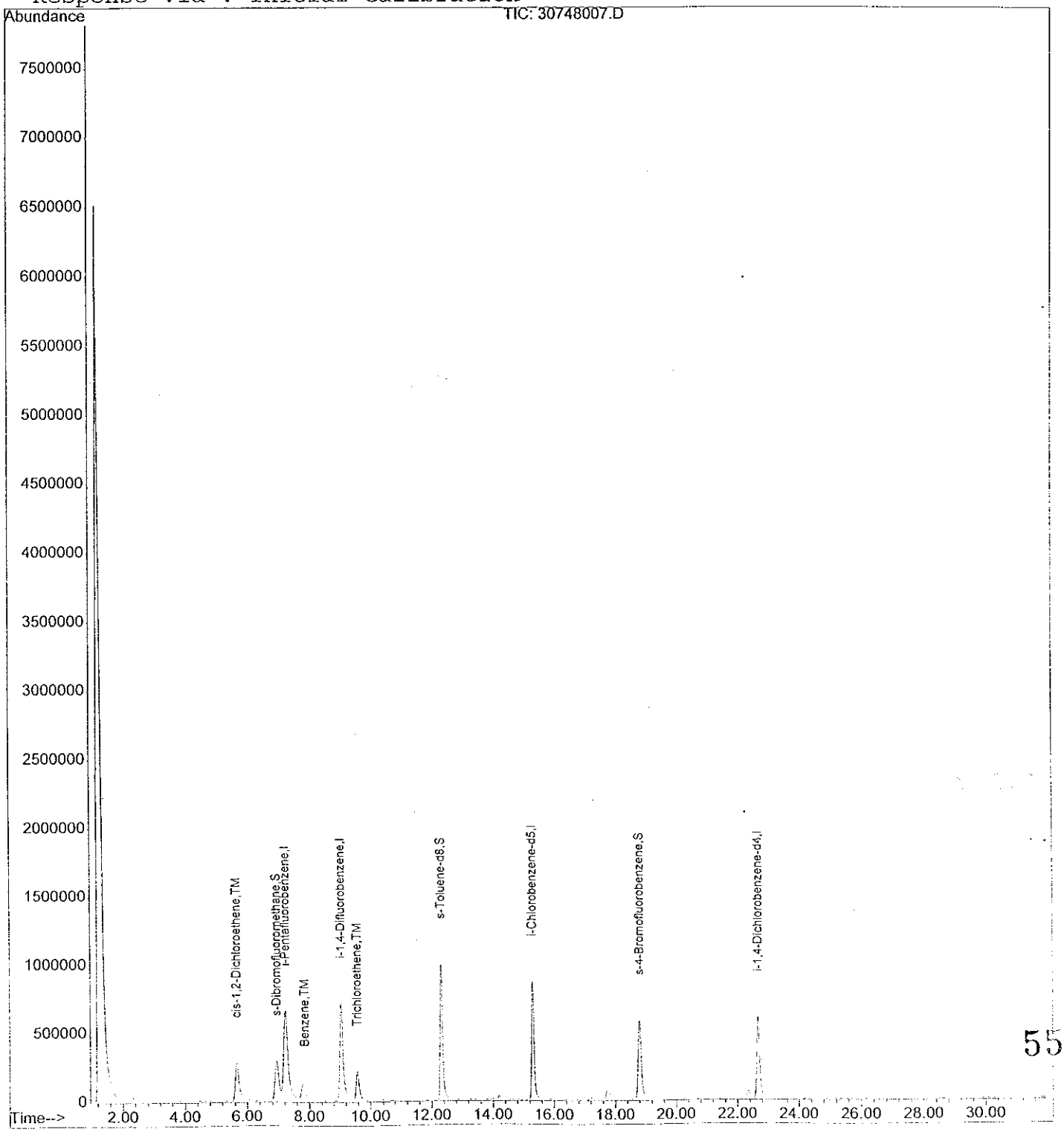
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2425218	10.00	ug/L	0.00 83.98%
25) i-1,4-Difluorobenzene	9.06	114	2304698	10.00	ug/L	0.00 78.71%
46) i-Chlorobenzene-d5	15.30	117	1523084	10.00	ug/L	-0.04 73.36%
57) i-1,4-Dichlorobenzene-d4	22.67	152	673662	10.00	ug/L	-0.03 57.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	974808	8.68	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.80%			
36) s-Toluene-d8	12.32	98	2143402	9.82	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1058889	9.15	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 91.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	594647	37.24	ug/L	91
28) Benzene	7.87	78	45944m	0.92	ug/L	93
30) Trichloroethene	9.57	95	290022	14.38	ug/L	98

549

(#) = qualifier out of range (m) = manual integration
30748007.D V82625B1.M Mon Nov 05 12:39:41 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



550

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

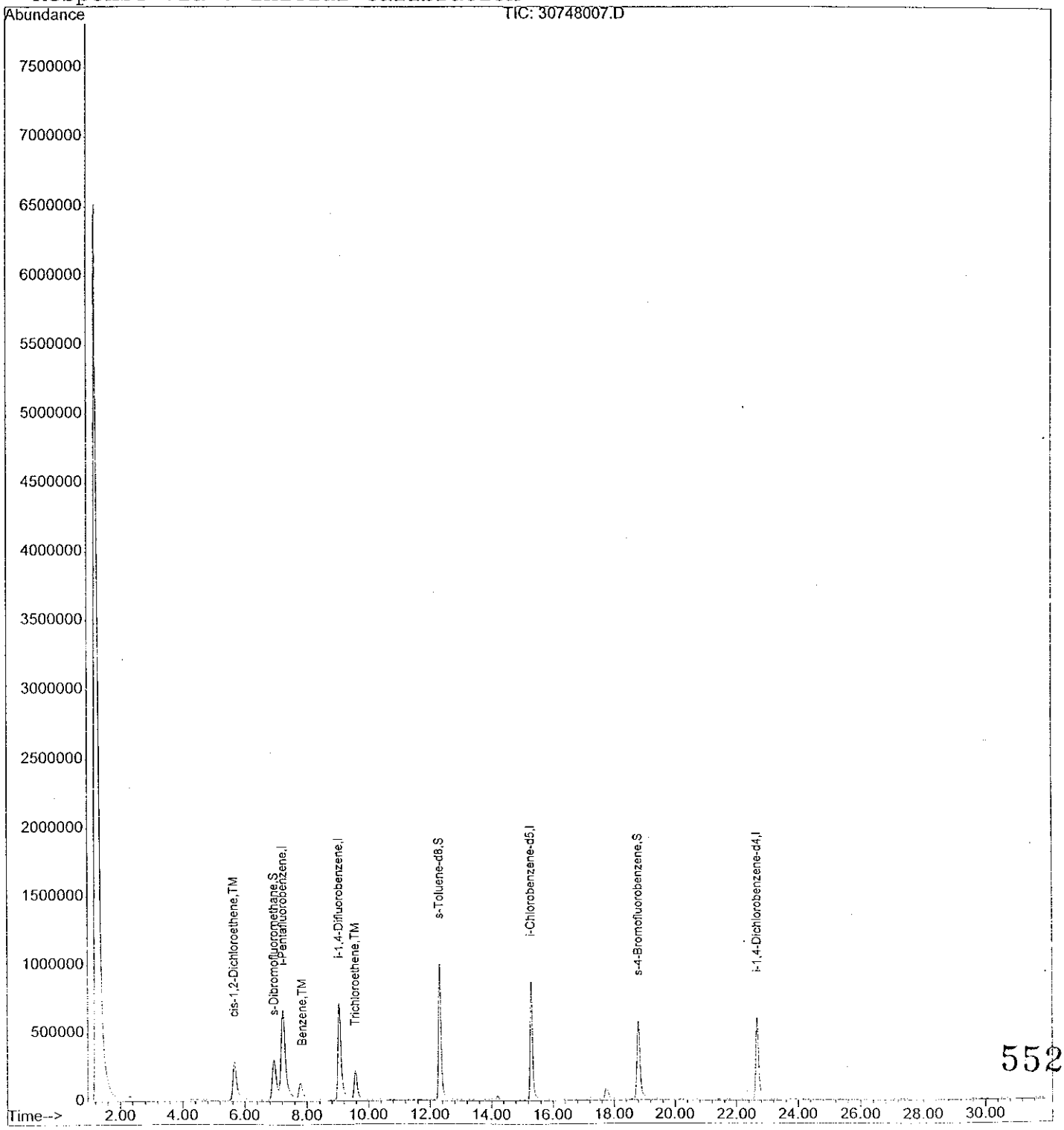
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2425218	10.00	ug/L	0.00 / 83.98%
25) i-1,4-Difluorobenzene	9.06	114	2304698	10.00	ug/L	0.00 / 78.71%
46) i-Chlorobenzene-d5	15.30	117	1523084	10.00	ug/L	-0.04 / 73.36%
57) i-1,4-Dichlorobenzene-d4	22.67	152	673662	10.00	ug/L	-0.03 / 57.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	974808	8.68	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.80%			
36) s-Toluene-d8	12.32	98	2143402	9.82	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1058889	9.15	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 91.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	594647	7.45	ug/L	91
28) Benzene	7.87	78	45944m	0.18	ug/L	93
30) Trichloroethene	9.57	95	290022	2.88	ug/L	98

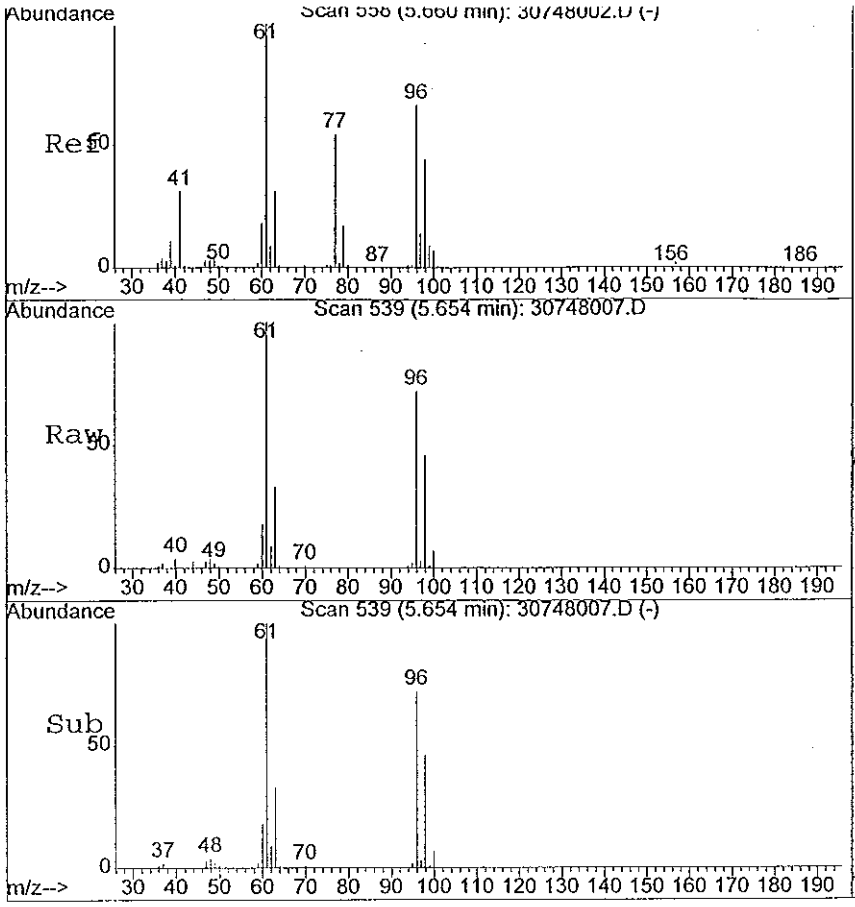
(#) = qualifier out of range (m) = manual integration
30748007.D V82625B1.M Mon Nov 05 12:37:12 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



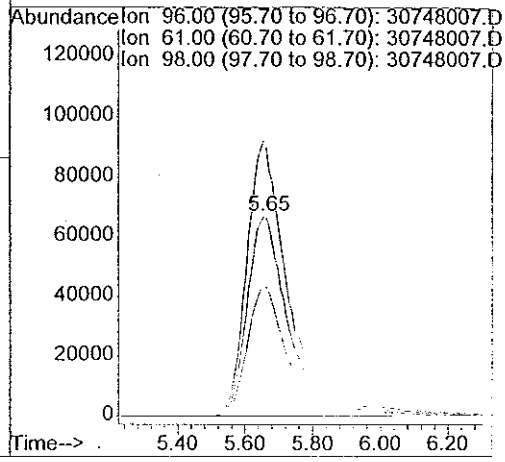
552

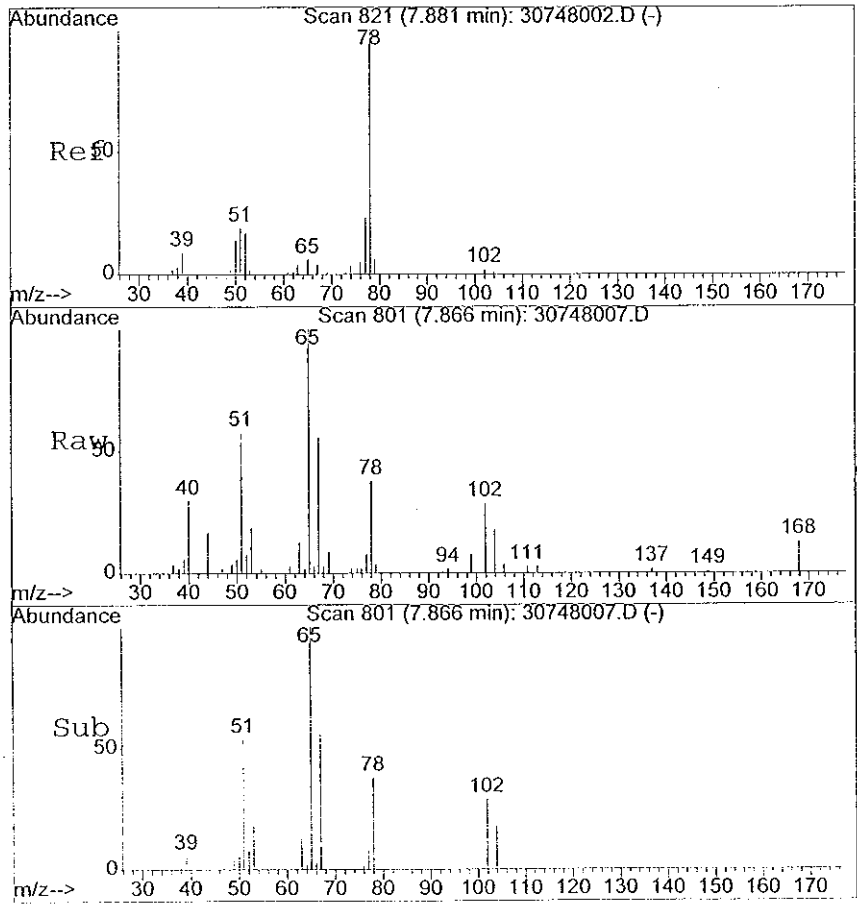


#20
cis-1,2-Dichloroethene
Concen: 7.45 ug/L
RT: 5.65 min Scan# 539
Delta R.T. -0.01 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

Tgt Ion: 96 Resp: 594647

Ion	Ratio	Lower	Upper
96	100		
61	138.2	131.9	171.9
98	62.9	46.2	86.2

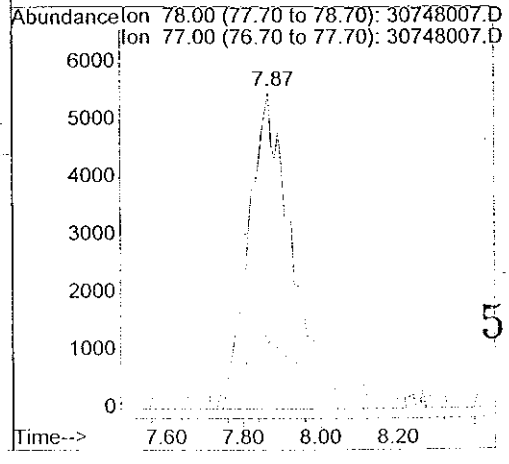




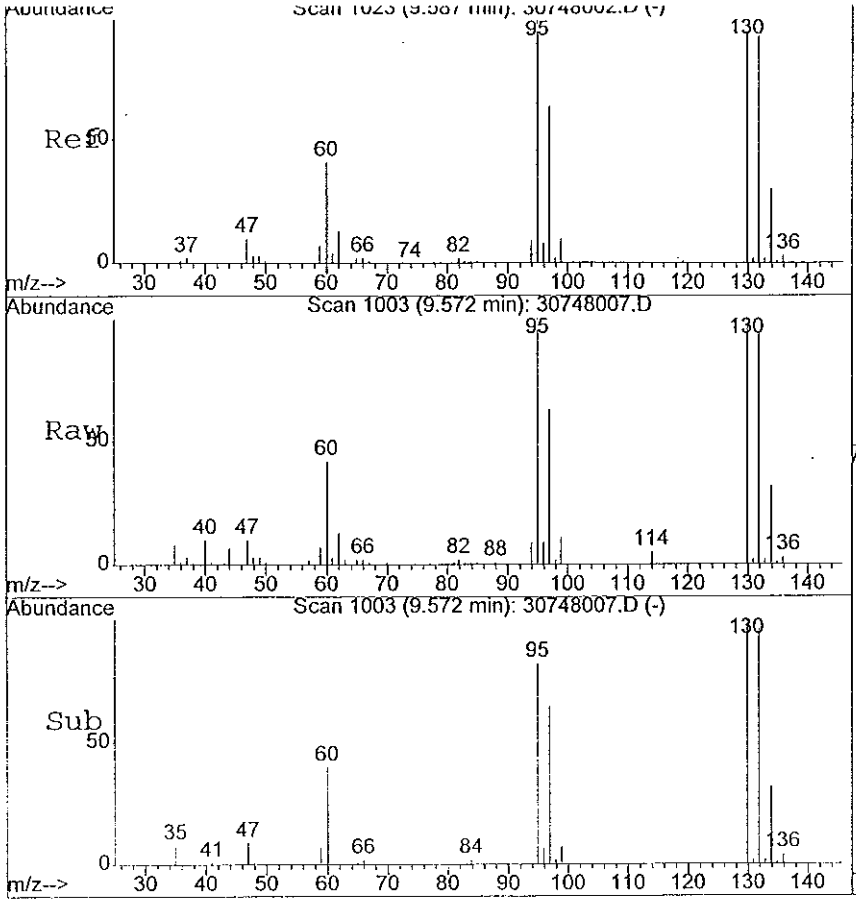
#28
Benzene
Concen: 0.18 ug/L m
RT: 7.87 min Scan# 801
Delta R.T. -0.02 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

Tgt Ion: 78 Resp: 45944

Ion	Ratio	Lower	Upper
78	100		
77	20.3	3.5	43.5

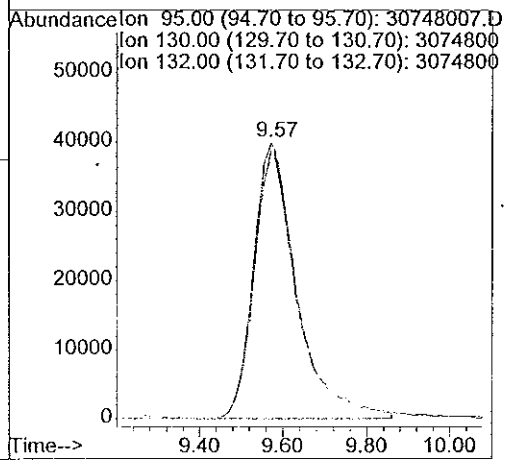


553



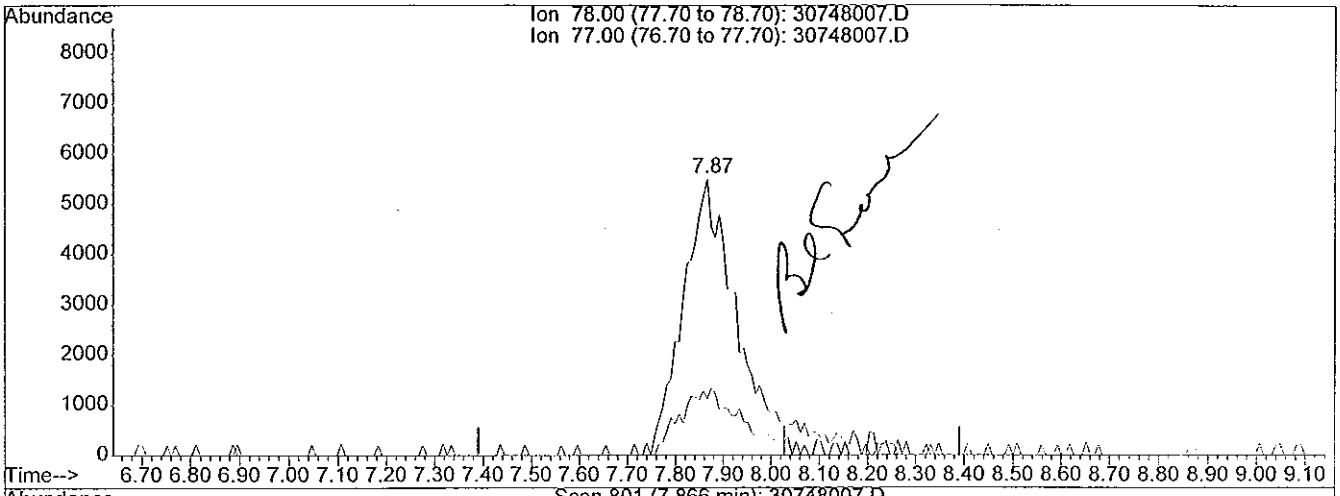
#30
Trichloroethene
Concen: 2.88 ug/L
RT: 9.57 min Scan# 1003
Delta R.T. -0.02 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

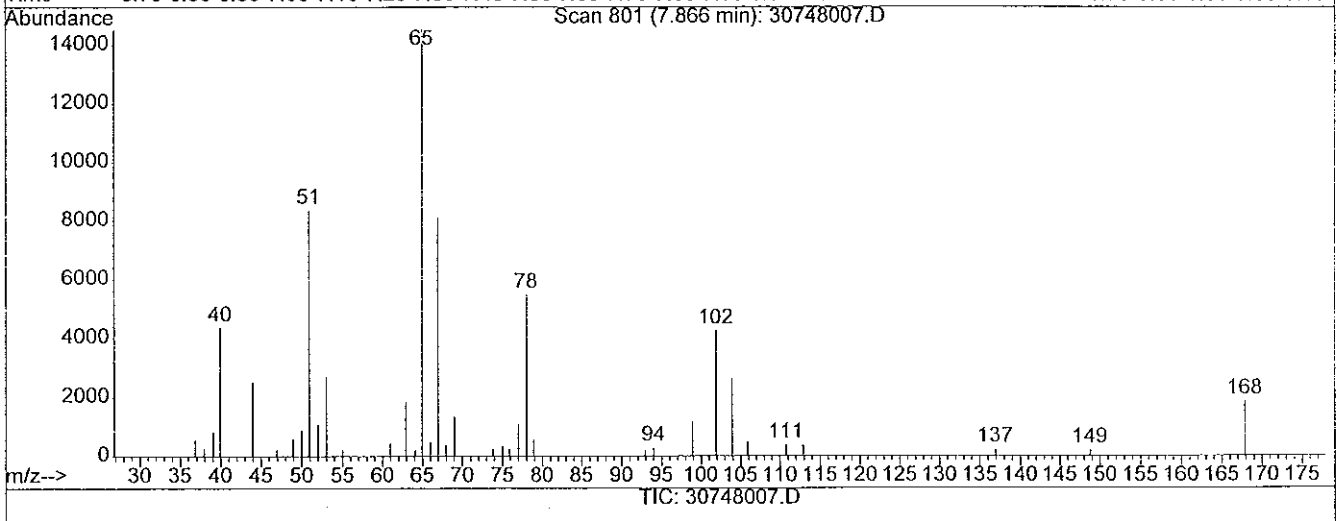
Tgt Ion: 95	Resp:	290022	
Ion	Ratio	Lower	Upper
95	100		
130	97.6	75.1	115.1
132	93.9	73.1	113.1



Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748007.D

(28) Benzene (TM)

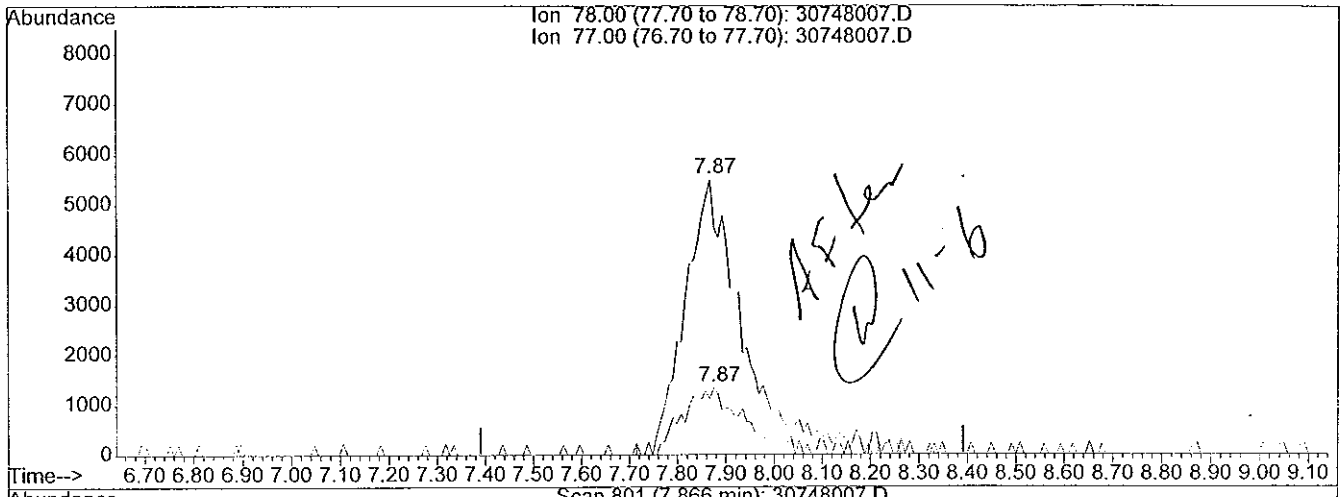
7.87min 0.17ug/L

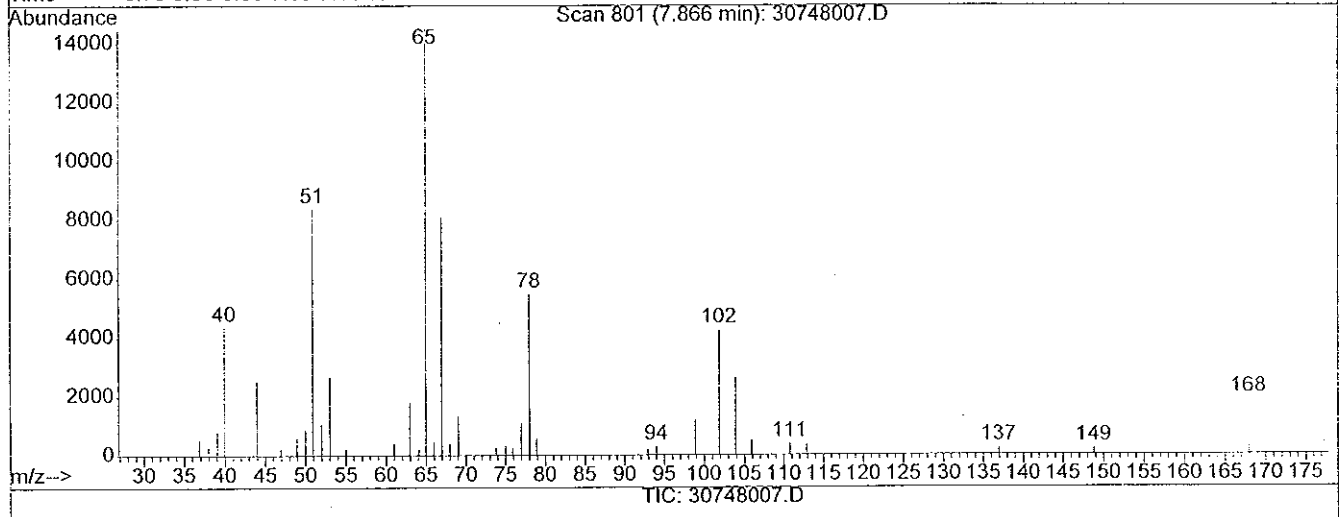
response 42076

Ion	Exp%	Act%
78.00	100	100
77.00	23.50	20.29
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Multiple Level Calibration





TIC: 30748007.D

(28) Benzene (TM)

7.87min 0.18ug/L m

response 45944

Ion	Exp%	Act%
78.00	100	100
77.00	23.50	20.29
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 5 Nov 2001 11:48
Data File: D:\HPCHEM\1\DATA\BUBBA\110501\30748007.D
Name: 110655-2 5.00ml 5X
Misc: CH2MHILL 3607A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Heptanone	17.75	7.3	ug/L	681910	ISTD03	15.30	4698800	10.0

30748007.D V82625B1.M Tue Nov 06 13:49:25 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

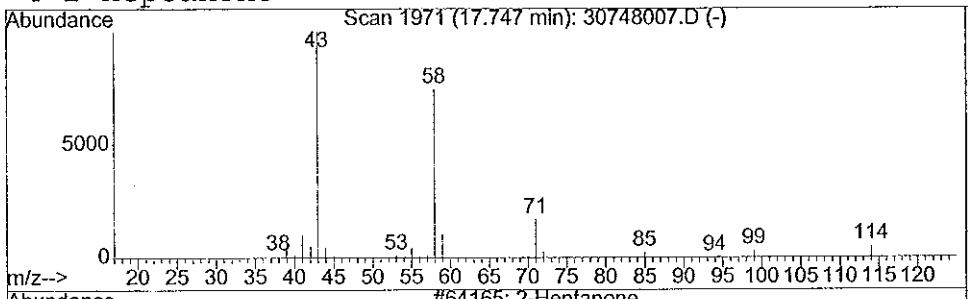
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

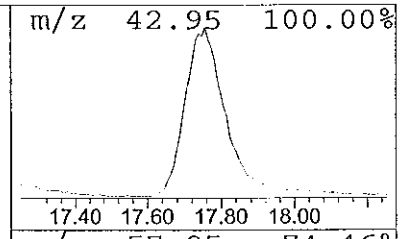
****

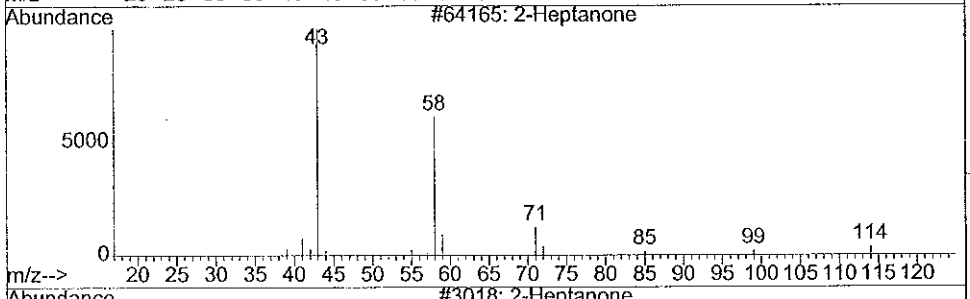
Peak Number 1 2-Heptanone Concentration Rank 2

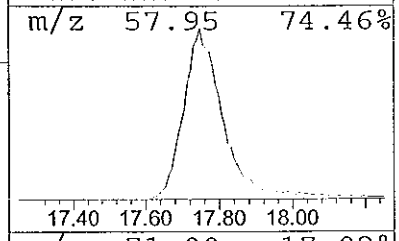
R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.75	7.26 ug/L	681910	i-Chlorobenzene-d	4698800	15.30

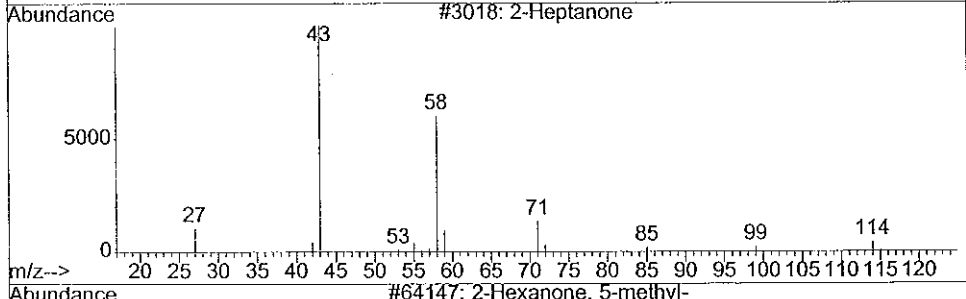
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	91
2	2-Heptanone	114	C7H14O	000110-43-0	91
3	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	90
4	2-Heptanone	114	C7H14O	000110-43-0	90

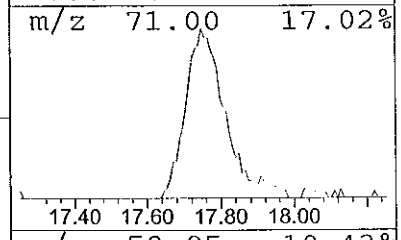


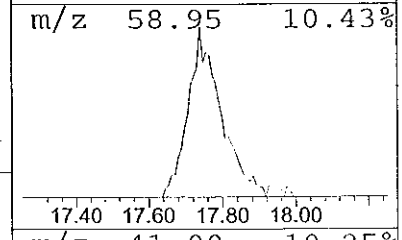


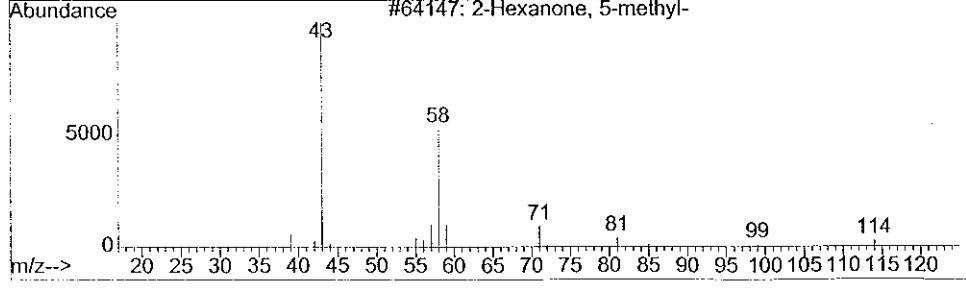


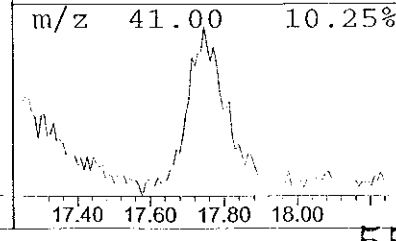












Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:31 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3095736	10.00	ug/L	0.02 103.45%
25) i-1,4-Difluorobenzene	9.06	114	3044663	10.00	ug/L	0.02 100.14%
46) i-Chlorobenzene-d5	15.31	117	2166775	10.00	ug/L	0.00 101.19%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1059555	10.00	ug/L	0.00 87.13%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1409177	9.83	ug/L	0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 98.30%			
36) s-Toluene-d8	12.33	98	2796127	9.69	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.90%			
56) s-4-Bromofluorobenzene	18.80	95	1598878	9.71	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.10%			
Target Compounds						Qvalue
9) Acetone	2.88	43	163675m	27.16	ug/L	82
13) trans-1,2-Dichloroethene	3.80	96	35446m	0.32	ug/L #	89
19) 2-Butanone	5.81	43	1018061m	81.32	ug/L	95
20) cis-1,2-Dichloroethene	5.65	96	2686053	26.26	ug/L	93
30) Trichloroethene	9.58	95	3297270	24.76	ug/L	99
45) 2-Hexanone	14.02	43	353556m	16.92	ug/L	99
69) p-Isopropyltoluene	22.81	119	111974	0.35	ug/L	99

11-5

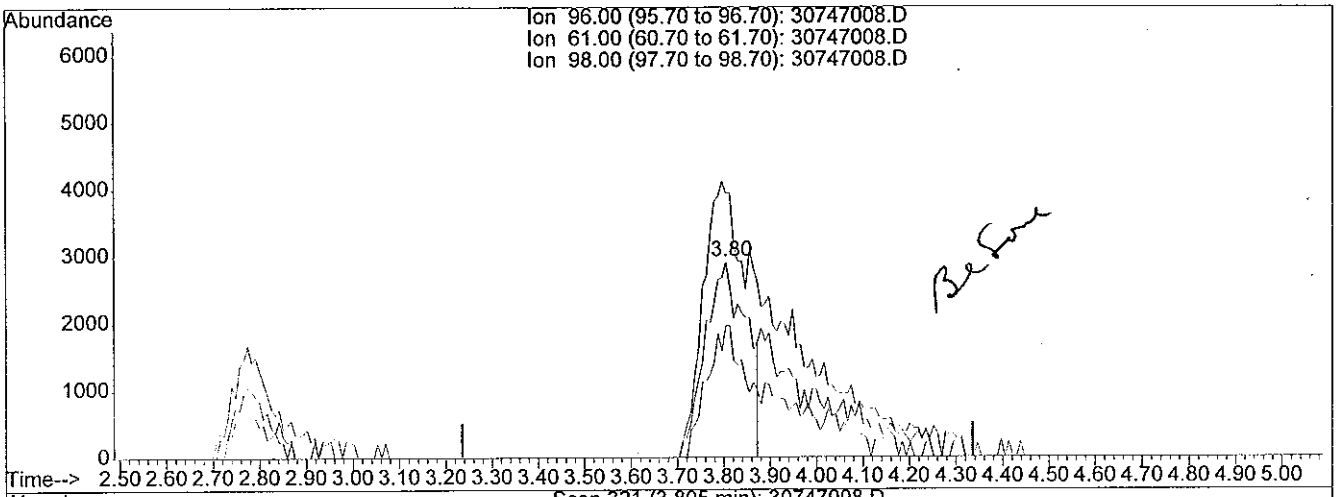
559

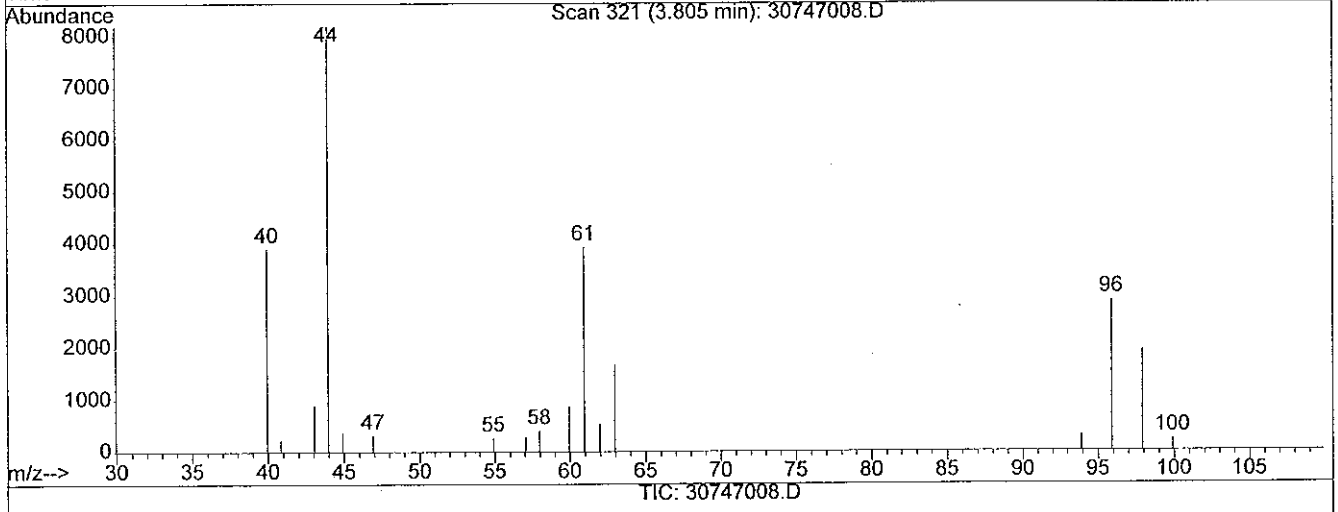
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





(13) trans-1,2-Dichloroethene (TM)

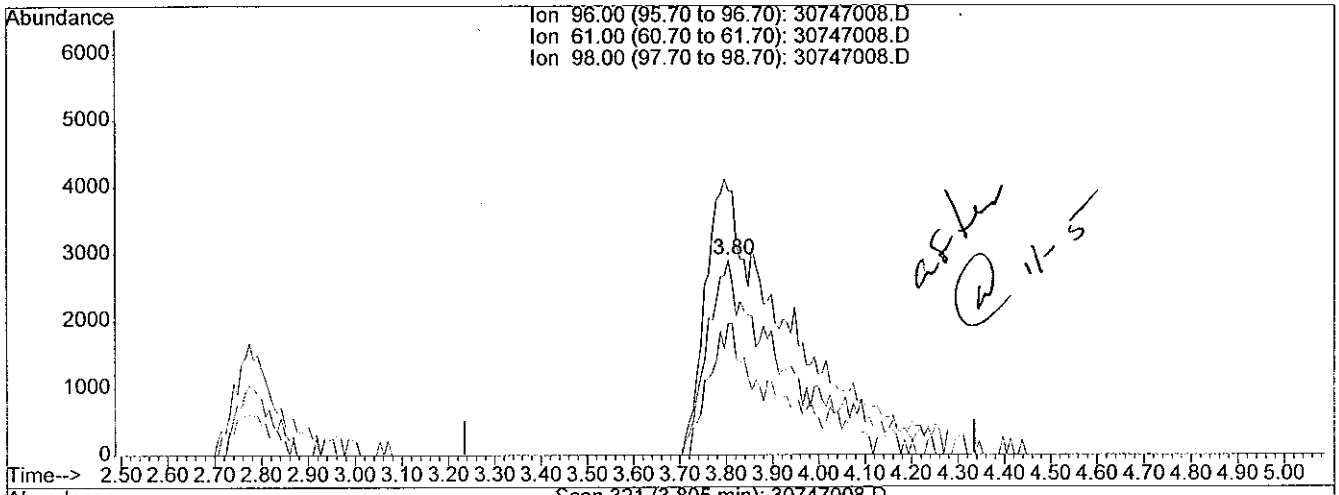
3.80min 0.16ug/L

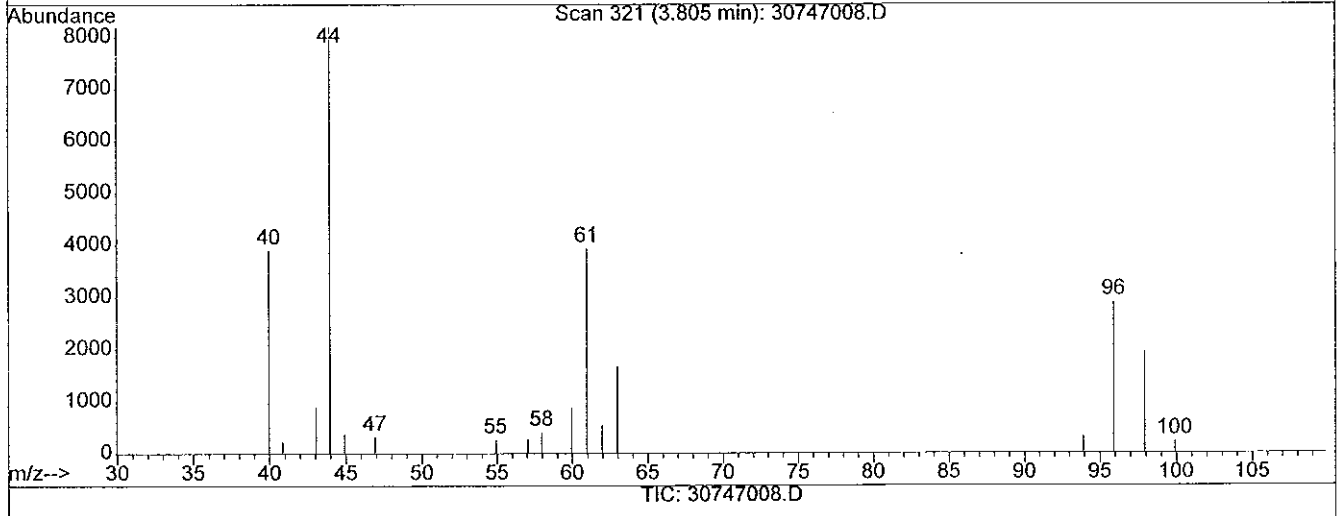
response 18043

Ion	Exp%	Act%
96.00	100	100
61.00	153.40	135.64
98.00	65.10	67.42
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(13) trans-1,2-Dichloroethene (TM)

3.80min 0.32ug/L m

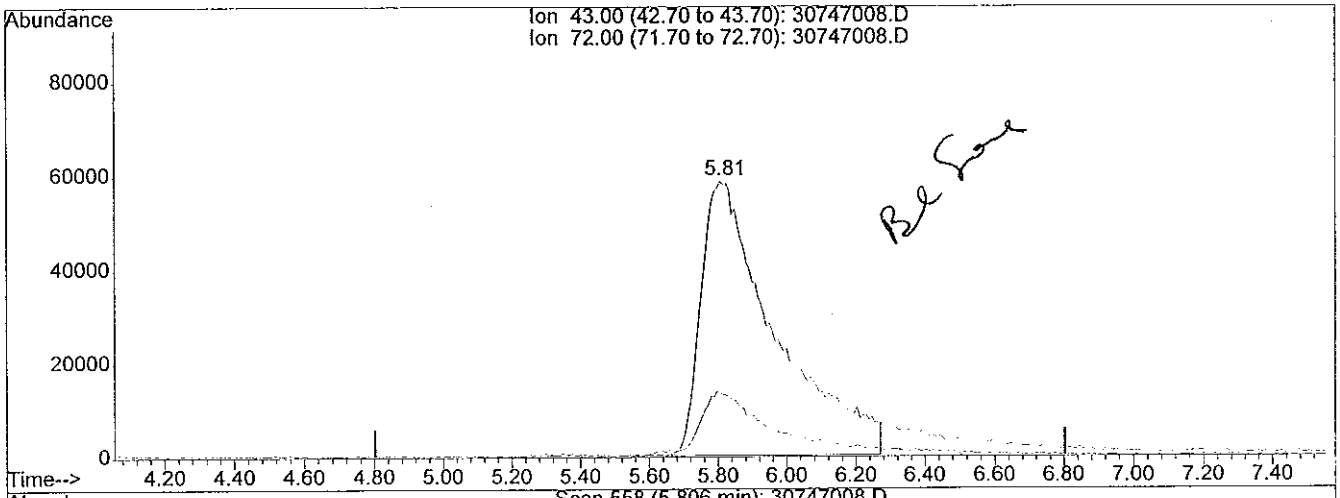
response 35446

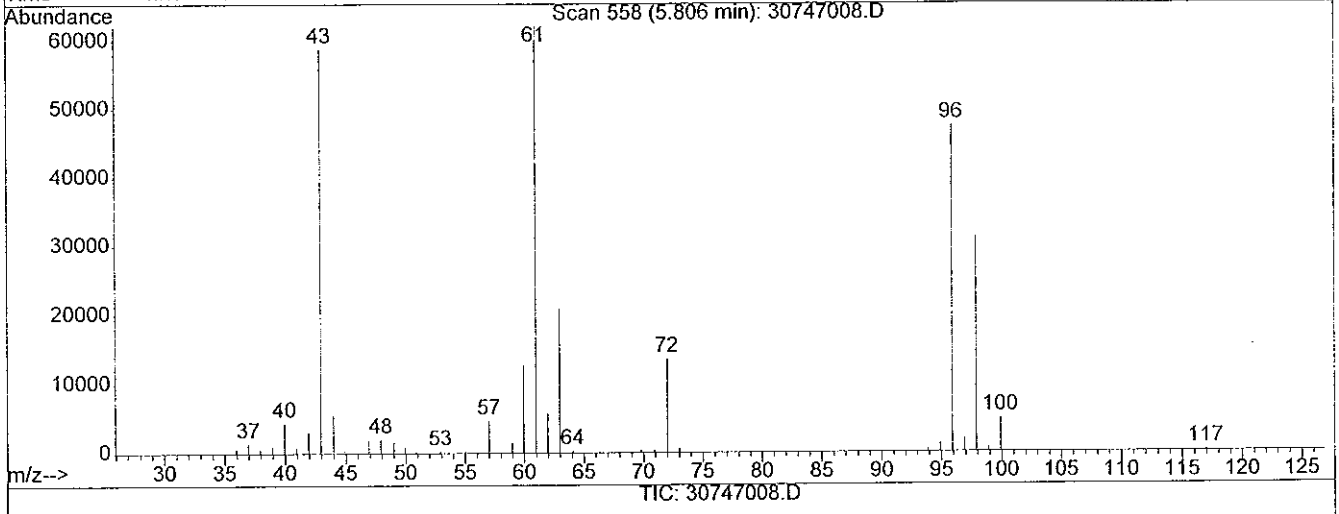
Ion	Exp%	Act%
96.00	100	100
61.00	153.40	0.00#
98.00	65.10	0.00#
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(19) 2-Butanone (TM)

5.81min 69.94ug/L

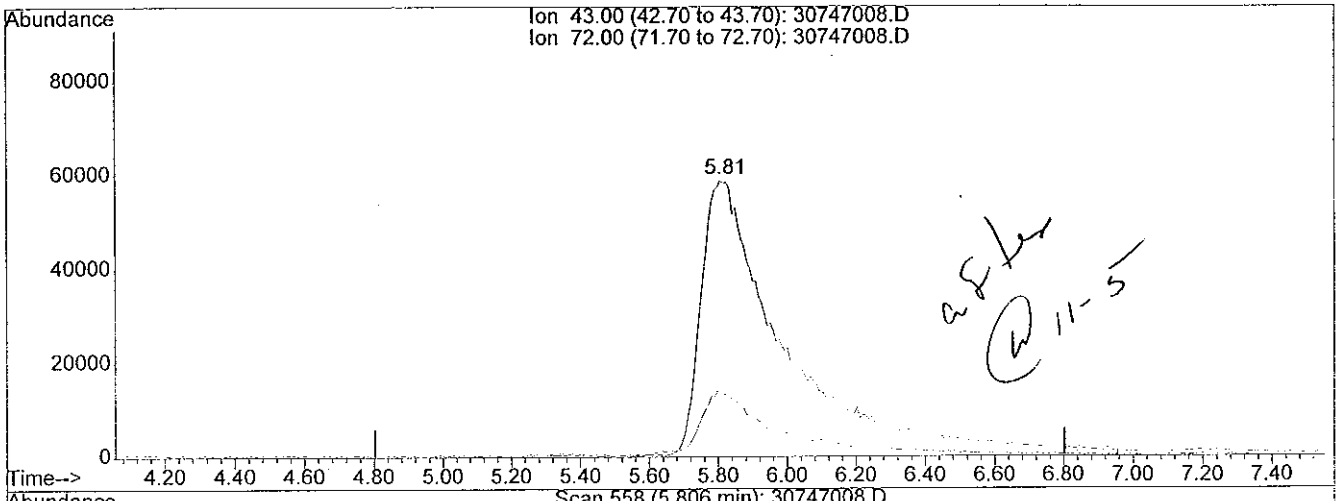
response 875636

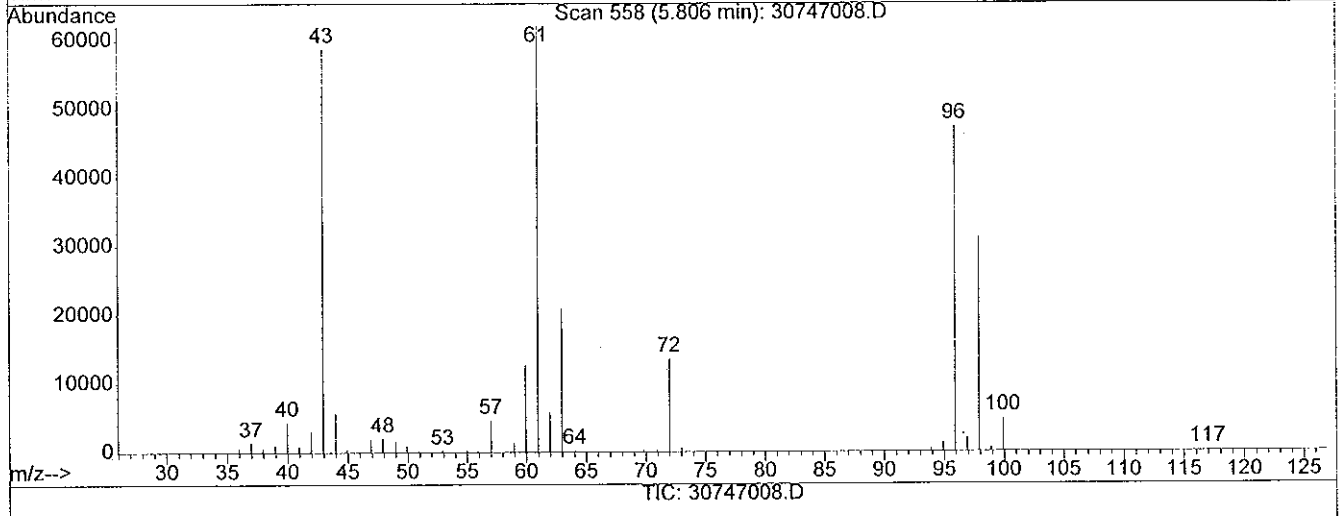
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	21.26
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(19) 2-Butanone (TM)

5.81min 81.32ug/L m

response 1018061

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.09
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 14:09
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D
Name: 110655-1
Misc: CH2MHILL 3608B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan, tetrahydro-2-	8.40	1.2	ug/L	811592	ISTD02	9.06	7027090	10.0
2-Pentanone	10.21	1.4	ug/L	976704	ISTD02	9.06	7027090	10.0
2-Heptanone	17.76	8.1	ug/L	5397970	ISTD03	15.31	6693990	10.0
2-Heptanol	18.39	1.5	ug/L	1012310	ISTD03	15.31	6693990	10.0

30747008.D V82625B1.M Tue Nov 06 13:29:24 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

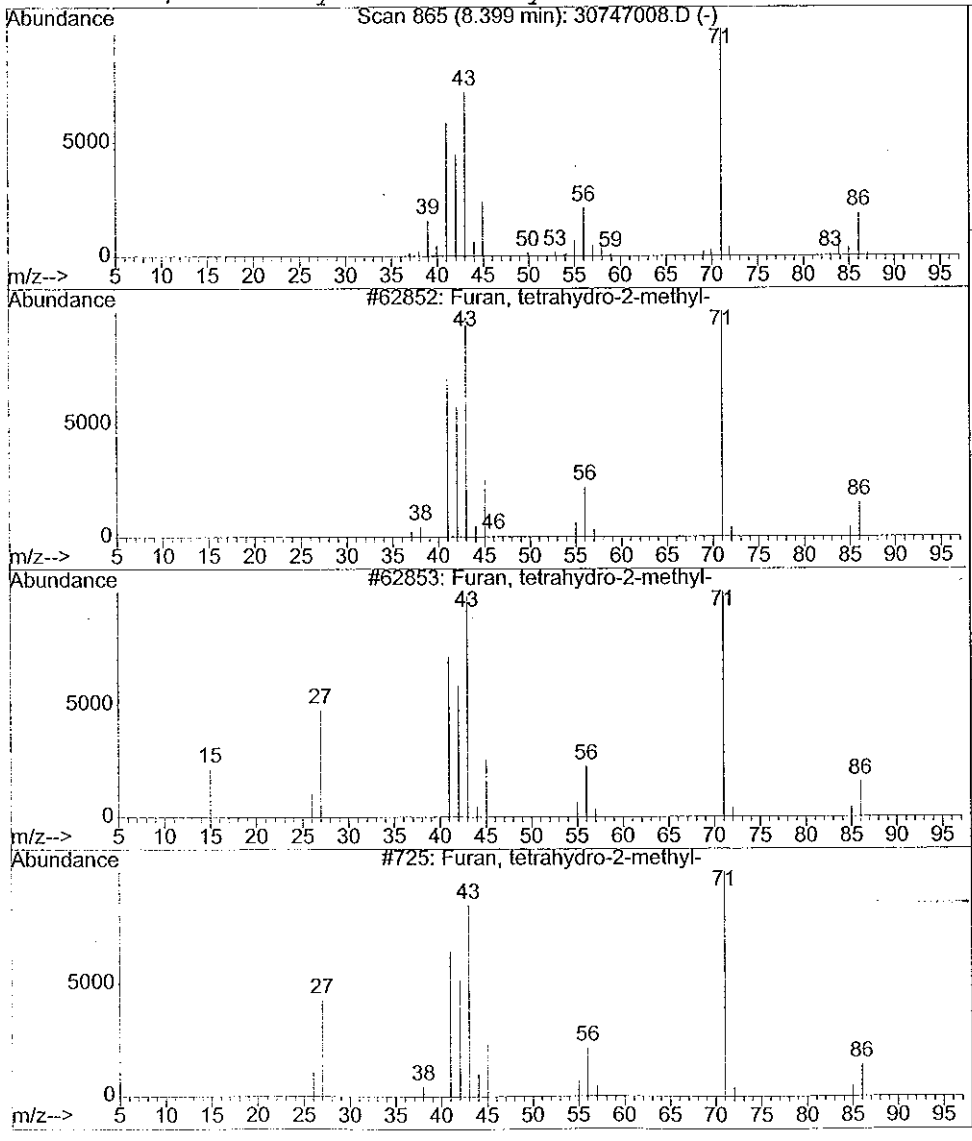
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

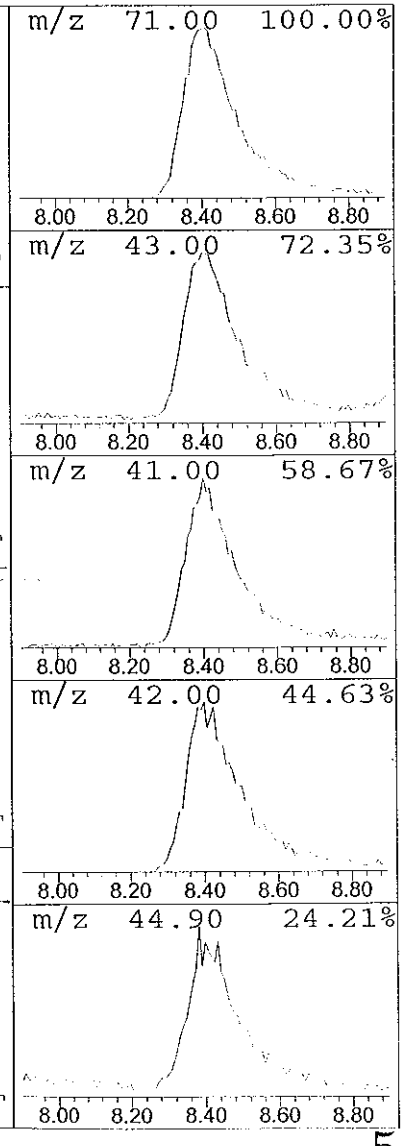
****

Peak Number 1 Furan, tetrahydro-2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.40	1.15 ug/L	811592	i-1,4-Difluoroben	7027090	9.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	90
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	83
3	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	53
4	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	53

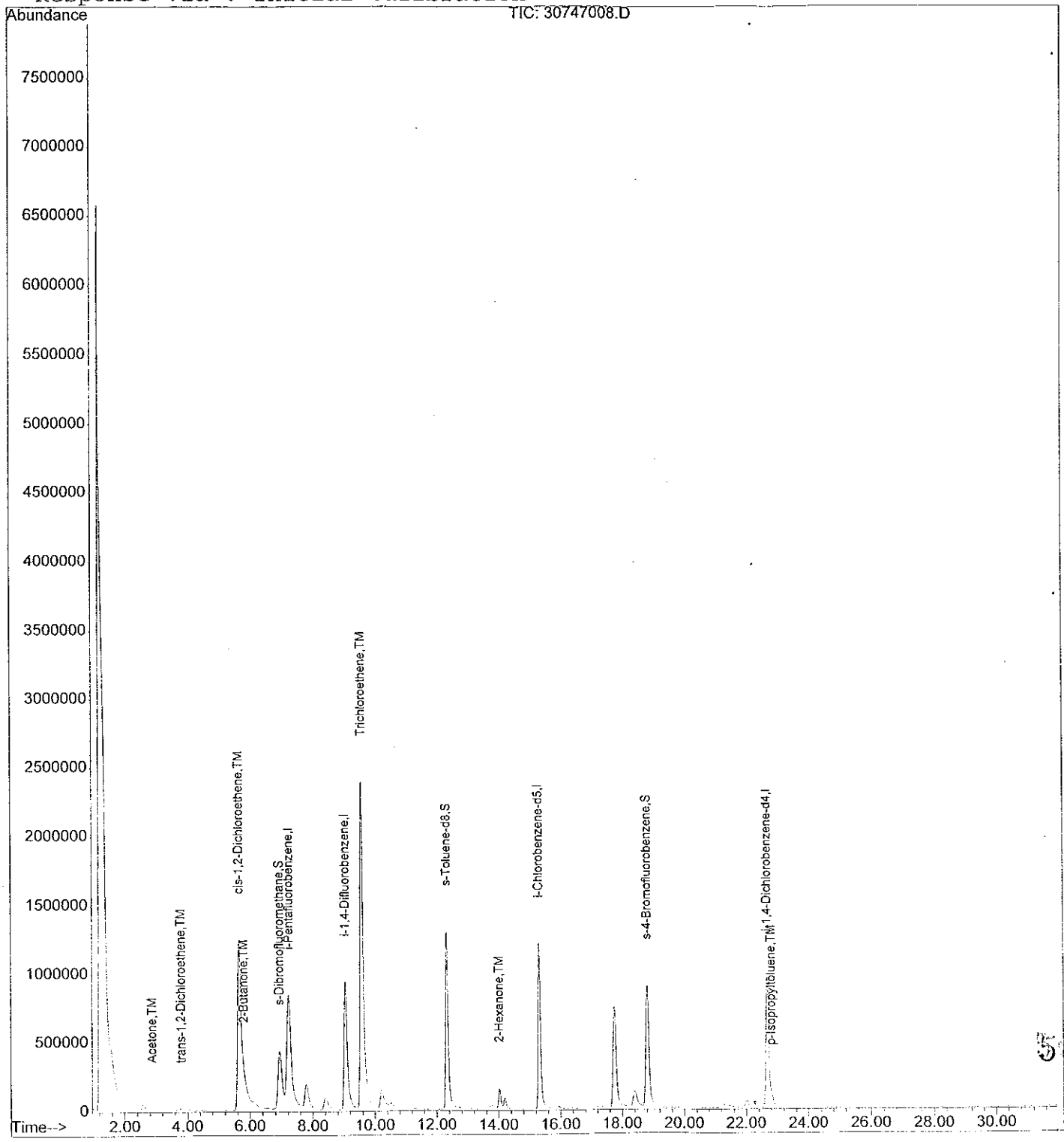


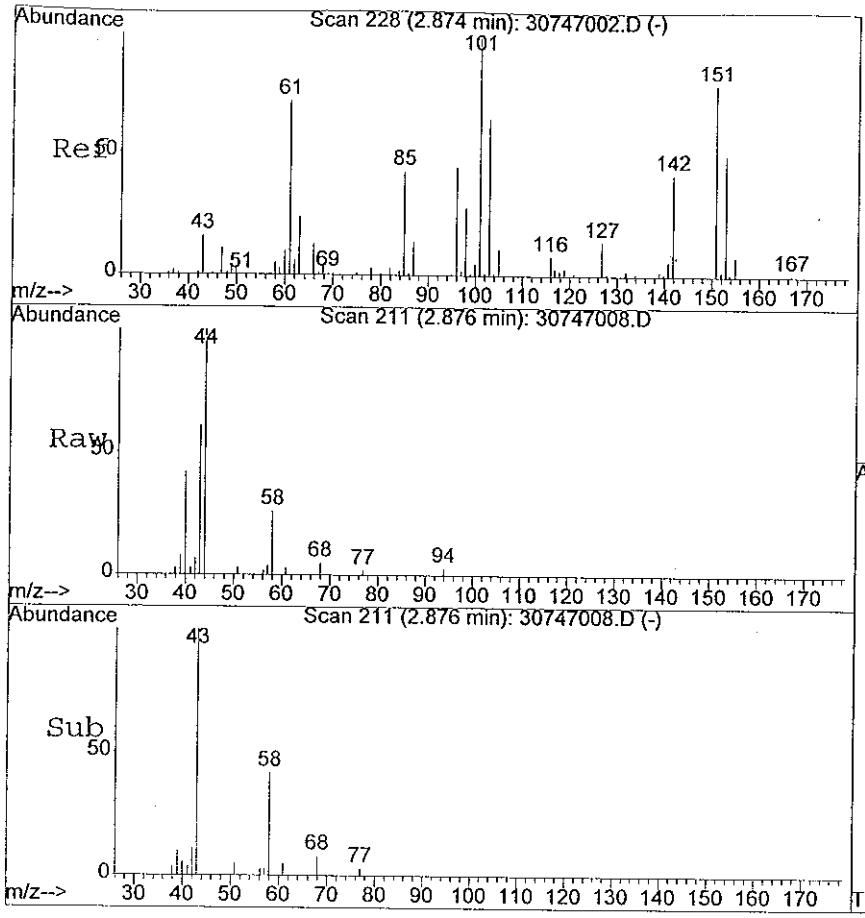


572

Data File : D:\HPCHEM\1\DATA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:31 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

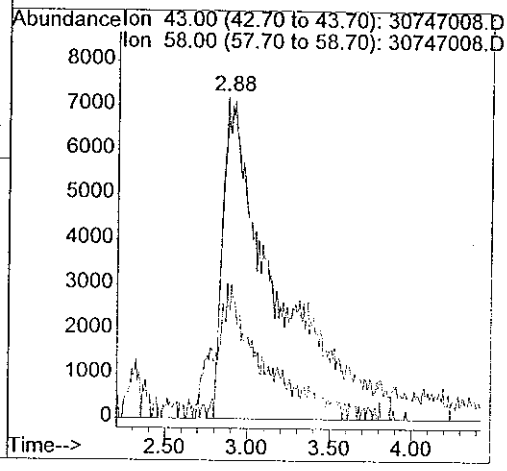


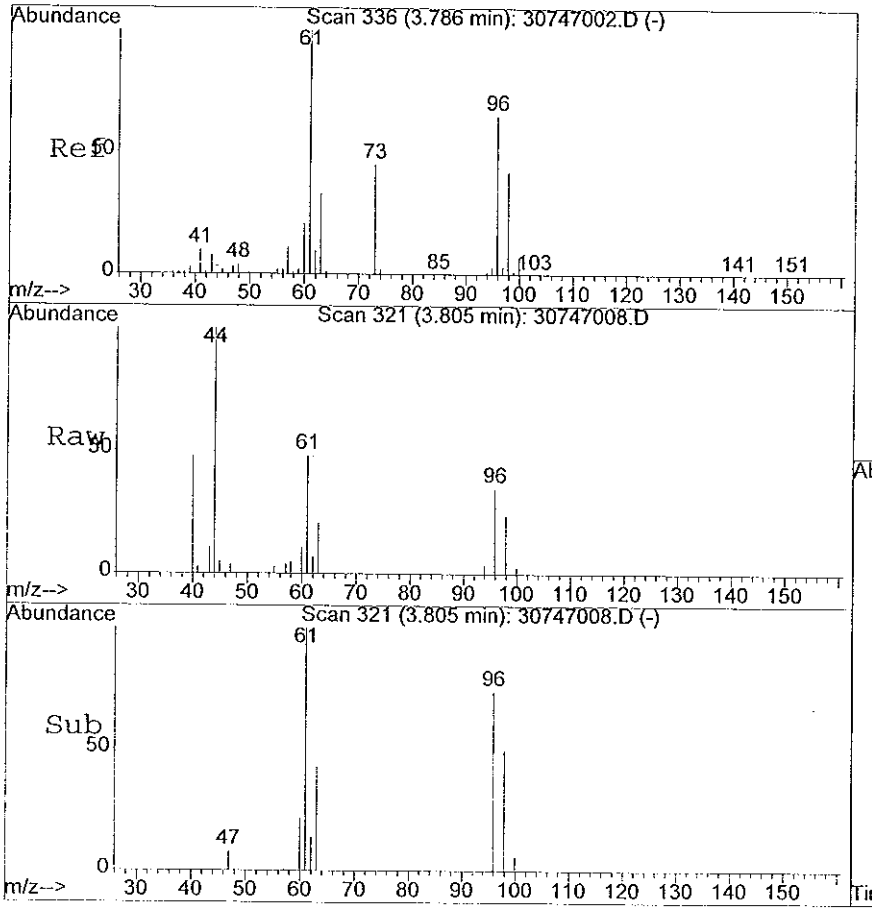


#9
Acetone
Concen: 27.16 ug/L m
RT: 2.88 min Scan# 211
Delta R.T. 0.00 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 43 Resp: 163675

Ion	Ratio	Lower	Upper
43	100		
58	42.4	0.0	132.4

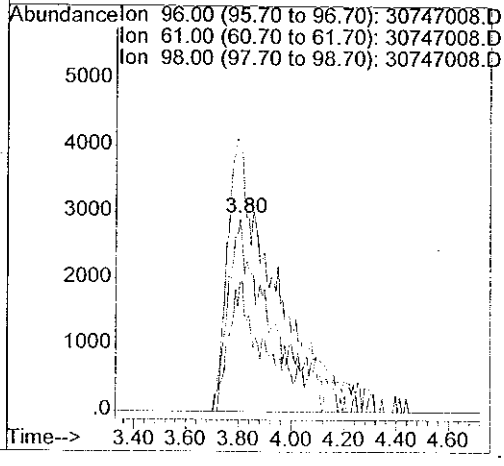


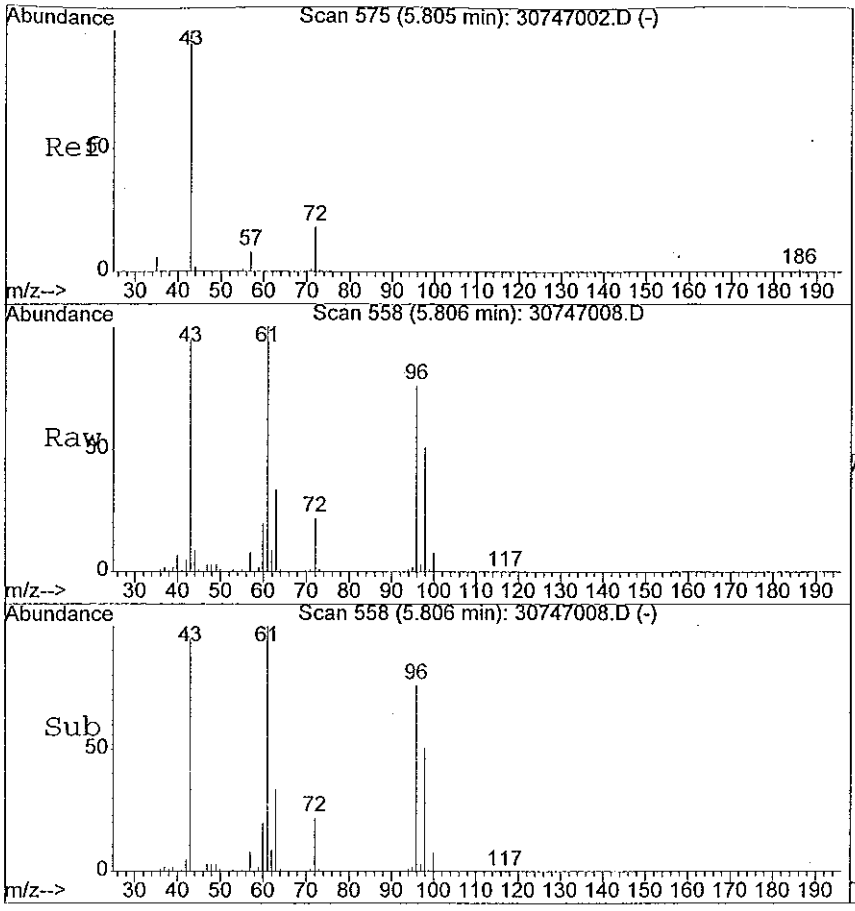


#13
trans-1,2-Dichloroethene
Concen: 0.32 ug/L m
RT: 3.80 min Scan# 321
Delta R.T. 0.02 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 96 Resp: 35446

Ion	Ratio	Lower	Upper
96	100		
61	0.0	133.4	173.4#
98	0.0	45.1	85.1#

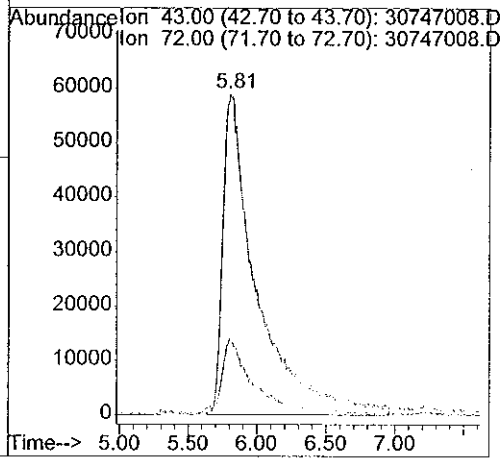


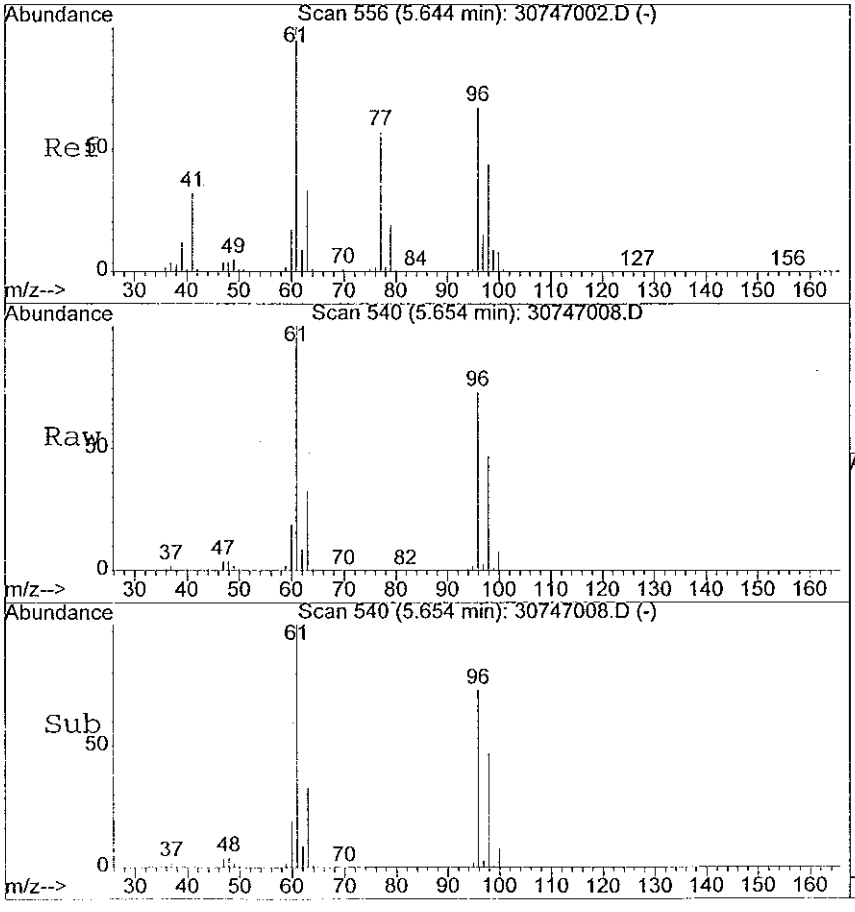


#19
2-Butanone
Concen: 81.32 ug/L m
RT: 5.81 min Scan# 558
Delta R.T. 0.00 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 43 Resp: 1018061

Ion	Ratio	Lower	Upper
43	100		
72	23.1	0.0	119.0

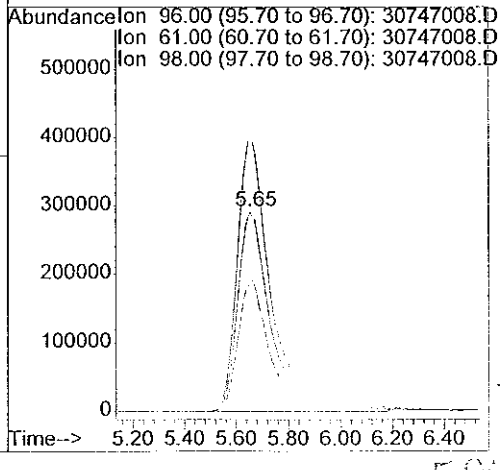


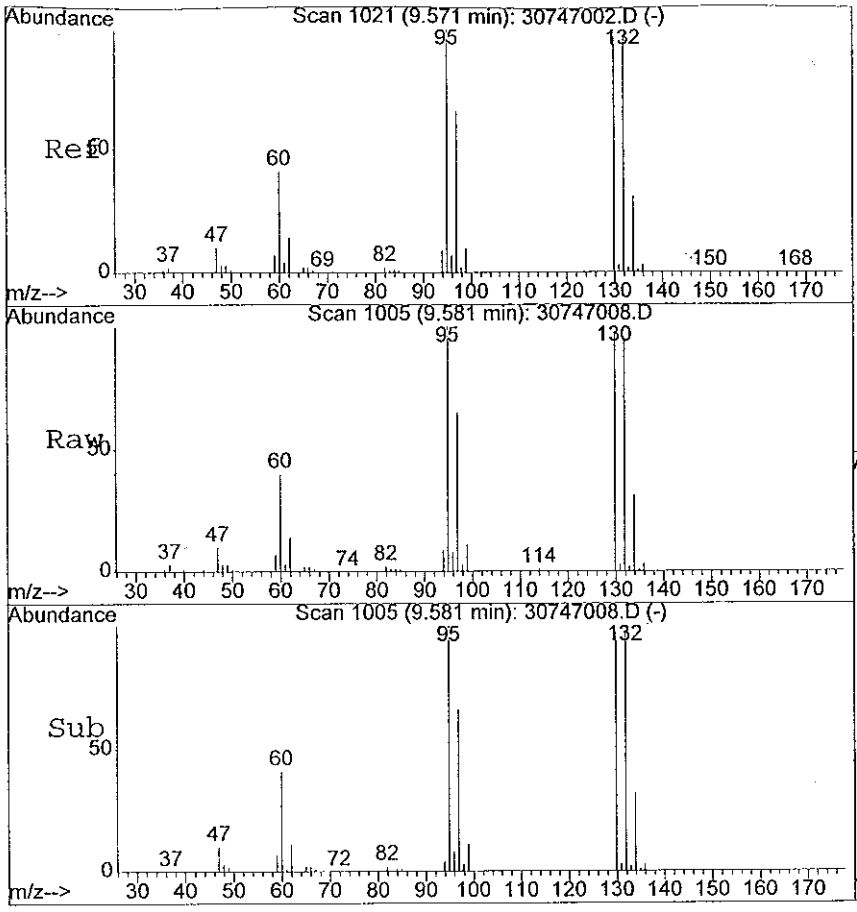


#20
cis-1,2-Dichloroethene
Concen: 26.26 ug/L
RT: 5.65 min Scan# 540
Delta R.T. 0.01 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 96 Resp: 2686053

Ion	Ratio	Lower	Upper
96	100		
61	137.3	128.7	168.7
98	65.1	45.8	85.8

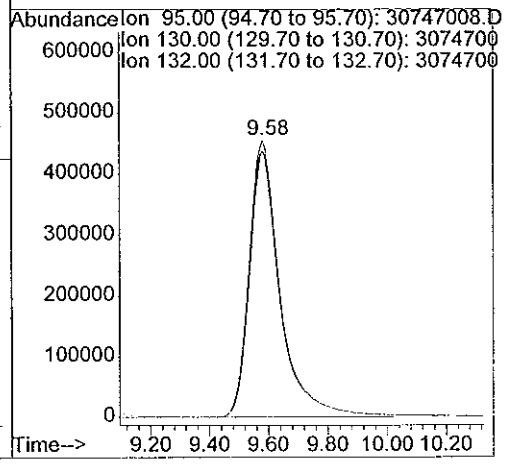


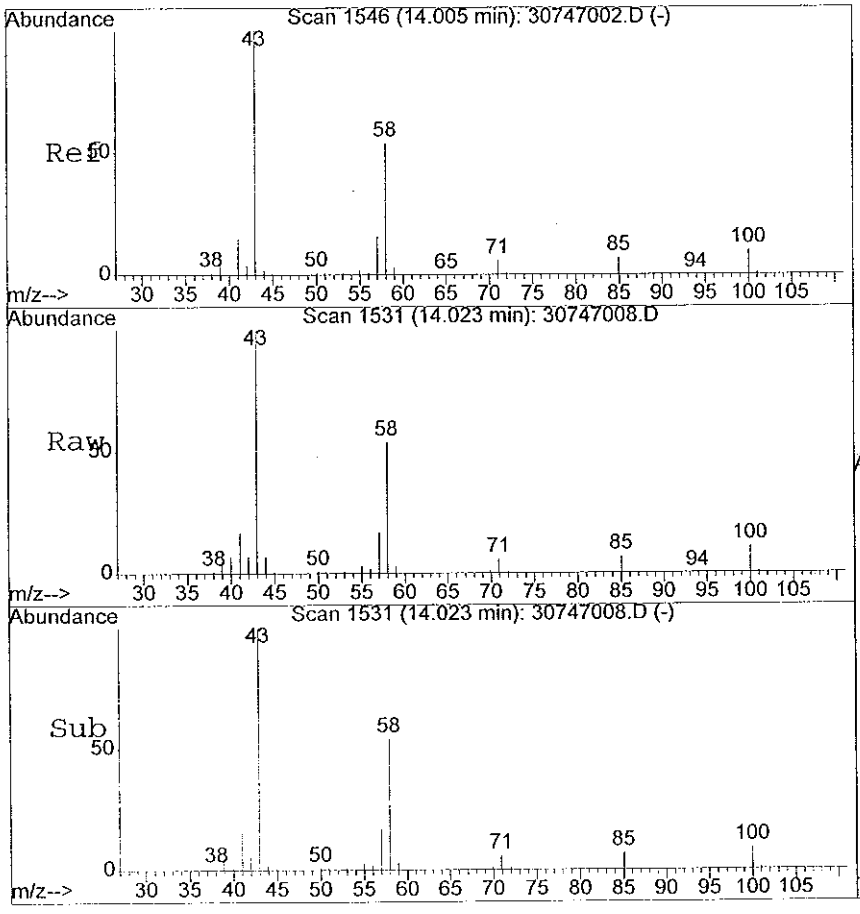


#30
Trichloroethene
Concen: 24.76 ug/L
RT: 9.58 min Scan# 1005
Delta R.T. 0.01 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 95 Resp: 3297270

Ion	Ratio	Lower	Upper
95	100		
130	96.5	76.7	116.7
132	96.4	78.1	118.1

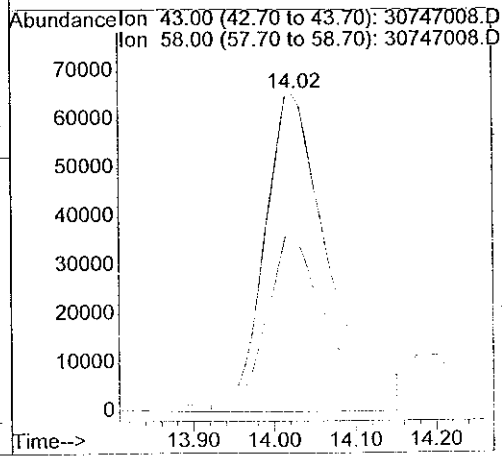


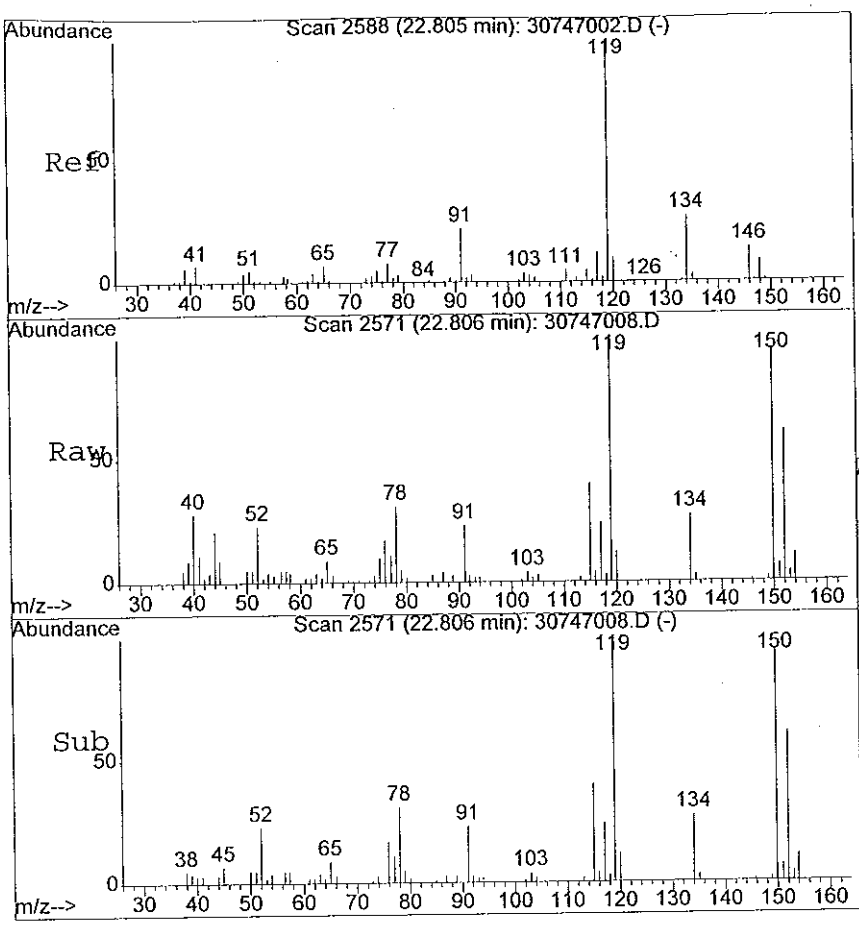


#45
2-Hexanone
Concen: 16.92 ug/L m
RT: 14.02 min Scan# 1531
Delta R.T. 0.02 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion: 43 Resp: 353556

Ion	Ratio	Lower	Upper
43	100		
58	53.8	0.0	154.1

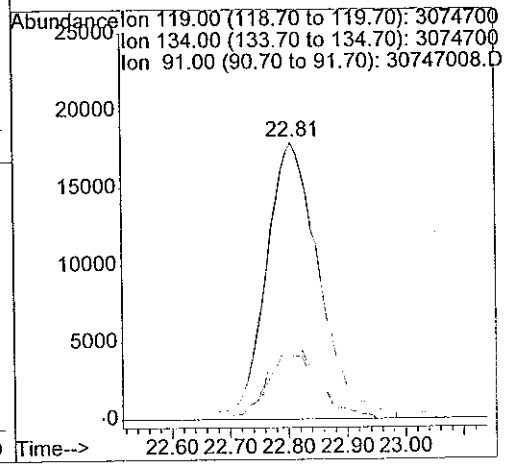




#69
p-Isopropyltoluene
Concen: 0.35 ug/L
RT: 22.81 min Scan# 2571
Delta R.T. 0.00 min
Lab File: 30747008.D
Acq: 2 Nov 2001 14:09

Tgt Ion:119 Resp: 111974

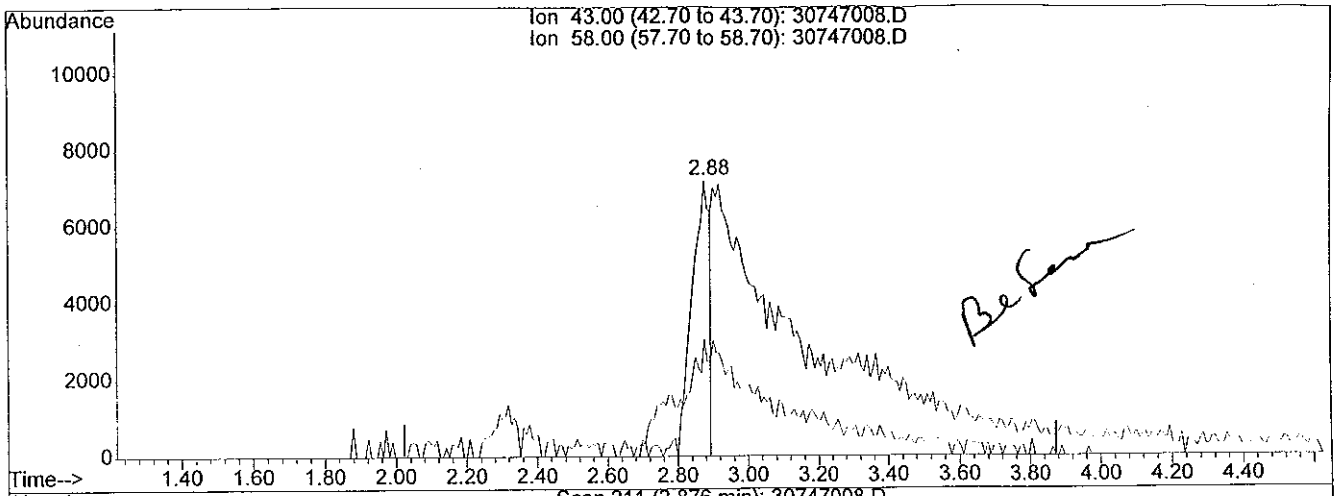
Ion	Ratio	Lower	Upper
119	100		
134	27.0	6.5	46.5
91	22.8	2.0	42.0

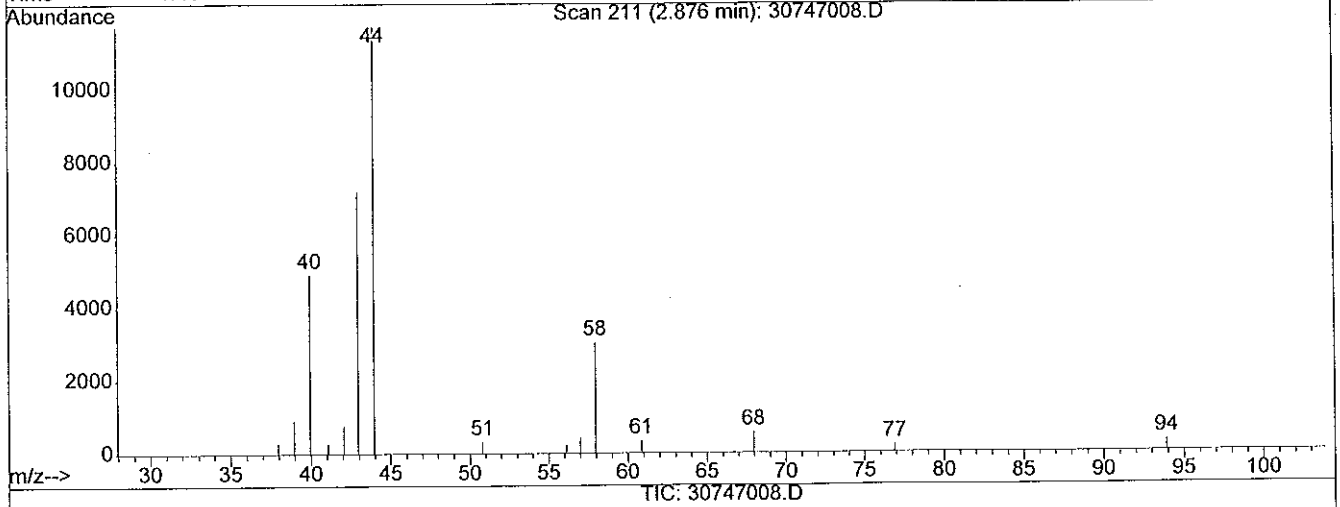


Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 3 8:06 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(9) Acetone (TM)

2.88min 4.24ug/L

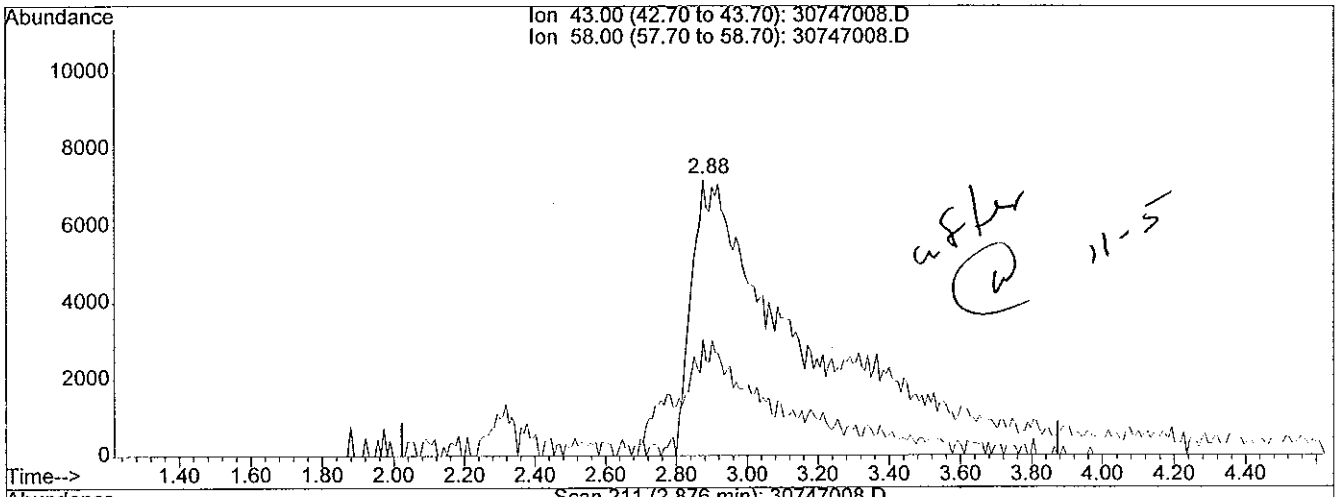
response 26123

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	22.38
0.00	0.00	0.00
0.00	0.00	0.00

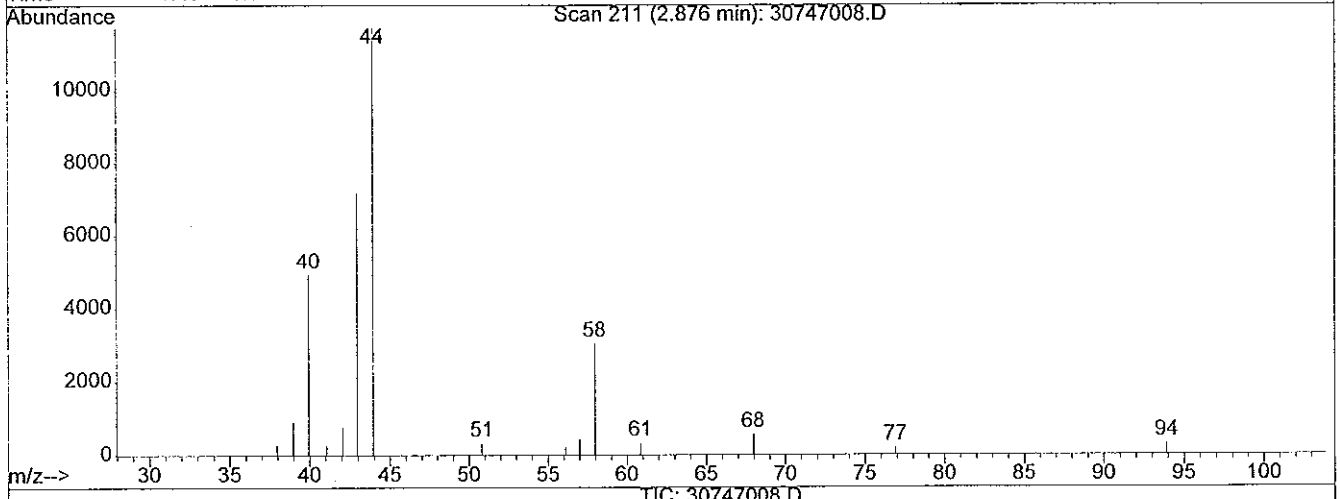
Quantitation Report (Quan)

Data File : D:\HPCHEM\1\DATA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



cal lvl @ 11-5



TIC: 30747008.D

(9) Acetone (TM)

2.88min 27.16ug/L m

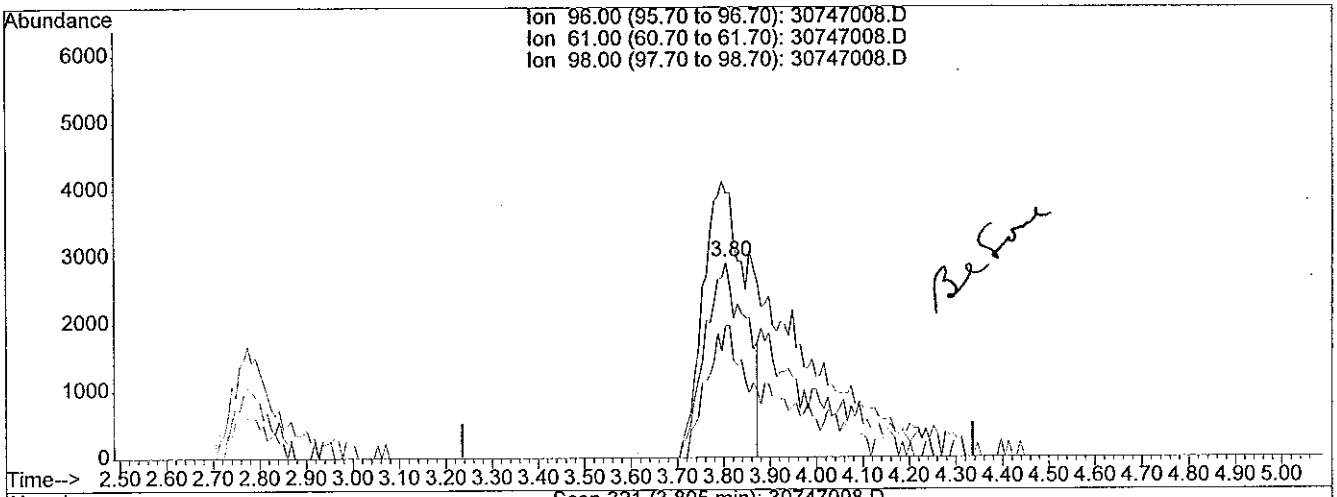
response 163675

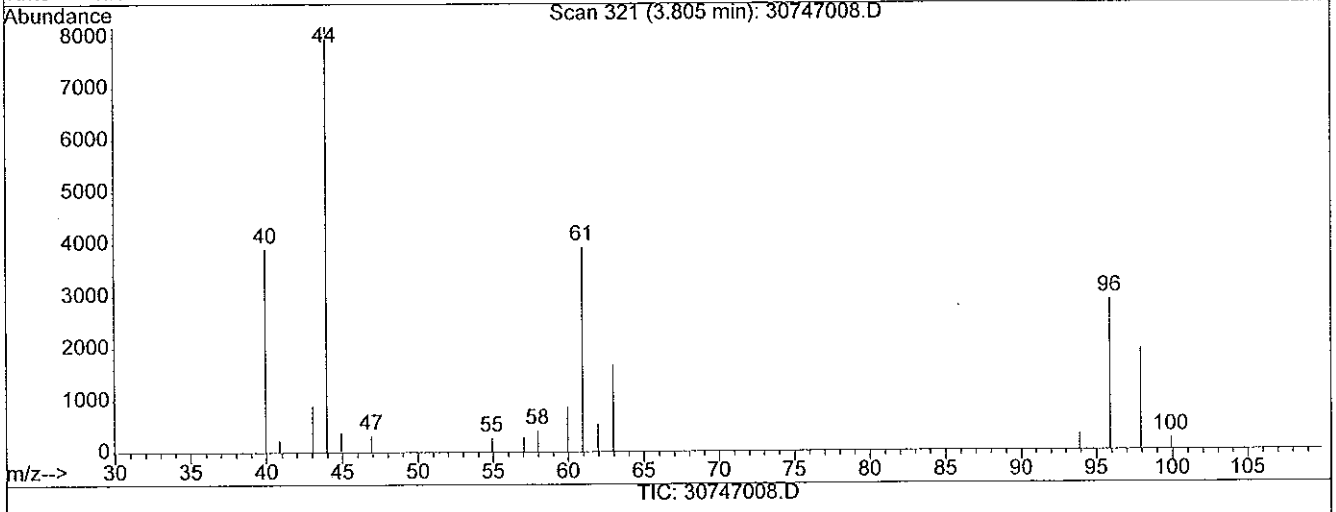
Ion	Exp%	Act%
43.00	100	100
58.00	32.40	42.44
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(13) trans-1,2-Dichloroethene (TM)

3.80min 0.16ug/L

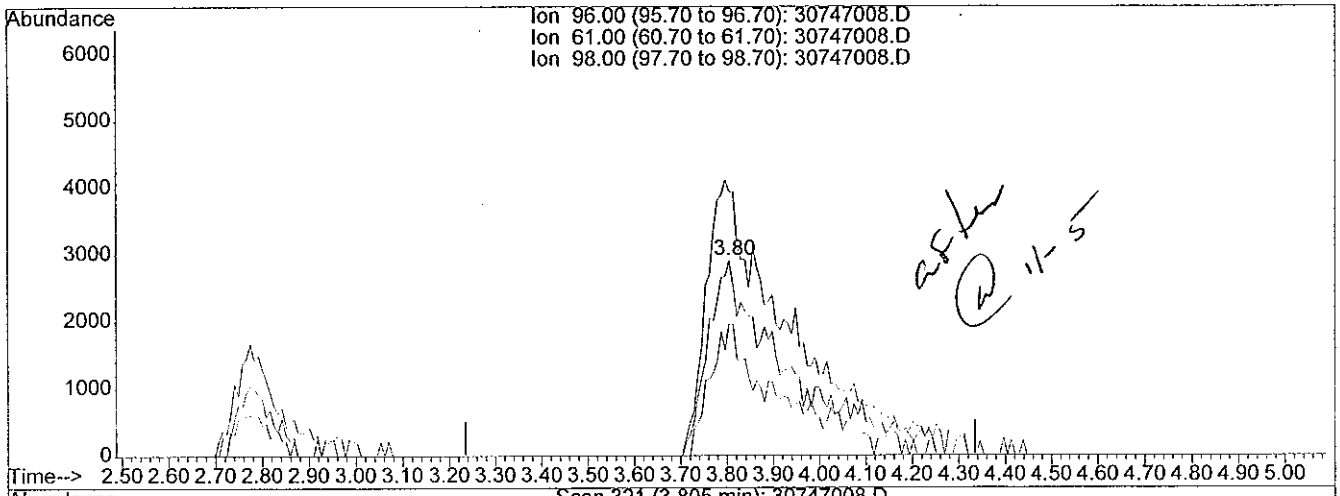
response 18043

Ion	Exp%	Act%
96.00	100	100
61.00	153.40	135.64
98.00	65.10	67.42
0.00	0.00	0.00

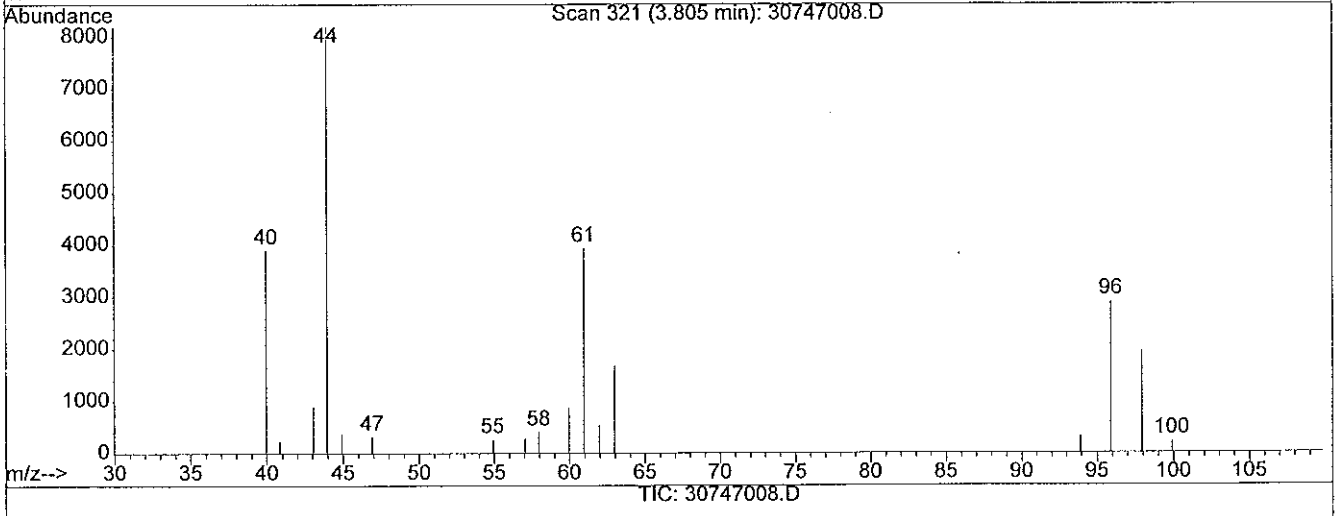
567

Data File : D:\HPCHEM\1\DATA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



after @ 11-5



TIC: 30747008.D

(13) trans-1,2-Dichloroethene (TM)

3.80min 0.32ug/L m

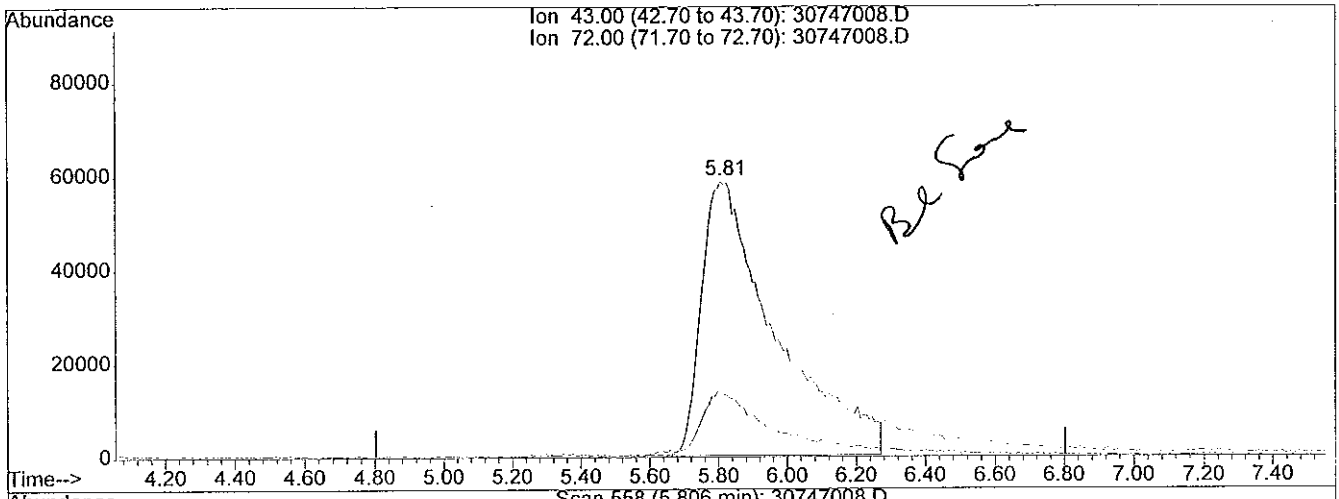
response 35446

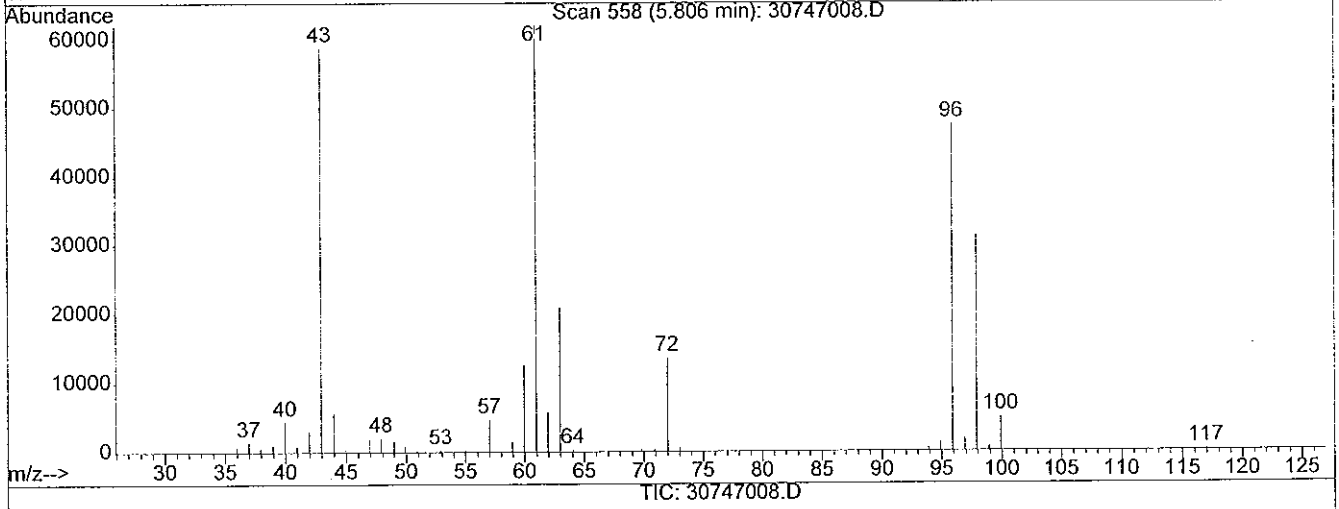
Ion	Exp%	Act%
96.00	100	100
61.00	153.40	0.00#
98.00	65.10	0.00#
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747008.D
Acq On : 2 Nov 2001 14:09
Sample : 110655-1
Misc : CH2MHILL 3608B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(19) 2-Butanone (TM)

5.81min 69.94ug/L

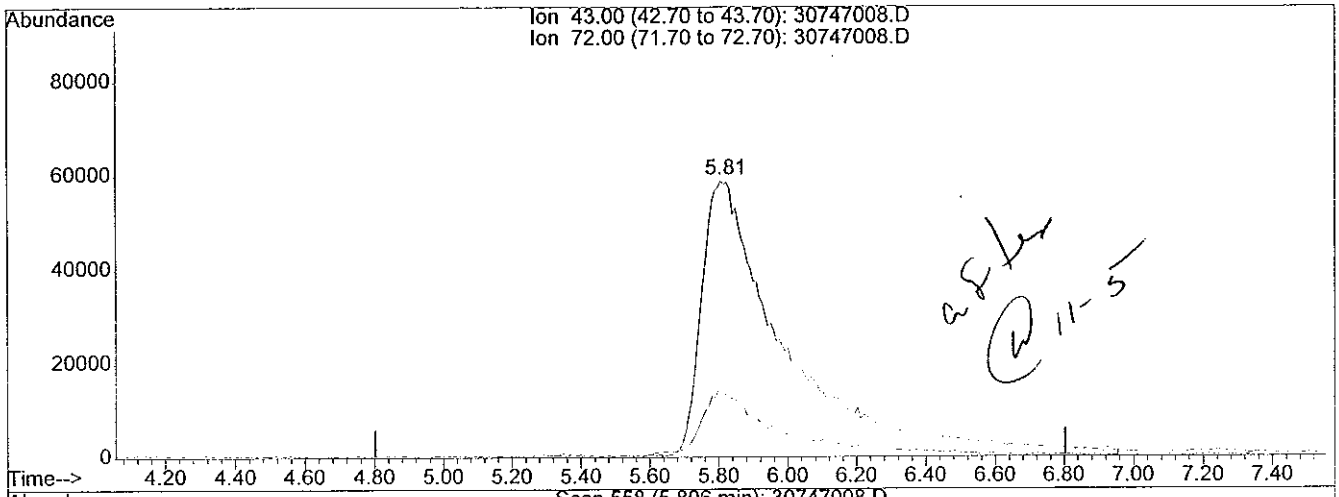
response 875636

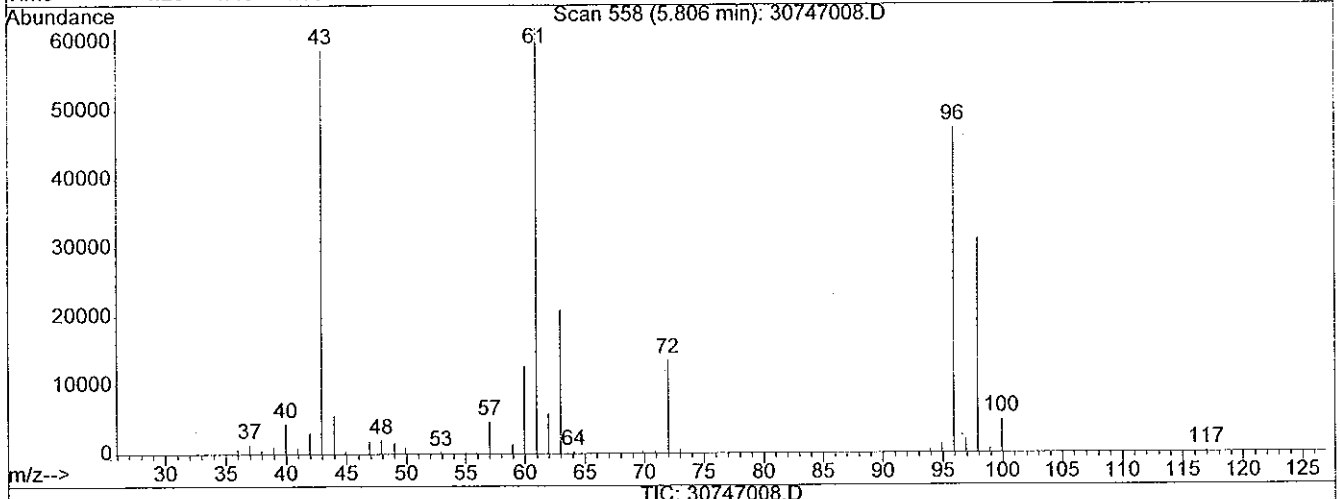
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	21.26
0.00	0.00	0.00
0.00	0.00	0.00

569

Data File : D:\HPCHEM\1\DATA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:08 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747008.D

(19) 2-Butanone (TM)

5.81min 81.32ug/L m

response 1018061

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.09
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 14:09
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D
Name: 110655-1
Misc: CH2MHILL 3608B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan, tetrahydro-2-	8.40	1.2	ug/L	811592	ISTD02	9.06	7027090	10.0
2-Pentanone	10.21	1.4	ug/L	976704	ISTD02	9.06	7027090	10.0
2-Heptanone	17.76	8.1	ug/L	5397970	ISTD03	15.31	6693990	10.0
2-Heptanol	18.39	1.5	ug/L	1012310	ISTD03	15.31	6693990	10.0

30747008.D V82625B1.M Tue Nov 06 13:29:24 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

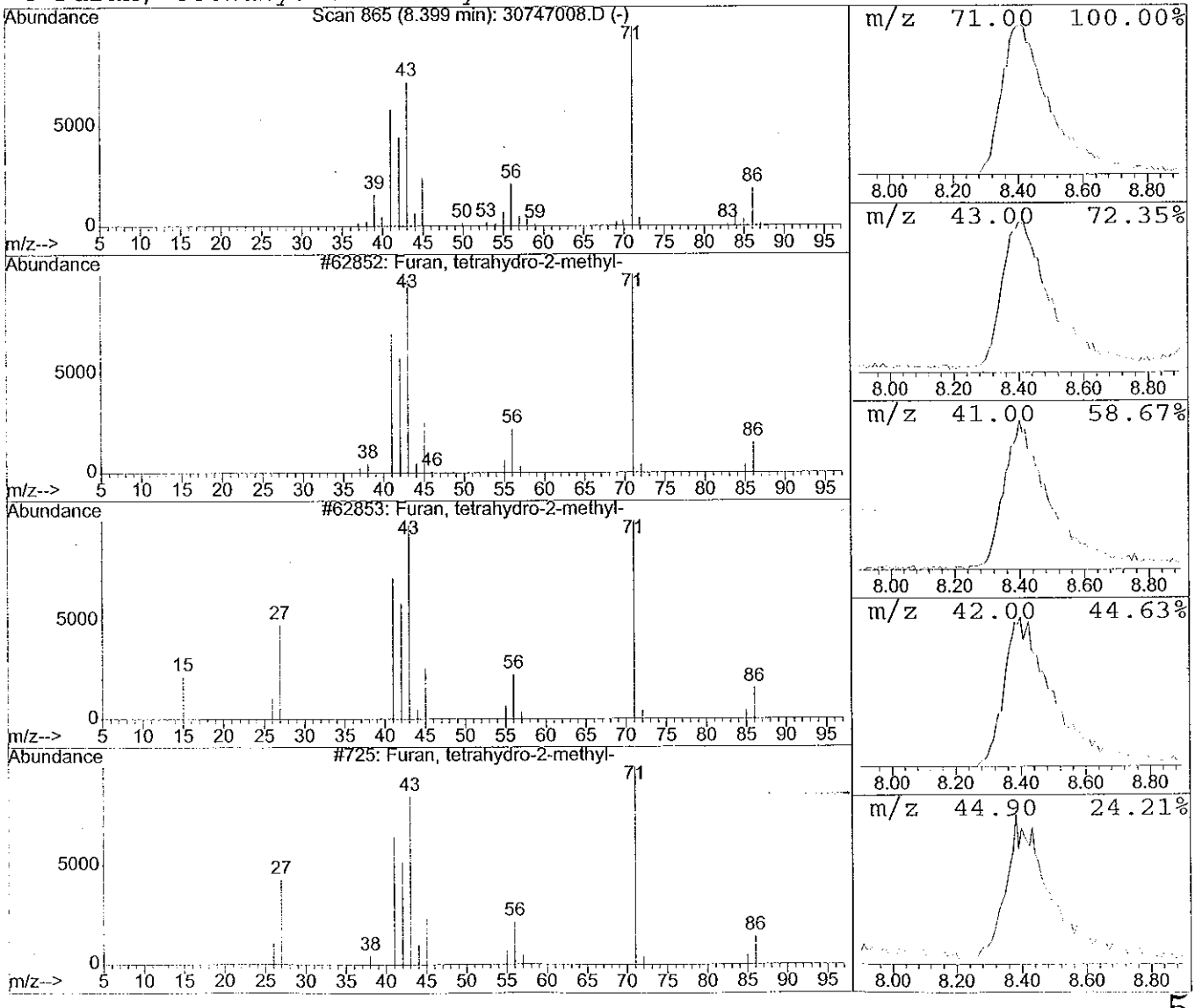
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 Furan, tetrahydro-2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.40	1.15 ug/L	811592	i-1,4-Difluoroben	7027090	9.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	90
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	83
3	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	53
4	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	53



572

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

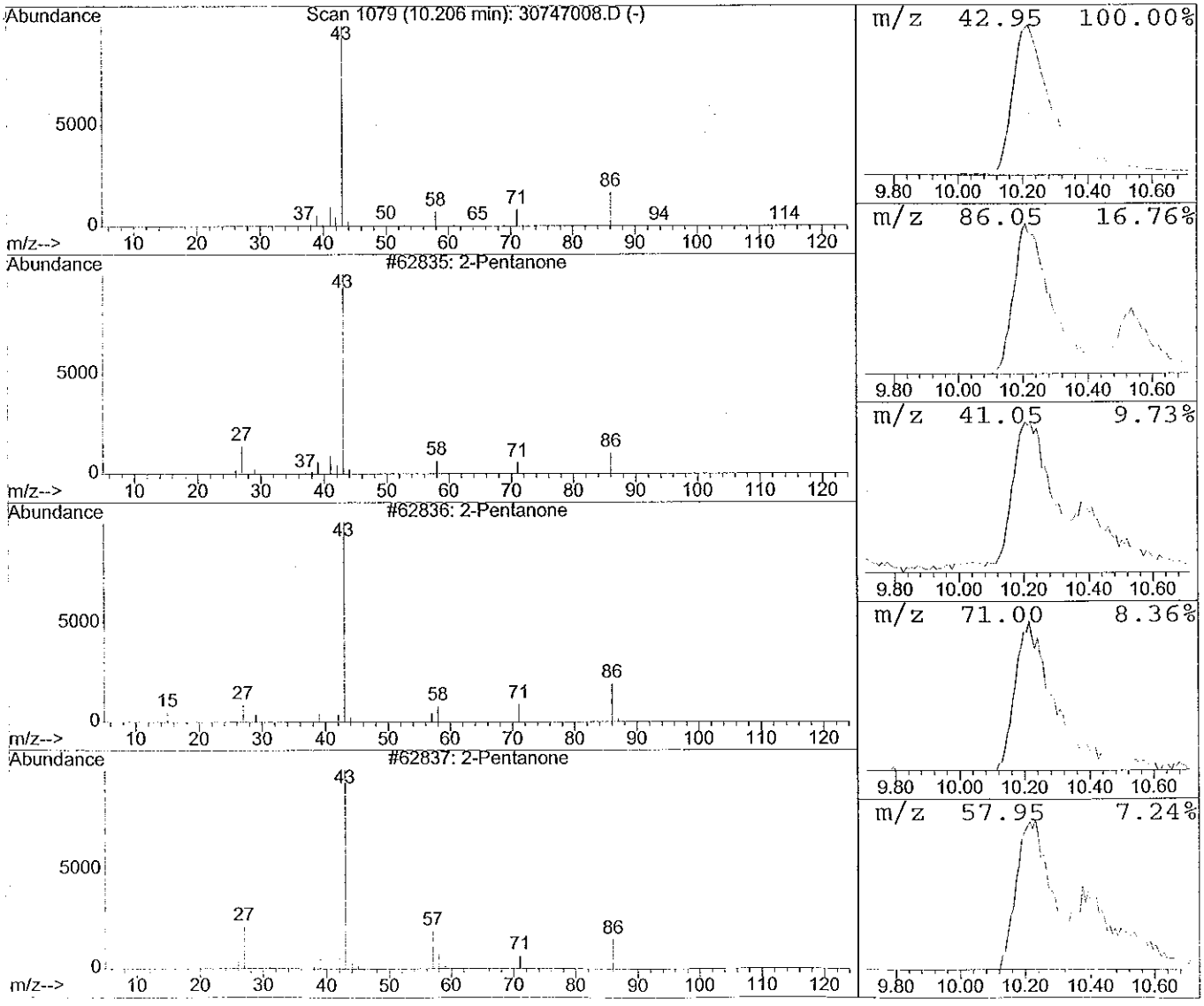
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 2 2-Pentanone Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.21	1.39 ug/L	976704	i-1,4-Difluoroben	7027090	9.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone	86	C5H10O	000107-87-9	72
2	2-Pentanone	86	C5H10O	000107-87-9	72
3	2-Pentanone	86	C5H10O	000107-87-9	59
4	2-Pentanone	86	C5H10O	000107-87-9	53



573

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

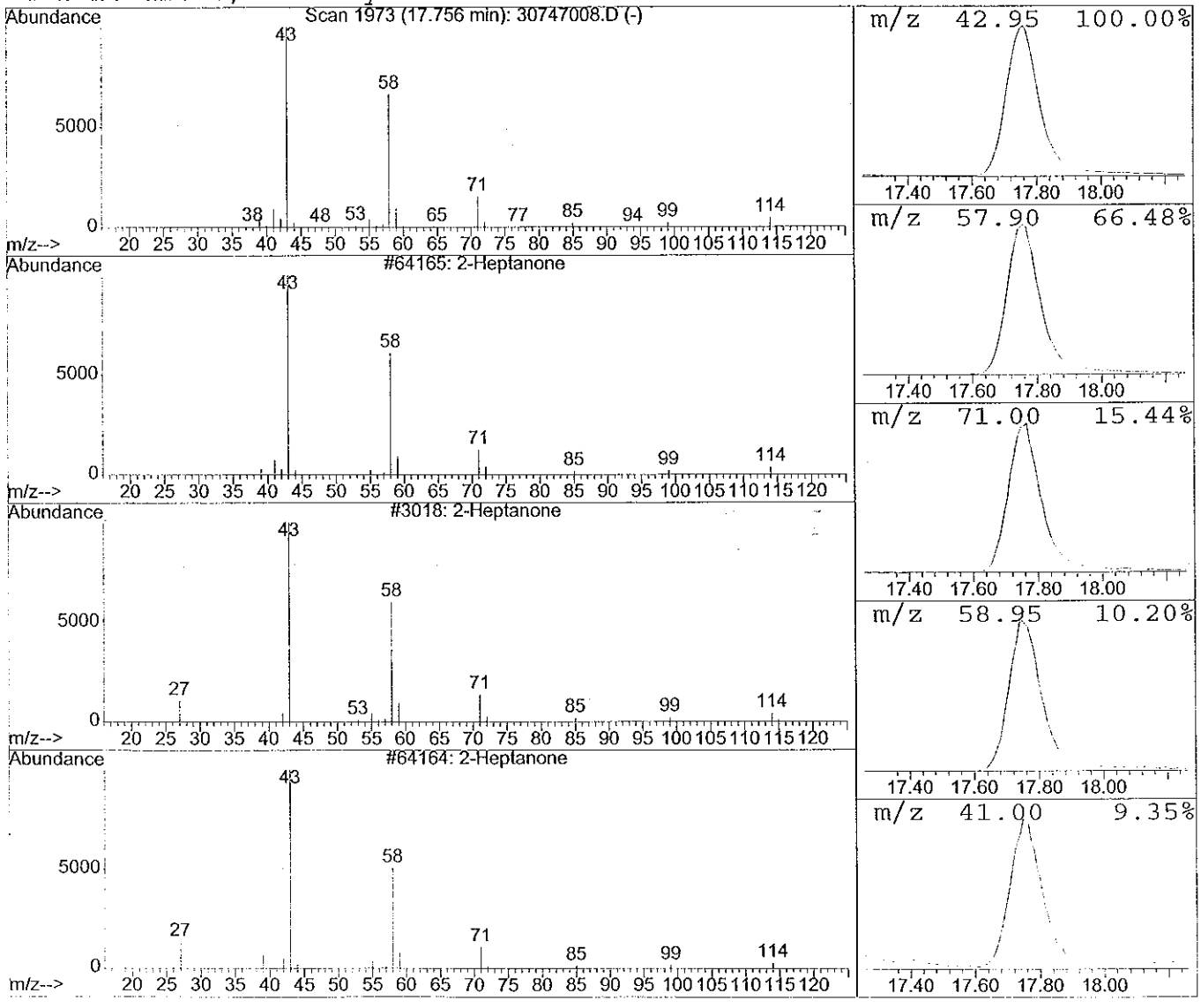
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 3 2-Heptanone Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.76	8.06 ug/L	5397970	i-Chlorobenzene-d	6693990	15.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	91
2	2-Heptanone	114	C7H14O	000110-43-0	91
3	2-Heptanone	114	C7H14O	000110-43-0	91
4	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	91



574

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747008.D Vial: 5
Acq On : 2 Nov 2001 14:09 Operator: GRH
Sample : 110655-1 Inst : Bubba
Misc : CH2MHILL 3608B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

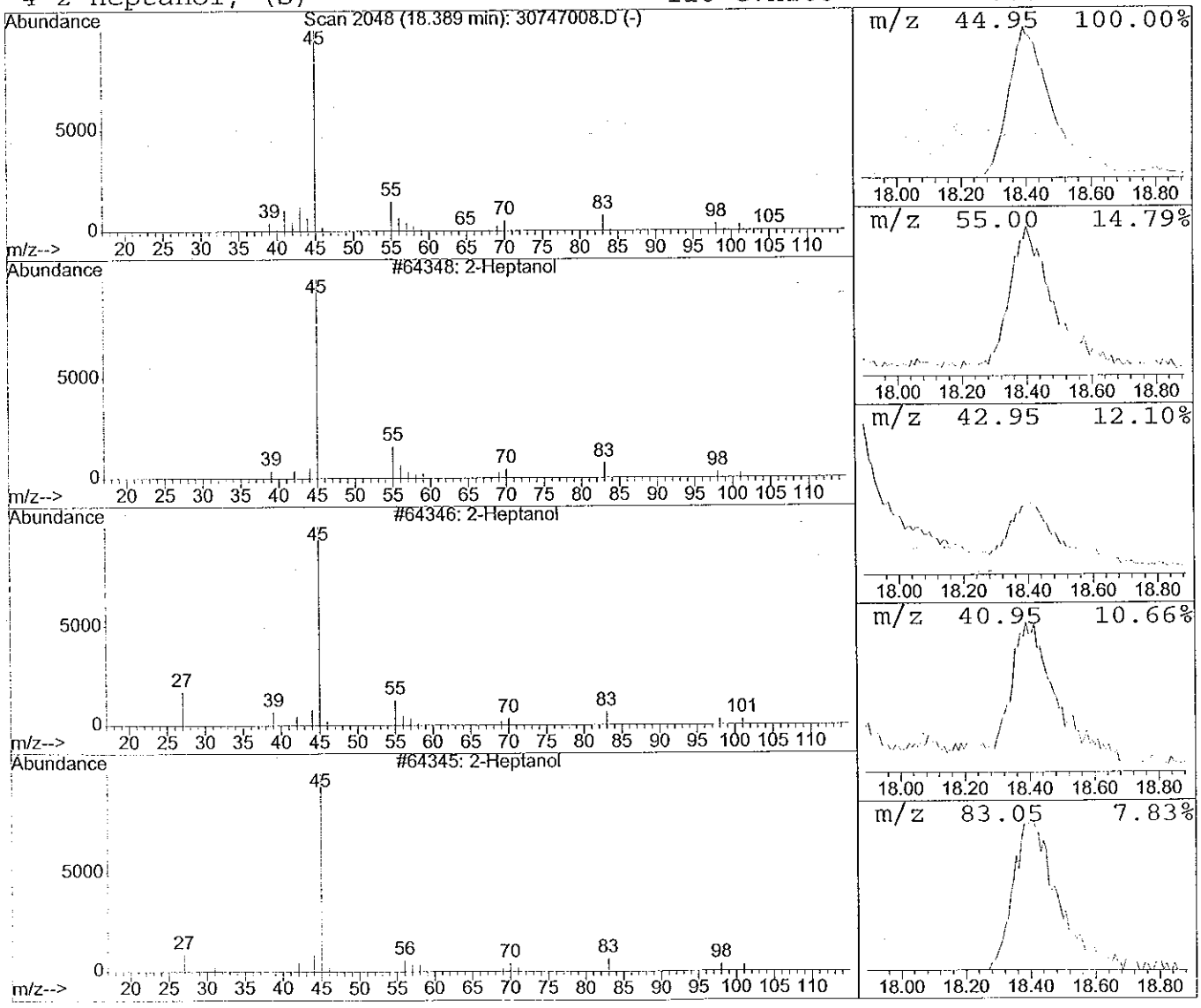
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 4 2-Heptanol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.39	1.51 ug/L	1012310	i-Chlorobenzene-d	6693990	15.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanol	116	C7H16O	000543-49-7	86
2	2-Heptanol	116	C7H16O	000543-49-7	83
3	2-Heptanol	116	C7H16O	000543-49-7	83
4	2-Heptanol, (S)-	116	C7H16O	006033-23-4	78



Data File : D:\HPCHEM\1\DATA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2792216	10.00	ug/L	0.03 93.31%
25) i-1,4-Difluorobenzene	9.06	114	2749255	10.00	ug/L	0.02 90.43%
46) i-Chlorobenzene-d5	15.32	117	1952081	10.00	ug/L	0.03 91.16%
57) i-1,4-Dichlorobenzene-d4	22.70	152	970343	10.00	ug/L	0.03 79.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1270484	9.82	ug/L	0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 98.20%			
36) s-Toluene-d8	12.33	98	2515673	9.66	ug/L	0.03
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.60%			
56) s-4-Bromofluorobenzene	18.84	95	1430714	9.64	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.40%			
Target Compounds						Qvalue
13) trans-1,2-Dichloroethene	3.80	96	52708m	0.52	ug/L #	85
19) 2-Butanone	5.79	43	188842m	16.72	ug/L	99
20) cis-1,2-Dichloroethene	5.65	96	3457009	37.45	ug/L	93
28) Benzene	7.87	78	233731	0.78	ug/L	100
30) Trichloroethene	9.59	95	1499312	12.47	ug/L	99
45) 2-Hexanone	14.03	43	256767m	13.61	ug/L	99

11-5

576

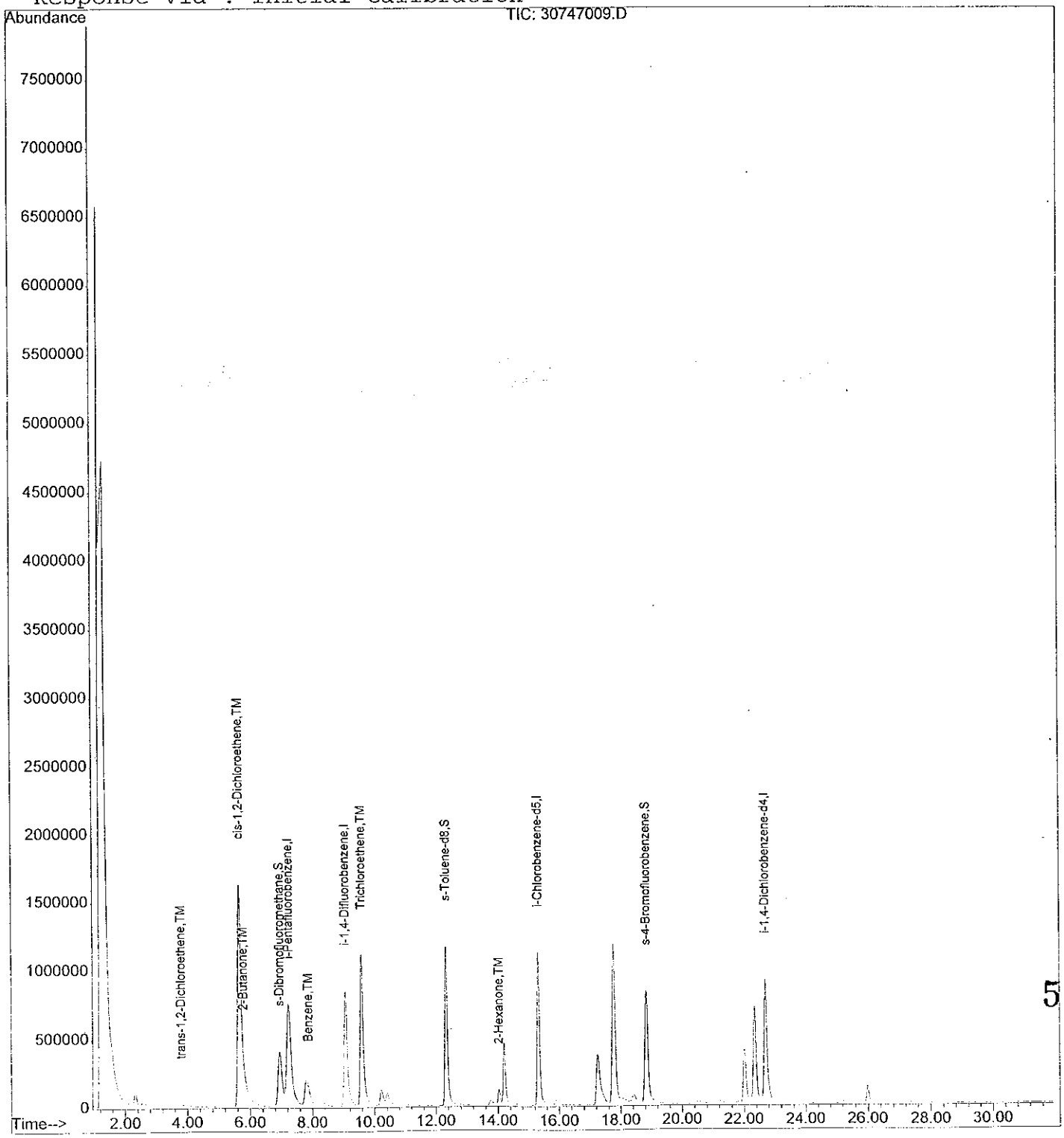
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747009.D
Acq On : 2 Nov 2001 14:50
Sample : 110655-2
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:41 2001

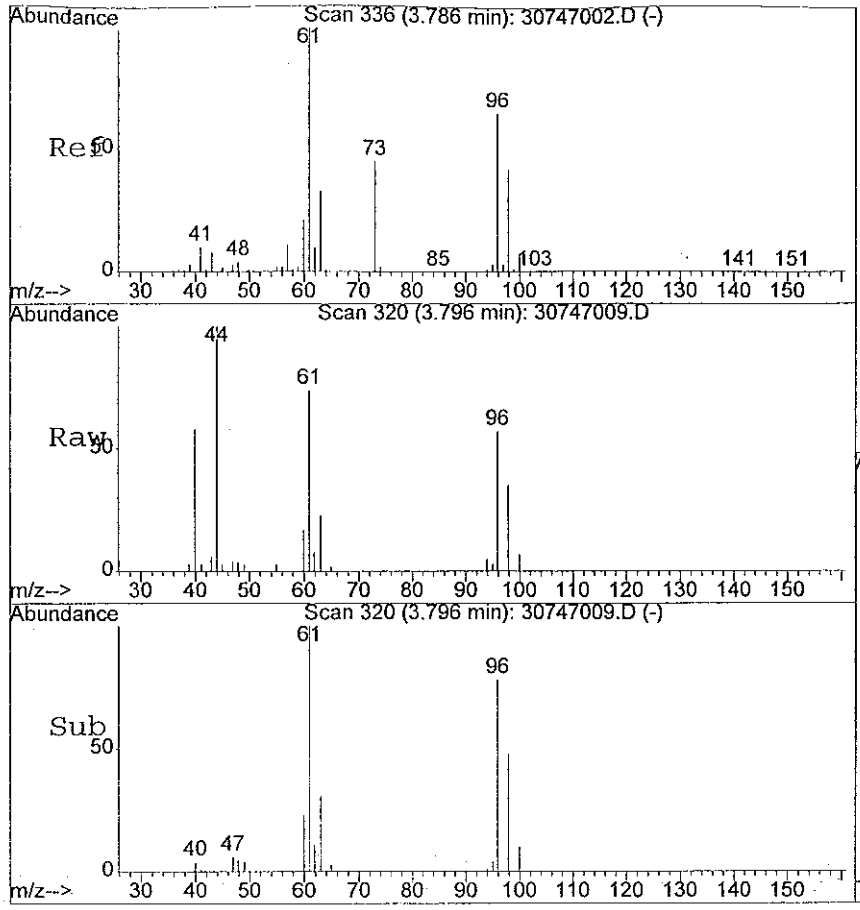
Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



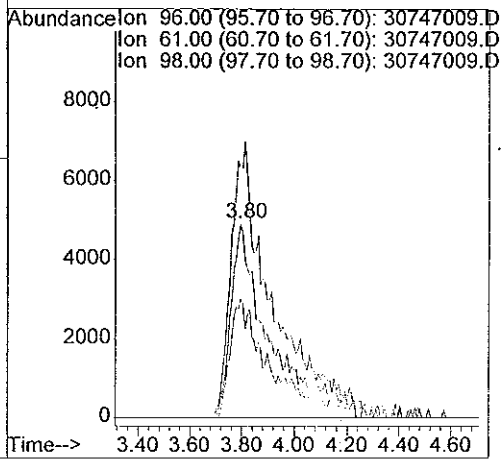
57

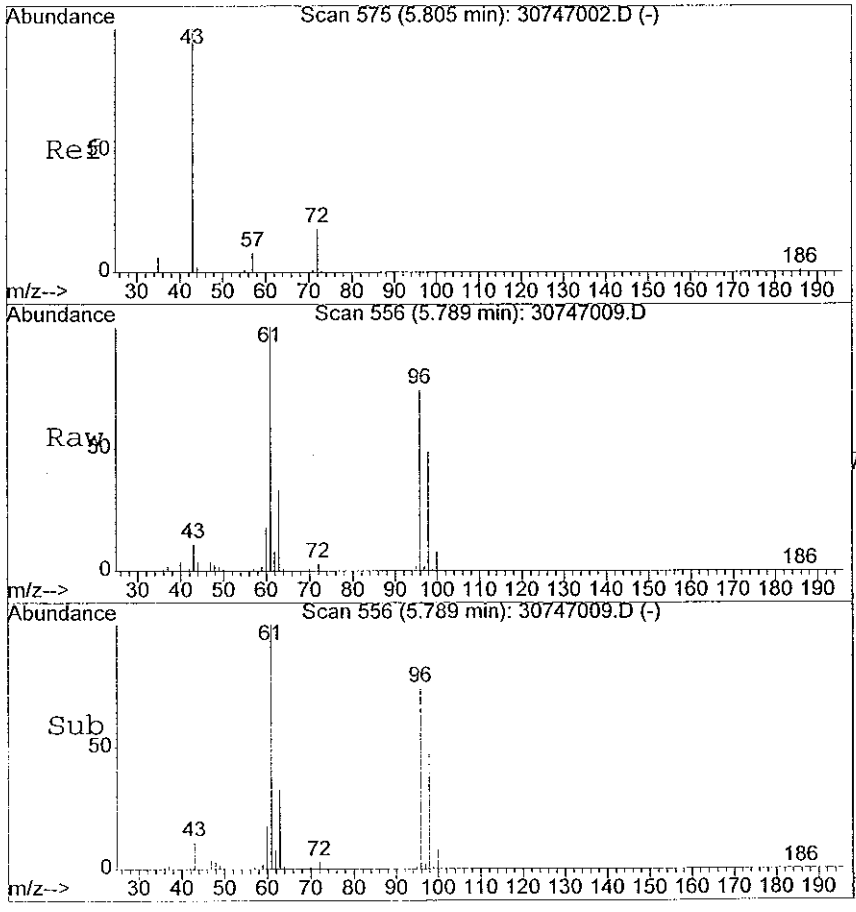


#13
trans-1,2-Dichloroethene
Concen: 0.52 ug/L m
RT: 3.80 min Scan# 320
Delta R.T. 0.01 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 96 Resp: 52708

Ion	Ratio	Lower	Upper
96	100		
61	128.6	133.4	173.4#
98	61.4	45.1	85.1

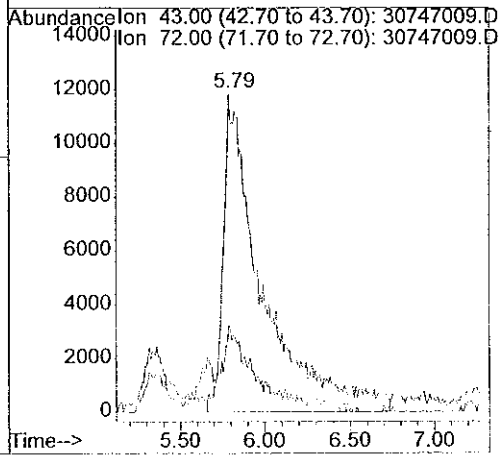


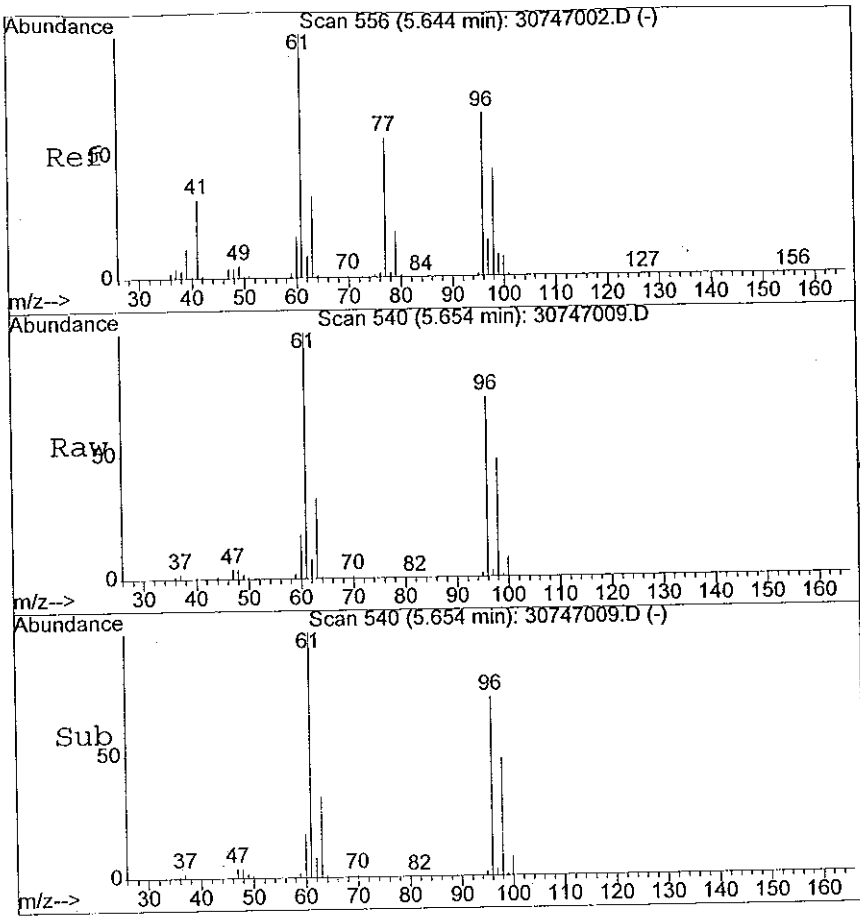


#19
2-Butanone
Concen: 16.72 ug/L m
RT: 5.79 min Scan# 556
Delta R.T. -0.02 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 43 Resp: 188842

Ion	Ratio	Lower	Upper
43	100		
72	27.4	0.0	119.0

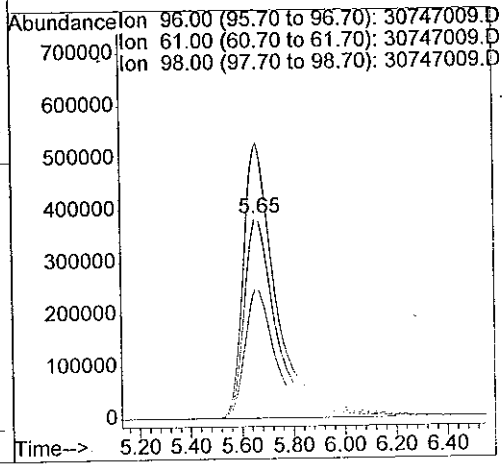


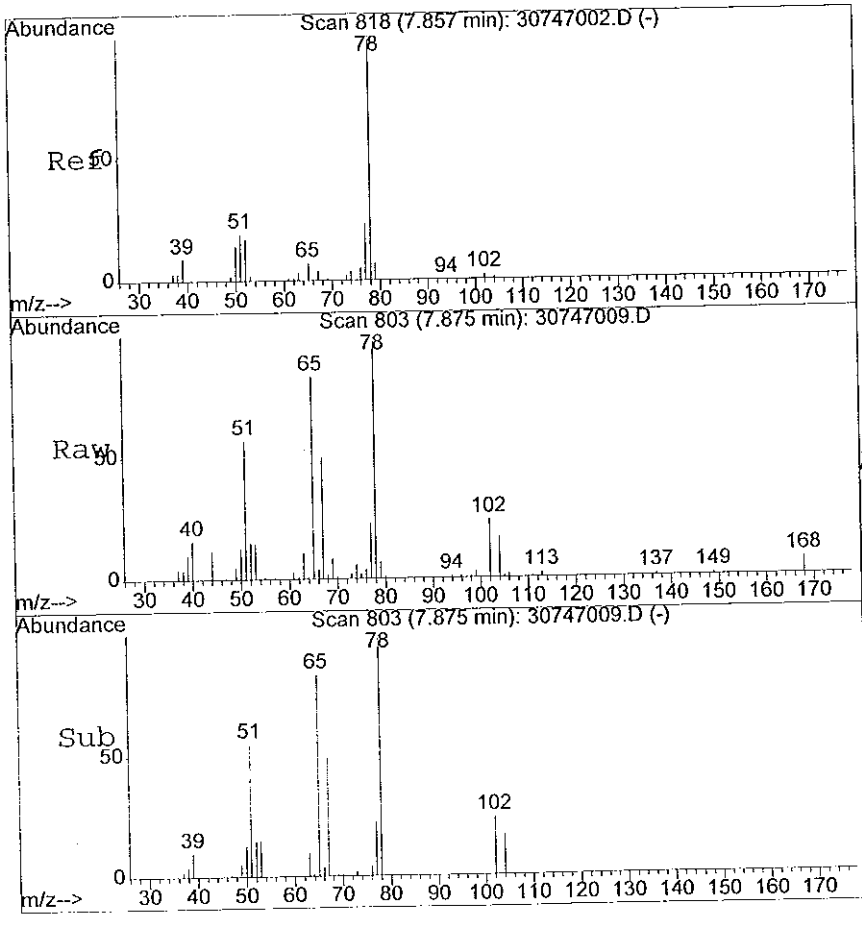


#20
cis-1,2-Dichloroethene
Concen: 37.45 ug/L
RT: 5.65 min Scan# 540
Delta R.T. 0.01 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 96 Resp: 3457009

Ion	Ratio	Lower	Upper
96	100		
61	136.2	128.7	168.7
98	64.7	45.8	85.8

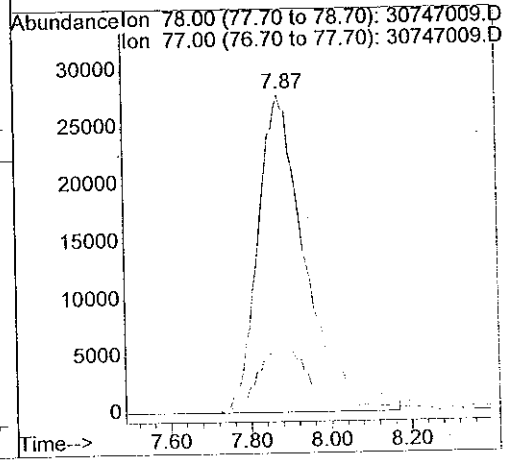


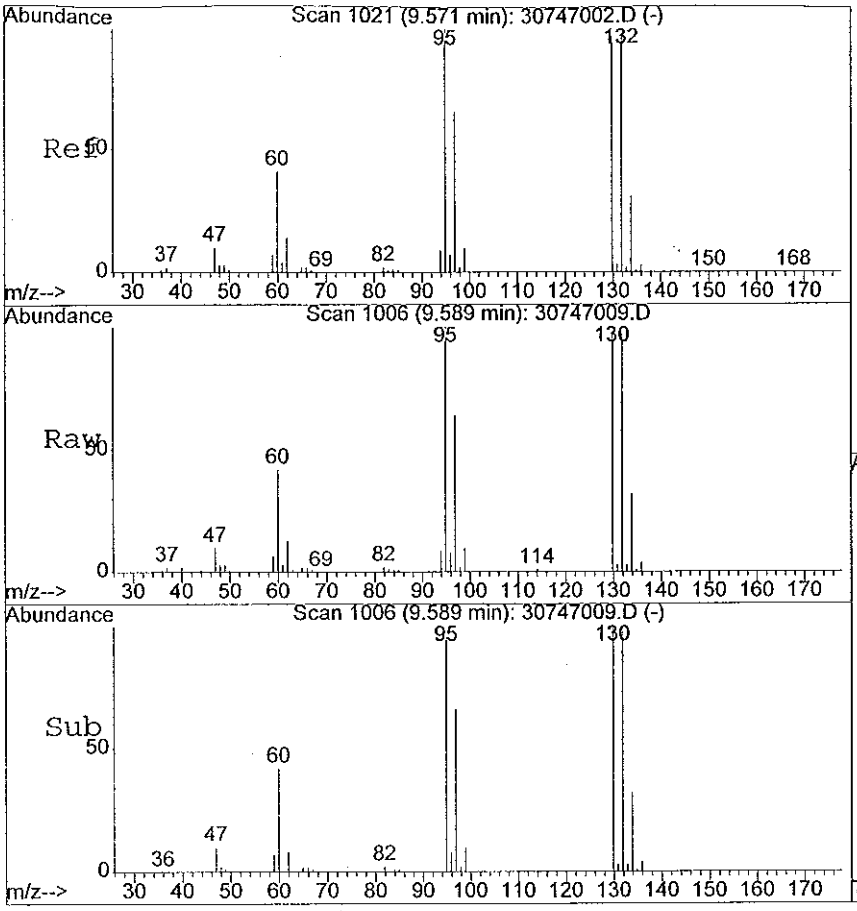


#28
Benzene
Concen: 0.78 ug/L
RT: 7.87 min Scan# 803
Delta R.T. 0.02 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 78 Resp: 233731

Ion	Ratio	Lower	Upper
78	100		
77	23.5	3.6	43.6

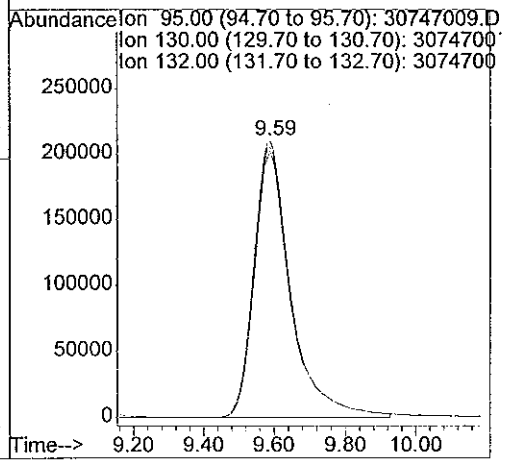


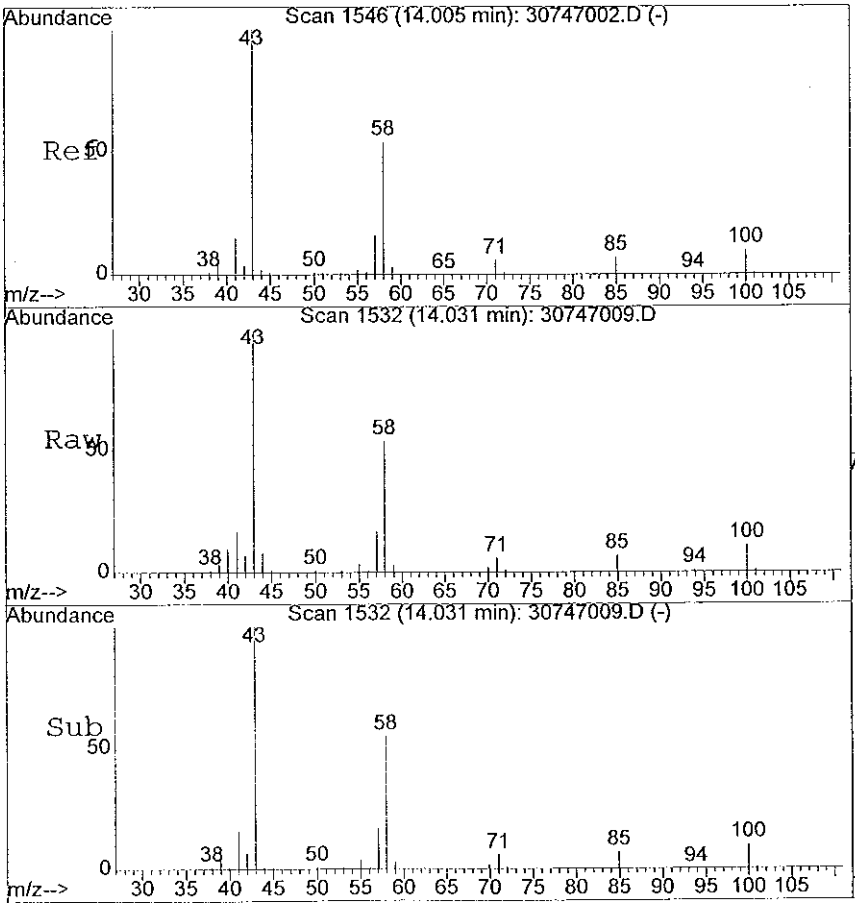


#30
Trichloroethene
Concen: 12.47 ug/L
RT: 9.59 min Scan# 1006
Delta R.T. 0.02 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 95 Resp: 1499312

Ion	Ratio	Lower	Upper
95	100		
130	97.9	76.7	116.7
132	96.7	78.1	118.1

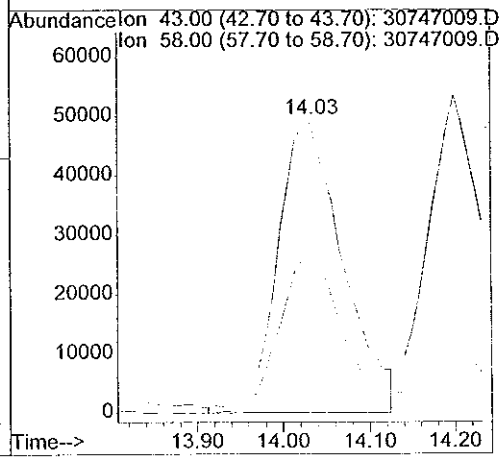




#45
2-Hexanone
Concen: 13.61 ug/L m
RT: 14.03 min Scan# 1532
Delta R.T. 0.03 min
Lab File: 30747009.D
Acq: 2 Nov 2001 14:50

Tgt Ion: 43 Resp: 256767

Ion	Ratio	Lower	Upper
43	100		
58	54.3	0.0	154.1

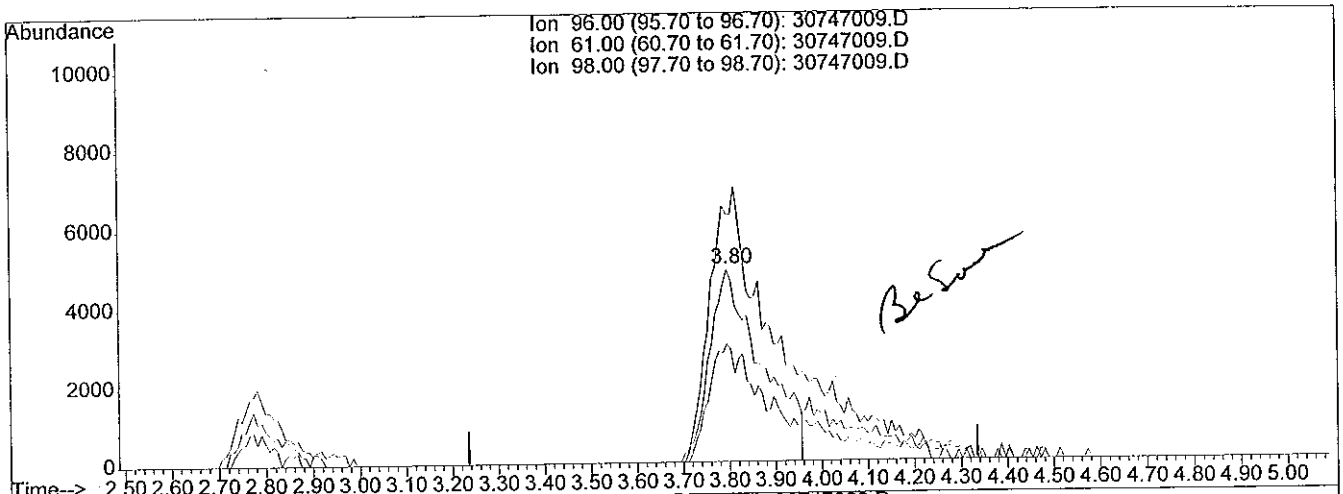


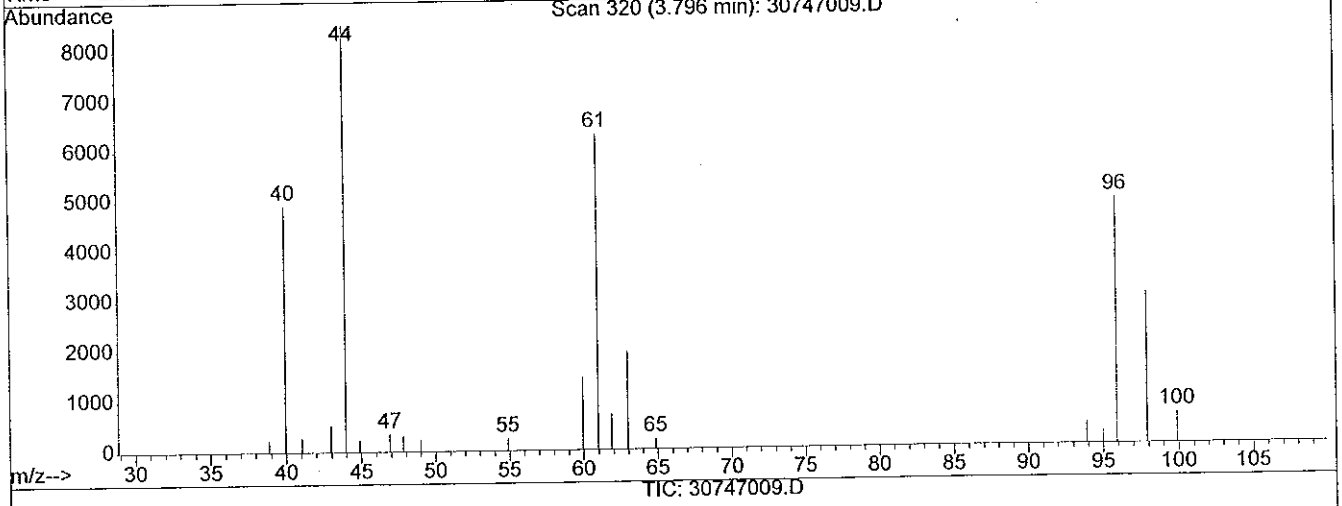
Data File : D:\HPCHEM\1\DATA\110201\30747009.D
Acq On : 2 Nov 2001 14:50
Sample : 110655-2
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:10 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





(13) trans-1,2-Dichloroethene (TM)

3.80min 0.38ug/L

response 38384

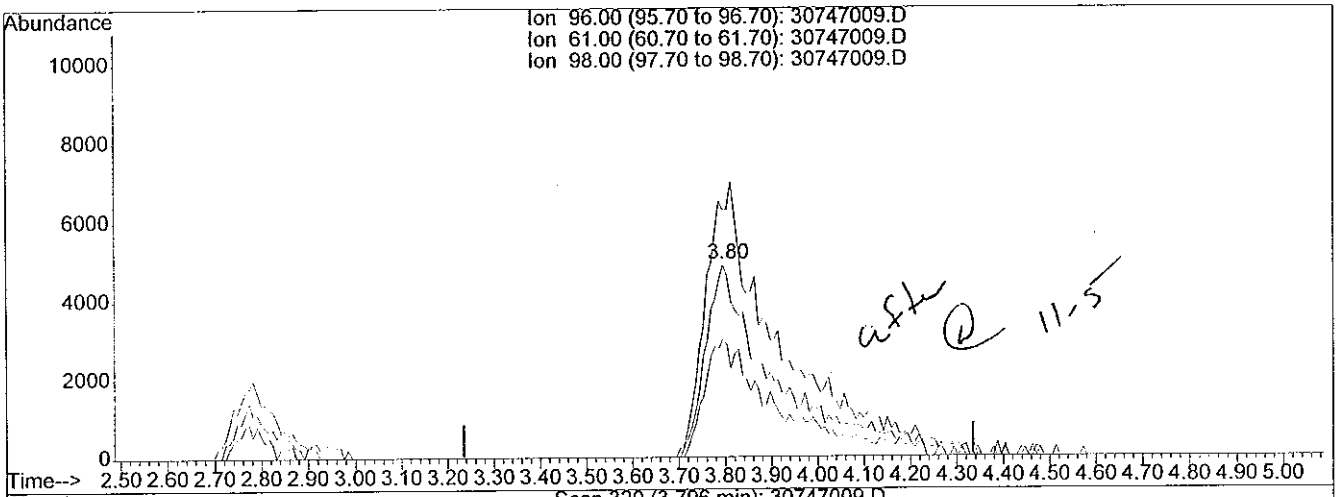
Ion	Exp%	Act%
96.00	100	100
61.00	153.40	128.64#
98.00	65.10	61.42
0.00	0.00	0.00

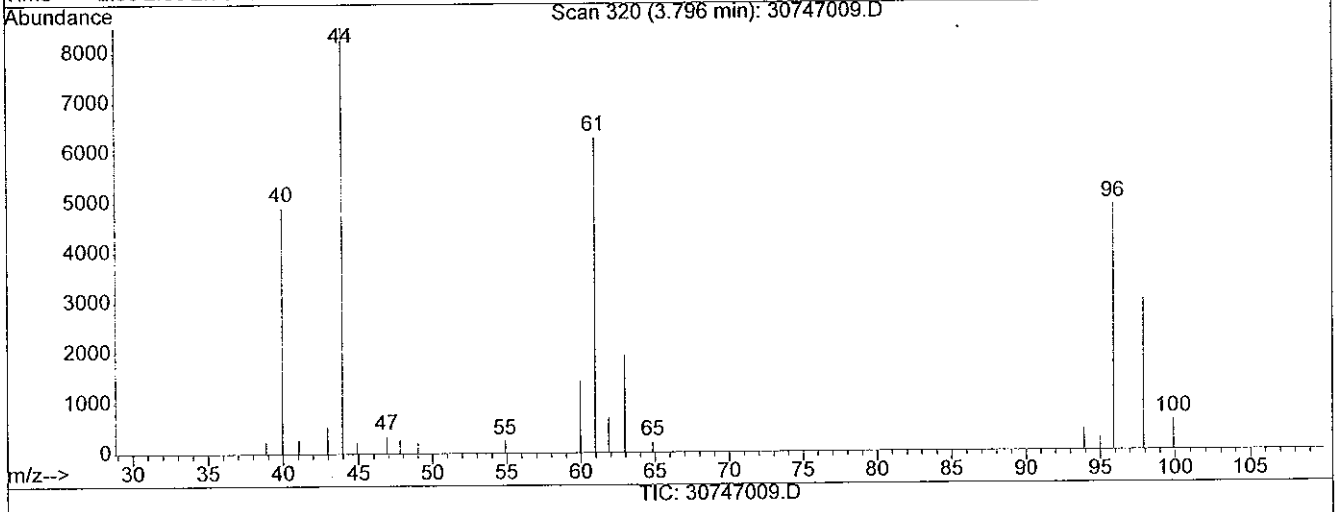
Data File : D:\HPCHEM\1\DATA\110201\30747009.D
Acq On : 2 Nov 2001 14:50
Sample : 110655-2
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:10 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747009.D

(13) trans-1,2-Dichloroethene (TM)

3.80min 0.52ug/L m

response 52708

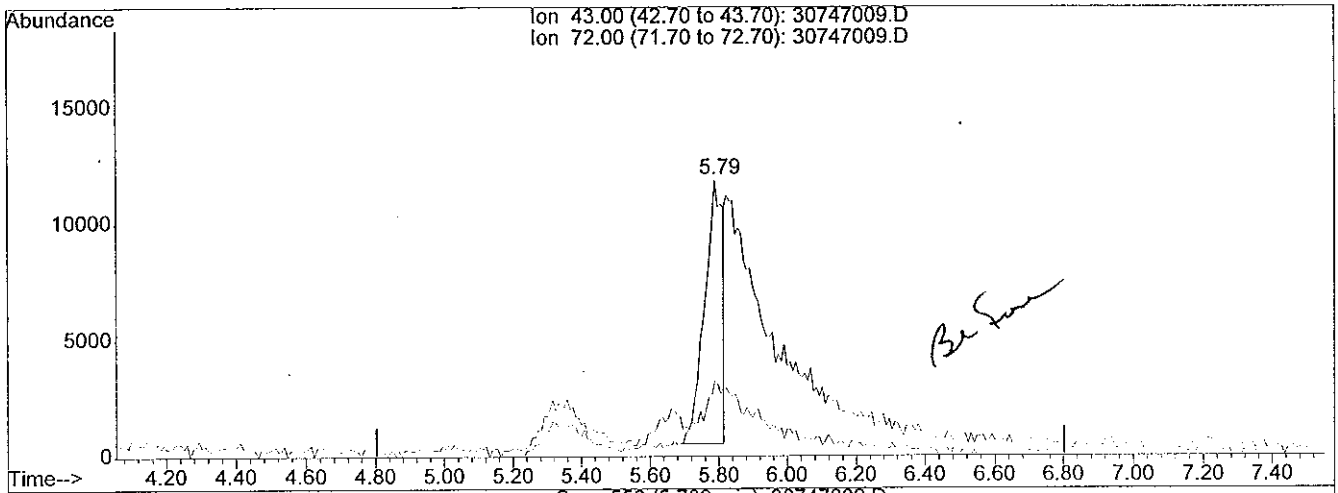
Ion	Exp%	Act%
96.00	100	100
61.00	153.40	128.64#
98.00	65.10	61.42
0.00	0.00	0.00

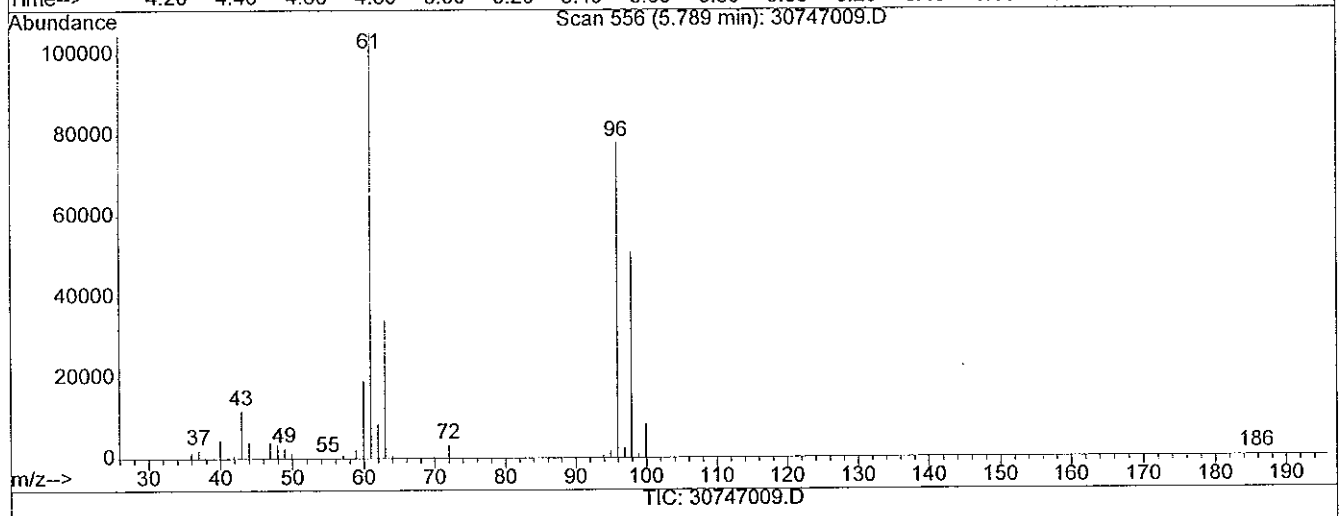
582

Data File : D:\HPCHEM\1\DATA\110201\30747009.D
Acq On : 2 Nov 2001 14:50
Sample : 110655-2
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:10 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747009.D

(19) 2-Butanone (TM)

5.79min 3.68ug/L

response 41504

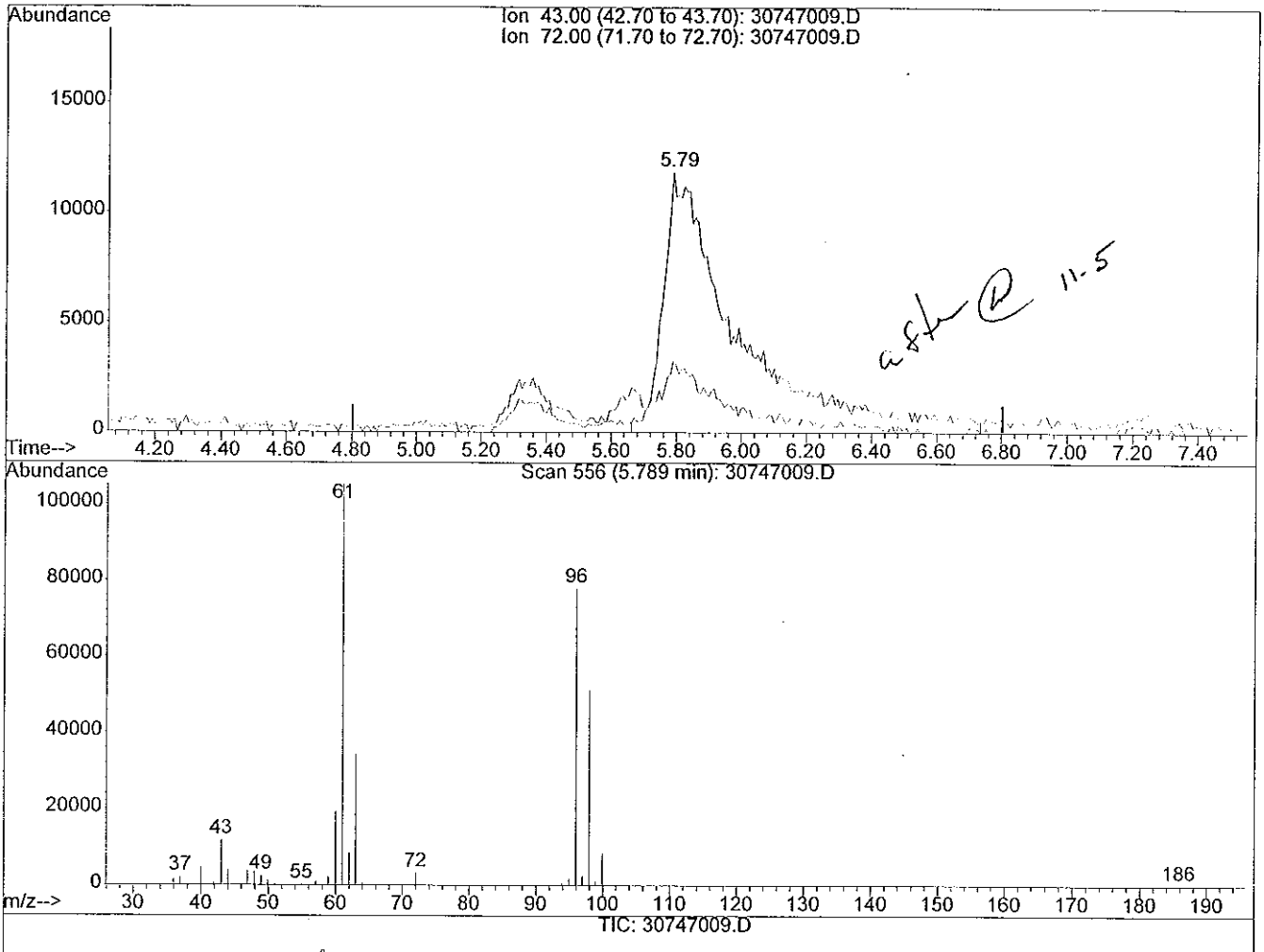
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	18.77
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747009.D
Acq On : 2 Nov 2001 14:50
Sample : 110655-2
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:10 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

5.79min 16.72ug/L m

response 188842

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	27.41
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 14:50
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D
Name: 110655-2
Misc: CH2MHILL 3607A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Pentanone	10.21	1.2	ug/L	765275	ISTD02	9.06	6390860	10.0
Hexanal	14.20	3.8	ug/L	2313860	ISTD03	15.32	6085900	10.0
1-Hexanol	17.25	5.9	ug/L	3568190	ISTD03	15.32	6085900	10.0
2-Heptanone	17.77	13.4	ug/L	8163310	ISTD03	15.32	6085900	10.0
3-Octanone	22.01	4.5	ug/L	2583870	ISTD04	22.70	5783670	10.0
2-Octanone	22.34	7.3	ug/L	4208240	ISTD04	22.70	5783670	10.0
2-Nonanone	25.98	1.1	ug/L	641990	ISTD04	22.70	5783670	10.0

30747009.D V82625B1.M Tue Nov 06 13:30:42 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

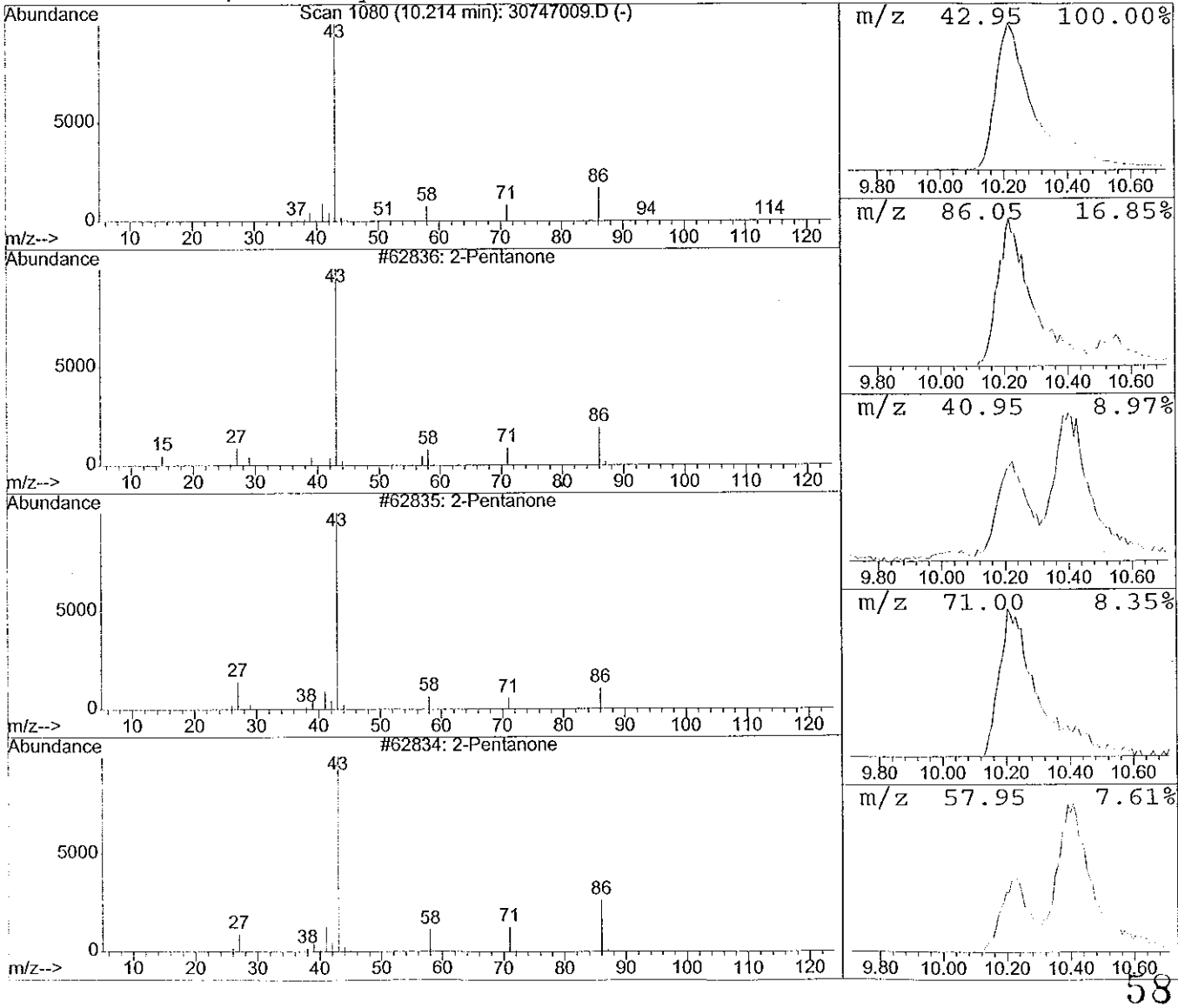
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 2-Pentanone Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.21	1.20 ug/L	765275	i-1,4-Difluoroben	6390860	9.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone	86	C5H10O	000107-87-9	72
2	2-Pentanone	86	C5H10O	000107-87-9	72
3	2-Pentanone	86	C5H10O	000107-87-9	52
4	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	46



Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

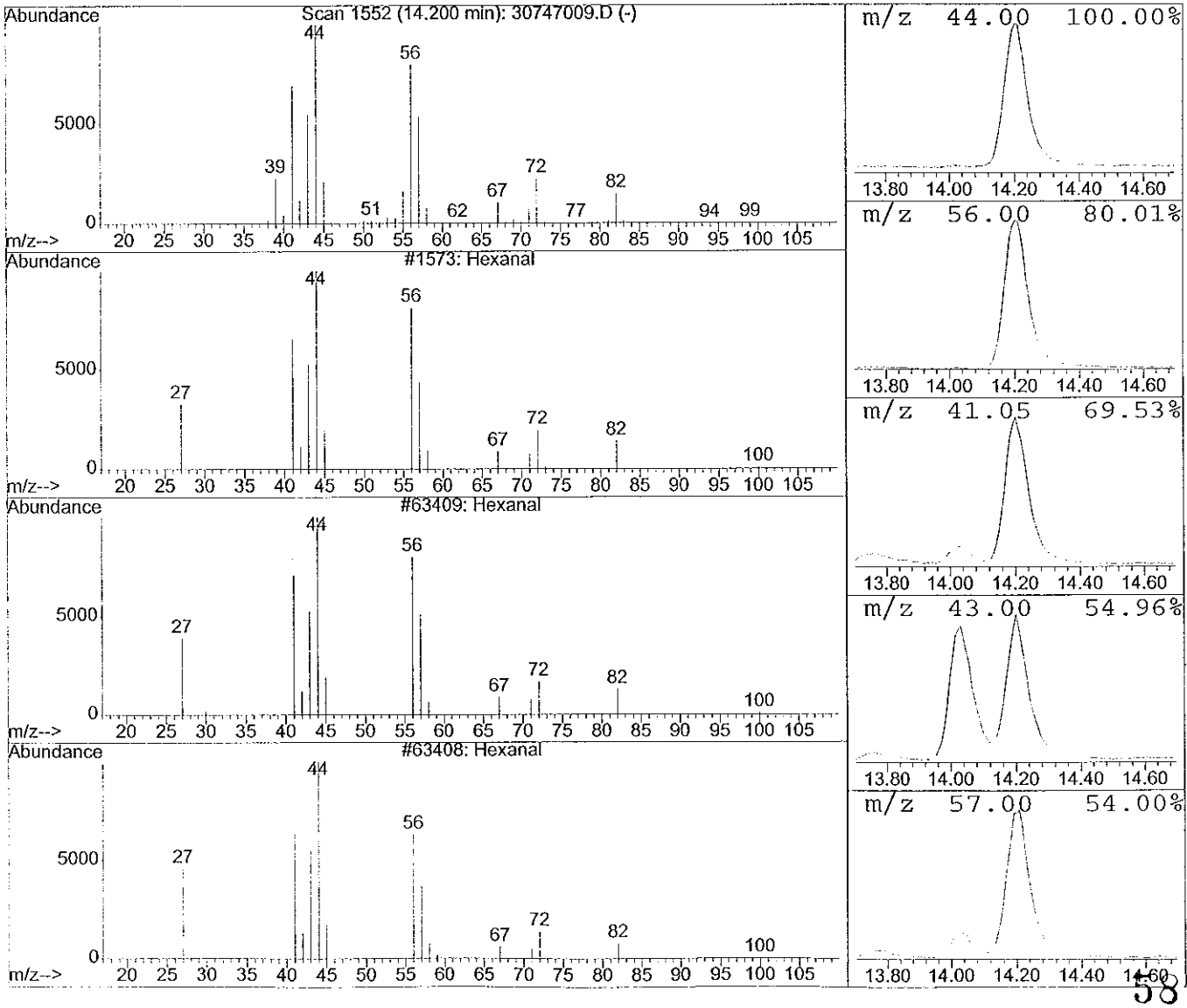
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 2 Hexanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.20	3.80 ug/L	2313860	i-Chlorobenzene-d	6085900	15.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	90
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	74



587

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

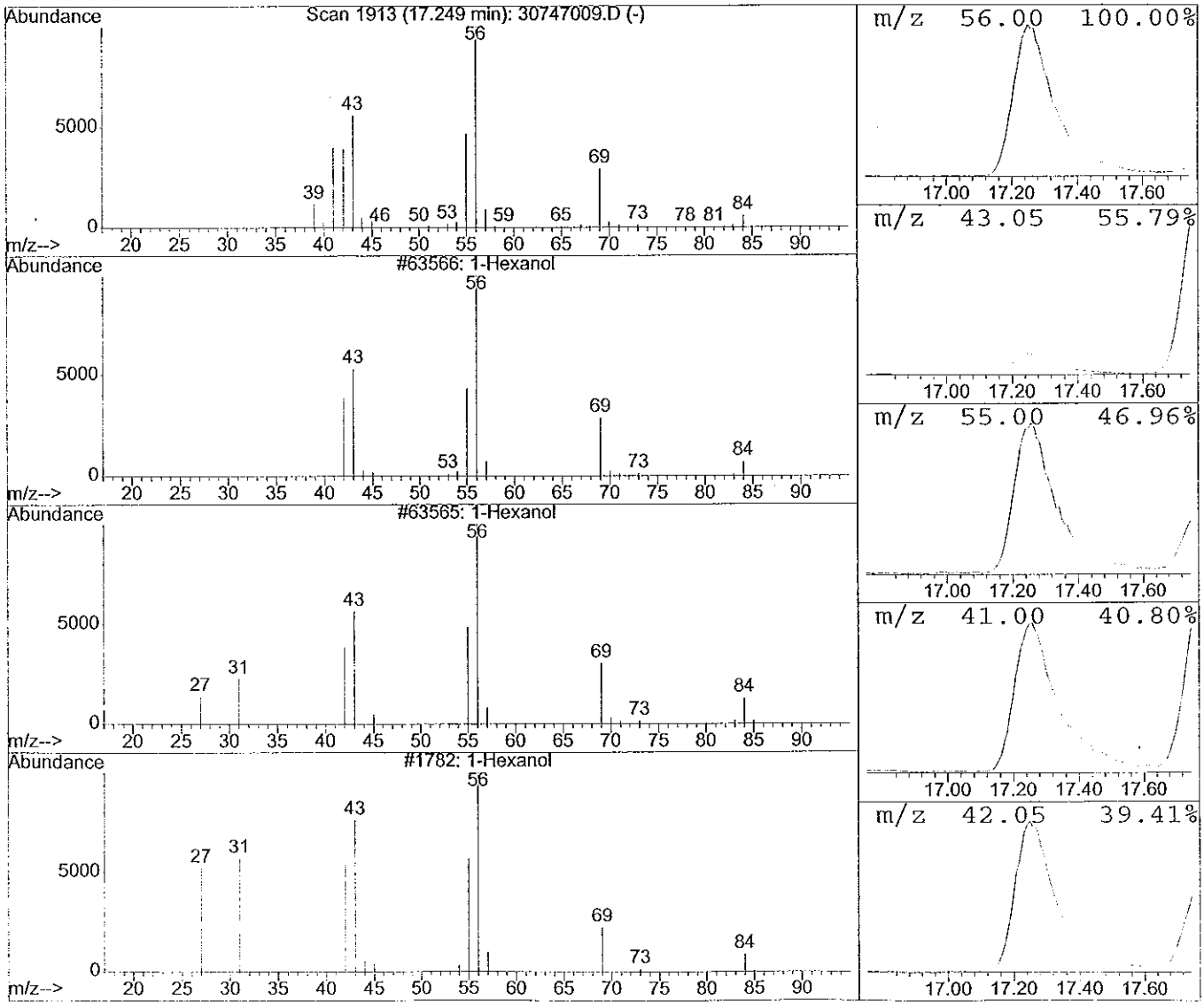
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 3 1-Hexanol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.25	5.86 ug/L	3568190	i-Chlorobenzene-d	6085900	15.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol	102	C6H14O	000111-27-3	90
2	1-Hexanol	102	C6H14O	000111-27-3	90
3	1-Hexanol	102	C6H14O	000111-27-3	83
4	1-Hexanol	102	C6H14O	000111-27-3	64



Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

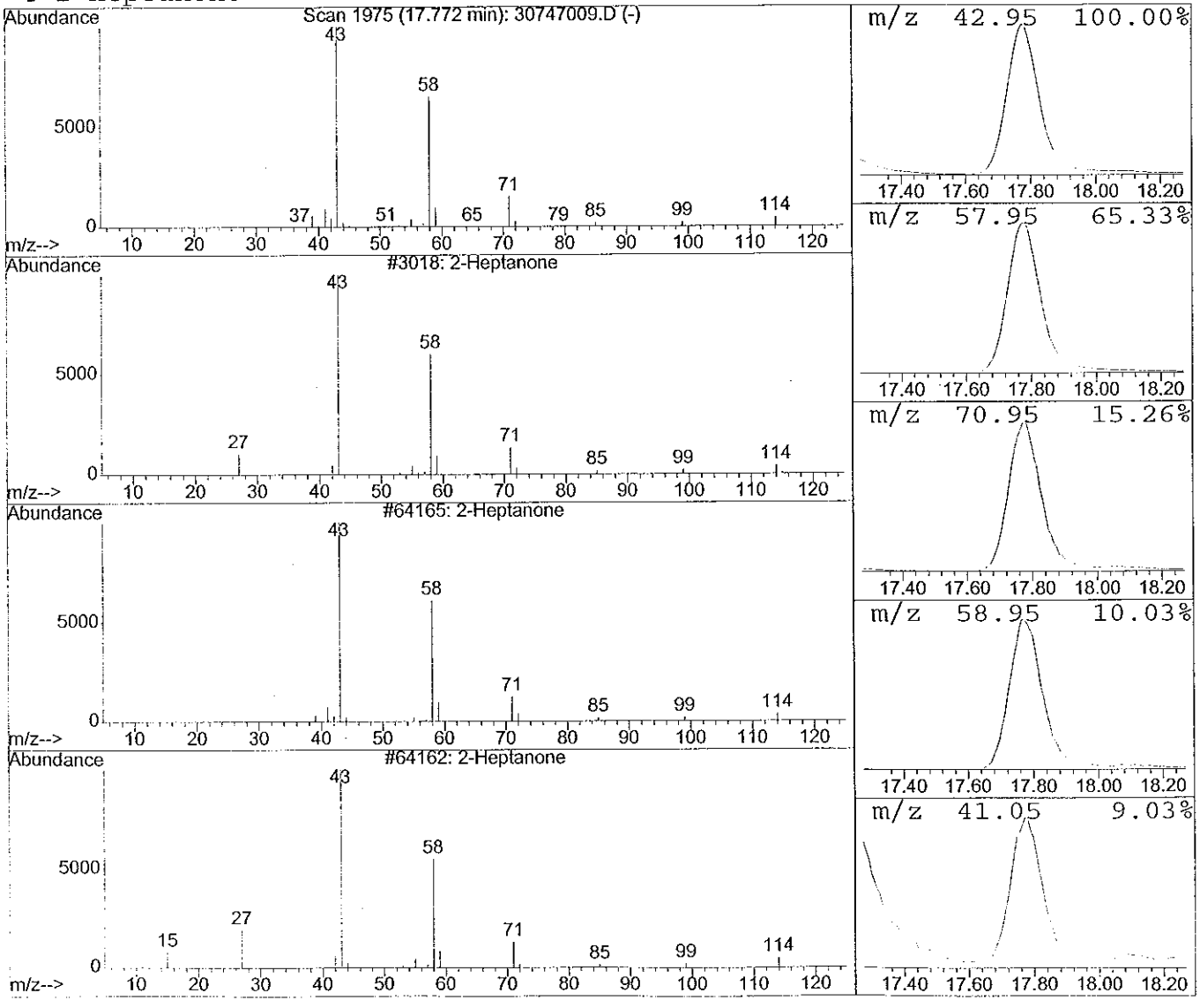
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 4 2-Heptanone Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.77	13.41 ug/L	8163310	i-Chlorobenzene-d	6085900	15.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	91
2	2-Heptanone	114	C7H14O	000110-43-0	91
3	2-Heptanone	114	C7H14O	000110-43-0	91
4	2-Heptanone	114	C7H14O	000110-43-0	91



Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

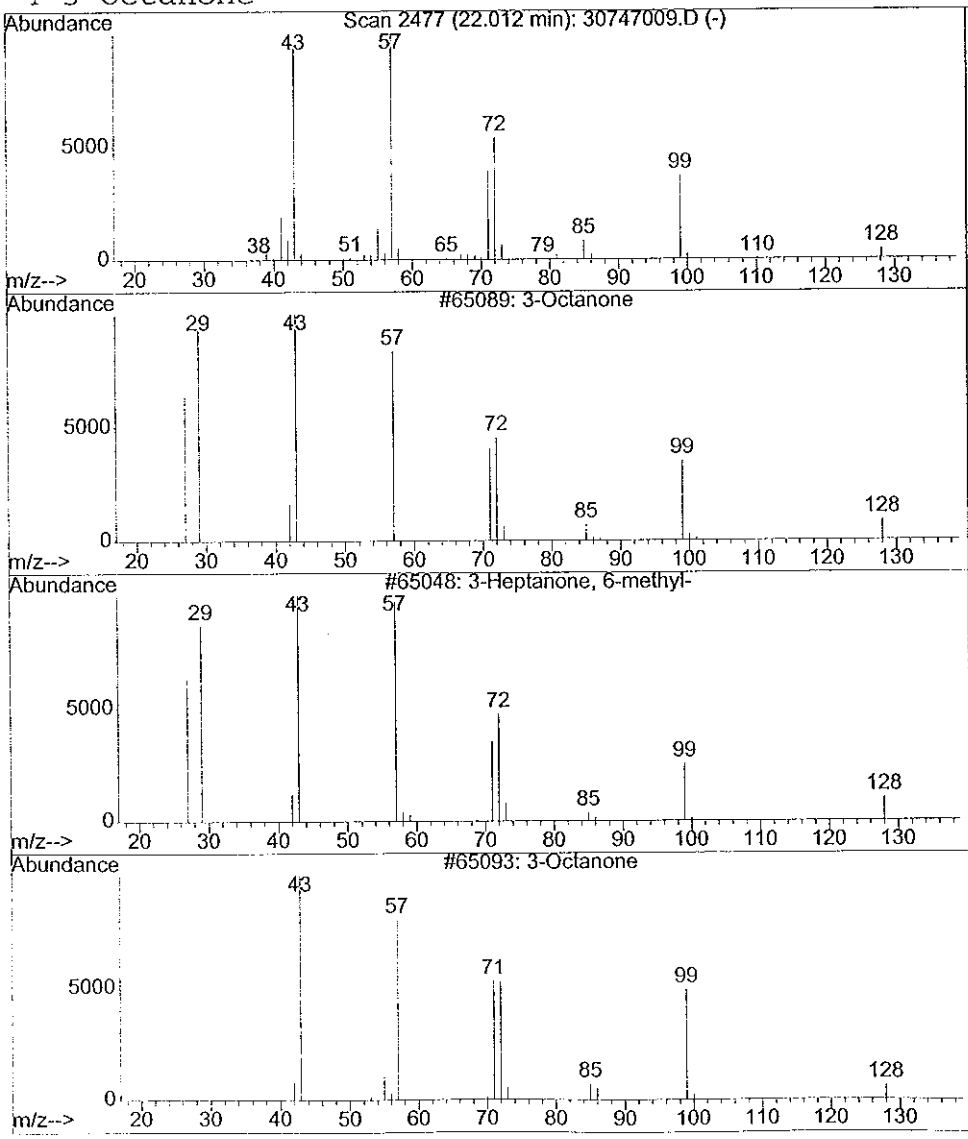
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 5 3-Octanone Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
22.01	4.47 ug/L	2583870	i-1,4-Dichloroben	5783670	22.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Octanone	128	C8H16O	000106-68-3	78
2	3-Heptanone, 6-methyl-	128	C8H16O	000624-42-0	64
3	3-Octanone	128	C8H16O	000106-68-3	64
4	3-Octanone	128	C8H16O	000106-68-3	50



Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

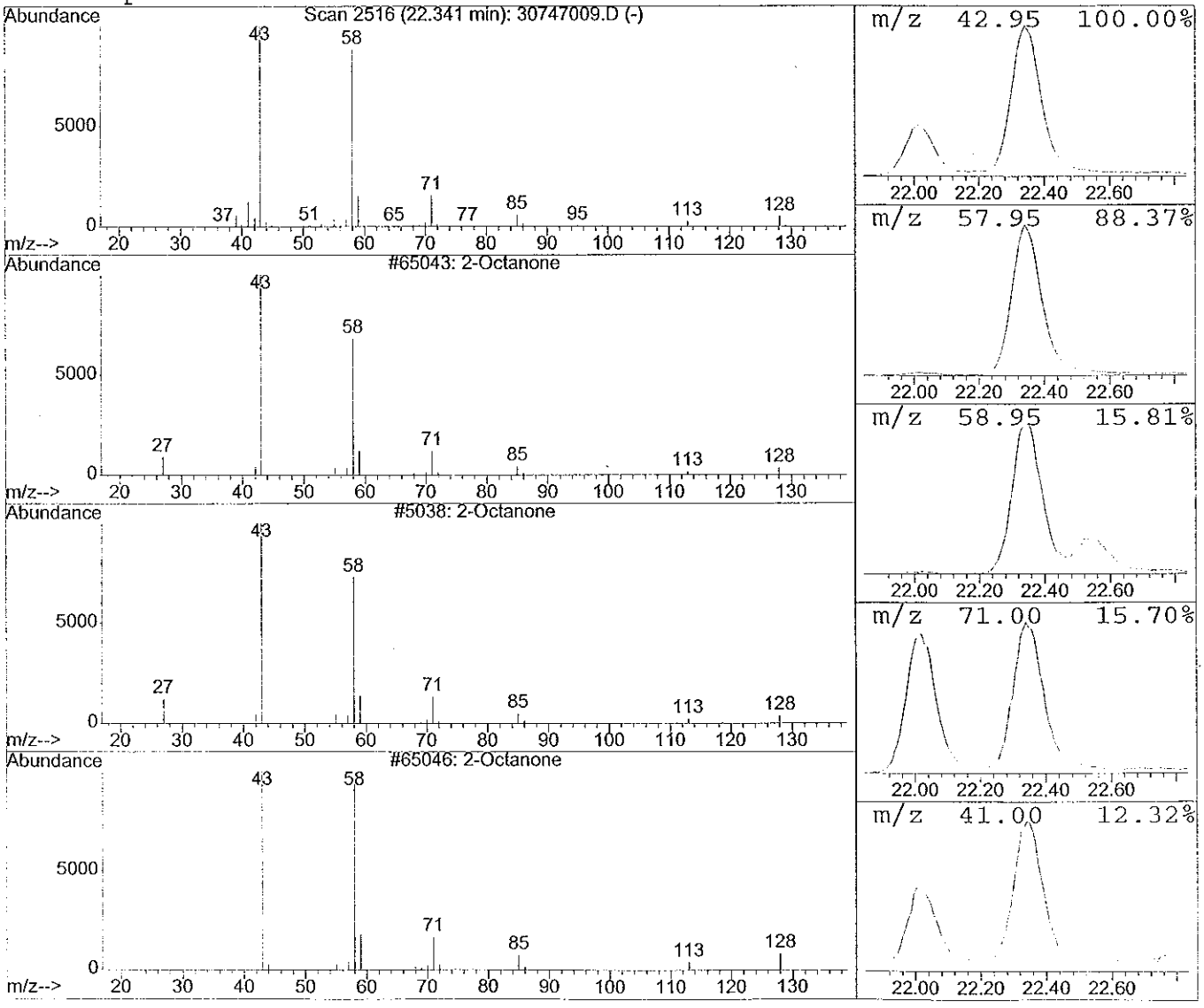
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 6 2-Octanone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
22.34	7.28 ug/L	4208240	i-1,4-Dichloroben	5783670	22.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octanone	128	C8H16O	000111-13-7	94
2	2-Octanone	128	C8H16O	000111-13-7	91
3	2-Octanone	128	C8H16O	000111-13-7	91
4	2-Heptanone	114	C7H14O	000110-43-0	78



Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747009.D Vial: 6
Acq On : 2 Nov 2001 14:50 Operator: GRH
Sample : 110655-2 Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

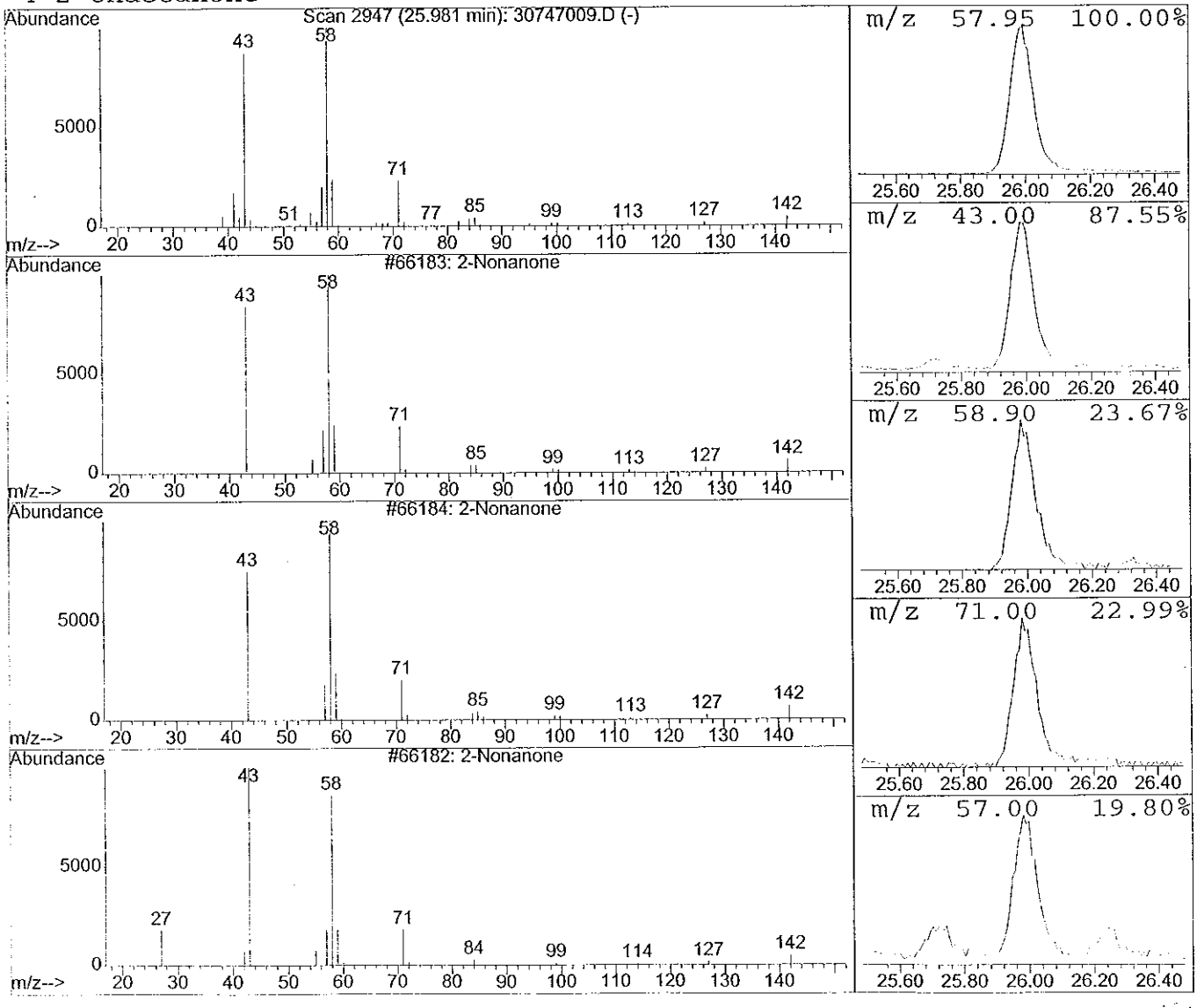
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 7 2-Nonanone Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
25.98	1.11 ug/L	641990	i-1,4-Dichloroben	5783670	22.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Nonanone	142	C9H18O	000821-55-6	95
2	2-Nonanone	142	C9H18O	000821-55-6	91
3	2-Nonanone	142	C9H18O	000821-55-6	86
4	2-Undecanone	170	C11H22O	000112-12-9	72



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Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

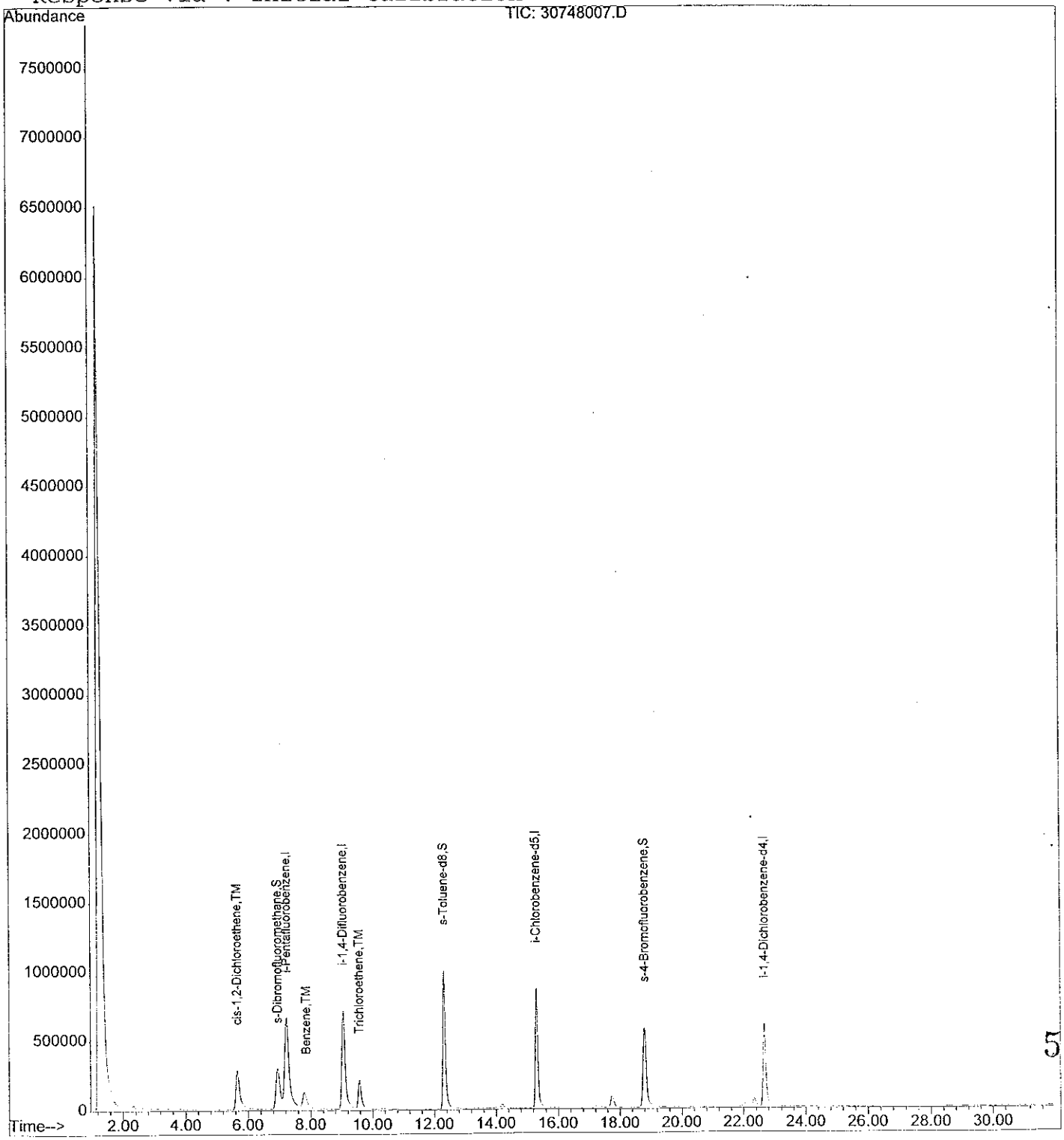
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2425218	10.00	ug/L	0.00 83.98%
25) i-1,4-Difluorobenzene	9.06	114	2304698	10.00	ug/L	0.00 78.71%
46) i-Chlorobenzene-d5	15.30	117	1523084	10.00	ug/L	-0.04 73.36%
57) i-1,4-Dichlorobenzene-d4	22.67	152	673662	10.00	ug/L	-0.03 57.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	974808	8.68	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.80%			
36) s-Toluene-d8	12.32	98	2143402	9.82	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1058889	9.15	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 91.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	594647	37.24	ug/L	91
28) Benzene	7.87	78	45944m	0.92	ug/L	93
30) Trichloroethene	9.57	95	290022	14.38	ug/L	98

11-6

(#) = qualifier out of range (m) = manual integration
30748007.D V82625B1.M Mon Nov 05 12:39:41 2001

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110501\30748002.D (5 Nov 2001 8:24)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2425218	10.00	ug/L	0.00 83.98%
25) i-1,4-Difluorobenzene	9.06	114	2304698	10.00	ug/L	0.00 78.71%
46) i-Chlorobenzene-d5	15.30	117	1523084	10.00	ug/L	-0.04 73.36%
57) i-1,4-Dichlorobenzene-d4	22.67	152	673662	10.00	ug/L	-0.03 57.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	974808	8.68	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.80%			
36) s-Toluene-d8	12.32	98	2143402	9.82	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.20%			
56) s-4-Bromofluorobenzene	18.80	95	1058889	9.15	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 91.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	594647	7.45	ug/L	91
28) Benzene	7.87	78	45944m	0.18	ug/L	93
30) Trichloroethene	9.57	95	290022	2.88	ug/L	98

11-6

595

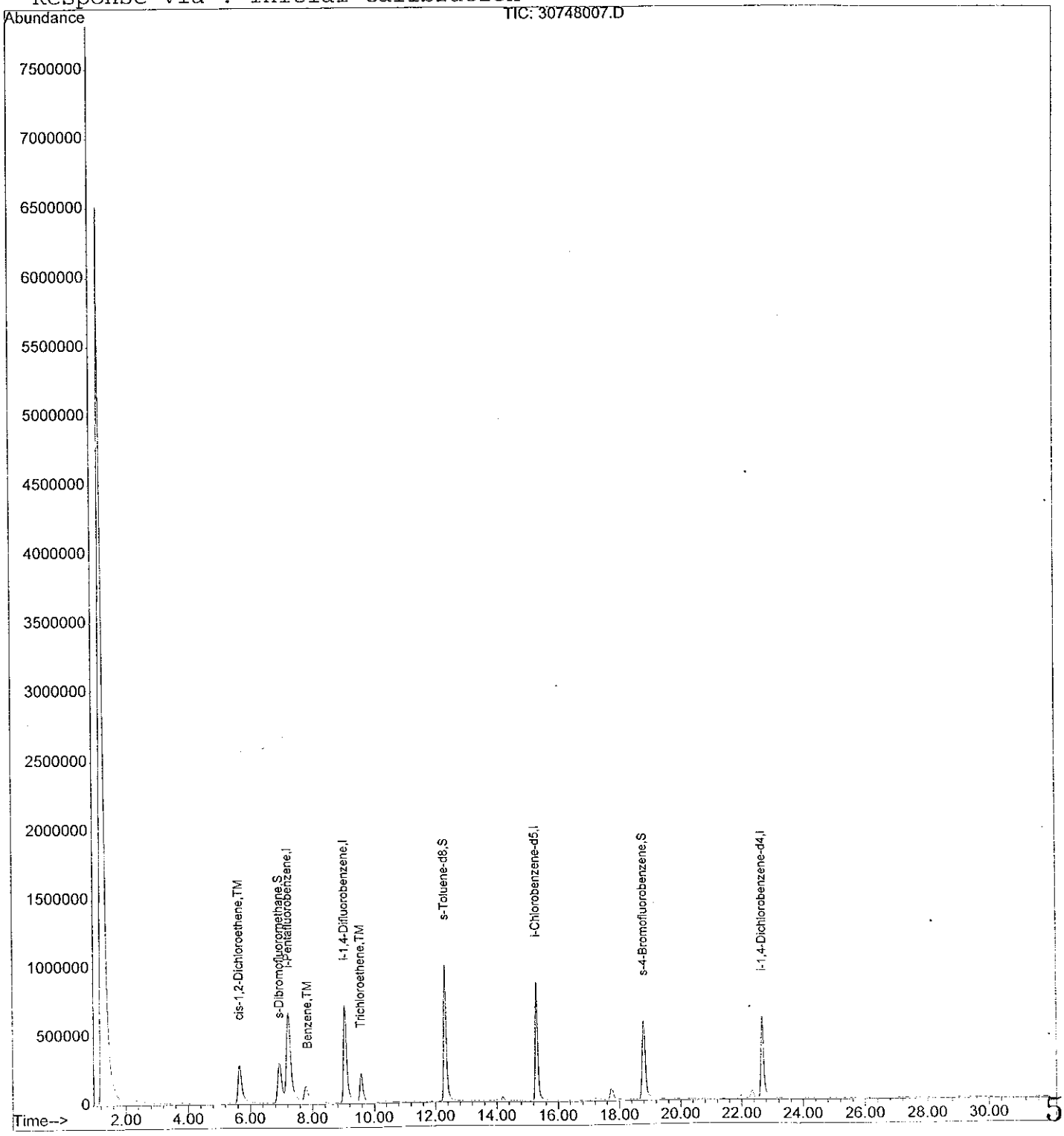
(#) = qualifier out of range (m) = manual integration

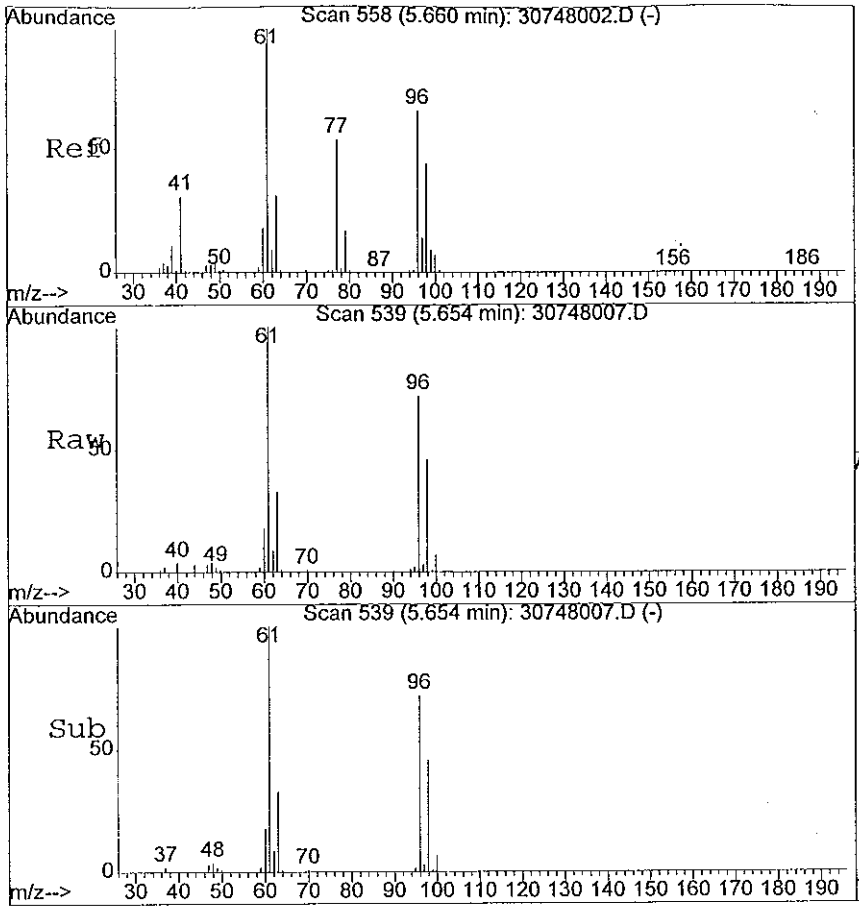
Data File : D:\HPCHEM\1\DATA\110501\30748007.D
Acq On : 5 Nov 2001 11:48
Sample : 110655-2 5.00ml 5X
Misc : CH2MHILL 3607A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 12:35 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 10:04:48 2001
Response via : Initial Calibration

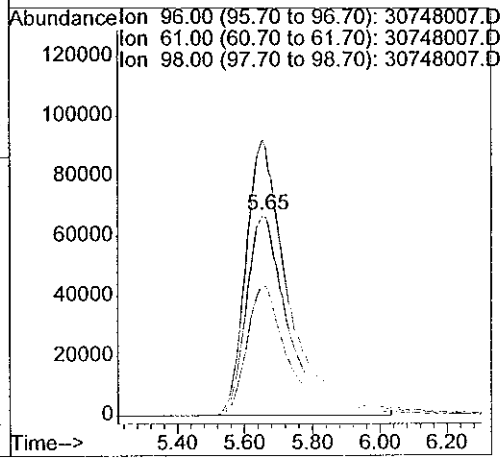


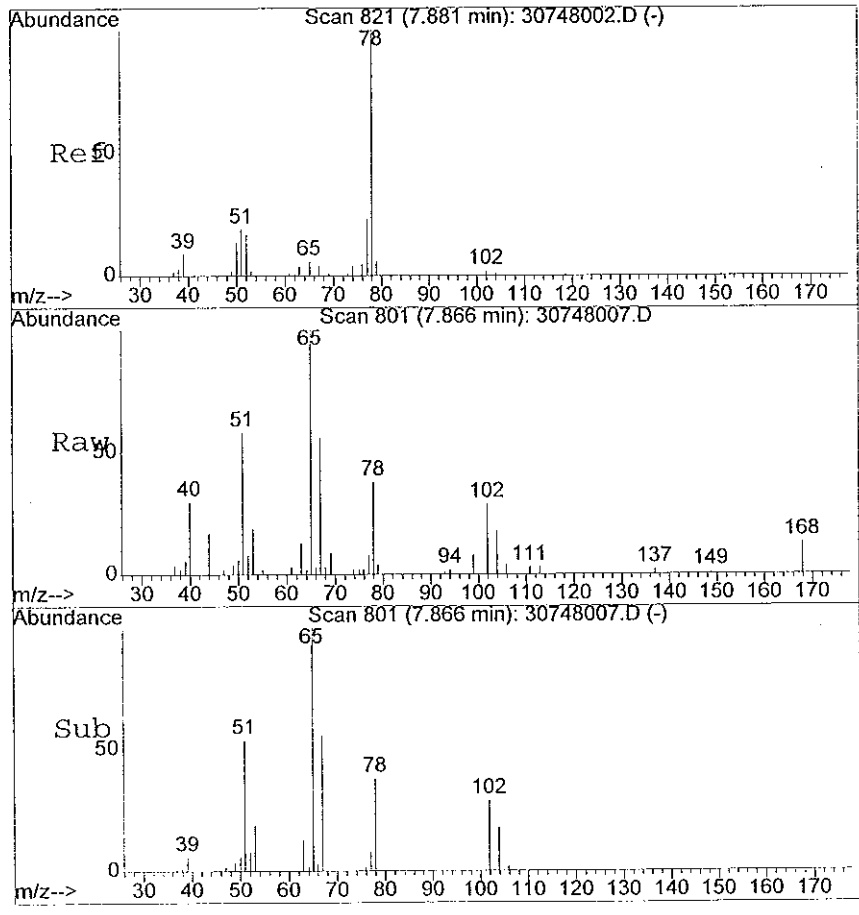


#20
cis-1,2-Dichloroethene
Concen: 7.45 ug/L
RT: 5.65 min Scan# 539
Delta R.T. -0.01 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

Tgt Ion: 96 Resp: 594647

Ion	Ratio	Lower	Upper
96	100		
61	138.2	131.9	171.9
98	62.9	46.2	86.2

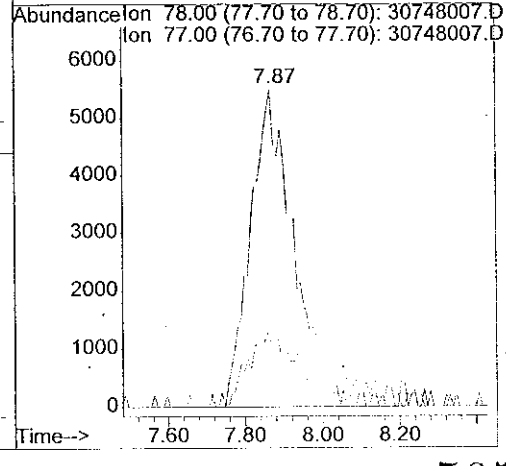




#28
Benzene
Concen: 0.18 ug/L m
RT: 7.87 min Scan# 801
Delta R.T. -0.02 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

Tgt Ion: 78 Resp: 45944

Ion	Ratio	Lower	Upper
78	100		
77	20.3	3.5	43.5



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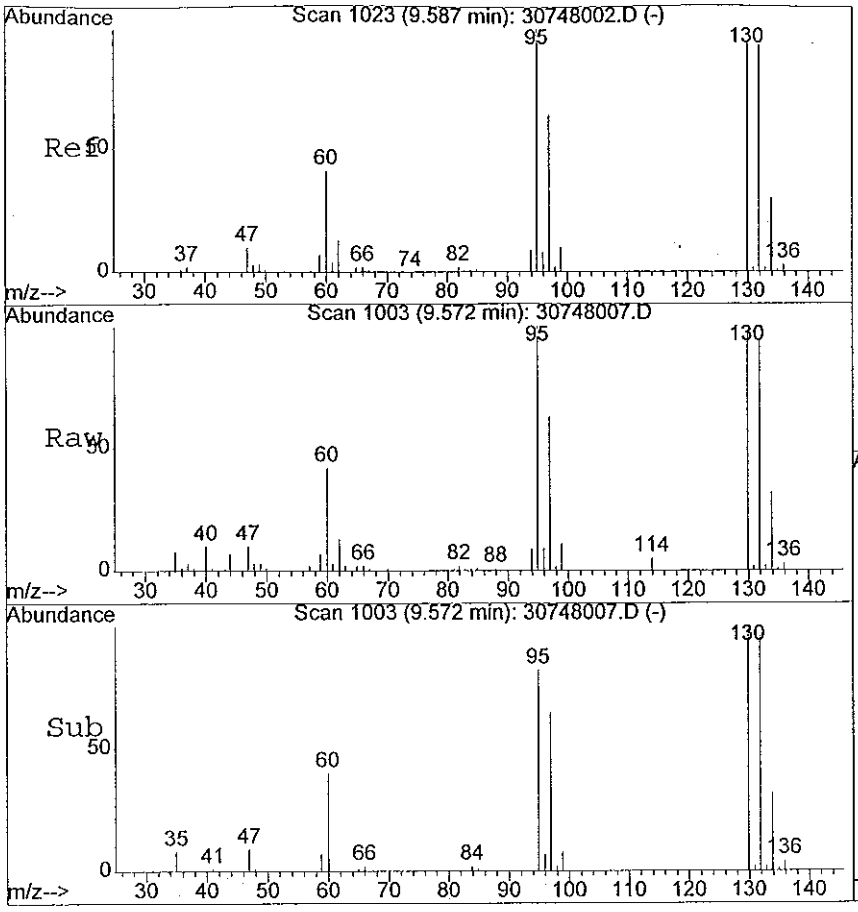
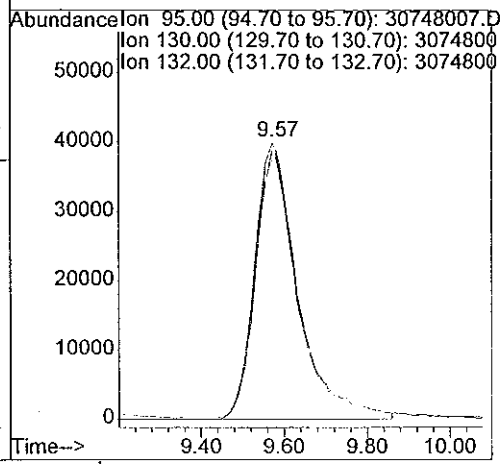


#30
Trichloroethene
Concen: 2.88 ug/L
RT: 9.57 min Scan# 1003
Delta R.T. -0.02 min
Lab File: 30748007.D
Acq: 5 Nov 2001 11:48

Tgt Ion: 95 Resp: 290022

Ion	Ratio	Lower	Upper
95	100		
130	97.6	75.1	115.1
132	93.9	73.1	113.1



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748007.D Vial: 4
Acq On : 5 Nov 2001 11:48 Operator: GRH
Sample : 110655-2 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3607A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

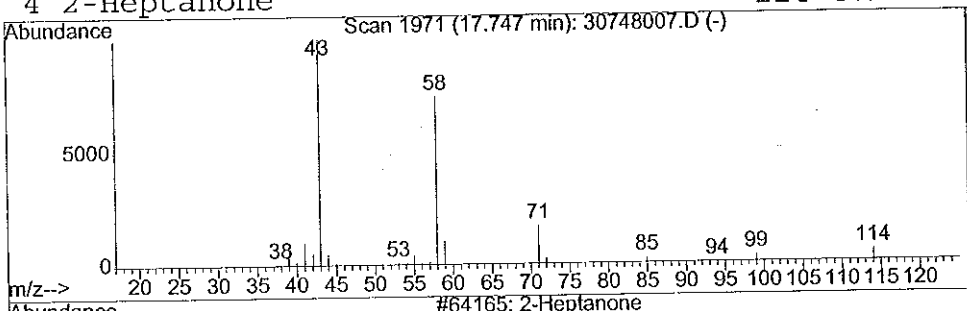
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

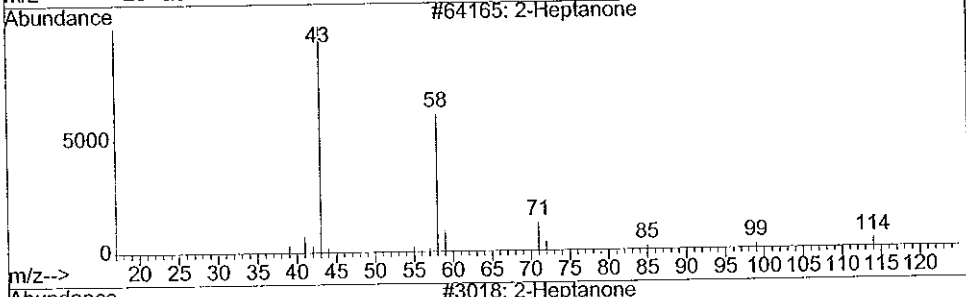
****

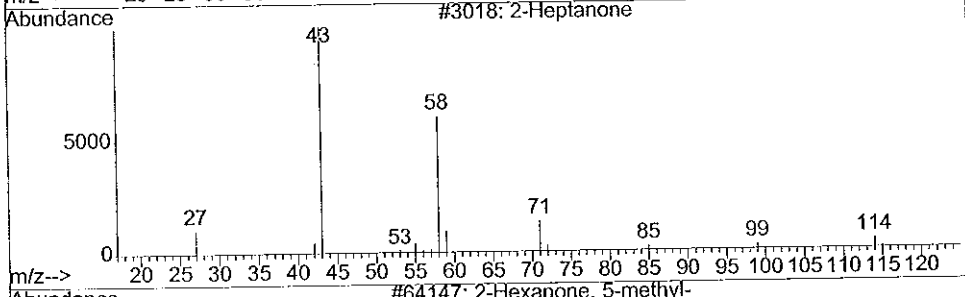
Peak Number 1 2-Heptanone Concentration Rank 2

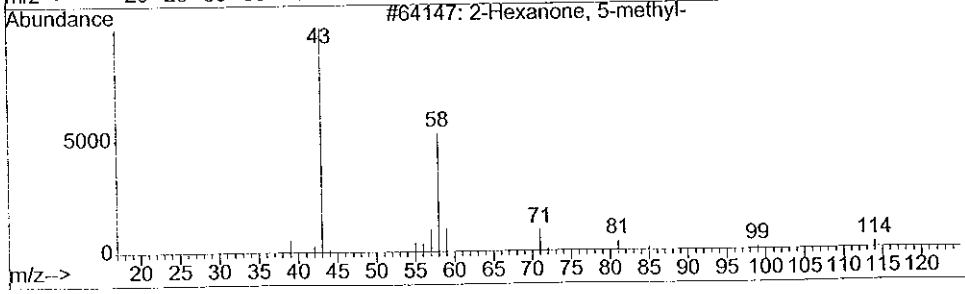
R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.75	7.26 ug/L	681910	i-Chlorobenzene-d	4698800	15.30

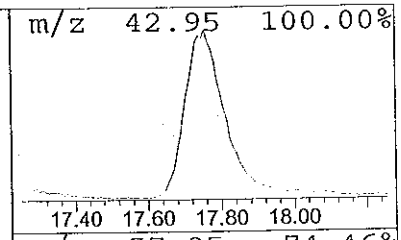
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone	114	C7H14O	000110-43-0	91
2	2-Heptanone	114	C7H14O	000110-43-0	91
3	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	90
4	2-Heptanone	114	C7H14O	000110-43-0	90

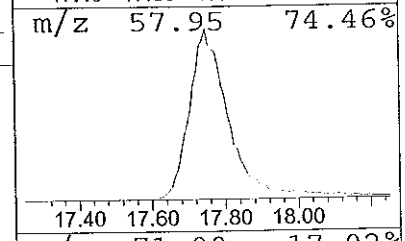


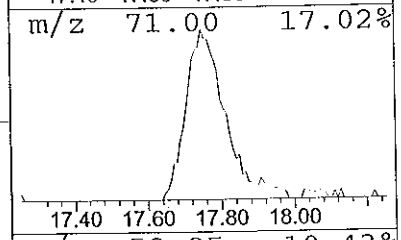


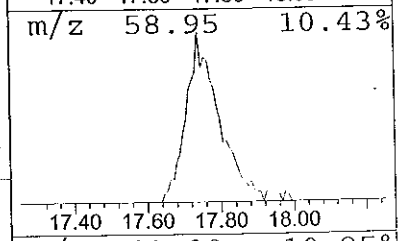


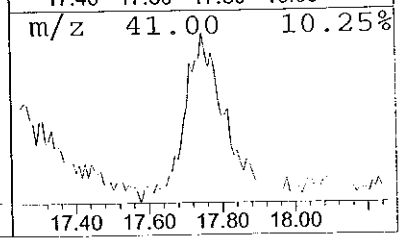












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Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 5 Nov 2001 11:48
Data File: D:\HPCHEM\1\DATA\BUBBA\110501\30748007.D
Name: 110655-2 5.00ml 5X
Misc: CH2MHILL 3607A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Heptanone	17.75	7.3	ug/L	681910	ISTD03	15.30	4698800	10.0

30748007.D V82625B1.M Tue Nov 06 14:39:39 2001

Data File : D:\HPCHEM\1\DATA\110201\30747010.D Vial: 7
Acq On : 2 Nov 2001 15:30 Operator: GRH
Sample : 110655-3 Inst : Bubba
Misc : CH2MHILL 3606A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:13 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3117425	10.00	ug/L	0.02 104.18%
25) i-1,4-Difluorobenzene	9.06	114	3060651	10.00	ug/L	0.02 100.67%
46) i-Chlorobenzene-d5	15.33	117	2116458	10.00	ug/L	0.03 98.84%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1003889	10.00	ug/L	0.02 82.55%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1379201	9.55	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 95.50%			
36) s-Toluene-d8	12.34	98	2851142	9.83	ug/L	0.03
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.30%			
56) s-4-Bromofluorobenzene	18.83	95	1542893	9.59	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 95.90%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.66	96	14567m	0.18	ug/L	79
30) Trichloroethene	9.59	95	87986	0.66	ug/L	91

10-5

601

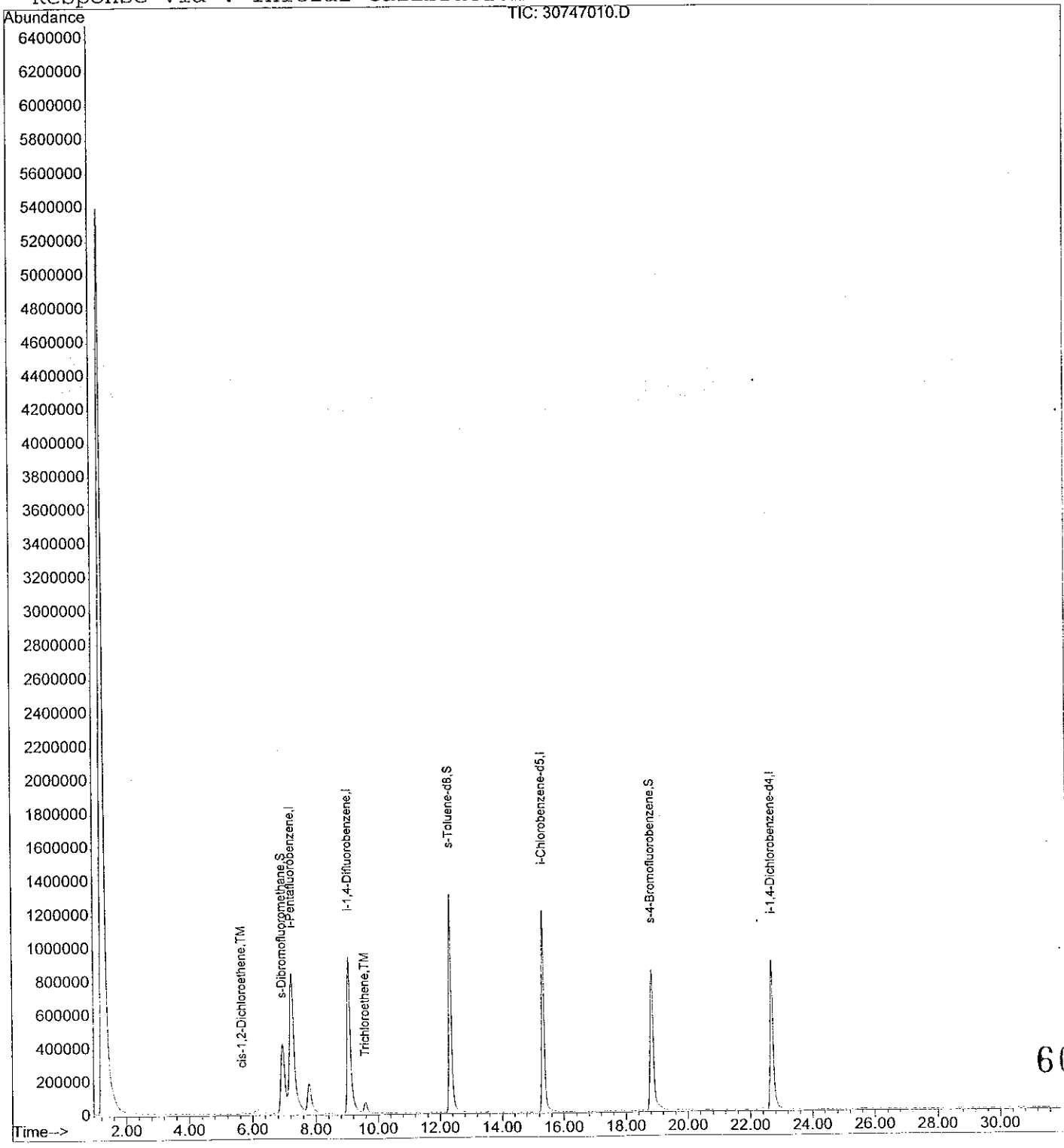
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747010.D
Acq On : 2 Nov 2001 15:30
Sample : 110655-3
Misc : CH2MHILL 3606A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:13 2001

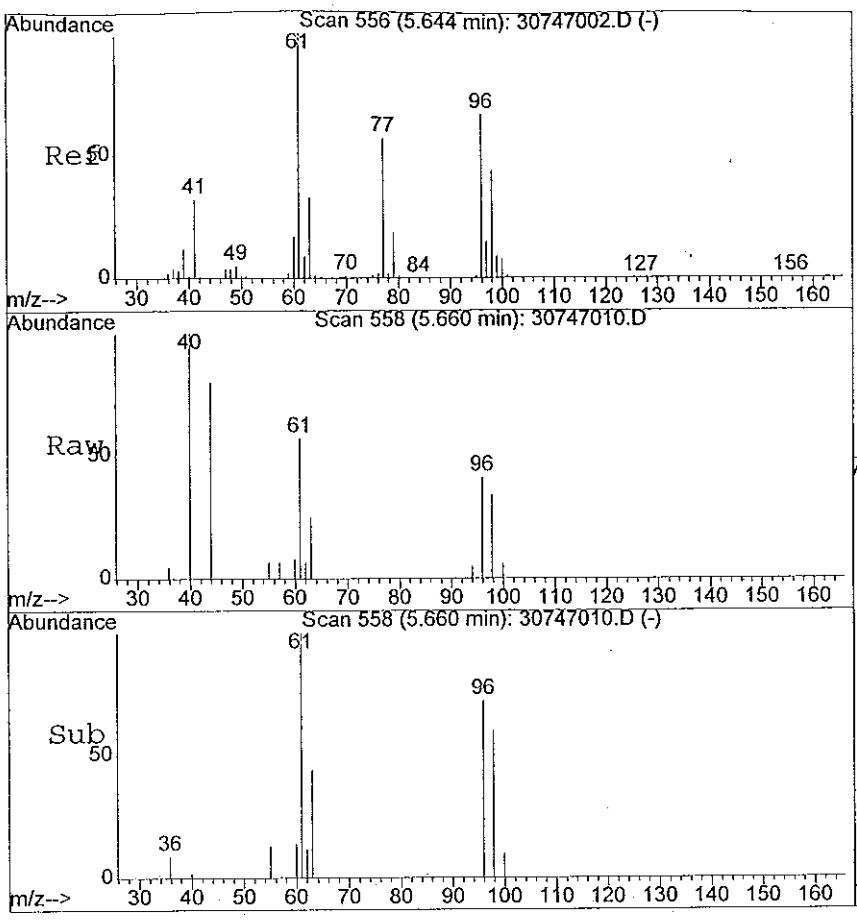
Vial: 7
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



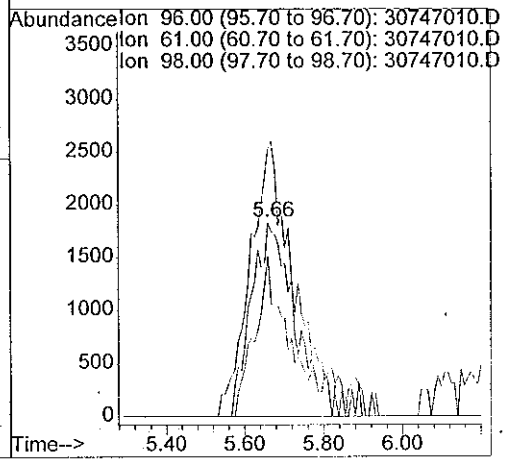
602

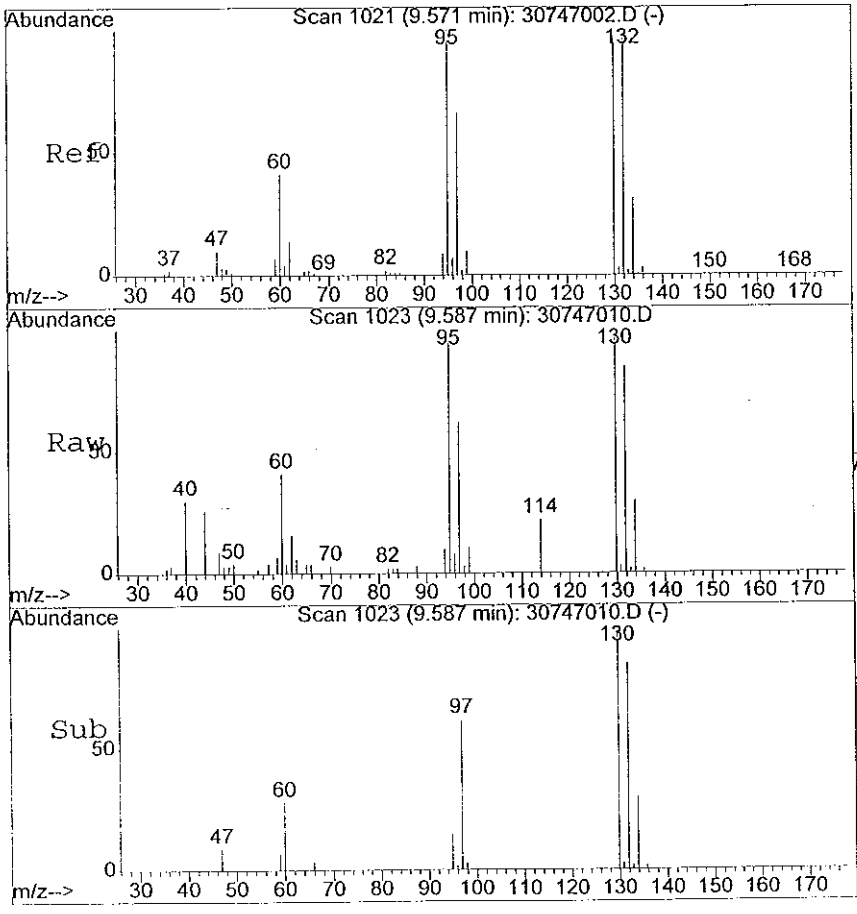


#20
cis-1,2-Dichloroethene
Concen: 0.18 ug/L m
RT: 5.66 min Scan# 558
Delta R.T. 0.02 min
Lab File: 30747010.D
Acq: 2 Nov 2001 15:30

Tgt Ion: 96 Resp: 14567

Ion	Ratio	Lower	Upper
96	100		
61	138.1	128.7	168.7
98	82.6	45.8	85.8

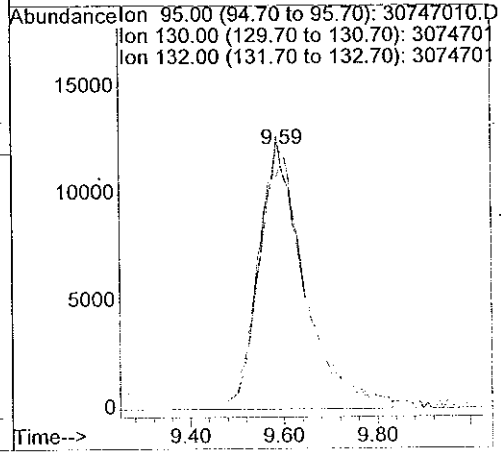




#30
Trichloroethene
Concen: 0.66 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.02 min
Lab File: 30747010.D
Acq: 2 Nov 2001 15:30

Tgt Ion: 95 Resp: 87986

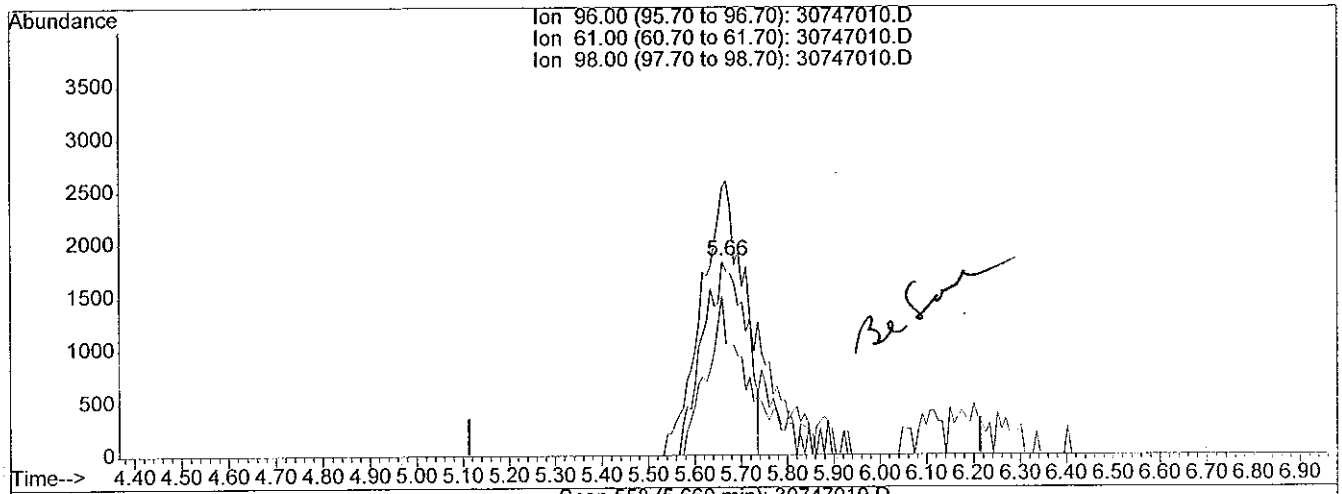
Ion	Ratio	Lower	Upper
95	100		
130	105.6	76.7	116.7
132	89.8	78.1	118.1

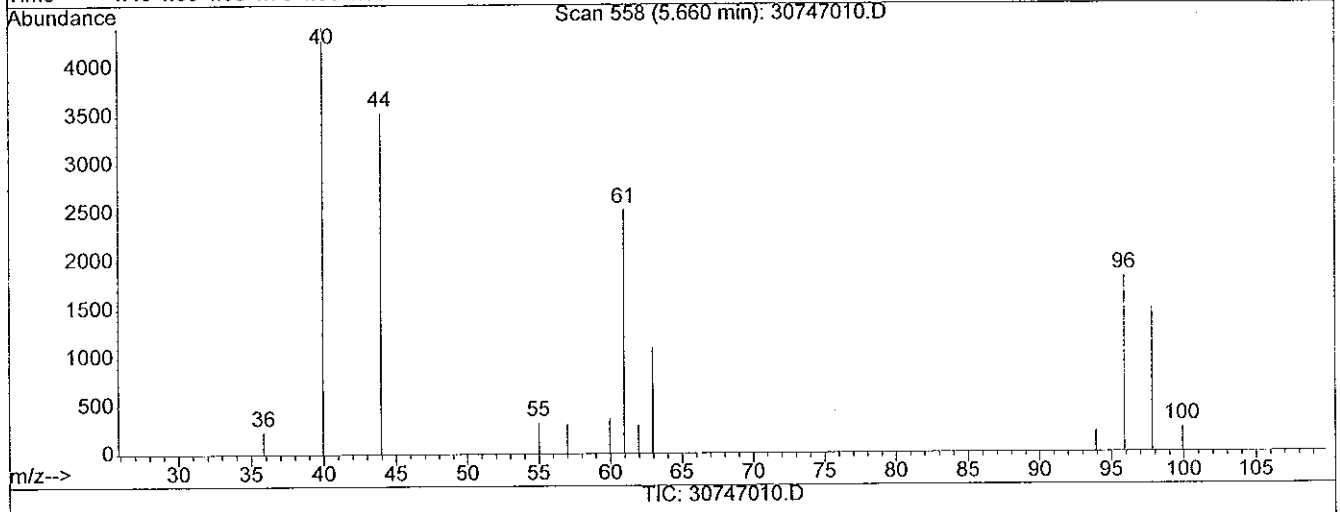


603

Data File : D:\HPCHEM\1\DATA\110201\30747010.D Vial: 7
Acq On : 2 Nov 2001 15:30 Operator: GRH
Sample : 110655-3 Inst : Bubba
Misc : CH2MHILL 3606A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:12 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747010.D

(20) cis-1,2-Dichloroethene (TM)

5.66min 0.15ug/L

response 11812

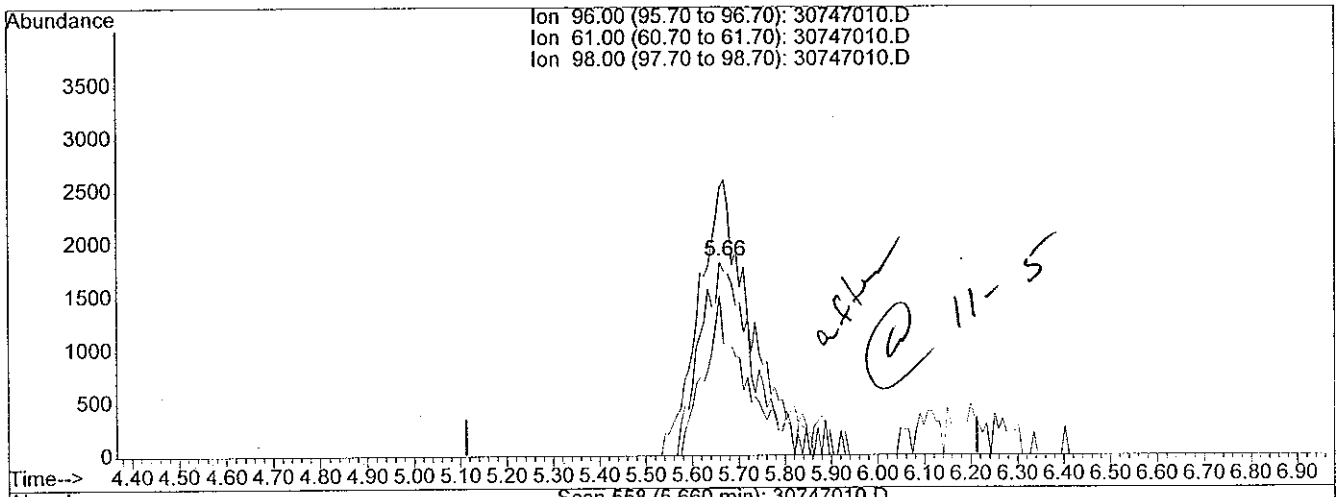
Ion	Exp%	Act%
96.00	100	100
61.00	148.70	121.64#
98.00	65.80	82.57
0.00	0.00	0.00

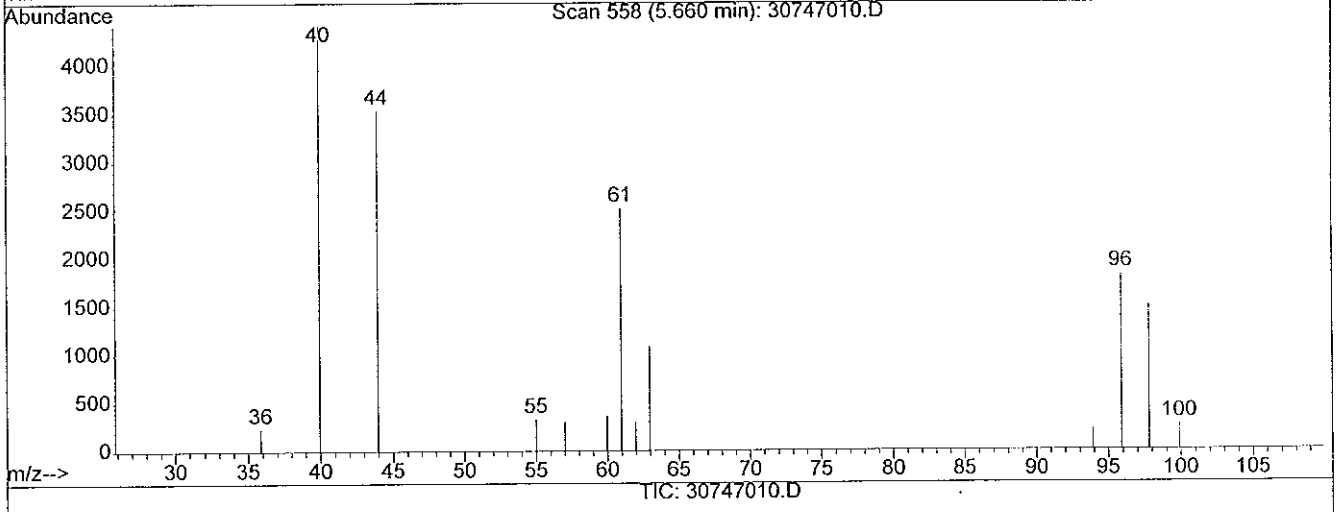
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747010.D
Acq On : 2 Nov 2001 15:30
Sample : 110655-3
Misc : CH2MHILL 3606A-Q401
MS Integration Params: rteint.p
Quant Time: Nov 5 6:12 2001

Vial: 7
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747010.D

(20) cis-1,2-Dichloroethene (TM)

5.66min 0.18ug/L m

response 14567

Ion	Exp%	Act%
96.00	100	100
61.00	148.70	138.14
98.00	65.80	82.57
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 15:30
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747010.D
Name: 110655-3
Misc: CH2MHILL 3606A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747010.D V82625B1.M Tue Nov 06 13:31:12 2001

Data File : D:\HPCHEM\1\DATA\110201\30747011.D Vial: 8
Acq On : 2 Nov 2001 16:11 Operator: GRH
Sample : 110655-4 Inst : Bubba
Misc : CH2MHILL 36TB4-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:16 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2983542	10.00 ug/L	0.01 99.71%
25) i-1,4-Difluorobenzene	9.06	114	2870801	10.00 ug/L	0.02 94.43%
46) i-Chlorobenzene-d5	15.32	117	1941523	10.00 ug/L	0.03 90.67%
57) i-1,4-Dichlorobenzene-d4	22.69	152	893778	10.00 ug/L	0.02 73.49%

System Monitoring Compounds					
24) s-Dibromofluoromethane	6.94	113	1245872	9.02 ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.20%		
36) s-Toluene-d8	12.34	98	2647437	9.73 ug/L	0.03
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.30%		
56) s-4-Bromofluorobenzene	18.83	95	1337816	9.07 ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 90.70%		

Target Compounds Qvalue

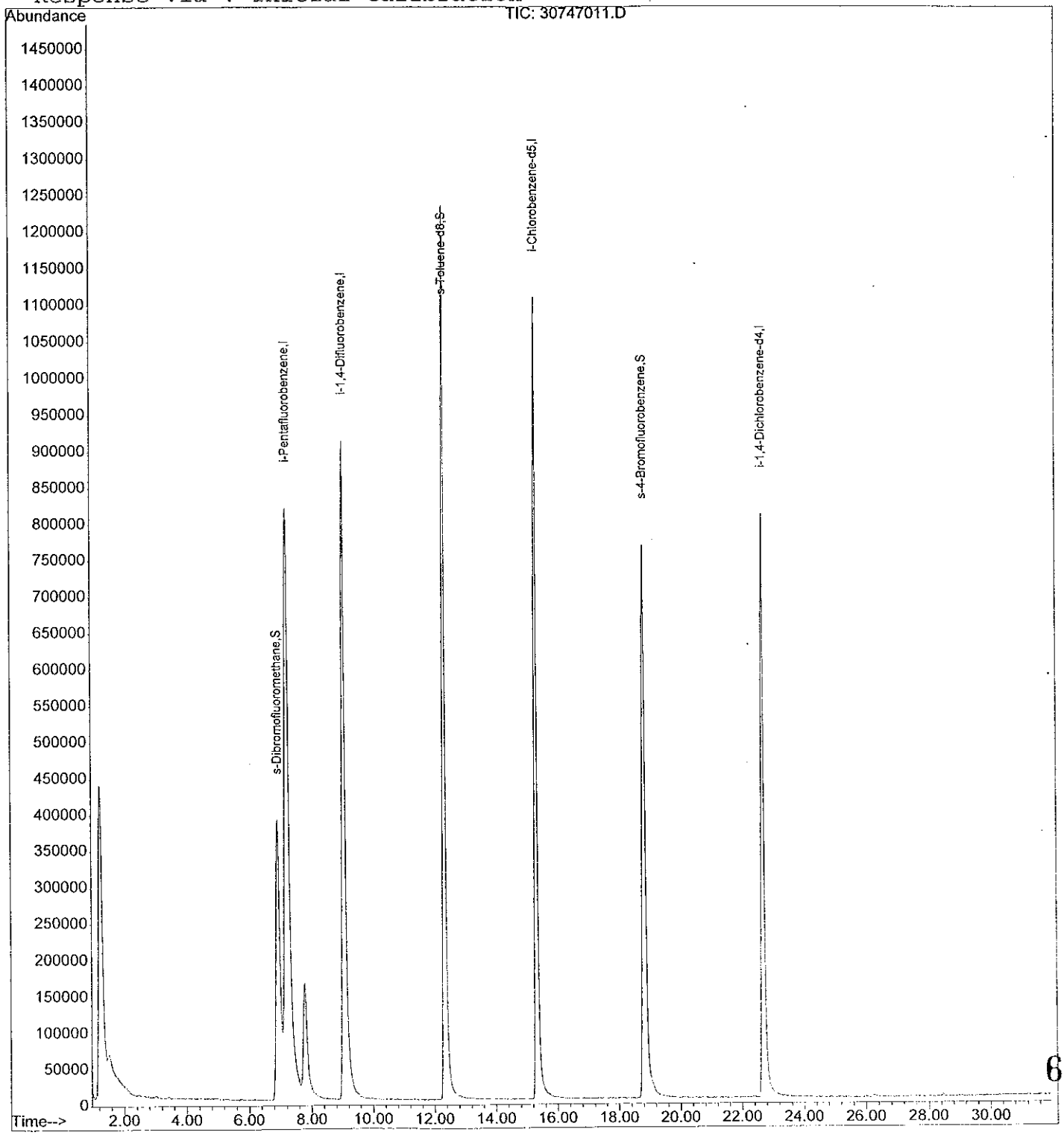
11-5

607

(#) = qualifier out of range (m) = manual integration
30747011.D V82625B1.M Mon Nov 05 06:16:45 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110201\30747011.D Vial: 8
Acq On : 2 Nov 2001 16:11 Operator: GRH
Sample : 110655-4 Inst : Bubba
Misc : CH2MHILL 36TB4-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:16 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



608

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 16:11
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747011.D
Name: 110655-4
Misc: CH2MHILL 36TB4-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747011.D V82625B1.M Tue Nov 06 13:31:35 2001

STL PENSACOLA

GC/MS Log Book for Bubba

Operator: [signature] Date: 10/30/01 Client(s): Initial Calibration 8260B/25ml + 524.2

SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
			BFB		5µL/5ppt BFB	Daily Tune Scan # Area =	X		Time
1	30744 001							✓	08:43
2	002	10 ppb std			10µl/5ml			✓	✓
3	003	5 ppb std			5µl/5ml			✓	✓
4	004	2 ppb std			2µl/5ml			✓	✓
5	005	1 ppb std			1µl/5ml			✓	✓
6	006	0.3 ppb std			0.3µl/5ml			✓	✓
7	007	0.5 ppb std			0.5µl/5ml			✓	✓
8	008	10 ppb std			10µl/5ml	not included in curve		✓	✓
9	009	20 ppb std			20µl/5ml			✓	✓
10	010	30 ppb std			30µl/5ml			✓	✓
11	011	Blank			5.0ml			✓	✓
12	012	2nd Source std			10µl/5ml	8-MSW-25-2		✓	✓
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed [signature]

610

* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

:or: C Date: 11/2/01 Client(s): _____
SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____
Scan Range: 35 - 260 amu

FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
		BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X		Time
30747 001			14				✓	09:13
002	10 ppb Std		15	10µl/25ml			✓	✓
003	BLW149	ABK	16	25.0ml			✓	✓
004	BLW149	ALCS	1	10µl/25ml	8-MSW-25-2		✓	✓
005	3628B - Q401	110611-3	2	5.00 ml	5X MS		✓	✓
006	3628B - Q401	110611-3	3	↓	MSD		✓	✓
007	3628B - Q401	110611-3	4	↓	↓	✓	✓	✓
008	3608B - Q401	110655-1	5	25.0 ml		✓	✓	✓
009	3607A - Q401	110655-2	6	↓	Rerun @ 5X	✓	✓	✓
010	3606A - Q401	110655-3	7	↓	↓	✓	✓	✓
011	36TB4 - Q401	110655-4	8	↓	↓	✓	✓	✓
012	3619A - Q401	110681-1	9	↓	↓	✓	✓	✓
013	3624B - Q401	110681-2	10	↓	↓	✓	✓	✓
014	36FD2 - Q401	110681-3	11	↓	↓	✓	✓	✓
015	36TB5 - Q401	110681-4	12	↓	↓	✓	✓	✓

alyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished

STL PENSACOLA

GC/MS Log Book for Bubba

Operator: (W Date: 11/5/01 Client(s): _____

SDG: _____ Client(s): _____

ISS: 8MSW *26-1 Std 1: 8MSW *28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
1	3 07748 001		BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X	✓	Time 07:45
2	002	10ppb std			10µl/25ml			✓	✓
3	003	BLW150A	BK		25.0ml			✓	✓
4	004	BLW150A	LCS		10µl/25ml	8-MSW-25-2		✓	✓
5	005	3607A-Q401	110655-2		5.00ml	5X MS		✓	✓
6	006	3607A-Q401	110655-2		5.00ml	MSD		✓	✓
7	007	3607A-Q401	110655-2		5.00ml		✓	✓	✓
8	008	36IDW-Q401	110738-1		25.0ml		✓	✓	✓
9	009	3625C-Q401	110728-1				✓	✓	✓
10	010	36TB6-Q401	110728-2				✓	✓	✓
11	011								
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed _____

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* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL – PENSACOLA, FL / GCMS

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
Volatile Mix 6	LA89947	Supleco	2000µg/ml	6/22/00	7/2001	1	P-VN 2-1
Iodomethane	LA89788	Supleco	20000µg/ml	6/22/00	7/2001	1	P-VN 2-2
8260 Mix C	LA90478	Supleco	2000µg/ml	6/22/00	5/2002	1	P-VN 2-3
8260 IS	A016078	Restek	2500µg/ml	8/25/00	8/2003	10	P-VN 2-4
1,1,2-Trichloro-1,2,2-Trifluoroethane	A8100018	Acc STD	2000µg/ml	10/2/00	11/1/2001	2	P-VN 2-5
1,1,2-Trichloro-1,2,2-Trifluoroethane	A016542 A8100018	Restek	2000µg/ml	10/17	10/17/2001	1	P-VN 2-6
1,1,2-Trichloro-1,2,2-Trifluoroethane	A8100018	Acc STD	2000µg/ml	10/31	11/1/2001	2	P-VN 2-7
8260 Vol Kit	Various	Restek	2000µg/ml	11/1/00	11	1	P-VN 2-8
MTBE/ Freon 113	A016494 A016542	Restek	2000	11/2004 ↔ 11/1/2001	11/1/00	drench	P-VN 2-9
n-Hexane	B0110235	Accustandard	2.0mg/ml	11/16/00	12/1/01	2	P-VN 2-10
Iso-octane	B0110234	↓	↓	↓	↓	5	P-VN 2-11
BP Shortlist Std.	LA95178	Supelco	5000µg/ml	12/20/00	12/20/01	3	P-VN 2-12
8260 Surr	A017973	Restek	2500µg/ml	12/22/00	3/2004	10	P-VN 2-13
Nitrobenzene	LA91148	Supelco	5000µg/ml	1/4/01	6/2003	1	P-VN 2-14
Nitrobenzene	044-072	Accustandard	1000µg/ml	1/5/01	1/6/02	1	P-VN 2-15
Oxygenate Gasoline Add-on	B1010025	Accustandard	Varied	2/20/01	1/4/03	1	P-VN 2-16
Keytone Mix	A019217	Restek	Various	4/16/01 4/2003	4/2003	5	P-VN 2-17
Vinyl Acetate	A019218	Restek	4000µg/ml	4/6/01	4/2003	5	P-VN 2-18
Isopropyl Ether	A019194	Restek	2000µg/ml	4/9/01	4/2004	3	P-VN 2-19
Int. STD. Mix-Tol4	A018018	Restek	2500µg/ml	4/9/01	3/2005	5	P-VN 2-20
IS-8260	A018631	Restek	2500µg/ml	4/13/01	6/2004	10	P-VN 2-21
Custom Mix	LA97340	Supelco	2000/4000µg/ml	4/16/01	4/16/02	4	P-VN 2-22
Supleco Mix 6	LA95901	Supelco	2000µg/ml	4/17	5/02	2	P-VN 2-23
Equity Keytone Mix	LA90479	Supelco	4000µg/ml	4/17	11/01	4	P-VN 2-24
Freon 113	LA91143	Supleco	2000µg/ml	4/17	6/03	2	P-VN 2-25
Equity Iodomethane	LA95926	Supelco	2000µg/ml	4/17	5/02	2	P-VN 2-26
502/524 Mix	LA96091	Supleco	2000µg/ml	4/17	4/03	2	P-VN 2-27

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
OXYGENATES MIX	A018874	RESTEK	2000 - 10,000	4/18/01	4/18/02	1	8-VN 3 - 1
Freon 113	A018831	Restek	2000	5/3/01	5/3/02	2	8-VN 3 - 2
MTBE	A017647	Restek	2000	5/3/01	6/04	2	8-VN 3 - 3
8260 Kit	Various	Restek	2000	5/3	Various	2	8-VN 3 - 4
Chloroprene	R1373	Ultra	100 µg/ml	5/4/01	12/2002	4	8-VN 3 - 5
Acrylonitrile	A015202	Restek	2000	5/4/01	1/02	1	8-VN 3 - 6
APPIX-Mix B	LA97780	Supelco	2000 µg/ml	5/7/01	5/7/02	4	8-VN 3 - 7
APPIX-Mix A	LA97779	Supelco	2000/6000 µg/ml	5/9/01	5/9/02	4	8-VN 3 - 8
Isopropyl Ether	A019529	Restek	2000 µg/ml	5/9	5/04	2	8-VN 3 - 9
Freon 113	A018830	Restek	2000 µg/ml	5/14	5/14/02	3	8-VN 3 - 10
8260 SMR	A019424	Restek	2500 µg/ml	9/14	8/04	10	8-VN 3 - 11
8260 IS	A020353	Restek	2500 µg/ml	9/14	11/04	10	8-VN 3 - 12
Freon 113	LA98546	Supleco	2000 µg/ml	~~9/21~~	6/04	2	8-VN 3 - 13
Vol Mix 6	LA99456	Supleco	2000 µg/ml	9/21	11/02	2	8-VN 3 - 14
502/504 Mix	LA98534	Supleco	2000 µg/ml	9/21	10/03	2	8-VN 3 - 15
Keytones	LA97428	Supleco	2000 µg/ml	9/21	9/03	4	8-VN 3 - 16
Iodomethane	LA95926	Supleco	2000 µg/ml	9/21	5/02	2	8-VN 3 - 17
Isopropyl ether	A020897	Restek	2000 µg/ml	9/29	9/04	3	8-VN 3 - 18
8260 STA Kit	Various	Restek	Various	10/21	11/3	2	8-VN 3 - 19
MTBE	A019410	Restek	2000 µg/ml	10/22	12/4	2	8-VN 3 - 20
Freon 113	A019795	Restek	2000 µg/ml	10/22	~~10/22~~/03	2	8-VN 3 - 21
EPA OLM04	LB00099	Supleco	2000 µg/ml	10/23	~~10/23~~/03	1	8-VN 3 - 22
Vinyl Acetate	A021212	Restek	4000 µg/ml	10/23	10/03	5	8-VN 3 - 23
Keytones	A022011	Restek	2000/4000 µg/ml	10/23	10/03	5	8-VN 3 - 24
VOA Calibration Mix #1 Ketones	A020419	RESTEK	5000 ug/ml	10/27	11/04	5	8-VN 3 - 25
							-VN -
							-VN -

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb
Sol. Name: APP IX-A
Date: 8/15/01
Analyst: (W)

Standard I.D.: 8-MSW25-1
Location: Freezer MS018
Solvent: MeOH-V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-8	LA97779	5/7/02	2000/6000µg/ml	500µl	10	100/300µg/ml
Acrylonitrile+Propionitrile	@2000µg/ml					
Acrylonitrile, Acrolein, Isobutanol @6000µg/ml						

Comments: exp 4/15/02

Sol. Name: 2260 Matrix Spike
Date: 9/14/01
Analyst: MW

Standard I.D.: 8-MSW25-2
Location: MS018
Solvent: MeOH VO4E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
Custom Mix 8-VW-03	LA97340	4/02	2000	625	50ml	25µg/ml
Iodomethane	LA95926	5/02		↓	↓	↓
Mix 6	LA95901	5/02				
502/524	LA96091	4/03				
Dibromo 13	LA97143	6/03				
Freon 113 8-VW-2-24	LA90474	11/01	↓	1250	↓	50µg/ml

Comments: expires 11/14/01

Sol. Name: IS/SURR - Aqueous
Date: 9/20/01
Analyst: MW

Standard I.D.: 8-MSW25-3
Location: KATANIWA - Freezer
Solvent: VO4E74 Methyl

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VW-2-13 Surr	A017973	3/04	2500	500	10	125µg/ml
P-VW-221 IS	A018631	6/04	"	"	"	"

Comments: exp-3/20/01

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: IS/SURR
Date: 9-26-01
Analyst: GFG

Standard I.D.: 8-MSW26-1
Location: Freezer MS018
Solvent: MEOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN2-21 IS	A018631	6/2004	2500	500	50	25 ug/ml
8-VN2-13 SURR	A017977	3/2004	2500	500	50	25 ug/ml

Comments: Expires 3-26-02

Sol. Name: 8260 STD
Date: 10
Analyst:

Standard I.D.: 8-MSW26-2
Location: MS018 Freezer
Solvent: MeOH V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name: TO14 IS/Surr
Date: 10-12-01
Analyst: SAM

Standard I.D.: 8-MSW26-3
Location: Freezer MS018
Solvent: Methanol

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
7-VN-3-6 (IS)	A017365	11/01	2500ug/ml	500uls	50mls	25ppm
7-VN-2-16	A017364	↓	↓	↓	↓	↓

Comments: 4-10-02 expires

611

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: 8260 STD
Date: 10/27/01
Analyst: WD

Standard I.D.: 8 -MSW28-1
Location: MSC18
Solvent: MeOH VOE40

Parent I.D.	Lot #	Exp. Date 4/08	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
502.2 Calib Mix #1	A020628	11/03	2000	625	50	25
Mix 1 Mix #2	A017541	11/03				
Mix #3	A018675	1/04				
8-VW3-19 Mix #4	A016454	6/03				
Mix #5	A019955	7/04				
Mix #6	A019741	1/05				
8-VW3-24 Ketones+CS2	A021211	10/03	2000/4000			25/50 } 100 - Total Ketones
8-VW3-25 Ketones	A020419	11/04	5000	500		50
8-VW3-21 Freon 113	A019795	10/02	2000	625		25
8-VW3-20 MTBE	A019410	12/04	2000			25
8-VW3-1 IPE	A019529	5/04	2000			25
8 VW3-23 Vinyl Acetate	A021212	10/03	4000			50

Comments:
Exp: 4/27/02

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW -
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW -
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110557
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
17-3610B-Q401	C110557-1
17-3611C-Q401	C110557-2
17-3629B-Q401	C110557-3
17-3632C-Q401	C110557-4
17-36FD1-Q401	C110557-5
17-36FB1-Q401	C110557-6
17-36EB1-Q401	C110557-7
17-36TB1-Q401	C110557-8

The above samples were received in two coolers at STL Pensacola on October 23, 2001. The cooler temperatures were both 2°C.

Please note on Project Sample Inspection Form (PSIF) the Chain-of-Custody (COC) was not properly relinquished. See PSIF.

Please reference CLP and STL Pensacola data qualifier sheets for flag information.

Rick Hayes
Senior Project Manager

NAVY RAC PMO NOV - 8 2001

11/6/01

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-1	17-3610B-Q401	10-22-01/12:45
10557-2	17-3611C-Q401	10-22-01/13:00
10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	29	7.8	8.5	9.0	7.4
Dilution Factor	1	1	1	1	1
Analysis Date	10.30.01	10.30.01	10.30.01	10.30.01	10.30.01
Analysis Time	14:20	14:20	14:20	14:20	14:20
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	BE	BE	BE	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	0.10	0.10U	0.11	0.14
Nitrate-N, mg/l	0.10U	0.10	0.10U	0.11	0.14
Nitrite-N, mg/l	0.10U	0.10U	0.10U	0.10U	0.10U
Prep Date	10.23.01	10.23.01	10.23.01	10.23.01	10.23.01
Prep Time	16:30	16:30	16:30	16:30	16:30
Analysis Date	10.29.01	10.29.01	10.29.01	10.29.01	10.29.01
Analysis Time	13:08	13:08	13:08	13:08	13:08
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	4500-NO2B	4500-NO2B	4500-NO2B	4500-NO2B	4500-NO2B
Analyst	CR	CR	CR	CR	CR

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
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10557-2	17-3611C-Q401	10-22-01/13:00
10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Chloride (325.2/4500E/9251), mg/l	30@	8.6	30@	11	8.4
Dilution Factor	5	1	5	1	1
Prep Date	10.25.01	10.25.01	10.25.01	10.25.01	10.25.01
Prep Time	09:00	09:00	09:00	09:00	09:00
Analysis Date	10.26.01	10.26.01	10.26.01	10.26.01	10.26.01
Analysis Time	09:35	09:35	09:35	09:35	09:35
Batch ID	CKW59B	CKW59B	CKW59B	CKW59B	CKW59B
Prep Method	325.2	325.2	325.2	325.2	325.2
Analyst	CR	CR	CR	CR	CR
Total Dissolved Solids (160.1), mg/l	110	50	140	64	48
Dilution Factor	1	1	1	1	1
Prep Date	10.25.01	10.25.01	10.25.01	10.25.01	10.25.01
Prep Time	07:50	07:50	07:50	07:50	07:50
Analysis Date	10.26.01	10.26.01	10.26.01	10.26.01	10.26.01
Analysis Time	13:55	13:55	13:55	13:55	13:55
Batch ID	TDW094	TDW094	TDW094	TDW094	TDW094
Prep Method	160.1	160.1	160.1	160.1	160.1
Analyst	ST	ST	ST	ST	ST

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-1	17-3610B-Q401	10-22-01/12:45
10557-2	17-3611C-Q401	10-22-01/13:00
10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Total Organic Carbon (9060), mg/l	11	9.7	9.0	6.4	9.4
Dilution Factor	1	1	1	1	1
Analysis Date	10.29.01	10.29.01	10.29.01	10.29.01	10.29.01
Analysis Time	09:44	09:44	09:44	09:44	09:44
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Analyst	WG	WG	WG	WG	WG
Sulfide (376.1), mg/l	1.5	1.0U	1.0U	1.0U	1.0U
Dilution Factor	1	1	1	1	1
Analysis Date	10.24.01	10.24.01	10.24.01	10.24.01	10.24.01
Analysis Time	11:05	11:05	11:05	11:05	11:05
Batch ID	FEW044	FEW044	FEW044	FEW044	FEW044
Analyst	BH	BH	BH	BH	BH
Iron, Dissolved (6010B), ug/l	54B	77B	600	190	74B
Dilution Factor	1	1	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01	10.26.01	10.26.01
Analysis Date	10.29.01	10.29.01	10.29.01	10.29.01	10.29.01
Analysis Time	10:51	11:13	11:19	11:24	11:30
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method	3005A	3005A	3005A	3005A	3005A
Analyst	CH	CH	CH	CH	CH

004

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-1	17-3610B-Q401	10-22-01/12:45
10557-2	17-3611C-Q401	10-22-01/13:00
10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	100U	100U	100U	100U
Surrogate - o-Terphenyl	88 %	94 %	97 %	102 %	104 %
Surrogate - Nonatriacontane (C39)	76 %	74 %	87 %	80 %	70 %
Dilution Factor	1	1	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01	10.26.01	10.26.01
Prep Time	09:30	09:30	09:30	09:30	09:30
Analysis Date	11.01.01	11.01.01	11.01.01	11.01.01	11.01.01
Analysis Time	19:08	19:16	19:24	19:32	19:40
Batch ID	FLW287	FLW287	FLW287	FLW287	FLW287
Prep Method	3520C	3520C	3520C	3520C	3520C
Analyst	KA	KA	KA	KA	KA

005

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-1	17-3610B-Q401	10-22-01/12:45
10557-2	17-3611C-Q401	10-22-01/13:00
10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Volatile Organic Compounds (8260B)					
Benzene, ug/l	0.35	5.0U	0.19J	5.0U	5.0U
Bromobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Bromoform, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	0.68	5.0U	5.0U	0.82
1,3-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U

006

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
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10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
1,4-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-Dichloroethene, ug/l	5.0U	5.0U	0.18J	5.0U	5.0U
cis-1,2-Dichloroethene, ug/l	16	3.3	1.2	0.25J	2.3
trans-1,2-Dichloroethene, ug/l	0.28J	5.0U	5.0U	5.0U	5.0U
1,2-Dichloropropane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
p-Isopropyltoluene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
n-Propylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U

007

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
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10557-3	17-3629B-Q401	10-22-01/16:50
10557-4	17-3632C-Q401	10-22-01/17:15
10557-5	17-36FD1-Q401	10-22-01/00:00

PARAMETER	10557-1	10557-2	10557-3	10557-4	10557-5
Styrene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Tetrachloroethene, ug/l	5.0U	1.6	5.0U	0.22J	1.2
Toluene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2-Trichloroethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Trichloroethene, ug/l	7.0	7.0	110D	12	4.5
Trichlorofluoromethane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	0.24J	0.23J	5.0U	5.0U	0.17J
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
Vinyl chloride, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U	5.0U	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U	10U	10U	10U
Surrogate - Dibromofluoromethane	99 %	84 %	96 %	98 %	87 %
Surrogate - Toluene-d8	98 %	98 %	98 %	100 %	97 %
Surrogate - 4-Bromofluorobenzene	97 %	93 %	93 %	95 %	94 %
Dilution Factor	1	1	1,10	1	1
Analysis Date	10.31.01	10.31.01	10.31.01	10.31.01	10.31.01
Analysis Time	11:48	12:30	13:09	13:52	14:34
Batch ID	BUW147	BUW147	BUW147	BUW147	BUW147
Prep Method	5030B	5030B	5030B	5030B	5030B
Analyst	GH	GH	GH	GH	GH

008

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	1.0U
Dilution Factor	1	1
Analysis Date	10.30.01	10.30.01
Analysis Time	14:20	14:20
Batch ID	AEW060	AEW060
Analyst	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)		
Nitrate + Nitrite-N, mg/l	0.11	0.16
Nitrate-N, mg/l	0.11	0.16
Nitrite-N, mg/l	0.10U	0.10U
Prep Date	10.23.01	10.23.01
Prep Time	16:30	16:30
Analysis Date	10.29.01	10.29.01
Analysis Time	13:08	13:08
Batch ID	N3W65D	N3W65D
Prep Method	4500-NO2B	4500-NO2B
Analyst	CR	CR
Chloride (325.2/4500E/9251), mg/l	2.5	2.6
Dilution Factor	1	1
Prep Date	10.25.01	10.25.01
Prep Time	09:00	09:00
Analysis Date	10.26.01	10.26.01
Analysis Time	09:35	09:35
Batch ID	CKW59B	CKW59B
Prep Method	325.2	325.2
Analyst	CR	CR

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
Total Dissolved Solids (160.1), mg/l	5.0U	5.0U
Dilution Factor	1	1
Prep Date	10.25.01	10.25.01
Prep Time	07:50	07:50
Analysis Date	10.26.01	10.26.01
Analysis Time	13:55	13:55
Batch ID	TDW094	TDW094
Prep Method	160.1	160.1
Analyst	ST	ST
Total Organic Carbon (9060), mg/l	<1.0	<1.0
Dilution Factor	1	1
Analysis Date	10.29.01	10.29.01
Analysis Time	09:44	09:44
Batch ID	TOW020	TOW020
Analyst	WG	WG
Sulfide (376.1), mg/l	1.0U	1.0U
Dilution Factor	1	1
Analysis Date	10.24.01	10.24.01
Analysis Time	11:05	11:05
Batch ID	FEW044	FEW044
Analyst	BH	BH

010

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

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CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
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Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
Iron, Dissolved (6010B), ug/l	100U	100U
Dilution Factor	1	1
Prep Date	10.26.01	10.26.01
Analysis Date	10.29.01	10.29.01
Analysis Time	11:47	11:52
Batch ID	PD131	PD131
Prep Method	3005A	3005A
Analyst	CH	CH
Petroleum Hydrocarbons (FL-PRO)		
Petroleum Range Organics (FL-PRO), ug/l	100U	100U
Surrogate - o-Terphenyl	102 %	105 %
Surrogate - Nonatriacontane (C39)	104 %	85 %
Dilution Factor	1	1
Prep Date	10.26.01	10.26.01
Prep Time	09:30	09:30
Analysis Date	11.01.01	11.01.01
Analysis Time	19:48	19:56
Batch ID	FLW287	FLW287
Prep Method	3520C	3520C
Analyst	KA	KA

011

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
Volatile Organic Compounds (8260B)		
Benzene, ug/l	5.0U	5.0U
Bromobenzene, ug/l	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U
Bromoform, ug/l	5.0U	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	5.0U
1,3-Dichlorobenzene, ug/l	5.0U	5.0U
1,4-Dichlorobenzene, ug/l	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U
1,1-Dichloroethene, ug/l	5.0U	5.0U

012

SEVERN TRENT SERVICES

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115 Perimeter Center Place, NE Suite 700
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Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
cis-1,2-Dichloroethene, ug/l	5.0U	5.0U
trans-1,2-Dichloroethene, ug/l	5.0U	5.0U
1,2-Dichloropropane, ug/l	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U
p-Isopropyltoluene, ug/l	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U
n-Propylbenzene, ug/l	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U
Styrene, ug/l	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U
Tetrachloroethene, ug/l	5.0U	5.0U
Toluene, ug/l	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	0.21J
1,1,2-Trichloroethane, ug/l	5.0U	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U

013

SEVERN TRENT SERVICES

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-6	17-36FB1-Q401	10-22-01/09:45
10557-7	17-36EB1-Q401	10-22-01/10:30

PARAMETER	10557-6	10557-7
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U
Trichloroethene, ug/l	5.0U	5.0U
Trichlorofluoromethane, ug/l	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U
Vinyl chloride, ug/l	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U
Surrogate - Dibromofluoromethane	89 %	87 %
Surrogate - Toluene-d8	97 %	98 %
Surrogate - 4-Bromofluorobenzene	93 %	91 %
Dilution Factor	1	1
Analysis Date	10.31.01	10.31.01
Analysis Time	15:16	15:55
Batch ID	BUW147	BUW147
Prep Method	5030B	5030B
Analyst	GH	GH

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
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CH2M Hill Constructors, Inc. (CCI)
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Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-8	17-36TB1-Q401	10-22-01/00:00

PARAMETER	10557-8
Volatile Organic Compounds (8260B)	
Benzene, ug/l	5.0U
Bromobenzene, ug/l	5.0U
Bromochloromethane, ug/l	5.0U
Bromodichloromethane, ug/l	5.0U
Bromoform, ug/l	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U
Carbon tetrachloride, ug/l	5.0U
Chlorobenzene, ug/l	5.0U
Chloroethane, ug/l	5.0U
Chloroform, ug/l	5.0U
Chloromethane, ug/l	5.0U
2-Chlorotoluene, ug/l	5.0U
4-Chlorotoluene, ug/l	5.0U
Dibromochloromethane, ug/l	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U
1,2-Dichlorobenzene, ug/l	5.0U
1,3-Dichlorobenzene, ug/l	5.0U
1,4-Dichlorobenzene, ug/l	5.0U
Dichlorodifluoromethane, ug/l	5.0U
1,1-Dichloroethane, ug/l	5.0U
1,2-Dichloroethane, ug/l	5.0U
1,1-Dichloroethene, ug/l	5.0U
cis-1,2-Dichloroethene, ug/l	5.0U

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Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-8	17-36TB1-Q401	10-22-01/00:00

PARAMETER	10557-8				
trans-1,2-Dichloroethene, ug/l	5.0U				
1,2-Dichloropropane, ug/l	5.0U				
1,3-Dichloropropane, ug/l	5.0U				
2,2 Dichloropropane, ug/l	5.0U				
cis-1,3-Dichloropropene, ug/l	5.0U				
trans-1,3-Dichloropropene, ug/l	5.0U				
Ethylbenzene, ug/l	5.0U				
Hexachlorobutadiene, ug/l	5.0U				
Isopropylbenzene (Cumene), ug/l	5.0U				
p-Isopropyltoluene, ug/l	5.0U				
Methylene chloride (Dichloromethane), ug/l	5.0U				
Naphthalene, ug/l	5.0U				
n-Butylbenzene, ug/l	5.0U				
n-Propylbenzene, ug/l	5.0U				
sec-Butylbenzene, ug/l	5.0U				
Styrene, ug/l	5.0U				
t-Butylbenzene, ug/l	5.0U				
1,1,1,2-Tetrachloroethane, ug/l	5.0U				
1,1,2,2-Tetrachloroethane, ug/l	5.0U				
Tetrachloroethene, ug/l	5.0U				
Toluene, ug/l	5.0U				
1,1,1-Trichloroethane, ug/l	5.0U				
1,1,2-Trichloroethane, ug/l	5.0U				
1,2,3-Trichlorobenzene, ug/l	5.0U				
1,2,4-Trichlorobenzene, ug/l					5.0U
Trichloroethene, ug/l		5.0U			

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SEVERN TRENT SERVICES

STL Pensacola

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Reported: 06 NOV 01

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-8	17-36TB1-Q401	10-22-01/00:00

PARAMETER	10557-8
Trichlorofluoromethane, ug/l	5.0U
1,2,3-Trichloropropane, ug/l	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U
Vinyl chloride, ug/l	5.0U
o-Xylene, ug/l	5.0U
m&p-Xylene, ug/l	10U
Surrogate - Dibromofluoromethane	107 %
Surrogate - Toluene-d8	100 %
Surrogate - 4-Bromofluorobenzene	100 %
Dilution Factor	1
Analysis Date	10.31.01
Analysis Time	16:37
Batch ID	BUW147
Prep Method	5030B
Analyst	GH

017

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
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115 Perimeter Center Place, NE Suite 700
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Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	255	102 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.30.01	---	10.30.01	---	---
Analysis Time	14:20	---	14:20	---	---
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	BE	---	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	2.0	2.05	103 %	90-110
Nitrite-N, mg/l	0.10U	0.20	0.20	100 %	90-110
Prep Date	10.23.01	---	10.23.01	---	---
Prep Time	16:30	---	16:30	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	13:08	---	13:08	---	---
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	4500-NO2B	---	4500-NO2B	---	---
Analyst	CR	---	CR	---	---

018

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Chloride (325.2/4500E/9251), mg/l	2.0U	50.0	45.8	92 %	90-110
Dilution Factor	1	---	5	---	---
Prep Date	10.25.01	---	10.25.01	---	---
Prep Time	09:00	---	09:00	---	---
Analysis Date	10.26.01	---	10.26.01	---	---
Analysis Time	09:35	---	09:35	---	---
Batch ID	CKW59B	CKW59B	CKW59B	CKW59B	CKW59B
Prep Method	325.2	---	325.2	---	---
Analyst	CR	---	CR	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	276	94 %	68-120
Dilution Factor	1	---	1	---	---
Prep Date	10.25.01	---	10.25.01	---	---
Prep Time	07:50	---	07:50	---	---
Analysis Date	10.26.01	---	10.26.01	---	---
Analysis Time	13:55	---	13:55	---	---
Batch ID	TDW094	TDW094	TDW094	TDW094	TDW094
Prep Method	160.1	---	160.1	---	---
Analyst	ST	---	ST	---	---

019

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
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115 Perimeter Center Place, NE Suite 700
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Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Total Organic Carbon (9060), mg/l	<1.0	10	9.65	97 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	09:44	---	09:44	---	---
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Analyst	WG	---	WG	---	---
Sulfide (376.1), mg/l	1.0U	20.0	18.7	94 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.24.01	---	10.24.01	---	---
Analysis Time	11:05	---	11:05	---	---
Batch ID	FEW044	FEW044	FEW044	FEW044	FEW044
Prep Method	---	---	---		---
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100U	10000.0	9790.5	97.9 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	10:39	---	10:45	---	---
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method	3005A		3005A		
Analyst	CH	---	CH	---	---

020

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

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Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3932	116 %	55-118
Surrogate - o-Terphenyl	107 %	125	134	107 %	82-142
Surrogate - Nonatriacontane (C39)	90 %	50	42	84 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Prep Time	09:30	---	09:30	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	18:52	---	19:00	---	---
Batch ID	FLW287	FLW287	FLW287	FLW287	FLW287
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

021

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Volatile Organic Compounds (8260B)					
Benzene, ug/l	5.0U	10	10.2	102 %	89-111
Bromobenzene, ug/l	5.0U	10	9.9	99 %	63-153
Bromochloromethane, ug/l	5.0U	10	9.9	99 %	91-129
Bromodichloromethane, ug/l	5.0U	10	10	100 %	87-119
Bromoform, ug/l	5.0U	10	10.3	103 %	52-127
Bromomethane (Methyl bromide), ug/l	5.0U	10	9.9	99 %	63-140
Carbon tetrachloride, ug/l	5.0U	10	10	100 %	73-116
Chlorobenzene, ug/l	5.0U	10	10.3	103 %	93-113
Chloroethane, ug/l	5.0U	10	10.4	104 %	76-116
Chloroform, ug/l	5.0U	10	9.9	99 %	90-115
Chloromethane, ug/l	5.0U	10	9.5	95 %	60-118
2-Chlorotoluene, ug/l	5.0U	10	10.7	107 %	84-121
4-Chlorotoluene, ug/l	5.0U	10	10.9	109 %	90-113
Dibromochloromethane, ug/l	5.0U	10	9.8	98 %	73-125
Dibromomethane (Methylene bromide), ug/l	5.0U	10	9.8	98 %	83-125
1,2-Dibromoethane (EDB), ug/l	5.0U	10	9.9	99 %	31-152
1,2-Dibromo-3-chloropropane, ug/l	5.0U	10	9.9	99 %	56-125
1,2-Dichlorobenzene, ug/l	5.0U	10	10.1	101 %	87-115
1,3-Dichlorobenzene, ug/l	5.0U	10	10.2	102 %	90-113

022

SEVERN TRENT SERVICES

STL Pensacola

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Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
1,4-Dichlorobenzene, ug/l	5.0U	10	10.3	103 %	92-113
Dichlorodifluoromethane, ug/l	5.0U	10	9.7	97 %	30-152
1,1-Dichloroethane, ug/l	5.0U	10	9.7	97 %	90-114
1,2-Dichloroethane, ug/l	5.0U	10	9.6	96 %	88-125
1,1-Dichloroethene, ug/l	5.0U	10	10.5	105 %	84-117
cis-1,2-Dichloroethene, ug/l	5.0U	10	10.7	107 %	90-117
trans-1,2-Dichloroethene, ug/l	5.0U	10	9.8	98 %	88-112
1,2-Dichloropropane, ug/l	5.0U	10	10.3	103 %	87-112
1,3-Dichloropropane, ug/l	5.0U	10	10.1	101 %	73-124
2,2 Dichloropropane, ug/l	5.0U	10	10.2	102 %	74-112
cis-1,3-Dichloropropene, ug/l	5.0U	10	10.2	102 %	61-133
trans-1,3-Dichloropropene, ug/l	5.0U	10	10.2	102 %	51-144
Ethylbenzene, ug/l	5.0U	10	10.4	104 %	69-123
Hexachlorobutadiene, ug/l	5.0U	10	12.3	123 %	74-140
Isopropylbenzene (Cumene), ug/l	5.0U	10	10.9	109 %	56-134
p-Isopropyltoluene, ug/l	5.0U	10	11.4	114 %	30-172
Methylene chloride (Dichloromethane), ug/l	5.0U	10	10	100 %	81-117
Naphthalene, ug/l	5.0U	10	10.7	107 %	18-229
n-Butylbenzene, ug/l	5.0U	10	12.0	120 %	1-237
n-Propylbenzene, ug/l	5.0U	10	11.1	111 %	73-116
sec-Butylbenzene, ug/l	5.0U	10	11.1	111 %	53-134

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13
Styrene, ug/l	5.0U	10	10.6	106 %	76-127
t-Butylbenzene, ug/l	5.0U	10	10.7	107 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	5.0U	10	10.4	104 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	5.0U	10	9.6	96 %	69-134
Tetrachloroethene, ug/l	5.0U	10	10.5	105 %	88-117
Toluene, ug/l	5.0U	10	10.2	102 %	85-117
1,1,1-Trichloroethane, ug/l	5.0U	10	10.8	108 %	88-117
1,1,2-Trichloroethane, ug/l	5.0U	10	9.8	98 %	86-121
1,2,3-Trichlorobenzene, ug/l	5.0U	10	10.7	107 %	43-204
1,2,4-Trichlorobenzene, ug/l	5.0U	10	11.0	110 %	31-211
Trichloroethene, ug/l	5.0U	10	10.3	103 %	85-108
Trichlorofluoromethane, ug/l	5.0U	10	10.8	108 %	84-118
1,2,3-Trichloropropane, ug/l	5.0U	10	10	100 %	38-159
1,2,4-Trimethylbenzene, ug/l	5.0U	10	10.9	109 %	63-142
1,3,5-Trimethylbenzene, ug/l	5.0U	10	10.6	106 %	84-125
Vinyl chloride, ug/l	5.0U	10	10.2	101 %	72-116
o-Xylene, ug/l	5.0U	10	10.8	108 %	73-122
m&p-Xylene, ug/l	10U	20	21.5	108 %	70-125
Surrogate - Dibromofluoromethane	100 %	10	9.41	94 %	77-119
Surrogate - Toluene-d8	101 %	10	9.93	99 %	78-118
Surrogate - 4-Bromofluorobenzene	98 %	10	9.85	99 %	79-116
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	09:46	---	10:25	---	---
Batch ID	BUW147	BUW147	BUW147	BUW147	BUW147
Prep Method	5030B		5030B		
Analyst	GH	---	GH	---	---

024

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-9	Method Blank	
10557-10	Lab Control Standard True Value	
10557-11	Lab Control Standard Result	
10557-12	Lab Control Standard % Recovery	
10557-13	LCS Accuracy Control Limit (%R)	

PARAMETER	10557-9	10557-10	10557-11	10557-12	10557-13

025

SEVERN TRENT SERVICES

STL Pensacola

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Received: 23 OCT 01
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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-14	MS True Value	
10557-15	Matrix Spike Result	
10557-16	Matrix Spike % Recovery	
10557-17	MSD True Value	
10557-18	Matrix Spike Duplicate Result	

PARAMETER	10557-14	10557-15	10557-16	10557-17	10557-18
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	50	84 %	25	51
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.30.01	---	---	10.30.01
Analysis Time	---	14:20	---	---	14:20
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.17	94 %	1.0	1.17
Nitrite-N, mg/l	0.20	0.21	105 %	0.20	0.21
Prep Date	---	10.23.01	---	---	10.23.01
Prep Time	---	16:30	---	---	16:30
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	13:08	---	---	13:08
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	---	4500-NO2B	---	---	4500-NO2B
Analyst	---	CR	---	---	CR

026

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

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CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-14	MS True Value	
10557-15	Matrix Spike Result	
10557-16	Matrix Spike % Recovery	
10557-17	MSD True Value	
10557-18	Matrix Spike Duplicate Result	

PARAMETER	10557-14	10557-15	10557-16	10557-17	10557-18
Chloride (325.2/4500E/9251), mg/l	25.0	182.6	122 %	25.0	187.1@
Dilution Factor	---	5	---	---	5
Prep Date	---	10.25.01	---	---	10.25.01
Prep Time	---	09:00	---	---	09:00
Analysis Date	---	10.26.01	---	---	10.26.01
Analysis Time	---	09:35	---	---	09:35
Batch ID	CKW59B	CKW59B	CKW59B	CKW59B	CKW59B
Prep Method	---	325.2	---	---	325.2
Analyst	---	CR	---	---	CR
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	10	41.3	58 %	10	41.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	09:44	---	---	09:44
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Analyst	---	WG	---	---	WG
Sulfide (376.1), mg/l	10.0	10.2	102 %	NoMS	NoMS
Dilution Factor	---	1	---	---	---
Analysis Date	---	10.24.01	---	---	---
Analysis Time	---	11:05	---	---	---
Batch ID	FEW044	FEW044	FEW044	FEW044	FEW044
Analyst	---	BH	---	---	---

027

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10557
Received: 23 OCT 01
Reported: 06 NOV 01

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CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

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Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-14	MS True Value	
10557-15	Matrix Spike Result	
10557-16	Matrix Spike % Recovery	
10557-17	MSD True Value	
10557-18	Matrix Spike Duplicate Result	

PARAMETER	10557-14	10557-15	10557-16	10557-17	10557-18
Iron, Dissolved (6010B), ug/l	10000.0	10117.5	100.6 %	10000.0	10237.0
Dilution Factor	---	1	---	---	1
Prep Date	---	10.26.01	---	---	10.26.01
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	11:02	---	---	11:07
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method		3005A			3005A
Analyst	---	CH	---	---	CH
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	NoMS	NoMS	NoMS	NoMS	NoMS
Volatile Organic Compounds (8260B)					
Benzene, ug/l	NoMS	NoMS	NoMS	NoMS	NoMS
Prep Method					

028

SEVERN TRENT SERVICES

STL Pensacola

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Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-19	Matrix Spike Duplicate % Recovery	
10557-20	MS Accuracy Advisory Limit (%R)	
10557-21	Precision (%RPD) MS/MSD	
10557-22	MS Precision Advisory Limit (%RPD)	

PARAMETER	10557-19	10557-20	10557-21	10557-22
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	88 %	65-138	5	20
Batch ID	AEW060	AEW060	AEW060	AEW060
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	94 %	67-126	0	20
Nitrite-N, mg/l	105 %	72-128	0	20
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D
Chloride (325.2/4500E/9251), mg/l	126 %	81-131	3	20
Batch ID	CKW59B	CKW59B	CKW59B	CKW59B
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	57 %	52-139	2	27
Batch ID	TOW020	TOW020	TOW020	TOW020
Sulfide (376.1), mg/l	NoMS	NoMS	NoMS	NoMS
Batch ID	FEW044	FEW044	FEW044	FEW044
Iron, Dissolved (6010B), ug/l	101.8 %	75-125	1.2	20
Batch ID	PD131	PD131	PD131	PD131
Prep Method				
Petroleum Hydrocarbons (FL-PRO)				
Petroleum Range Organics (FL-PRO), ug/l	NoMS	NoMS	NoMS	NoMS

029

SEVERN TRENT SERVICES

STL Pensacola

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Requisition: 152044.32.12.01.08 .08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17101116

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10557-19	Matrix Spike Duplicate % Recovery	
10557-20	MS Accuracy Advisory Limit (%R)	
10557-21	Precision (%RPD) MS/MSD	
10557-22	MS Precision Advisory Limit (%RPD)	

PARAMETER	10557-19	10557-20	10557-21	10557-22
Volatile Organic Compounds (8260B)				
Benzene, ug/l	NoMS	NoMS	NoMS	NoMS
Prep Method				

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

Final Page Of Report

030

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C10557 Date Received: 10-23-01

1.	Was there a Chain of Custody?	(Yes)	No*	
2.	Was Chain of Custody properly filled out and relinquished?	Yes	(No*)	
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No*	N/A
4.	Were all samples properly labeled and identified?	(Yes)	No*	
5.	Did samples require splitting or compositing♦? Req By: PM Client Other*	Yes*	(No)	
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*	
7.	Were all sample containers received intact?	(Yes)	No*	
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	(Yes)	No*	N/A
9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A *(Can)*
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*	
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	(No)	N/A
12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)
13.	Was Project Manager notified of problems? (initials: PSI DMH 10-23-01)	(Yes)	No*	N/A

Airbill Number(s): 8307 0936 6780

Shipped By: FedEx

Cooler Number(s): client, client

Shipping Charges: N/A

Cooler Weight(s): 122#

Cooler Temp(s) (°C): 2°, 2°

(CCK3)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

multiple coolers

2. COC was not properly relinquished, time. ~~8:00~~ 10-23-01 DMH Sample ~~11-36 TB1-0401~~, both 1000s are preserved w/ H_2SO_4. pH 10/23/01 10-23 DMH

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH Date: 10-23-01 Logged By: PK Date: 10/23/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

033

0110 557

FedEx Express USA Airbill

FedEx Tracking Number 830709366780

0200

Recipient's C

1 From

Date 11-22-01

Sender's Name ISAAC LYNCH Phone 352 339682[illegible]

Company CH2M HILL / CCI

Address 1060 WAREHOUSE RD

Dept/Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To

Recipient's Name RICK HAYES Phone 850 474[illegible]

Company SVERNT TRENT LABS.

Address 3355 MCLEMORE DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8307 0936 6780

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [x] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

*Call for Confirmation:

5 Packaging — *Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [x] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [ ] No
- [x] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment Bill to: — Enter FedEx Acct. No. or Credit Card No. below. — [ ] Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
2	122	$ .00	Credit Card Auth.

†Liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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Attach one file Label here

SAMPLE CH[illegible]ST
STL Pensacola

Paperwork by: KA
Labeled by: DMA
Delivered by: DMA

CH2M-CONST-GA C110557
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
8oz. Plastic		✓					HNO3	7			
16 oz. Plastic	✓						ZnAc/NaOH	7	BN	10.2301	1550
8 oz. Plastic	✓						Ø H2SO4	28 7	BN	10.2301	155
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCL	7			
500 ml Amber											
250 ml Amber											
40ml 120 ml Amber	✓						H2SO4	16	BN	10.2301	155
40 ml Vial						✓	HCL Ø	1 15	DMA	10.2301	1600
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

035

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

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SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension grant.

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/0

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

Total Dissolved Solids Worksheet

Method # 160.1, SM2540C

Batch #	TDW094
Prep Date	10/25/01 0750
Run Date	10/26/01 1355

Analyst	ST

	batch sample id's	Conductivity	tare number	sample volume (mls)	dish weight before (g)	dish weight final (g) @ 180c	TDS final result (mg/l)	
Prep Blank	PREP BLANK		7	50	56.8298	56.8298	0.0	ND
LCS-1	LCS 293 mg/l		417	50	53.4851	53.4989	276.0	94%
original 1	110557-1		423	50	51.0631	51.0686	110.0	RPD=
duplicate 1	110557-1		6	50	56.7281	56.7336	110.0	0%
2	-2		3	50	55.7612	55.7637	50.0	
3	-3		404	50	52.4031	52.4103	144.0	
4	-4		320	50	48.6205	48.6237	64.0	
5	-5		24	50	57.7262	57.7286	48.0	
6	-6		111	50	57.8532	57.8534	4.0	
7	-7		4	50	56.7536	56.7536	0.0	
8	110599-1		1	50	55.6243	55.6258	30.0	
9	-2		315	50	53.0887	53.0908	42.0	
10	-3		408	50	52.7719	52.7745	52.0	
LCS-2	LCS 293 mg/l		300	50	49.9239	49.9373	268.0	91%
1220 *11*	110611-1		115	50	59.1500	59.1651	302.0	RPD=
duplicate 11	110611-1		403	50	53.7639	53.7791	304.0	1%
12	-2		416	50	53.2792	53.2905	226.0	
13	-3		305	50	49.2939	49.3110	342.0	
14								
15								
16								
17								
18								
19								
20								

ST 10-29-01

Custody for the above referenced samples was maintained by the analyst listed at the top of this page. ST

Q/C Limits		
	Reporting limit is	5 mg/L
	LCS Recovery range limit is	68-120%
	RPD limit is	19.

PROOFED BY AS

DATED 10-29-01

Printed : 10/26/01 14:01

041

STL Pensacola

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW060 BE 11-01-01

Analysis Date: 10-30-01 Analysis Time On: 1420 Analysis Time Off: 1630 Data Reviewed By: AD 11/2/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0200

LOT # H_2SO_4 = T3266 Baker
LOT # 0.05N Na_2CO_3 = 7528 Mallinckrodt

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	24.00	H_2SO_4-N - 12-10-01	0.01965
10 ml	Na_2CO_3-N- 12-11-01	23.22	H_2SO_4-N - 12-10-01	0.01901

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant HI (B)	ml Titrant LO (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.44	N/A	50 ml		12.77		255/250 =	1.0
1. 110681 -1	Y	6.73 6.25 WA		100		5.04	2.93	29	
MS[6] (25 ppm) 1 ml Alk-CCV-I- 12-01-01 -1		6.82 6.92				5.04		LD 29/25 = 84%	
MSD[6] (25 ppm) 1 ml Alk-CCV-I- 12-01-01 -1		6.82 6.92				5.09		51 - 29/25 = 88%	RPD = 5
2. -2		4.25				0.00		ND	
3. -3		6.37				2.91		29.1	
4. 110615993 -1i		4.85				0.33	0.65	ND	
5. -2		4.78				0.91	1.52	3.0	
6. -3		5.45				1.36	1.86	9.0	
7. 110557 -1		5.88				2.88		28.8	
8. -2		5.37				0.78	1.18	7.8	
9. -3		5.36				1.01	1.33	8.50	
10. -4		5.37				1.17	1.44	9.0	
[7]Alk-CCV-I- 12-01-01	N/A	10.48	QC	10 ml / 100 ml		24.48		244/250 = 98%	
CCB (blank)	N/A	5.62	DI Water			0.14	0.28	ND	
DUP[5] -5		5.23				0.97	1.23	7.1	
11. -5		5.23				1.01	1.28	8 7.4	RPD=2
12. -6		5.25				0.24	0.48	ND	
13. -7		4.28				0.00		ND	
14. 110556 -1		5.53		100		0.40	0.79	ND	
15. -2		5.26			0.36	0.40	0.70	ND	
16. 110720 -1		7.95				24.21		>42	
17. 110728 -1	N	4.77	WA	100		0.29	0.52	ND	
18.									
19.				BE 11-01-01					
20.									
[7]Alk-CCV-I-	N/A	10.48	QC	10 ml / 100 ml		24.50		245/250 = 98%	
CCB (blank)	N/A	5.64	DI Water	100		0.20	0.40	ND	

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or ↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

word\forms\alkalin\al-bench.doc (ab 07/03/01)

N02N03 353.2/SM4500NO3 F N3W65A,B,C,D

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	51520112	5.0	51520112					0.0	0.0	1.6
2	32807866	3.0	32807866					0.0	0.0	-3.9
3	11160541	1.0	11160541					0.0	0.0	-3.0
4	5716317	0.5	5716317					0.0	0.0	-1.0
5	1264397	0.1	1264397					0.0	0.0	24.2
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.639e-008 Area - 4.609e-002
r = 0.9994

Scaling: None - Weighting: None

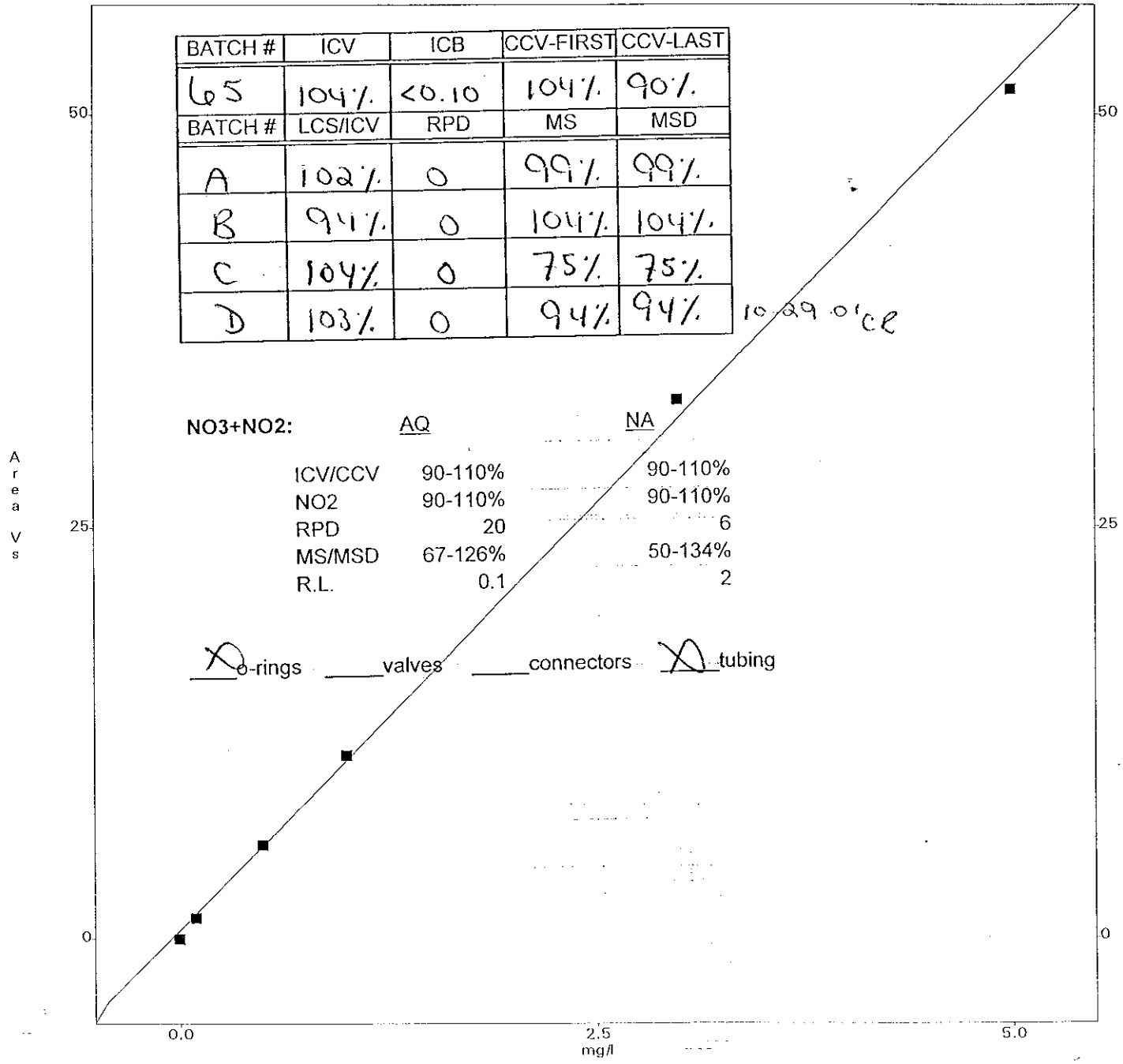
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
65	104%	<0.10	104%	90%
BATCH #	LCS/ICV	RPD	MS	MSD
A	102%	0	99%	99%
B	94%	0	104%	104%
C	104%	0	75%	75%
D	103%	0	94%	94%

10.29.01 ce

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings ____valves ____connectors X tubing



Printed: Monday, October 29, 2001 - 09:29 AM

N3W65A,B,C,D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 8:17:03
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65A.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 7:26:35
Modified: Oct 29, 2001 7:26:35
N3W65A
DATA DESCRIPTION:
Created: Oct 29, 2001 8:17:03
Modified: Oct 29, 2001 8:17:03

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	29 Oct 2001	08:17:04	1	51520112.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	29 Oct 2001	08:17:57	1	32807866.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	29 Oct 2001	08:18:49	1	11160541.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	29 Oct 2001	08:19:42	1	5716317.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	29 Oct 2001	08:20:35	1	1264397.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	29 Oct 2001	08:21:29	1	0.00	1.0	1.00	1.00000	g

N3W65D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 13:08:12
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65D.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65D.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 13:03:02
Modified: Oct 29, 2001 13:03:02
N3W65D
DATA DESCRIPTION:
Created: Oct 29, 2001 13:08:12
Modified: Oct 29, 2001 13:08:12

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

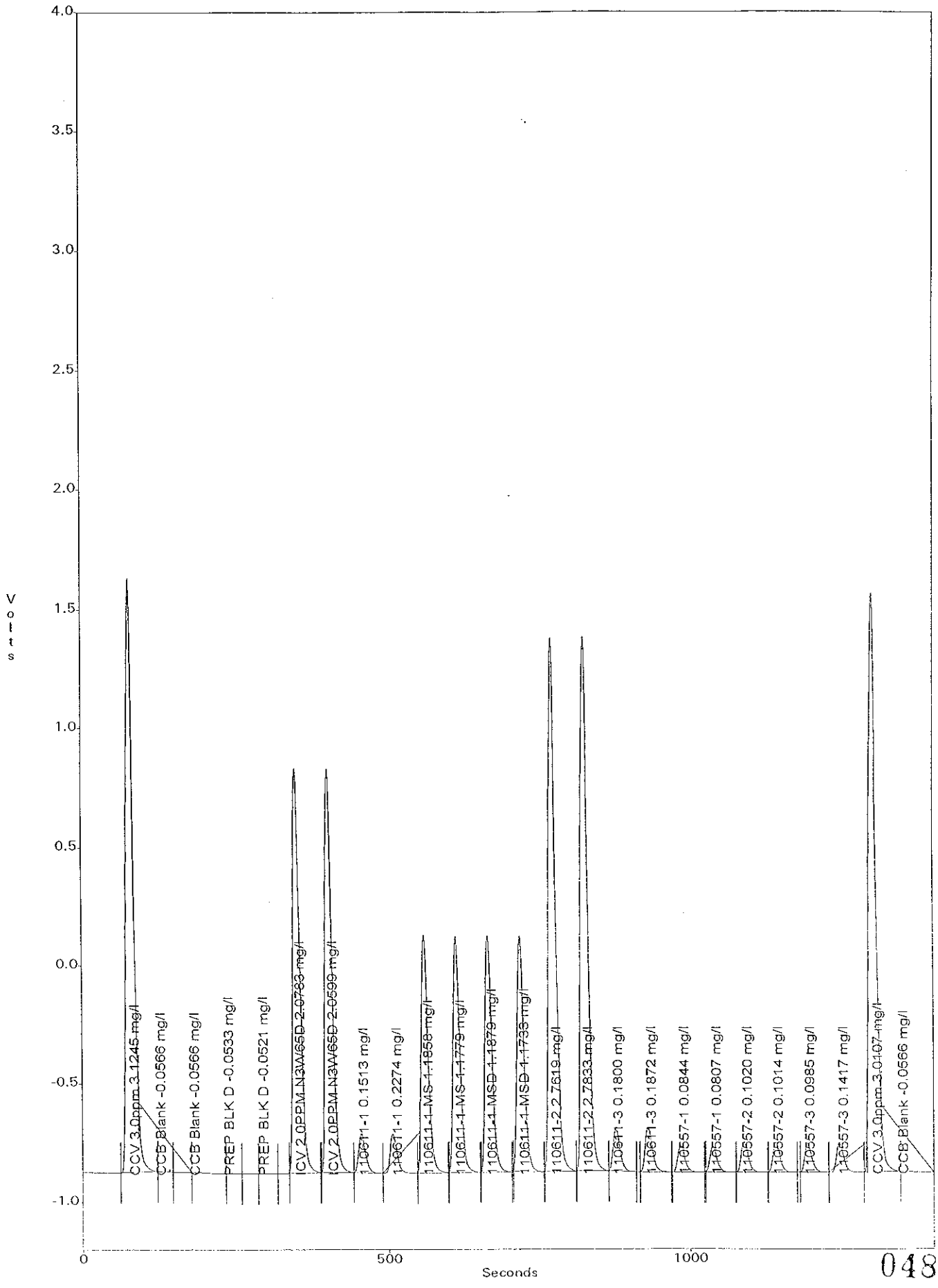
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK D	Blank	29 Oct 2001	13:10:59	1	ND -0.0533	1.0	1.00	1.00000	g
				13:11:54	2	-0.0521				
2	ICV 2.0PPM N3W65D	RelChkStd	29 Oct 2001	13:12:47	1	103% 2.0783	1.0	1.00	1.00000	g
				13:13:40	2	2.0599				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	29 Oct 2001	13:14:33	1	0.1513	1.0	1.00	1.00000	g
				13:15:26	2	0.2274				
4	110611-1 MS	Spiked	29 Oct 2001	13:16:19	1	94% 1.1858	1.0	1.00	1.00000	g
				13:17:12	2	1.1779				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD=0 99.2494				
5	110611-1 MSD	Spiked	29 Oct 2001	13:18:05	1	94% 1.1879	1.0	1.00	1.00000	g
				13:18:58	2	1.1733				
				Spike Level:		1.0000				
				% Spike Recovery:		99.1280				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:08:16	1	104% 3.1245	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		4.1489				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:28:39	1	100% 3.0107	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		0.3563				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:45:26	1	98% 2.9471	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		-1.7637				
16	CCB Blank	Blank	29 Oct 2001	13:09:11	1	ND -0.0566	1.0	1.00	1.00000	g
				13:10:06	2	-0.0566				
16	CCB Blank	Blank	29 Oct 2001	13:29:33	1	ND -0.0566	1.0	1.00	1.00000	g
				13:30:28	2	-0.0527				
16	CCB Blank	Blank	29 Oct 2001	13:46:20	1	ND -0.0566	1.0	1.00	1.00000	g
				13:47:15	2	-0.0527				

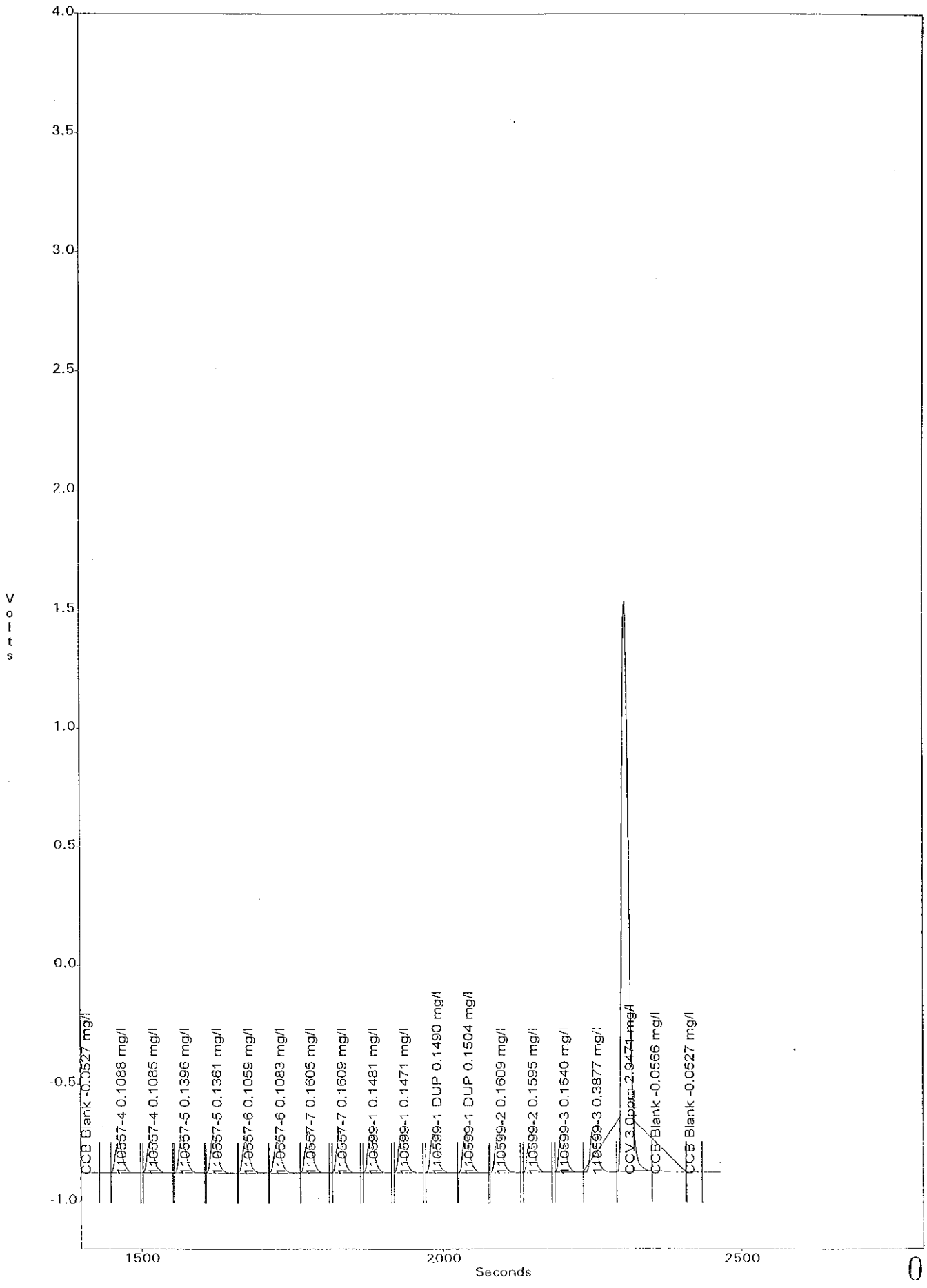
N3W65 D

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110611-2	29 Oct 2001	13:19:51	1	2.7619	1.0	1.00	1.00000	g	
			13:20:44	2	2.7833					
7	110611-3	29 Oct 2001	13:21:37	1	0.1800	1.0	1.00	1.00000	g	
			13:22:30	2	0.1872					
8	110557-1	29 Oct 2001	13:23:23	1	~ D 0.0844	1.0	1.00	1.00000	g	
			13:24:16	2	0.0807					
9	110557-2	29 Oct 2001	13:25:08	1	0.1020	1.0	1.00	1.00000	g	
			13:26:00	2	0.1014					
10	110557-3	29 Oct 2001	13:26:52	1	~ D 0.0985	1.0	1.00	1.00000	g	See graph
			13:27:44	2	0.1417					
11	110557-4	29 Oct 2001	13:31:21	1	0.1088	1.0	1.00	1.00000	g	
			13:32:13	2	0.1085					
12	110557-5	29 Oct 2001	13:33:05	1	0.1396	1.0	1.00	1.00000	g	
			13:33:57	2	0.1361					
13	110557-6	29 Oct 2001	13:34:49	1	0.1059	1.0	1.00	1.00000	g	
			13:35:41	2	0.1083					
14	110557-7	29 Oct 2001	13:36:33	1	0.1605	1.0	1.00	1.00000	g	
			13:37:25	2	0.1609					
15	110599-1	29 Oct 2001	13:38:17	1	0.1481	1.0	1.00	1.00000	g	
			13:39:09	2	0.1471					
16	110599-1 DUP	29 Oct 2001	13:40:03	1	0.1490	1.0	1.00	1.00000	g	
			13:40:57	2	0.1504					
17	110599-2	29 Oct 2001	13:41:51	1	0.1609	1.0	1.00	1.00000	g	
			13:42:45	2	0.1595					
18	110599-3	29 Oct 2001	13:43:38	1	0.1640	1.0	1.00	1.00000	g	See graph
			13:44:31	2	0.3877					


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
0
500
1000
CCV 3.0ppm 3.1245 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0566 mg/l
PREP BLK D -0.0533 mg/l
PREP BLK D -0.0521 mg/l
ICV 2.0PPM N3W65D 2.0783 mg/l
ICV 2.0PPM N3W65D 2.0599 mg/l
110611-1 0.1513 mg/l
110611-1 0.2274 mg/l
110611-1MS 1.1858 mg/l
110611-1MS 1.1779 mg/l
110611-1MSD 1.1879 mg/l
110611-1MSD 1.1735 mg/l
110611-2 2.7619 mg/l
110611-2 2.7833 mg/l
110611-3 0.1800 mg/l
110611-3 0.1872 mg/l
110557-1 0.0844 mg/l
110557-1 0.0807 mg/l
110557-2 0.1020 mg/l
110557-2 0.1014 mg/l
110557-3 0.0985 mg/l
110557-3 0.1417 mg/l
CCV 3.0ppm 3.0107 mg/l
CCB Blank -0.0566 mg/l

048


Channel 1 - N02N03 353.2/SM4500NO3 F
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
1500
2000
2500
Seconds
CCB Blank -0.0527 mg/l
10557-4 0.1088 mg/l
10557-4 0.1085 mg/l
10557-5 0.1396 mg/l
10557-5 0.1361 mg/l
10557-6 0.1059 mg/l
10557-6 0.1083 mg/l
10557-7 0.1605 mg/l
10557-7 0.1609 mg/l
10599-1 0.1481 mg/l
10599-1 0.1471 mg/l
10599-1 DUP 0.1490 mg/l
10599-1 DUP 0.1504 mg/l
10599-2 0.1609 mg/l
10599-2 0.1595 mg/l
10599-3 0.1640 mg/l
10599-3 0.3877 mg/l
CCV 3.0ppm 2.9474 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0527 mg/l

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
10-26-01	110581-16	WQ	1400 N3W65C Cont.
↓	-17	↓	↓
10-29-01	110254-15		
↓	↓ -16	↓	↓
10-29-01	PREP BLK		0700 N3W65D
↓	ICV		↓
	110611-1	WQ	
	↓ -2	↓	
	↓ -3		
	110557-1		
	↓ -2		
	-3		
	-4		
	-5		
	-6		
	↓ -7		
	110599-1		
	↓ -2		
↓	↓ -3	↓	↓

050

REVIEWED AD 10/29/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

	Water	Soil
RPD	20	20
SPIKE	72-128%	70-127%
ICV/CCV	90-110%	90-110%

Chemist[1]: BA Batch #: N2W200

Analysis Date: 10/23/01 Analysis Time On: 1630 Analysis Time Off: 1720

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A	ND	0.10
ICV (0.2 ppm)	NO_2-ICV-I[4]	0.5/25 mL	N/A	0.533	0.203	N/A	0.20/0.20=100%	0.10
CCV LOW (0.2 ppm)	NO_2-CCV-I[5]	0.5/25 mL	N/A	0.528	0.202	N/A	0.20/0.20=100%	0.10
1 110557-2	WA	25	0.045	0.040	0.000	N/A	ND	0.10
MS[6] (0.2 ppm) -2	NO_2-CCV-I[5]	0.5/25 mL	0.044	0.597	0.211		0.21/0.20=105%	0.10
MSD[6] (0.2 ppm) -2	NO_2-CCV-I[5]	0.5/25 mL	0.045	0.602	0.213		0.21/0.20=105%	0.10
2 -1	WA	25	0.464	0.366	0.000		ND	0.10
3 -3	↓	↓	0.396	0.350	0.000		ND	0.10
4 -4			0.087	0.074	0.000		ND	0.10
5 -5			0.044	0.039	0.000		ND	0.10
6 -6			N/A	0.000	0.000		ND	0.10
7 -7	↓	↓	↓	0.000	0.000	↓	ND	0.10
8								0.10
9								0.10
10								0.10
NO_2-CCV-I (0.4 ppm)	CCV HIGH	1.0/25mL	N/A	1.118	0.426	N/A	0.43/0.40=108%	0.10
DUP[7]	Duplicate							0.10
11								0.10
12								0.10
13								0.10
14								0.10
15								0.10
16								0.10
17								0.10
18								0.10
19								0.10
20								0.10
NO_2-CCV-I	CCV LOW	0.5/25mL	N/A			N/A		0.10
ICB (Blank)	DI Water	25mL	N/A			N/A		0.10

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the ermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ↓".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/24/01 Preparation[1] Time On: 1045 Preparation[1] Time Off: 1102

Analysis Date: 10/24/01 Analysis Time On: 1105 Analysis Time Off: 1450

[illegible] #: FEN044 RPD: 20

Spike: 79-102%

Chemist[2]: BNT Data Reviewed By: [illegible] 10-25-01 LCS: 90-110%

N of $Na_2S_2O_3$ = $\frac{1}{(28.04)(0.005)}$ ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0241 LOT # $Na_2S_2O_3$ = 3102 KMRC

N of Iodine = $\frac{(\text{mls titrant})(\text{N titrant})}{5 \text{ ml}}$; Average of two N below = N of I_2 0.0246 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.81	0.025N $Na_2S_2O_3$	0.02413	5	5.09	0.025 I_2	0.02453
5.83	↓	0.02404	5	5.10	↓	0.02458

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.04	ND	1.0
SF-LCS-S[7]- 12-28-01	N/A	0.2/100 ml	↓	10	5.36	18.7/20.0=	1.094%
Prep Blank (distilled)	DI Water	100 ml	N/A				→
1 110557-1	LI	200		5	4.30	1.5	1.0
MS[6] (10 ppm) -2		.2/200		5.10 [illegible]	~~4.30~~ 4.90	10.2/10.0=	102%
~~MSD[6] (10 ppm)~~ [illegible] -2		200		5	4.77	ND	1.0
2 -3		200		5	4.65	ND	
3 -4		200		5	4.81	ND	
4 -5		200		5	4.84	ND	
5 -6		200		5	5.01	ND	
6 -7		200		5	4.99	ND	
7 Pressured to pH 9 110448-1		200		5	5.10	ND	
8 -2		200		5	5.02	ND	
9 -3		200		5	5.13	ND	
10 -4		200		5	6.01	ND	↓
SF-LCS-S[7]- 12-28-01	N/A	0.2/100 mls		10	5.42	18.5/20.0=	1.093%
CCB (blank)	DI Water	100 mls		5	5.11	ND	1.0
DUP[5] of 110448-4	LI	200		5	6.10	ND	1.0
11 PH 9.5 -5	↓	200		5	5.54	ND	↓
12 PH 7.9 -6	↓	200	↓	5	4.99	ND	
13 PH 110599-1		200		5	3.72	2.7	↓
14 MS -1		.2/200		10	4.19	11.6-2.7/10.0=	89%
15 -2		200		5	3.74	2.6	1.0
16 -3		200		5	4.29	1.6	↓
17							
18							
19		ins 10-25-01					
20							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	N/A	10	5.46	18.3/20.0 =	1.092%
CCB (blank)	DI Water	100 mls	↓	5	5.09	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20 \text{ L gas}}$ = ppmv H_2S

[4] = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaqueous samples.

[5] = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

STL Pensacola
Wet Chemistry Department

ERROR/DATA REVIEW REPORT

DATA BEING REVIEWED: Sulfide BATCH: FEW044 DATE: 10/24/01

REVIEWED BY (ANALYST): BAT DATE: 10/24/01

REVIEWED BY (SUPERVISOR/PEER): WG DATE: 10-25-01

_____ 1. Proper number of spikes (1/20) and dups or MS/MSDs (1/10) were not performed.

_____ 2. All required information is not present on raw data sheets.

_____ 3. Data is not signed and dated by analyst.

_____ 4. Incorrect method reference.

_____ 5. Results calculated incorrectly.

_____ 6. All crossouts not initialed and dated.

_____ 7. Standards not identified correctly.

_____ 8. Reporting Limit Errors.

_____ 9. Proper flags not added to data on the Fast Track sheets.

_____ 10. Data transferred to Fast Track incorrectly.

_____ 11. RPD result and/or MS/MSD % recovery not calculated and written on raw data sheet.

_____ 12. Incorrect batch ID referenced.

_____ 13. Fast Track sheets not filled out completely.

_____ 14. Zing out page not done.

Items above are only marked with "X" or "✓" if there is a problem.

CL 325.2/SM4500CL E/SW9251 CKW59A;B;5

	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	755230	100.0	755230					0.0	0.0	1.0
2	532434	50.0	532434					0.0	0.0	-5.2
3	337318	25.0	337318					0.0	0.0	4.1
4	177317	10.0	177317					0.0	0.0	11.5
5	88181	5.0	88181					0.0	0.0	26.0
6	58990	2.5	58990					0.0	0.0	-0.7
7	42591	1.0	42591					0.0	0.0	-96.5
8	0	0.0	0					0.0	0.0	

2nd Order Poly
Conc = 1.471e-010 Area² + 1.878e-005 Area + 8.986e-001
r = 0.9992

Scaling: None - Weighting: None

BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
59	95%	<2.0	96%	94%
BATCH #	LCS(ICV)	RPD	MS	MSD
A	95%	12	103%	90%
B	92%	WG10-26-01 3	122%	126%
5				

WG10-26-01

CL: AQ NA

ICV/CCV	90-110%	90-110%
RPD	20	20
MS/MSD	81-131%	75-125%
R.L.	2	100

X o-rings X valves ____connectors ____tubing

Area Vs

0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.0

0 50 100

mg Cl/L

Printed: Friday, October 26, 2001 - 08:02 AM

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 7:16:57
DATA FILENAME:	C:\OMNION\DATA\CKW59A.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59A.TRA

CKW59A ; B ; S

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 25, 2001 16:49:39

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	26 Oct 2001	07:16:58	1	755230.00
2	50.0 PPM CHLO	26 Oct 2001	07:17:35	1	532434.00
3	25.0 PPM CHLO	26 Oct 2001	07:18:13	1	337318.00
4	10.0 PPM CHLO	26 Oct 2001	07:18:51	1	177317.00
5	5.00 PPM CHLO	26 Oct 2001	07:19:29	1	88181.00
6	2.50 PPM CHLO	26 Oct 2001	07:20:08	1	58990.00
7	1.00 PPM CHLO	26 Oct 2001	07:20:47	1	42591.00
8	0.00 PPM CHLO	26 Oct 2001	07:21:27	1	0.00

CKW59A ; B ; S

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	26 Oct 2001	07:27:59	1	0.8986	1.0	1.00	1.00000	g
				07:28:38	2	0.8986				
2	ICV 50PPM CKW59A	RelChkStd	26 Oct 2001	07:29:16	1	49.4565	1.0	1.00	1.00000	g
				07:29:55	2	47.6746				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110554-2	Dup1	26 Oct 2001	07:30:33	1	47.1206	2.0	1.00	1.00000	g
				07:31:12	2	~~47.9903~~				
4	110554-2 MS	Spiked	26 Oct 2001	07:31:50	1	97.0395	2.0	1.00	1.00000	g
				07:32:28	2	~~99.3507~~				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
5	110554-2 MSD	Dup1	26 Oct 2001	07:33:07	1	96.0706	2.0	1.00	1.00000	g
				07:33:45	2	~~93.4748~~				
9	ICV 50ppm	RelChkStd	26 Oct 2001	07:22:45	1	49.0492	1.0	1.00	1.00000	g
				07:23:23	2	46.5380				
				Known Concentration:		50.0000				
				% Difference:		-4.4129				
15	CCV 25ppm	RelChkStd	26 Oct 2001	07:25:22	1	24.2918	1.0	1.00	1.00000	g
				07:26:01	2	24.1865				
				Known Concentration:		25.0000				
				% Difference:		-3.0435				
15	CCV 25ppm	RelChkStd	26 Oct 2001	07:40:40	1	25.0777	1.0	1.00	1.00000	g
				07:41:20	2	23.6392				
				Known Concentration:		25.0000				
				% Difference:		-2.5663				
15	CCV 25ppm	RelChkStd	26 Oct 2001	07:55:53	1	20.8966	1.0	1.00	1.00000	g
				07:56:32	2	22.0062				
				Known Concentration:		25.0000				
				% Difference:		-14.1945				
16	ICB	Blank	26 Oct 2001	07:24:03	1	0.8986	1.0	1.00	1.00000	g
				07:24:43	2	0.8986				
16	CCB	Blank	26 Oct 2001	07:26:41	1	0.8986	1.0	1.00	1.00000	g
				07:27:21	2	0.8986				
16	CCB	Blank	26 Oct 2001	07:42:00	1	0.8986	1.0	1.00	1.00000	g
				07:42:40	2	0.8986				
16	CCB	Blank	26 Oct 2001	07:57:12	1	0.8986	1.0	1.00	1.00000	g
				07:57:52	2	0.8986				

ND
96%
95.98
103%
98.7
91% ~~90%~~
187.4
93%
96%
94%
ND
ND
ND
ND

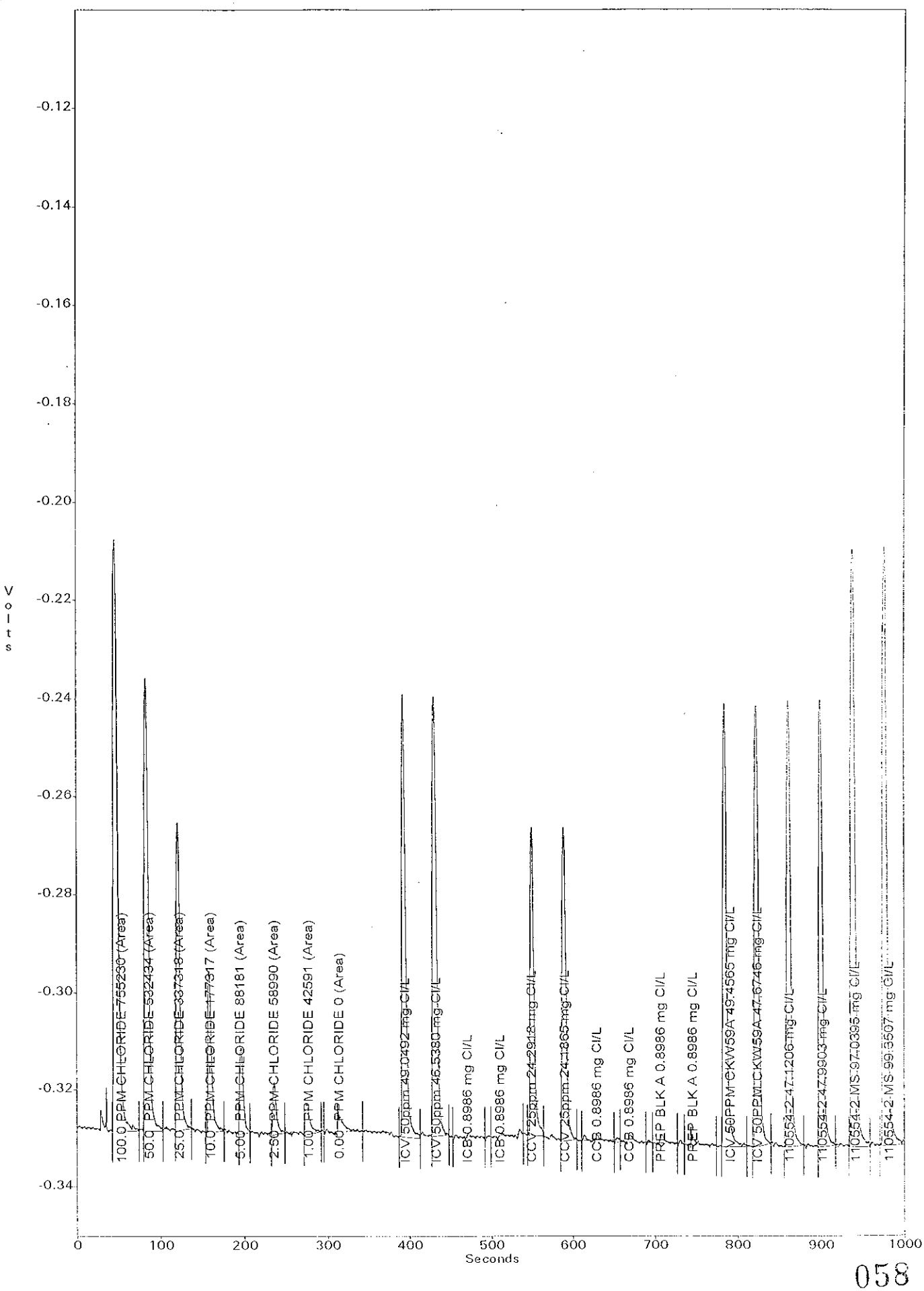
5/10
5&6 10-26-01
6&10-26-01
RPD = 13/2
Rerun

CKW59A;B;

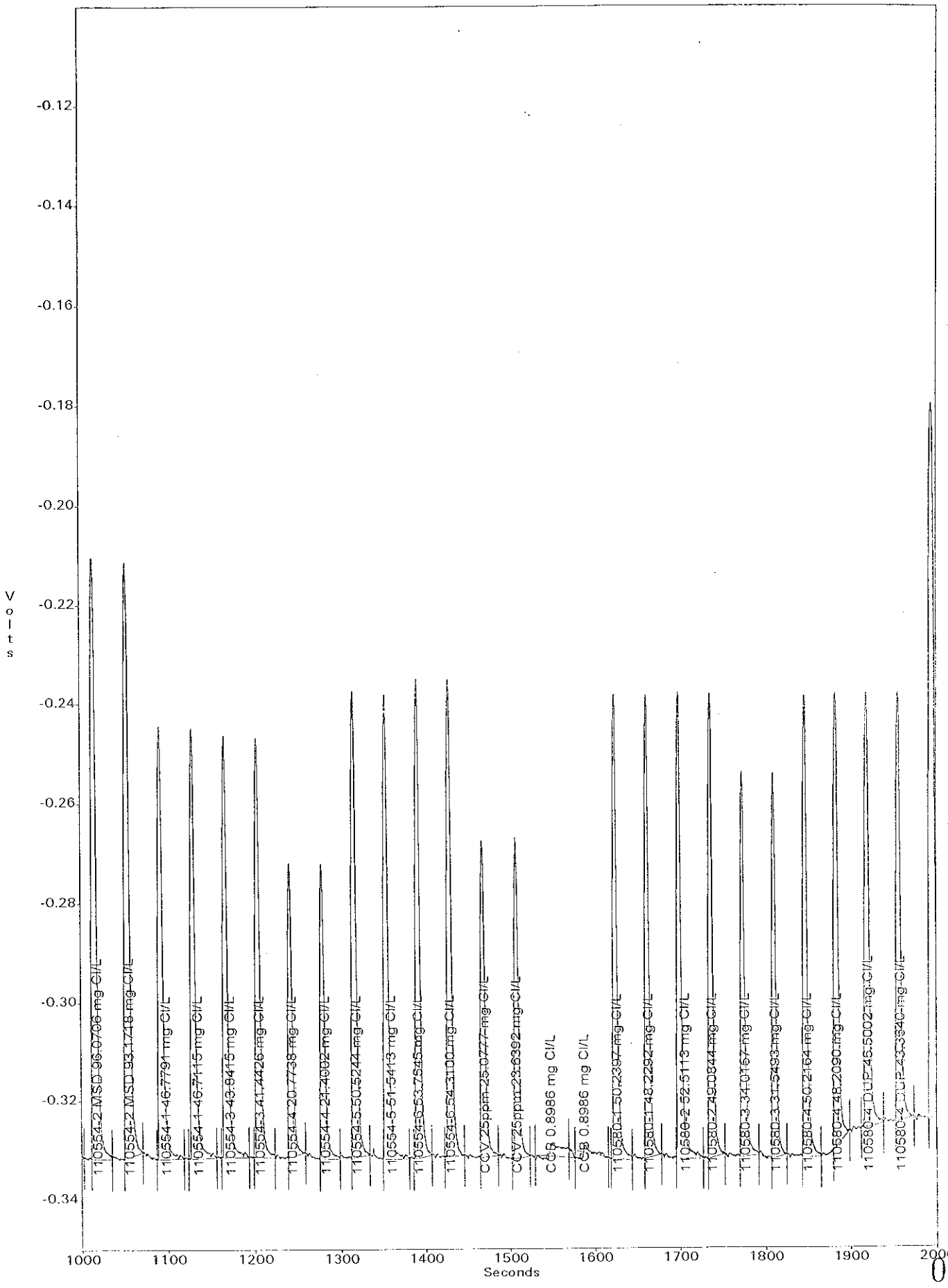
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110554-1	26 Oct 2001	07:34:24	1	467.7909	1/10 10.0	1.00	1.00000	g
			07:35:01	2	467.1147				
7	110554-3	26 Oct 2001	07:35:39	1	438.4146	10.0	1.00	1.00000	g
			07:36:16	2	414.4259				
8	110554-4	26 Oct 2001	07:36:53	1	207.7378	10.0	1.00	1.00000	g
			07:37:31	2	214.0019				
9	110554-5	26 Oct 2001	07:38:08	1	252.6218	2/10 5.0	1.00	1.00000	g
			07:38:46	2	257.7066				
10	110554-6	26 Oct 2001	07:39:23	1	107.5091	5/10 2.0	1.00	1.00000	g
			07:40:01	2	108.6200				
11	110580-1	26 Oct 2001	07:43:16	1	502.3972	10.0	1.00	1.00000	g
			07:43:54	2	482.2917				
12	110580-2	26 Oct 2001	07:44:31	1	525.1132	10.0	1.00	1.00000	g
			07:45:08	2	490.8440				
13	110580-3	26 Oct 2001	07:45:46	1	680.3137	20.0	1.00	1.00000	g
			07:46:22	2	630.9855				
14	110580-4	26 Oct 2001	07:46:59	1	100.4328	2.0	1.00	1.00000	g
			07:47:35	2	96.4181				
15	110580-4 DUP	26 Oct 2001	07:48:11	1	93.0004	2.0	1.00	1.00000	g
			07:48:48	2	86.7280				
16	110498-1	26 Oct 2001	07:49:26	1	3800.3489	20.0	1.00	1.00000	g
			07:50:05	2	3750.7554				
17	110553-1	26 Oct 2001	07:50:43	1	438.2834	10.0	1.00	1.00000	g
			07:51:22	2	436.0632				
18	110553-2	26 Oct 2001	07:52:00	1	110.7587	2.0	1.00	1.00000	g
			07:52:39	2	111.0156				
19	110553-3	26 Oct 2001	07:53:17	1	516.9235	20.0	1.00	1.00000	g
			07:53:56	2	498.9508				
20	110553-4	26 Oct 2001	07:54:34	1	604.3953	10.0	1.00	1.00000	g
			07:55:13	2	615.9385				

Rerun due to CCV failure

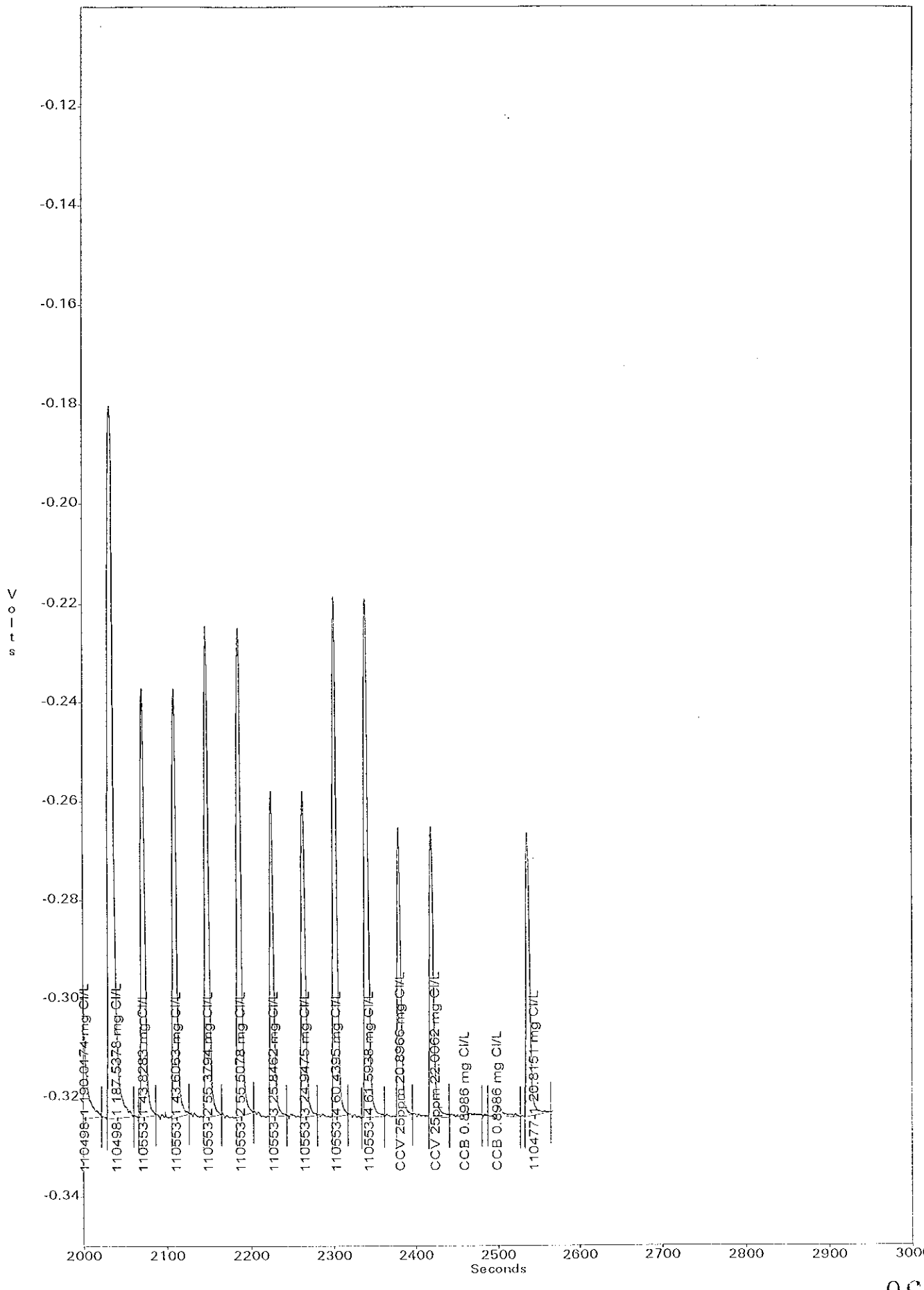

Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
100
200
300
400
500
600
700
800
900
1000
Seconds
100.0 PPM CHLORIDE 755230 (Area)
50.0 PPM CHLORIDE 532434 (Area)
25.0 PPM CHLORIDE 337318 (Area)
10.0 PPM CHLORIDE 177917 (Area)
5.00 PPM CHLORIDE 88181 (Area)
2.50 PPM CHLORIDE 58990 (Area)
1.00 PPM CHLORIDE 42591 (Area)
0.00 PPM CHLORIDE 0 (Area)
ICV 50ppm 49.0492 mg Cl/L
ICV 50ppm 46.5380 mg Cl/L
ICB 0.8986 mg Cl/L
ICB 0.8986 mg Cl/L
CCV 25ppm 24.2918 mg Cl/L
CCV 25ppm 24.1865 mg Cl/L
CCB 0.8986 mg Cl/L
CCB 0.8986 mg Cl/L
PREP BLK A 0.8986 mg Cl/L
PREP BLK A 0.8986 mg Cl/L
ICV 50PPM CKW59A 49.4565 mg Cl/L
ICV 50PPM CKW59A 47.6746 mg Cl/L
110554-2 47.1206 mg Cl/L
110554-2 47.9903 mg Cl/L
110554-2 MS 97.0395 mg Cl/L
110554-2 MS 99.3507 mg Cl/L

Channel 1 - CL 325.2/SM4500CL E/SW9251



059

Channel 1 - CL 325.2/SM4500CL E/SW9251

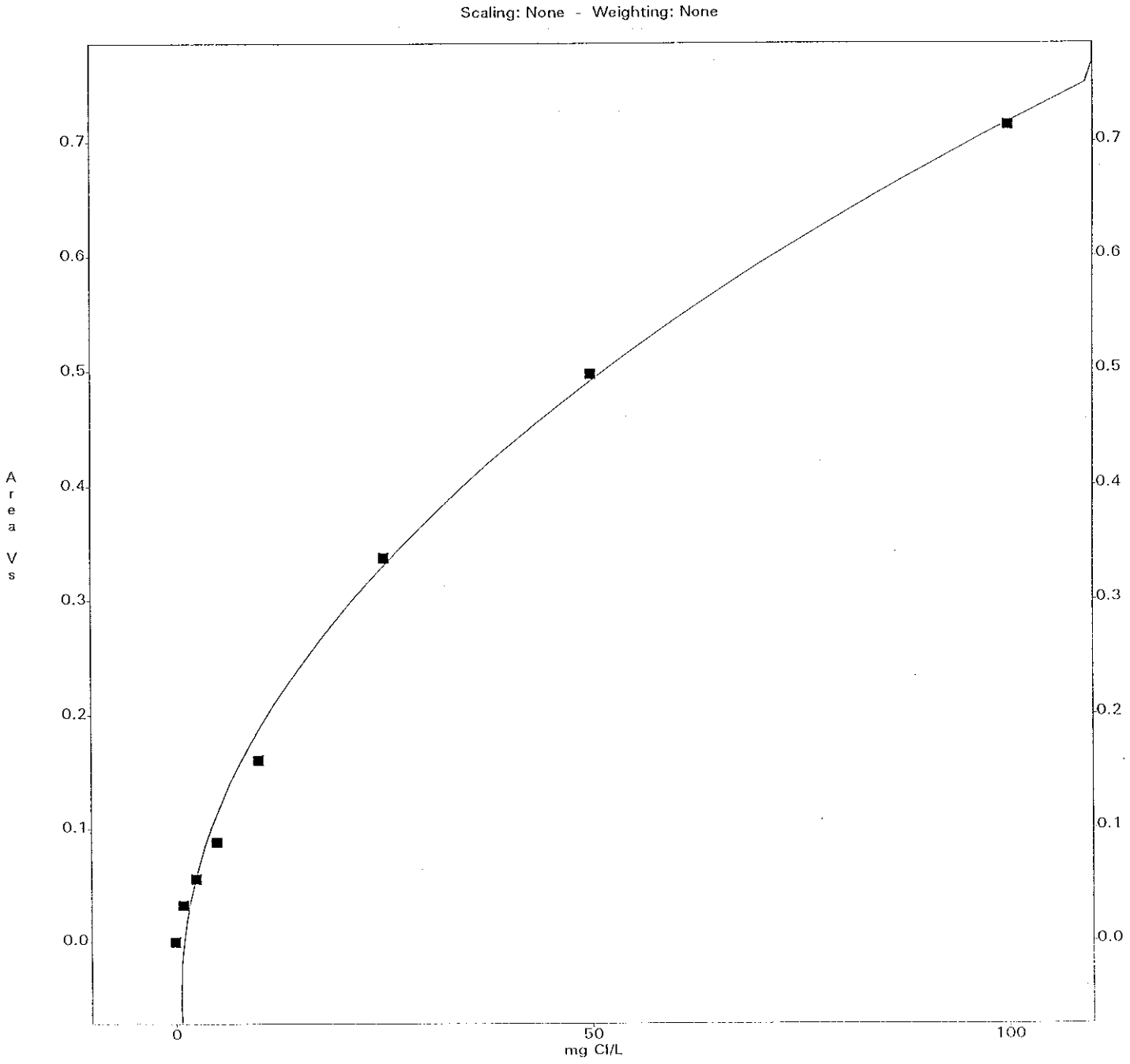


060

CL 325.2/SM4500CL E/SW9251 CKW59A cont'd

Lvl	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	715322	100.0	715322					0.0	0.0	0.6
2	497610	50.0	497610					0.0	0.0	-2.1
3	337974	25.0	337974					0.0	0.0	-3.4
4	160801	10.0	160801					0.0	0.0	19.7
5	88504	5.0	88504					0.0	0.0	23.7
6	55535	2.5	55535					0.0	0.0	0.7
7	32341	1.0	32341					0.0	0.0	-76.7
8	0	0.0	0					0.0	0.0	

2nd Order Poly
Conc = 1.699e-010 Area² + 1.590e-005 Area + 1.075e+000
r = 0.9995



Printed: Friday, October 26, 2001 - 08:38 AM

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 8:08:07
DATA FILENAME:	C:\OMNION\DATA\CKW59A2.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59A2.TRA

CKW59A cont'd

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 25, 2001 16:49:39
chloride: CHL.MET	

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	26 Oct 2001	08:08:09	1	715322.00
2	50.0 PPM CHLO	26 Oct 2001	08:08:45	1	497610.00
3	25.0 PPM CHLO	26 Oct 2001	08:09:23	1	337974.00
4	10.0 PPM CHLO	26 Oct 2001	08:10:01	1	160801.00
5	5.00 PPM CHLO	26 Oct 2001	08:10:39	1	88504.00
6	2.50 PPM CHLO	26 Oct 2001	08:11:18	1	55535.00
7	1.00 PPM CHLO	26 Oct 2001	08:11:57	1	32341.00
8	0.00 PPM CHLO	26 Oct 2001	08:12:37	1	0.00

062

CKW59A contd

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

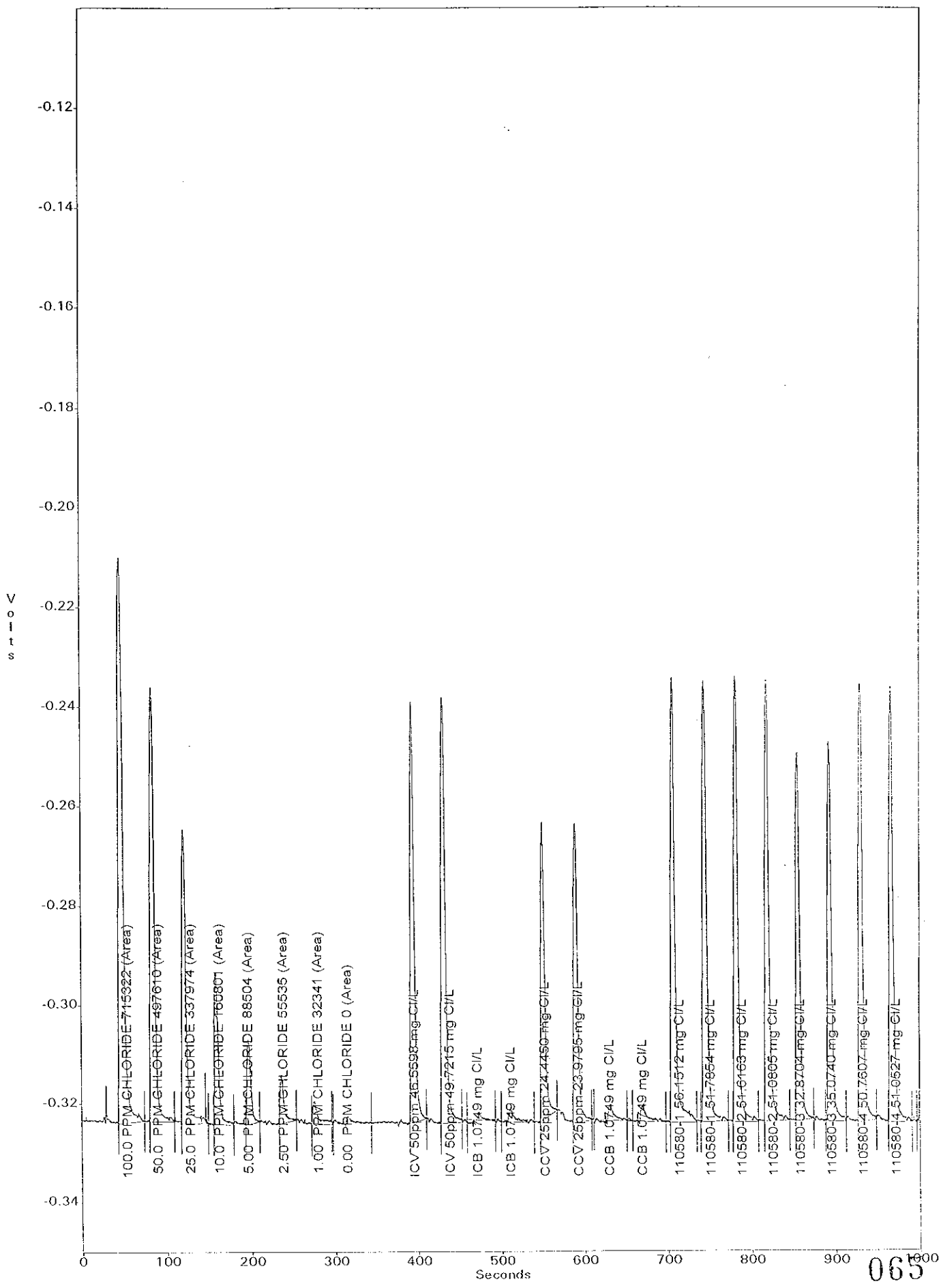
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
9	ICV 50ppm	RelChkStd	26 Oct 2001	08:13:56	1	46.5598	1.0	1.00	1.00000	g
				08:14:33	2	49.7215				
				Known Concentration:		50.0000				
				% Difference:		-3.7187				
15	CCV 25ppm	RelChkStd	26 Oct 2001	08:16:32	1	24.4450	1.0	1.00	1.00000	g
				08:17:12	2	23.9795				
				Known Concentration:		25.0000				
				% Difference:		-3.1510				
15	CCV 25ppm	RelChkStd	26 Oct 2001	08:31:46	1	22.5940	1.0	1.00	1.00000	g
				08:32:25	2	23.8110				
				Known Concentration:		25.0000				
				% Difference:		-7.1901				
15	CCV 25ppm	RelChkStd	26 Oct 2001	08:39:28	1	23.0365	1.0	1.00	1.00000	g
				08:40:08	2	23.6631				
				Known Concentration:		25.0000				
				% Difference:		-6.6007				
16	ICB	Blank	26 Oct 2001	08:15:14	1	1.0749	1.0	1.00	1.00000	g
				08:15:53	2	1.0749				
16	CCB	Blank	26 Oct 2001	08:17:52	1	1.0749	1.0	1.00	1.00000	g
				08:18:31	2	1.0749				
16	CCB	Blank	26 Oct 2001	08:33:05	1	1.0749	1.0	1.00	1.00000	g
				08:33:45	2	1.0749				
16	CCB	Blank	26 Oct 2001	08:40:48	1	1.0749	1.0	1.00	1.00000	g
				08:41:27	2	1.0749				

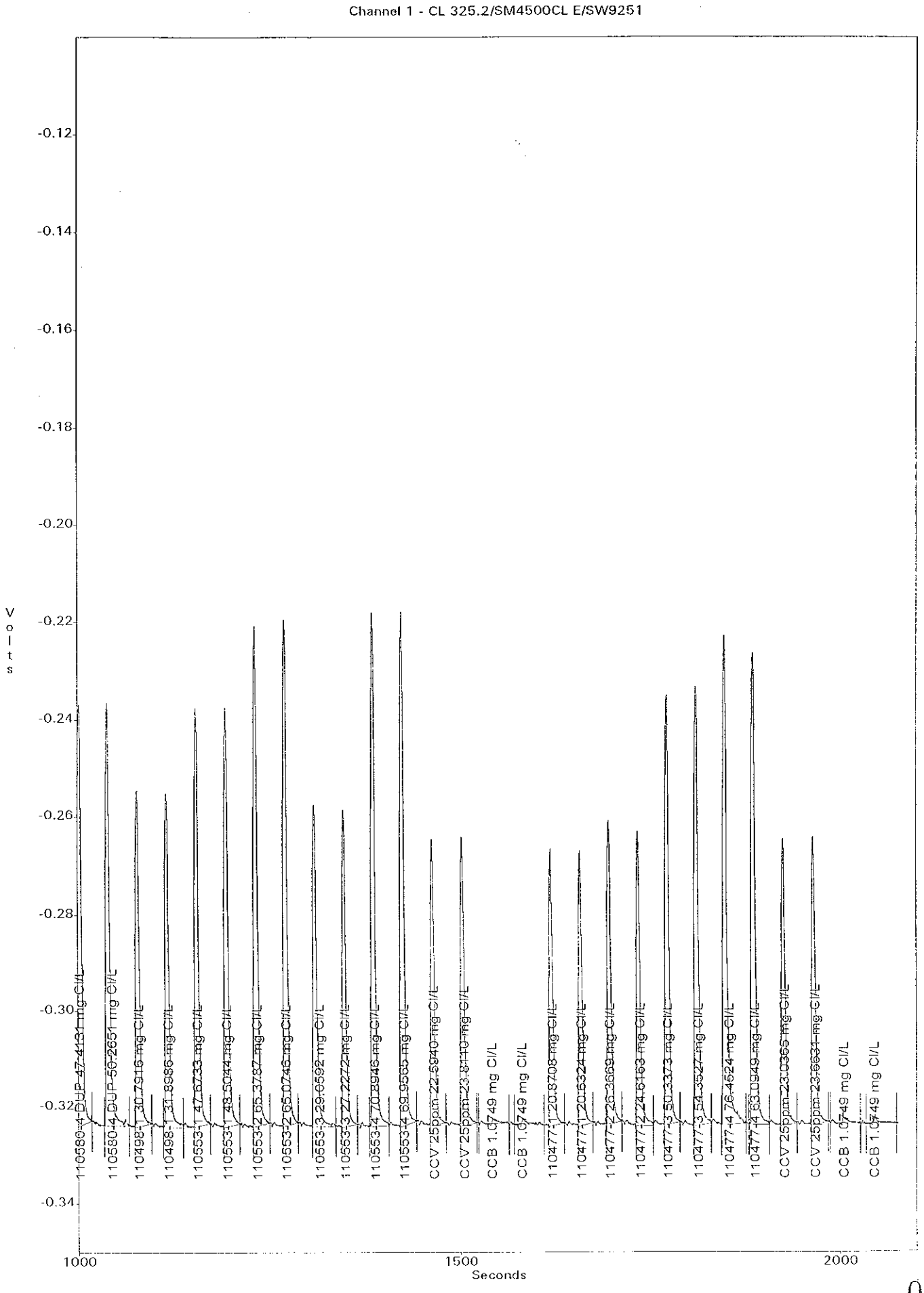
99%
96%
95%
94%
ND
ND
ND
ND

CKW59A cont'd

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
11	110580-1	26 Oct 2001	08:19:08	1	561.5115	1/10 10.0	1.00	1.00000	g
			08:19:46	2	517.8540				
12	110580-2	26 Oct 2001	08:20:23	1	516.1634	↓ 10.0	1.00	1.00000	g
			08:21:01	2	510.8048				
13	110580-3	26 Oct 2001	08:21:38	1	657.4083	0.5/10 20.0	1.00	1.00000	g
			08:22:15	2	701.4801				
14	110580-4	26 Oct 2001	08:22:52	1	101.5213	5/10 2.0	1.00	1.00000	g
			08:23:28	2	102.1055				
15	110580-4 DUP	26 Oct 2001	08:24:05	1	94.8263 RPD=2	5/10 2.0	1.00	1.00000	g
			08:24:41	2	100.5302				
16	110498-1	26 Oct 2001	08:25:19	1	6158.3154	0.5/10 1/10 200.0	1.00	1.00000	g
			08:25:58	2	6379.7295				
17	110553-1	26 Oct 2001	08:26:36	1	476.7330	1/10 10.0	1.00	1.00000	g
			08:27:15	2	485.0445				
18	110553-2	26 Oct 2001	08:27:53	1	130.7575	5/10 2.0	1.00	1.00000	g
			08:28:32	2	130.1493				
19	110553-3	26 Oct 2001	08:29:10	1	581.1832	0.5/10 20.0	1.00	1.00000	g
			08:29:49	2	544.5447				
20	110553-4	26 Oct 2001	08:30:27	1	708.9457	1/10 10.0	1.00	1.00000	g
			08:31:06	2	699.5648				
21	110477-1	26 Oct 2001	08:34:22	1	417.4163	0.5/10 20.0	1.00	1.00000	g
			08:35:01	2	412.6486				
22	110477-2	26 Oct 2001	08:35:40	1	263.6689	1/10 10.0	1.00	1.00000	g
			08:36:18	2	246.1628				
23	110477-3	26 Oct 2001	08:36:56	1	503.3729	↓ 10.0	1.00	1.00000	g
			08:37:34	2	543.5266				
24	110477-4	26 Oct 2001	08:38:11	1	152.9048	5/10 2.0	1.00	1.00000	g
			08:38:49	2	126.1898				


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
100
200
300
400
500
600
700
800
900
1000
Seconds
100.0 PPM CHLORIDE 715322 (Area)
50.0 PPM CHLORIDE 497610 (Area)
25.0 PPM CHLORIDE 337974 (Area)
10.0 PPM CHLORIDE 166801 (Area)
5.00 PPM CHLORIDE 88504 (Area)
2.50 PPM CHLORIDE 55535 (Area)
1.00 PPM CHLORIDE 32341 (Area)
0.00 PPM CHLORIDE 0 (Area)
ICV 50ppm 46.5598 mg Cl/L
ICV 50ppm 49.7215 mg Cl/L
ICB 1.0749 mg Cl/L
ICB 1.0749 mg Cl/L
CCV 25ppm 24.4450 mg Cl/L
CCV 25ppm 23.9795 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L
110580-1 56.1512 mg Cl/L
110580-1 51.7854 mg Cl/L
110580-2 51.6163 mg Cl/L
110580-2 51.0805 mg Cl/L
110580-3 32.8204 mg Cl/L
110580-3 35.0740 mg Cl/L
110580-4 50.7607 mg Cl/L
110580-4 51.0527 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
1000
1500
2000
Seconds
110580-4 DUP 47.4131 mg Cl/L
110580-4 DUP 50.2651 mg Cl/L
110498-1 30.7916 mg Cl/L
110498-1 31.8986 mg Cl/L
110553-1 47.6733 mg Cl/L
110553-1 48.5044 mg Cl/L
110553-2 65.3787 mg Cl/L
110553-2 65.0746 mg Cl/L
110553-3 29.0592 mg Cl/L
110553-3 27.2272 mg Cl/L
110553-4 70.8946 mg Cl/L
110553-4 69.9565 mg Cl/L
CCV 25ppm 22.5940 mg Cl/L
CCV 25ppm 23.8110 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L
110477-1 20.8708 mg Cl/L
110477-1 20.6324 mg Cl/L
110477-2 26.3669 mg Cl/L
110477-2 24.6163 mg Cl/L
110477-3 50.3373 mg Cl/L
110477-3 54.3527 mg Cl/L
110477-4 76.4624 mg Cl/L
110477-4 63.0949 mg Cl/L
CCV 25ppm 23.0365 mg Cl/L
CCV 25ppm 23.6631 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L

CKW59B

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 9:35:04
DATA FILENAME:	C:\OMNION\DATA\CKW59B.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 25, 2001 16:49:39

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV 25ppm	RelChkStd	26 Oct 2001	09:35:08	1	23.7414	1.0	1.00	1.00000	g
				09:35:47	2	108% 27.0144				
				Known Concentration:		25.0000				
				% Difference:		1.5116				
15	CCV 25ppm	RelChkStd	26 Oct 2001	09:50:23	1	23.0989	1.0	1.00	1.00000	g
				09:51:02	2	92% 23.1483				
				Known Concentration:		25.0000				
				% Difference:		-7.5055				
15	CCV 25ppm	RelChkStd	26 Oct 2001	10:05:38	1	23.5389	1.0	1.00	1.00000	g
				10:06:18	2	93% 23.3388				
				Known Concentration:		25.0000				
				% Difference:		-6.2447				
15	CCV 25ppm	RelChkStd	26 Oct 2001	10:13:25	1	94% 24.5958	1.0	1.00	1.00000	g
				10:14:05	2	23.4318				
				Known Concentration:		25.0000				
				% Difference:		-3.9448				
16	CCB	Blank	26 Oct 2001	09:36:27	1	~D 1.0749	1.0	1.00	1.00000	g
				09:37:07	2	1.0749				
16	CCB	Blank	26 Oct 2001	09:51:42	1	~D 1.0749	1.0	1.00	1.00000	g
				09:52:22	2	1.0749				
16	CCB	Blank	26 Oct 2001	10:06:57	1	~D 1.0749	1.0	1.00	1.00000	g
				10:07:37	2	1.0749				
16	CCB	Blank	26 Oct 2001	10:14:45	1	~D 1.0749	1.0	1.00	1.00000	g
				10:15:24	2	1.0749				
25	PREP BLK B	Blank	26 Oct 2001	09:37:44	1	~D 1.0749	1.0	1.00	1.00000	g
				09:38:21	2	1.0749				
26	ICV 50PPM CKW59B	RelChkStd	26 Oct 2001	09:38:59	1	92% 45.8973	1.0	1.00	1.00000	g
				09:39:36	2	59.5539				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
27	110557-1	Dup1	26 Oct 2001	09:40:13	1	35.2252	5.0	1.00	1.00000	g
				09:40:51	2	4.1355				
28	110557-1 MS	Spiked	26 Oct 2001	09:41:28	1	122% 182.6 35.4157	5.0 @	1.00	1.00000	g
				09:42:06	2	36.5262				
				Spike Level:		RPD=3 0.0000				
				% Spike Recovery:		100.0000				
29	110557-1 MSD	Dup1	26 Oct 2001	09:42:43	1	126% 187.1 36.1185	5.0 @	1.00	1.00000	g
				09:43:21	2	37.4280				

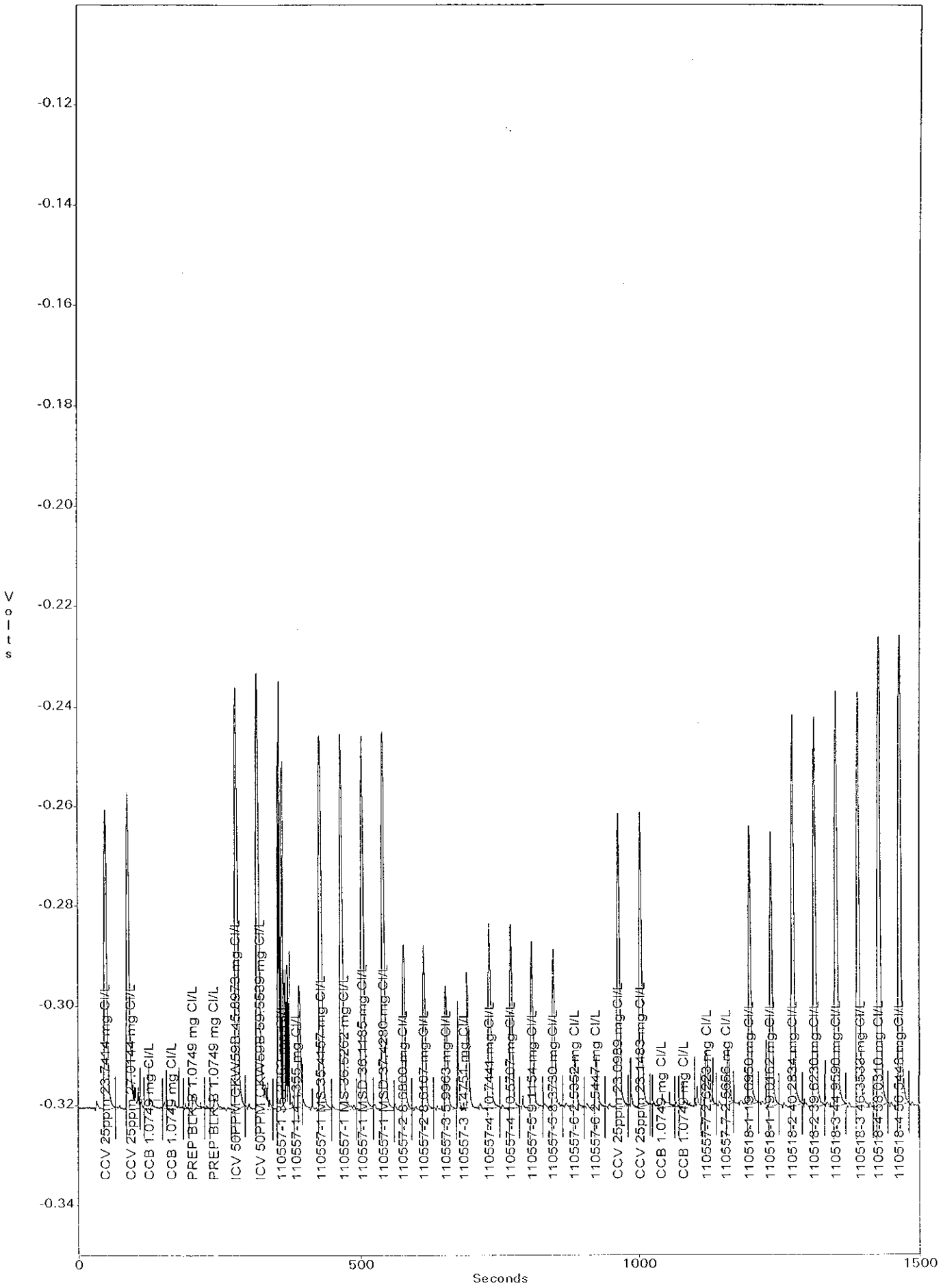
See Cup #1

10-26-01 CR

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
30	110557-2	26 Oct 2001	09:43:58	1	8.6800	1.0	1.00	1.00000	g	
			09:44:35	2	8.6107					
31	110557-3	26 Oct 2001	09:45:14	1	29.9813	5.0	1.00	1.00000	g	See Cup # 48
			09:45:53	2	7.3756					
32	110557-4	26 Oct 2001	09:46:31	1	10.7441	1.0	1.00	1.00000	g	
			09:47:10	2	10.5707					
33	110557-5	26 Oct 2001	09:47:48	1	9.1154	1.0	1.00	1.00000	g	
			09:48:26	2	8.3730					
34	110557-6	26 Oct 2001	09:49:05	1	2.5352	1.0	1.00	1.00000	g	
			09:49:43	2	2.5447					
35	110557-7	26 Oct 2001	09:53:00	1	2.6223	1.0	1.00	1.00000	g	
			09:53:38	2	2.5656					
36	110518-1	26 Oct 2001	09:54:17	1	393.8998	5/10 20.0	1.00	1.00000	g	
			09:54:55	2	380.3248					
37	110518-2	26 Oct 2001	09:55:34	1	402.8344	1/10 10.0	1.00	1.00000	g	
			09:56:12	2	396.2305					
38	110518-3	26 Oct 2001	09:56:51	1	449.5904	↓ 10.0	1.00	1.00000	g	
			09:57:29	2	463.5327					
39	110518-4	26 Oct 2001	09:58:07	1	116.0620	5/10 2.0	1.00	1.00000	g	
			09:58:44	2	113.0896					
40	110518-4 DUP	26 Oct 2001	09:59:21	1	121.8664	↓ 2.0	1.00	1.00000	g	
			09:59:59	2	114.2205					
41	110615-1	26 Oct 2001	10:00:36	1	978.5294	5/10 20.0	1.00	1.00000	g	
			10:01:14	2	892.3186					
42	110615-2	26 Oct 2001	10:01:51	1	383.9492	1/10 10.0	1.00	1.00000	g	
			10:02:28	2	379.4137					
43	110615-3	26 Oct 2001	10:03:06	1	598.0782	↓ 10.0	1.00	1.00000	g	
			10:03:43	2	620.2062					
44	110615-4	26 Oct 2001	10:04:21	1	100.4913	2.0	1.00	1.00000	g	See Cup # 47
			10:04:58	2	99.7250					
45	110557-1	26 Oct 2001	10:08:14	1	28.9423	5/10 2/10 5.0 Q	1.00	1.00000	g	
			10:08:51	2	29.9750					
46	110518-4	26 Oct 2001	10:09:31	1	117.0812	1.0	1.00	1.00000	g	10-26-01 CL
			10:10:10	2	115.7107					
47	110615-4	26 Oct 2001	10:10:50	1	99.7785	1.0	1.00	1.00000	g	
			10:11:29	2	98.3885					
48	110557-3	26 Oct 2001	10:12:08	1	31.5238	5/10 5.0 Q	1.00	1.00000	g	
			10:12:46	2	29.8902					

Channel 1 - CL 325.2/SM4500CL E/SW9251



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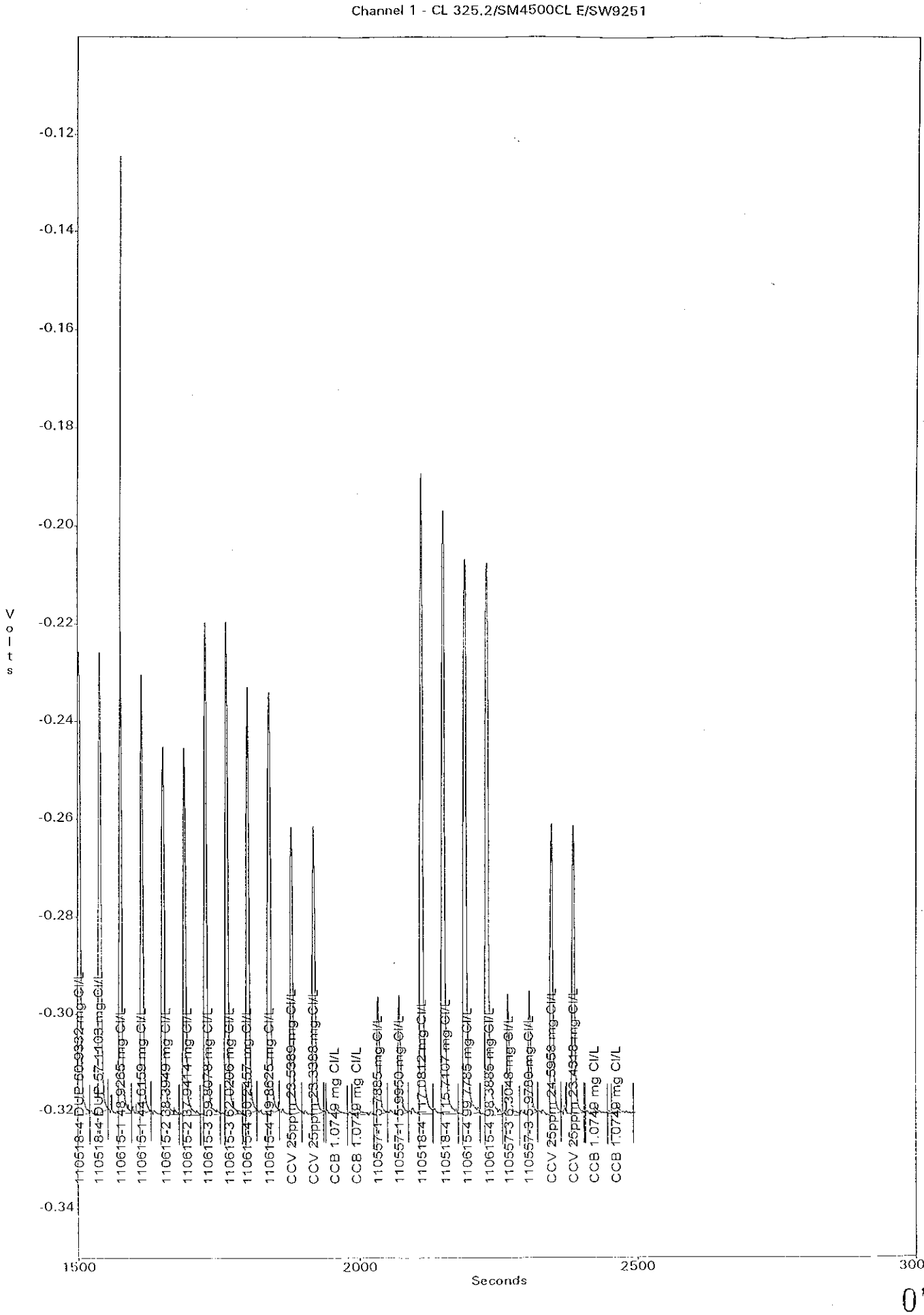

Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
1500
2000
2500
3000
Seconds
110518-4 DUP 60.9332 mg Cl/L
110518-4 DUP 57.1103 mg Cl/L
110615-1-48.9265 mg Cl/L
110615-1-44.6159 mg Cl/L
110615-2 38.3949 mg Cl/L
110615-2 37.9414 mg Cl/L
110615-3 59.8078 mg Cl/L
110615-3 62.0206 mg Cl/L
110615-4 50.2457 mg Cl/L
110615-4 49.8625 mg Cl/L
CCV 25ppm 23.5389 mg Cl/L
CCV 25ppm 23.3388 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L
110557-1-57.885 mg Cl/L
110557-1-59.950 mg Cl/L
110518-4 117.0812 mg Cl/L
110518-4 115.7107 mg Cl/L
110615-4 99.7785 mg Cl/L
110615-4 98.3885 mg Cl/L
110557-3-63.048 mg Cl/L
110557-3-65.9780 mg Cl/L
CCV 25ppm 24.5958 mg Cl/L
CCV 25ppm 23.4318 mg Cl/L
CCB 1.0748 mg Cl/L
CCB 1.0749 mg Cl/L

CKW59S

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 10:33:38
DATA FILENAME:	C:\OMNION\DATA\CKW59S.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59S.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 26, 2001 10:29:23

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

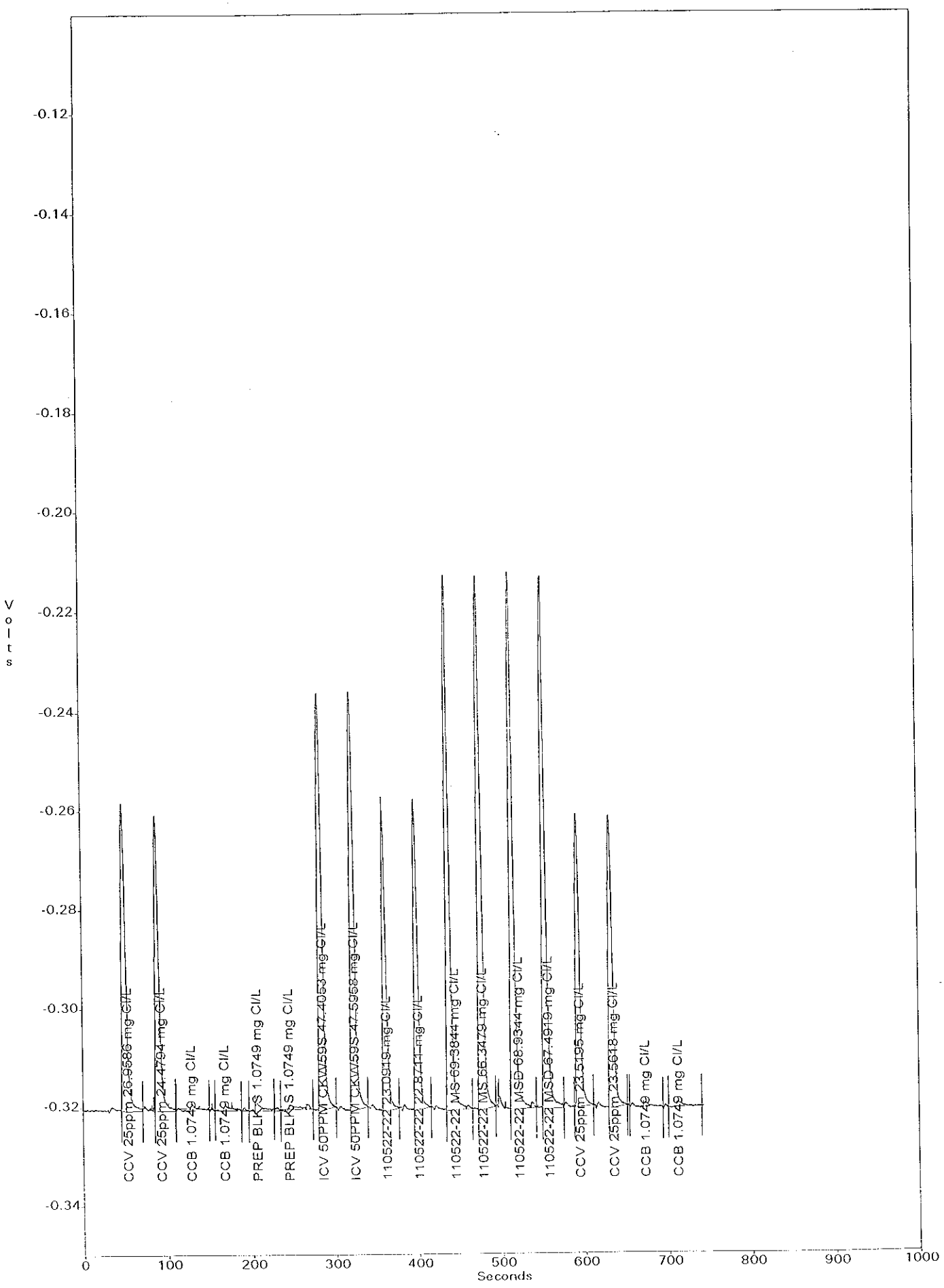
NO SAMPLE INFO FOR THE SELECTED CUP RANGE

CKW595

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV 25ppm	RelChkStd	26 Oct 2001	10:33:42	1	26.9586	1.0	1.00	1.00000	g
				10:34:22	2	98% 24.4794				
				Known Concentration:		25.0000				
				% Difference:		2.8760				
15	CCV 25ppm	RelChkStd	26 Oct 2001	10:42:46	1	94% 23.5195	1.0	1.00	1.00000	g
				10:43:25	2	23.5618				
				Known Concentration:		25.0000				
				% Difference:		-5.8374				
16	CCB	Blank	26 Oct 2001	10:35:02	1	~ND 1.0749	1.0	1.00	1.00000	g
				10:35:41	2	1.0749				
16	CCB	Blank	26 Oct 2001	10:44:05	1	~ND 1.0749	1.0	1.00	1.00000	g
				10:44:45	2	1.0749				
49	PREP BLK S	Blank	26 Oct 2001	10:36:19	1	~ND 1.0749	1.0	1.00	1.00000	g
				10:36:58	2	1.0749				
50	ICV 50PPM CKW59S	RelChkStd	26 Oct 2001	10:37:36	1	47.4053	1.0	1.00	1.00000	g
				10:38:15	2	95% 47.5958				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
51	110522-22	Dup1	26 Oct 2001	10:38:53	1	457 23.0919	20.0	1.00	1.00000	g
				10:39:32	2	22.8711				
52	110522-22 MS	Spiked	26 Oct 2001	10:40:10	1	1326 69.3844	20.0	1.00	1.00000	g
				10:40:49	2	66.3479				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
53	110522-22 MSD	Dup1	26 Oct 2001	10:41:27	1	1349 68.9344	20.0	1.00	1.00000	g
				10:42:06	2	67.4919				

See Cup #: ↓ 5


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
100
200
300
400
500
600
700
800
900
1000
Seconds
CCV 25ppm 26.9586 mg Cl/L
CCV 25ppm 24.4794 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L
PREP BLKS 1.0749 mg Cl/L
PREP BLKS 1.0749 mg Cl/L
ICV 50PPM CKW595S 47.4053 mg Cl/L
ICV 50PPM CKW595S 47.5968 mg Cl/L
110522-22 7.3D919 mg Cl/L
110522-22 7.8711 mg Cl/L
110522-22 MS 69.3844 mg Cl/L
110522-22 MS 66.3479 mg Cl/L
110522-22 MSD 68.9344 mg Cl/L
110522-22 MSD 67.4919 mg Cl/L
CCV 25ppm 23.5195 mg Cl/L
CCV 25ppm 23.5618 mg Cl/L
CCB 1.0749 mg Cl/L
CCB 1.0749 mg Cl/L

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 12:01:19
DATA FILENAME:	C:\OMNION\DATA\CKW59S.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59S.TRA

CKW5952

Confirming Samples

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 10:29:23
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

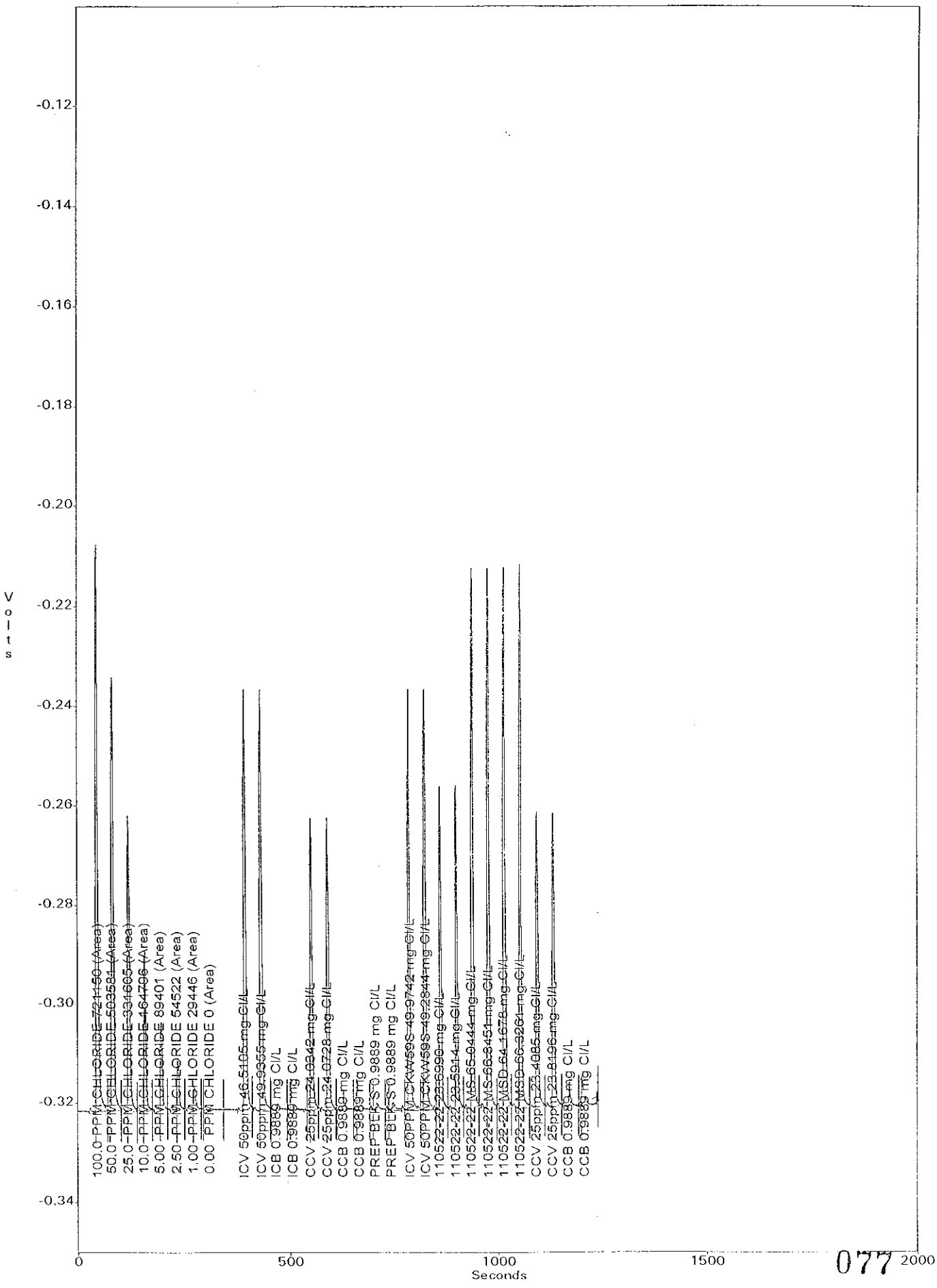
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	26 Oct 2001	12:01:20	1	721150.00
2	50.0 PPM CHLO	26 Oct 2001	12:01:57	1	503581.00
3	25.0 PPM CHLO	26 Oct 2001	12:02:35	1	331605.00
4	10.0 PPM CHLO	26 Oct 2001	12:03:13	1	164796.00
5	5.00 PPM CHLO	26 Oct 2001	12:03:52	1	89401.00
6	2.50 PPM CHLO	26 Oct 2001	12:04:31	1	54522.00
7	1.00 PPM CHLO	26 Oct 2001	12:05:10	1	29446.00
8	0.00 PPM CHLO	26 Oct 2001	12:05:50	1	0.00

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
9	ICV 50ppm	RelChkStd	26 Oct 2001	12:07:08	1	46.5105	1.0	1.00	1.00000	g
				12:07:46	2	49.9355				
				Known Concentration:		50.0000				
				% Difference:		-3.5539				
15	CCV 25ppm	RelChkStd	26 Oct 2001	12:09:45	1	24.0342	1.0	1.00	1.00000	g
				12:10:24	2	24.0728				
				Known Concentration:		25.0000				
				% Difference:		-3.7860				
15	CCV 25ppm	RelChkStd	26 Oct 2001	12:18:48	1	23.4085	1.0	1.00	1.00000	g
				12:19:28	2	23.8196				
				Known Concentration:		25.0000				
				% Difference:		-5.5437				
16	ICB	Blank	26 Oct 2001	12:08:26	1	0.9889	1.0	1.00	1.00000	g
				12:09:06	2	0.9889				
16	CCB	Blank	26 Oct 2001	12:11:04	1	0.9889	1.0	1.00	1.00000	g
				12:11:44	2	0.9889				
16	CCB	Blank	26 Oct 2001	12:20:08	1	0.9889	1.0	1.00	1.00000	g
				12:20:47	2	0.9889				
49	PREP BLK S	Blank	26 Oct 2001	12:12:22	1	0.9889	1.0	1.00	1.00000	g
				12:13:01	2	0.9889				
50	ICV 50PPM CKW59S	RelChkStd	26 Oct 2001	12:13:39	1	49.9742	1.0	1.00	1.00000	g
				12:14:18	2	49.2844				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
51	110522-22	Dup1	26 Oct 2001	12:14:56	1	23.6990	20.0	1.00	1.00000	g
				12:15:35	2	23.5914				
52	110522-22 MS	Spiked	26 Oct 2001	12:16:13	1	65.0444	20.0	1.00	1.00000	g
				12:16:51	2	66.8451				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
53	110522-22 MSD	Dup1	26 Oct 2001	12:17:30	1	64.1678	20.0	1.00	1.00000	g
				12:18:08	2	66.3261				

Channel 1 - CL 325.2/SM4500CL E/SW9251



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CK5595 Cont.

OPERATOR:	W GIMLIN
ACQ. TIME:	Oct 26, 2001 12:29:03
DATA FILENAME:	C:\OMNION\DATA\CKW59S2.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW59S2.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 26, 2001 10:29:23

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

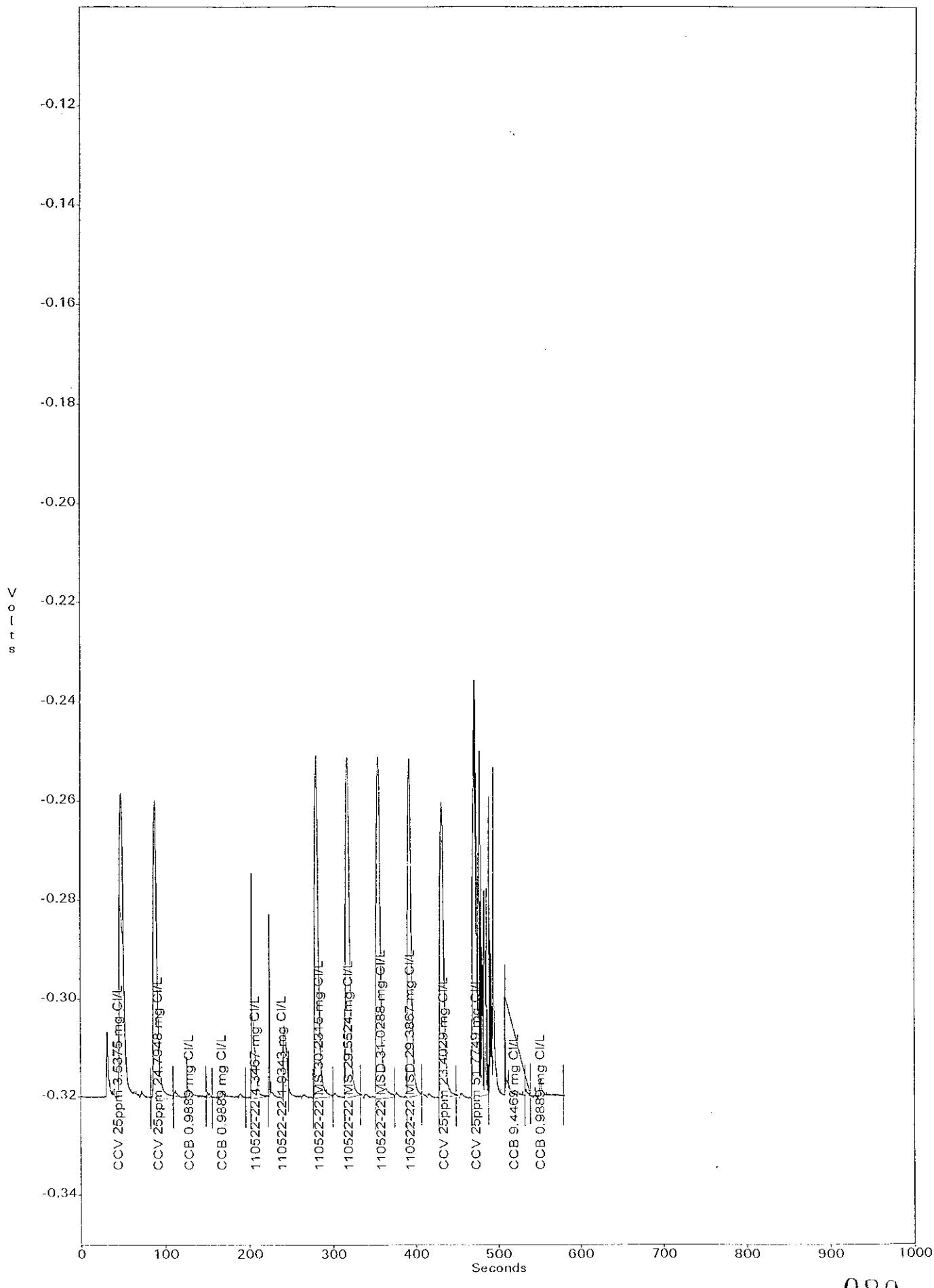
CK5595 Cont.

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
15	CCV 25ppm	RelChkStd	26 Oct 2001	12:29:07	1	3.5375	1.0	1.00	1.00000	g	
				12:29:47	2	24.7948					
				Known Concentration:		25.0000					
				% Difference:		-43.3355					
15	CCV 25ppm	RelChkStd	26 Oct 2001	12:35:30	1	23.4029	1.0	1.00	1.00000	g	
				12:36:10	2	51.7749					
				Known Concentration:		25.0000					
				% Difference:		50.3555					
16	CCB	Blank	26 Oct 2001	12:30:27	1	0.9889	1.0	1.00	1.00000	g	
				12:31:06	2	0.9889					
16	CCB	Blank	26 Oct 2001	12:36:50	1	9.4469	1.0	1.00	1.00000	g	
				12:37:29	2	0.9889					
54	110522-22	Dup1	26 Oct 2001	12:31:44	1	4.3467	100.0	1.00	1.00000	g	
				12:32:21	2	1.9343					
55	110522-22 MS	Spiked	26 Oct 2001	12:32:59	1	30.2315	100.0	1.00	1.00000	g	
				12:33:36	2	29.5524					
				Spike Level:		0.0000					
				% Spike Recovery:		100.0000					
56	110522-22 MSD	Dup1	26 Oct 2001	12:34:13	1	31.0288	100.0	1.00	1.00000	g	
				12:34:51	2	29.3867					

99%
~D
~D
434
100%
2955
RPD=1
99%
2938
matrix interf. 10/26/

Channel 1 - CL 325.2/SM4500CL E/SW9251



080

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
10-25-01	PREP BLK		0900 CK WS9B
	TCV		
	110557-1	WS	
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	110518-1		
	-2		
	-3		
	-4		
	110615-1		
	-2		
	-3		
	-4		

081

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
10-25-01	Prep Blk		0900 CKW595A
	ICV		
	110554-1	wa	
	-2		
	-3		
	-4		
	-5		
	-6		
	110580-1		
	-2		
	-3		
	-4		
	110498-1		
	110553-1		
	-2		
	-3		
	-4		
	110477-1		
	-2		
	-3		
	-4		
	Prep Blk		
	ICV		
	110522-22	Soil 5/100	CKW595

082

STL Pensacola
Wet Chemistry Department

ERROR/DATA REVIEW REPORT

DATA BEING REVIEWED: Chloride BATCH: CKN59A,B,S DATE: 10-26-01

REVIEWED BY (ANALYST): CR DATE: 10-26-01

REVIEWED BY (SUPERVISOR/PEER): AB DATE: 10-26-01

_____ 1. Proper number of spikes (1/20) and dups or MS/MSDs (1/10) were not performed.

_____ 2. All required information is not present on raw data sheets.

_____ 3. Data is not signed and dated by analyst.

_____ 4. Incorrect method reference.

_____ 5. Results calculated incorrectly.

_____ 6. All crossouts not initialed and dated.

_____ 7. Standards not identified correctly.

_____ 8. Reporting Limit Errors.

_____ 9. Proper flags not added to data on the Fast Track sheets.

_____ 10. Data transferred to Fast Track incorrectly.

_____ 11. RPD result and/or MS/MSD % recovery not calculated and written on raw data sheet.

_____ 12. Incorrect batch ID referenced.

_____ 13. Fast Track sheets not filled out completely.

_____ 14. Zing out page not done.

Items above are only marked with "X" or "✓" if there is a problem.

TOTAL ORGANIC CARBON (TOC)

E-Autosampler or cover is off. 29Oct2001 08:36

E-Possible gas flow restriction. 29Oct2001 09:39

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020 Mon Oct 29 09:44:59 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110502-13 X5 DO	default	Sample	1	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
8	110469-24	default	Sample	2	5.000	0	No	
9	110254-13 X5 rerun	default	Sample	2	5.000	0	No	
10	110254-14 X10	default	Sample	2	5.000	0	No	
11	110611-2	default	Sample	1	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
13	110557-1	default	Sample	1	5.000	0	No	
14	110557-2	default	Sample	1	5.000	0	No	
15	110557-3	default	Sample	1	5.000	0	No	

085

Tow020

16	110557-4	default	Chk. 3	3	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110557-5	default	Sample	1	5.000	0 No
20	110557-5 DUP	default	Sample	1	5.000	0 No
21	110557-6	default	Sample	1	5.000	0 No
22	110557-7	default	Sample	1	5.000	0 No
23	110599-1	default	Sample	1	5.000	0 No
24	110599-2	default	Sample	1	5.000	0 No
25	110599-3	default	Sample	1	5.000	0 No
26	110616-1XQ	default	Sample	1	5.000	0 No
27	110681-1	default	Sample	1	5.000	0 No
28	110681-2	default	Sample	1	5.000	0 No
29	110681-3	default	Sample	1	5.000	0 No
30	CCB	default	Chk. 3	3	5.000	0 No
31	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****
** RESULTS - TOW020 **
****

Pos/Vial: 1 Name: PREP BLK Analyzed: 29Oct2001 09:45
Run ID: 39 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027071	744	-0.345	-0.0689
2	1027072	1012	-0.038	-0.0076
3	1027073	771	-0.314	-0.0627
Avg		842	-0.232	-0.0464 ND
Std.Dev.		147.55		
RSD (%)		17.52		

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 29Oct2001 10:13
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027074	42473	47.355	9.4690
2	1027075	44117	49.234	9.8448

Tow020 w10.31-01

Avg	43295	48.294	9.6569 /10 = 97%
Std.Dev.	1162.48		
RSD (%)	2.68		

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 29Oct2001 10:33
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027076	67015	75.408	15.0785
2	1027077	65154	73.281	14.6532
Avg		66084	74.344	14.8659 /15 = 99%
Std.Dev.		1315.93		
RSD (%)		1.99		

w10-31-01

****

Pos/Vial: 4 Name: 110502-13 X5 DO Analyzed: 29Oct2001 10:52
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027078	6070	6.837	1.3671	24986	28.272	5.6532X5=28.2

****

Pos/Vial: 5 Name: 110611-1 Analyzed: 29Oct2001 11:02
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027079	54741	62.471	12.4917	125637	143.323	28.6588 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 11:12

****

087

Pos/Vial: 6 Name: 110611-1 MS Analyzed: 29Oct2001 11:13
Run ID: 5 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027080	37815	43.123	8.6230	152033	173.495	34.6921	Dilute

****

Pos/Vial: 7 Name: 110611-1 MSD Analyzed: 29Oct2001 11:23
Run ID: 6 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027081	37592	42.869	8.5720	150180	171.377	34.2686	Dilute

****

Pos/Vial: 8 Name: 110469-24 Analyzed: 29Oct2001 11:33
Run ID: 7 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027082	504	0.474	0.0949	12831	14.378	2.8749
2	1027083	389	0.343	0.0686	12420	13.908	2.7810
Avg		446	0.409	0.0817	12625	14.143	2.8280
Std.Dev.		81.32			290.62		
RSD (%)		18.21			2.30		

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 29Oct2001 11:52
Run ID: 8 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027084	696	0.694	0.1387	33026	37.462	7.4909	Rerun
2	1027085	582	0.564	0.1127	15705	17.663	3.5318	

Tow020

Avg	639	0.629	0.1257	24365	27.562	5.5114 Rerun
Std.Dev.	80.61			12247.80		
RSD (%)	12.62			50.27		

****

Pos/Vial: 10 Name: 110254-14 X10 Analyzed: 29Oct2001 12:12
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027086	298	0.239	0.0478	41098	46.689	9.3359
2	1027087	282	0.221	0.0441	41978	47.695	9.5370
Avg		290	0.230	0.0459	41538	47.192	9.4364X10=94.3
Std.Dev.		11.31			622.25		
RSD (%)		3.90			1.50		

****

Pos/Vial: 11 Name: 110611-2 Analyzed: 29Oct2001 12:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027088	178505	203.942	40.7803	80640	91.888	18.3739

A-Linear range exceeded (130ugC). 29Oct2001 12:41

****

Pos/Vial: 12 Name: 110611-3 Analyzed: 29Oct2001 12:41
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027089	162178	185.279	37.0484	113014	128.894	25.7736 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 12:51

****

Pos/Vial: 13 Name: 110557-1 Analyzed: 29Oct2001 12:51
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027090	78346	89.453	17.8871	50269	57.172	11.4321

****

Pos/Vial: 14 Name: 110557-2 Analyzed: 29Oct2001 13:02
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027091	101075	115.434	23.0822	42563	48.363	9.6707

****

Pos/Vial: 15 Name: 110557-3 Analyzed: 29Oct2001 13:12
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027092	95121	108.628	21.7213	39458	44.814	8.9610

****

Pos/Vial: 16 Name: 110557-4 Analyzed: 29Oct2001 13:22
Run ID: 15 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027093	28184	31.021	6.2030
2	1027094	29602	32.642	6.5271
3	1027095	29462	32.482	6.4951

			Tow020
Avg	29082	32.048	6.4084
Std.Dev.	781.41		
RSD (%)	2.69		

****

Pos/Vial: 17 Name: CCB Analyzed: 29Oct2001 13:50
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027096	1107	0.070	0.0141
2	1027097	726	-0.365	-0.0730
3	1027098	661	-0.439	-0.0879
Avg		831	-0.245	-0.0489 ND
Std.Dev.		240.94		
RSD (%)		28.98		

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 29Oct2001 14:18
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027099	62697	70.472	14.0916
2	1027100	63841	71.780	14.3531
Avg		63269	71.126	14.2223
Std.Dev.		808.93		
RSD (%)		1.28		

Lcs ID-31-01
14.2223/15 = 95%

****

Pos/Vial: 19 Name: 110557-5 Analyzed: 29Oct2001 14:37
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027101	106648	121.804	24.3560	41563	47.220	9.4422

****

Pos/Vial: 20 Name: 110557-5 DUP Analyzed: 29Oct2001 14:48
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027102	103004	117.639	23.5231	41953	47.666	9.5313

****

Pos/Vial: 21 Name: 110557-6 Analyzed: 29Oct2001 14:58
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027103	455	0.418	0.0837	1008	0.863	0.1726

****

Pos/Vial: 22 Name: 110557-7 Analyzed: 29Oct2001 15:08
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027104	536	0.511	0.1022	2036	2.038	0.4075

****

Pos/Vial: 23 Name: 110599-1 Analyzed: 29Oct2001 15:19
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027105	106619	121.771	24.3494	31416	35.622	7.1229

****

Pos/Vial: 24 Name: 110599-2 Analyzed: 29Oct2001 15:29
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027106	110596	126.317	25.2584	84445	96.237	19.2436

****

Pos/Vial: 25 Name: 110599-3 Analyzed: 29Oct2001 15:39
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027107	119337	136.309	27.2563	54525	62.037	12.4049

A-Linear range exceeded (130ugC). 29Oct2001 15:49

****

Pos/Vial: 26 Name: 110616-1 Analyzed: 29Oct2001 15:49
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027108	116667	133.257	26.6460	109093	124.412	24.8774

Dilute

****

Pos/Vial: 27 Name: 110681-1 Analyzed: 29Oct2001 16:00
Run ID: 26 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027109	55231	63.031	12.6037	18047	20.340	4.0671

****

Pos/Vial: 28 Name: 110681-2 Analyzed: 29Oct2001 16:10
Run ID: 27 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027110	76860	87.755	17.5474	17551	19.773	3.9538

****

Pos/Vial: 29 Name: 110681-3 Analyzed: 29Oct2001 16:20
Run ID: 28 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027111	55432	63.261	12.6497	17262	19.442	3.8877

****

Pos/Vial: 30 Name: CCB Analyzed: 29Oct2001 16:30
Run ID: 29 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027112	940	-0.121	-0.0241
2	1027113	796	-0.285	-0.0570
3	1027114	708	-0.386	-0.0771
Avg		814	-0.264	-0.0528 ND
Std.Dev.		117.12		
RSD (%)		14.38		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 29Oct2001 16:58
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027115	63811	71.745	14.3462
2	1027116	62880	70.681	14.1334
Avg		63345	71.213	14.2398

WG10231-01
14.2398/15 = 95%

094

Std.Dev.	658.32
RSD (%)	1.04

E-Autosampler or cover is off. 30Oct2001 07:45

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020A Tue Oct 30 07:43:26 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
9	110254-13 X5	default	Sample	2	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
26	110616-1 X2	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

JG 10-30-01

****
** RESULTS - TOW020A **
****

Pos/Vial:	1 Name: CCB	Analyzed:	30Oct2001 08:28
Run ID:	31 Meth: default	Vol (mL):	5.001

CHK. 3	TOC	TOC	TOC

096

Tow020a

Rep	Datafile	Area (cts)	Mass (ugC)	Conc (ppm)
1	1027A117	791	-0.291	-0.0582
2	1027A118	920	-0.143	-0.0287
3	1027A119	755	-0.332	-0.0664
Avg		822	-0.255	-0.0511 ND
Std.Dev.		86.76		
RSD (%)		10.55		

****

Pos/Vial: 2 Name: CCV 15PPM Analyzed: 30Oct2001 08:56
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A120	63619	71.526	14.3023
2	1027A121	64594	72.640	14.5252
Avg		64106	72.083	14.4138
Std.Dev.		689.43		
RSD (%)		1.08		

10/31-01

14.4138/15 = 96%

****

Pos/Vial: 5 Name: 110611-1 X5 Analyzed: 30Oct2001 09:16
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A122	4127	4.616	0.9230	31301	35.490	7.0966 x5 = 35.4

****

Pos/Vial: 6 Name: 110611-1 MS X5 Analyzed: 30Oct2001 09:26
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A123	2115	2.316	0.4631	36376	41.291	8.2566 x5

$\frac{41.28 - 35.48}{10} = 58\%$

097

****

Pos/Vial: 7 Name: 110611-1 MSD X5 Analyzed: 30Oct2001 09:36
Run ID: 6 Meth: default Vol (mL): 5.001

RPD=2

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A124	2431	2.677	0.5353	36287	41.189	8.2362

8.2362x5=41.18
41.18-35.48/10=57%
Dilute

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 30Oct2001 09:47
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A125	787	0.798	0.1595	32234	36.557	7.3098
2	1027A126	830	0.847	0.1694	31995	36.283	7.2552
Avg		808	0.822	0.1645	32114	36.420	7.2825
Std.Dev.		30.41			169.00		
RSD (%)		3.76			0.53		

7.2825x5=36.4

****

Pos/Vial: 12 Name: 110611-3 X2 6-1 x2 Analyzed: 30Oct2001 10:06
Run ID: 9 Meth: default 1030-01 Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A127	21679	24.679	4.9348	56263	64.023	12.8021

12.8021x2=25.60

****

Pos/Vial: 26 Name: 110616-1 X2 1-3 Analyzed: 30Oct2001 10:16
Run ID: 12 Meth: default 1030-01 Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

1 1027A128 29851 34.020 6.8027 133255 152.031 30.4001 Dilute

A-Linear range exceeded (130ugC). 30Oct2001 10:26

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 10:26
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A129	1324	0.318	0.0637
2	1027A130	982	-0.073	-0.0145
3	1027A131	847	-0.227	-0.0454
Avg		1051	0.006	0.0013 ND
Std.Dev.		245.87		
RSD (%)		23.39		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 10:54
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A132	63211	71.060	14.2091
2	1027A133	62599	70.360	14.0692
Avg		62905	70.710	14.1391
Std.Dev.		432.75		
RSD (%)		0.69		

LCS 10-31-01

14.1391 / 15 = 94%

099

E-Autosampler or cover is off. 30Oct2001 12:42

E-Autosampler or cover is off. 30Oct2001 12:43

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020B Tue Oct 30 12:43:38 2001

Start Pos/Vial #: 26, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
26	110611-3 X10	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW020B **
****

Pos/Vial: 26 Name: 110611-3 X10 Analyzed: 30Oct2001 12:49
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

1	1027B134	2782	3.078	0.6155	21079	23.806	4.7602 x10=47.6

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 13:00
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B135	756	-0.331	-0.0662
2	1027B136	740	-0.349	-0.0698
3	1027B137	681	-0.417	-0.0833
Avg		725	-0.366	-0.0731 ND
Std.Dev.		39.50		
RSD (%)		5.44		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 13:28
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B138	63698	71.616	14.3204
2	1027B139	61970	69.641	13.9254
Avg		62834	70.629	14.1229 (15 = 94%)
Std.Dev.		1221.88		
RSD (%)		1.94		

E-Autosampler or cover is off. 30Oct2001 14:06

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020C Tue Oct 30 14:00:50 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110401-1	default	Sample	1	5.000	0	No	
2	110401-4	default	Sample	1	5.000	0	No	
3	110401-5 X10	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Sample	2	5.000	0	No	

To Confirm

****
** RESULTS - TOW020C **
****

Pos/Vial: 1 Name: 110401-1 Analyzed: 30Oct2001 14:08
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C140	223271	255.113	51.0123	14356	16.121	3.2235

A-Linear range exceeded (130ugC). 30Oct2001 14:18

****

Pos/Vial: 2 Name: 110401-4 Analyzed: 30Oct2001 14:19
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C141	183149	209.250	41.8417	5049	5.482	1.0962

****

Pos/Vial: 3 Name: 110401-5 X10 Analyzed: 30Oct2001 14:29
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C142	1084	1.137	0.2274	68686	78.224	15.6416

x10=156

****

Pos/Vial: 4 Name: CCB Analyzed: 30Oct2001 14:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C143	1651	0.692	0.1384
2	1027C144	1410	0.417	0.0833
3	1027C145	1312	0.305	0.0609
Avg		1457	0.471	0.0942
Std.Dev.		174.45		
RSD (%)		11.97		

ND

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 30Oct2001 15:07
Run ID: 4 Meth: default Vol (mL): 5.001

Tow020c

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C146	281	0.219	0.0439	62447	71.092	14.2156
2	1027C147	282	0.221	0.0441	62251	70.868	14.1708
Avg		281	0.220	0.0440	62349	70.980	14.1932
Std.Dev.		0.71			138.59		
RSD (%)		0.25			0.22		

WG10-31-01
15.95%

DISSOLVED IRON

- Metals
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110557 Method Type: SW 846 SAS No.: N/A

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: N/A

Lab Sample ID	Client Sample ID
C110557-1	17-3610B-Q401
C110557-2	17-3611C-Q401
C110557-3	17-3629B-Q401
C110557-4	17-3632C-Q401
C110557-5	17-36FD1-Q401
C110557-6	17-36FB1-Q401
C110557-7	17-36EB1-Q401
C110599-1	17-3631C-Q401
C110599-2	17-3626A-Q401
C110599-3	17-3630C-Q401
C110611-1	17-3609C-Q401
C110611-2	17-3627A-Q401
C110611-3	17-3628B-Q401
C110655-1	17-3608B-Q401
C110655-2	17-3607A-Q401
C110655-3	17-3606A-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

All duplicate results reported on Form 6 are the matrix spike and matrix spike duplicate (MS/MSD) results. The acceptance limit for the duplicate is ±20%.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards Name: Marty Edwards

Date: 10/31/01 Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-1 **Client ID:** 17-3610B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	54	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-2 **Client ID:** 17-3611C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-3 **Client ID:** 17-3629B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	600	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-4 **Client ID:** 17-3632C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	190	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-5 **Client ID:** 17-36FD1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	74	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-6 **Client ID:** 17-36FB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-7 **Client ID:** 17-36EB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-1 **Client ID:** 17-3631C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	250	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-2 **Client ID:** 17-3626A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	280	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-3 **Client ID:** 17-3630C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	500	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-1 **Client ID:** 17-3609C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	27	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-2 **Client ID:** 17-3627A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-3 **Client ID:** 17-3628B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	330	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-1 **Client ID:** 17-3608B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	400	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-2 **Client ID:** 17-3607A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	720	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-3 **Client ID:** 17-3606A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	120	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Calcium	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	10007	10000	100.1	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	9969	10000	99.7	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Magnesium	9877	10000	98.8	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
CCV1									
	Aluminum	10066	10000	100.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Calcium	10065	10000	100.6	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10054	10000	100.5	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10041	10000	100.4	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Magnesium	9974	10000	99.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
CCV2									
	Aluminum	10069	10000	100.7	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Calcium	10107	10000	101.1	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10125	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10115	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Magnesium	10088	10000	100.9	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
CCV3									
	Aluminum	10145	10000	101.4	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Calcium	10189	10000	101.9	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10158	10000	101.6	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10178	10000	101.8	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Magnesium	10220	10000	102.2	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
CCV4									
	Aluminum	10402	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Calcium	10406	10000	104.1	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10336	10000	103.4	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10347	10000	103.5	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Magnesium	10395	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	09:51	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	09:51	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	09:51	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	09:51	TOCT29A
	Magnesium	9.26	+/-500.00	B	6.00	500.00	P	10/29/01	09:51	TOCT29A
CCB1										
	Aluminum	15.5	+/-100.0	B	10.0	100.0	P	10/29/01	10:34	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	10:34	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	10:34	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	10:34	TOCT29A
	Magnesium	16.08	+/-500.00	B	6.00	500.00	P	10/29/01	10:34	TOCT29A
CCB2										
	Aluminum	12.1	+/-100.0	B	10.0	100.0	P	10/29/01	11:41	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	11:41	TOCT29A
	Iron	10.3	+/-100.0	B	7.0	100.0	P	10/29/01	11:41	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	11:41	TOCT29A
	Magnesium	11.20	+/-500.00	B	6.00	500.00	P	10/29/01	11:41	TOCT29A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	12:48	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	12:48	TOCT29A
	Iron	9.4	+/-100.0	B	7.0	100.0	P	10/29/01	12:48	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	12:48	TOCT29A
	Magnesium	10.62	+/-500.00	B	6.00	500.00	P	10/29/01	12:48	TOCT29A
CCB4										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	13:22	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	13:22	TOCT29A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	13:22	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	13:22	TOCT29A
	Magnesium	7.25	+/-500.00	B	6.00	500.00	P	10/29/01	13:22	TOCT29A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD131			**WATER**							
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	10:39	TOCT29A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	505123.8	500000.0	101.0	80 - 120	10/29/01	10:14	TOCT29A
	Calcium	457432.4	500000.0	91.5	80 - 120	10/29/01	10:14	TOCT29A
	Iron	179365.8	200000.0	89.7	80 - 120	10/29/01	10:14	TOCT29A
	Iron	195817.1	200000.0	97.9	80 - 120	10/29/01	10:14	TOCT29A
	Magnesium	520278.3	500000.0	104.1	80 - 120	10/29/01	10:14	TOCT29A
ICS-AB1								
	Aluminum	518567.3	510000.0	101.7	80 - 120	10/29/01	10:19	TOCT29A
	Calcium	466097.7	510000.0	91.4	80 - 120	10/29/01	10:19	TOCT29A
	Iron	187095.4	210000.0	89.1	80 - 120	10/29/01	10:19	TOCT29A
	Iron	206396.8	210000.0	98.3	80 - 120	10/29/01	10:19	TOCT29A
	Magnesium	531834.0	510000.0	104.3	80 - 120	10/29/01	10:19	TOCT29A
ICS-A2								
	Aluminum	507448.8	500000.0	101.5	80 - 120	10/29/01	13:05	TOCT29A
	Calcium	467315.8	500000.0	93.5	80 - 120	10/29/01	13:05	TOCT29A
	Iron	182724.8	200000.0	91.4	80 - 120	10/29/01	13:05	TOCT29A
	Iron	200130.7	200000.0	100.1	80 - 120	10/29/01	13:05	TOCT29A
	Magnesium	538197.9	500000.0	107.6	80 - 120	10/29/01	13:05	TOCT29A
ICS-AB2								
	Aluminum	523991.0	510000.0	102.7	80 - 120	10/29/01	13:11	TOCT29A
	Calcium	479027.8	510000.0	93.9	80 - 120	10/29/01	13:11	TOCT29A
	Iron	191347.1	210000.0	91.1	80 - 120	10/29/01	13:11	TOCT29A
	Iron	211288.9	210000.0	100.6	80 - 120	10/29/01	13:11	TOCT29A
	Magnesium	551149.5	510000.0	108.1	80 - 120	10/29/01	13:11	TOCT29A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10117.5		53.6	B	10000.0	100.6		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10237.0		53.6	B	10000.0	101.8		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STLPN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1S **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110557-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10117.5		10237.0		1.2		P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD131								
	Iron	ug/L	10000.0	9790.5		97.9	80.0 - 120.0	P

Metals

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SERIAL DILUTION SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Level:** LOW **Client ID:** 17-3610B-Q401L

Sample ID: C110557-1 **Serial Dilution ID:** C110557-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	53.6		63.9	B	19.2		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI SDG No.: C110557

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: NA SAS No.: NA

Instrument ID: TJA61E Trace Date: 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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LINEAR RANGES

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
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SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P
SA-36-CTO-017

Case No.: NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	PD131						
PBWPD131	PBWPD131	MB	WATER	10/26/01	50.0	50.0	
LCSWPD131	LCSWPD131	LCS	WATER	10/26/01	50.0	50.0	
C110557-1	17-3610B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-1S	17-3610B-Q401S	MS	WATER	10/26/01	50.0	50.0	
C110557-1SD	17-3610B-Q401SD	MSD	WATER	10/26/01	50.0	50.0	
C110557-2	17-3611C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-3	17-3629B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-4	17-3632C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-5	17-36FD1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-6	17-36FB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-7	17-36EB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-1	17-3631C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-2	17-3626A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-3	17-3630C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-1	17-3609C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-2	17-3627A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-3	17-3628B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-1	17-3608B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-2	17-3607A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-3	17-3606A-Q401	SAM	WATER	10/26/01	50.0	50.0	

DIGESTION LIQUIDS

Job No: 3625

Batch No: PD131

Job Date: 10.26.01

ANALYSIS

ICP | AA | HG

FLAME | TCLP

MISC

Date/Time Started: 10/26/01

Date/Time Completed: NA

Analyst: KW

Method/SOP: NA

Final Volume: NA

Acid Lot #(s): NA

NA

NA

Hood: NA

Bath Temp(Hg only): NA

Final Project Check: ME 10/26/01

	ID	LOT#	AMT (mL)	INIT
Spike		NA		
Spike		NA		
Spike		NA		
Spike		NA		

SAMPLE ID/MTX/DESCRIPTION	D-D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1. C110557*1/LI/017-OLD-3610B-Q401	11.02		ICP				*XNE| DISSOLVES
2. C110557*2/LI/017-OLD-3611C-Q401	11.02		ICP				*XNE|
3. C110557*3/LI/017-OLD-3629B-Q401	11.02		ICP				*XNE|
4. C110557*4/LI/017-OLD-3632C-Q401	11.02		ICP				*XNE|
5. C110557*5/LI/017-OLD-36FD1-Q401	11.02		ICP				*XNE|
6. C110557*6/LI/017-OLD-36FB1-Q401	11.02		ICP				*XNE|
7. C110557*7/LI/017-OLD-36EB1-Q401	11.02		ICP				*XNE|
8. C110599*1/LI/17-3631C-Q401	11.02		ICP				*XNE|
9. C110599*2/LI/17-3626A-Q401	11.02		ICP				*XNE|
10. C110599*3/LI/17-3630C-Q401	11.02		ICP				*XNE|
11. C110611*1/LI/17-3609C-Q401 A	11.05		ICP				*XNE| post spike
12. C110611*2/LI/17-3627A-Q401	11.05		ICP				*XNE|
13. C110611*3/LI/17-3628B-Q401	11.05		ICP				*XNE|
14. C110655*1/LI/17-3608B-Q401	11.05		ICP				*XNE|
15. C110655*2/LI/17-3607A-Q401	11.05		ICP				*XNE|
16. C110655*3/LI/17-3606A-Q401 B	11.05		ICP				*XNE|
17.							
18.							
19.							
20.							
Lab Blank							
Lab Spike #1							
Lab Spike #2							

10/26/01 KW

10/26/01 KW

Comments: Field filtered & preserved

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TJA Trace ICP (499890) Calibration/Maintenance/Run Log

File Name: Oct29A Date: 10.29.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☑ Rotate Peri-Pump Tubing ☑ Other: back flushed neb.

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: 7.009907 Profile Intensity: 18169 Spectrum Shifter: 560

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 11447 Cu:Mn Ratio (Std 1): 9.6/11.0=.87

Standards Reference:

Std 1: M02739 ICV/CCV: M02750 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PD131	level "C"		
PD130			
Pw378			
Pw376			

Comments:

File Name: _____ Date: _____ Analyst: _____

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☐ Rotate Peri-Pump Tubing ☐ Other: _____

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: _____ Profile Intensity: _____ Spectrum Shifter: _____

Nebulizer Pressure: _____ Purge Pressure: _____

Y Intensity (Std 1): _____ Cu:Mn Ratio (Std 1): _____

Standards Reference:

Std 1: _____ ICV/CCV: _____ ICSA: _____ ICSAB: _____

Batch ID's:

Batch #	Comments	Batch #	Comments

Comments:

10.4.01 Vendor: High Purity M02735
Q STD: Cal STD #2-R2
Conc: see COC
Exp: 11/02
Cat # Cal STD #2-R2
Lot # 127117

10.04.01 RLCHKS1 exp 10.05.01 M02736
QQ Place 19.95mls of blank/diluent into a 25ml A/S cup.
Add 0.05mls of Std 1 & mix well.

RLCHKS2 exp 10.05.01 M02737
Place 19.90mls of blank/diluent into a 25ml A/S cup.
Add 0.1mls of Std 1 & mix well.

10.05.01 ICV/CCV Exp 11.05.01 M02738
C+ To A 1000 ml vol flask add ~300ml type I H_2O. Add 50ml conc HCl & 'Di' conc HNO_3. Add stds listed below & bring to vol w/ type I H_2O.
5.0ml STD #1 M02664 Exp 1/03
5.0mL STD #2 M02665 Exp 1/03

10.05.01 STD 1 exp 11.05.01 M02739
QQ In a clean 500ml vol flask add ~200mls Blank/diluent soln. Add stds listed below & bring to volume w/ diluent
5.0mls Cal Std 1B-R1 M02670 exp 08.31.02
5.0mls Cal Std #2-R2 M02682 exp 09.31.02

10.05.01 RLCHKS1 Exp 10.6.01 M02740
C+ Place 19.95ml of Blk/Rin Soln into a 25ml A/S Cup
Add .05ml of STD1 & mix well.

10.6.01 RLCHKS1 Exp 10.7.01 M02741
C+ Place 19.95ml of Blk/Rin Soln into a 25 ml A/S Cup. Add .05ml of STD1 & mix well.

Continued on Page

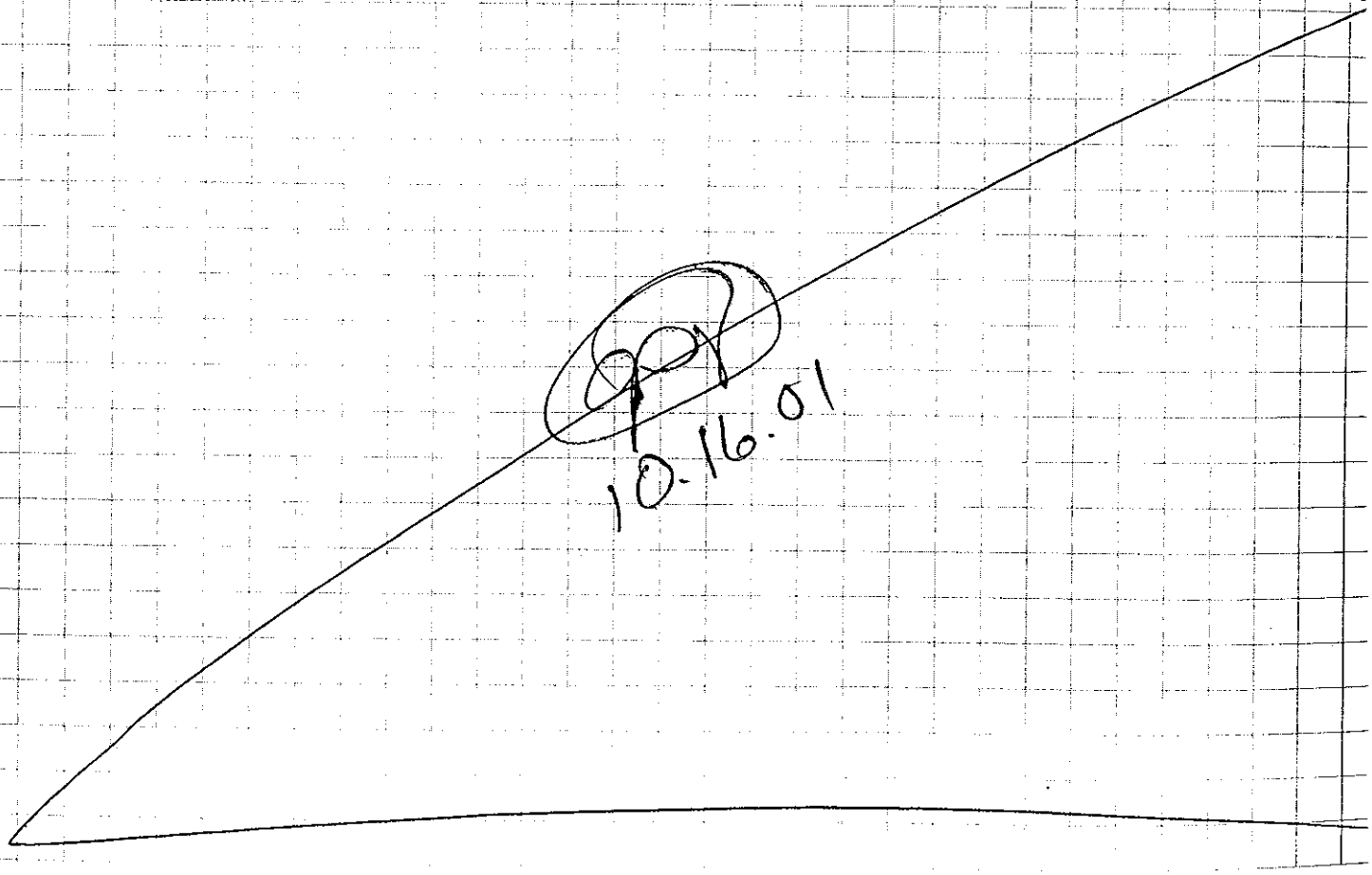
Read and Understood By

Signed _____ Date 10.6.01 Signed _____ Date _____

10.15.01 RLCHKS1 exp 10.16.01 MO2746
QP Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 MO27
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA EXP 11.16.01 MO2748
GP To A Clean 500 ml Vol Flask Add ~300 ml of Type I H_2O. Add 50 ml conc HCL & 10 ml of conc HNO_3.
Add STD Listed below & QS to Volume w/ Type I H_2O.
50.0 mL CLP-INF-1 MO2734 EXP 11/02



Continued on Page _____

Read and Understood By

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Gary LaPore Signed 10.16.01 Date _____ Signed _____ Date

10.19.01 ICV/CCV EXP 10.19.01 MO2750
CL To A clean 1000 ml vol FLASK Add ~300 ml blk/Rin. Soln. Add STD Listed below & Bring to volume

5.0	STL #1	MO2661	Exp 1/03
50	STL #2	MO2665	Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO2751
(CP) Place 19.90 mls of blank/diluent into a 25 ml A/S cup. Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO2752
(CP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup. Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO27
(CP) Do a clean 500 ml vol flask add ~300 mls of blank/diluent soln. Add Stds listed below & bring to volume with diluent

50.0 mls	CLP-INF-1	MO2734	exp 11.2002
2.5 mls	CAL STD 1B-R1	MO2670	exp 08.2002
2.5 mls	CAL STD #2-R2	MO2735	exp 11.2002

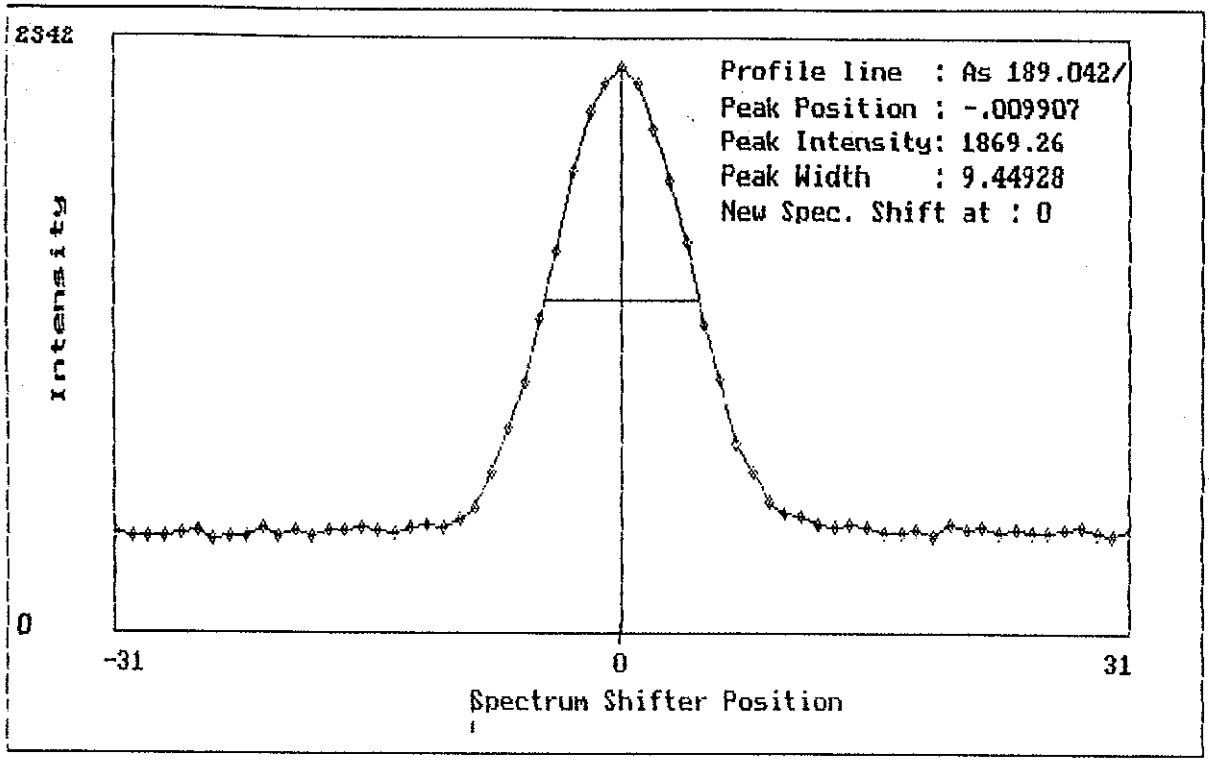
10.25.01 RLCHS1 EXP 10.26.01 MO2754
CL PLACE 19.95 mls OF blk/dil into A 25ml A/S Cup
Add 0.05 mls OF STD 1 & mix well.

10.25.01

Continued on Page

Read and Understood By

Signed Date Signed Date


2342
Intensity
0
Profile line : As 189.042/
Peak Position : -.009907
Peak Intensity: 1869.26
Peak Width : 9.44928
New Spec. Shift at : 0
-31
0
31
Spectrum Shifter Position

C 10.29.01

Method: 60102007 Standard: CAL BLK
Run Time: 10/29/01 09:29:05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00337	.05276	-.00825	.00126	.00048	.07444	.01525
SDev	.00697	.00355	.00714	.01021	.00165	.00016	.00106
%RSD	206.55	6.7313	86.549	810.25	346.48	.21168	6.9400
#1	.00830	.05527	-.00320	.00848	.00164	.07455	.01600
#2	-.00155	.05024	-.01330	-.00596	-.00069	.07433	.01450

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00419	-.00255	.00104	.02200	-.00203	.00303	-.60641
SDev	.00092	.00421	.00550	.00718	.00299	.00367	.03099
%RSD	21.996	165.44	528.64	32.630	147.45	121.25	5.1099
#1	.00484	.00043	.00493	.02707	.00009	.00562	-.58450
#2	.00354	-.00553	-.00285	.01692	-.00414	.00043	-.62832

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	.00139	.00000	.00039	.00334	-.00194	-.00034	.00376
SDev	.00416	.00073	.00006	.01974	.00568	.01246	.00092
%RSD	300.07	154310.	15.841	591.09	292.70	3692.4	24.509
#1	.00432	.00052	.00043	.01730	.00208	.00848	.00441
#2	-.00155	-.00052	.00035	-.01062	-.00596	-.00915	.00311

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	.00030	-.01447	-.00116	.00039	.00026	.08501	-.01972
SDev	.00312	.01300	.01155	.00214	.00232	.03659	.02398
%RSD	1023.7	89.841	996.21	548.15	890.63	43.040	121.61
#1	.00251	-.00528	.00701	.00190	.00190	.11088	-.03667
#2	-.00190	-.02365	-.00932	-.00112	-.00138	.05914	-.00276

Elem	1960/1	1960/2	L16707
Avge	.00297	.00821	-.00034
SDev	.02254	.00072	.00134
%RSD	759.89	8.8028	389.76
#1	-.01297	.00770	.00061
#2	.01891	.00872	-.00129

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11573	--	--	--	--	--	--
SDev	14.99840	--	--	--	--	--	--
%RSD	.1296021	--	--	--	--	--	--
#1	11562	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: 60102007 Standard: STD 1
Run Time: 10/29/01 09:34:43

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1870	7.9700	9.1680	7.6022	6.8206	18.683	11.828
SDev	.0150	.0151	.0742	.0691	.0358	.110	.037
%RSD	.47110	.18887	.80945	.90869	.52422	.59042	.31144
#1	3.1764	7.9594	9.1156	7.5534	6.7953	18.605	11.802
#2	3.1976	7.9807	9.2205	7.6511	6.8459	18.761	11.854

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.837	10.877	11.428	9.5706	4.5592	82.174	47.199
SDev	.100	.054	.050	.0535	.0164	.372	.005
%RSD	.37325	.49628	.43697	.55851	.36008	.45235	.01118
#1	26.766	10.839	11.393	9.5328	4.5476	81.911	47.195
#2	26.908	10.916	11.463	9.6084	4.5708	82.437	47.203

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.542	11.004	6.8335	.85475	12.047	5.2021	7.1293
SDev	.032	.045	.0414	.00817	.048	.0312	.0265
%RSD	.27422	.40986	.60569	.95563	.40000	.60068	.37184
#1	11.520	10.972	6.8042	.86053	12.013	5.1800	7.1106
#2	11.565	11.035	6.8627	.84897	12.081	5.2242	7.1480

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	38.836	50.738	8.8389	3.1290	10.082	57.039	35.706
SDev	.199	.184	.0513	.0143	.036	.167	.084
%RSD	.51151	.36336	.57985	.45613	.36036	.29193	.23491
#1	38.695	50.607	8.8026	3.1189	10.056	57.157	35.647
#2	38.976	50.868	8.8751	3.1391	10.108	56.922	35.765

Elem	1960/1	1960/2	Li6707
Avge	11.472	10.323	70.305
SDev	.040	.019	.270
%RSD	.34504	.18510	.38373
#1	11.500	10.309	70.496
#2	11.444	10.336	70.114

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11447	--	--	--	--	--	--
SDev	12.21555	--	--	--	--	--	--
%RSD	.1067125	--	--	--	--	--	--
#1	11456	--	--	--	--	--	--
#2	11439	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 10/29/01 09:40:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0043	20.025	2.0151	2.0143	2.0072	1.0073	20.032
SDev	.0021	.031	.0010	.0005	.0042	.0017	.033
%RSD	.20909	.15370	.04736	.02509	.21024	.16835	.16573
#1	1.0028	20.003	2.0144	2.0139	2.0042	1.0061	20.008
#2	1.0057	20.047	2.0157	2.0146	2.0102	1.0085	20.055
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0044	2.0040	2.0064	2.0100	20.062	20.067	19.951
SDev	.0024	.0031	.0028	.0034	.035	.031	.013
%RSD	.24199	.15606	.13855	.16682	.17304	.15369	.06383
#1	1.0027	2.0018	2.0045	2.0076	20.037	20.046	19.960
#2	1.0061	2.0063	2.0084	2.0124	20.086	20.089	19.942
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	20.029	2.0048	2.0093	19.852	2.0091	2.0018	2.0111
SDev	.024	.0042	.0032	.093	.0043	.0056	.0082
%RSD	.11862	.21121	.16037	.46896	.21600	.27735	.40719
#1	20.012	2.0018	2.0070	19.918	2.0061	1.9979	2.0053
#2	20.045	2.0078	2.0116	19.787	2.0122	2.0058	2.0168
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0122	2.0079	2.0111	2.0058	2.0106	2.0080	2.0011
SDev	.0008	.0002	.0048	.0036	.0009	.0044	.0022
%RSD	.03986	.01210	.23750	.18148	.04332	.21681	.10899
#1	2.0117	2.0077	2.0077	2.0032	2.0100	2.0049	1.9996
#2	2.0128	2.0081	2.0145	2.0083	2.0113	2.0111	2.0027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0038	2.0009	2.0182	2.0075	1.9783		
SDev	.0068	.0049	.0058	.0094	.0023		
%RSD	.33734	.24736	.28549	.46828	.11754		
#1	1.9990	1.9974	2.0142	2.0008	1.9766		
#2	2.0085	2.0044	2.0223	2.0141	1.9799		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					2.0000		
Range					5.0000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11469	--	--	--	--	--	--
SDev	58.20027	--	--	--	--	--	--
%RSD	.5074367	--	--	--	--	--	--
#1	11511	--	--	--	--	--	--
#2	11428	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 10/29/01 09:45:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50171	9.9188	.98549	.98407	.97214	.49282	9.9192
SDev	.00084	.0170	.00998	.00678	.00413	.00278	.0250
%RSD	.16826	.17171	1.0128	.68912	.42438	.56471	.25175
#1	.50231	9.9308	.99255	.98887	.97506	.49479	9.9369
#2	.50112	9.9067	.97844	.97928	.96923	.49086	9.9016
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49479	1.0012	.99063	.98667	9.9689	10.007	9.5642
SDev	.00187	.0057	.00315	.00536	.0410	.055	.0018
%RSD	.37897	.57180	.31844	.54317	.41099	.55368	.01833
#1	.49612	1.0052	.99286	.99046	9.9979	10.046	9.5629
#2	.49346	.99715	.98840	.98288	9.9399	9.9673	9.5654
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.8768	.98852	.99783	9.6660	1.0022	.99715	.98893
SDev	.0326	.00398	.00403	.2665	.0028	.00119	.00211
%RSD	.32989	.40316	.40385	2.7575	.27983	.11895	.21331
#1	9.8999	.99134	1.0007	9.4775	1.0042	.99798	.99042
#2	9.8538	.98570	.99498	9.8544	1.0002	.99631	.98744
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0050	1.0052	.98325	1.0059	.99724	.98710	.98634
SDev	.0036	.0040	.00358	.0041	.00250	.00362	.00310
%RSD	.36013	.39891	.36447	.40761	.25096	.36682	.31399
#1	1.0076	1.0081	.98578	1.0088	.99901	.98966	.98853
#2	1.0025	1.0024	.98072	1.0030	.99547	.98454	.98415
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99692	.99726	.99310	.98685	1.0128		
SDev	.00623	.00133	.00955	.00161	.0043		
%RSD	.62527	.13374	.96183	.16277	.42761		
#1	1.0013	.99632	.99986	.98572	1.0097		
#2	.99251	.99820	.98635	.98799	1.0159		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11585	--	--	--	--	--	--
SDev	22.07292	--	--	--	--	--	--
%RSD	.1905248	--	--	--	--	--	--
#1	11601	--	--	--	--	--	--
#2	11570	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator: GSP
Run Time: 10/29/01 09:51:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	.00716	.00077	.00223	.00108	.00059	.01233
SDev	.00086	.00430	.00016	.00128	.00021	.00001	.00074
%RSD	94.829	60.126	21.452	57.256	19.709	1.8389	5.9754
#1	.00151	.01020	.00089	.00314	.00123	.00058	.01285
#2	.00030	.00411	.00065	.00133	.00093	.00060	.01181
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00143	.00139	.00105	.00831	.01020	.03179
SDev	.00021	.00019	.00025	.00060	.01205	.00055	.00160
%RSD	34.455	13.209	18.211	57.105	144.91	5.3502	5.0174
#1	.00076	.00156	.00157	.00148	.01683	.00982	.03292
#2	.00046	.00130	.00121	.00063	-.00020	.01059	.03066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00926	.00111	.00165	.15038	.00112	.00125	.00003
SDev	.00632	.00010	.00091	.03219	.00013	.00099	.00047
%RSD	68.239	8.7780	54.846	21.406	11.572	79.357	1360.1
#1	.01373	.00117	.00230	.17314	.00121	.00195	.00037
#2	.00479	.00104	.00101	.12761	.00103	.00055	-.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	.00183	.00123	.00108	-.00013	.00138	.00126
SDev	.00320	.00078	.00009	.00047	.00185	.00004	.00030
%RSD	276.78	42.757	6.9238	44.008	1411.3	2.8096	23.804
#1	.00342	.00238	.00129	.00142	.00118	.00140	.00147
#2	-.00111	.00128	.00117	.00074	-.00144	.00135	.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00191	.00092	.00385	-.00187	.00138		
SDev	.00138	.00080	.00283	.00212	.00013		
%RSD	72.150	86.825	73.670	113.44	9.5640		
#1	.00288	.00148	.00184	-.00037	.00148		
#2	.00093	.00035	.00585	-.00337	.00129		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11583	--	--	--	--	--	--
SDev	27.26090	--	--	--	--	--	--
%RSD	.2353488	--	--	--	--	--	--
#1	11602	--	--	--	--	--	--
#2	11564	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator: GSP
Run Time: 10/29/01 09:57:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00172	Q.08758	Q.00471	Q.09164	Q.00903	Q.00478	Q.45712
SDev	.00057	.00518	.00152	.00073	.00026	.00002	.00097
%RSD	33.149	5.9187	32.196	.79177	2.9148	.33867	.21278
#1	Q.00213	Q.09125	.00578	Q.09215	Q.00922	Q.00476	Q.45643
#2	Q.00132	Q.08392	Q.00364	Q.09113	Q.00884	Q.00479	Q.45781
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00462	Q.00935	Q.00414	Q.00749	.08864	Q.09598	Q.84076
SDev	.00005	.00053	.00015	.00036	.00712	.00058	.00777
%RSD	1.1369	5.6677	3.6489	4.7825	8.0273	.59984	.92389
#1	Q.00459	Q.00972	Q.00425	Q.00774	.09367	Q.09558	Q.83527
#2	Q.00466	Q.00897	Q.00404	Q.00724	.08361	Q.09639	Q.84625
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail
Value	.01000	.02000	01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q.45664	Q.00955	Q.00937	Q.36012	Q.00458	Q.00400	Q.00958
SDev	.00041	.00014	.00022	.01187	.00097	.00110	.00034
%RSD	.08912	1.4505	2.3449	3.2955	21.086	27.570	3.5209
#1	Q.45693	Q.00945	Q.00953	Q.35173	.00526	Q.00322	Q.00982
#2	Q.45635	Q.00965	Q.00922	Q.36852	Q.00390	Q.00478	Q.00935
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.04787	Q.00384	Q.00457	Q.00465	Q.00702	Q.00806	Q.01924
SDev	.00123	.00006	.00007	.00024	.00044	.00016	.00009
%RSD	2.5753	1.5620	1.5326	5.0724	6.2004	2.0154	.47799
#1	Q.04700	Q.00388	Q.00452	Q.00481	Q.00671	Q.00818	Q.01917
#2	Q.04875	Q.00380	Q.00462	Q.00448	Q.00732	Q.00795	Q.01930
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00018	.00590	.00756	.01060	Q.04628		
SDev	.00227	.00052	.00312	.00206	.00000		
%RSD	1227.5	8.8203	41.337	19.488	.00098		
#1	-.00142	.00553	.00535	.01206	Q.04628		
#2	.00179	.00627	.00976	.00914	Q.04628		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11577	--	--	--	--	--	--
SDev	60.98313	--	--	--	--	--	--
%RSD	.5267724	--	--	--	--	--	--
#1	11534	--	--	--	--	--	--
#2	11620	--	--	--	--	--	--

Method: 60102007 Sample Name: AL500 Operator: GSP
Run Time: 10/29/01 10:02:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	498.35	-.00118	.00078	.00054	.00047	.01552
SDev	.00010	1.21	.00423	.00138	.00032	.00003	.00060
%RSD	8.2169	.24293	358.67	176.68	58.615	6.2303	3.8773
#1	-.00117	497.50	.00181	-.00019	.00076	.00045	.01594
#2	-.00132	499.21	-.00417	.00176	.00032	.00049	.01509
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00027	.03058	.00182	.11153	.12281	.02946
SDev	.00018	.00060	.00013	.00021	.01515	.00012	.01403
%RSD	18.279	217.58	.43578	11.804	13.584	.09541	47.613
#1	-.00086	.00015	.03049	.00197	.12224	.12289	.03938
#2	-.00111	-.00070	.03068	.00167	.10082	.12272	.01954
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00162	.00180	.01010	.14830	.00564	-.00388	-.00368
SDev	.00277	.00009	.00079	.01502	.00145	.00006	.00138
%RSD	171.01	5.2063	7.8312	10.127	25.713	1.5506	37.555
#1	.00357	.00186	.01066	.15891	.00667	-.00384	-.00466
#2	-.00034	.00173	.00954	.13768	.00462	-.00392	-.00270
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00377	-.00203	.00013	-.00003	.00540	.00034	.00297
SDev	.00098	.00157	.00001	.00018	.00199	.00025	.00042
%RSD	26.022	77.118	6.8151	644.85	36.762	71.625	13.964
#1	-.00308	-.00314	.00014	.00010	.00681	.00052	.00326
#2	-.00446	-.00092	.00013	-.00015	.00400	.00017	.00268
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	Q.01208	Q-.01185	Q.00789	Q-.00946	.00026
SDev	.00449	.00233	.00868	.00226	.00004
%RSD	37.167	19.676	110.02	23.924	14.185
#1	Q.00891	Q-.01020	.00175	Q-.00786	.00029
#2	Q.01526	Q-.01350	Q.01403	Q-.01106	.00023
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00300	.00300	.00500	.00500	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10975	--	--	--	--	--	--
SDev	71.78377	--	--	--	--	--	--
%RSD	.6540930	--	--	--	--	--	--
#1	11025	--	--	--	--	--	--
#2	10924	--	--	--	--	--	--

Method: 60102007 Sample Name: FE500 Operator: GSP
Run Time: 10/29/01 10:08:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.12625	.00256	-.00021	.00055	.00055	-.00689
SDev	.00089	.04292	.00223	.00060	.00034	.00001	.00064
%RSD	140.22	33.992	87.273	290.89	61.526	2.5794	9.3229
#1	.00126	.15660	Q.00414	.00022	.00078	.00056	-.00644
#2	.00001	.09591	.00098	-.00063	.00031	.00054	-.00735
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00300				.10000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00159	.00010	-.00384	-.00122	542.17	391.03	.03360
SDev	.00003	.00010	.00021	.00023	1.30	1.07	.01337
%RSD	1.8181	102.77	5.4811	18.779	.23918	.27297	39.774
#1	Q.00157	.00003	-.00369	-.00106	543.08	391.78	.04305
#2	Q.00161	.00017	-.00399	-.00139	541.25	390.27	.02415
Errors	QC Fail	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04036	-.00297	-.00128	.03566	-.00771	-.00182	.00158
SDev	.00335	.00005	.00009	.04857	.00026	.00056	.00025
%RSD	8.3085	1.8340	7.1463	136.20	3.4148	30.646	15.941
#1	-.03798	-.00293	-.00135	.07000	-.00790	-.00143	.00176
#2	-.04273	-.00301	-.00122	.00132	-.00752	-.00221	.00140
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	.00252	-.00034	-.00018	Q-.00534	.00044	-.00400
SDev	.00194	.00050	.00004	.00027	.00316	.00032	.00022
%RSD	63.555	19.748	11.790	147.45	59.254	74.174	5.4161
#1	-.00168	.00288	-.00031	.00001	Q-.00310	.00021	-.00416
#2	-.00443	.00217	-.00037	-.00037	Q-.00758	.00066	-.00385
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00027	Q-.00287	-.00034	.00254	.00007
SDev	.00004	.00082	.00058	.00009	.00003
%RSD	14.181	28.504	171.99	3.4855	40.397
#1	.00030	Q-.00229	.00007	.00260	.00009
#2	.00025	Q-.00344	-.00075	.00248	.00005
Errors	QC Pass	QC Fail	QC Pass	QC Pass	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00200	.00200	.00300	.00300	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10591	--	--	--	--	--	--
SDev	32.92052	--	--	--	--	--	--
%RSD	.3108262	--	--	--	--	--	--
#1	10568	--	--	--	--	--	--
#2	10615	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator: GSP
Run Time: 10/29/01 10:14:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	505.12	.00143	.00436	.00197	.00083	457.43
SDev	.00030	.54	.00179	.00072	.00007	.00001	.61
%RSD	115.20	.10745	125.81	16.432	3.3315	.70717	.13442
#1	-.00005	504.74	.00016	.00385	.00202	.00083	457.00
#2	-.00048	505.51	.00270	.00487	.00193	.00084	457.87
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00064	.00363	-.00185	.00035	195.82	179.37	.02642
SDev	.00002	.00023	.00035	.00097	.02	.01	.00634
%RSD	3.2127	6.4588	18.765	277.01	.00874	.00463	24.015
#1	-.00063	.00346	-.00160	.00104	195.80	179.37	.03091
#2	-.00065	.00380	-.00209	-.00034	195.83	179.36	.02194
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	520.28	.00347	-.00128	.10097	-.00127	.00215	-.00030
SDev	.60	.00004	.00056	.23112	.00049	.00054	.00415
%RSD	.11442	1.2538	43.617	228.89	39.090	24.993	1376.1
#1	519.86	.00344	-.00167	.26439	-.00092	.00177	-.00323
#2	520.70	.00350	-.00088	-.06245	-.00162	.00254	.00263
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00047	-.00130	-.00275	.00448	-.00360	.00391
SDev	.00228	.00083	.00012	.00038	.00122	.00072	.00020
%RSD	147.38	177.68	9.3614	13.651	27.198	19.881	5.1686
#1	.00316	-.00105	-.00122	-.00302	.00362	-.00310	.00377
#2	-.00007	.00012	-.00139	-.00249	.00534	-.00411	.00405
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.02161	.01402	-.00322	.00115	.00042		
SDev	.00420	.00290	.00086	.00579	.00003		
%RSD	19.431	20.713	26.577	501.52	7.6979		
#1	-.01864	.01196	-.00382	-.00294	.00044		
#2	-.02457	.01607	-.00261	.00525	.00039		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10267	--	--	--	--	--	--
SDev	19.24311	--	--	--	--	--	--
%RSD	.1874341	--	--	--	--	--	--
#1	10253	--	--	--	--	--	--
#2	10280	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator: GSP
Run Time: 10/29/01 10:19:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57129	518.57	1.0195	1.0367	1.1253	.51551	466.10
SDev	.00103	.27	.0018	.0043	.0015	.00049	.53
%RSD	.18033	.05286	.17556	.41381	.13682	.09446	.11276
#1	.57202	518.76	1.0207	1.0336	1.1264	.51585	466.47
#2	.57057	518.37	1.0182	1.0397	1.1242	.51516	465.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47311	.94920	.99681	1.1030	206.40	187.10	14.114
SDev	.00051	.00076	.00112	.0012	.26	.33	.019
%RSD	.10826	.08007	.11256	.11295	.12575	.17633	.13606
#1	.47347	.94973	.99760	1.1038	206.58	187.33	14.127
#2	.47275	.94866	.99601	1.1021	206.21	186.86	14.100
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	531.83	1.0159	1.0334	11.619	.93315	.95829	1.0186
SDev	.78	.0015	.0000	.025	.00065	.00345	.0071
%RSD	.14707	.14932	.00281	.21819	.07019	.36030	.69919
#1	532.39	1.0170	1.0334	11.601	.93361	.96073	1.0236
#2	531.28	1.0149	1.0333	11.636	.93268	.95585	1.0135
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0560	1.0102	1.0973	1.0716	.98411	1.0273	.93687
SDev	.0042	.0017	.0005	.0015	.00035	.0011	.00211
%RSD	.39583	.16436	.04542	.14252	.03515	.10823	.22486
#1	1.0589	1.0090	1.0977	1.0727	.98386	1.0280	.93836
#2	1.0530	1.0114	1.0970	1.0705	.98435	1.0265	.93538
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.92829	.97327	1.0128	1.0214	1.0998		
SDev	.00359	.00339	.0020	.0117	.0002		
%RSD	.38631	.34792	.20012	1.1444	.01868		
#1	.93082	.97567	1.0114	1.0297	1.1000		
#2	.92575	.97088	1.0142	1.0132	1.0997		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10334	--	--	--	--	--	--
SDev	21.31747	--	--	--	--	--	--
%RSD	.2062923	--	--	--	--	--	--
#1	10319	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 10:28:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50459	10.066	.98612	.98262	.97624	.49294	10.065
SDev	.00137	.018	.00005	.00048	.00182	.00053	.024
%RSD	.27172	.17976	.00459	.04879	.18666	.10670	.23577
#1	.50556	10.053	.98615	.98296	.97753	.49332	10.048
#2	.50362	10.078	.98609	.98228	.97496	.49257	10.082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49544	.99890	.98874	.98692	10.041	10.054	9.5845
SDev	.00007	.00086	.00123	.00127	.012	.002	.0149
%RSD	.01348	.08618	.12459	.12881	.12135	.02391	.15567
#1	.49539	.99951	.98962	.98782	10.050	10.052	9.5950
#2	.49548	.99829	.98787	.98602	10.033	10.056	9.5739
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9738	.98924	.99865	9.6367	1.0003	.99944	.99262
SDev	.0233	.00147	.00079	.0953	.0028	.00222	.00151
%RSD	.23399	.14865	.07887	.98850	.27801	.22170	.15190
#1	9.9573	.99028	.99810	9.5694	.99834	.99788	.99155
#2	9.9903	.98820	.99921	9.7041	1.0023	1.0010	.99369
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0098	1.0021	.98783	1.0075	.99755	.98752	.98364
SDev	.0019	.0014	.00106	.0008	.00631	.00064	.00038
%RSD	.18626	.13741	.10748	.07771	.63248	.06518	.03813
#1	1.0112	1.0011	.98858	1.0081	1.0020	.98798	.98338
#2	1.0085	1.0031	.98708	1.0070	.99309	.98707	.98391
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.99406	1.0021	1.0001	.98887	1.0130
SDev	.00096	.0028	.0037	.00412	.0021
%RSD	.09621	.28384	.37234	.41660	.20831
#1	.99338	1.0001	1.0028	.98595	1.0115
#2	.99473	1.0041	.99750	.99178	1.0145
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					10.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11589	--	--	--	--	--	--
SDev	20.84584	--	--	--	--	--	--
%RSD	.1798721	--	--	--	--	--	--
#1	11604	--	--	--	--	--	--
#2	11575	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 10:34:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.01551	.00101	.00153	.00056	.00042	.01676
SDev	.00015	.00998	.00020	.00024	.00005	.00006	.01455
%RSD	70.093	64.389	19.453	15.813	9.6732	13.631	86.805
#1	.00011	.00845	.00115	.00170	.00052	.00038	.00647
#2	.00033	.02257	.00087	.00136	.00060	.00046	.02704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00077	.00033	-.00043	.01612	.01023	.01764
SDev	.00006	.00014	.00052	.00051	.00107	.00608	.00535
%RSD	37.415	17.659	154.11	119.49	6.6601	59.411	30.336
#1	.00011	.00087	-.00003	-.00007	.01688	.00593	.01386
#2	.00019	.00068	.00070	-.00079	.01536	.01453	.02142
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01609	.00058	.00090	.03335	.00076	.00011	-.00106
SDev	.01042	.00008	.00056	.07711	.00019	.00022	.00031
%RSD	64.772	13.573	61.699	231.18	25.359	198.09	28.992
#1	.00872	.00052	.00129	-.02117	.00062	.00027	-.00127
#2	.02345	.00063	.00051	.08787	.00090	-.00004	-.00084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00410	.00124	.00048	.00070	-.00097	.00045	.00065
SDev	.00165	.00136	.00011	.00004	.00100	.00019	.00002
%RSD	40.176	109.20	22.111	6.2044	102.56	43.628	3.6911
#1	.00527	.00221	.00041	.00067	-.00168	.00058	.00067
#2	.00294	.00028	.00056	.00073	-.00027	.00031	.00064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00162	.00097	.00001	-.00159	.00052		
SDev	.00153	.00110	.00056	.00074	.00012		
%RSD	94.945	112.61	4991.0	46.377	22.816		
#1	-.00270	.00175	.00040	-.00211	.00044		
#2	-.00053	.00020	-.00038	-.00107	.00060		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11531	--	--	--	--	--	--
SDev	3.018324	--	--	--	--	--	--
%RSD	.0261751	--	--	--	--	--	--
#1	11533	--	--	--	--	--	--
#2	11529	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD131 Operator:
Run Time: 10/29/01 10:39:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00030	.01083	-.00010	.00050	.00011	.00019	.01421
SDev	.00030	.01389	.00284	.00040	.00014	.00006	.01033
%RSD	100.68	128.24	2792.1	80.507	126.22	29.826	72.724
#1	-.00052	.00101	-.00211	.00021	.00001	.00015	.00690
#2	-.00009	.02065	.00191	.00078	.00021	.00023	.02152
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00050	-.00003	-.00063	.00549	.00605	.02090
SDev	.00002	.00072	.00009	.00000	.00054	.00541	.00136
%RSD	308.43	143.78	272.89	.67188	9.8553	89.437	6.5260
#1	-.00001	-.00001	.00003	-.00063	.00511	.00222	.02186
#2	.00002	.00101	-.00009	-.00062	.00588	.00988	.01994
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00811	.00023	-.00015	.03439	.00000	-.00019	-.00045
SDev	.01212	.00014	.00034	.02813	.00023	.00026	.00146
%RSD	149.38	63.216	222.94	81.786	21800.	138.36	325.14
#1	-.00046	.00013	-.00039	.01450	-.00016	-.00037	.00058
#2	.01668	.00033	.00009	.05428	.00017	-.00000	-.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	-.00044	.00017	.00016	-.00297	-.00019	.00307
SDev	.00164	.00008	.00010	.00020	.00006	.00023	.00028
%RSD	108.08	19.167	56.009	121.77	2.0720	121.34	9.1928
#1	.00036	-.00050	.00010	.00002	-.00302	-.00003	.00287
#2	.00268	-.00038	.00024	.00030	-.00293	-.00036	.00327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00125	.00035	.00189	-.00162	.00016		
SDev	.00168	.00123	.00573	.00067	.00012		
%RSD	134.33	355.44	304.05	41.665	77.000		
#1	-.00006	-.00052	.00594	-.00209	.00007		
#2	-.00244	.00121	-.00217	-.00114	.00025		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11606	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2133388	--	--	--	--	--	--
#1	11589	--	--	--	--	--	--
#2	11624	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD131 Operator:
Run Time: 10/29/01 10:45:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48741	9.7452	.98010	.96828	.96383	.48860	9.7974
SDev	.00036	.0114	.00604	.00064	.00006	.00026	.0144
%RSD	.07311	.11690	.61652	.06635	.00616	.05302	.14690
#1	.48767	9.7532	.97583	.96783	.96387	.48879	9.8075
#2	.48716	9.7371	.98437	.96874	.96379	.48842	9.7872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49331	.97400	.97689	.96367	L9.7927	9.7905	9.4551
SDev	.00032	.00047	.00164	.00007	.0012	.0101	.0578
%RSD	.06402	.04871	.16772	.00743	.01229	.10354	.61111
#1	.49354	.97434	.97804	.96362	L9.7919	9.7977	9.4960
#2	.49309	.97367	.97573	.96372	L9.7936	9.7833	9.4143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.7209	.97567	.98472	9.4709	.98434	.98570	.98234
SDev	.0091	.00113	.00081	.0416	.00045	.00558	.00642
%RSD	.09410	.11548	.08232	.43880	.04558	.56592	.65353
#1	9.7274	.97647	.98415	9.4415	.98466	.98964	.98688
#2	9.7144	.97487	.98529	9.5003	.98403	.98175	.97780
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97125	.99358	.97689	.98119	.98107	.97004	.98554
SDev	.00139	.00184	.00047	.00086	.00190	.00086	.00197
%RSD	.14299	.18558	.04830	.08729	.19361	.08910	.19933
#1	.97027	.99489	.97723	.98179	.98242	.97065	.98693
#2	.97223	.99228	.97656	.98058	.97973	.96943	.98415
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.97917	.98896	.98684	.98009	.99751
SDev	.00839	.00418	.00826	.00550	.00370
%RSD	.85639	.42235	.83659	.56151	.37146
#1	.98510	.99191	.99268	.98398	1.0001
#2	.97324	.98600	.98100	.97620	.99489
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11668	--	--	--	--	--	--
SDev	63.52982	--	--	--	--	--	--
%RSD	.5444667	--	--	--	--	--	--
#1	11623	--	--	--	--	--	--
#2	11713	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1 Operator:
Run Time: 10/29/01 10:51:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.54150	.00107	.02567	.00216	.00016	12.139
SDev	.00050	.00310	.00041	.00123	.00001	.00000	.081
%RSD	523.55	.57265	38.745	4.7821	.42116	.43285	.66716
#1	.00045	.53930	.00136	.02654	.00216	.00016	12.082
#2	-.00026	.54369	.00078	.02481	.00215	.00016	12.196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	-.00002	.00053	-.00003	1.04733	.05358	3.5392
SDev	.00003	.00026	.00004	.00001	.00093	.00051	.0068
%RSD	17.195	1185.1	7.4011	28.632	1.9640	.95865	.19112
#1	.00013	-.00021	.00056	-.00002	1.04667	.05395	3.5344
#2	.00017	.00016	.00050	-.00003	1.04799	.05322	3.5440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.82471	.00182	.00025	5.2648	.00057	-.00007	.00131
SDev	.00720	.00010	.00038	.0309	.00023	.00016	.00060
%RSD	.87342	5.6164	149.80	.58663	40.094	230.82	45.982
#1	.81962	.00189	-.00001	5.2429	.00073	.00004	.00174
#2	.82981	.00175	.00052	5.2866	.00041	-.00018	.00089
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00227	.00381	.16457	.00384	-.00252	.00103	.01614
SDev	.00015	.00010	.00067	.00010	.00015	.00019	.00011
%RSD	6.4040	2.6228	.40395	2.7097	5.7935	18.027	.66183
#1	-.00217	.00388	.16410	.00377	-.00242	.00116	.01621
#2	-.00238	.00373	.16504	.00392	-.00262	.00090	.01606
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00122	-.00071	.00589	-.00097	.01333		
SDev	.00106	.00029	.00354	.00086	.00003		
%RSD	86.381	40.233	60.111	88.836	.20647		
#1	.00197	-.00092	.00839	-.00158	.01334		
#2	.00048	-.00051	.00339	-.00036	.01331		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	43.57960	--	--	--	--	--	--
%RSD	.3690444	--	--	--	--	--	--
#1	11840	--	--	--	--	--	--
#2	11778	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1L Operator:
Run Time: 10/29/01 10:56:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	.10850	.00052	.00618	.00043	.00017	2.4817
SDev	.00152	.00042	.00183	.00102	.00016	.00002	.0019
%RSD	186.22	.38546	350.09	16.548	37.635	8.8439	.07668
#1	.00026	.10879	.00182	.00691	.00054	.00018	2.4804
#2	-.00189	.10820	-.00077	.00546	.00031	.00016	2.4830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.00010	.00033	-.00074	L.00514	.01278	.71347
SDev	.00006	.00013	.00095	.00017	.00053	.00011	.00756
%RSD	1957.3	128.07	291.31	22.555	10.373	.86108	1.0593
#1	.00004	.00020	.00100	-.00062	L.00476	.01286	.71881
#2	-.00005	.00001	-.00035	-.00086	L.00552	.01271	.70812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.16534	.00040	-.00036	.99653	.00066	-.00043	-.00108
SDev	.00177	.00007	.00000	.18384	.00005	.00016	.00026
%RSD	1.0674	16.462	.04574	18.448	7.5778	36.646	24.230
#1	.16659	.00045	-.00036	1.1265	.00069	-.00055	-.00089
#2	.16410	.00036	-.00036	.86653	.00062	-.00032	-.00126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00044	-.00033	.03291	.00080	-.00108	-.00019	.00757
SDev	.00091	.00071	.00004	.00029	.00369	.00054	.00010
%RSD	207.91	213.41	.12891	36.476	341.02	281.08	1.3295
#1	.00021	-.00084	.03288	.00101	.00153	.00019	.00764
#2	-.00108	.00017	.03294	.00060	-.00369	-.00057	.00750
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	.00006	-.00073	-.00125	.00286
SDev	.00090	.00069	.00258	.00168	.00002
%RSD	63.351	1144.9	353.83	134.49	.65353
#1	-.00079	-.00043	-.00255	-.00006	.00287
#2	-.00206	.00055	.00109	-.00243	.00285
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11674	--	--	--	--	--	--
SDev	5.942735	--	--	--	--	--	--
%RSD	.0509053	--	--	--	--	--	--
#1	11670	--	--	--	--	--	--
#2	11678	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1S Operator:
Run Time: 10/29/01 11:02:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49817	10.487	1.0247	1.0171	.99034	.49991	22.178
SDev	.00271	.076	.0051	.0096	.00753	.00410	.150
%RSD	.54398	.72782	.49943	.94420	.76033	.81998	.67506
#1	.49626	10.433	1.0211	1.0103	.98502	.49701	22.072
#2	.50009	10.541	1.0283	1.0239	.99567	.50281	22.284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50679	1.0007	1.0004	.98877	L10.090	10.118	14.322
SDev	.00406	.0075	.0070	.00638	.076	.078	.087
%RSD	.80136	.75350	.70420	.64566	.75124	.76831	.61056
#1	.50391	.99536	.99543	.98426	L10.036	10.063	14.261
#2	.50966	1.0060	1.0054	.99329	L10.143	10.172	14.384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.779	1.0018	1.0084	15.119	1.0104	1.0181	1.0436
SDev	.064	.0074	.0120	.156	.0068	.0055	.0051
%RSD	.59529	.73514	1.1936	1.0350	.67159	.54504	.49275
#1	10.733	.99661	.99991	15.230	1.0056	1.0142	1.0400
#2	10.824	1.0070	1.0169	15.009	1.0152	1.0220	1.0472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97190	.99058	1.1640	1.0089	1.0107	.99978	1.0375
SDev	.05032	.01534	.0084	.0085	.0093	.00605	.0076
%RSD	5.1777	1.5489	.71970	.84464	.91816	.60561	.72785
#1	.93632	.97974	1.1581	1.0029	1.0042	.99550	1.0321
#2	1.0075	1.0014	1.1700	1.0149	1.0173	1.0041	1.0428
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0120	1.0211	1.0503	1.0403	.97297
SDev	.0070	.0048	.0075	.0040	.00555
%RSD	.69212	.47226	.71244	.38201	.57065
#1	1.0071	1.0177	1.0450	1.0375	.96904
#2	1.0170	1.0245	1.0556	1.0431	.97690
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11640	--	--	--	--	--	--
SDev	91.21471	--	--	--	--	--	--
%RSD	.7836079	--	--	--	--	--	--
#1	11705	--	--	--	--	--	--
#2	11576	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1SD Operator:
Run Time: 10/29/01 11:07:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50378	10.600	1.0312	1.0306	1.0007	.50596	22.236
SDev	.00122	.037	.0012	.0031	.0015	.00067	.017
%RSD	.24244	.35365	.11927	.30169	.14666	.13183	.07641
#1	.50464	10.627	1.0303	1.0284	1.0017	.50643	22.224
#2	.50291	10.574	1.0321	1.0328	.99966	.50549	22.248
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51279	1.0116	1.0129	1.0005	L10.211	10.237	14.309
SDev	.00089	.0033	.0032	.0018	.040	.029	.006
%RSD	.17258	.32660	.31495	.18362	.38700	.28576	.04299
#1	.51342	1.0139	1.0152	1.0018	L10.239	10.258	14.314
#2	.51217	1.0092	1.0107	.99919	L10.183	10.216	14.305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.880	1.0128	1.0210	15.340	1.0210	1.0273	1.0508
SDev	.026	.0028	.0042	.343	.0030	.0067	.0111
%RSD	.24142	.27797	.40702	2.2348	.28918	.65049	1.0528
#1	10.898	1.0148	1.0181	15.582	1.0231	1.0320	1.0586
#2	10.861	1.0108	1.0240	15.097	1.0190	1.0226	1.0430
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98733	1.0039	1.1749	1.0216	1.0158	1.0119	1.0472
SDev	.04425	.0060	.0004	.0027	.0015	.0024	.0039
%RSD	4.4814	.60005	.03817	.26398	.14915	.23269	.37131
#1	.95604	.99969	1.1753	1.0197	1.0148	1.0135	1.0500
#2	1.0186	1.0082	1.1746	1.0235	1.0169	1.0102	1.0445
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0191	1.0314	1.0588	1.0468	.97818
SDev	.0082	.0059	.0133	.0100	.00675
%RSD	.80627	.57364	1.2519	.95224	.68992
#1	1.0249	1.0356	1.0681	1.0539	.98295
#2	1.0133	1.0272	1.0494	1.0398	.97341
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11571	--	--	--	--	--	--
SDev	16.55486	--	--	--	--	--	--
%RSD	.1430718	--	--	--	--	--	--
#1	11559	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-2 Operator:
Run Time: 10/29/01 11:13:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.18679	.00244	.02647	.00523	.00027	5.8823
SDev	.00011	.00268	.00009	.00099	.00032	.00002	.0070
%RSD	16.250	1.4354	3.5993	3.7309	6.0420	6.0286	.11923
#1	.00074	.18869	.00250	.02717	.00546	.00028	5.8773
#2	.00058	.18490	.00238	.02577	.00501	.00026	5.8872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00056	.00137	.00040	L.07465	.07722	1.7251
SDev	.00008	.00072	.00026	.00063	.00085	.00125	.0070
%RSD	40.767	129.82	18.623	156.76	1.1417	1.6195	.40434
#1	.00026	.00107	.00119	-.00004	L.07525	.07810	1.7201
#2	.00015	.00005	.00155	.00084	L.07404	.07633	1.7300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72012	.00114	.00193	5.0480	.00095	.00059	-.00014
SDev	.00294	.00008	.00059	.0968	.00049	.00055	.00134
%RSD	.40849	7.3221	30.377	1.9170	51.917	93.624	962.89
#1	.71804	.00120	.00235	4.9795	.00130	.00098	-.00109
#2	.72220	.00108	.00152	5.1164	.00060	.00020	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00539	.01908	.00264	-.00229	.00168	.01246
SDev	.00007	.00040	.00009	.00032	.00091	.00004	.00014
%RSD	54.448	7.4910	.47716	11.974	39.763	2.6043	1.1264
#1	.00008	.00510	.01914	.00286	-.00293	.00165	.01256
#2	.00018	.00568	.01902	.00241	-.00164	.00171	.01236
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00088	.00044	.00644	-.00342	.00120
SDev	.00288	.00227	.00497	.00047	.00009
%RSD	325.41	509.30	77.170	13.647	7.0776
#1	-.00115	.00205	.00292	-.00309	.00126
#2	.00292	-.00116	.00995	-.00375	.00114
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11870	--	--	--	--	--	--
SDev	34.76010	--	--	--	--	--	--
%RSD	.2928309	--	--	--	--	--	--
#1	11895	--	--	--	--	--	--
#2	11846	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-3 Operator:
Run Time: 10/29/01 11:19:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	2.1485	.00194	.03336	.01145	.00021	4.8813
SDev	.00034	.0094	.00067	.00003	.00006	.00002	.0230
%RSD	1508.8	.43827	34.586	.08815	.56144	11.457	.47027
#1	.00022	2.1418	.00146	.03338	.01140	.00019	4.8651
#2	-.00026	2.1552	.00241	.03334	.01149	.00022	4.8975
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	-.00027	.00135	-.00046	1.58650	.60423	3.2135
SDev	.00000	.00023	.00005	.00005	.00110	.00257	.0336
%RSD	20.947	87.265	3.7749	11.760	.18793	.42575	1.0465
#1	-.00002	-.00010	.00139	-.00050	1.58572	.60241	3.1897
#2	-.00002	-.00043	.00132	-.00042	1.58728	.60605	3.2372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.56758	.00286	.00031	9.9876	.00050	-.00024	.00234
SDev	.00316	.00003	.00037	.0694	.00016	.00048	.00058
%RSD	.55756	1.0440	119.62	.69491	32.250	203.46	24.810
#1	.56534	.00288	.00057	10.037	.00038	-.00057	.00193
#2	.56981	.00284	.00005	9.9385	.00061	.00010	.00275
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00294	.00311	.04944	.01895	-.00271	.00161	.01331
SDev	.00137	.00082	.00019	.00001	.00358	.00026	.00012
%RSD	46.651	26.367	.37958	.04015	132.28	16.457	.88170
#1	-.00197	.00369	.04960	.01895	-.00017	.00180	.01340
#2	-.00390	.00253	.04957	.01894	-.00524	.00142	.01323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00181	-.00126	.00872	-.00084	.00115
SDev	.00065	.00104	.00021	.00098	.00002
%RSD	35.726	82.851	2.4120	115.88	1.7346
#1	.00227	-.00200	.00887	-.00153	.00113
#2	.00135	-.00052	.00857	-.00015	.00116
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11804	--	--	--	--	--	--
SDev	11.79087	--	--	--	--	--	--
%RSD	.0998845	--	--	--	--	--	--
#1	11813	--	--	--	--	--	--
#2	11796	--	--	--	--	--	--

Method: 6010200/ Sample Name: 110557-4 Operator:
Run Time: 10/29/01 11:24:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.19134	.00182	.02392	.01270	.00012	5.0255
SDev	.00077	.00061	.00043	.00072	.00010	.00003	.0016
%RSD	177.41	.31932	23.494	3.0125	.81999	20.327	.03100
#1	-.00098	.19178	.00152	.02443	.01277	.00011	5.0266
#2	.00011	.19091	.00213	.02341	.01263	.00014	5.0244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	-.00001	.00022	-.00065	L.18699	.19379	2.1106
SDev	.00002	.00046	.00022	.00087	.00970	.00388	.0182
%RSD	85.920	8366.5	98.315	133.08	5.1895	2.0023	.86226
#1	-.00005	-.00033	.00007	-.00127	L.18013	.19104	2.0977
#2	-.00001	.00032	.00038	-.00004	L.19385	.19653	2.1235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.54167	.00263	-.00034	7.7958	.00019	.00011	.00092
SDev	.00027	.00001	.00034	.2078	.00005	.00040	.00083
%RSD	.05060	.27068	99.554	2.6659	26.576	380.80	90.169
#1	.54148	.00263	-.00058	7.6488	.00015	.00039	.00033
#2	.54187	.00262	-.00010	7.9427	.00022	-.00018	.00150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00339	.00255	.06263	.00307	-.00336	.00045	.01198
SDev	.00061	.00020	.00014	.00021	.00112	.00100	.00008
%RSD	18.001	7.6901	.22784	6.8808	33.213	220.36	.64412
#1	-.00383	.00269	.06273	.00292	-.00415	-.00025	.01203
#2	-.00296	.00242	.06253	.00322	-.00257	.00115	.01192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00046	.00580	-.00152	.01302
SDev	.00129	.00125	.00167	.00041	.00009
%RSD	104.76	273.33	28.751	26.750	.69450
#1	.00032	.00043	.00462	-.00181	.01296
#2	.00214	-.00134	.00698	-.00123	.01309
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11819	--	--	--	--	--	--
SDev	17.21501	--	--	--	--	--	--
%RSD	.1456603	--	--	--	--	--	--
#1	11831	--	--	--	--	--	--
#2	11806	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-5 Operator:
Run Time: 10/29/01 11:30:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00029	.19452	.00277	.02489	.00499	.00020	6.2414
SDev	.00023	.00655	.00072	.00105	.00035	.00002	.0209
%RSD	79.217	3.3682	25.857	4.2019	7.0314	11.727	.33443
#1	-.00013	.19915	.00328	.02563	.00524	.00022	6.2267
#2	-.00045	.18988	.00227	.02415	.00474	.00019	6.2562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00051	.00031	-.00016	L.07594	.07415	1.7075
SDev	.00003	.00099	.00023	.00013	.01414	.00013	.0170
%RSD	32.756	194.06	75.867	80.148	18.620	.18117	.99837
#1	.00008	.00121	.00047	-.00007	L.08594	.07424	1.7195
#2	.00013	-.00019	.00014	-.00025	L.06594	.07405	1.6954
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72580	.00352	-.00013	4.9992	.00045	-.00006	.00151
SDev	.00202	.00011	.00078	.0790	.00058	.00113	.00101
%RSD	.27901	3.1135	594.77	1.5811	128.66	1984.1	66.715
#1	.72723	.00360	.00042	4.9433	.00086	.00074	.00080
#2	.72437	.00345	-.00068	5.0551	.00004	-.00086	.00222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00115	.00326	.01935	.00267	-.00094	.00082	.01996
SDev	.00437	.00037	.00006	.00068	.00176	.00020	.00009
%RSD	381.03	11.434	.32696	25.672	187.41	24.055	.43616
#1	.00194	.00299	.01930	.00315	.00030	.00096	.01990
#2	-.00424	.00352	.01939	.00218	-.00218	.00068	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.00024	.00487	-.00017	.00088
SDev	.00335	.00337	.00364	.00031	.00006
%RSD	512.96	1400.1	74.806	183.94	6.5458
#1	-.00302	.00262	.00229	.00005	.00092
#2	.00172	-.00214	.00744	-.00039	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	39.57036	--	--	--	--	--	--
%RSD	.3350978	--	--	--	--	--	--
#1	11781	--	--	--	--	--	--
#2	11837	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 11:35:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50893	10.069	1.0034	.98960	.97464	.49722	10.107
SDev	.00032	.030	.0049	.00543	.00317	.00178	.023
%RSD	.06245	.29369	.48910	.54918	.32494	.35746	.23131
#1	.50870	10.048	.99991	.98576	.97240	.49596	10.090
#2	.50915	10.090	1.0069	.99345	.97688	.49848	10.124
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50488	1.0107	.99767	.98631	10.115	10.125	9.7692
SDev	.00083	.0037	.00319	.00300	.017	.032	.0359
%RSD	.16479	.36577	.31994	.30430	.16901	.31270	.36751
#1	.50429	1.0081	.99541	.98419	10.103	10.102	9.7945
#2	.50547	1.0133	.99993	.98843	10.127	10.147	9.7438
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.088	.99704	1.0065	9.6640	1.0176	1.0187	1.0157
SDev	.014	.00286	.0065	.1388	.0013	.0034	.0025
%RSD	.13749	.28656	.65003	1.4367	.12954	.33502	.24518
#1	10.078	.99502	1.0018	9.7622	1.0167	1.0163	1.0140
#2	10.098	.99906	1.0111	9.5658	1.0185	1.0212	1.0175
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0187	1.0209	.98922	1.0115	1.0153	.99199	1.0049
SDev	.0044	.0010	.00362	.0027	.0024	.00220	.0009
%RSD	.42907	.09406	.36572	.26844	.23352	.22142	.09345
#1	1.0156	1.0202	.98666	1.0095	1.0137	.99043	1.0043
#2	1.0218	1.0215	.99178	1.0134	1.0170	.99354	1.0056
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0116	1.0223	1.0209	1.0131	1.0449		
SDev	.0017	.0060	.0004	.0039	.0010		
%RSD	.17098	.58497	.03826	.38777	.09516		
#1	1.0128	1.0181	1.0212	1.0104	1.0456		
#2	1.0103	1.0266	1.0206	1.0159	1.0442		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11641	--	--	--	--	--	--
SDev	50.37100	--	--	--	--	--	--
%RSD	.4327003	--	--	--	--	--	--
#1	11677	--	--	--	--	--	--
#2	11605	--	--	--	--	--	--

Method: 60102007 Sample Name: TCB/CCB Operator:
Run Time: 10/29/01 11:41:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00052	.01215	.00142	.00088	.00043	.00049	.01636
SDev	.00171	.00742	.00056	.00015	.00016	.00005	.00082
%RSD	327.49	61.091	39.154	16.728	37.841	10.070	4.9898
#1	.00069	.00690	.00103	.00077	.00031	.00046	.01579
#2	-.00173	.01739	.00182	.00098	.00054	.00053	.01694
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00024	.00029	.00031	-.00034	.00025	.01034	.01831
SDev	.00009	.00028	.00055	.00041	.00583	.00205	.04330
%RSD	39.271	96.879	176.10	119.90	2309.3	19.806	236.42
#1	.00031	.00009	.00070	-.00005	-.00387	.00889	.04893
#2	.00017	.00048	-.00008	-.00063	.00438	.01179	-.01230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01120	.00061	.00096	-.12591	.00003	.00024	-.00132
SDev	.00434	.00018	.00022	.29085	.00035	.00017	.00014
%RSD	38.741	29.226	23.385	231.00	1133.9	69.961	10.274
#1	.00814	.00048	.00080	.07975	-.00022	.00036	-.00141
#2	.01427	.00073	.00112	-.33158	.00028	.00012	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	-.00020	.00058	.00055	-.00087	.00005	.00048
SDev	.00101	.00059	.00001	.00022	.00100	.00081	.00020
%RSD	219.68	294.76	.84298	40.552	115.00	1580.7	42.395
#1	-.00025	.00022	.00058	.00039	-.00016	.00062	.00034
#2	.00117	-.00062	.00058	.00071	-.00158	-.00052	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00046	.00013	.00212	-.00303	.00076		
SDev	.00533	.00240	.00519	.00279	.00005		
%RSD	1159.4	1783.5	245.07	92.121	5.9217		
#1	.00423	-.00157	.00579	-.00501	.00073		
#2	-.00331	.00183	-.00155	-.00106	.00079		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11659	--	--	--	--	--	--
SDev	27.07169	--	--	--	--	--	--
%RSD	.2321898	--	--	--	--	--	--
#1	11678	--	--	--	--	--	--
#2	11640	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-6 Operator:
Run Time: 10/29/01 11:47:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00456	.00078	.00077	.00027	.00028	.01535
SDev	.00026	.00029	.00140	.00007	.00002	.00002	.00216
%RSD	81.095	6.4093	179.33	9.2920	5.5515	8.4151	14.099
#1	-.00014	.00436	-.00021	.00082	.00028	.00030	.01688
#2	-.00050	.00477	.00177	.00072	.00026	.00027	.01382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00093	.00017	-.00049	L.01003	.00268	.03674
SDev	.00021	.00024	.00073	.00026	.00734	.00104	.05383
%RSD	314.91	26.160	428.61	52.789	73.174	38.741	146.50
#1	.00021	.00076	.00069	-.00031	L.00484	.00342	.07480
#2	-.00008	.00111	-.00035	-.00068	L.01522	.00195	-.00132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00565	.00033	-.00008	.11701	.00048	-.00058	-.00056
SDev	.00005	.00010	.00026	.08354	.00033	.00026	.00038
%RSD	.90929	29.029	337.59	71.397	67.461	45.289	68.776
#1	.00561	.00040	.00011	.17608	.00071	-.00039	-.00029
#2	.00569	.00026	-.00026	.05793	.00025	-.00076	-.00083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00256	-.00013	.00022	.00042	.00002	.00007	.01171
SDev	.00080	.00110	.00019	.00003	.00091	.00068	.00000
%RSD	31.399	818.84	85.559	5.9900	4654.2	910.01	.03051
#1	.00199	.00064	.00036	.00040	.00066	.00056	.01170
#2	.00312	-.00091	.00009	.00044	-.00062	-.00041	.01171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00229	.00028	.00169	-.00168	.00019
SDev	.00458	.00189	.00358	.00122	.00021
%RSD	199.52	683.04	212.07	72.553	110.85
#1	.00094	-.00106	.00422	-.00253	.00034
#2	-.00553	.00161	-.00084	-.00082	.00004
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11841	--	--	--	--	--	--
SDev	75.55685	--	--	--	--	--	--
%RSD	.6381212	--	--	--	--	--	--
#1	11894	--	--	--	--	--	--
#2	11787	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-7 Operator:
Run Time: 10/29/01 11:52:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00447	-.00075	-.00027	-.00007	.00013	.00050
SDev	.00096	.00226	.00035	.00090	.00014	.00005	.00045
%RSD	132.15	50.496	46.946	336.41	207.94	36.693	89.509
#1	.00140	-.00287	-.00100	.00037	.00003	.00010	.00082
#2	.00005	-.00606	-.00050	-.00091	-.00016	.00017	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	-.00010	.00044	-.00027	L-.01147	.00001	.05403
SDev	.00002	.00015	.00026	.00043	.00815	.00030	.02019
%RSD	15.754	148.92	58.147	157.99	71.040	5719.6	37.372
#1	.00012	-.00021	.00062	.00003	L-.00571	.00022	.03976
#2	.00015	.00001	.00026	-.00058	L-.01724	-.00021	.06831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00422	.00001	-.00019	.17921	-.00014	-.00032	.00066
SDev	.00196	.00005	.00029	.07974	.00014	.00044	.00085
%RSD	46.400	713.50	147.26	44.494	102.51	137.64	127.13
#1	-.00283	.00005	.00001	.23559	-.00004	-.00063	.00126
#2	-.00560	-.00003	-.00040	.12283	-.00024	-.00001	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00087	.00010	-.00021	.00073	.00063	.01165
SDev	.00199	.00112	.00004	.00014	.00020	.00041	.00011
%RSD	183.83	129.03	43.667	68.706	27.971	65.767	.94524
#1	.00032	.00166	.00013	-.00011	.00058	.00092	.01172
#2	-.00249	.00008	.00007	-.00031	.00087	.00034	.01157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00377	-.00236	.00759	-.00279	.00006
SDev	.00124	.00128	.00078	.00088	.00003
%RSD	32.885	54.231	10.263	31.448	49.322
#1	.00465	-.00327	.00814	-.00217	.00004
#2	.00289	-.00146	.00704	-.00341	.00007
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11961	--	--	--	--	--	--
SDev	67.44445	--	--	--	--	--	--
%RSD	.5638739	--	--	--	--	--	--
#1	12009	--	--	--	--	--	--
#2	11913	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-1 Operator:
Run Time: 10/29/01 11:58:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	.16075	.00151	.02615	.00228	.00006	1.1798
SDev	.00043	.00712	.00018	.00117	.00017	.00004	.0163
%RSD	44.244	4.4276	11.698	4.4723	7.3907	66.194	1.3802
#1	-.00066	.16578	.00163	.02697	.00240	.00009	1.1913
#2	-.00127	.15572	.00138	.02532	.00216	.00003	1.1683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00048	.00024	-.00099	L.25156	.25177	1.0327
SDev	.00006	.00035	.00028	.00035	.00433	.00401	.0537
%RSD	101.15	72.148	120.71	35.934	1.7209	1.5912	5.1965
#1	-.00002	.00073	.00044	-.00073	L.25462	.25461	1.0706
#2	-.00011	.00024	.00003	-.00124	L.24850	.24894	.99472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.26558	.00143	-.00043	6.2094	.00092	-.00008	.00209
SDev	.00438	.00004	.00010	.1419	.00049	.00072	.00036
%RSD	1.6473	2.7440	23.221	2.2845	52.761	915.53	17.272
#1	.26868	.00146	-.00050	6.3097	.00127	.00043	.00234
#2	.26249	.00141	-.00036	6.1091	.00058	-.00059	.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00084	.00231	.00641	.00235	-.00176	.00043	.01276
SDev	.00010	.00079	.00014	.00042	.00019	.00005	.00014
%RSD	12.253	34.093	2.2483	17.665	10.513	10.722	1.0746
#1	-.00077	.00287	.00652	.00264	-.00189	.00047	.01286
#2	-.00092	.00175	.00631	.00206	-.00163	.00040	.01266
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00152	.00064	.00358	.00134	.00023
SDev	.00038	.00089	.00064	.00086	.00011
%RSD	25.219	138.87	17.821	63.971	48.616
#1	-.00125	.00127	.00313	.00195	.00031
#2	-.00179	.00001	.00403	.00074	.00015
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11991	--	--	--	--	--	--
SDev	150.0289	--	--	--	--	--	--
%RSD	1.251225	--	--	--	--	--	--
#1	11884	--	--	--	--	--	--
#2	12097	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-2 Operator:
Run Time: 10/29/01 12:03:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.57648	.00256	.02609	.00300	.00010	4.7344
SDev	.00100	.00344	.00002	.00021	.00010	.00001	.0041
%RSD	230.66	.59582	.64722	.79822	3.4724	10.961	.08566
#1	-.00114	.57405	.00255	.02594	.00292	.00009	4.7373
#2	.00027	.57891	.00257	.02624	.00307	.00011	4.7316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00126	.00084	-.00026	L.28056	.28122	1.2823
SDev	.00005	.00003	.00055	.00094	.01488	.00033	.0050
%RSD	63.542	2.5035	64.803	359.00	5.3026	.11733	.38794
#1	.00005	.00124	.00046	-.00093	L.27004	.28099	1.2787
#2	.00012	.00128	.00123	.00040	L.29108	.28145	1.2858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.90048	.00266	-.00012	2.2505	.00059	-.00071	.00250
SDev	.00133	.00000	.00017	.2896	.00027	.00041	.00040
%RSD	.14748	.05432	139.13	12.869	45.209	57.807	16.000
#1	.89954	.00266	-.00000	2.0457	.00040	-.00100	.00222
#2	.90142	.00266	-.00024	2.4553	.00078	-.00042	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00191	.00935	.00690	-.00237	.00056	.01730
SDev	.00066	.00211	.00005	.00045	.00159	.00096	.00017
%RSD	2647.0	110.29	.58003	6.5432	67.031	171.64	.98689
#1	.00049	.00042	.00932	.00658	-.00350	-.00012	.01718
#2	-.00044	.00340	.00939	.00722	-.00125	.00124	.01743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00166	-.00024	.00302	.00224	.00059
SDev	.00318	.00098	.00153	.00016	.00002
%RSD	192.22	413.42	50.494	7.2621	3.1587
#1	-.00391	.00045	.00194	.00235	.00057
#2	.00060	-.00093	.00410	.00212	.00060
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11774	--	--	--	--	--	--
SDev	5.754219	--	--	--	--	--	--
%RSD	.0488702	--	--	--	--	--	--
#1	11770	--	--	--	--	--	--
#2	11779	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-3 Operator:
Run Time: 10/29/01 12:09:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.15118	.00012	.02815	.00619	.00009	6.1267
SDev	.00026	.00211	.00139	.00110	.00005	.00002	.0111
%RSD	81.883	1.3939	1130.1	3.9105	.85348	19.295	.18072
#1	-.00013	.15267	.00111	.02893	.00623	.00008	6.1189
#2	-.00050	.14969	-.00086	.02737	.00616	.00010	6.1345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00014	.00057	-.00049	L.49090	.49570	1.4175
SDev	.00006	.00021	.00006	.00010	.00262	.00107	.0051
%RSD	68.021	145.06	10.625	20.028	.53420	.21500	.35753
#1	-.00005	.00029	.00061	-.00056	L.49275	.49495	1.4139
#2	-.00013	-.00000	.00053	-.00042	L.48904	.49646	1.4211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.53955	.00353	-.00067	6.5772	.00048	.00074	.00369
SDev	.00050	.00003	.00014	.0723	.00023	.00038	.00271
%RSD	.09270	.95650	20.649	1.0991	47.832	50.919	73.517
#1	.53991	.00356	-.00077	6.6283	.00064	.00047	.00177
#2	.53920	.00351	-.00057	6.5261	.00031	.00100	.00561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	.00211	.01703	.00202	-.00363	.00070	.01199
SDev	.00370	.00026	.00003	.00014	.00031	.00023	.00029
%RSD	198.29	12.335	.14529	6.9256	8.4656	32.806	2.3938
#1	.00075	.00192	.01702	.00211	-.00341	.00054	.01219
#2	-.00449	.00229	.01705	.00192	-.00385	.00086	.01179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00118	.00052	.00675	.00216	.00324
SDev	.00046	.00033	.00012	.00413	.00000
%RSD	39.306	64.126	1.7139	190.76	.05965
#1	.00085	.00028	.00683	-.00075	.00324
#2	.00151	.00075	.00667	.00508	.00324
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11849	--	--	--	--	--	--
SDev	32.02490	--	--	--	--	--	--
%RSD	.2702792	--	--	--	--	--	--
#1	11871	--	--	--	--	--	--
#2	11826	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-1 Operator:
Run Time: 10/29/01 12:15:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00103	6.0627	.00328	.03158	.01865	.00009	76.725
SDev	.00069	.0011	.00052	.00070	.00018	.00002	.105
%RSD	66.518	.01851	15.919	2.2163	.95327	20.251	.13704
#1	-.00152	6.0635	.00365	.03207	.01877	.00010	76.651
#2	-.00055	6.0619	.00291	.03108	.01852	.00007	76.799
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00029	-.00018	-.00070	L.01833	.02664	5.0115
SDev	.00013	.00021	.00060	.00063	.00535	.00029	.0085
%RSD	66.876	73.564	327.00	90.071	29.192	1.0810	.17022
#1	-.00030	.00044	-.00060	-.00114	L.02211	.02684	5.0054
#2	-.00011	.00014	.00024	-.00025	L.01454	.02644	5.0175
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.30325	.00068	.00123	8.5397	.00141	.00025	.00161
SDev	.00184	.00001	.00012	.1268	.00036	.00039	.00084
%RSD	.60544	1.8144	9.6378	1.4848	25.962	157.57	51.852
#1	.30454	.00068	.00131	8.4501	.00167	.00052	.00102
#2	.30195	.00067	.00114	8.6294	.00115	-.00003	.00220
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00210	.00106	.73213	-.00001	-.00264	.00219	.01440
SDev	.00204	.00070	.00084	.00014	.00005	.00042	.00002
%RSD	97.357	65.898	.11523	1542.7	1.8640	19.180	.15057
#1	-.00354	.00056	.73154	.00009	-.00260	.00190	.01438
#2	-.00065	.00155	.73273	-.00011	-.00267	.00249	.01441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00024	.00542	-.00029	.00363
SDev	.00477	.00297	.00662	.00205	.00000
%RSD	387.31	1223.2	122.07	701.59	.09104
#1	-.00214	.00186	.00074	.00116	.00363
#2	.00460	-.00234	.01010	-.00174	.00362
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11629	--	--	--	--	--	--
SDev	21.74215	--	--	--	--	--	--
%RSD	.1869653	--	--	--	--	--	--
#1	11614	--	--	--	--	--	--
#2	11644	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-2 Operator:
Run Time: 10/29/01 12:20:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	.30567	.00176	.03336	.00651	.00008	50.260
SDev	.00004	.00151	.00104	.00076	.00017	.00002	.185
%RSD	11.404	.49308	59.001	2.2683	2.6666	20.016	.36850
#1	-.00037	.30460	.00103	.03283	.00638	.00007	50.129
#2	-.00032	.30673	.00250	.03390	.00663	.00009	50.391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00008	.00104	.00002	1.06721	.07670	11.543
SDev	.00004	.00029	.00021	.00012	.01087	.00026	.049
%RSD	677.61	367.05	19.742	625.92	16.176	.33792	.42663
#1	-.00003	.00028	.00119	-.00007	1.05952	.07651	11.508
#2	.00002	-.00012	.00090	.00011	1.07490	.07688	11.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.4474	.00768	.00137	16.632	-.00013	-.00004	.00314
SDev	.0120	.00009	.00032	.062	.00061	.00002	.00088
%RSD	.49050	1.2281	23.233	.37577	484.79	43.899	27.930
#1	2.4389	.00761	.00114	16.588	-.00056	-.00005	.00376
#2	2.4559	.00774	.00159	16.676	.00031	-.00003	.00252
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00093	.00426	.04932	.00879	-.00455	.00799	.01141
SDev	.00113	.00033	.00008	.00023	.00104	.00017	.00015
%RSD	121.13	7.7694	.16171	2.5807	22.794	2.1853	1.2765
#1	-.00173	.00403	.04926	.00863	-.00382	.00787	.01131
#2	-.00013	.00450	.04937	.00895	-.00529	.00812	.01151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00295	-.00153	.00892	.00026	.00761
SDev	.00008	.00006	.00035	.00114	.00007
%RSD	2.5603	4.0647	3.9548	442.40	.86551
#1	.00301	-.00157	.00916	.00106	.00756
#2	.00290	-.00149	.00867	-.00055	.00765
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11846	--	--	--	--	--	--
SDev	28.53424	--	--	--	--	--	--
%RSD	.2408844	--	--	--	--	--	--
#1	11866	--	--	--	--	--	--
#2	11825	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-3 Operator:
Run Time: 10/29/01 12:26:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	.96787	.00179	.03515	.00829	.00016	14.343
SDev	.00072	.00153	.00037	.00007	.00004	.00004	.014
%RSD	104.15	.15782	20.729	.20315	.49290	22.228	.09748
#1	-.00119	.96679	.00205	.03520	.00832	.00014	14.353
#2	-.00018	.96895	.00153	.03510	.00826	.00019	14.333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00013	.00007	.00076	-.00060	L.31687	.32849	8.8912
SDev	.00001	.00018	.00028	.00059	.00284	.00073	.0095
%RSD	6.9043	242.01	37.257	97.373	.89573	.22331	.10732
#1	-.00012	-.00005	.00056	-.00102	L.31887	.32901	8.8844
#2	-.00013	.00020	.00096	-.00019	L.31486	.32798	8.8979
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.52459	.00313	-.00067	12.934	.00039	.00014	.00157
SDev	.00172	.00003	.00038	.156	.00103	.00009	.00048
%RSD	.32836	1.1136	56.695	1.2057	260.21	60.280	30.463
#1	.52338	.00315	-.00093	12.824	-.00033	.00020	.00190
#2	.52581	.00310	-.00040	13.044	.00112	.00008	.00123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00208	.00313	.06117	.00903	-.00062	.00103	.01452
SDev	.00028	.00033	.00009	.00016	.00217	.00023	.00011
%RSD	13.351	10.662	.14316	1.7424	348.72	22.186	.72336
#1	-.00228	.00290	.06123	.00892	-.00216	.00087	.01459
#2	-.00189	.00337	.06111	.00914	.00091	.00119	.01444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00081	-.00019	.00562	-.00046	.00085
SDev	.00208	.00117	.00441	.00292	.00000
%RSD	255.55	607.28	78.535	637.07	.46967
#1	-.00066	.00063	.00250	.00161	.00085
#2	.00228	-.00102	.00874	-.00252	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	7.970834	--	--	--	--	--	--
%RSD	.0676129	--	--	--	--	--	--
#1	11783	--	--	--	--	--	--
#2	11795	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-1 Operator:
Run Time: 10/29/01 12:32:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00028	.30389	.00235	.03677	.02131	.00014	28.581
SDev	.00175	.00144	.00464	.00041	.00000	.00002	.070
%RSD	623.04	.47359	197.62	1.1089	.01708	11.716	.24535
#1	-.00152	.30287	-.00093	.03706	.02131	.00013	28.631
#2	.00096	.30491	.00563	.03648	.02131	.00016	28.532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00007	.00047	.00023	-.00039	L.39412	.40251	3.6119
SDev	.00006	.00022	.00058	.00105	.00100	.00027	.0134
%RSD	78.307	46.937	254.90	272.21	.25263	.06714	.37028
#1	-.00011	.00032	-.00018	-.00113	L.39482	.40270	3.6025
#2	-.00003	.00063	.00064	.00036	L.39341	.40232	3.6214
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0773	.00412	-.00043	5.2546	.00076	.00029	.00234
SDev	.0022	.00004	.00045	.2726	.00032	.00098	.00140
%RSD	.10414	1.0496	104.26	5.1880	42.478	332.50	60.112
#1	2.0789	.00415	-.00011	5.0618	.00053	.00099	.00333
#2	2.0758	.00409	-.00075	5.4473	.00098	-.00040	.00134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00253	.00443	.28323	.00490	-.00563	.00068	.01499
SDev	.00218	.00192	.00111	.00006	.00022	.00069	.00009
%RSD	86.124	43.337	.39254	1.2768	3.9150	102.03	.58151
#1	-.00099	.00307	.28402	.00486	-.00547	.00019	.01493
#2	-.00407	.00579	.28244	.00495	-.00578	.00117	.01505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00140	-.00026	.00876	-.00087	.01272
SDev	.00355	.00324	.00278	.00349	.00006
%RSD	252.71	1253.5	31.698	400.94	.43642
#1	-.00110	.00203	.00680	.00160	.01268
#2	.00391	-.00255	.01073	-.00334	.01276
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11690	--	--	--	--	--	--
SDev	1.981142	--	--	--	--	--	--
%RSD	.0169475	--	--	--	--	--	--
#1	11691	--	--	--	--	--	--
#2	11688	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-2 Operator:
Run Time: 10/29/01 12:37:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	4.1140	.00054	.01945	.00688	.00027	14.853
SDev	.00053	.0017	.00181	.00118	.00019	.00002	.019
%RSD	69.753	.04032	334.01	6.0561	2.8283	6.9759	.13014
#1	-.00114	4.1128	-.00074	.01861	.00674	.00026	14.866
#2	-.00039	4.1151	.00182	.02028	.00702	.00029	14.839
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00043	.00253	.00013	L.70380	.71738	12.294
SDev	.00016	.00094	.00068	.00023	.00975	.00170	.002
%RSD	183.48	215.96	26.813	177.24	1.3855	.23746	.01871
#1	-.00020	-.00023	.00205	-.00003	L.69690	.71858	12.296
#2	.00003	.00109	.00301	.00029	L.71069	.71617	12.292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.7242	.00774	-.00058	14.469	.00072	-.00034	.00164
SDev	.0021	.00008	.00011	.262	.00073	.00028	.00005
%RSD	.05644	.98433	18.416	1.8115	102.51	83.264	3.0100
#1	3.7257	.00769	-.00065	14.284	.00020	-.00053	.00161
#2	3.7228	.00779	-.00050	14.654	.00124	-.00014	.00168
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00278	.00353	.07709	.02284	-.00387	.00412	.01767
SDev	.00178	.00031	.00016	.00047	.00144	.00043	.00026
%RSD	64.104	8.6952	.21300	2.0692	37.136	10.375	1.4885
#1	-.00404	.00375	.07720	.02250	-.00489	.00382	.01749
#2	-.00152	.00331	.07697	.02317	-.00286	.00442	.01786
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00049	-.00075	.00457	.00018	.00713
SDev	.00026	.00029	.00099	.00042	.00005
%RSD	53.824	38.530	21.718	230.04	.73798
#1	.00030	-.00095	.00387	.00048	.00709
#2	.00067	-.00054	.00527	-.00011	.00717
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11670	--	--	--	--	--	--
SDev	1.320301	--	--	--	--	--	--
%RSD	.0113134	--	--	--	--	--	--
#1	11669	--	--	--	--	--	--
#2	11671	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 12:43:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50832	10.145	1.0060	.98468	.97042	.49761	10.189
SDev	.00002	.019	.0002	.00212	.00136	.00050	.022
%RSD	.00371	.19033	.02024	.21521	.14032	.10019	.21824
#1	.50834	10.132	1.0061	.98618	.96946	.49726	10.173
#2	.50831	10.159	1.0058	.98318	.97138	.49796	10.204
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51046	1.0164	1.0015	.98180	10.178	10.158	9.9273
SDev	.00018	.0008	.0014	.00027	.019	.012	.0267
%RSD	.03626	.08283	.14127	.02736	.18256	.11712	.26849
#1	.51033	1.0158	1.0005	.98199	10.165	10.149	9.9085
#2	.51059	1.0170	1.0025	.98161	10.192	10.166	9.9462
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.220	1.0004	1.0075	10.042	1.0251	1.0379	1.0219
SDev	.026	.0014	.0031	.057	.0011	.0004	.0010
%RSD	.25825	.14482	.30704	.56957	.11031	.03866	.10146
#1	10.201	.99933	1.0053	10.082	1.0243	1.0376	1.0226
#2	10.238	1.0014	1.0097	10.002	1.0259	1.0382	1.0211
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0168	1.0310	.98712	1.0134	1.0241	.99414	1.0189
SDev	.0029	.0001	.00088	.0019	.0003	.00098	.0011
%RSD	.28576	.00553	.08887	.18495	.03013	.09902	.10595
#1	1.0189	1.0310	.98650	1.0121	1.0243	.99345	1.0182
#2	1.0148	1.0311	.98774	1.0147	1.0239	.99484	1.0197
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0296	1.0421	1.0318	1.0169	1.0817		
SDev	.0017	.0002	.0024	.0004	.0058		
%RSD	.16510	.02372	.22815	.03728	.53329		
#1	1.0284	1.0422	1.0335	1.0171	1.0777		
#2	1.0308	1.0419	1.0302	1.0166	1.0858		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11675	--	--	--	--	--	--
SDev	28.34573	--	--	--	--	--	--
%RSD	.2427803	--	--	--	--	--	--
#1	11696	--	--	--	--	--	--
#2	11655	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 12:48:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00751	.00166	.00130	.00032	.00056	.01574
SDev	.00028	.00787	.00020	.00069	.00037	.00005	.00345
%RSD	381.99	104.78	11.912	53.456	115.14	9.6435	21.898
#1	.00027	.01308	.00180	.00179	.00058	.00060	.01818
#2	-.00013	.00195	.00152	.00081	.00006	.00052	.01331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00062	.00038	-.00067	.00014	.00945	.00176
SDev	.00009	.00018	.00029	.00035	.01923	.00185	.00765
%RSD	56.871	28.205	76.855	52.164	13740.	19.631	434.09
#1	.00023	.00075	.00059	-.00043	.01374	.01076	.00717
#2	.00010	.00050	.00017	-.00092	-.01346	.00813	-.00365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01063	.00056	.00087	-.02628	.00039	.00103	.00068
SDev	.00739	.00022	.00048	.00562	.00089	.00008	.00085
%RSD	69.519	39.232	55.263	21.401	229.93	8.1790	125.14
#1	.01585	.00071	.00122	-.02231	.00101	.00109	.00008
#2	.00540	.00040	.00053	-.03026	-.00024	.00097	.00127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00055	.00054	.00047	-.00043	.00016	.00055
SDev	.00370	.00184	.00014	.00048	.00201	.00012	.00042
%RSD	285.81	331.72	25.395	102.57	468.51	76.399	76.360
#1	.00391	.00185	.00063	.00080	-.00185	.00024	.00084
#2	-.00132	-.00075	.00044	.00013	.00099	.00007	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00037	.00136	.00546	-.00171	.00067		
SDev	.00125	.00075	.00299	.00022	.00013		
%RSD	342.92	55.357	54.711	13.058	19.736		
#1	-.00052	.00189	.00335	-.00156	.00076		
#2	.00125	.00083	.00758	-.00187	.00057		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11772	--	--	--	--	--	--
SDev	2.782852	--	--	--	--	--	--
%RSD	.0236398	--	--	--	--	--	--
#1	11774	--	--	--	--	--	--
#2	11770	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-3 Operator:
Run Time: 10/29/01 12:54:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	3.1656	.00158	.01308	.00145	.00031	6.9078
SDev	.00051	.0022	.00101	.00045	.00010	.00002	.0047
%RSD	403.16	.06911	63.978	3.4470	7.0689	5.7253	.06874
#1	-.00023	3.1640	.00230	.01276	.00153	.00029	6.9044
#2	.00049	3.1671	.00087	.01340	.00138	.00032	6.9112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00089	.00473	.00090	L.12053	.12423	.61194
SDev	.00010	.00013	.00061	.00012	.00453	.00115	.00549
%RSD	121.81	14.467	12.920	13.633	3.7617	.92314	.89798
#1	.00001	.00098	.00516	.00081	L.12374	.12341	.60805
#2	.00015	.00080	.00429	.00099	L.11733	.12504	.61583
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98521	.00171	.00179	.67460	.00087	.00057	.00037
SDev	.00279	.00002	.00023	.06445	.00018	.00085	.00097
%RSD	.28270	1.0864	12.976	9.5540	20.700	148.91	257.38
#1	.98718	.00173	.00162	.72017	.00074	.00118	.00106
#2	.98324	.00170	.00195	.62902	.00100	-.00003	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.00147	.01186	.08760	.00132	.00512	.02005
SDev	.00019	.00008	.00002	.00112	.00072	.00026	.00005
%RSD	5.9938	5.3978	.13168	1.2751	54.702	5.0634	.23571
#1	.00323	.00152	.01185	.08839	.00081	.00530	.02008
#2	.00297	.00141	.01188	.08681	.00183	.00494	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00032	.00102	.00425	-.00156	.00018		
SDev	.00059	.00158	.00141	.00215	.00001		
%RSD	187.34	154.86	33.212	137.87	6.6363		
#1	-.00073	.00213	.00325	-.00004	.00018		
#2	.00010	-.00010	.00525	-.00308	.00019		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11783	--	--	--	--	--	--
SDev	21.36512	--	--	--	--	--	--
%RSD	.1813228	--	--	--	--	--	--
#1	11798	--	--	--	--	--	--
#2	11768	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator:
Run Time: 10/29/01 13:00:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00804	.18479	.00949	.18007	.01766	.00964	.93167
SDev	.00102	.00034	.00271	.00020	.00001	.00000	.00196
%RSD	12.743	.18284	28.543	.11355	.03224	.01501	.21074
#1	.00731	.18456	.01141	.18021	.01766	.00964	.93306
#2	.00876	.18503	.00758	.17992	.01765	.00964	.93029
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00970	.01924	.00919	.01731	.18610	.19085	1.7483
SDev	.00005	.00021	.00030	.00032	.00003	.00043	.0104
%RSD	.55852	1.1050	3.2923	1.8660	.01675	.22309	.59569
#1	.00966	.01939	.00897	.01709	.18608	.19115	1.7409
#2	.00974	.01909	.00940	.01754	.18612	.19055	1.7556
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.93842	.01887	.01900	1.6989	.00941	.00974	.01805
SDev	.00185	.00002	.00052	.1191	.00011	.00085	.00126
%RSD	.19759	.10029	2.7184	7.0094	1.1427	8.7645	6.9826
#1	.93973	.01886	.01937	1.6147	.00933	.01035	.01894
#2	.93711	.01889	.01864	1.7831	.00948	.00914	.01716
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09439	.01004	.00903	.00925	.02076	.01802	.03939
SDev	.00052	.00066	.00003	.00015	.00064	.00028	.00009
%RSD	.54828	6.5665	.38248	1.6051	3.0712	1.5661	.23230
#1	.09402	.00957	.00901	.00936	.02121	.01782	.03933
#2	.09475	.01050	.00905	.00915	.02030	.01822	.03946
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01138	.00892	.02160	.01627	.10438		
SDev	.00017	.00136	.00006	.00186	.00014		
%RSD	1.4862	15.292	.27999	11.424	.13733		
#1	.01126	.00989	.02164	.01759	.10448		
#2	.01150	.00796	.02156	.01496	.10428		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11791	--	--	--	--	--	--
SDev	15.42308	--	--	--	--	--	--
%RSD	.1308091	--	--	--	--	--	--
#1	11780	--	--	--	--	--	--
#2	11801	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator:
Run Time: 10/29/01 13:05:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	507.45	-.00019	.00459	.00188	.00115	467.32
SDev	.00118	.06	.00172	.00054	.00059	.00005	.41
%RSD	126.13	.01274	886.30	11.684	31.664	3.9071	.08762
#1	.00177	507.49	-.00141	.00497	.00230	.00118	467.61
#2	.00010	507.40	.00102	.00421	.00146	.00112	467.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00442	-.00135	.00012	200.13	182.72	.01217
SDev	.00000	.00070	.00086	.00136	.08	.11	.05542
%RSD	.23215	15.859	64.051	1105.2	.04017	.05990	455.34
#1	-.00108	.00492	-.00074	.00109	200.19	182.80	.05136
#2	-.00108	.00393	-.00196	-.00084	200.07	182.65	-.02701
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	538.20	.00345	-.00158	.19802	-.00062	.00084	.00100
SDev	.05	.00004	.00037	.31921	.00075	.00099	.00341
%RSD	.00974	1.1163	23.224	161.20	119.90	117.97	342.23
#1	538.23	.00348	-.00184	.42374	-.00009	.00014	.00341
#2	538.16	.00343	-.00132	-.02770	-.00115	.00154	-.00142
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00053	.00060	-.00163	-.00280	.00733	-.00186	.00433
SDev	.00203	.00120	.00009	.00069	.00272	.00036	.00035
%RSD	385.91	199.63	5.7465	24.672	37.145	19.384	8.0186
#1	-.00196	-.00025	-.00157	-.00231	.00541	-.00161	.00409
#2	.00091	.00145	-.00170	-.00328	.00926	-.00212	.00458
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00094	.00079	-.00468	.00383	.00053		
SDev	.00059	.00119	.00117	.00453	.00017		
%RSD	62.607	150.92	24.989	118.36	31.995		
#1	.00052	-.00005	-.00385	.00703	.00065		
#2	.00135	.00163	-.00550	.00062	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10491	--	--	--	--	--	--
SDev	84.32939	--	--	--	--	--	--
%RSD	.8038586	--	--	--	--	--	--
#1	10431	--	--	--	--	--	--
#2	10550	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 10/29/01 13:11:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57548	523.99	1.0468	1.0369	1.1180	.52214	479.03
SDev	.00171	1.22	.0012	.0037	.0048	.00221	.82
%RSD	.29715	.23220	.11572	.35842	.43323	.42361	.17014
#1	.57669	524.85	1.0477	1.0395	1.1215	.52370	479.60
#2	.57427	523.13	1.0460	1.0342	1.1146	.52058	478.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49186	.97159	1.0156	1.0915	211.29	191.35	14.817
SDev	.00188	.00420	.0035	.0064	.74	.48	.034
%RSD	.38220	.43271	.34736	.58959	.35048	.25190	.22778
#1	.49319	.97457	1.0181	1.0961	211.81	191.69	14.793
#2	.49053	.96862	1.0131	1.0870	210.77	191.01	14.841
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	551.15	1.0322	1.0496	12.042	.96252	.99928	1.0382
SDev	2.24	.0036	.0014	.122	.00156	.00089	.0034
%RSD	.40698	.35014	.12981	1.0093	.16237	.08952	.32631
#1	552.74	1.0348	1.0506	11.956	.96363	.99991	1.0406
#2	549.56	1.0297	1.0486	12.128	.96142	.99865	1.0358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0656	1.0422	1.0986	1.0794	1.0093	1.0398	.97983
SDev	.0033	.0007	.0043	.0039	.0002	.0029	.00199
%RSD	.31406	.06436	.38970	.35670	.01705	.28145	.20362
#1	1.0680	1.0417	1.1016	1.0822	1.0095	1.0419	.98124
#2	1.0632	1.0426	1.0956	1.0767	1.0092	1.0378	.97842
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.98490	1.0065	1.0356	1.0396	1.1746
SDev	.00324	.0003	.0045	.0028	.0007
%RSD	.32922	.02759	.43676	.27137	.06093
#1	.98719	1.0063	1.0388	1.0416	1.1751
#2	.98261	1.0067	1.0324	1.0376	1.1741
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10427	--	--	--	--	--	--
SDev	20.13873	--	--	--	--	--	--
%RSD	.1931456	--	--	--	--	--	--
#1	10412	--	--	--	--	--	--
#2	10441	--	--	--	--	--	--

Method: 60102007 Sample Name: CCV1 Operator:
Run Time: 10/29/01 13:16:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51641	10.402	1.0156	1.0017	.98656	.50504	10.406
SDev	.00021	.028	.0033	.0043	.00104	.00008	.030
%RSD	.04002	.27195	.32726	.42636	.10585	.01613	.29083
#1	.51626	10.422	1.0132	.99872	.98730	.50498	10.427
#2	.51655	10.382	1.0179	1.0048	.98582	.50510	10.384
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51907	1.0307	1.0182	.99579	10.347	10.336	10.168
SDev	.00019	.0003	.0007	.00114	.008	.016	.028
%RSD	.03641	.03055	.06509	.11491	.08006	.15726	.27197
#1	.51920	1.0305	1.0177	.99499	10.353	10.348	10.149
#2	.51894	1.0309	1.0186	.99660	10.341	10.325	10.188
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.395	1.0168	1.0248	10.066	1.0426	1.0500	1.0277
SDev	.024	.0005	.0011	.294	.0006	.0041	.0037
%RSD	.23528	.04961	.10603	2.9202	.05372	.39519	.35955
#1	10.413	1.0172	1.0256	9.8579	1.0422	1.0529	1.0303
#2	10.378	1.0165	1.0241	10.274	1.0430	1.0470	1.0251
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0319	1.0448	1.0049	1.0310	1.0436	1.0099	1.0353
SDev	.0006	.0036	.0012	.0003	.0034	.0007	.0010
%RSD	.05402	.34560	.12355	.02848	.32188	.07147	.09244
#1	1.0316	1.0422	1.0058	1.0312	1.0412	1.0094	1.0346
#2	1.0323	1.0473	1.0040	1.0308	1.0460	1.0104	1.0360
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0392	1.0553	1.0330	1.0250	Q1.1261		
SDev	.0029	.0048	.0010	.0050	.0005		
%RSD	.28232	.45069	.10123	.48952	.04277		
#1	1.0413	1.0587	1.0337	1.0286	Q1.1257		
#2	1.0372	1.0520	1.0323	1.0215	Q1.1264		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11621	--	--	--	--	--	--
SDev	82.48981	--	--	--	--	--	--
%RSD	.7098396	--	--	--	--	--	--
#1	11563	--	--	--	--	--	--
#2	11679	--	--	--	--	--	--

Method: 60102007 Sample Name: CC81 Operator:
Run Time: 10/29/01 13:22:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00315	.00094	.00001	.00022	.00046	.01496
SDev	.00059	.00668	.00238	.00058	.00037	.00001	.00153
%RSD	89.664	211.97	254.45	4637.1	167.43	1.4543	10.247
#1	.00024	.00787	.00262	.00042	.00048	.00047	.01604
#2	.00107	-.00157	-.00075	-.00040	-.00004	.00046	.01388
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.00057	.00070	-.00012	-.00613	.00581	.00855
SDev	.00006	.00052	.00005	.00028	.01497	.00117	.00819
%RSD	33.291	90.583	7.2413	232.33	244.20	20.029	95.732
#1	.00022	.00094	.00073	.00008	.00445	.00664	.00276
#2	.00014	.00020	.00066	-.00032	-.01671	.00499	.01434
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00726	.00036	.00125	.23627	.00005	.00052	.00029
SDev	.00806	.00016	.00044	.22734	.00011	.00035	.00282
%RSD	111.03	44.899	35.386	96.223	220.57	67.325	961.83
#1	.01296	.00048	.00157	.07551	-.00003	.00027	-.00170
#2	.00156	.00025	.00094	.39702	.00013	.00076	.00229
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00001	.00039	.00026	.00002	.00061	.00061
SDev	.00343	.00020	.00004	.00037	.00091	.00000	.00037
%RSD	27925.	1629.0	10.124	139.89	4082.2	.39698	59.990
#1	.00241	-.00013	.00041	.00052	.00066	.00061	.00087
#2	-.00244	.00016	.00036	.00000	-.00062	.00061	.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00366	-.00105	.00664	-.00288	.00040		
SDev	.00399	.00147	.00615	.00116	.00001		
%RSD	109.00	139.78	92.560	40.504	3.1817		
#1	.00084	-.00001	.00229	-.00370	.00041		
#2	.00648	-.00209	.01099	-.00205	.00039		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11831	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2092845	--	--	--	--	--	--
#1	11849	--	--	--	--	--	--
#2	11814	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD130 Operator:
Run Time: 10/29/01 13:28:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00236	.00297	.00059	.00011	.00031	.00607
SDev	.00050	.00300	.00174	.00244	.00025	.00000	.00132
%RSD	254.19	127.12	58.476	410.15	226.88	1.0991	21.770
#1	.00016	.00024	.00174	-.00113	-.00007	.00030	.00701
#2	-.00055	.00448	.00420	.00232	.00028	.00031	.00514
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00001	.00011	-.00072	.00484	.00247	.01568
SDev	.00018	.00032	.00011	.00038	.01256	.00028	.00816
%RSD	676.30	3141.0	107.87	51.917	259.55	11.384	51.999
#1	.00010	-.00021	.00019	-.00046	-.00404	.00267	.02145
#2	-.00015	.00023	.00003	-.00099	.01372	.00227	.00992
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00390	.00017	.00010	-.02870	.00024	-.00051	-.00072
SDev	.00271	.00000	.00049	.00573	.00053	.00008	.00026
%RSD	69.519	.21593	511.33	19.959	224.20	16.133	36.135
#1	.00198	.00017	.00044	-.03275	-.00014	-.00057	-.00054
#2	.00582	.00017	-.00025	-.02465	.00062	-.00045	-.00091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00046	.00012	.00022	-.00017	.00016	.00317
SDev	.00341	.00053	.00002	.00025	.00031	.00095	.00020
%RSD	405.04	115.32	14.597	110.87	184.82	610.76	6.2935
#1	-.00157	.00084	.00014	.00005	-.00039	.00082	.00302
#2	.00325	.00009	.00011	.00040	.00005	-.00051	.00331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	-.00038	.00310	-.00263	.00016
SDev	.00382	.00203	.00407	.00164	.00004
%RSD	501.33	529.77	131.35	62.324	24.914
#1	.00194	-.00182	.00598	-.00380	.00018
#2	-.00346	.00105	.00022	-.00147	.00013
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11837	--	--	--	--	--	--
SDev	35.23174	--	--	--	--	--	--
%RSD	.2976387	--	--	--	--	--	--
#1	11862	--	--	--	--	--	--
#2	11812	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD130 Operator:
Run Time: 10/29/01 13:33:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49987	10.049	1.0075	.98892	.97953	.50128	10.127
SDev	.00017	.016	.0032	.00557	.00171	.00062	.013
%RSD	.03440	.16270	.31273	.56364	.17489	.12385	.12608
#1	.49975	10.038	1.0052	.98498	.97831	.50084	10.118
#2	.49999	10.061	1.0097	.99286	.98074	.50172	10.136
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51400	1.0032	1.0036	.97798	L10.092	10.100	9.9670
SDev	.00006	.0017	.0016	.00054	.018	.014	.0095
%RSD	.01265	.16946	.15690	.05508	.18253	.13666	.09508
#1	.51405	1.0020	1.0025	.97760	L10.079	10.090	9.9603
#2	.51396	1.0044	1.0047	.97836	L10.105	10.109	9.9737
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.092	1.0025	1.0144	9.8394	1.0209	1.0285	1.0121
SDev	.026	.0015	.0035	.1132	.0010	.0010	.0056
%RSD	.25590	.14637	.34588	1.1506	.09427	.10200	.55773
#1	10.074	1.0015	1.0119	9.9194	1.0216	1.0277	1.0081
#2	10.111	1.0035	1.0169	9.7593	1.0202	1.0292	1.0161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99697	1.0316	.99836	1.0054	1.0186	.99377	1.0288
SDev	.00168	.0017	.00202	.0023	.0008	.00136	.0009
%RSD	.16881	.16439	.20189	.22675	.07765	.13715	.09170
#1	.99578	1.0328	.99693	1.0037	1.0191	.99281	1.0282
#2	.99816	1.0304	.99978	1.0070	1.0180	.99473	1.0295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0207	1.0323	1.0249	1.0057	1.0781
SDev	.0001	.0015	.0019	.0075	.0027
%RSD	.00856	.14812	.18332	.74822	.25495
#1	1.0206	1.0313	1.0236	1.0004	1.0762
#2	1.0208	1.0334	1.0263	1.0111	1.0800
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11684	--	--	--	--	--	--
SDev	2.640602	--	--	--	--	--	--
%RSD	.0226011	--	--	--	--	--	--
#1	11682	--	--	--	--	--	--
#2	11685	--	--	--	--	--	--

Method: 60102007 Sample Name: 110538-1 Operator:
Run Time: 10/29/01 13:39:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.09463	.09834	.06229	.00513	.00037	19.888
SDev	.00103	.00538	.00259	.00113	.00025	.00001	.001
%RSD	532.77	5.6874	2.6328	1.8108	4.8083	3.7014	.00294
#1	-.00053	.09083	.09651	.06149	.00495	.00038	19.888
#2	.00092	.09844	.10017	.06309	.00530	.00036	19.889
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00066	.00064	.00165	L.02399	.02003	2.2476
SDev	.00011	.00064	.00052	.00065	.01094	.00023	.0295
%RSD	56.855	97.582	81.039	39.371	45.599	1.1686	1.3118
#1	.00012	.00020	.00027	.00119	L.01625	.02019	2.2268
#2	.00028	.00112	.00101	.00211	L.03172	.01986	2.2685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.3798	.00189	.00220	H136.05	.00089	.00119	.00407
SDev	.0001	.00002	.00005	.09	.00023	.00015	.00070
%RSD	.00502	1.1942	2.3165	.06257	25.510	12.580	17.244
#1	2.3799	.00187	.00223	H135.99	.00105	.00108	.00358
#2	2.3797	.00190	.00216	H136.11	.00073	.00129	.00457
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00153	.00066	.09717	.00213	-.00147	.00676	.06069
SDev	.00089	.00100	.00002	.00019	.00141	.00023	.00014
%RSD	57.997	150.69	.01972	9.1653	95.678	3.4665	.23105
#1	.00090	-.00004	.09719	.00199	-.00247	.00660	.06059
#2	.00215	.00137	.09716	.00226	-.00048	.00693	.06079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00151	.00728	.00247	.00022
SDev	.00122	.00084	.00060	.00075	.00002
%RSD	224.46	55.396	8.3000	30.407	6.9998
#1	.00141	.00092	.00686	.00194	.00021
#2	-.00032	.00210	.00771	.00300	.00023
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11915	--	--	--	--	--	--
SDev	6.602886	--	--	--	--	--	--
%RSD	.0554187	--	--	--	--	--	--
#1	11919	--	--	--	--	--	--
#2	11910	--	--	--	--	--	--

TOTAL PETROLEUM HYDROCARBONS
(FL-PRO)

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110557
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/22/01
Dry Weight	N/A	Date Extracted:	10/26/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	017-OLD-3610B-Q401	C110557-1	0401024.D	1	U	100
2	017-OLD-3611C-Q401	C110557-2	0501025.D	1	U	100
3	017-OLD-3629B-Q401	C110557-3	0601026.D	1	U	100
4	017-OLD-3632C-Q401	C110557-4	0701027.D	1	U	100
5	017-OLD-36FD1-Q401	C110557-5	0801028.D	1	U	100
6	017-OLD-36FB1-Q401	C110557-6	0901029.D	1	U	100
7	017-OLD-36EB1-Q401	C110557-7	1001030.D	1	U	100

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola
Contract: NTC ORLANDO SA-36-CTO-017
Lab Code: STL PN
SDG No.: C110557
Instrument ID: FLASH
FL PRO Detector: FID
Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 287	107%	90%		
02		LCS FLW 287	107%	84%		
03	017-OLD-3610B-Q401	C110557-1	88%	76%		
04	017-OLD-3611C-Q401	C110557-2	94%	74%		
05	017-OLD-3629B-Q401	C110557-3	97%	87%		
06	017-OLD-3632C-Q401	C110557-4	102%	80%		
07	017-OLD-36FD1-Q401	C110557-5	104%	70%		
08	017-OLD-36FB1-Q401	C110557-6	102%	104%		
09	017-OLD-36EB1-Q401	C110557-7	105%	85%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK FLW 287

Lab File ID:	0201022.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110557
Matrix:	Water	Date Extracted:	10/26/01
Prep Method:	3520 C	Date Analyzed:	11/1/01
Instrument ID:	FLASH	Time Analyzed:	18:52
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 287	11/1/01
02		LCS FLW 287	11/1/01
03	017-OLD-3610B-Q401	C110557-1	11/1/01
04	017-OLD-3611C-Q401	C110557-2	11/1/01
05	017-OLD-3629B-Q401	C110557-3	11/1/01
05	017-OLD-3632C-Q401	C110557-4	11/1/01
05	017-OLD-36FD1-Q401	C110557-5	11/1/01
05	017-OLD-36FB1-Q401	C110557-6	11/1/01
05	017-OLD-36EB1-Q401	C110557-7	11/1/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110557
Instrument ID:	FLASH	Date Analyzed	11/1/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

239

Sequence Name: I:\1101CAL.S
Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Last Modified: Fri Nov 02 06:19:15 2001

Sequence Name: I:\1101CAL.S

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min

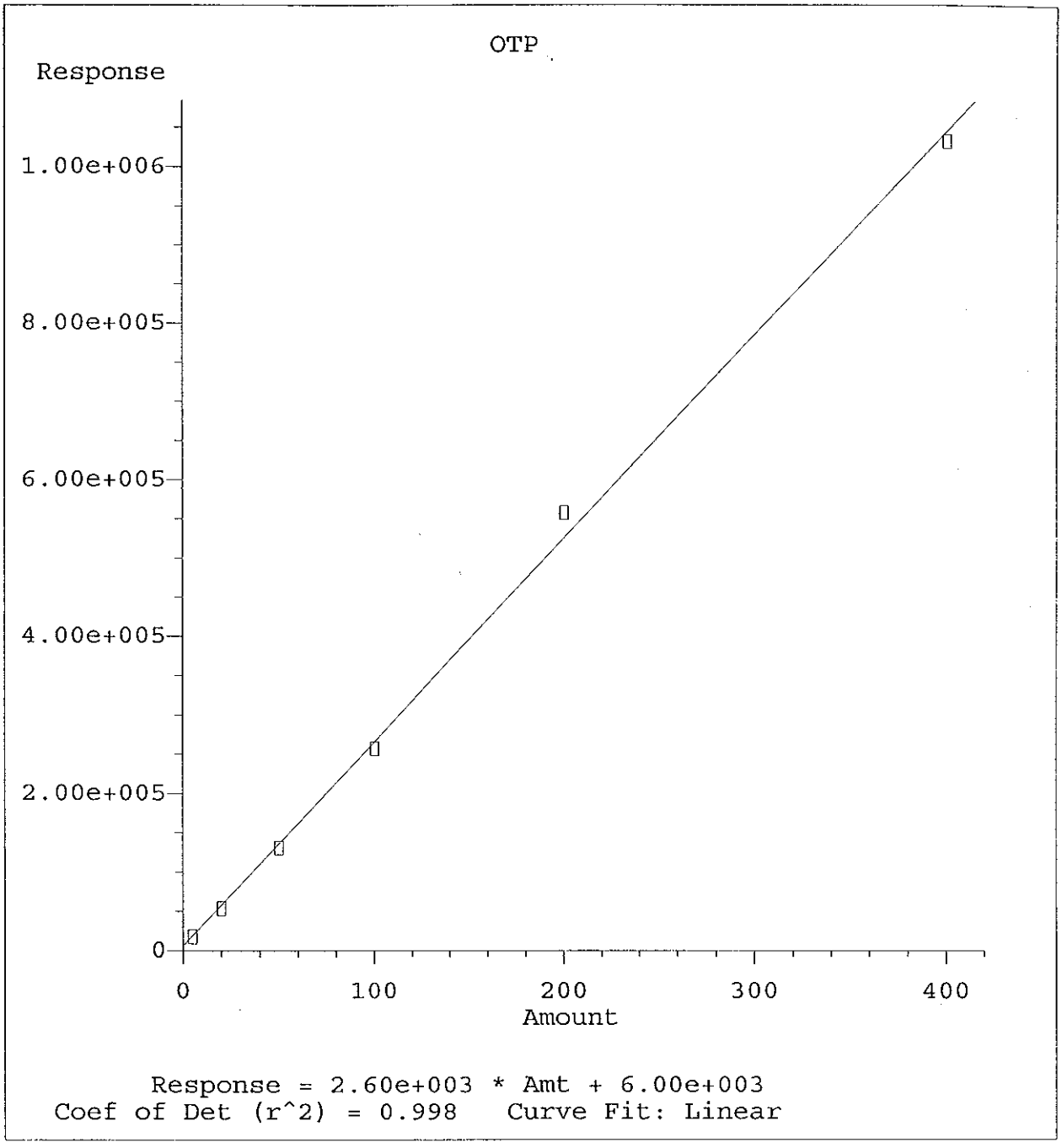
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

100	1900.000	3887819
20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

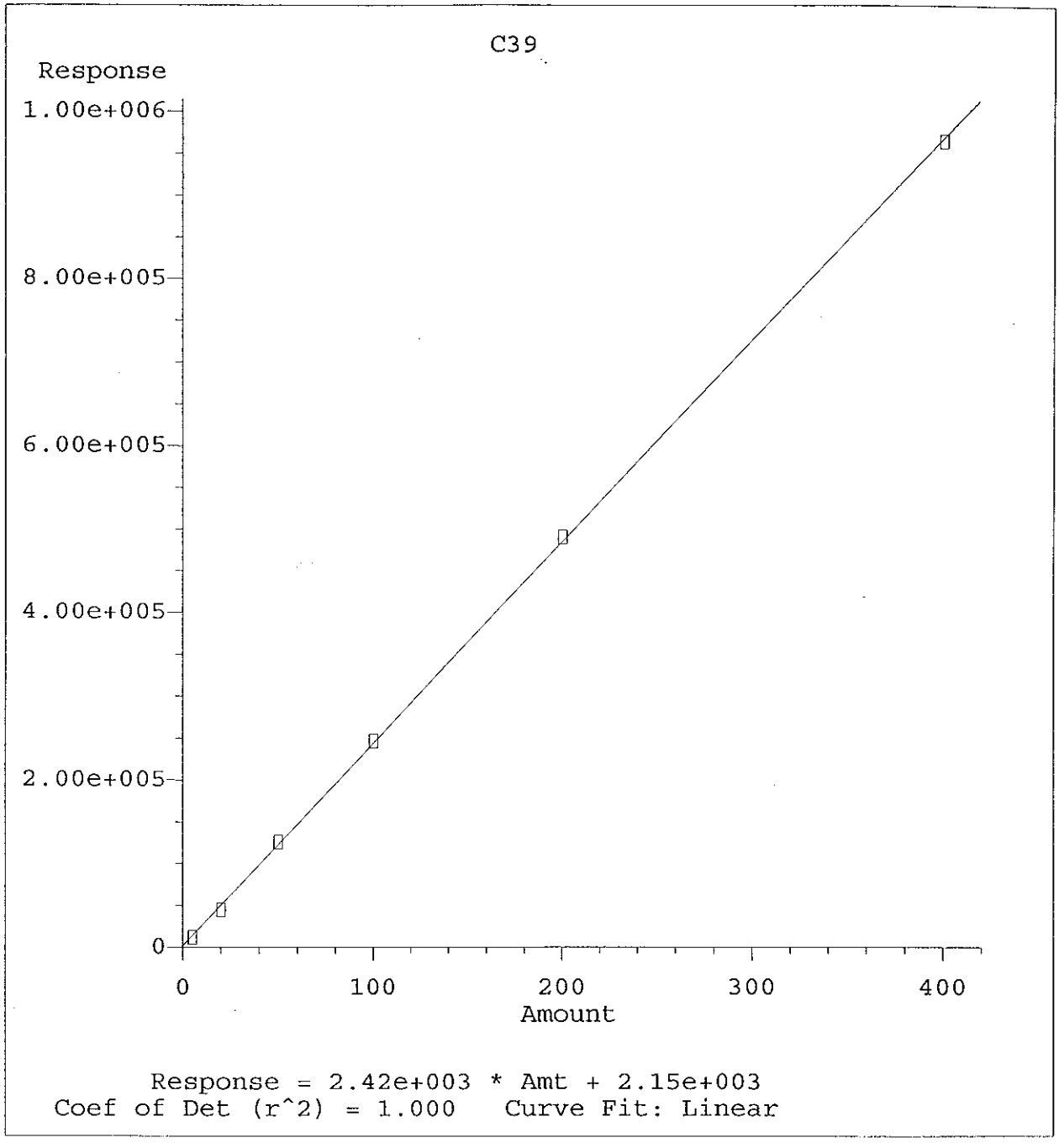
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

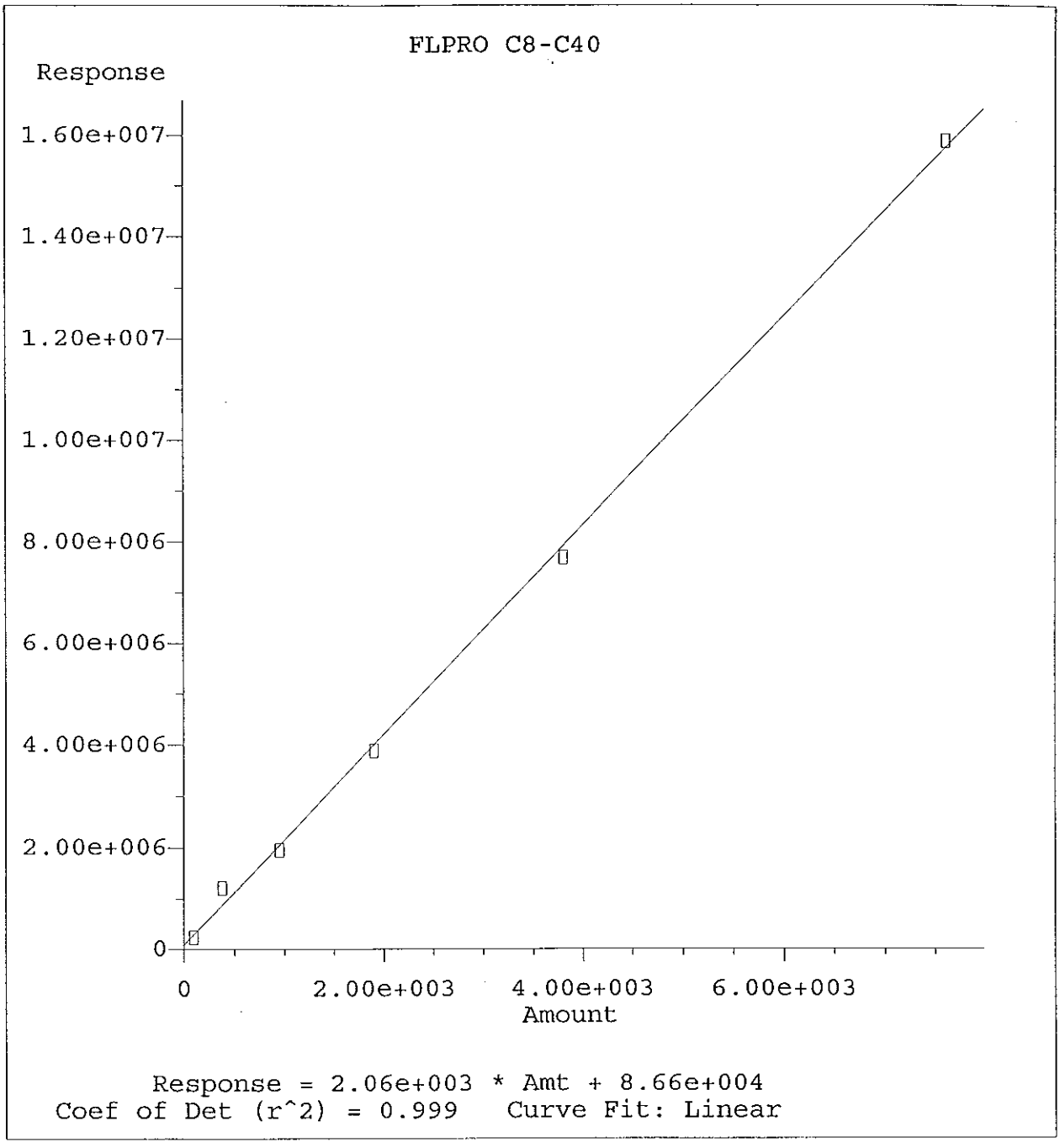
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\CCTPH001.D Vial: 1
Acq On : 1 Nov 2001 18:43 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM FLPRO C8-C40	1900.000	1884.867	0.8	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:41:02 2001

Data File : F:\2\DATA\1101CAL\CCTPH002.D
Acq On : 1 Nov 2001 20:03
Sample : TPH STD CC 100 PPM EA
Misc : 5-ORGW3-1
IntFile : HC.E

Vial: 11
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.00

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM	FLPRO C8-C40	1900.000	1868.141	1.7	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:48:13 2001

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

10-29-1

GC/Organics Department Extracts Cleanup Logbook

Date: ~~10-30-1~~ 10-29 **Analyst(s):** HA#

Method: ~~FLPRO Silica Gel~~, MAEPH Fractionation, Other (Specify) _____

Solvent 1: — **Lot #:** — **Solvent 2:** — **Lot #:** —

Surrogate: — **Amount:** —

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW287	2.0	
2	LCS		2.1	
3	C110557 -1		2.1	outhouse odor
4	-2		2.2	
5	-3		2.1	
6	-4		2.1	
7	-5		2.2	
8	-6		2.1	
9	-7		2.0	metallic odor
10	C110596 -1		2.2	
11	-2		2.3	
12	-3		2.2	
13	C110599 -1		2.2	slight outhouse odor
14	-2		2.0	
15	-3		2.2	
16	BLK	FLW288	2.0	
17	LCS		2.3	
18	C110597 -1		2.2	petro odor
19	-2		2.1	
20	-3		2.2	
21	-4		2.1	
22	-5		2.1	
23	-6		2.0	
24	-7		2.0	~~Plant~~ odor
25	-8		2.3	
26	-9		2.2	outhouse odor
27	-10		2.2	
28	-11		2.1	metallic odor
29	-12		2.1	plant odor
30				
31				
32				
33				HAH 10-30-1

EXTRACTION LOG

Job No: 794
Batch No: 287
Date Extracted: 10.26.01
Start Time: 9:30
Stop Time:
Analysis Required:
Prep Method:
Analyst/Activity Code*
Initial Project Check:
Final Project Check:
Date Concentrated: 10:27-01 0M
Initials:
Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	4-026-W	0190-2	1ml	
Surr.				
Spike	4-026-W	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments

Solvent(s) Lot No:
Mech V37E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D-D	H-D	COMMENTS
1. C110557*1/017-OLD-3610B-Q401		LI	1L	1		2	11.02	10.29	
2. C110557*2/017-OLD-3611C-Q401		LI	1L	1			11.02	10.29	
3. C110557*3/017-OLD-3629B-Q401		LI	1L	1			11.02	10.29	
4. C110557*4/017-OLD-3632C-Q401		LI	1L	1			11.02	10.29	
5. C110557*5/017-OLD-36FD1-Q401		LI	1L	1			11.02	10.29	
6. C110557*6/017-OLD-36FB1-Q401		LI	1L	1			11.02	10.29	
7. C110557*7/017-OLD-36EB1-Q401		LI	1L	1			11.02	10.29	
8. C110596*1/MW-4R2		LI	1L	1			10.31	10.29	
9. C110596*2/MW-5R		LI	1L	1			10.31	10.29	
10. C110596*3/MW-8		LI	1L	1			10.31	10.29	
11. C110599*1/17-3631C-Q401		LI	1L	1			11.02	10.30	
12. C110599*2/17-3626A-Q401		LI	1L	1			11.02	10.30	
13. C110599*3/17-3630C-Q401		LI	1L	1		2	11.02	10.30	
~~14.~~									
15.									
16.									
17.									
18.									
19.									
~~20.~~									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		2			
Lab Spike #2									

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL flo Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% CS2 MI09648KI

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	4000ul	100 mls	200 ppm ea
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100% Mecl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OT? A	04-ORGN045-7	10,000	6500 ul	250 mls	250 ppm each
CS2 C	04-ORGW044-1	SC17	6295 ul		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires ~~4-4~~ 4-3-02

KA 10/3/01

252

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Drug hood

Preparation Analyst: KA Solvent Lot #: 100% meCl2

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org1045-1	10,000 ppm	6500 ml		250 ppm each
	B				
	C			250mls	
C10	D 4-Org1014-1	9617 ppm	6495 ml		
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: 1X Dms 4-17-02

Solution Name: FUPW Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Drug hood

1:1 CS2/meCl

Preparation Analyst: KA Solvent Lot #: MI0964814 V34E34

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org1045-1	10,000	6250 ml		250 ppm
	B				
	C			250mls	
C39	D 4-Org1014-3	2500	10,000 ml		100 ppm
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: 1X Dms ~~4-22-02~~ KA 10/22/01

4-22-02

253

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

Quantitation Report (QT Reviewed)

Data File : F:\2\DATA\1101CAL\0201022.D Vial: 2
Acq On : 1 Nov 2001 18:52 Operator: IE\KJA
Sample : FLW BLK 287 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:44 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	352218	133.182 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 106.55%	
2) S C39	2.10	110792	44.935 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 89.87%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	56000	N.D. ppb

254

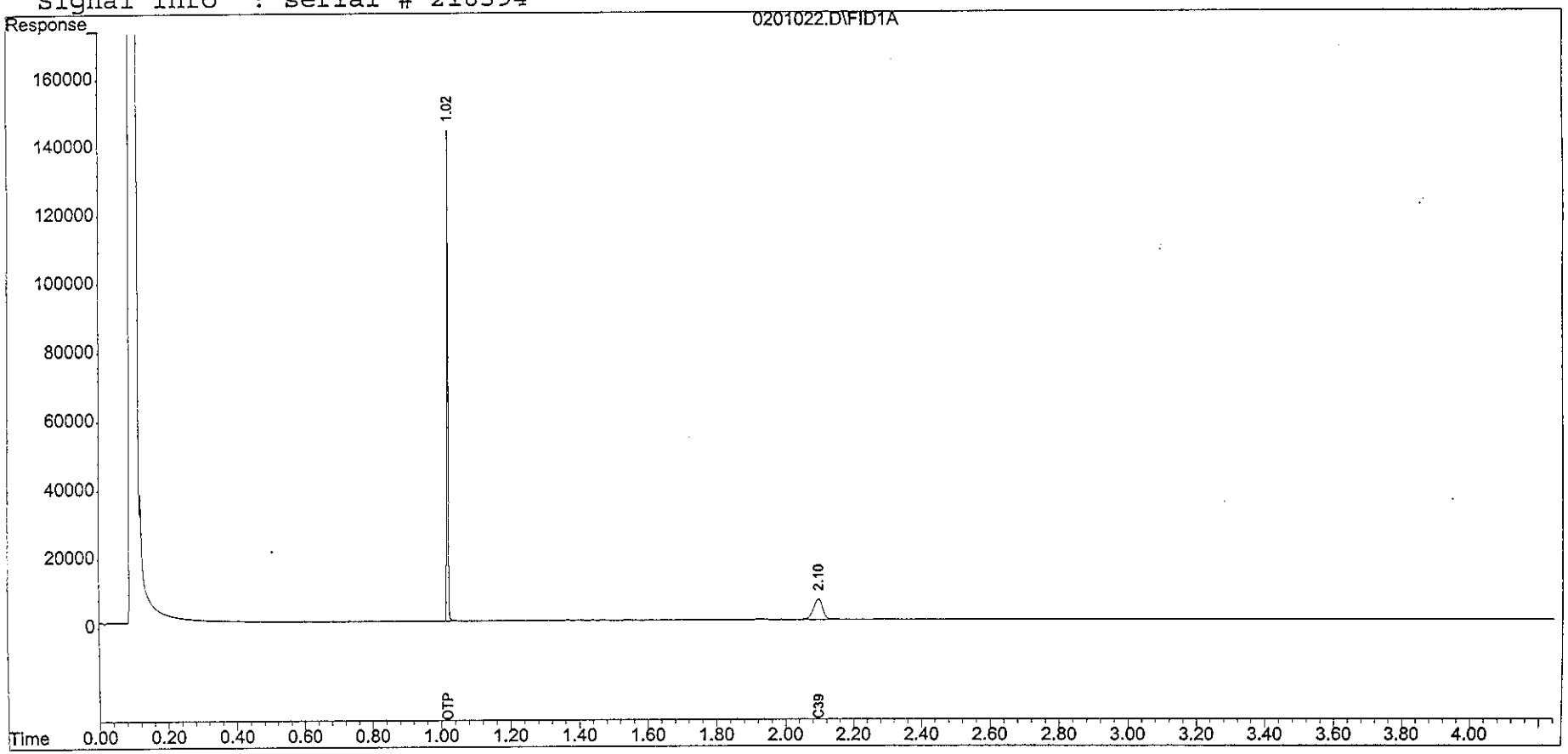
Quantitation Report

Data File : F:\2\DATA\1101CAL\0201022.D
Acq On : 1 Nov 2001 18:52
Sample : FLW BLK 287
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:44 2001 Quant Results File: FL-PRO12.RES

Vial: 2
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



253

Data File : F:\2\DATA\1101CAL\0301023.D Vial: 3
Acq On : 1 Nov 2001 19:00 Operator: IE\KJA
Sample : FLW LCS 287 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:50 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	353879	133.821 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 107.06%	
2) S C39	2.08	103477	41.909 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 83.82%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4140901	3932.157 ppb

256

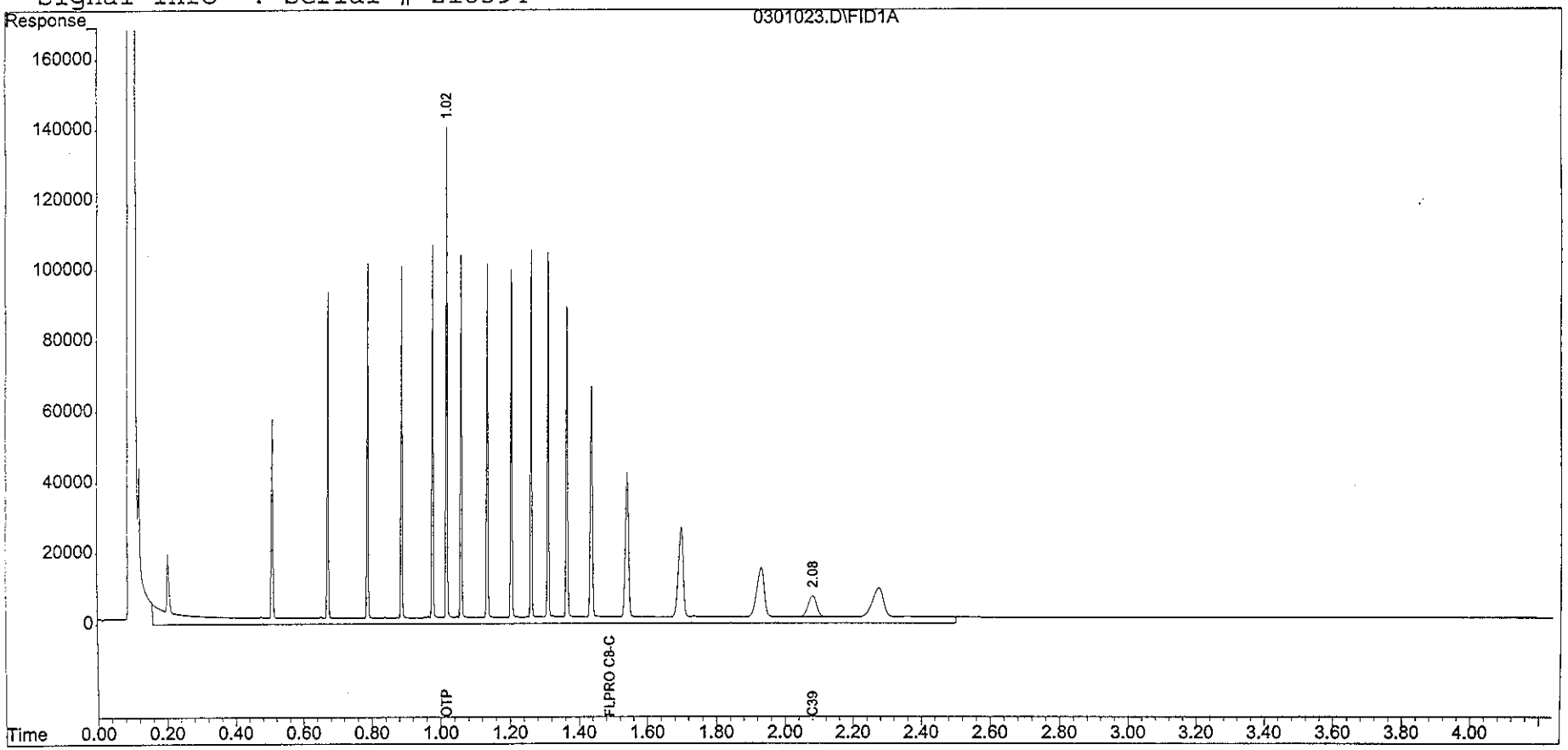
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : F:\2\DATA\1101CAL\0301023.D Vial: 3
Acq On : 1 Nov 2001 19:00 Operator: IE\KJA
Sample : FLW LCS 287 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:50 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



237

Quantitation Report (QA Reviewed)

Data File : F:\2\DATA\1101CAL\0401024.D Vial: 4
Acq On : 1 Nov 2001 19:08 Operator: IE\KJA
Sample : C110557-1 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:52 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
1) S OTP			1.02	290404	109.404 ug/mlm
Spiked Amount	125.000	Range 82 - 142		Recovery =	87.52%
2) S C39			2.09	93978	37.980 ug/mlm
Spiked Amount	50.000	Range 42 - 193		Recovery =	75.96%
Target Compounds					
3) HM FLPRO C8-C40			1.50	60384	N.D. ppb

258

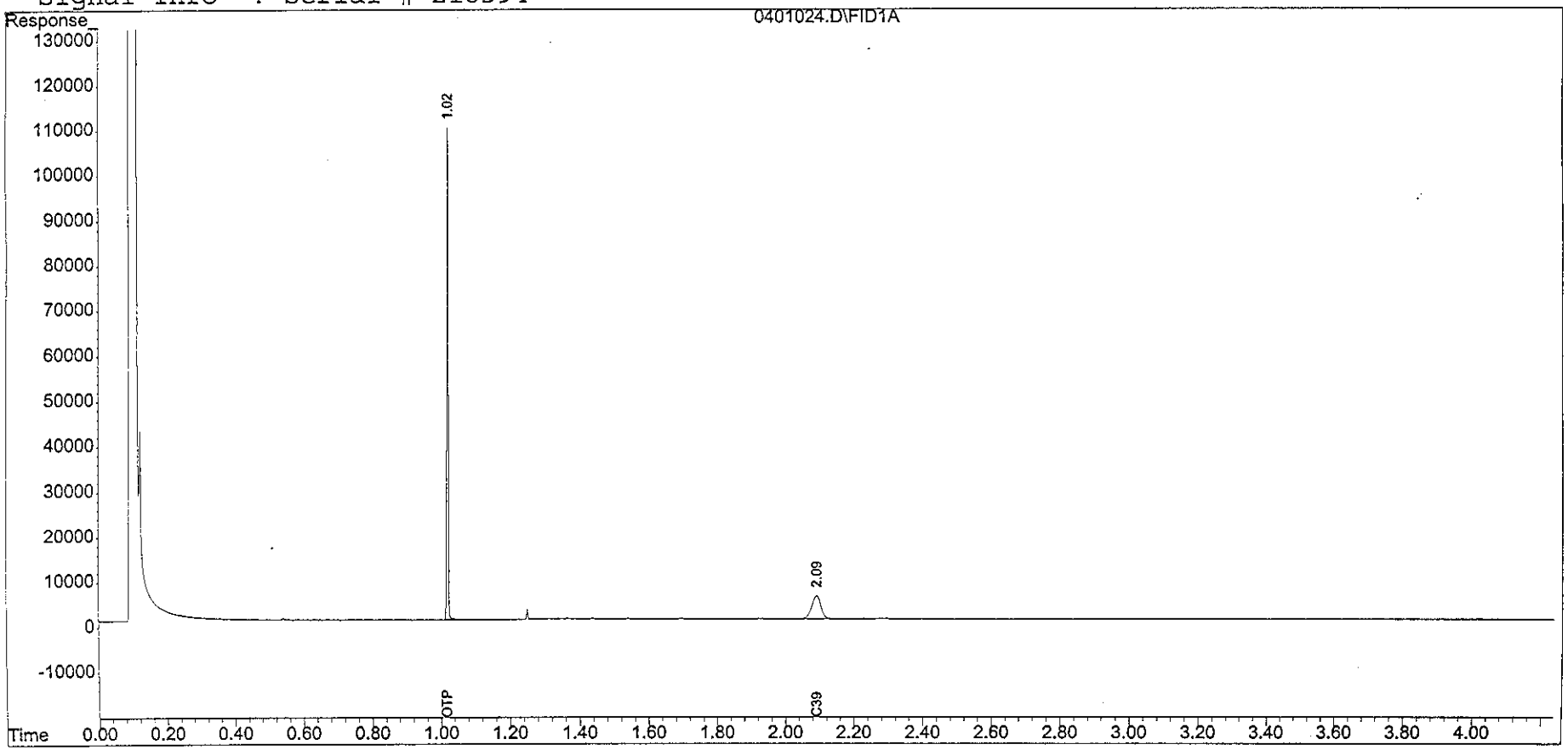
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : F:\2\DATA\1101CAL\0401024.D Vial: 4
Acq On : 1 Nov 2001 19:08 Operator: IE\KJA
Sample : C110557-1 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:52 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



259

Data File : F:\2\DATA\1101CAL\0501025.D Vial: 5
Acq On : 1 Nov 2001 19:16 Operator: IE\KJA
Sample : C110557-2 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:53 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	311643	117.574 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 94.06% ✓		
2) S C39	2.10	91704	37.040 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 74.08% ✓		
Target Compounds			
3) HM FLPRO C8-C40	1.50	125397	37.589 ppb

260

(f)=RT Delta > 1/2 Window (m)=manual int.

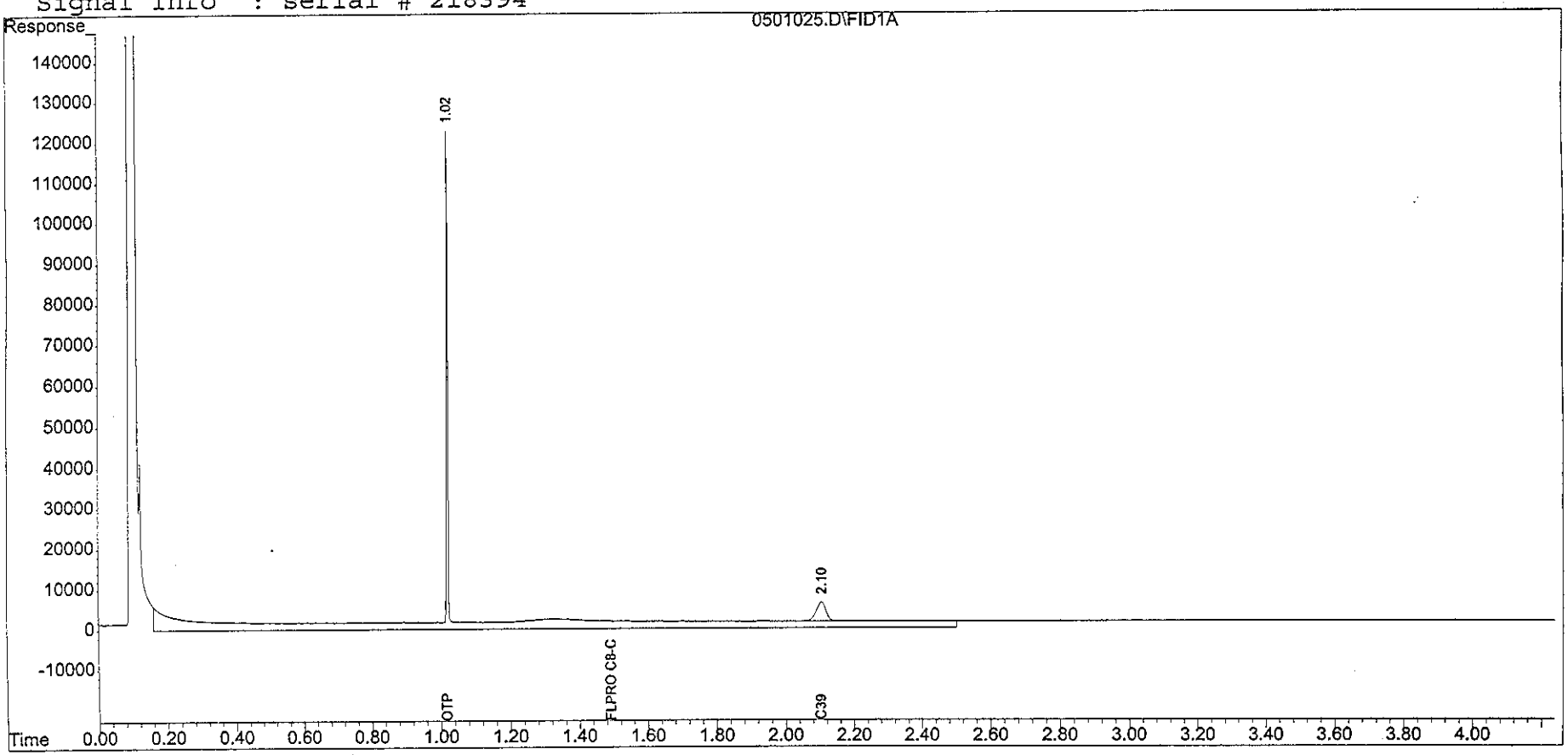
Quantitation Report

Data File : F:\2\DATA\1101CAL\0501025.D
Acq On : 1 Nov 2001 19:16
Sample : C110557-2
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:53 2001 Quant Results File: FL-PRO12.RES

Vial: 5
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



261

Quantitation Report (QT Reviewed)

Data File : F:\2\DATA\1101CAL\0601026.D Vial: 6
Acq On : 1 Nov 2001 19:24 Operator: IE\KJA
Sample : C110557-3 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:54 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	320167	120.853 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 96.68%	
2) S C39	2.10	107549	43.593 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 87.19%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	97873	10.894 ppb

262

(f)=RT Delta > 1/2 Window (m)=manual int.

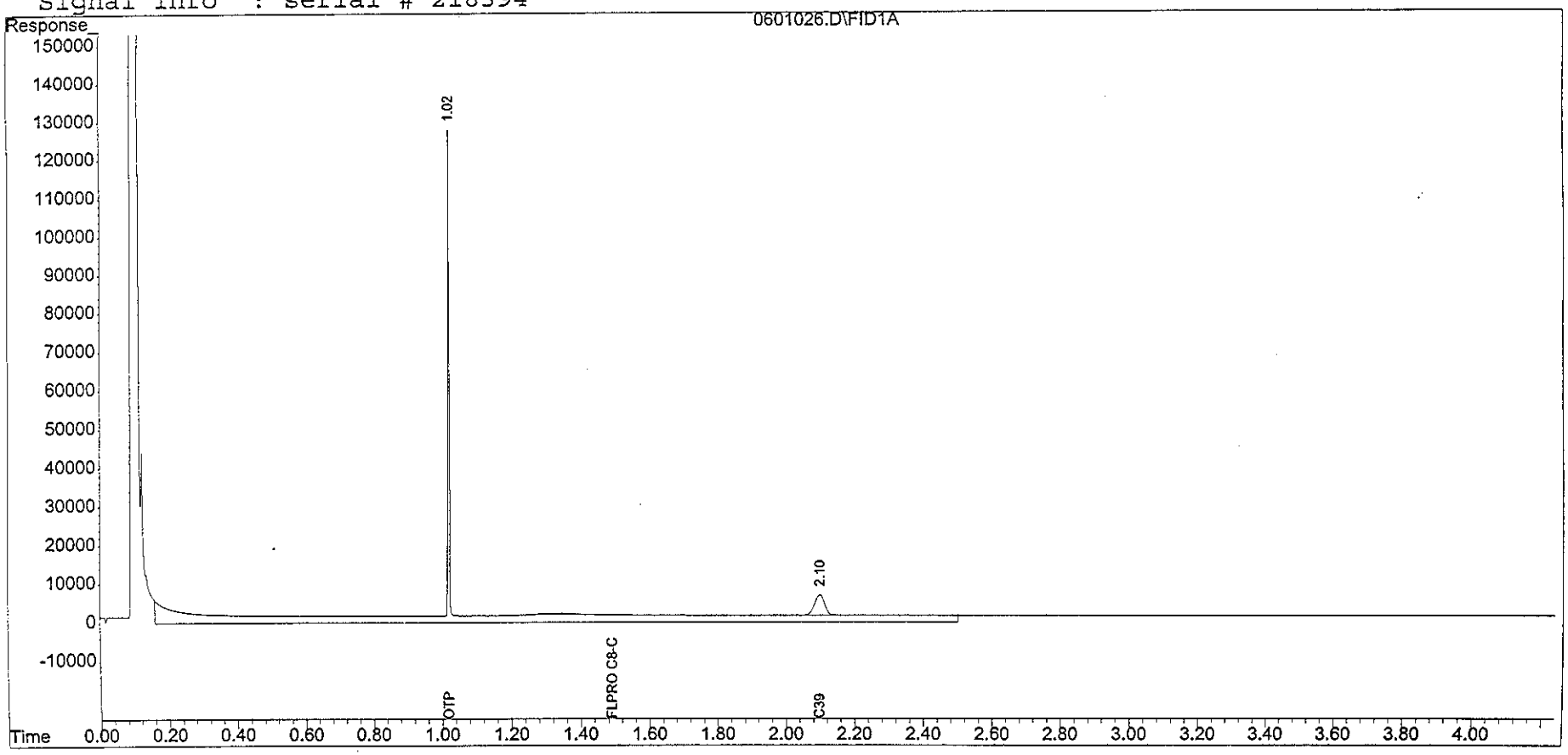
Quantitation Report

Data File : F:\2\DATA\1101CAL\0601026.D
Acq On : 1 Nov 2001 19:24
Sample : C110557-3
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:54 2001 Quant Results File: FL-PRO12.RES

Vial: 6
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



263

Data File : F:\2\DATA\1101CAL\0701027.D Vial: 7
Acq On : 1 Nov 2001 19:32 Operator: IE\KJA
Sample : C110557-4 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	336761	127.236 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 101.79%	
2) S C39	2.09	98903	40.017 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 80.03%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	74430	N.D. ppb

264

(f)=RT Delta > 1/2 Window (m)=manual int.

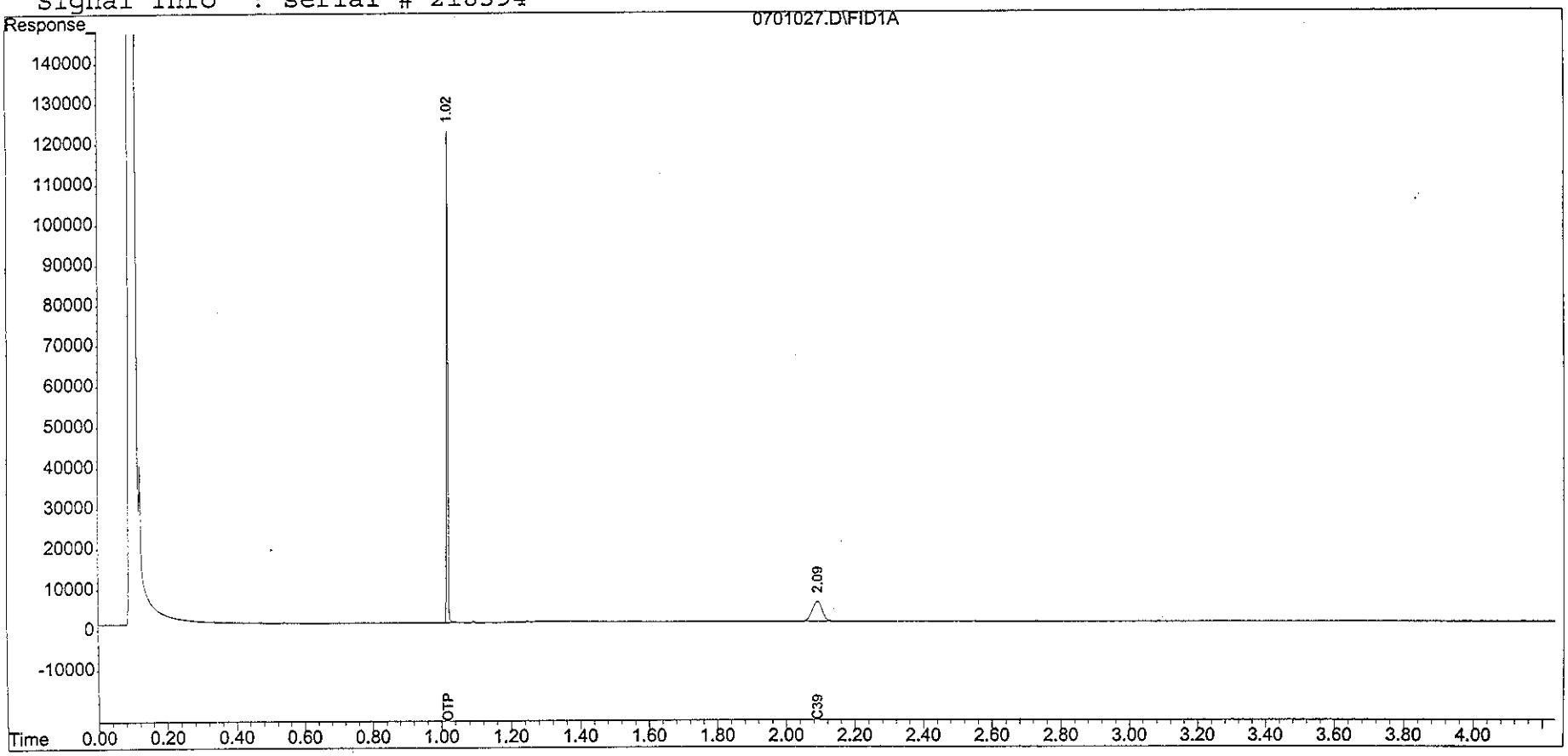
Quantitation Report

Data File : F:\2\DATA\1101CAL\0701027.D
Acq On : 1 Nov 2001 19:32
Sample : C110557-4
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Vial: 7
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Quantitation Report (QT Reviewed)

Data File : F:\2\DATA\1101CAL\0801028.D Vial: 8
Acq On : 1 Nov 2001 19:40 Operator: IE\KJA
Sample : C110557-5 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	345258	130.505 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 104.40%	
2) S C39	2.10	86226	34.774 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 69.55%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	71008	N.D. ppb

266

(f)=RT Delta > 1/2 Window (m)=manual int.

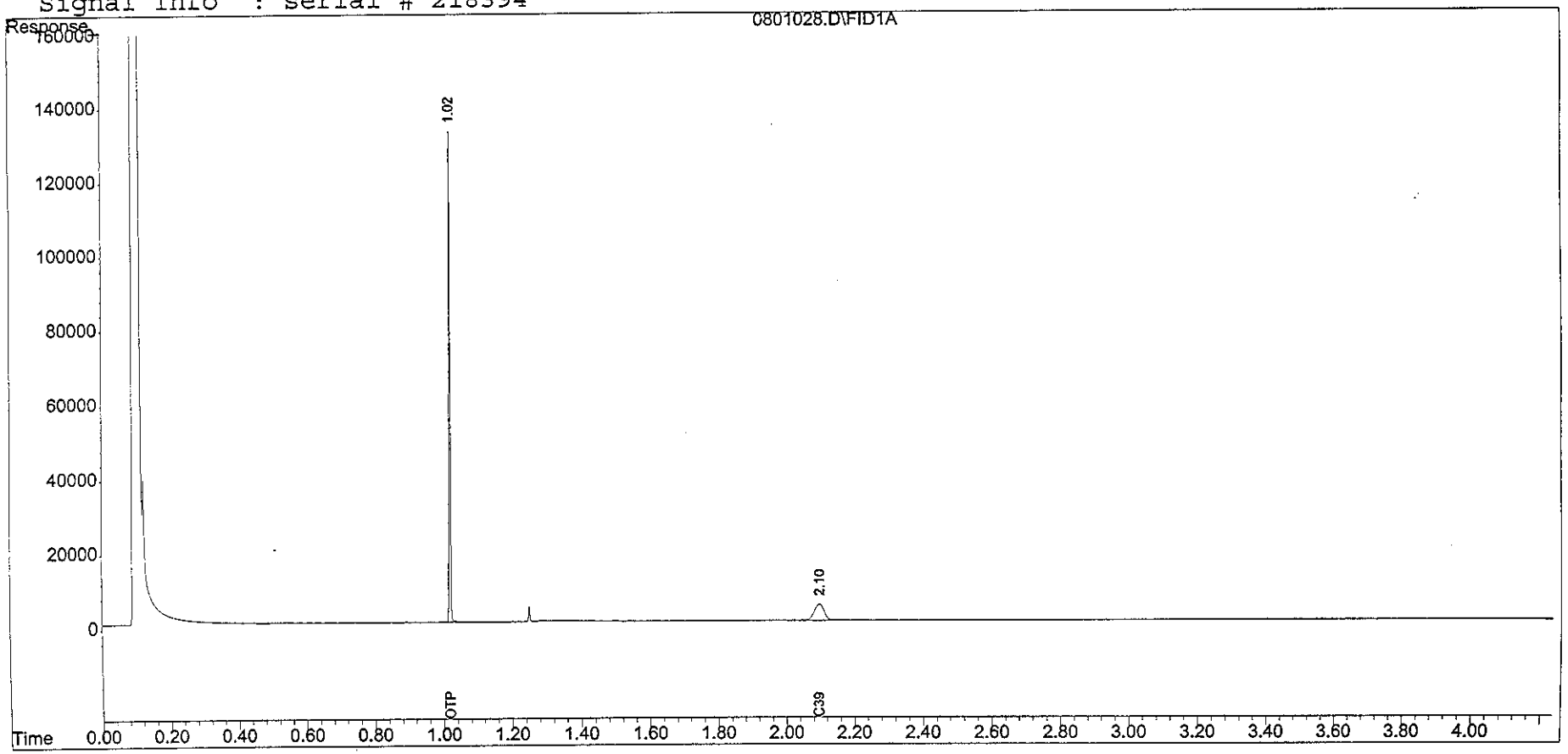
Quantitation Report

Data File : F:\2\DATA\1101CAL\0801028.D
Acq On : 1 Nov 2001 19:40
Sample : C110557-5
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Vial: 8
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



192

Data File : F:\2\DATA\1101CAL\0901029.D Vial: 9
Acq On : 1 Nov 2001 19:48 Operator: IE\KJA
Sample : C110557-6 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	338561	127.929 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 102.34%		
2) S C39	2.09	127608	51.890 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 103.78%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	16495	N.D. ppb

268

(f)=RT Delta > 1/2 Window (m)=manual int.

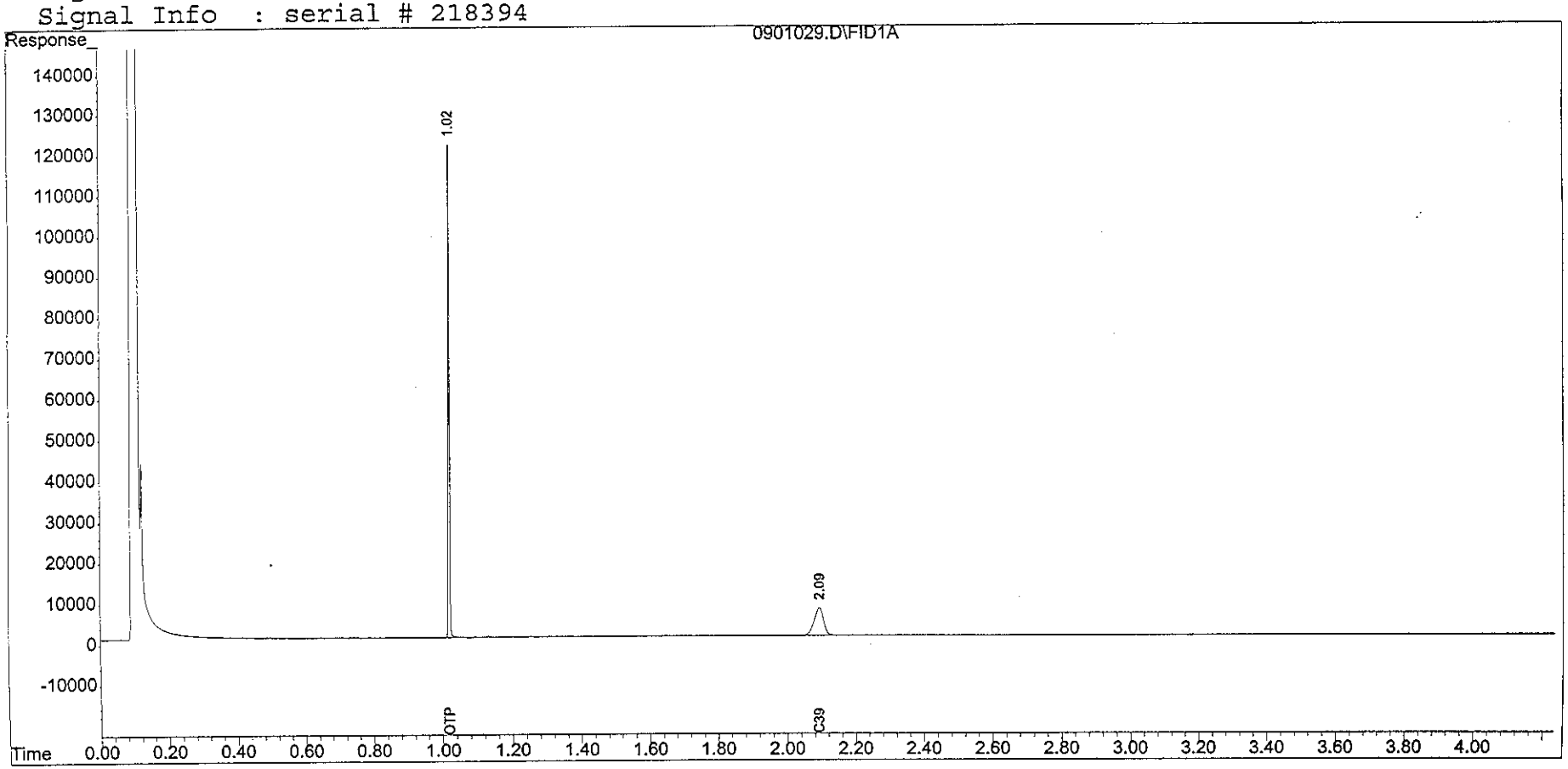
Quantitation Report

Data File : F:\2\DATA\1101CAL\0901029.D
Acq On : 1 Nov 2001 19:48
Sample : C110557-6
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Vial: 9
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : F:\2\DATA\1101CAL\1001030.D Vial: 10
Acq On : 1 Nov 2001 19:56 Operator: IE\KJA
Sample : C110557-7 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:57 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	345790	130.710 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 104.57% ✓	
2) S C39	2.09	104637	42.389 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 84.78% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	41749	N.D. ppb

270

(f)=RT Delta > 1/2 Window (m)=manual int.

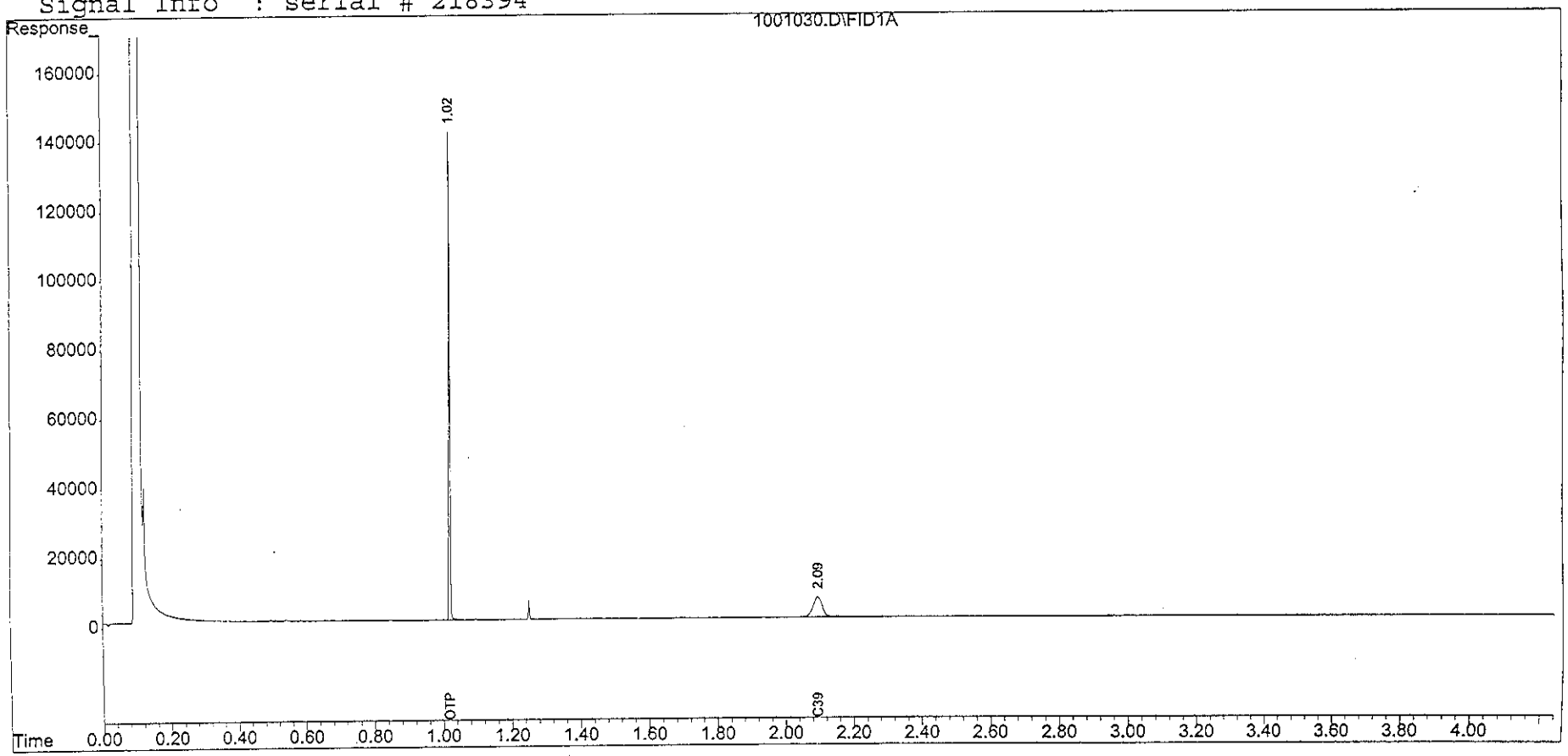
Quantitation Report

Data File : F:\2\DATA\1101CAL\1001030.D
Acq On : 1 Nov 2001 19:56
Sample : C110557-7
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:57 2001 Quant Results File: FL-PRO12.RES

Vial: 10
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110557
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 23, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
017-OLD-3610B-Q401	110557-1	3610B
017-OLD-3611C-Q401	110557-2	3611C
017-OLD-3629B-Q401	110557-3	3629B
017-OLD-3632C-Q401	110557-4	3632C
017-OLD-36FD1-Q401	110557-5	36FD1
017-OLD-36FB1-Q401	110557-6	36FB1
017-OLD-36EB1-Q401	110557-7	36EB1
017-OLD-36TB1-Q401	110557-8	36TB1

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I. There was no MS/MSD since insufficient sample was provided.

Larry Dilmore
GC/MS SUPERVISOR
Nov 5, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3610B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745006.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	J
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	16	
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.35	
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	7.0	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.29 J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3610B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745006.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 u
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.24	J	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 u
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3610B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745006.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 3

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000096-37-7	Cyclopentane, methyl-	5.34	1	JN
2. 000108-87-2	Cyclohexane, methyl-	9.94	2	JN
3.	unknown hydrocarbon	26.29	1	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3611C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745007.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	3.3	
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	2	
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

5.5

1.6

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3611C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745007.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.23	J	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.7		0.68
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3611C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745007.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	26.28	3	J

279

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3629B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745008.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.53	U	
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.2	J	0.18 J
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	1.3		
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.2	J	0.19 J
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	110	E	
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

280

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3629B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745008.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3629B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745008.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	26.29	3	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3629BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-3 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745014.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. _____ Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	5.3	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-09-2	Methylene chloride	3	U
540-59-0	trans-1,2-Dichloroethene	3	U
75-34-4	1,1-Dichloroethane	3	U
594-20-7	2,2-Dichloropropane	3	U
156-59-2	cis-1,2-Dichloroethene	2	JD
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
71-43-2	Benzene	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	110	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
142-28-9	1,3-Dichloropropane	3	U
124-48-1	Dibromochloromethane	3	U
106-93-4	1,2-Dibromoethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
	m,p-Xylene	6	U
95-47-6	o-Xylene	3	U
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropylbenzene	3	U
108-86-1	Bromobenzene	3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3629BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-3 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745014.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	3	U
96-18-4	1,2,3-Trichloropropane	16	U
103-65-1	n-Propylbenzene	3	U
95-49-8	2-Chlorotoluene	3	U
106-43-4	4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethylbenzene	3	U
98-06-6	tert-Butylbenzene	3	U
95-63-6	1,2,4-Trimethylbenzene	3	U
135-98-8	sec-Butylbenzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
99-87-6	p-Isopropyltoluene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
104-51-8	n-Butylbenzene	3	U
96-12-8	1,2-Dibromo-3-chloropropane	19	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
91-20-3	Naphthalene	3	U
87-67-6	1,2,3-Trichlorobenzene	3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.25	J
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	12	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.22	J
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	2.3	
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	4.5	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	1.2	
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.2	J	0.17 J
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.82		
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

290

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	26.29	3	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5 3	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. _____ Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. _____ Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5 3	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.2 1	J
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.25	J
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	12	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.22	J
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3632C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745009.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	2.3	
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	4.5	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	1.2	
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.2	J	0.17 J
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.82		
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36FD1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745010.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	26.29	3	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5 3	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. _____ Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36FB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-6

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745011.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5 3	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.2 1	J
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36EB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-7

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-8

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745013.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5 3	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-8

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745013.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 110557-8

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745013.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745003.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.53	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745003.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745003.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745004.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	11	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	11	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	11	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	22	
95-47-6	o-Xylene	11	
100-42-5	Styrene	11	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	11	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745004.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	11	
95-49-8	2-Chlorotoluene	11	
106-43-4	4-Chlorotoluene	11	
108-67-8	1,3,5-Trimethylbenzene	11	
98-06-6	tert-Butylbenzene	11	
95-63-6	1,2,4-Trimethylbenzene	11	
135-98-8	sec-Butylbenzene	11	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	12	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ALCD LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745005.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	9	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	11	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	11	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	11	
106-93-4	1,2-Dibromoethane	11	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: BUW147ALCD LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30745005.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/31/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	11	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	10	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. _____ Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/23/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	100	101	98	0
03	LCS	94	99	99	0
04	LCSD	100	101	101	0
05	3610B	99	98	97	0
06	3611C	84	98	93	0
07	3629B	96	98	93	0
08	3632C	98	100	95	0
09	36FD1	87	97	94	0
10	36FB1	89	97	93	0
11	36EB1	87	98	91	0
12	36TB1	107	100	100	0
13	3629BDL	102	100	96	0

QC LIMITS

SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745004.D Vial: 1
Acq On : 31 Oct 2001 10:25 Operator: GRH
Sample : BUW147ALCS LCS 10-31-01 Inst : Bubba
Misc : BUW147ALCS LCS 10-31-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.41	10.00	94.05	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.93	10.00	99.26	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	9.85	10.00	98.50	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	9.65	10.00	96.51	30 to 152%	[ ]
3)	PM	Chloromethane	9.48	10.00	94.80	60 to 118%	[ ]
4)	CM	Vinyl chloride	10.12	10.00	101.17	72 to 116%	[ ]
5)	T	Bromomethane	9.90	10.00	98.99	63 to 140%	[ ]
6)	T	Chloroethane	10.43	10.00	104.32	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.76	10.00	107.61	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.50	10.00	105.01	84 to 117%	[ ]
9)	T	Acetone	15.54	20.00	77.72	24 to 158%	[ ]
10)	T	Iodomethane	10.70	10.00	107.02	60 to 135%	[ ]
11)	T	Carbon disulfide	11.13	10.00	111.26	79 to 118%	[ ]
12)	T	Methylene chloride	10.01	10.00	100.07	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.81	10.00	98.09	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.97	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.71	10.00	97.12	90 to 114%	[ ]
16)	T	Vinyl acetate	14.55	20.00	72.74	75 to 114%	[*]
17)	T	Isopropyl ether	10.24	10.00	102.42	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	10.16	10.00	101.56	74 to 112%	[ ]
19)	T	2-Butanone	18.75	20.00	93.74	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.70	10.00	106.95	90 to 117%	[ ]
21)	T	Bromochloromethane	9.92	10.00	99.16	91 to 129%	[ ]
22)	CM	Chloroform	9.94	10.00	99.45	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.78	10.00	107.80	88 to 117%	[ ]
26)	T	Carbon tetrachloride	10.01	10.00	100.06	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.89	10.00	108.94	84 to 112%	[ ]
28)	T	Benzene	10.20	10.00	102.03	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.58	10.00	95.80	88 to 125%	[ ]
30)	T	Trichloroethene	10.28	10.00	102.75	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.25	10.00	102.52	87 to 112%	[ ]
32)	T	Dibromomethane	9.81	10.00	98.08	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.53	10.00	5.29	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.01	10.00	100.07	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.20	10.00	101.96	61 to 133%	[ ]
37)	CM	Toluene	10.15	10.00	101.55	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.24	10.00	102.39	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.76	10.00	97.64	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.51	10.00	105.12	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.08	10.00	100.81	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.78	10.00	97.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.92	10.00	99.20	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	17.51	20.00	87.53	70 to 128% [ ]
45)	T	2-Hexanone	17.91	20.00	89.55	28 to 169% [ ]
47)	PM	Chlorobenzene	10.34	10.00	103.38	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.44	10.00	104.42	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	10.43	10.00	104.34	69 to 123% [ ]
51)	T	m,p-Xylene	21.50	20.00	107.50	70 to 125% [ ]
52)	T	o-Xylene	10.75	10.00	107.55	73 to 122% [ ]
53)	T	Styrene	10.55	10.00	105.51	76 to 127% [ ]
54)	PM	Bromoform	10.27	10.00	102.70	52 to 127% [ ]
55)	T	Isopropylbenzene	10.89	10.00	108.93	56 to 134% [ ]
58)	T	Bromobenzene	9.93	10.00	99.32	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.60	10.00	96.05	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.05	10.00	100.46	38 to 159% [ ]
61)	T	n-Propylbenzene	11.14	10.00	111.39	73 to 116% [ ]
62)	T	2-Chlorotoluene	10.72	10.00	107.21	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.91	10.00	109.14	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	10.62	10.00	106.22	84 to 125% [ ]
65)	T	tert-Butylbenzene	10.67	10.00	106.66	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.86	10.00	108.55	63 to 142% [ ]
67)	T	sec-Butylbenzene	11.12	10.00	111.24	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	10.20	10.00	102.03	90 to 113% [ ]
69)	T	p-Isopropyltoluene	11.42	10.00	114.16	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	10.30	10.00	103.04	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	10.07	10.00	100.66	87 to 115% [ ]
72)	T	n-Butylbenzene	11.95	10.00	119.47	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	9.86	10.00	98.57	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	11.02	10.00	110.21	31 to 211% [ ]
75)	T	Hexachlorobutadiene	12.32	10.00	123.19	74 to 140% [ ]
76)	T	Naphthalene	10.68	10.00	106.79	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.71	10.00	107.08	43 to 204% [ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745005.D Vial: 2
Acq On : 31 Oct 2001 11:07 Operator: GRH
Sample : BUW147ALCD LCS DUPE 10-31-01 Inst : Bubba
Misc : BUW147ALCD LCS DUPE 10-31-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.99	10.00	99.93	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.09	10.00	100.88	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.14	10.00	101.45	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	9.18	10.00	91.80	30 to 152%	[ ]
3)	PM	Chloromethane	9.38	10.00	93.76	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.51	10.00	95.09	72 to 116%	[ ]
5)	T	Bromomethane	9.15	10.00	91.52	63 to 140%	[ ]
6)	T	Chloroethane	10.02	10.00	100.25	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.24	10.00	102.41	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.89	10.00	98.91	84 to 117%	[ ]
9)	T	Acetone	17.10	20.00	85.49	24 to 158%	[ ]
10)	T	Iodomethane	9.75	10.00	97.53	60 to 135%	[ ]
11)	T	Carbon disulfide	10.50	10.00	104.97	79 to 118%	[ ]
12)	T	Methylene chloride	10.44	10.00	104.35	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.34	10.00	93.41	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.79	10.00	107.86	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.55	10.00	95.47	90 to 114%	[ ]
16)	T	Vinyl acetate	16.08	20.00	80.39	75 to 114%	[ ]
17)	T	Isopropyl ether	10.94	10.00	109.44	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.85	10.00	98.49	74 to 112%	[ ]
19)	T	2-Butanone	21.69	20.00	108.47	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.65	10.00	106.51	90 to 117%	[ ]
21)	T	Bromochloromethane	10.42	10.00	104.24	91 to 129%	[ ]
22)	CM	Chloroform	10.03	10.00	100.32	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.35	10.00	103.51	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.20	10.00	92.03	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.39	10.00	103.92	84 to 112%	[ ]
28)	T	Benzene	9.89	10.00	98.94	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.59	88 to 125%	[ ]
30)	T	Trichloroethene	9.81	10.00	98.05	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.33	10.00	103.27	87 to 112%	[ ]
32)	T	Dibromomethane	10.52	10.00	105.19	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.40	10.00	4.03	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.29	10.00	102.94	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.30	10.00	103.04	61 to 133%	[ ]
37)	CM	Toluene	9.84	10.00	98.38	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.79	10.00	107.93	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.59	10.00	105.94	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.99	10.00	99.91	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.89	10.00	108.89	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.63	10.00	106.27	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.60	10.00	106.03	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	20.70	20.00	103.48	70 to 128% [ ]
45)	T	2-Hexanone	21.71	20.00	108.53	28 to 169% [ ]
47)	PM	Chlorobenzene	10.00	10.00	100.05	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.32	10.00	103.25	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.63	10.00	96.34	69 to 123% [ ]
51)	T	m,p-Xylene	19.83	20.00	99.16	70 to 125% [ ]
52)	T	o-Xylene	10.18	10.00	101.85	73 to 122% [ ]
53)	T	Styrene	10.22	10.00	102.24	76 to 127% [ ]
54)	PM	Bromoform	11.14	10.00	111.40	52 to 127% [ ]
55)	T	Isopropylbenzene	9.99	10.00	99.93	56 to 134% [ ]
58)	T	Bromobenzene	10.08	10.00	100.84	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	10.49	10.00	104.91	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.99	10.00	109.87	38 to 159% [ ]
61)	T	n-Propylbenzene	9.96	10.00	99.56	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.95	10.00	99.48	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.12	10.00	101.22	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.67	10.00	96.66	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.62	10.00	96.16	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.14	10.00	101.37	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.90	10.00	99.01	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.84	10.00	98.41	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.19	10.00	101.85	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.97	10.00	99.71	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	10.04	10.00	100.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.49	10.00	104.92	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	11.39	10.00	113.88	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	11.07	10.00	110.75	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.35	10.00	113.47	74 to 140% [ ]
76)	T	Naphthalene	11.37	10.00	113.75	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	11.14	10.00	111.41	43 to 204% [ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128% [ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169% [ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123% [ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125% [ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122% [ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127% [ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127% [ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134% [ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159% [ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140% [ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204% [ ]

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Lab File ID: 30745003.D Lab Sample ID: BUW147ABK BLA

Date Analyzed: 10/31/01 Time Analyzed: 9:46

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS	BUW147ALCS LCS 10-31	30745004.D	10:25
02	LCSD	BUW147ALCD LCS DUP	30745005.D	11:07
03	3610B	110557-1	30745006.D	11:48
04	3611C	110557-2	30745007.D	12:30
05	3629B	110557-3	30745008.D	13:09
06	3632C	110557-4	30745009.D	13:52
07	36FD1	110557-5	30745010.D	14:34
08	36FB1	110557-6	30745011.D	15:16
09	36EB1	110557-7	30745012.D	15:55
10	36TB1	110557-8	30745013.D	16:37
11	3629BDL	110557-3 2.5ML 10X	30745014.D	17:19

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Lab File ID: 30745001.D BFB Injection Date: 10/31/01

Instrument ID: BUBBA BFB Injection Time: 8:28

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.8
75	30.0 - 66.0% of mass 95	43.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	67.5
175	4.0 - 9.0% of mass 174	4.9 (7.2)1
176	93.0 - 101.0% of mass 174	65.9 (97.6)1
177	5.0 - 9.0% of mass 176	4.3 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30745002.D	10/31/01	9:07
02	VBLKBA	BUW147ABK BLANK 10-	30745003.D	10/31/01	9:46
03	LCS	BUW147ALCS LCS 10-31	30745004.D	10/31/01	10:25
04	LCSD	BUW147ALCD LCS DUP	30745005.D	10/31/01	11:07
05	3610B	110557-1	30745006.D	10/31/01	11:48
06	3611C	110557-2	30745007.D	10/31/01	12:30
07	3629B	110557-3	30745008.D	10/31/01	13:09
08	3632C	110557-4	30745009.D	10/31/01	13:52
09	36FD1	110557-5	30745010.D	10/31/01	14:34
10	36FB1	110557-6	30745011.D	10/31/01	15:16
11	36EB1	110557-7	30745012.D	10/31/01	15:55
12	36TB1	110557-8	30745013.D	10/31/01	16:37
13	3629BDL	110557-3 2.5ML 10X	30745014.D	10/31/01	17:19

313

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------			ISTD	----------			
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------			ISTD	----------			
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------			ISTD	----------			
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------			ISTD	----------			
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
							L	M= 0.351	R^2=0.999	
								B= 0.002		
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
							L	M= 0.742	R^2=0.999	
								B= 0.030		

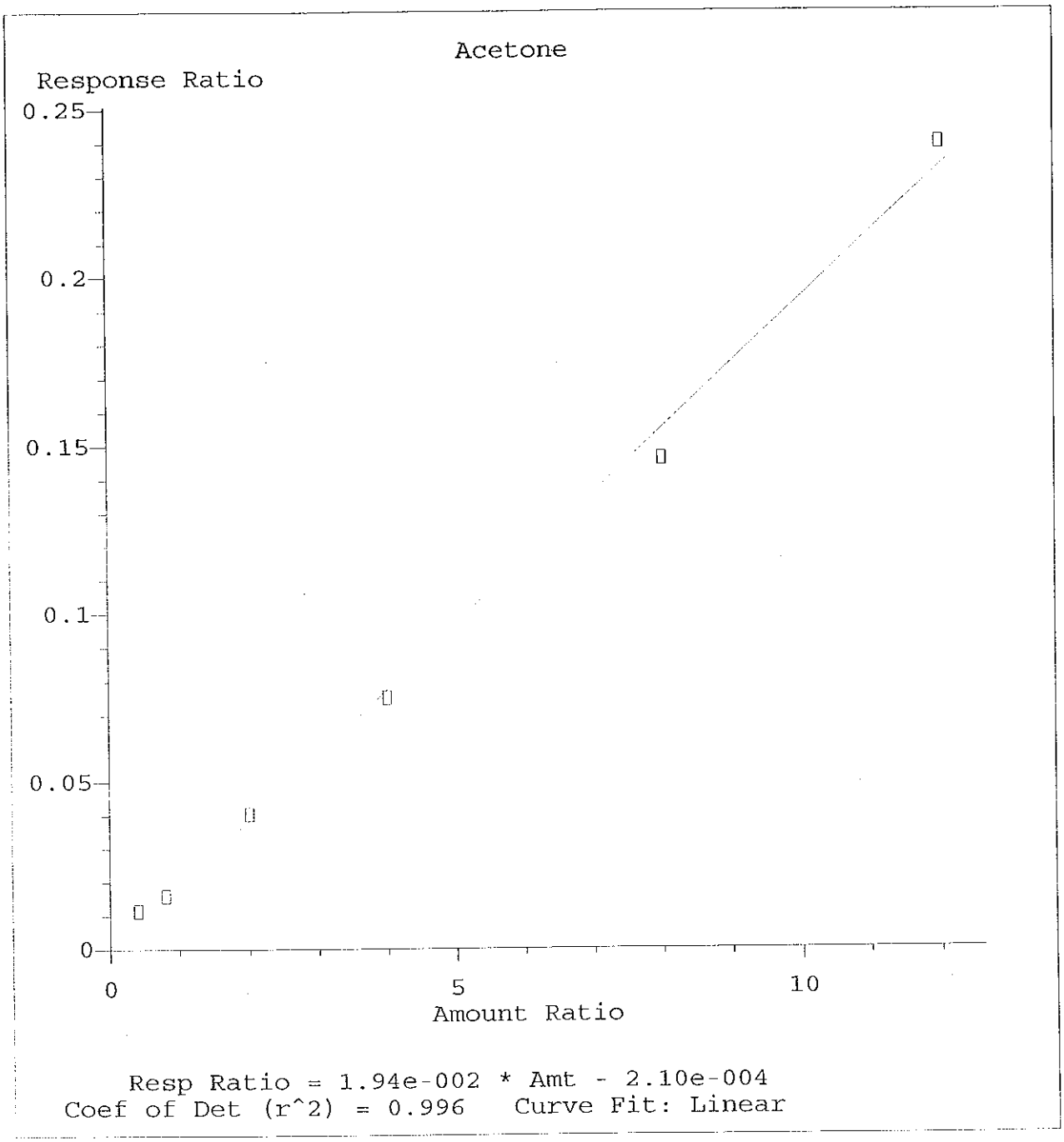
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

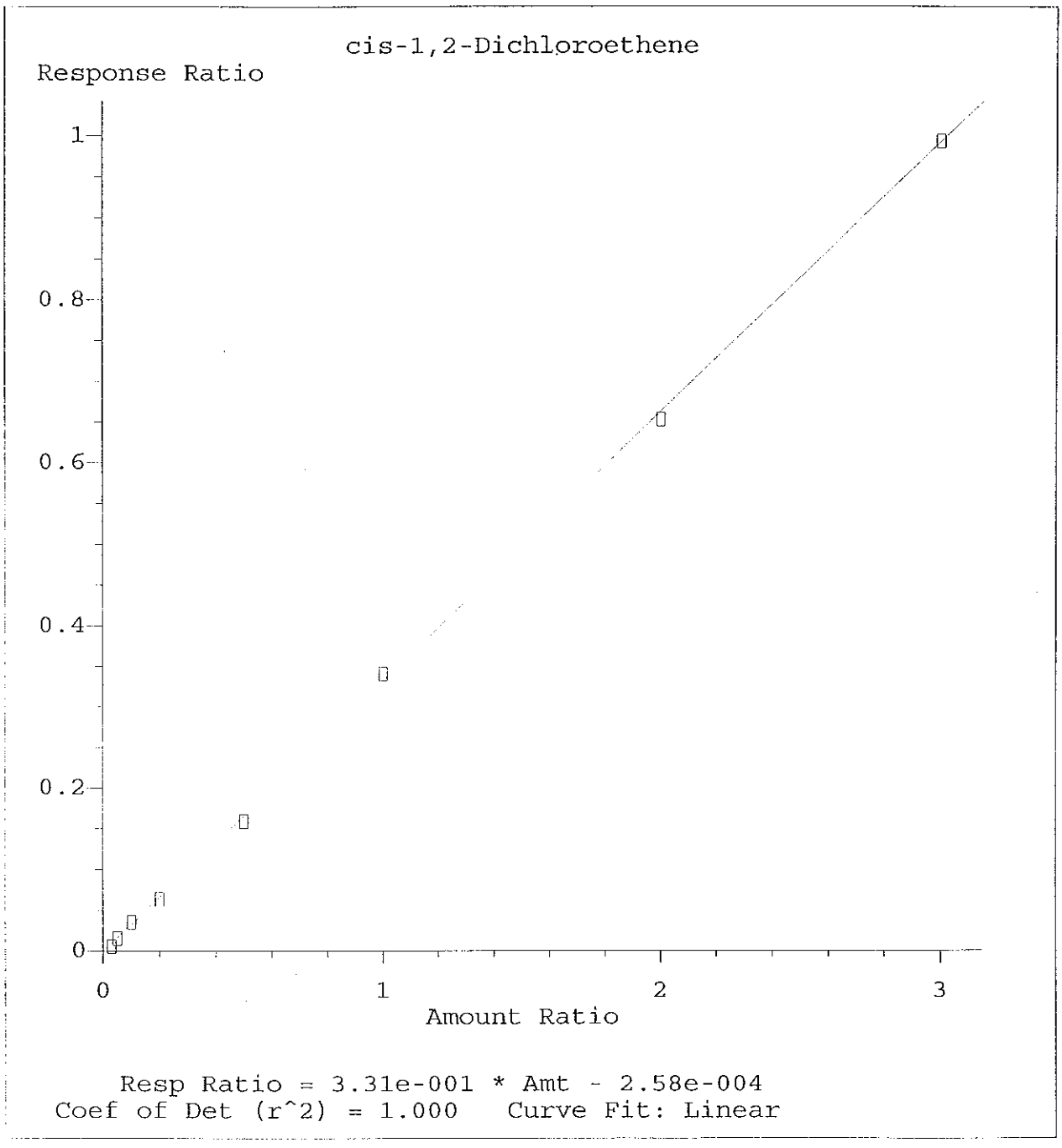
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

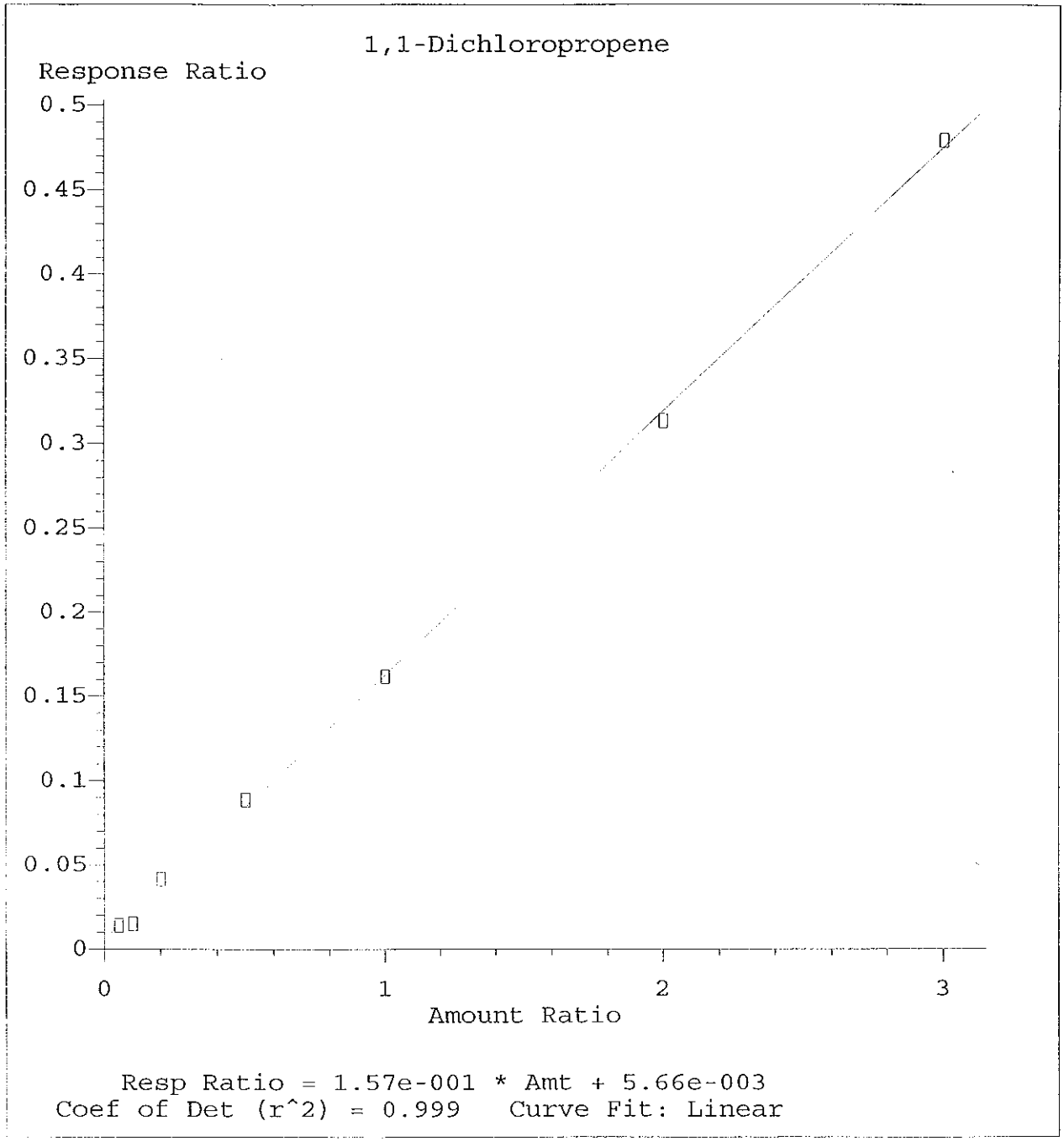
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



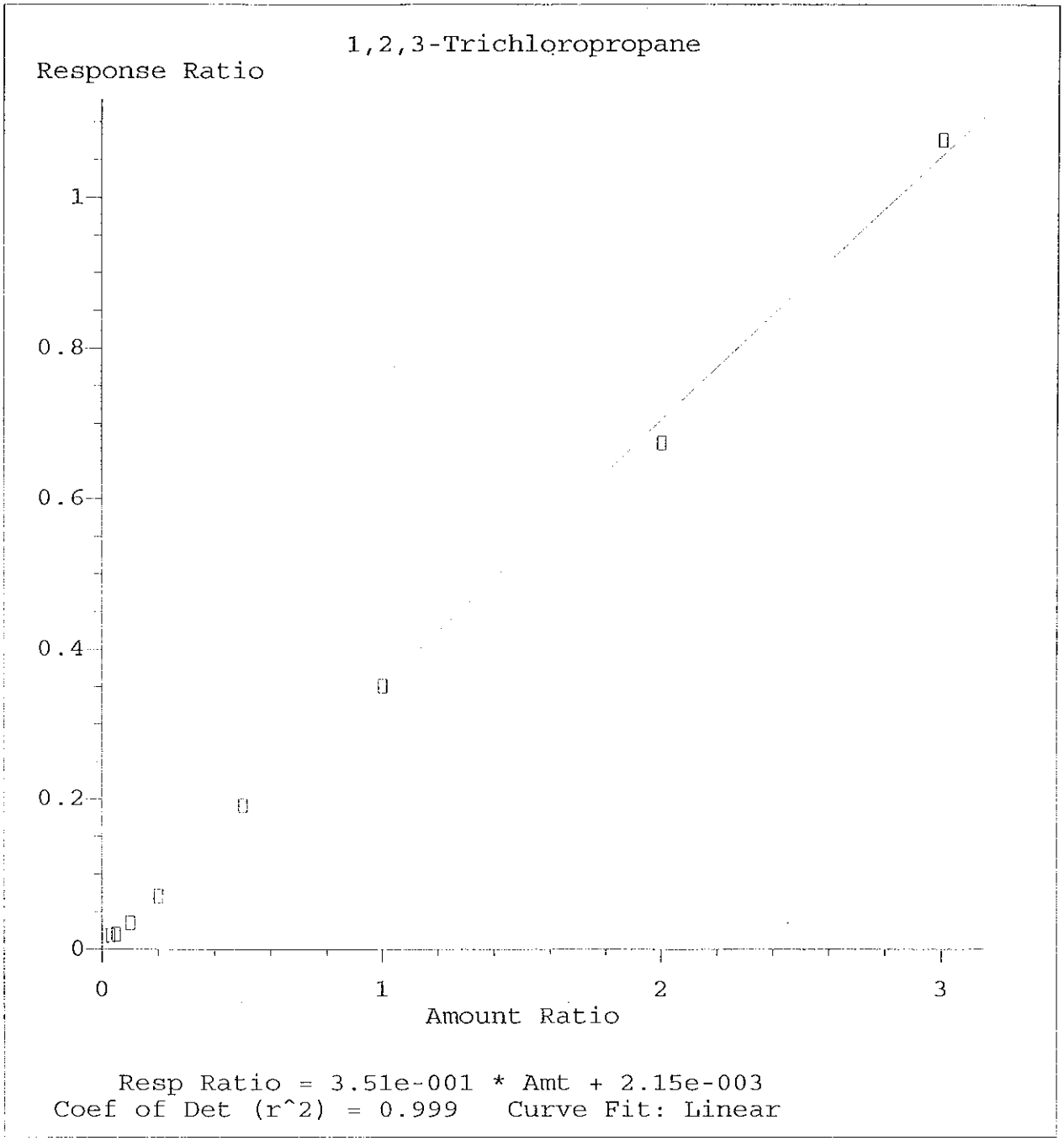
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



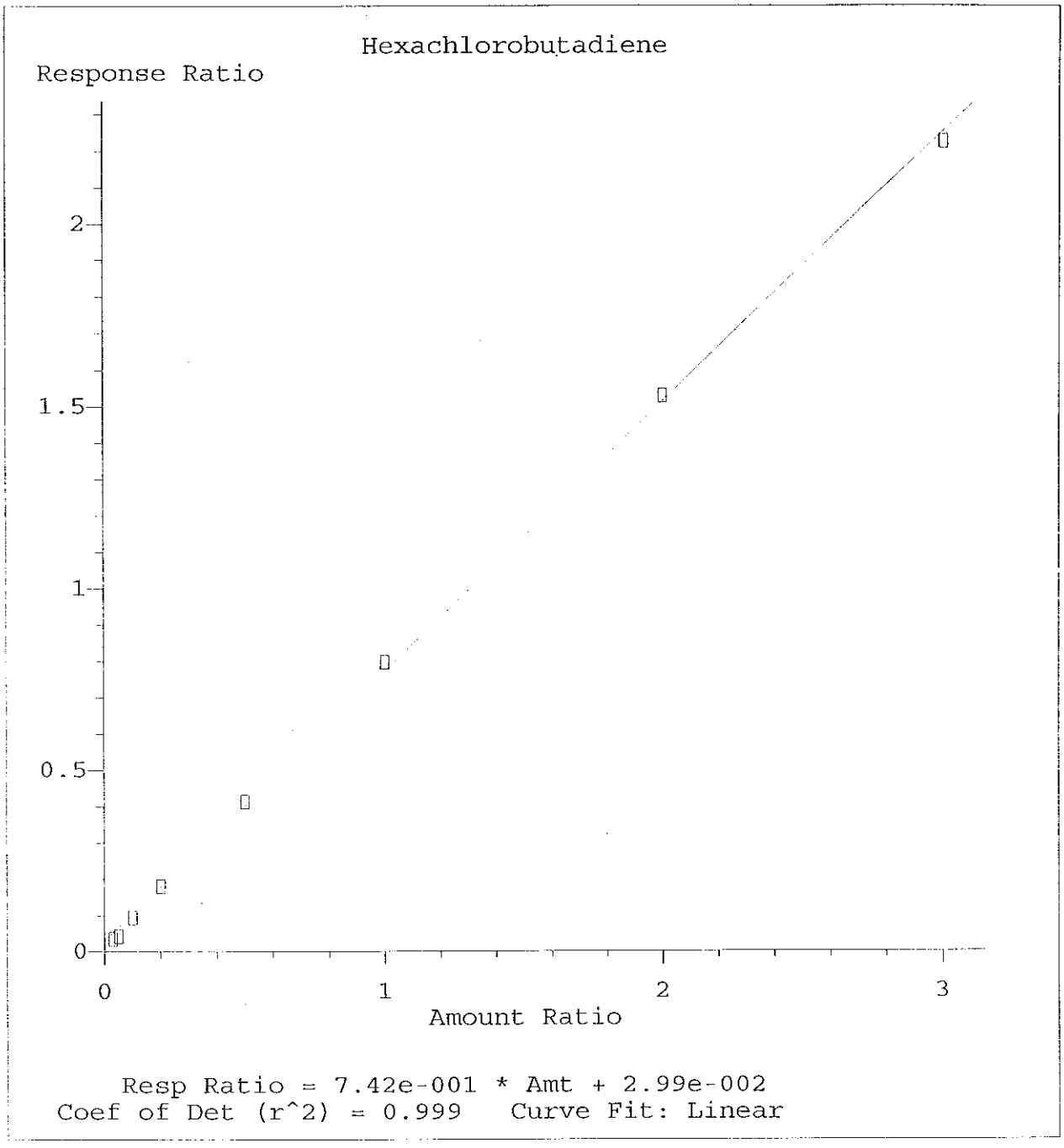
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	98	0.00
3	PM	Chloromethane	0.324	0.321	0.9	100	0.00
4	CM	Vinyl chloride	0.340	0.324	4.7#	99	0.00
5	TM	Bromomethane	0.307	0.267	13.0	89	0.00
6	TM	Chloroethane	0.199	0.193	3.0	98	0.00
7	TM	Trichlorofluoromethane	0.557	0.545	2.2	99	0.00
8	CM	1,1-Dichloroethene	0.327	0.318	2.8#	99	0.00
9	TM	Acetone	0.021	0.021#	0.0	111	0.00
10	TM	Iodomethane	0.403	0.379	6.0	93	0.00
11	TM	Carbon disulfide	1.028	1.005	2.2	98	0.00
12	TM	Methylene chloride	0.267	0.275	-3.0	101	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.354	2.5	96	0.00
14	TM	Methyl tert-butyl ether	0.399	0.441	-10.5	110	0.00
15	PM	1,1-Dichloroethane	0.645	0.642	0.5	99	0.00
16	TM	Vinyl acetate	0.489	0.521	-6.5	105	0.00
17	TM	Isopropyl ether	1.015	1.072	-5.6	102	0.00
18	TM	2,2-Dichloropropane	0.478	0.485	-1.5	99	0.00
19	TM	2-Butanone	0.040	0.044#	-10.0	110	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.343	-10.3	100	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	101	0.00
22	CM	Chloroform	0.645	0.629	2.5#	97	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.532	1.3	96	0.00
24	S	s-Dibromofluoromethane	0.463	0.510	-10.2	108	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
26	TM	Carbon tetrachloride	0.500	0.447	10.6	100	0.00
27	TM	1,1-Dichloropropene	0.186	0.160	14.0	100	0.00
28	TM	Benzene	1.086	1.029	5.2	99	0.00
29	TM	1,2-Dichloroethane	0.217	0.215	0.9	104	0.00
30	TM	Trichloroethene	0.437	0.409	6.4	99	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	100	0.00
32	TM	Dibromomethane	0.162	0.165	-1.9	106	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	103	0.00
34	TM	Bromodichloromethane	0.502	0.496	1.2	101	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.398	-1.8	104	0.00
36	S	s-Toluene-d8	0.947	0.949	-0.2	102	0.00
37	CM	Toluene	0.699	0.651	6.9#	98	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.255	-5.8	106	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.163	-0.6	106	0.00
40	TM	Tetrachloroethene	0.505	0.470	6.9	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.314	-1.6	105	0.00
42	TM	Dibromochloromethane	0.295	0.302	-2.4	105	0.00
43	TM	1,2-Dibromoethane	0.200	0.212	-6.0	107	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.121	-6.1	113	0.00
45	TM	2-Hexanone	0.069	0.077	-11.6	114	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
47	PM	Chlorobenzene	1.050	0.985	6.2	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.454	2.4	101	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	0#	-14.02#
50	CM	Ethylbenzene	0.567	0.521	8.1#	98	0.00
51	TM	m,p-Xylene	0.683	0.647	5.3	98	0.00
52	TM	o-Xylene	0.635	0.604	4.9	99	0.00
53	TM	Styrene	1.007	0.993	1.4	101	0.00
54	PM	Bromoform	0.245	0.260	-6.1	107	0.00
55	TM	Isopropylbenzene	2.040	1.920	5.9	98	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.781	-2.8	103	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
58	TM	Bromobenzene	0.928	0.862	7.1	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.645	-0.2	109	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.362	8.4	106	0.00
61	TM	n-Propylbenzene	0.909	0.841	7.5	97	0.00
62	TM	2-Chlorotoluene	0.856	0.771	9.9	99	0.00
63	TM	4-Chlorotoluene	2.990	2.795	6.5	100	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.527	9.2	98	0.00
65	TM	tert-Butylbenzene	1.825	1.601	12.3	96	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.267	7.2	95	0.00
67	TM	sec-Butylbenzene	4.012	3.683	8.2	97	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.574	7.9	99	0.00
69	TM	p-Isopropyltoluene	3.020	2.831	6.3	97	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.483	9.0	102	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.270	6.5	101	0.00
72	TM	n-Butylbenzene	2.797	2.753	1.6	96	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.091	-4.6	112	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.787	-3.1	103	0.00
75	TM	Hexachlorobutadiene	0.873	0.764	12.5	99	0.00
76	TM	Naphthalene	0.582	0.608	-4.5	106	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.593	-4.2	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	99	0.00
2	TM	Dichlorodifluoromethane	10.000	9.355	6.4	98	0.00
3	PM	Chloromethane	10.000	9.922	0.8	100	0.00
4	CM	Vinyl chloride	10.000	9.538	4.6#	99	0.00
5	TM	Bromomethane	10.000	8.677	13.2	89	0.00
6	TM	Chloroethane	10.000	9.665	3.4	98	0.00
7	TM	Trichlorofluoromethane	10.000	9.784	2.2	99	0.00
8	CM	1,1-Dichloroethene	10.000	9.732	2.7#	99	0.00
9	TM	Acetone	40.000	43.359	-8.4	111	0.00
10	TM	Iodomethane	10.000	9.419	5.8	93	0.00
11	TM	Carbon disulfide	10.000	9.775	2.2	98	0.00
12	TM	Methylene chloride	10.000	10.282	-2.8	101	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.759	2.4	96	0.00
14	TM	Methyl tert-butyl ether	10.000	11.059	-10.6	110	0.00
15	PM	1,1-Dichloroethane	10.000	9.960	0.4	99	0.00
16	TM	Vinyl acetate	20.000	21.314	-6.6	105	0.00
17	TM	Isopropyl ether	10.000	10.568	-5.7	102	0.00
18	TM	2,2-Dichloropropane	10.000	10.133	-1.3	99	0.00
19	TM	2-Butanone	40.000	43.982	-10.0	110	0.00
20	TM	cis-1,2-Dichloroethene	10.000	10.417	-4.2	100	0.00
21	TM	Bromochloromethane	10.000	10.210	-2.1	101	0.00
22	CM	Chloroform	10.000	9.747	2.5#	97	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.863	1.4	96	0.00
24	S	s-Dibromofluoromethane	10.000	11.014	-10.1	108	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	102	0.00
26	TM	Carbon tetrachloride	10.000	8.947	10.5	100	0.00
27	TM	1,1-Dichloropropene	10.000	9.823	1.8	100	0.00
28	TM	Benzene	10.000	9.481	5.2	99	0.00
29	TM	1,2-Dichloroethane	10.000	9.897	1.0	104	0.00
30	TM	Trichloroethene	10.000	9.350	6.5	99	0.00
31	CM	1,2-Dichloropropane	10.000	9.666	3.3#	100	0.00
32	TM	Dibromomethane	10.000	10.194	-1.9	106	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.637	-6.4	103	0.00
34	TM	Bromodichloromethane	10.000	9.869	1.3	101	0.00
35	TM	cis-1,3-Dichloropropene	10.000	10.170	-1.7	104	0.00
36	S	s-Toluene-d8	10.000	10.022	-0.2	102	0.00
37	CM	Toluene	10.000	9.314	6.9#	98	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.558	-5.6	106	0.00
39	TM	1,1,2-Trichloroethane	10.000	10.085	-0.9	106	0.00
40	TM	Tetrachloroethene	10.000	9.295	7.1	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 16:11:44 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.160	-1.6	105	0.00
42	TM	Dibromochloromethane	10.000	10.254	-2.5	105	0.00
43	TM	1,2-Dibromoethane	10.000	10.598	-6.0	107	0.00
44	TM	4-Methyl-2-pentanone	40.000	42.424	-6.1	113	0.00
45	TM	2-Hexanone	40.000	45.073	-12.7	114	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	102	0.00
47	PM	Chlorobenzene	10.000	9.378	6.2	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.772	2.3	101	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	0	-14.02#
50	CM	Ethylbenzene	10.000	9.182	8.2#	98	0.00
51	TM	m,p-Xylene	20.000	18.958	5.2	98	0.00
52	TM	o-Xylene	10.000	9.511	4.9	99	0.00
53	TM	Styrene	10.000	9.857	1.4	101	0.00
54	PM	Bromoform	10.000	10.617	-6.2	107	0.00
55	TM	Isopropylbenzene	10.000	9.411	5.9	98	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.270	-2.7	103	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	0.00
58	TM	Bromobenzene	10.000	9.286	7.1	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	10.007	-0.1	109	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.223	-2.2	106	0.00
61	TM	n-Propylbenzene	10.000	9.261	7.4	97	0.00
62	TM	2-Chlorotoluene	10.000	9.011	9.9	99	0.00
63	TM	4-Chlorotoluene	10.000	9.348	6.5	100	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.079	9.2	98	0.00
65	TM	tert-Butylbenzene	10.000	8.775	12.2	96	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.283	7.2	95	0.00
67	TM	sec-Butylbenzene	10.000	9.180	8.2	97	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.209	7.9	99	0.00
69	TM	p-Isopropyltoluene	10.000	9.374	6.3	97	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.095	9.0	102	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.339	6.6	101	0.00
72	TM	n-Butylbenzene	10.000	9.841	1.6	96	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.449	-4.5	112	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.306	-3.1	103	0.00
75	TM	Hexachlorobutadiene	10.000	9.935	0.6	99	0.00
76	TM	Naphthalene	10.000	10.451	-4.5	106	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.420	-4.2	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Lab File ID (Standard): 30745002.D Date Analyzed: 10/31/01

Instrument ID: BUBBA Time Analyzed: 9:07

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2933633	7.25	3081018	9.06	2193665	15.32
	UPPER LIMIT	5867266	7.75	6162036	9.56	4387330	15.82
	LOWER LIMIT	1466817	6.75	1540509	8.56	1096833	14.82
	EPA SAMPLE NO.						
01	VBLKBA	2933298	7.26	2887271	9.08	2048815	15.32
02	LCS	3030027	7.26	2983080	9.07	2034016	15.33
03	LCSD	3075199	7.24	3102179	9.06	2191571	15.31
04	3610B	3066772	7.22	3031702	9.05	2160861	15.31
05	3611C	2928642	7.22	2789205	9.05	1849638	15.31
06	3629B	3084133	7.24	2992960	9.06	2089348	15.31
07	3632C	3061847	7.22	3017047	9.06	2157170	15.30
08	36FD1	2876330	7.21	2737109	9.05	1813860	15.29
09	36FB1	2845474	7.21	2756478	9.05	1845953	15.30
10	36EB1	2842645	7.23	2709232	9.06	1811745	15.32
11	36TB1	2920762	7.23	2954310	9.05	2166320	15.31
12	3629BDL	2967730	7.22	2958151	9.05	2115188	15.31

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110557

Lab File ID (Standard): 30745002.D Date Analyzed: 10/31/01

Instrument ID: BUBBA Time Analyzed: 09:07

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1240706	22.69				
	UPPER LIMIT	2481412	22.19				
	LOWER LIMIT	620353	23.19				
	EPA SAMPLE NO.						
01	VBLKBA	1006921	22.69				
02	LCS	1122402	22.69				
03	LCSD	1219655	22.68				
04	3610B	1051794	22.66				
05	3611C	862059	22.65				
06	3629B	964036	22.66				
07	3632C	1045562	22.66				
08	36FD1	858286	22.65				
09	36FB1	818570	22.66				
10	36EB1	811951	22.69				
11	36TB1	1075004	22.67				
12	3629BDL	1046541	22.68				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD Not used
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1203723		22.66		0		0.00		0		0.00	
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00	
LOWER LIMIT	601862		22.16		0		0.00		0		0.00	
File ID Sample												
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00	
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00	
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00	
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00	
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00	
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00	
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00	
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00	
30744011 BLANK	784520		22.66		0		0.00		0		0.00	
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

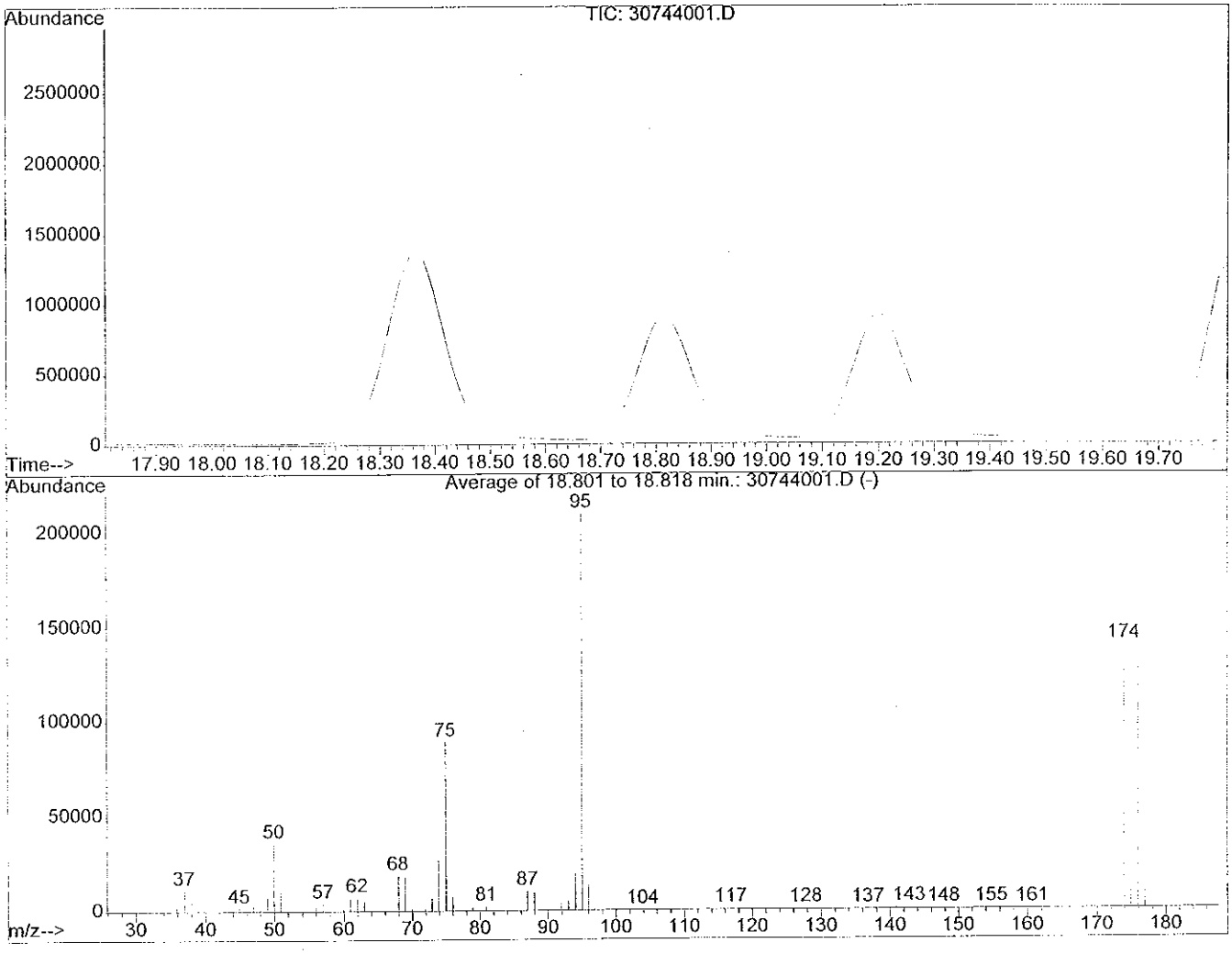
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

30744001.D V82625B1.M Tue Oct 30 10:41:16 2001

Average of 18.801 to 18.818 min.: 30744001.D
TUNE
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. WD 10-31-01

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	ISTD							
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
							L	M= 0.019 R^2=0.996		
								B= -0.000		
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
							L	M= 0.331 R^2=1.000		
								B= -0.000		
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	ISTD							
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
							L	M= 0.157 R^2=0.999		
								B= 0.006		
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

335

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
							L	M= 0.351	R^2=0.999	
								B= 0.002		
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
							L	M= 0.742	R^2=0.999	
								B= 0.030		

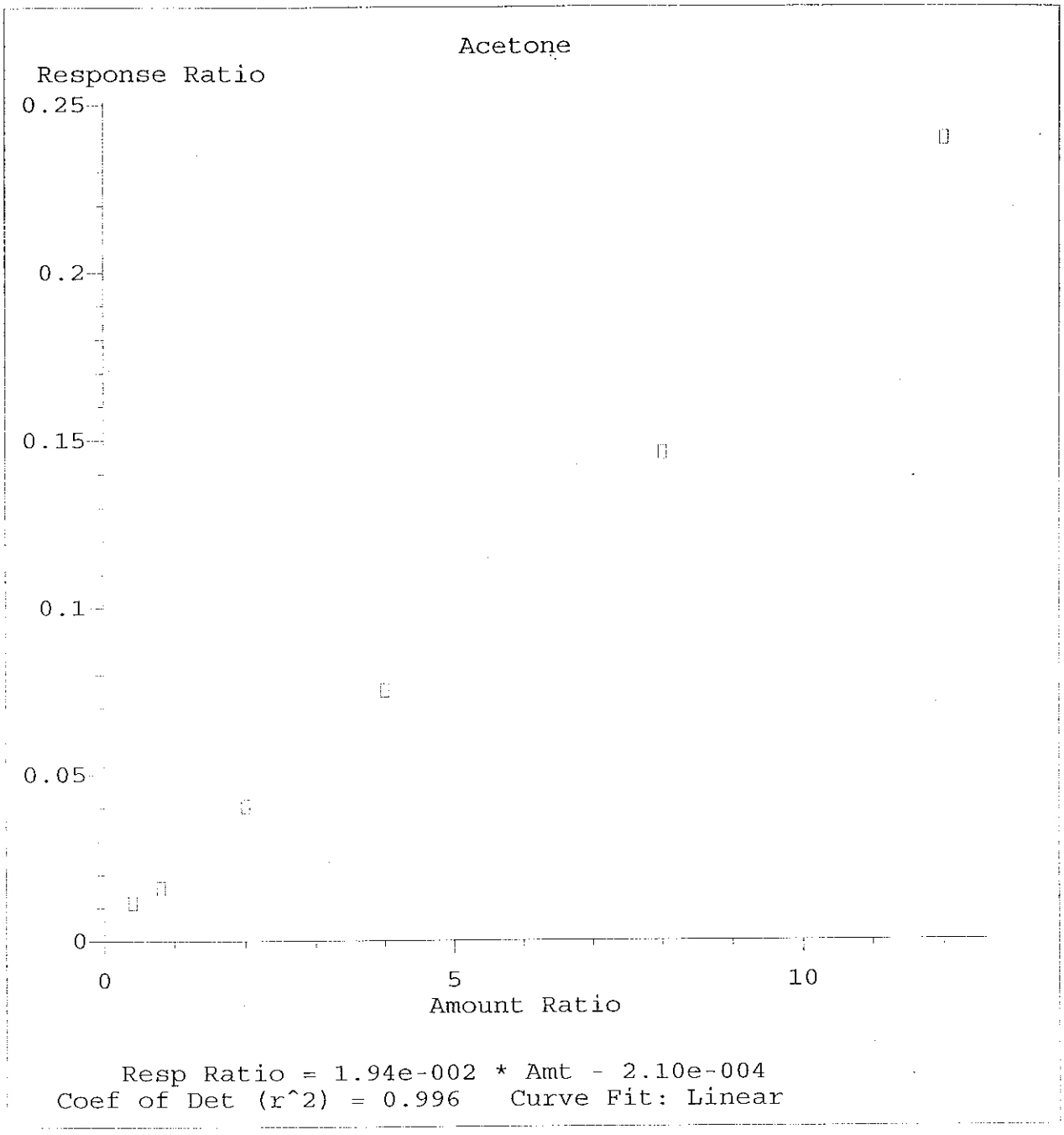
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

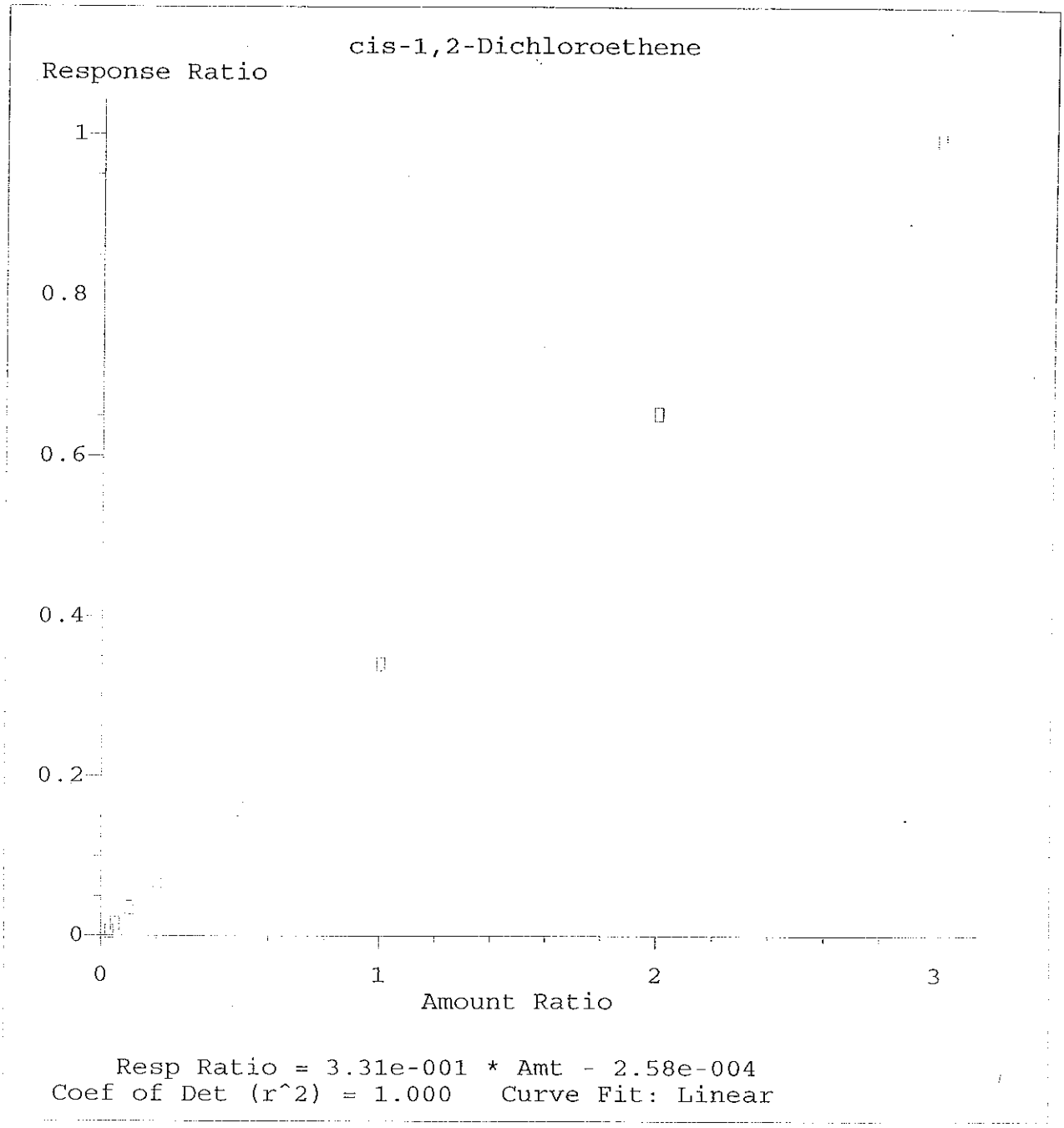
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

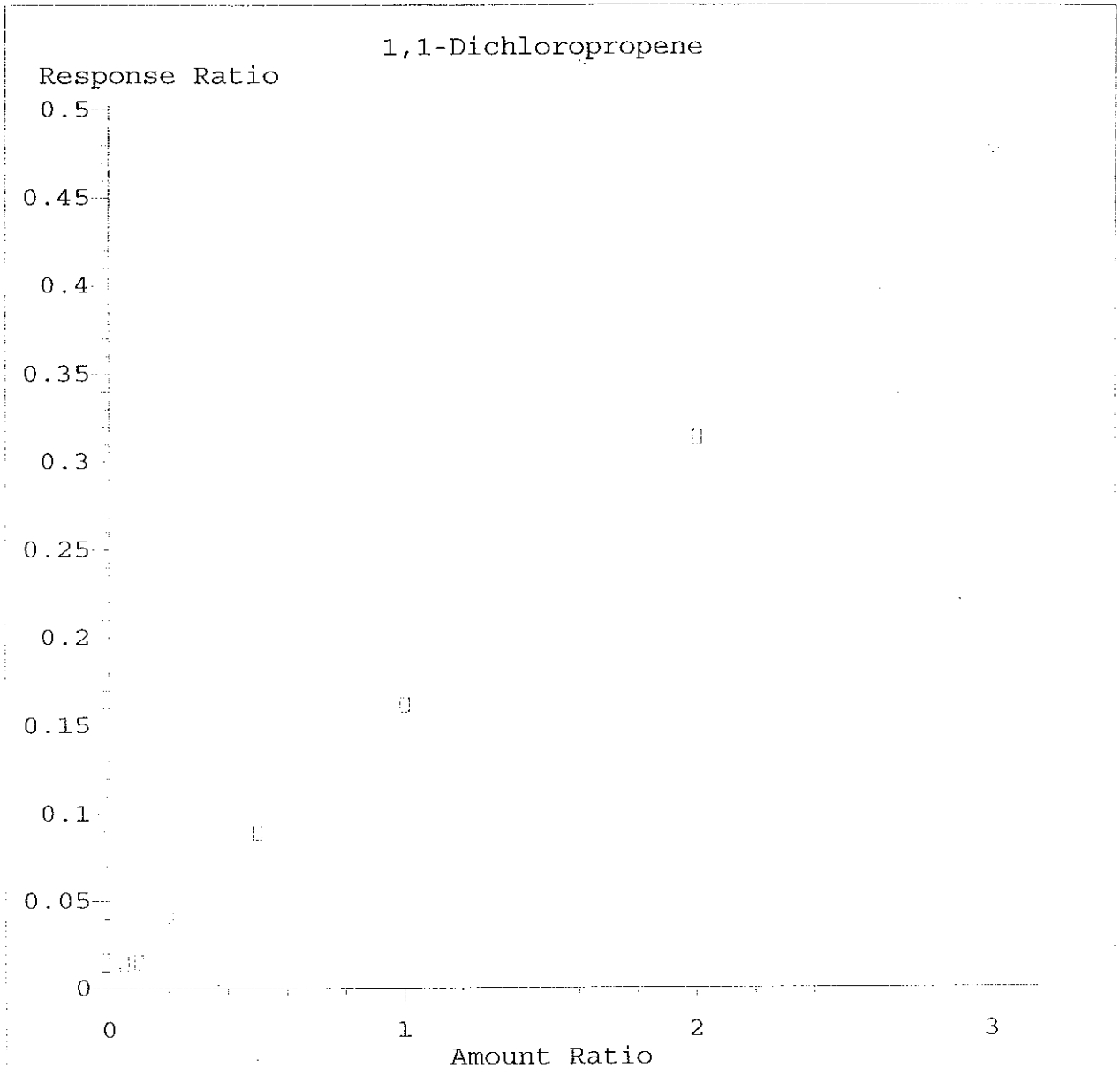
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

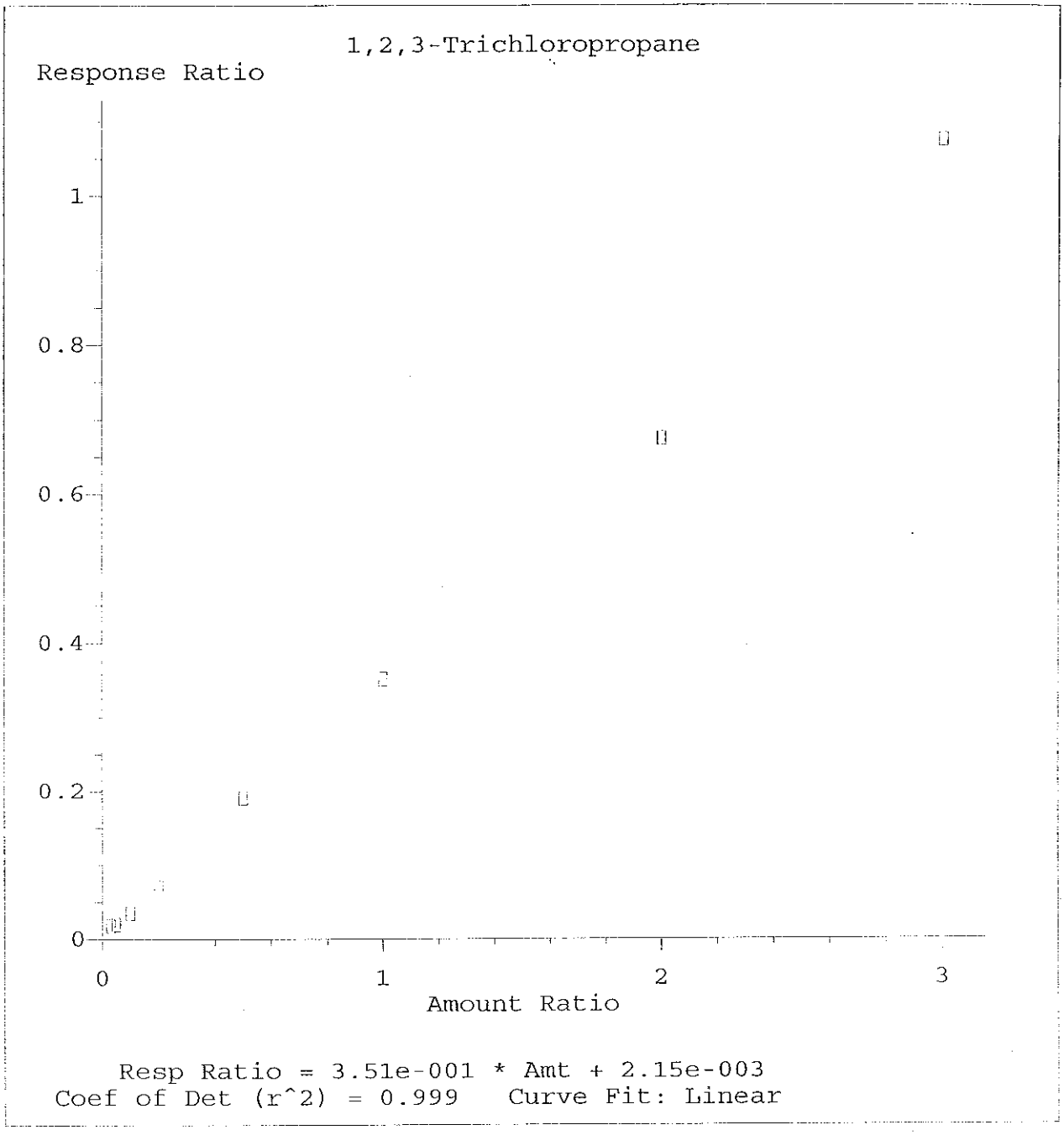


Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

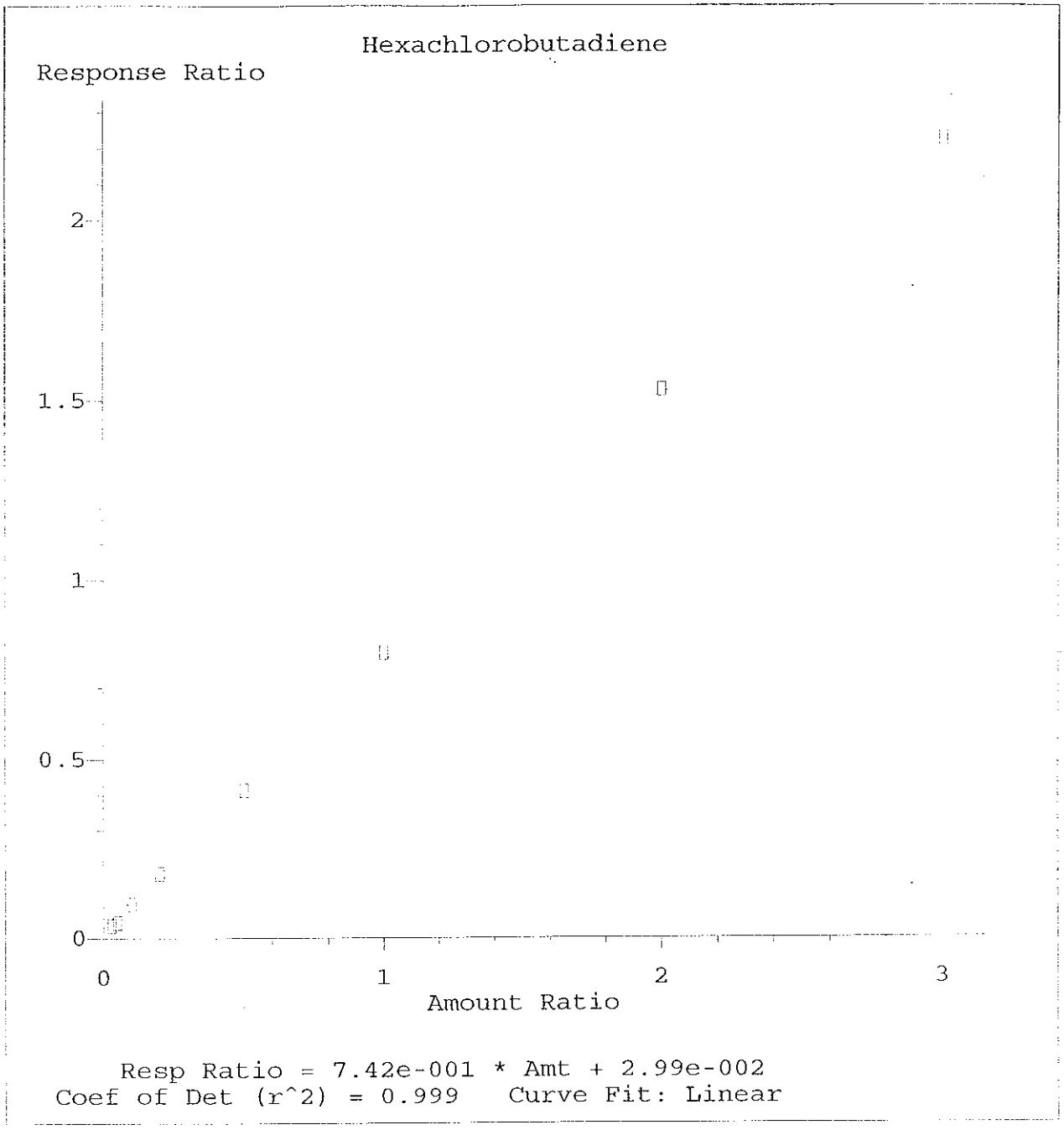


Resp Ratio = 1.57e-001 * Amt + 5.66e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 / 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 / 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 / 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 / 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09	ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77	ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70	ug/L	100
28)	Benzene	7.87	78	3218196	10.14	ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84	ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96	ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47	ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22	ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59	ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30	ug/L	99
37)	Toluene	12.46	92	2053124	10.21	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12	ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95	ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81	ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93	ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11	ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30	ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08	ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68	ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15	ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80	ug/L	99
53)	Styrene	17.16	104	2162622	9.89	ug/L	100
54)	Bromoform	17.61	173	532882	10.82	ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52	ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84	ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36	ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57	ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56	ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72)	n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74)	1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75)	Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76)	Naphthalene	28.32	128	709233	10.75	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

(#) = qualifier out of range (m) = manual integration

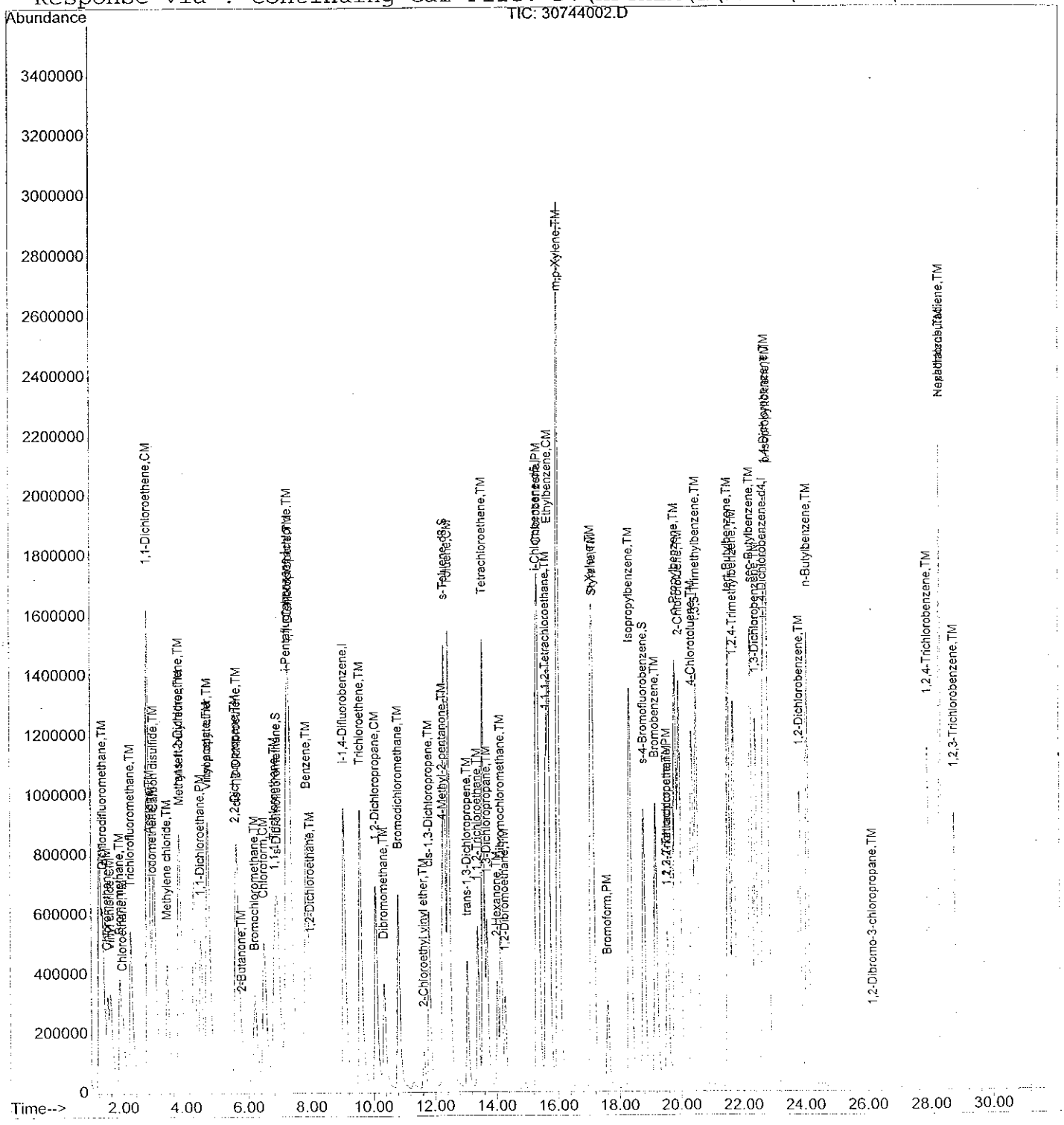
Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D



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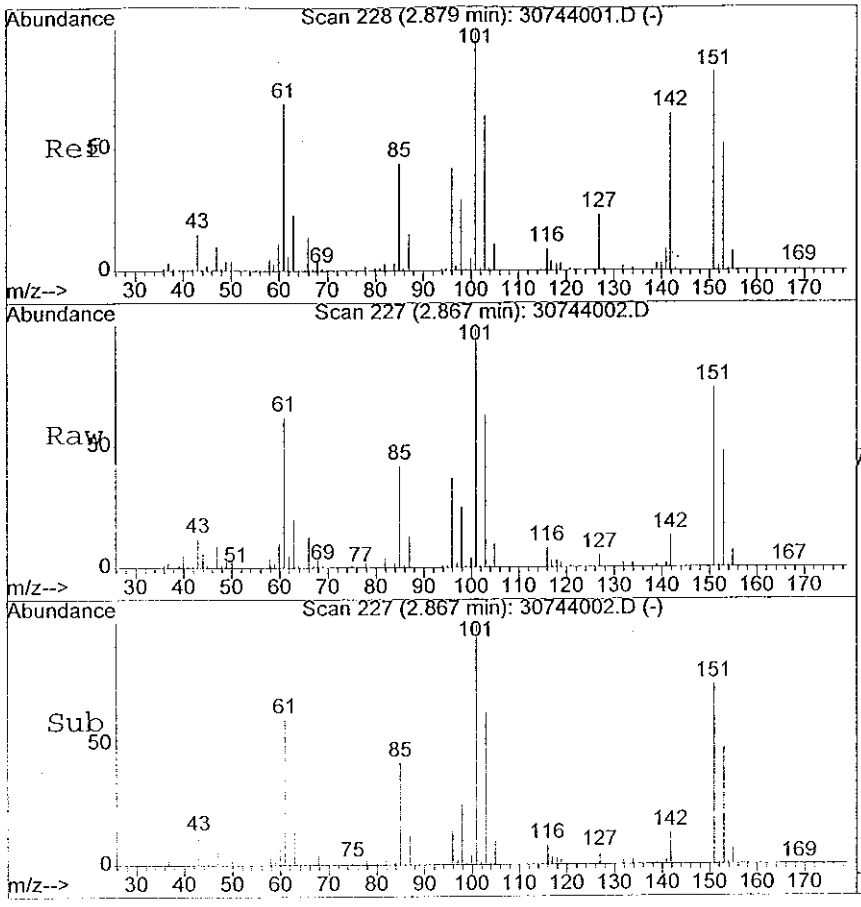
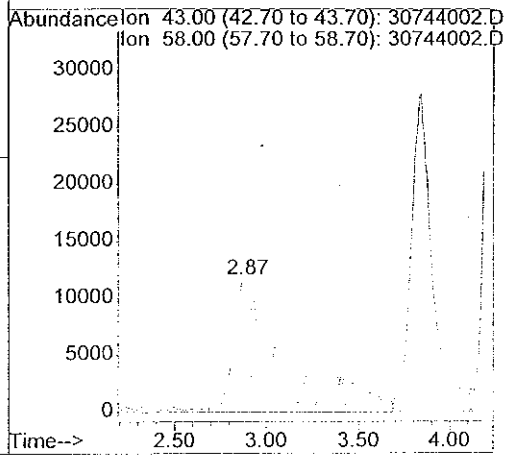


#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 222836

Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



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fnl 10-31-01

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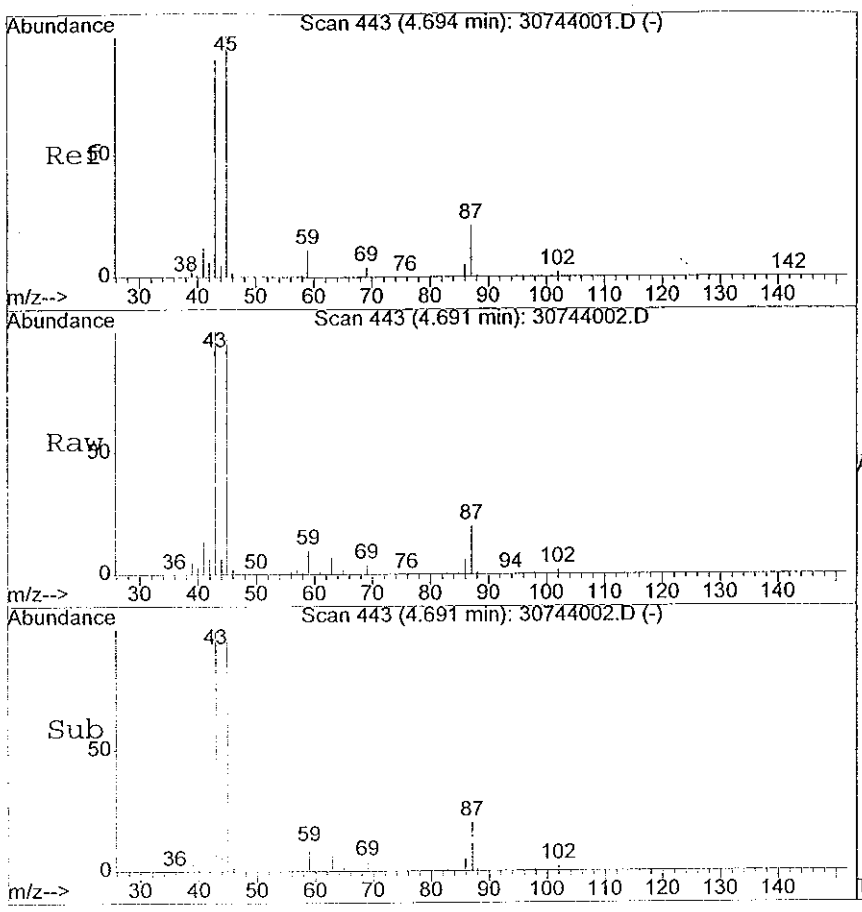
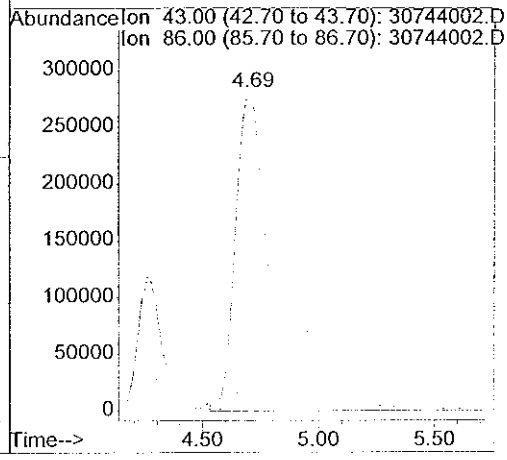


#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 2908842

Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



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for 10-31-01

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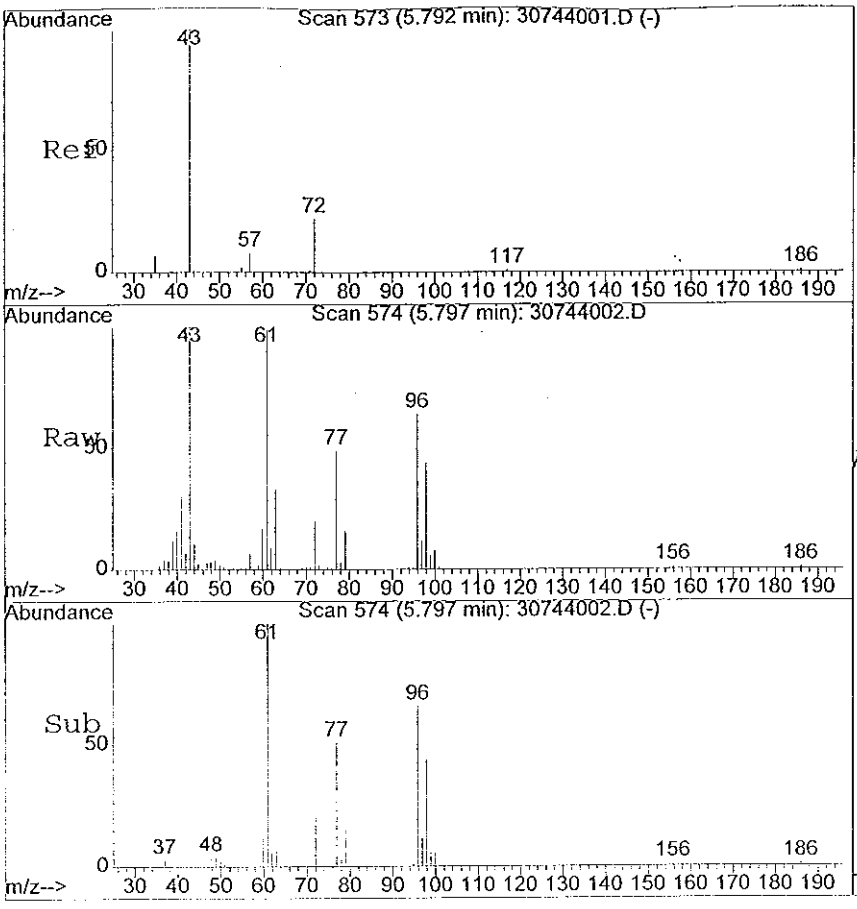
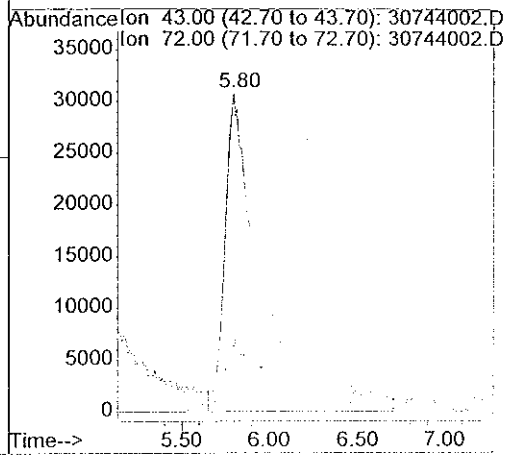


#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 472562

Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



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Init 10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 / 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 / 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 / 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 / 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26)	Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27)	1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28)	Benzene	7.87	78	1633119	5.05	ug/L	98
29)	1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30)	Trichloroethene	9.59	95	648267	5.04	ug/L	98
31)	1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32)	Dibromomethane	10.36	93	249630	5.17	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34)	Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35)	cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37)	Toluene	12.45	92	1033568	5.01	ug/L	98
38)	trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40)	Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41)	1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42)	Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43)	1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45)	2-Hexanone	14.01	43	437726	20.75	ug/L	99
47)	Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50)	Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51)	m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52)	o-Xylene	17.06	106	679324	5.08	ug/L	98
53)	Styrene	17.13	104	1097998	5.11	ug/L	100
54)	Bromoform	17.59	173	270430	5.10	ug/L	97
55)	Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58)	Bromobenzene	19.17	156	530064	5.23	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60)	1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61)	n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62)	2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63)	4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64)	1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65)	tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66)	1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67)	sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68)	1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69)	p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70)	1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72)	n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74)	1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75)	Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76)	Naphthalene	28.32	128	336450	4.89	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

(#) = qualifier out of range (m) = manual integration

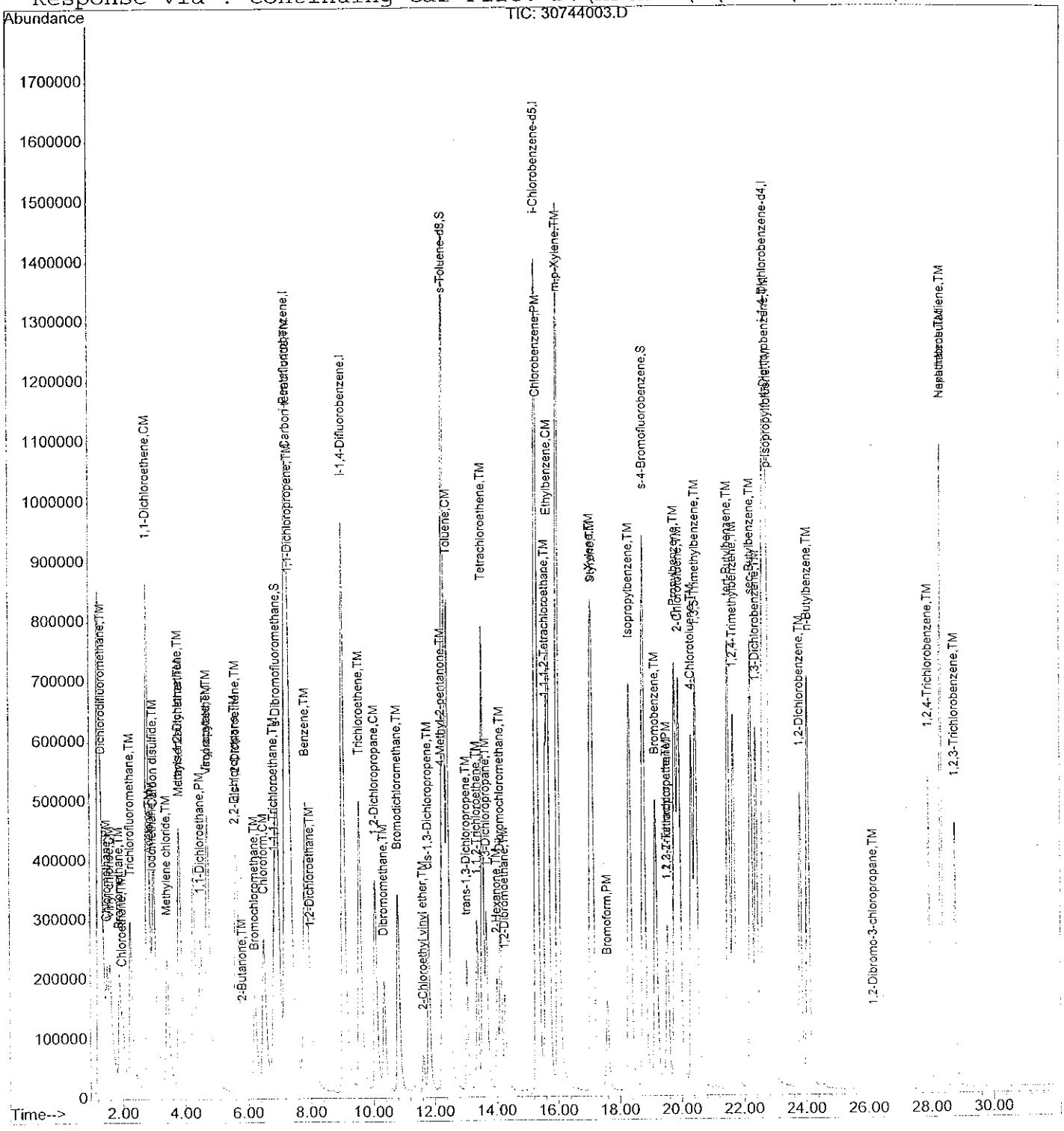
Quantitation Report

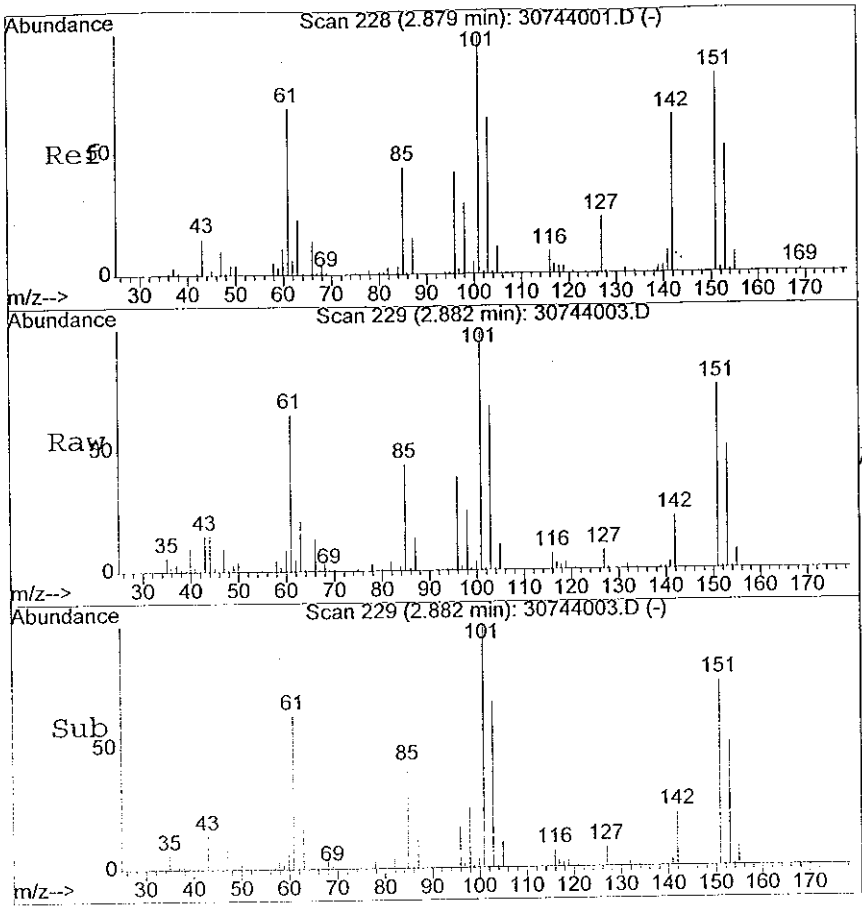
Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

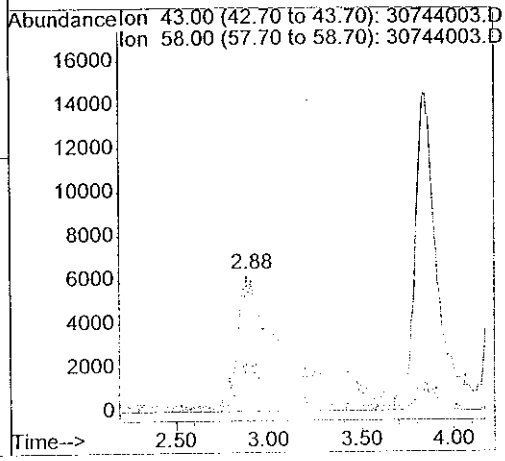




#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 123507

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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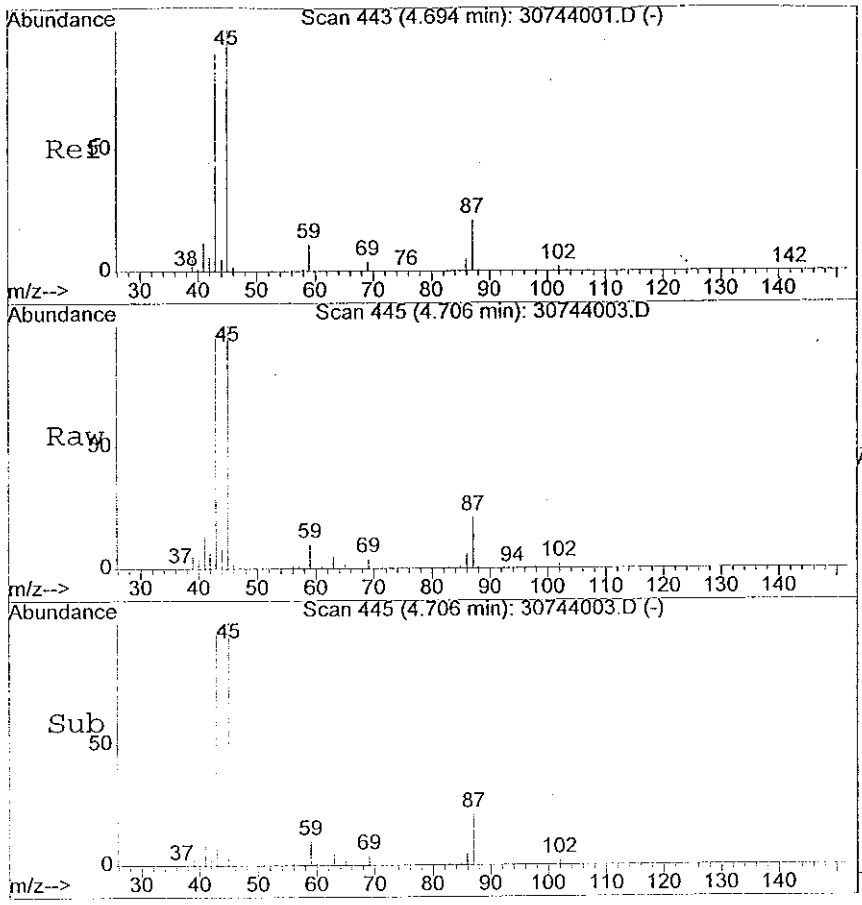
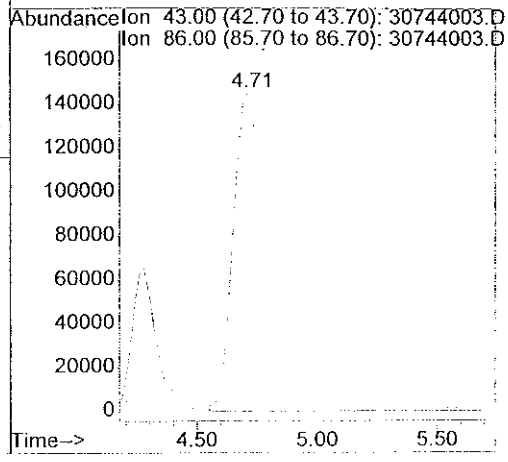
10-31-01



#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 1483176

Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



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10-31-01

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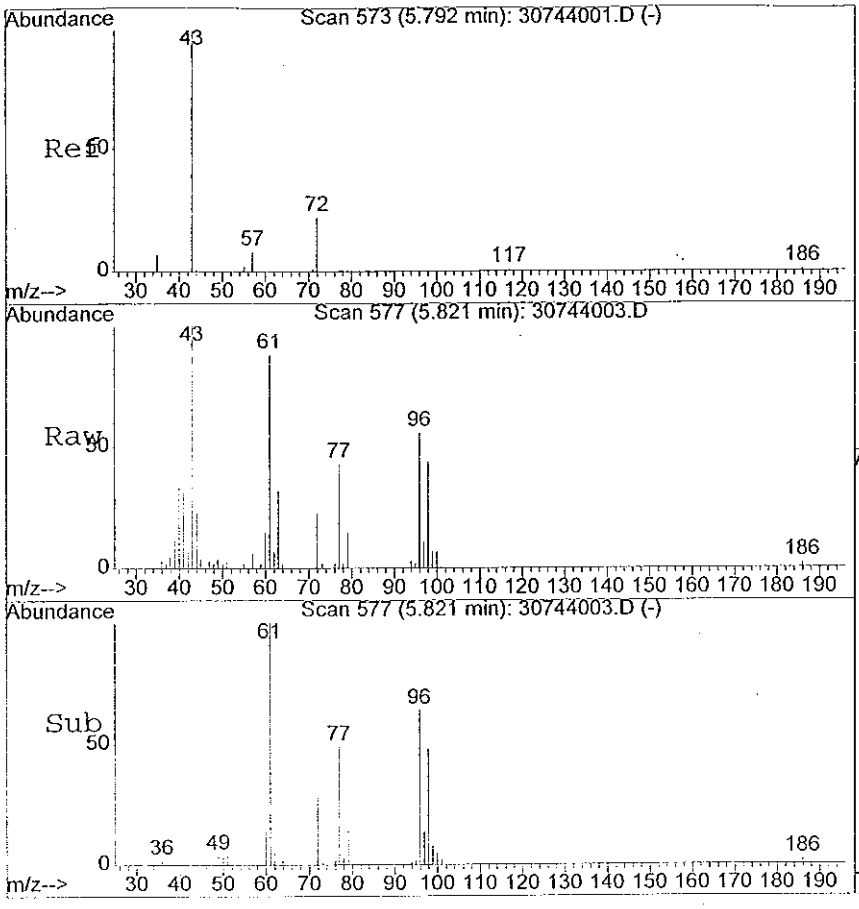
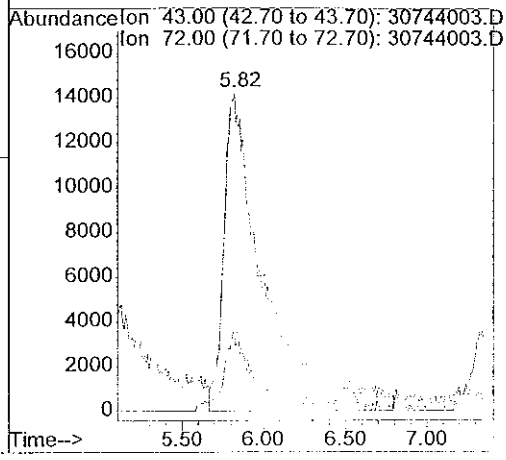


#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 252935

Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



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10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26)	Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27)	1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28)	Benzene	7.87	78	675144	2.07	ug/L	99
29)	1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30)	Trichloroethene	9.58	95	265106	2.05	ug/L	97
31)	1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32)	Dibromomethane	10.35	93	93729	1.92	ug/L	100
33)	2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34)	Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35)	cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37)	Toluene	12.44	92	425380	2.04	ug/L	96
38)	trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40)	Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41)	1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42)	Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43)	1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45)	2-Hexanone	14.01	43	141858	6.67	ug/L	99
47)	Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48)	1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50)	Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51)	m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52)	o-Xylene	17.07	106	269886	2.06	ug/L	97
53)	Styrene	17.13	104	412466	1.96	ug/L	99
54)	Bromoform	17.59	173	94103	1.81	ug/L	99
55)	Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58)	Bromobenzene	19.18	156	205095	2.16	ug/L	94
59)	1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60)	1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61)	n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62)	2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63)	4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64)	1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65)	tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66)	1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67)	sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68)	1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69)	p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70)	1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

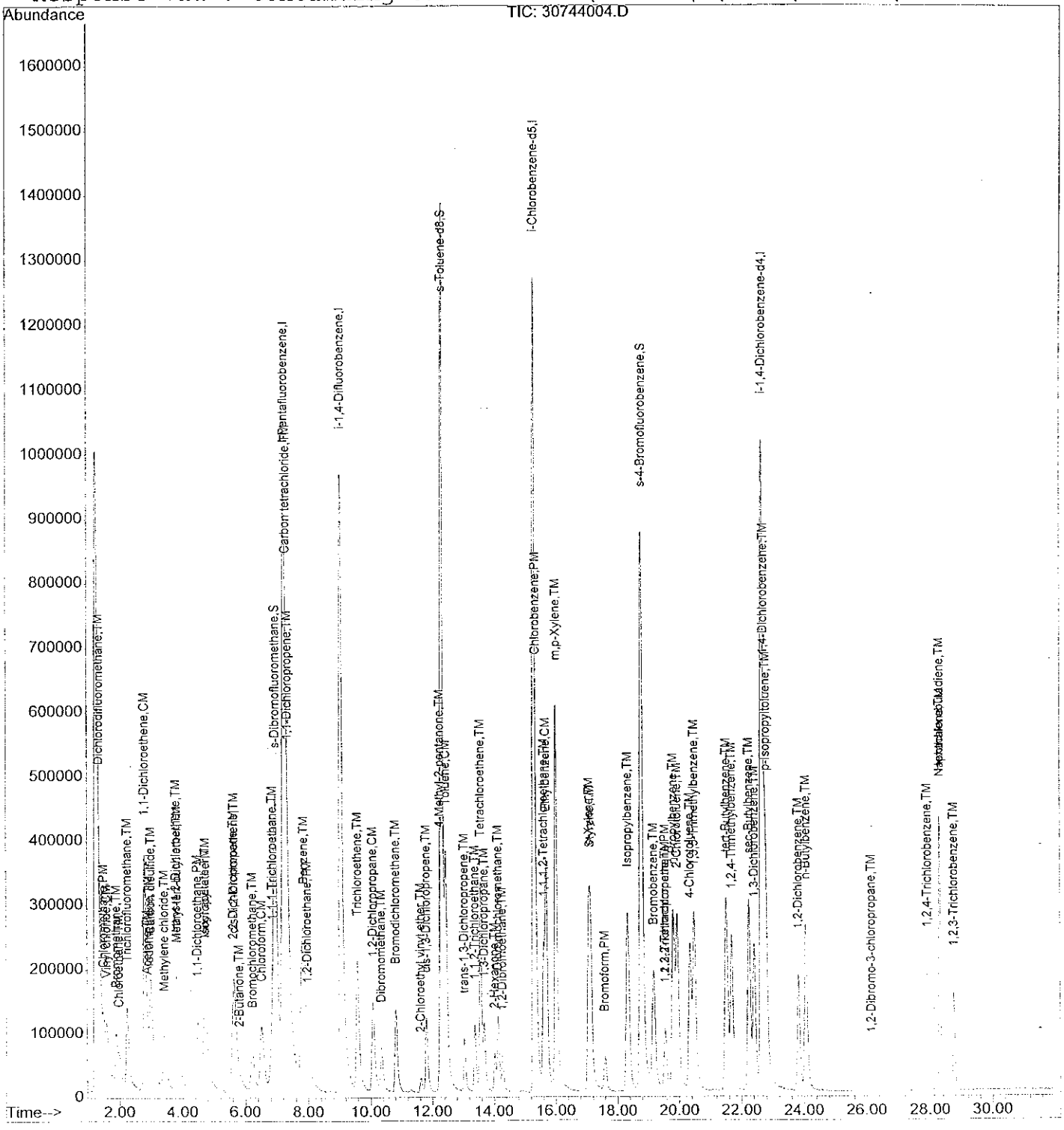
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71) 1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72) n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73) 1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74) 1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75) Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76) Naphthalene	28.32	128	112451	1.74	ug/L		100
77) 1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

(#) = qualifier out of range (m) = manual integration

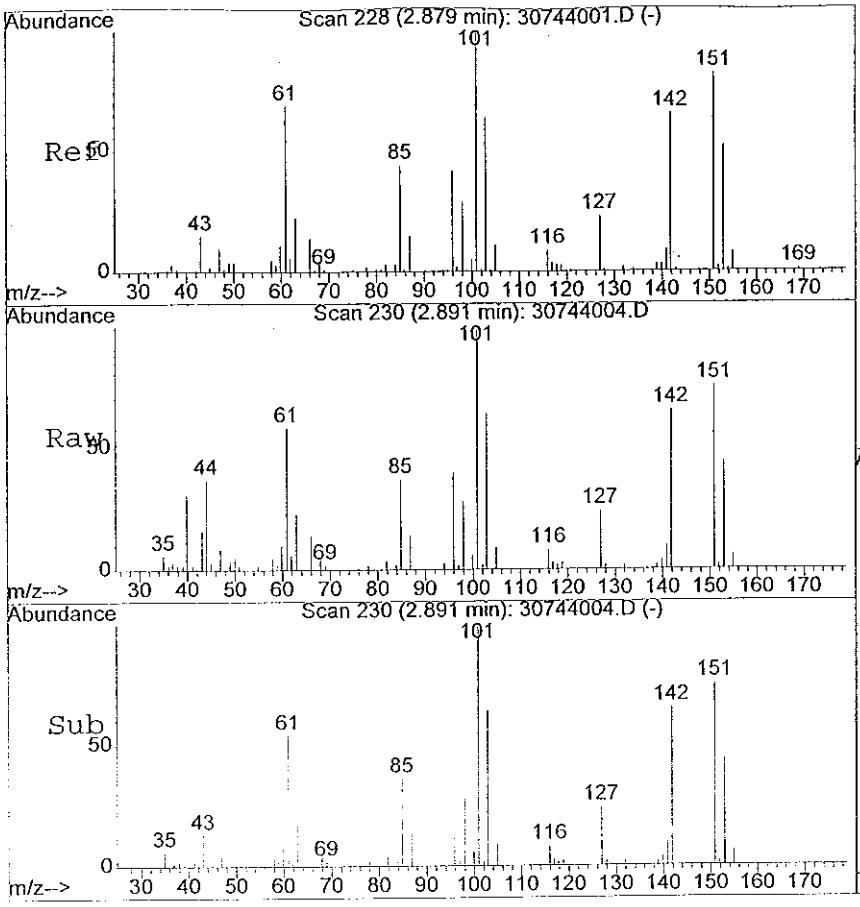
Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D



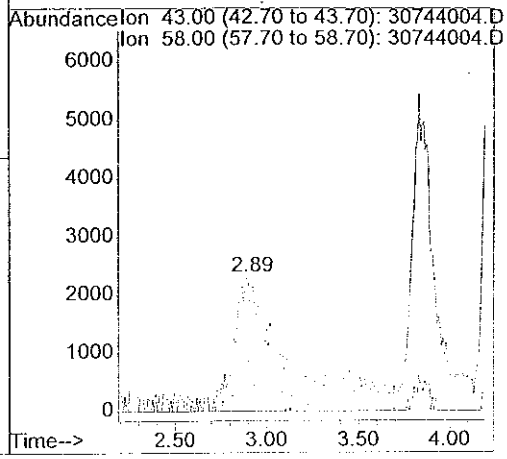
364



#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

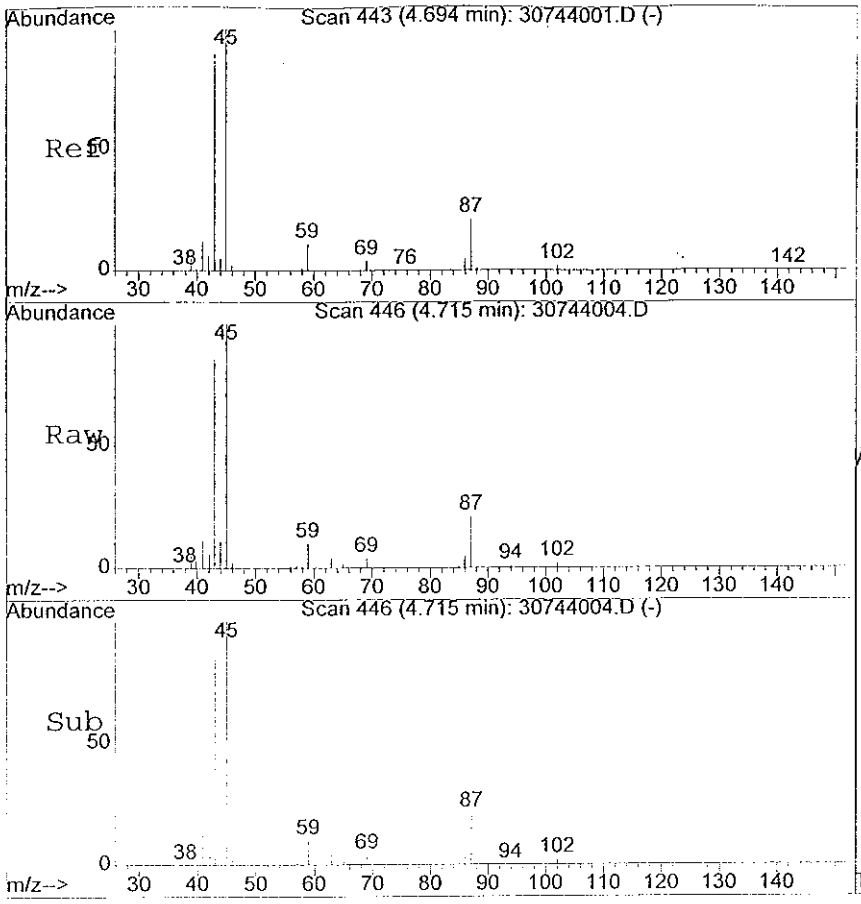
Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



10-31

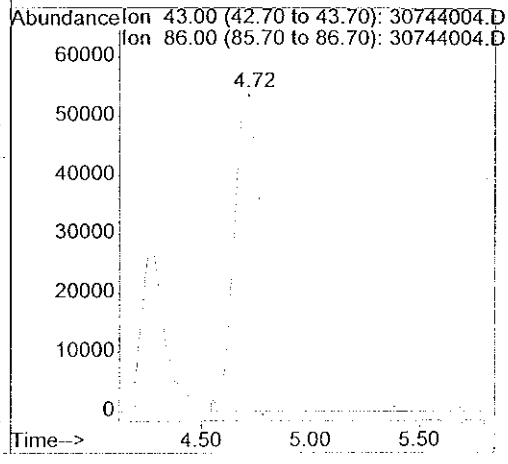
11.31.01



#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

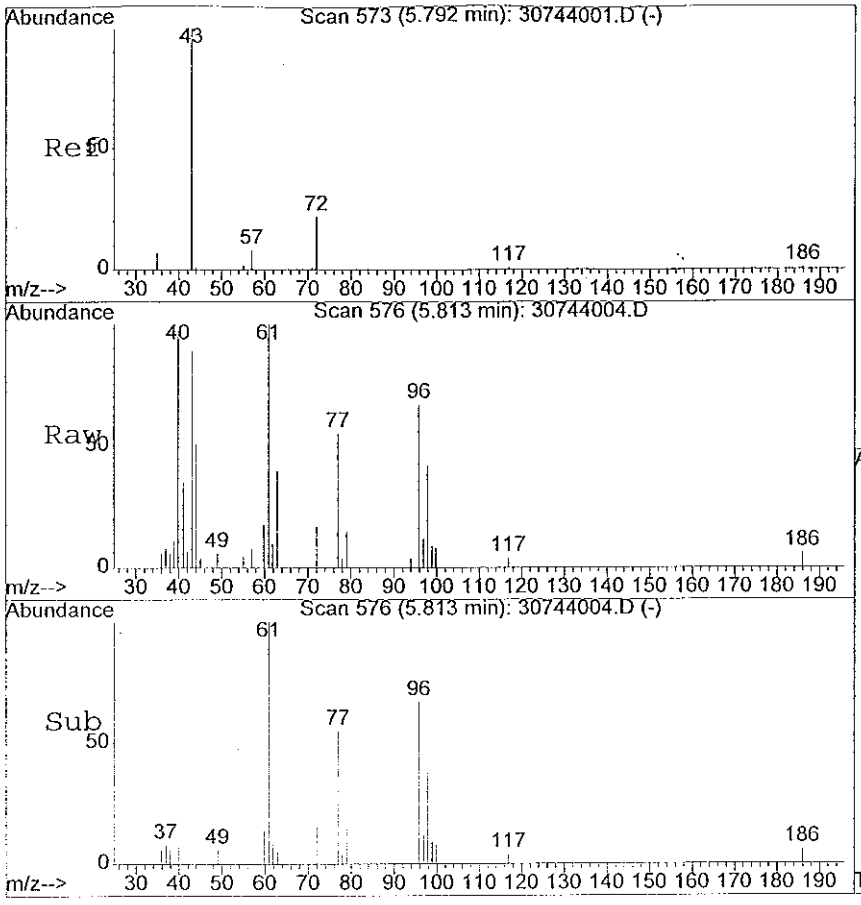
Tgt Ion: 43 Resp: 566802

Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9



10-31

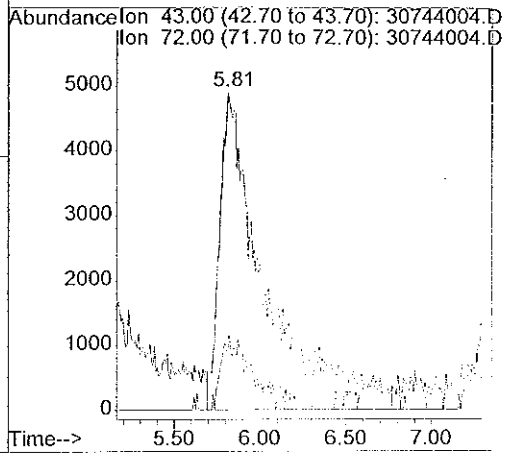
10-31-01



#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 90514

Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



10-31

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 / 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 / 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 / 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 / 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	94
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	96
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	97
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	98
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	98
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	98
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	85
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	96
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	96
22) Chloroform	6.49	83	197755	1.03	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	160704	0.98	ug/L	97
26)	Carbon tetrachloride	7.27	119	156850	1.13	ug/L	28
27)	1,1-Dichloropropene	7.32	110	45627	0.93	ug/L	100
28)	Benzene	7.86	78	328909	1.02	ug/L	98
29)	1,2-Dichloroethane	7.98	62	67098	1.05	ug/L	94
30)	Trichloroethene	9.58	95	137400	1.07	ug/L	91
31)	1,2-Dichloropropane	10.08	63	113727	1.06	ug/L	98
32)	Dibromomethane	10.34	93	49811	1.04	ug/L	98
33)	2-Chloroethyl vinyl ether	11.61	63	17709	0.93	ug/L	96
34)	Bromodichloromethane	10.81	83	152578	1.01	ug/L	95
35)	cis-1,3-Dichloropropene	11.81	75	119952	1.02	ug/L	97
37)	Toluene	12.45	92	217555	1.06	ug/L	95
38)	trans-1,3-Dichloropropene	13.03	75	73674	0.99	ug/L	100
39)	1,1,2-Trichloroethane	13.38	83	49836	1.04	ug/L	96
40)	Tetrachloroethene	13.56	166	155924	1.06	ug/L	96
41)	1,3-Dichloropropane	13.68	76	95524	1.04	ug/L	98
42)	Dibromochloromethane	14.12	129	89919	1.01	ug/L	98
43)	1,2-Dibromoethane	14.27	107	61862	1.02	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	149476	4.54	ug/L	93
45)	2-Hexanone	14.02	43	81218	3.87	ug/L	97
47)	Chlorobenzene	15.35	112	226960	1.05	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04	ug/L	96
50)	Ethylbenzene	15.70	106	123576	1.07	ug/L	100
51)	m,p-Xylene	16.01	106	298103	2.09	ug/L	99
52)	o-Xylene	17.07	106	137776	1.04	ug/L	89
53)	Styrene	17.13	104	207557	0.97	ug/L	100
54)	Bromoform	17.58	173	51970	0.99	ug/L	95
55)	Isopropylbenzene	18.34	105	434393	1.02	ug/L	100
58)	Bromobenzene	19.16	156	106700	1.12	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12	ug/L	87
60)	1,2,3-Trichloropropane	19.54	75	38655	1.01	ug/L	88
61)	n-Propylbenzene	19.79	120	98095	1.00	ug/L	100
62)	2-Chlorotoluene	19.92	126	96679	1.10	ug/L	100
63)	4-Chlorotoluene	20.33	91	348446	1.11	ug/L	99
64)	1,3,5-Trimethylbenzene	20.48	105	316067	1.09	ug/L	97
65)	tert-Butylbenzene	21.50	91	211087	1.12	ug/L	96
66)	1,2,4-Trimethylbenzene	21.68	105	268480	1.00	ug/L	98
67)	sec-Butylbenzene	22.24	105	435328	1.02	ug/L	98
68)	1,3-Dichlorobenzene	22.39	146	197666	1.11	ug/L	99
69)	p-Isopropyltoluene	22.78	119	328183	1.00	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	184452	1.12	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

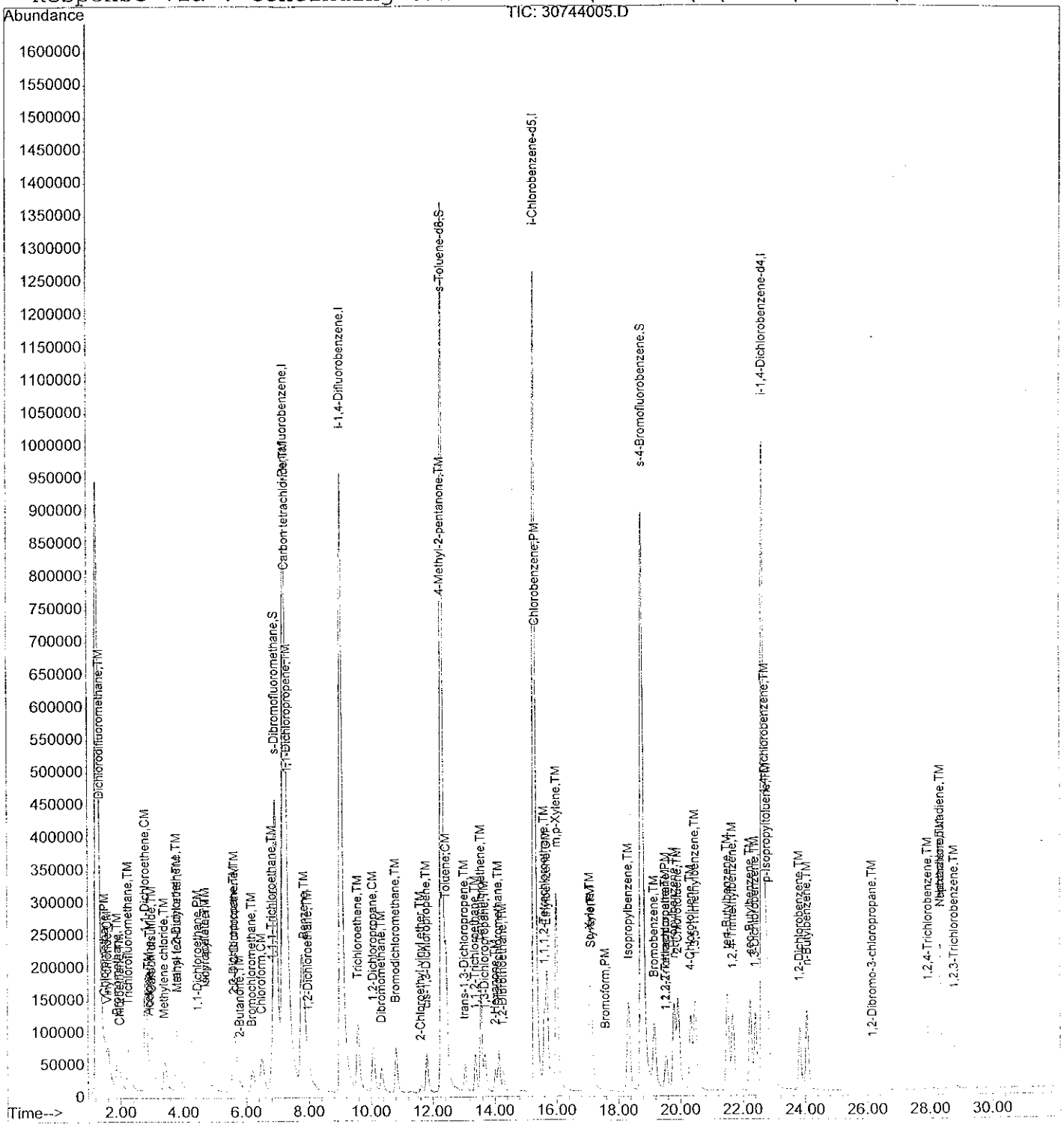
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72)	n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73)	1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74)	1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75)	Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76)	Naphthalene	28.34	128	64010	0.99	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

(#) = qualifier out of range (m) = manual integration

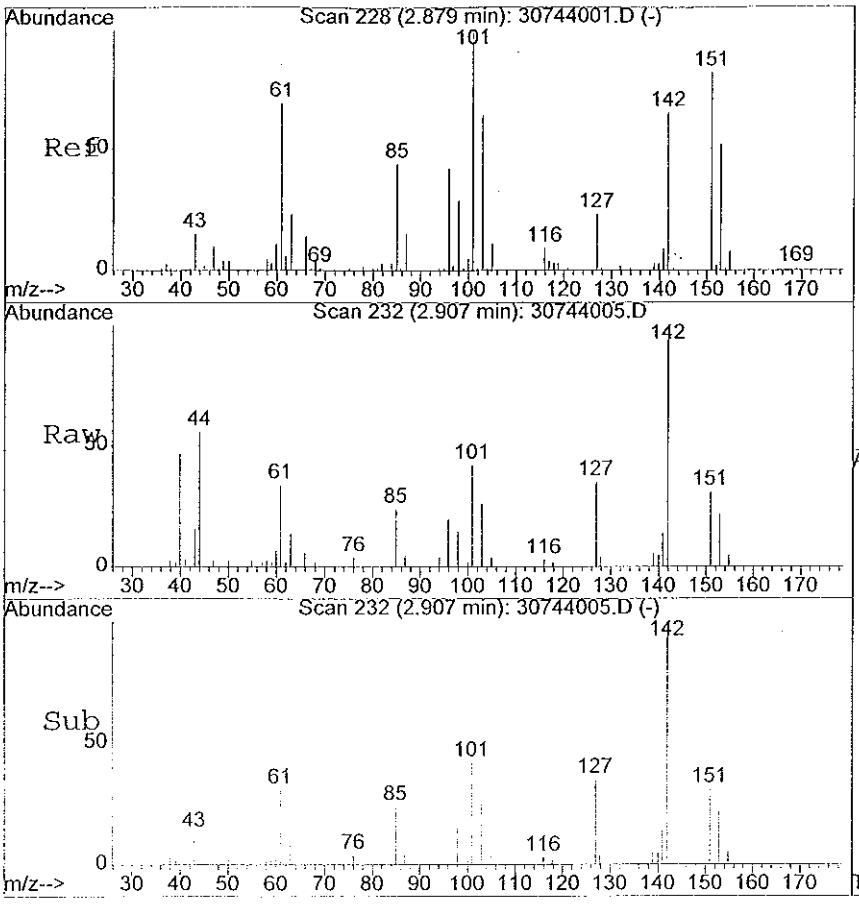
Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D



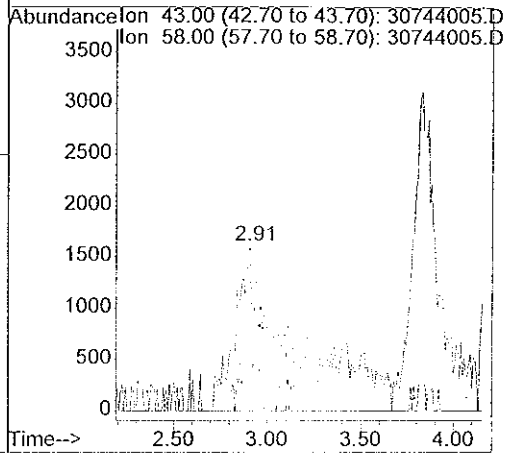
371



#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



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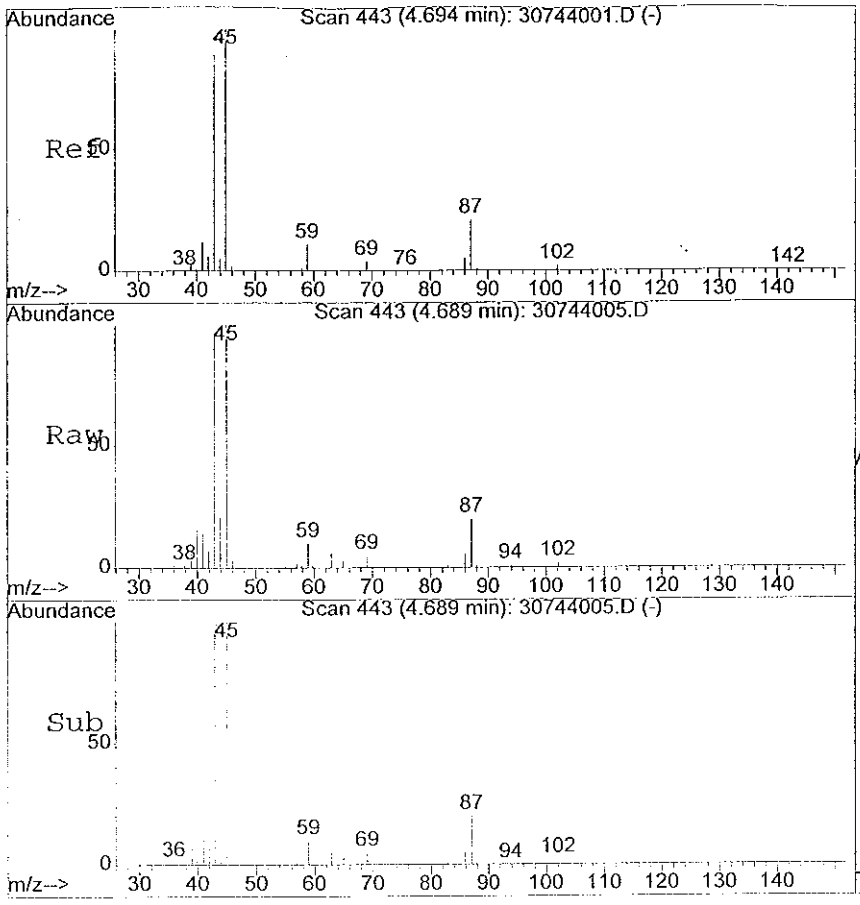
10-31-01

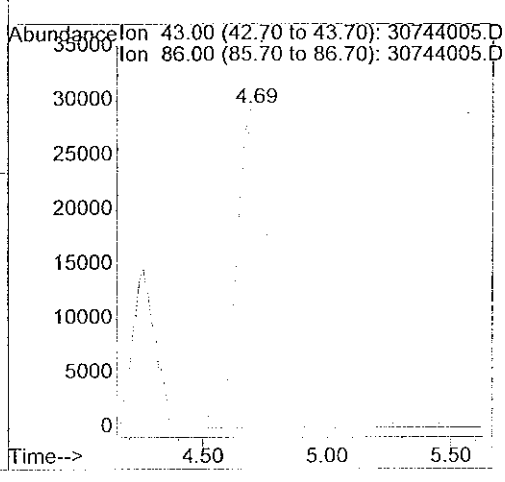
372



#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. -0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

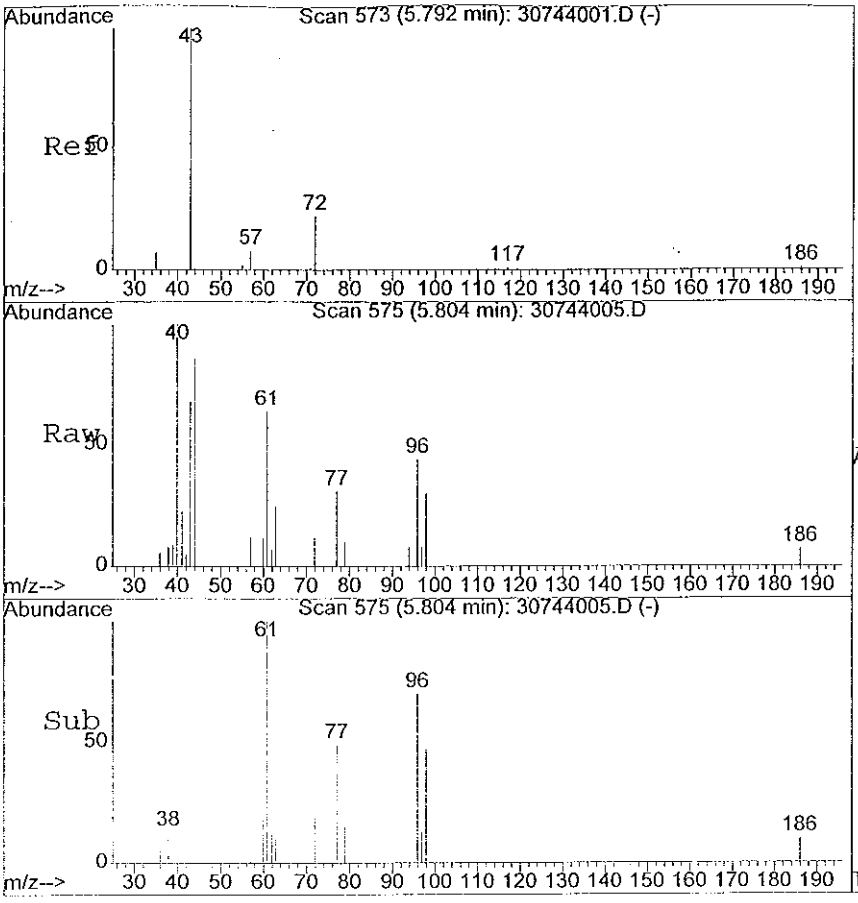
Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9



10-31

10-31-01

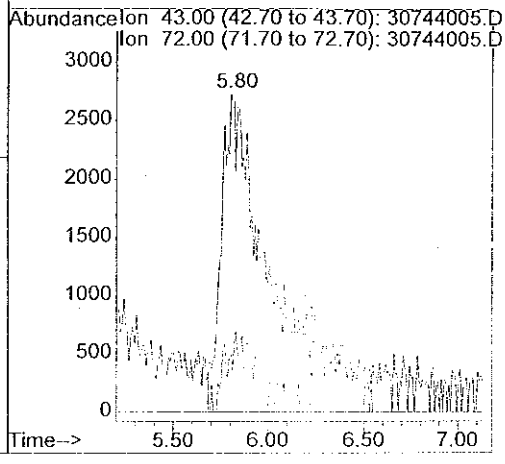
373



#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 53339

Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



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10-31-01

374

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L		0.00 / 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L		0.00 / 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L		0.00 / 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L		0.02 / 86.94%
System Monitoring Compounds							
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L		0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%				
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L		0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%				
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L		0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L		99
3) Chloromethane	1.50	50	36159m	0.37	ug/L		99
4) Vinyl chloride	1.60	62	36552	0.36	ug/L		92
5) Bromomethane	1.89	96	35015	0.38	ug/L		97
6) Chloroethane	2.00	64	20942	0.35	ug/L		84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L		93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L	#	85
10) Iodomethane	2.94	142	40544	0.32	ug/L		100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L		100
12) Methylene chloride	3.41	84	26091	0.31	ug/L		91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L		98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L		42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L		98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L		94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L		99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L		94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L	#	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L		92
22) Chloroform	6.51	83	64718	0.33	ug/L		93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L		94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L	#	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
27)	1,1-Dichloropropene	7.33	110	35089m	0.70	ug/L		100
28)	Benzene	7.89	78	114261	0.35	ug/L		93
29)	1,2-Dichloroethane	8.00	62	23568	0.36	ug/L		92
30)	Trichloroethene	9.60	95	46357	0.36	ug/L		92
31)	1,2-Dichloropropane	10.10	63	39985	0.37	ug/L		98
32)	Dibromomethane	10.35	93	17027	0.35	ug/L		94
33)	2-Chloroethyl vinyl ether	11.62	63	5704	0.29	ug/L		94
34)	Bromodichloromethane	10.81	83	52711	0.34	ug/L		90
35)	cis-1,3-Dichloropropene	11.83	75	39813	0.33	ug/L		88
37)	Toluene	12.46	92	74994	0.36	ug/L		99
38)	trans-1,3-Dichloropropene	13.07	75	22608	0.30	ug/L		98
39)	1,1,2-Trichloroethane	13.39	83	17217	0.36	ug/L	#	78
40)	Tetrachloroethene	13.57	166	54802	0.37	ug/L		94
41)	1,3-Dichloropropane	13.70	76	31625	0.34	ug/L		99
42)	Dibromochloromethane	14.15	129	29043	0.32	ug/L		99
43)	1,2-Dibromoethane	14.29	107	20047	0.32	ug/L		95
47)	Chlorobenzene	15.37	112	76094	0.35	ug/L		95
48)	1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33	ug/L		96
50)	Ethylbenzene	15.72	106	41978	0.36	ug/L		100
51)	m,p-Xylene	16.03	106	96766	0.67	ug/L		96
52)	o-Xylene	17.09	106	44284	0.33	ug/L	#	85
53)	Styrene	17.16	104	69328	0.32	ug/L		92
54)	Bromoform	17.63	173	16043	0.30	ug/L		100
55)	Isopropylbenzene	18.36	105	143324	0.33	ug/L		96
58)	Bromobenzene	19.21	156	34447	0.38	ug/L		93
59)	1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38	ug/L		88
60)	1,2,3-Trichloropropane	19.59	75	19472	0.53	ug/L		98
61)	n-Propylbenzene	19.85	120	32615	0.35	ug/L		100
62)	2-Chlorotoluene	19.97	126	32953	0.39	ug/L		100
63)	4-Chlorotoluene	20.39	91	96642	0.32	ug/L		98
64)	1,3,5-Trimethylbenzene	20.51	105	101910	0.37	ug/L		98
65)	tert-Butylbenzene	21.55	91	67600	0.38	ug/L		93
66)	1,2,4-Trimethylbenzene	21.71	105	84737	0.33	ug/L		94
67)	sec-Butylbenzene	22.28	105	142616	0.35	ug/L		95
68)	1,3-Dichlorobenzene	22.45	146	64255	0.38	ug/L		99
69)	p-Isopropyltoluene	22.82	119	101423	0.32	ug/L		97
70)	1,4-Dichlorobenzene	22.76	146	63283	0.40	ug/L		98
71)	1,2-Dichlorobenzene	23.85	146	50172	0.37	ug/L		90
72)	n-Butylbenzene	24.10	91	87558	0.28	ug/L		98
73)	1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34	ug/L	#	88
74)	1,2,4-Trichlorobenzene	27.95	180	26621	0.32	ug/L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

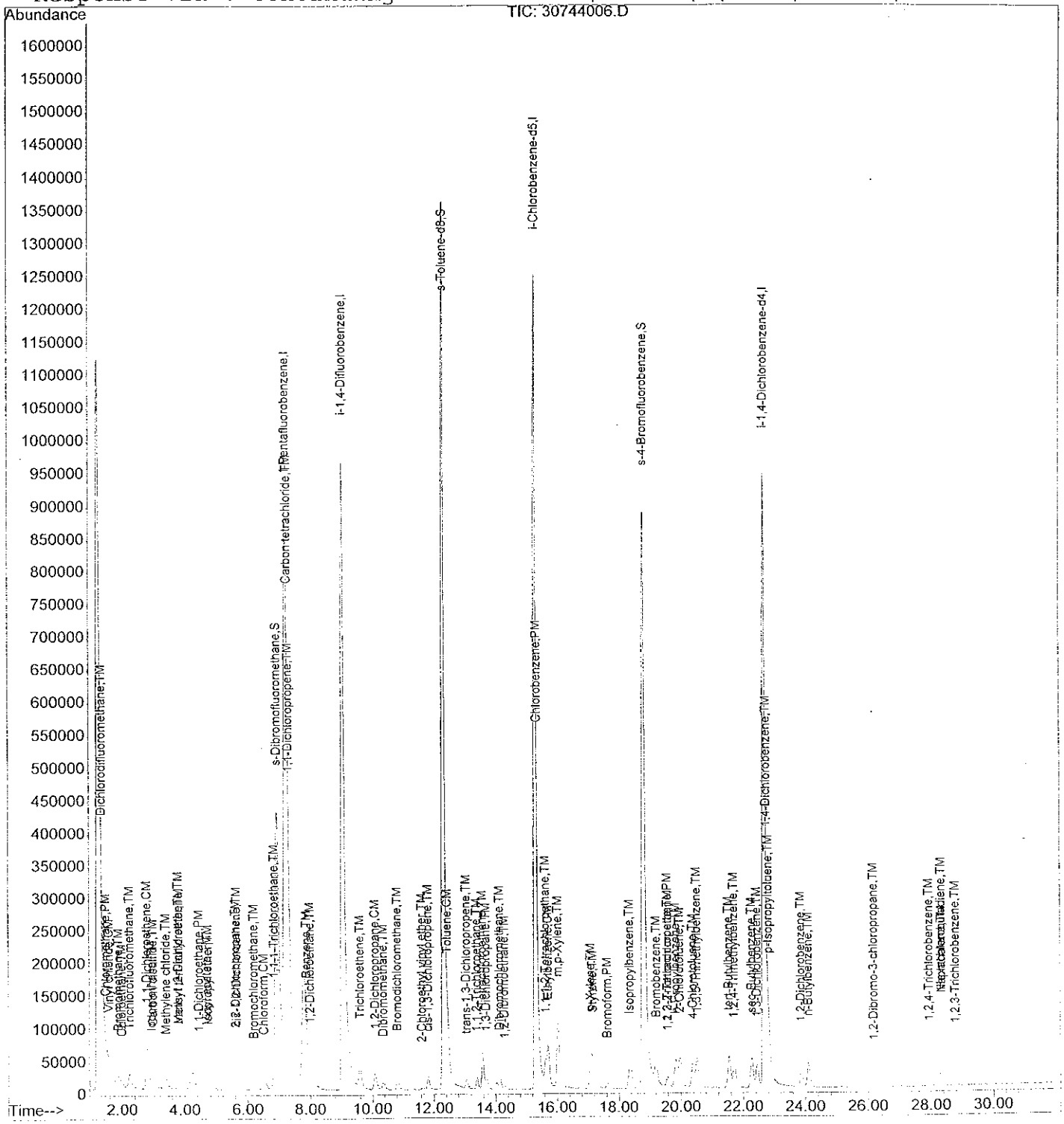
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76)	Naphthalene	28.35	128	20463	0.33	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

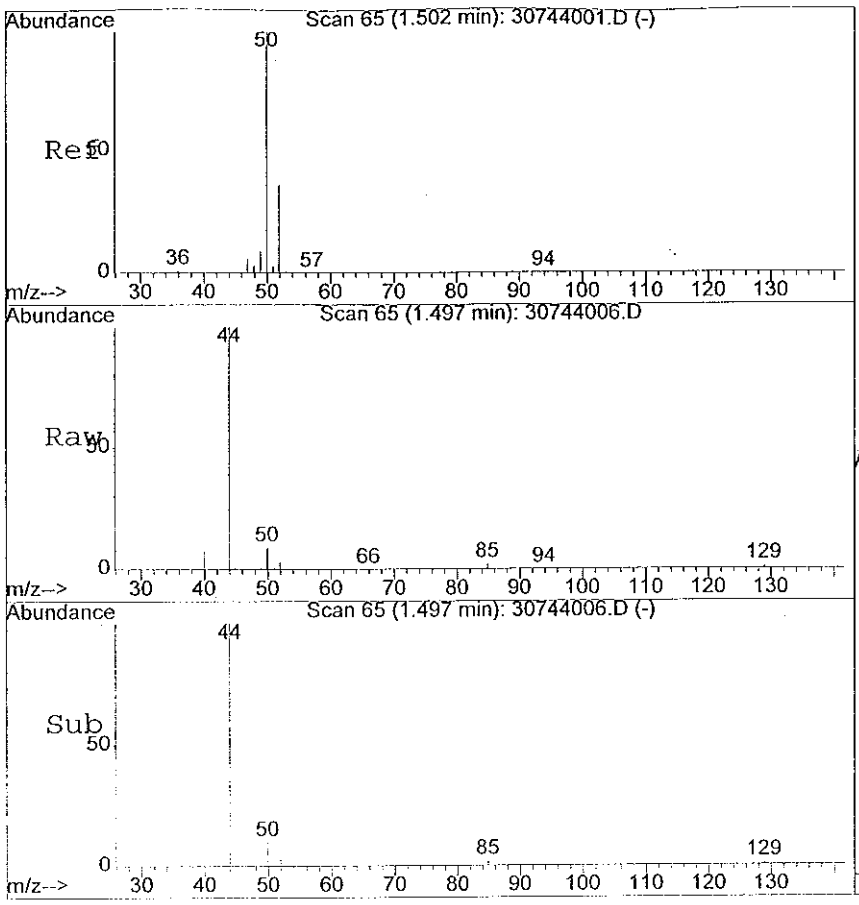
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

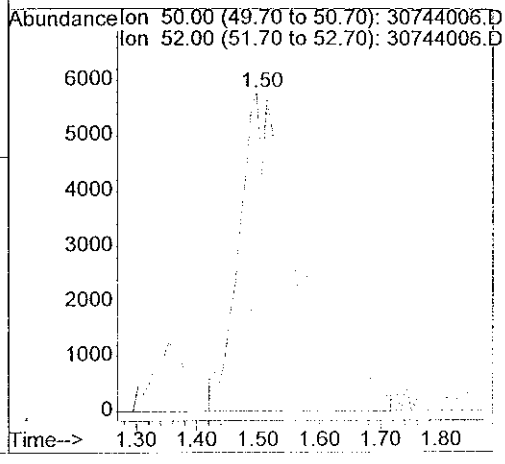




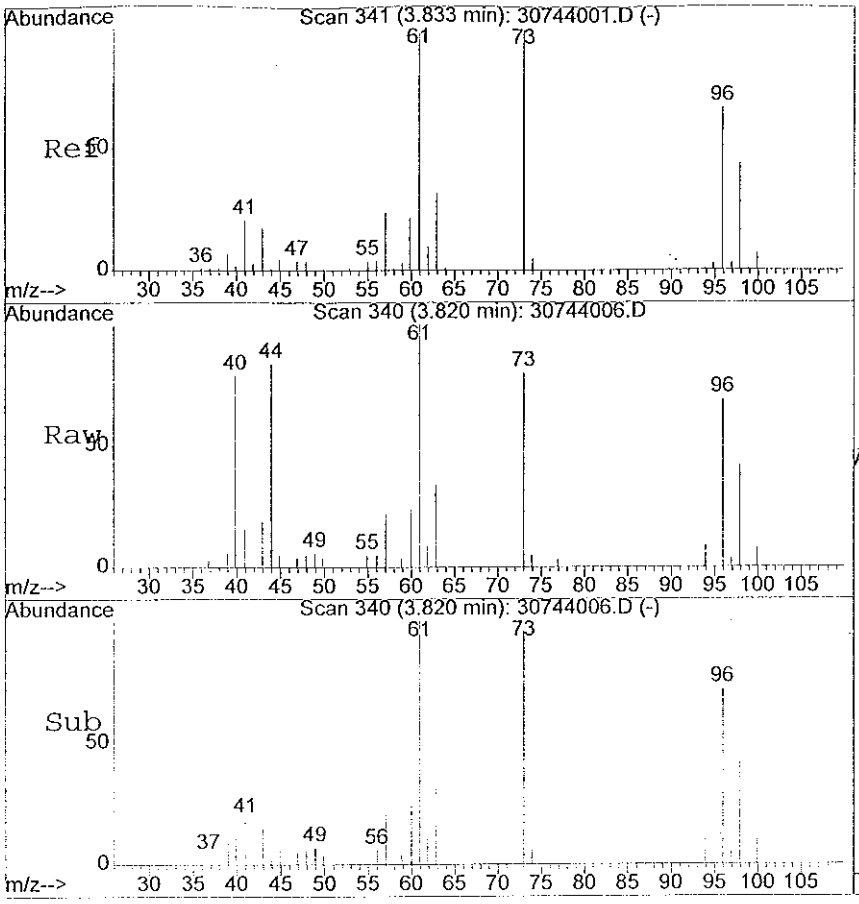
#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0



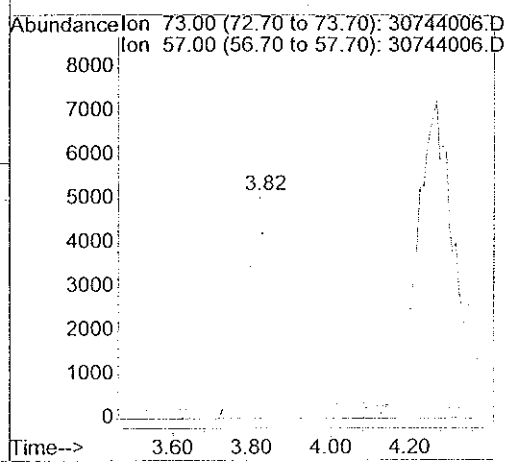
10-31
10-31-01



#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6



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for 10-31-01

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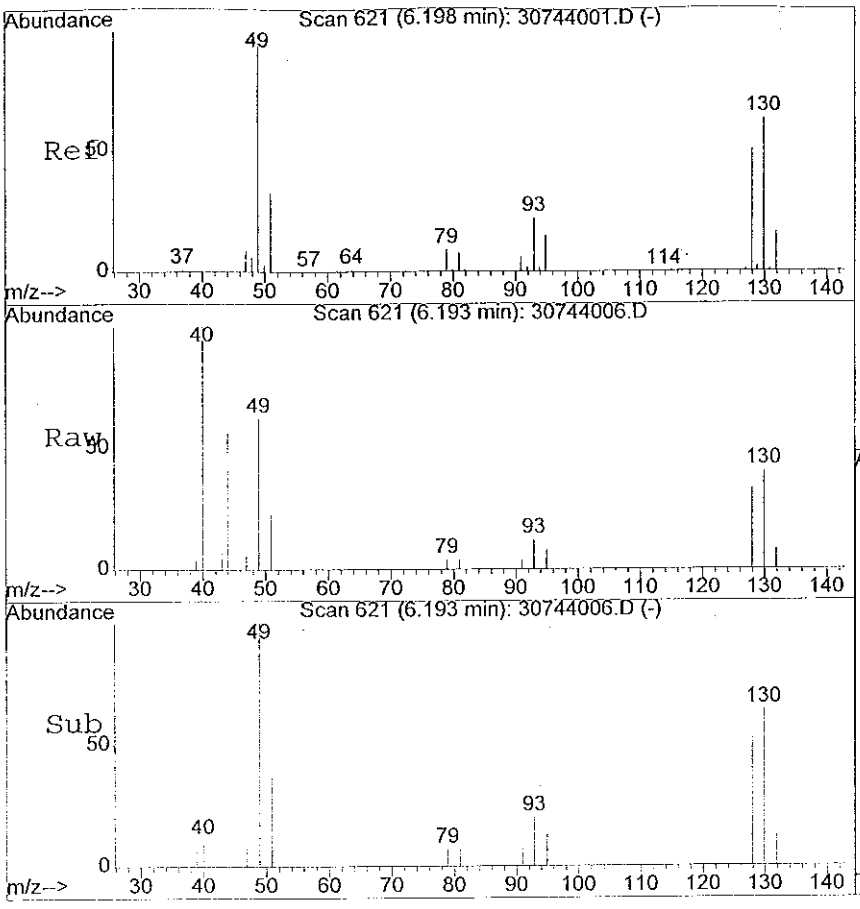
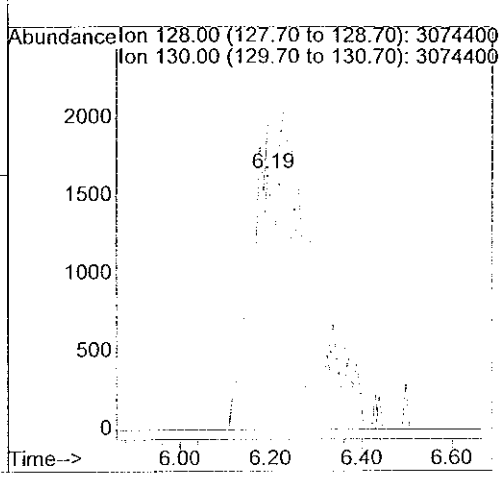


#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:128 Resp: 13540

Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0



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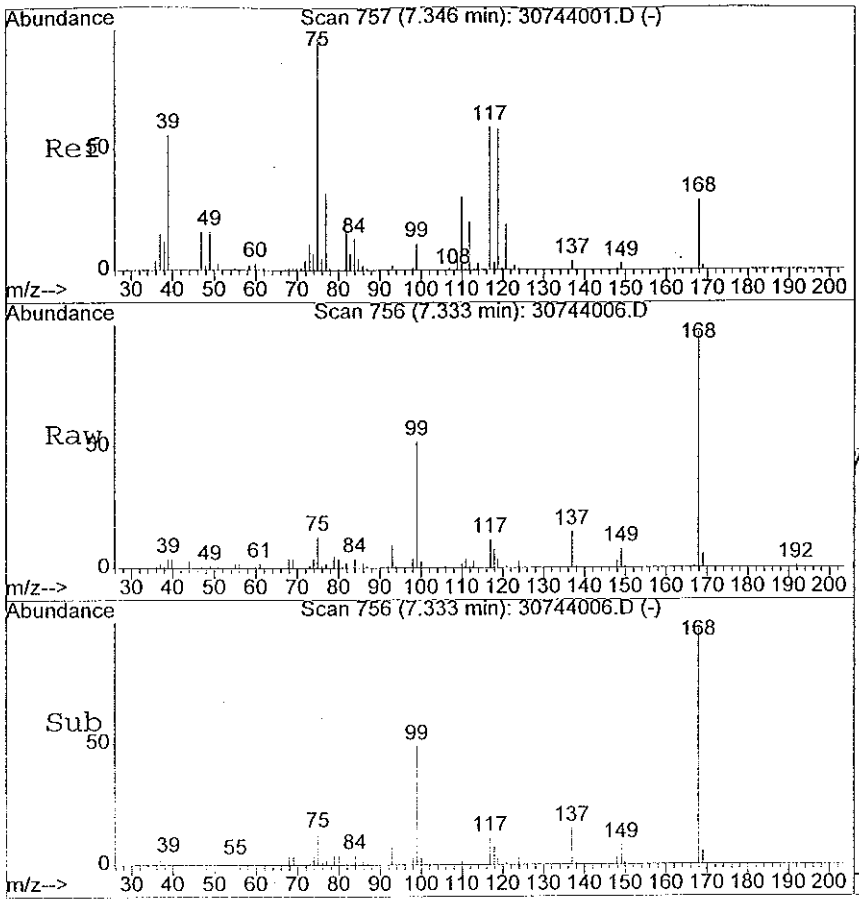
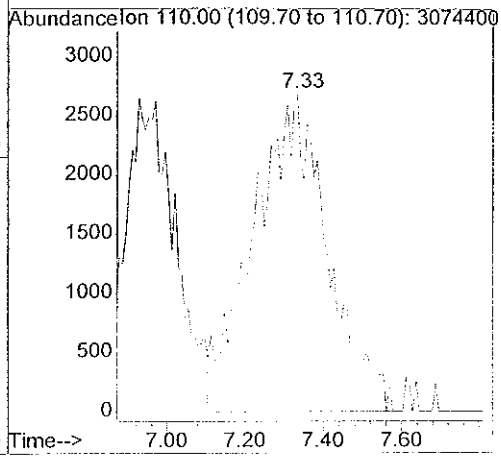
10-31-01



#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



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10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00 ug/L	0.02 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00 ug/L	0.02 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00 ug/L	0.00 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00 ug/L	0.04 93.95%
System Monitoring Compounds					
24) s-Dibromofluoromethane	6.96	113	1490634	9.78 ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%		
36) s-Toluene-d8	12.34	98	3048951	9.94 ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%		
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45 ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54 ug/L	95
3) Chloromethane	1.51	50	57047	0.55 ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56 ug/L	95
5) Bromomethane	1.89	96	50840	0.53 ug/L	93
6) Chloroethane	2.00	64	32710	0.51 ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52 ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51 ug/L	96
10) Iodomethane	2.95	142	61980	0.47 ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50 ug/L	100
12) Methylene chloride	3.42	84	42127	0.48 ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50 ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46 ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50 ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85 ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46 ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46 ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46 ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45 ug/L	99
22) Chloroform	6.55	83	108615m	0.52 ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47 ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58 ug/L #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27)	1,1-Dichloropropene	7.37	110	45959m	0.88	ug/L	100
28)	Benzene	7.89	78	175270	0.51	ug/L	97
29)	1,2-Dichloroethane	8.01	62	36739	0.54	ug/L	94
30)	Trichloroethene	9.60	95	72610	0.53	ug/L	92
31)	1,2-Dichloropropane	10.09	63	54961	0.48	ug/L	100
32)	Dibromomethane	10.36	93	25641	0.50	ug/L	93
33)	2-Chloroethyl vinyl ether	11.65	63	9558	0.47	ug/L	90
34)	Bromodichloromethane	10.82	83	80038	0.50	ug/L	89
35)	cis-1,3-Dichloropropene	11.83	75	61200	0.49	ug/L	96
37)	Toluene	12.47	92	115598	0.53	ug/L	92
38)	trans-1,3-Dichloropropene	13.07	75	37014	0.47	ug/L	95
39)	1,1,2-Trichloroethane	13.40	83	27199	0.54	ug/L	92
40)	Tetrachloroethene	13.59	166	83043	0.53	ug/L	98
41)	1,3-Dichloropropane	13.71	76	49118	0.50	ug/L	92
42)	Dibromochloromethane	14.16	129	45286	0.48	ug/L	97
43)	1,2-Dibromoethane	14.29	107	30668	0.47	ug/L	89
44)	4-Methyl-2-pentanone	12.29	43	80377	2.29	ug/L	84
45)	2-Hexanone	14.05	43	42639	1.90	ug/L	91
47)	Chlorobenzene	15.39	112	116784	0.51	ug/L	95
48)	1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49	ug/L	96
50)	Ethylbenzene	15.73	106	63777	0.52	ug/L	100
51)	m,p-Xylene	16.04	106	150249	1.00	ug/L	96
52)	o-Xylene	17.11	106	69489	0.50	ug/L	96
53)	Styrene	17.17	104	108692	0.48	ug/L	98
54)	Bromoform	17.64	173	24986	0.45	ug/L	97
55)	Isopropylbenzene	18.39	105	225817	0.50	ug/L	99
58)	Bromobenzene	19.22	156	55086	0.56	ug/L	96
59)	1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54	ug/L	94
60)	1,2,3-Trichloropropane	19.59	75	22893	0.58	ug/L	99
61)	n-Propylbenzene	19.87	120	51067	0.51	ug/L	100
62)	2-Chlorotoluene	19.98	126	49909	0.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	176547	0.54	ug/L	97
64)	1,3,5-Trimethylbenzene	20.53	105	157487	0.52	ug/L	100
65)	tert-Butylbenzene	21.55	91	105846	0.54	ug/L	90
66)	1,2,4-Trimethylbenzene	21.73	105	130302	0.47	ug/L	96
67)	sec-Butylbenzene	22.29	105	223693	0.51	ug/L	98
68)	1,3-Dichlorobenzene	22.45	146	95809	0.52	ug/L	98
69)	p-Isopropyltoluene	22.82	119	161812	0.48	ug/L	95
70)	1,4-Dichlorobenzene	22.76	146	94624	0.56	ug/L	96
71)	1,2-Dichlorobenzene	23.87	146	78043	0.53	ug/L	99
72)	n-Butylbenzene	24.10	91	134579	0.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

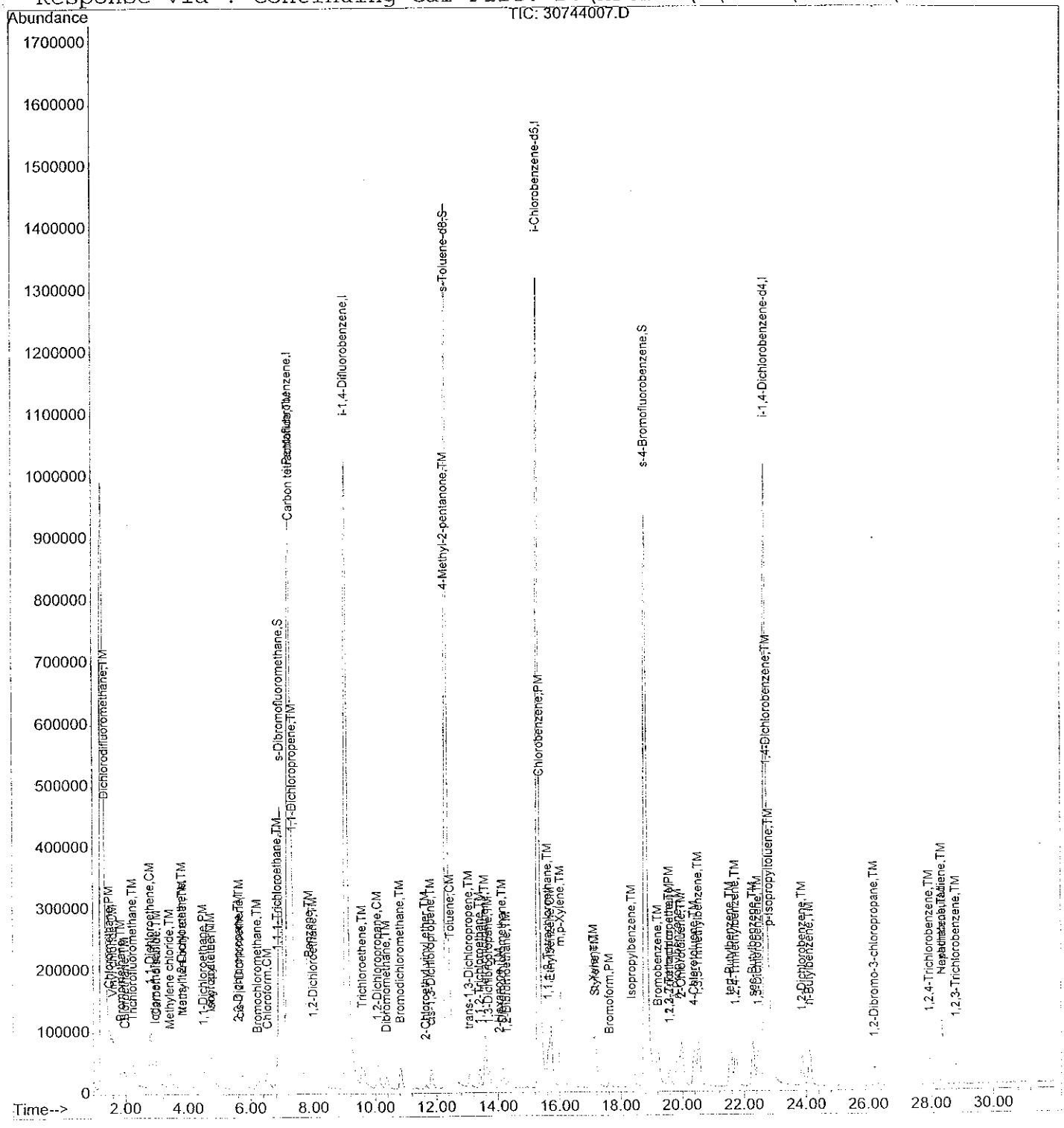
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

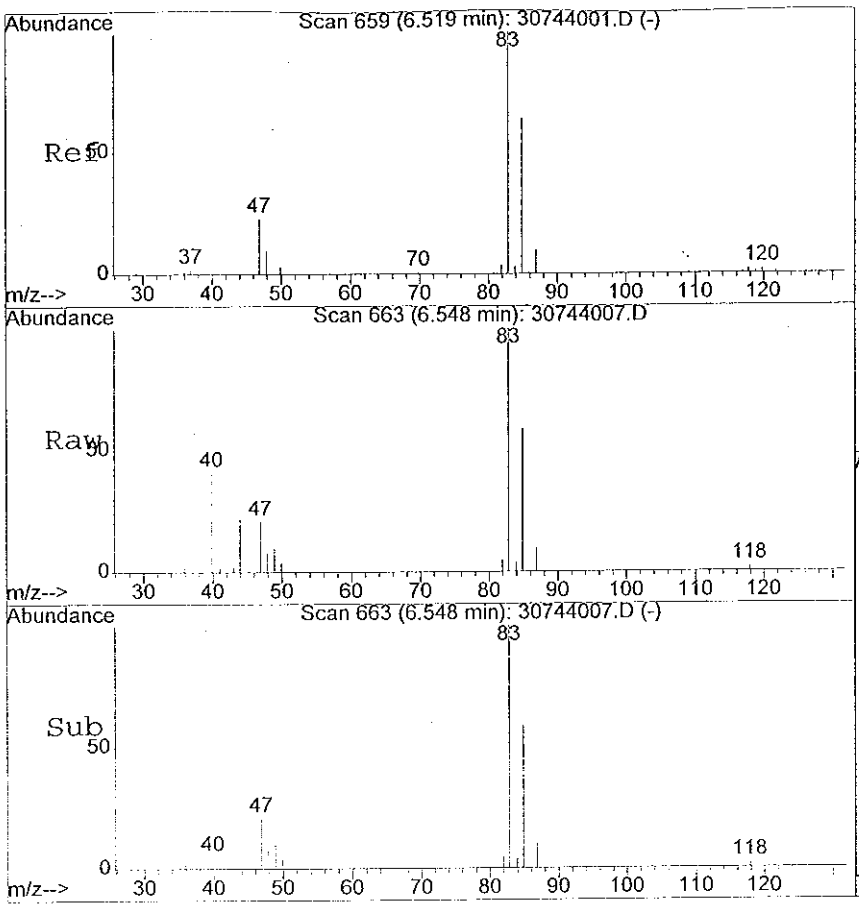
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73) 1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52	ug/L	#	86
74) 1,2,4-Trichlorobenzene	27.94	180	36654	0.41	ug/L		100
75) Hexachlorobutadiene	28.33	225	48563	0.54	ug/L		98
76) Naphthalene	28.34	128	27310	0.41	ug/L		100
77) 1,2,3-Trichlorobenzene	28.79	180	26742	0.40	ug/L		92

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

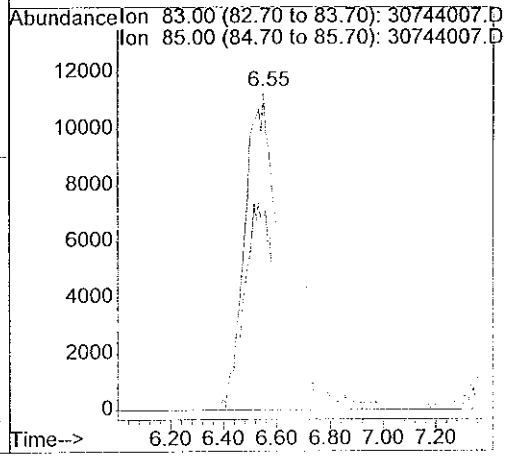
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D





#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion: 83	Resp:	108615	
Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6



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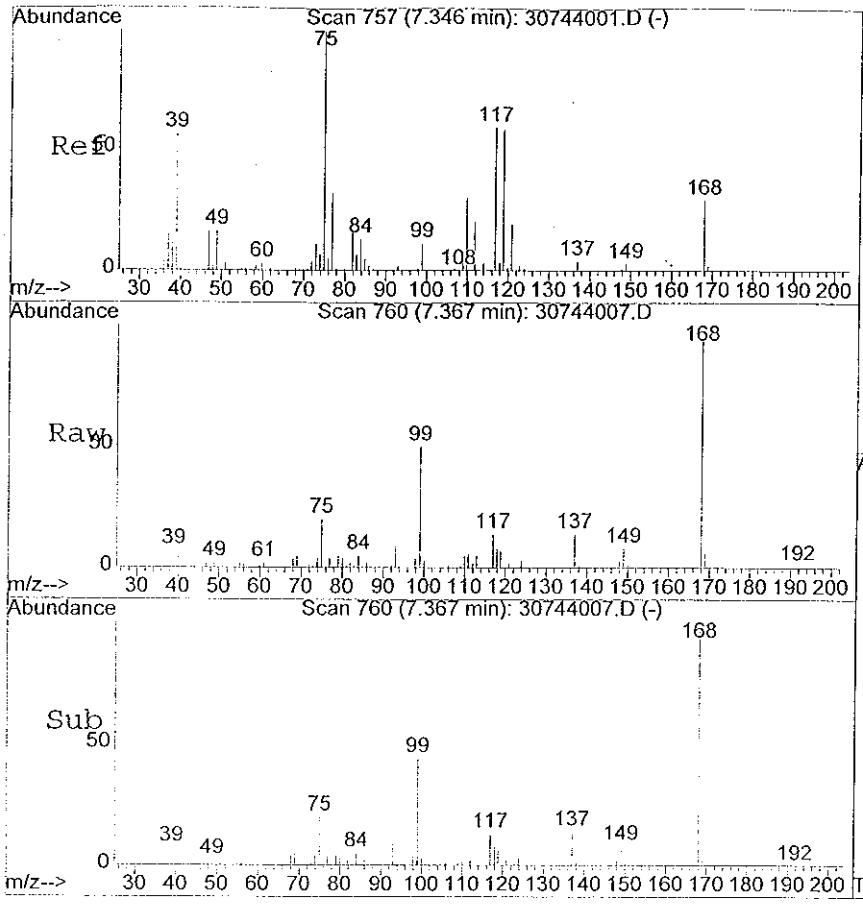
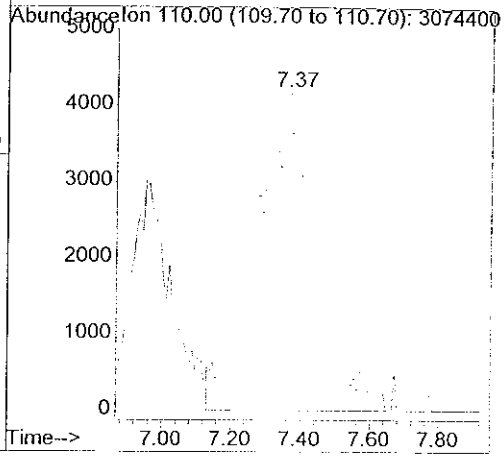


#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959



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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 / 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 / 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 / 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 / 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26)	Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27)	1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28)	Benzene	7.87	78	6215127	19.11	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30)	Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31)	1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32)	Dibromomethane	10.35	93	939957	19.35	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34)	Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35)	cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37)	Toluene	12.47	92	3949672	19.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40)	Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42)	Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43)	1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45)	2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47)	Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50)	Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51)	m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52)	o-Xylene	17.10	106	2595783	19.18	ug/L	98
53)	Styrene	17.16	104	4271963	19.62	ug/L	100
54)	Bromoform	17.63	173	1061009	19.77	ug/L	99
55)	Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58)	Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61)	n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62)	2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63)	4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64)	1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65)	tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67)	sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68)	1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69)	p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72)	n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74)	1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75)	Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76)	Naphthalene	28.33	128	1514801	20.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

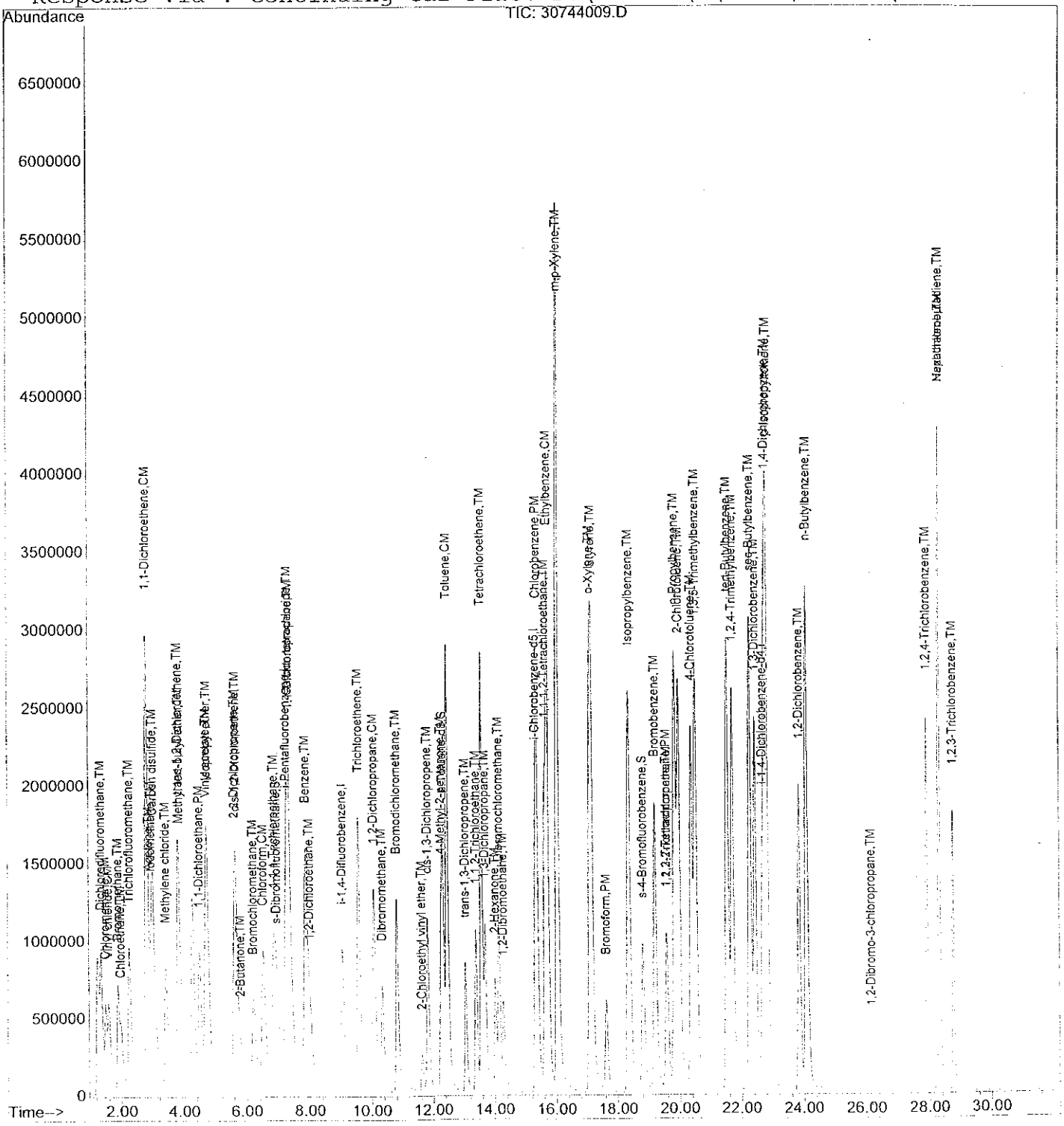
Quantitation Report

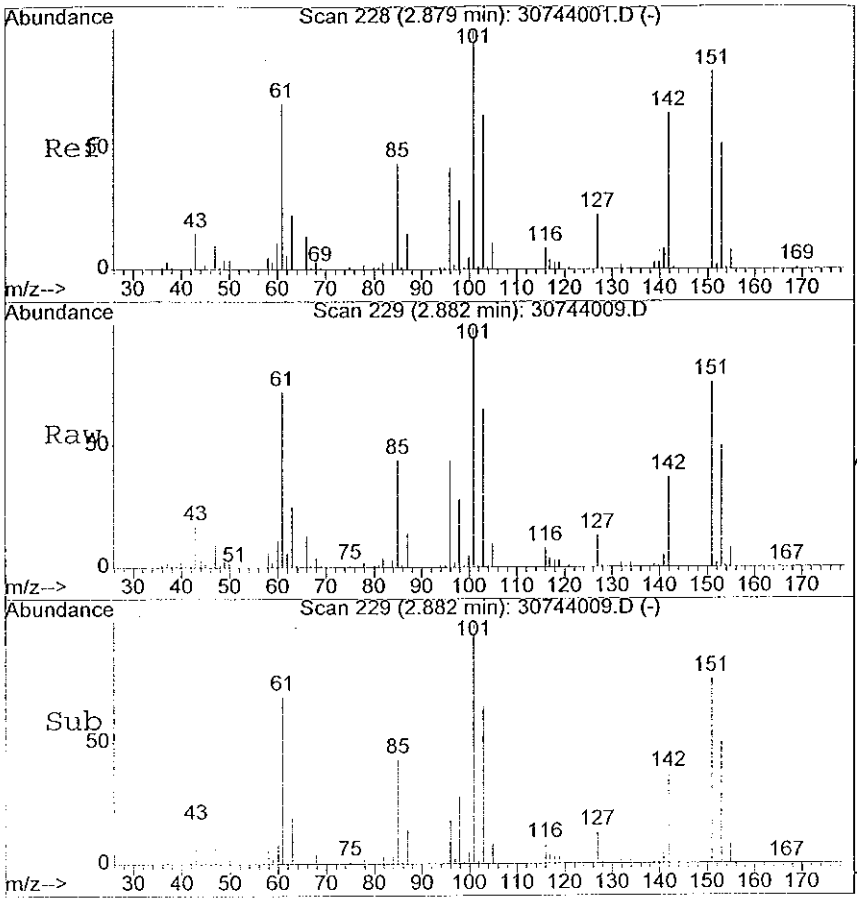
Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

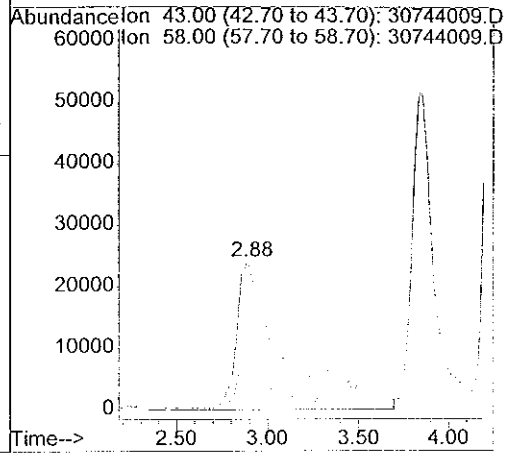




#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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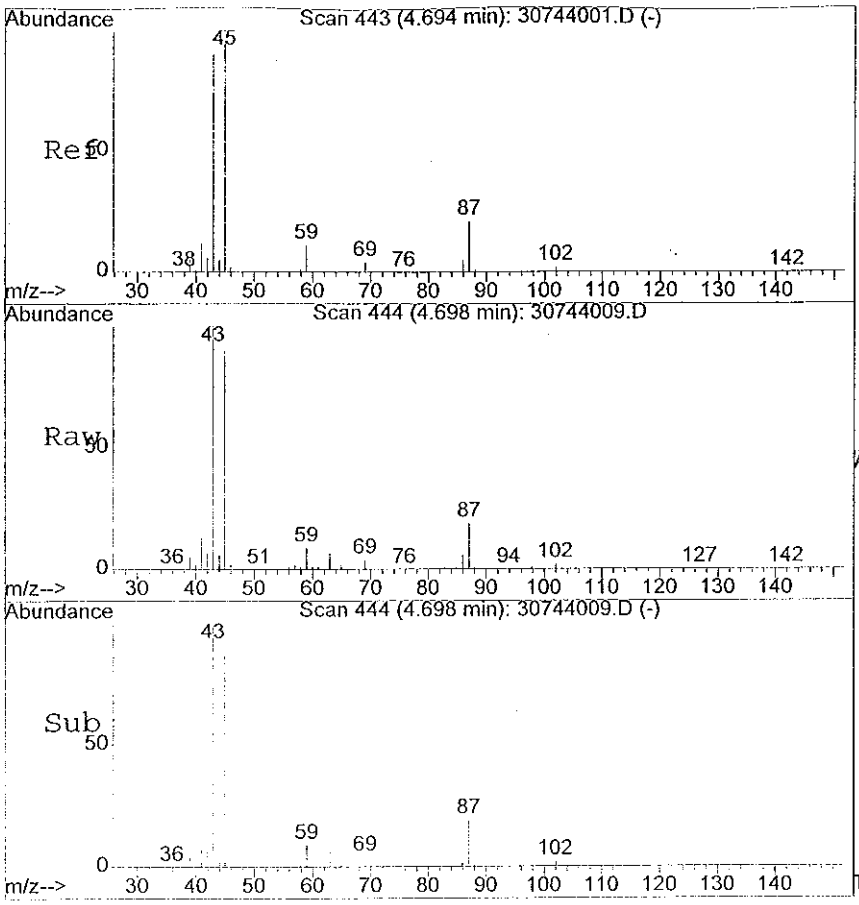
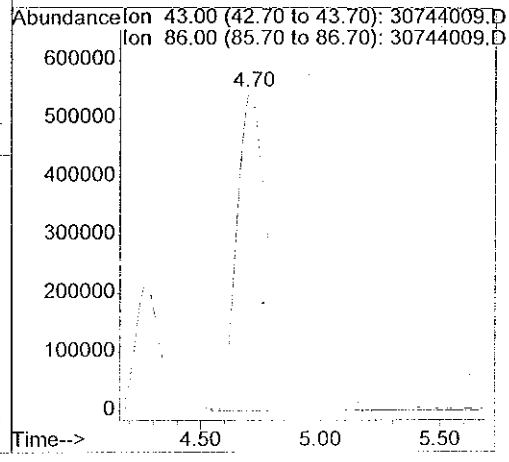


#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



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11-11-01

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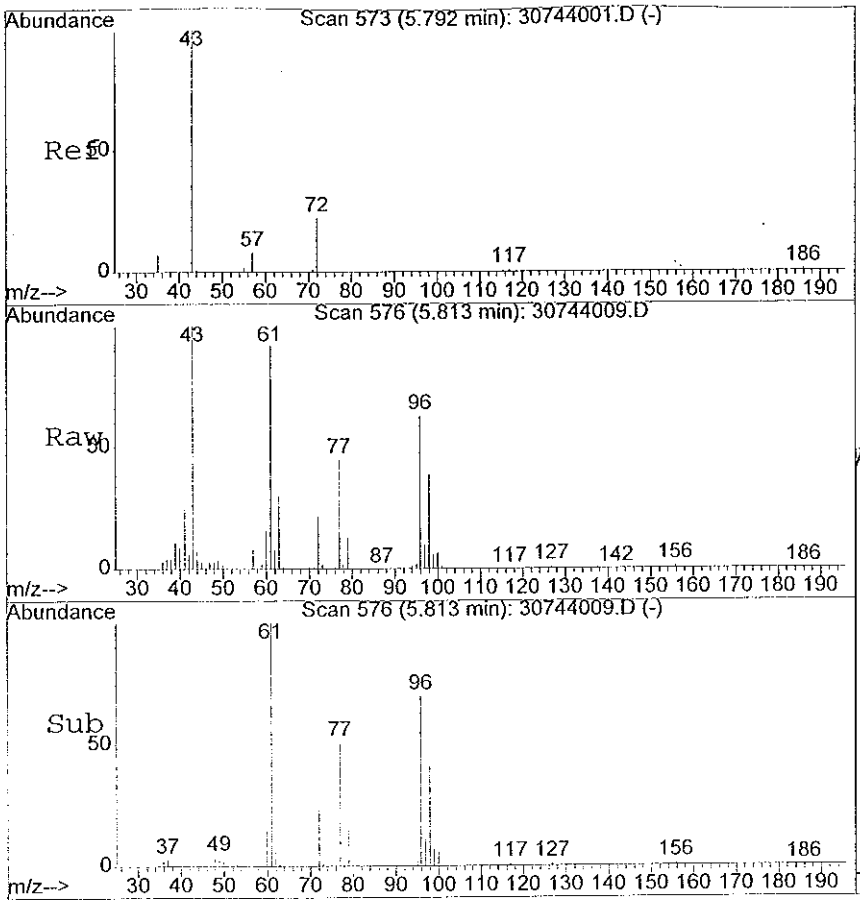
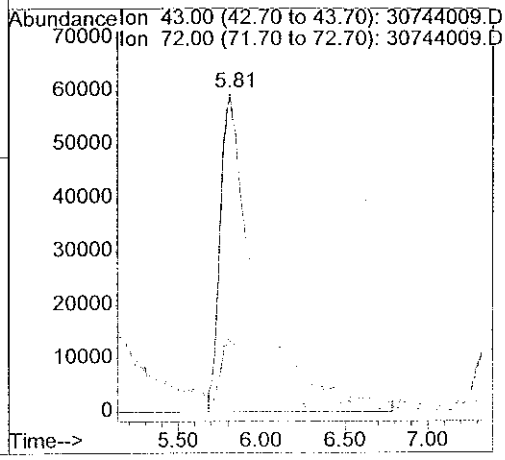


#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



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for 10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26)	Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27)	1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28)	Benzene	7.88	78	9780889	29.34	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30)	Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31)	1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32)	Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33)	2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34)	Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35)	cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37)	Toluene	12.48	92	6204841	29.18	ug/L	100
38)	trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39)	1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40)	Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41)	1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42)	Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43)	1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44)	4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45)	2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47)	Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50)	Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51)	m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52)	o-Xylene	17.12	106	4111508	29.27	ug/L	98
53)	Styrene	17.19	104	6844185	30.28	ug/L	100
54)	Bromoform	17.64	173	1805093	32.41	ug/L	100
55)	Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58)	Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60)	1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61)	n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62)	2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63)	4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64)	1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65)	tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66)	1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67)	sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69)	p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

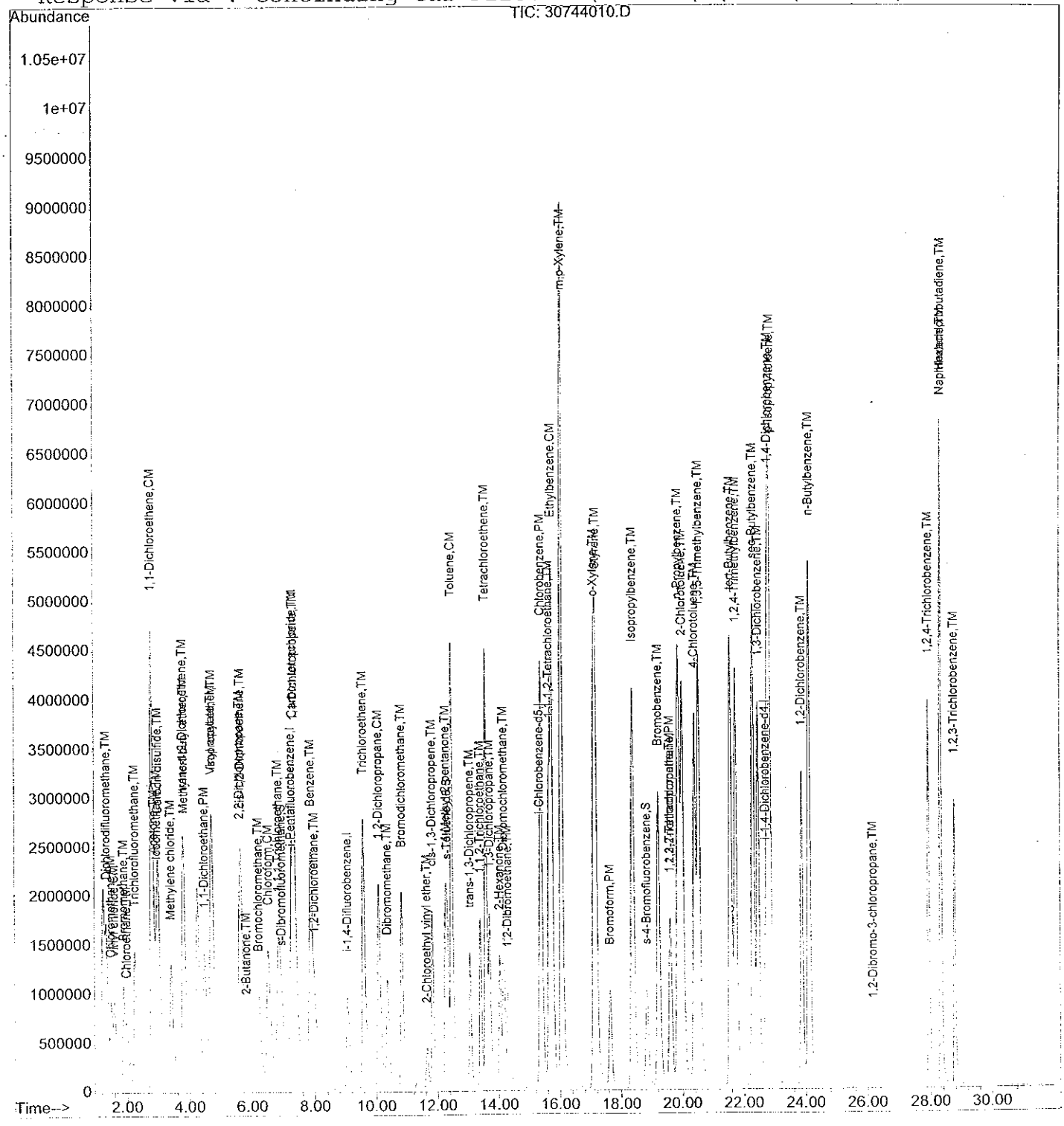
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72) n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74) 1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75) Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76) Naphthalene	28.35	128	2562909	32.91	ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

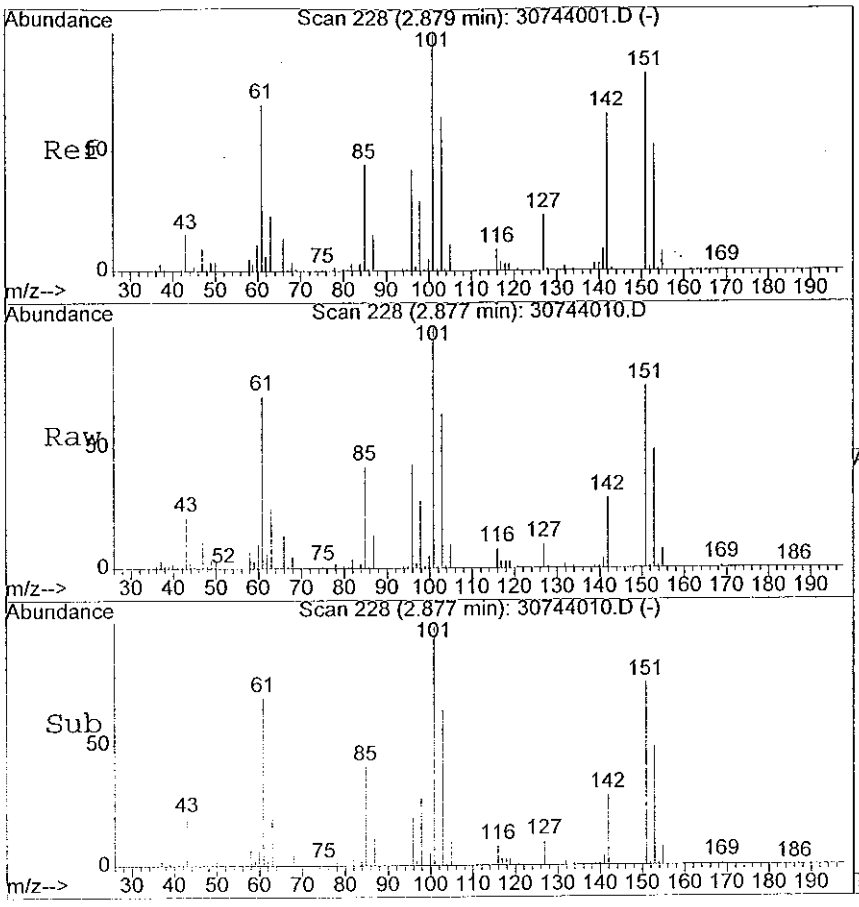
Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

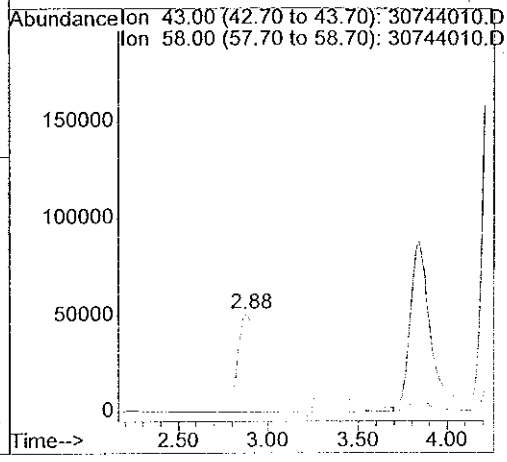




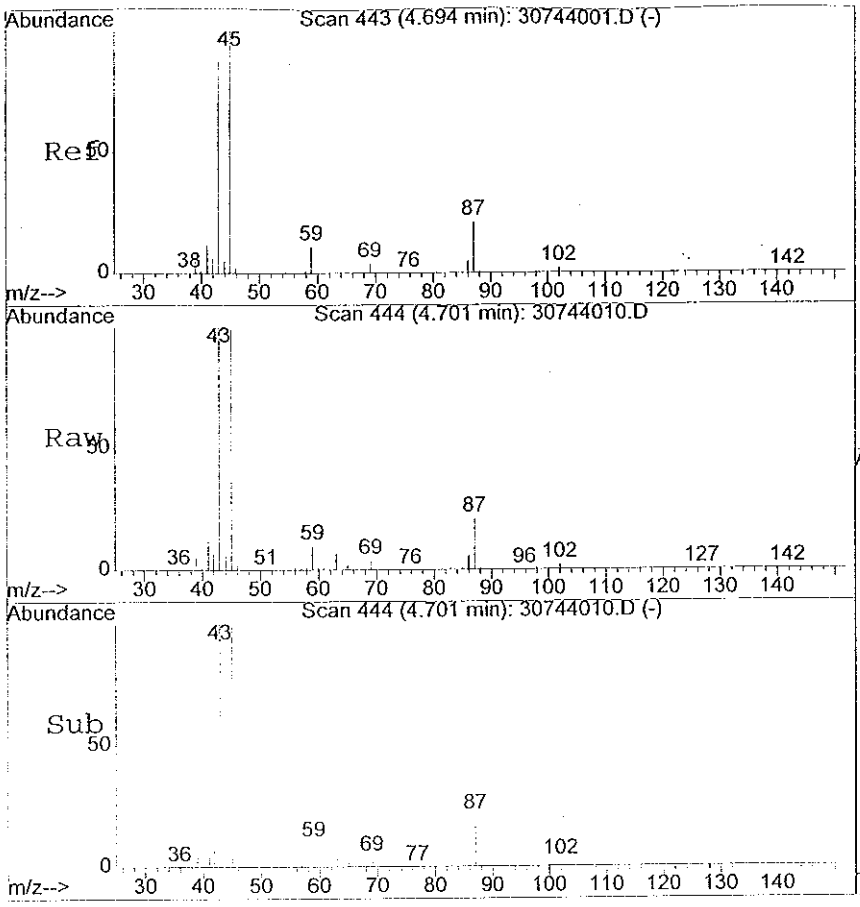
#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



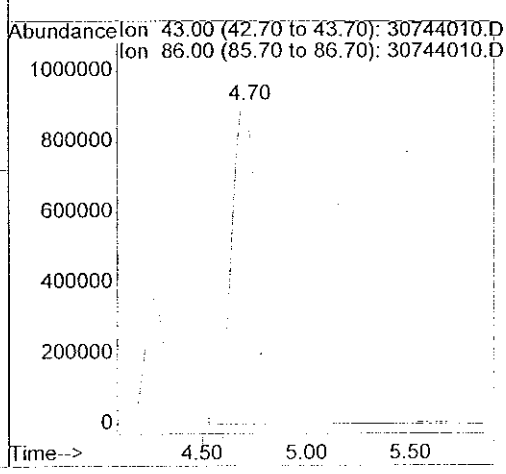
10-31
for 10/31-01



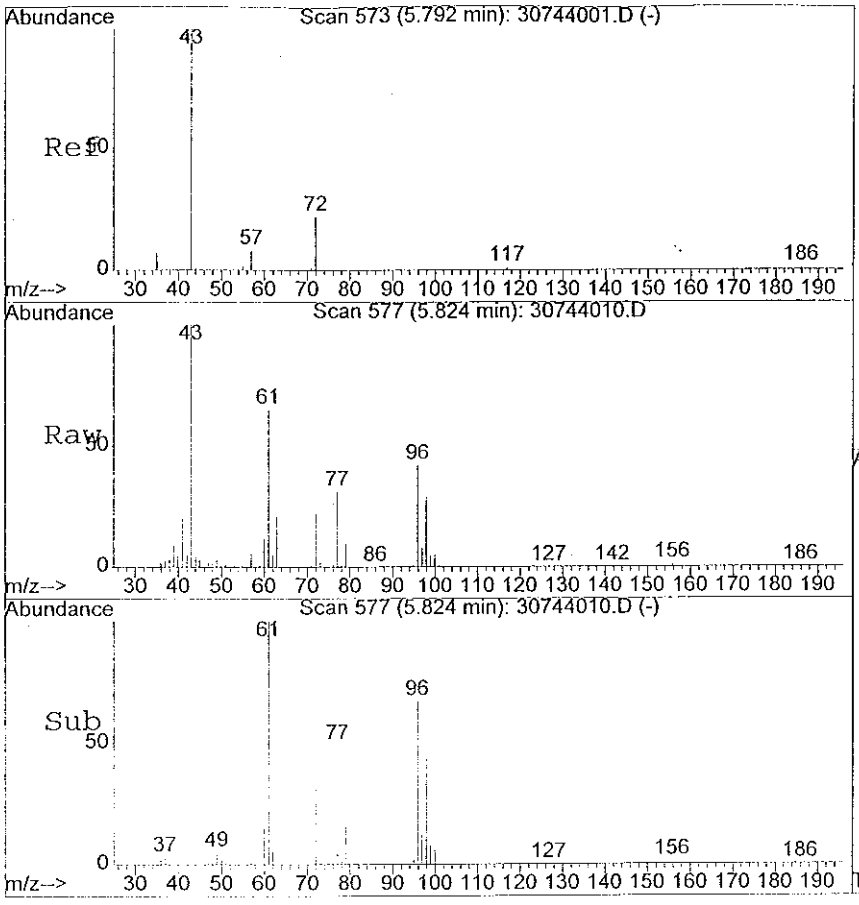
#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9



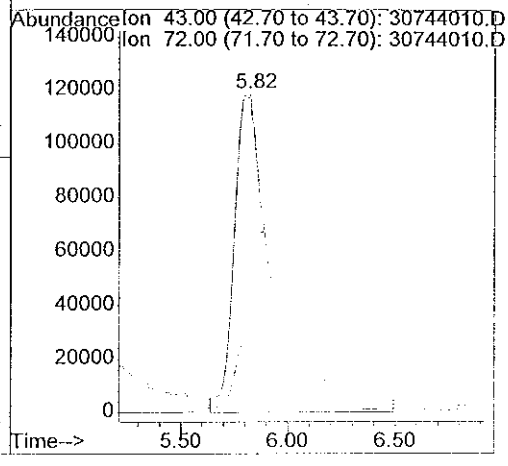
10-31
10-31-01



#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



10-31
10-31-01

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits
Wed Oct 31 05:36:32 2001

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Matrix: WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

* = out of control limits

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26)	Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27)	1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28)	Benzene	7.87	78	3192959	9.73	ug/L	99
29)	1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30)	Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32)	Dibromomethane	10.35	93	503678	10.29	ug/L	99
33)	2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34)	Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35)	cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37)	Toluene	12.46	92	2053379	9.72	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40)	Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41)	1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42)	Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43)	1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45)	2-Hexanone	14.01	43	421508	20.32	ug/L	99
47)	Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50)	Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51)	m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52)	o-Xylene	17.08	106	1353170	10.02	ug/L	98
53)	Styrene	17.15	104	2130325	9.94	ug/L	99
54)	Bromoform	17.61	173	551199	10.58	ug/L	100
55)	Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58)	Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61)	n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62)	2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63)	4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67)	sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69)	p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72) n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74) 1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75) Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76) Naphthalene	28.32	128	757496	10.96	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

(#) = qualifier out of range (m) = manual integration

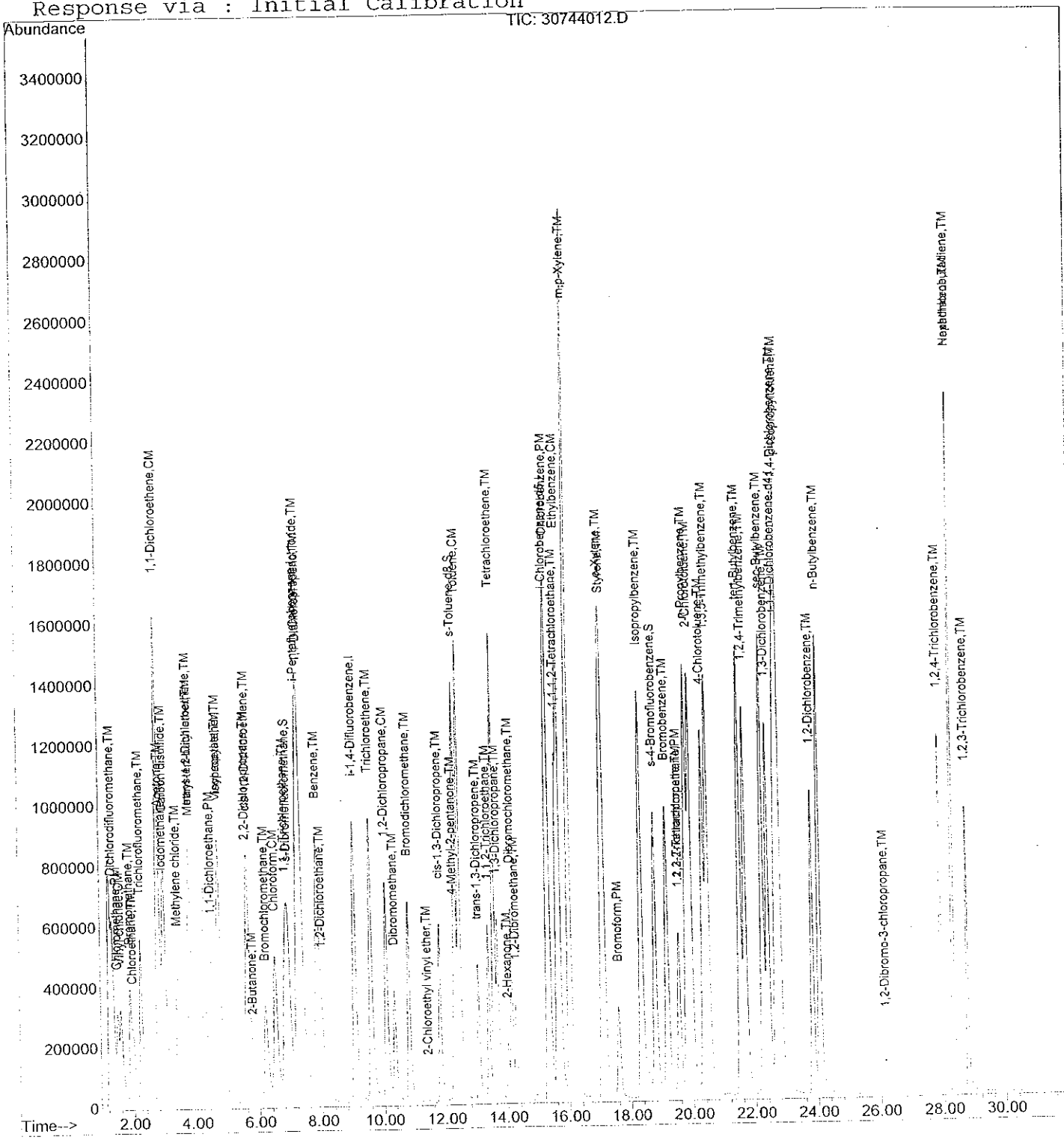
Quantitation Report

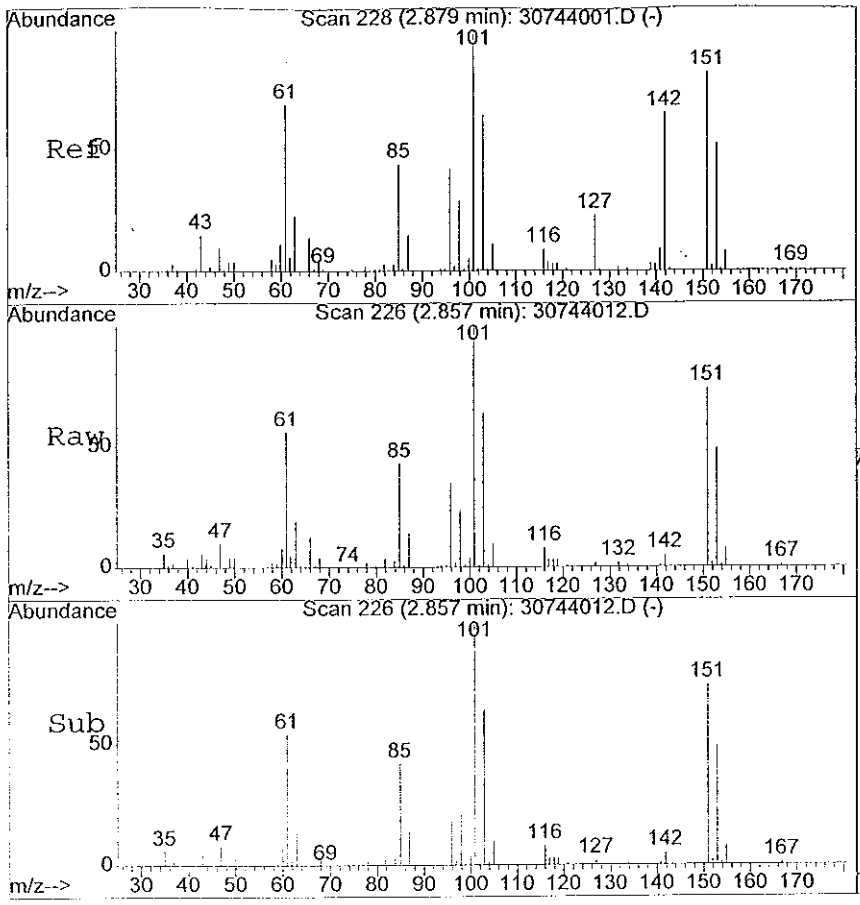
Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration

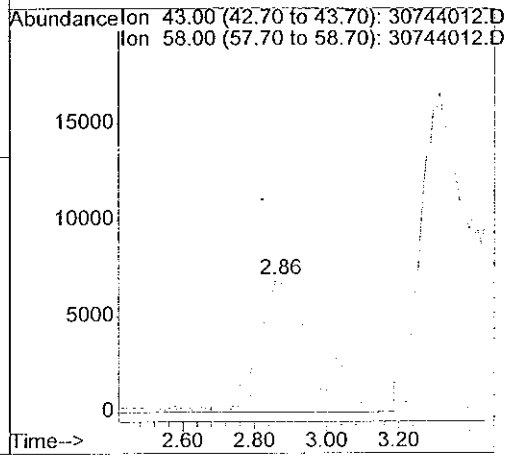




#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 93381

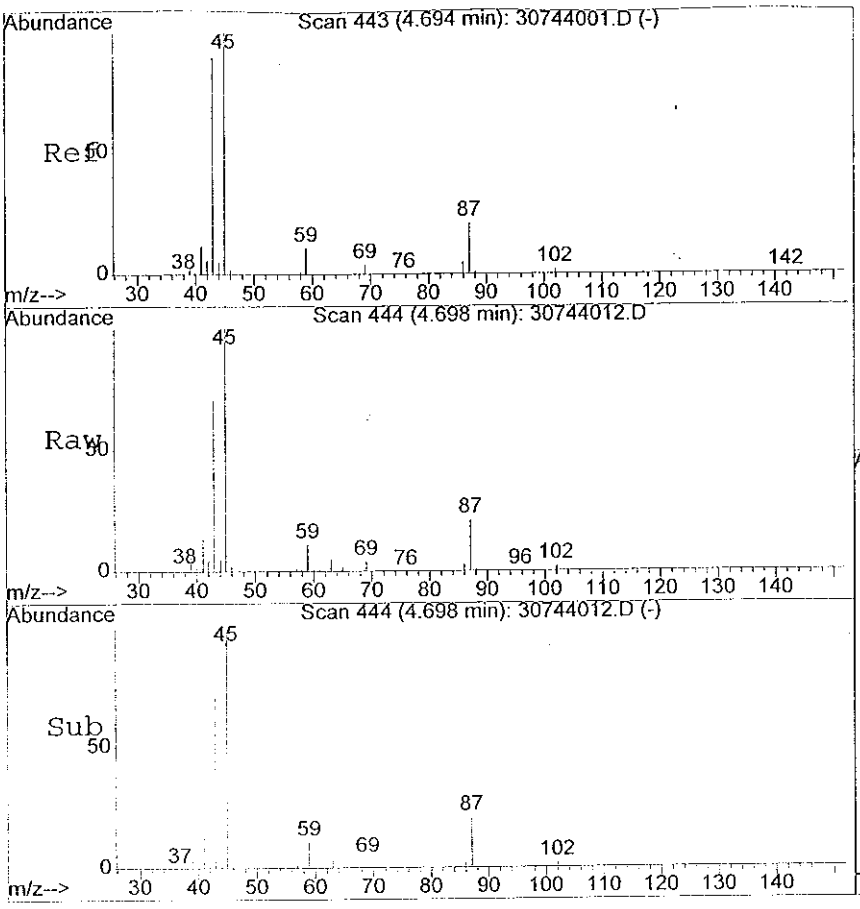
Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



10-31

10-31-01

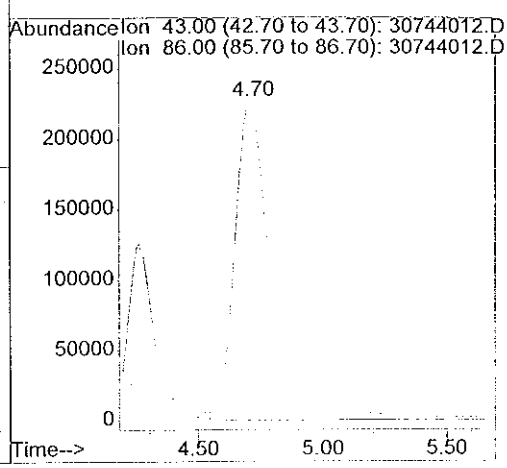
409



#16
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

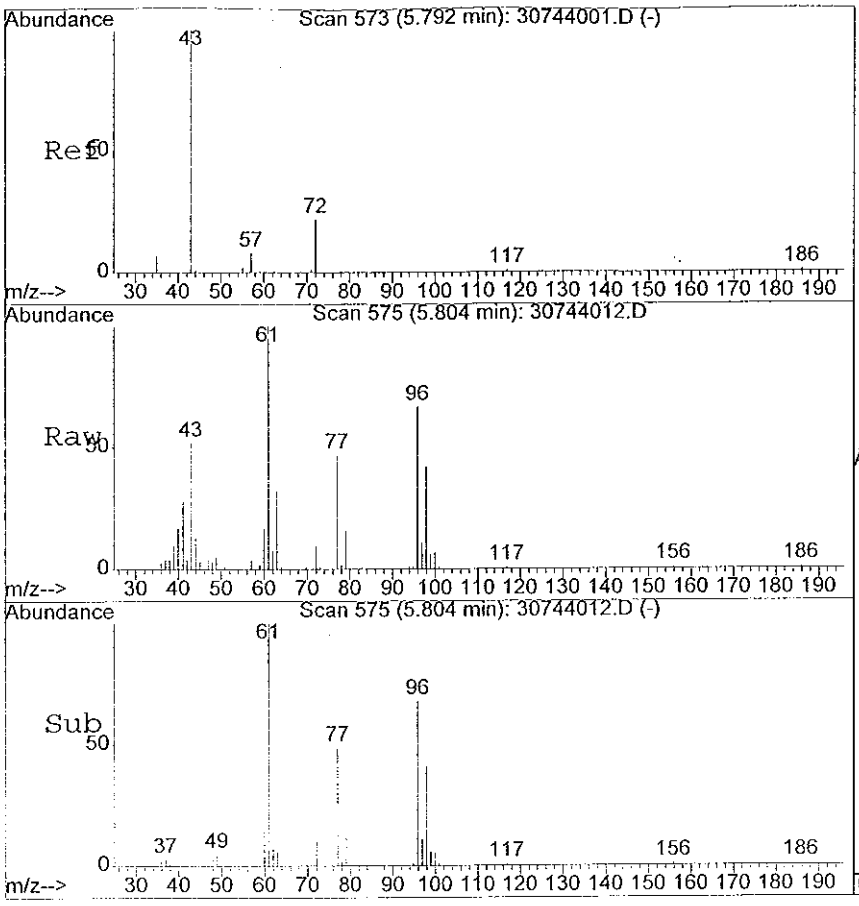
Tgt Ion: 43 Resp: 2328403

Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9



10-31

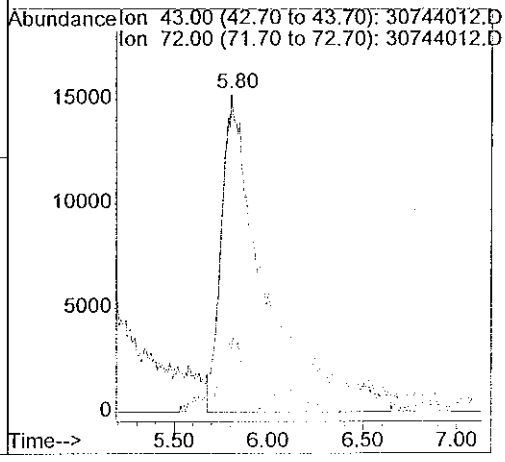
410



#19
2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 250575

Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
10-31-01

411

Sequence Name: D:\HPCHEM\1\SEQUENCE\103101.S
Comment: 10-31-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103101\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30745001	V82625A	TUNE
3	Sample	15	30745002	V82625A	10ppb VOA STD
4	Sample	16	30745003	V82625A	BUW147ABK BLANK 10-31-01
5	Sample	1	30745004	V82625A	BUW147ALCS LCS 10-31-01
6	Sample	2	30745005	V82625A	BUW147ALCD LCS DUPE 10-31-01
7	Sample	3	30745006	V82625A	110557-1
8	Sample	4	30745007	V82625A	110557-2
9	Sample	5	30745008	V82625A	110557-3
10	Sample	6	30745009	V82625A	110557-4
11	Sample	7	30745010	V82625A	110557-5
12	Sample	8	30745011	V82625A	110557-6
13	Sample	9	30745012	V82625A	110557-7
14	Sample	10	30745013	V82625A	110557-8
15	Sample	11	30745014	V82625A	110557-3 2.5ml 10X
16	Sample	13	BLANK	V82625A	BLANK

Last Modified: Thu Nov 01 05:53:16 2001

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name :
Project : Site :
Lab File ID (Standard): 30745002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 31 Oct 2001
Time Analyzed : 9:07
Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30745003	BUW147ABK BLANK	100	101	98	0	0	0	0
30745004	BUW147ALCS LCS	94	99	98	0	0	0	0
30745005	BUW147ALCD LCS	100	101	101	0	0	0	0
30745006	110557-1	99	98	97	0	0	0	0
30745007	110557-2	84	98	93	0	0	0	0
30745008	110557-3	96	98	93	0	0	0	0
30745009	110557-4	98	100	95	0	0	0	0
30745010	110557-5	87	97	94	0	0	0	0
30745011	110557-6	89	97	93	0	0	0	0
30745012	110557-7	87	98	91	0	0	0	0
30745013	110557-8	107	100	100	0	0	0	0
30745014	110557-3 2.5ml	102	100	95	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

413

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30745002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 31 Oct 2001
Time Analyzed : 9:07
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2933633		7.25		3081018		9.06		2193665		15.32	
UPPER LIMIT	5867266		7.75		6162036		9.56		4387330		15.82	
LOWER LIMIT	1466817		6.75		1540509		8.56		1096833		14.82	
File ID Sample												
30745003 BUW147ABK	2933298		7.26		2887271		9.08		2048815		15.32	
30745004 BUW147ALC	3030027		7.26		2983080		9.07		2034016		15.33	
30745005 BUW147ALC	3075199		7.24		3102179		9.06		2191571		15.31	
30745006 110557-1	3066772		7.22		3031702		9.05		2160861		15.31	
30745007 110557-2	2928642		7.22		2789205		9.05		1849638		15.31	
30745008 110557-3	3084133		7.24		2992960		9.06		2089348		15.31	
30745009 110557-4	3061847		7.22		3017047		9.06		2157170		15.30	
30745010 110557-5	2876330		7.21		2737109		9.05		1813860		15.29	
30745011 110557-6	2845474		7.21		2756478		9.05		1845953		15.30	
30745012 110557-7	2842645		7.23		2709232		9.06		1811745		15.32	
30745013 110557-8	2920762		7.23		2954310		9.05		2166320		15.31	
30745014 110557-3	2967730		7.22		2958151		9.05		2115188		15.31	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

414

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30745002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 31 Oct 2001
Time Analyzed : 9:07
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1240706		22.69		0		0.00		0		0.00	
UPPER LIMIT	2481412		23.19		0		0.00		0		0.00	
LOWER LIMIT	620353		22.19		0		0.00		0		0.00	
File ID Sample												
30745003 BUW147ABK	1006921		22.69		0		0.00		0		0.00	
30745004 BUW147ALC	1122402		22.69		0		0.00		0		0.00	
30745005 BUW147ALC	1219655		22.68		0		0.00		0		0.00	
30745006 110557-1	1051794		22.66		0		0.00		0		0.00	
30745007 110557-2	862059		22.65		0		0.00		0		0.00	
30745008 110557-3	964036		22.66		0		0.00		0		0.00	
30745009 110557-4	1045562		22.66		0		0.00		0		0.00	
30745010 110557-5	858286		22.65		0		0.00		0		0.00	
30745011 110557-6	818570		22.66		0		0.00		0		0.00	
30745012 110557-7	811951		22.69		0		0.00		0		0.00	
30745013 110557-8	1075004		22.67		0		0.00		0		0.00	
30745014 110557-3	1046541		22.68		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

415

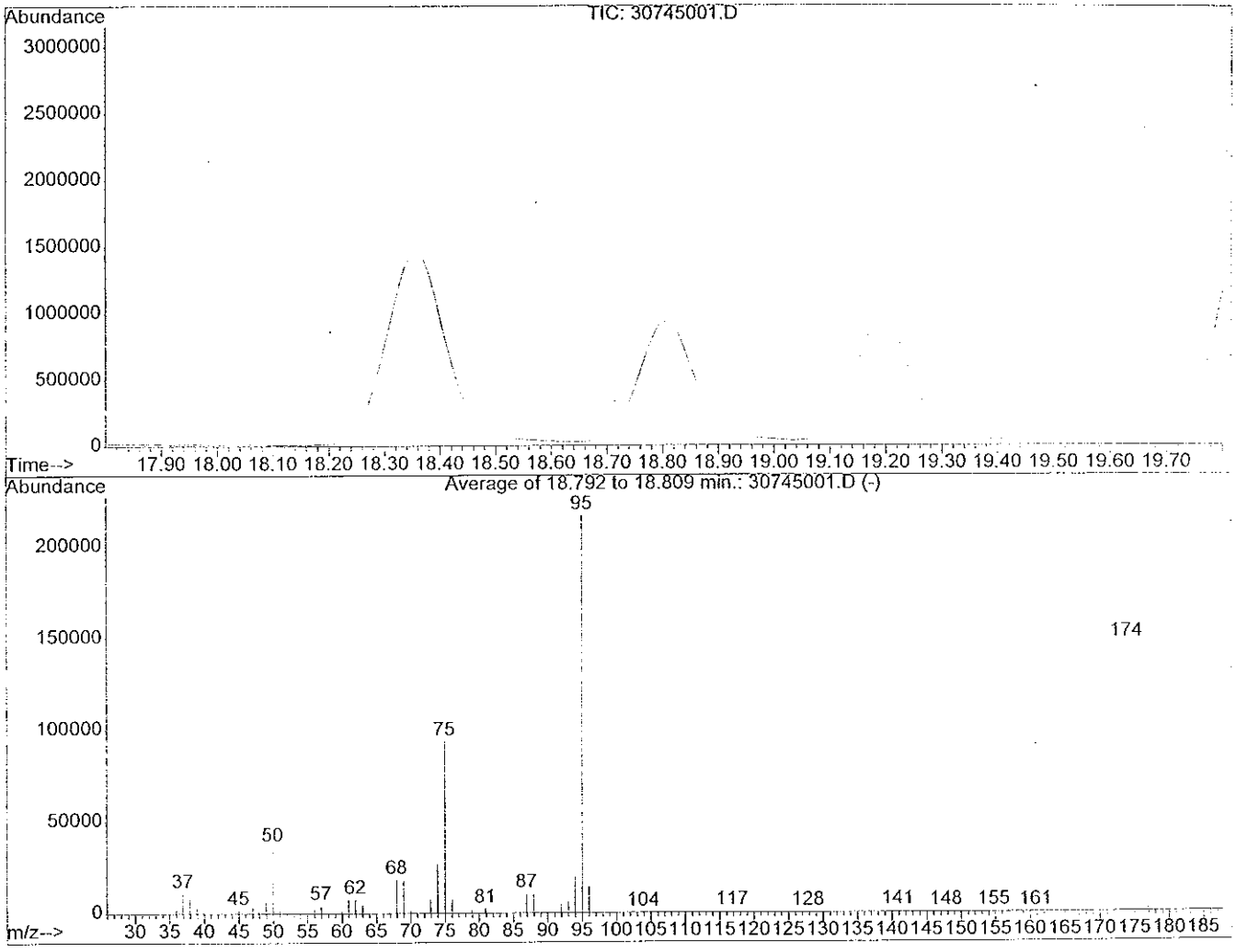
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\103001\30745001.D
Acq On : 31 Oct 2001 8:28
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2114 (18.80 min)
Average of 3 scans: 2113,2114,2115 minus background scan 2094 (18.63 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	36471	PASS
75	95	30	60	43.3	93859	PASS
95	95	100	100	100.0	216747	PASS
96	95	5	9	6.6	14354	PASS
173	174	0	2	0.2	308	PASS
174	95	50	100	67.5	146325	PASS
175	174	5	9	7.2	10546	PASS
176	174	95	101	97.6	142784	PASS
177	176	5	9	6.5	9221	PASS

30745001.D V82625B1.M Wed Oct 31 08:50:18 2001

Average of 18.792 to 18.809 min.: 30745001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	2337	56.95	4512	76.00	7680	174.90	10546
36.95	11153	59.90	1694	78.90	1790	175.90	142784
37.90	9188	60.95	7642	80.90	2537	176.90	9221
38.95	3199	61.95	7685	86.95	10801		
44.95	1957	62.95	4663	87.95	10333		
47.00	3536	67.95	18616	91.95	4622		
47.90	1267	68.95	18509	93.00	6539		
48.95	7945	70.00	1480	93.95	19896		
49.95	36471	72.90	7879	95.00	216747		
50.95	10775	73.95	27051	96.00	14354		
56.00	2291	75.00	93859	173.90	146325		

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	99	0.00
2	TM	Dichlorodifluoromethane	10.000	9.355	6.4	98	0.00
3	PM	Chloromethane	10.000	9.922	0.8	100	0.00
4	CM	Vinyl chloride	10.000	9.538	4.6#	99	0.00
5	TM	Bromomethane	10.000	8.677	13.2	89	0.00
6	TM	Chloroethane	10.000	9.665	3.4	98	0.00
7	TM	Trichlorofluoromethane	10.000	9.784	2.2	99	0.00
8	CM	1,1-Dichloroethene	10.000	9.732	2.7#	99	0.00
9	TM	Acetone	40.000	43.359	-8.4	111	0.00
10	TM	Iodomethane	10.000	9.419	5.8	93	0.00
11	TM	Carbon disulfide	10.000	9.775	2.2	98	0.00
12	TM	Methylene chloride	10.000	10.282	-2.8	101	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.759	2.4	96	0.00
14	TM	Methyl tert-butyl ether	10.000	11.059	-10.6	110	0.00
15	PM	1,1-Dichloroethane	10.000	9.960	0.4	99	0.00
16	TM	Vinyl acetate	20.000	21.314	-6.6	105	0.00
17	TM	Isopropyl ether	10.000	10.568	-5.7	102	0.00
18	TM	2,2-Dichloropropane	10.000	10.133	-1.3	99	0.00
19	TM	2-Butanone	40.000	43.982	-10.0	110	0.03
20	TM	cis-1,2-Dichloroethene	10.000	10.417	-4.2	100	0.00
21	TM	Bromochloromethane	10.000	10.210	-2.1	101	0.00
22	CM	Chloroform	10.000	9.747	2.5#	97	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.863	1.4	96	0.02
24	S	s-Dibromofluoromethane	10.000	11.014	-10.1	108	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	102	0.00
26	TM	Carbon tetrachloride	10.000	8.947	10.5	100	0.00
27	TM	1,1-Dichloropropene	10.000	9.823	1.8	100	0.00
28	TM	Benzene	10.000	9.481	5.2	99	0.00
29	TM	1,2-Dichloroethane	10.000	9.897	1.0	104	0.02
30	TM	Trichloroethene	10.000	9.350	6.5	99	0.00
31	CM	1,2-Dichloropropane	10.000	9.666	3.3#	100	0.00
32	TM	Dibromomethane	10.000	10.194	-1.9	106	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.637	-6.4	103	0.00
34	TM	Bromodichloromethane	10.000	9.869	1.3	101	0.00
35	TM	cis-1,3-Dichloropropene	10.000	10.170	-1.7	104	0.00
36	S	s-Toluene-d8	10.000	10.022	-0.2	102	0.00
37	CM	Toluene	10.000	9.314	6.9#	98	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.558	-5.6	106	0.00
39	TM	1,1,2-Trichloroethane	10.000	10.085	-0.9	106	0.00
40	TM	Tetrachloroethene	10.000	9.295	7.1	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.160	-1.6	105	0.02
42	TM	Dibromochloromethane	10.000	10.254	-2.5	105	0.00
43	TM	1,2-Dibromoethane	10.000	10.598	-6.0	107	0.02
44	TM	4-Methyl-2-pentanone	40.000	42.424	-6.1	113	0.00
45	TM	2-Hexanone	40.000	45.073	-12.7	114	0.02
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	102	0.00
47	PM	Chlorobenzene	10.000	9.378	6.2	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.772	2.3	101	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	0	-14.02#
50	CM	Ethylbenzene	10.000	9.182	8.2#	98	0.02
51	TM	m,p-Xylene	20.000	18.958	5.2	98	0.02
52	TM	o-Xylene	10.000	9.511	4.9	99	0.02
53	TM	Styrene	10.000	9.857	1.4	101	0.02
54	PM	Bromoform	10.000	10.617	-6.2	107	0.02
55	TM	Isopropylbenzene	10.000	9.411	5.9	98	0.03
56	S	s-4-Bromofluorobenzene	10.000	10.270	-2.7	103	0.04
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	0.03
58	TM	Bromobenzene	10.000	9.286	7.1	102	0.03
59	PM	1,1,2,2-Tetrachloroethane	10.000	10.007	-0.1	109	0.03
60	TM	1,2,3-Trichloropropane	10.000	10.223	-2.2	106	0.03
61	TM	n-Propylbenzene	10.000	9.261	7.4	97	0.02
62	TM	2-Chlorotoluene	10.000	9.011	9.9	99	0.03
63	TM	4-Chlorotoluene	10.000	9.348	6.5	100	0.03
64	TM	1,3,5-Trimethylbenzene	10.000	9.079	9.2	98	0.03
65	TM	tert-Butylbenzene	10.000	8.775	12.2	96	0.03
66	TM	1,2,4-Trimethylbenzene	10.000	9.283	7.2	95	0.03
67	TM	sec-Butylbenzene	10.000	9.180	8.2	97	0.02
68	TM	1,3-Dichlorobenzene	10.000	9.209	7.9	99	0.03
69	TM	p-Isopropyltoluene	10.000	9.374	6.3	97	0.03
70	TM	1,4-Dichlorobenzene	10.000	9.095	9.0	102	0.03
71	TM	1,2-Dichlorobenzene	10.000	9.339	6.6	101	0.04
72	TM	n-Butylbenzene	10.000	9.841	1.6	96	0.03
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.449	-4.5	112	0.03
74	TM	1,2,4-Trichlorobenzene	10.000	10.306	-3.1	103	0.02
75	TM	Hexachlorobutadiene	10.000	9.935	0.6	99	0.02
76	TM	Naphthalene	10.000	10.451	-4.5	106	0.02
77	TM	1,2,3-Trichlorobenzene	10.000	10.420	-4.2	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	98	0.00
3	PM	Chloromethane	0.324	0.321	0.9	100	0.00
4	CM	Vinyl chloride	0.340	0.324	4.7#	99	0.00
5	TM	Bromomethane	0.307	0.267	13.0	89	0.00
6	TM	Chloroethane	0.199	0.193	3.0	98	0.00
7	TM	Trichlorofluoromethane	0.557	0.545	2.2	99	0.00
8	CM	1,1-Dichloroethene	0.327	0.318	2.8#	99	0.00
9	TM	Acetone	0.021	0.021#	0.0	111	0.00
10	TM	Iodomethane	0.403	0.379	6.0	93	0.00
11	TM	Carbon disulfide	1.028	1.005	2.2	98	0.00
12	TM	Methylene chloride	0.267	0.275	-3.0	101	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.354	2.5	96	0.00
14	TM	Methyl tert-butyl ether	0.399	0.441	-10.5	110	0.00
15	PM	1,1-Dichloroethane	0.645	0.642	0.5	99	0.00
16	TM	Vinyl acetate	0.489	0.521	-6.5	105	0.00
17	TM	Isopropyl ether	1.015	1.072	-5.6	102	0.00
18	TM	2,2-Dichloropropane	0.478	0.485	-1.5	99	0.00
19	TM	2-Butanone	0.040	0.044#	-10.0	110	0.03
20	TM	cis-1,2-Dichloroethene	0.311	0.343	-10.3	100	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	101	0.00
22	CM	Chloroform	0.645	0.629	2.5#	97	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.532	1.3	96	0.02
24	S	s-Dibromofluoromethane	0.463	0.510	-10.2	108	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
26	TM	Carbon tetrachloride	0.500	0.447	10.6	100	0.00
27	TM	1,1-Dichloropropene	0.186	0.160	14.0	100	0.00
28	TM	Benzene	1.086	1.029	5.2	99	0.00
29	TM	1,2-Dichloroethane	0.217	0.215	0.9	104	0.02
30	TM	Trichloroethene	0.437	0.409	6.4	99	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	100	0.00
32	TM	Dibromomethane	0.162	0.165	-1.9	106	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	103	0.00
34	TM	Bromodichloromethane	0.502	0.496	1.2	101	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.398	-1.8	104	0.00
36	S	s-Toluene-d8	0.947	0.949	-0.2	102	0.00
37	CM	Toluene	0.699	0.651	6.9#	98	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.255	-5.8	106	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.163	-0.6	106	0.00
40	TM	Tetrachloroethene	0.505	0.470	6.9	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.314	-1.6	105	0.02
42	TM	Dibromochloromethane	0.295	0.302	-2.4	105	0.00
43	TM	1,2-Dibromoethane	0.200	0.212	-6.0	107	0.02
44	TM	4-Methyl-2-pentanone	0.114	0.121	-6.1	113	0.00
45	TM	2-Hexanone	0.069	0.077	-11.6	114	0.02
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
47	PM	Chlorobenzene	1.050	0.985	6.2	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.454	2.4	101	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	0#	-14.02#
50	CM	Ethylbenzene	0.567	0.521	8.1#	98	0.02
51	TM	m,p-Xylene	0.683	0.647	5.3	98	0.02
52	TM	o-Xylene	0.635	0.604	4.9	99	0.02
53	TM	Styrene	1.007	0.993	1.4	101	0.02
54	PM	Bromoform	0.245	0.260	-6.1	107	0.02
55	TM	Isopropylbenzene	2.040	1.920	5.9	98	0.03
56	S	s-4-Bromofluorobenzene	0.760	0.781	-2.8	103	0.04
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.03
58	TM	Bromobenzene	0.928	0.862	7.1	102	0.03
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.645	-0.2	109	0.03
60	TM	1,2,3-Trichloropropane	0.395	0.362	8.4	106	0.03
61	TM	n-Propylbenzene	0.909	0.841	7.5	97	0.02
62	TM	2-Chlorotoluene	0.856	0.771	9.9	99	0.03
63	TM	4-Chlorotoluene	2.990	2.795	6.5	100	0.03
64	TM	1,3,5-Trimethylbenzene	2.784	2.527	9.2	98	0.03
65	TM	tert-Butylbenzene	1.825	1.601	12.3	96	0.03
66	TM	1,2,4-Trimethylbenzene	2.442	2.267	7.2	95	0.03
67	TM	sec-Butylbenzene	4.012	3.683	8.2	97	0.02
68	TM	1,3-Dichlorobenzene	1.709	1.574	7.9	99	0.03
69	TM	p-Isopropyltoluene	3.020	2.831	6.3	97	0.03
70	TM	1,4-Dichlorobenzene	1.630	1.483	9.0	102	0.03
71	TM	1,2-Dichlorobenzene	1.359	1.270	6.5	101	0.04
72	TM	n-Butylbenzene	2.797	2.753	1.6	96	0.03
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.091	-4.6	112	0.03
74	TM	1,2,4-Trichlorobenzene	0.763	0.787	-3.1	103	0.02
75	TM	Hexachlorobutadiene	0.873	0.764	12.5	99	0.02
76	TM	Naphthalene	0.582	0.608	-4.5	106	0.02
77	TM	1,2,3-Trichlorobenzene	0.569	0.593	-4.2	104	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 9:55 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2933633	10.00	ug/L	0.00 99.00%
25) i-1,4-Difluorobenzene	9.06	114	3081018	10.00	ug/L	0.00 101.56%
46) i-Chlorobenzene-d5	15.32	117	2193665	10.00	ug/L	0.00 102.18%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1240706	10.00	ug/L	0.03 103.07%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1496363	11.01	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 110.10%			
36) s-Toluene-d8	12.33	98	2925284	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.84	95	1712198	10.27	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1394538	9.36	ug/L	97
3) Chloromethane	1.51	50	942927	9.92	ug/L	98
4) Vinyl chloride	1.60	62	951676	9.54	ug/L	100
5) Bromomethane	1.89	96	782358	8.68	ug/L	99
6) Chloroethane	1.99	64	565186	9.67	ug/L	99
7) Trichlorofluoromethane	2.23	101	1597529	9.78	ug/L	98
8) 1,1-Dichloroethene	2.78	96	934049	9.73	ug/L	96
9) Acetone	2.87	43	247278m	43.36	ug/L	95
10) Iodomethane	2.94	142	1112681	9.42	ug/L	100
11) Carbon disulfide	3.00	76	2948787	9.77	ug/L	100
12) Methylene chloride	3.41	84	805920	10.28	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	1039007	9.76	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1294966	11.06	ug/L	99
15) 1,1-Dichloroethane	4.49	63	1884753	9.96	ug/L	99
16) Vinyl acetate	4.70	43	3056994m	21.31	ug/L	100
17) Isopropyl ether	4.72	45	3146205	10.57	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1421836	10.13	ug/L	100
19) 2-Butanone	5.83	43	521806m	43.98	ug/L	100
20) cis-1,2-Dichloroethene	5.66	96	1007423	10.42	ug/L	99
21) Bromochloromethane	6.21	128	388485	10.21	ug/L	97
22) Chloroform	6.51	83	1845672	9.75	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30745002.D
Acq On : 31 Oct 2001 9:07
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 9:55 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
23) 1,1,1-Trichloroethane	6.86	97	1560051	9.86 ug/L	99
26) Carbon tetrachloride	7.31	119	1377270	8.95 ug/L	97
27) 1,1-Dichloropropene	7.34	110	492146	9.82 ug/L	100
28) Benzene	7.88	78	3170912	9.48 ug/L	99
29) 1,2-Dichloroethane	8.01	62	661638	9.90 ug/L	99
30) Trichloroethene	9.59	95	1260201	9.35 ug/L	99
31) 1,2-Dichloropropane	10.09	63	1080897	9.67 ug/L	100
32) Dibromomethane	10.36	93	508682	10.19 ug/L	97
33) 2-Chloroethyl vinyl ether	11.64	63	196712	10.64 ug/L	99
34) Bromodichloromethane	10.83	83	1527027	9.87 ug/L	97
35) cis-1,3-Dichloropropene	11.83	75	1224928	10.17 ug/L	100
37) Toluene	12.47	92	2005760	9.31 ug/L	98
38) trans-1,3-Dichloropropene	13.06	75	784151	10.56 ug/L	98
39) 1,1,2-Trichloroethane	13.40	83	503075	10.08 ug/L	99
40) Tetrachloroethene	13.58	166	1446701	9.30 ug/L	98
41) 1,3-Dichloropropane	13.71	76	968243	10.16 ug/L	98
42) Dibromochloromethane	14.15	129	931957	10.25 ug/L	99
43) 1,2-Dibromoethane	14.29	107	654260	10.60 ug/L	99
44) 4-Methyl-2-pentanone	12.27	43	1488407	42.42 ug/L	100
45) 2-Hexanone	14.03	43	952919	45.07 ug/L	98
47) Chlorobenzene	15.38	112	2160415	9.38 ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.63	131	996218	9.77 ug/L	98
50) Ethylbenzene	15.73	106	1142299	9.18 ug/L	100
51) m,p-Xylene	16.04	106	2839373	18.96 ug/L	100
52) o-Xylene	17.10	106	1325060	9.51 ug/L	98
53) Styrene	17.17	104	2178183	9.86 ug/L	100
54) Bromoform	17.64	173	570244	10.62 ug/L	100
55) Isopropylbenzene	18.38	105	4211872	9.41 ug/L	99
58) Bromobenzene	19.22	156	1069550	9.29 ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.60	83	799762	10.01 ug/L	100
60) 1,2,3-Trichloropropane	19.60	75	448720	10.22 ug/L	94
61) n-Propylbenzene	19.86	120	1043878	9.26 ug/L	100
62) 2-Chlorotoluene	19.99	126	956973	9.01 ug/L	100
63) 4-Chlorotoluene	20.39	91	3467353	9.35 ug/L	99
64) 1,3,5-Trimethylbenzene	20.53	105	3135618	9.08 ug/L	99
65) tert-Butylbenzene	21.56	91	1986482	8.77 ug/L	99
66) 1,2,4-Trimethylbenzene	21.72	105	2812765	9.28 ug/L	99
67) sec-Butylbenzene	22.28	105	4569044	9.18 ug/L	99
68) 1,3-Dichlorobenzene	22.45	146	1952272	9.21 ug/L	100
69) p-Isopropyltoluene	22.83	119	3512539	9.37 ug/L	99
70) 1,4-Dichlorobenzene	22.76	146	1839381	9.09 ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 9:55 2001 Quant Results File: V82625B1.RES

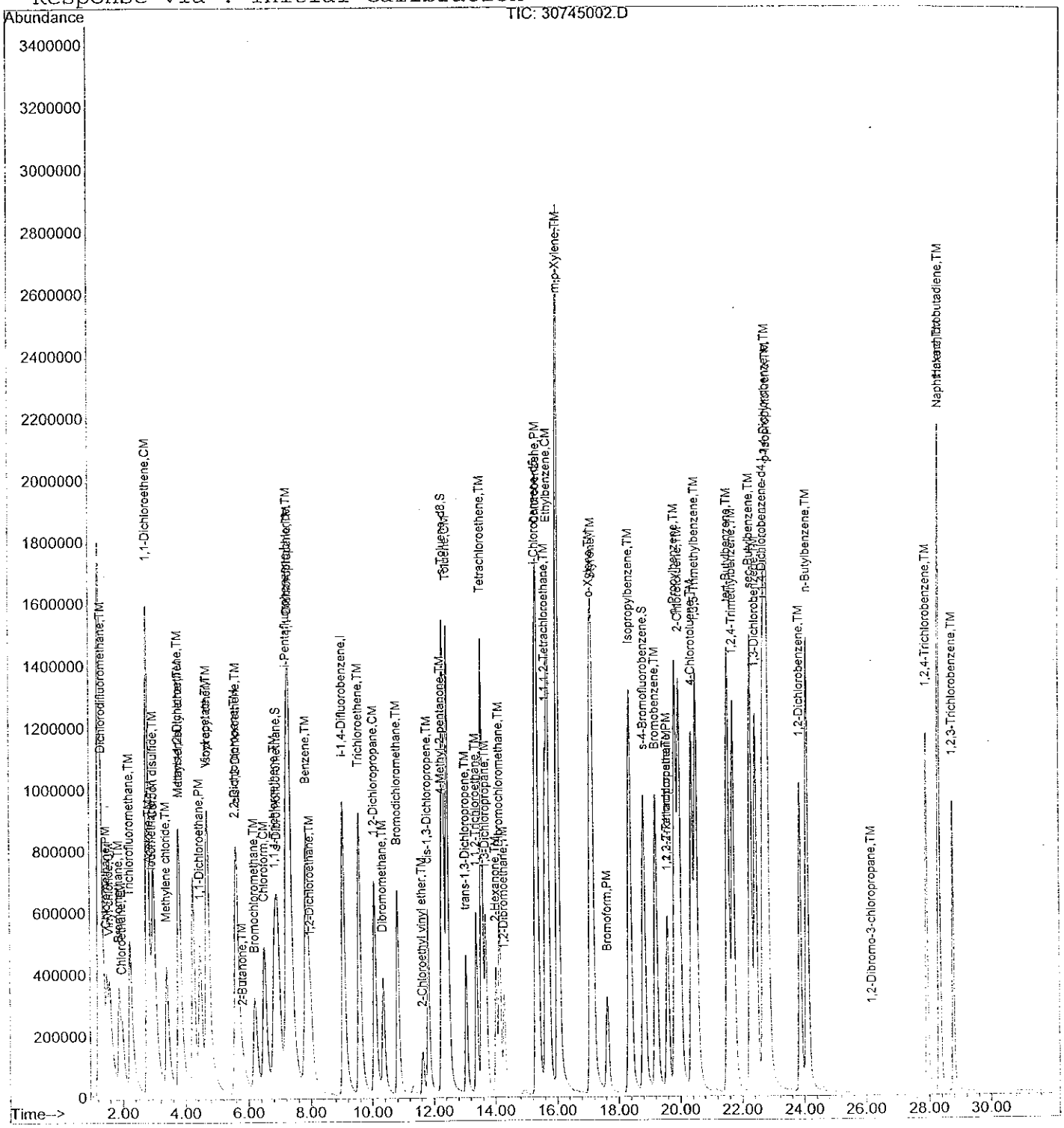
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

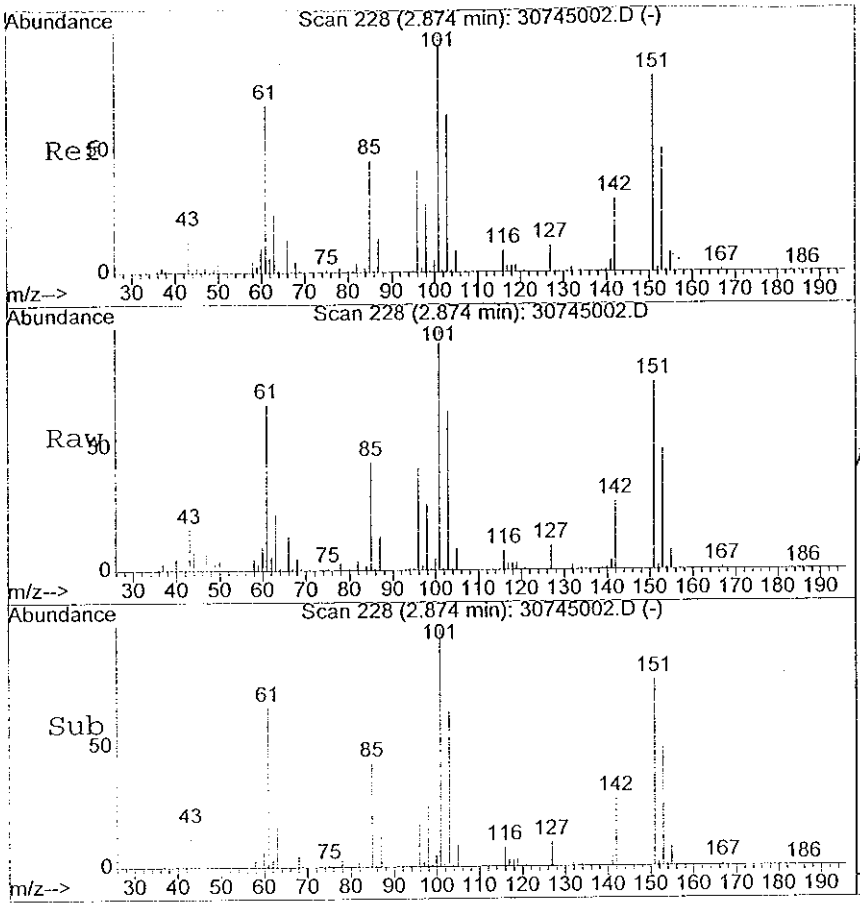
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.87	146	1575147	9.34	ug/L	99
72) n-Butylbenzene	24.11	91	3415414	9.84	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.17	75	112737	10.45	ug/L	94
74) 1,2,4-Trichlorobenzene	27.94	180	975902	10.31	ug/L	99
75) Hexachlorobutadiene	28.33	225	947413	9.93	ug/L	98
76) Naphthalene	28.34	128	754801	10.45	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	735479	10.42	ug/L	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30745002.D Vial: 15
Acq On : 31 Oct 2001 9:07 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 9:55 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

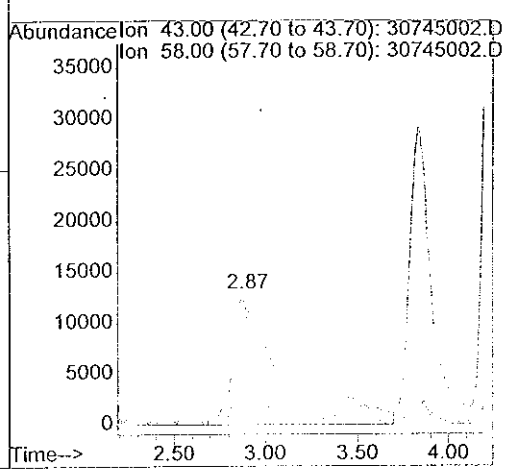




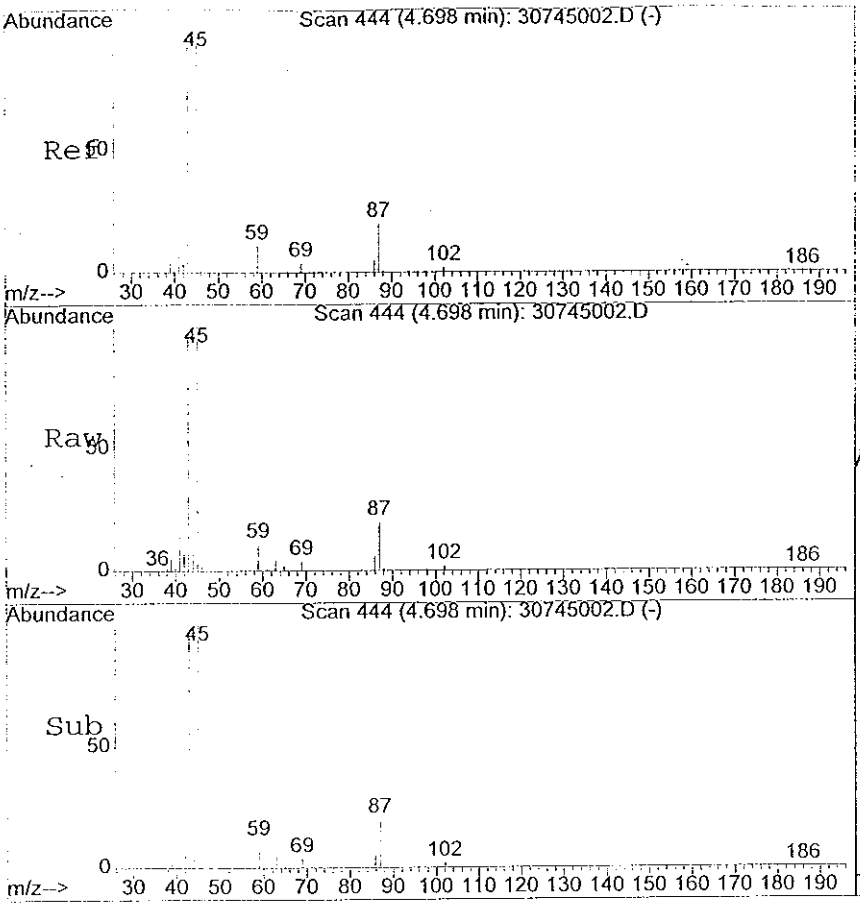
#9
Acetone
Concen: 43.36 ug/L m
RT: 2.87 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30745002.D
Acq: 31 Oct 2001 9:07

Tgt Ion: 43 Resp: 247278

Ion	Ratio	Lower	Upper
43	100		
58	28.0	0.0	131.5



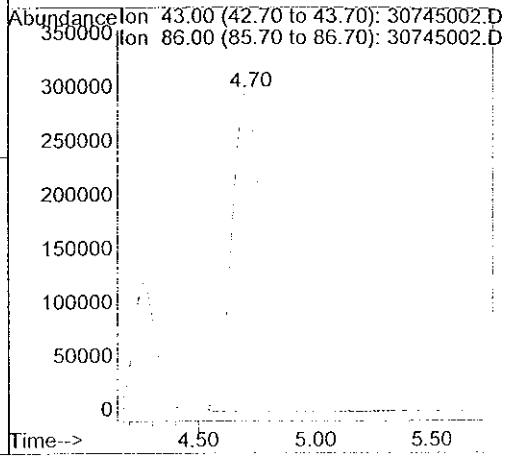
30745002.D V82625B1.M Acq :31 Oct 2001 9:07
Sample = 10ppb VOA STD Misc = 10ppb VOA STD



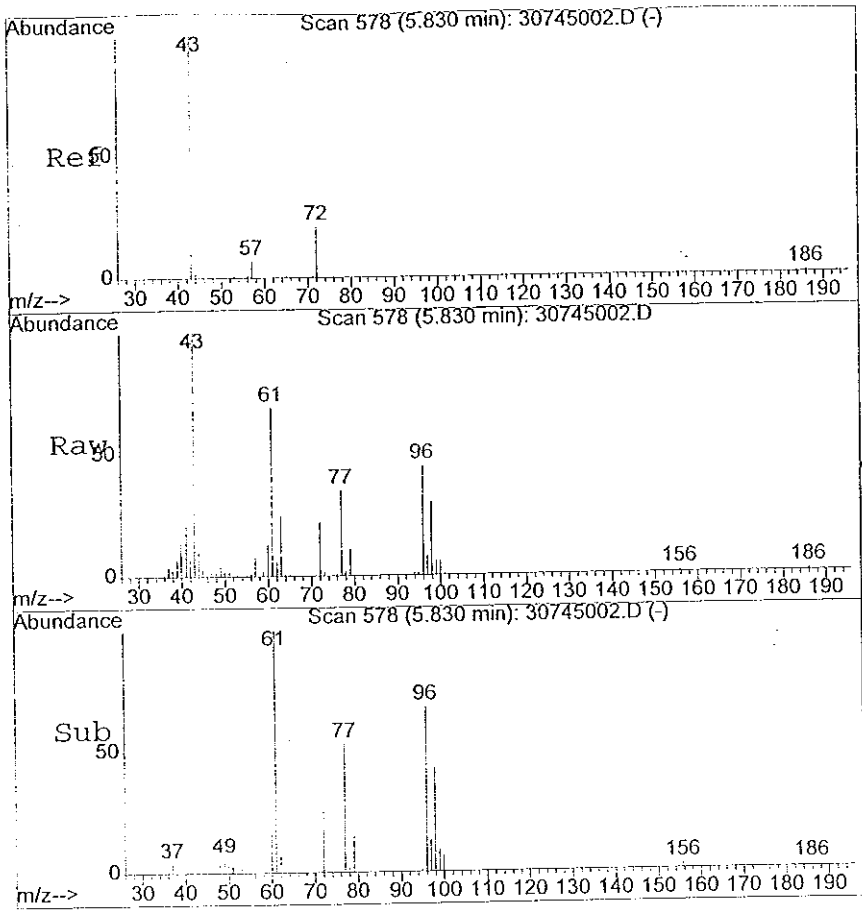
#16
Vinyl acetate
Concen: 21.31 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30745002.D
Acq: 31 Oct 2001 9:07

Tgt Ion: 43 Resp: 3056994

Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



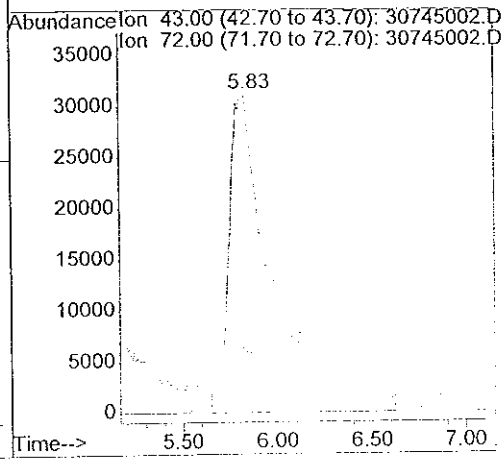
427



#19
2-Butanone
Concen: 43.98 ug/L m
RT: 5.83 min Scan# 578
Delta R.T. 0.03 min
Lab File: 30745002.D
Acq: 31 Oct 2001 9:07

Tgt Ion: 43 Resp: 521806

Ion	Ratio	Lower	Upper
43	100		
72	21.7	0.0	120.5



428

Data File : D:\HPCHEM\1\DATA\103101\30745003.D
Acq On : 31 Oct 2001 9:46
Sample : BUW147ABK BLANK 10-31-01
Misc : BUW147ABK BLANK 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 10:22 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	2933298	10.00	ug/L	0.00 / 99.99%
25) i-1,4-Difluorobenzene	9.08	114	2887271	10.00	ug/L	0.02 / 93.71%
46) i-Chlorobenzene-d5	15.32	117	2048815	10.00	ug/L	0.00 / 93.40%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1006921	10.00	ug/L	0.00 / 81.16%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1359655	10.01	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.10%			
36) s-Toluene-d8	12.34	98	2762673	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.83	95	1529810	9.83	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.30%			

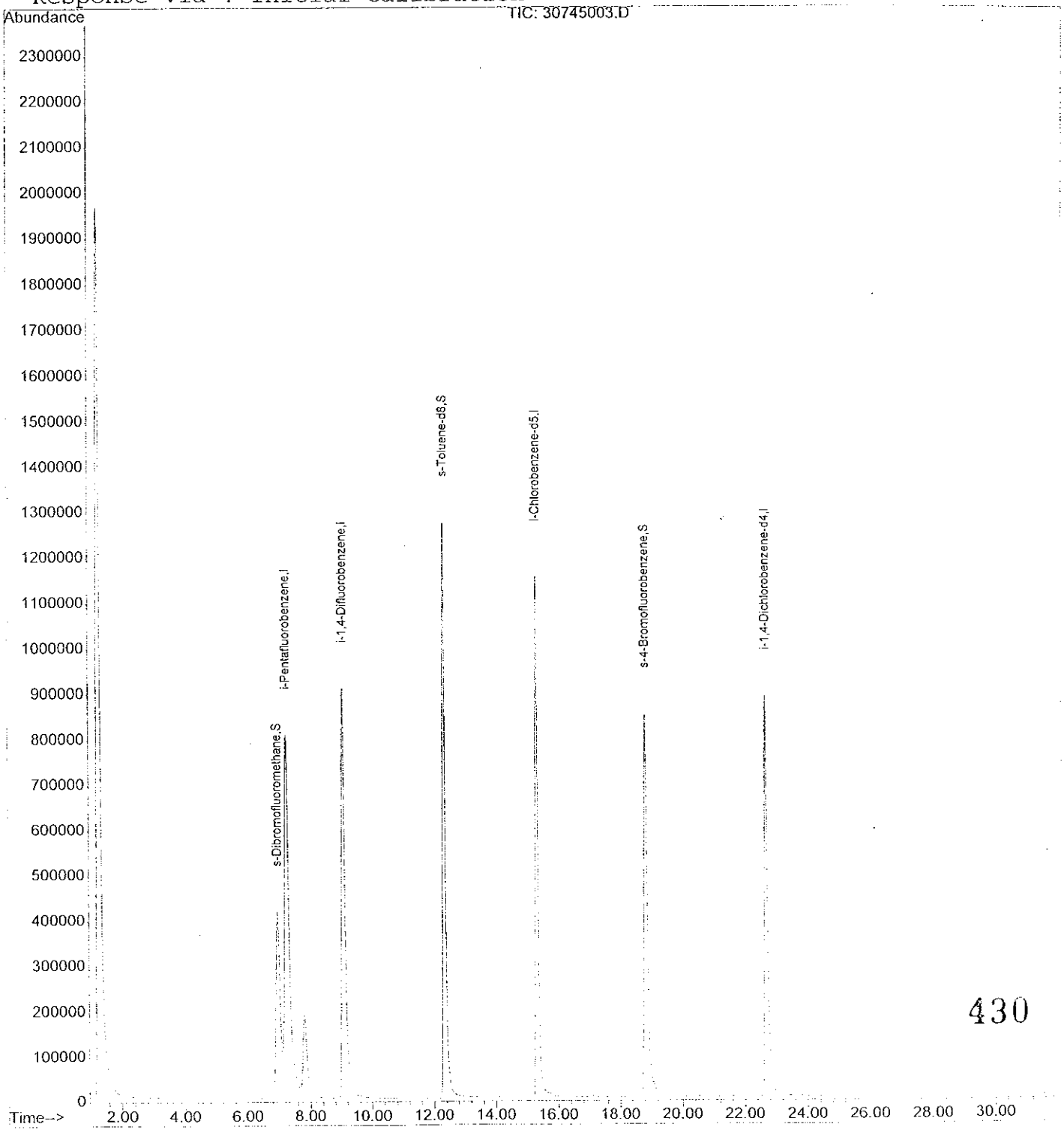
Target Compounds Qvalue

429

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745003.D Vial: 16
Acq On : 31 Oct 2001 9:46 Operator: GRH
Sample : BUW147ABK BLANK 10-31-01 Inst : Bubba
Misc : BUW147ABK BLANK 10-31-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 10:22 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



430

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.41	10.00	94.05	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.93	10.00	99.26	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	9.85	10.00	98.50	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	9.65	10.00	96.51	30 to 152%	[ ]
3)	PM	Chloromethane	9.48	10.00	94.80	60 to 118%	[ ]
4)	CM	Vinyl chloride	10.12	10.00	101.17	72 to 116%	[ ]
5)	T	Bromomethane	9.90	10.00	98.99	63 to 140%	[ ]
6)	T	Chloroethane	10.43	10.00	104.32	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.76	10.00	107.61	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.50	10.00	105.01	84 to 117%	[ ]
9)	T	Acetone	15.54	20.00	77.72	24 to 158%	[ ]
10)	T	Iodomethane	10.70	10.00	107.02	60 to 135%	[ ]
11)	T	Carbon disulfide	11.13	10.00	111.26	79 to 118%	[ ]
12)	T	Methylene chloride	10.01	10.00	100.07	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.81	10.00	98.09	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.97	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.71	10.00	97.12	90 to 114%	[ ]
16)	T	Vinyl acetate	14.55	20.00	72.74	75 to 114%	[*]
17)	T	Isopropyl ether	10.24	10.00	102.42	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	10.16	10.00	101.56	74 to 112%	[ ]
19)	T	2-Butanone	18.75	20.00	93.74	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.70	10.00	106.95	90 to 117%	[ ]
21)	T	Bromochloromethane	9.92	10.00	99.16	91 to 129%	[ ]
22)	CM	Chloroform	9.94	10.00	99.45	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.78	10.00	107.80	88 to 117%	[ ]
26)	T	Carbon tetrachloride	10.01	10.00	100.06	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.89	10.00	108.94	84 to 112%	[ ]
28)	T	Benzene	10.20	10.00	102.03	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.58	10.00	95.80	88 to 125%	[ ]
30)	T	Trichloroethene	10.28	10.00	102.75	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.25	10.00	102.52	87 to 112%	[ ]
32)	T	Dibromomethane	9.81	10.00	98.08	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.53	10.00	5.29	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.01	10.00	100.07	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.20	10.00	101.96	61 to 133%	[ ]
37)	CM	Toluene	10.15	10.00	101.55	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.24	10.00	102.39	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.76	10.00	97.64	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.51	10.00	105.12	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.08	10.00	100.81	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.78	10.00	97.84	73 to 125%	[ ]

* = out of control limits
Wed Oct 31 11:05:56 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.92	10.00	99.20	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	17.51	20.00	87.53	70 to 128%	[ ]
45)	T	2-Hexanone	17.91	20.00	89.55	28 to 169%	[ ]
47)	PM	Chlorobenzene	10.34	10.00	103.38	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.44	10.00	104.42	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	10.43	10.00	104.34	69 to 123%	[ ]
51)	T	m,p-Xylene	21.50	20.00	107.50	70 to 125%	[ ]
52)	T	o-Xylene	10.75	10.00	107.55	73 to 122%	[ ]
53)	T	Styrene	10.55	10.00	105.51	76 to 127%	[ ]
54)	PM	Bromoform	10.27	10.00	102.70	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.89	10.00	108.93	56 to 134%	[ ]
58)	T	Bromobenzene	9.93	10.00	99.32	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.60	10.00	96.05	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.05	10.00	100.46	38 to 159%	[ ]
61)	T	n-Propylbenzene	11.14	10.00	111.39	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.72	10.00	107.21	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.91	10.00	109.14	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.62	10.00	106.22	84 to 125%	[ ]
65)	T	tert-Butylbenzene	10.67	10.00	106.66	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.86	10.00	108.55	63 to 142%	[ ]
67)	T	sec-Butylbenzene	11.12	10.00	111.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	10.20	10.00	102.03	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	11.42	10.00	114.16	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	10.30	10.00	103.04	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	10.07	10.00	100.66	87 to 115%	[ ]
72)	T	n-Butylbenzene	11.95	10.00	119.47	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	9.86	10.00	98.57	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.02	10.00	110.21	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.32	10.00	123.19	74 to 140%	[ ]
76)	T	Naphthalene	10.68	10.00	106.79	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.71	10.00	107.08	43 to 204%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:05 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3030027	10.00	ug/L	0.00 / 103.29%
25) i-1,4-Difluorobenzene	9.07	114	2983080	10.00	ug/L	0.00 / 96.82%
46) i-Chlorobenzene-d5	15.33	117	2034016	10.00	ug/L	0.00 / 92.72%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1122402	10.00	ug/L	0.00 / 90.46%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1319829	9.41	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 94.10%			
36) s-Toluene-d8	12.34	98	2805073	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.84	95	1522583	9.85	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1485949	9.65	ug/L	99
3) Chloromethane	1.50	50	930480	9.48	ug/L	99
4) Vinyl chloride	1.60	62	1042630	10.12	ug/L	99
5) Bromomethane	1.89	96	921826	9.90	ug/L	98
6) Chloroethane	1.99	64	630085	10.43	ug/L	95
7) Trichlorofluoromethane	2.23	101	1814761	10.76	ug/L	99
8) 1,1-Dichloroethene	2.78	96	1041034	10.50	ug/L	97
9) Acetone	2.88	43	91957m	15.54	ug/L	98
10) Iodomethane	2.93	142	1305719	10.70	ug/L	100
11) Carbon disulfide	3.00	76	3466705	11.13	ug/L	100
12) Methylene chloride	3.41	84	810134	10.01	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	1078710	9.81	ug/L	98
14) Methyl tert-butyl ether	3.84	73	1124458	9.30	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1898176	9.71	ug/L	98
16) Vinyl acetate	4.71	43	2155233m	14.55	ug/L	93
17) Isopropyl ether	4.73	45	3149295	10.24	ug/L	99
18) 2,2-Dichloropropane	5.61	77	1471877	10.16	ug/L	98
19) 2-Butanone	5.81	43	229727m	18.75	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	1068483	10.70	ug/L	96
21) Bromochloromethane	6.23	128	389718	9.92	ug/L	94
22) Chloroform	6.53	83	1944880	9.94	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:05 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1761138	10.78	ug/L	99
26)	Carbon tetrachloride	7.30	119	1491258	10.01	ug/L	97
27)	1,1-Dichloropropene	7.36	110	526580	10.89	ug/L	100
28)	Benzene	7.89	78	3304128	10.20	ug/L	98
29)	1,2-Dichloroethane	8.01	62	620082	9.58	ug/L	95
30)	Trichloroethene	9.60	95	1340917	10.28	ug/L	98
31)	1,2-Dichloropropane	10.09	63	1110010	10.25	ug/L	100
32)	Dibromomethane	10.36	93	473875	9.81	ug/L	96
33)	2-Chloroethyl vinyl ether	11.44	63	9472	0.53	ug/L	51
34)	Bromodichloromethane	10.83	83	1499178	10.01	ug/L	100
35)	cis-1,3-Dichloropropene	11.83	75	1188966	10.20	ug/L	99
37)	Toluene	12.48	92	2117300	10.15	ug/L	99
38)	trans-1,3-Dichloropropene	13.07	75	736253	10.24	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	471564	9.76	ug/L	97
40)	Tetrachloroethene	13.59	166	1584018	10.51	ug/L	100
41)	1,3-Dichloropropane	13.71	76	930137	10.08	ug/L	99
42)	Dibromochloromethane	14.16	129	861033	9.78	ug/L	99
43)	1,2-Dibromoethane	14.29	107	592938	9.92	ug/L	99
44)	4-Methyl-2-pentanone	12.27	43	594636	17.51	ug/L	98
45)	2-Hexanone	14.03	43	366603	17.91	ug/L	99
47)	Chlorobenzene	15.39	112	2208417	10.34	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.65	131	987048	10.44	ug/L	100
50)	Ethylbenzene	15.74	106	1203583	10.43	ug/L	100
51)	m,p-Xylene	16.06	106	2985787	21.50	ug/L	100
52)	o-Xylene	17.11	106	1389263	10.75	ug/L	100
53)	Styrene	17.19	104	2161833	10.55	ug/L	99
54)	Bromoform	17.65	173	511463	10.27	ug/L	98
55)	Isopropylbenzene	18.39	105	4520317	10.89	ug/L	98
58)	Bromobenzene	19.23	156	1034844	9.93	ug/L	96
59)	1,1,2,2-Tetrachloroethane	19.60	83	694420	9.60	ug/L	99
60)	1,2,3-Trichloropropane	19.60	75	398938	10.05	ug/L	100
61)	n-Propylbenzene	19.87	120	1135933	11.14	ug/L	100
62)	2-Chlorotoluene	19.99	126	1030033	10.72	ug/L	100
63)	4-Chlorotoluene	20.40	91	3662342	10.91	ug/L	99
64)	1,3,5-Trimethylbenzene	20.53	105	3318708	10.62	ug/L	100
65)	tert-Butylbenzene	21.55	91	2184416	10.67	ug/L	97
66)	1,2,4-Trimethylbenzene	21.73	105	2975561	10.86	ug/L	100
67)	sec-Butylbenzene	22.29	105	5008714	11.12	ug/L	100
68)	1,3-Dichlorobenzene	22.46	146	1956761	10.20	ug/L	99
69)	p-Isopropyltoluene	22.83	119	3869683	11.42	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	1885155	10.30	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:05 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.87	146	1535916	10.07	ug/L	99
72) n-Butylbenzene	24.10	91	3750892	11.95	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.18	75	96214	9.86	ug/L	96
74) 1,2,4-Trichlorobenzene	27.95	180	944066	11.02	ug/L	98
75) Hexachlorobutadiene	28.34	225	1055456	12.32	ug/L	100
76) Naphthalene	28.35	128	697669	10.68	ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	683765	10.71	ug/L	99

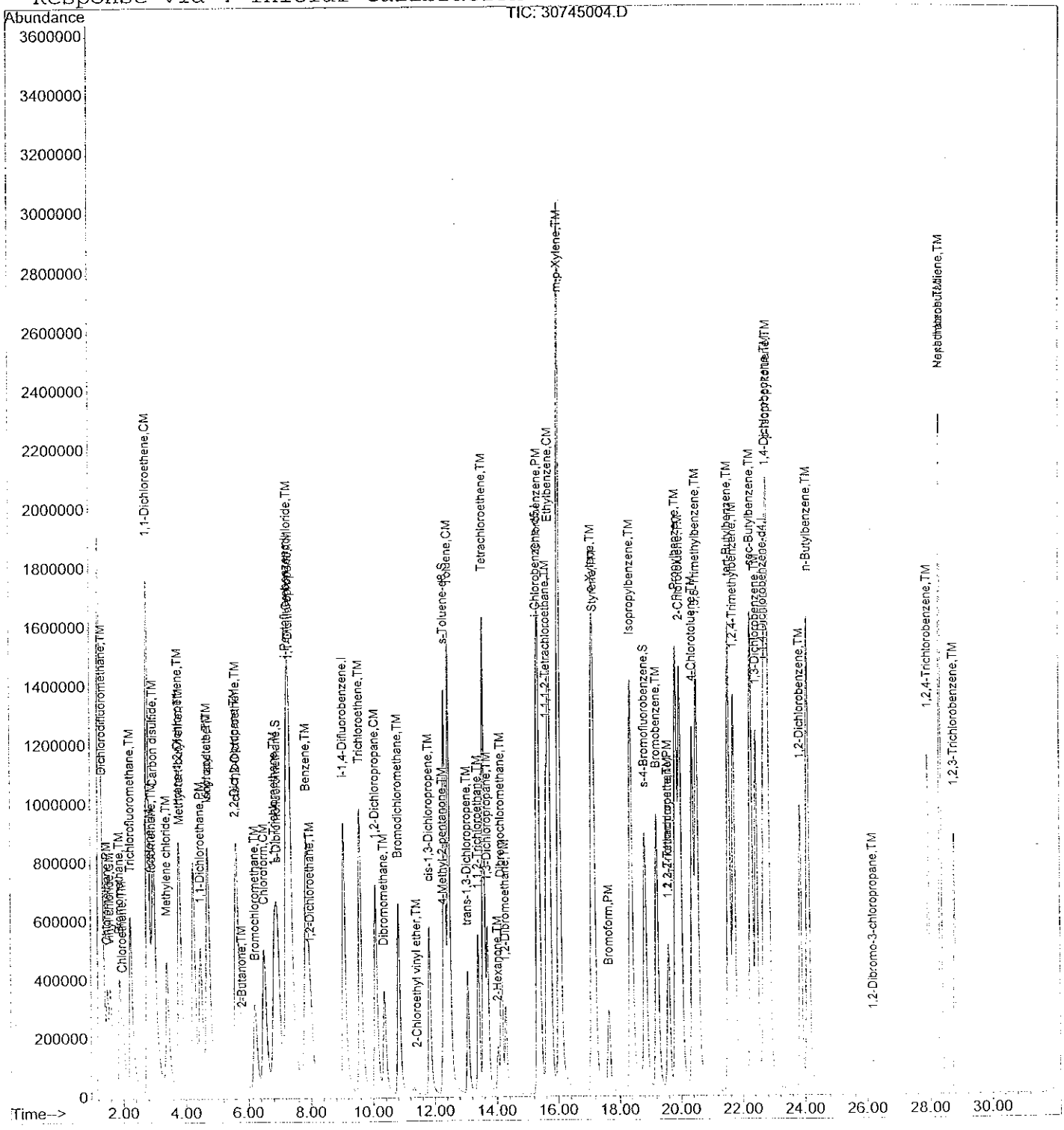
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745004.D
Acq On : 31 Oct 2001 10:25
Sample : BUW147ALCS LCS 10-31-01
Misc : BUW147ALCS LCS 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:05 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103101\30745005.D
Acq On : 31 Oct 2001 11:07
Sample : BUW147ALCD LCS DUPE 10-31-01
Misc : BUW147ALCD LCS DUPE 10-31-01
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.99	10.00	99.93	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.09	10.00	100.88	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.14	10.00	101.45	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	9.18	10.00	91.80	30 to 152%	[ ]
3)	PM	Chloromethane	9.38	10.00	93.76	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.51	10.00	95.09	72 to 116%	[ ]
5)	T	Bromomethane	9.15	10.00	91.52	63 to 140%	[ ]
6)	T	Chloroethane	10.02	10.00	100.25	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.24	10.00	102.41	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.89	10.00	98.91	84 to 117%	[ ]
9)	T	Acetone	17.10	20.00	85.49	24 to 158%	[ ]
10)	T	Iodomethane	9.75	10.00	97.53	60 to 135%	[ ]
11)	T	Carbon disulfide	10.50	10.00	104.97	79 to 118%	[ ]
12)	T	Methylene chloride	10.44	10.00	104.35	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.34	10.00	93.41	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.79	10.00	107.86	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.55	10.00	95.47	90 to 114%	[ ]
16)	T	Vinyl acetate	16.08	20.00	80.39	75 to 114%	[ ]
17)	T	Isopropyl ether	10.94	10.00	109.44	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.85	10.00	98.49	74 to 112%	[ ]
19)	T	2-Butanone	21.69	20.00	108.47	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.65	10.00	106.51	90 to 117%	[ ]
21)	T	Bromochloromethane	10.42	10.00	104.24	91 to 129%	[ ]
22)	CM	Chloroform	10.03	10.00	100.32	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.35	10.00	103.51	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.20	10.00	92.03	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.39	10.00	103.92	84 to 112%	[ ]
28)	T	Benzene	9.89	10.00	98.94	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.59	88 to 125%	[ ]
30)	T	Trichloroethene	9.81	10.00	98.05	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.33	10.00	103.27	87 to 112%	[ ]
32)	T	Dibromomethane	10.52	10.00	105.19	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.40	10.00	4.03	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.29	10.00	102.94	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.30	10.00	103.04	61 to 133%	[ ]
37)	CM	Toluene	9.84	10.00	98.38	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.79	10.00	107.93	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.59	10.00	105.94	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.99	10.00	99.91	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.89	10.00	108.89	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.63	10.00	106.27	73 to 125%	[ ]

* = out of control limits
Wed Oct 31 11:39:53 2001

Data File : D:\HPCHEM\1\DATA\103101\30745005.D
Acq On : 31 Oct 2001 11:07
Sample : BUW147ALCD LCS DUPE 10-31-01
Misc : BUW147ALCD LCS DUPE 10-31-01
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.60	10.00	106.03	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	20.70	20.00	103.48	70 to 128%	[ ]
45)	T	2-Hexanone	21.71	20.00	108.53	28 to 169%	[ ]
47)	PM	Chlorobenzene	10.00	10.00	100.05	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.32	10.00	103.25	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.63	10.00	96.34	69 to 123%	[ ]
51)	T	m,p-Xylene	19.83	20.00	99.16	70 to 125%	[ ]
52)	T	o-Xylene	10.18	10.00	101.85	73 to 122%	[ ]
53)	T	Styrene	10.22	10.00	102.24	76 to 127%	[ ]
54)	PM	Bromoform	11.14	10.00	111.40	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.99	10.00	99.93	56 to 134%	[ ]
58)	T	Bromobenzene	10.08	10.00	100.84	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	10.49	10.00	104.91	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.99	10.00	109.87	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.96	10.00	99.56	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.95	10.00	99.48	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.12	10.00	101.22	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.67	10.00	96.66	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.62	10.00	96.16	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.14	10.00	101.37	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.90	10.00	99.01	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.84	10.00	98.41	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.19	10.00	101.85	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.97	10.00	99.71	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	10.04	10.00	100.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.49	10.00	104.92	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	11.39	10.00	113.88	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.07	10.00	110.75	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.35	10.00	113.47	74 to 140%	[ ]
76)	T	Naphthalene	11.37	10.00	113.75	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	11.14	10.00	111.41	43 to 204%	[ ]

* = out of control limits
Wed Oct 31 11:39:53 2001

Data File : D:\HPCHEM\1\DATA\103101\30745005.D Vial: 2
Acq On : 31 Oct 2001 11:07 Operator: GRH
Sample : BUW147ALCD LCS DUPE 10-31-01 Inst : Bubba
Misc : BUW147ALCD LCS DUPE 10-31-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 11:39 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3075199	10.00	ug/L	0.00 104.83%
25) i-1,4-Difluorobenzene	9.06	114	3102179	10.00	ug/L	0.00 100.69%
46) i-Chlorobenzene-d5	15.31	117	2191571	10.00	ug/L	-0.02 99.90%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1219655	10.00	ug/L	-0.02 98.30%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1423250	9.99	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.90%			
36) s-Toluene-d8	12.32	98	2964802	10.09	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.90%			
56) s-4-Bromofluorobenzene	18.81	95	1689682	10.14	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1434473	9.18	ug/L	98
3) Chloromethane	1.51	50	933992	9.38	ug/L	98
4) Vinyl chloride	1.60	62	994637	9.51	ug/L	99
5) Bromomethane	1.89	96	865024	9.15	ug/L	98
6) Chloroethane	2.00	64	614511	10.02	ug/L	97
7) Trichlorofluoromethane	2.24	101	1752910	10.24	ug/L	99
8) 1,1-Dichloroethene	2.78	96	995112	9.89	ug/L	99
9) Acetone	2.88	43	102599m	17.10	ug/L	97
10) Iodomethane	2.94	142	1207737	9.75	ug/L	100
11) Carbon disulfide	3.00	76	3319339	10.50	ug/L	100
12) Methylene chloride	3.41	84	857351	10.44	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	1042578	9.34	ug/L	99
14) Methyl tert-butyl ether	3.84	73	1323916	10.79	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1893707	9.55	ug/L	99
16) Vinyl acetate	4.70	43	2417314m	16.08	ug/L	96
17) Isopropyl ether	4.72	45	3415402	10.94	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1448723	9.85	ug/L	98
19) 2-Butanone	5.82	43	269810m	21.69	ug/L	86
20) cis-1,2-Dichloroethene	5.66	96	1079910	10.65	ug/L	97
21) Bromochloromethane	6.20	128	415776	10.42	ug/L	98
22) Chloroform	6.51	83	1991261	10.03	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745005.D
Acq On : 31 Oct 2001 11:07
Sample : BUW147ALCD LCS DUPE 10-31-01
Misc : BUW147ALCD LCS DUPE 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:39 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1716294	10.35	ug/L	99
26)	Carbon tetrachloride	7.28	119	1426395	9.20	ug/L	100
27)	1,1-Dichloropropene	7.33	110	523196	10.39	ug/L	100
28)	Benzene	7.87	78	3331789	9.89	ug/L	98
29)	1,2-Dichloroethane	8.00	62	670325	9.96	ug/L	97
30)	Trichloroethene	9.58	95	1330664	9.81	ug/L	99
31)	1,2-Dichloropropane	10.08	63	1162751	10.33	ug/L	98
32)	Dibromomethane	10.35	93	528489	10.52	ug/L	93
33)	2-Chloroethyl vinyl ether	11.82	63	7512	0.40	ug/L	51
34)	Bromodichloromethane	10.82	83	1603793	10.29	ug/L	98
35)	cis-1,3-Dichloropropene	11.81	75	1249613	10.30	ug/L	100
37)	Toluene	12.46	92	2133076	9.84	ug/L	97
38)	trans-1,3-Dichloropropene	13.05	75	807110	10.79	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	532112	10.59	ug/L	99
40)	Tetrachloroethene	13.57	166	1565761	9.99	ug/L	98
41)	1,3-Dichloropropane	13.69	76	1044782	10.89	ug/L	99
42)	Dibromochloromethane	14.13	129	972475	10.63	ug/L	99
43)	1,2-Dibromoethane	14.27	107	659093	10.60	ug/L	99
44)	4-Methyl-2-pentanone	12.27	43	731099	20.70	ug/L	97
45)	2-Hexanone	14.01	43	462053	21.71	ug/L	98
47)	Chlorobenzene	15.36	112	2302734	10.00	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	1051546	10.32	ug/L	100
50)	Ethylbenzene	15.71	106	1197345	9.63	ug/L	100
51)	m,p-Xylene	16.03	106	2967456	19.83	ug/L	98
52)	o-Xylene	17.09	106	1417513	10.18	ug/L	96
53)	Styrene	17.15	104	2257191	10.22	ug/L	99
54)	Bromoform	17.62	173	597774	11.14	ug/L	99
55)	Isopropylbenzene	18.35	105	4467821	9.99	ug/L	99
58)	Bromobenzene	19.20	156	1141765	10.08	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	824187	10.49	ug/L	100
60)	1,2,3-Trichloropropane	19.57	75	473856	10.99	ug/L	93
61)	n-Propylbenzene	19.83	120	1103271	9.96	ug/L	100
62)	2-Chlorotoluene	19.97	126	1038562	9.95	ug/L	100
63)	4-Chlorotoluene	20.36	91	3690757	10.12	ug/L	99
64)	1,3,5-Trimethylbenzene	20.51	105	3281684	9.67	ug/L	100
65)	tert-Butylbenzene	21.54	91	2140012	9.62	ug/L	98
66)	1,2,4-Trimethylbenzene	21.71	105	3019556	10.14	ug/L	100
67)	sec-Butylbenzene	22.27	105	4844364	9.90	ug/L	99
68)	1,3-Dichlorobenzene	22.44	146	2050834	9.84	ug/L	99
69)	p-Isopropyltoluene	22.81	119	3751733	10.19	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1982374	9.97	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745005.D Vial: 2
Acq On : 31 Oct 2001 11:07 Operator: GRH
Sample : BUW147ALCD LCS DUPE 10-31-01 Inst : Bubba
Misc : BUW147ALCD LCS DUPE 10-31-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 11:39 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.85	146	1664420	10.04	ug/L	100
72)	n-Butylbenzene	24.09	91	3579529	10.49	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.17	75	120786	11.39	ug/L	99
74)	1,2,4-Trichlorobenzene	27.93	180	1030844	11.07	ug/L	99
75)	Hexachlorobutadiene	28.33	225	1059060	11.35	ug/L	100
76)	Naphthalene	28.34	128	807547	11.37	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	773092	11.14	ug/L	98

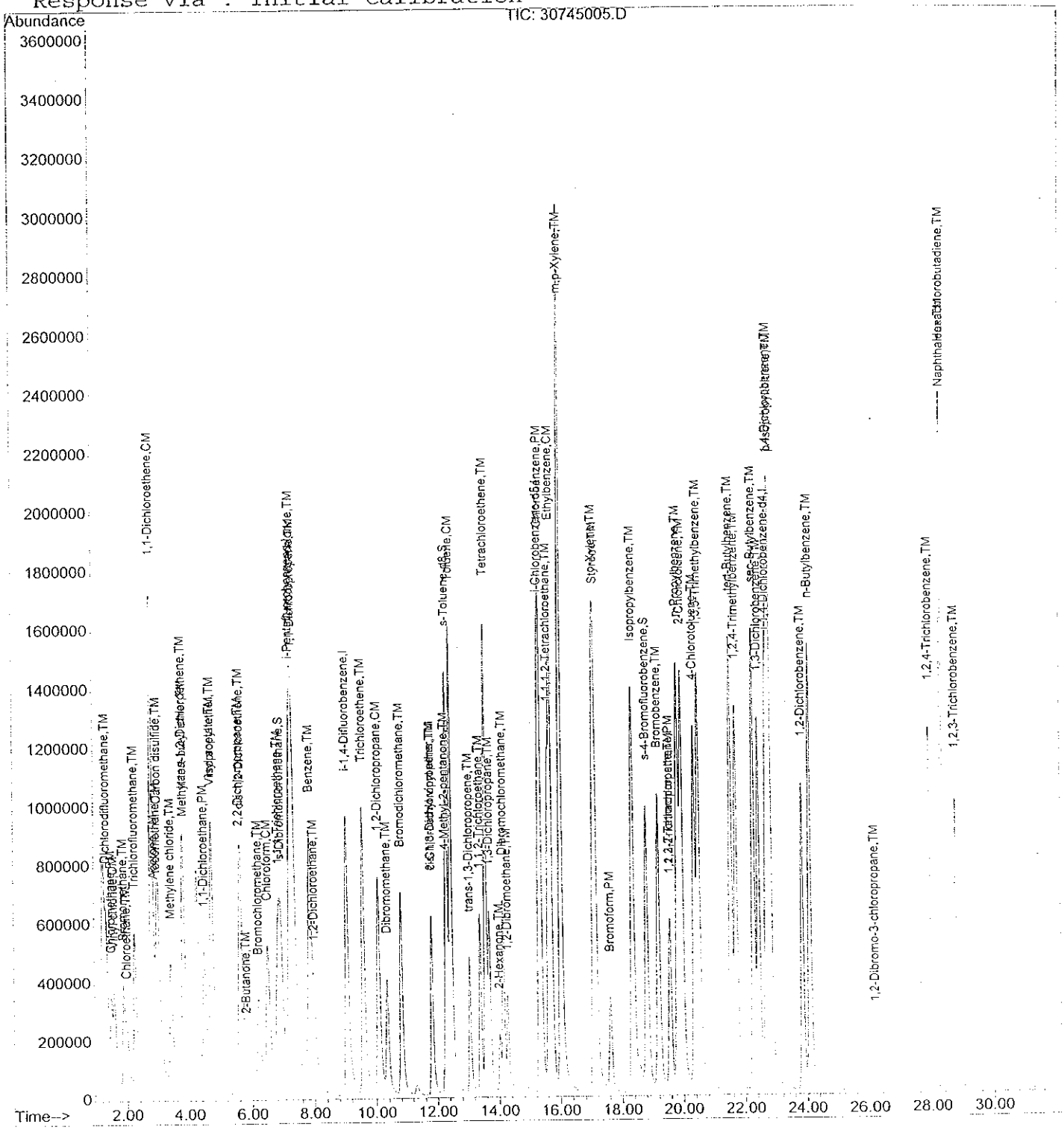
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745005.D
Acq On : 31 Oct 2001 11:07
Sample : BUW147ALCD LCS DUPE 10-31-01
Misc : BUW147ALCD LCS DUPE 10-31-01
MS Integration Params: rteint.p
Quant Time: Oct 31 11:39 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:25 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3066772	10.00	ug/L	-0.03 104.54%
25) i-1,4-Difluorobenzene	9.05	114	3031702	10.00	ug/L	-0.02 98.40%
46) i-Chlorobenzene-d5	15.31	117	2160861	10.00	ug/L	-0.02 98.50%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1051794	10.00	ug/L	-0.03 84.77%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1409301	9.92	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.20%			
36) s-Toluene-d8	12.32	98	2801357	9.75	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.50%			
56) s-4-Bromofluorobenzene	18.80	95	1591626	9.69	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.90%			
Target Compounds						Qvalue
13) trans-1,2-Dichloroethene	3.79	96	30904m	0.28	ug/L #	83
20) cis-1,2-Dichloroethene	5.64	96	1600318	15.81	ug/L	94
28) Benzene	7.87	78	116219	0.35	ug/L	92
30) Trichloroethene	9.57	95	925480	6.98	ug/L	99
66) 1,2,4-Trimethylbenzene	21.68	105	60415m	0.24	ug/L	97

11-1-01

(#) = qualifier out of range (m) = manual integration
30745006.D V82625B1.M Wed Oct 31 12:25:27 2001

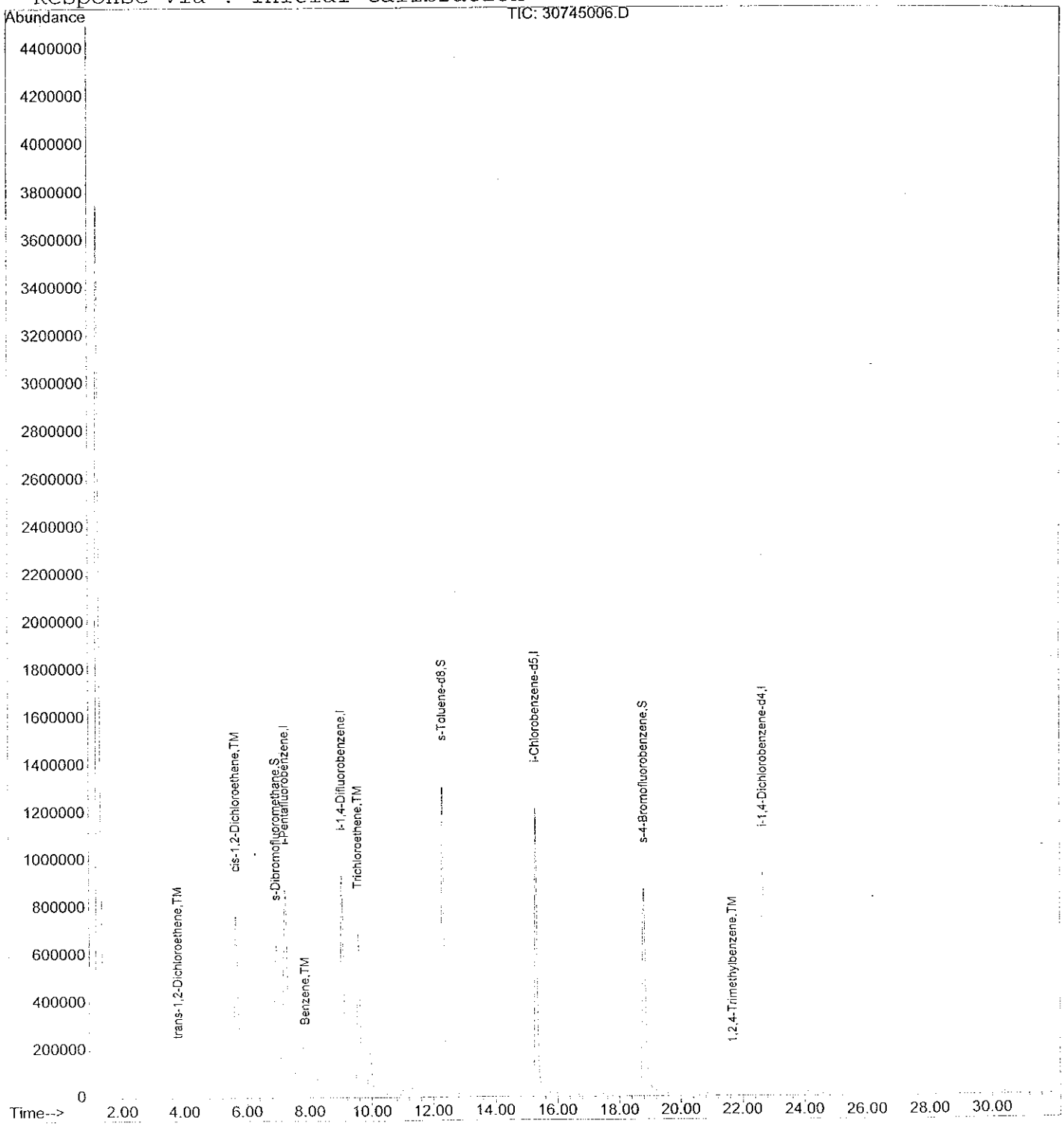
Quantitation Report

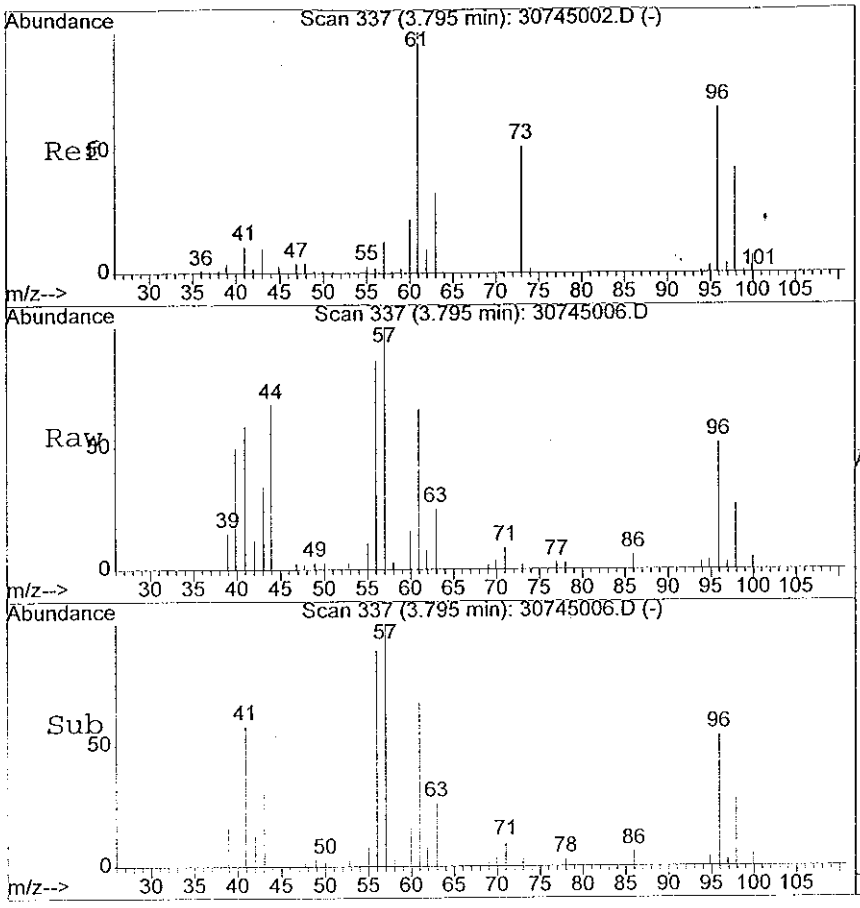
Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:25 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

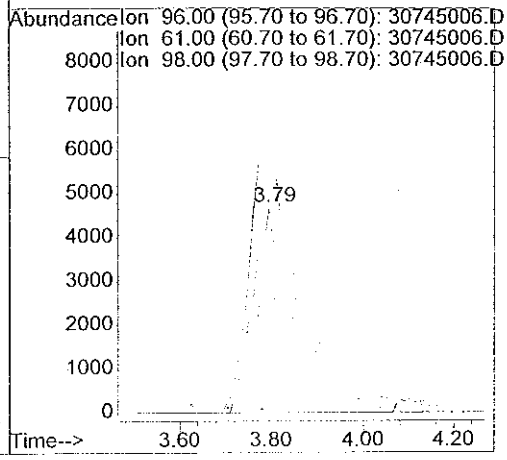


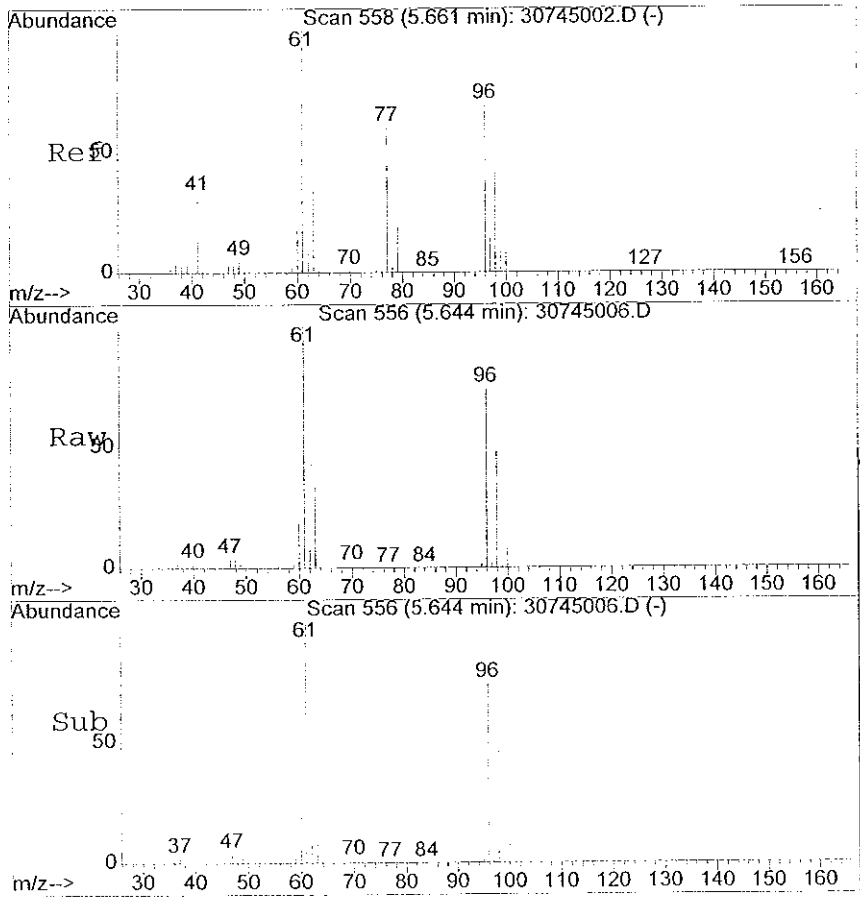


#13
trans-1,2-Dichloroethene
Concen: 0.28 ug/L m
RT: 3.79 min Scan# 337
Delta R.T. 0.00 min
Lab File: 30745006.D
Acq: 31 Oct 2001 11:48

Tgt Ion: 96 Resp: 30904

Ion	Ratio	Lower	Upper
96	100		
61	126.1	127.7	167.7#
98	51.6	44.2	84.2

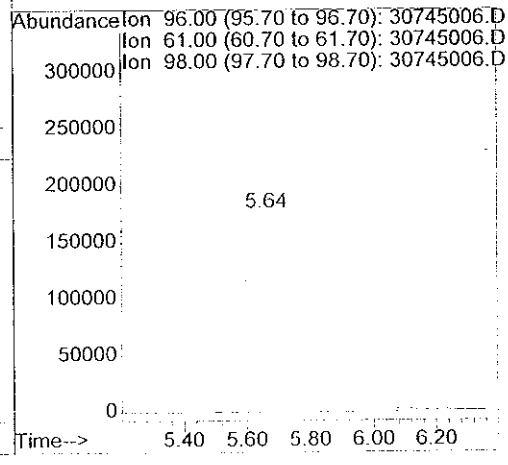


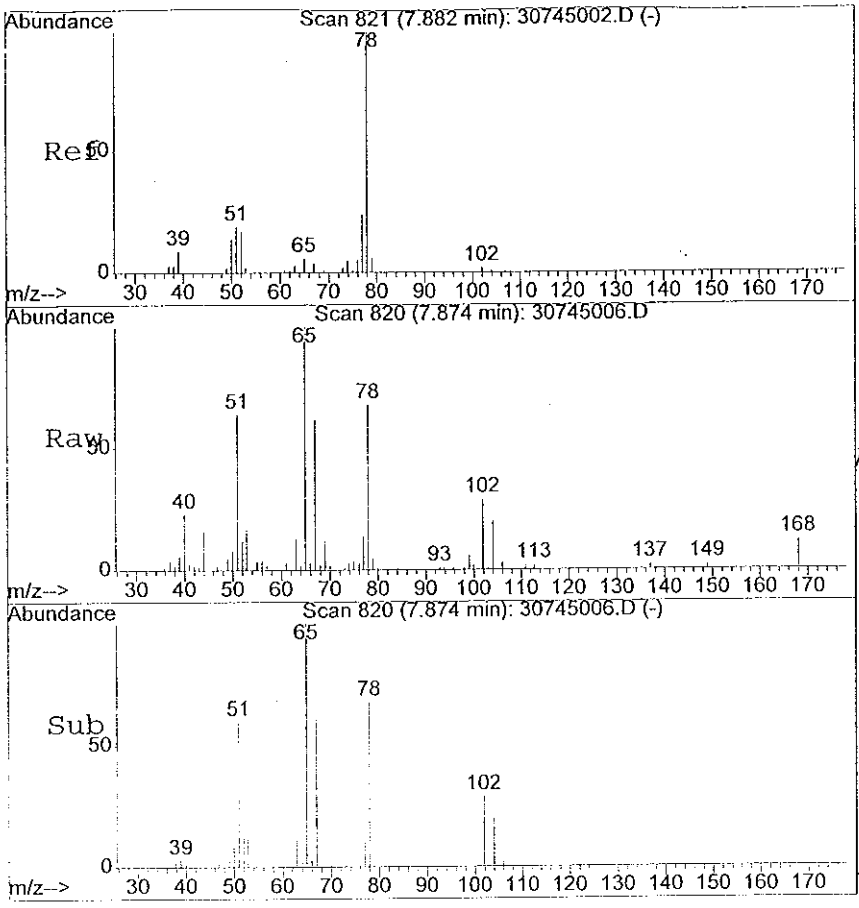


#20
cis-1,2-Dichloroethene
Concen: 15.81 ug/L
RT: 5.64 min Scan# 556
Delta R.T. -0.02 min
Lab File: 30745006.D
Acq: 31 Oct 2001 11:48

Tgt Ion: 96 Resp: 1600318

Ion	Ratio	Lower	Upper
96	100		
61	135.2	124.4	164.4
98	65.3	42.1	82.1

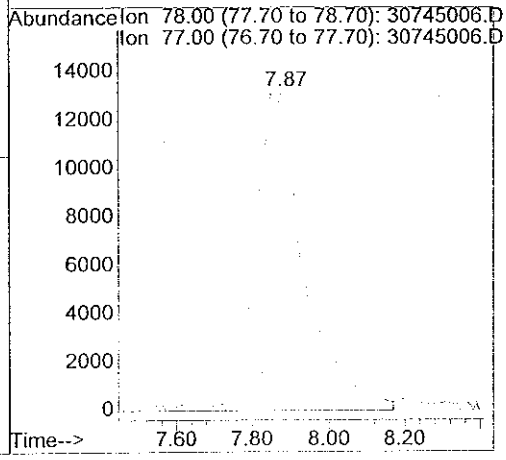


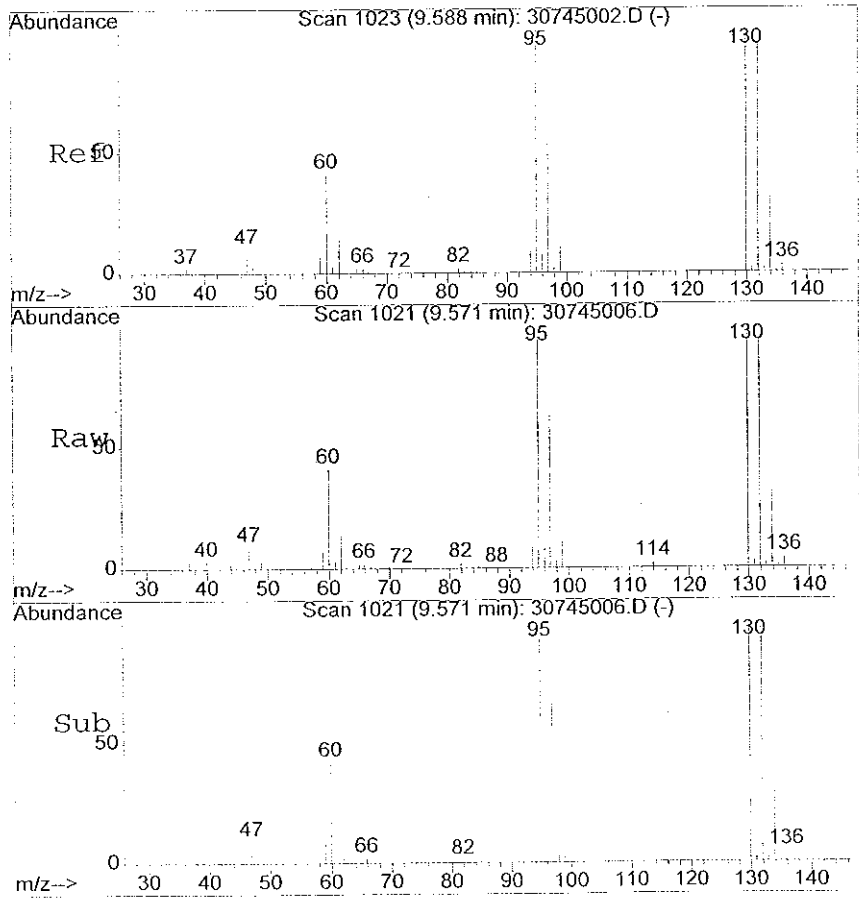


#28
Benzene
Concen: 0.35 ug/L
RT: 7.87 min Scan# 820
Delta R.T. -0.01 min
Lab File: 30745006.D
Acq: 31 Oct 2001 11:48

Tgt Ion: 78 Resp: 116219

Ion	Ratio	Lower	Upper
78	100		
77	20.0	3.8	43.8

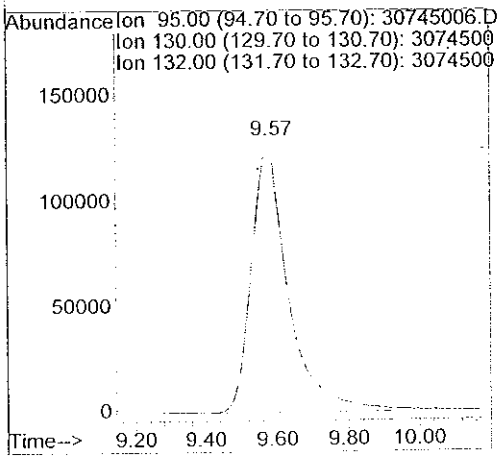


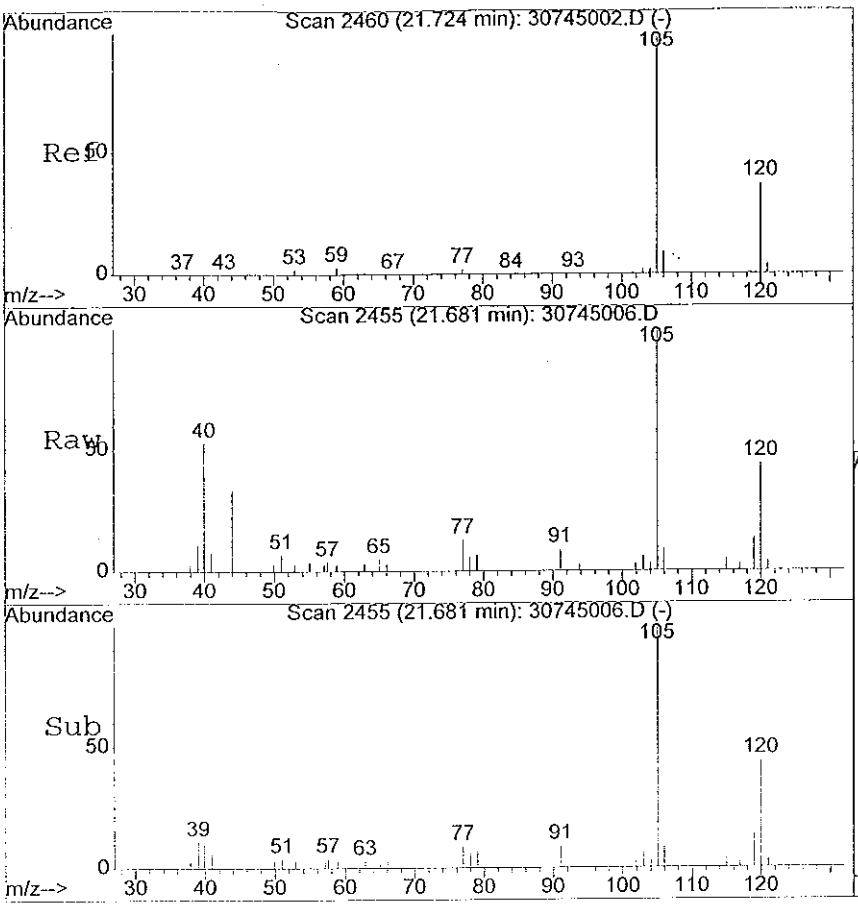


#30
Trichloroethene
Concen: 6.98 ug/L
RT: 9.57 min Scan# 1021
Delta R.T. -0.02 min
Lab File: 30745006.D
Acq: 31 Oct 2001 11:48

Tgt Ion: 95 Resp: 925480

Ion	Ratio	Lower	Upper
95	100		
130	96.0	76.4	116.4
132	94.8	74.0	114.0

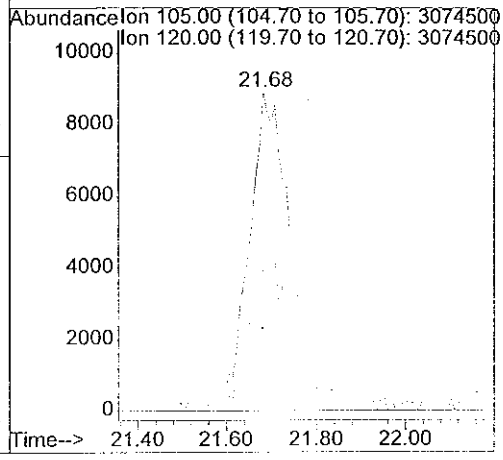




#66
1,2,4-Trimethylbenzene
Concen: 0.24 ug/L m
RT: 21.68 min Scan# 2455
Delta R.T. -0.04 min
Lab File: 30745006.D
Acq: 31 Oct 2001 11:48

Tgt Ion:105 Resp: 60415

Ion	Ratio	Lower	Upper
105	100		
120	158.1	26.1	66.1#



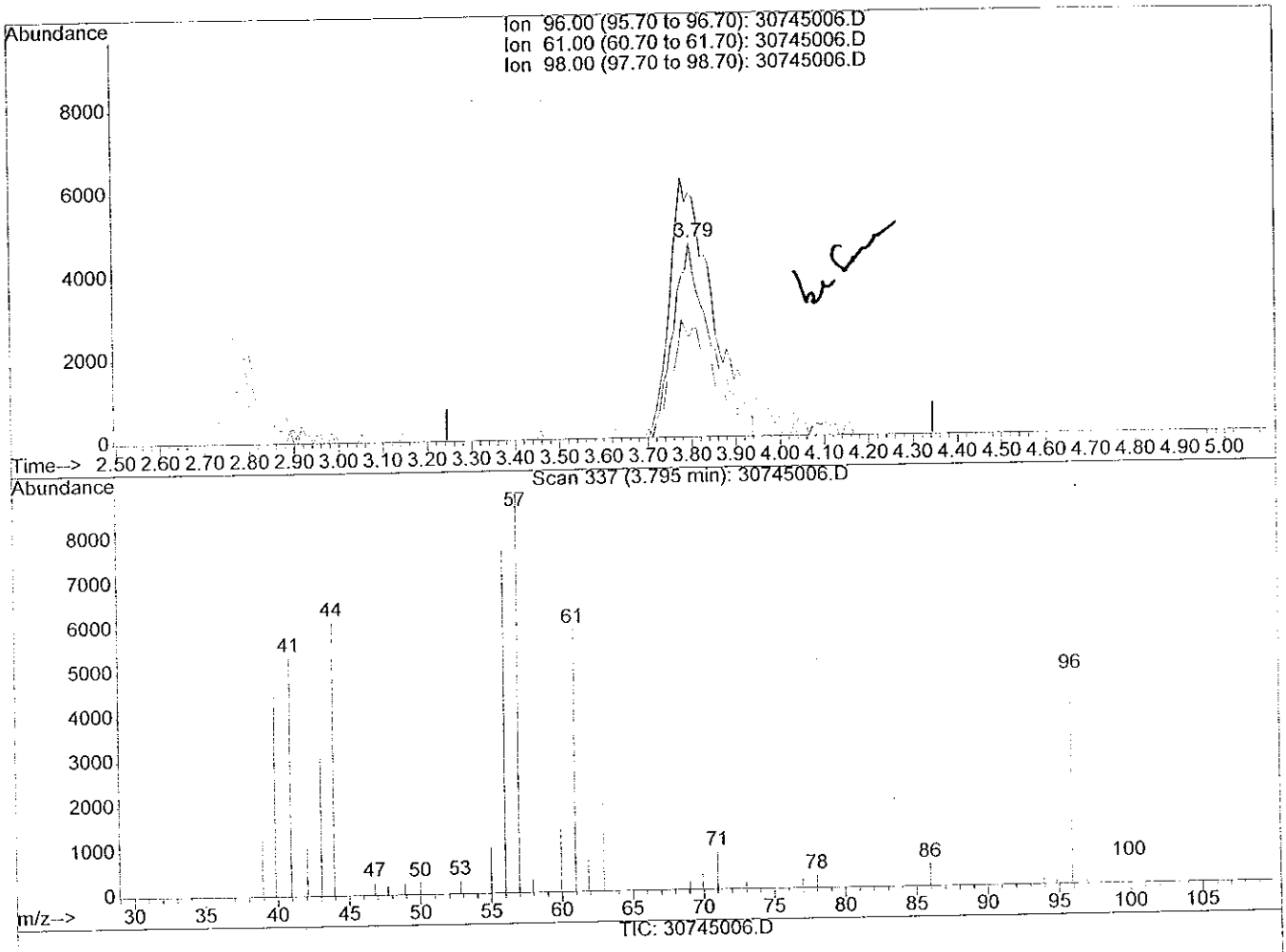
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:21 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(13) trans-1,2-Dichloroethene (TM)

3.79min 0.25ug/L

response 27978

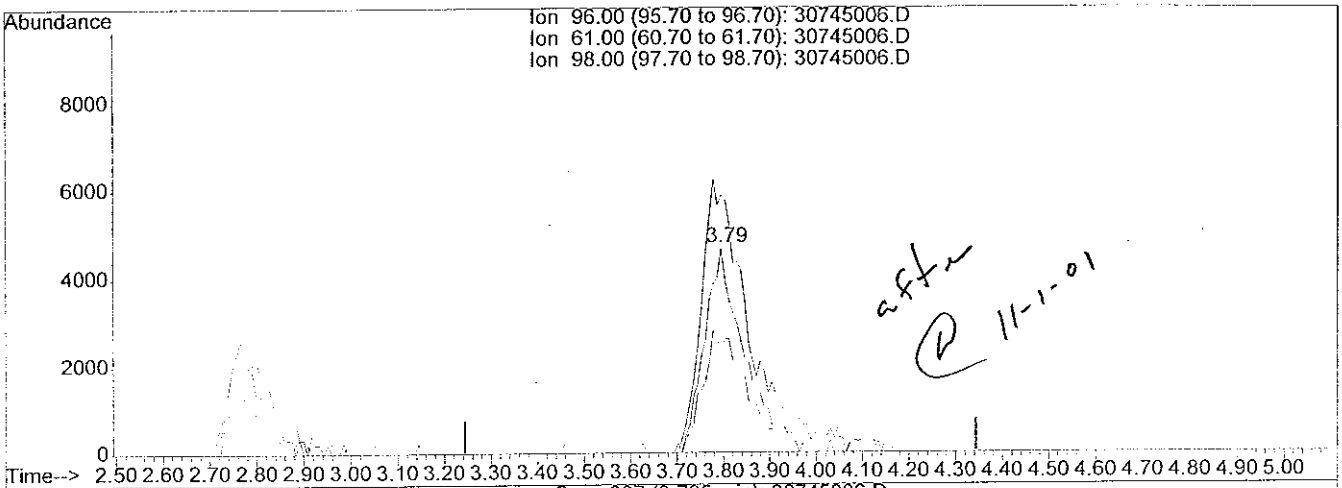
Ion	Exp%	Act%
96.00	100	100
61.00	147.70	126.11#
98.00	64.20	51.55
0.00	0.00	0.00

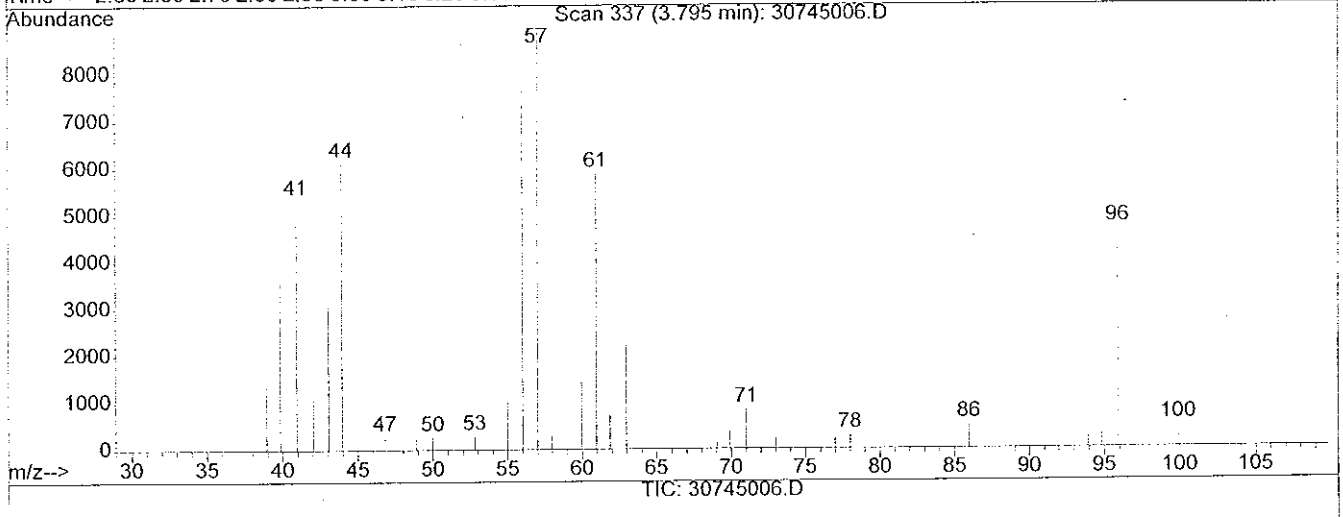
Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:22 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





(13) trans-1,2-Dichloroethene (TM)

3.79min 0.28ug/L m

response 30904

Ion	Exp%	Act%
96.00	100	100
61.00	147.70	126.11#
98.00	64.20	51.55
0.00	0.00	0.00

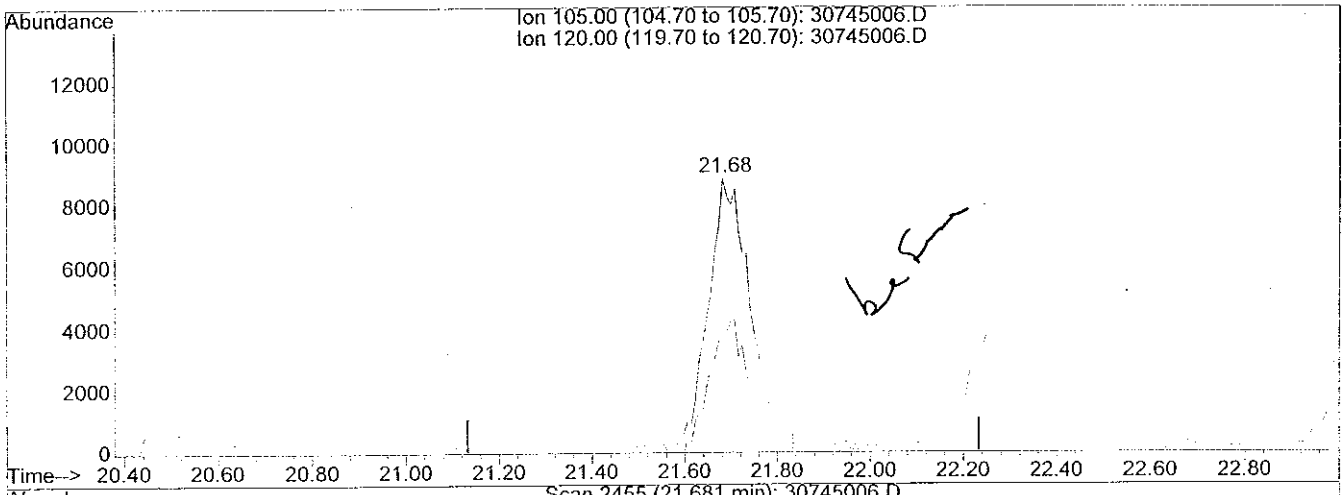
Quantitation Report (Qedit)

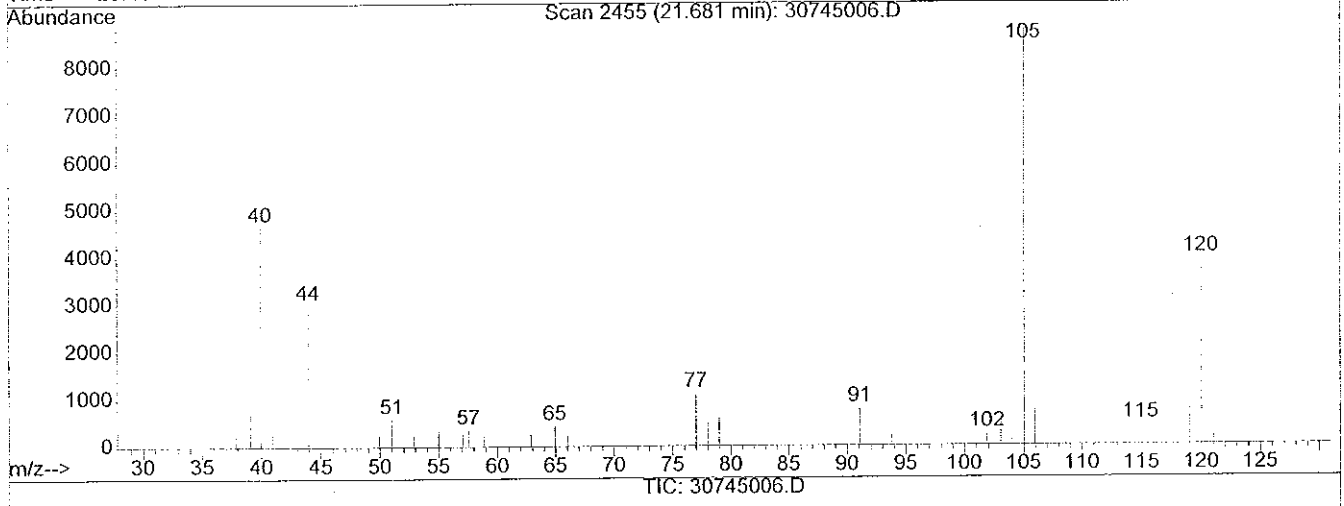
Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:23 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





TIC: 30745006.D

(66) 1,2,4-Trimethylbenzene (TM)

21.68min 0.22ug/L

response 57290

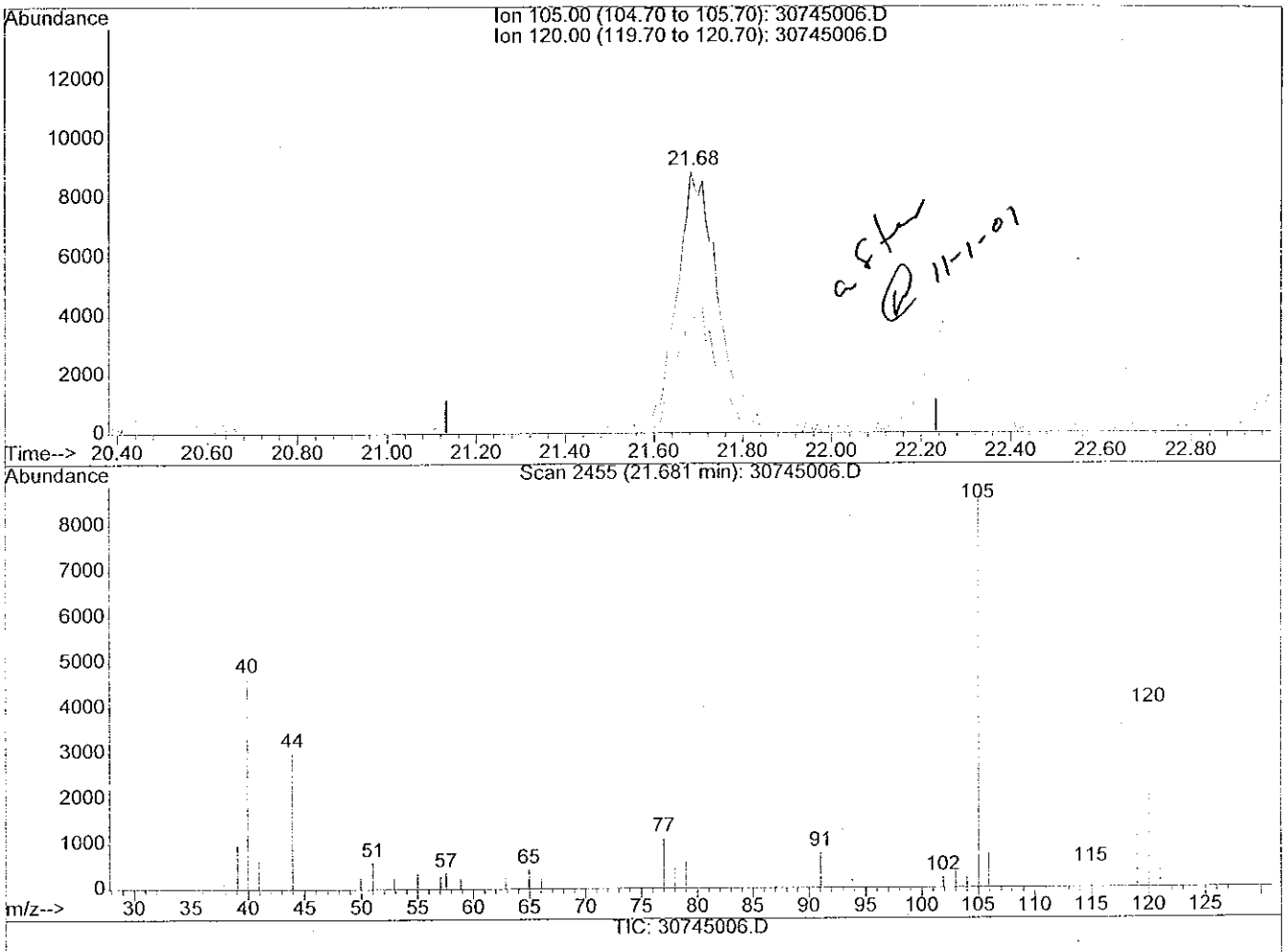
Ion	Exp%	Act%
105.00	100	100
120.00	46.10	44.07
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\103101\30745006.D
Acq On : 31 Oct 2001 11:48
Sample : 110557-1
Misc : CH2MHILL 3610C-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 12:23 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



a&h 11-1-01

(66) 1,2,4-Trimethylbenzene (TM)

21.68min 0.24ug/L m

response 60415

Ion	Exp%	Act%
105.00	100	100
120.00	46.10	158.12#
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 11:48
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745006.D
Name: 110557-1
Misc: CH2MHILL 3610C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Cyclopentane, methyl	5.34	1.3	ug/L	959031	ISTD01	7.22	7337350	10.0
Cyclohexane, methyl-	9.94	1.7	ug/L	1183900	ISTD02	9.05	7063950	10.0
unknown hydrocarbon	26.29	1.4	ug/L	861100	ISTD04	22.66	6176260	10.0

30745006.D V82625B1.M Fri Nov 02 16:44:00 2001

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745006.D Vial: 3
Acq On : 31 Oct 2001 11:48 Operator: GRH
Sample : 110557-1 Inst : Bubba
Misc : CH2MHILL 3610C-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

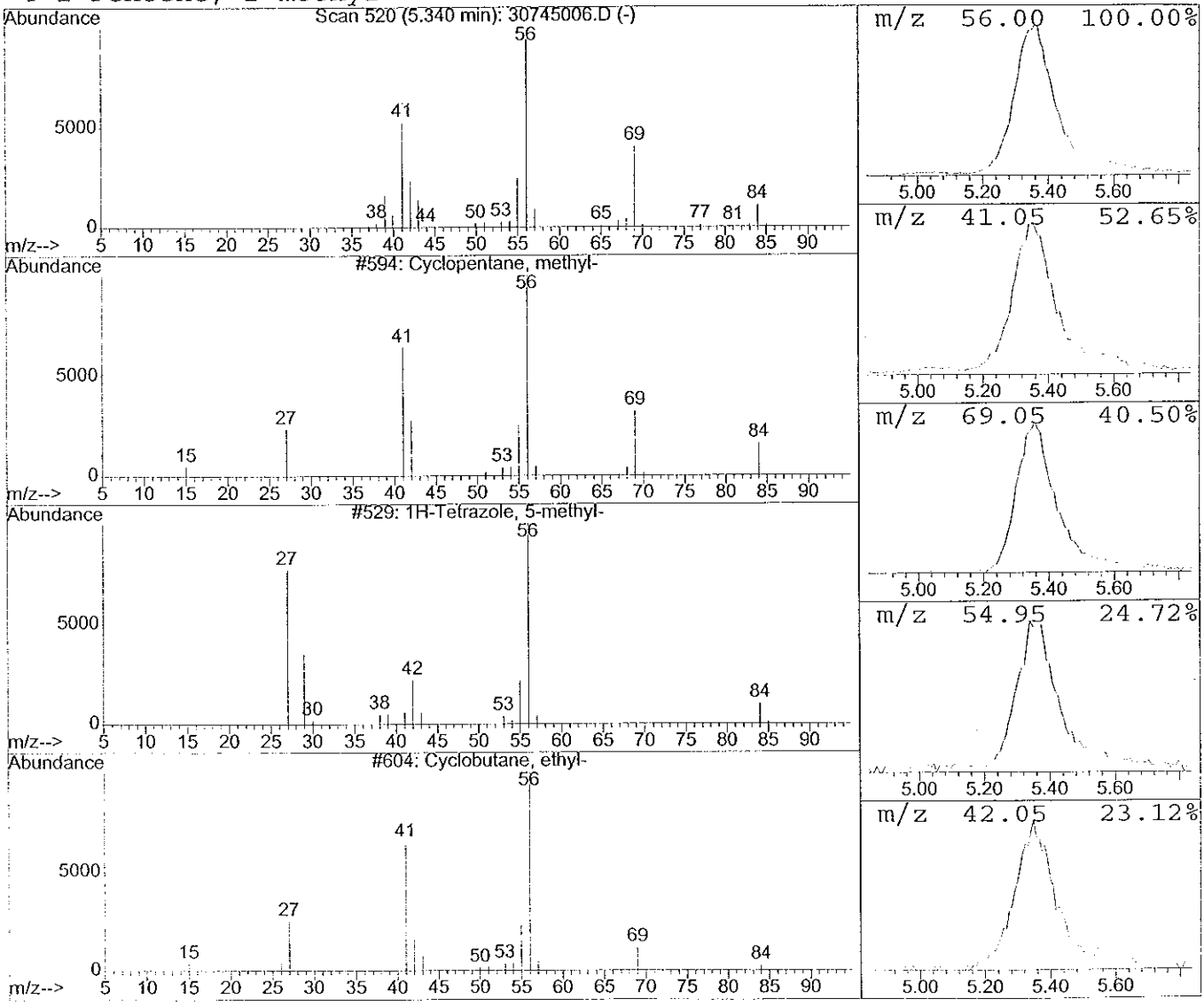
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 Cyclopentane, methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
5.34	1.31 ug/L	959031	i-Pentafluorobenz	7337350	7.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	91
2	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	72
3	Cyclobutane, ethyl-	84	C6H12	004806-61-5	56
4	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	56



453

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745006.D Vial: 3
Acq On : 31 Oct 2001 11:48 Operator: GRH
Sample : 110557-1 Inst : Bubba
Misc : CH2MHILL 3610C-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

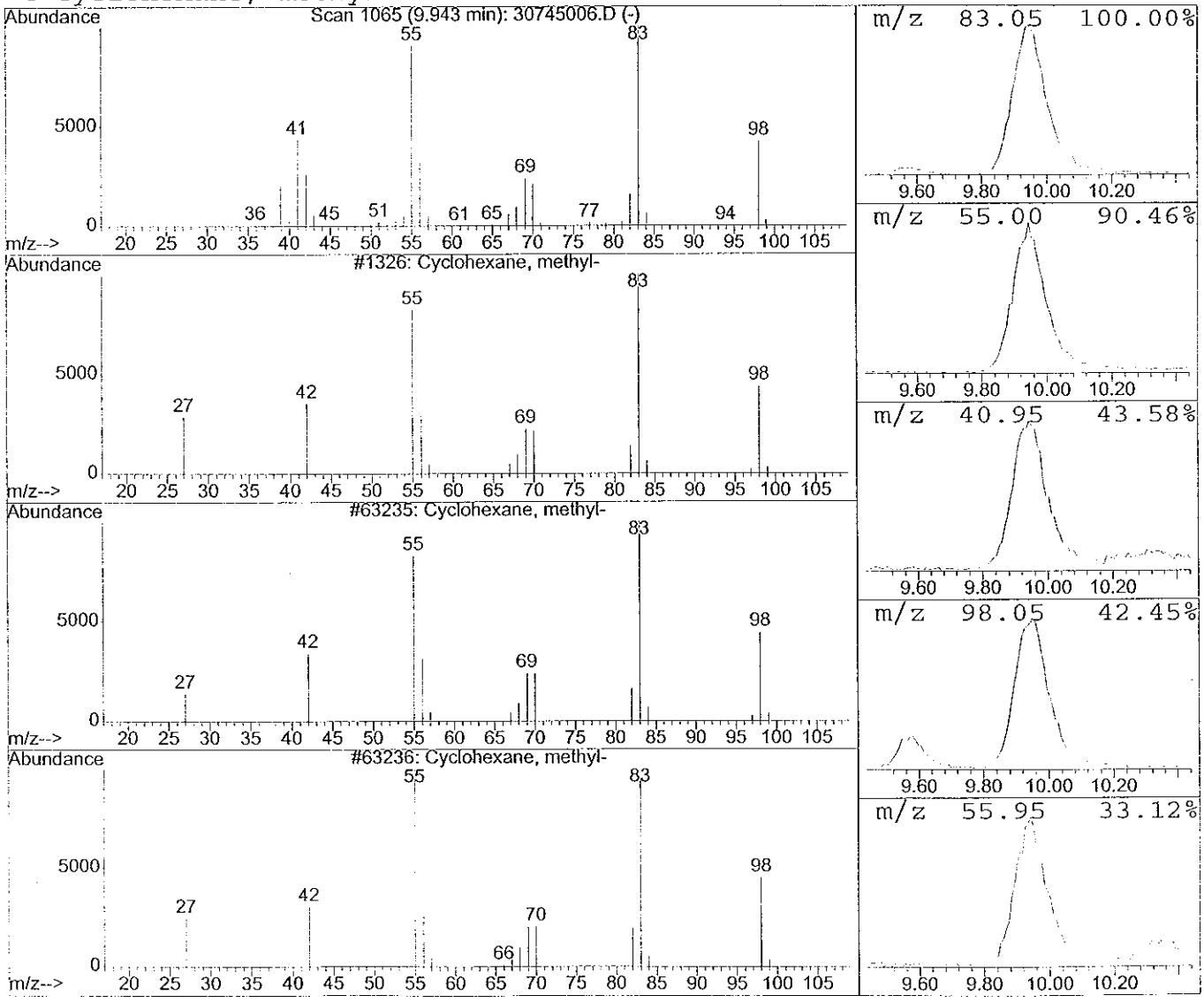
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 2 Cyclohexane, methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.94	1.68 ug/L	1183900	i-1,4-Difluoroben	7063950	9.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	97
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	94
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	91
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	86



Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745006.D Vial: 3
Acq On : 31 Oct 2001 11:48 Operator: GRH
Sample : 110557-1 Inst : Bubba
Misc : CH2MHILL 3610C-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

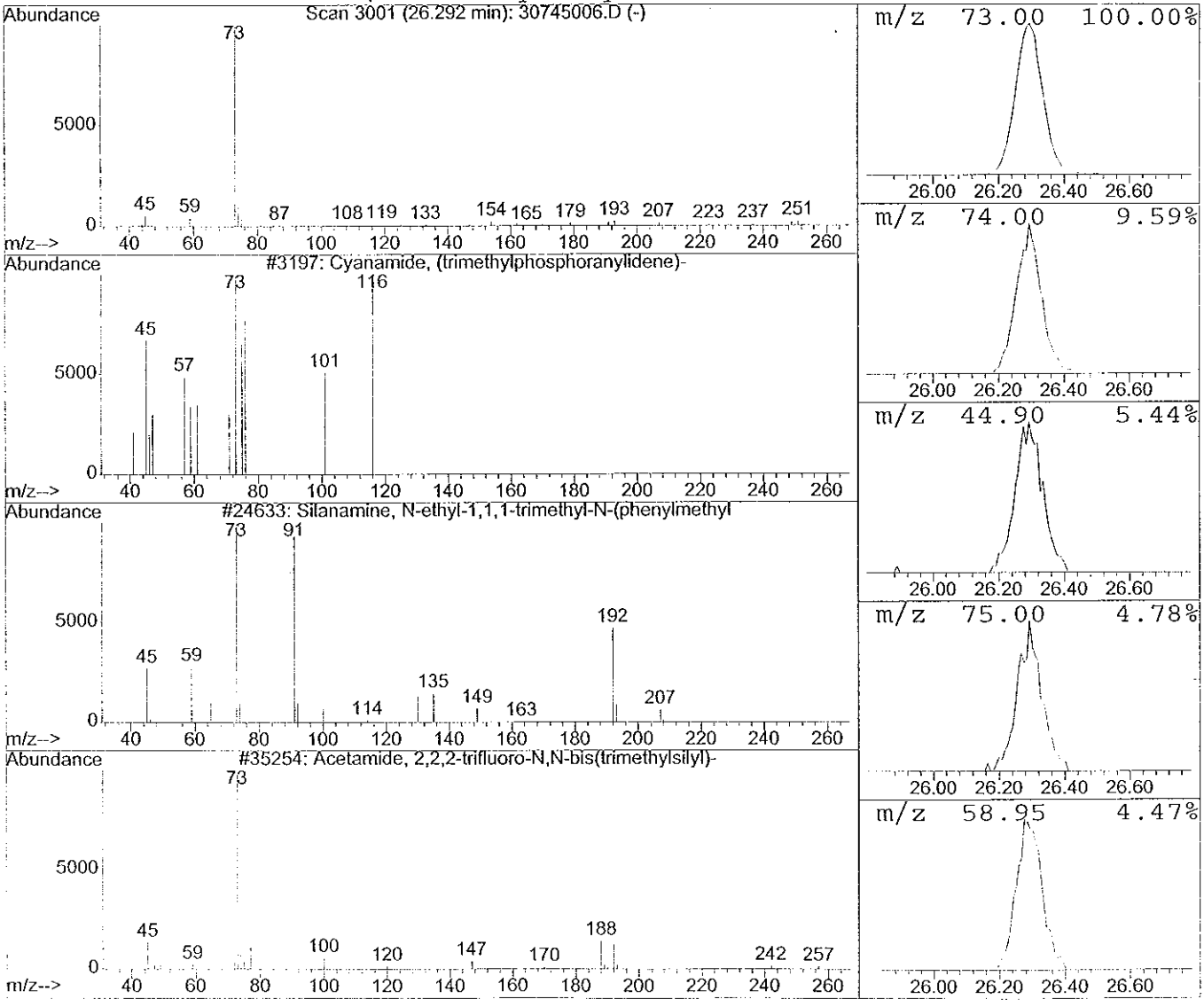
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 3 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.29	1.39 ug/L	861100	i-1,4-Dichloroben	6176260	22.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyanamide, (trimethylphosphoranylid	116	C4H9N2P	066055-10-5	9
2	Silanamine, N-ethyl-1,1,1-trimethyl	207	C12H21NSi	014629-66-4	9
3	Acetamide, 2,2,2-trifluoro-N,N-bis(	257	C8H18F3NOSi2	021149-38-2	9
4	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	7



455

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745007.D
Acq On : 31 Oct 2001 12:30
Sample : 110557-2
Misc : CH2MHILL 3611B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:10 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2928642	10.00	ug/L	-0.03 99.83%
25) i-1,4-Difluorobenzene	9.05	114	2789205	10.00	ug/L	-0.02 90.53%
46) i-Chlorobenzene-d5	15.31	117	1849638	10.00	ug/L	-0.02 84.32%
57) i-1,4-Dichlorobenzene-d4	22.65	152	862059	10.00	ug/L	-0.04 69.48%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1140804	8.41	ug/L	-0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 84.10%			
36) s-Toluene-d8	12.32	98	2586727	9.79	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.90%			
56) s-4-Bromofluorobenzene	18.79	95	1310111	9.32	ug/L	-0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 93.20%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.64	96	313730	3.28	ug/L	95
30) Trichloroethene	9.57	95	670392	5.49	ug/L	99
40) Tetrachloroethene	13.57	166	224250	1.59	ug/L	97
66) 1,2,4-Trimethylbenzene	21.67	105	48681	0.23	ug/L	99
71) 1,2-Dichlorobenzene	23.82	146	79104	0.68	ug/L	96

11-1-01

(#) = qualifier out of range (m) = manual integration

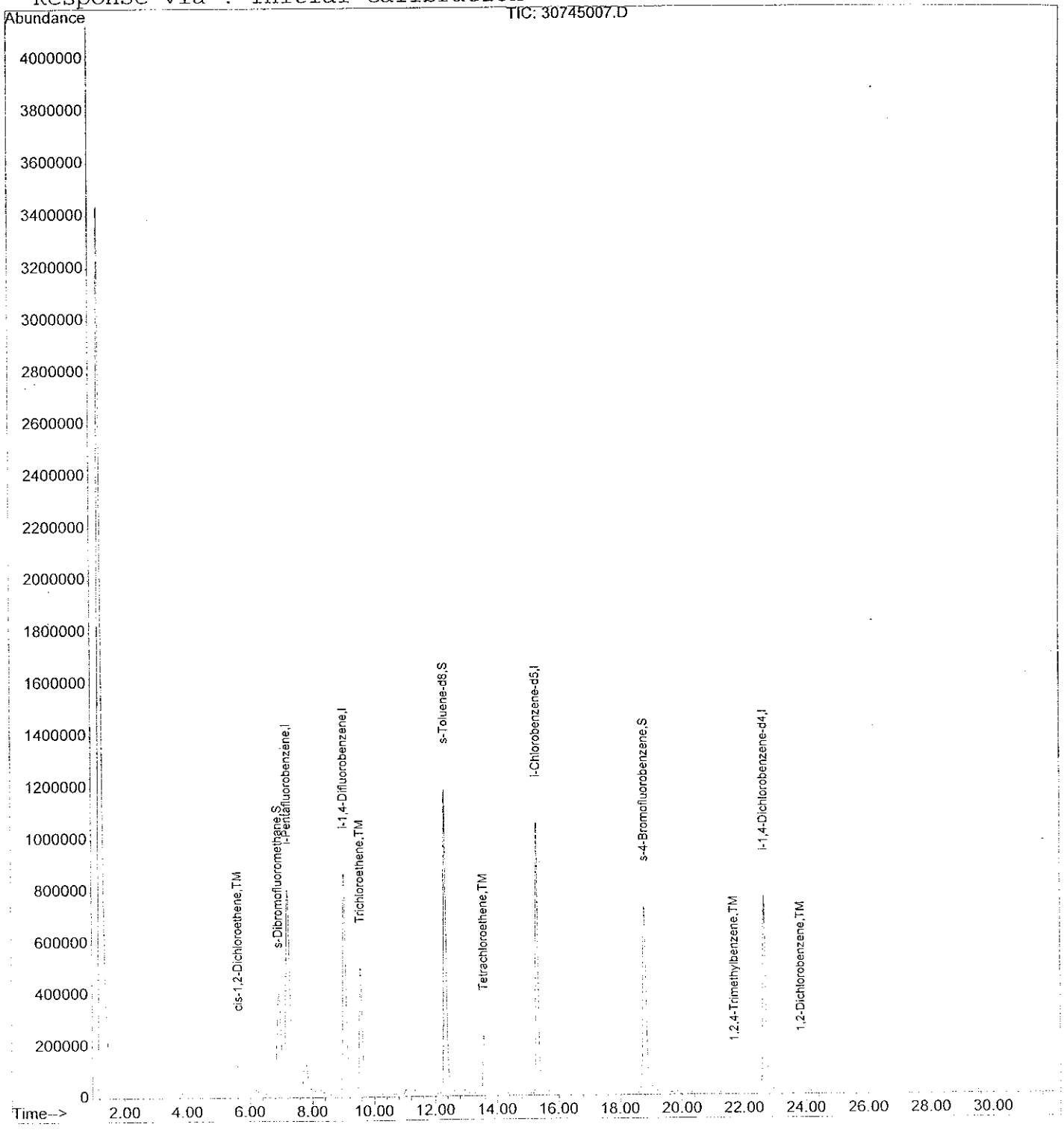
Quantitation Report

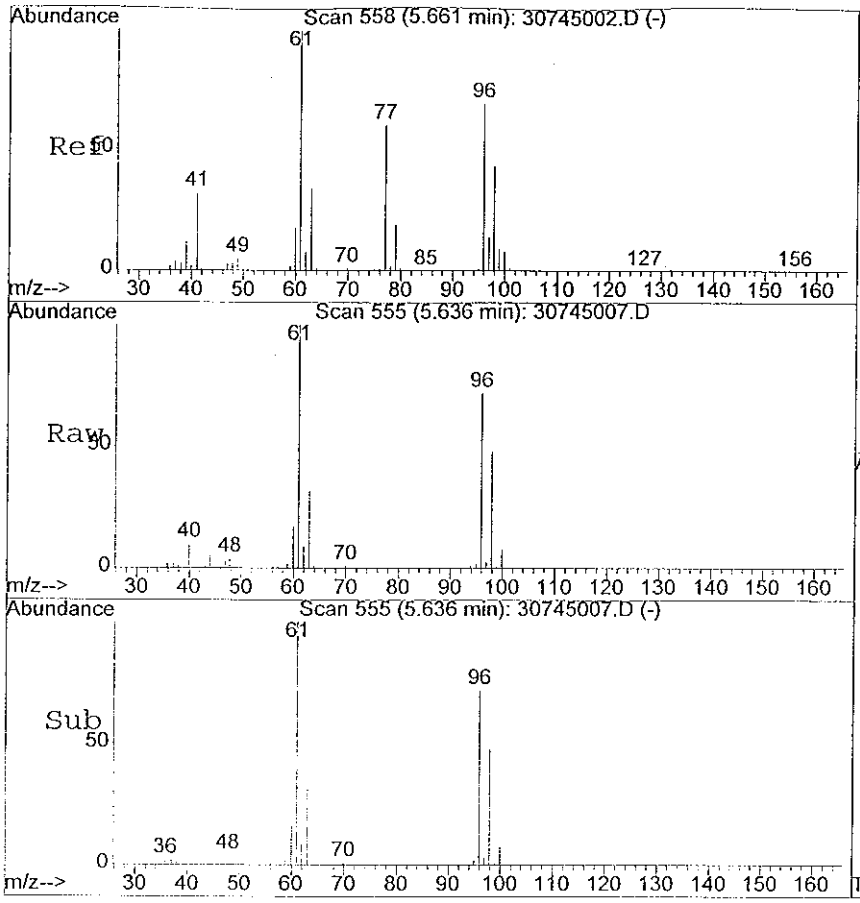
Data File : D:\HPCHEM\1\DATA\103101\30745007.D
Acq On : 31 Oct 2001 12:30
Sample : 110557-2
Misc : CH2MHILL 3611B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:10 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

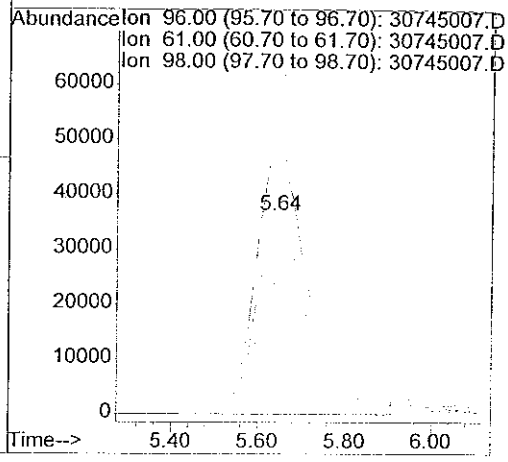


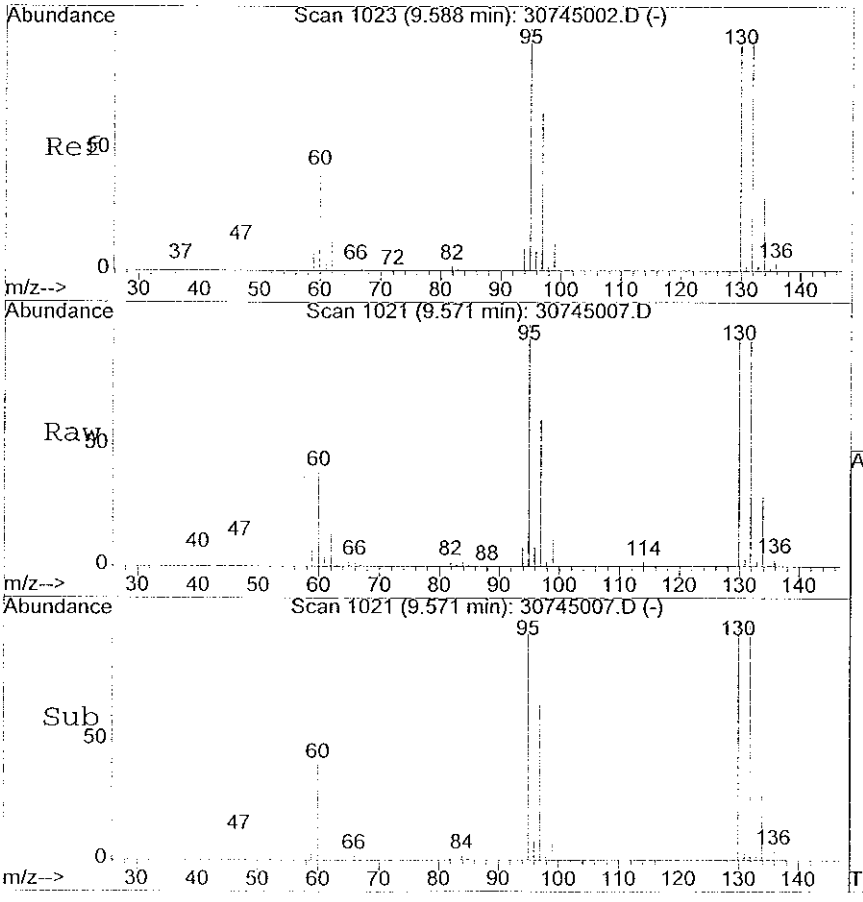


#20
cis-1,2-Dichloroethene
Concen: 3.28 ug/L
RT: 5.64 min Scan# 555
Delta R.T. -0.03 min
Lab File: 30745007.D
Acq: 31 Oct 2001 12:30

Tgt Ion: 96 Resp: 313730

Ion	Ratio	Lower	Upper
96	100		
61	138.0	124.4	164.4
98	66.5	42.1	82.1

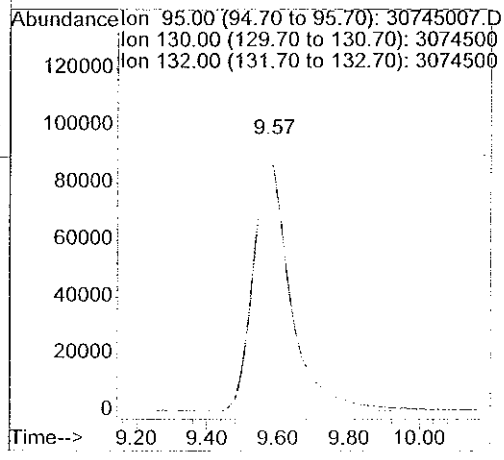


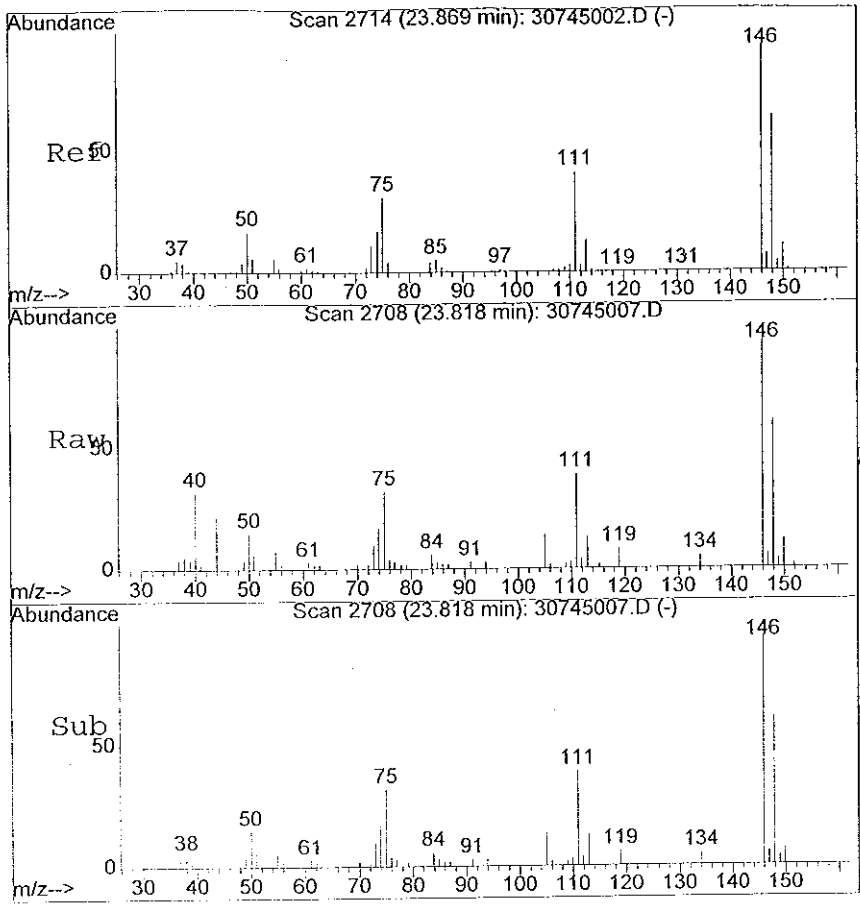


#30
Trichloroethene
Concen: 5.49 ug/L
RT: 9.57 min Scan# 1021
Delta R.T. -0.02 min
Lab File: 30745007.D
Acq: 31 Oct 2001 12:30

Tgt Ion: 95 Resp: 670392

Ion	Ratio	Lower	Upper
95	100		
130	94.8	76.4	116.4
132	94.2	74.0	114.0

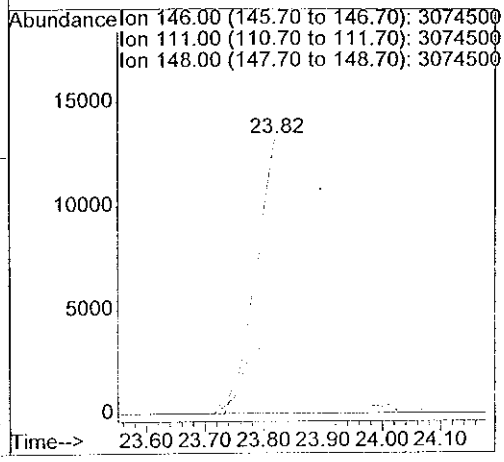




#71
1,2-Dichlorobenzene
Concen: 0.68 ug/L
RT: 23.82 min Scan# 2708
Delta R.T. -0.05 min
Lab File: 30745007.D
Acq: 31 Oct 2001 12:30

Tgt Ion:146 Resp: 79104

Ion	Ratio	Lower	Upper
146	100		
111	39.3	21.3	61.3
148	60.8	44.3	84.3



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 12:30
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745007.D
Name: 110557-2
Misc: CH2MHILL 3611B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
unknown hydrocarbon	26.28	3.1	ug/L	1545750	ISTD04	22.65	5024710	10.0

30745007.D V82625B1.M Fri Nov 02 16:44:40 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745007.D Vial: 4
Acq On : 31 Oct 2001 12:30 Operator: GRH
Sample : 110557-2 Inst : Bubba
Misc : CH2MHILL 3611B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

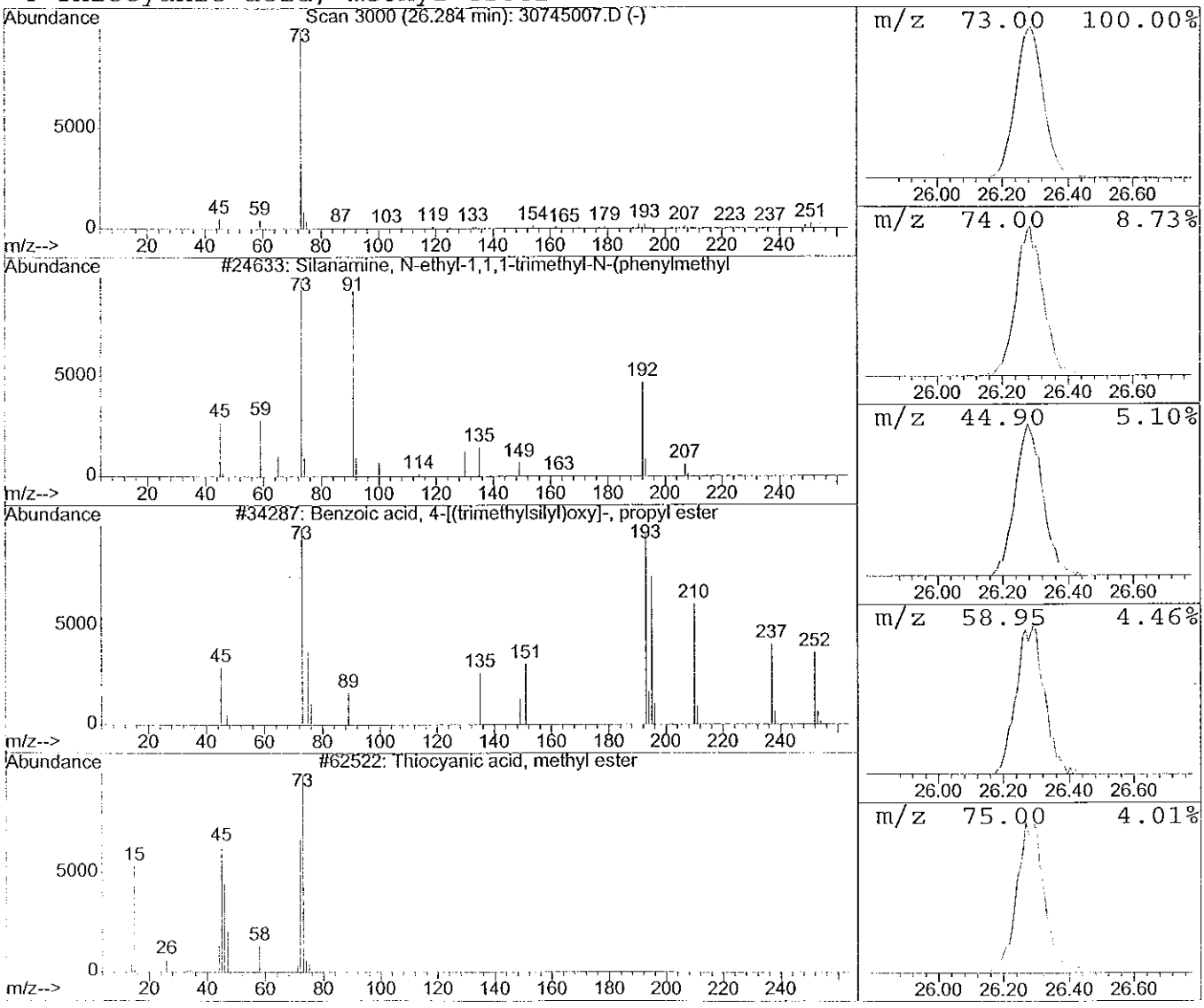
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.28	3.08 ug/L	1545750	i-1,4-Dichloroben	5024710	22.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanamine, N-ethyl-1,1,1-trimethyl	207	C12H21NSi	014629-66-4	9
2	Benzoic acid, 4-[(trimethylsilyl)ox	252	C13H20O3Si	027739-19-1	5
3	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4



Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745008.D Vial: 5
Acq On : 31 Oct 2001 13:09 Operator: GRH
Sample : 110557-3 Inst : Bubba
Misc : CH2MHILL 3629B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 13:47 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3084133	10.00	ug/L	0.00 105.13%
25) i-1,4-Difluorobenzene	9.06	114	2992960	10.00	ug/L	0.00 97.14%
46) i-Chlorobenzene-d5	15.31	117	2089348	10.00	ug/L	-0.02 95.24%
57) i-1,4-Dichlorobenzene-d4	22.66	152	964036	10.00	ug/L	-0.03 77.70%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1372209	9.61	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.10%			
36) s-Toluene-d8	12.32	98	2782565	9.81	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.10%			
56) s-4-Bromofluorobenzene	18.79	95	1470557	9.26	ug/L	-0.05
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.60%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.78	96	17700	0.18	ug/L #	85
9) Acetone	2.87	43	88407m	14.67	ug/L	98
19) 2-Butanone	5.84	43	59607m	4.78	ug/L	100
20) cis-1,2-Dichloroethene	5.66	96	115158m	1.17	ug/L	88
28) Benzene	7.88	78	63075	0.19	ug/L	92
30) Trichloroethene	9.60	95	14923990	113.98	ug/L	98

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(#) = qualifier out of range (m) = manual integration
30745008.D V82625B1.M Wed Oct 31 13:47:27 2001 Page 1

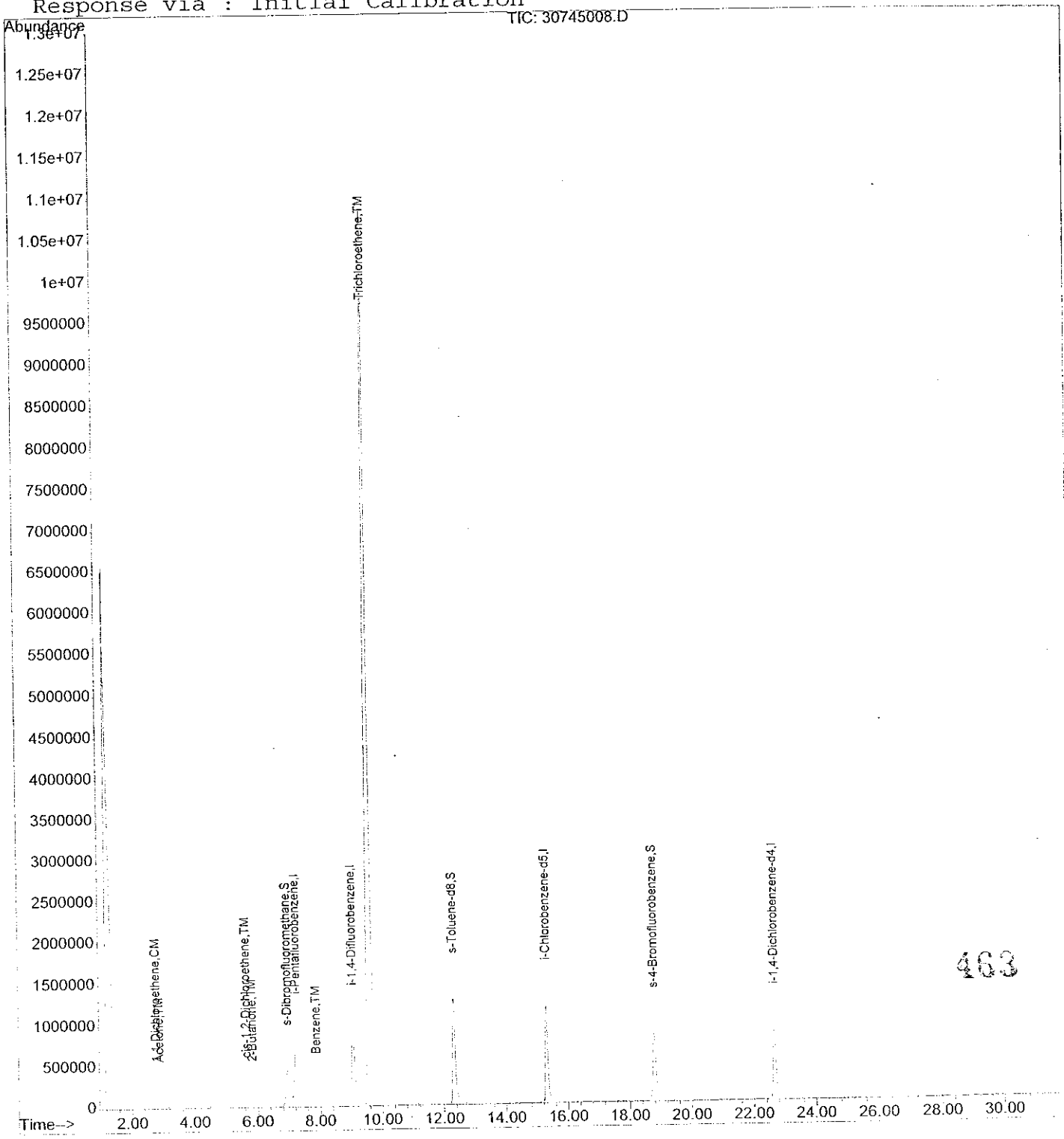
Quantitation Report

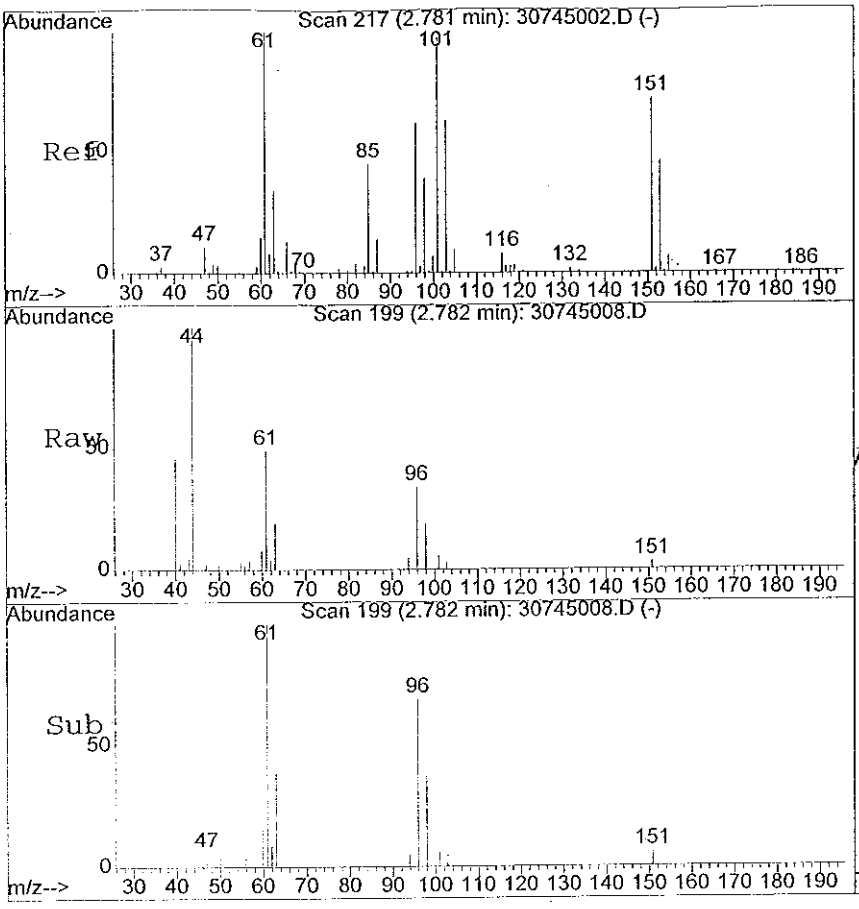
Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:47 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

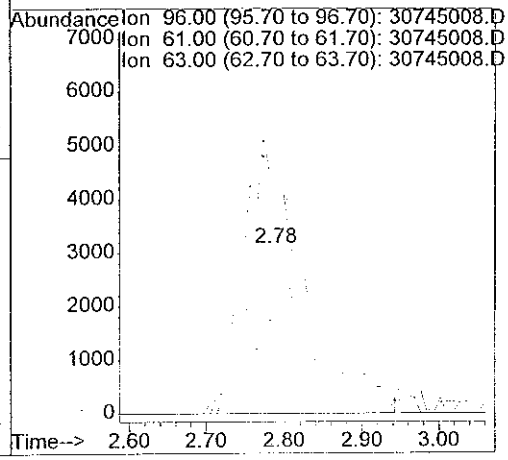


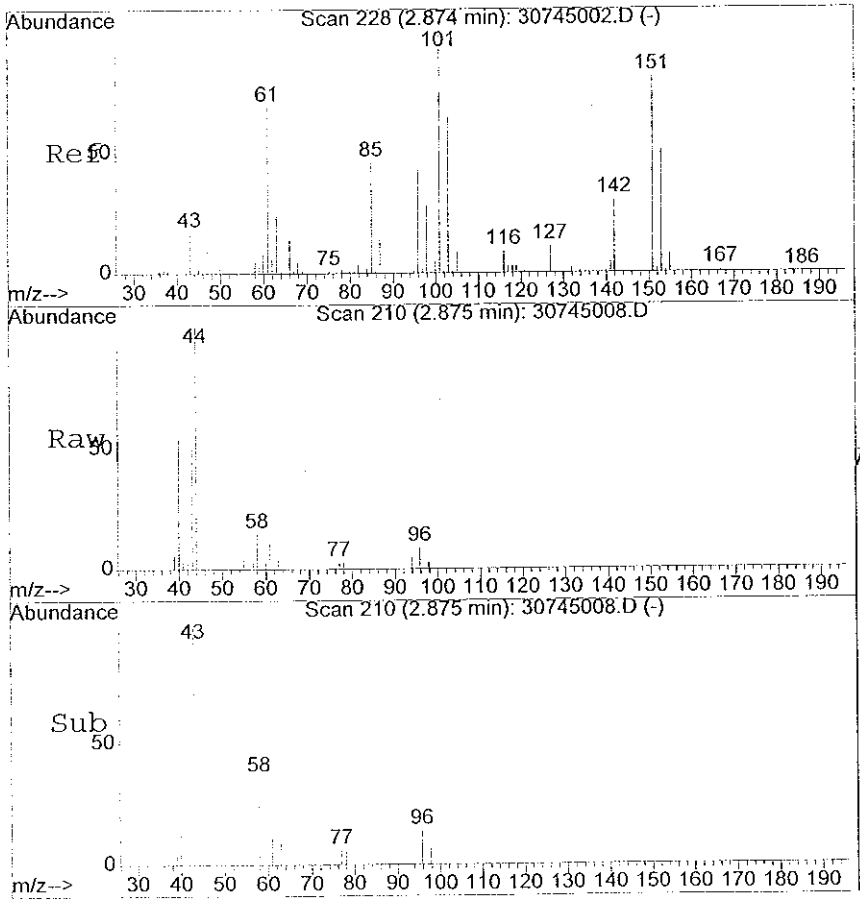


#8
1,1-Dichloroethene
Concen: 0.18 ug/L
RT: 2.78 min Scan# 199
Delta R.T. 0.00 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 96 Resp: 17700

Ion	Ratio	Lower	Upper
96	100		
61	137.7	142.4	182.4#
63	57.1	35.1	75.1

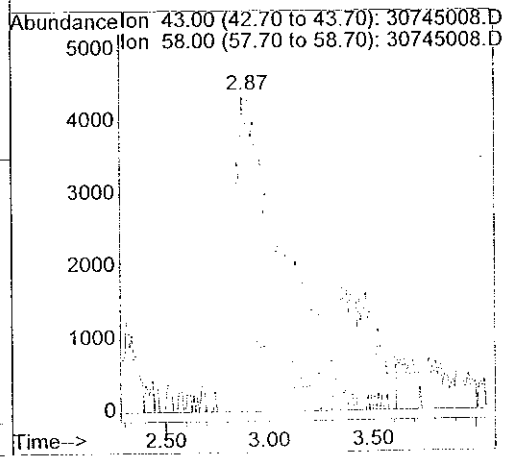




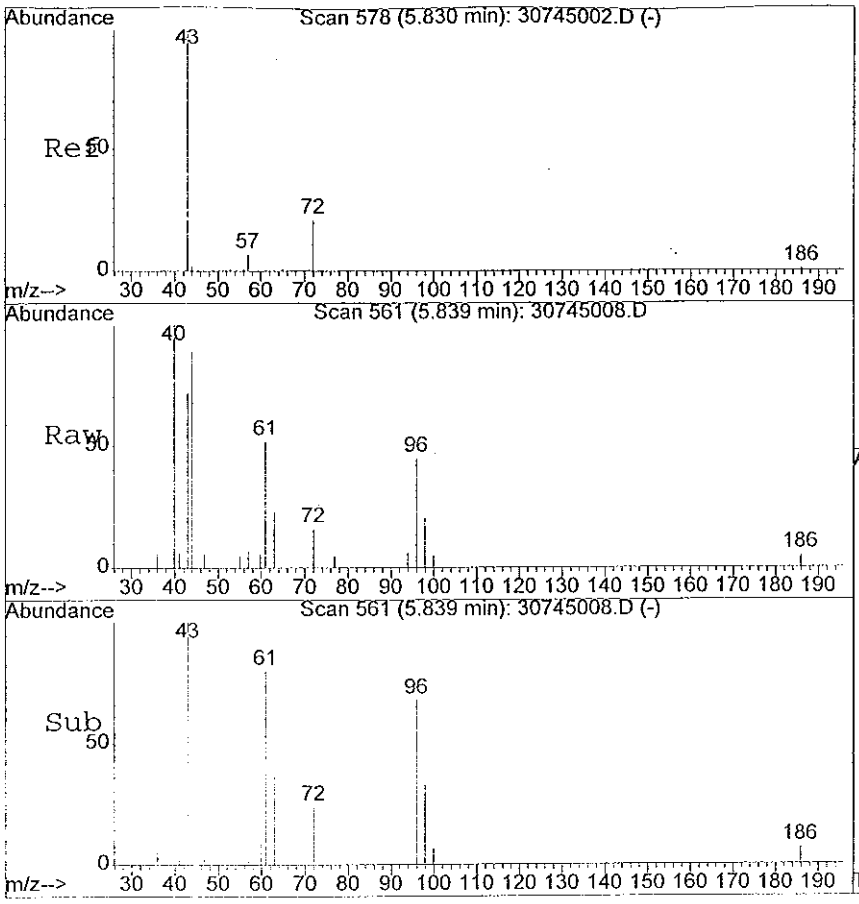
#9
Acetone
Concen: 14.67 ug/L m
RT: 2.87 min Scan# 210
Delta R.T. 0.00 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 43 Resp: 88407

Ion	Ratio	Lower	Upper
43	100		
58	29.0	0.0	128.0



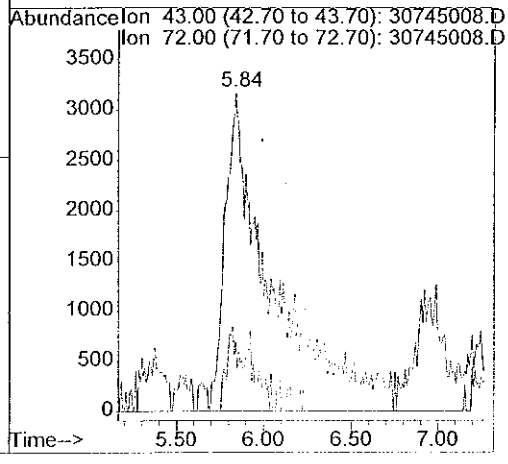
30745008.D V82625B1.M Acq :31 Oct 2001 13:09
Sample = 110557-3 Misc = CH2MHILL 3629B-Q401

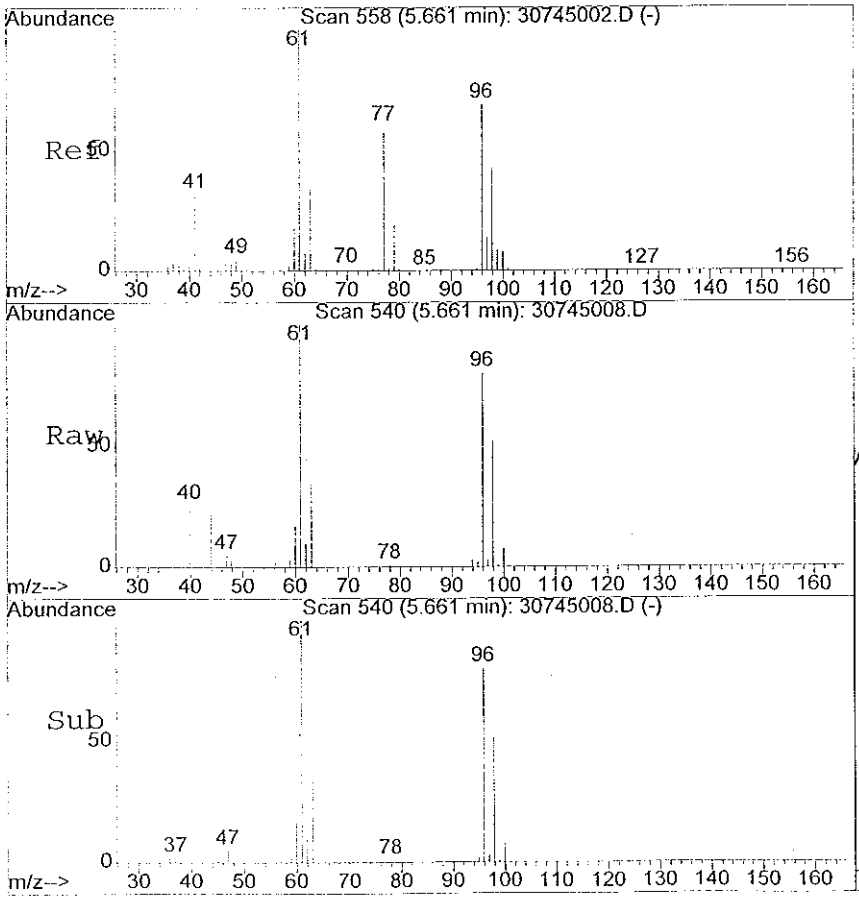


#19
2-Butanone
Concen: 4.78 ug/L m
RT: 5.84 min Scan# 561
Delta R.T. 0.01 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 43 Resp: 59607

Ion	Ratio	Lower	Upper
43	100		
72	21.8	0.0	121.7

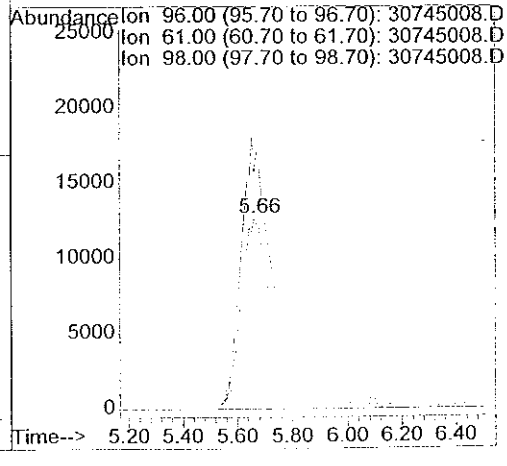


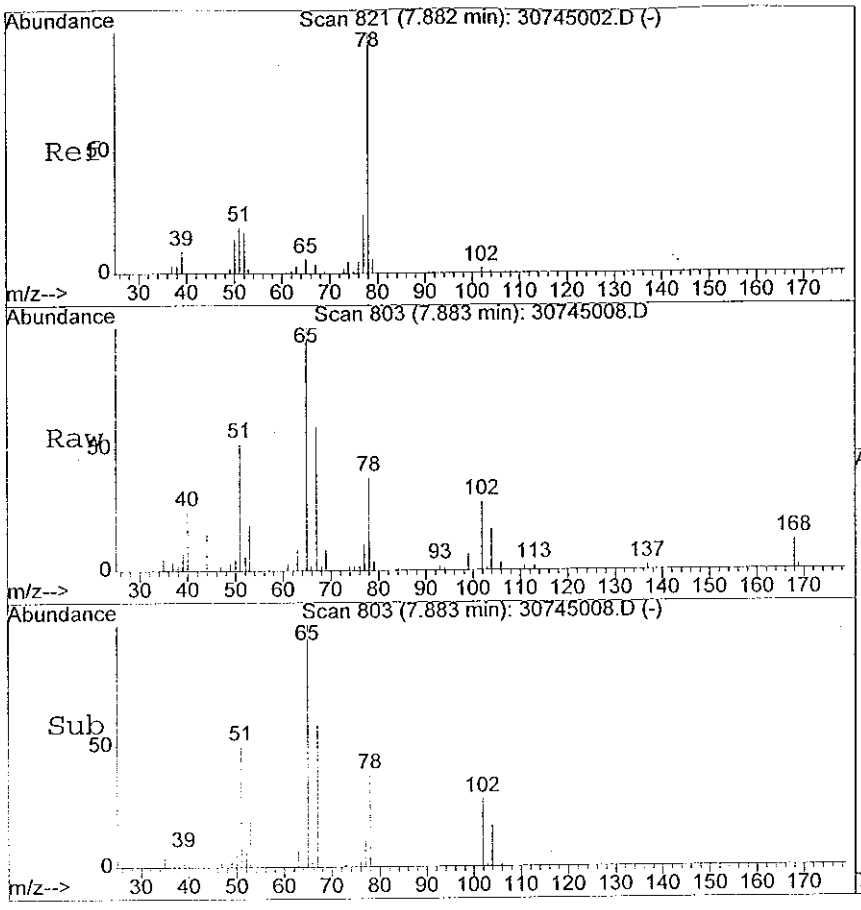


#20
cis-1,2-Dichloroethene
Concen: 1.17 ug/L m
RT: 5.66 min Scan# 540
Delta R.T. 0.00 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 96 Resp: 115158

Ion	Ratio	Lower	Upper
96	100		
61	125.3	124.4	164.4
98	64.9	42.1	82.1

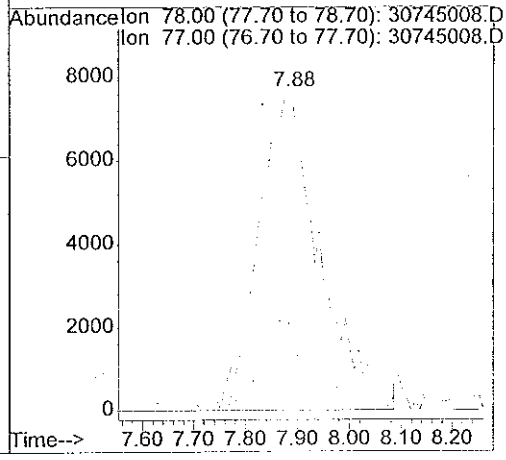


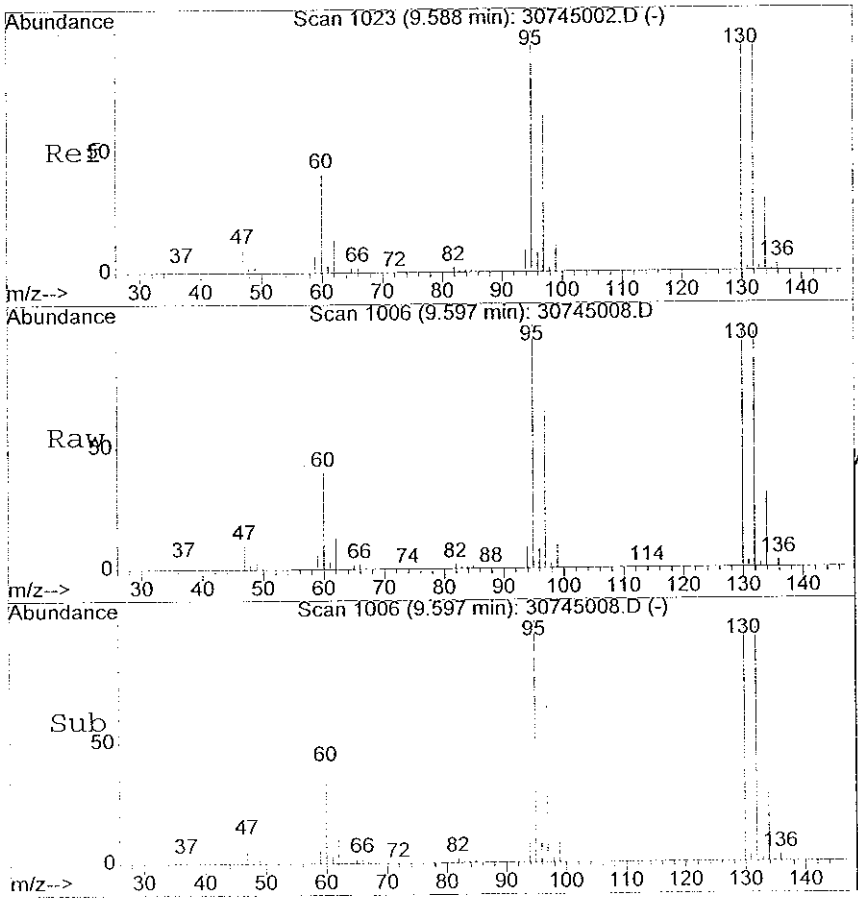


#28
Benzene
Concen: 0.19 ug/L
RT: 7.88 min Scan# 803
Delta R.T. 0.00 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 78 Resp: 63075

Ion	Ratio	Lower	Upper
78	100		
77	27.9	3.8	43.8

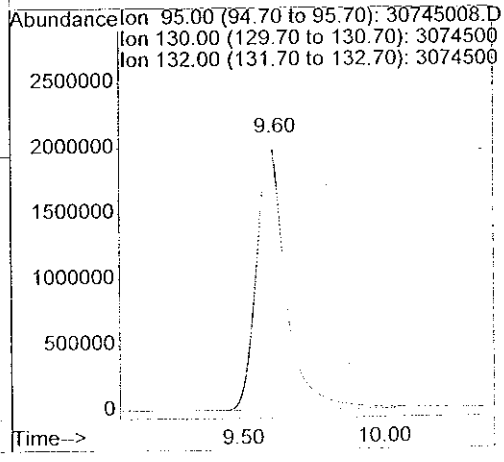




#30
Trichloroethene
Concen: 113.98 ug/L
RT: 9.60 min Scan# 1006
Delta R.T. 0.01 min
Lab File: 30745008.D
Acq: 31 Oct 2001 13:09

Tgt Ion: 95 Resp:14923990

Ion	Ratio	Lower	Upper
95	100		
130	97.8	76.4	116.4
132	96.6	74.0	114.0

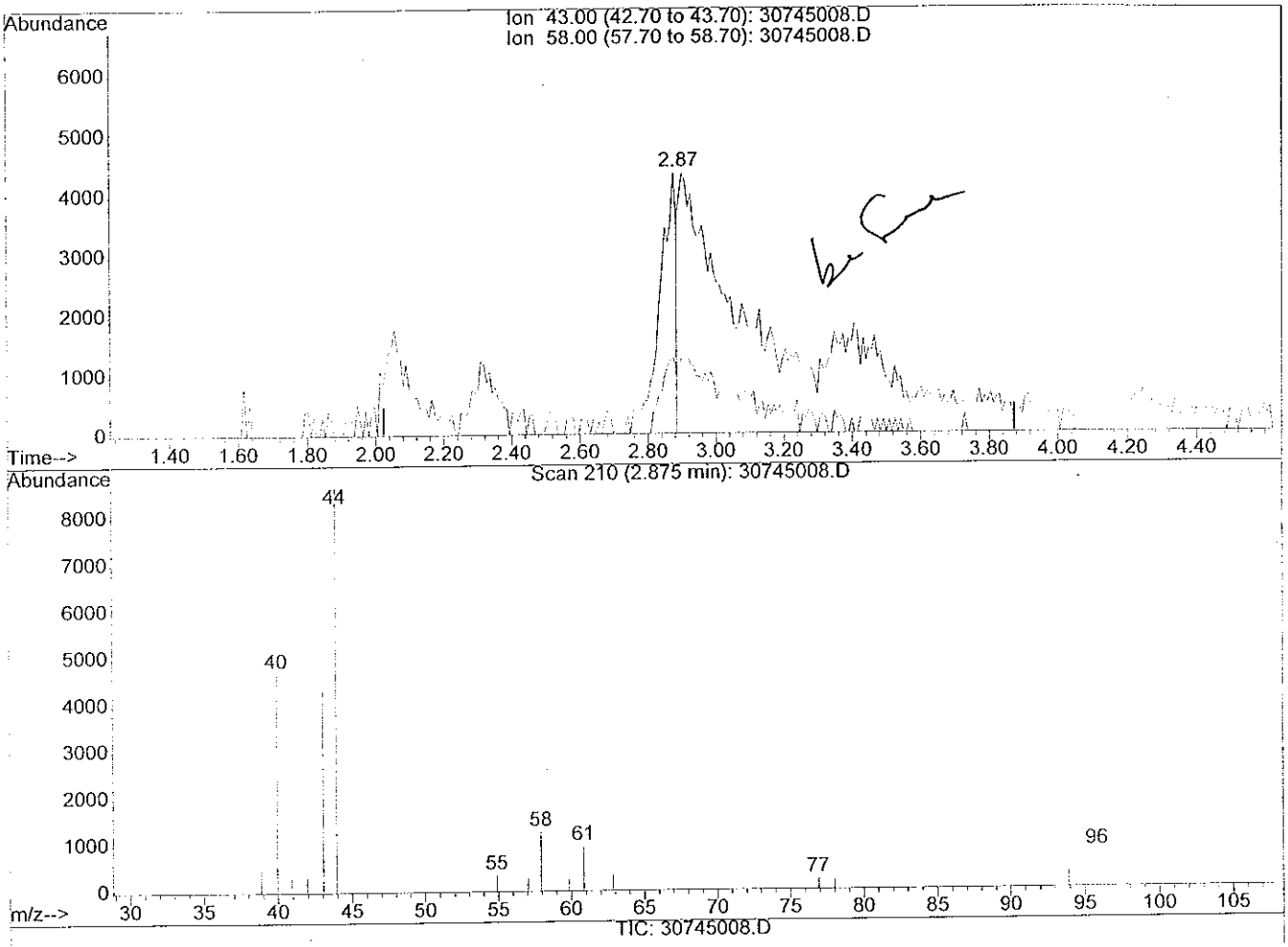


Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:44 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 2.37ug/L

response 14821

Ion	Exp%	Act%
43.00	100	100
58.00	28.00	28.97
0.00	0.00	0.00
0.00	0.00	0.00

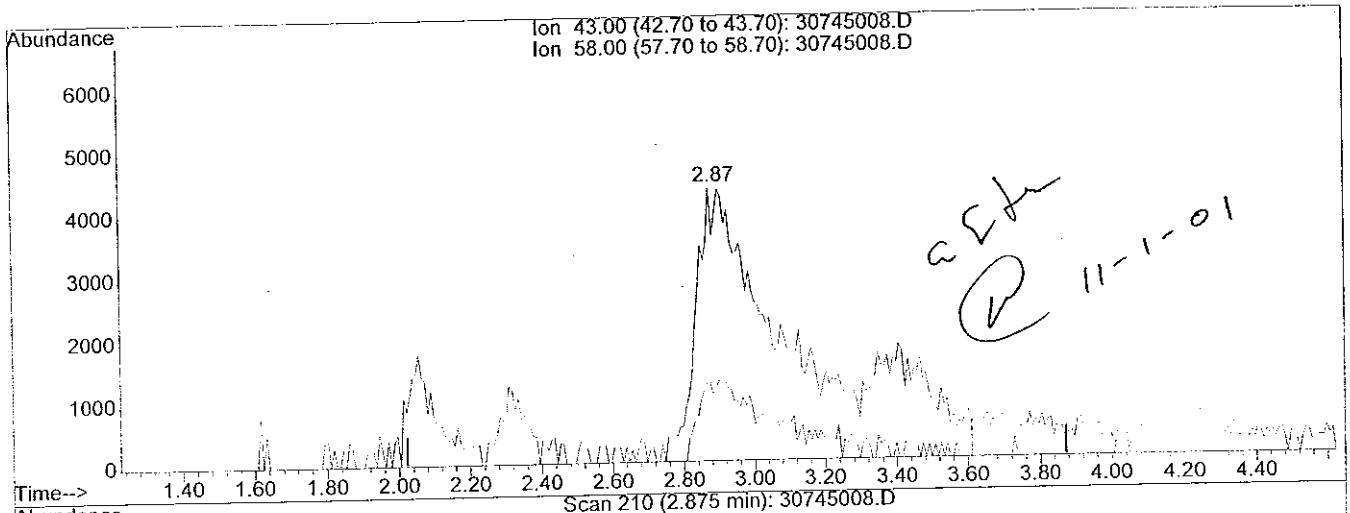
Quantitation Report (Qedit)

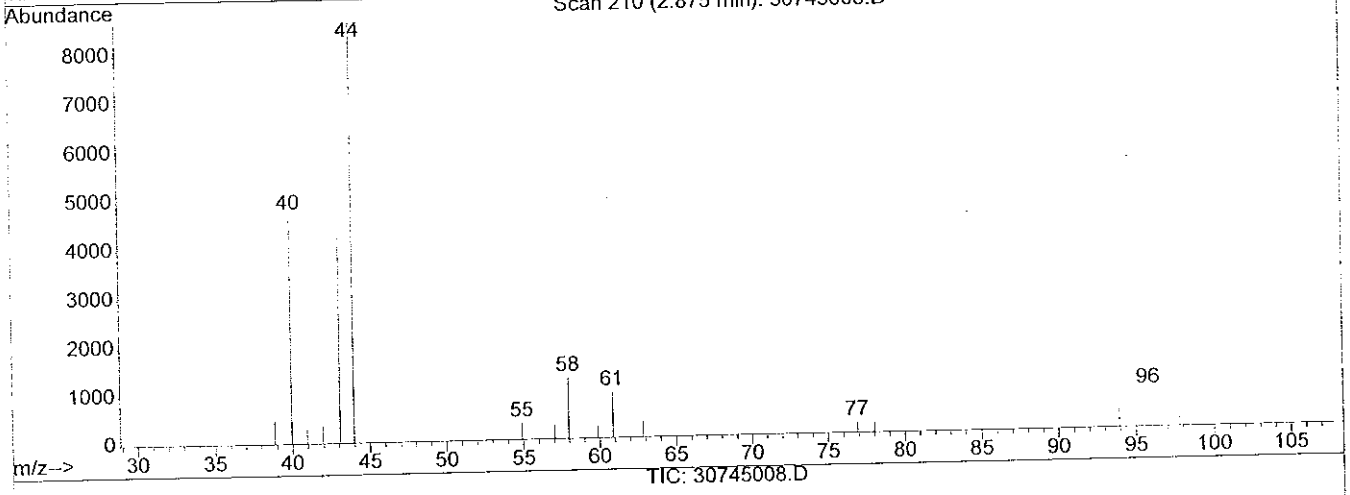
Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:44 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





(9) Acetone (TM)

2.87min 14.67ug/L m

response 88407

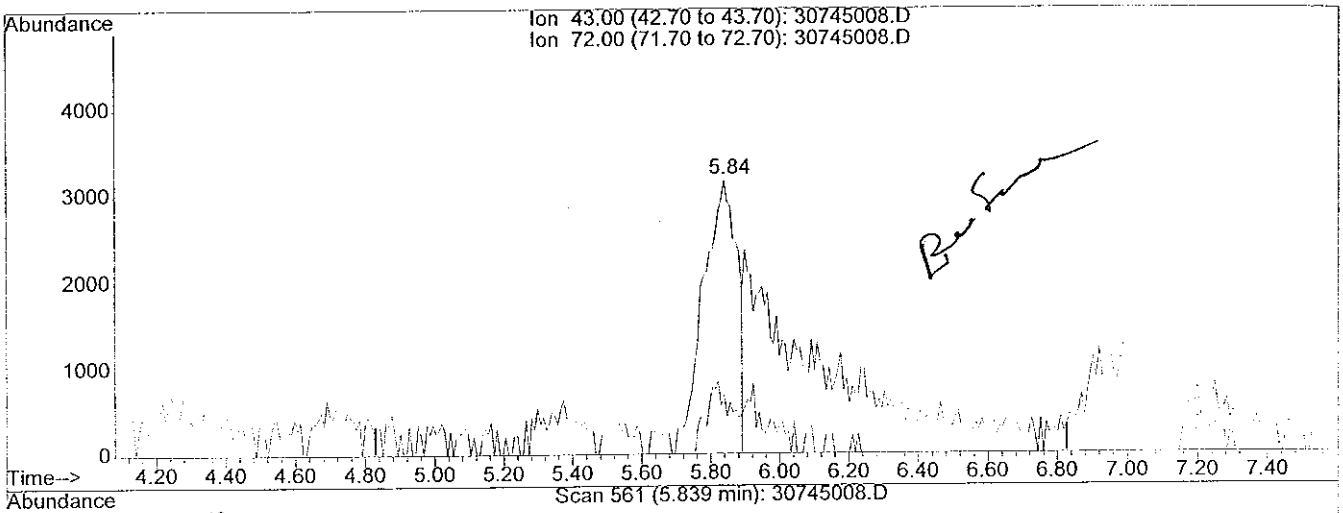
Ion	Exp%	Act%
43.00	100	100
58.00	28.00	28.97
0.00	0.00	0.00
0.00	0.00	0.00

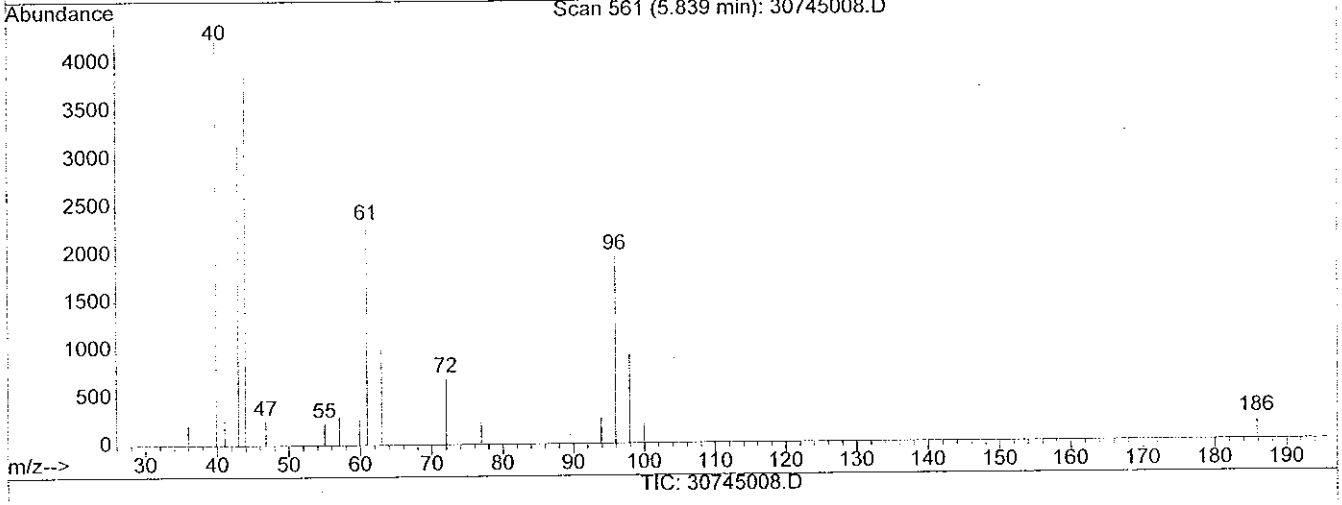
Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:45 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





(19) 2-Butanone (TM)

5.84min 1.72ug/L

response 21417

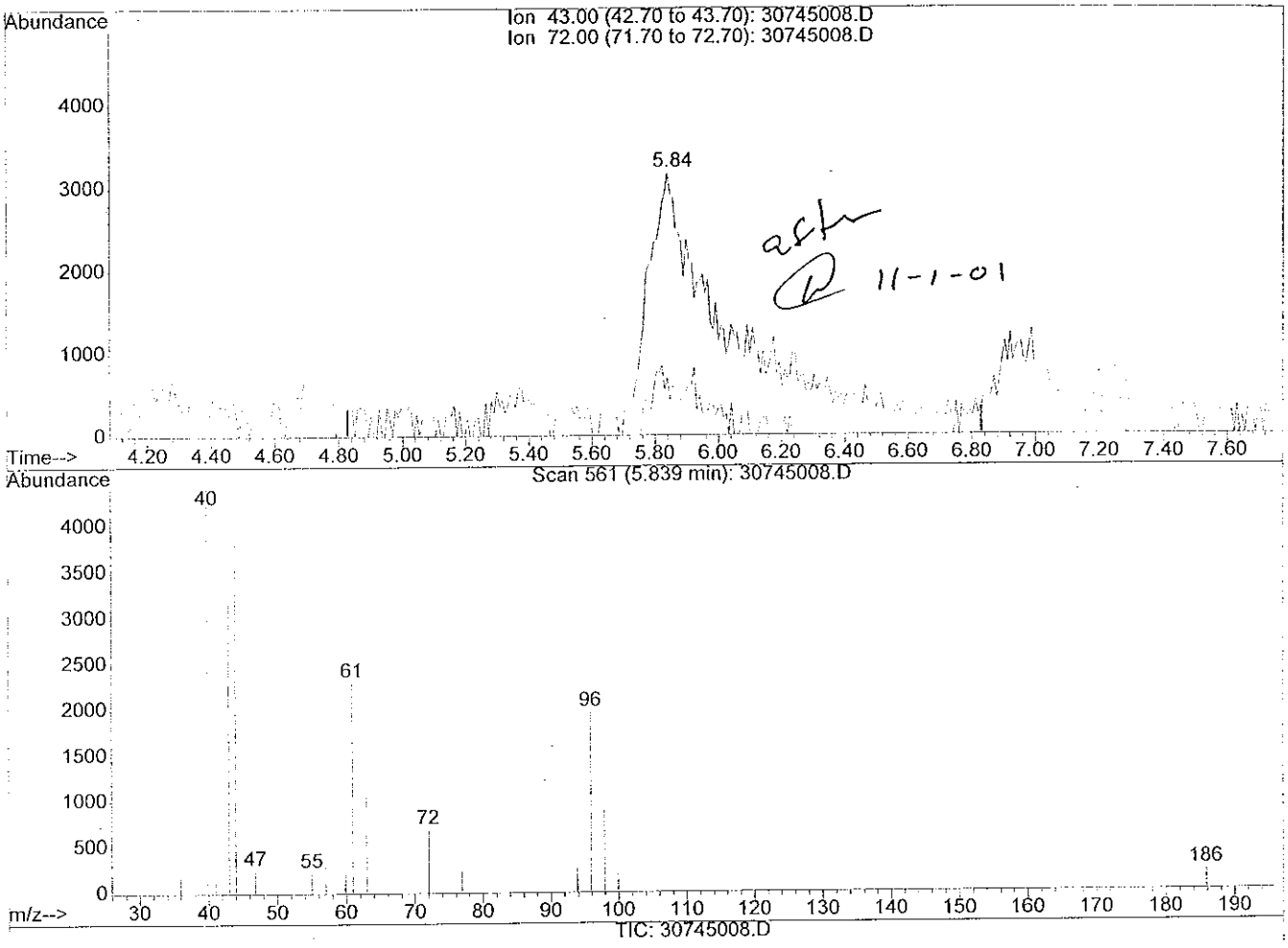
Ion	Exp%	Act%
43.00	100	100
72.00	21.70	21.82
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:47 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



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11-1-01

(19) 2-Butanone (TM)

5.84min 4.78ug/L m

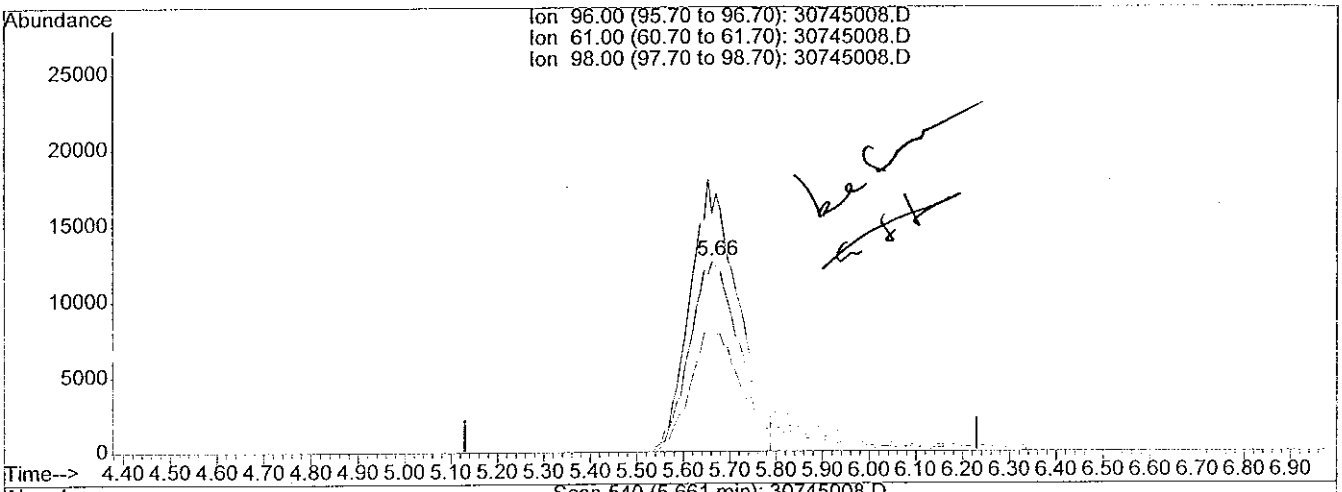
response 59607

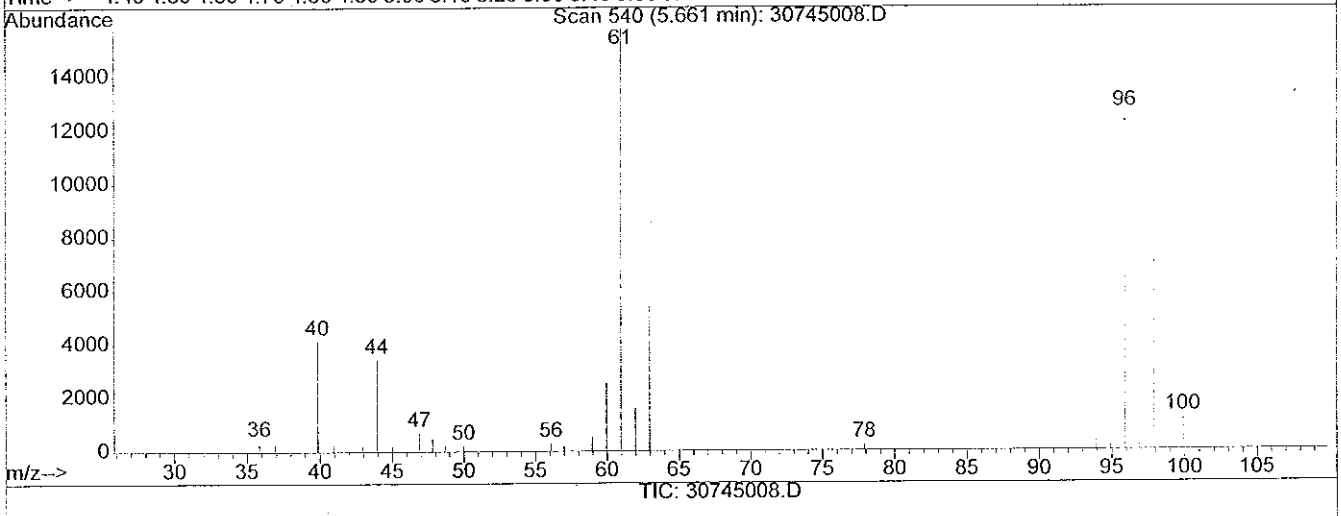
Ion	Exp%	Act%
43.00	100	100
72.00	21.70	21.82
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:46 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





TIC: 30745008.D

(20) cis-1,2-Dichloroethene (TM)

5.66min 0.99ug/L

response 96885

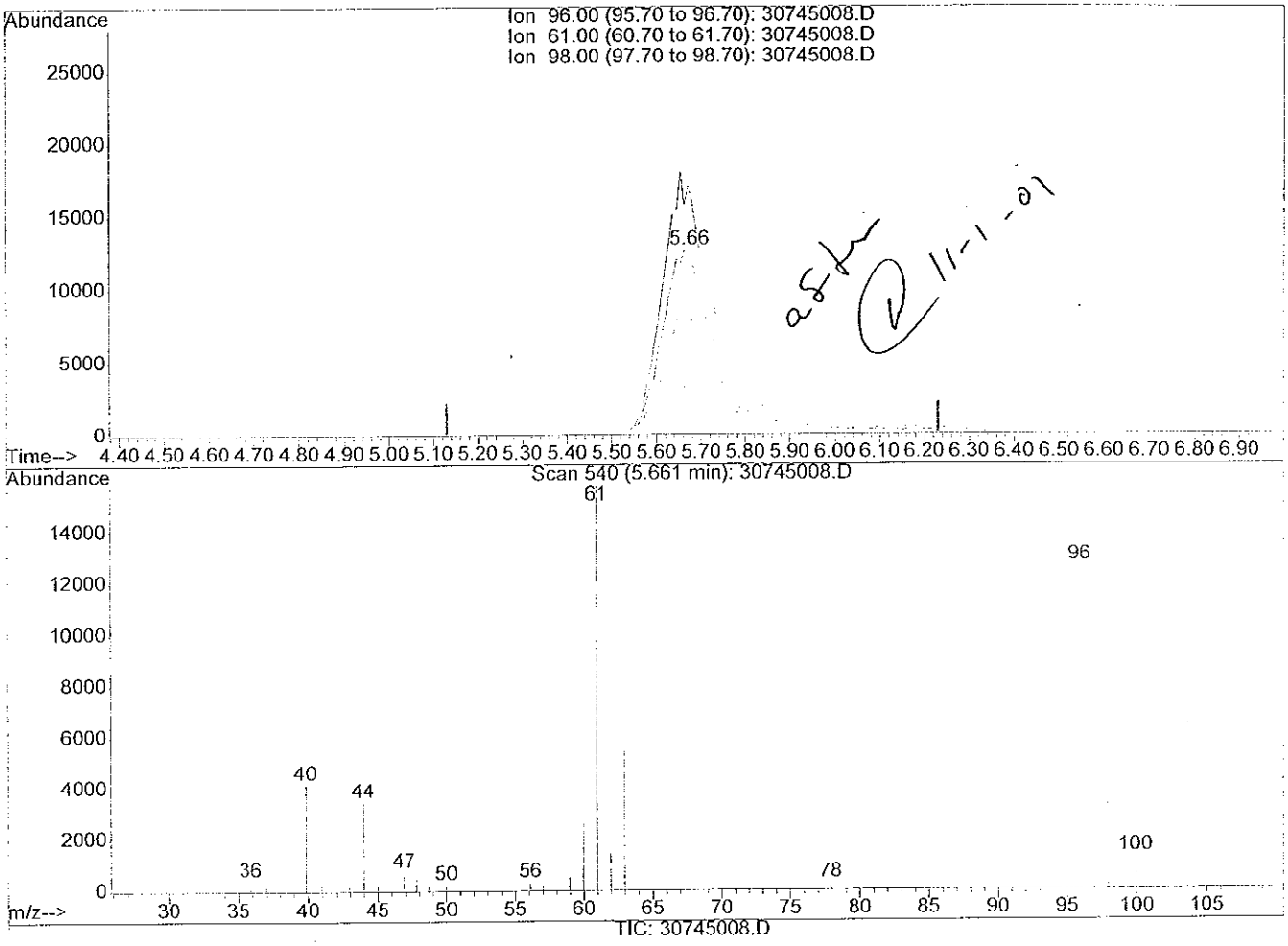
Ion	Exp%	Act%
96.00	100	100
61.00	144.40	125.27
98.00	62.10	64.85
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\103101\30745008.D
Acq On : 31 Oct 2001 13:09
Sample : 110557-3
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Oct 31 13:46 2001

Vial: 5
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(20) cis-1,2-Dichloroethene (TM)

5.66min 1.17ug/L m

response 115158

Ion	Exp%	Act%
96.00	100	100
61.00	144.40	125.27
98.00	62.10	64.85
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 13:09
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745008.D
Name: 110557-3
Misc: CH2MHILL 3629B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
unknown hydrocarbon	26.29	2.6	ug/L	1419370	ISTD04	22.66	5544780	10.0

30745008.D V82625B1.M Fri Nov 02 16:46:23 2001

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745008.D Vial: 5
Acq On : 31 Oct 2001 13:09 Operator: GRH
Sample : 110557-3 Inst : Bubba
Misc : CH2MHILL 3629B-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

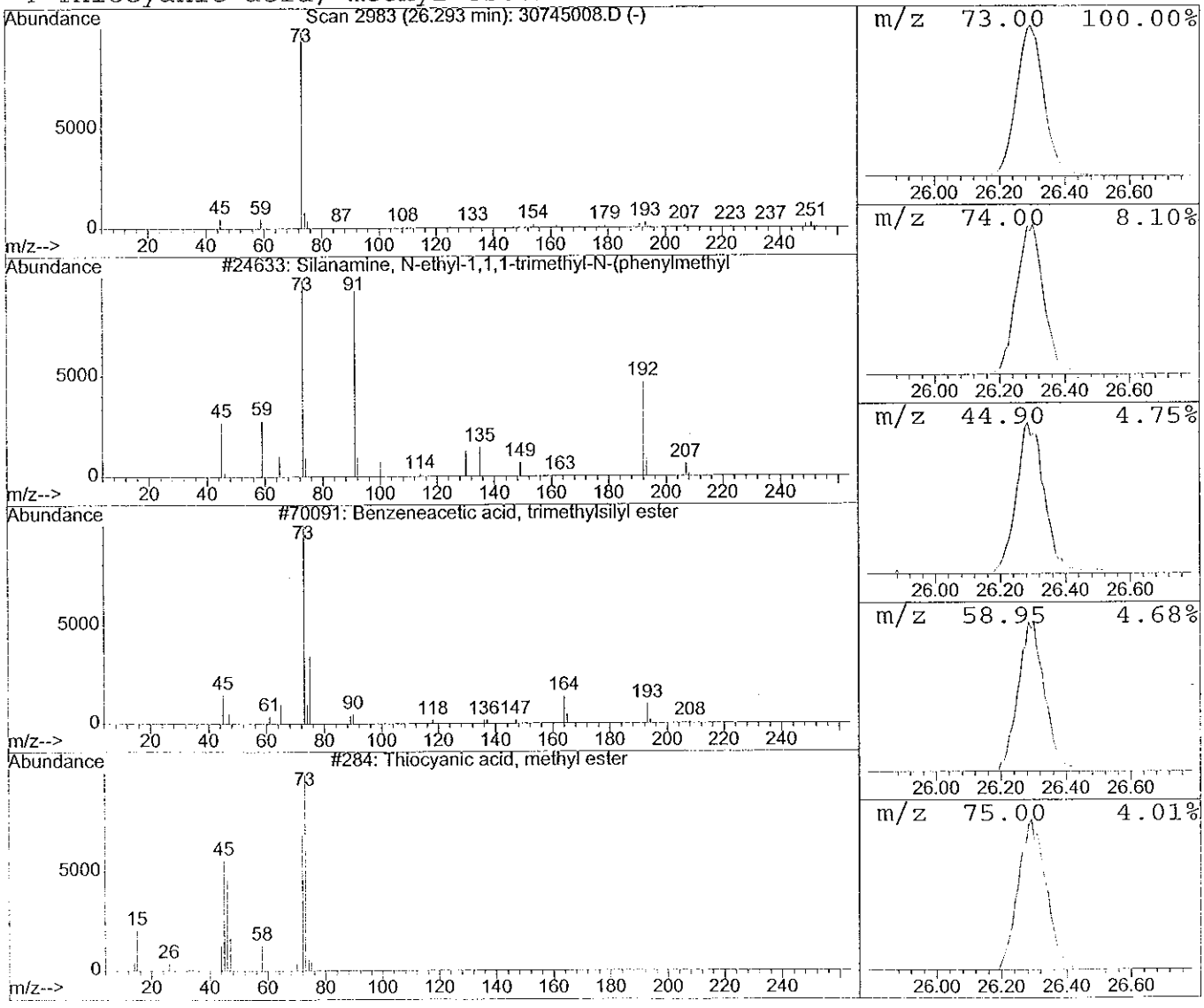
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.29	2.56 ug/L	1419370	i-1,4-Dichloroben	5544780	22.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanamine, N-ethyl-1,1,1-trimethyl	207	C12H21NSi	014629-66-4	9
2	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5
3	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4



Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745014.D Vial: 11
Acq On : 31 Oct 2001 17:19 Operator: GRH
Sample : 110557-3 2.5ml 10X Inst : Bubba
Misc : CH2MHILL 3629B-Q401 Multiplr: 10.00
MS Integration Params: rteint.p
Quant Time: Nov 1 5:33 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2967730	10.00	ug/L	-0.03 101.16%
25) i-1,4-Difluorobenzene	9.05	114	2958151	10.00	ug/L	-0.02 96.01%
46) i-Chlorobenzene-d5	15.31	117	2115188	10.00	ug/L	0.00 96.42%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1046541	10.00	ug/L	-0.02 84.35%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1398208	10.17	ug/L	-0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.70%			
36) s-Toluene-d8	12.32	98	2806143	10.01	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.82	95	1534890	9.55	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 95.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.66	96	11217	1.54	ug/L #	64
30) Trichloroethene	9.58	95	1428015	110.35	ug/L	99

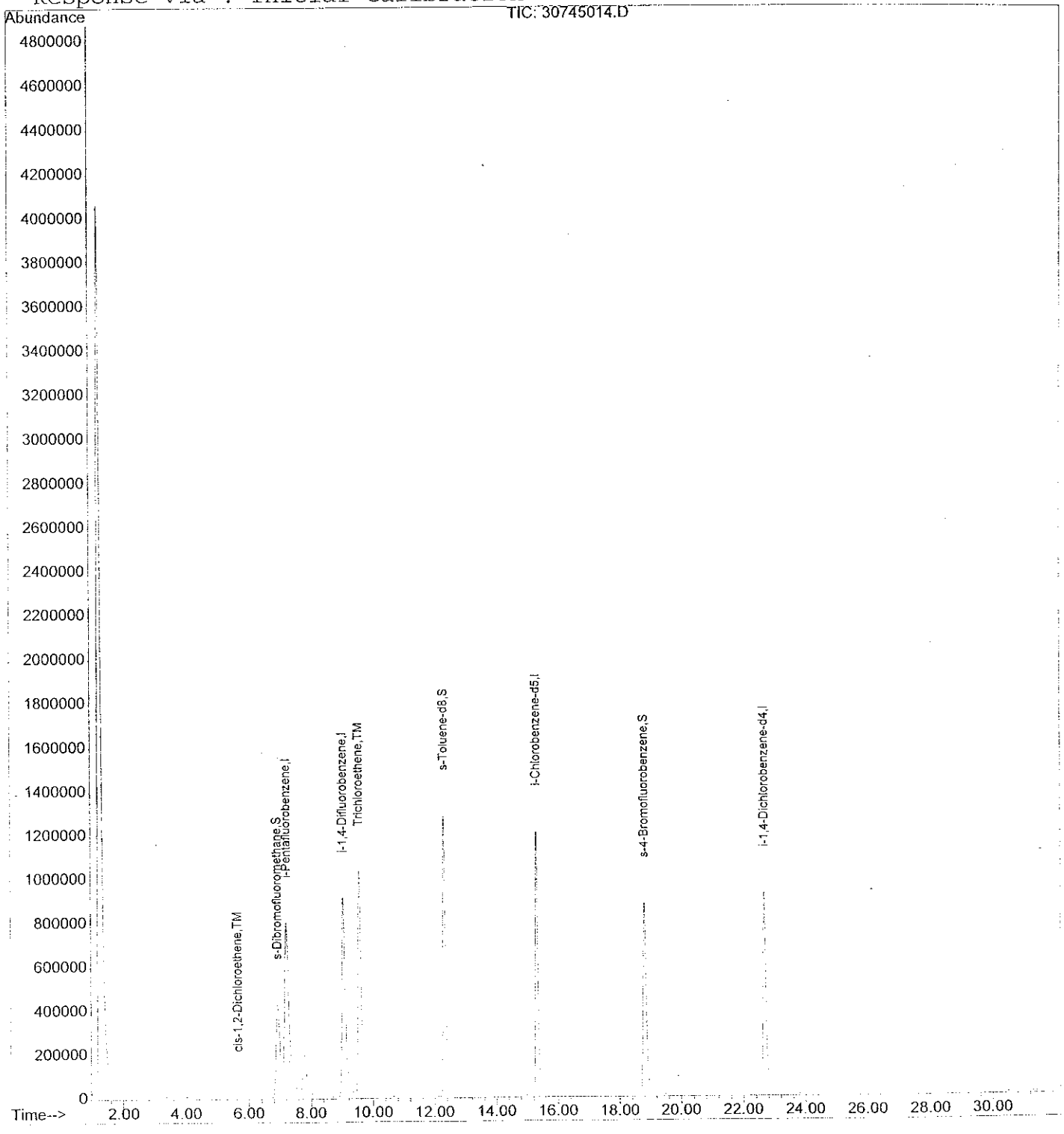
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103101\30745014.D
Acq On : 31 Oct 2001 17:19
Sample : 110557-3 2.5ml 10X
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:33 2001

Vial: 11
Operator: GRH
Inst : Bubba
Multiplr: 10.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745014.D
Acq On : 31 Oct 2001 17:19
Sample : 110557-3 2.5ml 10X
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:33 2001

Vial: 11
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2967730	10.00	ug/L	-0.03 / 101.16%
25) i-1,4-Difluorobenzene	9.05	114	2958151	10.00	ug/L	-0.02 / 96.01%
46) i-Chlorobenzene-d5	15.31	117	2115188	10.00	ug/L	0.00 / 96.42%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1046541	10.00	ug/L	-0.02 / 84.35%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1398208	10.17	ug/L	-0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.70%			
36) s-Toluene-d8	12.32	98	2806143	10.01	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.82	95	1534890	9.55	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 95.50%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.66	96	11217	0.15	ug/L #	64
30) Trichloroethene	9.58	95	1428015	11.03	ug/L	99

11-1-01

(#) = qualifier out of range (m) = manual integration

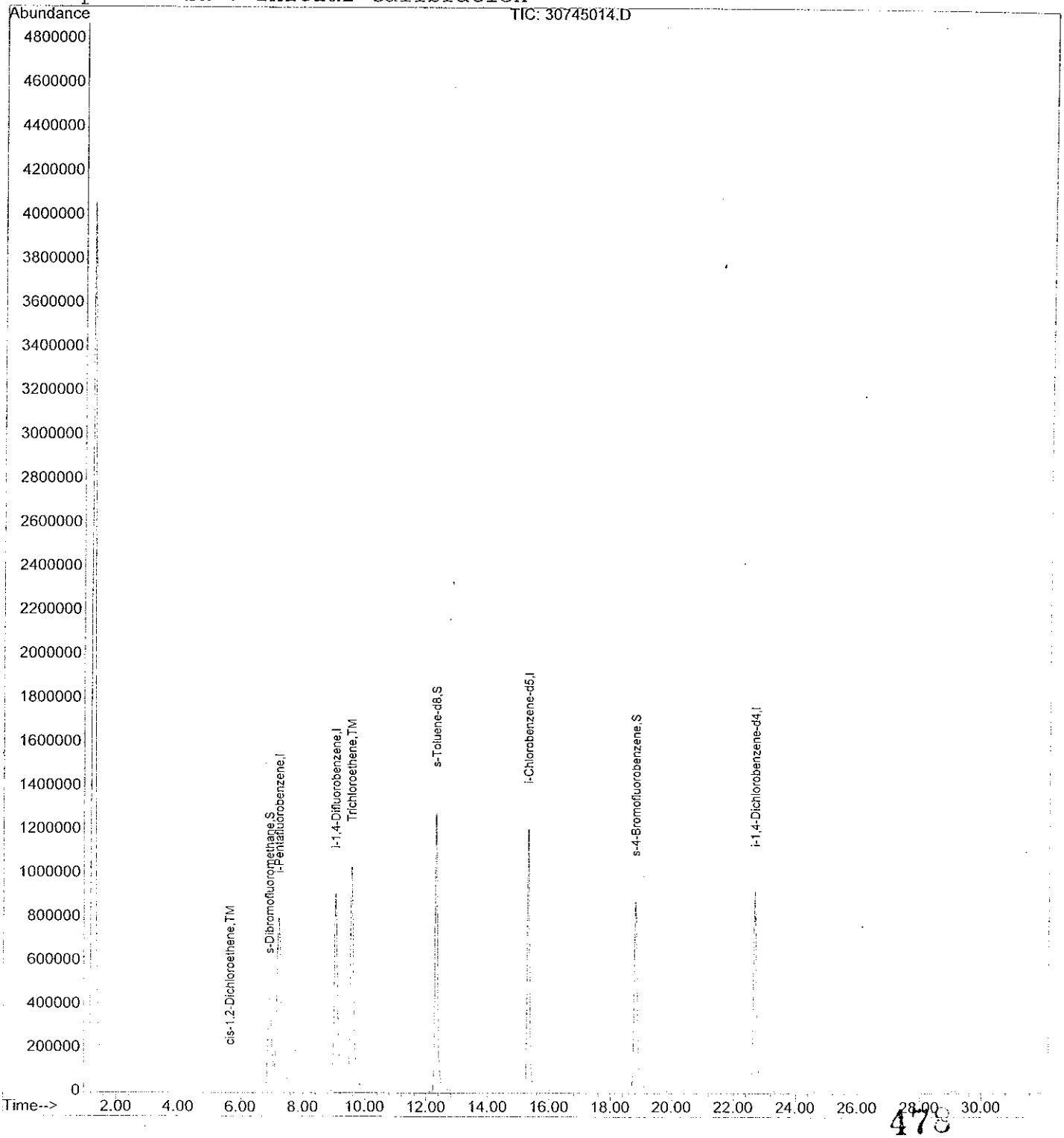
472

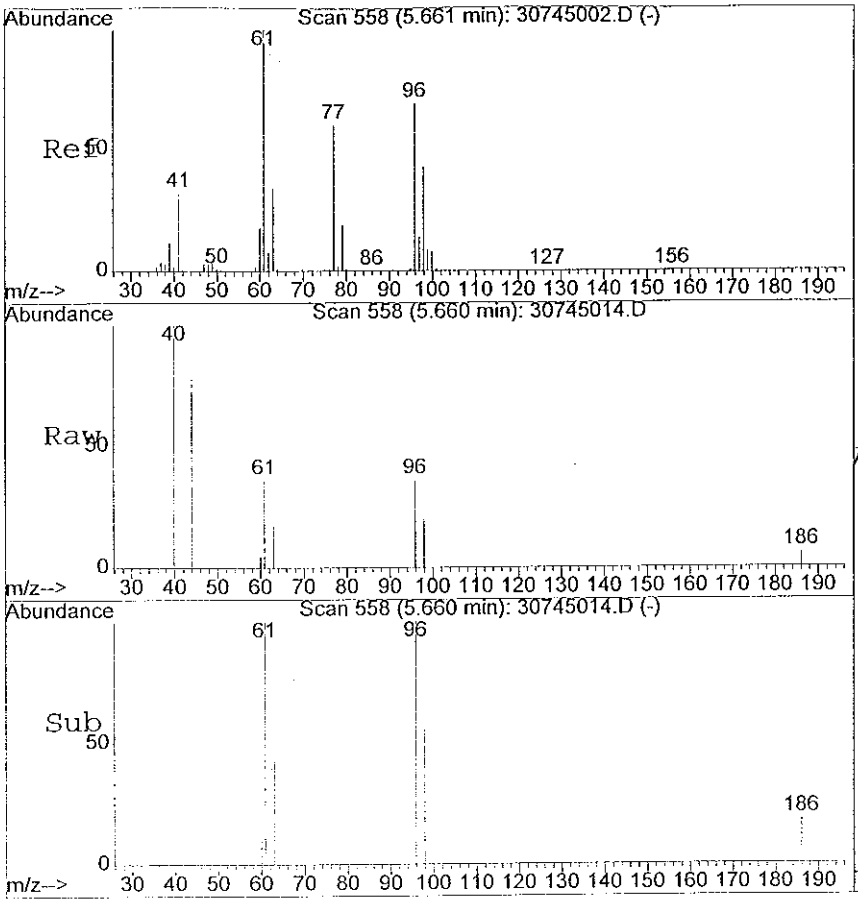
Data File : D:\HPCHEM\1\DATA\103101\30745014.D
Acq On : 31 Oct 2001 17:19
Sample : 110557-3 2.5ml 10X
Misc : CH2MHILL 3629B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:33 2001

Vial: 11
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RI

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

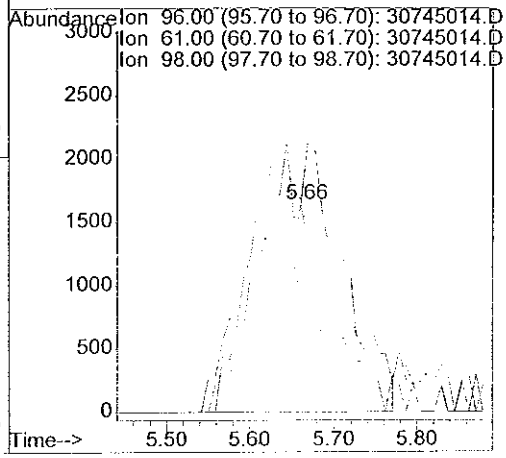


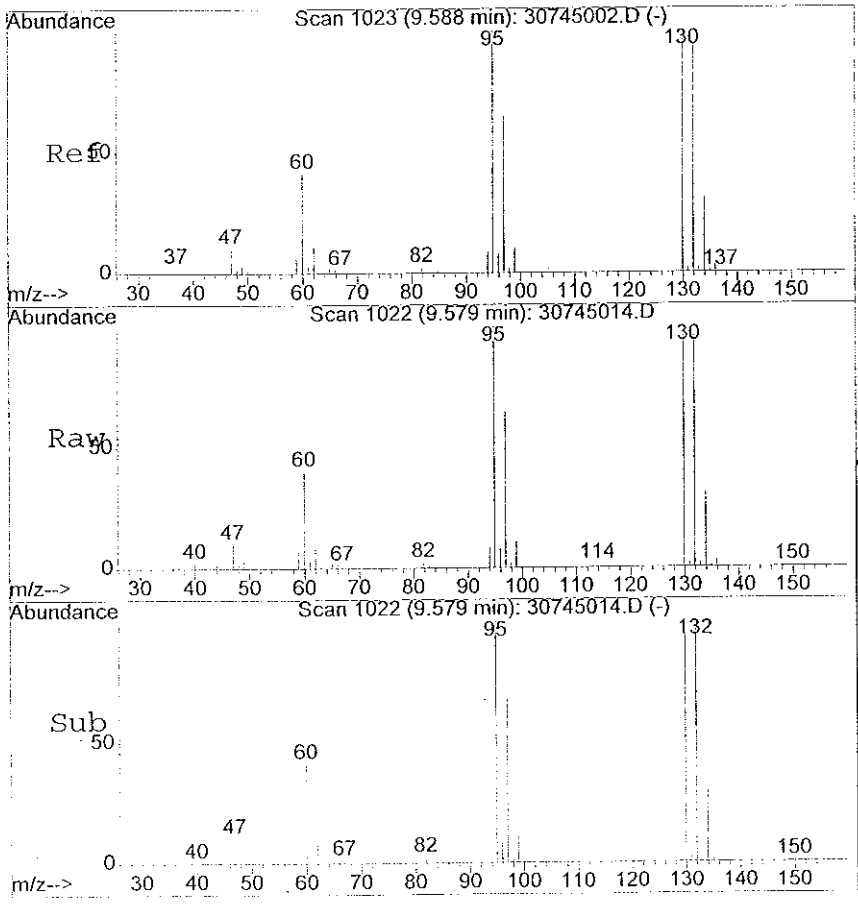


#20
cis-1,2-Dichloroethene
Concen: 0.15 ug/L
RT: 5.66 min Scan# 558
Delta R.T. -0.00 min
Lab File: 30745014.D
Acq: 31 Oct 2001 17:19

Tgt Ion: 96 Resp: 11217

Ion	Ratio	Lower	Upper
96	100		
61	83.8	124.4	164.4#
98	56.4	42.1	82.1

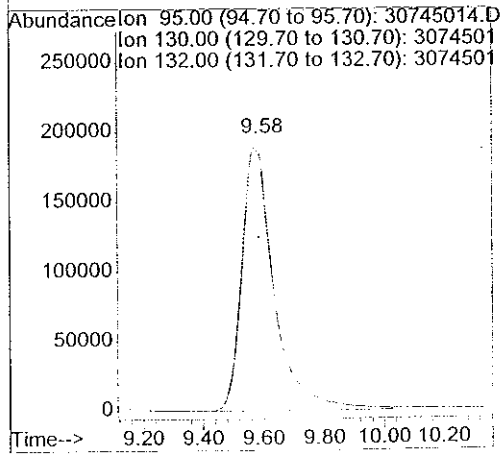




#30
Trichloroethene
Concen: 11.03 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. -0.01 min
Lab File: 30745014.D
Acq: 31 Oct 2001 17:19

Tgt Ion: 95 Resp: 1428015

Ion	Ratio	Lower	Upper
95	100		
130	95.5	76.4	116.4
132	95.9	74.0	114.0



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 17:19
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745014.D
Name: 110557-3 2.5ml 10X
Misc: CH2MHILL 3629B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30745014.D V82625B1.M Fri Nov 02 16:49:08 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745009.D
Acq On : 31 Oct 2001 13:52
Sample : 110557-4
Misc : CH2MHILL 3632C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:24 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3061847	10.00	ug/L	-0.03 / 104.37%
25) i-1,4-Difluorobenzene	9.06	114	3017047	10.00	ug/L	0.00 / 97.92%
46) i-Chlorobenzene-d5	15.30	117	2157170	10.00	ug/L	-0.03 / 98.34%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1045562	10.00	ug/L	-0.03 / 84.27%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1395755	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 98.40%			
36) s-Toluene-d8	12.32	98	2859085	10.00	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.78	95	1554237	9.48	ug/L	-0.05
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.80%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.64	96	21512	0.25	ug/L #	79
30) Trichloroethene	9.58	95	1637244	12.40	ug/L	99
40) Tetrachloroethene	13.57	166	33393	0.22	ug/L	97

11-1-01

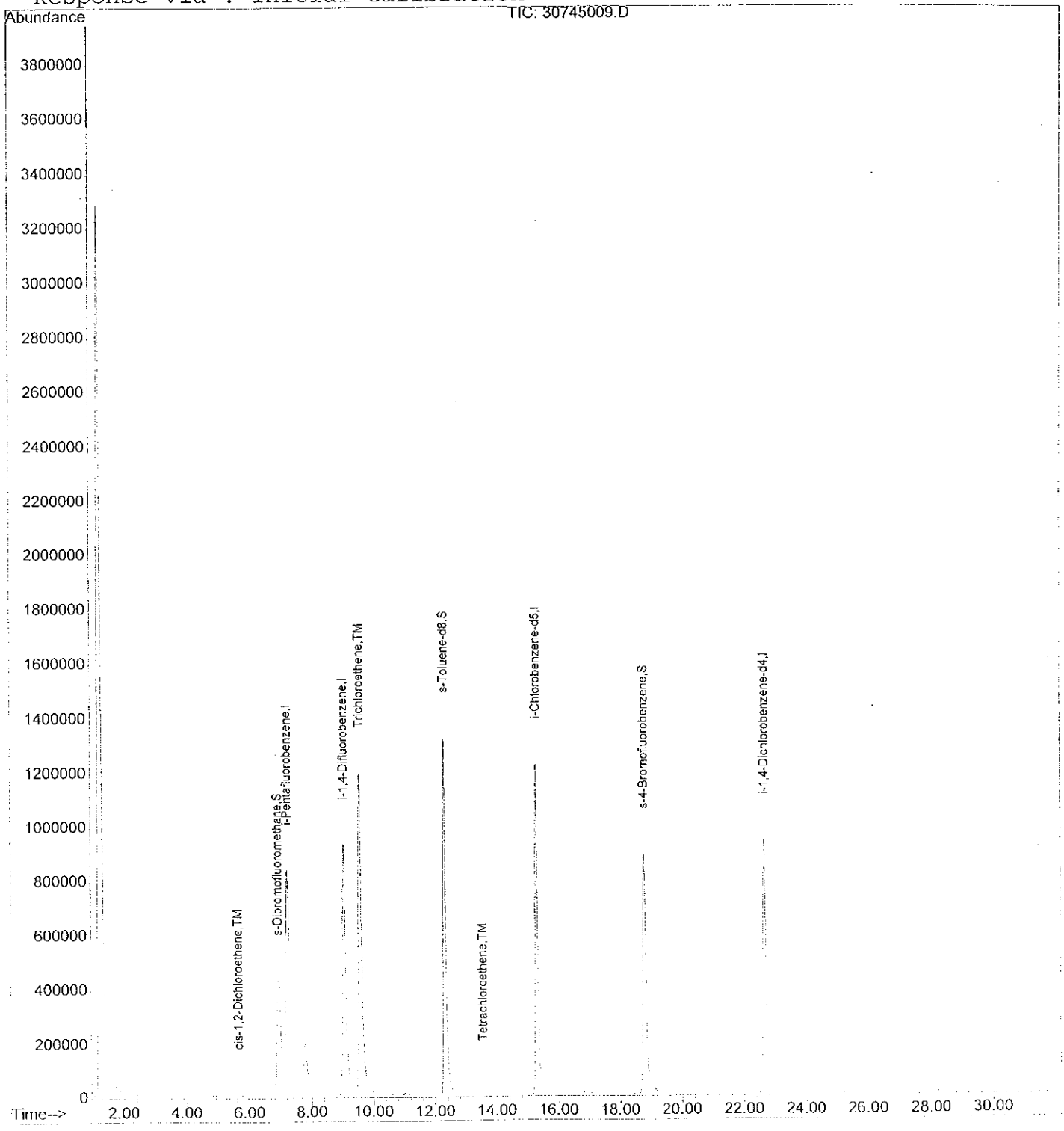
(#) = qualifier out of range (m) = manual integration

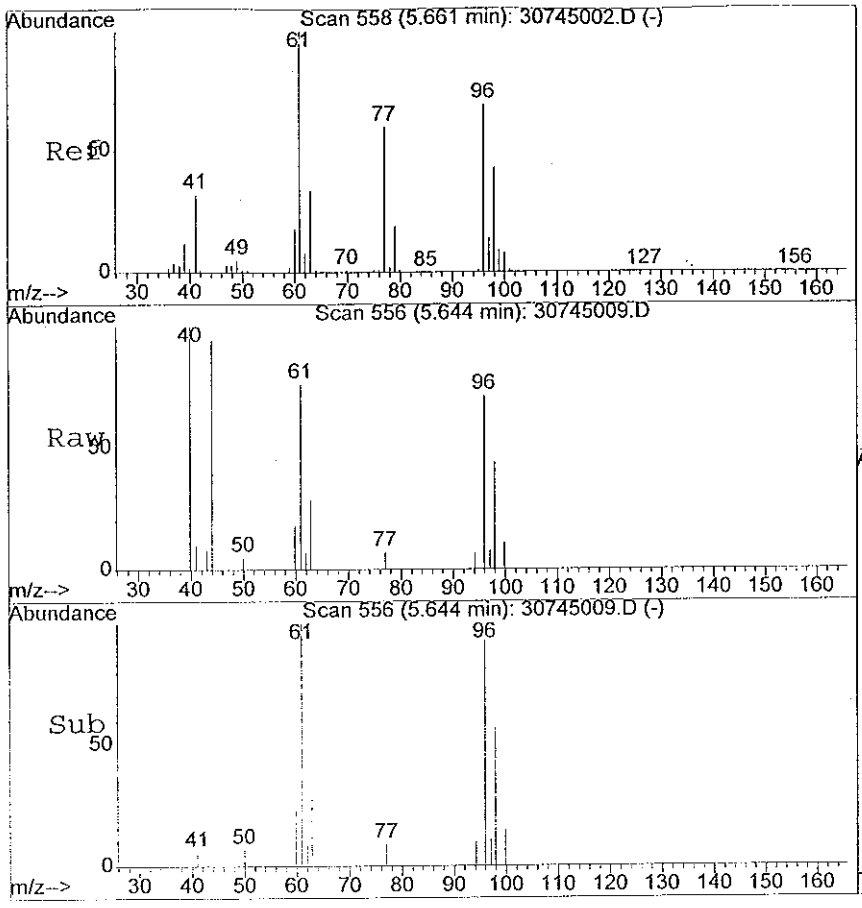
Data File : D:\HPCHEM\1\DATA\103101\30745009.D
Acq On : 31 Oct 2001 13:52
Sample : 110557-4
Misc : CH2MHILL 3632C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:24 2001

Vial: 6
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

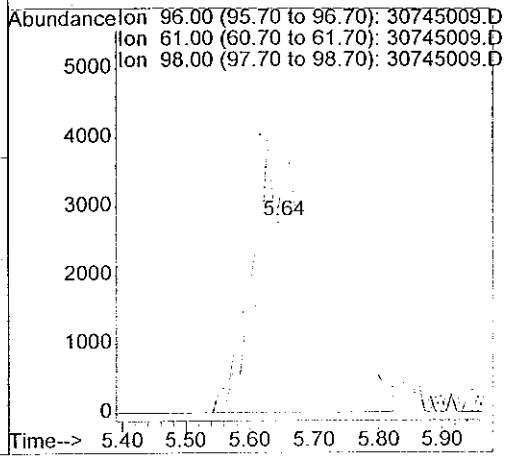


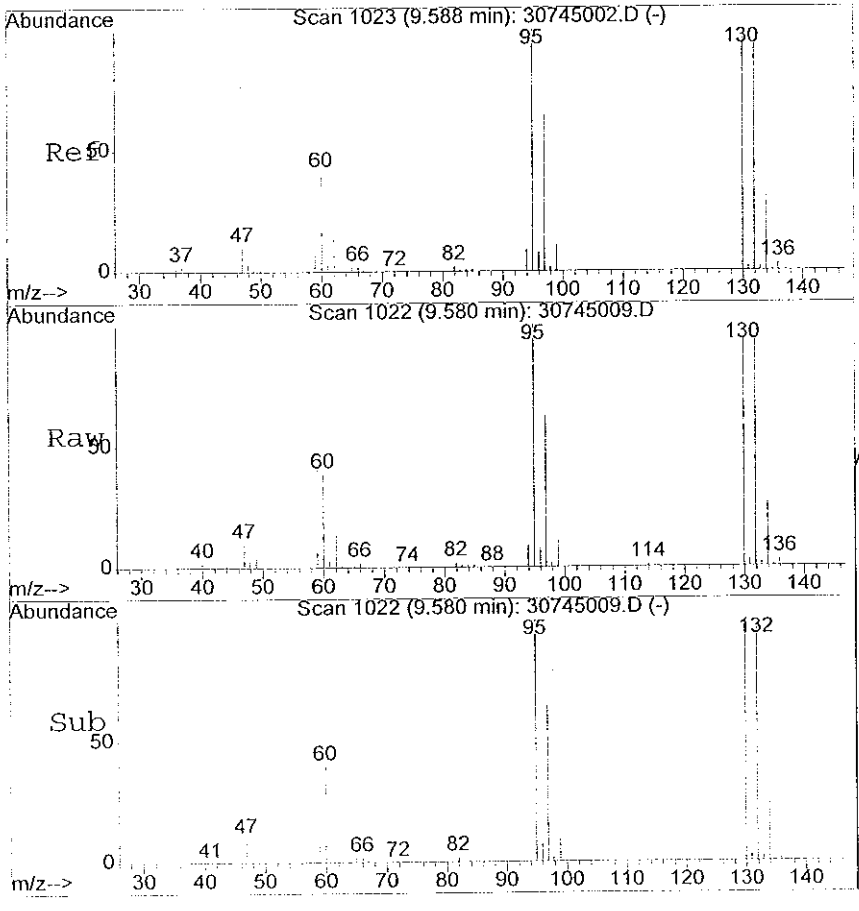


#20
cis-1,2-Dichloroethene
Concen: 0.25 ug/L
RT: 5.64 min Scan# 556
Delta R.T. -0.02 min
Lab File: 30745009.D
Acq: 31 Oct 2001 13:52

Tgt Ion: 96 Resp: 21512

Ion	Ratio	Lower	Upper
96	100		
61	107.0	124.4	164.4#
98	61.5	42.1	82.1

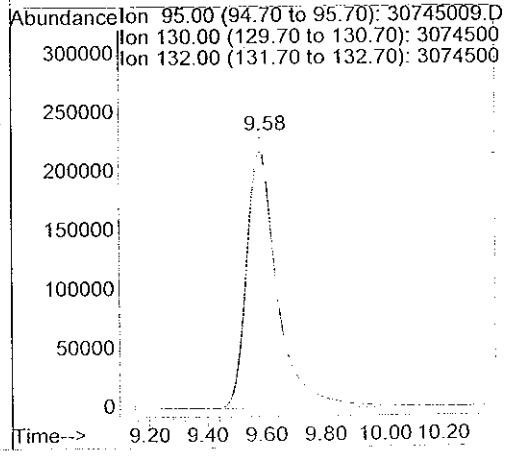


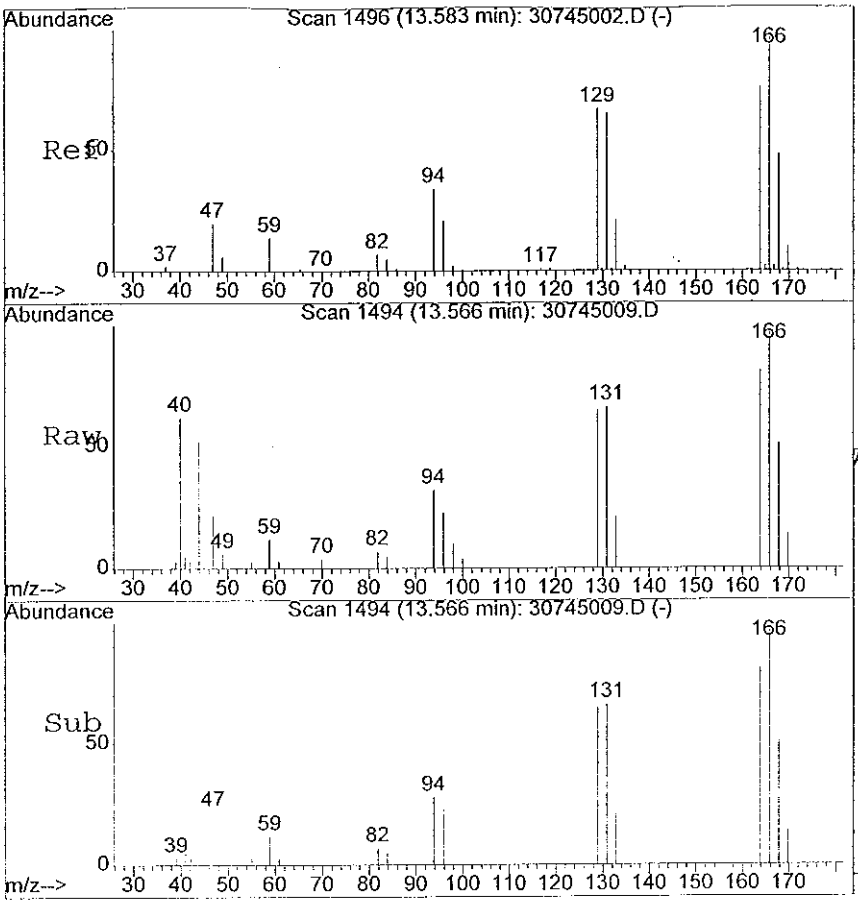


#30
Trichloroethene
Concen: 12.40 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. -0.01 min
Lab File: 30745009.D
Acq: 31 Oct 2001 13:52

Tgt Ion: 95 Resp: 1637244

Ion	Ratio	Lower	Upper
95	100		
130	94.6	76.4	116.4
132	94.8	74.0	114.0

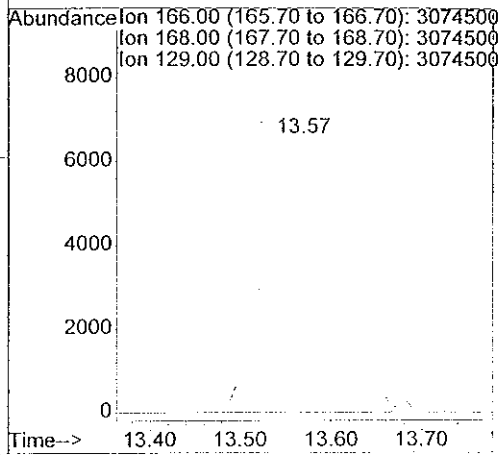




#40
Tetrachloroethene
Concen: 0.22 ug/L
RT: 13.57 min Scan# 1494
Delta R.T. -0.02 min
Lab File: 30745009.D
Acq: 31 Oct 2001 13:52

Tgt Ion:166 Resp: 33393

Ion	Ratio	Lower	Upper
166	100		
168	51.1	27.9	67.9
129	65.1	47.2	87.2



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 13:52
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745009.D
Name: 110557-4
Misc: CH2MHILL 3632C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30745009.D V82625B1.M Fri Nov 02 16:46:48 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745010.D
Acq On : 31 Oct 2001 14:34
Sample : 110557-5
Misc : CH2MHILL 36FD1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:26 2001

Vial: 7
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2876330	10.00	ug/L	-0.03 98.05%
25) i-1,4-Difluorobenzene	9.05	114	2737109	10.00	ug/L	-0.02 88.84%
46) i-Chlorobenzene-d5	15.29	117	1813860	10.00	ug/L	-0.03 82.69%
57) i-1,4-Dichlorobenzene-d4	22.65	152	858286	10.00	ug/L	-0.04 69.18%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1154813	8.67	ug/L	-0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.70%			
36) s-Toluene-d8	12.31	98	2510392	9.68	ug/L	-0.03
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.80%			
56) s-4-Bromofluorobenzene	18.78	95	1297126	9.41	ug/L	-0.06
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.10%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	215696m	2.31	ug/L #	91
30) Trichloroethene	9.56	95	543931	4.54	ug/L	98
40) Tetrachloroethene	13.56	166	160247	1.16	ug/L	97
66) 1,2,4-Trimethylbenzene	21.68	105	35436	0.17	ug/L	93
71) 1,2-Dichlorobenzene	23.83	146	95276	0.82	ug/L	97

(R) 11-1-01

(#) = qualifier out of range (m) = manual integration

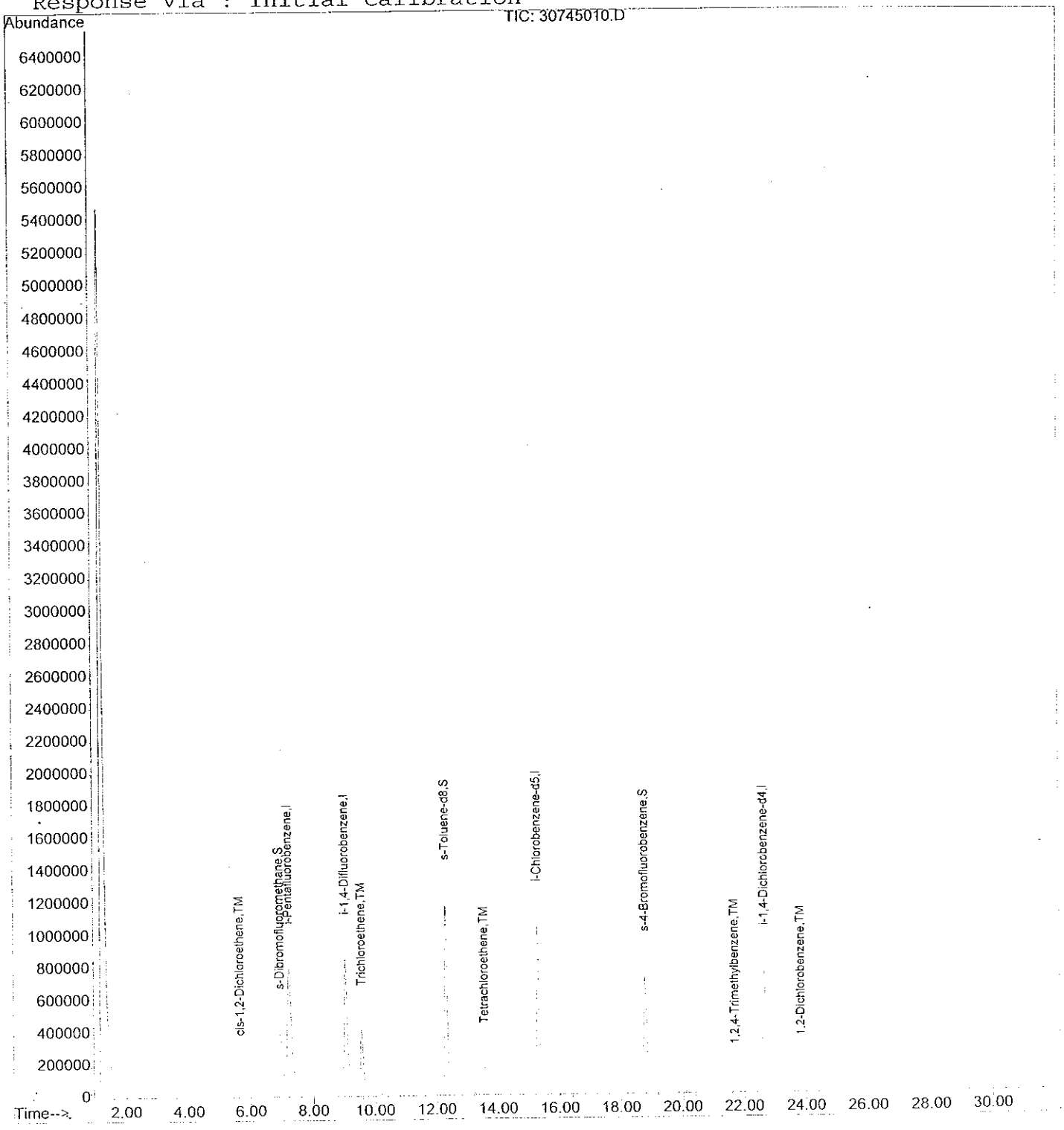
Quantitation Report

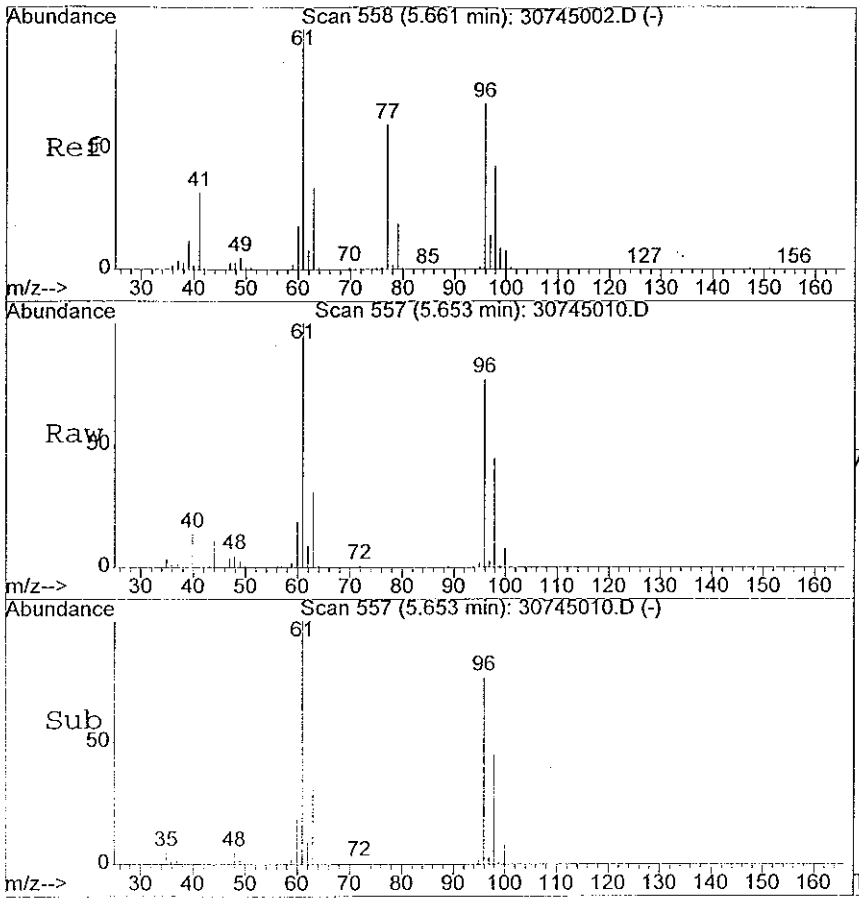
Data File : D:\HPCHEM\1\DATA\103101\30745010.D
Acq On : 31 Oct 2001 14:34
Sample : 110557-5
Misc : CH2MHILL 36FD1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:26 2001

Vial: 7
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

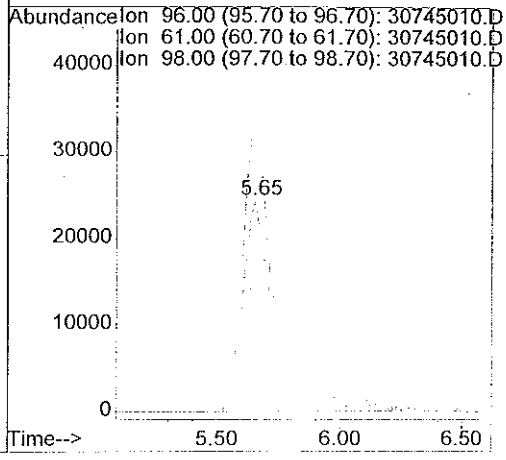


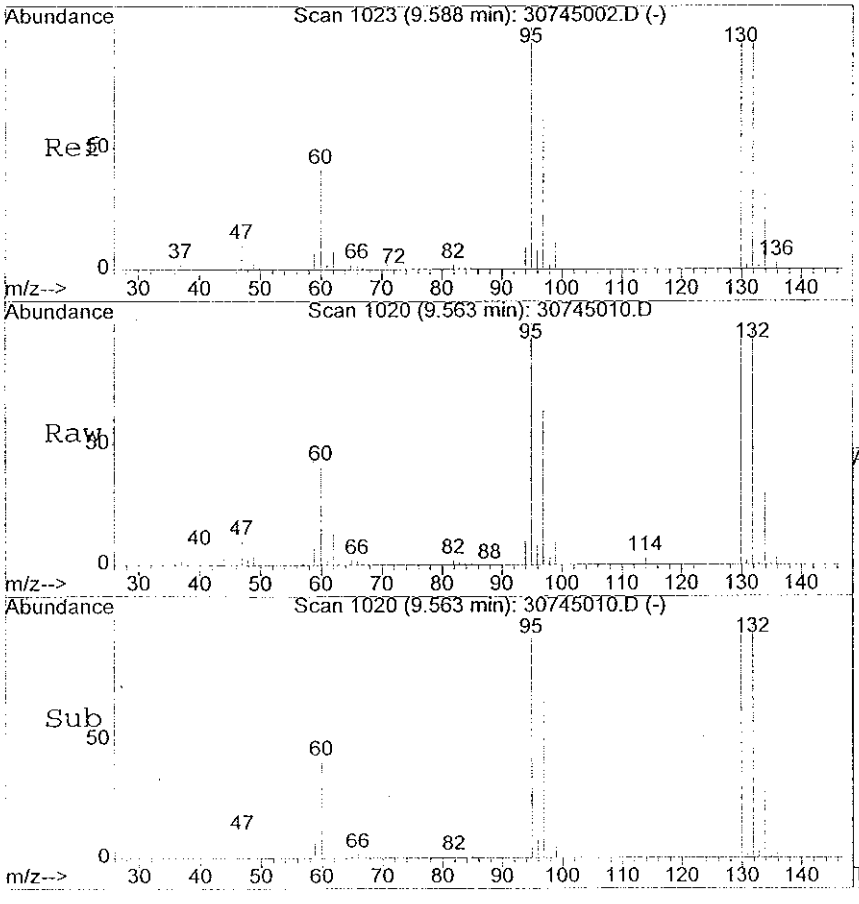


#20
cis-1,2-Dichloroethene
Concen: 2.31 ug/L m
RT: 5.65 min Scan# 557
Delta R.T. -0.01 min
Lab File: 30745010.D
Acq: 31 Oct 2001 14:34

Tgt Ion: 96 Resp: 215696

Ion	Ratio	Lower	Upper
96	100		
61	125.1	124.4	164.4
98	0.0	42.1	82.1#

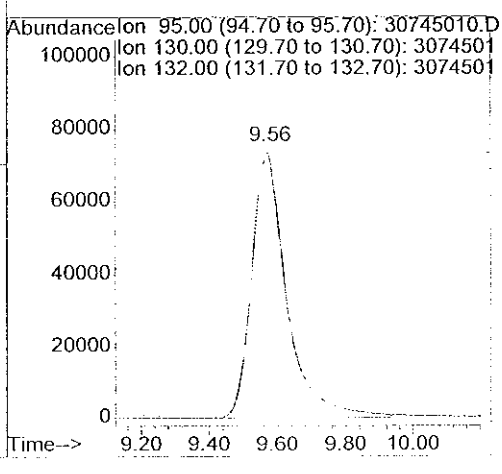


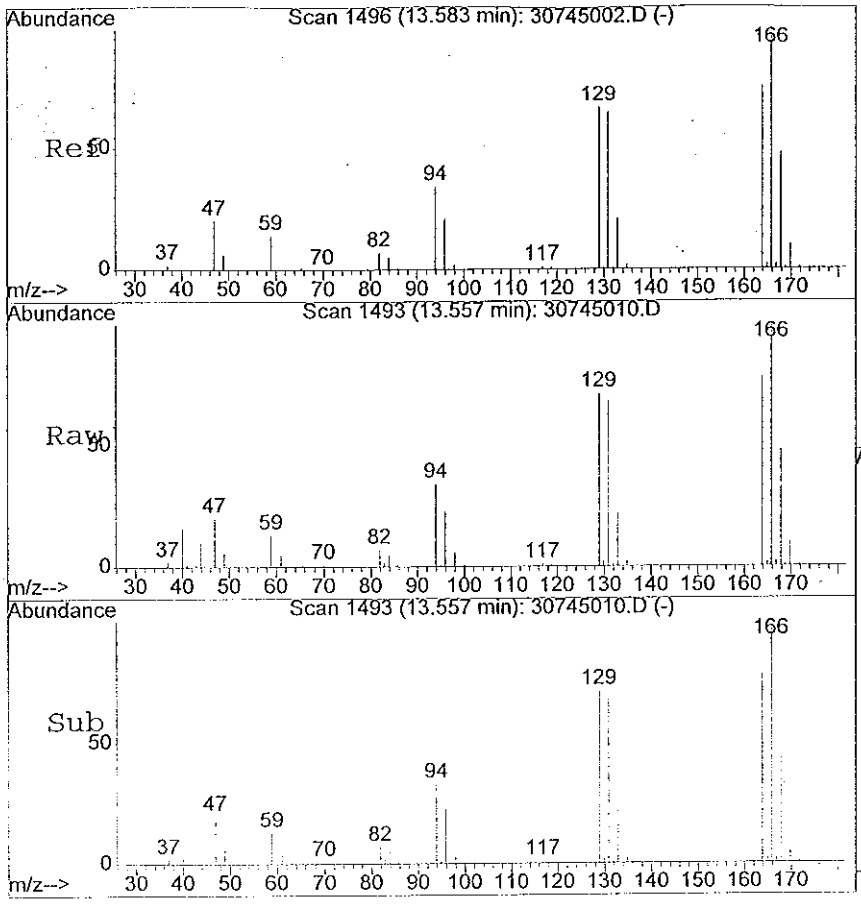


#30
Trichloroethene
Concen: 4.54 ug/L
RT: 9.56 min Scan# 1020
Delta R.T. -0.03 min
Lab File: 30745010.D
Acq: 31 Oct 2001 14:34

Tgt Ion: 95 Resp: 543931

Ion	Ratio	Lower	Upper
95	100		
130	95.3	76.4	116.4
132	96.6	74.0	114.0

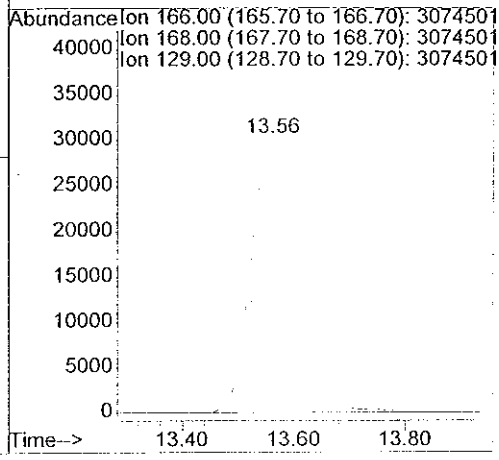


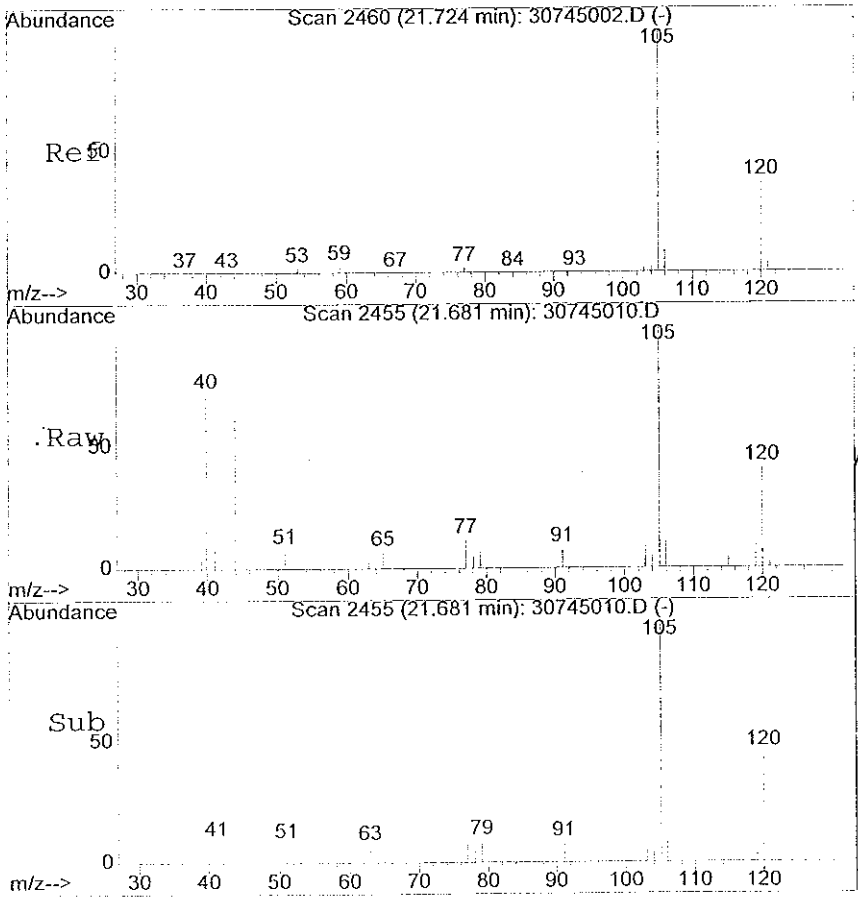


#40
Tetrachloroethene
Concen: 1.16 ug/L
RT: 13.56 min Scan# 1493
Delta R.T. -0.03 min
Lab File: 30745010.D
Acq: 31 Oct 2001 14:34

Tgt Ion:166 Resp: 160247

Ion	Ratio	Lower	Upper
166	100		
168	48.4	27.9	67.9
129	71.1	47.2	87.2

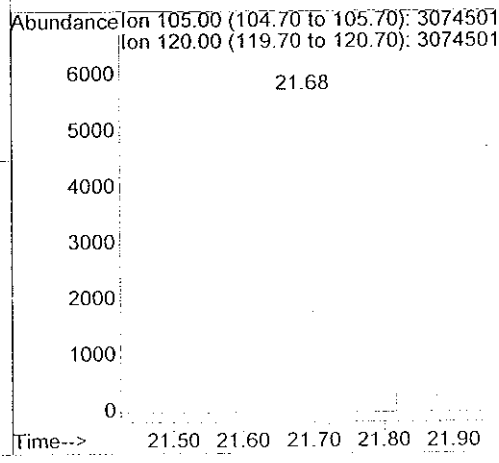


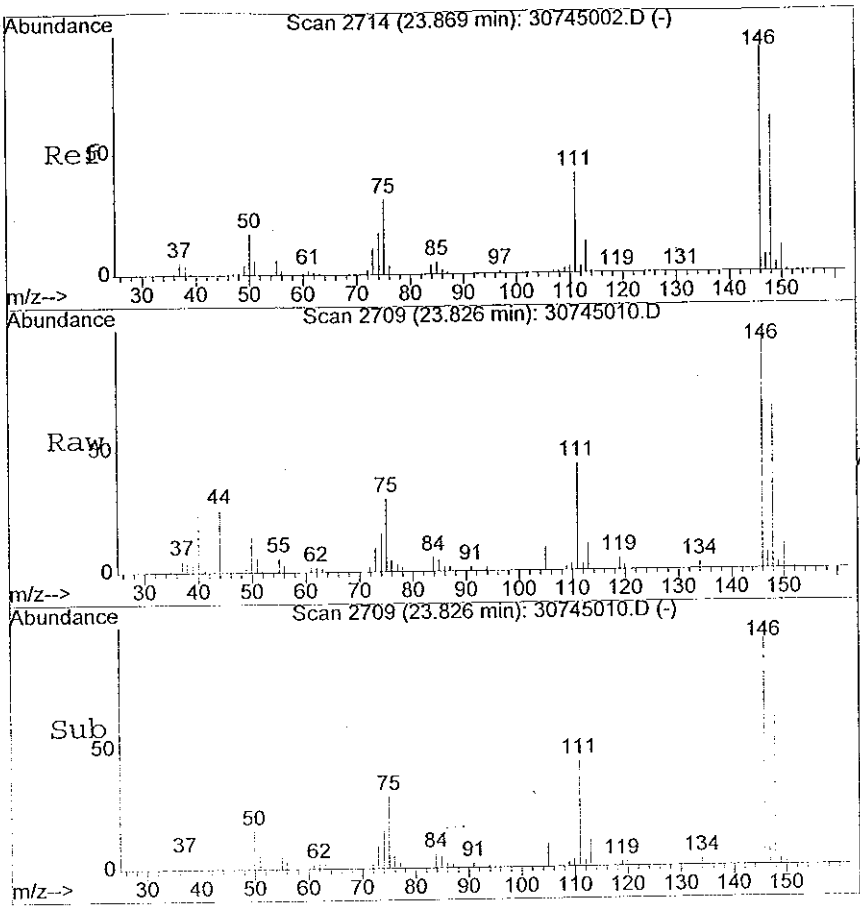


#66
1,2,4-Trimethylbenzene
Concen: 0.17 ug/L
RT: 21.68 min Scan# 2455
Delta R.T. -0.04 min
Lab File: 30745010.D
Acq: 31 Oct 2001 14:34

Tgt Ion:105 Resp: 35436

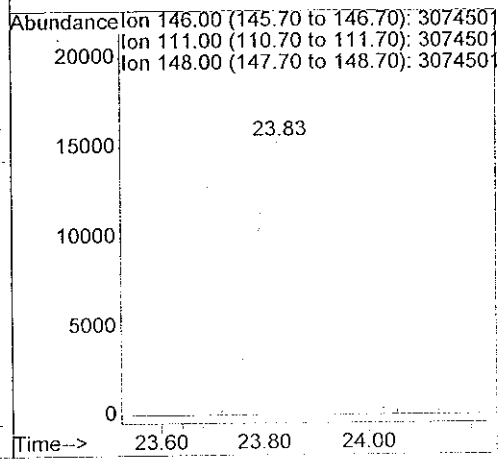
Ion	Ratio	Lower	Upper
105	100		
120	41.5	26.1	66.1





#71
1,2-Dichlorobenzene
Concen: 0.82 ug/L
RT: 23.83 min Scan# 2709
Delta R.T. -0.04 min
Lab File: 30745010.D
Acq: 31 Oct 2001 14:34

Tgt Ion:146	Resp:	95276	
Ion	Ratio	Lower	Upper
146	100		
111	43.6	21.3	61.3
148	67.0	44.3	84.3



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 14:34
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745010.D
Name: 110557-5
Misc: CH2MHILL 36FD1-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
unknown hydrocarbon	26.29	3.0	ug/L	1499470	ISTD04	22.65	4959670	10.0

30745010.D V82625B1.M Fri Nov 02 16:47:17 2001

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103101\30745010.D Vial: 7
Acq On : 31 Oct 2001 14:34 Operator: GRH
Sample : 110557-5 Inst : Bubba
Misc : CH2MHILL 36FD1-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

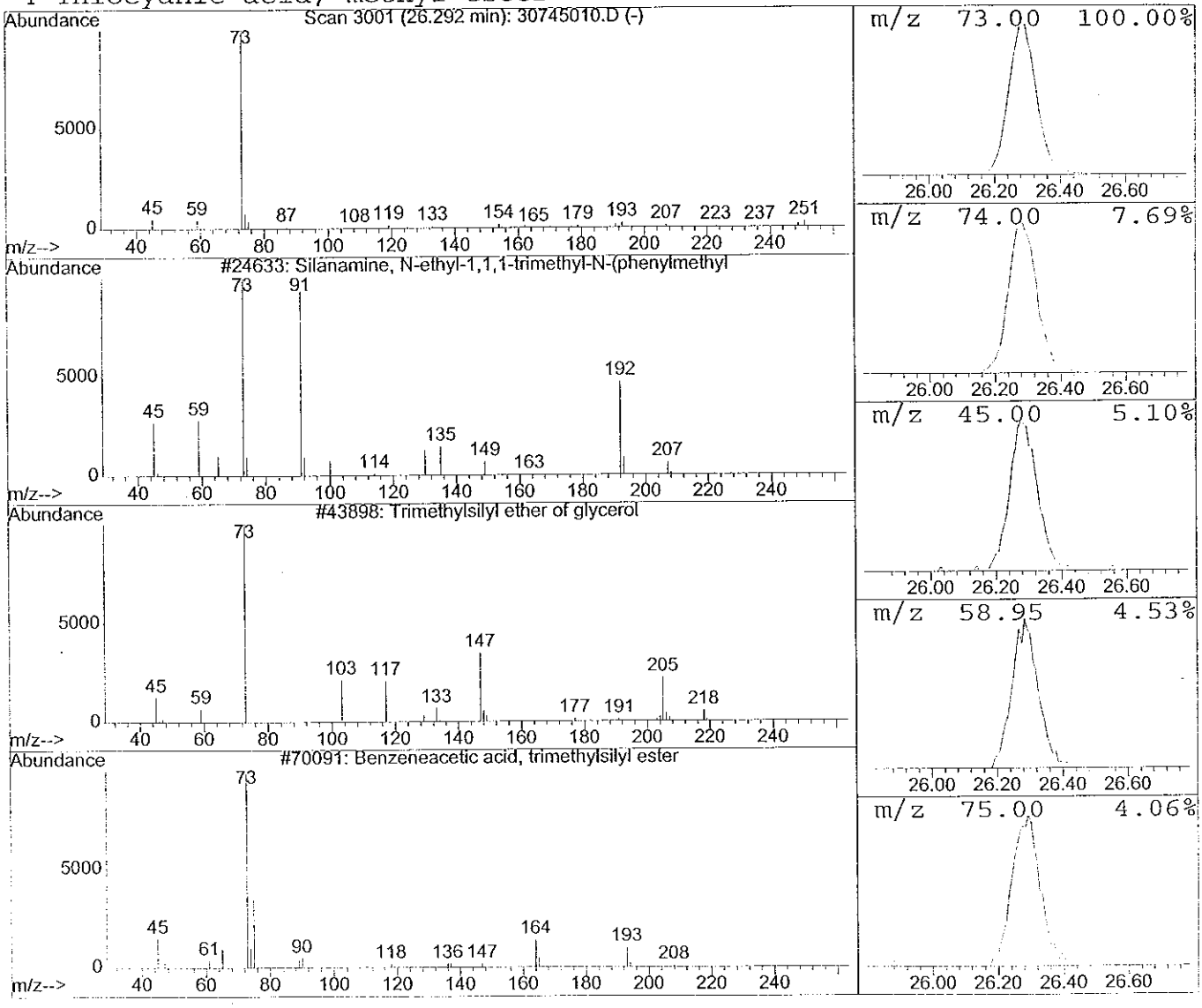
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.29	3.02 ug/L	1499470	i-1,4-Dichloroben	4959670	22.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanamine, N-ethyl-1,1,1-trimethyl	207	C12H21NSi	014629-66-4	9
2	Trimethylsilyl ether of glycerol	308	C12H32O3Si3	006787-10-6	9
3	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4



Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745011.D
Acq On : 31 Oct 2001 15:16
Sample : 110557-6
Misc : CH2MHILL 36FB1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:27 2001

Vial: 8
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2845474	10.00	ug/L	-0.03 96.99%
25) i-1,4-Difluorobenzene	9.05	114	2756478	10.00	ug/L	-0.02 89.47%
46) i-Chlorobenzene-d5	15.30	117	1845953	10.00	ug/L	-0.02 84.15%
57) i-1,4-Dichlorobenzene-d4	22.66	152	818570	10.00	ug/L	-0.03 65.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1178720	8.94	ug/L	-0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 89.40%			
36) s-Toluene-d8	12.32	98	2539293	9.72	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.20%			
56) s-4-Bromofluorobenzene	18.80	95	1299552	9.26	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.60%			

Target Compounds Qvalue

11-1-01

493

(#) = qualifier out of range (m) = manual integration

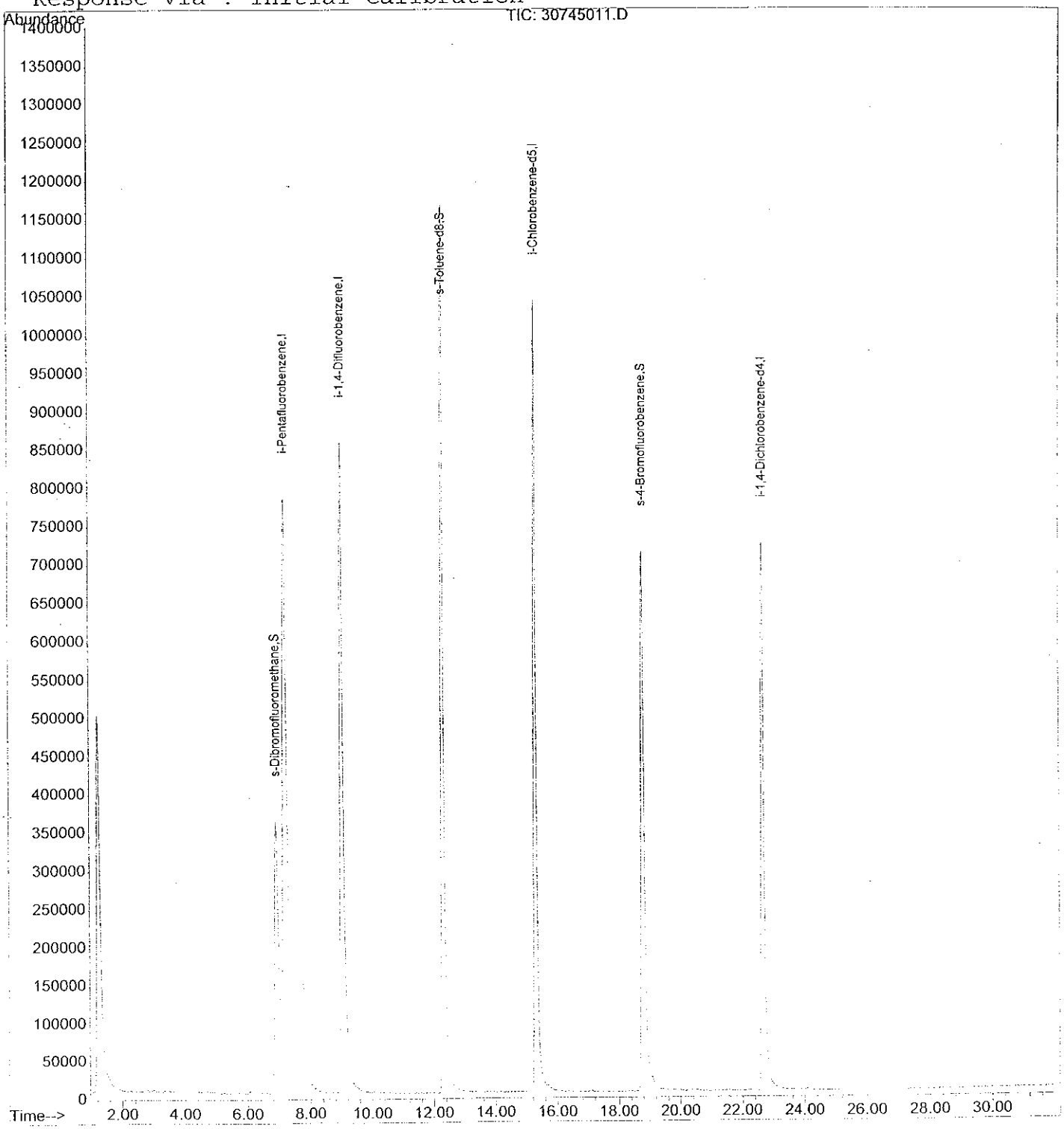
Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745011.D
Acq On : 31 Oct 2001 15:16
Sample : 110557-6
Misc : CH2MHILL 36FB1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:27 2001

Vial: 8
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 15:16
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745011.D
Name: 110557-6
Misc: CH2MHILL 36FB1-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30745011.D V82625B1.M Fri Nov 02 16:47:44 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745012.D
Acq On : 31 Oct 2001 15:55
Sample : 110557-7
Misc : CH2MHILL 36EB1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:28 2001

Vial: 9
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2842645	10.00	ug/L	-0.02 96.90%
25) i-1,4-Difluorobenzene	9.06	114	2709232	10.00	ug/L	0.00 87.93%
46) i-Chlorobenzene-d5	15.32	117	1811745	10.00	ug/L	0.00 82.59%
57) i-1,4-Dichlorobenzene-d4	22.69	152	811951	10.00	ug/L	0.00 65.44%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1151186	8.74	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 87.40%			
36) s-Toluene-d8	12.34	98	2509223	9.78	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.80%			
56) s-4-Bromofluorobenzene	18.83	95	1255302	9.12	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 91.20%			
Target Compounds						Qvalue
23) 1,1,1-Trichloroethane	6.86	97	31843	0.21	ug/L	97

11-1-01

(#) = qualifier out of range (m) = manual integration

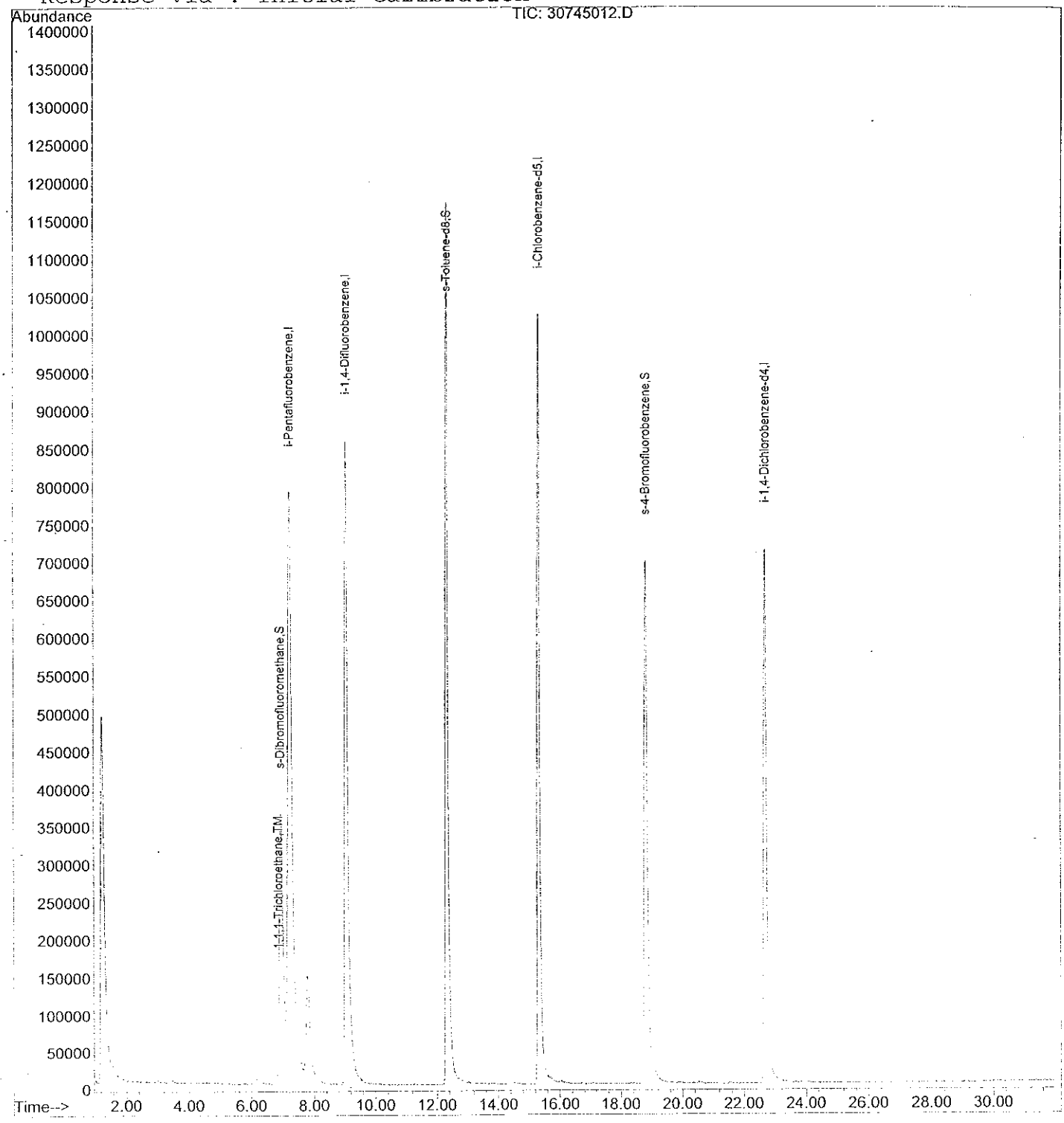
Quantitation Report

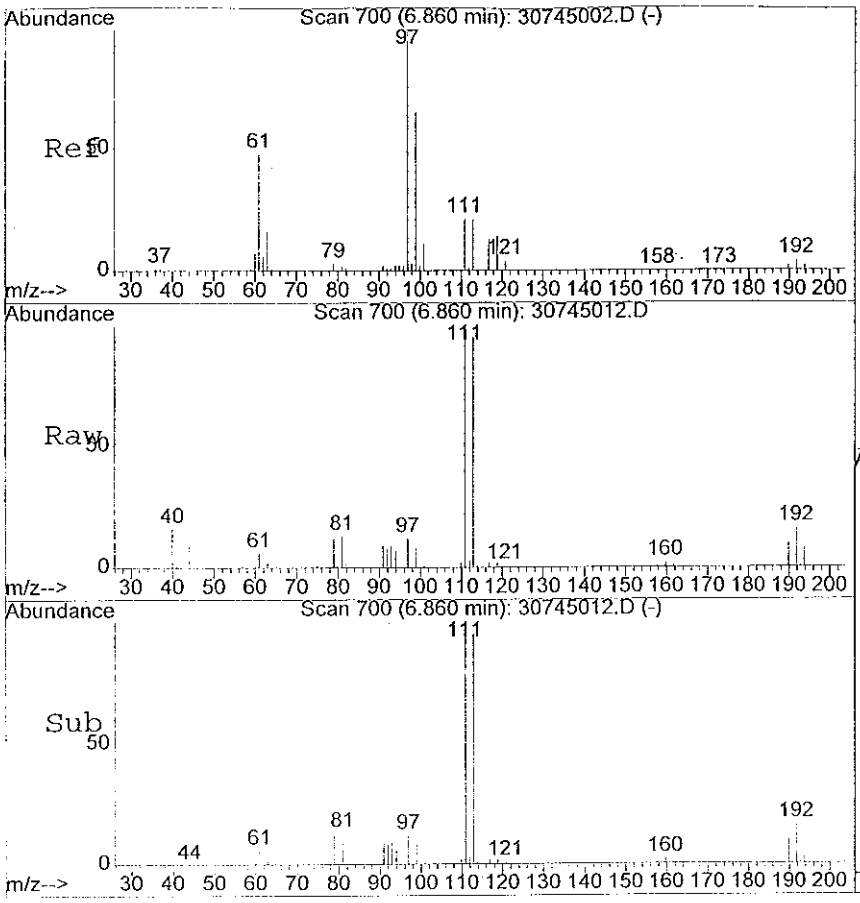
Data File : D:\HPCHEM\1\DATA\103101\30745012.D
Acq On : 31 Oct 2001 15:55
Sample : 110557-7
Misc : CH2MHILL 36EB1-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 5:28 2001

Vial: 9
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration

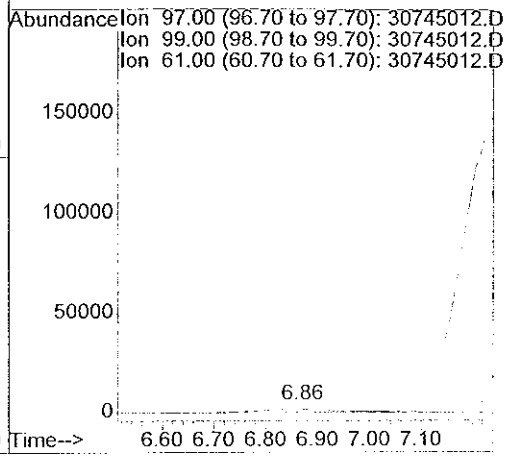




#23
1,1,1-Trichloroethane
Concen: 0.21 ug/L
RT: 6.86 min Scan# 700
Delta R.T. -0.00 min
Lab File: 30745012.D
Acq: 31 Oct 2001 15:55

Tgt Ion: 97 Resp: 31843

Ion	Ratio	Lower	Upper
97	100		
99	66.6	44.8	84.8
61	50.7	27.8	67.8



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 15:55
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745012.D
Name: 110557-7
Misc: CH2MHILL 36EB1-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30745012.D V82625B1.M Fri Nov 02 16:48:08 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745013.D Vial: 10
Acq On : 31 Oct 2001 16:37 Operator: GRH
Sample : 110557-8 Inst : Bubba
Misc : CH2MHILL 36TB1-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 5:32 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2920762	10.00	ug/L	-0.02 99.56%
25) i-1,4-Difluorobenzene	9.05	114	2954310	10.00	ug/L	-0.02 95.89%
46) i-Chlorobenzene-d5	15.31	117	2166320	10.00	ug/L	-0.02 98.75%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1075004	10.00	ug/L	-0.03 86.64%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1445881	10.69	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 106.90%			
36) s-Toluene-d8	12.32	98	2806590	10.03	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.30%			
56) s-4-Bromofluorobenzene	18.81	95	1646094	10.00	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.00%			

Target Compounds Qvalue

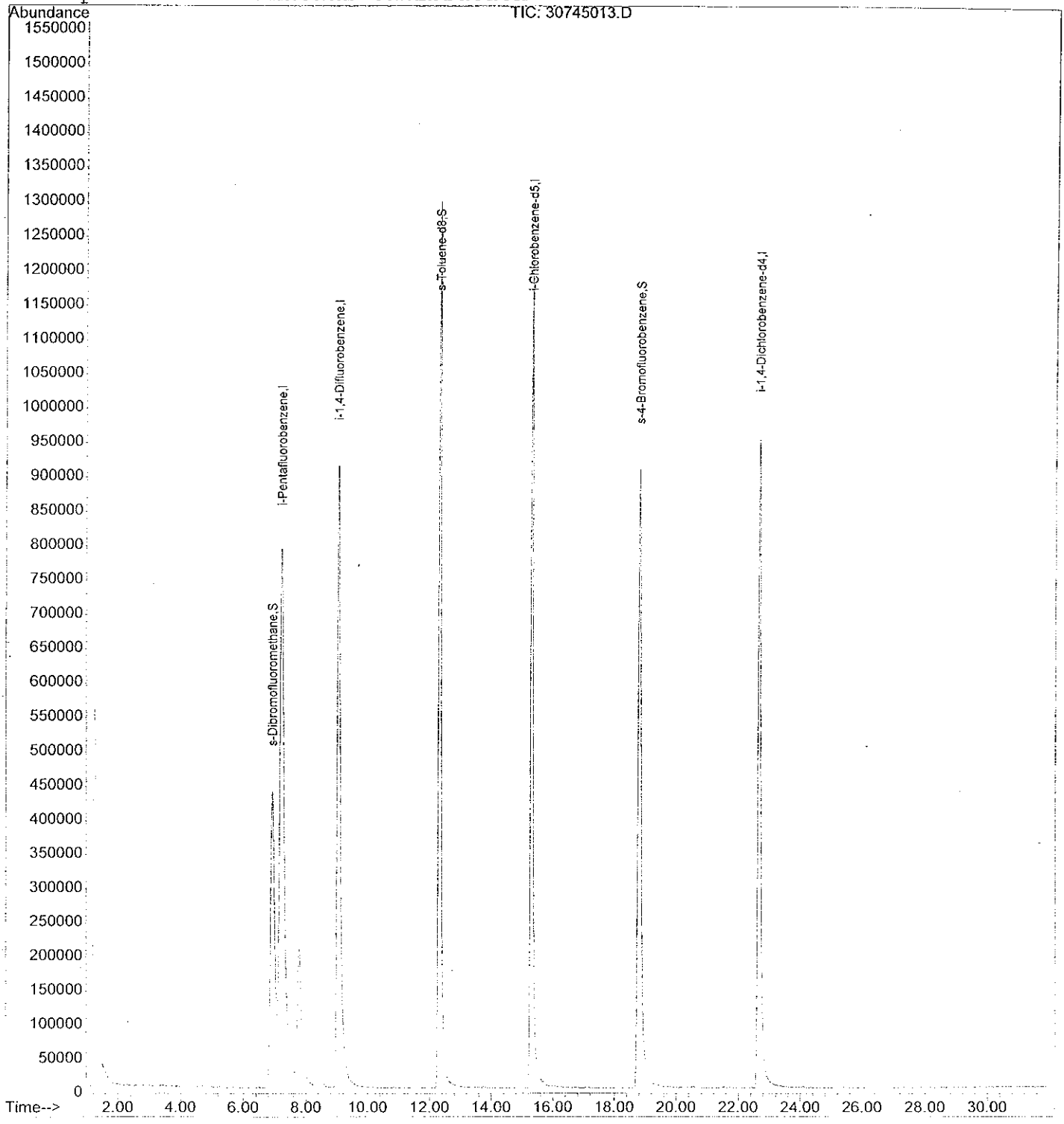
11-1-01

(#) = qualifier out of range (m) = manual integration 500
30745013.D V82625B1.M Thu Nov 01 05:32:45 2001 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103101\30745013.D Vial: 10
Acq On : 31 Oct 2001 16:37 Operator: GRH
Sample : 110557-8 Inst : Bubba
Misc : CH2MHILL 36TB1-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 5:32 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 31 Oct 2001 16:37
Data File: D:\HPCHEM\1\DATA\BUBBA\103101\30745013.D
Name: 110557-8
Misc: CH2MHILL 36TB1-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30745013.D V82625B1.M Fri Nov 02 16:48:29 2001

STL – PENSACOLA, FL / GCMS

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
Volatile Mix 6	LA89847	Supleco	2000µg/ml	6/22/00	7/2001	1	8-VN 2-1
Iodomethane	LA89788	Supleco	20000µg/ml	6/22/00	7/2001	1	8-VN 2-2
8260 Mix C	LA90476	Supleco	2000µg/ml	6/22/00	5/2002	1	8-VN 2-3
8260 IS	A016078	Restek	2500µg/ml	8/25/00	8/2003	10	8-VN 2-4
1,1,2-Trichloro-1,2,2-Trifluoroethane	A8100018	Acc STD	2000µg/ml	10/26/00	11/1/2001	2	8-VN 2-5
1,1,2-Trichloro-1,2,2-Trifluoroethane	A016542	Restek	2000µg/ml	10/17	10/17/2001	1	8-VN 2-6
1,1,2-Trichloro-1,2,2-Trifluoroethane	A8100018	Acc STD	2000µg/ml	10/31	11/1/2001	2	8-VN 2-7
8260 Vol Kit	Various	Restek	2000µg/ml	11/1/00	11	1	8-VN 2-8
MTBE / Freon 113	A016494 A016542	Restek	2000	11/2004 ⟷ 11/1/2001	11/1/00	drench	8-VN 2-9
n-Hexane	80110235	Accustandard	2.0mg/ml	11/16/00	12/1/01	2	8-VN 2-10
Iso-octane	80110234	↓	↓	↓	↓	5	8-VN 2-11
BP Shortlist Std.	LA95178	Supelco	5000µg/ml	12/20/00	12/20/01	3	8-VN 2-12
8260 Surr	A017973	Restek	2500µg/ml	12/22/00	3/2004	10	8-VN 2-13
Nitrobenzene	LA91148	Supelco	5000µg/ml	1/4/01	6/2003	1	8-VN 2-14
Nitrobenzene	044-072	Accustandard	1000µg/ml	1/5/01	1/6/02	1	8-VN 2-15
Oxygenate Gasoline Add std	B 10100025	Accustandard	Varied	2/20/01	1/4/03	1	8-VN 2-16
Keytone Mix	A019217	Restek	Various 1000µg/ml	4/16/01	4/2003	5	8-VN 2-17
Vinyl Acetate	A019218	Restek	4000µg/ml	4/6/01	4/2003	5	8-VN 2-18
Isopropyl Ether	A019194	Restek	2000µg/ml	4/9/01	4/2004	3	8-VN 2-19
Int. STD Mix-Tol4	A018018	Restek	2500µg/ml	4/9/01	3/2005	5	8-VN 2-20
IS-8260	A018631	Restek	2500µg/ml	4/13/01	6/2004	10	8-VN 2-21
Custom Mix	LA97340	Supelco	2000/4000µg/ml	4/16/01	4/16/02	4	8-VN 2-22
Supleco Mix 6	LA95901	Supleco	2000µg/ml	4/17	5/02	2	8-VN 2-23
Equity Keytone Mix	LA90477	Supleco	4000µg/ml	4/17	11/01	4	8-VN 2-24
Freon 113	LA91143	Supleco	2000µg/ml	4/17	6/03	2	8-VN 2-25
Equity Iodomethane	LA95926	Supleco	2000µg/ml	4/17	5/02	2	8-VN 2-26
502/524 Mix	LA96091	Supleco	2000µg/ml	4/17	4/03	2	8-VN 2-27

STL – PENSACOLA, FL / GCMS

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
OXYGENATES MIX	A018874	RESTEK	2000 - 10,000	4/18/01	4/18/02	1	8-VN 3 - 1
Freon 113	A018831	Restek	2000	5/3/01	5/3/02	2	8-VN 3 - 2
MTBE	A017647	Restek	2000	5/3/01	6/04	2	8-VN 3 - 3
8260 Kit	Various	Restek	2000	5/3	Various	2	8-VN 3 - 4
Chloroprene	R1373	Ultra	100 µg/ml	5/4/01	12/2002	4	8-VN 3 - 5
Acrylonitrile	A015204	Restek	2000	5/4/01	1/02	1	8-VN 3 - 6
APPIX - Mix B	LA97780	Supelco	2000 µg/ml	5/7/01	5/7/02	4	8-VN 3 - 7
APPIX - Mix A	LA97779	Supelco	2000/6000 µg/ml	5/9/01	5/9/02	4	8-VN 3 - 8
Isopropyl Ether	A019529	Restek	2000 µg/ml	5/9	5/04	2	8-VN 3 - 9
Freon 113	A018830	Restek	2000 µg/ml	5/14	5/14/02	3	8-VN 3 - 10
8260 SURR	A019471	Restek	2500 µg/ml	9/14	8/04	10	8-VN 3 - 11
8260 IS	A020353	Restek	2500 µg/ml	9/14	11/04	10	8-VN 3 - 12
Freon 113	LA98546	Supleco	2000 µg/ml	~~9/21~~	6/04	2	8-VN 3 - 13
Vol Mix 6	LA99456	Supleco	2000 µg/ml	9/21	11/02	2	8-VN 3 - 14
502/524 Mix	LA98534	Supleco	2000 µg/ml	9/21	10/03	2	8-VN 3 - 15
Keytones	LA97488	Supleco	2000 µg/ml	9/21	9/03	4	8-VN 3 - 16
Iodomethane	LA95926	Supleco	2000 µg/ml	9/21	5/02	2	8-VN 3 - 17
Isopropyl ether	A020897	Restek	2000 µg/ml	9/29	9/04	3	8-VN 3 - 18
8260 STD Kit	Various	Restek	Various	10/21	11/3	2	8-VN 3 - 19
MTBE	A019410	Restek	2000 µg/ml	10/22	12/4	2	8-VN 3 - 20
Freon 113	A019795	Restek	2000 µg/ml	10/22	10/22/02	2	8-VN 3 - 21
EPA OLM04	LB00099	Supleco	2000 µg/ml	10/23	10/03	1	8-VN 3 - 22
Vinyl Acetate	A021212	Restek	4000 µg/ml	10/23	10/03	5	8-VN 3 - 23
Keytones	A022411	Restek	2000/4000 µg/ml	10/23	10/03	5	8-VN 3 - 24
VOA Calibration Mix #1 Ketones	A020419	RESTEK	5000 µg/ml	10/27	11/04	5	8-VN 3 - 25
							-VN -
						-	-VN -

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: APP IX-A
Date: 8/15/01
Analyst: (LW)

Standard I.D.: 8-MSW25-1
Location: Freezer M5018
Solvent: MeOH-V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-8	LA97779	5/7/02	2000/6000 µg/ml	500 µl	10	100/300 µg/ml
Acrylonitrile+Propionitrile	@2000µg/ml					
Acetonitrile, Acrolein, Isobutanol @6000µg/ml						

Comments: exp 4/15/02

Sol. Name: 2260 Matrix Spike
Date: 9/14/01
Analyst: MW

Standard I.D.: SP-MSW25-2
Location: M5018
Solvent: MeOH V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
Custom Mix 8-VW-22	LA97340	4/02	2000	625	50ml	25µg/ml
Iodomethane	LA95926	5/02				
Mix 6	LA95901	5/02				
502/524	LA96091	4/03				
Freon 113	LA91143	6/03				
Hexylenes 8-VW-24	LA90479	11/01		1250		50µg/ml

Comments: expires 11/14/01

Sol. Name: IS/SURR - Precept
Date: 9/20/01
Analyst: MW

Standard I.D.: P-MSW25-3
Location: KATANIWA - Precept
Solvent: V04E74 MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VW-2-13 SMC	A017973	3/04	2500	500	10	125µg/ml
P-VW-221 IS	A018621	6/04	"	"	"	"

Comments: exp-3/20/01

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: IS/SURR
Date: 4-26-01
Analyst: MCB

Standard I.D.: 8-MSW26-1
Location: Freezer MS018
Solvent: MEOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN2-21 IS	A018631	6/2004	2500	500	50	25 ug/ml
8-VN2-13 SURR	A017977	3/2004	2500	500	50	25 ug/ml

Comments: Expires 3-26-02

Sol. Name: 8260 STD
Date: 10
Analyst:

Standard I.D.: 8-MSW26-2
Location: MS018 Freezer
Solvent: MeOH V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name: TO14 IS/SURR
Date: 10-12-01
Analyst: SAM

Standard I.D.: 8-MSW26-3
Location: Freezer MS018
Solvent: Methanol

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
7-VN-3-6(IS)	A017365	11/01	2500ug/ml	500uls	50mls	25ppm
7-VN-2-16	A017364	↓	↓	↓	↓	↓

Comments: 4-10-02 expires

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STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb
Sol. Name: 8260 STD
Date: 10/17/01
Analyst: WD

Standard I.D.: S -MSW28-1
Location: M5C18
Solvent: MeOH VOE40

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
502.2 Calib Mix #1	AQ20628	4/08				25
Mix 1 Mix #2	AQ17541	11/03	2000	625	50	
Mix #3	AQ18675	1/04				
8-VW3-19 Mix #4	AQ16454	6/03				
Mix #5	AQ19955	7/04				
Mix #6	AQ19741	1/05				
8-VW3-24 Ketones + CS2	AQ21211	10/03	2000/4000			25/50 } 100 - Total Ketones
8-VW3-25 Ketones	AQ04419	11/04	5000	500		50
8-VW3-21 Freon 113	AQ19795	10/02	2000	625		25
8-VW3-20 MTBE	AQ19410	12/04	2000			25
8-VW3-1 IPE	AQ19529	5/04	2000			25
8 VW3-23 Vinyl Acetate	AQ21212	10/03	4000			50

Comments:
Exp: 4/27/02

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW -
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW -
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

507

STL PENSACOLA
GC/MS Log Book for Bubba

Operator: [illegible] Date: 10/30/01 Client(s): Initial Calibration 8260B/25ml + 524.2
SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____
Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
			BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X !	✓	Time 08:43
1	307414 001								
2	002	10 ppb std			10µl/5ml			✓	✓
3	003	5 ppb std			5µl/5ml			✓	✓
4	004	2 ppb std			2µl/5ml			✓	✓
5	005	1 ppb std			1µl/5ml			✓	✓
6	006	0.3 ppb std			0.3µl/5ml			✓	✓
7	007	0.5 ppb std			0.5µl/5ml			✓	✓
8	008	10 ppb std			10µl/5ml	not included in curve		✓	✓
9	009	20 ppb std			20µl/5ml			✓	✓
10	010	30 ppb std			30µl/5ml			✓	✓
11	011	Blank			5.0ml			✓	✓
12	012	2nd Source std			10µl/5ml	8-MSW-25-2		✓	✓
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

508

Signed [signature]

* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

Operator: [signature] Date: 10/31/01 Client(s): _____

SDG: _____ Client(s): _____

ISS: 8MSW* 26-1 Std 1: 8MSW *28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
1	30745 001		BFB	14	5µL/5ppt BFB	Daily Tune Scan # Area =	! X	✓	Time 08:28
2	002	10 ppb	Std	15	10µl/5ml			✓	✓
3	003	BLW147A	BK	16	25.0 ml			✓	✓
4	004	BLW147A	LCS	1	10µl/5ml	8-MSW-25-L		✓	✓
5	005	BLW147A	LCS Dupe	2	10µl/5ml	8-MSW-25-2		✓	✓
6	006	3610B - Q401	110557-1	3	25.0 ml		✓	✓	✓
7	007	3611C - Q401	110557-2	4	↓		✓	✓	✓
8	008	3629B - Q401	110557-3	5			✓	✓	✓
9	009	3632C - Q401	110557-4	6			✓	✓	✓
10	010	36FBD1 - Q401	110557-5	7			✓	✓	✓
11	011	36FB1 - Q401	110557-6	8			✓	✓	✓
12	012	36EB1 - Q401	110557-7	9			✓	✓	✓
13	013	36TB1 - Q401	110557-8	10			✓	✓	✓
14	014	3629B - Q401	110557-3	11	2.5 ml	10 V	✓	✓	✓
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed [signature]

503

* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110599
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
17-3631C-Q401	C110599-1
17-3626A-Q401	C110599-2
17-3630C-Q401	C110599-3
17-36TB2-Q401	C110599-4

The above samples were received in two coolers at STL Pensacola on October 24, 2001. The cooler temperatures were both 2°C.

Please note on Project Sample Inspection Form (PSIF) that two of the 40-ml vials were received with no label at all. After process of elimination it was concluded that these two vials were for sample 17-3631C-Q401 (C110599-3). See PSIF.

Please reference CLP and STL Pensacola data qualifier sheets for flag information.

Rick Hayes

Rick Hayes
Senior Project Manager

11/6/01

CCI NAVY RAC PWD
NOV - 8 2001

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	3.0	9.0
Dilution Factor	1	1	1
Analysis Date	10.30.01	10.30.01	10.30.01
Analysis Time	14:20	14:20	14:20
Batch ID	AEW060	AEW060	AEW060
Analyst	BE	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)			
Nitrate + Nitrite-N, mg/l	0.15	0.16	0.16
Nitrate-N, mg/l	0.15	0.16	0.16
Nitrite-N, mg/l	0.10U	0.10U	0.10U
Dilution Factor	1	1	1
Prep Date	10.24.01	10.24.01	10.24.01
Prep Time	11:00	11:00	11:00
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	13:08	13:08	13:08
Batch ID	N3W65D	N3W65D	N3W65D
Prep Method	4500-NO2B	4500-NO2B	4500-NO2B
Analyst	CR	CR	CR

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
Chloride (325.2/4500E/9251), mg/l	9.9	9.8	11
Dilution Factor	1	1	1
Prep Date	11.01.01	11.01.01	11.01.01
Prep Time	07:00	07:00	07:00
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	09:58	09:58	09:58
Batch ID	CKW60A	CKW60A	CKW60A
Prep Method	325.2	325.2	325.2
Analyst	AB	AB	AB
Total Dissolved Solids (160.1), mg/l	30	42	52
Dilution Factor	1	1	1
Prep Date	10.25.01	10.25.01	10.25.01
Prep Time	07:50	07:50	07:50
Analysis Date	10.26.01	10.26.01	10.26.01
Analysis Time	13:55	13:55	13:55
Batch ID	TDW094	TDW094	TDW094
Prep Method	160.1	160.1	160.1
Analyst	ST	ST	ST
Total Organic Carbon (9060), mg/l	7.1	19	12
Dilution Factor	1	1	1
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	09:44	09:44	09:44
Batch ID	TOW020	TOW020	TOW020
Analyst	WG	WG	WG

003

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
Sulfide (376.1), mg/l	2.7	2.6	1.6
Dilution Factor	1	1	1
Analysis Date	10.24.01	10.24.01	10.24.01
Analysis Time	11:05	11:05	11:05
Batch ID	FEW044	FEW044	FEW044
Analyst	BH	BH	BH
Iron, Dissolved (6010B), ug/l	250	280	500
Dilution Factor	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	11:58	12:03	12:09
Batch ID	PD131	PD131	PD131
Prep Method	3005A	3005A	3005A
Analyst	CH	CH	CH

004

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
Petroleum Hydrocarbons (FL-PRO)			
Petroleum Range Organics (FL-PRO), ug/l	100U	190	100U
Surrogate - o-Terphenyl	103 %	93 %	95 %
Surrogate - Nonatriacontane (C39)	87 %	89 %	87 %
Dilution Factor	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01
Prep Time	09:30	09:30	09:30
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	20:19	20:27	20:36
Batch ID	FLW287	FLW287	FLW287
Prep Method	3520C	3520C	3520C
Analyst	KA	KA	KA

005

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
Volatile Organic Compounds (8260B)			
Benzene, ug/l	5.0U	5.0U	5.0U
Bromobenzene, ug/l	5.0U	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U	5.0U
Bromoform, ug/l	5.0U	5.0U	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,3-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,4-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0U	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,1-Dichloroethene, ug/l	5.0U	5.0U	5.0U

006

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
cis-1,2-Dichloroethene, ug/l	2.8	0.86	27
trans-1,2-Dichloroethene, ug/l	5.0U	5.0U	0.37
1,2-Dichloropropane, ug/l	5.0U	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U	5.0U
p-Isopropyltoluene, ug/l	5.0U	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U
Methyl t-butyl ether (MTBE), ug/l	5.0U	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U	5.0U
n-Propylbenzene , ug/l	5.0U	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U	5.0U
Styrene, ug/l	5.0U	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
Tetrachloroethene, ug/l	5.0U	5.0U	5.0U
Toluene, ug/l	5.0U	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	5.0U	5.0U

007

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-1	17-3631C-Q401	10-23-01/11:15
10599-2	17-3626A-Q401	10-23-01/15:00
10599-3	17-3630C-Q401	10-23-01/15:40

PARAMETER	10599-1	10599-2	10599-3
1,1,2-Trichloroethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
Trichloroethene, ug/l	13	4.8	12
Trichlorofluoromethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
Vinyl chloride, ug/l	5.0U	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U	10U
Surrogate - Dibromofluoromethane	97 %	105 %	100 %
Surrogate - Toluene-d8	96 %	99 %	99 %
Surrogate - 4-Bromofluorobenzene	96 %	98 %	97 %
1,2-Dibromo-3-chloropropane, ug/l	5.0U	5.0U	5.0U
Dilution Factor	1	1	1
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	12:58	13:38	14:21
Batch ID	BUW148	BUW148	BUW148
Prep Method	5030B	5030B	5030B
Analyst	GH	GH	GH

008

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-4	17-36TB2-Q401	10-23-01

PARAMETER	10599-4
Volatile Organic Compounds (8260B)	
Benzene, ug/l	5.0U
Bromobenzene, ug/l	5.0U
Bromochloromethane, ug/l	5.0U
Bromodichloromethane, ug/l	5.0U
Bromoform, ug/l	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U
Carbon tetrachloride, ug/l	5.0U
Chlorobenzene, ug/l	5.0U
Chloroethane, ug/l	5.0U
Chloroform, ug/l	5.0U
Chloromethane, ug/l	5.0U
2-Chlorotoluene, ug/l	5.0U
4-Chlorotoluene, ug/l	5.0U
Dibromochloromethane, ug/l	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U
1,2-Dichlorobenzene, ug/l	5.0U
1,3-Dichlorobenzene, ug/l	5.0U
1,4-Dichlorobenzene, ug/l	5.0U
Dichlorodifluoromethane, ug/l	5.0U
1,1-Dichloroethane, ug/l	5.0U
1,2-Dichloroethane, ug/l	5.0U
1,1-Dichloroethene, ug/l	5.0U
cis-1,2-Dichloroethene, ug/l	5.0U
trans-1,2-Dichloroethene, ug/l	5.0U

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-4	17-36TB2-Q401	10-23-01

PARAMETER	10599-4
1,2-Dichloropropane, ug/l	5.0U
1,3-Dichloropropane, ug/l	5.0U
2,2 Dichloropropane, ug/l	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U
Ethylbenzene, ug/l	5.0U
Hexachlorobutadiene, ug/l	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U
p-Isopropyltoluene, ug/l	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U
Methyl t-butyl ether (MTBE), ug/l	5.0U
Naphthalene, ug/l	5.0U
n-Butylbenzene, ug/l	5.0U
n-Propylbenzene , ug/l	5.0U
sec-Butylbenzene, ug/l	5.0U
Styrene, ug/l	5.0U
t-Butylbenzene, ug/l	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U
Tetrachloroethene, ug/l	5.0U
Toluene, ug/l	5.0U
1,1,1-Trichloroethane, ug/l	5.0U
1,1,2-Trichloroethane, ug/l	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U
Trichloroethene, ug/l	5.0U

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SEVERN TRENT SERVICES

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Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-4	17-36TB2-Q401	10-23-01

PARAMETER	10599-4
Trichlorofluoromethane, ug/l	5.0U
1,2,3-Trichloropropane, ug/l	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U
Vinyl chloride, ug/l	5.0U
o-Xylene, ug/l	5.0U
m&p-Xylene, ug/l	10U
Surrogate - Dibromofluoromethane	91 %
Surrogate - Toluene-d8	97 %
Surrogate - 4-Bromofluorobenzene	94 %
1,2-Dibromo-3-chloropropane, ug/l	5.0U
Dilution Factor	1
Analysis Date	11.01.01
Analysis Time	15:06
Batch ID	BUW148
Prep Method	5030B
Analyst	GH

011

SEVERN TRENT SERVICES

STL Pensacola

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	255	102 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.30.01	---	10.30.01	---	---
Analysis Time	14:20	---	14:20	---	---
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	BE	---	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	2.0	2.05	103 %	90-110
Nitrite-N, mg/l	0.10U	0.20	0.19	95 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	10.24.01	---	10.24.01	---	---
Prep Time	11:00	---	11:00	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	13:08	---	13:08	---	---
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	4500-NO2B	---	4500-NO2B	---	---
Analyst	CR	---	CR	---	---

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Chloride (325.2/4500E/9251), mg/l	2.0U	50.0	50.0	100 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	11.01.01	---	11.01.01	---	---
Prep Time	07:00	---	07:00	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	09:58	---	09:58	---	---
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A	CKW60A
Prep Method	325.2	---	325.2	---	---
Analyst	AB	---	AB	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	276	94 %	68-120
Dilution Factor	1	---	1	---	---
Prep Date	10.25.01	---	10.25.01	---	---
Prep Time	07:50	---	07:50	---	---
Analysis Date	10.26.01	---	10.26.01	---	---
Analysis Time	13:55	---	13:55	---	---
Batch ID	TDW094	TDW094	TDW094	TDW094	TDW094
Prep Method	160.1	---	160.1	---	---
Analyst	ST	---	ST	---	---

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Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Total Organic Carbon (9060), mg/l	1.0U	10	9.65	97 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	09:44	---	09:44	---	---
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Analyst	WG	---	WG	---	---
Sulfide (376.1), mg/l	1.0U	20	18.7	94 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.24.01	---	10.24.01	---	---
Analysis Time	11:05	---	11:05	---	---
Batch ID	FEW044	FEW044	FEW044	FEW044	FEW044
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100U	10000.0	9790.5	97.9 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	10:39	---	11:02	---	---
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method	3005A		3005A		
Analyst	CH	---	CH	---	---

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3932	116 %	55-118
Surrogate - o-Terphenyl	107 %	125	134 %	107 %	82-142
Surrogate - Nonatriacontane (C39)	90 %	50	42 %	84 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Prep Time	09:30	---	09:30	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	18:52	---	19:00	---	---
Batch ID	FLW287	FLW287	FLW287	FLW287	FLW287
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

015

SEVERN TRENT SERVICES

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
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Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Volatile Organic Compounds (8260B)					
Benzene, ug/l	5.0U	10	9.9	99 %	89-111
Bromobenzene, ug/l	5.0U	10	9.7	97 %	63-153
Bromochloromethane, ug/l	5.0U	10	10.1	101 %	91-129
Bromodichloromethane, ug/l	5.0U	10	9.8	98 %	87-119
Bromoform, ug/l	5.0U	10	10.4	104 %	52-127
Bromomethane (Methyl bromide), ug/l	5.0U	10	9.5	95 %	63-140
Carbon tetrachloride, ug/l	5.0U	10	9.5	95 %	73-116
Chlorobenzene, ug/l	5.0U	10	10.0	100 %	93-113
Chloroethane, ug/l	5.0U	10	10.0	100 %	76-116
Chloroform, ug/l	5.0U	10	9.6	96 %	90-115
Chloromethane, ug/l	5.0U	10	9.3	93 %	60-118
2-Chlorotoluene, ug/l	5.0U	10	10.0	100 %	84-121
4-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	90-113
Dibromochloromethane, ug/l	5.0U	10	9.8	98 %	73-125
Dibromomethane (Methylene bromide), ug/l	5.0U	10	9.6	96 %	83-125
1,2-Dibromoethane (EDB), ug/l	5.0U	10	9.8	98 %	31-152
1,2-Dichlorobenzene, ug/l	5.0U	10	9.8	98 %	87-115
1,3-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	90-113
1,4-Dichlorobenzene, ug/l	5.0U	10	9.8	98 %	92-113

016

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Dichlorodifluoromethane, ug/l	5.0U	10	8.8	88 %	30-152
1,1-Dichloroethane, ug/l	5.0U	10	9.4	94 %	90-114
1,2-Dichloroethane, ug/l	5.0U	10	9.5	95 %	88-125
1,1-Dichloroethene, ug/l	5.0U	10	10.0	100 %	84-117
cis-1,2-Dichloroethene, ug/l	5.0U	10	10.3	103 %	90-117
trans-1,2-Dichloroethene, ug/l	5.0U	10	9.5	95 %	88-112
1,2-Dichloropropane, ug/l	5.0U	10	10.1	101 %	87-112
1,3-Dichloropropane, ug/l	5.0U	10	10.1	101 %	73-124
2,2 Dichloropropane, ug/l	5.0U	10	9.9	99 %	74-112
cis-1,3-Dichloropropene, ug/l	5.0U	10	10.0	100 %	61-133
trans-1,3-Dichloropropene, ug/l	5.0U	10	10.0	100 %	51-144
Ethylbenzene, ug/l	5.0U	10	9.9	99 %	69-123
Hexachlorobutadiene, ug/l	5.0U	10	11.7	117 %	74-140
Isopropylbenzene (Cumene), ug/l	5.0U	10	10.3	103 %	56-134
p-Isopropyltoluene, ug/l	5.0U	10	10.7	107 %	30-172
Methylene chloride (Dichloromethane), ug/l	5.0U	10	9.9	99 %	81-117
Methyl t-butyl ether (MTBE), ug/l	5.0U	10	9.7	97 %	69-131
Naphthalene, ug/l	5.0U	10	10.8	108 %	18-229
n-Butylbenzene, ug/l	5.0U	10	11.1	111 %	1-237
n-Propylbenzene , ug/l	5.0U	10	10.4	104 %	73-116
sec-Butylbenzene, ug/l	5.0U	10	10.4	104 %	53-134

017

SEVERN TRENT SERVICES

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Styrene, ug/l	5.0U	10	10.1	101 %	76-127
t-Butylbenzene, ug/l	5.0U	10	10.0	100 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	5.0U	10	10.1	101 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	5.0U	10	9.5	95 %	69-134
Tetrachloroethene, ug/l	5.0U	10	10.2	102 %	88-117
Toluene, ug/l	5.0U	10	9.9	99 %	85-117
1,1,1-Trichloroethane, ug/l	5.0U	10	10.3	103 %	88-117
1,1,2-Trichloroethane, ug/l	5.0U	10	9.9	99 %	86-121
1,2,3-Trichlorobenzene, ug/l	5.0U	10	10.8	108 %	43-204
1,2,4-Trichlorobenzene, ug/l	5.0U	10	11.0	110 %	31-211
Trichloroethene, ug/l	5.0U	10	10.0	100 %	85-108
Trichlorofluoromethane, ug/l	5.0U	10	10.3	103 %	84-118
1,2,3-Trichloropropane, ug/l	5.0U	10	9.9	99 %	38-159
1,2,4-Trimethylbenzene, ug/l	5.0U	10	10.4	104 %	63-142
1,3,5-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	84-125
Vinyl chloride, ug/l	5.0U	10	9.6	96 %	72-116
o-Xylene, ug/l	5.0U	10	10.3	103 %	73-122
m&p-Xylene, ug/l	10U	20	20.4	102 %	70-125
Surrogate - Dibromofluoromethane	101 %	10	9.38	94 %	77-119
Surrogate - Toluene-d8	100 %	10	9.99	100 %	78-118
Surrogate - 4-Bromofluorobenzene	98 %	10	10.02	100 %	79-116
1,2-Dibromo-3-chloropropane, ug/l	5.0U	10	10.3	103 %	56-125

018

SEVERN TRENT SERVICES

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Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-5	Method Blank	
10599-6	Lab Control Standard True Value	
10599-7	Lab Control Standard Result	
10599-8	Lab Control Standard % Recovery	
10599-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10599-5	10599-6	10599-7	10599-8	10599-9
Dilution Factor	1	---	1	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	09:26	---	10:05	---	---
Batch ID	BUW148	BUW148	BUW148	BUW148	BUW148
Prep Method	5030B	5030B	5030B	5030B	5030B
Analyst	GH	---	GH	---	---

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SEVERN TRENT SERVICES

STL Pensacola

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	50	84 %	25	51
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.30.01	---	---	10.30.01
Analysis Time	---	14:20	---	---	14:20
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.17	94 %	1.0	1.17
Nitrite-N, mg/l	0.20	0.18	90 %	0.20	0.19
Dilution Factor	---	1	---	---	1
Prep Date	---	10.24.01	---	---	10.24.01
Prep Time	---	11:00	---	---	11:00
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	13:08	---	---	13:08
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	---	4500-NO2B	---	---	4500-NO2B
Analyst	---	CR	---	---	CR

020

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
Chloride (325.2/4500E/9251), mg/l	25.0	44.4	108 %	25.0	45.1
Dilution Factor	---	1	---	---	1
Prep Date	---	11.01.01	---	---	11.01.01
Prep Time	---	07:00	---	---	07:00
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	09:58	---	---	09:58
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A	CKW60A
Prep Method	---	325.2	---	---	325.2
Analyst	---	AB	---	---	AB
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	10	41.3	58 %	10	41.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	09:44	---	---	09:44
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Analyst	---	WG	---	---	WG
Sulfide (376.1), mg/l	10	11.6	89 %	NoMS	NoMS
Dilution Factor	---	1	---	---	---
Analysis Date	---	10.24.01	---	---	---
Analysis Time	---	11:05	---	---	---
Batch ID	FEW044	FEW044	FEW044	---	---
Analyst	---	BH	---	---	---

021

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
Iron, Dissolved (6010B), ug/l	10000.0	10117.5	100.6 %	10000.0	10237.0
Dilution Factor	---	1	---	---	1
Prep Date	---	10.26.01	---	---	10.26.01
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	11:02	---	---	11:07
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method		3005A			3005A
Analyst	---	CH	---	---	CH
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	NoMS	NoMS	NoMS	NoMS	NoMS

022

SEVERN TRENT SERVICES

STL Pensacola

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
Volatile Organic Compounds (8260B)					
Benzene, ug/l	10	9.9	99 %	10	9.7
Bromobenzene, ug/l	10	10.0	100 %	10	9.7
Bromochloromethane, ug/l	10	9.4	94 %	10	9.6
Bromodichloromethane, ug/l	10	9.5	95 %	10	9.9
Bromoform, ug/l	10	9.8	98 %	10	10.5
Bromomethane (Methyl bromide), ug/l	10	8.3	83 %	10	6.8
Carbon tetrachloride, ug/l	10	9.4	94 %	10	8.9
Chlorobenzene, ug/l	10	10.0	100 %	10	9.8
Chloroethane, ug/l	10	9.7	97 %	10	9.4
Chloroform, ug/l	10	9.5	95 %	10	9.9
Chloromethane, ug/l	10	8.4	84 %	10	7.8
2-Chlorotoluene, ug/l	10	10.3	103 %	10	9.6
4-Chlorotoluene, ug/l	10	10.4	104 %	10	9.7
Dibromochloromethane, ug/l	10	9.4	94 %	10	10.2
Dibromomethane (Methylene bromide), ug/l	10	9.3	93 %	10	9.8
1,2-Dibromoethane (EDB), ug/l	10	9.5	95 %	10	10.1
1,2-Dichlorobenzene, ug/l	10	9.9	99 %	10	9.8
1,3-Dichlorobenzene, ug/l	10	10.1	101 %	10	9.6
1,4-Dichlorobenzene, ug/l	10	9.8	98 %	10	9.5
Dichlorodifluoromethane, ug/l	10	8.1	81 %	10	8.5

023

SEVERN TRENT SERVICES

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Reported: 05 NOV 01

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
1,1-Dichloroethane, ug/l	10	9.0	90 %	10	9.3
1,2-Dichloroethane, ug/l	10	9.3	93 %	10	9.8
1,1-Dichloroethene, ug/l	10	9.9	99 %	10	10.0
cis-1,2-Dichloroethene, ug/l	10	60EM2	N/C	10	62EM2
trans-1,2-Dichloroethene, ug/l	10	10.0	90 %	10	10.6
1,2-Dichloropropane, ug/l	10	9.9	99 %	10	10.2
1,3-Dichloropropane, ug/l	10	9.6	96 %	10	10.4
2,2 Dichloropropane, ug/l	10	9.5	95 %	10	9.6
cis-1,3-Dichloropropene, ug/l	10	9.5	95 %	10	9.5
trans-1,3-Dichloropropene, ug/l	10	9.6	96 %	10	9.7
Ethylbenzene, ug/l	10	10.0	100 %	10	9.6
Hexachlorobutadiene, ug/l	10	12.4	124 %	10	11.2
Isopropylbenzene (Cumene), ug/l	10	10.4	104 %	10	9.9
p-Isopropyltoluene, ug/l	10	10.9	109 %	10	10.1
Methylene chloride (Dichloromethane), ug/l	10	9.5	95 %	10	10.0
Methyl t-butyl ether (MTBE), ug/l	10	8.9	89 %	10	10.2
Naphthalene, ug/l	10	10.6	106 %	10	11.2
n-Butylbenzene, ug/l	10	11.2	112 %	10	10.5
n-Propylbenzene , ug/l	10	10.6	106 %	10	10.0
sec-Butylbenzene, ug/l	10	10.7	107 %	10	9.8
Styrene, ug/l	10	9.9	99 %	10	9.7

024

SEVERN TRENT SERVICES

STL Pensacola

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-10	MS True Value	
10599-11	Matrix Spike Result	
10599-12	Matrix Spike % Recovery	
10599-13	MSD True Value	
10599-14	Matrix Spike Duplicate Result	

PARAMETER	10599-10	10599-11	10599-12	10599-13	10599-14
t-Butylbenzene, ug/l	10	10.1	101 %	10	9.5
1,1,1,2-Tetrachloroethane, ug/l	10	9.9	99 %	10	10.1
1,1,2,2-Tetrachloroethane, ug/l	10	9.4	94 %	10	10.0
Tetrachloroethene, ug/l	10	10.3	103 %	10	10.0
Toluene, ug/l	10	9.7	97 %	10	9.7
1,1,1-Trichloroethane, ug/l	10	10.0	100 %	10	10.2
1,1,2-Trichloroethane, ug/l	10	9.3	93 %	10	10.2
1,2,3-Trichlorobenzene, ug/l	10	10.9	109 %	10	11.0
1,2,4-Trichlorobenzene, ug/l	10	11.0	110 %	10	11.0
Trichloroethene, ug/l	10	139EM2	N/C	10	134EM2
Trichlorofluoromethane, ug/l	10	9.7	97 %	10	10.0
1,2,3-Trichloropropane, ug/l	10	9.7	97 %	10	10.2
1,2,4-Trimethylbenzene, ug/l	10	10.6	106 %	10	10.0
1,3,5-Trimethylbenzene, ug/l	10	10.1	101 %	10	9.4
Vinyl chloride, ug/l	10	9.3	91 %	10	9.4
o-Xylene, ug/l	10	10.3	103 %	10	10.0
m&p-Xylene, ug/l	20	20.5	103 %	20	19.8
Surrogate - Dibromofluoromethane	10	9.79	98 %	10	10.17
Surrogate - Toluene-d8	10	9.92	99 %	10	9.96
Surrogate - 4-Bromofluorobenzene	10	9.85	99 %	10	10.13
1,2-Dibromo-3-chloropropane, ug/l	10	9.62	96 %	10	10.58
Dilution Factor	---	1	---	---	1
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	10:48	---	---	11:31
Batch ID	BUW148	BUW148	BUW148	BUW148	BUW148
Prep Method	5030B	5030B	5030B	5030B	5030B
Analyst	---	GH	---	---	GH

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STL Pensacola is a part of Severn Trent Laboratories, Inc.

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10599
Received: 24 OCT 01
Reported: 05 NOV 01

Ms. Tatiana Romanova
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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-15	Matrix Spike Duplicate % Recovery	
10599-16	MS Accuracy Advisory Limit (%R)	
10599-17	Precision (%RPD) MS/MSD	
10599-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10599-15	10599-16	10599-17	10599-18
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	88 %	65-138	5	20
Batch ID	AEW060	AEW060	AEW060	AEW060
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	94 %	67-126	0	20
Nitrite-N, mg/l	95 %	72-128	5	20
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D
Chloride (325.2/4500E/9251), mg/l	111 %	81-131	3	20
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	57 %	52-139	2	27
Batch ID	TOW020	TOW020	TOW020	TOW020
Sulfide (376.1), mg/l	NoMS	NoMS	NoMS	NoMS
Iron, Dissolved (6010B), ug/l	101.8 %	75-125	1.2	20
Batch ID	PD131	PD131	PD131	PD131
Prep Method				
Petroleum Hydrocarbons (FL-PRO)				
Petroleum Range Organics (FL-PRO), ug/l	NoMS	NoMS	NoMS	NoMS

026

SEVERN TRENT SERVICES

STL Pensacola

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Reported: 05 NOV 01

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115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-15	Matrix Spike Duplicate % Recovery	
10599-16	MS Accuracy Advisory Limit (%R)	
10599-17	Precision (%RPD) MS/MSD	
10599-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10599-15	10599-16	10599-17	10599-18
Volatile Organic Compounds (8260B)				
Benzene, ug/l	97 %	67-148	2	8
Bromobenzene, ug/l	97 %	73-140	3	14
Bromochloromethane, ug/l	96 %	85-130	2	18
Bromodichloromethane, ug/l	99 %	65-133	0	19
Bromoform, ug/l	105 %	62-124	7	29
Bromomethane (Methyl bromide), ug/l	68 %	59-152	20M2	17
Carbon tetrachloride, ug/l	89 %	78-121	5	11
Chlorobenzene, ug/l	98 %	66-156	2	10
99 %Chloroethane, ug/l 4 13	94 %	73-123	3	10
Chloromethane, ug/l				
Chloroform, ug/l				
2-Chlorotoluene, ug/l	96 %	85-122	7	15
4-Chlorotoluene, ug/l	97 %	87-122	7	13
Dibromochloromethane, ug/l	102 %	83-122	8	27
Dibromomethane (Methylene bromide), ug/l	98 %	81-130	5	20
1,2-Dibromoethane (EDB), ug/l	101 %	36-153	6	26
1,2-Dichlorobenzene, ug/l	98 %	86-120	1	12
1,3-Dichlorobenzene, ug/l	96 %	89-118	5	10
1,4-Dichlorobenzene, ug/l	95 %	78-138	3	10
Dichlorodifluoromethane, ug/l	85 %	35-160	5	12
1,1-Dichloroethane, ug/l	93 %	85-121	3	10
1,2-Dichloroethane, ug/l	98 %	85-129	5	17

027

SEVERN TRENT SERVICES

STL Pensacola

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-15	Matrix Spike Duplicate % Recovery	
10599-16	MS Accuracy Advisory Limit (%R)	
10599-17	Precision (%RPD) MS/MSD	
10599-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10599-15	10599-16	10599-17	10599-18
1,1-Dichloroethene, ug/l	100 %	84-119	1	13
cis-1,2-Dichloroethene, ug/l	N/C	65-133	N/C	19
trans-1,2-Dichloroethene, ug/l	96 %	87-115	7	9
1,2-Dichloropropane, ug/l	102 %	88-114	3	12
1,3-Dichloropropane, ug/l	104 %	73-126	7	19
2,2 Dichloropropane, ug/l	96 %	78-116	1	10
cis-1,3-Dichloropropene, ug/l	95 %	65-133	0	19
trans-1,3-Dichloropropene, ug/l	97 %	53-144	2	19
Ethylbenzene, ug/l	96 %	78-132	5	14
Hexachlorobutadiene, ug/l	112 %	70-156	10	18
Isopropylbenzene (Cumene), ug/l	99 %	65-149	5	20
p-Isopropyltoluene, ug/l	101 %	35-190	8	22
Methylene chloride (Dichloromethane), ug/l	100 %	81-121	5	18
Methyl t-butyl ether (MTBE), ug/l	102 %	68-133	14	32
Naphthalene, ug/l	112 %	17-260	6	42
n-Butylbenzene, ug/l	105 %	1-270	6	40
n-Propylbenzene , ug/l	100 %	76-123	6	16
sec-Butylbenzene, ug/l	98 %	62-144	9	18
Styrene, ug/l	97 %	55-138	2	43
t-Butylbenzene, ug/l	95 %	73-113	7	16
1,1,1,2-Tetrachloroethane, ug/l	101 %	84-124	2	12
1,1,2,2-Tetrachloroethane, ug/l	100 %	75-127	5	25
Tetrachloroethene, ug/l	100 %	87-131	3	13

028

SEVERN TRENT SERVICES

STL Pensacola

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Received: 24 OCT 01
Reported: 05 NOV 01

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Requisition: 152044.32.12.01.08 8

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 18581115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10599-15	Matrix Spike Duplicate % Recovery	
10599-16	MS Accuracy Advisory Limit (%R)	
10599-17	Precision (%RPD) MS/MSD	
10599-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10599-15	10599-16	10599-17	10599-18
Toluene, ug/l	97 %	86-123	0	8
1,1,1-Trichloroethane, ug/l	102 %	90-120	2	10
1,1,2-Trichloroethane, ug/l	102 %	85-125	9	20
1,2,3-Trichlorobenzene, ug/l	110 %	49-214	2	33
1,2,4-Trichlorobenzene, ug/l	110 %	30-230	0	32
Trichloroethene, ug/l	N/C	86-115	N/C	11
Trichlorofluoromethane, ug/l	100 %	84-125	3	10
1,2,3-Trichloropropane, ug/l	102 %	75-127	5	26
1,2,4-Trimethylbenzene, ug/l	100 %	50-158	7	30
1,3,5-Trimethylbenzene, ug/l	94 %	72-140	7	25
Vinyl chloride, ug/l	92 %	74-125	1	9
o-Xylene, ug/l	100 %	76-127	3	13
m&p-Xylene, ug/l	99 %	76-129	4	20
Surrogate - Dibromofluoromethane	102 %	77-119	---	---
Surrogate - Toluene-d8	100 %	78-118	---	---
Surrogate - 4-Bromofluorobenzene	101 %	79-116	---	---
1,2-Dibromo-3-chloropropane, ug/l	101 %	71-118	10	33
Batch ID	BUW148	BUW148	BUW148	BUW148
Prep Method	5030B	5030B	5030B	5030B

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes

Rick Hayes, Project Manager

029

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110599 Date Received: 10/24/01

1. Was there a Chain of Custody? (Yes) No*
2. Was Chain of Custody properly filled out and relinquished? (Yes) No*
3. Were samples received cold? (Yes) No* N/A
   (Criteria: 2° - 6°C: STL-SOP
4. Were all samples properly labeled and identified? Yes (No)*
5. Did samples require splitting or compositing*? Yes* (No)
   Req By: PM Client Other*
6. Were samples received in proper containers for analysis requested? (Yes) No*
7. Were all sample containers received intact? (Yes) No*
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+* (Yes) No* N/A
9. Is there sufficient volume for analysis requested? (Yes) No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* (No) N/A
12. If sent, were matrix spike bottles returned? Yes No* (N/A)
13. Was Project Manager notified of problems? (initials: MHS) PSIF (Yes) No* N/A

Airbill Number(s): 8307 0936 6774

Cooler Number(s): 650L Client

Cooler Weight(s): 2°C 2°C 97#

Shipped By: FedEx

Shipping Charges: N/A

Cooler Temp(s) (°C): 2°C 2°C CCC3

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

#4 2-40ml vials for sample 17-3631C-Q401 10/23/01 @ 1115 for 8260 were not labeled at all. MHS 10/24/01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS Date: 10/24/01 Logged By: jea Date: 10/24/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: [illegible]
Labeled by: MHS
Delivered by: MHS

CH2M-CONST-GA C110599
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
~~32~~ 8 oz. Plastic		✓					HNO_3	3			
16 oz. Plastic	✓						$NaOH + NaAsO_2$	3	BH	10/24/01	1408
8 oz. Plastic	✓						H_2SO_4 Ø	3 12	BH	10/24/01	1408
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCl	3			
500 ml Amber											
250 ml Amber											
~~120~~ 40 ml Amber	✓						H_2SO_4	6	BH	10/24/01	1408
40 ml Vial						✓	HCl	8	DS	10/24	1415
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

2 1105 99

033

FedEx Express USA Airbill

FedEx Tracking Number 830709366779

Form I.D. No. 0200

1 From

Date 10-23-01

Sender's Name ISAAC LYNCH Phone 352 339 6820

Company CH2M HILL / CCI

Address 1060 Warehouse Rd

Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To

Recipient's Name RICK HAYES Phone 850 474 1001

Company SVERDRUP TYNDALL LABS

Address 3355 McLemore DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

830709366779

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. — [ ] Obtain Recip Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
2	97	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

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STL Pensacola is a part of Severn Trent Laboratories, Inc.

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

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Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension granted

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/0

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

Total Dissolved Solids Worksheet

Method # 160.1, SM2540C

Batch #	TDW094
Prep Date	10/25/01 0750
Run Date	10/26/01 1355

Analyst	ST

	batch sample id's	Conductivity	tare number	sample volume (mls)	dish weight before (g)	dish weight final (g) @ 180c	TDS final result (mg/l)	
Prep Blank	PREP BLANK		7	50	56.8298	56.8298	0.0	ND
LCS-1	LCS 293 mg/l		417	50	53.4851	53.4989	276.0	94%
original 1	110557-1		423	50	51.0631	51.0686	110.0	RPD=
duplicate 1	110557-1		6	50	56.7281	56.7336	110.0	0%
2	-2		3	50	55.7612	55.7637	50.0	
3	-3		404	50	52.4031	52.4103	144.0	
4	-4		320	50	48.6205	48.6237	64.0	
5	-5		24	50	57.7262	57.7286	48.0	
6	-6		111	50	57.8532	57.8534	4.0	
7	-7		4	50	56.7536	56.7536	0.0	
8	110599-1		1	50	55.6243	55.6258	30.0	
9	-2		315	50	53.0887	53.0908	42.0	
10	-3		408	50	52.7719	52.7745	52.0	
LCS-2	LCS 293 mg/l		300	50	49.9239	49.9373	268.0	91%
1220 *11*	110611-1		115	50	59.1500	59.1651	302.0	RPD=
duplicate 11	110611-1		403	50	53.7639	53.7791	304.0	1%
12	-2		416	50	53.2792	53.2905	226.0	
13	-3		305	50	49.2939	49.3110	342.0	
14								
15								
16								
17								
18								
19								
20								

SS 10-29-01

Custody for the above referenced samples was maintained by the analyst listed at the top of this page. ST

Q/C Limits		
	Reporting limit is	5 mg/L
	LCS Recovery range limit is	68-120%
	RPD limit is	19.

PROOFED BY AS

DATED 10-29-01

Printed : 10/26/01 14:01

STL Pensacola

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW060 Batch Reviewed By: BE 11-01-01

Analysis Date: 10-30-01 Analysis Time On: 1420 Analysis Time Off: 630 Data Reviewed By: AD 11/2/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0200 LOT # H_2SO_4 = T3266 Baker LOT # 0.05N Na_2CO_3 = 7528 Mall

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	24.00	H_2SO_4-N - 12-10-01	0.01965
10 ml	Na_2CO_3-N- 12-11-01	23.22	H_2SO_4-N - 12-10-01	0.02031

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant HI (B)	ml Titrant LO (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.44	N/A	50 ml		12.79		255/250 =	1.0 (102%)
1. 110681 -1	Y	6.73	625 WA	100		5.06	2.93	29.	
MS[6] (25 ppm) 1 ml Alk-CCV-I- 12-01-01 -1		6.82	692			5.04		50 -29/25 =	84%
MSD[6] (25 ppm) 1 ml Alk-CCV-I- 12-01-01 -1		6.82	692			5.09		54 -29/25 =	89% (RPD 5)
2. -2		4.25				0.00		ND	
3. -3		6.37				2.91		29.1	
4. 110685993 -1		4.85				0.33	0.65	ND	
5. -2		4.98				0.91	1.52	3.0	
6. -3		5.45				1.39	1.86	9.0	
7. 110557 -1		5.88				2.88		28.8	
8. -2		5.37				0.78	1.18	7.8	
9. -3		5.36				1.09	1.33	8.50	
10. -4		5.37				1.17	1.44	9.0	
[7]Alk-CCV-I- 12-01-01	N/A	10.48	QC	10 ml / 100 ml		24.48		244/250 = 98%	
CCB (blank)	N/A	5.62	DI Water			0.14	0.28	ND	
DUP[5] -6		5.23				0.97	1.23	7.1	
11. -5		5.23				1.01	1.28	8 7.4	RPD=2
12. -6		5.25				0.24	0.48	ND	
13. -7		4.28				0.00		ND	
14. 110556 -1		5.53		100		0.40	0.79	ND	
15. -2		5.26			0.36	0.40	0.70	ND	
16. 110720 -1		7.95				24.21		242.	
17. 110728 -1	N	4.77	WA	100		0.29	0.52	ND	N
18.									
19.				BE 11-01-01					
20.									
[7]Alk-CCV-I-	N/A	10.48	QC	10 ml / 100 ml		24.50		245/250 =	98%
CCB (blank)	N/A	5.64	DI Water	100		0.20	0.40	ND	

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or ↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

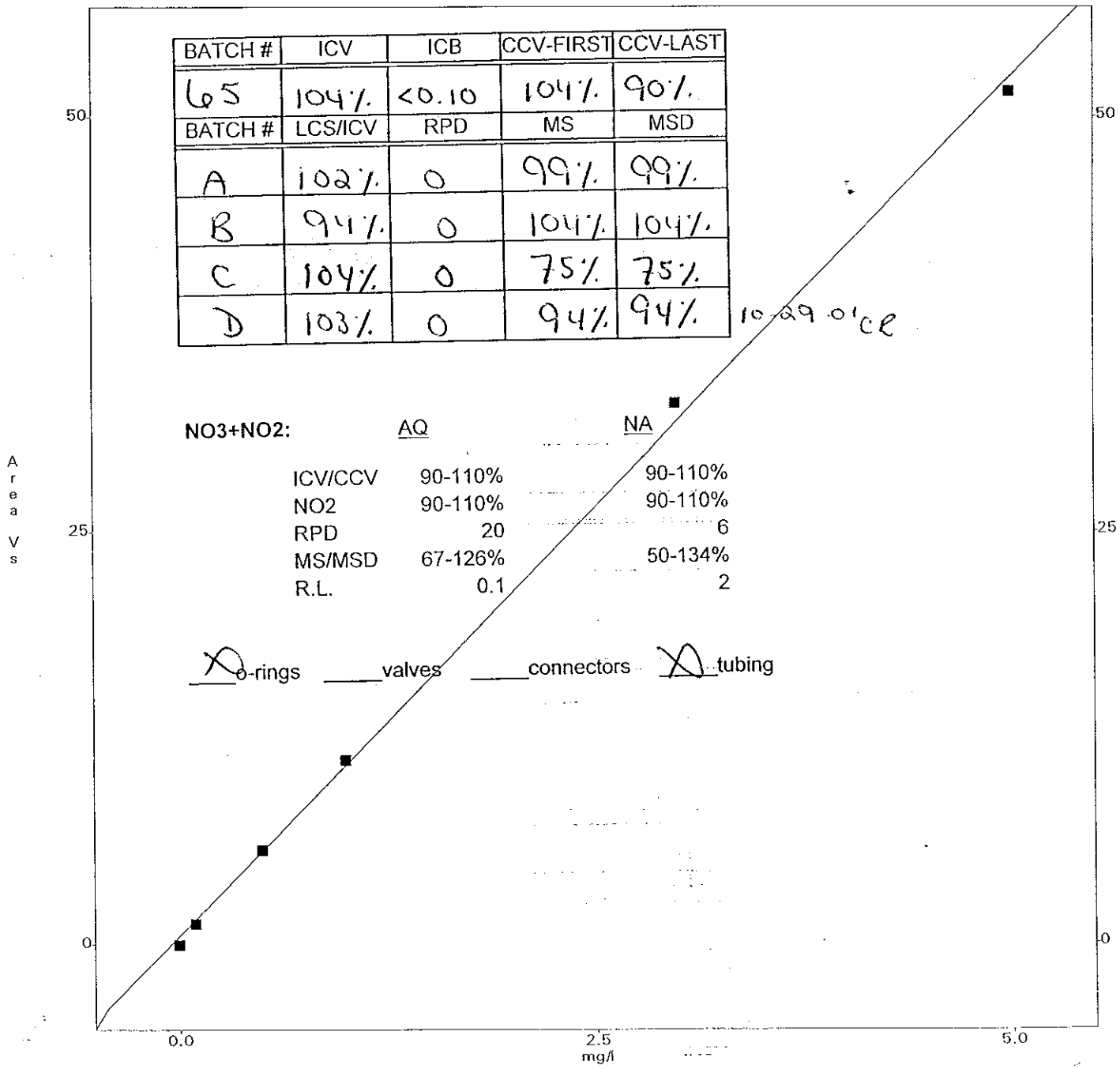
N02N03 353.2/SM4500NO3 F

N3W65A,B,C,D

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	51520112	5.0	51520112					0.0	0.0	1.6
2	32807866	3.0	32807866					0.0	0.0	-3.9
3	11160541	1.0	11160541					0.0	0.0	-3.0
4	5716317	0.5	5716317					0.0	0.0	-1.0
5	1264397	0.1	1264397					0.0	0.0	24.2
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.639e-008 Area - 4.609e-002
r = 0.9994

Scaling: None - Weighting: None



BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
65	104%	<0.10	104%	90%
BATCH #	LCS/ICV	RPD	MS	MSD
A	102%	0	99%	99%
B	94%	0	104%	104%
C	104%	0	75%	75%
D	103%	0	94%	94%

10-29-01 CL

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings ____valves ____connectors X tubing

Printed: Monday, October 29, 2001 - 09:29 AM

N3W65A;B;C;D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 8:17:03
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65A.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 7:26:35
Modified: Oct 29, 2001 7:26:35
N3W65A
DATA DESCRIPTION:
Created: Oct 29, 2001 8:17:03
Modified: Oct 29, 2001 8:17:03

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	29 Oct 2001	08:17:04	1	51520112.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	29 Oct 2001	08:17:57	1	32807866.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	29 Oct 2001	08:18:49	1	11160541.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	29 Oct 2001	08:19:42	1	5716317.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	29 Oct 2001	08:20:35	1	1264397.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	29 Oct 2001	08:21:29	1	0.00	1.0	1.00	1.00000	g

N3W65D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 13:08:12
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65D.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65D.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 13:03:02
Modified: Oct 29, 2001 13:03:02
N3W65D
DATA DESCRIPTION:
Created: Oct 29, 2001 13:08:12
Modified: Oct 29, 2001 13:08:12

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit

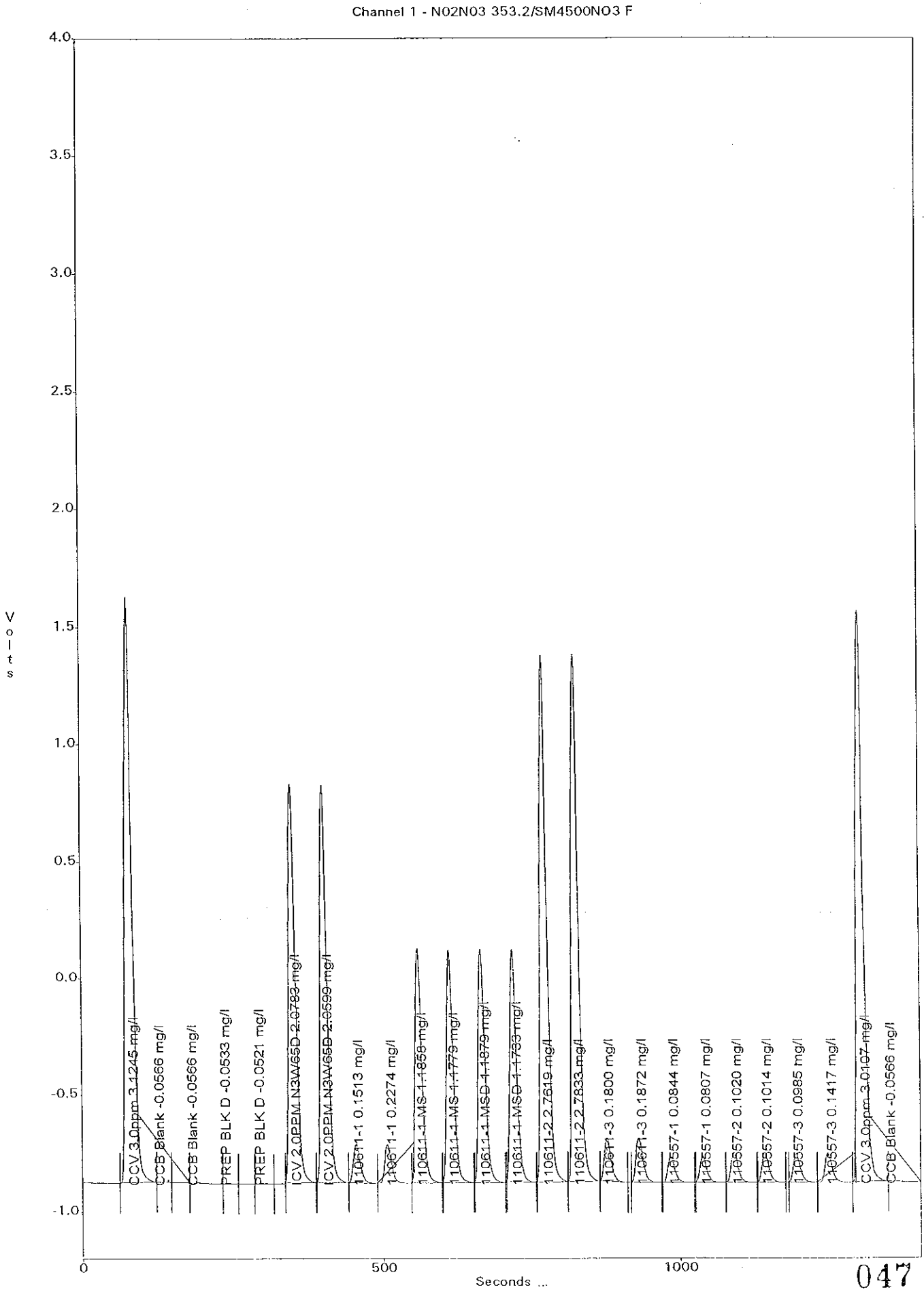
NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

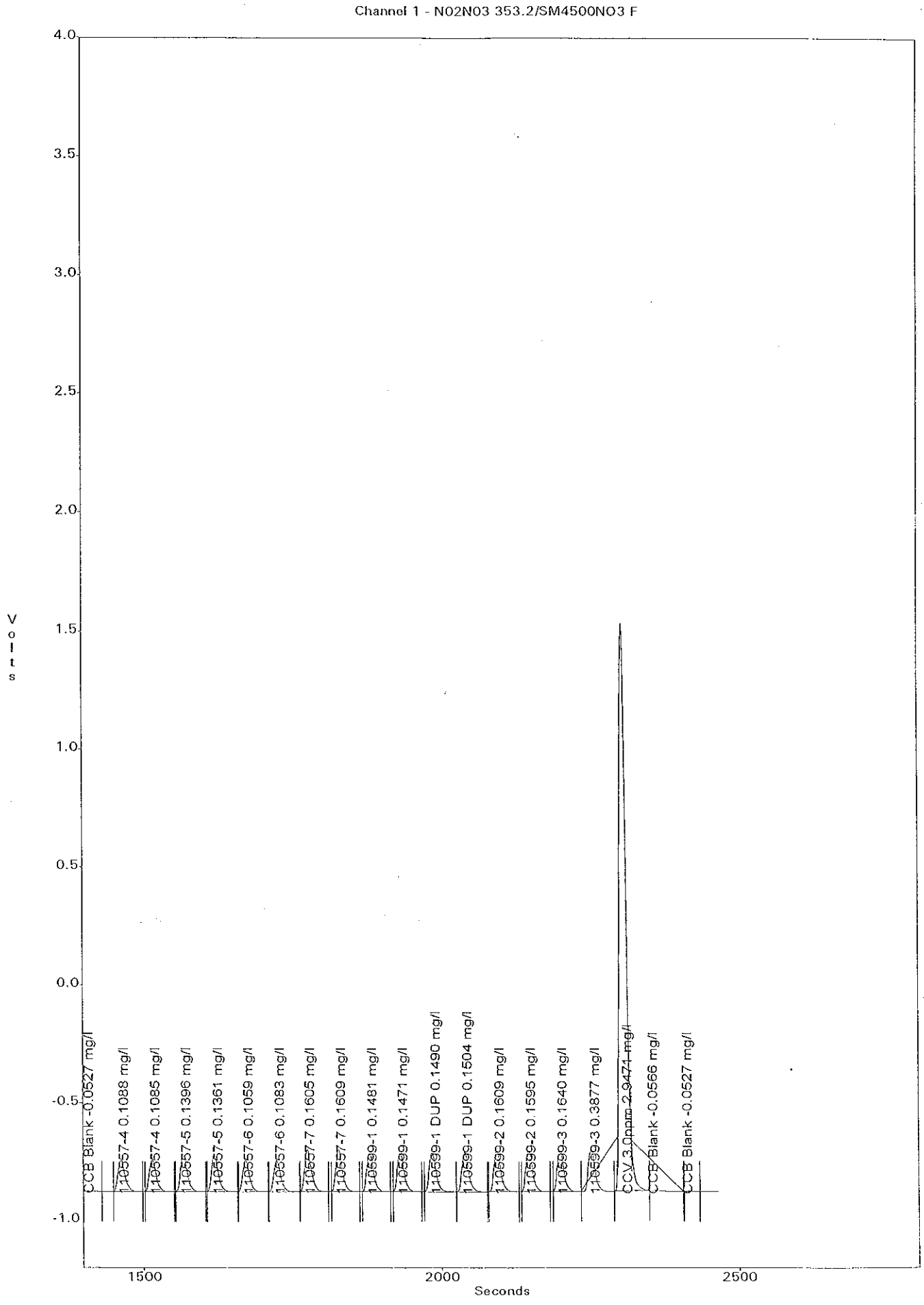
Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK D	Blank	29 Oct 2001	13:10:59	1	~0 -0.0533	1.0	1.00	1.00000	g
				13:11:54	2	-0.0521				
2	ICV 2.0PPM N3W65D	RelChkStd	29 Oct 2001	13:12:47	1	103% 2.0783	1.0	1.00	1.00000	g
				13:13:40	2	2.0599				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	29 Oct 2001	13:14:33	1	0.1513	1.0	1.00	1.00000	g
				13:15:26	2	0.2274				
4	110611-1 MS	Spiked	29 Oct 2001	13:16:19	1	94% 1.1858	1.0	1.00	1.00000	g
				13:17:12	2	1.1779				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD=0 99.2494				
5	110611-1 MSD	Spiked	29 Oct 2001	13:18:05	1	94% 1.1879	1.0	1.00	1.00000	g
				13:18:58	2	1.1733				
				Spike Level:		1.0000				
				% Spike Recovery:		99.1280				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:08:16	1	104% 3.1245	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		4.1489				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:28:39	1	100% 3.0107	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		0.3563				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:45:26	1	98% 2.9471	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		-1.7637				
16	CCB Blank	Blank	29 Oct 2001	13:09:11	1	~0 -0.0566	1.0	1.00	1.00000	g
				13:10:06	2	-0.0566				
16	CCB Blank	Blank	29 Oct 2001	13:29:33	1	~0 -0.0566	1.0	1.00	1.00000	g
				13:30:28	2	-0.0527				
16	CCB Blank	Blank	29 Oct 2001	13:46:20	1	~0 -0.0566	1.0	1.00	1.00000	g
				13:47:15	2	-0.0527				

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110611-2	29 Oct 2001	13:19:51	1	2.7619	1.0	1.00	1.00000	g	
			13:20:44	2	2.7833					
7	110611-3	29 Oct 2001	13:21:37	1	0.1800	1.0	1.00	1.00000	g	
			13:22:30	2	0.1872					
8	110557-1	29 Oct 2001	13:23:23	1	~ 0.0844	1.0	1.00	1.00000	g	
			13:24:16	2	0.0807					
9	110557-2	29 Oct 2001	13:25:08	1	0.1020	1.0	1.00	1.00000	g	
			13:26:00	2	0.1014					
10	110557-3	29 Oct 2001	13:26:52	1	~ 0.0985	1.0	1.00	1.00000	g	See graph
			13:27:44	2	0.1417					
11	110557-4	29 Oct 2001	13:31:21	1	0.1088	1.0	1.00	1.00000	g	
			13:32:13	2	0.1085					
12	110557-5	29 Oct 2001	13:33:05	1	0.1396	1.0	1.00	1.00000	g	
			13:33:57	2	0.1361					
13	110557-6	29 Oct 2001	13:34:49	1	0.1059	1.0	1.00	1.00000	g	
			13:35:41	2	0.1083					
14	110557-7	29 Oct 2001	13:36:33	1	0.1605	1.0	1.00	1.00000	g	
			13:37:25	2	0.1609					
15	110599-1	29 Oct 2001	13:38:17	1	0.1481	1.0	1.00	1.00000	g	
			13:39:09	2	0.1471					
16	110599-1 DUP	29 Oct 2001	13:40:03	1	0.1490	1.0	1.00	1.00000	g	
			13:40:57	2	0.1504					
17	110599-2	29 Oct 2001	13:41:51	1	0.1609	1.0	1.00	1.00000	g	
			13:42:45	2	0.1595					
18	110599-3	29 Oct 2001	13:43:38	1	0.1640	1.0	1.00	1.00000	g	See graph
			13:44:31	2	0.3877					


Channel 1 - N02N03 353.2/SM4500NO3 F
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
0
500
1000
Seconds ...
CCV 3.0ppm 3.1245 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0566 mg/l
PREP BLK D -0.0533 mg/l
PREP BLK D -0.0521 mg/l
ICV 2.0PPM N3W65D 2.0783 mg/l
ICV 2.0PPM N3W65D 2.0599 mg/l
110611-1 0.1513 mg/l
110611-1 0.2274 mg/l
110611-1MS 1.1858 mg/l
110611-1MS 1.1779 mg/l
110611-1MSD 1.1879 mg/l
110611-1MSD 1.1733 mg/l
110611-2 2.7619 mg/l
110611-2 2.7833 mg/l
110611-3 0.1800 mg/l
110611-3 0.1872 mg/l
110557-1 0.0844 mg/l
110557-1 0.0807 mg/l
110557-2 0.1020 mg/l
110557-2 0.1014 mg/l
110557-3 0.0985 mg/l
110557-3 0.1417 mg/l
CCV 3.0ppm 3.0107 mg/l
CCB Blank -0.0566 mg/l

047


Channel 1 - N02N03 353.2/SM4500NO3 F
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
1500
2000
2500
Seconds
CCB Blank -0.0527 mg/l
110557-4 0.1088 mg/l
110557-4 0.1085 mg/l
110557-5 0.1396 mg/l
110557-5 0.1361 mg/l
110557-6 0.1059 mg/l
110557-6 0.1083 mg/l
110557-7 0.1605 mg/l
110557-7 0.1609 mg/l
110599-1 0.1481 mg/l
110599-1 0.1471 mg/l
110599-1 DUP 0.1490 mg/l
110599-1 DUP 0.1504 mg/l
110599-2 0.1609 mg/l
110599-2 0.1595 mg/l
110599-3 0.1640 mg/l
110599-3 0.3877 mg/l
CCV 3.0ppm 2.9474 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0527 mg/l

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST: CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
10-26-01	110581-16	WQ	1400 N3W65C cont.
↓	-17	↓	↓
10-29-01	110254-15		
↓	↓ -16	↓	↓
10-29-01	PREP BLK		0700 N3W65D
↓	ICV		↓
	110611-1	WQ	
	↓ -2	↓	
	↓ -3		
	110557-1		
	↓ -2		
	-3		
	-4		
	-5		
	-6		
	↓ -7		
	110599-1		
	↓ -2		
↓	↓ -3	↓	↓

049

REVIEWED 10/29/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

RPD 20 20
SPIKE 72-128% 70-127%
ICV/CCV 90-110% 90-110%

Chemist[1]: SA Batch #: N2W201

Analysis Date: 10-24-01 Analysis Time On: 1100 Analysis Time Off: 1245

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]	
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A	ND	0.10	
ICV (0.2 ppm)	NO_2-ICV-I[4] 10-24-01	0.5/25 mL	N/A	0.491	0.187	N/A	.19/.20=	0.10	95%
CCV LOW (0.2 ppm)	NO_2-CCV-I[5] 10-24-01	0.5/25 mL	N/A	0.492	0.188	N/A	.19/.20=	0.10	95%
1 110580-4	WA	25	NA	0.000	0.000	NA	ND	0.10	
MS[6] (0.2 ppm) -4	NO_2-CCV-I[5] 10-24-01	0.5/25 mL	NA	0.480	0.183	NA	.18-0.00/.20=	0.10	90%
MSD[6] (0.2 ppm) -4	NO_2-CCV-I[5] 10-24-01	0.5/25 mL	NA	0.492	0.188	NA	.19-0.00/.20=	0.10	95% RPD= 5%
2 110599-1	WA	25		0.632	0013		ND	0.10	
3 -2				0.063	0.024		ND	0.10	
4 -3				0.045	0018		ND	0.10	
5 110586-1				0.604	0.002		ND	0.10	
6 -2				0.063	0.002		ND	0.10	
7 110605-2	WA	25ml	—	0.020	0.008	—	ND	0.10	
8								0.10	
9								0.10	
								0.10	
NO_2-CCV-I (0.4 ppm) 10-24-01	CCV HIGH	1.0/25mL	N/A	0.999	0.381	N/A	.38/.40=	0.10	95%
DUP[7]	Duplicate							0.10	
11								0.10	
12								0.10	
13								0.10	
14								0.10	
15								0.10	
16								0.10	
17								0.10	
18								0.10	
19								0.10	
20								0.10	
NO_2-CCV-I 10-24-01	CCV LOW	0.5/25mL	N/A			N/A		0.10	
ICB (Blank)	DI Water	25mL	N/A	0.000	0000	N/A	ND	0.10	

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the ermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ↓".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/24/01 Preparation[1] Time On: 1045 Preparation[1] Time Off: 1100

Analysis Date: 10/24/01 Analysis Time On: 1105 Analysis Time Off: 1450

[illegible] #: FEN044 RPD: 20

Spike: 79-102%

Chemist[2]: BH Data Reviewed By: BH 10-25-01 LCS: 90-110%

N of $Na_2S_2O_3$ = (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0241 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0246 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.81	0.025N $Na_2S_2O_3$	0.02413	5	5.09	0.025 I_2	0.02453
5.83	↓	0.02404	5	5.10	↓	0.02458

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.04	ND	1.0
SF-LCS-S[7] 12-28-01	N/A	0.2/100 ml	↓	10	5.36	18.7/20.0=	1.0 94%
Prep Blank (distilled)	DI Water	100 ml	N/A				↓
1 110557-1	LI	200		5	4.30	1.5	1.0
MS[6] (10 ppm) -2		.2/200		~~5~~ 10	~~4.30~~ 4.90	10.2/10.0=	102%
~~MSD[6] (10 ppm)~~ -2		200		5	4.77	ND	1.0
2 -3		200		5	4.65	ND	
3 -4		200		5	4.81	ND	
4 -5		200		5	4.84	ND	
5 -6		200		5	5.01	ND	
6 -7		200		5	4.99	ND	
7 110448-1		200		5	5.10	ND	
8 -2		200		5	5.02	ND	
9 -3		200		5	5.13	ND	
10 -4		200		5	6.01	ND	↓
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls		10	5.42	18.5/20.0=	1.0 93%
CCB (blank)	DI Water	100 mls		5	5.11	ND	1.0
DUP[5] 110448-4	LI	200		5	6.10	ND	1.0
11 -5		200		5	5.54	ND	
12 -6		200		5	4.99	ND	
13 110599-1		200		5	3.22	2.7	↓
14 MS -1		.2/200		10	4.19	11.6-2.7/10.0=	89%
15 -2		200		5	3.74	2.6	1.0
16 -3		200		5	4.29	1.6	↓
17							
18							
19							
~~20~~							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	N/A	10	5.46	18.3/20.0 =	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.09	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = [(ml iodine x N iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16000 / ml of sample or g of sample = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) mg sulfide x 24.4 x 1000 / 32 = µl H_2S (3) µl H_2S / 20 L gas = ppmv H_2S

[4] = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. Please specify sample accession # or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

STL Pensacola
Wet Chemistry Department

ERROR/DATA REVIEW REPORT

DATA BEING REVIEWED: Sulfide BATCH: FEN044 DATE: 10/24/01

REVIEWED BY (ANALYST): [signature] DATE: 10/24/01

REVIEWED BY (SUPERVISOR/PEER): [signature] DATE: 10-25-01

____ 1. Proper number of spikes (1/20) and dups or MS/MSDs (1/10) were not performed.

____ 2. All required information is not present on raw data sheets.

____ 3. Data is not signed and dated by analyst.

____ 4. Incorrect method reference.

____ 5. Results calculated incorrectly.

____ 6. All crossouts not initialed and dated.

____ 7. Standards not identified correctly.

____ 8. Reporting Limit Errors.

____ 9. Proper flags not added to data on the Fast Track sheets.

____ 10. Data transferred to Fast Track incorrectly.

____ 11. RPD result and/or MS/MSD % recovery not calculated and written on raw data sheet.

____ 12. Incorrect batch ID referenced.

____ 13. Fast Track sheets not filled out completely.

____ 14. Zing out page not done.

Items above are only marked with "X" or "✓" if there is a problem.

TOTAL ORGANIC CARBON (TOC)

E-Autosampler or cover is off. 29Oct2001 08:36

E-Possible gas flow restriction. 29Oct2001 09:39

METHODS

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

SEQUENCE

TOW020 Mon Oct 29 09:44:59 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110502-13 X5 DO	default	Sample	1	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
8	110469-24	default	Sample	2	5.000	0	No	
9	110254-13 X5 rerun	default	Sample	2	5.000	0	No	
10	110254-14 X10	default	Sample	2	5.000	0	No	
11	110611-2	default	Sample	1	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
13	110557-1	default	Sample	1	5.000	0	No	
14	110557-2	default	Sample	1	5.000	0	No	
15	110557-3	default	Sample	1	5.000	0	No	

16	110557-4	default	Chk. 3	3	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110557-5	default	Sample	1	5.000	0 No
20	110557-5 DUP	default	Sample	1	5.000	0 No
21	110557-6	default	Sample	1	5.000	0 No
22	110557-7	default	Sample	1	5.000	0 No
23	110599-1	default	Sample	1	5.000	0 No
24	110599-2	default	Sample	1	5.000	0 No
25	110599-3	default	Sample	1	5.000	0 No
26	110616-1 X2	default	Sample	1	5.000	0 No
27	110681-1	default	Sample	1	5.000	0 No
28	110681-2	default	Sample	1	5.000	0 No
29	110681-3	default	Sample	1	5.000	0 No
30	CCB	default	Chk. 3	3	5.000	0 No
31	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****
** RESULTS - TOW020 **
****

Pos/Vial: 1 Name: PREP BLK Analyzed: 29Oct2001 09:45
Run ID: 39 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027071	744	-0.345	-0.0689
2	1027072	1012	-0.038	-0.0076
3	1027073	771	-0.314	-0.0627
Avg		842	-0.232	-0.0464 ND
Std.Dev.		147.55		
RSD (%)		17.52		

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 29Oct2001 10:13
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027074	42473	47.355	9.4690
2	1027075	44117	49.234	9.8448

Tow020 10.31.01

Avg	43295	48.294	9.6569 /10 = 97%
Std.Dev.	1162.48		
RSD (%)	2.68		

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 29Oct2001 10:33
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027076	67015	75.408	15.0785
2	1027077	65154	73.281	14.6532
Avg		66084	74.344	14.8659 /15 = 99%
Std.Dev.		1315.93		
RSD (%)		1.99		

LCV 10-31-01

****

Pos/Vial: 4 Name: 110502-13 X5 DO Analyzed: 29Oct2001 10:52
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027078	6070	6.837	1.3671	24986	28.272	5.6532 X5 = 28.26

****

Pos/Vial: 5 Name: 110611-1 Analyzed: 29Oct2001 11:02
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027079	54741	62.471	12.4917	125637	143.323	28.6588 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 11:12

****

Tow020

Pos/Vial: 6 Name: 110611-1 MS Analyzed: 29Oct2001 11:13
Run ID: 5 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027080	37815	43.123	8.6230	152033	173.495	34.6921	Dilute

****

Pos/Vial: 7 Name: 110611-1 MSD Analyzed: 29Oct2001 11:23
Run ID: 6 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027081	37592	42.869	8.5720	150180	171.377	34.2686	Dilute

****

Pos/Vial: 8 Name: 110469-24 Analyzed: 29Oct2001 11:33
Run ID: 7 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027082	504	0.474	0.0949	12831	14.378	2.8749
2	1027083	389	0.343	0.0686	12420	13.908	2.7810
Avg		446	0.409	0.0817	12625	14.143	2.8280
Std.Dev.		81.32			290.62		
RSD (%)		18.21			2.30		

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 29Oct2001 11:52
Run ID: 8 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027084	696	0.694	0.1387	33026	37.462	7.4909	Rerun
2	1027085	582	0.564	0.1127	15705	17.663	3.5318	

Tow020

Avg	639	0.629	0.1257	24365	27.562	5.5114	Rerun
Std.Dev.	80.61			12247.80			
RSD (%)	12.62			50.27			

****

Pos/Vial: 10 Name: 110254-14 X10 Analyzed: 29Oct2001 12:12
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027086	298	0.239	0.0478	41098	46.689	9.3359
2	1027087	282	0.221	0.0441	41978	47.695	9.5370
Avg		290	0.230	0.0459	41538	47.192	9.4364X10=94.36
Std.Dev.		11.31			622.25		
RSD (%)		3.90			1.50		

****

Pos/Vial: 11 Name: 110611-2 Analyzed: 29Oct2001 12:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027088	178505	203.942	40.7803	80640	91.888	18.3739

A-Linear range exceeded (130ugC). 29Oct2001 12:41

****

Pos/Vial: 12 Name: 110611-3 Analyzed: 29Oct2001 12:41
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027089	162178	185.279	37.0484	113014	128.894	25.7736 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 12:51

****

Pos/Vial: 13 Name: 110557-1 Analyzed: 29Oct2001 12:51
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027090	78346	89.453	17.8871	50269	57.172	11.4321

****

Pos/Vial: 14 Name: 110557-2 Analyzed: 29Oct2001 13:02
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027091	101075	115.434	23.0822	42563	48.363	9.6707

****

Pos/Vial: 15 Name: 110557-3 Analyzed: 29Oct2001 13:12
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027092	95121	108.628	21.7213	39458	44.814	8.9610

****

Pos/Vial: 16 Name: 110557-4 Analyzed: 29Oct2001 13:22
Run ID: 15 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027093	28184	31.021	6.2030
2	1027094	29602	32.642	6.5271
3	1027095	29462	32.482	6.4951

Tow020

Avg	29082	32.048	6.4084
Std.Dev.	781.41		
RSD (%)	2.69		

****

Pos/Vial: 17 Name: CCB Analyzed: 29Oct2001 13:50
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027096	1107	0.070	0.0141
2	1027097	726	-0.365	-0.0730
3	1027098	661	-0.439	-0.0879
Avg		831	-0.245	-0.0489 ND
Std.Dev.		240.94		
RSD (%)		28.98		

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 29Oct2001 14:18
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027099	62697	70.472	14.0916
2	1027100	63841	71.780	14.3531
Avg		63269	71.126	14.2223 (WCA 10-31-01) 14.2223/15 = 95%
Std.Dev.		808.93		
RSD (%)		1.28		

****

Pos/Vial: 19 Name: 110557-5 Analyzed: 29Oct2001 14:37
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027101	106648	121.804	24.3560	41563	47.220	9.4422

****

Pos/Vial: 20 Name: 110557-5 DUP Analyzed: 29Oct2001 14:48
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027102	103004	117.639	23.5231	41953	47.666	9.5318

****

Pos/Vial: 21 Name: 110557-6 Analyzed: 29Oct2001 14:58
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027103	455	0.418	0.0837	1008	0.863	0.1726

****

Pos/Vial: 22 Name: 110557-7 Analyzed: 29Oct2001 15:08
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027104	536	0.511	0.1022	2036	2.038	0.4075

****

Pos/Vial: 23 Name: 110599-1 Analyzed: 29Oct2001 15:19
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027105	106619	121.771	24.3494	31416	35.622	7.1229

****

Pos/Vial: 24 Name: 110599-2 Analyzed: 29Oct2001 15:29
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027106	110596	126.317	25.2584	84445	96.237	19.2436

****

Pos/Vial: 25 Name: 110599-3 Analyzed: 29Oct2001 15:39
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027107	119337	136.309	27.2563	54525	62.037	12.4049

A-Linear range exceeded (130ugC). 29Oct2001 15:49

****

Pos/Vial: 26 Name: 110616-1 Analyzed: 29Oct2001 15:49
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027108	116667	133.257	26.6460	109093	124.412	24.8774

Dilute

****

Pos/Vial: 27 Name: 110681-1 Analyzed: 29Oct2001 16:00
Run ID: 26 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027109	55231	63.031	12.6037	18047	20.340	4.0671

****

Pos/Vial: 28 Name: 110681-2 Analyzed: 29Oct2001 16:10
Run ID: 27 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027110	76860	87.755	17.5474	17551	19.773	3.9538

****

Pos/Vial: 29 Name: 110681-3 Analyzed: 29Oct2001 16:20
Run ID: 28 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027111	55432	63.261	12.6497	17262	19.442	3.8877

****

Pos/Vial: 30 Name: CCB Analyzed: 29Oct2001 16:30
Run ID: 29 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027112	940	-0.121	-0.0241
2	1027113	796	-0.285	-0.0570
3	1027114	708	-0.386	-0.0771
Avg		814	-0.264	-0.0528 ND
Std.Dev.		117.12		
RSD (%)		14.38		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 29Oct2001 16:58
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027115	63811	71.745	14.3462
2	1027116	62880	70.681	14.1334
Avg		63345	71.213	14.2398

W6/0-31-01
15 - 95%

Std.Dev.	658.32
RSD (%)	1.04

E-Autosampler or cover is off. 30Oct2001 07:45

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020A Tue Oct 30 07:43:26 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
9	110254-13 X5	default	Sample	2	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
26	110616-1 X2	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

JG 10-30-01

****
** RESULTS - TOW020A **
****

Pos/Vial: 1 Name: CCB Analyzed: 30Oct2001 08:28
Run ID: 31 Meth: default Vol (mL): 5.001

CHK. 3 TOC TOC TOC

Tow020a

Rep	Datafile	Area (cts)	Mass (ugC)	Conc (ppm)
1	1027A117	791	-0.291	-0.0582
2	1027A118	920	-0.143	-0.0287
3	1027A119	755	-0.332	-0.0664
Avg		822	-0.255	-0.0511 ND
Std.Dev.		86.76		
RSD (%)		10.55		

****

Pos/Vial: 2 Name: CCV 15PPM Analyzed: 30Oct2001 08:56
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A120	63619	71.526	14.3023
2	1027A121	64594	72.640	14.5252
Avg		64106	72.083	14.4138
Std.Dev.		689.43		
RSD (%)		1.08		

w/10-31-01

14.4138/15 = 96%

****

Pos/Vial: 5 Name: 110611-1 X5 Analyzed: 30Oct2001 09:16
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A122	4127	4.616	0.9230	31301	35.490	7.0966

7.0966 x 5 = 35.48

****

Pos/Vial: 6 Name: 110611-1 MS X5 Analyzed: 30Oct2001 09:26
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A123	2115	2.316	0.4631	36376	41.291	8.2566

8.2566 x 5 =

$\frac{41.28 - 35.48}{10} = 58\%$

066

****

Pos/Vial: 7 Name: 110611-1 MSD X5 Analyzed: 30Oct2001 09:36
Run ID: 6 Meth: default Vol (mL): 5.001

RPD = 2

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A124	2431	2.677	0.5353	36287	41.189	8.2362 x 5 = 41.18

41.18 - 35.48 / 10 = 57%

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 30Oct2001 09:47
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A125	787	0.798	0.1595	32234	36.557	7.3098
2	1027A126	830	0.847	0.1694	31995	36.283	7.2552
Avg		808	0.822	0.1645	32114	36.420	7.2825 x 5 = 36.41
Std.Dev.		30.41			169.00		
RSD (%)		3.76			0.53		

****

Pos/Vial: 12 Name: 110611 ~~-3 X2~~ 6-1 x2 Analyzed: 30Oct2001 10:06
Run ID: 9 Meth: default ~~1030-01~~ Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A127	21679	24.679	4.9348	56263	64.023	12.8021 x 2 = 25.60

****

Pos/Vial: 26 Name: ~~110616-1~~ 1-3 X2 Analyzed: 30Oct2001 10:16
Run ID: 12 Meth: default ~~1030-01~~ Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

Dilute

1	1027A128	29851	34.020	6.8027	133255	152.031	30.4001 Dilute

A-Linear range exceeded (130ugC). 30Oct2001 10:26

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 10:26
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027A129	1324	0.318	0.0637	
2	1027A130	982	-0.073	-0.0145	
3	1027A131	847	-0.227	-0.0454	
Avg		1051	0.006	0.0013	ND
Std.Dev.		245.87			
RSD (%)		23.39			

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 10:54
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A132	63211	71.060	14.2091
2	1027A133	62599	70.360	14.0692
Avg		62905	70.710	~~14.1391~~
Std.Dev.		432.75		
RSD (%)		0.69		

wa10-31-01

14.1391/15 = 94%

E-Autosampler or cover is off. 30Oct2001 12:42

E-Autosampler or cover is off. 30Oct2001 12:43

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020B Tue Oct 30 12:43:38 2001

Start Pos/Vial #: 26, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
26	110611-3 X10	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW020B **
****

Pos/Vial: 26 Name: 110611-3 X10 Analyzed: 30Oct2001 12:49
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

Tow020b

1	1027B134	2782	3.078	0.6155	21079	23.806	4.7602 x10=47.60

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 13:00
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B135	756	-0.331	-0.0662
2	1027B136	740	-0.349	-0.0698
3	1027B137	681	-0.417	-0.0833
Avg		725	-0.366	-0.0731 ND
Std.Dev.		39.50		
RSD (%)		5.44		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 13:28
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B138	63698	71.616	14.3204
2	1027B139	61970	69.641	13.9254
Avg		62834	70.629	14.1229 (15: 94%)
Std.Dev.		1221.88		
RSD (%)		1.94		

(5/10-3/01)

070

E-Autosampler or cover is off. 30Oct2001 14:06

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020C Tue Oct 30 14:00:50 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Reps	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110401-1	default	Sample	1	5.000	0	No	
2	110401-4	default	Sample	1	5.000	0	No	
3	110401-5 X10	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Sample	2	5.000	0	No	

To Confirm

****
** RESULTS - TOW020C **
****

Pos/Vial: 1 Name: 110401-1 Analyzed: 30Oct2001 14:08
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C140	223271	255.113	51.0123	14356	16.121	3.2235

071

A-Linear range exceeded (130ugC). 30Oct2001 14:18

****

Pos/Vial: 2 Name: 110401-4 Analyzed: 30Oct2001 14:19
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C141	183149	209.250	41.8417	5049	5.482	1.0962

****

Pos/Vial: 3 Name: 110401-5 X10 Analyzed: 30Oct2001 14:29
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C142	1084	1.137	0.2274	68686	78.224	15.6416

15.6416 x10= 156

****

Pos/Vial: 4 Name: CCB Analyzed: 30Oct2001 14:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C143	1651	0.692	0.1384
2	1027C144	1410	0.417	0.0833
3	1027C145	1312	0.305	0.0609
Avg		1457	0.471	0.0942 ND
Std.Dev.		174.45		
RSD (%)		11.97		

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 30Oct2001 15:07
Run ID: 4 Meth: default Vol (mL): 5.001

072

Tow020c

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C146	281	0.219	0.0439	62447	71.092	14.2156
2	1027C147	282	0.221	0.0441	62251	70.868	14.1708
Avg		281	0.220	0.0440	62349	70.980	~~14.1932~~
Std.Dev.		0.71			138.59		
RSD (%)		0.25			0.22		

WG10-31-01
15, 95%

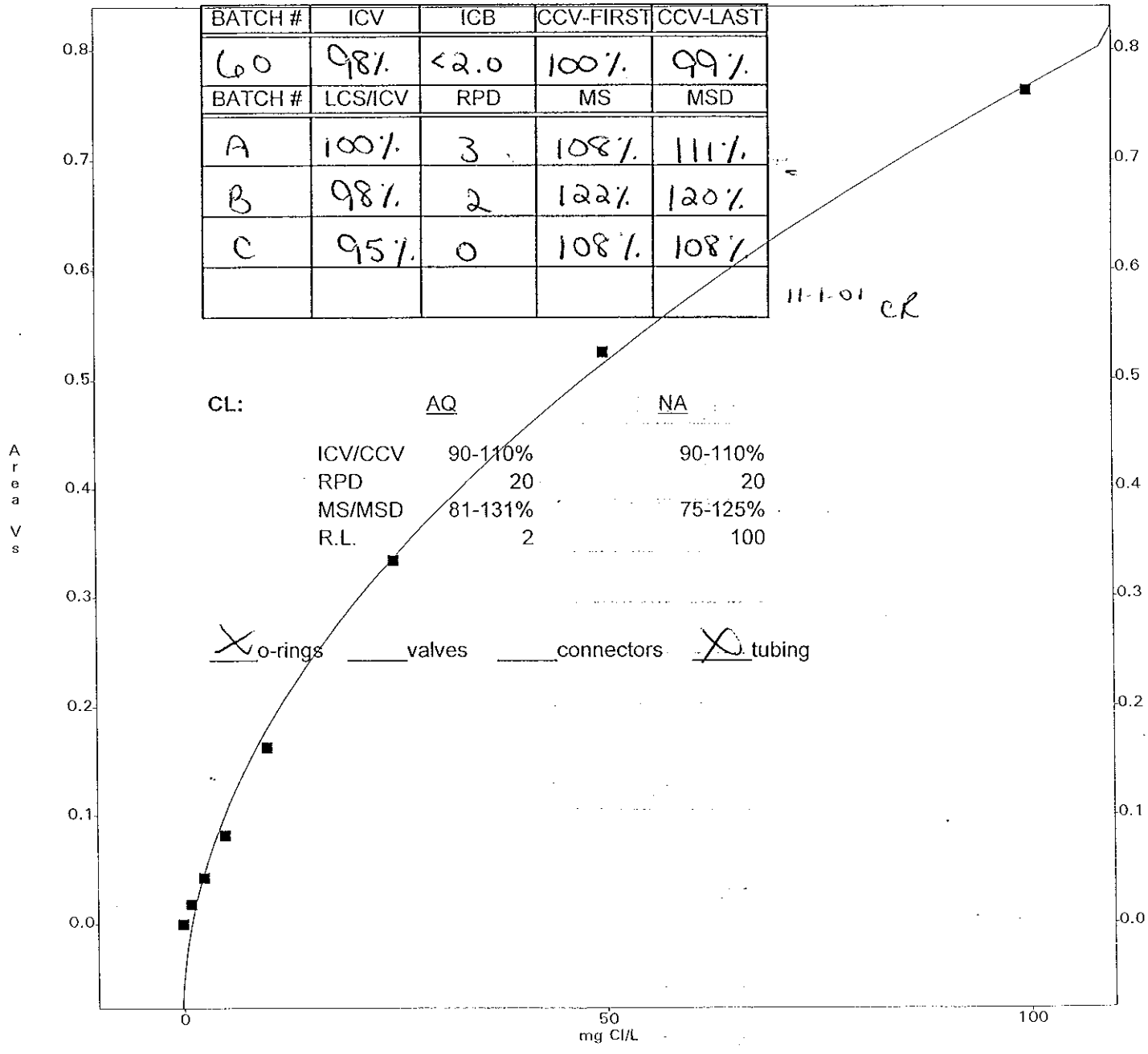
073

CL 325.2/SM4500CL E/SW9251 CKW60A,B,C

	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	763710	100.0	763710	763710	763710	763710	763710	0.0	0.0	0.7
2	525748	50.0	525748	525748	525748	525748	525748	0.0	0.0	-3.5
3	334290	25.0	334290	334290	334290	334290	334290	0.0	0.0	1.4
4	163072	10.0	163072	163072	163072	163072	163072	0.0	0.0	12.3
5	82474	5.0	82474	82474	82474	82474	82474	0.0	0.0	19.0
6	43492	2.5	43492	43492	43492	43492	43492	0.0	0.0	4.3
7	18512	1.0	18512	18512	18512	18512	18512	0.0	0.0	-54.8
8	0	0.0	0	0	0	0	0	0.0	0.0	

2nd Order Poly
Conc = 1.352e-010 Area² + 2.543e-005 Area + 1.031e+000
r = 0.9996

Scaling: None - Weighting: None



BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
60	98%	<2.0	100%	99%
BATCH #	LCS/ICV	RPD	MS	MSD
A	100%	3	108%	111%
B	98%	2	122%	120%
C	95%	0	108%	108%

11-1-01 CR

CL:	AQ	NA
ICV/CCV	90-110%	90-110%
RPD	20	20
MS/MSD	81-131%	75-125%
R.L.	2	100

X o-rings ____ valves ____ connectors X tubing

Printed: Friday, November 02, 2001 - 08:31 AM

CKW60A; B; C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 9:58:06
DATA FILENAME: C:\OMNION\DATA\CKW60A.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60A.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	01 Nov 2001	09:58:08	1	763710.00
2	50.0 PPM CHLO	01 Nov 2001	09:58:45	1	525748.00
3	25.0 PPM CHLO	01 Nov 2001	09:59:23	1	334290.00
4	10.0 PPM CHLO	01 Nov 2001	10:00:01	1	163072.00
5	5.00 PPM CHLO	01 Nov 2001	10:00:39	1	82474.00
6	2.50 PPM CHLO	01 Nov 2001	10:01:18	1	43492.00
7	1.00 PPM CHLO	01 Nov 2001	10:01:57	1	18512.00
8	0.00 PPM CHLO	01 Nov 2001	10:02:37	1	0.00

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	01 Nov 2001	10:09:10	1	~0 1.0313	1.0	1.00	1.00000	g
				10:09:48	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	10:10:27	1	100% 50.2313	1.0	1.00	1.00000	g
				10:11:05	2	50.0092				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	01 Nov 2001	10:11:43	1	17.1146	1.0	1.00	1.00000	g
				10:12:22	2	17.4258				
4	110611-1 MS	Spiked	01 Nov 2001	10:13:00	1	108% 46.0350	1.0	1.00	1.00000	g
				10:13:39	2	44.4156				
				Spike Level:		0.0000				
				% Spike Recovery:		RPD=3 100.0000				
5	110611-1 MSD	Dup1	01 Nov 2001	10:14:17	1	111% 43.2704	1.0	1.00	1.00000	g
				10:14:56	2	45.1391				
9	ICV 50ppm	RelChkStd	01 Nov 2001	10:03:55	1	98% 49.8671	1.0	1.00	1.00000	g
				10:04:33	2	49.1501				
				Known Concentration:		50.0000				
				% Difference:		-0.9827				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:06:32	1	100% 25.1076	1.0	1.00	1.00000	g
				10:07:11	2	25.1492				
				Known Concentration:		25.0000				
				% Difference:		0.5137				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:21:50	1	96% 24.5147	1.0	1.00	1.00000	g
				10:22:30	2	24.0989				
				Known Concentration:		25.0000				
				% Difference:		-2.7729				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:37:03	1	97% 24.6973	1.0	1.00	1.00000	g
				10:37:43	2	24.3433				
				Known Concentration:		25.0000				
				% Difference:		-1.9187				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:52:13	1	99% 24.5435	1.0	1.00	1.00000	g
				10:52:52	2	24.7698				
				Known Concentration:		25.0000				
				% Difference:		-1.3734				
16	ICB	Blank	01 Nov 2001	10:05:13	1	~0 1.0313	1.0	1.00	1.00000	g
				10:05:53	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:07:51	1	~0 1.0313	1.0	1.00	1.00000	g
				10:08:31	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:23:10	1	~0 1.0313	1.0	1.00	1.00000	g
				10:23:49	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:38:23	1	~0 1.0313	1.0	1.00	1.00000	g
				10:39:02	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:53:32	1	~0 1.0313	1.0	1.00	1.00000	g
				10:54:11	2	1.0313				

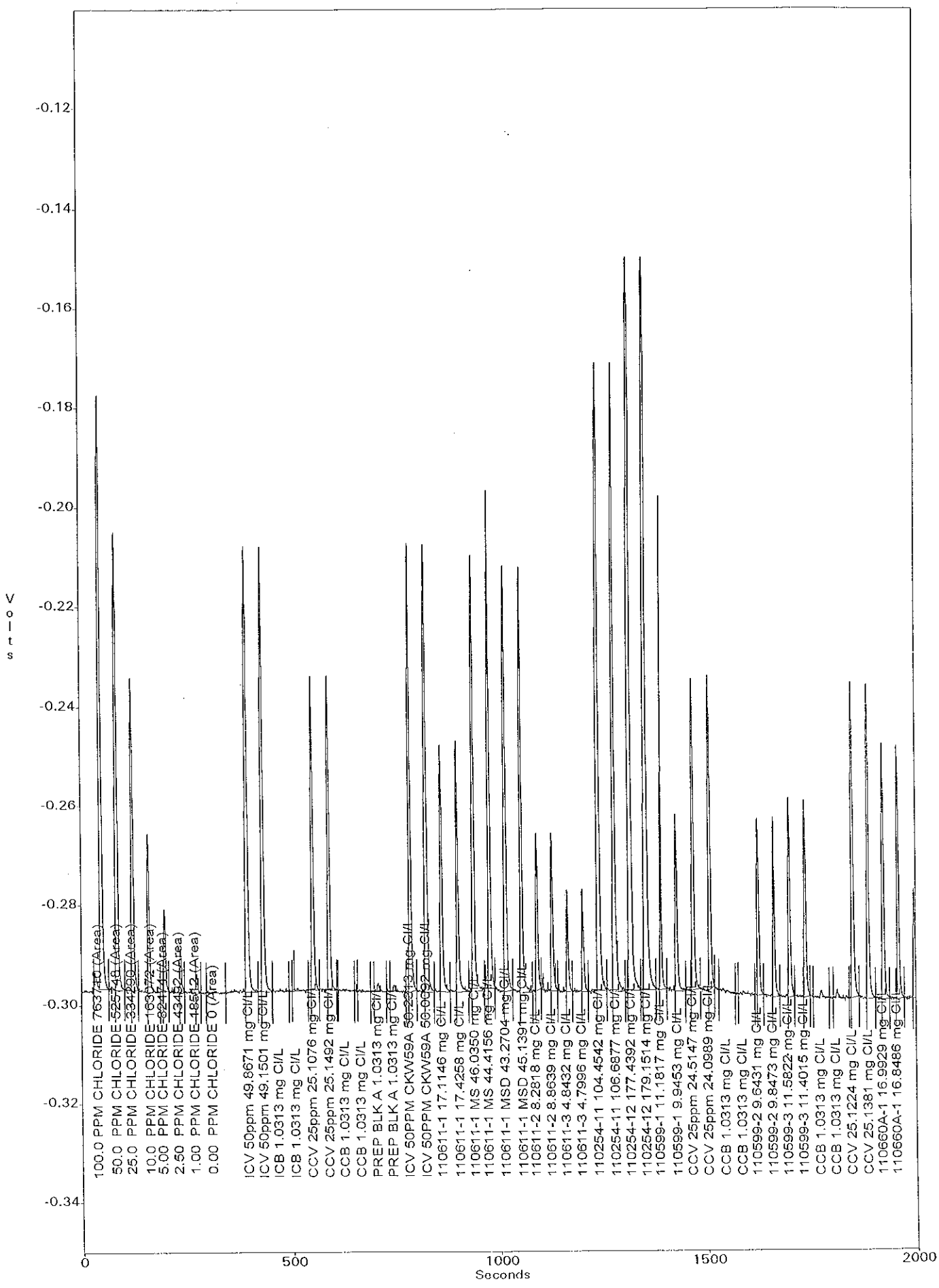
UKW60A, B, C

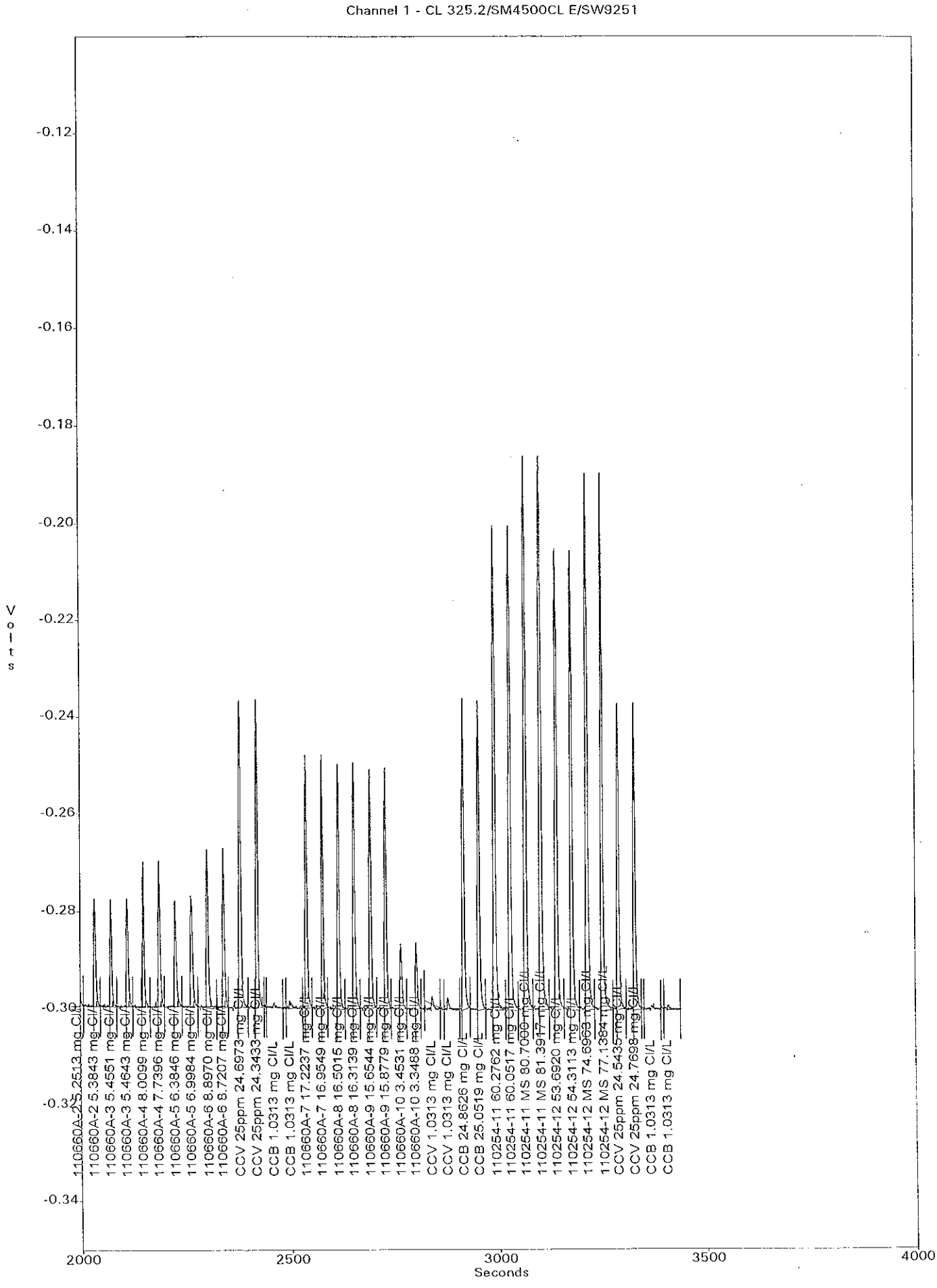
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110611-2	01 Nov 2001	10:15:34	1	8.2818	1.0	1.00	1.00000	g
			10:16:11	2	8.8639				
7	110611-3	01 Nov 2001	10:16:49	1	48.4321 1/10	10.0 @	1.00	1.00000	g
			10:17:26	2	47.9964				
8	110254-11	01 Nov 2001	10:18:03	1	104.4542	1.0	1.00	1.00000	g See Cup 27
			10:18:41	2	106.6877				
9	110254-12	01 Nov 2001	10:19:18	1	177.4392	1.0	1.00	1.00000	g 29
			10:19:56	2	179.1514				
10	110599-1	01 Nov 2001	10:20:33	1	11.1817	1.0	1.00	1.00000	g
			10:21:10	2	9.9453				
11	110599-2	01 Nov 2001	10:24:26	1	9.6431	1.0	1.00	1.00000	g
			10:25:03	2	9.8473				
12	110599-3	01 Nov 2001	10:25:41	1	11.5822	1.0	1.00	1.00000	g
			10:26:18	2	11.4015				
13	CCB	01 Nov 2001	10:26:55	1	ND 1.0313	1.0	1.00	1.00000	g
			10:27:33	2	1.0313				
14	CCV	01 Nov 2001	10:28:10	1	100% 25.1224	1.0	1.00	1.00000	g
			10:28:46	2	25.1381				
15	110660A-1	01 Nov 2001	10:29:23	1	16.9929	1.0	1.00	1.00000	g
			10:29:59	2	16.8486				
16	110660A-2	01 Nov 2001	10:30:38	1	5.2513	1.0	1.00	1.00000	g
			10:31:16	2	5.3843				
17	110660A-3	01 Nov 2001	10:31:55	1	5.4551	1.0	1.00	1.00000	g
			10:32:33	2	5.4643				
18	110660A-4	01 Nov 2001	10:33:11	1	8.0099	1.0	1.00	1.00000	g
			10:33:50	2	7.7396				
19	110660A-5	01 Nov 2001	10:34:28	1	6.3846	1.0	1.00	1.00000	g
			10:35:07	2	6.9984				
20	110660A-6	01 Nov 2001	10:35:45	1	8.8970	1.0	1.00	1.00000	g
			10:36:24	2	8.7207				
21	110660A-7	01 Nov 2001	10:39:40	1	17.2237	1.0	1.00	1.00000	g
			10:40:19	2	16.9549				
22	110660A-8	01 Nov 2001	10:40:57	1	16.5015	1.0	1.00	1.00000	g
			10:41:36	2	16.3139				
23	110660A-9	01 Nov 2001	10:42:14	1	15.6544	1.0	1.00	1.00000	g
			10:42:51	2	15.8779				
24	110660A-10	01 Nov 2001	10:43:29	1	3.4531	1.0	1.00	1.00000	g
			10:44:06	2	3.3488				
25	CCV B	01 Nov 2001	10:44:43	1	~D 1.0313	1.0	1.00	1.00000	g
			10:45:21	2	1.0313				
26	CCB V	01 Nov 2001	10:45:58	1	100% 24.8626	1.0	1.00	1.00000	g
			10:46:35	2	25.0519				
27	110254-11	01 Nov 2001	10:47:13	1	120.5524	5/10 2.0	1.00	1.00000	g
			10:47:50	2	120.1033				
28	110254-11 MS	01 Nov 2001	10:48:28	1	84% 161.3999	↓ 2.0	1.00	1.00000	g
			10:49:05	2	162.7834				
29	110254-12	01 Nov 2001	10:49:42	1	268.4598	2/10 5.0	1.00	1.00000	g
			10:50:20	2	271.5565				
30	110254-12 MS	01 Nov 2001	10:50:57	1	91% 373.4813	↓ 5.0	1.00	1.00000	g
			10:51:33	2	385.6922				

11-9-01 CK

077


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
100.0 PPM CHLORIDE 763740 (Area)
50.0 PPM CHLORIDE 325748 (Area)
25.0 PPM CHLORIDE 334290 (Area)
10.0 PPM CHLORIDE 163072 (Area)
5.00 PPM CHLORIDE 82471 (Area)
2.50 PPM CHLORIDE 43452 (Area)
1.00 PPM CHLORIDE 18512 (Area)
0.00 PPM CHLORIDE 0 (Area)
ICV 50ppm 49.8671 mg Cl/L
ICV 50ppm 49.1501 mg Cl/L
ICB 1.0313 mg Cl/L
ICB 1.0313 mg Cl/L
CCV 25ppm 25.1076 mg Cl/L
CCV 25ppm 25.1492 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A 50.2213 mg Cl/L
ICV 50PPM CKW59A 50.0092 mg Cl/L
110611-1 17.1146 mg Cl/L
110611-1 17.4258 mg Cl/L
110611-1 MS 46.0350 mg Cl/L
110611-1 MS 44.4156 mg Cl/L
110611-1 MSD 43.2704 mg Cl/L
110611-1 MSD 45.1391 mg Cl/L
110611-2 8.2818 mg Cl/L
110611-2 8.8639 mg Cl/L
110611-3 4.8432 mg Cl/L
110611-3 4.7996 mg Cl/L
110254-11 104.4542 mg Cl/L
110254-11 106.6877 mg Cl/L
110254-12 177.4392 mg Cl/L
110254-12 179.1514 mg Cl/L
110599-1 11.1817 mg Cl/L
110599-1 9.9453 mg Cl/L
CCV 25ppm 24.5147 mg Cl/L
CCV 25ppm 24.0989 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110599-2 9.6431 mg Cl/L
110599-2 9.8473 mg Cl/L
110599-3 11.5822 mg Cl/L
110599-3 11.4015 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
CCV 25.1224 mg Cl/L
CCV 25.1381 mg Cl/L
110660A-1 16.9929 mg Cl/L
110660A-1 16.8486 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
2000
2500
3000
3500
4000
Seconds
110660A-1 5.2513 mg Cl/L
110660A-2 5.3843 mg Cl/L
110660A-3 5.4551 mg Cl/L
110660A-3 5.4643 mg Cl/L
110660A-4 8.0099 mg Cl/L
110660A-4 7.7396 mg Cl/L
110660A-5 6.3846 mg Cl/L
110660A-5 6.9984 mg Cl/L
110660A-6 8.8970 mg Cl/L
110660A-6 8.7207 mg Cl/L
CCV 25ppm 24.6973 mg Cl/L
CCV 25ppm 24.3433 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110660A-7 17.2237 mg Cl/L
110660A-7 16.9549 mg Cl/L
110660A-8 16.5015 mg Cl/L
110660A-8 16.3139 mg Cl/L
110660A-9 15.6544 mg Cl/L
110660A-9 15.8779 mg Cl/L
110660A-10 3.4531 mg Cl/L
110660A-10 3.3488 mg Cl/L
CCV 1.0313 mg Cl/L
CCV 1.0313 mg Cl/L
CCB 24.8626 mg Cl/L
CCB 25.0519 mg Cl/L
110254-11 60.2762 mg Cl/L
110254-11 60.0517 mg Cl/L
110254-11 MS 80.7000 mg Cl/L
110254-11 MS 81.3947 mg Cl/L
110254-12 53.6920 mg Cl/L
110254-12 54.3113 mg Cl/L
110254-12 MS 74.6963 mg Cl/L
110254-12 MS 77.1384 mg Cl/L
CCV 25ppm 24.5435 mg Cl/L
CCV 25ppm 24.7698 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

CKW60B

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 11:21:42
DATA FILENAME: C:\OMNION\DATA\CKW60B.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

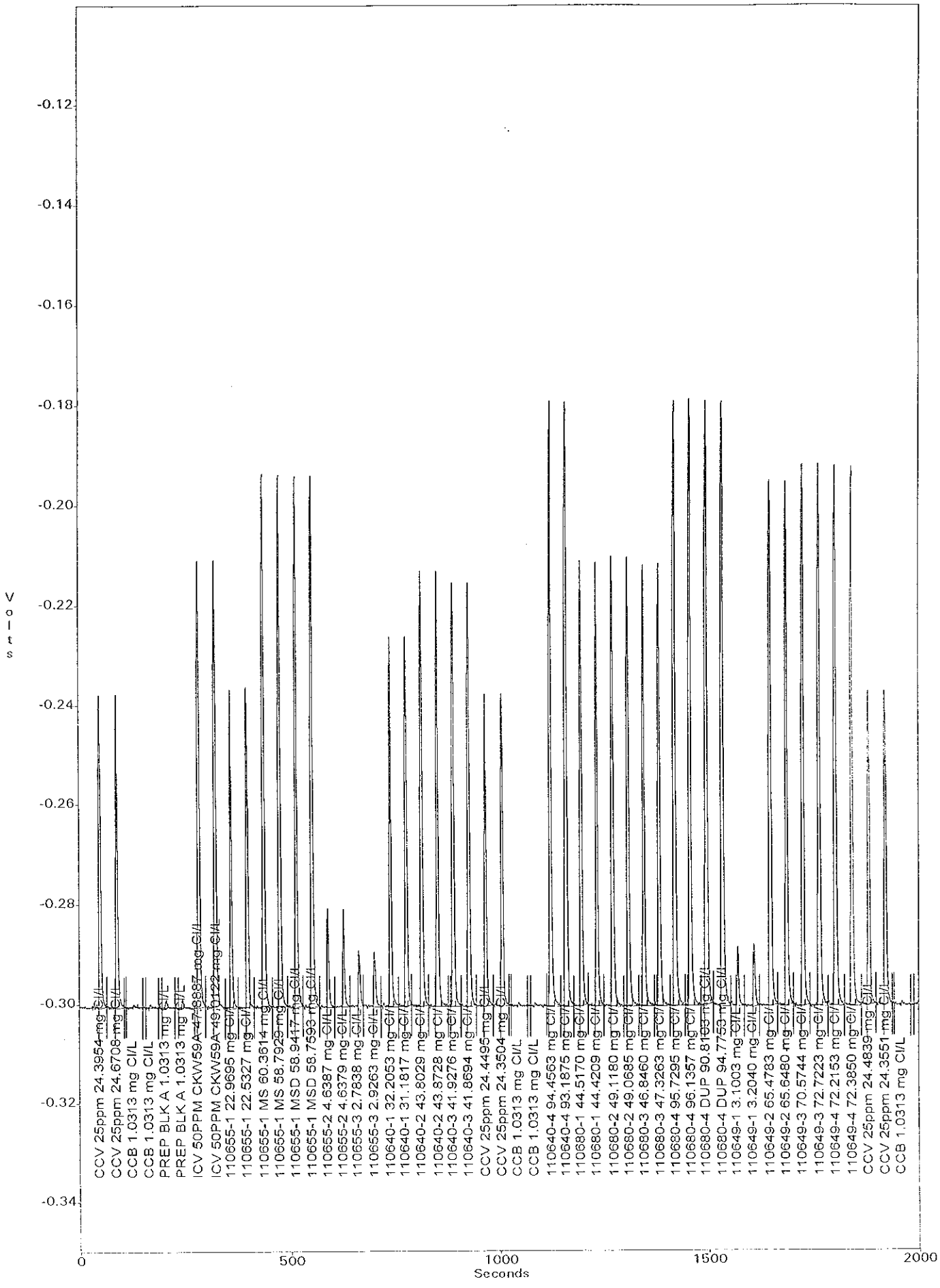
NO SAMPLE INFO FOR THE SELECTED CUP RANGE

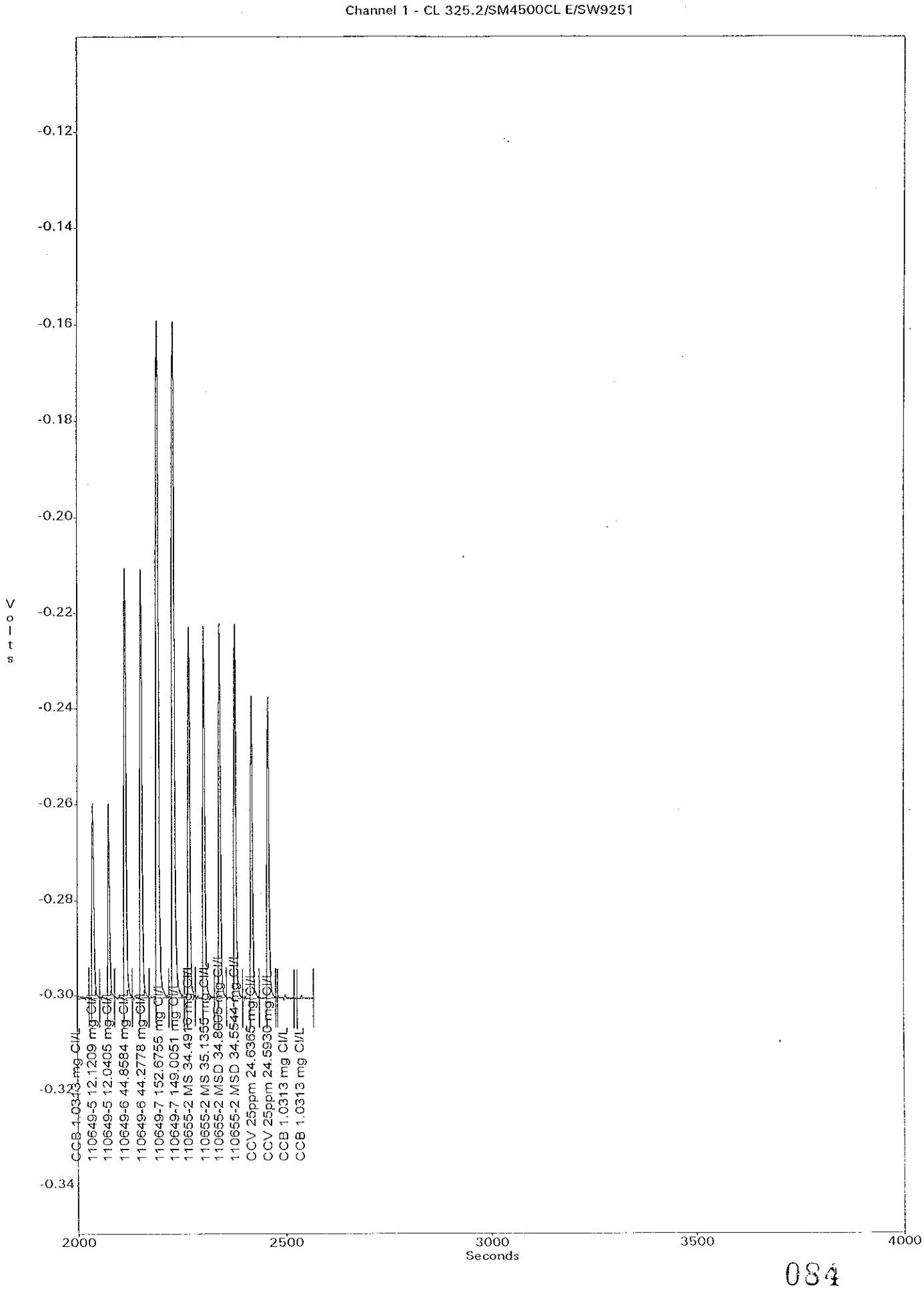
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK B	Blank	01 Nov 2001	11:24:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:25:02	2	1.0313				
2	ICV 50PPM CKW59B 10/11/01	RelChkStd	01 Nov 2001	11:25:40	1	94% 47.8887	1.0	1.00	1.00000	g
				11:26:19	2	49.0122				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110655-1	Dup1	01 Nov 2001	11:26:57	1	22.9695	1.0	1.00	1.00000	g
				11:27:36	2	22.5327				
4	110655-1 MS	Spiked	01 Nov 2001	11:28:14	1	60.3614	1.0	1.00	1.00000	g
				11:28:53	2	58.7929				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
5	110655-1 MSD	Dup1	01 Nov 2001	11:29:31	1	58.9417	1.0	1.00	1.00000	g
				11:30:09	2	58.7593				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:21:46	1	98% 24.3954	1.0	1.00	1.00000	g
				11:22:26	2	24.6708				
				Known Concentration:		25.0000				
				% Difference:		-1.8676				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:37:04	1	97% 24.4495	1.0	1.00	1.00000	g
				11:37:43	2	24.3504				
				Known Concentration:		25.0000				
				% Difference:		-2.4003				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:52:18	1	97% 24.4839	1.0	1.00	1.00000	g
				11:52:58	2	24.3551				
				Known Concentration:		25.0000				
				% Difference:		-2.3221				
15	CCV 25ppm	RelChkStd	01 Nov 2001	12:01:17	1	98% 24.6365	1.0	1.00	1.00000	g
				12:01:57	2	24.5930				
				Known Concentration:		25.0000				
				% Difference:		-1.5411				
16	CCB	Blank	01 Nov 2001	11:23:06	1	ND 1.0313	1.0	1.00	1.00000	g
				11:23:45	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:38:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:39:03	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:53:38	1	ND 1.0313	1.0	1.00	1.00000	g
				11:54:17	2	1.0313				
16	CCB	Blank	01 Nov 2001	12:02:37	1	ND 1.0313	1.0	1.00	1.00000	g
				12:03:17	2	1.0313				

See Cup # 24 Sample # spiked

Channel 1 - CL 325.2/SM4500CL E/SW9251




Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
CCB 1.0313 mg Cl/L
110649-5 12.1209 mg Cl/L
110649-5 12.0405 mg Cl/L
110649-6 44.8584 mg Cl/L
110649-6 44.2778 mg Cl/L
110649-7 152.6755 mg Cl/L
110649-7 149.0051 mg Cl/L
110655-2 MS 34.4915 mg Cl/L
110655-2 MS 35.1355 mg Cl/L
110655-2 MSD 34.8005 mg Cl/L
110655-2 MSD 34.5544 mg Cl/L
CCV 25ppm 24.6365 mg Cl/L
CCV 25ppm 24.5930 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

084

CKW60C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 13:34:36
DATA FILENAME: C:\OMNION\DATA\CKW60C.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60C.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

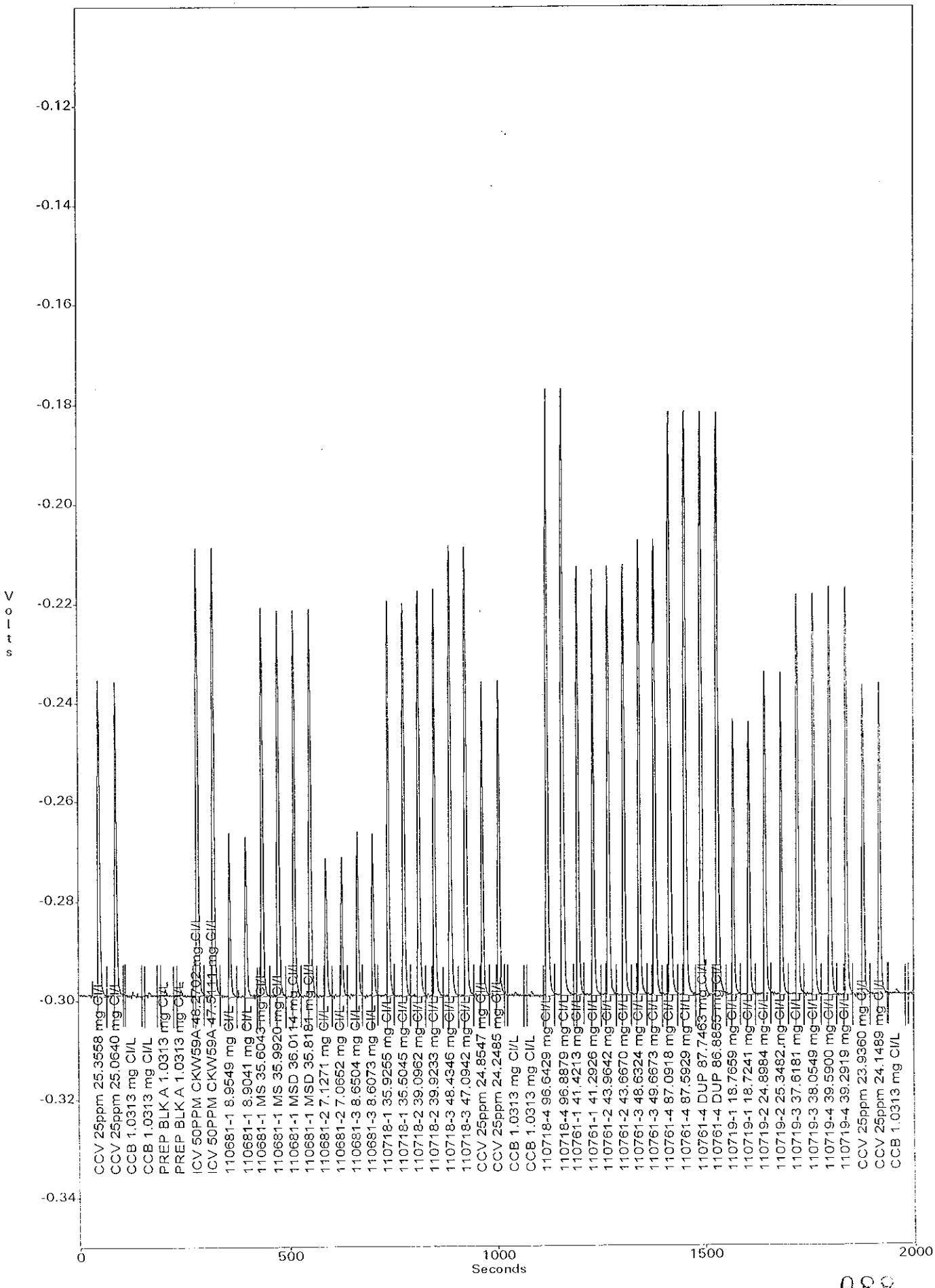
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK C	Blank	01 Nov 2001	13:37:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:37:56	2	1.0313				
2	ICV 50PPM CKW59A C 11/1/01	RelChkStd	01 Nov 2001	13:38:34	1	95% 48.2702	1.0	1.00	1.00000	g
				13:39:13	2	47.5111				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110681-1	Dup1	01 Nov 2001	13:39:51	1	8.9549	1.0	1.00	1.00000	g
				13:40:30	2	8.9041				
4	110681-1 MS	Spiked	01 Nov 2001	13:41:08	1	108% 35.6043	1.0	1.00	1.00000	g
				13:41:47	2	35.9920				
				Spike Level:		RPD=0 0.0000				
				% Spike Recovery:		100.0000				
5	110681-1 MSD	Dup1	01 Nov 2001	13:42:25	1	108% 36.0114	1.0	1.00	1.00000	g
				13:43:03	2	35.8181				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:34:40	1	100% 25.3558	1.0	1.00	1.00000	g
				13:35:20	2	25.0640				
				Known Concentration:		25.0000				
				% Difference:		0.8396				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:49:57	1	97% 24.8547	1.0	1.00	1.00000	g
				13:50:37	2	24.2485				
				Known Concentration:		25.0000				
				% Difference:		-1.7937				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:05:11	1	96% 23.9360	1.0	1.00	1.00000	g
				14:05:50	2	24.1489				
				Known Concentration:		25.0000				
				% Difference:		-3.8301				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:12:55	1	94% 23.5740	1.0	1.00	1.00000	g
				14:13:35	2	23.4090				
				Known Concentration:		25.0000				
				% Difference:		-6.0339				
16	CCB	Blank	01 Nov 2001	13:36:00	1	ND 1.0313	1.0	1.00	1.00000	g
				13:36:39	2	1.0313				
16	CCB	Blank	01 Nov 2001	13:51:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:51:57	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:06:30	1	ND 1.0313	1.0	1.00	1.00000	g
				14:07:10	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:14:15	1	ND 1.0313	1.0	1.00	1.00000	g
				14:14:54	2	1.0313				

CKW60C

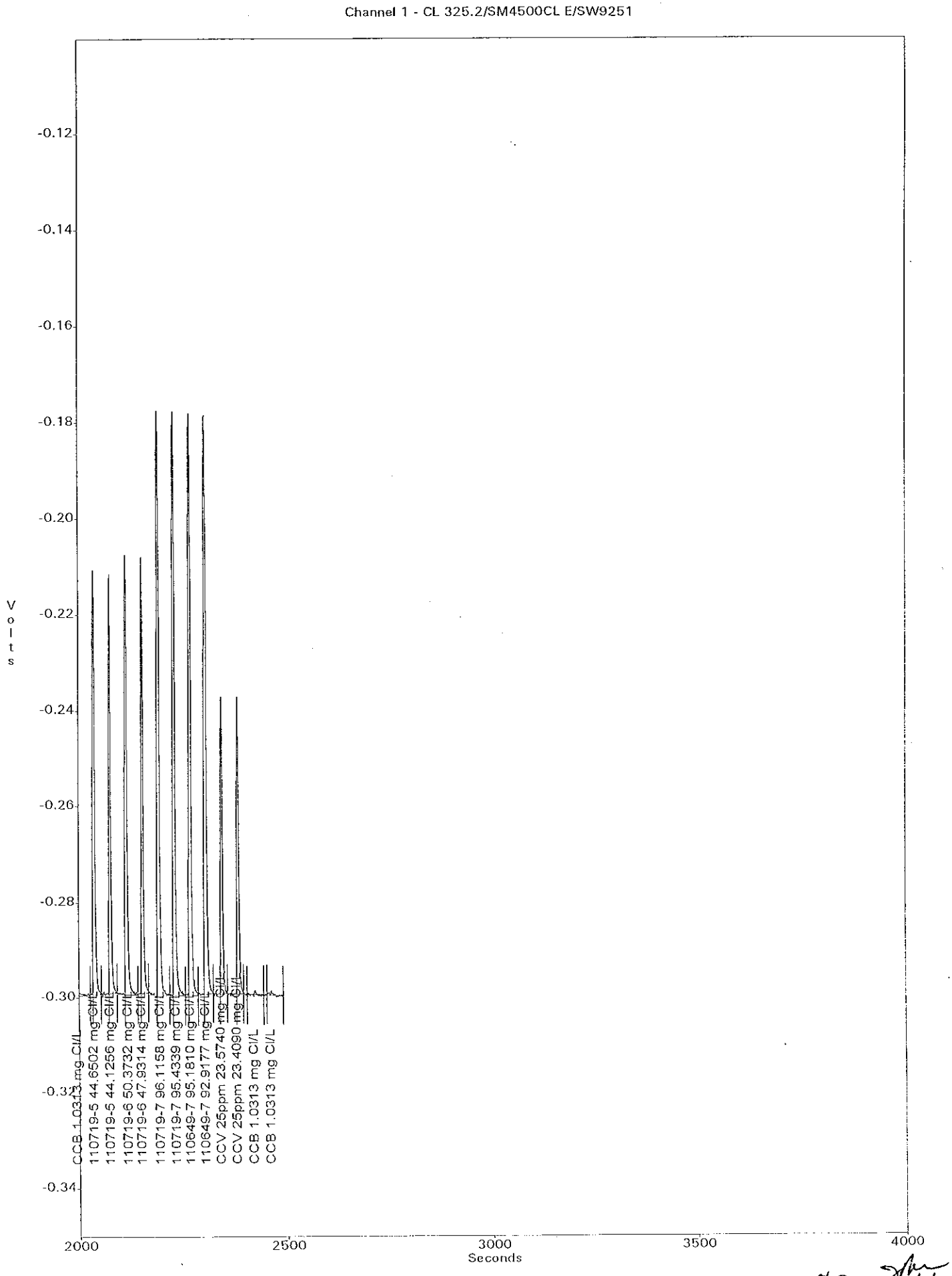
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110681-2	01 Nov 2001	13:43:41	1	7.1271	1.0	1.00	1.00000	g
			13:44:18	2	7.0652				
7	110681-3	01 Nov 2001	13:44:56	1	8.6504	1.0	1.00	1.00000	g
			13:45:33	2	8.6073				
8	110718-1	01 Nov 2001	13:46:11	1	718.5095	.5/10 20.0	1.00	1.00000	g
			13:46:48	2	710.0909				
9	110718-2	01 Nov 2001	13:47:25	1	390.9624	1/10 10.0	1.00	1.00000	g
			13:48:03	2	399.2334				
10	110718-3	01 Nov 2001	13:48:40	1	484.3456	1/10 10.0	1.00	1.00000	g
			13:49:18	2	470.9424				
11	110718-4	01 Nov 2001	13:52:33	1	96.6429	1.0	1.00	1.00000	g
			13:53:11	2	96.8879				
12	110761-1	01 Nov 2001	13:53:48	1	828.4258	.5/10 20.0	1.00	1.00000	g
			13:54:26	2	825.8515				
13	110761-2	01 Nov 2001	13:55:03	1	439.6416	1/10 10.0	1.00	1.00000	g
			13:55:40	2	436.6700				
14	110761-3	01 Nov 2001	13:56:17	1	486.3237	↓ 10.0	1.00	1.00000	g
			13:56:53	2	496.6732				
15	110761-4	01 Nov 2001	13:57:29	1	87.0918	1.0	1.00	1.00000	g
			13:58:06	2	87.5929				
16	110761-4 DUP	01 Nov 2001	13:58:45	1	87.7463	1.0	1.00	1.00000	g
			13:59:23	2	86.8855				
17	110719-1	01 Nov 2001	14:00:02	1	375.3183	.5/10 20.0	1.00	1.00000	g
			14:00:40	2	374.4811				
18	110719-2	01 Nov 2001	14:01:19	1	248.9843	1/10 10.0	1.00	1.00000	g
			14:01:57	2	253.4816				
19	110719-3	01 Nov 2001	14:02:36	1	376.1814	1/10 10.0	1.00	1.00000	g
			14:03:14	2	380.5491				
20	110719-4	01 Nov 2001	14:03:52	1	791.7993	.5/10 20.0	1.00	1.00000	g
			14:04:31	2	785.8374				
21	110719-5	01 Nov 2001	14:07:48	1	446.5019	1/10 10.0	1.00	1.00000	g
			14:08:26	2	441.2558				
22	110719-6	01 Nov 2001	14:09:05	1	503.7319	↓ 10.0	1.00	1.00000	g
			14:09:43	2	479.3140				
23	110719-7	01 Nov 2001	14:10:22	1	96.1158	1.0	1.00	1.00000	g
			14:11:00	2	95.4339				
24	110649-7	01 Nov 2001	14:11:38	1	190.3621	5/10 2.0	1.00	1.00000	g
			14:12:16	2	185.8354				

Channel 1 - CL 325.2/SM4500CL E/SW9251



088


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
CCB 1.0313 mg Cl/L
110719-5 44.6502 mg Cl/L
110719-5 44.1256 mg Cl/L
110719-6 50.3732 mg Cl/L
110719-6 47.9314 mg Cl/L
110719-7 96.1158 mg Cl/L
110719-7 95.4339 mg Cl/L
110648-7 95.1810 mg Cl/L
110649-7 92.9177 mg Cl/L
CCV 25ppm 23.5740 mg Cl/L
CCV 25ppm 23.4090 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

089 11/6/01

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LB

Time 700

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-21-01	Prep Blk	Diwater	CKWL60A
	ICV	↓	
	110611-1	WW	
	-2		
	-3		
	110254-11		
	-12		
	110599-1		
	-2		
	-3		
	110660A-1		
	2		
	3		
	4		
	-5		
	-6		
	-7		
	-8		
	-9		
↓	110660A -10	↓	

090

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LD

Tmc 830

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	Prep Blk	DI Wat	CKW60B
	ICV	↓	
	110655-1	ww	
	-2		
	-3		
	110640-1		
	-2		
	-3		
	-4		
	110680-1		
	2		
	3		
	4		
	110649-1		
	2		
	-3		
	-4		
	-5		
	-6		
↓	-7	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST RB Time 10:00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	PrepBlk	DI water	CKW60C
	ICV	↓	
	~~lcs~~ 110681-1	WW	
	-2		
	-3		
	110718-1		
	2		
	3		
	4		
	110761-1		
	2		
	3		
	4		
	110719-1		
	2		
	3		
	4		
	5		
	6		
↓	7	↓	

092

PETROLEUM HYDROCARBONS
(FL-PRO)

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110599
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/23/01
Dry Weight	N/A	Date Extracted:	10/26/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	17-3631C-Q401	C110599-1	1201033.D	1	U	100
2	17-3626A-Q401	C110599-2	1301034.D	1		190
3	17-3630C-Q401	C110599-3	1401035.D	1	U	100

094

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola
Contract: NTC ORLANDO SA-36-CTO-017
Lab Code: STL PN
SDG No.: C110599
Instrument ID: FLASH
FL PRO Detector: FID
Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 287	107%	90%		
02		LCS FLW 287	107%	84%		
03	17-3631C-Q401	C110599-1	103%	87%		
04	17-3626A-Q401	C110599-2	93%	89%		
05	17-3630C-Q401	C110599-3	95%	87%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

095

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK FLW 287

Lab File ID:	0201022.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110599
Matrix:	Water	Date Extracted:	10/26/01
Prep Method:	3520 C	Date Analyzed:	11/1/01
Instrument ID:	FLASH	Time Analyzed:	18:52
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 287	11/1/01
02		LCS FLW 287	11/1/01
03	17-3631C-Q401	C110599-1	11/1/01
04	17-3626A-Q401	C110599-2	11/1/01
05	17-3630C-Q401	C110599-3	11/1/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110599
Instrument ID:	FLASH	Date Analyzed	11/1/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

097

Sequence Name: I:\1101CAL.S
Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Sequence Name: I:\1101CAL.S

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

---

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

---

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

---

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min.

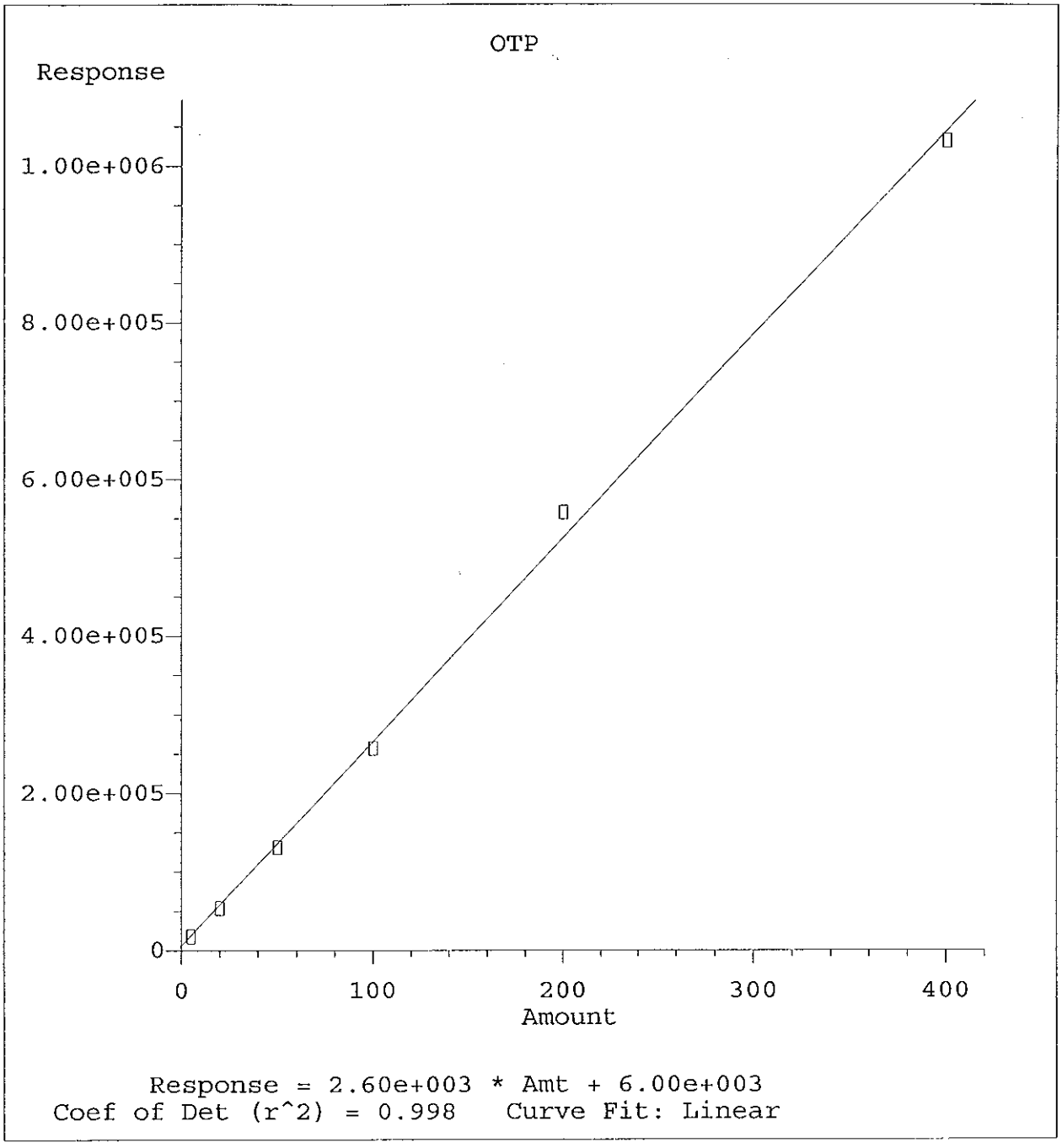
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

100	1900.000	3887819
20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

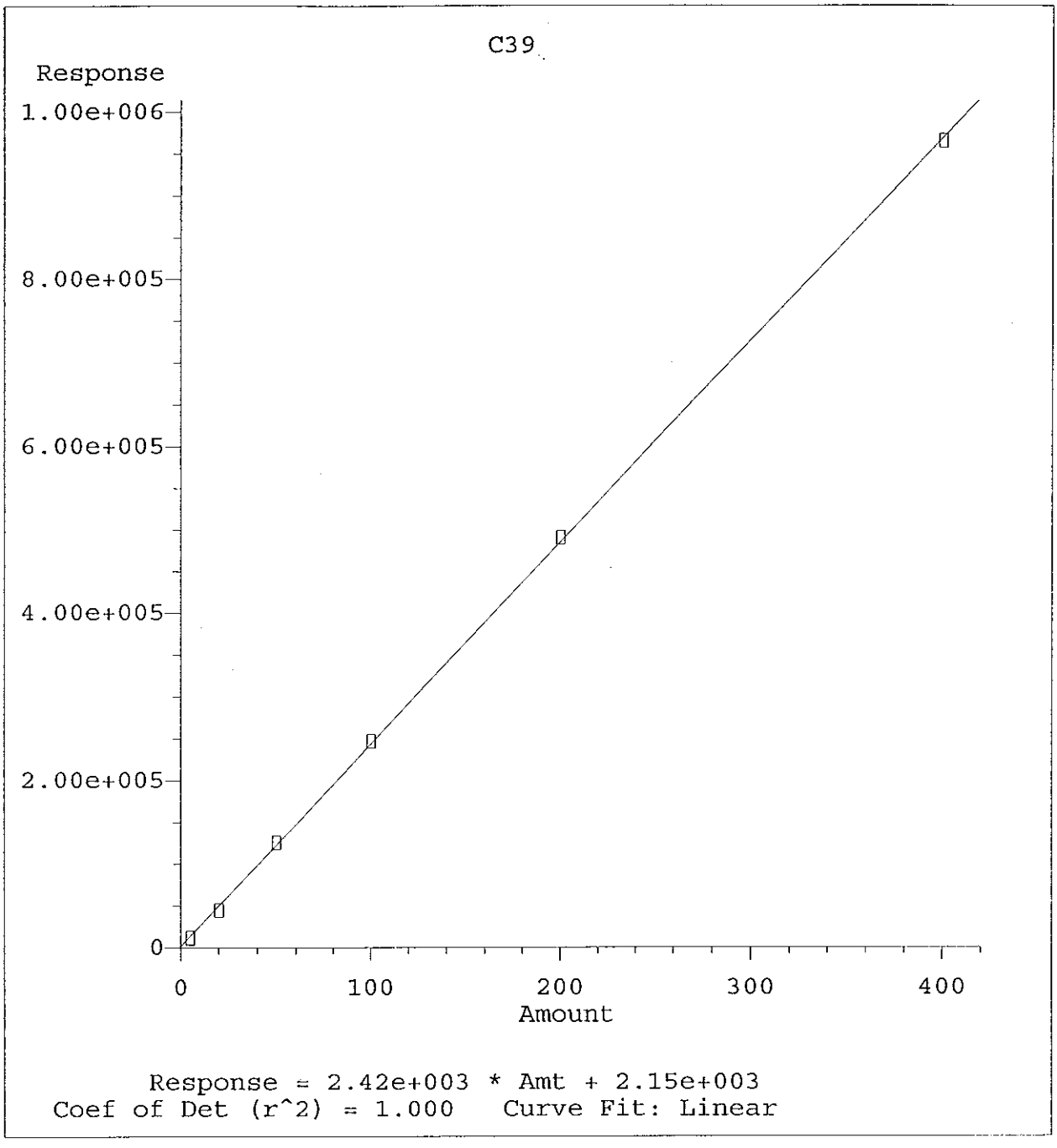
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

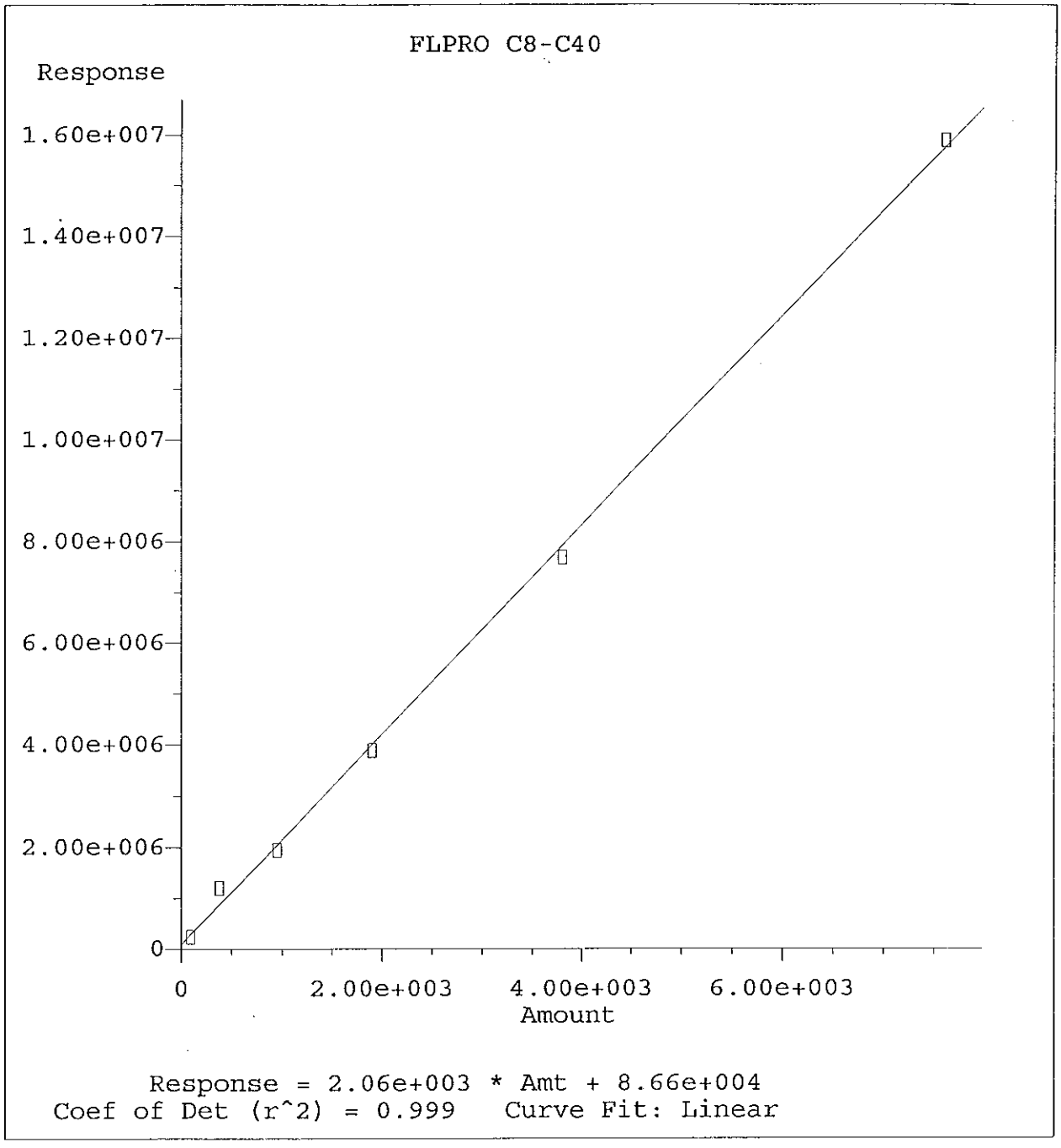
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\2NDSRCE.D
Acq On : 1 Nov 2001 18:35
Sample : TPH 2ND SOURCE STD 100 PPM
Misc : 4-ORGW180-1
IntFile : HC.E

Vial: 95
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.00

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\CCTPH001.D
Acq On : 1 Nov 2001 18:43
Sample : TPH STD CC 100 PPM EA
Misc : 5-ORGW3-1
IntFile : HC.E

Vial: 1
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.00

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM FLPRO C8-C40	1900.000	1884.867	0.8	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 13:22:10 2001

Data File : F:\2\DATA\1101CAL\CCTPH002.D
Acq On : 1 Nov 2001 20:03
Sample : TPH STD CC 100 PPM EA
Misc : 5-ORGW3-1
IntFile : HC.E

Vial: 11
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.00

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM FLPRO C8-C40	1900.000	1868.141	1.7	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:48:13 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\CCTPH003.D
Acq On : 1 Nov 2001 21:42
Sample : TPH STD CC 100 PPM EA
Misc : 5-ORGW3-1
IntFile : HC.E

Vial: 22
Operator: IE\KJA
Inst : FLASH
Multiplr: 1.00

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM FLPRO C8-C40	1900.000	1871.928	1.5	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:48:55 2001

EXTRACTION LOG

Job No: 794
Batch No: 287
Date Extracted: 10.26.01
Start Time: 9:30
Stop Time:
Analysis Required:
Prep Method:
Analyst/Activity Code*
Initial Project Check:
Final Project Check:
Date Concentrated: 10-27-01 0941
Initials:
Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	4-02.0-W 0190-2		1ml	
Surr.				
Spike	4-02.0-W 0189-1		1ml	
Spike				

Clean Up: Yes No

Comments

Solvent(s) Lot No:
Meth V37E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D-D	H-D	COMMENTS
1. C110557*1/017-OLD-3610B-Q401		LI	1L	1		2	11.02	10.29	
2. C110557*2/017-OLD-3611C-Q401		LI	1L	1			11.02	10.29	
3. C110557*3/017-OLD-3629B-Q401		LI	1L	1			11.02	10.29	
4. C110557*4/017-OLD-3632C-Q401		LI	1L	1			11.02	10.29	
5. C110557*5/017-OLD-36FD1-Q401		LI	1L	1			11.02	10.29	
6. C110557*6/017-OLD-36FB1-Q401		LI	1L	1			11.02	10.29	
7. C110557*7/017-OLD-36EB1-Q401		LI	1L	1			11.02	10.29	
8. C110596*1/MW-4R2		LI	1L	1			10.31	10.29	
9. C110596*2/MW-5R		LI	1L	1			10.31	10.29	
10. C110596*3/MW-8		LI	1L	1			10.31	10.29	
11. C110599*1/17-3631C-Q401		LI	1L	1			11.02	10.30	
12. C110599*2/17-3626A-Q401		LI	1L	1			11.02	10.30	
13. C110599*3/17-3630C-Q401		LI	1L	1		2	11.02	10.30	
~~14.~~									
15.									
16.									
17. 10/26/0									
18.									
19.									
~~20.~~									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		2			
Lab Spike #2									

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

10-29-1

GC/Organics Department Extracts Cleanup Logbook

Date: ~~10-30-1~~ 10-29 **Analyst(s):** HAH

Method: ~~FLPRO Silica Gel~~, MAEPH Fractionation, Other (Specify) _____

Solvent 1: — **Lot #:** — **Solvent 2:** — **Lot #:** —

Surrogate: — **Amount:** —

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW287	2.0	
2	LCS		2.1	
3	C110557 -1		2.1	outhouse odor
4	-2		2.2	
5	-3		2.1	
6	-4		2.1	
7	-5		2.2	
8	-6		2.1	
9	-7		2.0	metallic odor
10	C110596 -1		2.2	
11	-2		2.3	
12	-3		2.2	
13	C110599 -1		2.2	slight outhouse odor
14	-2		2.0	
15	-3		2.2	
16	BLK	FLW288	2.0	
17	LCS		2.3	
18	C110597 -1		2.2	petro odor
19	-2		2.1	
20	-3		2.2	
21	-4		2.1	
22	-5		2.1	
23	-6		2.0	
24	-7		2.0	Plant odor
25	-8		2.3	
26	-9		2.2	outhouse odor
27	-10		2.2	
28	-11		2.1	metallic odor
29	-12		2.1	plant odor
30				
31				
32				
33				HAH 10-30-1

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL FW Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% CS2 MI09648K

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	4000ml	100mls	200 ppm ea
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100%, MeCl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OT? A	04-ORGN045-1	10,000	6500ml	250mls	250 ppm each
B					
C	04-ORGN044-1	5017	6295ml		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires ~~4-4~~ 4-3-02

KA 10/3/01

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: 100% meck

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	4-Org1045-1	10,000 ppm	6500 ml	250mls	250 ppm each
B					
C					
COD D	4-Org1044-1	9617 ppm	6255ml		
E					
F					
G					
H					
I					
J					

COMMENTS: EXPIRES 4-17-02

Solution Name: EPA Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: 1:1 CS2/meck MI0964814 V34E34

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	4-Org1045-1	10,000	6250ml	250mls	250 ppm
B					
C					
C39 D	4-Org1044-3	2500	10,000ml		100 ppm
E					
F					
G					
H					
I					
J					

COMMENTS: EXPIRES ~~4-22-02~~ KA 10/22/01
4-22-02

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

Book 4/Page 190

Data File : F:\2\DATA\1101CAL\0201022.D Vial: 2
Acq On : 1 Nov 2001 18:52 Operator: IE\KJA
Sample : FLW BLK 287 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:44 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	352218	133.182 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery =	106.55%
2) S C39	2.10	110792	44.935 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery =	89.87%
Target Compounds			
3) HM FLPRO C8-C40	1.50	56000	N.D. ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

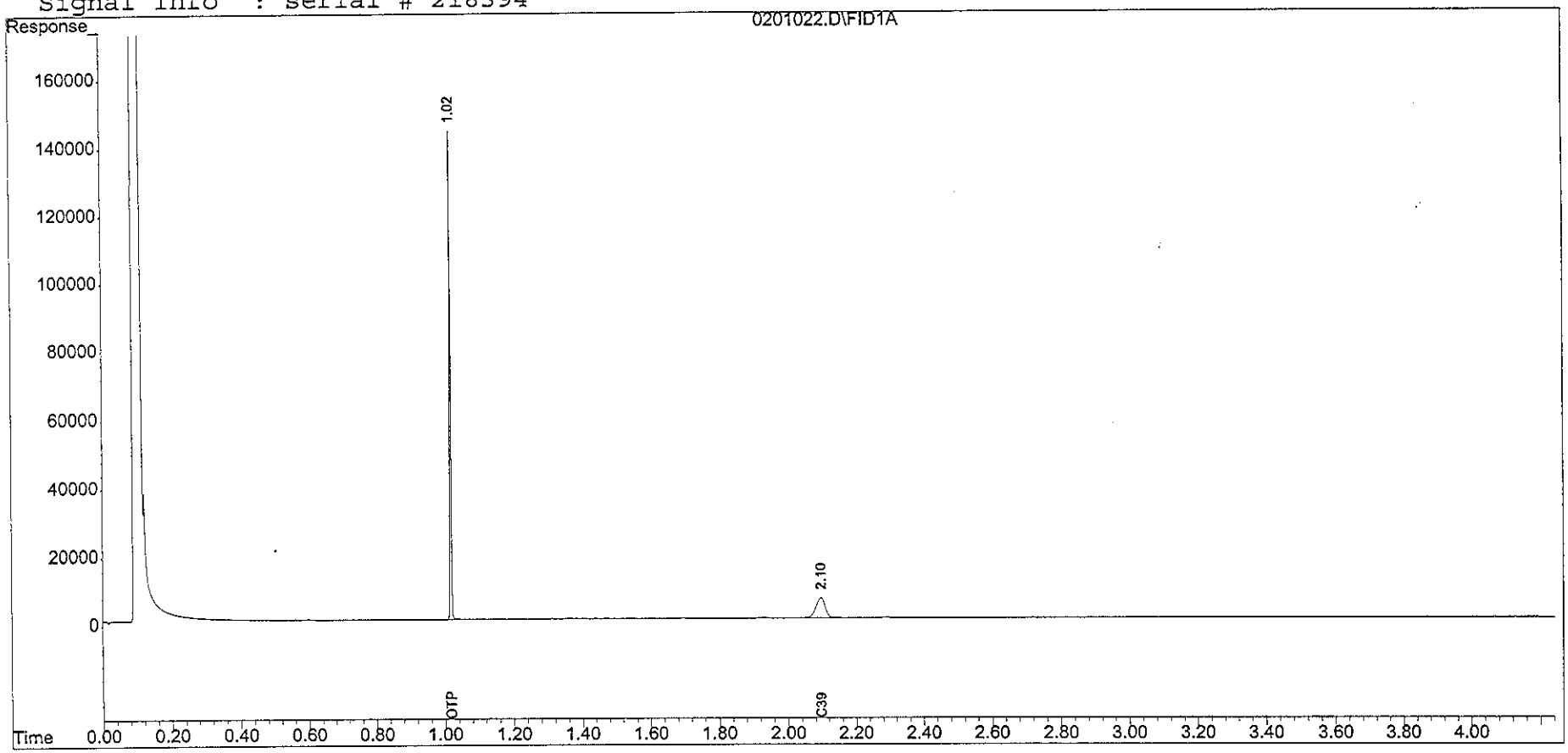
Quantitation Report

Data File : F:\2\DATA\1101CAL\0201022.D
Acq On : 1 Nov 2001 18:52
Sample : FLW BLK 287
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:44 2001 Quant Results File: FL-PRO12.RES

Vial: 2
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Quantitation Report (QT Reviewed)

Data File : F:\2\DATA\1101CAL\0301023.D Vial: 3
Acq On : 1 Nov 2001 19:00 Operator: IE\KJA
Sample : FLW LCS 287 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:50 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	353879	133.821 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 107.06%	
2) S C39	2.08	103477	41.909 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 83.82%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4140901	3932.157 ppb

1161.

(f)=RT Delta > 1/2 Window (m)=manual int.

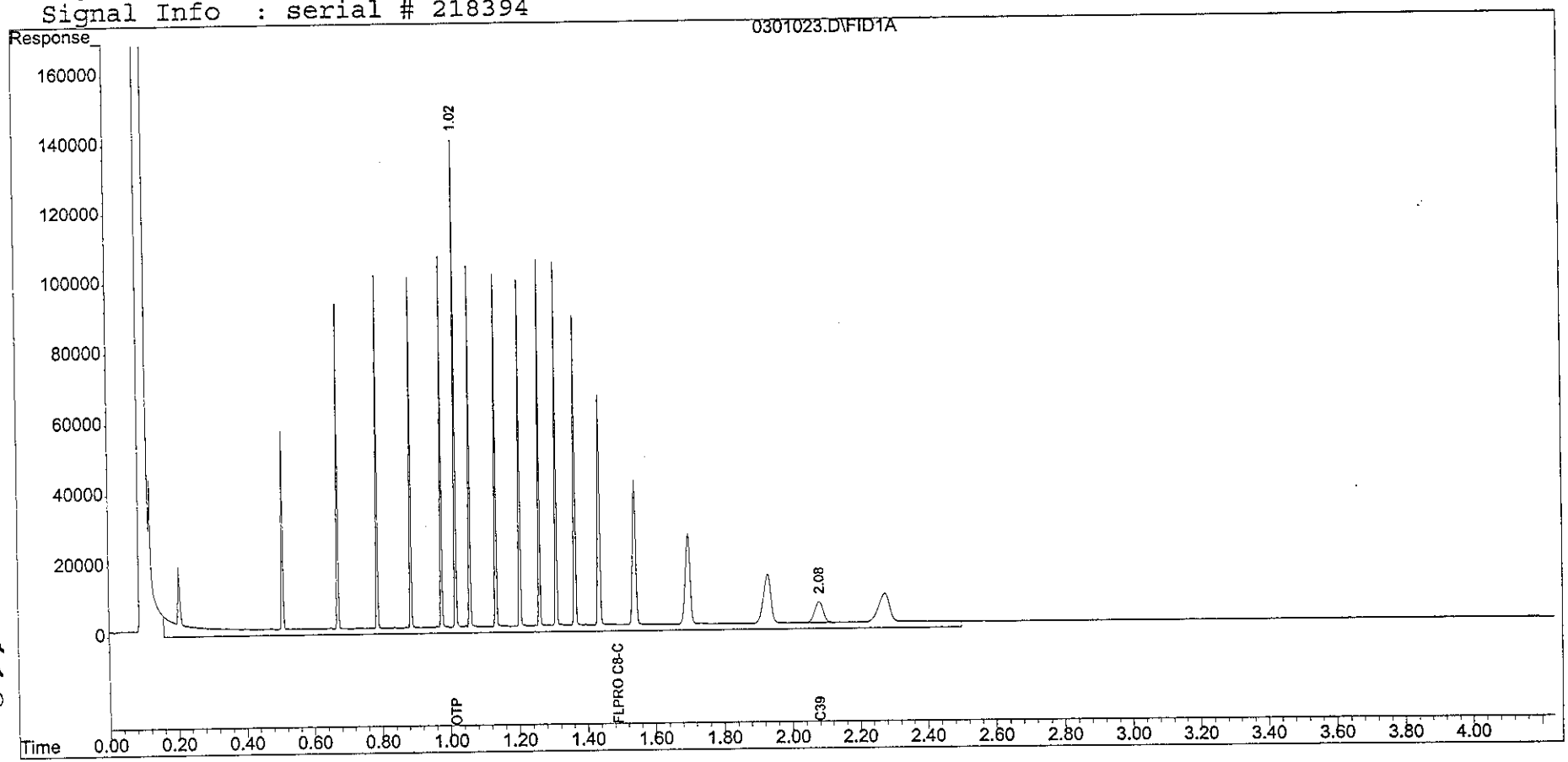
Quantitation Report

Data File : F:\2\DATA\1101CAL\0301023.D
Acq On : 1 Nov 2001 19:00
Sample : FLW LCS 287
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:50 2001 Quant Results File: FL-PRO12.RES

Vial: 3
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Quantitation Report (QT Reviewed)

Data File : F:\2\DATA\1101CAL\1201033.D Vial: 12
Acq On : 1 Nov 2001 20:19 Operator: IE\KJA
Sample : C110599-1 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
1) S OTP			1.02	339304	128.215 ug/mlm
Spiked Amount	125.000	Range 82 - 142		Recovery =	102.57%
2) S C39			2.09	107307	43.493 ug/mlm
Spiked Amount	50.000	Range 42 - 193		Recovery =	86.99%
Target Compounds					
3) HM FLPRO C8-C40			1.50	98081	11.096 ppb

117

(f)=RT Delta > 1/2 Window (m)=manual int.

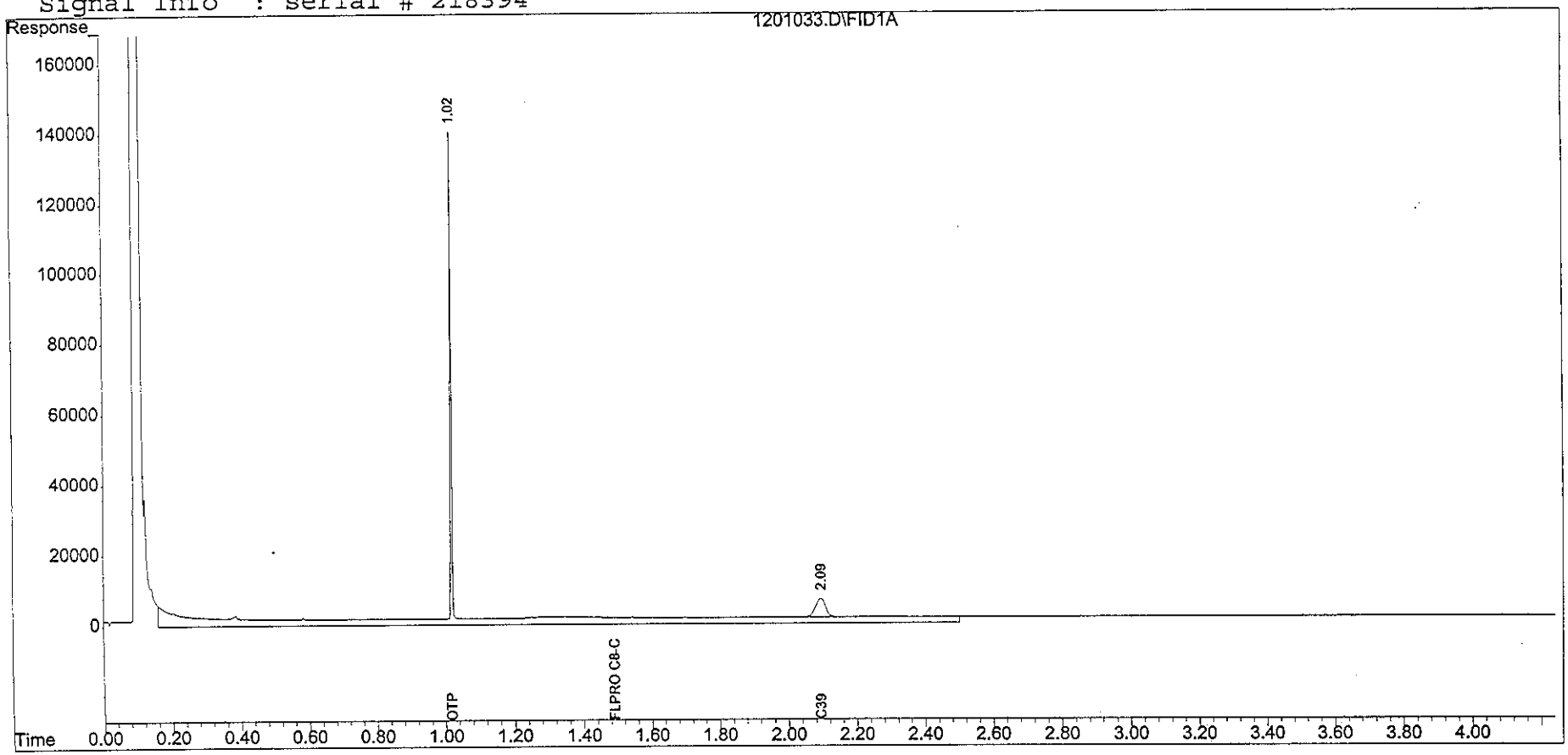
Quantitation Report

Data File : F:\2\DATA\1101CAL\1201033.D
Acq On : 1 Nov 2001 20:19
Sample : C110599-1
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Vial: 12
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



118

Data File : F:\2\DATA\1101CAL\1301034.D
Acq On : 1 Nov 2001 20:27
Sample : C110599-2
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 9:00 2001 Quant Results File: FL-PRO12.RES

Vial: 13
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	308178	116.241 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery =	92.99%
2) S C39	2.10	109548	44.420 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery =	88.84%
Target Compounds			
3) HM FLPRO C8-C40	1.50	283656	191.082 ppb

119

(f)=RT Delta > 1/2 Window (m)=manual int.

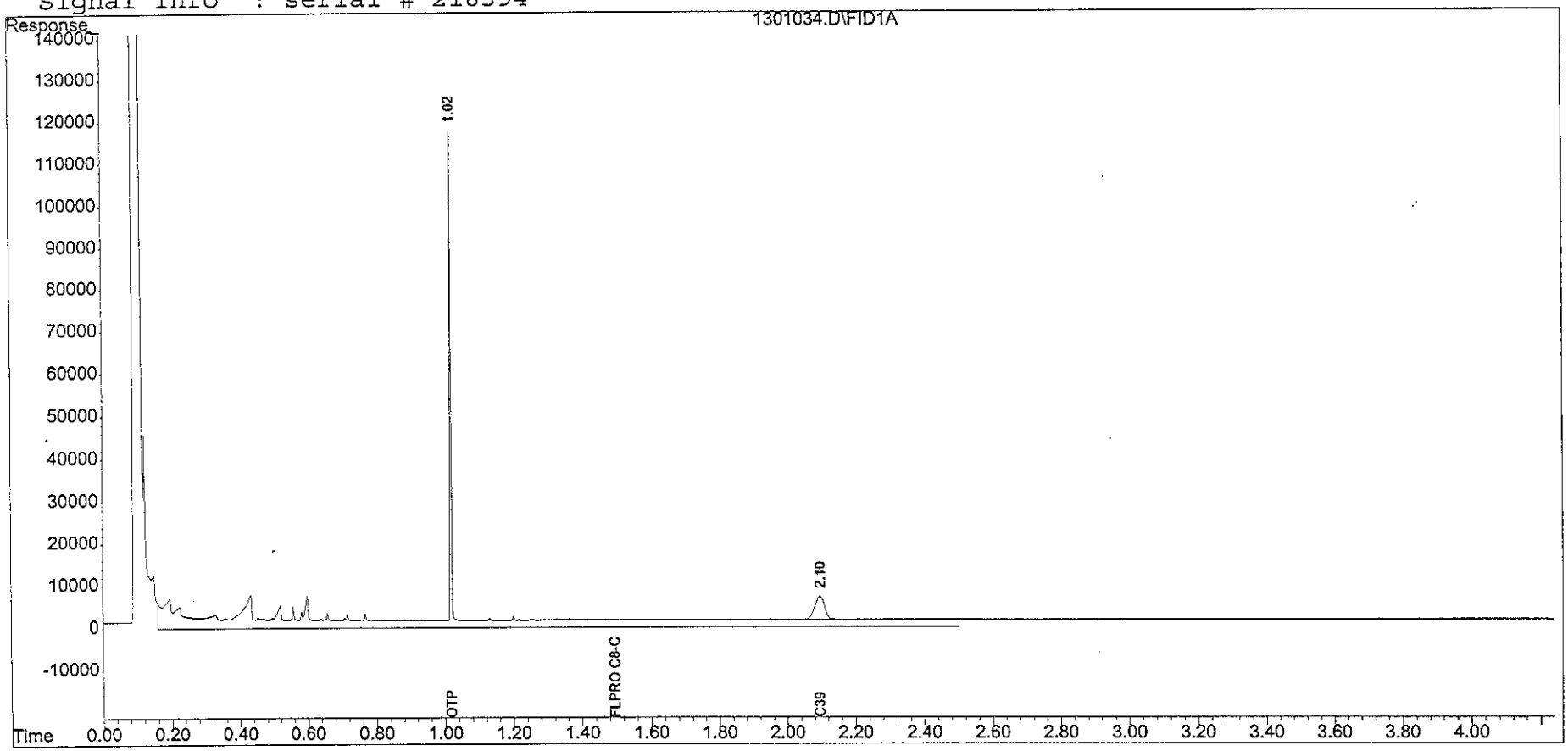
Quantitation Report

Data File : F:\2\DATA\1101CAL\1301034.D
Acq On : 1 Nov 2001 20:27
Sample : C110599-2
Misc : FL WATER 287
IntFile : HC.E
Quant Time: Nov 2 9:00 2001 Quant Results File: FL-PRO12.RES

Vial: 13
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : F:\2\DATA\1101CAL\1401035.D Vial: 14
Acq On : 1 Nov 2001 20:36 Operator: IE\KJA
Sample : C110599-3 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	314091	118.516 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery =	94.81%
2) S C39	2.09	107865	43.724 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery =	87.45%
Target Compounds			
3) HM FLPRO C8-C40	1.50	144977	56.579 ppb

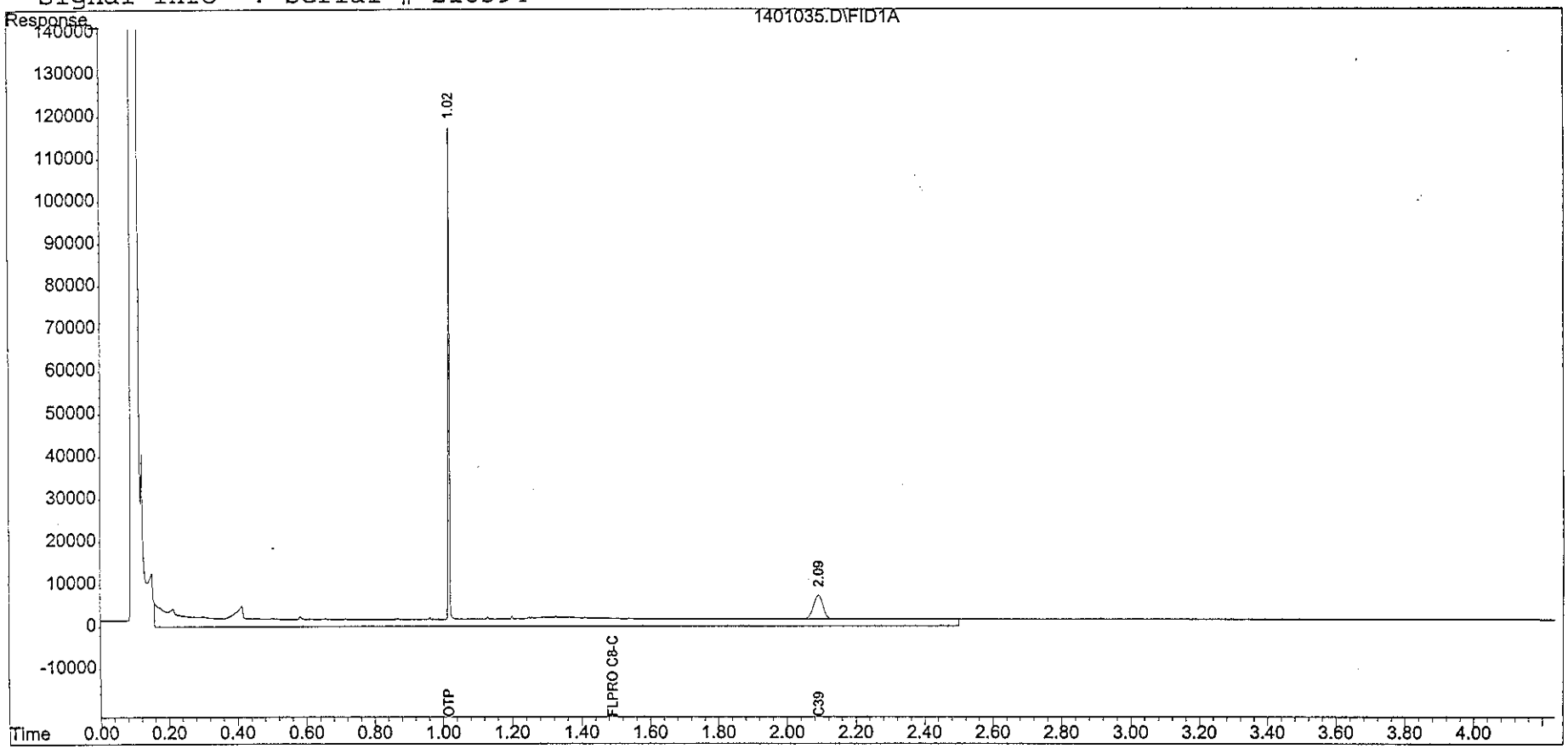
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : F:\2\DATA\1101CAL\1401035.D Vial: 14
Acq On : 1 Nov 2001 20:36 Operator: IE\KJA
Sample : C110599-3 Inst : FLASH
Misc : FL WATER 287 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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DISSOLVED IRON

- **Metals**
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110557 Method Type: SW 846 SAS No.: N/A

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: N/A

Lab Sample ID	Client Sample ID
C110557-1	17-3610B-Q401
C110557-2	17-3611C-Q401
C110557-3	17-3629B-Q401
C110557-4	17-3632C-Q401
C110557-5	17-36FD1-Q401
C110557-6	17-36FB1-Q401
C110557-7	17-36EB1-Q401
C110599-1	17-3631C-Q401
C110599-2	17-3626A-Q401
C110599-3	17-3630C-Q401
C110611-1	17-3609C-Q401
C110611-2	17-3627A-Q401
C110611-3	17-3628B-Q401
C110655-1	17-3608B-Q401
C110655-2	17-3607A-Q401
C110655-3	17-3606A-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

All duplicate results reported on Form 6 are the matrix spike and matrix spike duplicate (MS/MSD) results. The acceptance limit for the duplicate is ±20%.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards

Name: Marty Edwards

Date: 10/31/01

Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-1 **Client ID:** 17-3610B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	54	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-2 **Client ID:** 17-3611C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-3 **Client ID:** 17-3629B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	600	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-4 **Client ID:** 17-3632C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	190	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-5 **Client ID:** 17-36FD1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	74	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-6 **Client ID:** 17-36FB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-7 **Client ID:** 17-36EB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-1 **Client ID:** 17-3631C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	250	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-2 **Client ID:** 17-3626A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	280	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-3 **Client ID:** 17-3630C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	500	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-1 **Client ID:** 17-3609C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	27	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-2 **Client ID:** 17-3627A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-3 **Client ID:** 17-3628B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	330	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-1 **Client ID:** 17-3608B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	400	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-2 **Client ID:** 17-3607A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	720	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-3 **Client ID:** 17-3606A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	120	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Calcium	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	10007	10000	100.1	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	9969	10000	99.7	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Magnesium	9877	10000	98.8	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
CCV1									
	Aluminum	10066	10000	100.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Calcium	10065	10000	100.6	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10054	10000	100.5	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10041	10000	100.4	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Magnesium	9974	10000	99.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
CCV2									
	Aluminum	10069	10000	100.7	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Calcium	10107	10000	101.1	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10125	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10115	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Magnesium	10088	10000	100.9	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
CCV3									
	Aluminum	10145	10000	101.4	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Calcium	10189	10000	101.9	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10158	10000	101.6	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10178	10000	101.8	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Magnesium	10220	10000	102.2	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
CCV4									
	Aluminum	10402	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Calcium	10406	10000	104.1	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10336	10000	103.4	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10347	10000	103.5	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Magnesium	10395	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	09:51	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	09:51	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	09:51	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	09:51	TOCT29A
	Magnesium	9.26	+/-500.00	B	6.00	500.00	P	10/29/01	09:51	TOCT29A
CCB1										
	Aluminum	15.5	+/-100.0	B	10.0	100.0	P	10/29/01	10:34	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	10:34	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	10:34	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	10:34	TOCT29A
	Magnesium	16.08	+/-500.00	B	6.00	500.00	P	10/29/01	10:34	TOCT29A
CCB2										
	Aluminum	12.1	+/-100.0	B	10.0	100.0	P	10/29/01	11:41	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	11:41	TOCT29A
	Iron	10.3	+/-100.0	B	7.0	100.0	P	10/29/01	11:41	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	11:41	TOCT29A
	Magnesium	11.20	+/-500.00	B	6.00	500.00	P	10/29/01	11:41	TOCT29A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	12:48	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	12:48	TOCT29A
	Iron	9.4	+/-100.0	B	7.0	100.0	P	10/29/01	12:48	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	12:48	TOCT29A
	Magnesium	10.62	+/-500.00	B	6.00	500.00	P	10/29/01	12:48	TOCT29A
CCB4										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	13:22	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	13:22	TOCT29A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	13:22	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	13:22	TOCT29A
	Magnesium	7.25	+/-500.00	B	6.00	500.00	P	10/29/01	13:22	TOCT29A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD131			**WATER**							
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	10:39	TOCT29A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	505123.8	500000.0	101.0	80 - 120	10/29/01	10:14	TOCT29A
	Calcium	457432.4	500000.0	91.5	80 - 120	10/29/01	10:14	TOCT29A
	Iron	179365.8	200000.0	89.7	80 - 120	10/29/01	10:14	TOCT29A
	Iron	195817.1	200000.0	97.9	80 - 120	10/29/01	10:14	TOCT29A
	Magnesium	520278.3	500000.0	104.1	80 - 120	10/29/01	10:14	TOCT29A
ICS-AB1								
	Aluminum	518567.3	510000.0	101.7	80 - 120	10/29/01	10:19	TOCT29A
	Calcium	466097.7	510000.0	91.4	80 - 120	10/29/01	10:19	TOCT29A
	Iron	187095.4	210000.0	89.1	80 - 120	10/29/01	10:19	TOCT29A
	Iron	206396.8	210000.0	98.3	80 - 120	10/29/01	10:19	TOCT29A
	Magnesium	531834.0	510000.0	104.3	80 - 120	10/29/01	10:19	TOCT29A
ICS-A2								
	Aluminum	507448.8	500000.0	101.5	80 - 120	10/29/01	13:05	TOCT29A
	Calcium	467315.8	500000.0	93.5	80 - 120	10/29/01	13:05	TOCT29A
	Iron	182724.8	200000.0	91.4	80 - 120	10/29/01	13:05	TOCT29A
	Iron	200130.7	200000.0	100.1	80 - 120	10/29/01	13:05	TOCT29A
	Magnesium	538197.9	500000.0	107.6	80 - 120	10/29/01	13:05	TOCT29A
ICS-AB2								
	Aluminum	523991.0	510000.0	102.7	80 - 120	10/29/01	13:11	TOCT29A
	Calcium	479027.8	510000.0	93.9	80 - 120	10/29/01	13:11	TOCT29A
	Iron	191347.1	210000.0	91.1	80 - 120	10/29/01	13:11	TOCT29A
	Iron	211288.9	210000.0	100.6	80 - 120	10/29/01	13:11	TOCT29A
	Magnesium	551149.5	510000.0	108.1	80 - 120	10/29/01	13:11	TOCT29A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10117.5		53.6	B	10000.0	100.6		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10237.0		53.6	B	10000.0	101.8		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STLPN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1S **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110557-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10117.5		10237.0		1.2		P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD131								
	Iron	ug/L	10000.0	9790.5		97.9	80.0 - 120.0	P

Metals

- 9 -

SERIAL DILUTION SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Level:** LOW **Client ID:** 17-3610B-Q401L

Sample ID: C110557-1 **Serial Dilution ID:** C110557-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	53.6		63.9	B	19.2		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

SA-36-CTO-017

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals
- 12 -
LINEAR RANGES

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P
SA-36-CTO-017

Case No.: NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PD131							
PBWPD131	PBWPD131	MB	WATER	10/26/01	50.0	50.0	
LCSWPD131	LCSWPD131	LCS	WATER	10/26/01	50.0	50.0	
C110557-1	17-3610B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-1S	17-3610B-Q401S	MS	WATER	10/26/01	50.0	50.0	
C110557-1SD	17-3610B-Q401SD	MSD	WATER	10/26/01	50.0	50.0	
C110557-2	17-3611C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-3	17-3629B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-4	17-3632C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-5	17-36FD1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-6	17-36FB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-7	17-36EB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-1	17-3631C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-2	17-3626A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-3	17-3630C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-1	17-3609C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-2	17-3627A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-3	17-3628B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-1	17-3608B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-2	17-3607A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-3	17-3606A-Q401	SAM	WATER	10/26/01	50.0	50.0	

DIGESTION LIQUIDS

Job No: 3625

Batch No: PD131

Job Date: 10.26.01

ANALYSIS

ICP | AA | HG | FLAME | TCLP | MISC

Date/Time Started: 10/26/01

Date/Time Completed: NA

Analyst: KW

Method/SOP: NA

Final Volume: NA

Acid Lot #(s): NA

NA

NA

Hood: NA

Bath Temp(Hg only): NA

Final Project Check: ME 10/26/01

	ID	LOT#	AMT (mL)	INIT
Spike		NA		
Spike		NA		
Spike		NA		
Spike		NA		

SAMPLE ID/MTX/DESCRIPTION	D-D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1. C110557*1/LI/017-OLD-3610B-Q401	11.02		ICP				*XNE| DISSOLVES
2. C110557*2/LI/017-OLD-3611C-Q401	11.02		ICP				*XNE|
3. C110557*3/LI/017-OLD-3629B-Q401	11.02		ICP				*XNE|
4. C110557*4/LI/017-OLD-3632C-Q401	11.02		ICP				*XNE|
5. C110557*5/LI/017-OLD-36FD1-Q401	11.02		ICP				*XNE|
6. C110557*6/LI/017-OLD-36FB1-Q401	11.02		ICP				*XNE|
7. C110557*7/LI/017-OLD-36EB1-Q401	11.02		ICP				*XNE|
8. C110599*1/LI/17-3631C-Q401	11.02		ICP				*XNE|
9. C110599*2/LI/17-3626A-Q401	11.02		ICP				*XNE|
10. C110599*3/LI/17-3630C-Q401	11.02		ICP				*XNE|
11. C110611*1/LI/17-3609C-Q401 A	11.05		ICP				*XNE| post spike
12. C110611*2/LI/17-3627A-Q401	11.05		ICP				*XNE|
13. C110611*3/LI/17-3628B-Q401	11.05		ICP				*XNE|
14. C110655*1/LI/17-3608B-Q401	11.05		ICP				*XNE|
15. C110655*2/LI/17-3607A-Q401	11.05		ICP				*XNE|
16. C110655*3/LI/17-3606A-Q401 B	11.05		ICP				*XNE|
17.							
18.							
19.							
20.							
Lab Blank							
Lab Spike #1							
Lab Spike #2							

10/26/01 KW

10/26/01 KW

Comments: Spike filtered & preserved

TJA Trace ICP (499890) Calibration/Maintenance/Run Log

File Name: Oct 29 Date: 10.29.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☑ Rotate Peri-Pump Tubing ☑ Other: back Flushed neb.

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: 7.009907 Profile Intensity: 18169 Spectrum Shifter: 560

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 11447 Cu:Mn Ratio (Std 1): 9.6/11.0=.87

Standards Reference:

Std 1: M02739 ICV/CCV: M02750 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PD131	level "C"		
PD130			
Pw378			
Pw376			

Comments:

File Name: _____ Date: _____ Analyst: _____

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☐ Rotate Peri-Pump Tubing ☐ Other: _____

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: _____ Profile Intensity: _____ Spectrum Shifter: _____

Nebulizer Pressure: _____ Purge Pressure: _____

Y Intensity (Std 1): _____ Cu:Mn Ratio (Std 1): _____

Standards Reference:

Std 1: _____ ICV/CCV: _____ ICSA: _____ ICSAB: _____

Batch ID's:

Batch #	Comments	Batch #	Comments

Comments:

10.4.01 Vendor: High Purity MO2735
STD: Cal STD #2-R2
Conc: see COC
Exp: 11/02
Cat # Cal STD #2-R2
Lot # 127117

10.04.01 RLCHKS1 exp 10.05.01 MO2736
Place 19.95mls of blank/diluent into a 25ml A/S cup.
Add 0.05mls of Std 1 & mix well.

RLCHKS2 exp 10.05.01 MO2737
Place 19.90mls of blank/diluent into a 25ml A/S cup.
Add 0.1mls of Std 1 & mix well.

10.05.01 ICV/CCV Exp 11.05.01 MO2738
To a 1000 ml vol flask Add ~300ml type I H_2O. Add 50ml conc HCl & 'Dil' conc HNO_3. Add STD listed below & QS to vol
5.0ml STD #1 MO2604 Exp 11/03
5.0mL STD #2 MO2605 Exp 11/03

10.05.01 STD1 exp 11.05.01 MO2739
To a clean 500ml vol flask add ~200mls Blank/diluent soln. Add stds listed below & bring to volume w/diluent
5.0mls Cal Std 1B-R1 MO2670 exp 08.31.02
5.0mls Cal Std #2-R2 MO2682 exp 09.31.02

10.05.01 RLCHKS1 Exp 10.6.01 MO2740
Place 19.95ml of Blk/Rin Soln into a 25ml A/S Cup
Add .05ml of STD1 & mix well.

10.6.01 RLCHKS1 Exp 10.7.01 MO2741
Place 19.95ml of Blk/Rin soln into a 25 ml A/S Cup. Add .05ml of STD1 & mix well.

Continued on Page

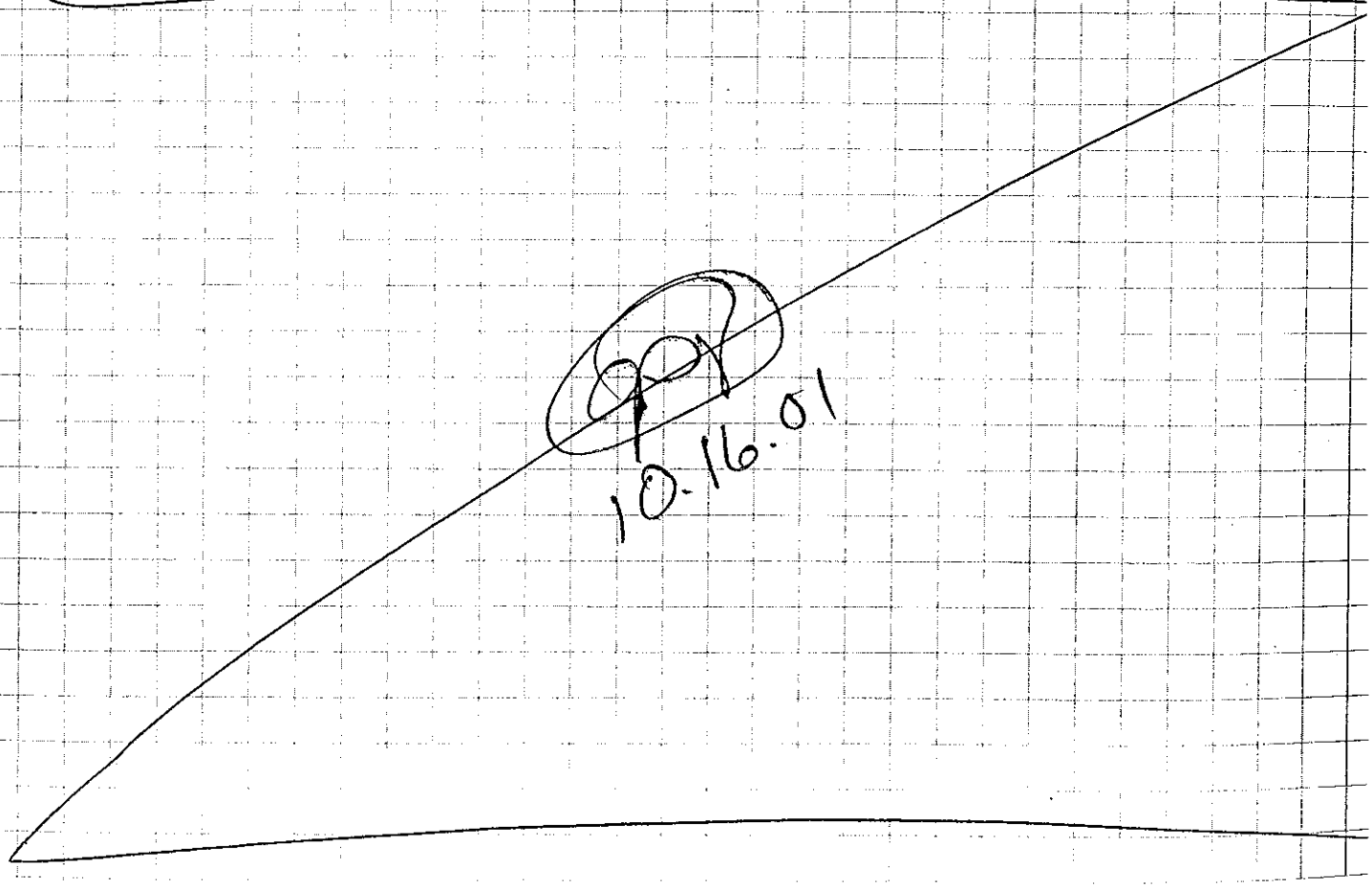
Read and Understood By

Signed 10.6.01 Date Signed Date

10.15.01 RLCHKS1 exp 10.16.01 MO2746
(QP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 MO27
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA EXP 11.16.01 MO2748
(QP) To A Clean 500 ml Vol Flask Add ~300 ml of Type I H_2O. Add 50 ml conc HCL & 10 ml of conc HNO_3.
Add STD Listed below & QS to Volume w/ Type I H_2O.
50.0 mL CCP-INF-1 MO2731 EXP 11/02



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Read and Understood By

160

Gary Sobera 10.16.01
Signed Date Signed Date

10.19.01 ICV/CCV Exp (Quan.) 10.19.01 MO 2750
CL To a clean 1000 ml vol flask Add ~300 ml blk/diln soln. Add STD Listed below & Bring to volume
5.0 STL #1 MO2664 Exp 1/03
5.0 STL #2 MO2665 Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO2751
(PP) Place 19.90 mls of blank/diluent into a 25 ml A/S cup. Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO275
(PP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup. Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO27
(PP) In a clean 500 ml vol flask add ~300 mls of blank/diluent soln. Add Stds listed below & bring to volume with diluent

50.0 mls	CLP-INF-1	MO2734	exp 11.2002
2.5 mls	CAL STD 1B-R1	MO2670	exp 08.2002
2.5 mls	CAL STD #2-R2	MO2735	exp 11.2002

10.25.01 RLCHS1 EXP 10.26.01 MO2754
CL PLACE 19.95 mls OF blk/dil into A 25 ml A/S Cup. Add 0.05 mls OF STD 1 & mix well.

CL 10.25.01

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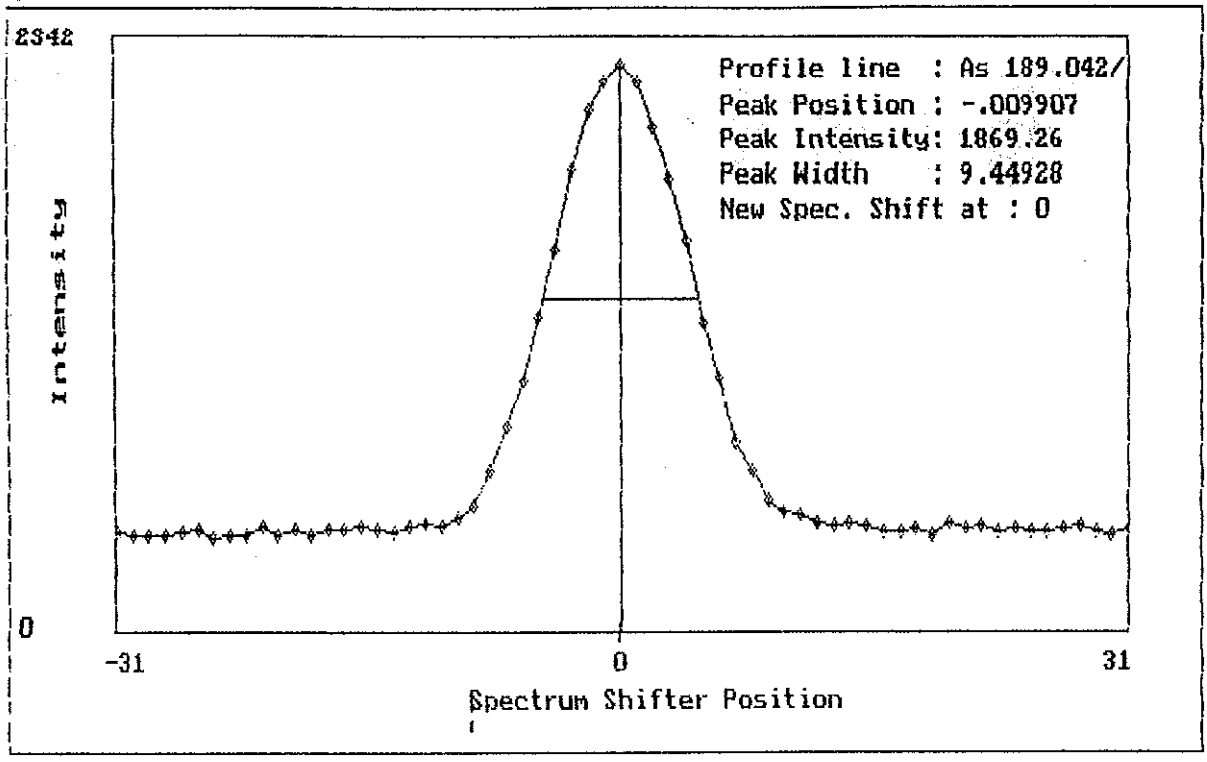
Read and Understood By

Signed Date Signed Date


2342
Intensity
0
Profile line : As 189.042/
Peak Position : -.009907
Peak Intensity: 1869.26
Peak Width : 9.44928
New Spec. Shift at : 0
-31
0
31
Spectrum Shifter Position

10.29.01

Method: 60102007 Standard: CAL BLK
Run Time: 10/29/01 09:29:05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00337	.05276	-.00825	.00126	.00048	.07444	.01525
SDev	.00697	.00355	.00714	.01021	.00165	.00016	.00106
%RSD	206.55	6.7313	86.549	810.25	346.48	.21168	6.9400
#1	.00830	.05527	-.00320	.00848	.00164	.07455	.01600
#2	-.00155	.05024	-.01330	-.00596	-.00069	.07433	.01450

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00419	-.00255	.00104	.02200	-.00203	.00303	-.60641
SDev	.00092	.00421	.00550	.00718	.00299	.00367	.03099
%RSD	21.996	165.44	528.64	32.630	147.45	121.25	5.1099
#1	.00484	.00043	.00493	.02707	.00009	.00562	-.58450
#2	.00354	-.00553	-.00285	.01692	-.00414	.00043	-.62832

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	.00139	.00000	.00039	.00334	-.00194	-.00034	.00376
SDev	.00416	.00073	.00006	.01974	.00568	.01246	.00092
%RSD	300.07	154310.	15.841	591.09	292.70	3692.4	24.509
#1	.00432	.00052	.00043	.01730	.00208	.00848	.00441
#2	-.00155	-.00052	.00035	-.01062	-.00596	-.00915	.00311

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	.00030	-.01447	-.00116	.00039	.00026	.08501	-.01972
SDev	.00312	.01300	.01155	.00214	.00232	.03659	.02398
%RSD	1023.7	89.841	996.21	548.15	890.63	43.040	121.61
#1	.00251	-.00528	.00701	.00190	.00190	.11088	-.03667
#2	-.00190	-.02365	-.00932	-.00112	-.00138	.05914	-.00276

Elem	1960/1	1960/2	Li6707
Avge	.00297	.00821	-.00034
SDev	.02254	.00072	.00134
%RSD	759.89	8.8028	389.76
#1	-.01297	.00770	.00061
#2	.01891	.00872	-.00129

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11573	--	--	--	--	--	--
SDev	14.99840	--	--	--	--	--	--
%RSD	.1296021	--	--	--	--	--	--
#1	11562	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: 60102007 Standard: STD 1
Run Time: 10/29/01 09:34:43

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1870	7.9700	9.1680	7.6022	6.8206	18.683	11.828
SDev	.0150	.0151	.0742	.0691	.0358	.110	.037
%RSD	.47110	.18887	.80945	.90869	.52422	.59042	.31144
#1	3.1764	7.9594	9.1156	7.5534	6.7953	18.605	11.802
#2	3.1976	7.9807	9.2205	7.6511	6.8459	18.761	11.854

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.837	10.877	11.428	9.5706	4.5592	82.174	47.199
SDev	.100	.054	.050	.0535	.0164	.372	.005
%RSD	.37325	.49628	.43697	.55851	.36008	.45235	.01118
#1	26.766	10.839	11.393	9.5328	4.5476	81.911	47.195
#2	26.908	10.916	11.463	9.6084	4.5708	82.437	47.203

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.542	11.004	6.8335	.85475	12.047	5.2021	7.1293
SDev	.032	.045	.0414	.00817	.048	.0312	.0265
%RSD	.27422	.40986	.60569	.95563	.40000	.60068	.37184
#1	11.520	10.972	6.8042	.86053	12.013	5.1800	7.1106
#2	11.565	11.035	6.8627	.84897	12.081	5.2242	7.1480

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	38.836	50.738	8.8389	3.1290	10.082	57.039	35.706
SDev	.199	.184	.0513	.0143	.036	.167	.084
%RSD	.51151	.36336	.57985	.45613	.36036	.29193	.23491
#1	38.695	50.607	8.8026	3.1189	10.056	57.157	35.647
#2	38.976	50.868	8.8751	3.1391	10.108	56.922	35.765

Elem	1960/1	1960/2	Li6707
Avge	11.472	10.323	70.305
SDev	.040	.019	.270
%RSD	.34504	.18510	.38373
#1	11.500	10.309	70.496
#2	11.444	10.336	70.114

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11447	--	--	--	--	--	--
SDev	12.21555	--	--	--	--	--	--
%RSD	.1067125	--	--	--	--	--	--
#1	11456	--	--	--	--	--	--
#2	11439	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 10/29/01 09:40:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0043	20.025	2.0151	2.0143	2.0072	1.0073	20.032
SDev	.0021	.031	.0010	.0005	.0042	.0017	.033
%RSD	.20909	.15370	.04736	.02509	.21024	.16835	.16573
#1	1.0028	20.003	2.0144	2.0139	2.0042	1.0061	20.008
#2	1.0057	20.047	2.0157	2.0146	2.0102	1.0085	20.055
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0044	2.0040	2.0064	2.0100	20.062	20.067	19.951
SDev	.0024	.0031	.0028	.0034	.035	.031	.013
%RSD	.24199	.15606	.13855	.16682	.17304	.15369	.06383
#1	1.0027	2.0018	2.0045	2.0076	20.037	20.046	19.960
#2	1.0061	2.0063	2.0084	2.0124	20.086	20.089	19.942
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	20.029	2.0048	2.0093	19.852	2.0091	2.0018	2.0111
SDev	.024	.0042	.0032	.093	.0043	.0056	.0082
%RSD	.11862	.21121	.16037	.46896	.21600	.27735	.40719
#1	20.012	2.0018	2.0070	19.918	2.0061	1.9979	2.0053
#2	20.045	2.0078	2.0116	19.787	2.0122	2.0058	2.0168
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0122	2.0079	2.0111	2.0058	2.0106	2.0080	2.0011
SDev	.0008	.0002	.0048	.0036	.0009	.0044	.0022
%RSD	.03986	.01210	.23750	.18148	.04332	.21681	.10899
#1	2.0117	2.0077	2.0077	2.0032	2.0100	2.0049	1.9996
#2	2.0128	2.0081	2.0145	2.0083	2.0113	2.0111	2.0027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0038	2.0009	2.0182	2.0075	1.9783		
SDev	.0068	.0049	.0058	.0094	.0023		
%RSD	.33734	.24736	.28549	.46828	.11754		
#1	1.9990	1.9974	2.0142	2.0008	1.9766		
#2	2.0085	2.0044	2.0223	2.0141	1.9799		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					2.0000		
Range					5.0000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11469	--	--	--	--	--	--
SDev	58.20027	--	--	--	--	--	--
%RSD	.5074367	--	--	--	--	--	--
#1	11511	--	--	--	--	--	--
#2	11428	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 10/29/01 09:45:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50171	9.9188	.98549	.98407	.97214	.49282	9.9192
SDev	.00084	.0170	.00998	.00678	.00413	.00278	.0250
%RSD	.16826	.17171	1.0128	.68912	.42438	.56471	.25175
#1	.50231	9.9308	.99255	.98887	.97506	.49479	9.9369
#2	.50112	9.9067	.97844	.97928	.96923	.49086	9.9016
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49479	1.0012	.99063	.98667	9.9689	10.007	9.5642
SDev	.00187	.0057	.00315	.00536	.0410	.055	.0018
%RSD	.37897	.57180	.31844	.54317	.41099	.55368	.01833
#1	.49612	1.0052	.99286	.99046	9.9979	10.046	9.5629
#2	.49346	.99715	.98840	.98288	9.9399	9.9673	9.5654
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.8768	.98852	.99783	9.6660	1.0022	.99715	.98893
SDev	.0326	.00398	.00403	.2665	.0028	.00119	.00211
%RSD	.32989	.40316	.40385	2.7575	.27983	.11895	.21331
#1	9.8999	.99134	1.0007	9.4775	1.0042	.99798	.99042
#2	9.8538	.98570	.99498	9.8544	1.0002	.99631	.98744
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0050	1.0052	.98325	1.0059	.99724	.98710	.98634
SDev	.0036	.0040	.00358	.0041	.00250	.00362	.00310
%RSD	.36013	.39891	.36447	.40761	.25096	.36682	.31399
#1	1.0076	1.0081	.98578	1.0088	.99901	.98966	.98853
#2	1.0025	1.0024	.98072	1.0030	.99547	.98454	.98415
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99692	.99726	.99310	.98685	1.0128		
SDev	.00623	.00133	.00955	.00161	.0043		
%RSD	.62527	.13374	.96183	.16277	.42761		
#1	1.0013	.99632	.99986	.98572	1.0097		
#2	.99251	.99820	.98635	.98799	1.0159		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11585	--	--	--	--	--	--
SDev	22.07292	--	--	--	--	--	--
%RSD	.1905248	--	--	--	--	--	--
#1	11601	--	--	--	--	--	--
#2	11570	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator: GSP
Run Time: 10/29/01 09:51:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	.00716	.00077	.00223	.00108	.00059	.01233
SDev	.00086	.00430	.00016	.00128	.00021	.00001	.00074
%RSD	94.829	60.126	21.452	57.256	19.709	1.8389	5.9754
#1	.00151	.01020	.00089	.00314	.00123	.00058	.01285
#2	.00030	.00411	.00065	.00133	.00093	.00060	.01181
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00143	.00139	.00105	.00831	.01020	.03179
SDev	.00021	.00019	.00025	.00060	.01205	.00055	.00160
%RSD	34.455	13.209	18.211	57.105	144.91	5.3502	5.0174
#1	.00076	.00156	00157	.00148	.01683	.00982	.03292
#2	.00046	.00130	.00121	.00063	-.00020	.01059	.03066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00926	.00111	.00165	.15038	.00112	.00125	.00003
SDev	.00632	.00010	.00091	.03219	.00013	.00099	.00047
%RSD	68.239	8.7780	54.846	21.406	11.572	79.357	1360.1
#1	.01373	.00117	.00230	.17314	.00121	.00195	.00037
#2	.00479	.00104	.00101	.12761	.00103	.00055	-.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	.00183	.00123	.00108	-.00013	.00138	.00126
SDev	.00320	.00078	.00009	.00047	.00185	.00004	.00030
%RSD	276.78	42.757	6.9238	44.008	1411.3	2.8096	23.804
#1	.00342	.00238	.00129	.00142	.00118	.00140	.00147
#2	-.00111	.00128	.00117	.00074	-.00144	.00135	.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00191	.00092	.00385	-.00187	.00138
SDev	.00138	.00080	.00283	.00212	.00013
%RSD	72.150	86.825	73.670	113.44	9.5640
#1	.00288	.00148	.00184	-.00037	.00148
#2	.00093	.00035	.00585	-.00337	.00129
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11583	--	--	--	--	--	--
SDev	27.26090	--	--	--	--	--	--
%RSD	.2353488	--	--	--	--	--	--
#1	11602	--	--	--	--	--	--
#2	11564	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator: GSP
Run Time: 10/29/01 09:57:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00172	Q.08758	Q.00471	Q.09164	Q.00903	Q.00478	Q.45712
SDev	.00057	.00518	.00152	.00073	.00026	.00002	.00097
%RSD	33.149	5.9187	32.196	.79177	2.9148	.33867	.21278
#1	Q.00213	Q.09125	.00578	Q.09215	Q.00922	Q.00476	Q.45643
#2	Q.00132	Q.08392	Q.00364	Q.09113	Q.00884	Q.00479	Q.45781
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00462	Q.00935	Q.00414	Q.00749	.08864	Q.09598	Q.84076
SDev	.00005	.00053	.00015	.00036	.00712	.00058	.00777
%RSD	1.1369	5.6677	3.6489	4.7825	8.0273	.59984	.92389
#1	Q.00459	Q.00972	Q.00425	Q.00774	.09367	Q.09558	Q.83527
#2	Q.00466	Q.00897	Q.00404	Q.00724	.08361	Q.09639	Q.84625
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail
Value	.01000	.02000	01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q.45664	Q.00955	Q.00937	Q.36012	Q.00458	Q.00400	Q.00958
SDev	.00041	.00014	.00022	.01187	.00097	.00110	.00034
%RSD	.08912	1.4505	2.3449	3.2955	21.086	27.570	3.5209
#1	Q.45693	Q.00945	Q.00953	Q.35173	.00526	Q.00322	Q.00982
#2	Q.45635	Q.00965	Q.00922	Q.36852	Q.00390	Q.00478	Q.00935
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.04787	Q.00384	Q.00457	Q.00465	Q.00702	Q.00806	Q.01924
SDev	.00123	.00006	.00007	.00024	.00044	.00016	.00009
%RSD	2.5753	1.5620	1.5326	5.0724	6.2004	2.0154	.47799
#1	Q.04700	Q.00388	Q.00452	Q.00481	Q.00671	Q.00818	Q.01917
#2	Q.04875	Q.00380	Q.00462	Q.00448	Q.00732	Q.00795	Q.01930
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00018	.00590	.00756	.01060	Q.04628		
SDev	.00227	.00052	.00312	.00206	.00000		
%RSD	1227.5	8.8203	41.337	19.488	.00098		
#1	-.00142	.00553	.00535	.01206	Q.04628		
#2	.00179	.00627	.00976	.00914	Q.04628		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11577	--	--	--	--	--	--
SDev	60.98313	--	--	--	--	--	--
%RSD	.5267724	--	--	--	--	--	--
#1	11534	--	--	--	--	--	--
#2	11620	--	--	--	--	--	--

Method: 60102007 Sample Name: AL500 Operator: GSP
Run Time: 10/29/01 10:02:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	498.35	-.00118	.00078	.00054	.00047	.01552
SDev	.00010	1.21	.00423	.00138	.00032	.00003	.00060
%RSD	8.2169	.24293	358.67	176.68	58.615	6.2303	3.8773
#1	-.00117	497.50	.00181	-.00019	.00076	.00045	.01594
#2	-.00132	499.21	-.00417	.00176	.00032	.00049	.01509
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00027	.03058	.00182	.11153	.12281	.02946
SDev	.00018	.00060	.00013	.00021	.01515	.00012	.01403
%RSD	18.279	217.58	.43578	11.804	13.584	.09541	47.613
#1	-.00086	.00015	.03049	.00197	.12224	.12289	.03938
#2	-.00111	-.00070	.03068	.00167	.10082	.12272	.01954
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00162	.00180	.01010	.14830	.00564	-.00388	-.00368
SDev	.00277	.00009	.00079	.01502	.00145	.00006	.00138
%RSD	171.01	5.2063	7.8312	10.127	25.713	1.5506	37.555
#1	.00357	.00186	.01066	.15891	.00667	-.00384	-.00466
#2	-.00034	.00173	.00954	.13768	.00462	-.00392	-.00270
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00377	-.00203	.00013	-.00003	.00540	.00034	.00297
SDev	.00098	.00157	.00001	.00018	.00199	.00025	.00042
%RSD	26.022	77.118	6.8151	644.85	36.762	71.625	13.964
#1	-.00308	-.00314	.00014	.00010	.00681	.00052	.00326
#2	-.00446	-.00092	.00013	-.00015	.00400	.00017	.00268
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	2203/1	2203/2	1960/1	1960/2	L36707

Units	ppm	ppm	ppm	ppm	ppm
Avge	Q.01208	Q-.01185	Q.00789	Q-.00946	.00026
SDev	.00449	.00233	.00868	.00226	.00004
%RSD	37.167	19.676	110.02	23.924	14.185
#1	Q.00891	Q-.01020	.00175	Q-.00786	.00029
#2	Q.01526	Q-.01350	Q.01403	Q-.01106	.00023
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00300	.00300	.00500	.00500	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10975	--	--	--	--	--	--
SDev	71.78377	--	--	--	--	--	--
%RSD	.6540930	--	--	--	--	--	--
#1	11025	--	--	--	--	--	--
#2	10924	--	--	--	--	--	--

Method: 60102007 Sample Name: FE500 Operator: GSP
Run Time: 10/29/01 10:08:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.12625	.00256	-.00021	.00055	.00055	-.00689
SDev	.00089	.04292	.00223	.00060	.00034	.00001	.00064
%RSD	140.22	33.992	87.273	290.89	61.526	2.5794	9.3229
#1	.00126	.15660	Q.00414	.00022	.00078	.00056	-.00644
#2	.00001	.09591	.00098	-.00063	.00031	.00054	-.00735
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00300				.10000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00159	.00010	-.00384	-.00122	542.17	391.03	.03360
SDev	.00003	.00010	.00021	.00023	1.30	1.07	.01337
%RSD	1.8181	102.77	5.4811	18.779	.23918	.27297	39.774
#1	Q.00157	.00003	-.00369	-.00106	543.08	391.78	.04305
#2	Q.00161	.00017	-.00399	-.00139	541.25	390.27	.02415
Errors	QC Fail	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04036	-.00297	-.00128	.03566	-.00771	-.00182	.00158
SDev	.00335	.00005	.00009	.04857	.00026	.00056	.00025
%RSD	8.3085	1.8340	7.1463	136.20	3.4148	30.646	15.941
#1	-.03798	-.00293	-.00135	.07000	-.00790	-.00143	.00176
#2	-.04273	-.00301	-.00122	.00132	-.00752	-.00221	.00140
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	.00252	-.00034	-.00018	Q-.00534	.00044	-.00400
SDev	.00194	.00050	.00004	.00027	.00316	.00032	.00022
%RSD	63.555	19.748	11.790	147.45	59.254	74.174	5.4161
#1	-.00168	.00288	-.00031	.00001	Q-.00310	.00021	-.00416
#2	-.00443	.00217	-.00037	-.00037	Q-.00758	.00066	-.00385
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00027	Q-.00287	-.00034	.00254	.00007		
SDev	.00004	.00082	.00058	.00009	.00003		
%RSD	14.181	28.504	171.99	3.4855	40.397		
#1	.00030	Q-.00229	.00007	.00260	.00009		
#2	.00025	Q-.00344	-.00075	.00248	.00005		
Errors	QC Pass	QC Fail	QC Pass	QC Pass	NOCHECK		
Value	.00000	.00000	.00000	.00000			
Range	.00200	.00200	.00300	.00300			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10591	--	--	--	--	--	--
SDev	32.92052	--	--	--	--	--	--
%RSD	.3108262	--	--	--	--	--	--
#1	10568	--	--	--	--	--	--
#2	10615	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator: GSP
Run Time: 10/29/01 10:14:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	505.12	.00143	.00436	.00197	.00083	457.43
SDev	.00030	.54	.00179	.00072	.00007	.00001	.61
%RSD	115.20	.10745	125.81	16.432	3.3315	.70717	.13442
#1	-.00005	504.74	.00016	.00385	.00202	.00083	457.00
#2	-.00048	505.51	.00270	.00487	.00193	.00084	457.87
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00064	.00363	-.00185	.00035	195.82	179.37	.02642
SDev	.00002	.00023	.00035	.00097	.02	.01	.00634
%RSD	3.2127	6.4588	18.765	277.01	.00874	.00463	24.015
#1	-.00063	.00346	-.00160	.00104	195.80	179.37	.03091
#2	-.00065	.00380	-.00209	-.00034	195.83	179.36	.02194
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	520.28	.00347	-.00128	.10097	-.00127	.00215	-.00030
SDev	.60	.00004	.00056	.23112	.00049	.00054	.00415
%RSD	.11442	1.2538	43.617	228.89	39.090	24.993	1376.1
#1	519.86	.00344	-.00167	.26439	-.00092	.00177	-.00323
#2	520.70	.00350	-.00088	-.06245	-.00162	.00254	.00263
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00047	-.00130	-.00275	.00448	-.00360	.00391
SDev	.00228	.00083	.00012	.00038	.00122	.00072	.00020
%RSD	147.38	177.68	9.3614	13.651	27.198	19.881	5.1686
#1	.00316	-.00105	-.00122	-.00302	.00362	-.00310	.00377
#2	-.00007	.00012	-.00139	-.00249	.00534	-.00411	.00405
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.02161	.01402	-.00322	.00115	.00042		
SDev	.00420	.00290	.00086	.00579	.00003		
%RSD	19.431	20.713	26.577	501.52	7.6979		
#1	-.01864	.01196	-.00382	-.00294	.00044		
#2	-.02457	.01607	-.00261	.00525	.00039		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10267	--	--	--	--	--	--
SDev	19.24311	--	--	--	--	--	--
%RSD	.1874341	--	--	--	--	--	--
#1	10253	--	--	--	--	--	--
#2	10280	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator: GSP
Run Time: 10/29/01 10:19:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57129	518.57	1.0195	1.0367	1.1253	.51551	466.10
SDev	.00103	.27	.0018	.0043	.0015	.00049	.53
%RSD	.18033	.05286	.17556	.41381	.13682	.09446	.11276
#1	.57202	518.76	1.0207	1.0336	1.1264	.51585	466.47
#2	.57057	518.37	1.0182	1.0397	1.1242	.51516	465.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47311	.94920	.99681	1.1030	206.40	187.10	14.114
SDev	.00051	.00076	.00112	.0012	.26	.33	.019
%RSD	.10826	.08007	.11256	.11295	.12575	.17633	.13606
#1	.47347	.94973	.99760	1.1038	206.58	187.33	14.127
#2	.47275	.94866	.99601	1.1021	206.21	186.86	14.100
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	531.83	1.0159	1.0334	11.619	.93315	.95829	1.0186
SDev	.78	.0015	.0000	.025	.00065	.00345	.0071
%RSD	.14707	.14932	.00281	.21819	.07019	.36030	.69919
#1	532.39	1.0170	1.0334	11.601	.93361	.96073	1.0236
#2	531.28	1.0149	1.0333	11.636	.93268	.95585	1.0135
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0560	1.0102	1.0973	1.0716	.98411	1.0273	.93687
SDev	.0042	.0017	.0005	.0015	.00035	.0011	.00211
%RSD	.39583	.16436	.04542	.14252	.03515	.10823	.22486
#1	1.0589	1.0090	1.0977	1.0727	.98386	1.0280	.93836
#2	1.0530	1.0114	1.0970	1.0705	.98435	1.0265	.93538
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.92829	.97327	1.0128	1.0214	1.0998
SDev	.00359	.00339	.0020	.0117	.0002
%RSD	.38631	.34792	.20012	1.1444	.01868
#1	.93082	.97567	1.0114	1.0297	1.1000
#2	.92575	.97088	1.0142	1.0132	1.0997
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10334	--	--	--	--	--	--
SDev	21.31747		--	--	--	--	--
%RSD	.2062922	--	--	--	--	--	--
#1	10319	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 10:28:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50459	10.066	.98612	.98262	.97624	.49294	10.065
SDev	.00137	.018	.00005	.00048	.00182	.00053	.024
%RSD	.27172	.17976	.00459	.04879	.18666	.10670	.23577
#1	.50556	10.053	.98615	.98296	.97753	.49332	10.048
#2	.50362	10.078	.98609	.98228	.97496	.49257	10.082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49544	.99890	.98874	.98692	10.041	10.054	9.5845
SDev	.00007	.00086	.00123	.00127	.012	.002	.0149
%RSD	.01348	.08618	.12459	.12881	.12135	.02391	.15567
#1	.49539	.99951	.98962	.98782	10.050	10.052	9.5950
#2	.49548	.99829	.98787	.98602	10.033	10.056	9.5739
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9738	.98924	.99865	9.6367	1.0003	.99944	.99262
SDev	.0233	.00147	.00079	.0953	.0028	.00222	.00151
%RSD	.23399	.14865	.07887	.98850	.27801	.22170	.15190
#1	9.9573	.99028	.99810	9.5694	.99834	.99788	.99155
#2	9.9903	.98820	.99921	9.7041	1.0023	1.0010	.99369
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0098	1.0021	.98783	1.0075	.99755	.98752	.98364
SDev	.0019	.0014	.00106	.0008	.00631	.00064	.00038
%RSD	.18626	.13741	.10748	.07771	.63248	.06518	.03813
#1	1.0112	1.0011	.98858	1.0081	1.0020	.98798	.98338
#2	1.0085	1.0031	.98708	1.0070	.99309	.98707	.98391
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99406	1.0021	1.0001	.98887	1.0130		
SDev	.00096	.0028	.0037	.00412	.0021		
%RSD	.09621	.28384	.37234	.41660	.20831		
#1	.99338	1.0001	1.0028	.98595	1.0115		
#2	.99473	1.0041	.99750	.99178	1.0145		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11589	--	--	--	--	--	--
SDev	20.84584	--	--	--	--	--	--
%RSD	.1798721	--	--	--	--	--	--
#1	11604	--	--	--	--	--	--
#2	11575	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 10:34:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.01551	.00101	.00153	.00056	.00042	.01676
SDev	.00015	.00998	.00020	.00024	.00005	.00006	.01455
%RSD	70.093	64.389	19.453	15.813	9.6732	13.631	86.805
#1	.00011	.00845	.00115	.00170	.00052	.00038	.00647
#2	.00033	.02257	.00087	.00136	.00060	.00046	.02704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00077	.00033	-.00043	.01612	.01023	.01764
SDev	.00006	.00014	.00052	.00051	.00107	.00608	.00535
%RSD	37.415	17.659	154.11	119.49	6.6601	59.411	30.336
#1	.00011	.00087	-.00003	-.00007	.01688	.00593	.01386
#2	.00019	.00068	.00070	-.00079	.01536	.01453	.02142
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01609	.00058	.00090	.03335	.00076	.00011	-.00106
SDev	.01042	.00008	.00056	.07711	.00019	.00022	.00031
%RSD	64.772	13.573	61.699	231.18	25.359	198.09	28.992
#1	.00872	.00052	.00129	-.02117	.00062	.00027	-.00127
#2	.02345	.00063	.00051	.08787	.00090	-.00004	-.00084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00410	.00124	.00048	.00070	-.00097	.00045	.00065
SDev	.00165	.00136	.00011	.00004	.00100	.00019	.00002
%RSD	40.176	109.20	22.111	6.2044	102.56	43.628	3.6911
#1	.00527	.00221	.00041	.00067	-.00168	.00058	.00067
#2	.00294	.00028	.00056	.00073	-.00027	.00031	.00064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00162	.00097	.00001	-.00159	.00052		
SDev	.00153	.00110	.00056	.00074	.00012		
%RSD	94.945	112.61	4991.0	46.377	22.816		
#1	-.00270	.00175	.00040	-.00211	.00044		
#2	-.00053	.00020	-.00038	-.00107	.00060		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11531	--	--	--	--	--	--
SDev	3.018324	--	--	--	--	--	--
%RSD	.0261751	--	--	--	--	--	--
#1	11533	--	--	--	--	--	--
#2	11529	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD131 Operator:
Run Time: 10/29/01 10:39:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00030	.01083	-.00010	.00050	.00011	.00019	.01421
SDev	.00030	.01389	.00284	.00040	.00014	.00006	.01033
%RSD	100.68	128.24	2792.1	80.507	126.22	29.826	72.724
#1	-.00052	.00101	-.00211	.00021	.00001	.00015	.00690
#2	-.00009	.02065	.00191	.00078	.00021	.00023	.02152
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00050	-.00003	-.00063	.00549	.00605	.02090
SDev	.00002	.00072	.00009	.00000	.00054	.00541	.00136
%RSD	308.43	143.78	272.89	.67188	9.8553	89.437	6.5260
#1	-.00001	-.00001	.00003	-.00063	.00511	.00222	.02186
#2	.00002	.00101	-.00009	-.00062	.00588	.00988	.01994
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00811	.00023	-.00015	.03439	.00000	-.00019	-.00045
SDev	.01212	.00014	.00034	.02813	.00023	.00026	.00146
%RSD	149.38	63.216	222.94	81.786	21800.	138.36	325.14
#1	-.00046	.00013	-.00039	.01450	-.00016	-.00037	.00058
#2	.01668	.00033	.00009	.05428	.00017	-.00000	-.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	-.00044	.00017	.00016	-.00297	-.00019	.00307
SDev	.00164	.00008	.00010	.00020	.00006	.00023	.00028
%RSD	108.08	19.167	56.009	121.77	2.0720	121.34	9.1928
#1	.00036	-.00050	.00010	.00002	-.00302	-.00003	.00287
#2	.00268	-.00038	.00024	.00030	-.00293	-.00036	.00327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	.00035	.00189	-.00162	.00016
SDev	.00168	.00123	.00573	.00067	.00012
%RSD	134.33	355.44	304.05	41.665	77.000
#1	-.00006	-.00052	.00594	-.00209	.00007
#2	-.00244	.00121	-.00217	-.00114	.00025
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11606	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2133388	--	--	--	--	--	--
#1	11589	--	--	--	--	--	--
#2	11624	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD131 Operator:
Run Time: 10/29/01 10:45:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48741	9.7452	.98010	.96828	.96383	.48860	9.7974
SDev	.00036	.0114	.00604	.00064	.00006	.00026	.0144
%RSD	.07311	.11690	.61652	.06635	.00616	.05302	.14690
#1	.48767	9.7532	.97583	.96783	.96387	.48879	9.8075
#2	.48716	9.7371	.98437	.96874	.96379	.48842	9.7872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49331	.97400	.97689	.96367	L9.7927	9.7905	9.4551
SDev	.00032	.00047	.00164	.00007	.0012	.0101	.0578
%RSD	.06402	.04871	.16772	.00743	.01229	.10354	.61111
#1	.49354	.97434	.97804	.96362	L9.7919	9.7977	9.4960
#2	.49309	.97367	.97573	.96372	L9.7936	9.7833	9.4143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.7209	.97567	.98472	9.4709	.98434	.98570	.98234
SDev	.0091	.00113	.00081	.0416	.00045	.00558	.00642
%RSD	.09410	.11548	.08232	.43880	.04558	.56592	.65353
#1	9.7274	.97647	.98415	9.4415	.98466	.98964	.98688
#2	9.7144	.97487	.98529	9.5003	.98403	.98175	.97780
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97125	.99358	.97689	.98119	.98107	.97004	.98554
SDev	.00139	.00184	.00047	.00086	.00190	.00086	.00197
%RSD	.14299	.18558	.04830	.08729	.19361	.08910	.19933
#1	.97027	.99489	.97723	.98179	.98242	.97065	.98693
#2	.97223	.99228	.97656	.98058	.97973	.96943	.98415
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.97917	.98896	.98684	.98009	.99751
SDev	.00839	.00418	.00826	.00550	.00370
%RSD	.85639	.42235	.83659	.56151	.37146
#1	.98510	.99191	.99268	.98398	1.0001
#2	.97324	.98600	.98100	.97620	.99489
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11668	--	--	--	--	--	--
SDev	63.52982	--	--	--	--	--	--
%RSD	.5444667	--	--	--	--	--	--
#1	11623	--	--	--	--	--	--
#2	11713	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1 Operator:
Run Time: 10/29/01 10:51:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.54150	.00107	.02567	.00216	.00016	12.139
SDev	.00050	.00310	.00041	.00123	.00001	.00000	.081
%RSD	523.55	.57265	38.745	4.7821	.42116	.43285	.66716
#1	.00045	.53930	.00136	.02654	.00216	.00016	12.082
#2	-.00026	.54369	.00078	.02481	.00215	.00016	12.196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	-.00002	.00053	-.00003	1.04733	.05358	3.5392
SDev	.00003	.00026	.00004	.00001	.00093	.00051	.0068
%RSD	17.195	1185.1	7.4011	28.632	1.9640	.95865	.19112
#1	.00013	-.00021	.00056	-.00002	1.04667	.05395	3.5344
#2	.00017	.00016	.00050	-.00003	1.04799	.05322	3.5440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.82471	.00182	.00025	5.2648	.00057	-.00007	.00131
SDev	.00720	.00010	.00038	.0309	.00023	.00016	.00060
%RSD	.87342	5.6164	149.80	.58663	40.094	230.82	45.982
#1	.81962	.00189	-.00001	5.2429	.00073	.00004	.00174
#2	.82981	.00175	.00052	5.2866	.00041	-.00018	.00089
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00227	.00381	.16457	.00384	-.00252	.00103	.01614
SDev	.00015	.00010	.00067	.00010	.00015	.00019	.00011
%RSD	6.4040	2.6228	.40395	2.7097	5.7935	18.027	.66183
#1	-.00217	.00388	.16410	.00377	-.00242	.00116	.01621
#2	-.00238	.00373	.16504	.00392	-.00262	.00090	.01606
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00071	.00589	-.00097	.01333
SDev	.00106	.00029	.00354	.00086	.00003
%RSD	86.381	40.233	60.111	88.836	.20647
#1	.00197	-.00092	.00839	-.00158	.01334
#2	.00048	-.00051	.00339	-.00036	.01331
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	43.57960	--	--	--	--	--	--
%RSD	.3690444	--	--	--	--	--	--
#1	11840	--	--	--	--	--	--
#2	11778	--	--	--	--	--	--

Method: s0102007 Sample Name: 110557-1L Operator:
Run Time: 10/29/01 10:56:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	.10850	.00052	.00618	.00043	.00017	2.4817
SDev	.00152	.00042	.00183	.00102	.00016	.00002	.0019
%RSD	186.22	.38546	350.09	16.548	37.635	8.8439	.07668
#1	.00026	.10879	.00182	.00691	.00054	.00018	2.4804
#2	-.00189	.10820	-.00077	.00546	.00031	.00016	2.4830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.00010	.00033	-.00074	L.00514	.01278	.71347
SDev	.00006	.00013	.00095	.00017	.00053	.00011	.00756
%RSD	1957.3	128.07	291.31	22.555	10.373	.86108	1.0593
#1	.00004	.00020	.00100	-.00062	L.00476	.01286	.71881
#2	-.00005	.00001	-.00035	-.00086	L.00552	.01271	.70812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.16534	.00040	-.00036	.99653	.00066	-.00043	-.00108
SDev	.00177	.00007	.00000	.18384	.00005	.00016	.00026
%RSD	1.0674	16.462	.04574	18.448	7.5778	36.646	24.230
#1	.16659	.00045	-.00036	1.1265	.00069	-.00055	-.00089
#2	.16410	.00036	-.00036	.86653	.00062	-.00032	-.00126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00044	-.00033	.03291	.00080	-.00108	-.00019	.00757
SDev	.00091	.00071	.00004	.00029	.00369	.00054	.00010
%RSD	207.91	213.41	.12891	36.476	341.02	281.08	1.3295
#1	.00021	-.00084	.03288	.00101	.00153	.00019	.00764
#2	-.00108	.00017	.03294	.00060	-.00369	-.00057	.00750
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	.00006	-.00073	-.00125	.00286
SDev	.00090	.00069	.00258	.00168	.00002
%RSD	63.351	1144.9	353.83	134.49	.65353
#1	-.00079	-.00043	-.00255	-.00006	.00287
#2	-.00206	.00055	.00109	-.00243	.00285
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11674	--	--	--	--	--	--
SDev	5.942735	--	--	--	--	--	--
%RSD	.0509053	--	--	--	--	--	--
#1	11670	--	--	--	--	--	--
#2	11678	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1S Operator:
Run Time: 10/29/01 11:02:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49817	10.487	1.0247	1.0171	.99034	.49991	22.178
SDev	.00271	.076	.0051	.0096	.00753	.00410	.150
%RSD	.54398	.72782	.49943	.94420	.76033	.81998	.67506
#1	.49626	10.433	1.0211	1.0103	.98502	.49701	22.072
#2	.50009	10.541	1.0283	1.0239	.99567	.50281	22.284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50679	1.0007	1.0004	.98877	L10.090	10.118	14.322
SDev	.00406	.0075	.0070	.00638	.076	.078	.087
%RSD	.80136	.75350	.70420	.64566	.75124	.76831	.61056
#1	.50391	.99536	.99543	.98426	L10.036	10.063	14.261
#2	.50966	1.0060	1.0054	.99329	L10.143	10.172	14.384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.779	1.0018	1.0084	15.119	1.0104	1.0181	1.0436
SDev	.064	.0074	.0120	.156	.0068	.0055	.0051
%RSD	.59529	.73514	1.1936	1.0350	.67159	.54504	.49275
#1	10.733	.99661	.99991	15.230	1.0056	1.0142	1.0400
#2	10.824	1.0070	1.0169	15.009	1.0152	1.0220	1.0472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97190	.99058	1.1640	1.0089	1.0107	.99978	1.0375
SDev	.05032	.01534	.0084	.0085	.0093	.00605	.0076
%RSD	5.1777	1.5489	.71970	.84464	.91816	.60561	.72785
#1	.93632	.97974	1.1581	1.0029	1.0042	.99550	1.0321
#2	1.0075	1.0014	1.1700	1.0149	1.0173	1.0041	1.0428
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0120	1.0211	1.0503	1.0403	.97297
SDev	.0070	.0048	.0075	.0040	.00555
%RSD	.69212	.47226	.71244	.38201	.57065
#1	1.0071	1.0177	1.0450	1.0375	.96904
#2	1.0170	1.0245	1.0556	1.0431	.97690
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11640	--	--	--	--	--	--
SDev	91.21471	--	--	--	--	--	--
%RSD	.7836079	--	--	--	--	--	--
#1	11705	--	--	--	--	--	--
#2	11576	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1SD Operator:
Run Time: 10/29/01 11:07:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50378	10.600	1.0312	1.0306	1.0007	.50596	22.236
SDev	.00122	.037	.0012	.0031	.0015	.00067	.017
%RSD	.24244	.35365	.11927	.30169	.14666	.13183	.07641
#1	.50464	10.627	1.0303	1.0284	1.0017	.50643	22.224
#2	.50291	10.574	1.0321	1.0328	.99966	.50549	22.248
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51279	1.0116	1.0129	1.0005	L10.211	10.237	14.309
SDev	.00089	.0033	.0032	.0018	.040	.029	.006
%RSD	.17258	.32660	.31495	.18362	.38700	.28576	.04299
#1	.51342	1.0139	1.0152	1.0018	L10.239	10.258	14.314
#2	.51217	1.0092	1.0107	.99919	L10.183	10.216	14.305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.880	1.0128	1.0210	15.340	1.0210	1.0273	1.0508
SDev	.026	.0028	.0042	.343	.0030	.0067	.0111
%RSD	.24142	.27797	.40702	2.2348	.28918	.65049	1.0528
#1	10.898	1.0148	1.0181	15.582	1.0231	1.0320	1.0586
#2	10.861	1.0108	1.0240	15.097	1.0190	1.0226	1.0430
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98733	1.0039	1.1749	1.0216	1.0158	1.0119	1.0472
SDev	.04425	.0060	.0004	.0027	.0015	.0024	.0039
%RSD	4.4814	.60005	.03817	.26398	.14915	.23269	.37131
#1	.95604	.99969	1.1753	1.0197	1.0148	1.0135	1.0500
#2	1.0186	1.0082	1.1746	1.0235	1.0169	1.0102	1.0445
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0191	1.0314	1.0588	1.0468	.97818
SDev	.0082	.0059	.0133	.0100	.00675
%RSD	.80627	.57364	1.2519	.95224	.68992
#1	1.0249	1.0356	1.0681	1.0539	.98295
#2	1.0133	1.0272	1.0494	1.0398	.97341
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11571	--	--	--	--	--	--
SDev	16.55486	--	--	--	--	--	--
%RSD	.1430718	--	--	--	--	--	--
#1	11559	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: e0102007 Sample Name: 110557-2 Operator:
Run Time: 10/29/01 11:13:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.18679	.00244	.02647	.00523	.00027	5.8823
SDev	.00011	.00268	.00009	.00099	.00032	.00002	.0070
%RSD	16.250	1.4354	3.5993	3.7309	6.0420	6.0286	.11923
#1	.00074	.18869	.00250	.02717	.00546	.00028	5.8773
#2	.00058	.18490	.00238	.02577	.00501	.00026	5.8872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00056	.00137	.00040	L.07465	.07722	1.7251
SDev	.00008	.00072	.00026	.00063	.00085	.00125	.0070
%RSD	40.767	129.82	18.623	156.76	1.1417	1.6195	.40434
#1	.00026	.00107	.00119	-.00004	L.07525	.07810	1.7201
#2	.00015	.00005	.00155	.00084	L.07404	.07633	1.7300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72012	.00114	.00193	5.0480	.00095	.00059	-.00014
SDev	.00294	.00008	.00059	.0968	.00049	.00055	.00134
%RSD	.40849	7.3221	30.377	1.9170	51.917	93.624	962.89
#1	.71804	.00120	.00235	4.9795	.00130	.00098	-.00109
#2	.72220	.00108	.00152	5.1164	.00060	.00020	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00539	.01908	.00264	-.00229	.00168	.01246
SDev	.00007	.00040	.00009	.00032	.00091	.00004	.00014
%RSD	54.448	7.4910	.47716	11.974	39.763	2.6043	1.1264
#1	.00008	.00510	.01914	.00286	-.00293	.00165	.01256
#2	.00018	.00568	.01902	.00241	-.00164	.00171	.01236
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00088	.00044	.00644	-.00342	.00120
SDev	.00288	.00227	.00497	.00047	.00009
%RSD	325.41	509.30	77.170	13.647	7.0776
#1	-.00115	.00205	.00292	-.00309	.00126
#2	.00292	-.00116	.00995	-.00375	.00114
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11870	--	--	--	--	--	--
SDev	34.76010	--	--	--	--	--	--
%RSD	.2928309	--	--	--	--	--	--
#1	11895	--	--	--	--	--	--
#2	11846	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-3 Operator:
Run Time: 10/29/01 11:19:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	2.1485	.00194	.03336	.01145	.00021	4.8813
SDev	.00034	.0094	.00067	.00003	.00006	.00002	.0230
%RSD	1508.8	.43827	34.586	.08815	.56144	11.457	.47027
#1	.00022	2.1418	.00146	.03338	.01140	.00019	4.8651
#2	-.00026	2.1552	.00241	.03334	.01149	.00022	4.8975
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	-.00027	.00135	-.00046	L.58650	.60423	3.2135
SDev	.00000	.00023	.00005	.00005	.00110	.00257	.0336
%RSD	20.947	87.265	3.7749	11.760	.18793	.42575	1.0465
#1	-.00002	-.00010	.00139	-.00050	L.58572	.60241	3.1897
#2	-.00002	-.00043	.00132	-.00042	L.58728	.60605	3.2372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.56758	.00286	.00031	9.9876	.00050	-.00024	.00234
SDev	.00316	.00003	.00037	.0694	.00016	.00048	.00058
%RSD	.55756	1.0440	119.62	.69491	32.250	203.46	24.810
#1	.56534	.00288	.00057	10.037	.00038	-.00057	.00193
#2	.56981	.00284	.00005	9.9385	.00061	.00010	.00275
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00294	.00311	.04944	.01895	-.00271	.00161	.01331
SDev	.00137	.00082	.00019	.00001	.00358	.00026	.00012
%RSD	46.651	26.367	.37958	.04015	132.28	16.457	.88170
#1	-.00197	.00369	.04930	.01895	-.00017	.00180	.01340
#2	-.00390	.00253	.04957	.01894	-.00524	.00142	.01323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00181	-.00126	.00872	-.00084	.00115
SDev	.00065	.00104	.00021	.00098	.00002
%RSD	35.726	82.851	2.4120	115.88	1.7346
#1	.00227	-.00200	.00887	-.00153	.00113
#2	.00135	-.00052	.00857	-.00015	.00116
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11804	--	--	--	--	--	--
SDev	11.79087	--	--	--	--	--	--
%RSD	.0998845	--	--	--	--	--	--
#1	11813	--	--	--	--	--	--
#2	11796	--	--	--	--	--	--

Method: e0102007 Sample Name: 110557-4 Operator:
Run Time: 10/29/01 11:24:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.19134	.00182	.02392	.01270	.00012	5.0255
SDev	.00077	.00061	.00043	.00072	.00010	.00003	.0016
%RSD	177.41	.31932	23.494	3.0125	.81999	20.327	.03100
#1	-.00098	.19178	.00152	.02443	.01277	.00011	5.0266
#2	.00011	.19091	.00213	.02341	.01263	.00014	5.0244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	-.00001	.00022	-.00065	L.18699	.19379	2.1106
SDev	.00002	.00046	.00022	.00087	.00970	.00388	.0182
%RSD	85.920	8366.5	98.315	133.08	5.1895	2.0023	.86226
#1	-.00005	-.00033	.00007	-.00127	L.18013	.19104	2.0977
#2	-.00001	.00032	.00038	-.00004	L.19385	.19653	2.1235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.54167	.00263	-.00034	7.7958	.00019	.00011	.00092
SDev	.00027	.00001	.00034	.2078	.00005	.00040	.00083
%RSD	.05060	.27068	99.554	2.6659	26.576	380.80	90.169
#1	.54148	.00263	-.00058	7.6488	.00015	.00039	.00033
#2	.54187	.00262	-.00010	7.9427	.00022	-.00018	.00150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00339	.00255	.06263	.00307	-.00336	.00045	.01198
SDev	.00061	.00020	.00014	.00021	.00112	.00100	.00008
%RSD	18.001	7.6901	.22784	6.8808	33.213	220.36	.64412
#1	-.00383	.00269	.06273	.00292	-.00415	-.00025	.01203
#2	-.00296	.00242	.06253	.00322	-.00257	.00115	.01192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00046	.00580	-.00152	.01302
SDev	.00129	.00125	.00167	.00041	.00009
%RSD	104.76	273.33	28.751	26.750	.69450
#1	.00032	.00043	.00462	-.00181	.01296
#2	.00214	-.00134	.00698	-.00123	.01309
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11819	--	--	--	--	--	--
SDev	17.21501	--	--	--	--	--	--
%RSD	.1456603	--	--	--	--	--	--
#1	11831	--	--	--	--	--	--
#2	11806	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-5 Operator:
Run Time: 10/29/01 11:30:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00029	.19452	.00277	.02489	.00499	.00020	6.2414
SDev	.00023	.00655	.00072	.00105	.00035	.00002	.0209
%RSD	79.217	3.3682	25.857	4.2019	7.0314	11.727	.33443
#1	-.00013	.19915	.00328	.02563	.00524	.00022	6.2267
#2	-.00045	.18988	.00227	.02415	.00474	.00019	6.2562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00051	.00031	-.00016	L.07594	.07415	1.7075
SDev	.00003	.00099	.00023	.00013	.01414	.00013	.0170
%RSD	32.756	194.06	75.867	80.148	18.620	.18117	.99837
#1	.00008	.00121	.00047	-.00007	L.08594	.07424	1.7195
#2	.00013	-.00019	.00014	-.00025	L.06594	.07405	1.6954
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72580	.00352	-.00013	4.9992	.00045	-.00006	.00151
SDev	.00202	.00011	.00078	.0790	.00058	.00113	.00101
%RSD	.27901	3.1135	594.77	1.5811	128.66	1984.1	66.715
#1	.72723	.00360	.00042	4.9433	.00086	.00074	.00080
#2	.72437	.00345	-.00068	5.0551	.00004	-.00086	.00222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00115	.00326	.01935	.00267	-.00094	.00082	.01996
SDev	.00437	.00037	.00006	.00068	.00176	.00020	.00009
%RSD	381.03	11.434	.32696	25.672	187.41	24.055	.43616
#1	.00194	.00299	.01930	.00315	.00030	.00096	.01990
#2	-.00424	.00352	.01939	.00218	-.00218	.00068	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.00024	.00487	-.00017	.00088
SDev	.00335	.00337	.00364	.00031	.00006
%RSD	512.96	1400.1	74.806	183.94	6.5458
#1	-.00302	.00262	.00229	.00005	.00092
#2	.00172	-.00214	.00744	-.00039	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	39.57036	--	--	--	--	--	--
%RSD	.3350978	--	--	--	--	--	--
#1	11781	--	--	--	--	--	--
#2	11837	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 11:35:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50893	10.069	1.0034	.98960	.97464	.49722	10.107
SDev	.00032	.030	.0049	.00543	.00317	.00178	.023
%RSD	.06245	.29369	.48910	.54918	.32494	.35746	.23131
#1	.50870	10.048	.99991	.98576	.97240	.49596	10.090
#2	.50915	10.090	1.0069	.99345	.97688	.49848	10.124
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50488	1.0107	.99767	.98631	10.115	10.125	9.7692
SDev	.00083	.0037	.00319	.00300	.017	.032	.0359
%RSD	.16479	.36577	.31994	.30430	.16901	.31270	.36751
#1	.50429	1.0081	.99541	.98419	10.103	10.102	9.7945
#2	.50547	1.0133	.99993	.98843	10.127	10.147	9.7438
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.088	.99704	1.0065	9.6640	1.0176	1.0187	1.0157
SDev	.014	.00286	.0065	.1388	.0013	.0034	.0025
%RSD	.13749	.28656	.65003	1.4367	.12954	.33502	.24518
#1	10.078	.99502	1.0018	9.7622	1.0167	1.0163	1.0140
#2	10.098	.99906	1.0111	9.5658	1.0185	1.0212	1.0175
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0187	1.0209	.98922	1.0115	1.0153	.99199	1.0049
SDev	.0044	.0010	.00362	.0027	.0024	.00220	.0009
%RSD	.42907	.09406	.36572	.26844	.23352	.22142	.09345
#1	1.0156	1.0202	.98666	1.0095	1.0137	.99043	1.0043
#2	1.0218	1.0215	.99178	1.0134	1.0170	.99354	1.0056
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0116	1.0223	1.0209	1.0131	1.0449
SDev	.0017	.0060	.0004	.0039	.0010
%RSD	.17098	.58497	.03826	.38777	.09516
#1	1.0128	1.0181	1.0212	1.0104	1.0456
#2	1.0103	1.0266	1.0206	1.0159	1.0442
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					10.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11641	--	--	--	--	--	--
SDev	50.37100	--	--	--	--	--	--
%RSD	.4327003	--	--	--	--	--	--
#1	11677	--	--	--	--	--	--
#2	11605	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 11:41:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00052	.01215	.00142	.00088	.00043	.00049	.01636
SDev	.00171	.00742	.00056	.00015	.00016	.00005	.00082
%RSD	327.49	61.091	39.154	16.728	37.841	10.070	4.9898
#1	.00069	.00690	.00103	.00077	.00031	.00046	.01579
#2	-.00173	.01739	.00182	.00098	.00054	.00053	.01694
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00024	.00029	.00031	-.00034	.00025	.01034	.01831
SDev	.00009	.00028	.00055	.00041	.00583	.00205	.04330
%RSD	39.271	96.879	176.10	119.90	2309.3	19.806	236.42
#1	.00031	.00009	.00070	-.00005	-.00387	.00889	.04893
#2	.00017	.00048	-.00008	-.00063	.00438	.01179	-.01230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01120	.00061	.00096	-.12591	.00003	.00024	-.00132
SDev	.00434	.00018	.00022	.29085	.00035	.00017	.00014
%RSD	38.741	29.226	23.385	231.00	1133.9	69.961	10.274
#1	.00814	.00048	.00080	.07975	-.00022	.00036	-.00141
#2	.01427	.00073	.00112	-.33158	.00028	.00012	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	-.00020	.00058	.00055	-.00087	.00005	.00048
SDev	.00101	.00059	.00001	.00022	.00100	.00081	.00020
%RSD	219.68	294.76	.84298	40.552	115.00	1580.7	42.395
#1	-.00025	.00022	.00058	.00039	-.00016	.00062	.00034
#2	.00117	-.00062	.00058	.00071	-.00158	-.00052	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00046	.00013	.00212	-.00303	.00076
SDev	.00533	.00240	.00519	.00279	.00005
%RSD	1159.4	1783.5	245.07	92.121	5.9217
#1	.00423	-.00157	.00579	-.00501	.00073
#2	-.00331	.00183	-.00155	-.00106	.00079
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11659	--	--	--	--	--	--
SDev	27.07169	--	--	--	--	--	--
%RSD	.2321898	--	--	--	--	--	--
#1	11678	--	--	--	--	--	--
#2	11640	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-6 Operator:
Run Time: 10/29/01 11:47:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00456	.00078	.00077	.00027	.00028	.01535
SDev	.00026	.00029	.00140	.00007	.00002	.00002	.00216
%RSD	81.095	6.4093	179.33	9.2920	5.5515	8.4151	14.099
#1	-.00014	.00436	-.00021	.00082	.00028	.00030	.01688
#2	-.00050	.00477	.00177	.00072	.00026	.00027	.01382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00093	.00017	-.00049	L.01003	.00268	.03674
SDev	.00021	.00024	.00073	.00026	.00734	.00104	.05383
%RSD	314.91	26.160	428.61	52.789	73.174	38.741	146.50
#1	.00021	.00076	.00069	-.00031	L.00484	.00342	.07480
#2	-.00008	.00111	-.00035	-.00068	L.01522	.00195	-.00132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00565	.00033	-.00008	.11701	.00048	-.00058	-.00056
SDev	.00005	.00010	.00026	.08354	.00033	.00026	.00038
%RSD	.90929	29.029	337.59	71.397	67.461	45.289	68.776
#1	.00561	.00040	.00011	.17608	.00071	-.00039	-.00029
#2	.00569	.00026	-.00026	.05793	.00025	-.00076	-.00083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00256	-.00013	.00022	.00042	.00002	.00007	.01171
SDev	.00080	.00110	.00019	.00003	.00091	.00068	.00000
%RSD	31.399	818.84	85.559	5.9900	4654.2	910.01	.03051
#1	.00199	.00064	.00036	.00040	.00066	.00056	.01170
#2	.00312	-.00091	.00009	.00044	-.00062	-.00041	.01171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00229	.00028	.00169	-.00168	.00019
SDev	.00458	.00189	.00358	.00122	.00021
%RSD	199.52	683.04	212.07	72.553	110.85
#1	.00094	-.00106	.00422	-.00253	.00034
#2	-.00553	.00161	-.00084	-.00082	.00004
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11841	--	--	--	--	--	--
SDev	75.55685	--	--	--	--	--	--
%RSD	.6381212	--	--	--	--	--	--
#1	11894	--	--	--	--	--	--
#2	11787	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-7 Operator:
Run Time: 10/29/01 11:52:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00447	-.00075	-.00027	-.00007	.00013	.00050
SDev	.00096	.00226	.00035	.00090	.00014	.00005	.00045
%RSD	132.15	50.496	46.946	336.41	207.94	36.693	89.509
#1	.00140	-.00287	-.00100	.00037	.00003	.00010	.00082
#2	.00005	-.00606	-.00050	-.00091	-.00016	.00017	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	-.00010	.00044	-.00027	L-.01147	.00001	.05403
SDev	.00002	.00015	.00026	.00043	.00815	.00030	.02019
%RSD	15.754	148.92	58.147	157.99	71.040	5719.6	37.372
#1	.00012	-.00021	.00062	.00003	L-.00571	.00022	.03976
#2	.00015	.00001	.00026	-.00058	L-.01724	-.00021	.06831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00422	.00001	-.00019	.17921	-.00014	-.00032	.00066
SDev	.00196	.00005	.00029	.07974	.00014	.00044	.00085
%RSD	46.400	713.50	147.26	44.494	102.51	137.64	127.13
#1	-.00283	.00005	.00001	.23559	-.00004	-.00063	.00126
#2	-.00560	-.00003	-.00040	.12283	-.00024	-.00001	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00087	.00010	-.00021	.00073	.00063	.01165
SDev	.00199	.00112	.00004	.00014	.00020	.00041	.00011
%RSD	183.83	129.03	43.667	68.706	27.971	65.767	.94524
#1	.00032	.00166	.00013	-.00011	.00058	.00092	.01172
#2	-.00249	.00008	.00007	-.00031	.00087	.00034	.01157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00377	-.00236	.00759	-.00279	.00006
SDev	.00124	.00128	.00078	.00088	.00003
%RSD	32.885	54.231	10.263	31.448	49.322
#1	.00465	-.00327	.00814	-.00217	.00004
#2	.00289	-.00146	.00704	-.00341	.00007
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11961	--	--	--	--	--	--
SDev	67.44445	--	--	--	--	--	--
%RSD	.5638739	--	--	--	--	--	--
#1	12009	--	--	--	--	--	--
#2	11913	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-1 Operator:
Run Time: 10/29/01 11:58:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	.16075	.00151	.02615	.00228	.00006	1.1798
SDev	.00043	.00712	.00018	.00117	.00017	.00004	.0163
%RSD	44.244	4.4276	11.698	4.4723	7.3907	66.194	1.3802
#1	-.00066	.16578	.00163	.02697	.00240	.00009	1.1913
#2	-.00127	.15572	.00138	.02532	.00216	.00003	1.1683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00048	.00024	-.00099	L.25156	.25177	1.0327
SDev	.00006	.00035	.00028	.00035	.00433	.00401	.0537
%RSD	101.15	72.148	120.71	35.934	1.7209	1.5912	5.1965
#1	-.00002	.00073	.00044	-.00073	L.25462	.25461	1.0706
#2	-.00011	.00024	.00003	-.00124	L.24850	.24894	.99472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.26558	.00143	-.00043	6.2094	.00092	-.00008	.00209
SDev	.00438	.00004	.00010	.1419	.00049	.00072	.00036
%RSD	1.6473	2.7440	23.221	2.2845	52.761	915.53	17.272
#1	.26868	.00146	-.00050	6.3097	.00127	.00043	.00234
#2	.26249	.00141	-.00036	6.1091	.00058	-.00059	.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00084	.00231	.00641	.00235	-.00176	.00043	.01276
SDev	.00010	.00079	.00014	.00042	.00019	.00005	.00014
%RSD	12.253	34.093	2.2483	17.665	10.513	10.722	1.0746
#1	-.00077	.00287	.00652	.00264	-.00189	.00047	.01286
#2	-.00092	.00175	.00631	.00206	-.00163	.00040	.01266
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00152	.00064	.00358	.00134	.00023
SDev	.00038	.00089	.00064	.00086	.00011
%RSD	25.219	138.87	17.821	63.971	48.616
#1	-.00125	.00127	.00313	.00195	.00031
#2	-.00179	.00001	.00403	.00074	.00015
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11991	--	--	--	--	--	--
SDev	150.0289	--	--	--	--	--	--
%RSD	1.251225	--	--	--	--	--	--
#1	11884	--	--	--	--	--	--
#2	12097	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-2 Operator:
Run Time: 10/29/01 12:03:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.57648	.00256	.02609	.00300	.00010	4.7344
SDev	.00100	.00344	.00002	.00021	.00010	.00001	.0041
%RSD	230.66	.59582	.64722	.79822	3.4724	10.961	.08566
#1	-.00114	.57405	.00255	.02594	.00292	.00009	4.7373
#2	.00027	.57891	.00257	.02624	.00307	.00011	4.7316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00126	.00084	-.00026	L.28056	.28122	1.2823
SDev	.00005	.00003	.00055	.00094	.01488	.00033	.0050
%RSD	63.542	2.5035	64.803	359.00	5.3026	.11733	.38794
#1	.00005	.00124	.00046	-.00093	L.27004	.28099	1.2787
#2	.00012	.00128	.00123	.00040	L.29108	.28145	1.2858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.90048	.00266	-.00012	2.2505	.00059	-.00071	.00250
SDev	.00133	.00000	.00017	.2896	.00027	.00041	.00040
%RSD	.14748	.05432	139.13	12.869	45.209	57.807	16.000
#1	.89954	.00266	-.00000	2.0457	.00040	-.00100	.00222
#2	.90142	.00266	-.00024	2.4553	.00078	-.00042	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00191	.00935	.00690	-.00237	.00056	.01730
SDev	.00066	.00211	.00005	.00045	.00159	.00096	.00017
%RSD	2647.0	110.29	.58003	6.5432	67.031	171.64	.98689
#1	.00049	.00042	.00932	.00658	-.00350	-.00012	.01718
#2	-.00044	.00340	.00939	.00722	-.00125	.00124	.01743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00166	-.00024	.00302	.00224	.00059
SDev	.00318	.00098	.00153	.00016	.00002
%RSD	192.22	413.42	50.494	7.2621	3.1587
#1	-.00391	.00045	.00194	.00235	.00057
#2	.00060	-.00093	.00410	.00212	.00060
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11774	--	--	--	--	--	--
SDev	5.754219	--	--	--	--	--	--
%RSD	.0488702	--	--	--	--	--	--
#1	11770	--	--	--	--	--	--
#2	11779	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-3 Operator:
Run Time: 10/29/01 12:09:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.15118	.00012	.02815	.00619	.00009	6.1267
SDev	.00026	.00211	.00139	.00110	.00005	.00002	.0111
%RSD	81.883	1.3939	1130.1	3.9105	.85348	19.295	.18072
#1	-.00013	.15267	.00111	.02893	.00623	.00008	6.1189
#2	-.00050	.14969	-.00086	.02737	.00616	.00010	6.1345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00014	.00057	-.00049	L.49090	.49570	1.4175
SDev	.00006	.00021	.00006	.00010	.00262	.00107	.0051
%RSD	68.021	145.06	10.625	20.028	.53420	.21500	.35753
#1	-.00005	.00029	.00061	-.00056	L.49275	.49495	1.4139
#2	-.00013	-.00000	.00053	-.00042	L.48904	.49646	1.4211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.53955	.00353	-.00067	6.5772	.00048	.00074	.00369
SDev	.00050	.00003	.00014	.0723	.00023	.00038	.00271
%RSD	.09270	.95650	20.649	1.0991	47.832	50.919	73.517
#1	.53991	.00356	-.00077	6.6283	.00064	.00047	.00177
#2	.53920	.00351	-.00057	6.5261	.00031	.00100	.00561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	.00211	.01703	.00202	-.00363	.00070	.01199
SDev	.00370	.00026	.00003	.00014	.00031	.00023	.00029
%RSD	198.29	12.335	.14529	6.9256	8.4656	32.806	2.3938
#1	.00075	.00192	.01702	.00211	-.00341	.00054	.01219
#2	-.00449	.00229	.01705	.00192	-.00385	.00086	.01179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00118	.00052	.00675	.00216	.00324
SDev	.00046	.00033	.00012	.00413	.00000
%RSD	39.306	64.126	1.7139	190.76	.05965
#1	.00085	.00028	.00683	-.00075	.00324
#2	.00151	.00075	.00667	.00508	.00324
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11849	--	--	--	--	--	--
SDev	32.02490	--	--	--	--	--	--
%RSD	.2702792	--	--	--	--	--	--
#1	11871	--	--	--	--	--	--
#2	11826	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-1 Operator:
Run Time: 10/29/01 12:15:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00103	6.0627	.00328	.03158	.01865	.00009	76.725
SDev	.00069	.0011	.00052	.00070	.00018	.00002	.105
%RSD	66.518	.01851	15.919	2.2163	.95327	20.251	.13704
#1	-.00152	6.0635	.00365	.03207	.01877	.00010	76.651
#2	-.00055	6.0619	.00291	.03108	.01852	.00007	76.799
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00029	-.00018	-.00070	L.01833	.02664	5.0115
SDev	.00013	.00021	.00060	.00063	.00535	.00029	.0085
%RSD	66.876	73.564	327.00	90.071	29.192	1.0810	.17022
#1	-.00030	.00044	-.00060	-.00114	L.02211	.02684	5.0054
#2	-.00011	.00014	.00024	-.00025	L.01454	.02644	5.0175
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.30325	.00068	.00123	8.5397	.00141	.00025	.00161
SDev	.00184	.00001	.00012	.1268	.00036	.00039	.00084
%RSD	.60544	1.8144	9.6378	1.4848	25.962	157.57	51.852
#1	.30454	.00068	.00131	8.4501	.00167	.00052	.00102
#2	.30195	.00067	.00114	8.6294	.00115	-.00003	.00220
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00210	.00106	.73213	-.00001	-.00264	.00219	.01440
SDev	.00204	.00070	.00084	.00014	.00005	.00042	.00002
%RSD	97.357	65.898	.11523	1542.7	1.8640	19.180	.15057
#1	-.00354	.00056	.73154	.00009	-.00260	.00190	.01438
#2	-.00065	.00155	.73273	-.00011	-.00267	.00249	.01441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00024	.00542	-.00029	.00363
SDev	.00477	.00297	.00662	.00205	.00000
%RSD	387.31	1223.2	122.07	701.59	.09104
#1	-.00214	.00186	.00074	.00116	.00363
#2	.00460	-.00234	.01010	-.00174	.00362
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11629	--	--	--	--	--	--
SDev	21.74215	--	--	--	--	--	--
%RSD	.1869653	--	--	--	--	--	--
#1	11614	--	--	--	--	--	--
#2	11644	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-2 Operator:
Run Time: 10/29/01 12:20:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	.30567	.00176	.03336	.00651	.00008	50.260
SDev	.00004	.00151	.00104	.00076	.00017	.00002	.185
%RSD	11.404	.49308	59.001	2.2683	2.6666	20.016	.36850
#1	-.00037	.30460	.00103	.03283	.00638	.00007	50.129
#2	-.00032	.30673	.00250	.03390	.00663	.00009	50.391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00008	.00104	.00002	L.06721	.07670	11.543
SDev	.00004	.00029	.00021	.00012	.01087	.00026	.049
%RSD	677.61	367.05	19.742	625.92	16.176	.33792	.42663
#1	-.00003	.00028	.00119	-.00007	L.05952	.07651	11.508
#2	.00002	-.00012	.00090	.00011	L.07490	.07688	11.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.4474	.00768	.00137	16.632	-.00013	-.00004	.00314
SDev	.0120	.00009	.00032	.062	.00061	.00002	.00088
%RSD	.49050	1.2281	23.233	.37577	484.79	43.899	27.930
#1	2.4389	.00761	.00114	16.588	-.00056	-.00005	.00376
#2	2.4559	.00774	.00159	16.676	.00031	-.00003	.00252
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00093	.00426	.04932	.00879	-.00455	.00799	.01141
SDev	.00113	.00033	.00008	.00023	.00104	.00017	.00015
%RSD	121.13	7.7694	.16171	2.5807	22.794	2.1853	1.2765
#1	-.00173	.00403	.04926	.00863	-.00382	.00787	.01131
#2	-.00013	.00450	.04937	.00895	-.00529	.00812	.01151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00295	-.00153	.00892	.00026	.00761
SDev	.00008	.00006	.00035	.00114	.00007
%RSD	2.5603	4.0647	3.9548	442.40	.86551
#1	.00301	-.00157	.00916	.00106	.00756
#2	.00290	-.00149	.00867	-.00055	.00765
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11846	--	--	--	--	--	--
SDev	28.53424	--	--	--	--	--	--
%RSD	.2408844	--	--	--	--	--	--
#1	11866	--	--	--	--	--	--
#2	11825	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-3 Operator:
Run Time: 10/29/01 12:26:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	.96787	.00179	.03515	.00829	.00016	14.343
SDev	.00072	.00153	.00037	.00007	.00004	.00004	.014
%RSD	104.15	.15782	20.729	.20315	.49290	22.228	.09748
#1	-.00119	.96679	.00205	.03520	.00832	.00014	14.353
#2	-.00018	.96895	.00153	.03510	.00826	.00019	14.333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00013	.00007	.00076	-.00060	L.31687	.32849	8.8912
SDev	.00001	.00018	.00028	.00059	.00284	.00073	.0095
%RSD	6.9043	242.01	37.257	97.373	.89573	.22331	.10732
#1	-.00012	-.00005	.00056	-.00102	L.31887	.32901	8.8844
#2	-.00013	.00020	.00096	-.00019	L.31486	.32798	8.8979
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.52459	.00313	-.00067	12.934	.00039	.00014	.00157
SDev	.00172	.00003	.00038	.156	.00103	.00009	.00048
%RSD	.32836	1.1136	56.695	1.2057	260.21	60.280	30.463
#1	.52338	.00315	-.00093	12.824	-.00033	.00020	.00190
#2	.52581	.00310	-.00040	13.044	.00112	.00008	.00123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00208	.00313	.06117	.00903	-.00062	.00103	.01452
SDev	.00028	.00033	.00009	.00016	.00217	.00023	.00011
%RSD	13.351	10.662	.14316	1.7424	348.72	22.186	.72336
#1	-.00228	.00290	.06123	.00892	-.00216	.00087	.01459
#2	-.00189	.00337	.06111	.00914	.00091	.00119	.01444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00081	-.00019	.00562	-.00046	.00085
SDev	.00208	.00117	.00441	.00292	.00000
%RSD	255.55	607.28	78.535	637.07	.46967
#1	-.00066	.00063	.00250	.00161	.00085
#2	.00228	-.00102	.00874	-.00252	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	7.970834	--	--	--	--	--	--
%RSD	.0676129	--	--	--	--	--	--
#1	11783	--	--	--	--	--	--
#2	11795	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-1 Operator:
Run Time: 10/29/01 12:32:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00028	.30389	.00235	.03677	.02131	.00014	28.581
SDev	.00175	.00144	.00464	.00041	.00000	.00002	.070
%RSD	623.04	.47359	197.62	1.1089	.01708	11.716	.24535
#1	-.00152	.30287	-.00093	.03706	.02131	.00013	28.631
#2	.00096	.30491	.00563	.03648	.02131	.00016	28.532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00007	.00047	.00023	-.00039	L.39412	.40251	3.6119
SDev	.00006	.00022	.00058	.00105	.00100	.00027	.0134
%RSD	78.307	46.937	254.90	272.21	.25263	.06714	.37028
#1	-.00011	.00032	-.00018	-.00113	L.39482	.40270	3.6025
#2	-.00003	.00063	.00064	.00036	L.39341	.40232	3.6214
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0773	.00412	-.00043	5.2546	.00076	.00029	.00234
SDev	.0022	.00004	.00045	.2726	.00032	.00098	.00140
%RSD	.10414	1.0496	104.26	5.1880	42.478	332.50	60.112
#1	2.0789	.00415	-.00011	5.0618	.00053	.00099	.00333
#2	2.0758	.00409	-.00075	5.4473	.00098	-.00040	.00134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00253	.00443	.28323	.00490	-.00563	.00068	.01499
SDev	.00218	.00192	.00111	.00006	.00022	.00069	.00009
%RSD	86.124	43.337	.39254	1.2768	3.9150	102.03	.58151
#1	-.00099	.00307	.28402	.00486	-.00547	.00019	.01493
#2	-.00407	.00579	.28244	.00495	-.00578	.00117	.01505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00140	-.00026	.00876	-.00087	.01272
SDev	.00355	.00324	.00278	.00349	.00006
%RSD	252.71	1253.5	31.698	400.94	.43642
#1	-.00110	.00203	.00680	.00160	.01268
#2	.00391	-.00255	.01073	-.00334	.01276
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11690	--	--	--	--	--	--
SDev	1.981142	--	--	--	--	--	--
%RSD	.0169475	--	--	--	--	--	--
#1	11691	--	--	--	--	--	--
#2	11688	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-2 Operator:
Run Time: 10/29/01 12:37:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	4.1140	.00054	.01945	.00688	.00027	14.853
SDev	.00053	.0017	.00181	.00118	.00019	.00002	.019
%RSD	69.753	.04032	334.01	6.0561	2.8283	6.9759	.13014
#1	-.00114	4.1128	-.00074	.01861	.00674	.00026	14.866
#2	-.00039	4.1151	.00182	.02028	.00702	.00029	14.839
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00043	.00253	.00013	L.70380	.71738	12.294
SDev	.00016	.00094	.00068	.00023	.00975	.00170	.002
%RSD	183.48	215.96	26.813	177.24	1.3855	.23746	.01871
#1	-.00020	-.00023	.00205	-.00003	L.69690	.71858	12.296
#2	.00003	.00109	.00301	.00029	L.71069	.71617	12.292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.7242	.00774	-.00058	14.469	.00072	-.00034	.00164
SDev	.0021	.00008	.00011	.262	.00073	.00028	.00005
%RSD	.05644	.98433	18.416	1.8115	102.51	83.264	3.0100
#1	3.7257	.00769	-.00065	14.284	.00020	-.00053	.00161
#2	3.7228	.00779	-.00050	14.654	.00124	-.00014	.00168
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00278	.00353	.07709	.02284	-.00387	.00412	.01767
SDev	.00178	.00031	.00016	.00047	.00144	.00043	.00026
%RSD	64.104	8.6952	.21300	2.0692	37.136	10.375	1.4885
#1	-.00404	.00375	.07720	.02250	-.00489	.00382	.01749
#2	-.00152	.00331	.07697	.02317	-.00286	.00442	.01786
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00049	-.00075	.00457	.00018	.00713
SDev	.00026	.00029	.00099	.00042	.00005
%RSD	53.824	38.530	21.718	230.04	.73798
#1	.00030	-.00095	.00387	.00048	.00709
#2	.00067	-.00054	.00527	-.00011	.00717
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11670	--	--	--	--	--	--
SDev	1.320301	--	--	--	--	--	--
%RSD	.0113134	--	--	--	--	--	--
#1	11669	--	--	--	--	--	--
#2	11671	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 12:43:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50832	10.145	1.0060	.98468	.97042	.49761	10.189
SDev	.00002	.019	.0002	.00212	.00136	.00050	.022
%RSD	.00371	.19033	.02024	.21521	.14032	.10019	.21824
#1	.50834	10.132	1.0061	.98618	.96946	.49726	10.173
#2	.50831	10.159	1.0058	.98318	.97138	.49796	10.204
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51046	1.0164	1.0015	.98180	10.178	10.158	9.9273
SDev	.00018	.0008	.0014	.00027	.019	.012	.0267
%RSD	.03626	.08283	.14127	.02736	.18256	.11712	.26849
#1	.51033	1.0158	1.0005	.98199	10.165	10.149	9.9085
#2	.51059	1.0170	1.0025	.98161	10.192	10.166	9.9462
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.220	1.0004	1.0075	10.042	1.0251	1.0379	1.0219
SDev	.026	.0014	.0031	.057	.0011	.0004	.0010
%RSD	.25825	.14482	.30704	.56957	.11031	.03866	.10146
#1	10.201	.99933	1.0053	10.082	1.0243	1.0376	1.0226
#2	10.238	1.0014	1.0097	10.002	1.0259	1.0382	1.0211
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0168	1.0310	.98712	1.0134	1.0241	.99414	1.0189
SDev	.0029	.0001	.00088	.0019	.0003	.00098	.0011
%RSD	.28576	.00553	.08887	.18495	.03013	.09902	.10595
#1	1.0189	1.0310	.98650	1.0121	1.0243	.99345	1.0182
#2	1.0148	1.0311	.98774	1.0147	1.0239	.99484	1.0197
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0296	1.0421	1.0318	1.0169	1.0817
SDev	.0017	.0002	.0024	.0004	.0058
%RSD	.16510	.02372	.22815	.03728	.53329
#1	1.0284	1.0422	1.0335	1.0171	1.0777
#2	1.0308	1.0419	1.0302	1.0166	1.0858
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					10.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11675	--	--	--	--	--	--
SDev	28.34573	--	--	--	--	--	--
%RSD	.2427803	--	--	--	--	--	--
#1	11696	--	--	--	--	--	--
#2	11655	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 12:48:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00751	.00166	.00130	.00032	.00056	.01574
SDev	.00028	.00787	.00020	.00069	.00037	.00005	.00345
%RSD	381.99	104.78	11.912	53.456	115.14	9.6435	21.898
#1	.00027	.01308	.00180	.00179	.00058	.00060	.01818
#2	-.00013	.00195	.00152	.00081	.00006	.00052	.01331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00062	.00038	-.00067	.00014	.00945	.00176
SDev	.00009	.00018	.00029	.00035	.01923	.00185	.00765
%RSD	56.871	28.205	76.855	52.164	13740.	19.631	434.09
#1	.00023	.00075	.00059	-.00043	.01374	.01076	.00717
#2	.00010	.00050	.00017	-.00092	-.01346	.00813	-.00365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01063	.00056	.00087	-.02628	.00039	.00103	.00068
SDev	.00739	.00022	.00048	.00562	.00089	.00008	.00085
%RSD	69.519	39.232	55.263	21.401	229.93	8.1790	125.14
#1	.01585	.00071	.00122	-.02231	.00101	.00109	.00008
#2	.00540	.00040	.00053	-.03026	-.00024	.00097	.00127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00055	.00054	.00047	-.00043	.00016	.00055
SDev	.00370	.00184	.00014	.00048	.00201	.00012	.00042
%RSD	285.81	331.72	25.395	102.57	468.51	76.399	76.360
#1	.00391	.00185	.00063	.00080	-.00185	.00024	.00084
#2	-.00132	-.00075	.00044	.00013	.00099	.00007	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00136	.00546	-.00171	.00067
SDev	.00125	.00075	.00299	.00022	.00013
%RSD	342.92	55.357	54.711	13.058	19.736
#1	-.00052	.00189	.00335	-.00156	.00076
#2	.00125	.00083	.00758	-.00187	.00057
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11772	--	--	--	--	--	--
SDev	2.782852	--	--	--	--	--	--
%RSD	.0236398	--	--	--	--	--	--
#1	11774	--	--	--	--	--	--
#2	11770	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-3 Operator:
Run Time: 10/29/01 12:54:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	3.1656	.00158	.01308	.00145	.00031	6.9078
SDev	.00051	.0022	.00101	.00045	.00010	.00002	.0047
%RSD	403.16	.06911	63.978	3.4470	7.0689	5.7253	.06874
#1	-.00023	3.1640	.00230	.01276	.00153	.00029	6.9044
#2	.00049	3.1671	.00087	.01340	.00138	.00032	6.9112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00089	.00473	.00090	L.12053	.12423	.61194
SDev	.00010	.00013	.00061	.00012	.00453	.00115	.00549
%RSD	121.81	14.467	12.920	13.633	3.7617	.92314	.89798
#1	.00001	.00098	.00516	.00081	L.12374	.12341	.60805
#2	.00015	.00080	.00429	.00099	L.11733	.12504	.61583
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98521	.00171	.00179	.67460	.00087	.00057	.00037
SDev	.00279	.00002	.00023	.06445	.00018	.00085	.00097
%RSD	.28270	1.0864	12.976	9.5540	20.700	148.91	257.38
#1	.98718	.00173	.00162	.72017	.00074	.00118	.00106
#2	.98324	.00170	.00195	.62902	.00100	-.00003	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.00147	.01186	.08760	.00132	.00512	.02005
SDev	.00019	.00008	.00002	.00112	.00072	.00026	.00005
%RSD	5.9938	5.3978	.13168	1.2751	54.702	5.0634	.23571
#1	.00323	.00152	.01185	.08839	.00081	.00530	.02008
#2	.00297	.00141	.01188	.08681	.00183	.00494	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00102	.00425	-.00156	.00018
SDev	.00059	.00158	.00141	.00215	.00001
%RSD	187.34	154.86	33.212	137.87	6.6363
#1	-.00073	.00213	.00325	-.00004	.00018
#2	.00010	-.00010	.00525	-.00308	.00019
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11783	--	--	--	--	--	--
SDev	21.36512	--	--	--	--	--	--
%RSD	.1813228	--	--	--	--	--	--
#1	11798	--	--	--	--	--	--
#2	11768	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator:
Run Time: 10/29/01 13:00:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00804	.18479	.00949	.18007	.01766	.00964	.93167
SDev	.00102	.00034	.00271	.00020	.00001	.00000	.00196
%RSD	12.743	.18284	28.543	.11355	.03224	.01501	.21074
#1	.00731	.18456	.01141	.18021	.01766	.00964	.93306
#2	.00876	.18503	.00758	.17992	.01765	.00964	.93029
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00970	.01924	.00919	.01731	.18610	.19085	1.7483
SDev	.00005	.00021	.00030	.00032	.00003	.00043	.0104
%RSD	.55852	1.1050	3.2923	1.8660	.01675	.22309	.59569
#1	.00966	.01939	.00897	.01709	.18608	.19115	1.7409
#2	.00974	.01909	.00940	.01754	.18612	.19055	1.7556
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.93842	.01887	.01900	1.6989	.00941	.00974	.01805
SDev	.00185	.00002	.00052	.1191	.00011	.00085	.00126
%RSD	.19759	.10029	2.7184	7.0094	1.1427	8.7645	6.9826
#1	.93973	.01886	.01937	1.6147	.00933	.01035	.01894
#2	.93711	.01889	.01864	1.7831	.00948	.00914	.01716
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09439	.01004	.00903	.00925	.02076	.01802	.03939
SDev	.00052	.00066	.00003	.00015	.00064	.00028	.00009
%RSD	.54828	6.5665	.38248	1.6051	3.0712	1.5661	.23230
#1	.09402	.00957	.00901	.00936	.02121	.01782	.03933
#2	.09475	.01050	.00905	.00915	.02030	.01822	.03946
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01138	.00892	.02160	.01627	.10438		
SDev	.00017	.00136	.00006	.00186	.00014		
%RSD	1.4862	15.292	.27999	11.424	.13733		
#1	.01126	.00939	.02164	.01759	.10448		
#2	.01150	.00796	.02156	.01496	.10428		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11791	--	--	--	--	--	--
SDev	15.42308	--	--	--	--	--	--
%RSD	.1308091	--	--	--	--	--	--
#1	11780	--	--	--	--	--	--
#2	11801	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator:
Run Time: 10/29/01 13:05:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	507.45	-.00019	.00459	.00188	.00115	467.32
SDev	.00118	.06	.00172	.00054	.00059	.00005	.41
%RSD	126.13	.01274	886.30	11.684	31.664	3.9071	.08762
#1	.00177	507.49	-.00141	.00497	.00230	.00118	467.61
#2	.00010	507.40	.00102	.00421	.00146	.00112	467.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00442	-.00135	.00012	200.13	182.72	.01217
SDev	.00000	.00070	.00086	.00136	.08	.11	.05542
%RSD	.23215	15.859	64.051	1105.2	.04017	.05990	455.34
#1	-.00108	.00492	-.00074	.00109	200.19	182.80	.05136
#2	-.00108	.00393	-.00196	-.00084	200.07	182.65	-.02701
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	538.20	.00345	-.00158	.19802	-.00062	.00084	.00100
SDev	.05	.00004	.00037	.31921	.00075	.00099	.00341
%RSD	.00974	1.1163	23.224	161.20	119.90	117.97	342.23
#1	538.23	.00348	-.00184	.42374	-.00009	.00014	.00341
#2	538.16	.00343	-.00132	-.02770	-.00115	.00154	-.00142
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00053	.00060	-.00163	-.00280	.00733	-.00186	.00433
SDev	.00203	.00120	.00009	.00069	.00272	.00036	.00035
%RSD	385.91	199.63	5.7465	24.672	37.145	19.384	8.0186
#1	-.00196	-.00025	-.00157	-.00231	.00541	-.00161	.00409
#2	.00091	.00145	-.00170	-.00328	.00926	-.00212	.00458
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00094	.00079	-.00468	.00383	.00053		
SDev	.00059	.00119	.00117	.00453	.00017		
%RSD	62.607	150.92	24.989	118.36	31.995		
#1	.00052	-.00005	-.00385	.00703	.00065		
#2	.00135	.00163	-.00550	.00062	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10491	--	--	--	--	--	--
SDev	84.32939	--	--	--	--	--	--
%RSD	.8038586	--	--	--	--	--	--
#1	10431	--	--	--	--	--	--
#2	10550	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 10/29/01 13:11:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57548	523.99	1.0468	1.0369	1.1180	.52214	479.03
SDev	.00171	1.22	.0012	.0037	.0048	.00221	.82
%RSD	.29715	.23220	.11572	.35842	.43323	.42361	.17014
#1	.57669	524.85	1.0477	1.0395	1.1215	.52370	479.60
#2	.57427	523.13	1.0460	1.0342	1.1146	.52058	478.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49186	.97159	1.0156	1.0915	211.29	191.35	14.817
SDev	.00188	.00420	.0035	.0064	.74	.48	.034
%RSD	.38220	.43271	.34736	.58959	.35048	.25190	.22778
#1	.49319	.97457	1.0181	1.0961	211.81	191.69	14.793
#2	.49053	.96862	1.0131	1.0870	210.77	191.01	14.841
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	551.15	1.0322	1.0496	12.042	.96252	.99928	1.0382
SDev	2.24	.0036	.0014	.122	.00156	.00089	.0034
%RSD	.40698	.35014	.12981	1.0093	.16237	.08952	.32631
#1	552.74	1.0348	1.0506	11.956	.96363	.99991	1.0406
#2	549.56	1.0297	1.0486	12.128	.96142	.99865	1.0358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0656	1.0422	1.0986	1.0794	1.0093	1.0398	.97983
SDev	.0033	.0007	.0043	.0039	.0002	.0029	.00199
%RSD	.31406	.06436	.38970	.35670	.01705	.28145	.20362
#1	1.0680	1.0417	1.1016	1.0822	1.0095	1.0419	.98124
#2	1.0632	1.0426	1.0956	1.0767	1.0092	1.0378	.97842
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98490	1.0065	1.0356	1.0396	1.1746		
SDev	.00324	.0003	.0045	.0028	.0007		
%RSD	.32922	.02759	.43676	.27137	.06093		
#1	.98719	1.0063	1.0388	1.0416	1.1751		
#2	.98261	1.0067	1.0324	1.0376	1.1741		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10427	--	--	--	--	--	--
SDev	20.13873	--	--	--	--	--	--
%RSD	.1931456	--	--	--	--	--	--
#1	10412	--	--	--	--	--	--
#2	10441	--	--	--	--	--	--

Method: 60102007 Sample Name: CCV1 Operator:
Run Time: 10/29/01 13:16:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51641	10.402	1.0156	1.0017	.98656	.50504	10.406
SDev	.00021	.028	.0033	.0043	.00104	.00008	.030
%RSD	.04002	.27195	.32726	.42636	.10585	.01613	.29083
#1	.51626	10.422	1.0132	.99872	.98730	.50498	10.427
#2	.51655	10.382	1.0179	1.0048	.98582	.50510	10.384
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51907	1.0307	1.0182	.99579	10.347	10.336	10.168
SDev	.00019	.0003	.0007	.00114	.008	.016	.028
%RSD	.03641	.03055	.06509	.11491	.08006	.15726	.27197
#1	.51920	1.0305	1.0177	.99499	10.353	10.348	10.149
#2	.51894	1.0309	1.0186	.99660	10.341	10.325	10.188
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.395	1.0168	1.0248	10.066	1.0426	1.0500	1.0277
SDev	.024	.0005	.0011	.294	.0006	.0041	.0037
%RSD	.23528	.04961	.10603	2.9202	.05372	.39519	.35955
#1	10.413	1.0172	1.0256	9.8579	1.0422	1.0529	1.0303
#2	10.378	1.0165	1.0241	10.274	1.0430	1.0470	1.0251
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0319	1.0448	1.0049	1.0310	1.0436	1.0099	1.0353
SDev	.0006	.0036	.0012	.0003	.0034	.0007	.0010
%RSD	.05402	.34560	.12355	.02848	.32188	.07147	.09244
#1	1.0316	1.0422	1.0058	1.0312	1.0412	1.0094	1.0346
#2	1.0323	1.0473	1.0040	1.0308	1.0460	1.0104	1.0360
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0392	1.0553	1.0330	1.0250	Q1.1261		
SDev	.0029	.0048	.0010	.0050	.0005		
%RSD	.28232	.45069	.10123	.48952	.04277		
#1	1.0413	1.0587	1.0337	1.0286	Q1.1257		
#2	1.0372	1.0520	1.0323	1.0215	Q1.1264		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11621	--	--	--	--	--	--
SDev	82.48981	--	--	--	--	--	--
%RSD	.7098396	--	--	--	--	--	--
#1	11563	--	--	--	--	--	--
#2	11679	--	--	--	--	--	--

Method: 60102007 Sample Name: CCB1 Operator:
Run Time: 10/29/01 13:22:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00315	.00094	.00001	.00022	.00046	.01496
SDev	.00059	.00668	.00238	.00058	.00037	.00001	.00153
%RSD	89.664	211.97	254.45	4637.1	167.43	1.4543	10.247
#1	.00024	.00787	.00262	.00042	.00048	.00047	.01604
#2	.00107	-.00157	-.00075	-.00040	-.00004	.00046	.01388
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.00057	.00070	-.00012	-.00613	.00581	.00855
SDev	.00006	.00052	.00005	.00028	.01497	.00117	.00819
%RSD	33.291	90.583	7.2413	232.33	244.20	20.029	95.732
#1	.00022	.00094	.00073	.00008	.00445	.00664	.00276
#2	.00014	.00020	.00066	-.00032	-.01671	.00499	.01434
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00726	.00036	.00125	.23627	.00005	.00052	.00029
SDev	.00806	.00016	.00044	.22734	.00011	.00035	.00282
%RSD	111.03	44.899	35.386	96.223	220.57	67.325	961.83
#1	.01296	.00048	.00157	.07551	-.00003	.00027	-.00170
#2	.00156	.00025	.00094	.39702	.00013	.00076	.00229
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00001	.00039	.00026	.00002	.00061	.00061
SDev	.00343	.00020	.00004	.00037	.00091	.00000	.00037
%RSD	27925.	1629.0	10.124	139.89	4082.2	.39698	59.990
#1	.00241	-.00013	.00041	.00052	.00066	.00061	.00087
#2	-.00244	.00016	.00036	.00000	-.00062	.00061	.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00366	-.00105	.00664	-.00288	.00040
SDev	.00399	.00147	.00615	.00116	.00001
%RSD	109.00	139.78	92.560	40.504	3.1817
#1	.00084	-.00001	.00229	-.00370	.00041
#2	.00648	-.00209	.01099	-.00205	.00039
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11831	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2092845	--	--	--	--	--	--
#1	11849	--	--	--	--	--	--
#2	11814	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD130 Operator:
Run Time: 10/29/01 13:28:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00236	.00297	.00059	.00011	.00031	.00607
SDev	.00050	.00300	.00174	.00244	.00025	.00000	.00132
%RSD	254.19	127.12	58.476	410.15	226.88	1.0991	21.770
#1	.00016	.00024	.00174	-.00113	-.00007	.00030	.00701
#2	-.00055	.00448	.00420	.00232	.00028	.00031	.00514
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00001	.00011	-.00072	.00484	.00247	.01568
SDev	.00018	.00032	.00011	.00038	.01256	.00028	.00816
%RSD	676.30	3141.0	107.87	51.917	259.55	11.384	51.999
#1	.00010	-.00021	.00019	-.00046	-.00404	.00267	.02145
#2	-.00015	.00023	.00003	-.00099	.01372	.00227	.00992
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00390	.00017	.00010	-.02870	.00024	-.00051	-.00072
SDev	.00271	.00000	.00049	.00573	.00053	.00008	.00026
%RSD	69.519	.21593	511.33	19.959	224.20	16.133	36.135
#1	.00198	.00017	.00044	-.03275	-.00014	-.00057	-.00054
#2	.00582	.00017	-.00025	-.02465	.00062	-.00045	-.00091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00046	.00012	.00022	-.00017	.00016	.00317
SDev	.00341	.00053	.00002	.00025	.00031	.00095	.00020
%RSD	405.04	115.32	14.597	110.87	184.82	610.76	6.2935
#1	-.00157	.00084	.00014	.00005	-.00039	.00082	.00302
#2	.00325	.00009	.00011	.00040	.00005	-.00051	.00331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00076	-.00038	.00310	-.00263	.00016		
SDev	.00382	.00203	.00407	.00164	.00004		
%RSD	501.33	529.77	131.35	62.324	24.914		
#1	.00194	-.00182	.00598	-.00380	.00018		
#2	-.00346	.00105	.00022	-.00147	.00013		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11837	--	--	--	--	--	--
SDev	35.23174	--	--	--	--	--	--
%RSD	.2976387	--	--	--	--	--	--
#1	11862	--	--	--	--	--	--
#2	11812	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD130 Operator:
Run Time: 10/29/01 13:33:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49987	10.049	1.0075	.98892	.97953	.50128	10.127
SDev	.00017	.016	.0032	.00557	.00171	.00062	.013
%RSD	.03440	.16270	.31273	.56364	.17489	.12385	.12608
#1	.49975	10.038	1.0052	.98498	.97831	.50084	10.118
#2	.49999	10.061	1.0097	.99286	.98074	.50172	10.136
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51400	1.0032	1.0036	.97798	L10.092	10.100	9.9670
SDev	.00006	.0017	.0016	.00054	.018	.014	.0095
%RSD	.01265	.16946	.15690	.05508	.18253	.13666	.09508
#1	.51405	1.0020	1.0025	.97760	L10.079	10.090	9.9603
#2	.51396	1.0044	1.0047	.97836	L10.105	10.109	9.9737
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.092	1.0025	1.0144	9.8394	1.0209	1.0285	1.0121
SDev	.026	.0015	.0035	.1132	.0010	.0010	.0056
%RSD	.25590	.14637	.34588	1.1506	.09427	.10200	.55773
#1	10.074	1.0015	1.0119	9.9194	1.0216	1.0277	1.0081
#2	10.111	1.0035	1.0169	9.7593	1.0202	1.0292	1.0161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99697	1.0316	.99836	1.0054	1.0186	.99377	1.0288
SDev	.00168	.0017	.00202	.0023	.0008	.00136	.0009
%RSD	.16881	.16439	.20189	.22675	.07765	.13715	.09170
#1	.99578	1.0328	.99693	1.0037	1.0191	.99281	1.0282
#2	.99816	1.0304	.99978	1.0070	1.0180	.99473	1.0295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0207	1.0323	1.0249	1.0057	1.0781
SDev	.0001	.0015	.0019	.0075	.0027
%RSD	.00856	.14812	.18332	.74822	.25495
#1	1.0206	1.0313	1.0236	1.0004	1.0762
#2	1.0208	1.0334	1.0263	1.0111	1.0800
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11684	--	--	--	--	--	--
SDev	2.640602	--	--	--	--	--	--
%RSD	.0226011	--	--	--	--	--	--
#1	11682	--	--	--	--	--	--
#2	11685	--	--	--	--	--	--

Method: 60102007 Sample Name: 110538-1 Operator:
Run Time: 10/29/01 13:39:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.09463	.09834	.06229	.00513	.00037	19.888
SDev	.00103	.00538	.00259	.00113	.00025	.00001	.001
%RSD	532.77	5.6874	2.6328	1.8108	4.8083	3.7014	.00294
#1	-.00053	.09083	.09651	.06149	.00495	.00038	19.888
#2	.00092	.09844	.10017	.06309	.00530	.00036	19.889
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00066	.00064	.00165	L.02399	.02003	2.2476
SDev	.00011	.00064	.00052	.00065	.01094	.00023	.0295
%RSD	56.855	97.582	81.039	39.371	45.599	1.1686	1.3118
#1	.00012	.00020	.00027	.00119	L.01625	.02019	2.2268
#2	.00028	.00112	.00101	.00211	L.03172	.01986	2.2685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.3798	.00189	.00220	H136.05	.00089	.00119	.00407
SDev	.0001	.00002	.00005	.09	.00023	.00015	.00070
%RSD	.00502	1.1942	2.3165	.06257	25.510	12.580	17.244
#1	2.3799	.00187	.00223	H135.99	.00105	.00108	.00358
#2	2.3797	.00190	.00216	H136.11	.00073	.00129	.00457
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00153	.00066	.09717	.00213	-.00147	.00676	.06069
SDev	.00089	.00100	.00002	.00019	.00141	.00023	.00014
%RSD	57.997	150.69	.01972	9.1653	95.678	3.4665	.23105
#1	.00090	-.00004	.09719	.00199	-.00247	.00660	.06059
#2	.00215	.00137	.09716	.00226	-.00048	.00693	.06079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00151	.00728	.00247	.00022
SDev	.00122	.00084	.00060	.00075	.00002
%RSD	224.46	55.396	8.3000	30.407	6.9998
#1	.00141	.00092	.00686	.00194	.00021
#2	-.00032	.00210	.00771	.00300	.00023
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11915	--	--	--	--	--	--
SDev	6.602886	--	--	--	--	--	--
%RSD	.0554187	--	--	--	--	--	--
#1	11919	--	--	--	--	--	--
#2	11910	--	--	--	--	--	--

VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110599
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 24, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3631C-Q401	110599-1	3631C
17-3626A-Q401	110599-2	3626A
17-3630C-Q401	110599-3	3630C
17-36TB2-Q401	110599-4	36TB2

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 5, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3631C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746008.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 u
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	3		2.8
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	13		
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3631C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746008.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

256

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3631C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746008.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3626A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746009.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	0.9		0.86
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	5		4.8
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3626A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746009.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6u
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.94
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3626A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746009.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. _____ Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

	CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	003777-69-3	Furan, 2-pentyl-	21.26	2	JN

260

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3630C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746010.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.4	
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	27	
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	12	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

0.37

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3630C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746010.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 u
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 u
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3630C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746010.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746011.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746011.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110599-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746011.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.2	J
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	J
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	1.0	
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	43	E
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	110	E
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 d

274

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MS

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746005.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	8	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	8	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	60	E
74-97-5	Bromochloromethane	9	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	9	
79-01-6	Trichloroethene	140	E
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	9	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	9	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	9	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	21	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MS

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746005.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	9	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	11	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	11	
135-98-8	sec-Butylbenzene	11	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MSD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746006.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	8	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	7	
75-00-3	Chloroethane	9	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	11	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	62	E
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	130	E
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MSD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746006.D

Level: (low/med) LOW Date Received: 10/24/01

% Moisture: not dec. _____ Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	9	
98-06-6	tert-Butylbenzene	9	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	10	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	101	100	98	0
03	LCS	94	100	100	0
04	3609CMS	98	99	99	0
05	3609CMSD	102	100	101	0
06	3609C	93	99	93	0
07	3631C	97	96	96	0
08	3626A	105	99	98	0
09	3630C	100	99	97	0
10	36TB2	91	97	94	0

QC LIMITS

SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

280

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.38	10.00	93.85	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.99	10.00	99.87	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.21	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.80	10.00	88.02	30 to 152%	[ ]
3)	PM	Chloromethane	9.27	10.00	92.66	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.57	10.00	95.68	72 to 116%	[ ]
5)	T	Bromomethane	9.48	10.00	94.83	63 to 140%	[ ]
6)	T	Chloroethane	9.98	10.00	99.76	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	103.03	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.00	10.00	100.01	84 to 117%	[ ]
9)	T	Acetone	14.75	20.00	73.77	24 to 158%	[ ]
10)	T	Iodomethane	9.93	10.00	99.33	60 to 135%	[ ]
11)	T	Carbon disulfide	10.52	10.00	105.19	79 to 118%	[ ]
12)	T	Methylene chloride	9.91	10.00	99.09	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.49	10.00	94.86	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.68	10.00	96.79	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.39	10.00	93.85	90 to 114%	[ ]
16)	T	Vinyl acetate	13.89	20.00	69.44	75 to 114%	[*]
17)	T	Isopropyl ether	10.30	10.00	103.02	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.89	10.00	98.91	74 to 112%	[ ]
19)	T	2-Butanone	18.27	20.00	91.36	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.32	10.00	103.21	90 to 117%	[ ]
21)	T	Bromochloromethane	10.08	10.00	100.84	91 to 129%	[ ]
22)	CM	Chloroform	9.63	10.00	96.33	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.26	10.00	102.57	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.52	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	11.09	10.00	110.89	84 to 112%	[ ]
28)	T	Benzene	9.87	10.00	98.66	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.52	10.00	95.15	88 to 125%	[ ]
30)	T	Trichloroethene	10.05	10.00	100.45	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.13	10.00	101.29	87 to 112%	[ ]
32)	T	Dibromomethane	9.64	10.00	96.39	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.00	10.00	0.00	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.75	10.00	97.53	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.95	10.00	99.48	61 to 133%	[ ]
37)	CM	Toluene	9.86	10.00	98.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.04	10.00	100.40	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.87	10.00	98.68	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.19	10.00	101.88	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.06	10.00	100.57	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.82	10.00	98.21	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.80	10.00	98.01	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.30	20.00	91.51	70 to 128%	[ ]
45)	T	2-Hexanone	18.91	20.00	94.56	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.97	10.00	99.75	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.11	10.00	101.06	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.92	10.00	99.22	69 to 123%	[ ]
51)	T	m,p-Xylene	20.41	20.00	102.07	70 to 125%	[ ]
52)	T	o-Xylene	10.31	10.00	103.15	73 to 122%	[ ]
53)	T	Styrene	10.10	10.00	100.99	76 to 127%	[ ]
54)	PM	Bromoform	10.39	10.00	103.87	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.29	10.00	102.88	56 to 134%	[ ]
58)	T	Bromobenzene	9.74	10.00	97.40	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.48	10.00	94.75	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	9.92	10.00	99.25	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.37	10.00	103.69	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.03	10.00	100.28	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.26	10.00	102.59	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.96	10.00	99.56	84 to 125%	[ ]
65)	T	tert-Butylbenzene	10.03	10.00	100.31	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.41	10.00	104.13	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.37	10.00	103.68	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.89	10.00	98.88	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.65	10.00	106.53	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.84	10.00	98.44	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.81	10.00	98.10	87 to 115%	[ ]
72)	T	n-Butylbenzene	11.08	10.00	110.82	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.31	10.00	103.14	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.00	10.00	109.97	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.74	10.00	117.38	74 to 140%	[ ]
76)	T	Naphthalene	10.84	10.00	108.40	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.76	10.00	107.62	43 to 204%	[ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128% [ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169% [ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123% [ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125% [ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122% [ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127% [ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127% [ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134% [ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159% [ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140% [ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204% [ ]

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Initial Calibration

Non-Spiked Sample: 30746007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30746005.D	30746006.D
Sample :	110611-1 MS	110611-1 MSD
Acq Time:	1 Nov 2001 10:48	1 Nov 2001 11:31

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	9.3	10	93	9.8	98	10.2	102	77-119
s-Toluene-d8	9.8	10	98	9.9	99	10.0	100	78-118
s-4-Bromofluorobenze	9.3	10	93	9.9	99	10.1	101	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	10	8.12	8.48	81	85	4.3	12	35-160
Chloromethane	0.0	10	8.42	7.84	84	78	7.2	10	60-124
Vinyl chlorid	0.2	10	9.26	9.38	91	92	1.3	9	74-125
Bromomethane	0.0	10	8.34	6.75	83	68	21.0#	17	59-152
Chloroethane	0.0	10	9.66	9.41	97	94	2.6	10	73-123
Trichlorofluo	0.0	10	9.68	10.00	97	100	3.3	10	84-125
1,1-Dichloroe	0.3	10	9.88	10.00	96	97	1.2	13	84-119
Acetone	38.3	20	11.65	46.23	-133#	40	99.0#	44	19-201
Iodomethane	0.0	10	13.18	11.62	132	116	12.6	15	53-154
Carbon disulf	0.2	10	10.97	11.09	107	109	1.1	12	79-123
Methylene chl	0.0	10	9.54	10.00	95	100	4.7	18	81-121
trans-1,2-Dic	1.0	10	9.99	10.63	90	97	6.8	9	87-115
Methyl tert-b	0.0	10	8.85	10.20	89	102	14.1	32	68-133
1,1-Dichloroe	0.0	10	9.04	9.34	90	93	3.2	10	85-121
Vinyl acetate	0.0	20	12.61	14.27	63#	71	12.4	20	69-122
Isopropyl eth	0.0	10	9.61	10.53	96	105	9.1	18	79-118
2,2-Dichlorop	0.0	10	9.50	9.63	95	96	1.4	10	78-116
2-Butanone	91.9	20	111.22	131.73	97	199#	69.4#	47	65-133
cis-1,2-Dichl	43.4	10	59.83	61.58	164#	182#	10.1	14	88-122
Bromochlorome	0.0	10	9.42	9.58	94	96	1.7	18	85-130
Chloroform	0.0	10	9.48	9.89	95	99	4.3	13	87-117
1,1,1-Trichlo	0.0	10	9.96	10.22	100	102	2.6	10	90-120
Carbon tetrac	0.0	10	9.40	8.90	94	89	5.5	11	78-121
1,1-Dichlorop	0.0	10	10.20	9.98	102	100	2.1	12	84-118
Benzene	0.0	10	9.85	9.74	99	97	1.1	8	67-148
1,2-Dichloroe	0.0	10	9.29	9.80	93	98	5.3	17	85-129
Trichloroethe	114.9	10	138.70	133.55	238#	187#	24.2#	11	86-115
1,2-Dichlorop	0.0	10	9.89	10.16	99	102	2.7	12	88-114
Dibromomethan	0.0	10	9.30	9.78	93	98	5.1	20	81-130

2-Chloroethyl	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-150
Bromodichloro	0.0	10	9.45	9.87	95	99	4.3	15	87-121
cis-1,3-Dichl	0.0	10	9.52	9.52	95	95	0.0	19	65-133
Toluene	0.0	10	9.72	9.66	97	97	0.6	8	86-123
trans-1,3-Dic	0.0	10	9.55	9.71	95	97	1.7	19	53-144
1,1,2-Trichlo	0.0	10	9.27	10.18	93	102	9.3	20	85-125
Tetrachloroet	0.0	10	10.26	10.00	103	100	2.5	13	87-131
1,3-Dichlorop	0.0	10	9.59	10.35	96	103	7.6	19	73-126
Dibromochloro	0.0	10	9.41	10.20	94	102	8.1	27	83-122
1,2-Dibromoet	0.0	10	9.51	10.14	95	101	6.4	26	36-153
4-Methyl-2-pe	0.0	20	16.57	19.57	83	98	16.6	35	64-133
2-Hexanone	0.0	20	16.56	19.96	83	100	18.6	36	49-144
Chlorobenzene	0.0	10	9.97	9.83	100	98	1.4	10	66-156
1,1,1,2-Tetra	0.0	10	9.91	10.10	99	101	1.9	12	84-124
1-Chlorohexan	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	10	9.99	9.55	100	95	4.5	14	78-132
m,p-Xylene	0.0	20	20.54	19.75	103	99	3.9	20	76-129
o-Xylene	0.0	10	10.28	9.96	103	100	3.2	13	76-127
Styrene	0.0	10	9.89	9.73	99	97	1.6	43	55-138
Bromoform	0.0	10	9.81	10.51	98	105	6.9	29	62-124
Isopropylbenz	0.0	10	10.37	9.93	104	99	4.3	20	65-149
Bromobenzene	0.0	10	10.04	9.74	100	97	3.0	14	73-140
1,1,2,2-Tetra	0.0	10	9.36	9.95	94	99	6.1	25	75-127
1,2,3-Trichlo	0.0	10	9.68	10.20	97	102	5.3	26	75-127
n-Propylbenze	0.0	10	10.64	9.95	106	100	6.7	16	76-123
2-Chlorotolue	0.0	10	10.25	9.55	102	95	7.1	15	85-122
4-Chlorotolue	0.0	10	10.41	9.68	104	97	7.3	13	87-122
1,3,5-Trimeth	0.0	10	10.12	9.42	101	94	7.2	25	72-140
tert-Butylben	0.0	10	10.10	9.45	101	94	6.6	16	73-113
1,2,4-Trimeth	0.0	10	10.59	9.95	106	99	6.2	30	50-158
sec-Butylbenz	0.0	10	10.65	9.80	107	98	8.4	18	62-144
1,3-Dichlorob	0.0	10	10.08	9.63	101	96	4.6	10	89-118
p-Isopropylto	0.0	10	10.87	10.12	109	101	7.1	22	35-190
1,4-Dichlorob	0.0	10	9.79	9.48	98	95	3.3	10	78-138
1,2-Dichlorob	0.0	10	9.92	9.81	99	98	1.0	12	86-120
n-Butylbenzen	0.0	10	11.20	10.48	112	105	6.6	40	0-270
1,2-Dibromo-3	0.0	10	9.62	10.58	96	106	9.5	33	71-118
1,2,4-Trichlo	0.0	10	11.01	10.98	110	110	0.3	32	30-230
Hexachlorobut	0.0	10	12.38	11.19	124	112	10.1	18	70-156
Naphthalene	0.0	10	10.58	11.21	106	112	5.7	42	17-260
1,2,3-Trichlo	0.0	10	10.85	11.04	108	110	1.8	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:19:06 2001

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Lab File ID: 30746003.D Lab Sample ID: BUW148ABK BLA

Date Analyzed: 11/1/01 Time Analyzed: 9:26

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS	BUW148ALCS LCS 11-01	30746004.D	10:05
02	3609CMS	110611-1 MS	30746005.D	10:48
03	3609CMSD	110611-1 MSD	30746006.D	11:31
04	3609C	110611-1	30746007.D	12:14
05	3631C	110599-1	30746008.D	12:58
06	3626A	110599-2	30746009.D	13:38
07	3630C	110599-3	30746010.D	14:21
08	36TB2	110599-4	30746011.D	15:06

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Lab File ID: 30746001.D BFB Injection Date: 11/1/01

Instrument ID: BUBBA BFB Injection Time: 8:05

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	69.5
175	4.0 - 9.0% of mass 174	5.0 (7.2)1
176	93.0 - 101.0% of mass 174	67.3 (96.9)1
177	5.0 - 9.0% of mass 176	4.4 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30746002.D	11/1/01	8:46
02	VBLKBA	BUW148ABK BLANK 11-	30746003.D	11/1/01	9:26
03	LCS	BUW148ALCS LCS 11-01	30746004.D	11/1/01	10:05
04	3609CMS	110611-1 MS	30746005.D	11/1/01	10:48
05	3609CMSD	110611-1 MSD	30746006.D	11/1/01	11:31
06	3609C	110611-1	30746007.D	11/1/01	12:14
07	3631C	110599-1	30746008.D	11/1/01	12:58
08	3626A	110599-2	30746009.D	11/1/01	13:38
09	3630C	110599-3	30746010.D	11/1/01	14:21
10	36TB2	110599-4	30746011.D	11/1/01	15:06

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Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	ISTD							
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	ISTD							
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene			0.284	0.150	0.209	0.178	0.162	-----
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integra
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------			ISTD	----------			
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------			ISTD	----------			
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

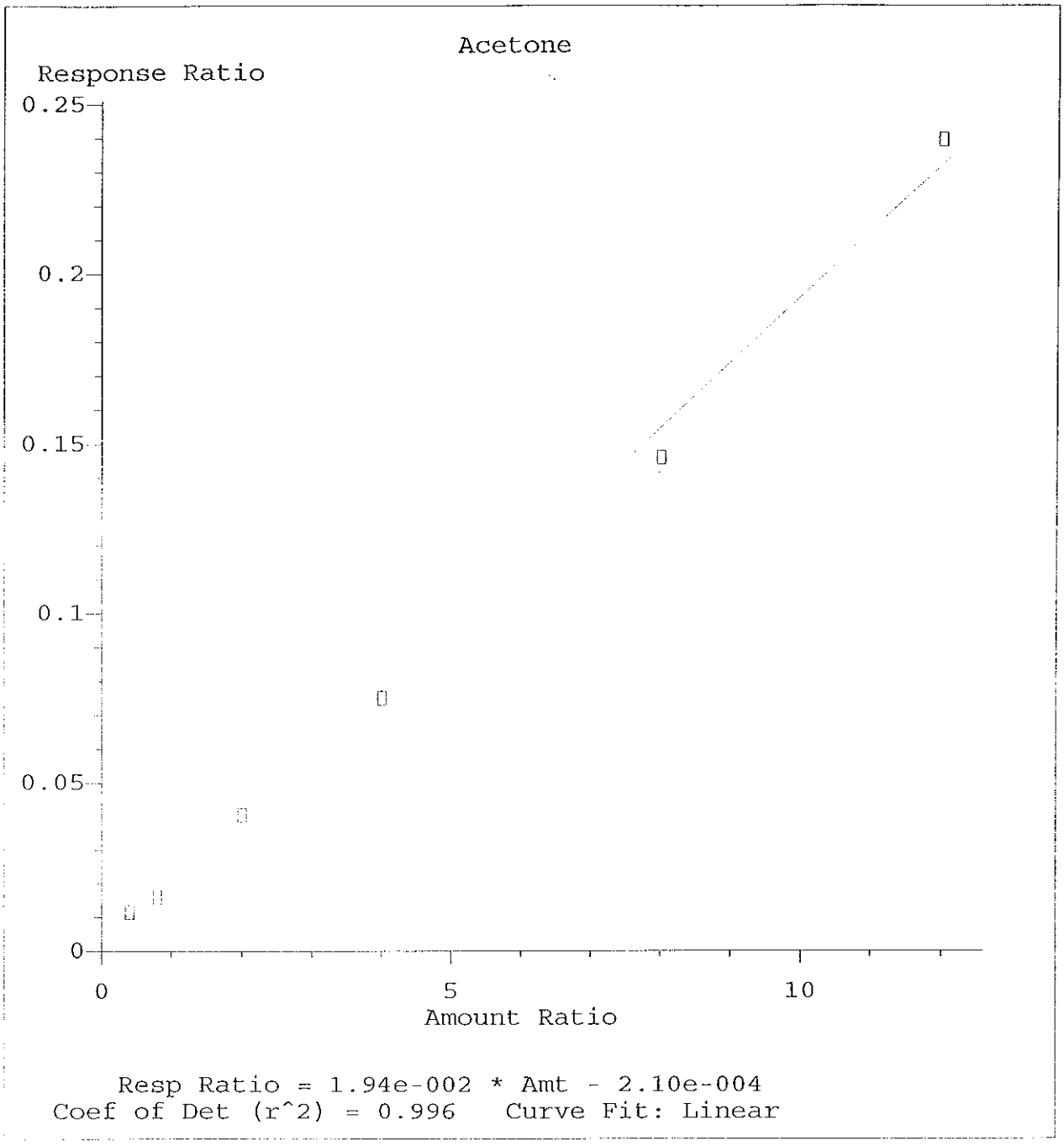
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

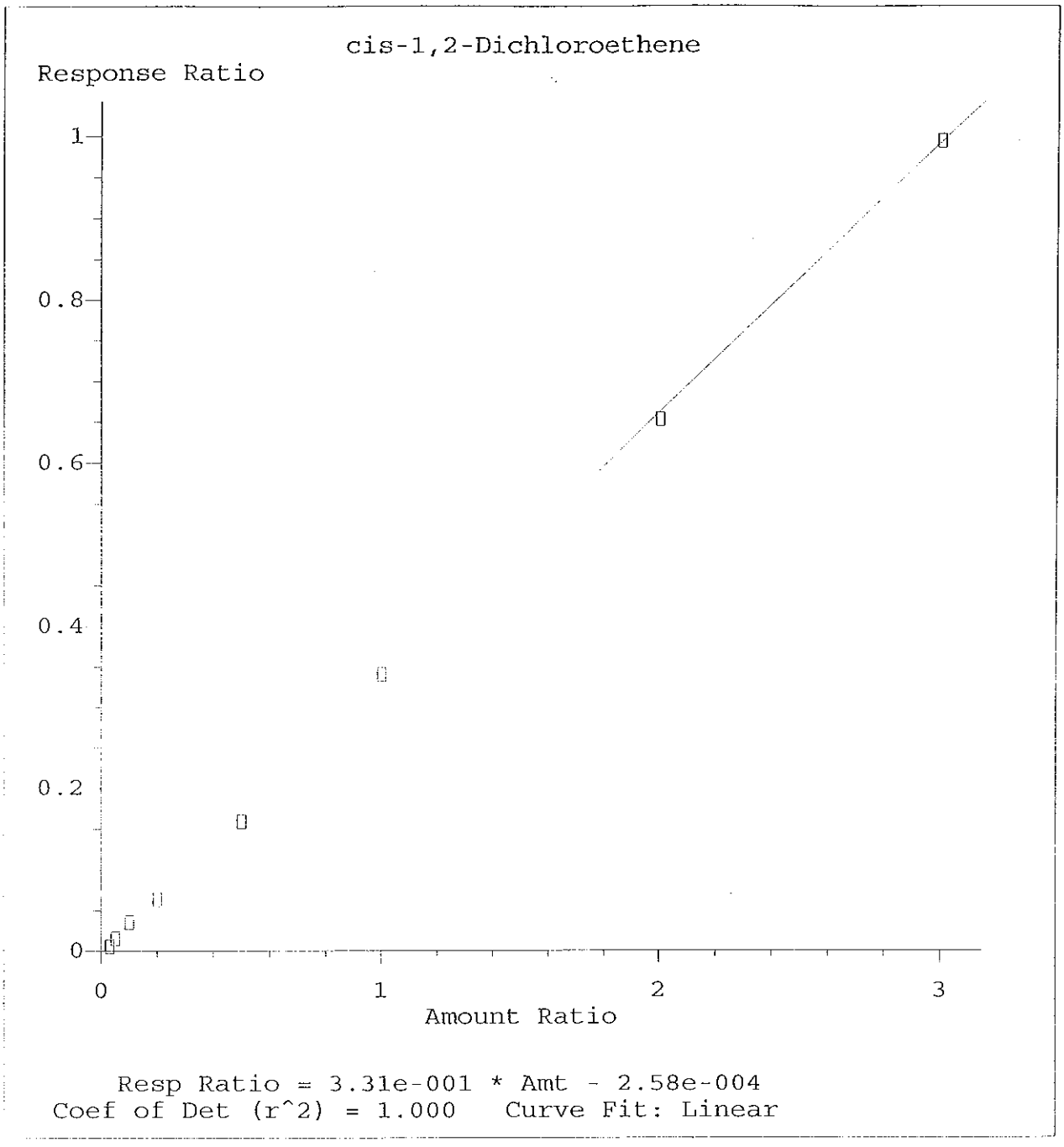
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

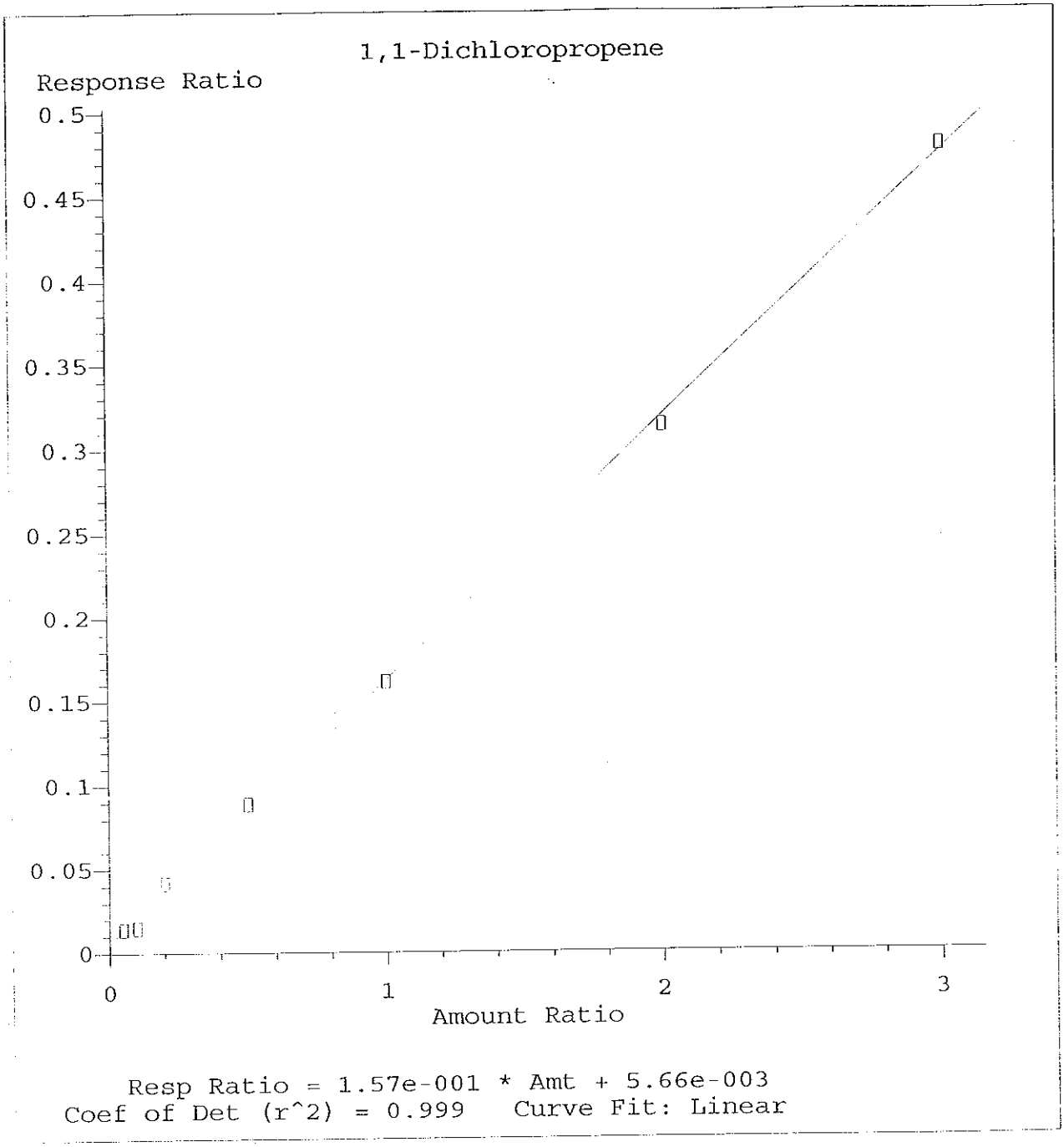
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



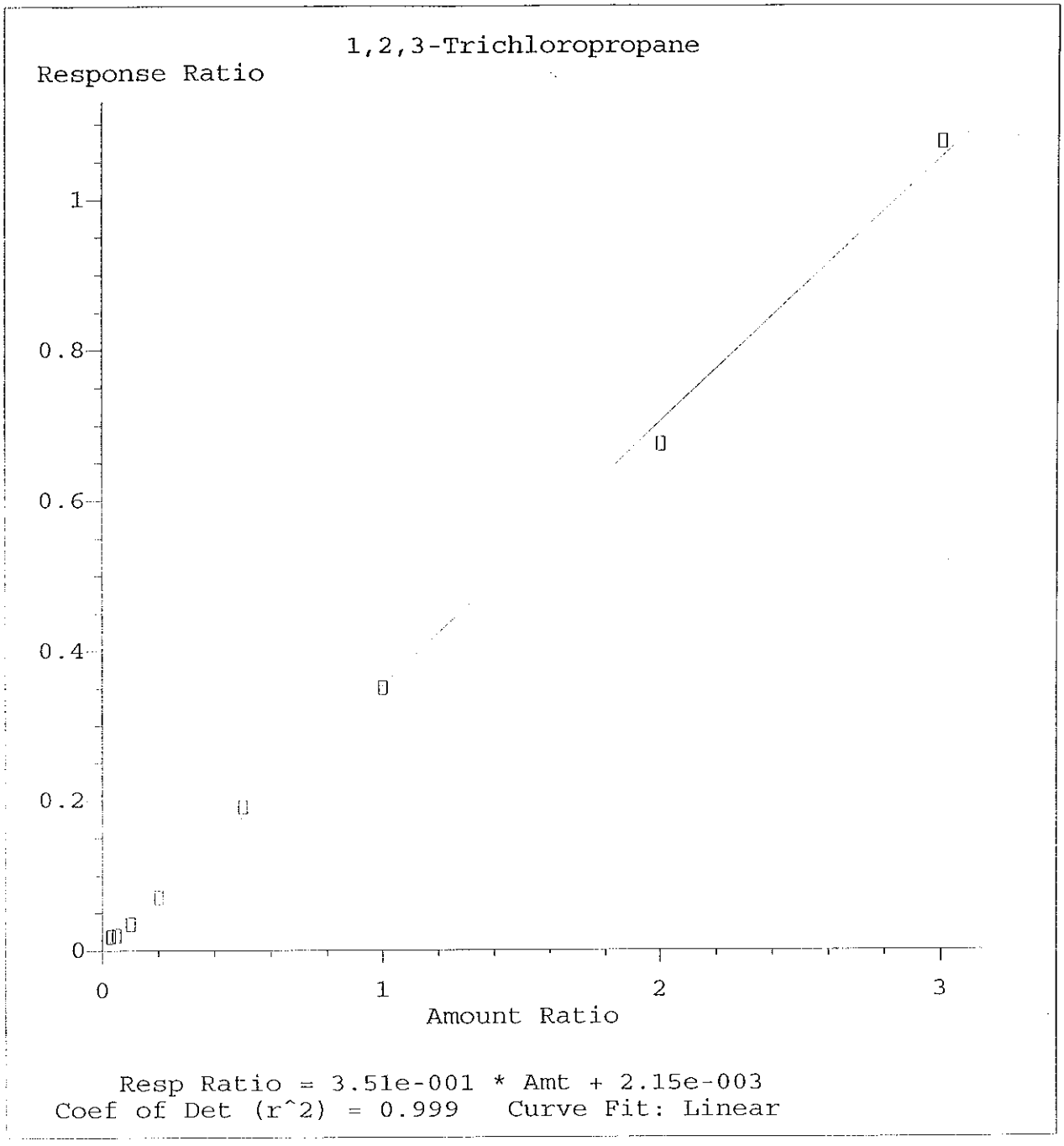
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



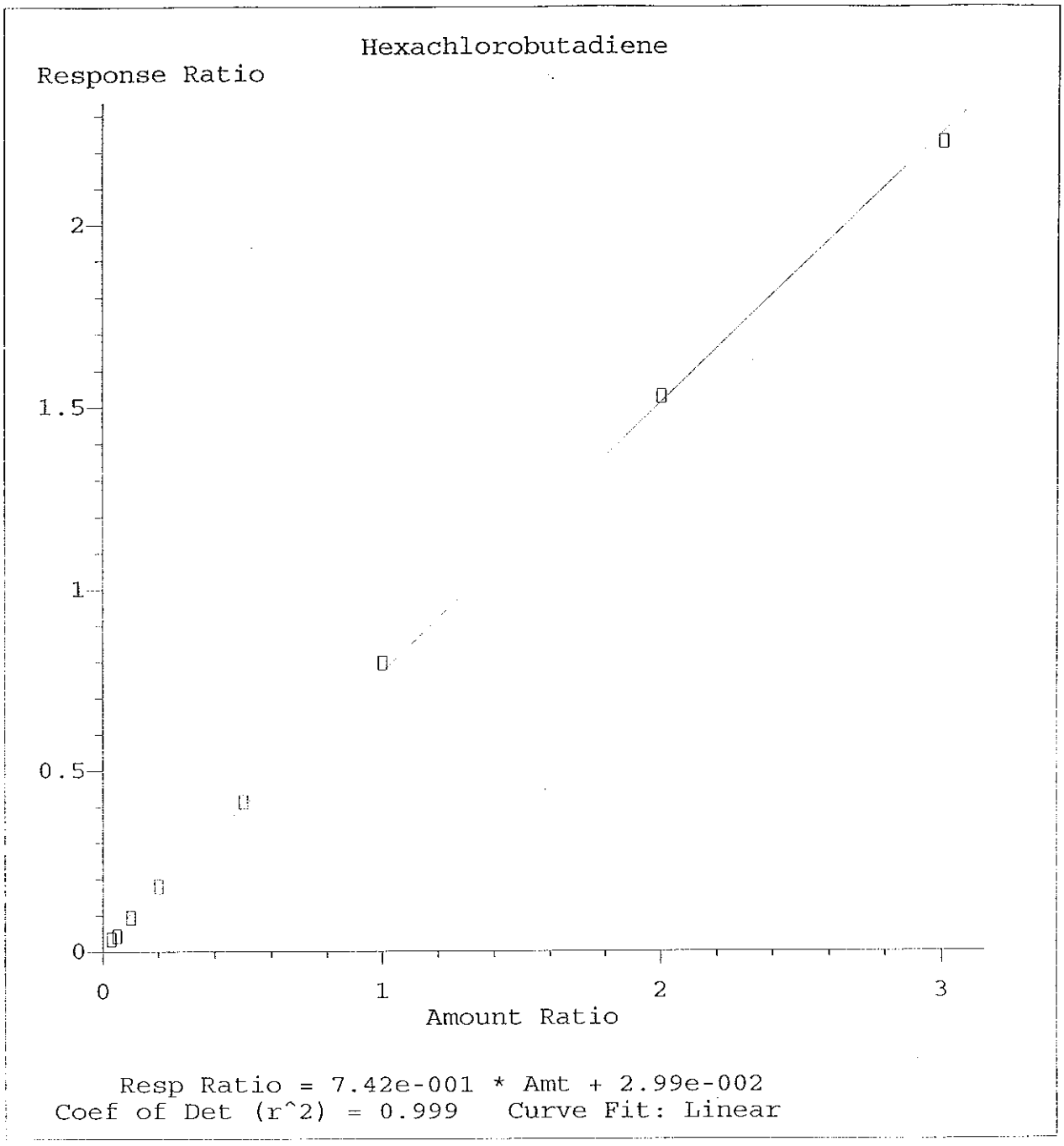
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	102	0.00
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	101	0.00
3	PM	Chloromethane	0.324	0.308	4.9	99	0.00
4	CM	Vinyl chloride	0.340	0.321	5.6#	101	0.00
5	TM	Bromomethane	0.307	0.276	10.1	95	0.00
6	TM	Chloroethane	0.199	0.190	4.5	99	0.00
7	TM	Trichlorofluoromethane	0.557	0.546	2.0	102	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	101	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.367	8.9	93	0.00
11	TM	Carbon disulfide	1.028	0.982	4.5	99	0.00
12	TM	Methylene chloride	0.267	0.259	3.0	99	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.348	4.1	98	0.00
14	TM	Methyl tert-butyl ether	0.399	0.414	-3.8	106	0.00
15	PM	1,1-Dichloroethane	0.645	0.622	3.6	99	0.00
16	TM	Vinyl acetate	0.489	0.484	1.0	101	0.00
17	TM	Isopropyl ether	1.015	1.030	-1.5	101	0.00
18	TM	2,2-Dichloropropane	0.478	0.446	6.7	94	0.00
19	TM	2-Butanone	0.040	0.042#	-5.0	106	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.320	-2.9	96	0.00
21	TM	Bromochloromethane	0.130	0.135	-3.8	106	0.00
22	CM	Chloroform	0.645	0.620	3.9#	99	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.528	2.0	99	0.00
24	S	s-Dibromofluoromethane	0.463	0.465	-0.4	102	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.459	8.2	101	0.00
27	TM	1,1-Dichloropropene	0.186	0.164	11.8	102	0.00
28	TM	Benzene	1.086	1.048	3.5	99	0.00
29	TM	1,2-Dichloroethane	0.217	0.208	4.1	99	0.00
30	TM	Trichloroethene	0.437	0.419	4.1	100	0.00
31	CM	1,2-Dichloropropane	0.363	0.352	3.0#	99	0.00
32	TM	Dibromomethane	0.162	0.163	-0.6	103	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.063	-5.0	101	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.395	-1.0	102	0.00
36	S	s-Toluene-d8	0.947	0.957	-1.1	101	0.00
37	CM	Toluene	0.699	0.665	4.9#	99	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.251	-4.1	103	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.162	0.0	103	0.00
40	TM	Tetrachloroethene	0.505	0.484	4.2	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.313	-1.3	103	0.00
42	TM	Dibromochloromethane	0.295	0.301	-2.0	103	0.00
43	TM	1,2-Dibromoethane	0.200	0.205	-2.5	103	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.118	-3.5	110	0.00
45	TM	2-Hexanone	0.069	0.076	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
47	PM	Chlorobenzene	1.050	0.994	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.451	3.0	100	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	95	0.00
50	CM	Ethylbenzene	0.567	0.530	6.5#	99	0.00
51	TM	m,p-Xylene	0.683	0.651	4.7	98	0.00
52	TM	o-Xylene	0.635	0.607	4.4	98	0.00
53	TM	Styrene	1.007	0.987	2.0	99	0.00
54	PM	Bromoform	0.245	0.259	-5.7	106	0.00
55	TM	Isopropylbenzene	2.040	1.960	3.9	99	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.775	-2.0	102	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
58	TM	Bromobenzene	0.928	0.866	6.7	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	105	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.363	8.1	106	0.00
61	TM	n-Propylbenzene	0.909	0.863	5.1	99	0.00
62	TM	2-Chlorotoluene	0.856	0.773	9.7	99	0.00
63	TM	4-Chlorotoluene	2.990	2.831	5.3	101	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.572	7.6	99	0.00
65	TM	tert-Butylbenzene	1.825	1.685	7.7	101	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.306	5.6	97	0.00
67	TM	sec-Butylbenzene	4.012	3.803	5.2	100	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.588	7.1	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	100	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.534	5.9	105	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.278	6.0	101	0.00
72	TM	n-Butylbenzene	2.797	2.892	-3.4	100	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	106	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.804	-5.4	105	0.00
75	TM	Hexachlorobutadiene	0.873	0.803	8.0	103	0.00
76	TM	Naphthalene	0.582	0.627	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.605	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	102	0.00
2	TM	Dichlorodifluoromethane	10.000	9.346	6.5	101	0.00
3	PM	Chloromethane	10.000	9.498	5.0	99	0.00
4	CM	Vinyl chloride	10.000	9.443	5.6#	101	0.00
5	TM	Bromomethane	10.000	8.996	10.0	95	0.00
6	TM	Chloroethane	10.000	9.510	4.9	99	0.00
7	TM	Trichlorofluoromethane	10.000	9.813	1.9	102	0.00
8	CM	1,1-Dichloroethene	10.000	9.629	3.7#	101	0.00
9	TM	Acetone	40.000	40.305	-0.8	106	0.00
10	TM	Iodomethane	10.000	9.123	8.8	93	0.00
11	TM	Carbon disulfide	10.000	9.551	4.5	99	0.00
12	TM	Methylene chloride	10.000	9.687	3.1	99	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.581	4.2	98	0.00
14	TM	Methyl tert-butyl ether	10.000	10.363	-3.6	106	0.00
15	PM	1,1-Dichloroethane	10.000	9.644	3.6	99	0.00
16	TM	Vinyl acetate	20.000	19.788	1.1	101	0.00
17	TM	Isopropyl ether	10.000	10.145	-1.4	101	0.00
18	TM	2,2-Dichloropropane	10.000	9.333	6.7	94	0.00
19	TM	2-Butanone	40.000	41.098	-2.7	106	0.00
20	TM	cis-1,2-Dichloroethene	10.000	9.710	2.9	96	0.00
21	TM	Bromochloromethane	10.000	10.443	-4.4	106	0.00
22	CM	Chloroform	10.000	9.602	4.0#	99	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.793	2.1	99	0.00
24	S	s-Dibromofluoromethane	10.000	10.049	-0.5	102	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	9.189	8.1	101	0.00
27	TM	1,1-Dichloropropene	10.000	10.116	-1.2	102	0.00
28	TM	Benzene	10.000	9.653	3.5	99	0.00
29	TM	1,2-Dichloroethane	10.000	9.602	4.0	99	0.00
30	TM	Trichloroethene	10.000	9.579	4.2	100	0.00
31	CM	1,2-Dichloropropane	10.000	9.687	3.1#	99	0.00
32	TM	Dibromomethane	10.000	10.090	-0.9	103	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.519	-5.2	101	0.00
34	TM	Bromodichloromethane	10.000	9.821	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	10.000	10.100	-1.0	102	0.00
36	S	s-Toluene-d8	10.000	10.098	-1.0	101	0.00
37	CM	Toluene	10.000	9.521	4.8#	99	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.394	-3.9	103	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.976	0.2	103	0.00
40	TM	Tetrachloroethene	10.000	9.579	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.115	-1.2	103	0.00
42	TM	Dibromochloromethane	10.000	10.203	-2.0	103	0.00
43	TM	1,2-Dibromoethane	10.000	10.232	-2.3	103	0.00
44	TM	4-Methyl-2-pentanone	40.000	41.561	-3.9	110	0.00
45	TM	2-Hexanone	40.000	44.026	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	101	0.00
47	PM	Chlorobenzene	10.000	9.469	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.709	2.9	100	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	95	0.00
50	CM	Ethylbenzene	10.000	9.341	6.6#	99	0.00
51	TM	m,p-Xylene	20.000	19.076	4.6	98	0.00
52	TM	o-Xylene	10.000	9.560	4.4	98	0.00
53	TM	Styrene	10.000	9.796	2.0	99	0.00
54	PM	Bromoform	10.000	10.581	-5.8	106	0.00
55	TM	Isopropylbenzene	10.000	9.606	3.9	99	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.198	-2.0	102	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	0.00
58	TM	Bromobenzene	10.000	9.324	6.8	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.656	3.4	105	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.251	-2.5	106	0.00
61	TM	n-Propylbenzene	10.000	9.496	5.0	99	0.00
62	TM	2-Chlorotoluene	10.000	9.031	9.7	99	0.00
63	TM	4-Chlorotoluene	10.000	9.471	5.3	101	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.238	7.6	99	0.00
65	TM	tert-Butylbenzene	10.000	9.235	7.7	101	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.442	5.6	97	0.00
67	TM	sec-Butylbenzene	10.000	9.480	5.2	100	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.293	7.1	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.696	3.0	100	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.410	5.9	105	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.405	6.0	101	0.00
72	TM	n-Butylbenzene	10.000	10.340	-3.4	100	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.003	-0.0	106	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.537	-5.4	105	0.00
75	TM	Hexachlorobutadiene	10.000	10.461	-4.6	103	0.00
76	TM	Naphthalene	10.000	10.768	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.633	-6.3	106	0.00

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Lab File ID (Standard): 30746002.D Date Analyzed: 11/1/01

Instrument ID: BUBBA Time Analyzed: 8:46

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	3027449	7.21	3043688	9.05	2174579	15.31
	UPPER LIMIT	6054898	7.71	6087376	9.55	4349158	15.81
	LOWER LIMIT	1513725	6.71	1521844	8.55	1087290	14.81
	EPA SAMPLE NO.						
01	VBLKBA	3173460	7.25	3152823	9.06	2245110	15.31
02	LCS	3117602	7.25	3081087	9.07	2131075	15.33
03	3609CMS	3072249	7.24	2998298	9.06	2053033	15.32
04	3609CMSD	3091188	7.25	3129479	9.06	2197938	15.31
05	3609C	2848937	7.22	2758973	9.06	1839341	15.32
06	3631C	3262908	7.23	3169397	9.06	2216827	15.32
07	3626A	3023416	7.24	3047744	9.07	2211554	15.33
08	3630C	3190094	7.24	3183839	9.06	2244139	15.32
09	36TB2	3108628	7.22	2981142	9.05	1989489	15.31

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110599

Lab File ID (Standard): 30746002.D Date Analyzed: 11/01/01

Instrument ID: BUBBA Time Analyzed: 08:46

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1234004	22.68				
	UPPER LIMIT	2468008	22.18				
	LOWER LIMIT	617002	23.18				
	EPA SAMPLE NO.						
01	VBLKBA	1088520	22.68				
02	LCS	1195267	22.70				
03	3609CMS	1111202	22.69				
04	3609CMSD	1240862	22.69				
05	3609C	831719	22.69				
06	3631C	1063236	22.69				
07	3626A	1108654	22.70				
08	3630C	1093632	22.68				
09	36TB2	920785	22.67				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. MC 10-31-01

Calibration Files

0.3	=30744006.D	0.5	=30744007.D	1.0	=30744005.D
2.0	=30744004.D	5.0	=30744003.D	10	=30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RS
1)	I	i-Pentafluorobenzene	----------	ISTD	----------					
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
								L	M= 0.019 R^2=0.99(	
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331 R^2=1.000	
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------	ISTD	----------					
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157 R^2=0.999	
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

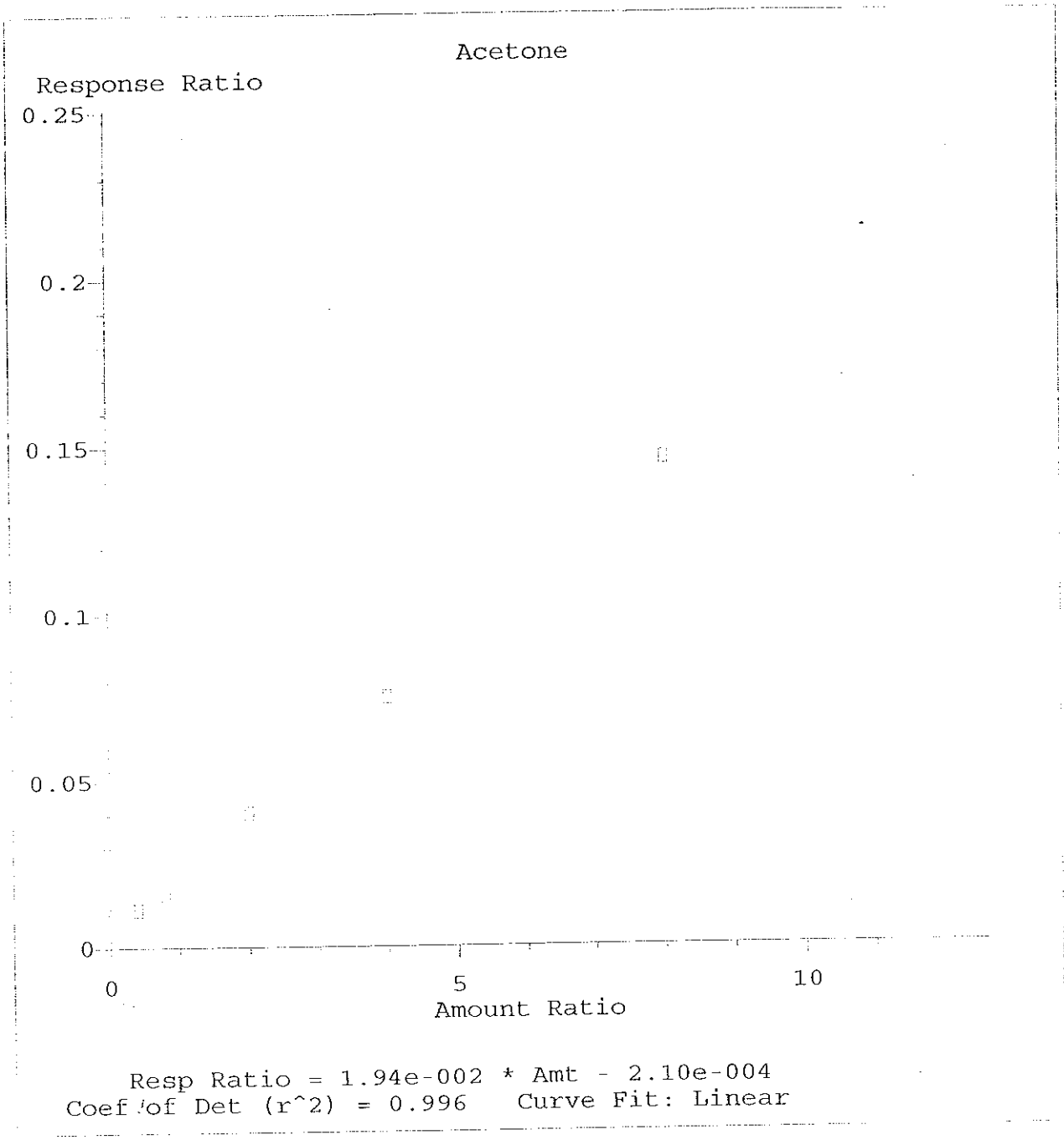
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

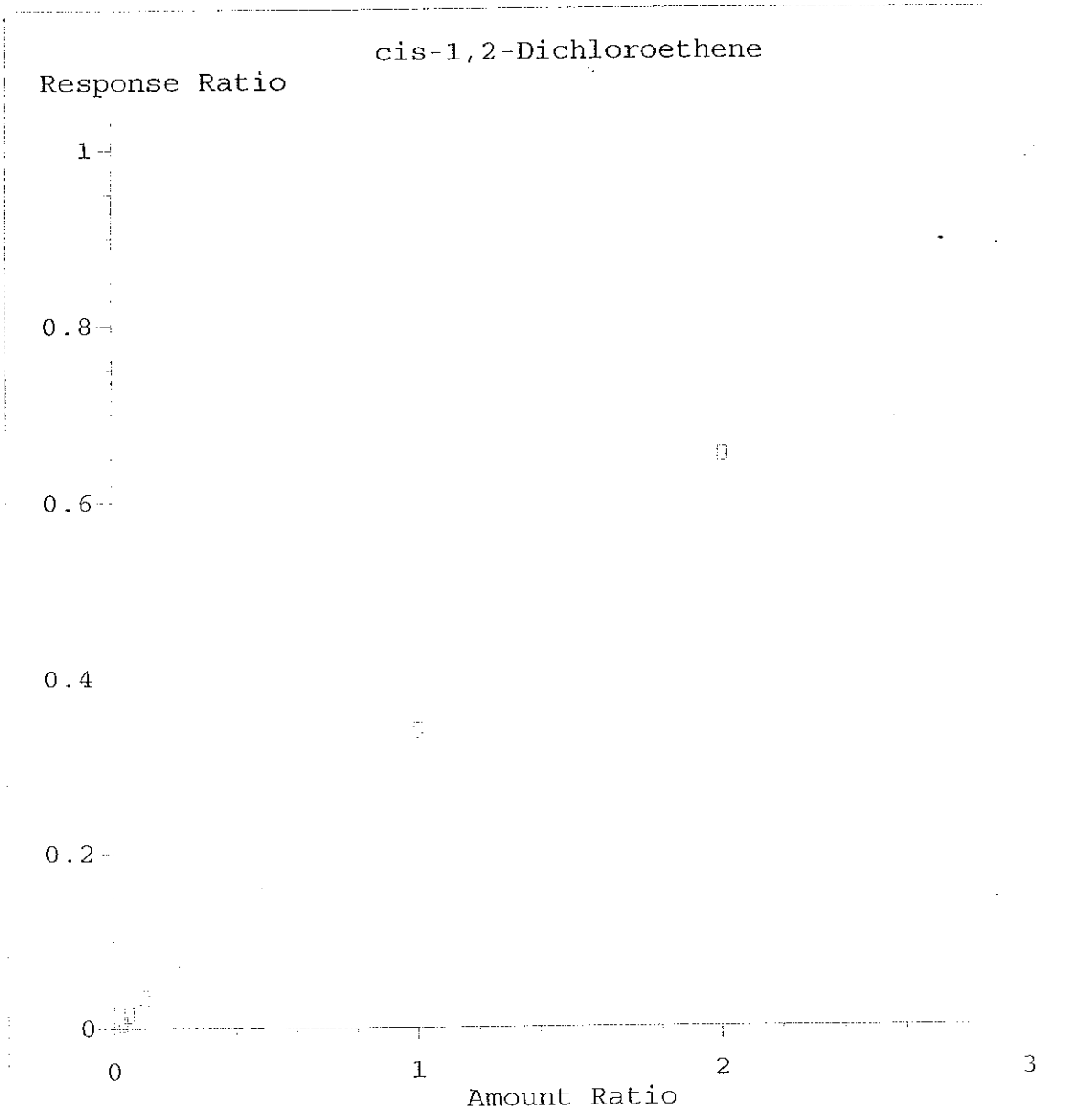
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

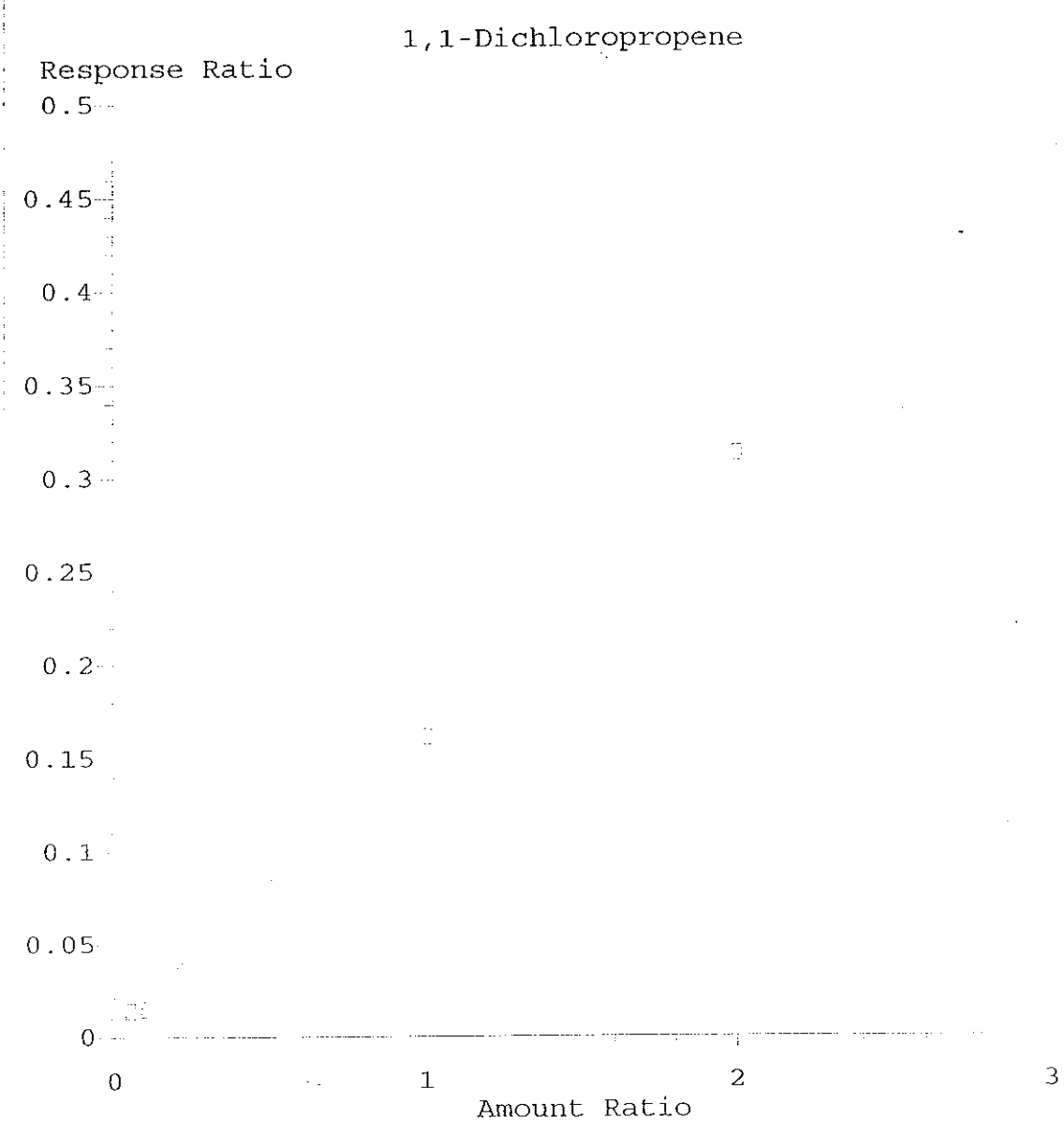


Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



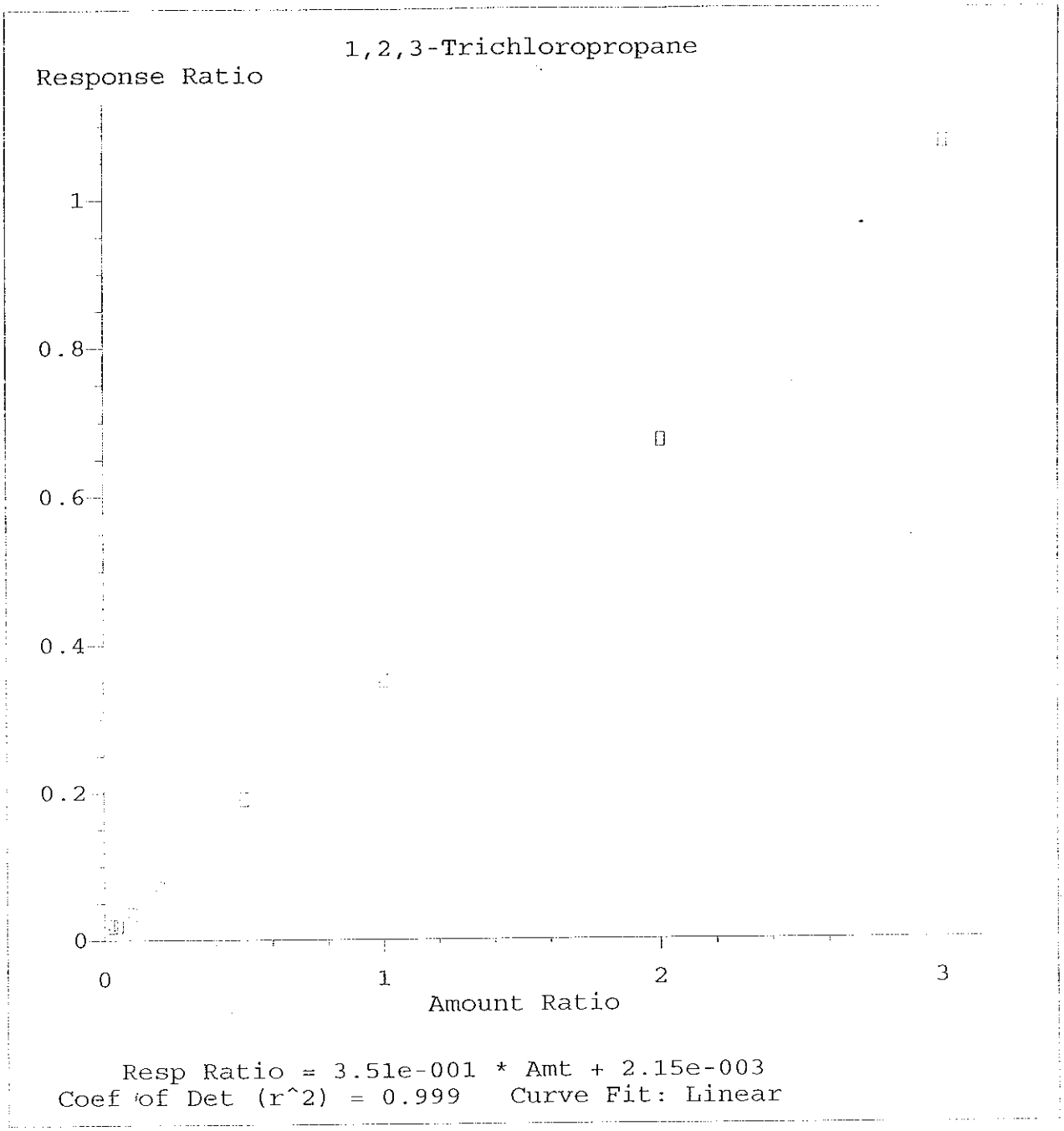
Resp Ratio = 3.31e-001 * Amt - 2.58e-004
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

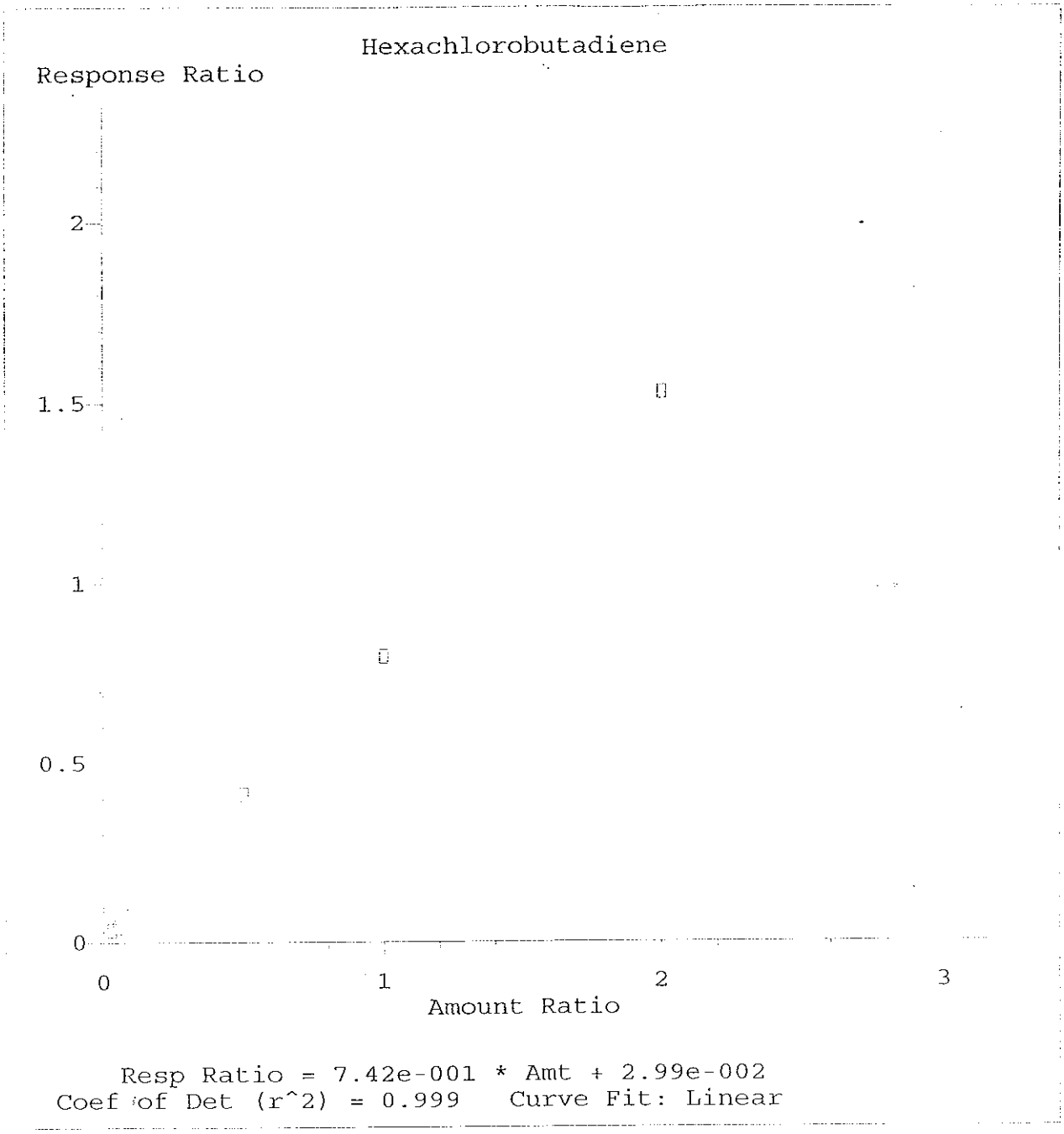


Resp Ratio = 1.57e-001 * Amt + 5.66e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

Last Modified: Wed Oct 31 05:41:29 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1203723		22.66		0		0.00		0		0.00	
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00	
LOWER LIMIT	601862		22.16		0		0.00		0		0.00	
File ID Sample												
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00	
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00	
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00	
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00	
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00	
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00	
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00	
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00	
30744011 BLANK	784520		22.66		0		0.00		0		0.00	
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

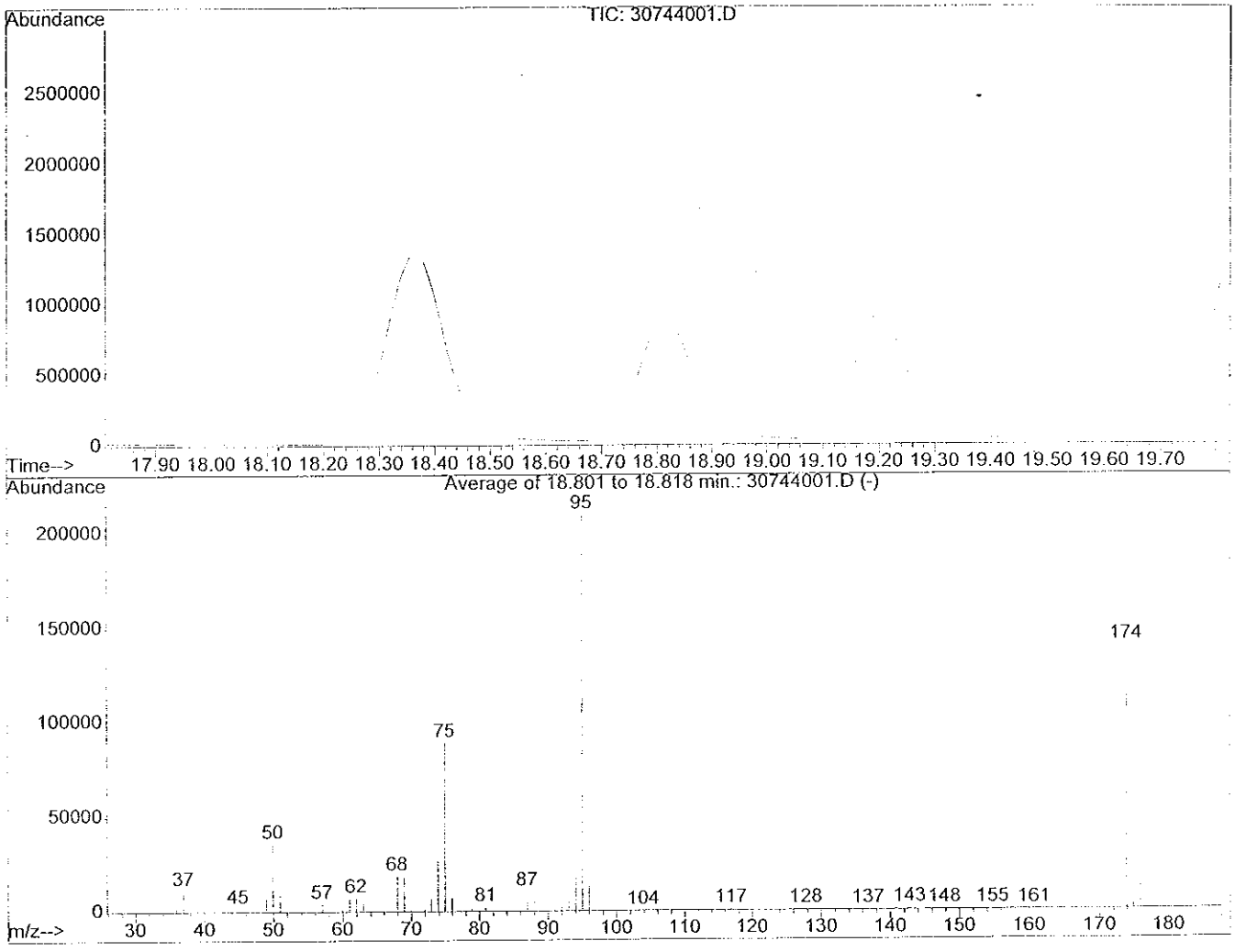
314

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

Average of 18.801 to 18.818 min.: 30744001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 / 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 / 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 / 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 / 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09	ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77	ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70	ug/L	100
28)	Benzene	7.87	78	3218196	10.14	ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84	ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96	ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47	ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22	ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59	ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30	ug/L	99
37)	Toluene	12.46	92	2053124	10.21	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12	ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95	ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81	ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93	ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11	ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30	ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08	ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68	ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15	ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80	ug/L	99
53)	Styrene	17.16	104	2162622	9.89	ug/L	100
54)	Bromoform	17.61	173	532882	10.82	ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52	ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84	ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36	ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57	ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56	ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72)	n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74)	1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75)	Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76)	Naphthalene	28.32	128	709233	10.75	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

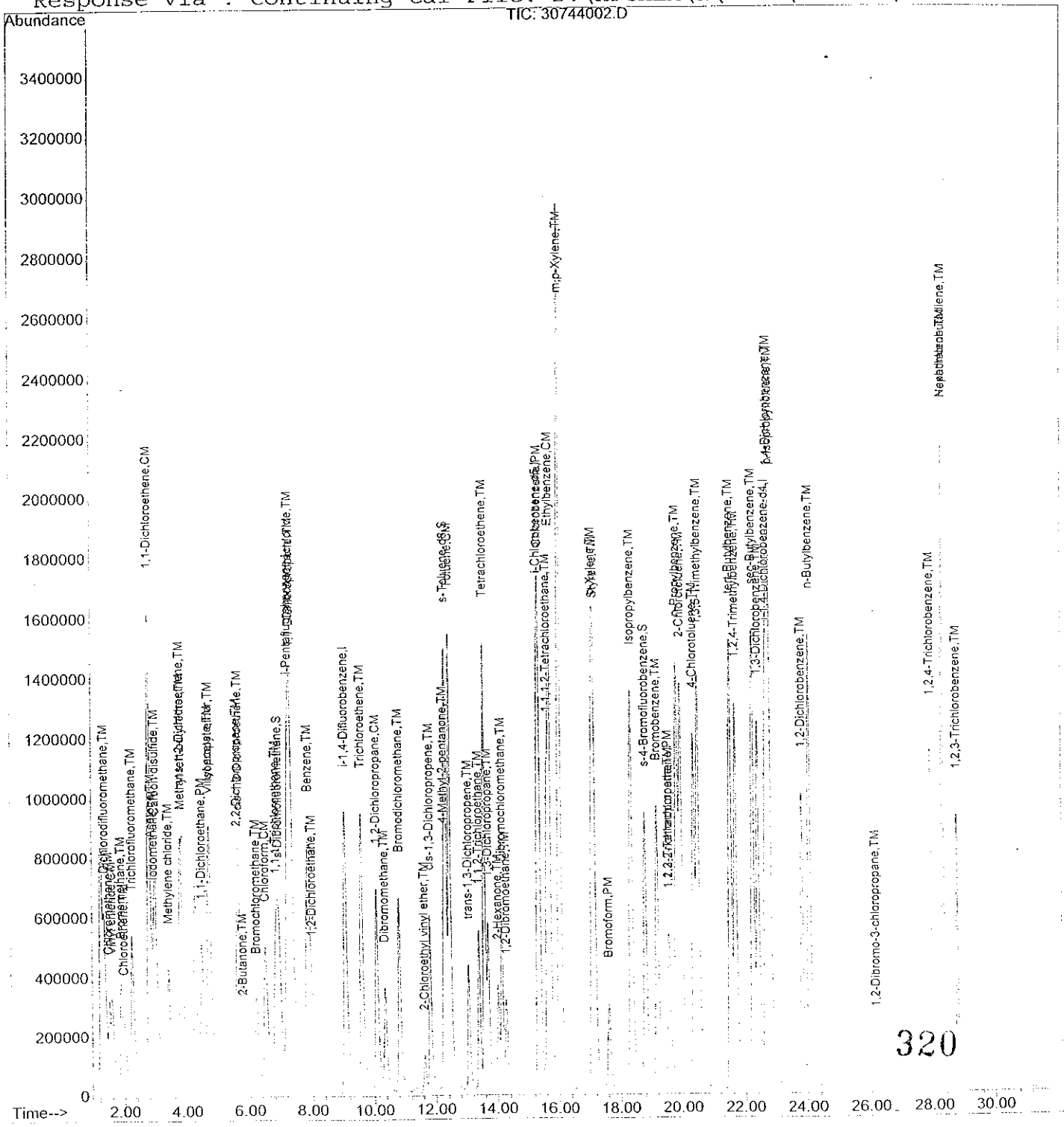
(#) = qualifier out of range (m) = manual integration

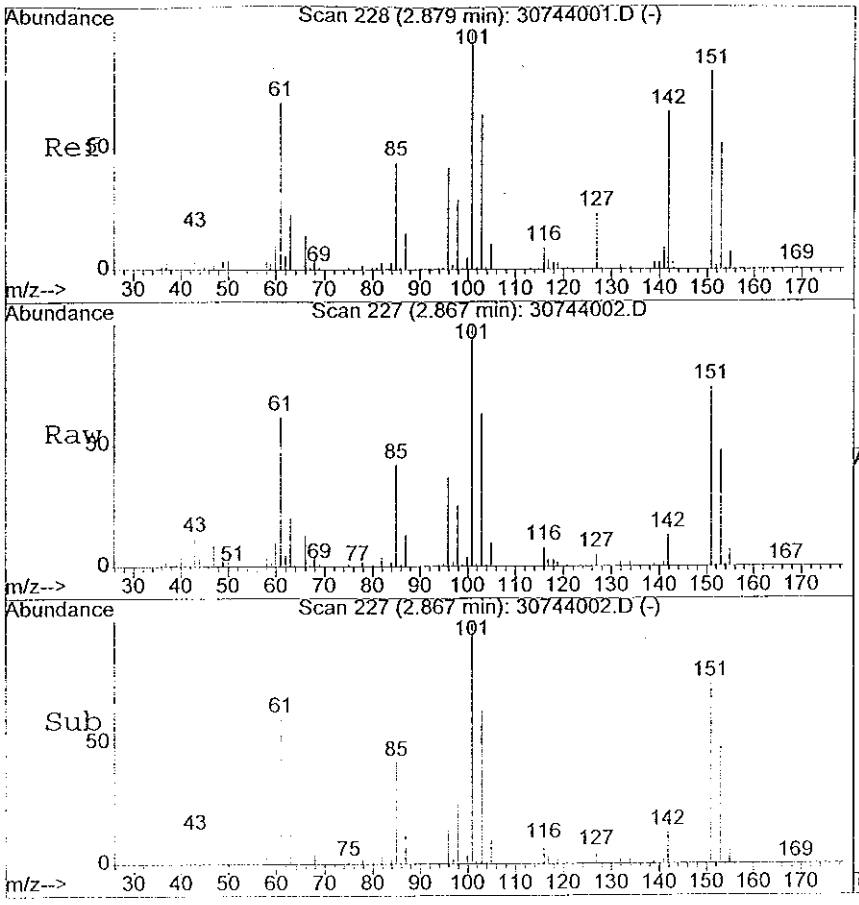
Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D

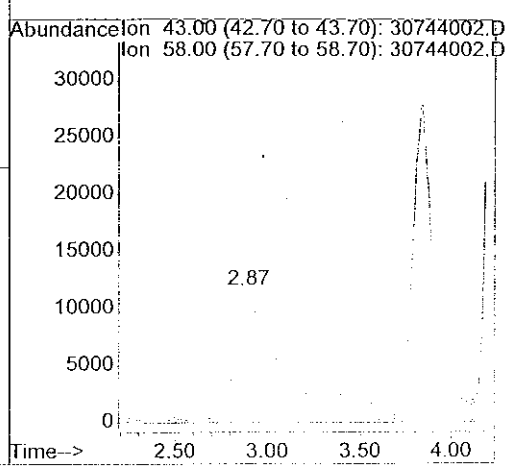




#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 222836

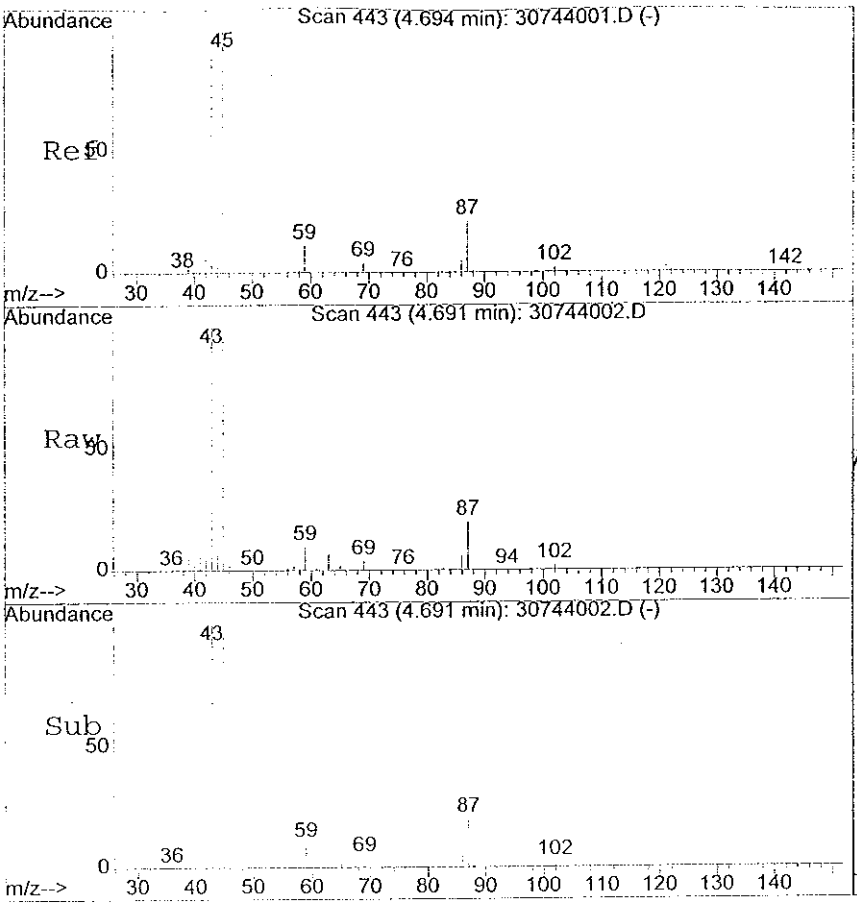
Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



10-31

10-31-01

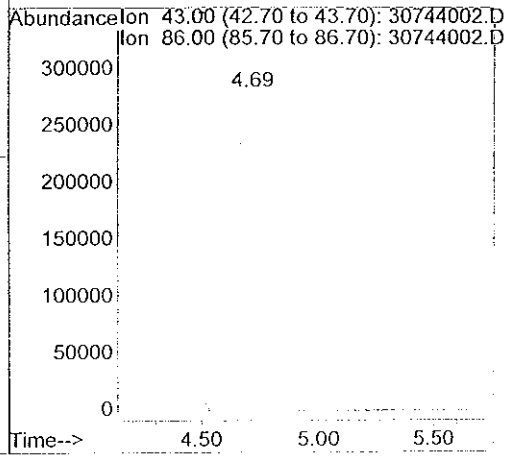
321



#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 2908842

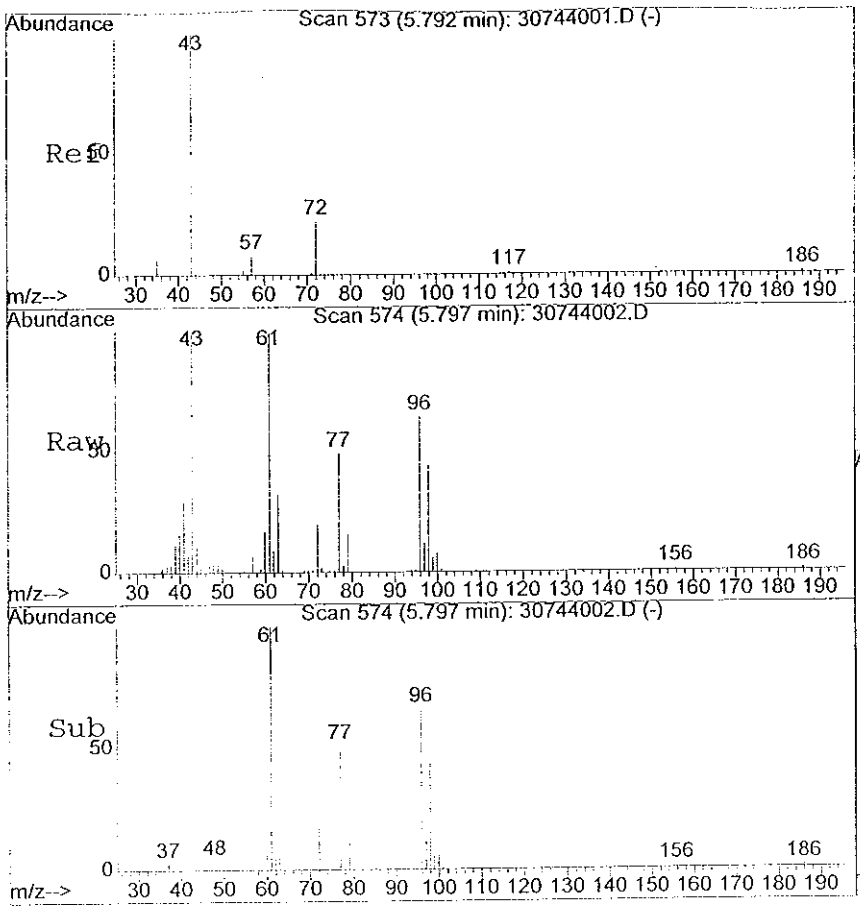
Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



10-31

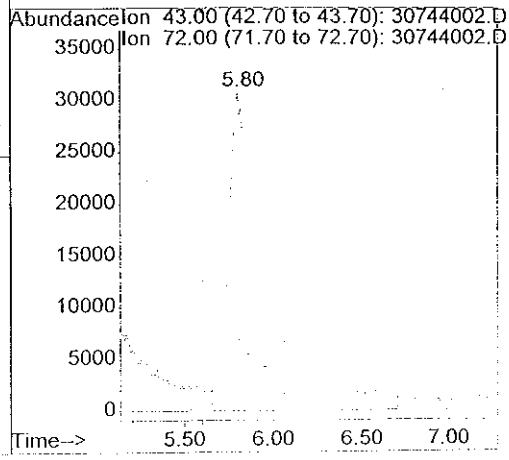
for 10-31-01

322



#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43	Resp:	472562	
Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



10-31
fri 10-31-01

323

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26) Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27) 1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28) Benzene	7.87	78	1633119	5.05	ug/L	98
29) 1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30) Trichloroethene	9.59	95	648267	5.04	ug/L	98
31) 1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32) Dibromomethane	10.36	93	249630	5.17	ug/L	98
33) 2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34) Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35) cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37) Toluene	12.45	92	1033568	5.01	ug/L	98
38) trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40) Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41) 1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42) Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43) 1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44) 4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45) 2-Hexanone	14.01	43	437726	20.75	ug/L	99
47) Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50) Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51) m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52) o-Xylene	17.06	106	679324	5.08	ug/L	98
53) Styrene	17.13	104	1097998	5.11	ug/L	100
54) Bromoform	17.59	173	270430	5.10	ug/L	97
55) Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58) Bromobenzene	19.17	156	530064	5.23	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60) 1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61) n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62) 2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63) 4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64) 1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65) tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66) 1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67) sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68) 1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69) p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70) 1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72)	n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74)	1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75)	Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76)	Naphthalene	28.32	128	336450	4.89	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

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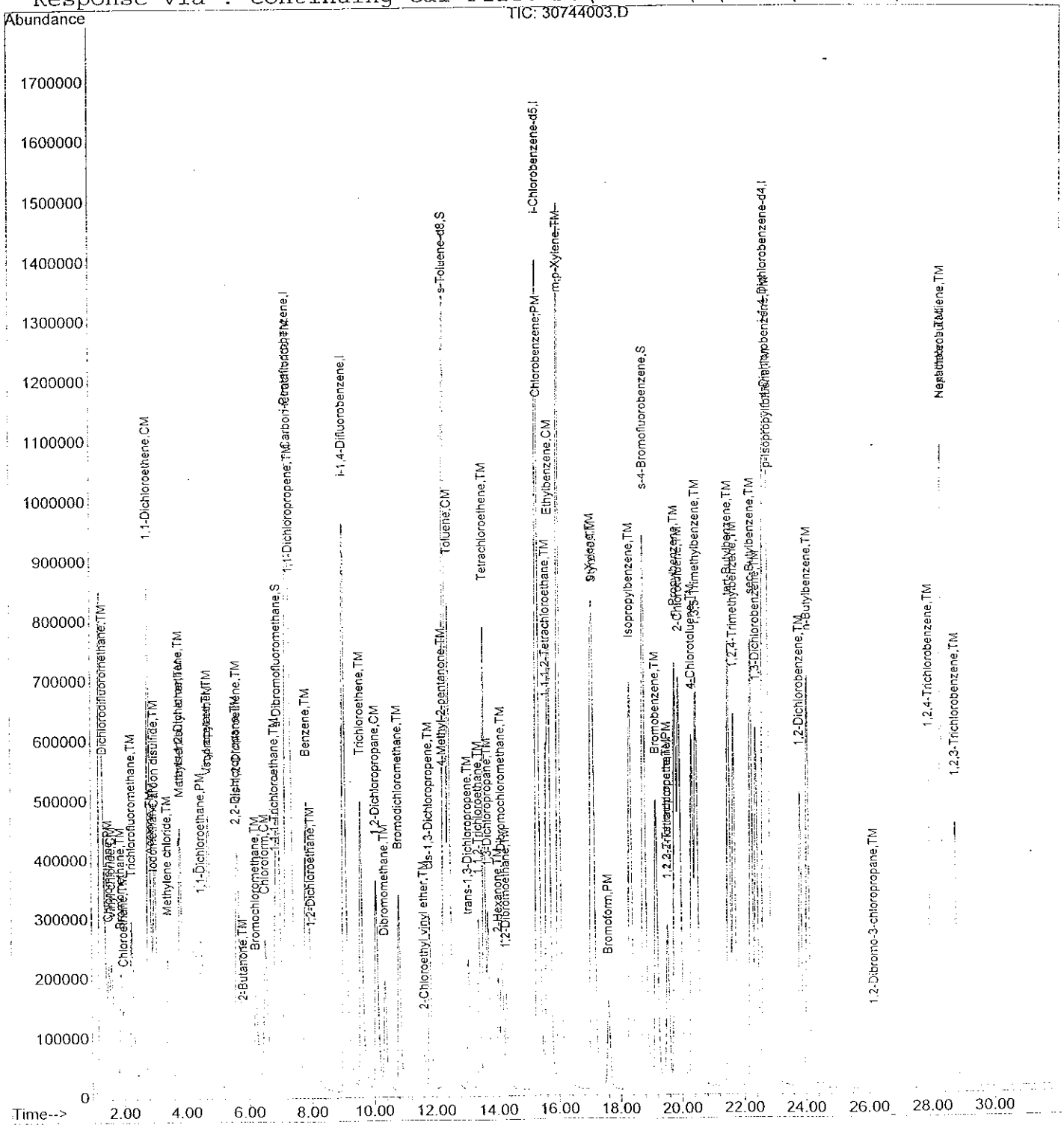
(#) = qualifier out of range (m) = manual integration

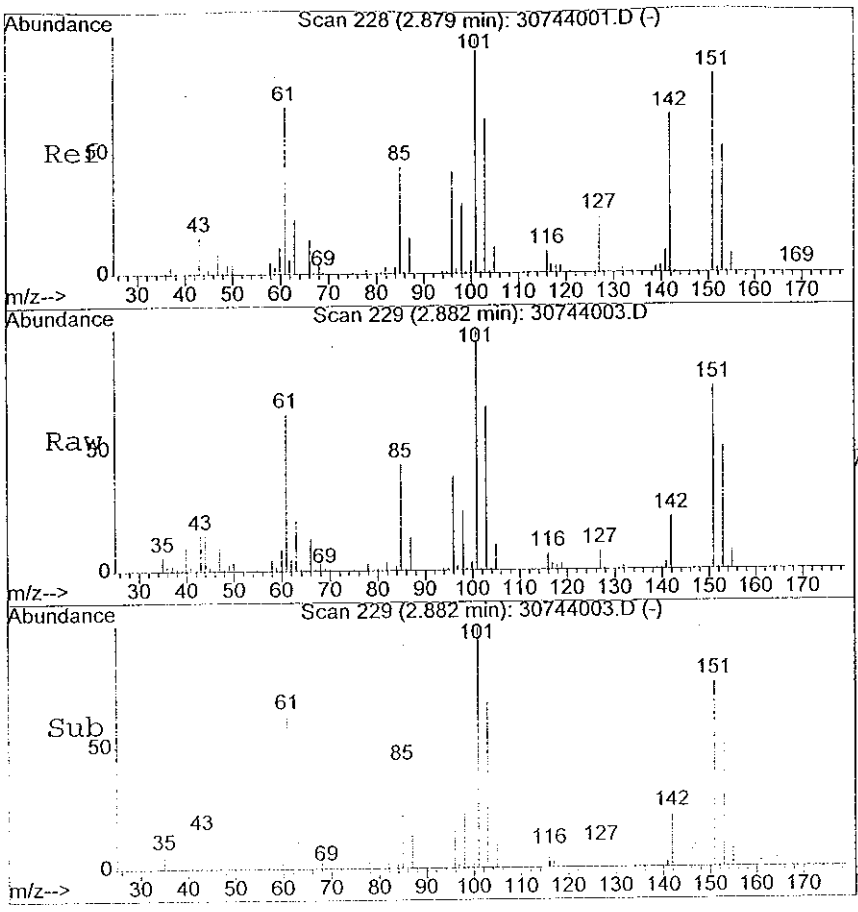
Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

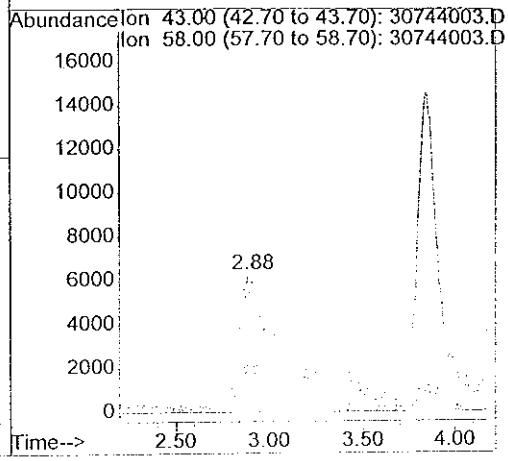




#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 123507

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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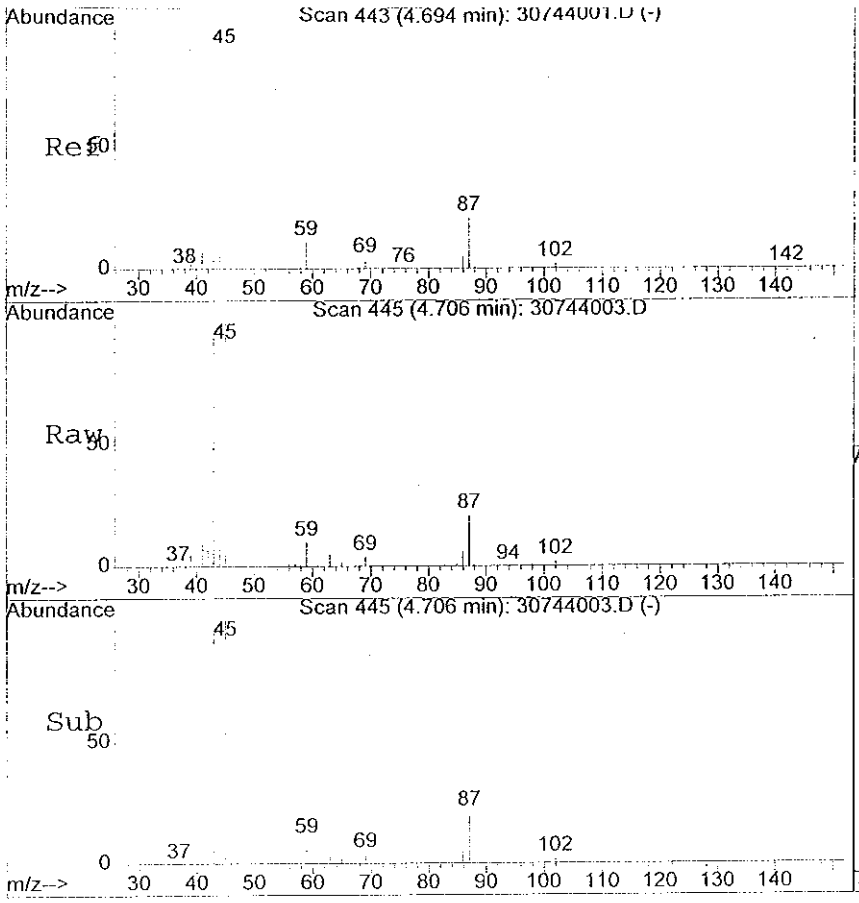
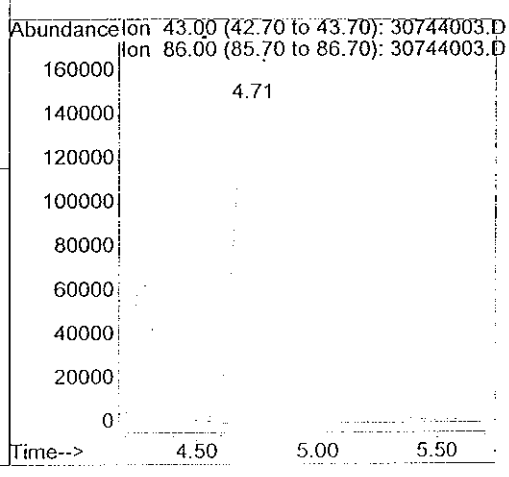


#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 1483176

Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



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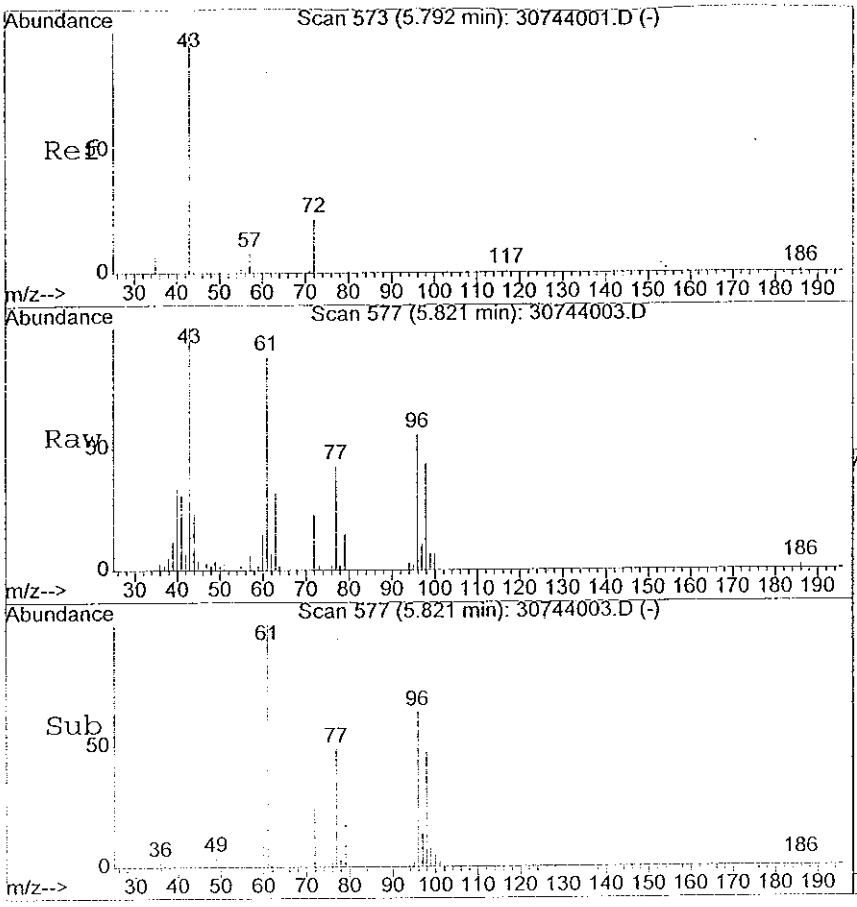
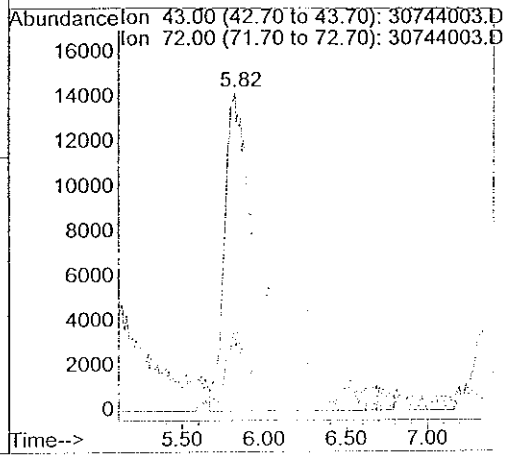


#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 252935

Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



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Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26) Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27) 1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28) Benzene	7.87	78	675144	2.07	ug/L	99
29) 1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30) Trichloroethene	9.58	95	265106	2.05	ug/L	97
31) 1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32) Dibromomethane	10.35	93	93729	1.92	ug/L	100
33) 2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34) Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37) Toluene	12.44	92	425380	2.04	ug/L	96
38) trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39) 1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40) Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41) 1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42) Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43) 1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44) 4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45) 2-Hexanone	14.01	43	141858	6.67	ug/L	99
47) Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48) 1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50) Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51) m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52) o-Xylene	17.07	106	269886	2.06	ug/L	97
53) Styrene	17.13	104	412466	1.96	ug/L	99
54) Bromoform	17.59	173	94103	1.81	ug/L	99
55) Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58) Bromobenzene	19.18	156	205095	2.16	ug/L	94
59) 1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60) 1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61) n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62) 2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63) 4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65) tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66) 1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67) sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68) 1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69) p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70) 1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72)	n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73)	1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74)	1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75)	Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76)	Naphthalene	28.32	128	112451	1.74	ug/L		100
77)	1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

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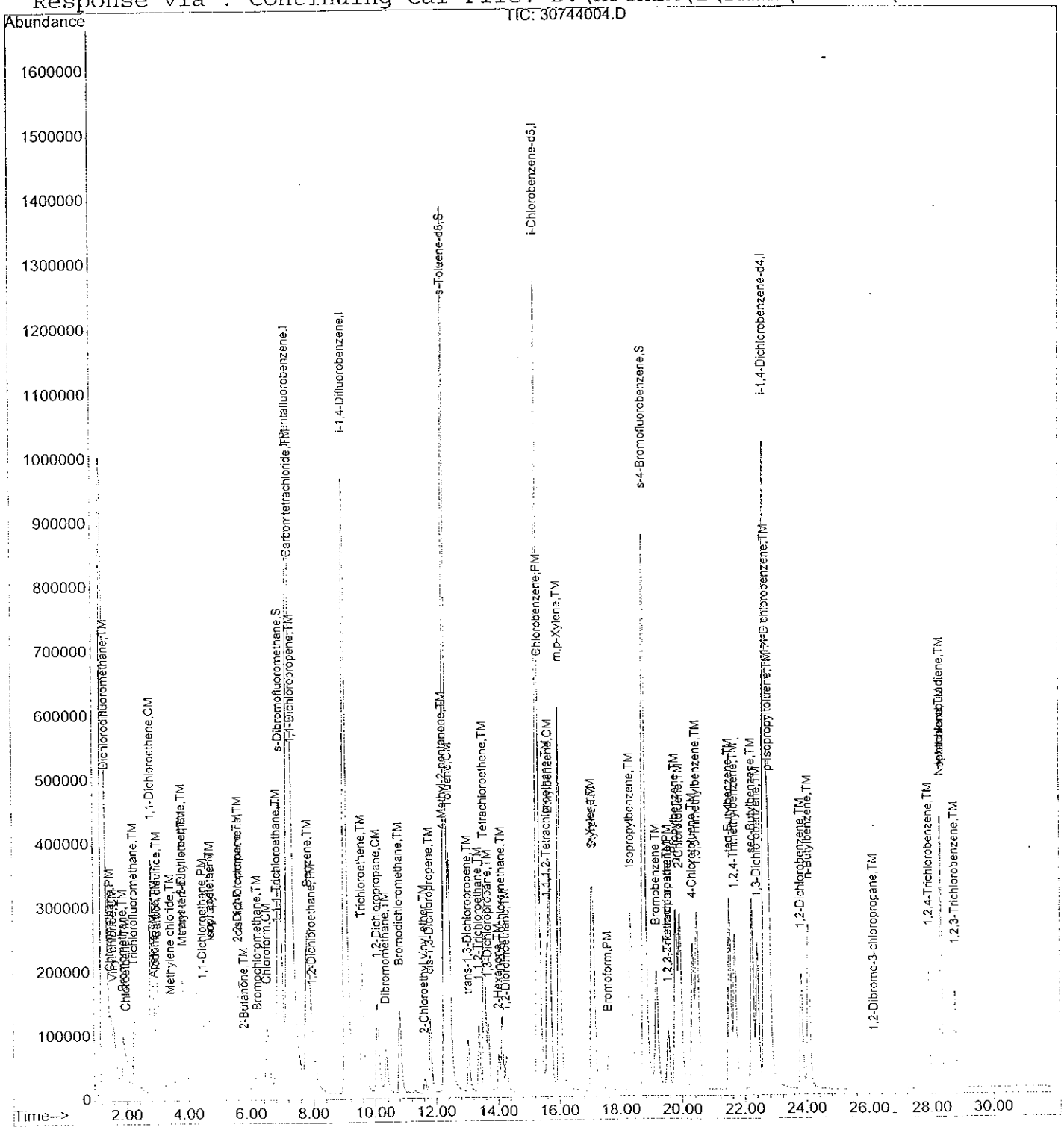
(#) = qualifier out of range (m) = manual integration

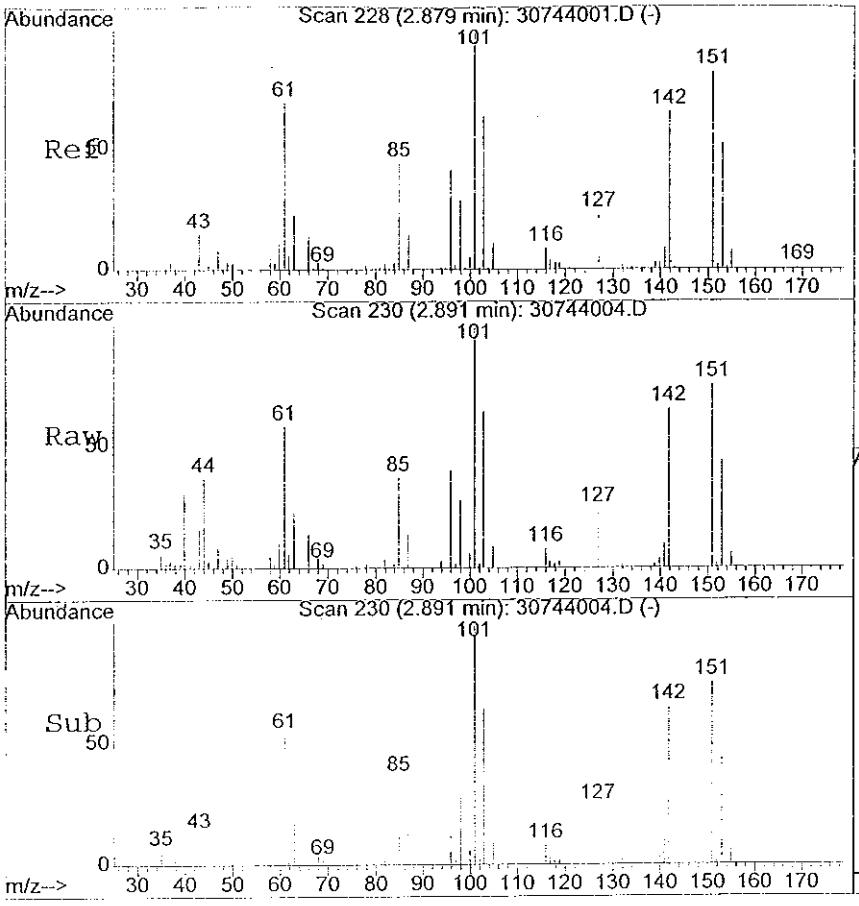
Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

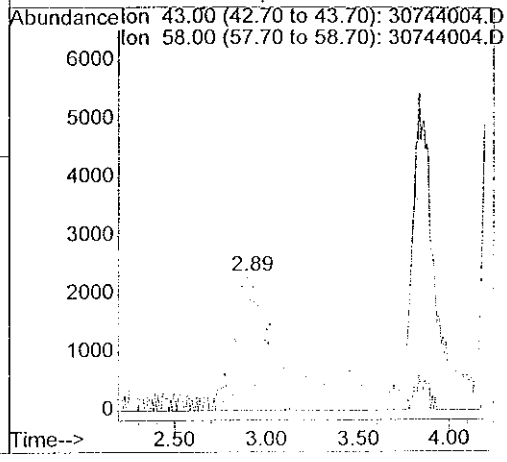




#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



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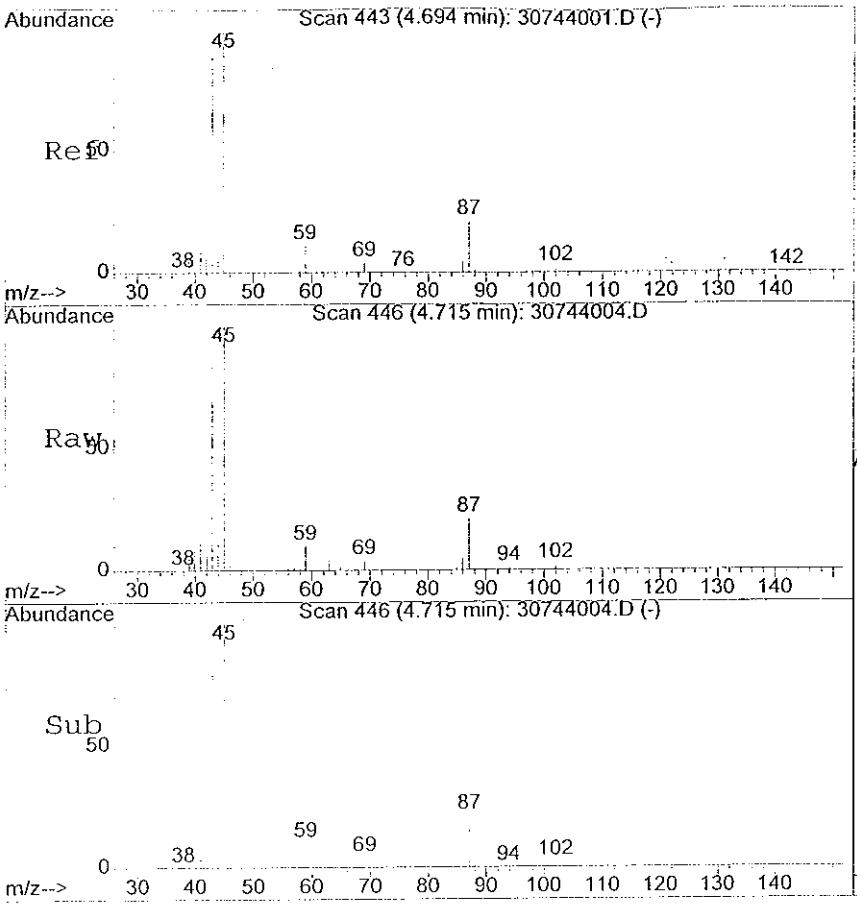
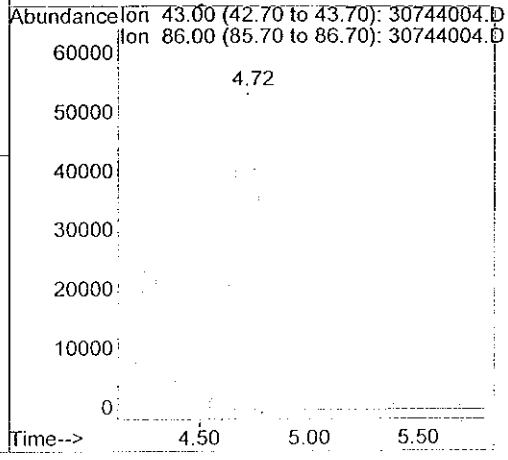


#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43	Resp:	566802	
Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9



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for 10-31-01

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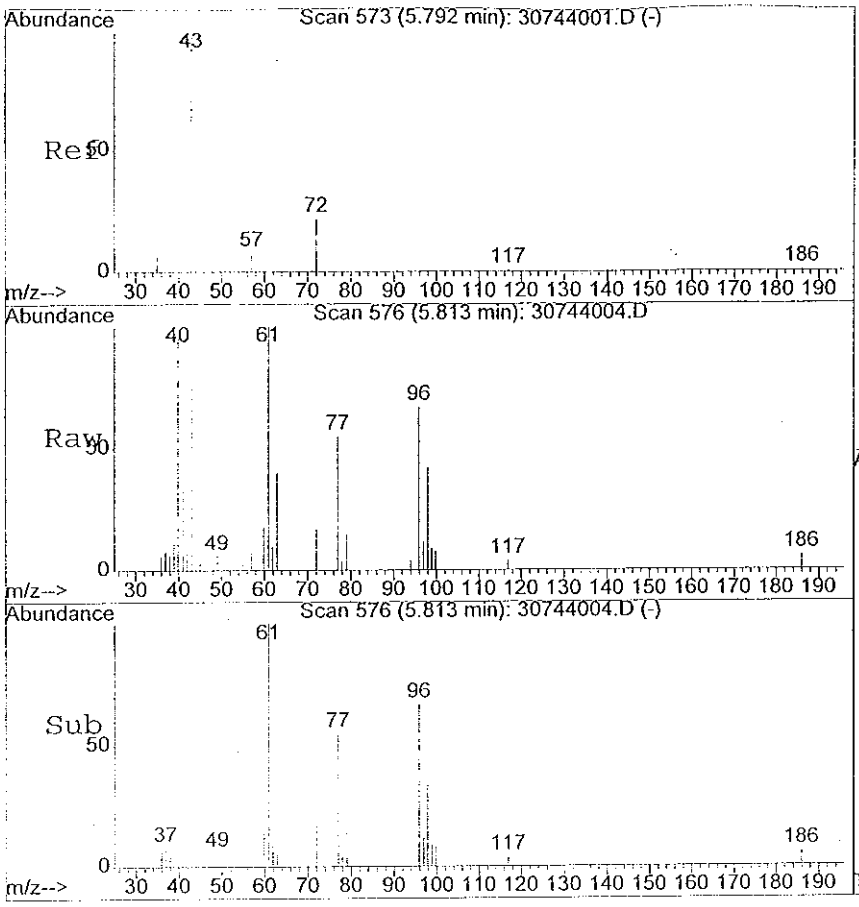
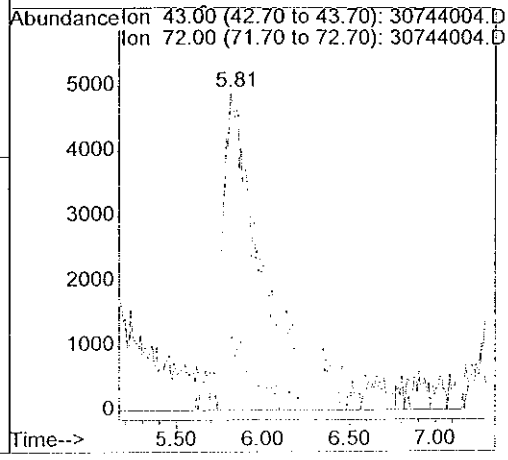


#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 90514

Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p Quant Results File: V82625B1.RES
Quant Time: Oct 30 12:11 2001

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 / 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 / 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 / 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 / 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	94
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	96
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	97
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	98
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	98
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	98
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	85
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	96
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	96
22) Chloroform	6.49	83	197755	1.03	ug/L	97

(#) = qualifier out of range (m) = manual integration
30744005.D V82625B1.M Wed Oct 31 05:35:20 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	160704	0.98	ug/L	97
26) Carbon tetrachloride	7.27	119	156850	1.13	ug/L	28
27) 1,1-Dichloropropene	7.32	110	45627	0.93	ug/L	100
28) Benzene	7.86	78	328909	1.02	ug/L	98
29) 1,2-Dichloroethane	7.98	62	67098	1.05	ug/L	94
30) Trichloroethene	9.58	95	137400	1.07	ug/L	91
31) 1,2-Dichloropropane	10.08	63	113727	1.06	ug/L	98
32) Dibromomethane	10.34	93	49811	1.04	ug/L	98
33) 2-Chloroethyl vinyl ether	11.61	63	17709	0.93	ug/L	96
34) Bromodichloromethane	10.81	83	152578	1.01	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	119952	1.02	ug/L	97
37) Toluene	12.45	92	217555	1.06	ug/L	95
38) trans-1,3-Dichloropropene	13.03	75	73674	0.99	ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	49836	1.04	ug/L	96
40) Tetrachloroethene	13.56	166	155924	1.06	ug/L	96
41) 1,3-Dichloropropane	13.68	76	95524	1.04	ug/L	98
42) Dibromochloromethane	14.12	129	89919	1.01	ug/L	98
43) 1,2-Dibromoethane	14.27	107	61862	1.02	ug/L	100
44) 4-Methyl-2-pentanone	12.26	43	149476	4.54	ug/L	93
45) 2-Hexanone	14.02	43	81218	3.87	ug/L	97
47) Chlorobenzene	15.35	112	226960	1.05	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04	ug/L	96
50) Ethylbenzene	15.70	106	123576	1.07	ug/L	100
51) m,p-Xylene	16.01	106	298103	2.09	ug/L	99
52) o-Xylene	17.07	106	137776	1.04	ug/L	89
53) Styrene	17.13	104	207557	0.97	ug/L	100
54) Bromoform	17.58	173	51970	0.99	ug/L	95
55) Isopropylbenzene	18.34	105	434393	1.02	ug/L	100
58) Bromobenzene	19.16	156	106700	1.12	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12	ug/L	87
60) 1,2,3-Trichloropropane	19.54	75	38655	1.01	ug/L	88
61) n-Propylbenzene	19.79	120	98095	1.00	ug/L	100
62) 2-Chlorotoluene	19.92	126	96679	1.10	ug/L	100
63) 4-Chlorotoluene	20.33	91	348446	1.11	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	316067	1.09	ug/L	97
65) tert-Butylbenzene	21.50	91	211087	1.12	ug/L	96
66) 1,2,4-Trimethylbenzene	21.68	105	268480	1.00	ug/L	98
67) sec-Butylbenzene	22.24	105	435328	1.02	ug/L	98
68) 1,3-Dichlorobenzene	22.39	146	197666	1.11	ug/L	99
69) p-Isopropyltoluene	22.78	119	328183	1.00	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	184452	1.12	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72)	n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73)	1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74)	1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75)	Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76)	Naphthalene	28.34	128	64010	0.99	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

(#) = qualifier out of range (m) = manual integration

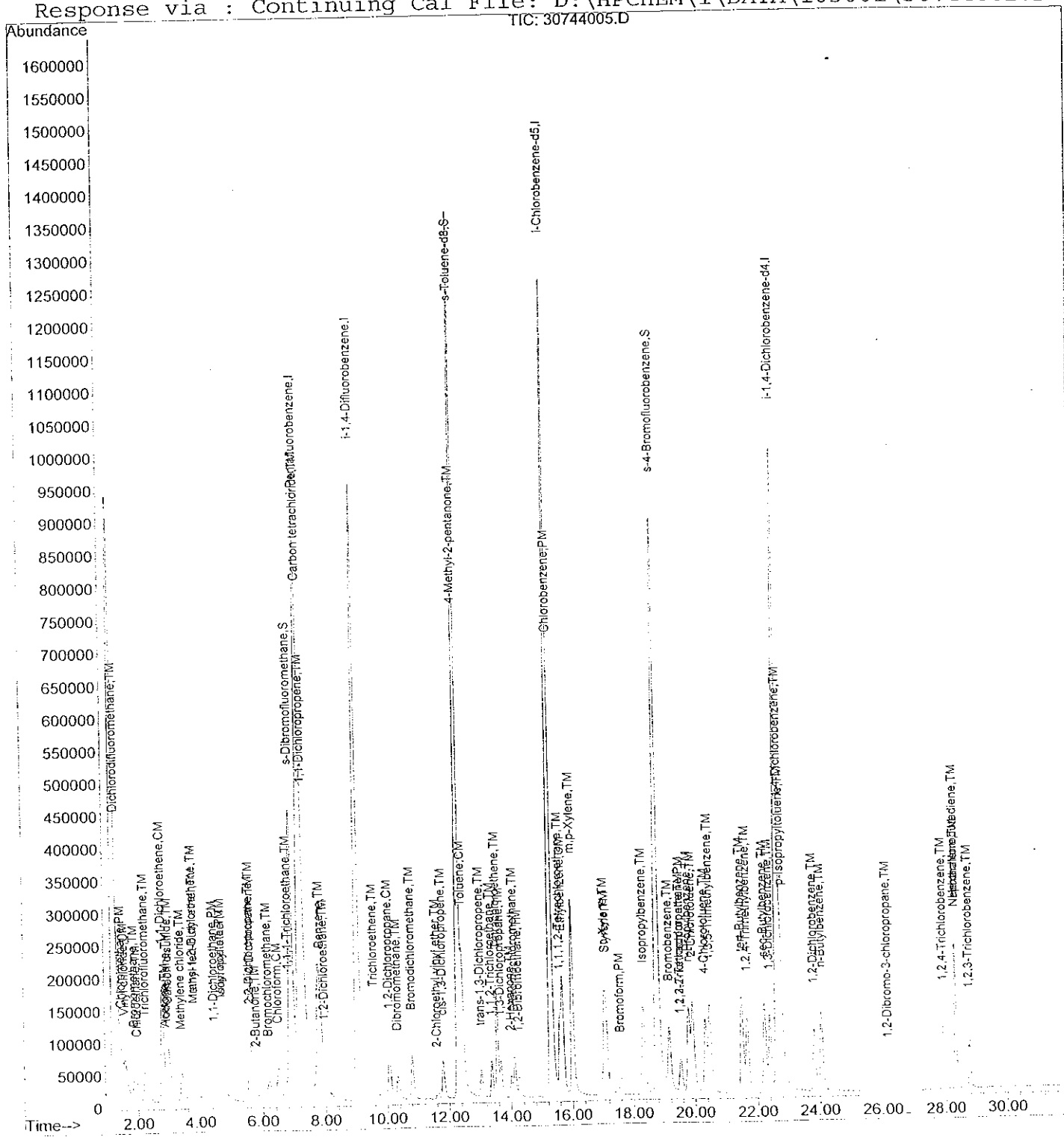
Quantitation Report

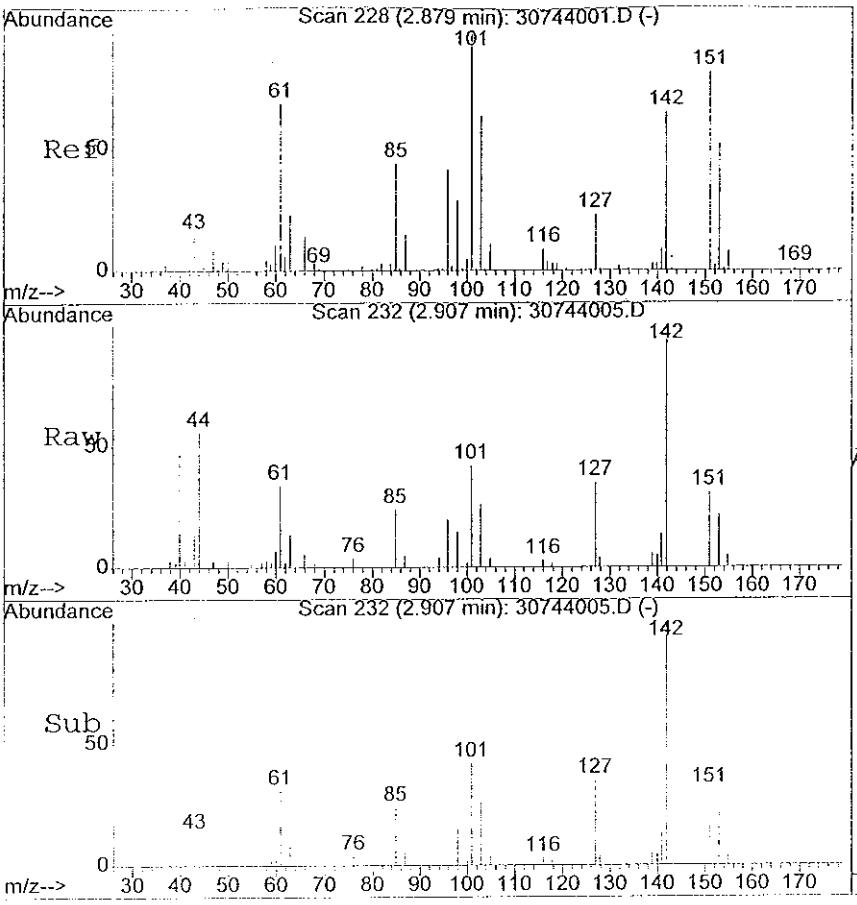
Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

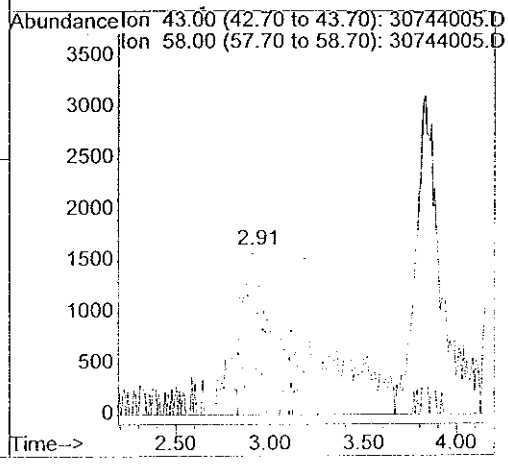




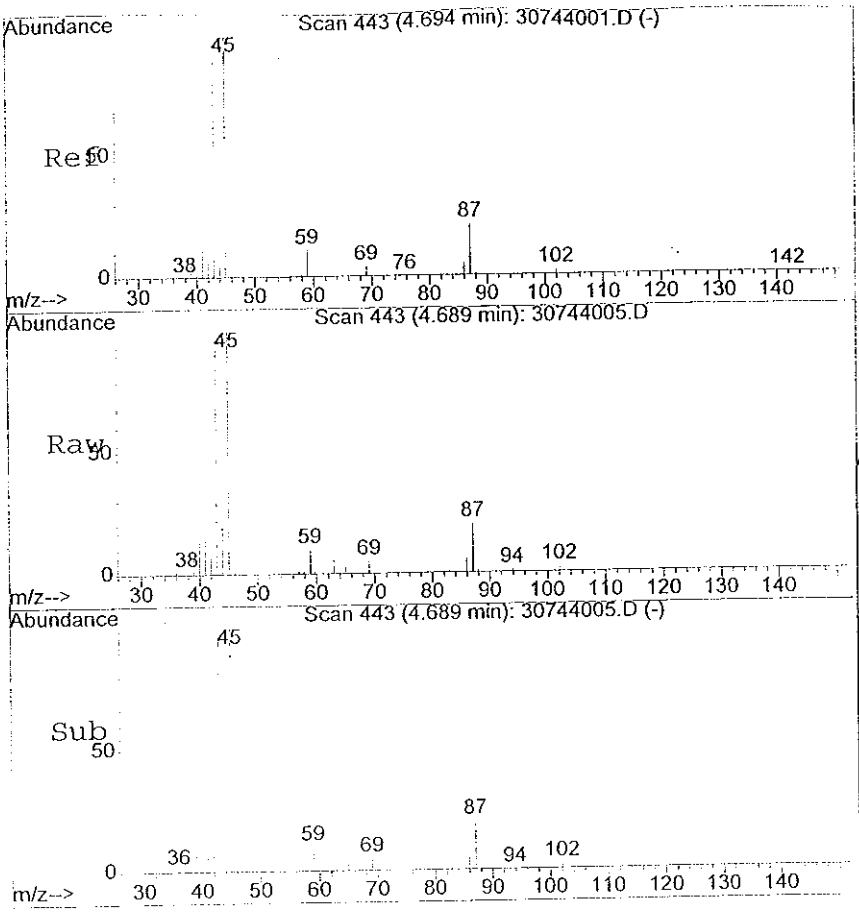
#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



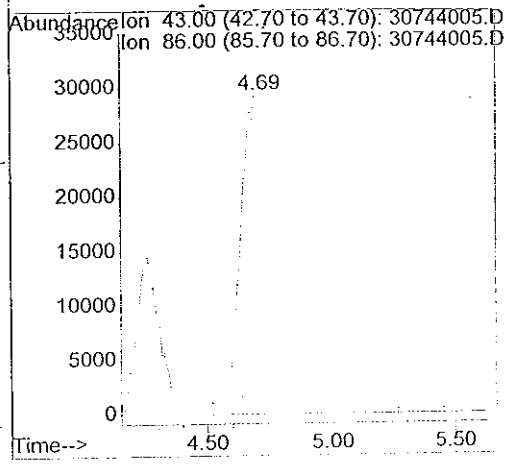
10-31



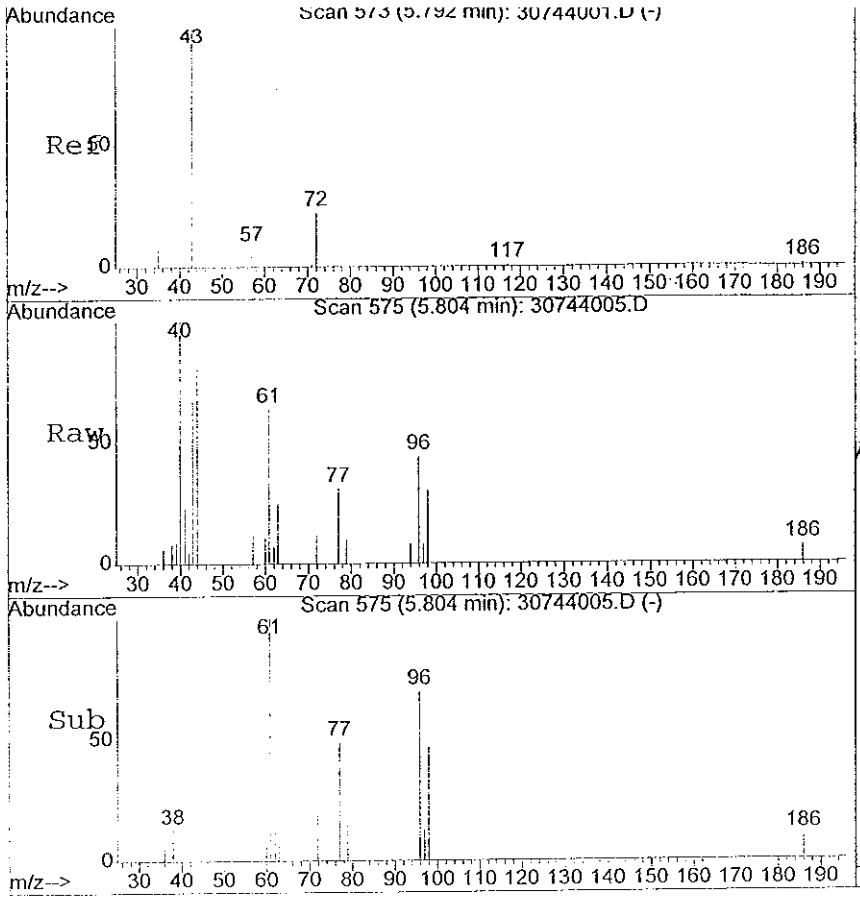
#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. -0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9



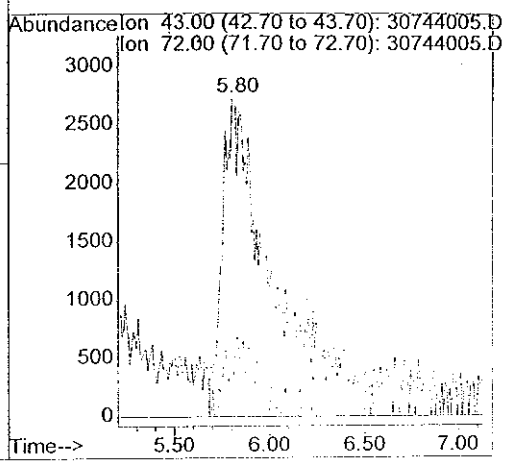
10-31
for 10-31-01



#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 53339

Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



10-31
for 10-31-01

344

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L	0.00 / 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L	0.00 / 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L	0.00 / 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L	0.02 / 86.94%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L	99
3) Chloromethane	1.50	50	36159m	0.37	ug/L	99
4) Vinyl chloride	1.60	62	36552	0.36	ug/L	92
5) Bromomethane	1.89	96	35015	0.38	ug/L	97
6) Chloroethane	2.00	64	20942	0.35	ug/L	84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L	93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L #	85
10) Iodomethane	2.94	142	40544	0.32	ug/L	100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L	100
12) Methylene chloride	3.41	84	26091	0.31	ug/L	91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L	98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L	42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L	98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L	94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L	99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L	94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L #	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L	92
22) Chloroform	6.51	83	64718	0.33	ug/L	93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L	94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L #	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
27)	1,1-Dichloropropene	7.33	110	35089m	0.70	ug/L		100
28)	Benzene	7.89	78	114261	0.35	ug/L		93
29)	1,2-Dichloroethane	8.00	62	23568	0.36	ug/L		92
30)	Trichloroethene	9.60	95	46357	0.36	ug/L		92
31)	1,2-Dichloropropane	10.10	63	39985	0.37	ug/L		98
32)	Dibromomethane	10.35	93	17027	0.35	ug/L		94
33)	2-Chloroethyl vinyl ether	11.62	63	5704	0.29	ug/L		94
34)	Bromodichloromethane	10.81	83	52711	0.34	ug/L		90
35)	cis-1,3-Dichloropropene	11.83	75	39813	0.33	ug/L		88
37)	Toluene	12.46	92	74994	0.36	ug/L		99
38)	trans-1,3-Dichloropropene	13.07	75	22608	0.30	ug/L		98
39)	1,1,2-Trichloroethane	13.39	83	17217	0.36	ug/L	#	78
40)	Tetrachloroethene	13.57	166	54802	0.37	ug/L		94
41)	1,3-Dichloropropane	13.70	76	31625	0.34	ug/L		99
42)	Dibromochloromethane	14.15	129	29043	0.32	ug/L		99
43)	1,2-Dibromoethane	14.29	107	20047	0.32	ug/L		95
47)	Chlorobenzene	15.37	112	76094	0.35	ug/L		95
48)	1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33	ug/L		96
50)	Ethylbenzene	15.72	106	41978	0.36	ug/L		100
51)	m,p-Xylene	16.03	106	96766	0.67	ug/L		96
52)	o-Xylene	17.09	106	44284	0.33	ug/L	#	85
53)	Styrene	17.16	104	69328	0.32	ug/L		92
54)	Bromoform	17.63	173	16043	0.30	ug/L		100
55)	Isopropylbenzene	18.36	105	143324	0.33	ug/L		96
58)	Bromobenzene	19.21	156	34447	0.38	ug/L		93
59)	1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38	ug/L		88
60)	1,2,3-Trichloropropane	19.59	75	19472	0.53	ug/L		98
61)	n-Propylbenzene	19.85	120	32615	0.35	ug/L		100
62)	2-Chlorotoluene	19.97	126	32953	0.39	ug/L		100
63)	4-Chlorotoluene	20.39	91	96642	0.32	ug/L		98
64)	1,3,5-Trimethylbenzene	20.51	105	101910	0.37	ug/L		98
65)	tert-Butylbenzene	21.55	91	67600	0.38	ug/L		93
66)	1,2,4-Trimethylbenzene	21.71	105	84737	0.33	ug/L		94
67)	sec-Butylbenzene	22.28	105	142616	0.35	ug/L		95
68)	1,3-Dichlorobenzene	22.45	146	64255	0.38	ug/L		99
69)	p-Isopropyltoluene	22.82	119	101423	0.32	ug/L		97
70)	1,4-Dichlorobenzene	22.76	146	63283	0.40	ug/L		98
71)	1,2-Dichlorobenzene	23.85	146	50172	0.37	ug/L		90
72)	n-Butylbenzene	24.10	91	87558	0.28	ug/L		98
73)	1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34	ug/L	#	88
74)	1,2,4-Trichlorobenzene	27.95	180	26621	0.32	ug/L		94

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75) Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76) Naphthalene	28.35	128	20463	0.33	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

(#) = qualifier out of range (m) = manual integration

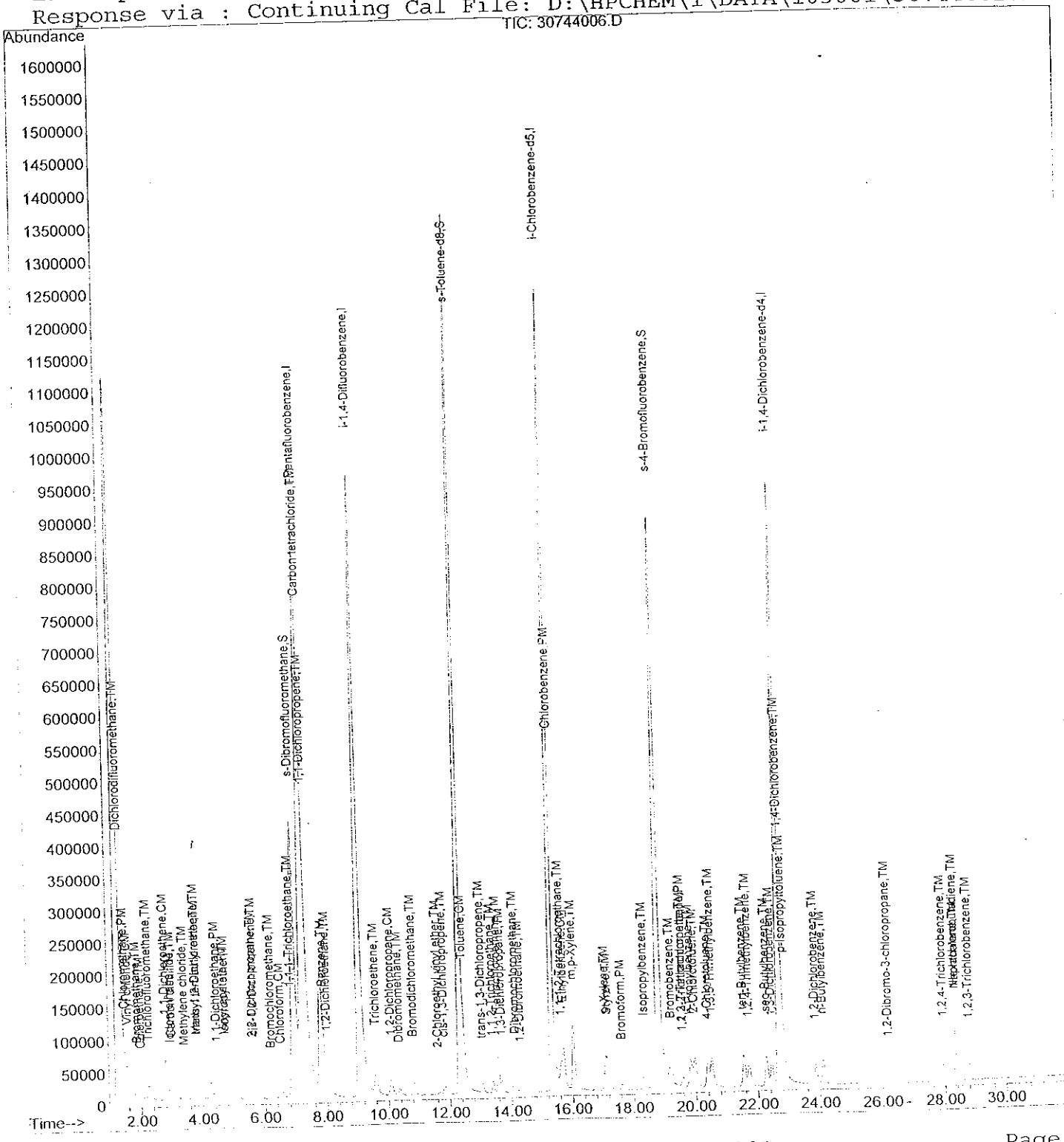
Quantitation Report

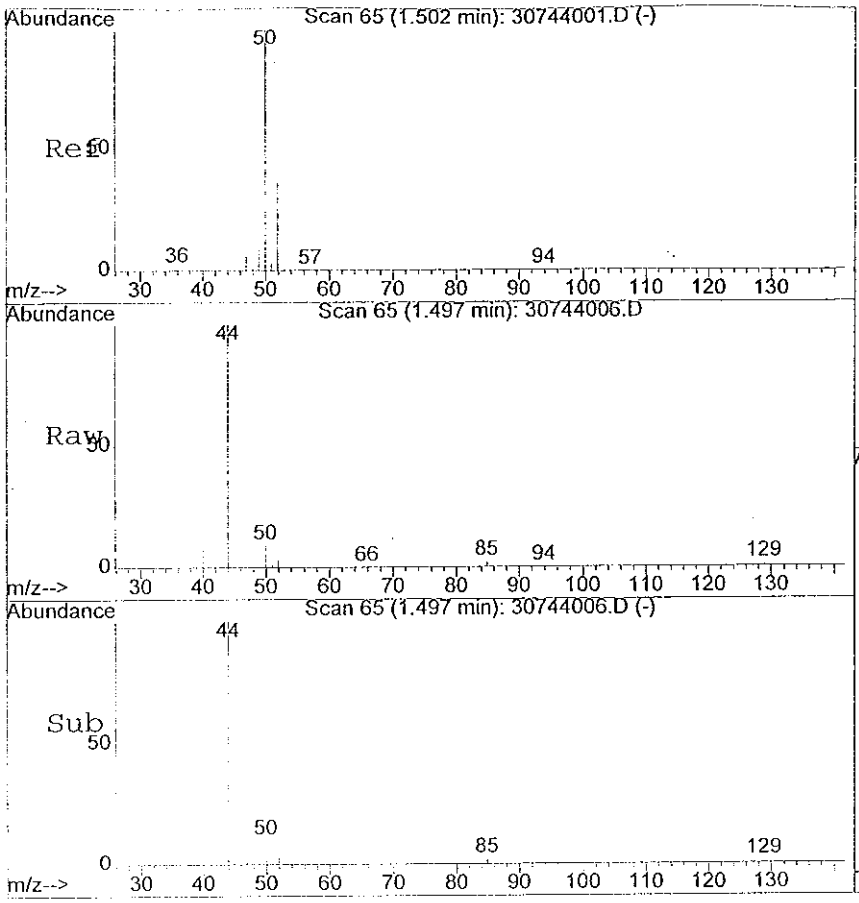
Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

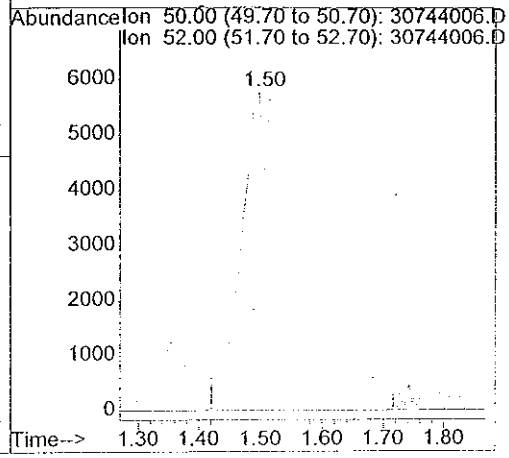




#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

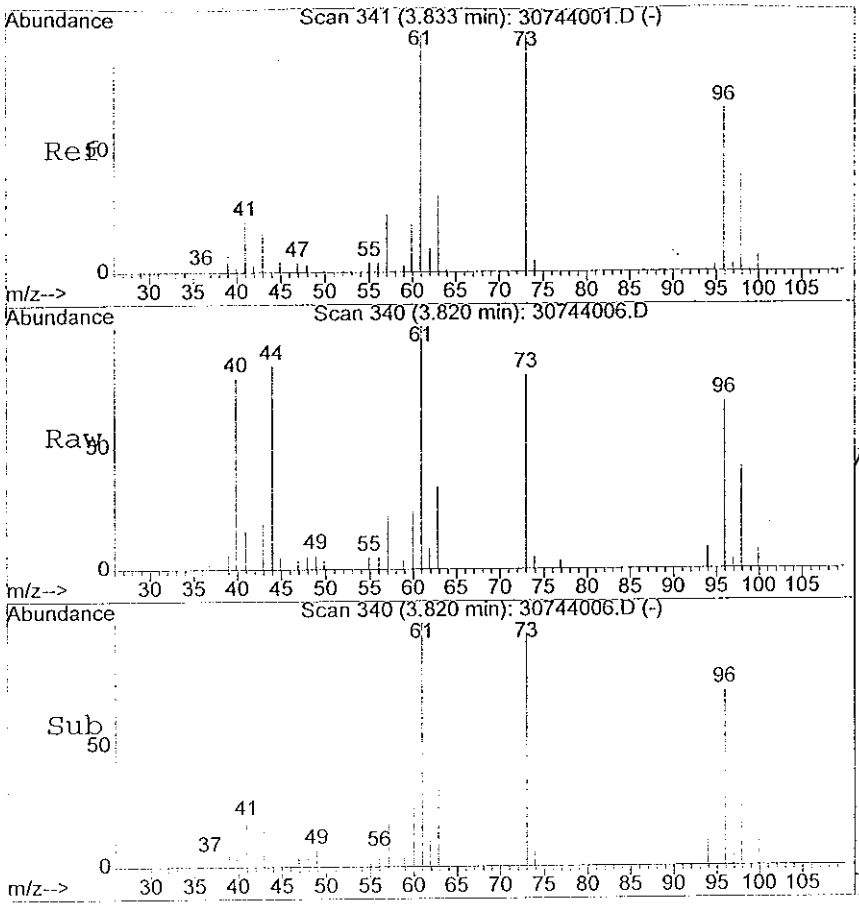
Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0



10-31
Amt 12-31-01

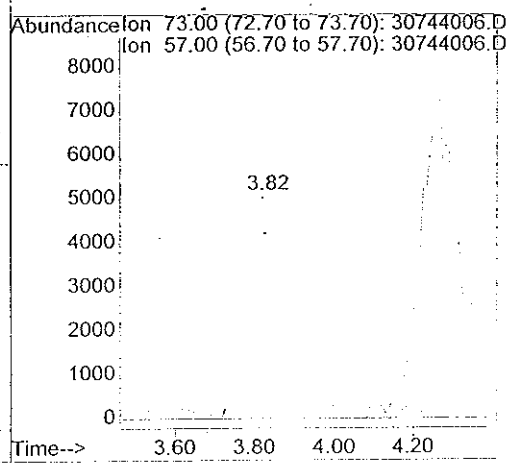
30744006.D V82625B1.M Acq :30 Oct 2001 12:04
Sample = 0.3ppb VOA STD Misc = 0.3ppb VOA STD



#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6



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for 10-31-01

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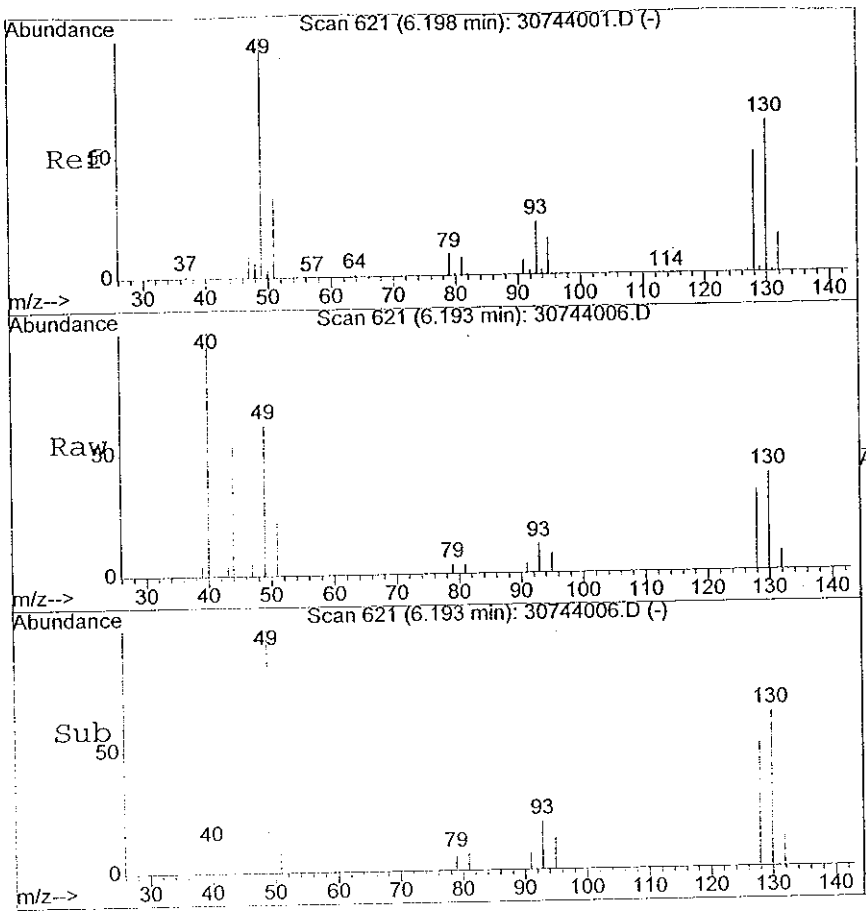
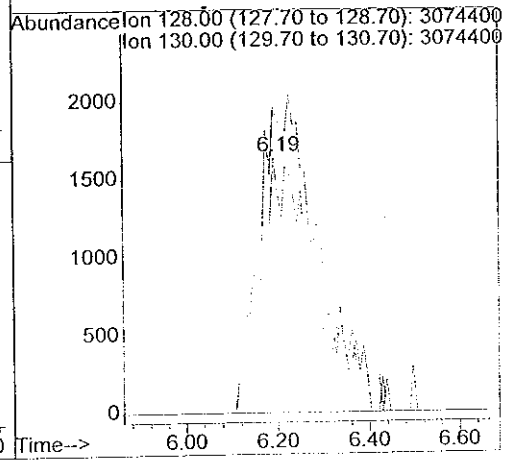


#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:128	Resp:	13540	
Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0



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10-31-01

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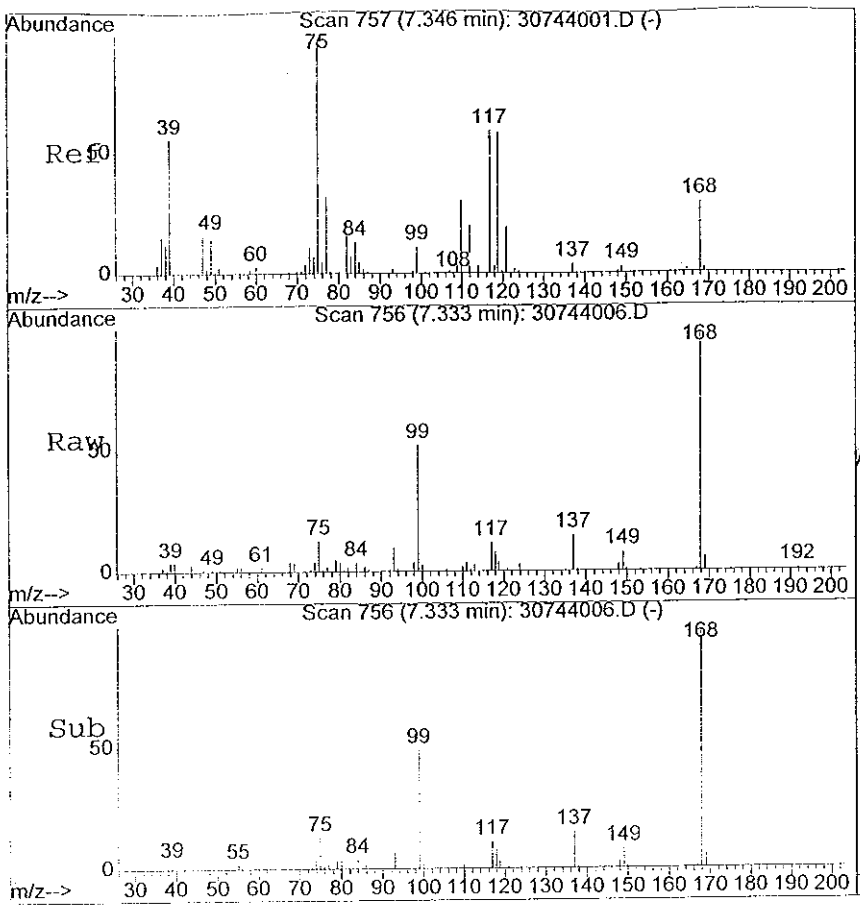
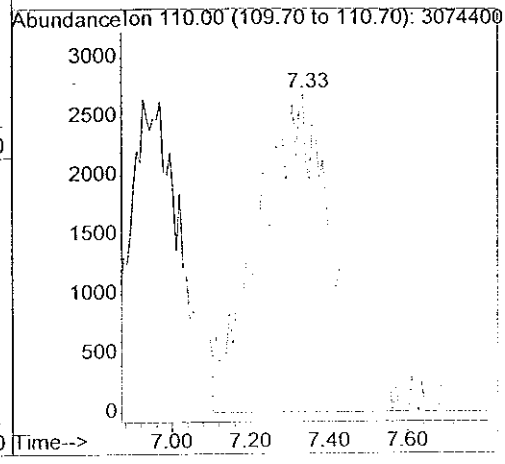


#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



10-31
10-31-01

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00	ug/L	0.02 / 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00	ug/L	0.02 / 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00	ug/L	0.00 / 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00	ug/L	0.04 / 93.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1490634	9.78	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%			
36) s-Toluene-d8	12.34	98	3048951	9.94	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54	ug/L	95
3) Chloromethane	1.51	50	57047	0.55	ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56	ug/L	95
5) Bromomethane	1.89	96	50840	0.53	ug/L	93
6) Chloroethane	2.00	64	32710	0.51	ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52	ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51	ug/L	96
10) Iodomethane	2.95	142	61980	0.47	ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50	ug/L	100
12) Methylene chloride	3.42	84	42127	0.48	ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50	ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46	ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50	ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85	ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46	ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46	ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46	ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45	ug/L	99
22) Chloroform	6.55	83	108615m	0.52	ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47	ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58	ug/L #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27)	1,1-Dichloropropene	7.37	110	45959m	0.88	ug/L	100
28)	Benzene	7.89	78	175270	0.51	ug/L	97
29)	1,2-Dichloroethane	8.01	62	36739	0.54	ug/L	94
30)	Trichloroethene	9.60	95	72610	0.53	ug/L	92
31)	1,2-Dichloropropane	10.09	63	54961	0.48	ug/L	100
32)	Dibromomethane	10.36	93	25641	0.50	ug/L	93
33)	2-Chloroethyl vinyl ether	11.65	63	9558	0.47	ug/L	90
34)	Bromodichloromethane	10.82	83	80038	0.50	ug/L	89
35)	cis-1,3-Dichloropropene	11.83	75	61200	0.49	ug/L	96
37)	Toluene	12.47	92	115598	0.53	ug/L	92
38)	trans-1,3-Dichloropropene	13.07	75	37014	0.47	ug/L	95
39)	1,1,2-Trichloroethane	13.40	83	27199	0.54	ug/L	92
40)	Tetrachloroethene	13.59	166	83043	0.53	ug/L	98
41)	1,3-Dichloropropane	13.71	76	49118	0.50	ug/L	92
42)	Dibromochloromethane	14.16	129	45286	0.48	ug/L	97
43)	1,2-Dibromoethane	14.29	107	30668	0.47	ug/L	89
44)	4-Methyl-2-pentanone	12.29	43	80377	2.29	ug/L	84
45)	2-Hexanone	14.05	43	42639	1.90	ug/L	91
47)	Chlorobenzene	15.39	112	116784	0.51	ug/L	95
48)	1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49	ug/L	96
50)	Ethylbenzene	15.73	106	63777	0.52	ug/L	100
51)	m,p-Xylene	16.04	106	150249	1.00	ug/L	96
52)	o-Xylene	17.11	106	69489	0.50	ug/L	96
53)	Styrene	17.17	104	108692	0.48	ug/L	98
54)	Bromoform	17.64	173	24986	0.45	ug/L	97
55)	Isopropylbenzene	18.39	105	225817	0.50	ug/L	99
58)	Bromobenzene	19.22	156	55086	0.56	ug/L	96
59)	1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54	ug/L	94
60)	1,2,3-Trichloropropane	19.59	75	22893	0.58	ug/L	99
61)	n-Propylbenzene	19.87	120	51067	0.51	ug/L	100
62)	2-Chlorotoluene	19.98	126	49909	0.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	176547	0.54	ug/L	97
64)	1,3,5-Trimethylbenzene	20.53	105	157487	0.52	ug/L	100
65)	tert-Butylbenzene	21.55	91	105846	0.54	ug/L	90
66)	1,2,4-Trimethylbenzene	21.73	105	130302	0.47	ug/L	96
67)	sec-Butylbenzene	22.29	105	223693	0.51	ug/L	98
68)	1,3-Dichlorobenzene	22.45	146	95809	0.52	ug/L	98
69)	p-Isopropyltoluene	22.82	119	161812	0.48	ug/L	95
70)	1,4-Dichlorobenzene	22.76	146	94624	0.56	ug/L	96
71)	1,2-Dichlorobenzene	23.87	146	78043	0.53	ug/L	99
72)	n-Butylbenzene	24.10	91	134579	0.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73)	1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52	ug/L	#	86
74)	1,2,4-Trichlorobenzene	27.94	180	36654	0.41	ug/L		100
75)	Hexachlorobutadiene	28.33	225	48563	0.54	ug/L		98
76)	Naphthalene	28.34	128	27310	0.41	ug/L		100
77)	1,2,3-Trichlorobenzene	28.79	180	26742	0.40	ug/L		92

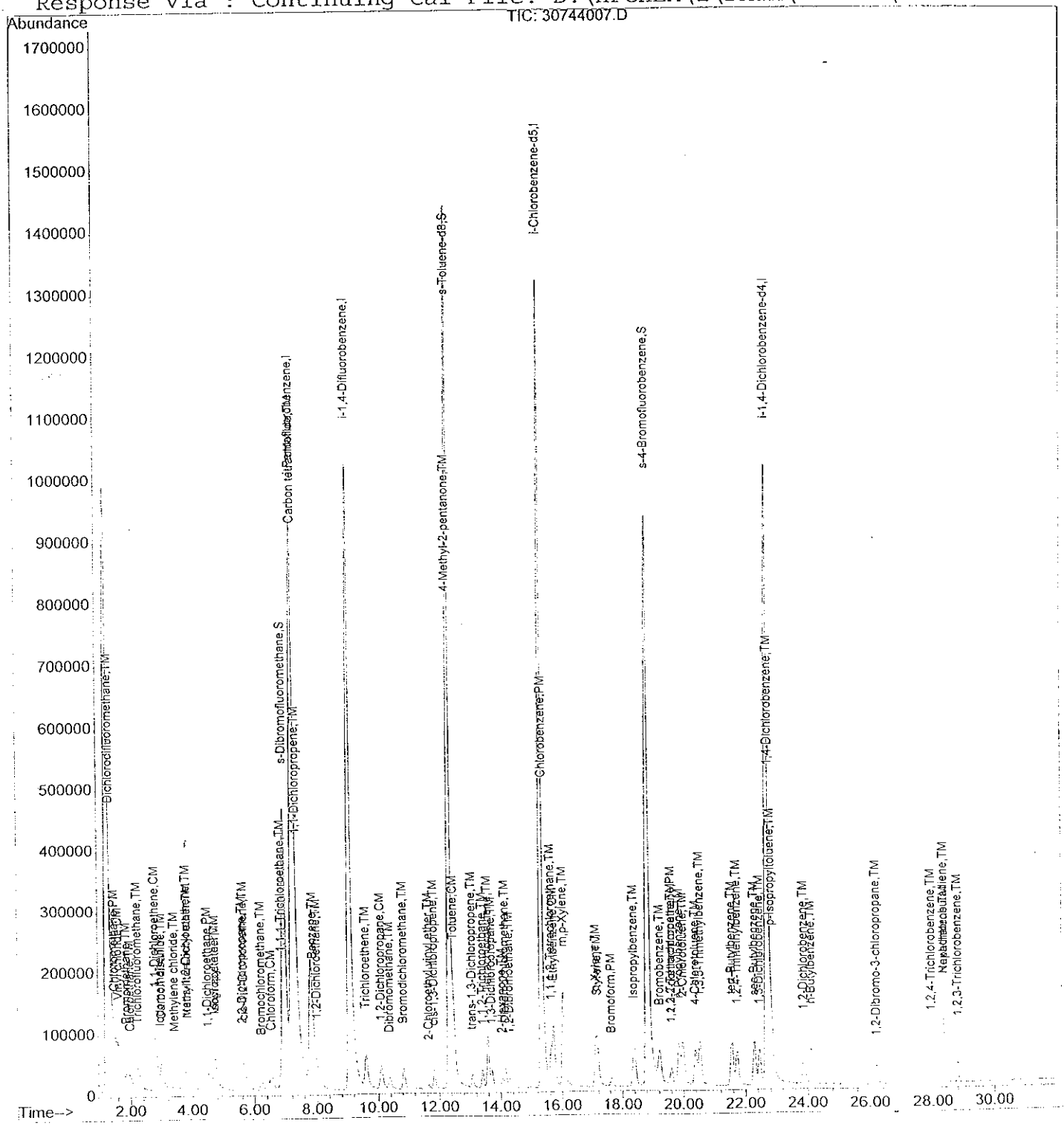
(#) = qualifier out of range (m) = manual integration

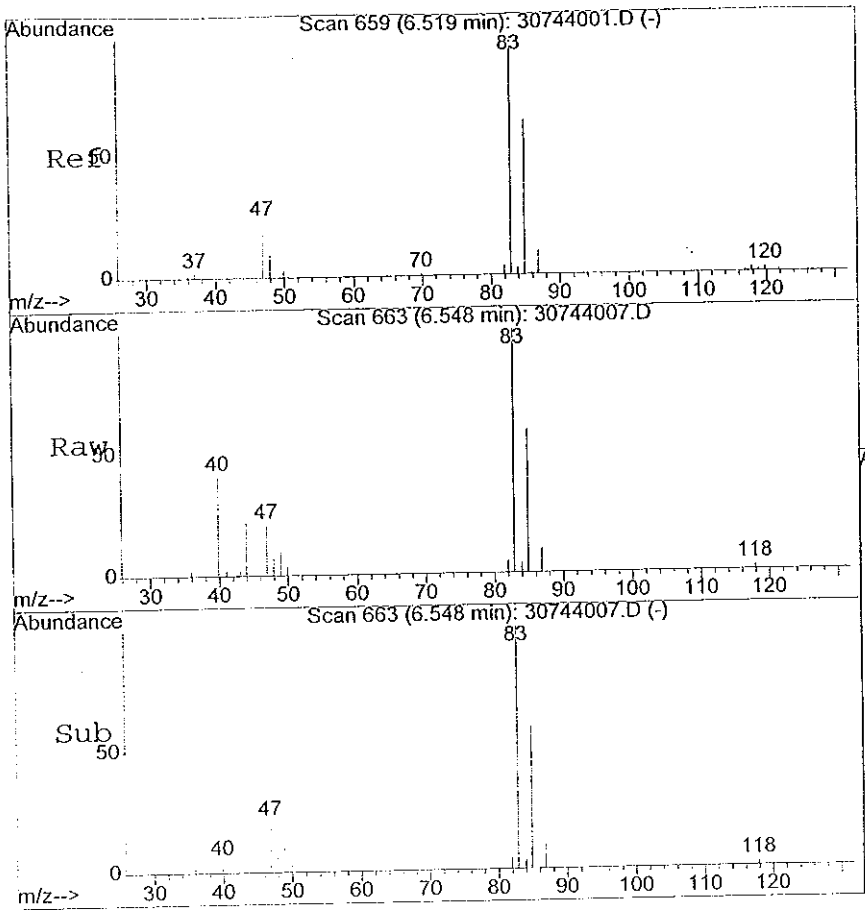
Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

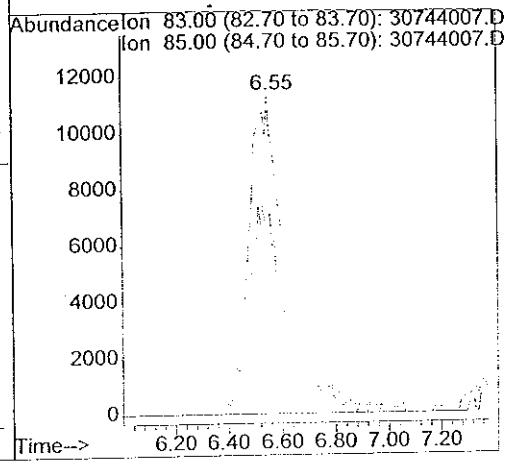




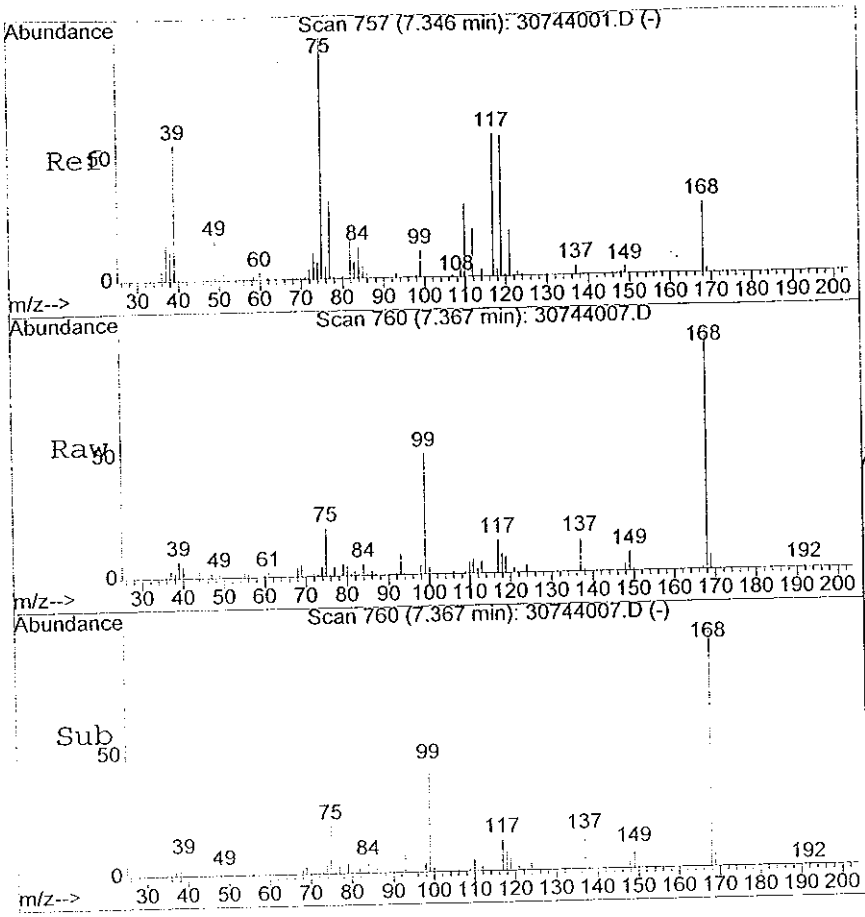
#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion: 83 Resp: 108615

Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6

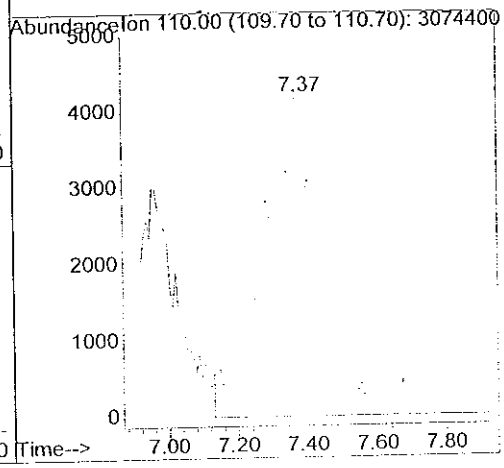


10-31
hw 10-31-01



#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959



10-31
10-31-01

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Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 / 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 / 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 / 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 / 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26) Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27) 1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28) Benzene	7.87	78	6215127	19.11	ug/L	100
29) 1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30) Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31) 1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32) Dibromomethane	10.35	93	939957	19.35	ug/L	98
33) 2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34) Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35) cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37) Toluene	12.47	92	3949672	19.04	ug/L	100
38) trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39) 1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40) Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41) 1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42) Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43) 1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44) 4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45) 2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47) Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50) Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51) m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52) o-Xylene	17.10	106	2595783	19.18	ug/L	98
53) Styrene	17.16	104	4271963	19.62	ug/L	100
54) Bromoform	17.63	173	1061009	19.77	ug/L	99
55) Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58) Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59) 1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60) 1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61) n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62) 2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63) 4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64) 1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65) tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66) 1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67) sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68) 1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69) p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70) 1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72) n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74) 1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75) Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76) Naphthalene	28.33	128	1514801	20.78	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

(#) = qualifier out of range (m) = manual integration

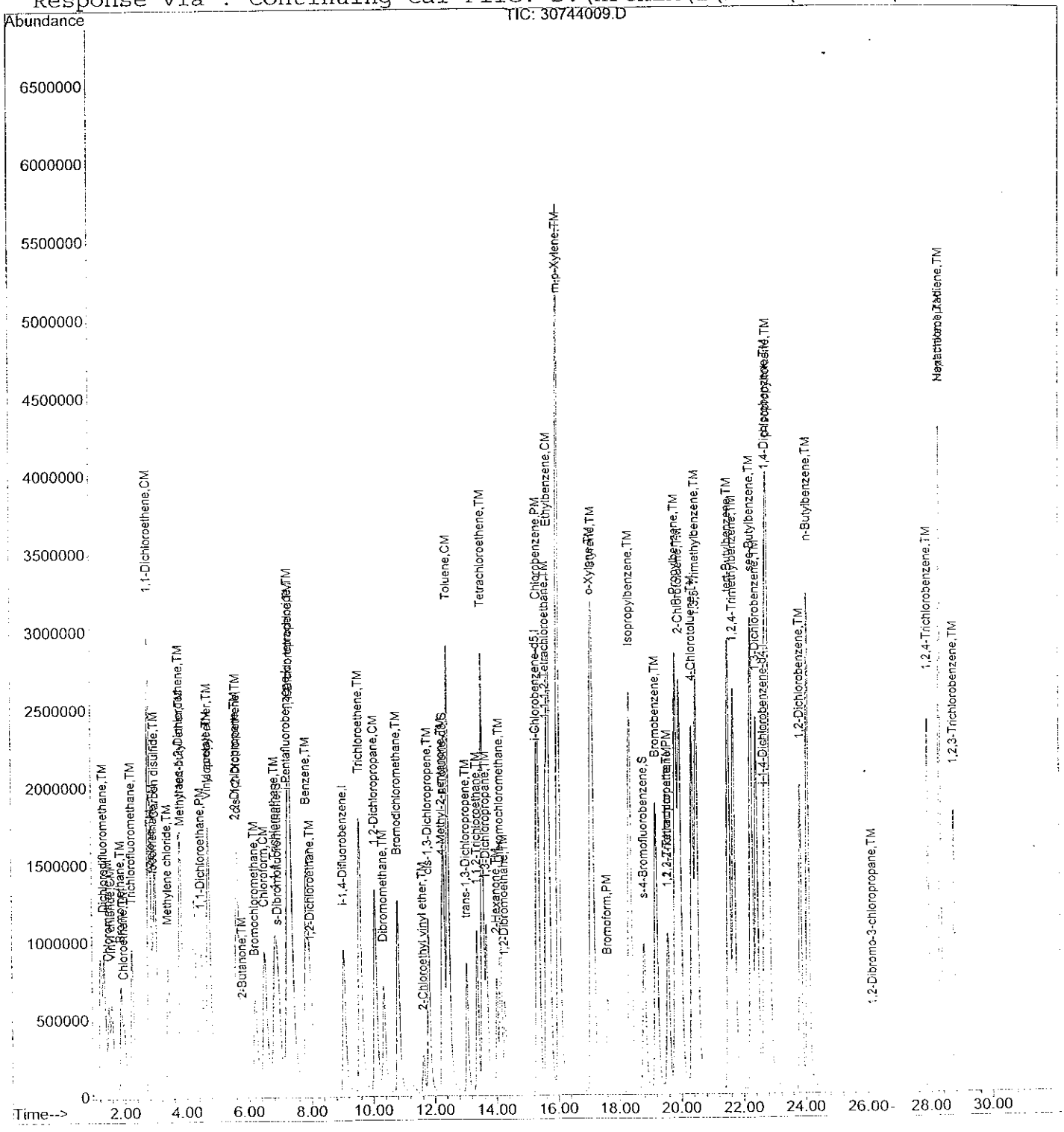
Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D



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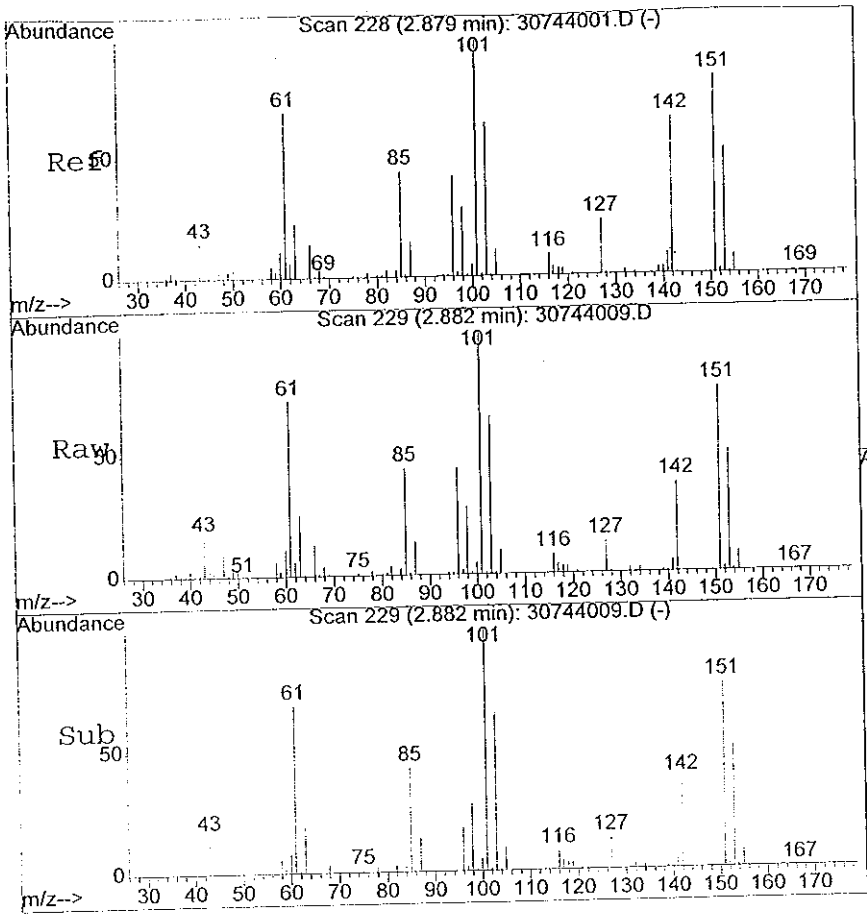
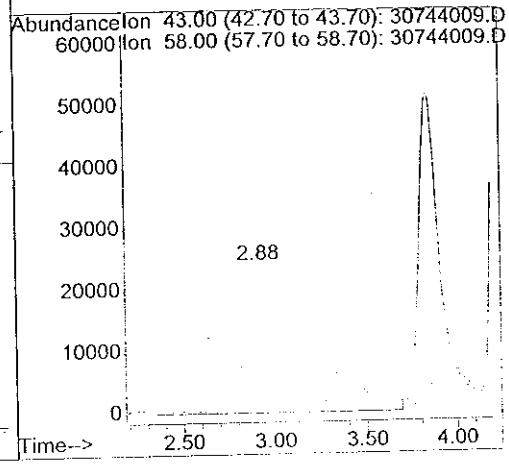


#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



10-31
10-31-01

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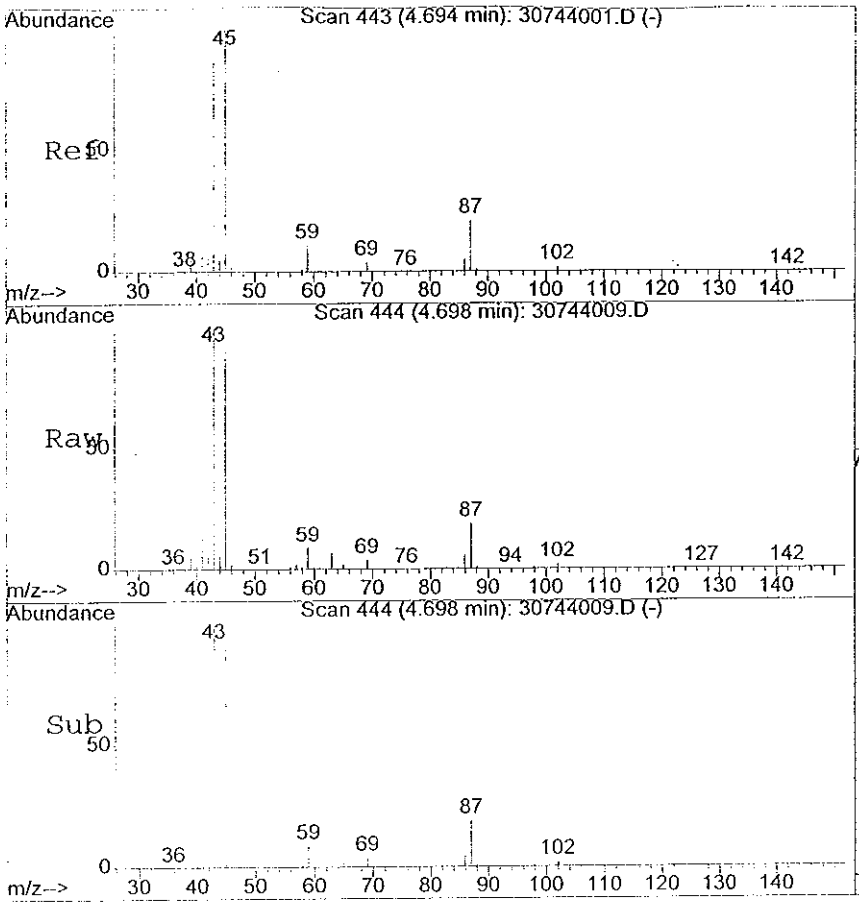
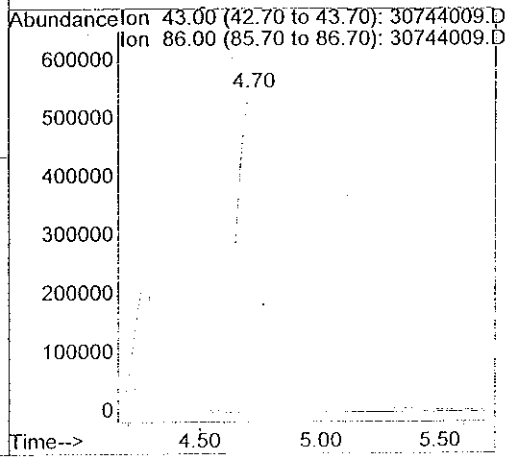


#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



10-31
11-31-01

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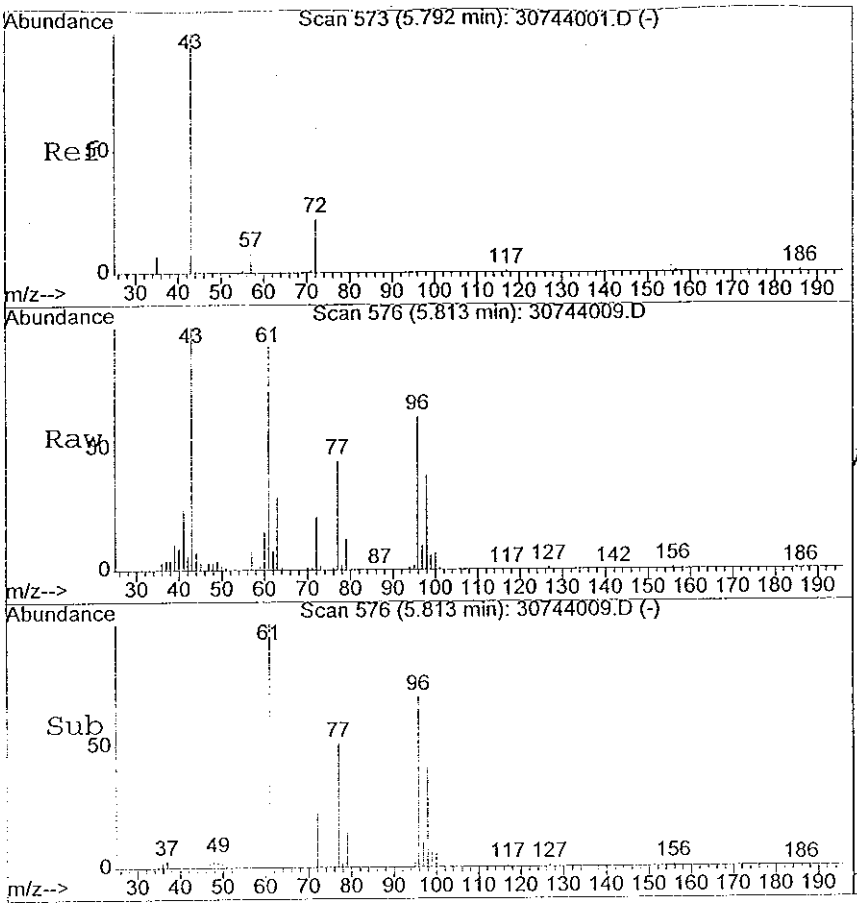
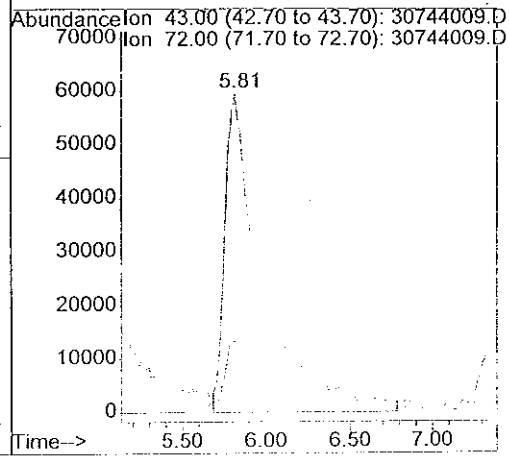


#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



10-31
for 10-31-01

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Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 / 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 / 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 / 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 / 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26)	Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27)	1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28)	Benzene	7.88	78	9780889	29.34	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30)	Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31)	1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32)	Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33)	2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34)	Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35)	cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37)	Toluene	12.48	92	6204841	29.18	ug/L	100
38)	trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39)	1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40)	Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41)	1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42)	Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43)	1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44)	4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45)	2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47)	Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50)	Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51)	m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52)	o-Xylene	17.12	106	4111508	29.27	ug/L	98
53)	Styrene	17.19	104	6844185	30.28	ug/L	100
54)	Bromoform	17.64	173	1805093	32.41	ug/L	100
55)	Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58)	Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60)	1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61)	n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62)	2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63)	4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64)	1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65)	tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66)	1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67)	sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69)	p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72) n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74) 1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75) Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76) Naphthalene	28.35	128	2562909	32.91	ug/L	100
77) 1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

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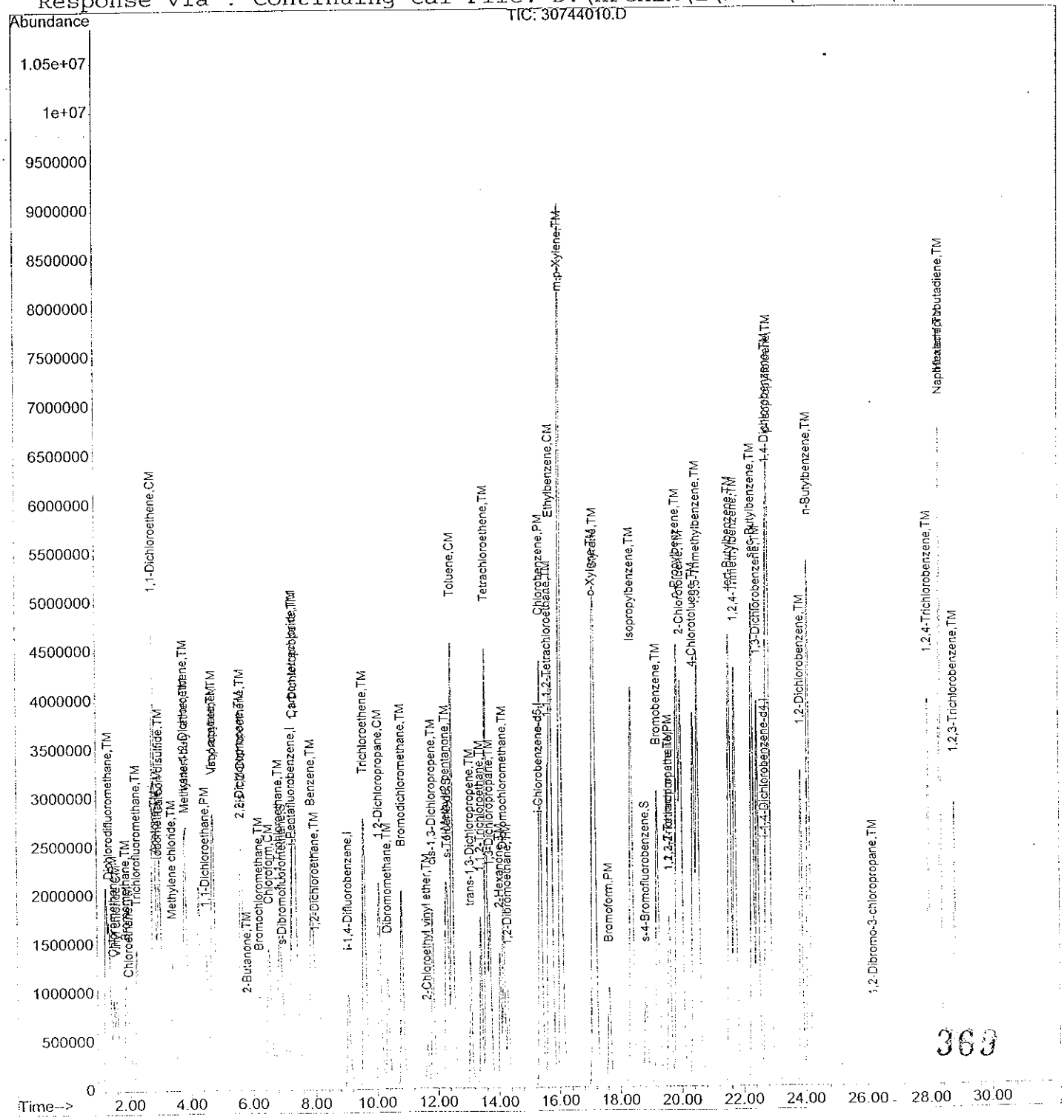
(#) = qualifier out of range (m) = manual integration

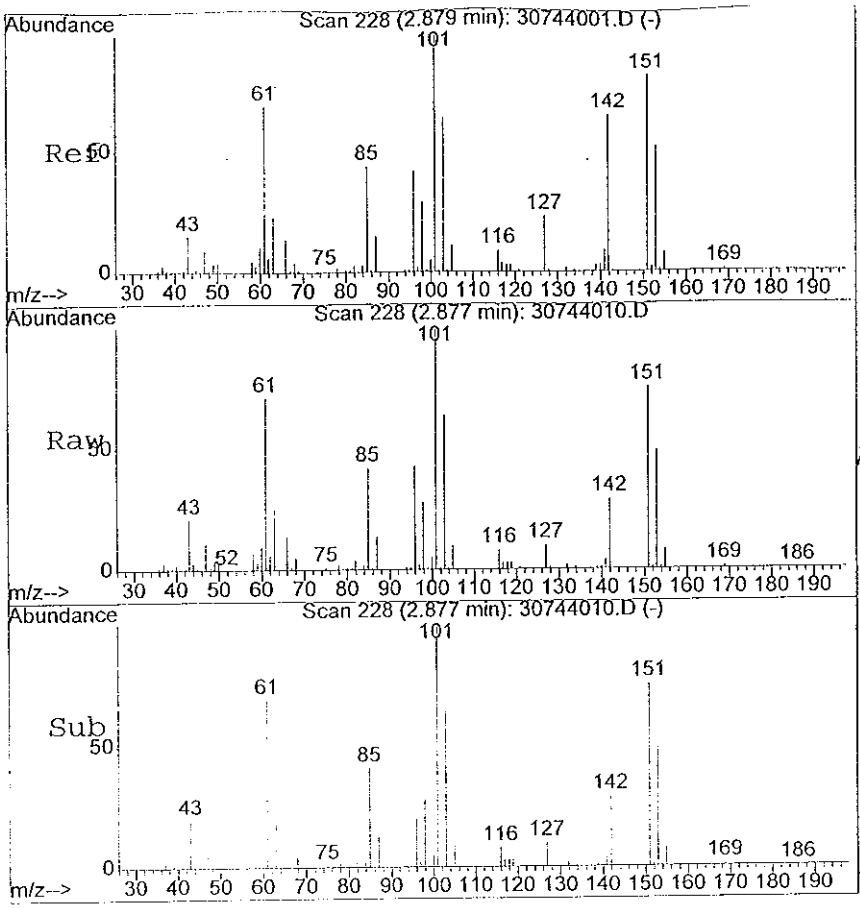
Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

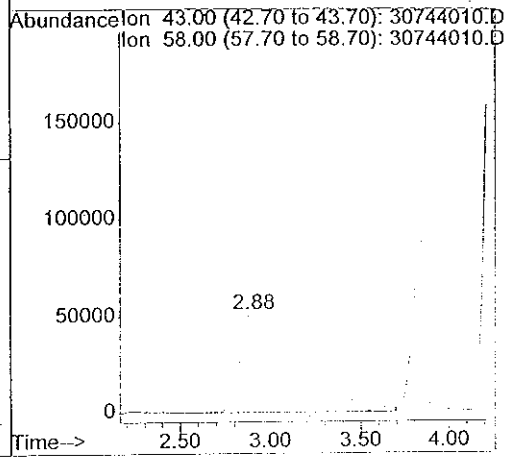




#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



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for 10/31/01

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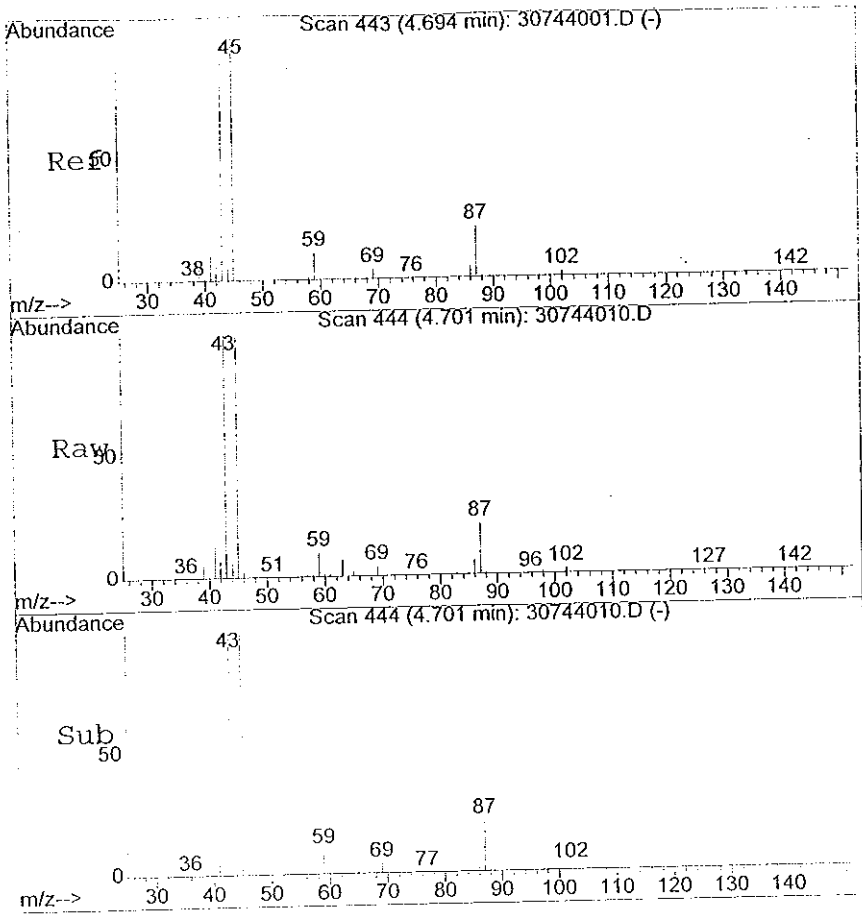
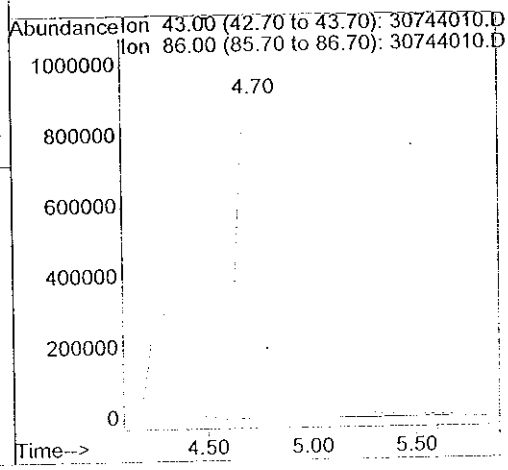


#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9



10-31
14:31

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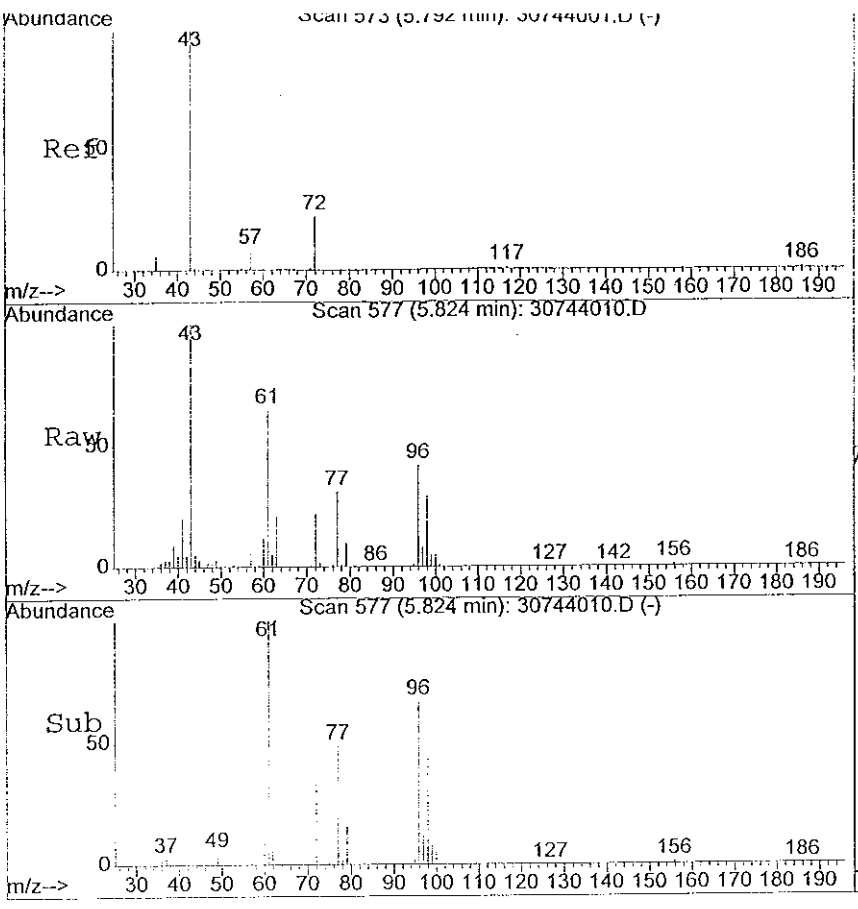
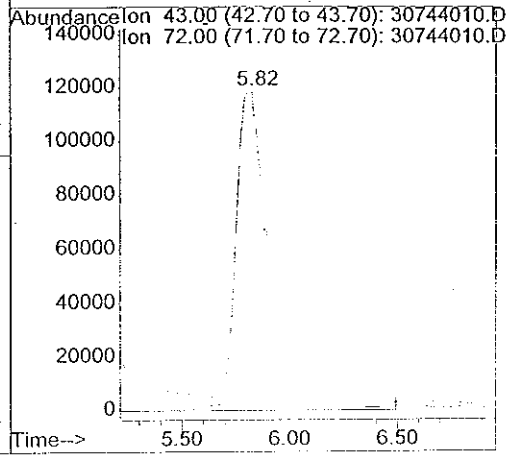


#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



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AM 10-31-01

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30744010.D V82625B1.M Acq :30 Oct 2001 14:43
Sample = 30ppb VOA STD Misc = 30ppb VOA STD

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26) Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27) 1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28) Benzene	7.87	78	3192959	9.73	ug/L	99
29) 1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30) Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31) 1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32) Dibromomethane	10.35	93	503678	10.29	ug/L	99
33) 2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34) Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35) cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37) Toluene	12.46	92	2053379	9.72	ug/L	100
38) trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40) Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41) 1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42) Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43) 1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44) 4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45) 2-Hexanone	14.01	43	421508	20.32	ug/L	99
47) Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48) 1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50) Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51) m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52) o-Xylene	17.08	106	1353170	10.02	ug/L	98
53) Styrene	17.15	104	2130325	9.94	ug/L	99
54) Bromoform	17.61	173	551199	10.58	ug/L	100
55) Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58) Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60) 1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61) n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62) 2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63) 4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64) 1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65) tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66) 1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67) sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68) 1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69) p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72) n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74) 1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75) Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76) Naphthalene	28.32	128	757496	10.96	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

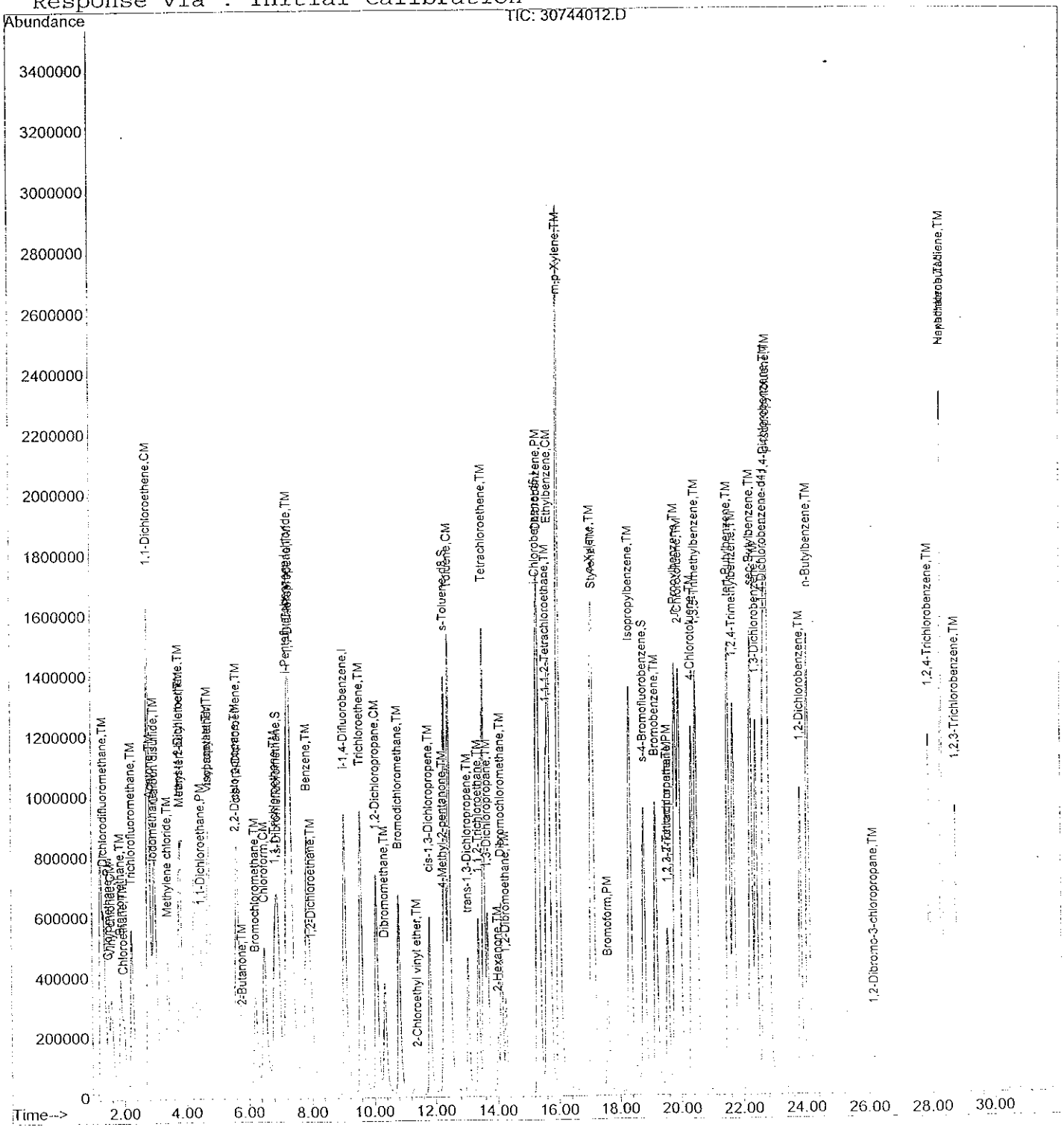
(#) = qualifier out of range (m) = manual integration

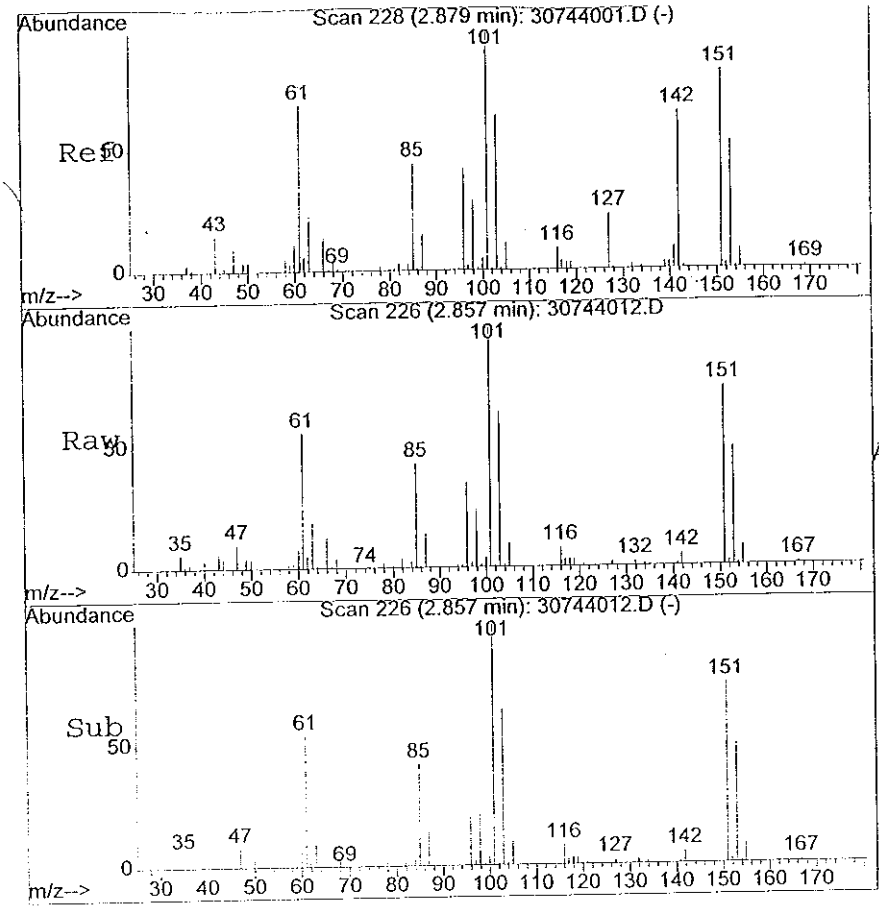
Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration

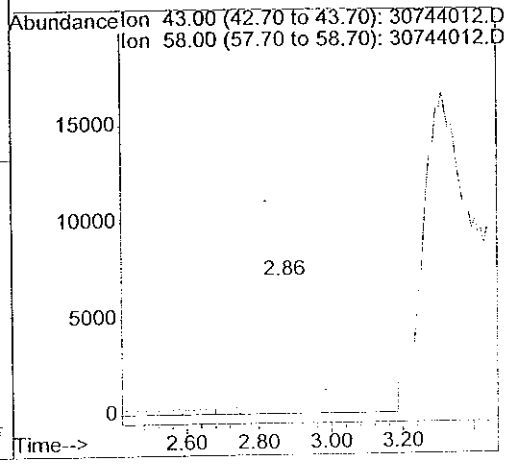




#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

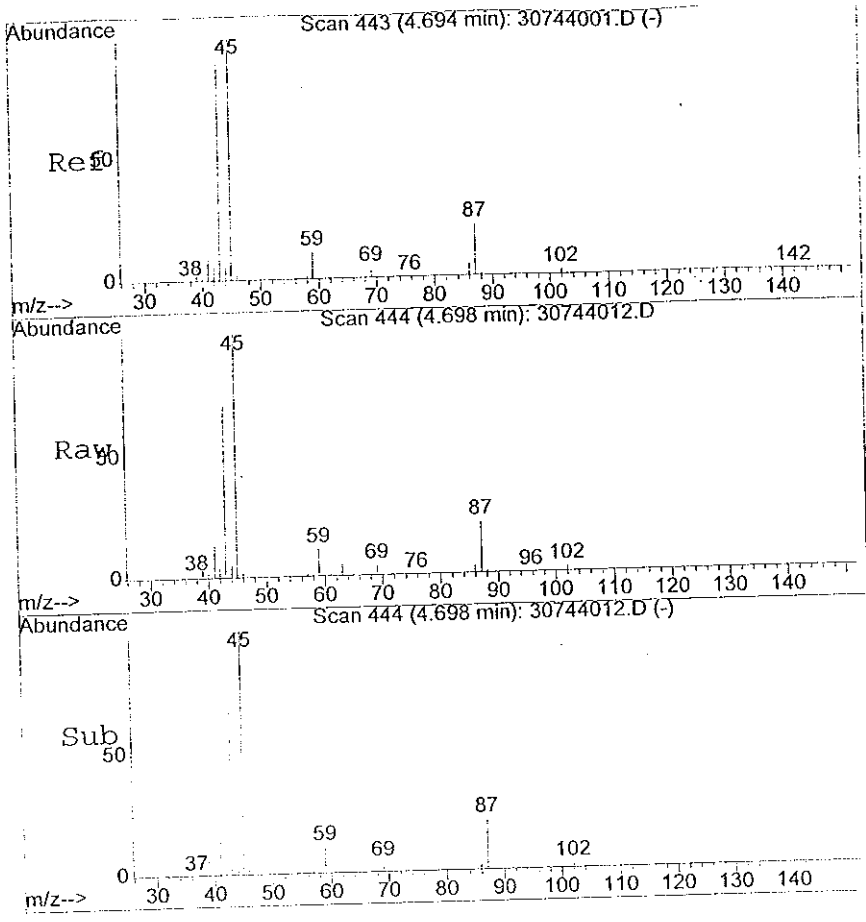
Tgt Ion: 43 Resp: 93381

Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



10-31

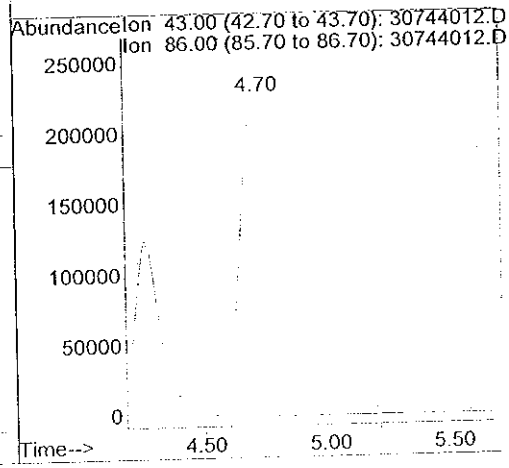
10-31-01



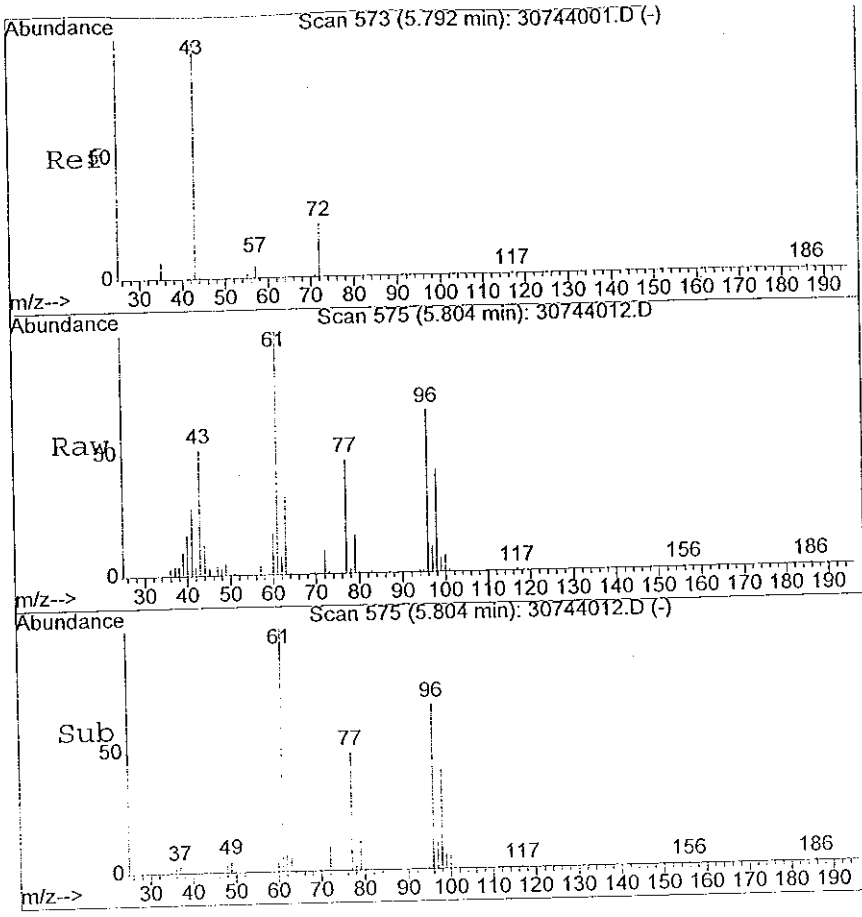
#16
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 2328403

Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9

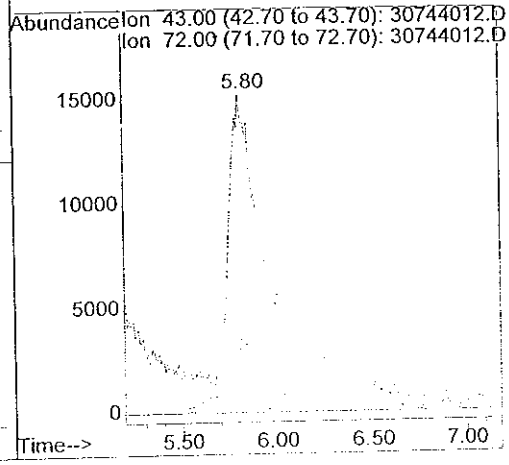


10-31
10-31-01



#19
2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43	Resp:	250575	
Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
MV 10-31-01

Sequence Name: D:\HPCHEM\1\SEQUENCE\110101.S
Comment: 11-01-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110101\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30746001	V82625A	TUNE
3	Sample	15	30746002	V82625A	10ppb VOA STD
4	Sample	16	30746003	V82625A	BUW148ABK BLANK 11-01-01
5	Sample	1	30746004	V82625A	BUW148ALCS LCS 11-01-01
6	Sample	2	30746005	V82625A	110611-1 MS
7	Sample	3	30746006	V82625A	110611-1 MSD
8	Sample	4	30746007	V82625A	110611-1
9	Sample	5	30746008	V82625A	110599-1
10	Sample	6	30746009	V82625A	110599-2
11	Sample	7	30746010	V82625A	110599-3
12	Sample	8	30746011	V82625A	110599-4
13	Sample	9	30746012	V82625A	110611-2
14	Sample	10	30746013	V82625A	110611-3
15	Sample	11	30746014	V82625A	110611-4
16	Sample	12	30746015	V82625A	110611-1 2.5ml 10X
17	Sample	13	BLANK	V82625A	BLANK

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name :
Project : Site :
Lab File ID (Standard): 30746002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 1 Nov 2001
Time Analyzed : 8:46
Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30746003	BUW148ABK BLANK	101	100	98	0	0	0	0
30746004	BUW148ALCS LCS	94	100	100	0	0	0	0
30746005	110611-1 MS	98	99	99	0	0	0	0
30746006	110611-1 MSD	102	100	101	0	0	0	0
30746007	110611-1	93	98	93	0	0	0	0
30746008	110599-1	97	96	96	0	0	0	0
30746009	110599-2	105	99	98	0	0	0	0
30746010	110599-3	100	99	97	0	0	0	0
30746011	110599-4	91	97	94	0	0	0	0
30746012	110611-2	86	99	93	0	0	0	0
30746013	110611-3	100	99	99	0	0	0	0
30746014	110611-4	90	97	92	0	0	0	0
30746015	110611-1 2.5ml	110	100	99	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30746002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 1 Nov 2001
Time Analyzed : 8:46
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	3027449		7.21		3043688		9.05		2174579		15.31	
UPPER LIMIT	6054898		7.71		6087376		9.55		4349158		15.81	
LOWER LIMIT	1513725		6.71		1521844		8.55		1087290		14.81	
File ID Sample												
30746003 BUW148ABK	3173460		7.25		3152823		9.06		2245110		15.31	
30746004 BUW148ALC	3117602		7.25		3081087		9.07		2131075		15.33	
30746005 110611-1	3072249		7.24		2998298		9.06		2053033		15.32	
30746006 110611-1	3091188		7.25		3129479		9.06		2197938		15.31	
30746007 110611-1	2848937		7.22		2758973		9.06		1839341		15.32	
30746008 110599-1	3262908		7.23		3169397		9.06		2216827		15.32	
30746009 110599-2	3023416		7.24		3047744		9.07		2211554		15.33	
30746010 110599-3	3190094		7.24		3183839		9.06		2244139		15.32	
30746011 110599-4	3108628		7.22		2981142		9.05		1989489		15.31	
30746012 110611-2	3250463		7.22		3030860		9.06		2049129		15.32	
30746013 110611-3	3196050		7.22		3175920		9.05		2307612		15.31	
30746014 110611-4	3036420		7.23		2919137		9.06		1947661		15.33	
30746015 110611-1	2907775		7.25		3034454		9.07		2197557		15.33	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30746002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 1 Nov 2001
Time Analyzed : 8:46
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1234004		22.68		0		0.00		0		0.00	
UPPER LIMIT	2468008		23.18		0		0.00		0		0.00	
LOWER LIMIT	617002		22.18		0		0.00		0		0.00	
File ID Sample												
30746003 BUW148ABK	1088520		22.68		0		0.00		0		0.00	
30746004 BUW148ALC	1195267		22.70		0		0.00		0		0.00	
30746005 110611-1	1111202		22.69		0		0.00		0		0.00	
30746006 110611-1	1240862		22.69		0		0.00		0		0.00	
30746007 110611-1	831719		22.69		0		0.00		0		0.00	
30746008 110599-1	1063236		22.69		0		0.00		0		0.00	
30746009 110599-2	1108654		22.70		0		0.00		0		0.00	
30746010 110599-3	1093632		22.68		0		0.00		0		0.00	
30746011 110599-4	920785		22.67		0		0.00		0		0.00	
30746012 110611-2	958963		22.70		0		0.00		0		0.00	
30746013 110611-3	1134134		22.68		0		0.00		0		0.00	
30746014 110611-4	882664		22.69		0		0.00		0		0.00	
30746015 110611-1	1092338		22.70		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

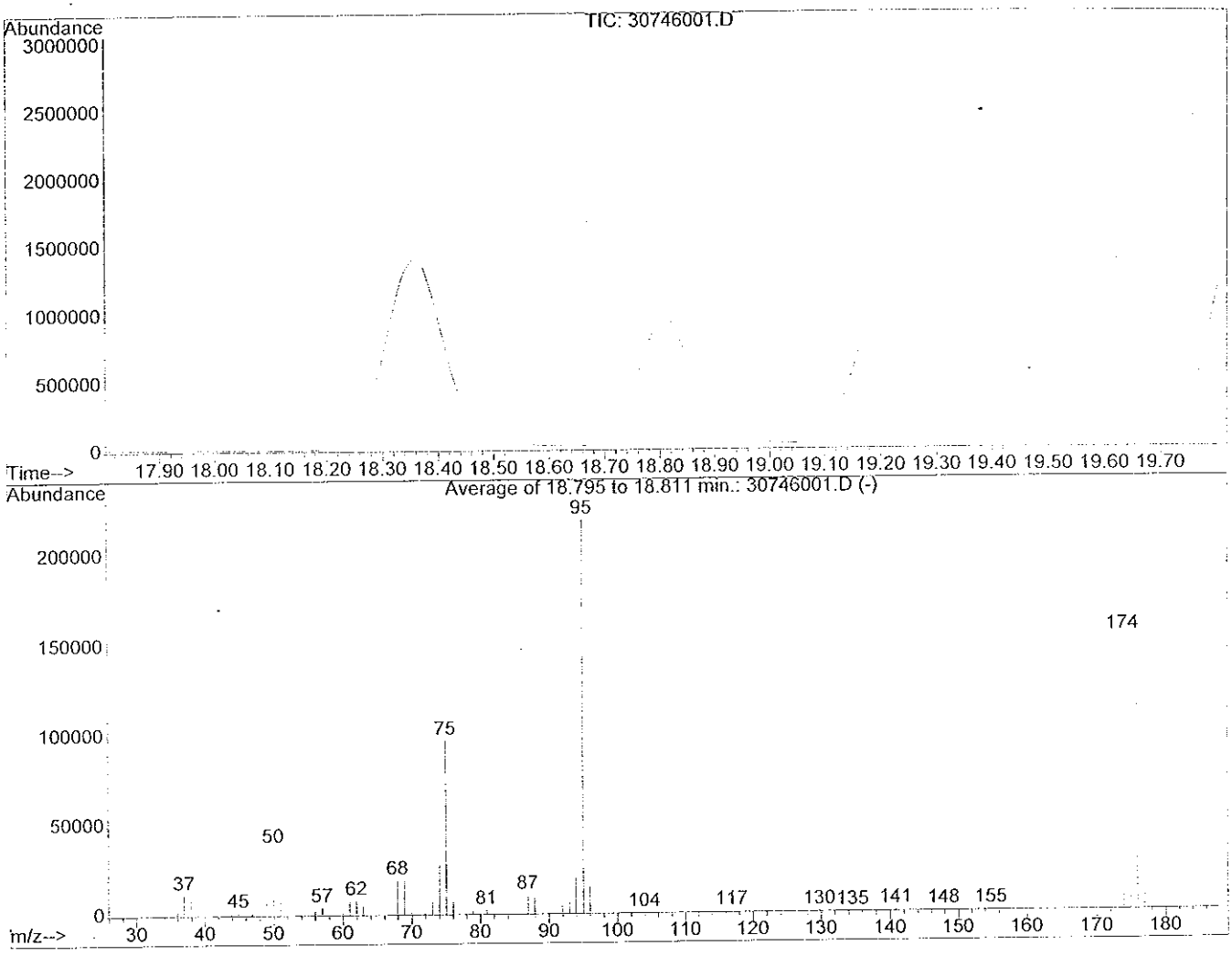
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\110101\30746001.D
Acq On : 1 Nov 2001 8:05
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2114 (18.80 min)
Average of 3 scans: 2113,2114,2115 minus background scan 2094 (18.63 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	37840	PASS
75	95	30	60	44.3	97312	PASS
95	95	100	100	100.0	219755	PASS
96	95	5	9	6.8	14893	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	69.5	152683	PASS
175	174	5	9	7.2	10993	PASS
176	174	95	101	96.9	147883	PASS
177	176	5	9	6.5	9571	PASS

Average of 18.795 to 18.811 min.: 30746001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	2367	57.00	4433	75.00	97312	173.90	152683
36.95	11712	59.95	1711	76.00	7362	174.90	10993
37.90	9137	60.95	7700	78.90	2154	175.90	147883
38.95	3442	61.95	8154	80.90	2512	176.90	9571
44.95	1690	62.95	5086	86.95	10711		
46.90	4168	67.95	19411	87.95	10247		
47.85	1175	68.95	19333	91.95	4673		
48.95	7838	69.90	1539	92.95	6529		
50.00	37840	71.95	1139	93.90	20329		
51.00	11005	73.00	7717	95.00	219755		
56.00	2438	74.00	27915	96.00	14893		

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	102	-0.03
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	101	0.00
3	PM	Chloromethane	0.324	0.308	4.9	99	0.00
4	CM	Vinyl chloride	0.340	0.321	5.6#	101	0.00
5	TM	Bromomethane	0.307	0.276	10.1	95	0.00
6	TM	Chloroethane	0.199	0.190	4.5	99	0.00
7	TM	Trichlorofluoromethane	0.557	0.546	2.0	102	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	101	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.367	8.9	93	-0.03
11	TM	Carbon disulfide	1.028	0.982	4.5	99	-0.02
12	TM	Methylene chloride	0.267	0.259	3.0	99	-0.02
13	TM	trans-1,2-Dichloroethene	0.363	0.348	4.1	98	-0.02
14	TM	Methyl tert-butyl ether	0.399	0.414	-3.8	106	0.00
15	PM	1,1-Dichloroethane	0.645	0.622	3.6	99	-0.03
16	TM	Vinyl acetate	0.489	0.484	1.0	101	-0.02
17	TM	Isopropyl ether	1.015	1.030	-1.5	101	-0.03
18	TM	2,2-Dichloropropane	0.478	0.446	6.7	94	-0.02
19	TM	2-Butanone	0.040	0.042#	-5.0	106	-0.06
20	TM	cis-1,2-Dichloroethene	0.311	0.320	-2.9	96	-0.03
21	TM	Bromochloromethane	0.130	0.135	-3.8	106	-0.02
22	CM	Chloroform	0.645	0.620	3.9#	99	-0.03
23	TM	1,1,1-Trichloroethane	0.539	0.528	2.0	99	-0.04
24	S	s-Dibromofluoromethane	0.463	0.465	-0.4	102	-0.03
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	-0.02
26	TM	Carbon tetrachloride	0.500	0.459	8.2	101	-0.03
27	TM	1,1-Dichloropropene	0.186	0.164	11.8	102	-0.02
28	TM	Benzene	1.086	1.048	3.5	99	-0.03
29	TM	1,2-Dichloroethane	0.217	0.208	4.1	99	-0.04
30	TM	Trichloroethene	0.437	0.419	4.1	100	0.00
31	CM	1,2-Dichloropropane	0.363	0.352	3.0#	99	-0.02
32	TM	Dibromomethane	0.162	0.163	-0.6	103	-0.02
33	TM	2-Chloroethyl vinyl ether	0.060	0.063	-5.0	101	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	0.391	0.395	-1.0	102	-0.02
36	S	s-Toluene-d8	0.947	0.957	-1.1	101	0.00
37	CM	Toluene	0.699	0.665	4.9#	99	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.251	-4.1	103	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.162	0.0	103	0.00
40	TM	Tetrachloroethene	0.505	0.484	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.313	-1.3	103	-0.02
42	TM	Dibromochloromethane	0.295	0.301	-2.0	103	0.00
43	TM	1,2-Dibromoethane	0.200	0.205	-2.5	103	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.118	-3.5	110	0.00
45	TM	2-Hexanone	0.069	0.076	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
47	PM	Chlorobenzene	1.050	0.994	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.451	3.0	100	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	95	0.00
50	CM	Ethylbenzene	0.567	0.530	6.5#	99	0.00
51	TM	m,p-Xylene	0.683	0.651	4.7	98	0.00
52	TM	o-Xylene	0.635	0.607	4.4	98	0.00
53	TM	Styrene	1.007	0.987	2.0	99	-0.02
54	PM	Bromoform	0.245	0.259	-5.7	106	-0.02
55	TM	Isopropylbenzene	2.040	1.960	3.9	99	-0.02
56	S	s-4-Bromofluorobenzene	0.760	0.775	-2.0	102	-0.03
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	-0.02
58	TM	Bromobenzene	0.928	0.866	6.7	102	-0.02
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	105	-0.02
60	TM	1,2,3-Trichloropropane	0.395	0.363	8.1	106	-0.03
61	TM	n-Propylbenzene	0.909	0.863	5.1	99	-0.02
62	TM	2-Chlorotoluene	0.856	0.773	9.7	99	-0.03
63	TM	4-Chlorotoluene	2.990	2.831	5.3	101	-0.03
64	TM	1,3,5-Trimethylbenzene	2.784	2.572	7.6	99	-0.02
65	TM	tert-Butylbenzene	1.825	1.685	7.7	101	-0.03
66	TM	1,2,4-Trimethylbenzene	2.442	2.306	5.6	97	-0.02
67	TM	sec-Butylbenzene	4.012	3.803	5.2	100	-0.02
68	TM	1,3-Dichlorobenzene	1.709	1.588	7.1	100	-0.02
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	100	-0.02
70	TM	1,4-Dichlorobenzene	1.630	1.534	5.9	105	-0.02
71	TM	1,2-Dichlorobenzene	1.359	1.278	6.0	101	-0.03
72	TM	n-Butylbenzene	2.797	2.892	-3.4	100	-0.03
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	106	-0.02
74	TM	1,2,4-Trichlorobenzene	0.763	0.804	-5.4	105	0.00
75	TM	Hexachlorobutadiene	0.873	0.803	8.0	103	0.00
76	TM	Naphthalene	0.582	0.627	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.605	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	102	-0.03
2	TM	Dichlorodifluoromethane	10.000	9.346	6.5	101	0.00
3	PM	Chloromethane	10.000	9.498	5.0	99	0.00
4	CM	Vinyl chloride	10.000	9.443	5.6#	101	0.00
5	TM	Bromomethane	10.000	8.996	10.0	95	0.00
6	TM	Chloroethane	10.000	9.510	4.9	99	0.00
7	TM	Trichlorofluoromethane	10.000	9.813	1.9	102	0.00
8	CM	1,1-Dichloroethene	10.000	9.629	3.7#	101	0.00
9	TM	Acetone	40.000	40.305	-0.8	106	0.00
10	TM	Iodomethane	10.000	9.123	8.8	93	-0.03
11	TM	Carbon disulfide	10.000	9.551	4.5	99	-0.02
12	TM	Methylene chloride	10.000	9.687	3.1	99	-0.02
13	TM	trans-1,2-Dichloroethene	10.000	9.581	4.2	98	-0.02
14	TM	Methyl tert-butyl ether	10.000	10.363	-3.6	106	0.00
15	PM	1,1-Dichloroethane	10.000	9.644	3.6	99	-0.03
16	TM	Vinyl acetate	20.000	19.788	1.1	101	-0.02
17	TM	Isopropyl ether	10.000	10.145	-1.4	101	-0.03
18	TM	2,2-Dichloropropane	10.000	9.333	6.7	94	-0.02
19	TM	2-Butanone	40.000	41.098	-2.7	106	-0.06
20	TM	cis-1,2-Dichloroethene	10.000	9.710	2.9	96	-0.03
21	TM	Bromochloromethane	10.000	10.443	-4.4	106	-0.02
22	CM	Chloroform	10.000	9.602	4.0#	99	-0.03
23	TM	1,1,1-Trichloroethane	10.000	9.793	2.1	99	-0.04
24	S	s-Dibromofluoromethane	10.000	10.049	-0.5	102	-0.03
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	-0.02
26	TM	Carbon tetrachloride	10.000	9.189	8.1	101	-0.03
27	TM	1,1-Dichloropropene	10.000	10.116	-1.2	102	-0.02
28	TM	Benzene	10.000	9.653	3.5	99	-0.03
29	TM	1,2-Dichloroethane	10.000	9.602	4.0	99	-0.04
30	TM	Trichloroethene	10.000	9.579	4.2	100	0.00
31	CM	1,2-Dichloropropane	10.000	9.687	3.1#	99	-0.02
32	TM	Dibromomethane	10.000	10.090	-0.9	103	-0.02
33	TM	2-Chloroethyl vinyl ether	10.000	10.519	-5.2	101	0.00
34	TM	Bromodichloromethane	10.000	9.821	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	10.000	10.100	-1.0	102	-0.02
36	S	s-Toluene-d8	10.000	10.098	-1.0	101	0.00
37	CM	Toluene	10.000	9.521	4.8#	99	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.394	-3.9	103	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.976	0.2	103	0.00
40	TM	Tetrachloroethene	10.000	9.579	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.115	-1.2	103	-0.02
42	TM	Dibromochloromethane	10.000	10.203	-2.0	103	0.00
43	TM	1,2-Dibromoethane	10.000	10.232	-2.3	103	0.00
44	TM	4-Methyl-2-pentanone	40.000	41.561	-3.9	110	0.00
45	TM	2-Hexanone	40.000	44.026	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	101	0.00
47	PM	Chlorobenzene	10.000	9.469	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.709	2.9	100	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	95	0.00
50	CM	Ethylbenzene	10.000	9.341	6.6#	99	0.00
51	TM	m,p-Xylene	20.000	19.076	4.6	98	0.00
52	TM	o-Xylene	10.000	9.560	4.4	98	0.00
53	TM	Styrene	10.000	9.796	2.0	99	-0.02
54	PM	Bromoform	10.000	10.581	-5.8	106	-0.02
55	TM	Isopropylbenzene	10.000	9.606	3.9	99	-0.02
56	S	s-4-Bromofluorobenzene	10.000	10.198	-2.0	102	-0.03
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	-0.02
58	TM	Bromobenzene	10.000	9.324	6.8	102	-0.02
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.656	3.4	105	-0.02
60	TM	1,2,3-Trichloropropane	10.000	10.251	-2.5	106	-0.03
61	TM	n-Propylbenzene	10.000	9.496	5.0	99	-0.02
62	TM	2-Chlorotoluene	10.000	9.031	9.7	99	-0.03
63	TM	4-Chlorotoluene	10.000	9.471	5.3	101	-0.03
64	TM	1,3,5-Trimethylbenzene	10.000	9.238	7.6	99	-0.02
65	TM	tert-Butylbenzene	10.000	9.235	7.7	101	-0.03
66	TM	1,2,4-Trimethylbenzene	10.000	9.442	5.6	97	-0.02
67	TM	sec-Butylbenzene	10.000	9.480	5.2	100	-0.02
68	TM	1,3-Dichlorobenzene	10.000	9.293	7.1	100	-0.02
69	TM	p-Isopropyltoluene	10.000	9.696	3.0	100	-0.02
70	TM	1,4-Dichlorobenzene	10.000	9.410	5.9	105	-0.02
71	TM	1,2-Dichlorobenzene	10.000	9.405	6.0	101	-0.03
72	TM	n-Butylbenzene	10.000	10.340	-3.4	100	-0.03
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.003	-0.0	106	-0.02
74	TM	1,2,4-Trichlorobenzene	10.000	10.537	-5.4	105	0.00
75	TM	Hexachlorobutadiene	10.000	10.461	-4.6	103	0.00
76	TM	Naphthalene	10.000	10.768	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.633	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	3027449	10.00	ug/L	-0.03 103.20%
25) i-1,4-Difluorobenzene	9.05	114	3043688	10.00	ug/L	-0.02 98.79%
46) i-Chlorobenzene-d5	15.31	117	2174579	10.00	ug/L	0.00 99.13%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1234004	10.00	ug/L	-0.02 99.46%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1408935	10.05	ug/L	-0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.50%			
36) s-Toluene-d8	12.32	98	2911662	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.81	95	1685265	10.20	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1437771	9.35	ug/L	99
3) Chloromethane	1.50	50	931426	9.50	ug/L	99
4) Vinyl chloride	1.59	62	972374	9.44	ug/L	98
5) Bromomethane	1.89	96	837028	9.00	ug/L	99
6) Chloroethane	1.98	64	573882	9.51	ug/L	96
7) Trichlorofluoromethane	2.22	101	1653555	9.81	ug/L	97
8) 1,1-Dichloroethene	2.77	96	953730	9.63	ug/L	99
9) Acetone	2.87	43	237252m	40.30	ug/L	85
10) Iodomethane	2.92	142	1112219	9.12	ug/L	100
11) Carbon disulfide	2.98	76	2973491	9.55	ug/L	100
12) Methylene chloride	3.39	84	783503	9.69	ug/L	99
13) trans-1,2-Dichloroethene	3.78	96	1052780	9.58	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1252246	10.36	ug/L	100
15) 1,1-Dichloroethane	4.46	63	1883216	9.64	ug/L	98
16) Vinyl acetate	4.68	43	2928917m	19.79	ug/L	100
17) Isopropyl ether	4.70	45	3116805	10.14	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1351483	9.33	ug/L	100
19) 2-Butanone	5.77	43	503184m	41.10	ug/L	100
20) cis-1,2-Dichloroethene	5.64	96	968888	9.71	ug/L	95
21) Bromochloromethane	6.19	128	410080	10.44	ug/L	96
22) Chloroform	6.49	83	1876298	9.60	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.82	97	1598515	9.79	ug/L	98
26)	Carbon tetrachloride	7.27	119	1397321	9.19	ug/L	99
27)	1,1-Dichloropropene	7.32	110	500154	10.12	ug/L	100
28)	Benzene	7.85	78	3189474	9.65	ug/L	98
29)	1,2-Dichloroethane	7.97	62	634114	9.60	ug/L	95
30)	Trichloroethene	9.58	95	1275412	9.58	ug/L	98
31)	1,2-Dichloropropane	10.07	63	1070134	9.69	ug/L	100
32)	Dibromomethane	10.34	93	497383	10.09	ug/L	96
33)	2-Chloroethyl vinyl ether	11.63	63	192173	10.52	ug/L	99
34)	Bromodichloromethane	10.81	83	1501247	9.82	ug/L	100
35)	cis-1,3-Dichloropropene	11.81	75	1201714	10.10	ug/L	98
37)	Toluene	12.46	92	2025528	9.52	ug/L	99
38)	trans-1,3-Dichloropropene	13.05	75	762583	10.39	ug/L	100
39)	1,1,2-Trichloroethane	13.39	83	491621	9.98	ug/L	98
40)	Tetrachloroethene	13.57	166	1472839	9.58	ug/L	100
41)	1,3-Dichloropropane	13.69	76	952215	10.11	ug/L	99
42)	Dibromochloromethane	14.14	129	916096	10.20	ug/L	99
43)	1,2-Dibromoethane	14.28	107	623997	10.23	ug/L	98
44)	4-Methyl-2-pentanone	12.26	43	1440450	41.56	ug/L	99
45)	2-Hexanone	14.02	43	919496	44.03	ug/L	97
47)	Chlorobenzene	15.37	112	2162448	9.47	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	981130	9.71	ug/L	99
50)	Ethylbenzene	15.72	106	1152005	9.34	ug/L	100
51)	m,p-Xylene	16.03	106	2832057	19.08	ug/L	100
52)	o-Xylene	17.09	106	1320214	9.56	ug/L	100
53)	Styrene	17.15	104	2145922	9.80	ug/L	99
54)	Bromoform	17.62	173	563389	10.58	ug/L	99
55)	Isopropylbenzene	18.36	105	4261613	9.61	ug/L	98
58)	Bromobenzene	19.21	156	1068146	9.32	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	767568	9.66	ug/L	98
60)	1,2,3-Trichloropropane	19.57	75	447524	10.25	ug/L	98
61)	n-Propylbenzene	19.84	120	1064636	9.50	ug/L	100
62)	2-Chlorotoluene	19.97	126	953879	9.03	ug/L	100
63)	4-Chlorotoluene	20.36	91	3493924	9.47	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3173298	9.24	ug/L	99
65)	tert-Butylbenzene	21.53	91	2079279	9.23	ug/L	95
66)	1,2,4-Trimethylbenzene	21.71	105	2845648	9.44	ug/L	99
67)	sec-Butylbenzene	22.26	105	4692681	9.48	ug/L	99
68)	1,3-Dichlorobenzene	22.43	146	1959362	9.29	ug/L	99
69)	p-Isopropyltoluene	22.81	119	3613678	9.70	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1892921	9.41	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.84	146	1577665	9.40	ug/L	100
72) n-Butylbenzene	24.08	91	3569105	10.34	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	107339	10.00	ug/L	97
74) 1,2,4-Trichlorobenzene	27.93	180	992313	10.54	ug/L	99
75) Hexachlorobutadiene	28.32	225	990395	10.46	ug/L	97
76) Naphthalene	28.34	128	773437	10.77	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	746495	10.63	ug/L	99

(#) = qualifier out of range (m) = manual integration

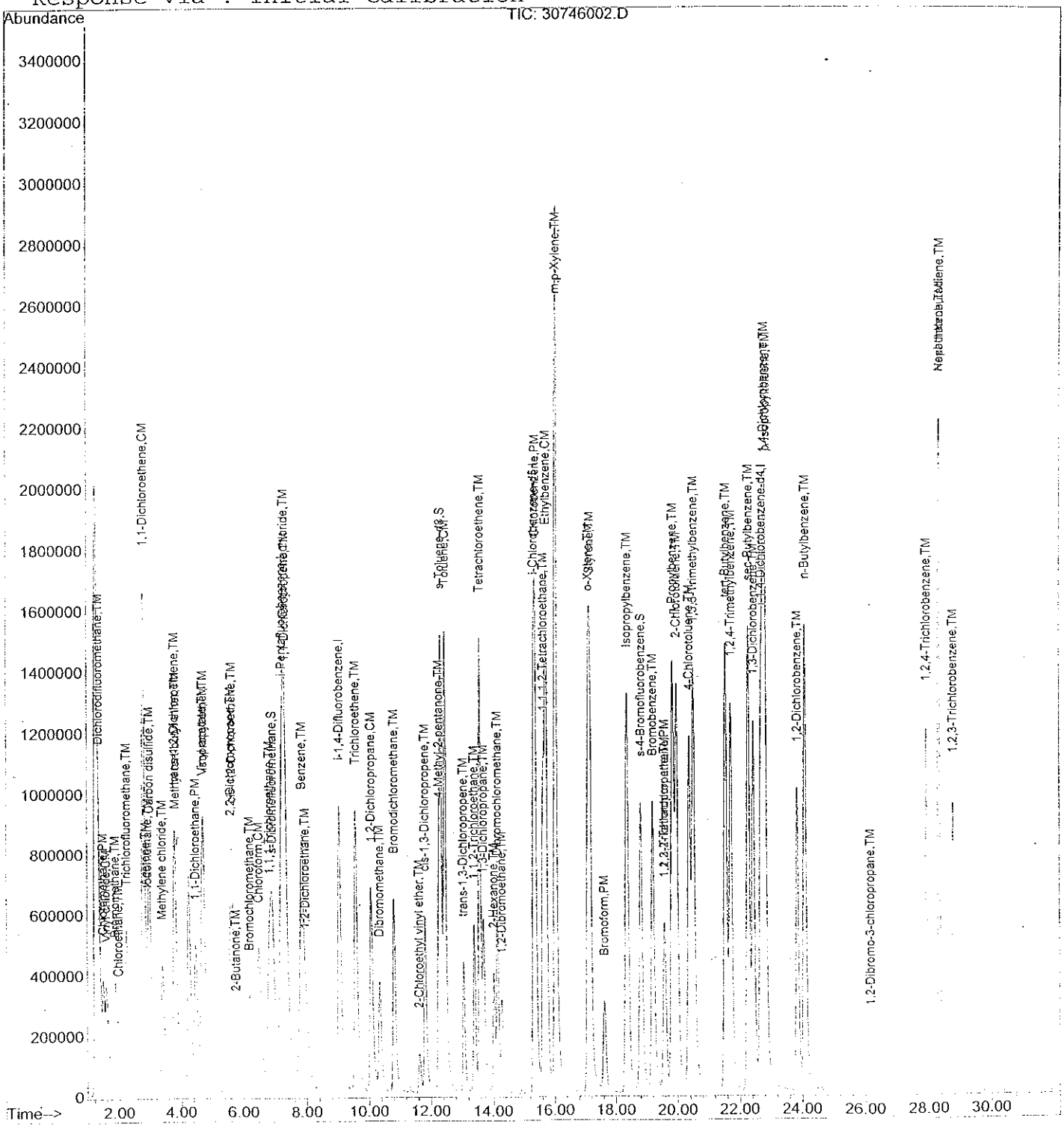
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

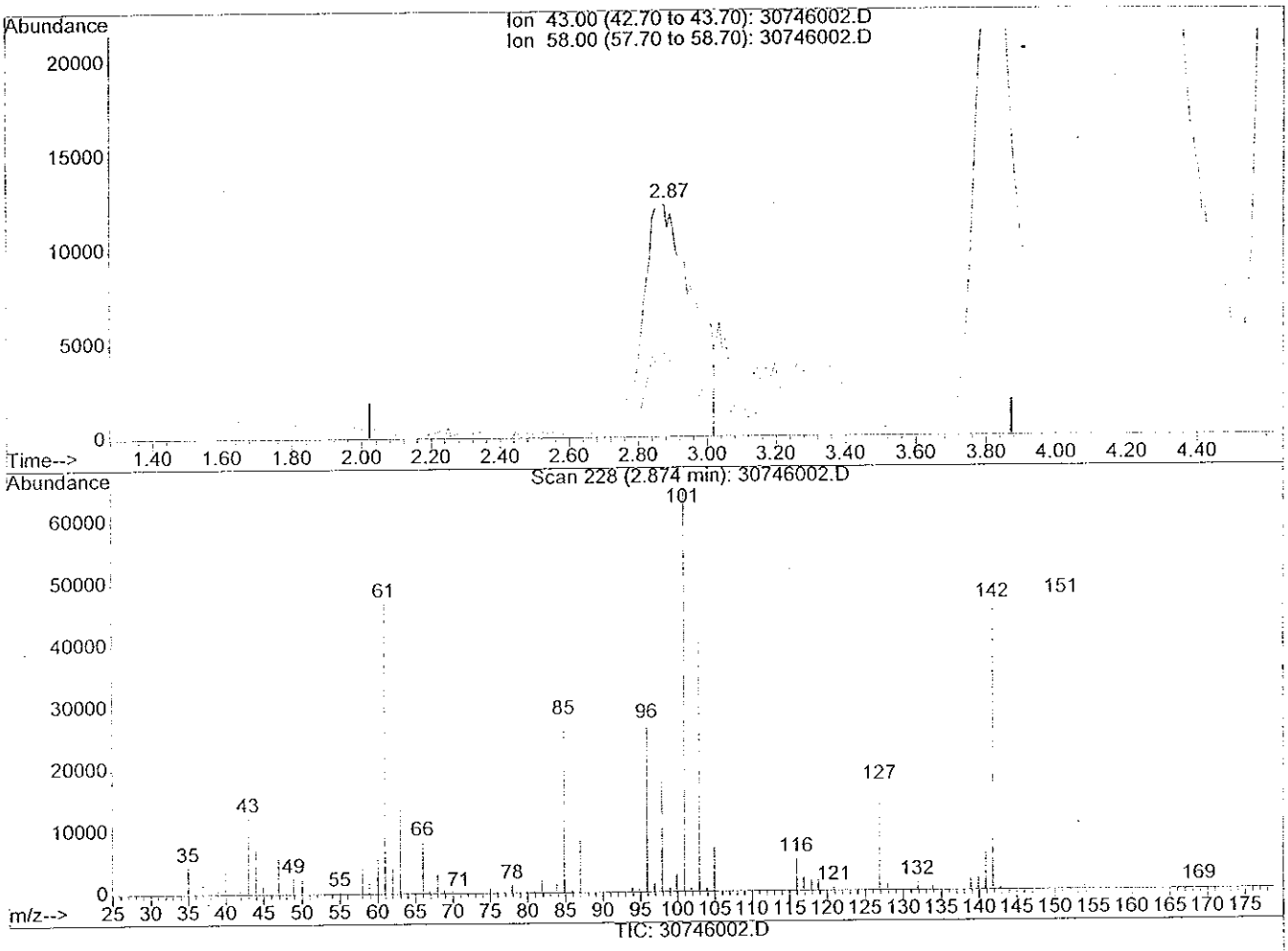
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:16 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min, 21.33ug/L

response 125834

Ion	Exp%	Act%
43.00	100	100
58.00	28.00	35.98
0.00	0.00	0.00
0.00	0.00	0.00

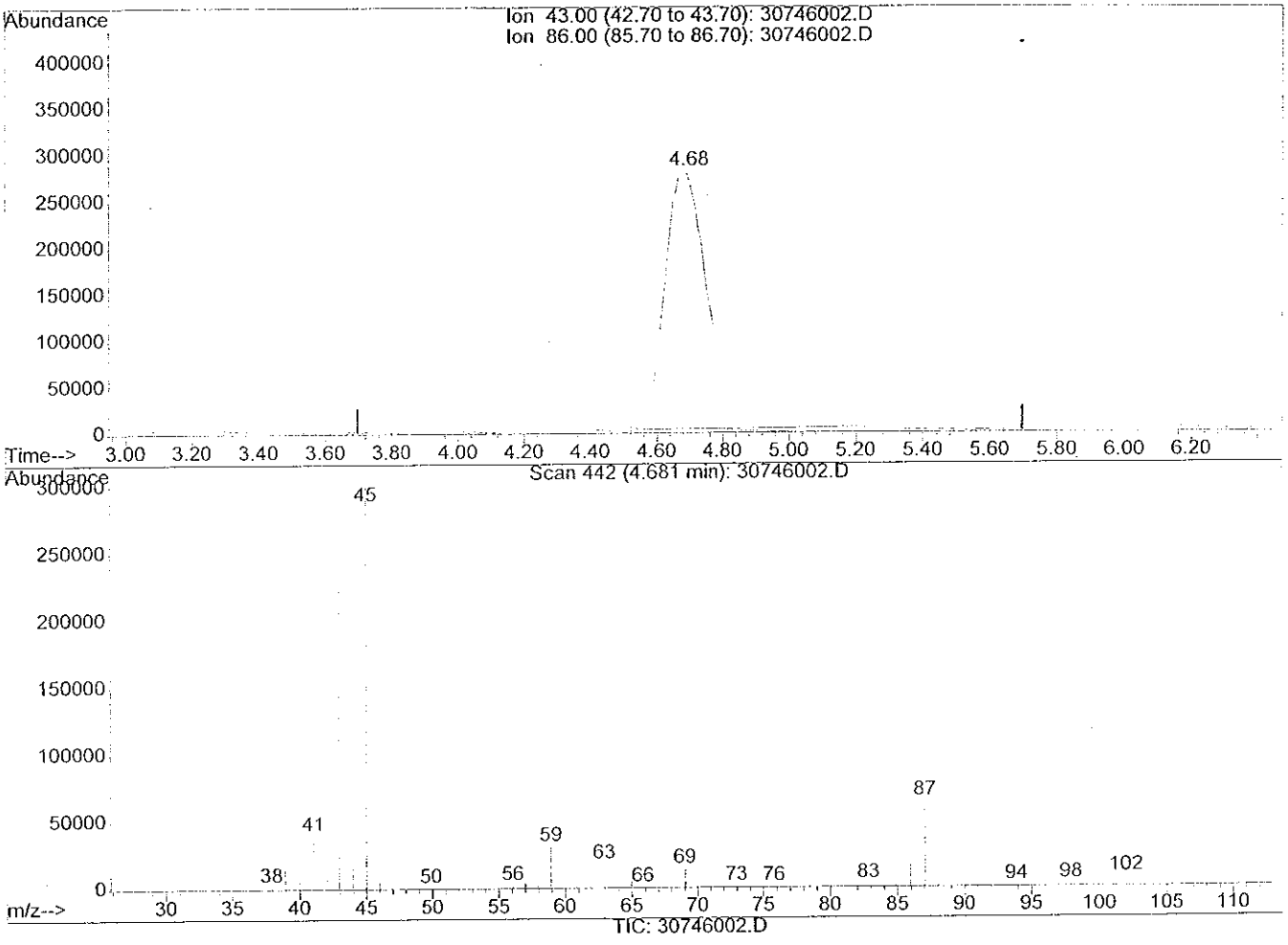
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

4.68min 18.30ug/L

response 2709340

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	5.98
0.00	0.00	0.00
0.00	0.00	0.00

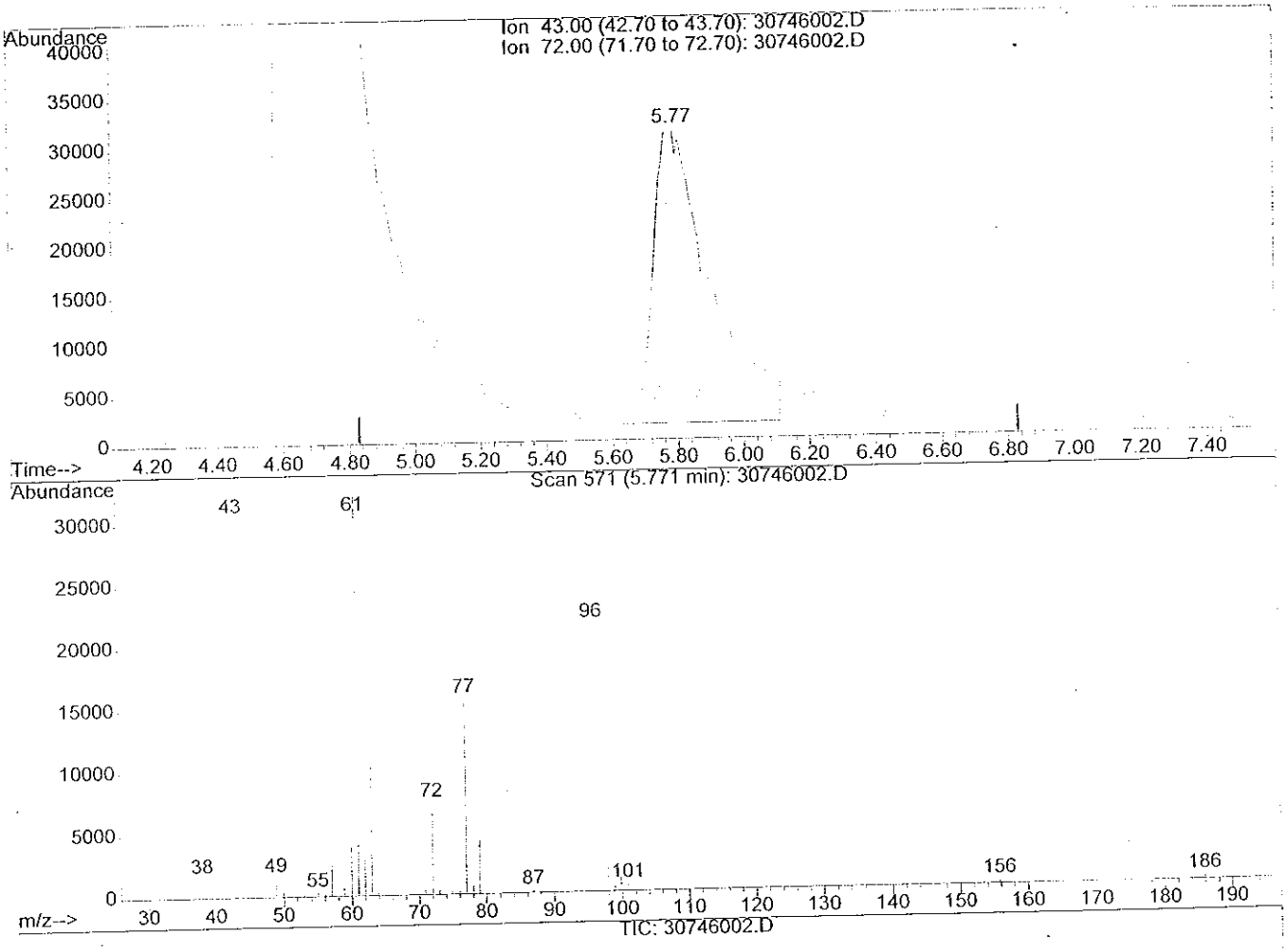
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

5.77min 29.73ug/L

response 363987

Ion	Exp%	Act%
43.00	100	100
72.00	21.70	21.60
0.00	0.00	0.00
0.00	0.00	0.00

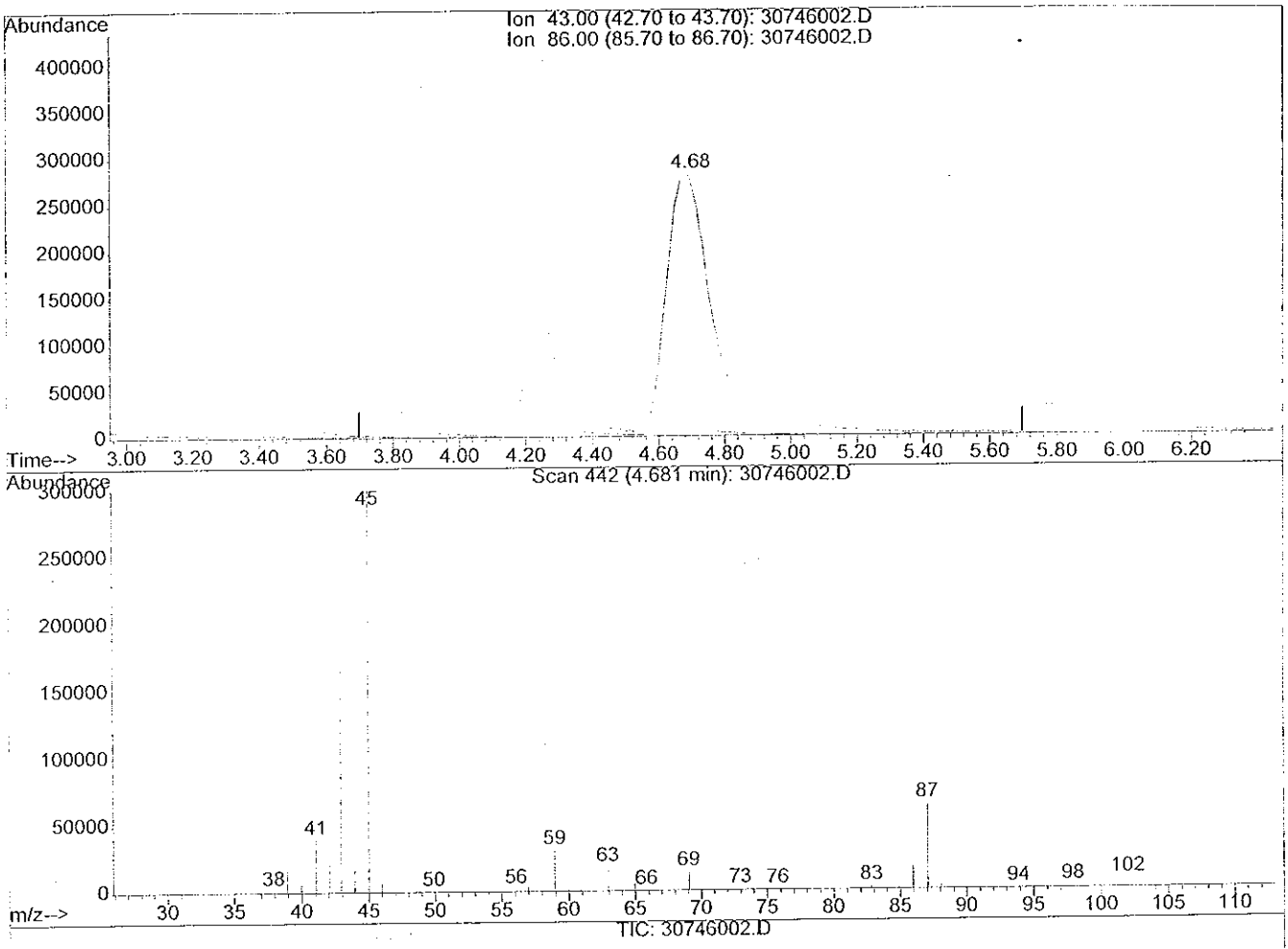
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

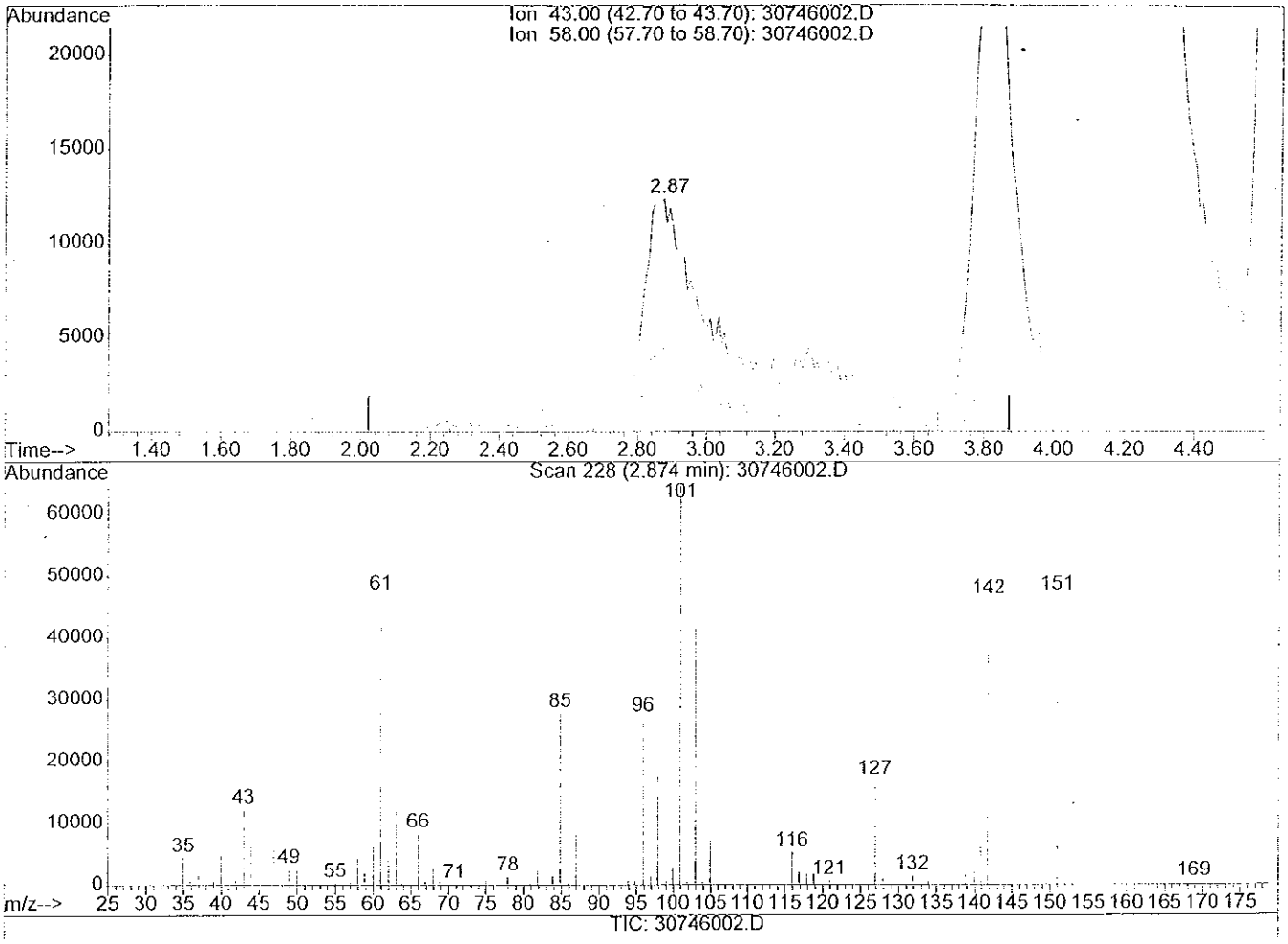
4.68min, 19.79ug/L m

response 2928917

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	6.03
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 40.30ug/L m

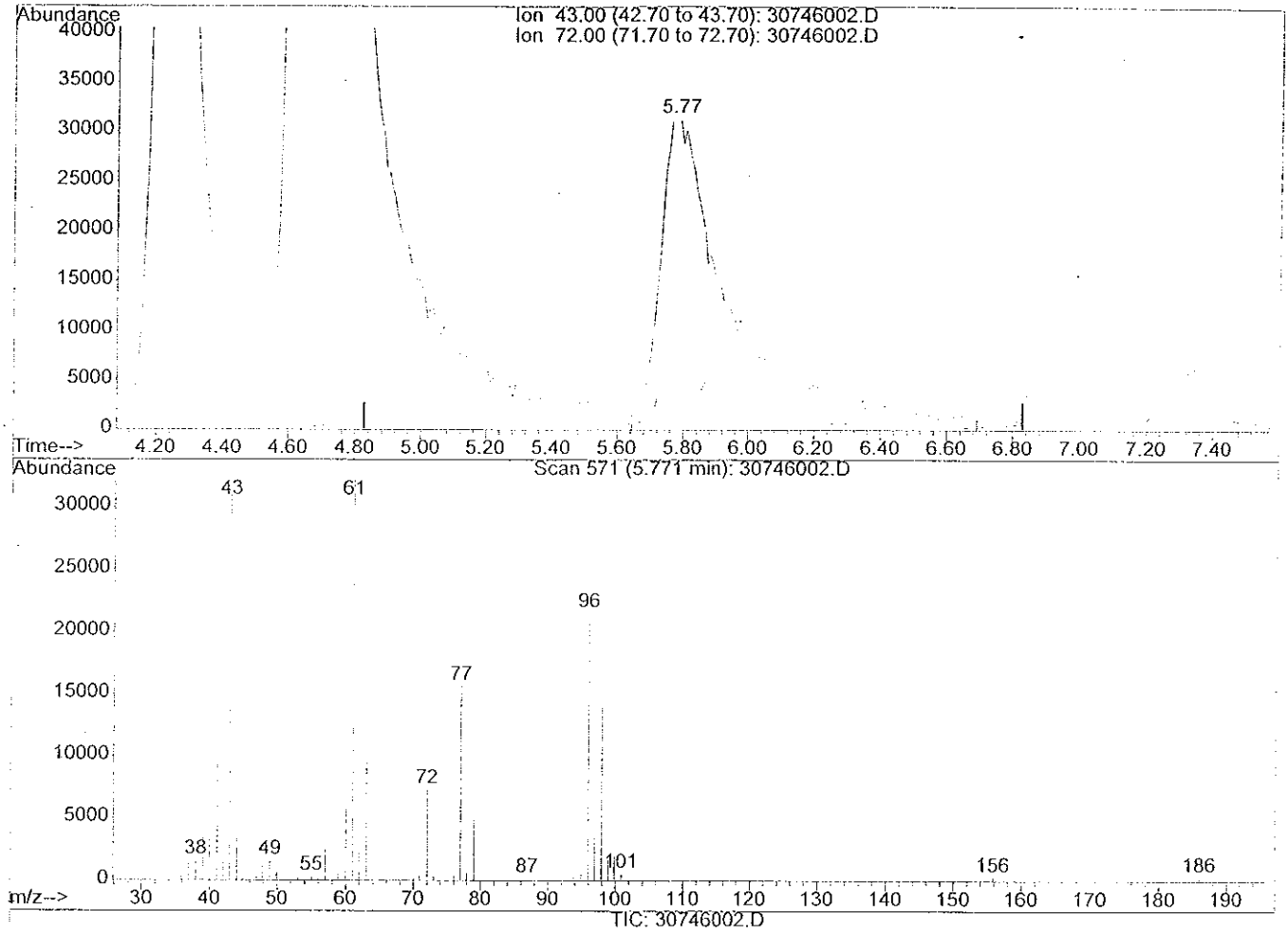
response 237252

Ion	Exp%	Act%
43.00	100	100
58.00	28.00	35.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

5.77min , 41.10ug/L m

response 503184

Ion	Exp%	Act%
43.00	100	100
72.00	21.70	23.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : d:\HPCHEM\1\DATA\110101\30746003.D Vial: 16
Acq On : 1 Nov 2001 9:26 Operator: GRH
Sample : BUW148ABK BLANK 11-01-01 Inst : Bubba
Misc : BUW148ABK BLANK 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:13 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3173460	10.00	ug/L	0.03 104.82%
25) i-1,4-Difluorobenzene	9.06	114	3152823	10.00	ug/L	0.02 103.59%
46) i-Chlorobenzene-d5	15.31	117	2245110	10.00	ug/L	0.00 103.24%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1088520	10.00	ug/L	0.00 88.21%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1478838	10.06	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.60%			
36) s-Toluene-d8	12.33	98	2983964	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1671994	9.80	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.00%			

Target Compounds Qvalue

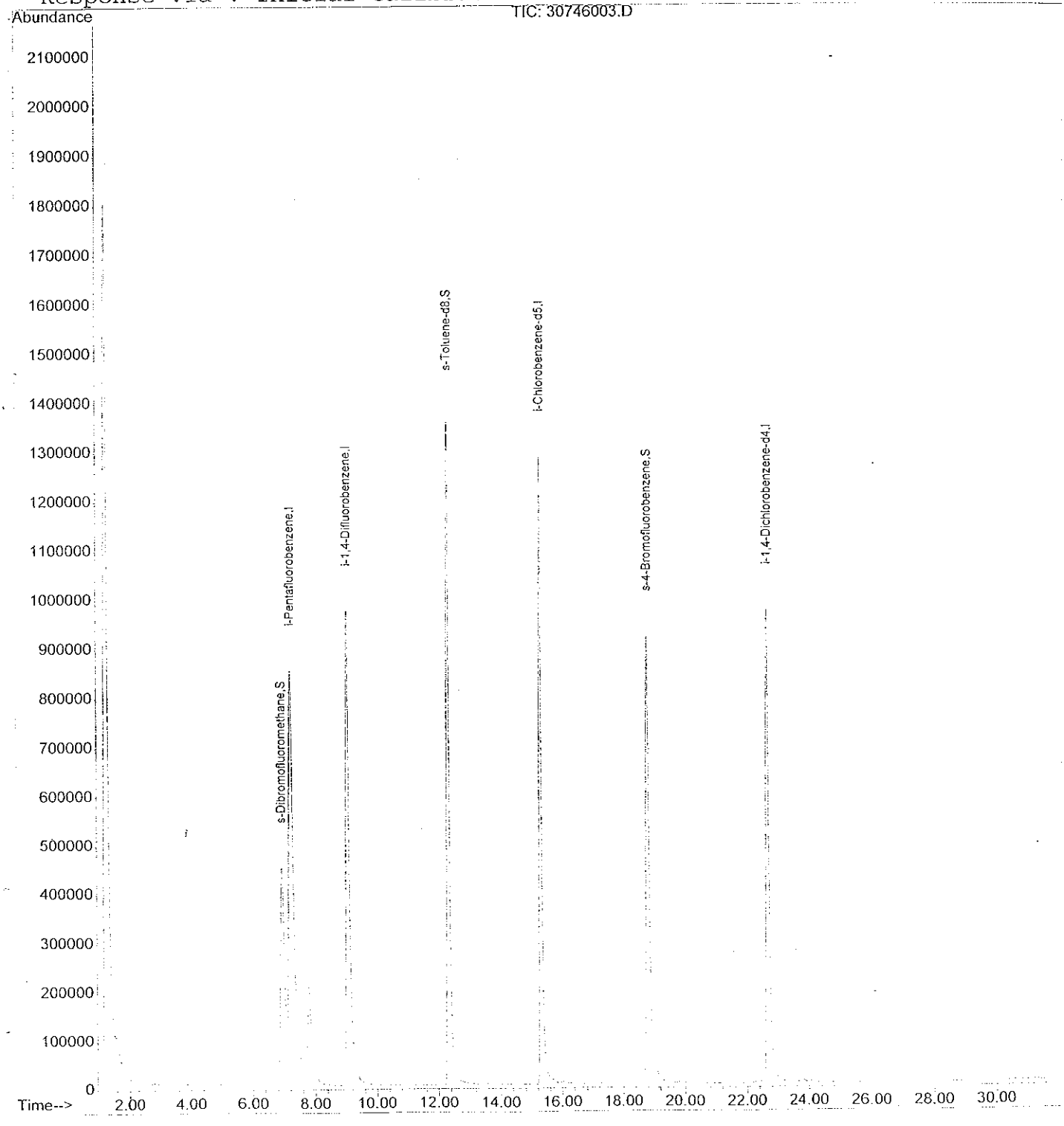
(#) = qualifier out of range (m) = manual integration

Data File : d:\HPCHEM\1\DATA\110101\30746003.D
Acq On : 1 Nov 2001 9:26
Sample : BUW148ABK BLANK 11-01-01
Misc : BUW148ABK BLANK 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:13 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 9:26
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746003.D
Name: BUW148ABK BLANK 11-01-01
Misc: BUW148ABK BLANK 11-01-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746003.D V82625B1.M Mon Nov 05 08:57:37 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.38	10.00	93.85	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.99	10.00	99.87	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.21	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.80	10.00	88.02	30 to 152%	[ ]
3)	PM	Chloromethane	9.27	10.00	92.66	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.57	10.00	95.68	72 to 116%	[ ]
5)	T	Bromomethane	9.48	10.00	94.83	63 to 140%	[ ]
6)	T	Chloroethane	9.98	10.00	99.76	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	103.03	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.00	10.00	100.01	84 to 117%	[ ]
9)	T	Acetone	14.75	20.00	73.77	24 to 158%	[ ]
10)	T	Iodomethane	9.93	10.00	99.33	60 to 135%	[ ]
11)	T	Carbon disulfide	10.52	10.00	105.19	79 to 118%	[ ]
12)	T	Methylene chloride	9.91	10.00	99.09	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.49	10.00	94.86	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.68	10.00	96.79	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.39	10.00	93.85	90 to 114%	[ ]
16)	T	Vinyl acetate	13.89	20.00	69.44	75 to 114%	[*]
17)	T	Isopropyl ether	10.30	10.00	103.02	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.89	10.00	98.91	74 to 112%	[ ]
19)	T	2-Butanone	18.27	20.00	91.36	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.32	10.00	103.21	90 to 117%	[ ]
21)	T	Bromochloromethane	10.08	10.00	100.84	91 to 129%	[ ]
22)	CM	Chloroform	9.63	10.00	96.33	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.26	10.00	102.57	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.52	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	11.09	10.00	110.89	84 to 112%	[ ]
28)	T	Benzene	9.87	10.00	98.66	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.52	10.00	95.15	88 to 125%	[ ]
30)	T	Trichloroethene	10.05	10.00	100.45	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.13	10.00	101.29	87 to 112%	[ ]
32)	T	Dibromomethane	9.64	10.00	96.39	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.00	10.00	0.00	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.75	10.00	97.53	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.95	10.00	99.48	61 to 133%	[ ]
37)	CM	Toluene	9.86	10.00	98.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.04	10.00	100.40	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.87	10.00	98.68	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.19	10.00	101.88	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.06	10.00	100.57	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.82	10.00	98.21	73 to 125%	[ ]

* = out of control limits
Thu Nov 01 10:39:15 2001

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.80	10.00	98.01	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.30	20.00	91.51	70 to 128%	[ ]
45)	T	2-Hexanone	18.91	20.00	94.56	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.97	10.00	99.75	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.11	10.00	101.06	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.92	10.00	99.22	69 to 123%	[ ]
51)	T	m,p-Xylene	20.41	20.00	102.07	70 to 125%	[ ]
52)	T	o-Xylene	10.31	10.00	103.15	73 to 122%	[ ]
53)	T	Styrene	10.10	10.00	100.99	76 to 127%	[ ]
54)	PM	Bromoform	10.39	10.00	103.87	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.29	10.00	102.88	56 to 134%	[ ]
58)	T	Bromobenzene	9.74	10.00	97.40	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.48	10.00	94.75	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	9.92	10.00	99.25	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.37	10.00	103.69	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.03	10.00	100.28	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.26	10.00	102.59	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.96	10.00	99.56	84 to 125%	[ ]
65)	T	tert-Butylbenzene	10.03	10.00	100.31	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.41	10.00	104.13	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.37	10.00	103.68	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.89	10.00	98.88	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.65	10.00	106.53	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.84	10.00	98.44	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.81	10.00	98.10	87 to 115%	[ ]
72)	T	n-Butylbenzene	11.08	10.00	110.82	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.31	10.00	103.14	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.00	10.00	109.97	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.74	10.00	117.38	74 to 140%	[ ]
76)	T	Naphthalene	10.84	10.00	108.40	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.76	10.00	107.62	43 to 204%	[ ]

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* = out of control limits

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3117602	10.00	ug/L	0.03
25) i-1,4-Difluorobenzene	9.07	114	3081087	10.00	ug/L	102.98% / 0.03
46) i-Chlorobenzene-d5	15.33	117	2131075	10.00	ug/L	101.23% / 0.02
57) i-1,4-Dichlorobenzene-d4	22.70	152	1195267	10.00	ug/L	98.00% / 0.02
						96.86%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1355026	9.38	ug/L	0.04
Spiked Amount 10.000	Range 77 - 119		Recovery = 93.80%			
36) s-Toluene-d8	12.34	98	2915036	9.99	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.84	95	1623001	10.02	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1394289	8.80	ug/L	98
3) Chloromethane	1.50	50	935785	9.27	ug/L	98
4) Vinyl chloride	1.59	62	1014604	9.57	ug/L	99
5) Bromomethane	1.89	96	908652	9.48	ug/L	96
6) Chloroethane	1.99	64	619930	9.98	ug/L	95
7) Trichlorofluoromethane	2.23	101	1787824	10.30	ug/L	97
8) 1,1-Dichloroethene	2.78	96	1020123	10.00	ug/L	98
9) Acetone	2.87	43	89849	14.75	ug/L	92
10) Iodomethane	2.94	142	1246994	9.93	ug/L	100
11) Carbon disulfide	3.00	76	3372354	10.52	ug/L	100
12) Methylene chloride	3.41	84	825319	9.91	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	1073370	9.49	ug/L	99
14) Methyl tert-butyl ether	3.84	73	1204424	9.68	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1887348	9.39	ug/L	99
16) Vinyl acetate	4.71	43	2116832	13.89	ug/L	94
17) Isopropyl ether	4.73	45	3259465	10.30	ug/L	99
18) 2,2-Dichloropropane	5.62	77	1474940	9.89	ug/L	97
19) 2-Butanone	5.84	43	230362m	18.27	ug/L	84
20) cis-1,2-Dichloroethene	5.67	96	1060764	10.32	ug/L	97
21) Bromochloromethane	6.21	128	407777	10.08	ug/L	99
22) Chloroform	6.52	83	1938422	9.63	ug/L	96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	1724197	10.26	ug/L	97
26)	Carbon tetrachloride	7.32	119	1464752	9.52	ug/L	99
27)	1,1-Dichloropropene	7.36	110	553281	11.09	ug/L	100
28)	Benzene	7.89	78	3299811	9.87	ug/L	100
29)	1,2-Dichloroethane	8.01	62	636148	9.52	ug/L	100
30)	Trichloroethene	9.60	95	1353984	10.05	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1132674	10.13	ug/L	99
32)	Dibromomethane	10.36	93	480981	9.64	ug/L	98
34)	Bromodichloromethane	10.83	83	1509177	9.75	ug/L	99
35)	cis-1,3-Dichloropropene	11.83	75	1198149	9.95	ug/L	99
37)	Toluene	12.48	92	2123454	9.86	ug/L	98
38)	trans-1,3-Dichloropropene	13.08	75	745641	10.04	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	492286	9.87	ug/L	98
40)	Tetrachloroethene	13.60	166	1585641	10.19	ug/L	99
41)	1,3-Dichloropropane	13.72	76	958420	10.06	ug/L	99
42)	Dibromochloromethane	14.16	129	892617	9.82	ug/L	100
43)	1,2-Dibromoethane	14.30	107	605090	9.80	ug/L	97
44)	4-Methyl-2-pentanone	12.27	43	642128	18.30	ug/L	100
45)	2-Hexanone	14.04	43	399823	18.91	ug/L	98
47)	Chlorobenzene	15.40	112	2232389	9.97	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.66	131	1000899	10.11	ug/L	97
50)	Ethylbenzene	15.74	106	1199118	9.92	ug/L	100
51)	m,p-Xylene	16.06	106	2970001	20.41	ug/L	100
52)	o-Xylene	17.12	106	1396025	10.31	ug/L	97
53)	Styrene	17.19	104	2168149	10.10	ug/L	98
54)	Bromoform	17.65	173	542000	10.39	ug/L	99
55)	Isopropylbenzene	18.40	105	4472881	10.29	ug/L	99
58)	Bromobenzene	19.22	156	1080706	9.74	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.60	83	729538	9.48	ug/L	97
60)	1,2,3-Trichloropropane	19.60	75	419759	9.92	ug/L	97
61)	n-Propylbenzene	19.87	120	1126038	10.37	ug/L	100
62)	2-Chlorotoluene	20.01	126	1025961	10.03	ug/L	100
63)	4-Chlorotoluene	20.40	91	3665951	10.26	ug/L	99
64)	1,3,5-Trimethylbenzene	20.54	105	3312596	9.96	ug/L	98
65)	tert-Butylbenzene	21.57	91	2187702	10.03	ug/L	96
66)	1,2,4-Trimethylbenzene	21.73	105	3039563	10.41	ug/L	100
67)	sec-Butylbenzene	22.30	105	4971269	10.37	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	2019318	9.89	ug/L	99
69)	p-Isopropyltoluene	22.84	119	3845734	10.65	ug/L	99
70)	1,4-Dichlorobenzene	22.77	146	1918022	9.84	ug/L	99
71)	1,2-Dichlorobenzene	23.88	146	1593982	9.81	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.11	91	3705425	11.08	ug/L	98
73)	1,2-Dibromo-3-chloropropan	26.20	75	107208	10.31	ug/L	95
74)	1,2,4-Trichlorobenzene	27.96	180	1003193	11.00	ug/L	99
75)	Hexachlorobutadiene	28.34	225	1072458	11.74	ug/L	98
76)	Naphthalene	28.36	128	754171	10.84	ug/L	100
77)	1,2,3-Trichlorobenzene	28.80	180	731829	10.76	ug/L	100

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(#) = qualifier out of range (m) = manual integration

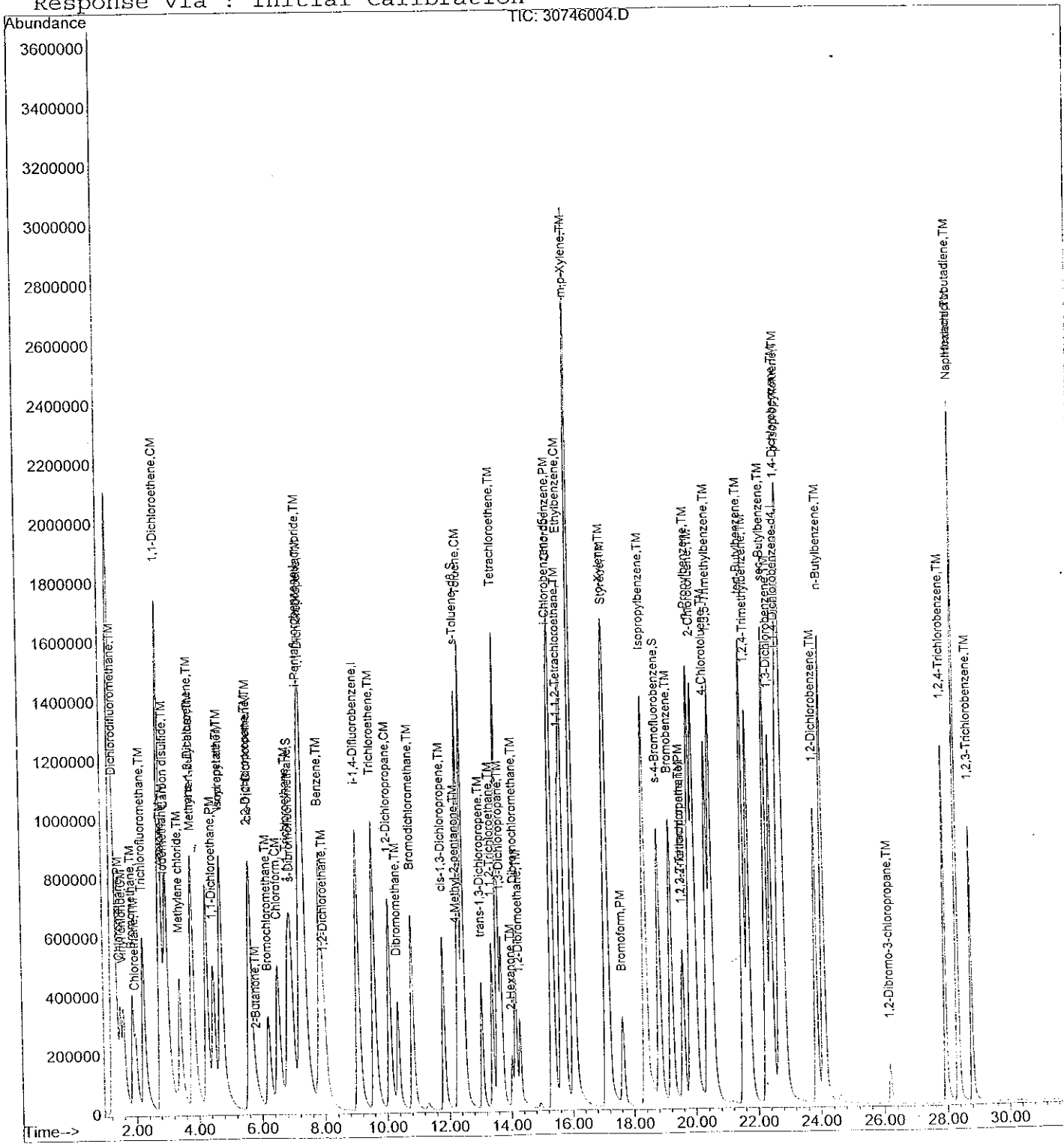
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

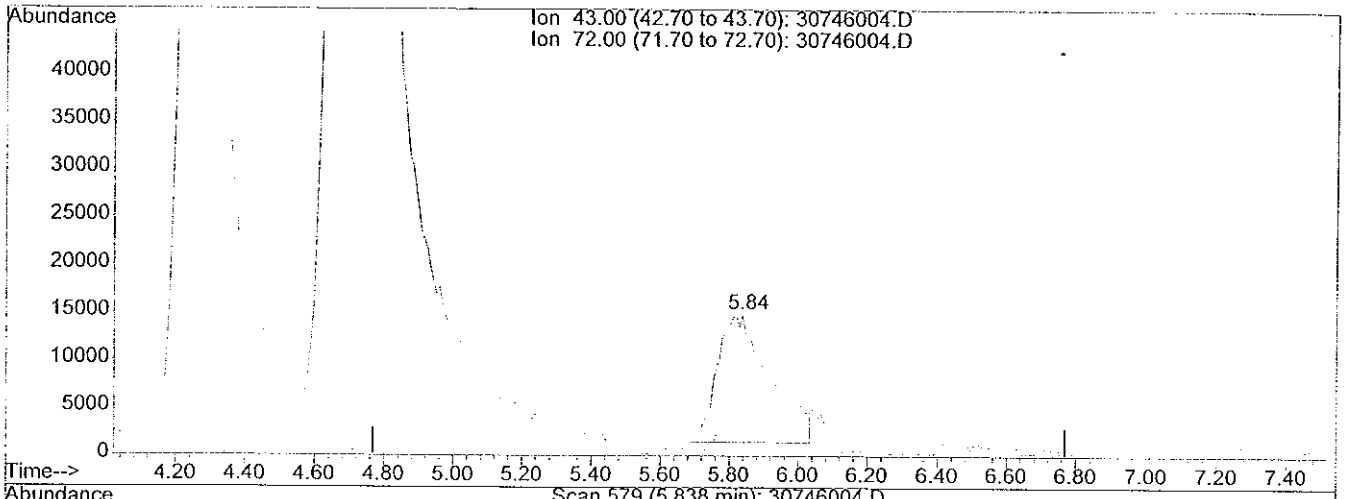
Quant Results File: V82625B1.RES

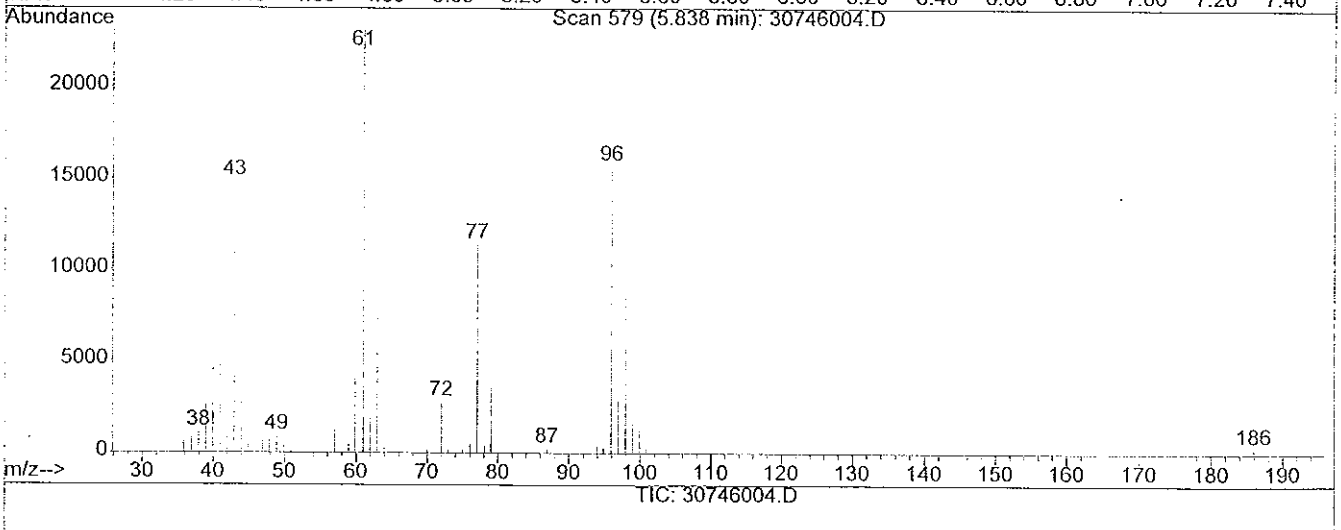
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746004.D

(19) 2-Butanone (TM)

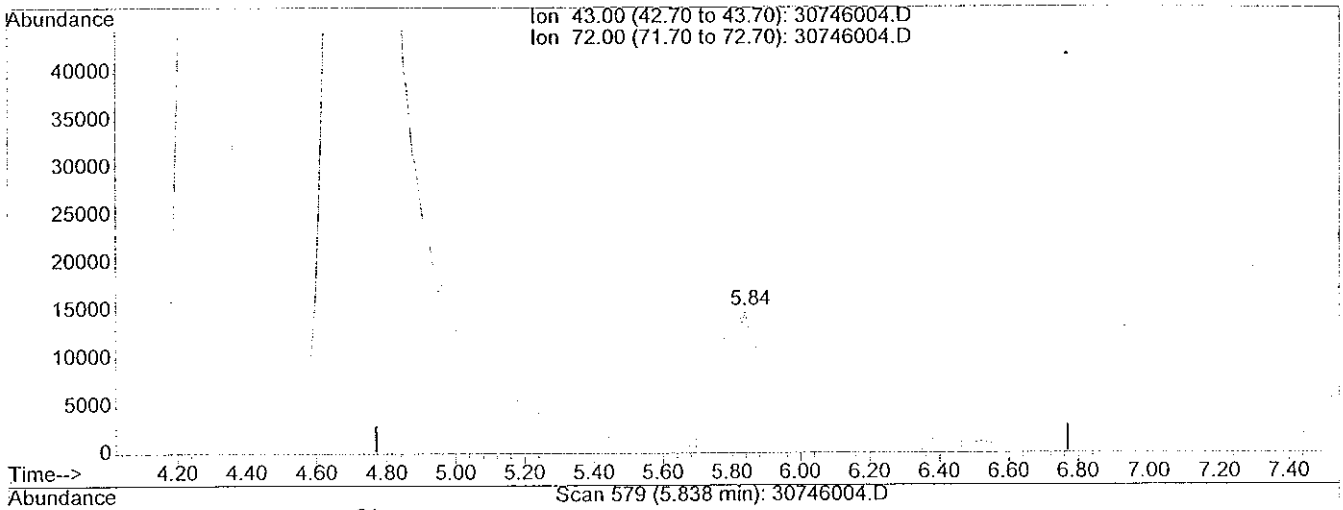
5.84min 11.34ug/L

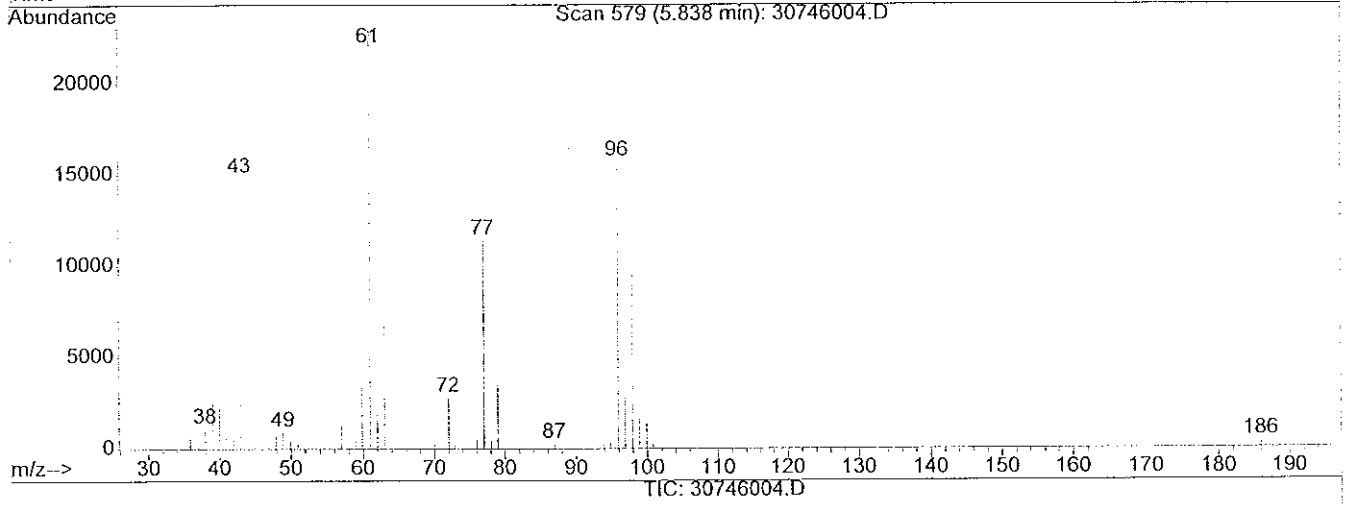
response 143027

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	15.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





(19) 2-Butanone (TM)

5.84min 18.27ug/L m

response 230362

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.68
0.00	0.00	0.00
0.00	0.00	0.00

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

Non-Spiked Sample: 30746007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30746005.D	30746006.D
Sample :	110611-1 MS	110611-1 MSD
Acq Time:	1 Nov 2001 10:48	1 Nov 2001 11:31

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	9.3	10	93	9.8	98	10.2	102	77-119
s-Toluene-d8	9.8	10	98	9.9	99	10.0	100	78-118
s-4-Bromofluorobenze	9.3	10	93	9.9	99	10.1	101	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	10	8.12	8.48	81	85	4.3	12	35-160
Chloromethane	0.0	10	8.42	7.84	84	78	7.2	10	60-124
Vinyl chlorid	0.2	10	9.26	9.38	91	92	1.3	9	74-125
Bromomethane	0.0	10	8.34	6.75	83	68	21.0#	17	59-152
Chloroethane	0.0	10	9.66	9.41	97	94	2.6	10	73-123
Trichlorofluo	0.0	10	9.68	10.00	97	100	3.3	10	84-125
1,1-Dichloroe	0.3	10	9.88	10.00	96	97	1.2	13	84-119
Acetone	38.3	20	11.65	46.23	-133#	40	99.0#	44	19-20
Iodomethane	0.0	10	13.18	11.62	132	116	12.6	15	53-154
Carbon disulf	0.2	10	10.97	11.09	107	109	1.1	12	79-123
Methylene chl	0.0	10	9.54	10.00	95	100	4.7	18	81-121
trans-1,2-Dic	1.0	10	9.99	10.63	90	97	6.8	9	87-115
Methyl tert-b	0.0	10	8.85	10.20	89	102	14.1	32	68-133
1,1-Dichloroe	0.0	10	9.04	9.34	90	93	3.2	10	85-121
Vinyl acetate	0.0	20	12.61	14.27	63#	71	12.4	20	69-122
Isopropyl eth	0.0	10	9.61	10.53	96	105	9.1	18	79-118
2,2-Dichlorop	0.0	10	9.50	9.63	95	96	1.4	10	78-116
2-Butanone	91.9	20	111.22	131.73	97	199#	69.4#	47	65-133
cis-1,2-Dichl	43.4	10	59.83	61.58	164#	182#	10.1	14	88-122
Bromochlorome	0.0	10	9.42	9.58	94	96	1.7	18	85-130
Chloroform	0.0	10	9.48	9.89	95	99	4.3	13	87-117
1,1,1-Trichlo	0.0	10	9.96	10.22	100	102	2.6	10	90-120
Carbon tetrac	0.0	10	9.40	8.90	94	89	5.5	11	78-121
1,1-Dichlorop	0.0	10	10.20	9.98	102	100	2.1	12	84-118
Benzene	0.0	10	9.85	9.74	99	97	1.1	8	67-148
1,2-Dichloroe	0.0	10	9.29	9.80	93	98	5.3	17	85-129
Trichloroethe	114.9	10	138.70	133.55	238#	187#	24.2#	11	86-11
1,2-Dichlorop	0.0	10	9.89	10.16	99	102	2.7	12	88-114
Dibromomethan	0.0	10	9.30	9.78	93	98	5.1	20	81-130
2-Chloroethyl	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-150
Bromodichloro	0.0	10	9.45	9.87	95	99	4.3	15	87-12
cis-1,3-Dichl	0.0	10	9.52	9.52	95	95	0.0	19	65-13
Toluene	0.0	10	9.72	9.66	97	97	0.6	8	86-12
trans-1,3-Dic	0.0	10	9.55	9.71	95	97	1.7	19	53-14
1,1,2-Trichlo	0.0	10	9.27	10.18	93	102	9.3	20	85-12

Tetrachloroet	0.0	10	10.26	10.00	103	100	2.5	13	87-131
1,3-Dichlorop	0.0	10	9.59	10.35	96	103	7.6	19	73-126
Dibromochloro	0.0	10	9.41	10.20	94	102	8.1	27	83-122
1,2-Dibromoet	0.0	10	9.51	10.14	95	101	6.4	26	36-153
4-Methyl-2-pe	0.0	20	16.57	19.57	83	98	16.6	35	64-133
2-Hexanone	0.0	20	16.56	19.96	83	100	18.6	36	49-144
Chlorobenzene	0.0	10	9.97	9.83	100	98	1.4	10	66-156
1,1,1,2-Tetra	0.0	10	9.91	10.10	99	101	1.9	12	84-124
1-Chlorohexan	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	10	9.99	9.55	100	95	4.5	14	78-132
m,p-Xylene	0.0	20	20.54	19.75	103	99	3.9	20	76-129
o-Xylene	0.0	10	10.28	9.96	103	100	3.2	13	76-127
Styrene	0.0	10	9.89	9.73	99	97	1.6	43	55-138
Bromoform	0.0	10	9.81	10.51	98	105	6.9	29	62-124
Isopropylbenz	0.0	10	10.37	9.93	104	99	4.3	20	65-149
Bromobenzene	0.0	10	10.04	9.74	100	97	3.0	14	73-140
1,1,2,2-Tetra	0.0	10	9.36	9.95	94	99	6.1	25	75-127
1,2,3-Trichlo	0.0	10	9.68	10.20	97	102	5.3	26	75-127
n-Propylbenze	0.0	10	10.64	9.95	106	100	6.7	16	76-123
2-Chlorotolue	0.0	10	10.25	9.55	102	95	7.1	15	85-122
4-Chlorotolue	0.0	10	10.41	9.68	104	97	7.3	13	87-122
1,3,5-Trimeth	0.0	10	10.12	9.42	101	94	7.2	25	72-140
tert-Butylben	0.0	10	10.10	9.45	101	94	6.6	16	73-113
1,2,4-Trimeth	0.0	10	10.59	9.95	106	99	6.2	30	50-158
sec-Butylbenz	0.0	10	10.65	9.80	107	98	8.4	18	62-144
1,3-Dichlorob	0.0	10	10.08	9.63	101	96	4.6	10	89-118
p-Isopropylto	0.0	10	10.87	10.12	109	101	7.1	22	35-190
1,4-Dichlorob	0.0	10	9.79	9.48	98	95	3.3	10	78-138
1,2-Dichlorob	0.0	10	9.92	9.81	99	98	1.0	12	86-120
n-Butylbenzen	0.0	10	11.20	10.48	112	105	6.6	40	0-270
1,2-Dibromo-3	0.0	10	9.62	10.58	96	106	9.5	33	71-118
1,2,4-Trichlo	0.0	10	11.01	10.98	110	110	0.3	32	30-230
Hexachlorobut	0.0	10	12.38	11.19	124	112	10.1	18	70-156
Naphthalene	0.0	10	10.58	11.21	106	112	5.7	42	17-260
1,2,3-Trichlo	0.0	10	10.85	11.04	108	110	1.8	33	49-214

- Fails Limit Check

V82625B1.M Thu Nov 01 12:52:10 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3072249	10.00	ug/L	0.02 101.48%
25) i-1,4-Difluorobenzene	9.06	114	2998298	10.00	ug/L	0.02 98.51%
46) i-Chlorobenzene-d5	15.32	117	2053033	10.00	ug/L	0.00 94.41%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1111202	10.00	ug/L	0.02 90.05%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1393637	9.79	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.90%			
36) s-Toluene-d8	12.33	98	2817247	9.92	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.20%			
56) s-4-Bromofluorobenzene	18.83	95	1537101	9.85	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1267571	8.12	ug/L	99
3) Chloromethane	1.50	50	837962	8.42	ug/L	99
4) Vinyl chloride	1.60	62	967703	9.26	ug/L	99
5) Bromomethane	1.89	96	787319	8.34	ug/L	99
6) Chloroethane	1.99	64	591487	9.66	ug/L	99
7) Trichlorofluoromethane	2.23	101	1654453	9.68	ug/L	98
8) 1,1-Dichloroethene	2.78	96	992700	9.88	ug/L	96
9) Acetone	2.86	43	70049	11.65	ug/L	96
10) Iodomethane	2.95	142	1630349	13.18	ug/L	100
11) Carbon disulfide	3.00	76	3465077	10.97	ug/L	100
12) Methylene chloride	3.41	84	782916	9.54	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1114331	9.99	ug/L	98
14) Methyl tert-butyl ether	3.84	73	1085903	8.85	ug/L	99
15) 1,1-Dichloroethane	4.49	63	1792466	9.04	ug/L	99
16) Vinyl acetate	4.72	43	1893445	12.61	ug/L	93
17) Isopropyl ether	4.73	45	2997039	9.61	ug/L	99
18) 2,2-Dichloropropane	5.62	77	1395607	9.50	ug/L	83
19) 2-Butanone	5.81	43	1381848	111.22	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	6079059	59.83	ug/L	93
21) Bromochloromethane	6.20	128	375335	9.42	ug/L	98
22) Chloroform	6.52	83	1879354	9.48	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1650538	9.96	ug/L	97
26)	Carbon tetrachloride	7.30	119	1408384	9.40	ug/L	99
27)	1,1-Dichloropropene	7.35	110	496659	10.20	ug/L	100
28)	Benzene	7.88	78	3207241	9.85	ug/L	99
29)	1,2-Dichloroethane	8.00	62	604488	9.29	ug/L	100
30)	Trichloroethene	9.60	95	18193207	138.70	ug/L	100
31)	1,2-Dichloropropane	10.08	63	1076499	9.89	ug/L	99
32)	Dibromomethane	10.36	93	451413	9.30	ug/L	99
34)	Bromodichloromethane	10.82	83	1423063	9.45	ug/L	100
35)	cis-1,3-Dichloropropene	11.82	75	1116043	9.52	ug/L	98
37)	Toluene	12.47	92	2036696	9.72	ug/L	97
38)	trans-1,3-Dichloropropene	13.06	75	689918	9.55	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	450121	9.27	ug/L	97
40)	Tetrachloroethene	13.58	166	1553490	10.26	ug/L	99
41)	1,3-Dichloropropane	13.71	76	889119	9.59	ug/L	98
42)	Dibromochloromethane	14.15	129	832215	9.41	ug/L	100
43)	1,2-Dibromoethane	14.28	107	571537	9.51	ug/L	98
44)	4-Methyl-2-pentanone	12.26	43	565827	16.57	ug/L	96
45)	2-Hexanone	14.03	43	340786	16.56	ug/L	97
47)	Chlorobenzene	15.38	112	2148872	9.97	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	945529	9.91	ug/L	99
50)	Ethylbenzene	15.73	106	1162949	9.99	ug/L	100
51)	m,p-Xylene	16.04	106	2878524	20.54	ug/L	100
52)	o-Xylene	17.09	106	1340535	10.28	ug/L	100
53)	Styrene	17.17	104	2045821	9.89	ug/L	100
54)	Bromoform	17.63	173	493176	9.81	ug/L	98
55)	Isopropylbenzene	18.38	105	4341387	10.37	ug/L	98
58)	Bromobenzene	19.21	156	1036074	10.04	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.59	83	669759	9.36	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	380628	9.68	ug/L	99
61)	n-Propylbenzene	19.86	120	1074165	10.64	ug/L	100
62)	2-Chlorotoluene	19.98	126	974903	10.25	ug/L	100
63)	4-Chlorotoluene	20.38	91	3458230	10.41	ug/L	100
64)	1,3,5-Trimethylbenzene	20.52	105	3131355	10.12	ug/L	99
65)	tert-Butylbenzene	21.55	91	2047043	10.10	ug/L	94
66)	1,2,4-Trimethylbenzene	21.73	105	2872784	10.59	ug/L	98
67)	sec-Butylbenzene	22.29	105	4749328	10.65	ug/L	100
68)	1,3-Dichlorobenzene	22.46	146	1914277	10.08	ug/L	99
69)	p-Isopropyltoluene	22.83	119	3647141	10.87	ug/L	100
70)	1,4-Dichlorobenzene	22.76	146	1773518	9.79	ug/L	99
71)	1,2-Dichlorobenzene	23.87	146	1498130	9.92	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746005.D
Acq On : 1 Nov 2001 10:48
Sample : 110611-1 MS
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

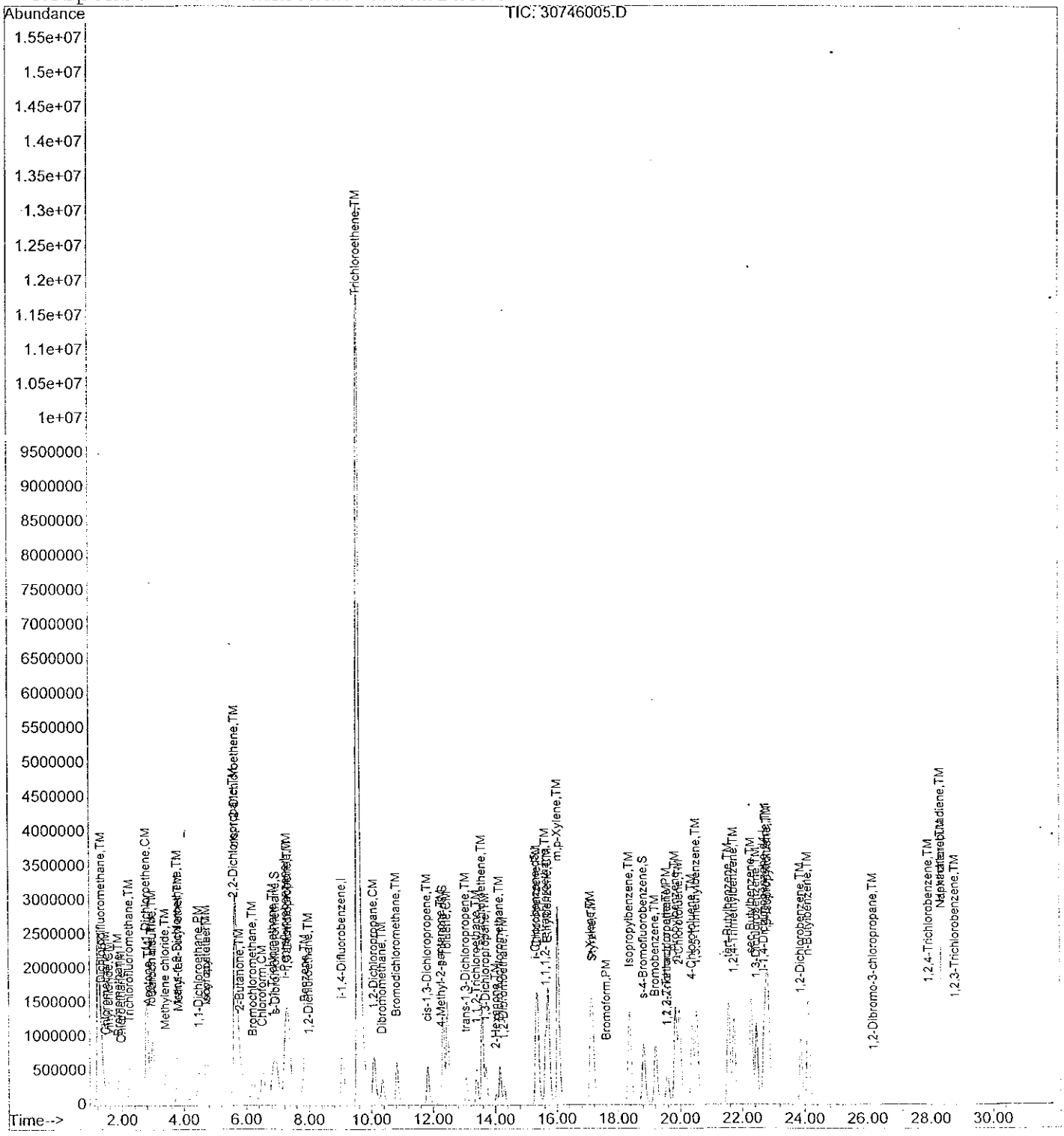
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.10	91	3482663	11.20	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.18	75	92956	9.62	ug/L	97
74)	1,2,4-Trichlorobenzene	27.95	180	933509	11.01	ug/L	99
75)	Hexachlorobutadiene	28.33	225	1049679	12.38	ug/L	98
76)	Naphthalene	28.35	128	684580	10.58	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	685683	10.85	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3091188	10.00	ug/L	0.03 102.11%
25) i-1,4-Difluorobenzene	9.06	114	3129479	10.00	ug/L	0.02 102.82%
46) i-Chlorobenzene-d5	15.31	117	2197938	10.00	ug/L	0.00 101.07%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1240862	10.00	ug/L	0.02 100.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1456585	10.17	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.70%			
36) s-Toluene-d8	12.32	98	2954258	9.96	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.60%			
56) s-4-Bromofluorobenzene	18.83	95	1692550	10.13	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1331463	8.48	ug/L	100
3) Chloromethane	1.50	50	784792	7.84	ug/L	99
4) Vinyl chloride	1.60	62	986310	9.38	ug/L	95
5) Bromomethane	1.89	96	641339	6.75	ug/L	97
6) Chloroethane	1.98	64	579579	9.41	ug/L	98
7) Trichlorofluoromethane	2.24	101	1721151	10.00	ug/L	98
8) 1,1-Dichloroethene	2.79	96	1010881	10.00	ug/L	99
9) Acetone	2.87	43	277781	46.23	ug/L	98
10) Iodomethane	2.94	142	1446184	11.62	ug/L	100
11) Carbon disulfide	3.00	76	3524051	11.09	ug/L	100
12) Methylene chloride	3.41	84	825482	10.00	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1192052	10.63	ug/L	96
14) Methyl tert-butyl ether	3.84	73	1258061	10.20	ug/L	98
15) 1,1-Dichloroethane	4.49	63	1862621	9.34	ug/L	99
16) Vinyl acetate	4.71	43	2156213	14.27	ug/L	95
17) Isopropyl ether	4.73	45	3302147	10.53	ug/L	99
18) 2,2-Dichloropropane	5.62	77	1423767	9.63	ug/L	83
19) 2-Butanone	5.81	43	1646741	131.73	ug/L	97
20) cis-1,2-Dichloroethene	5.67	96	6295641	61.58	ug/L	91
21) Bromochloromethane	6.22	128	384129	9.58	ug/L	100
22) Chloroform	6.52	83	1973558	9.89	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1704005	10.22	ug/L	95
26)	Carbon tetrachloride	7.31	119	1391701	8.90	ug/L	99
27)	1,1-Dichloropropene	7.34	110	507768	9.98	ug/L	100
28)	Benzene	7.87	78	3309995	9.74	ug/L	99
29)	1,2-Dichloroethane	7.99	62	665333	9.80	ug/L	98
30)	Trichloroethene	9.60	95	18283374	133.55	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1153986	10.16	ug/L	99
32)	Dibromomethane	10.36	93	495580	9.78	ug/L	99
34)	Bromodichloromethane	10.81	83	1550601	9.87	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1164847	9.52	ug/L	98
37)	Toluene	12.46	92	2113532	9.66	ug/L	97
38)	trans-1,3-Dichloropropene	13.05	75	732234	9.71	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	515552	10.18	ug/L	99
40)	Tetrachloroethene	13.58	166	1581613	10.00	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1001766	10.35	ug/L	99
42)	Dibromochloromethane	14.15	129	942015	10.20	ug/L	99
43)	1,2-Dibromoethane	14.28	107	635987	10.14	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	697270	19.57	ug/L	97
45)	2-Hexanone	14.02	43	428523	19.96	ug/L	97
47)	Chlorobenzene	15.38	112	2267954	9.83	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1031857	10.10	ug/L	98
50)	Ethylbenzene	15.73	106	1190242	9.55	ug/L	100
51)	m,p-Xylene	16.04	106	2963634	19.75	ug/L	98
52)	o-Xylene	17.10	106	1390203	9.96	ug/L	99
53)	Styrene	17.17	104	2155171	9.73	ug/L	98
54)	Bromoform	17.64	173	565713	10.51	ug/L	99
55)	Isopropylbenzene	18.38	105	4451759	9.93	ug/L	100
58)	Bromobenzene	19.22	156	1122392	9.74	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.60	83	795233	9.95	ug/L	97
60)	1,2,3-Trichloropropane	19.60	75	447828	10.20	ug/L	98
61)	n-Propylbenzene	19.86	120	1122077	9.95	ug/L	100
62)	2-Chlorotoluene	19.99	126	1014281	9.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	3589615	9.68	ug/L	100
64)	1,3,5-Trimethylbenzene	20.52	105	3255122	9.42	ug/L	100
65)	tert-Butylbenzene	21.55	91	2139194	9.45	ug/L	94
66)	1,2,4-Trimethylbenzene	21.72	105	3014630	9.95	ug/L	99
67)	sec-Butylbenzene	22.28	105	4877084	9.80	ug/L	100
68)	1,3-Dichlorobenzene	22.45	146	2042476	9.63	ug/L	99
69)	p-Isopropyltoluene	22.82	119	3792792	10.12	ug/L	99
70)	1,4-Dichlorobenzene	22.76	146	1917104	9.48	ug/L	98
71)	1,2-Dichlorobenzene	23.86	146	1655546	9.81	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

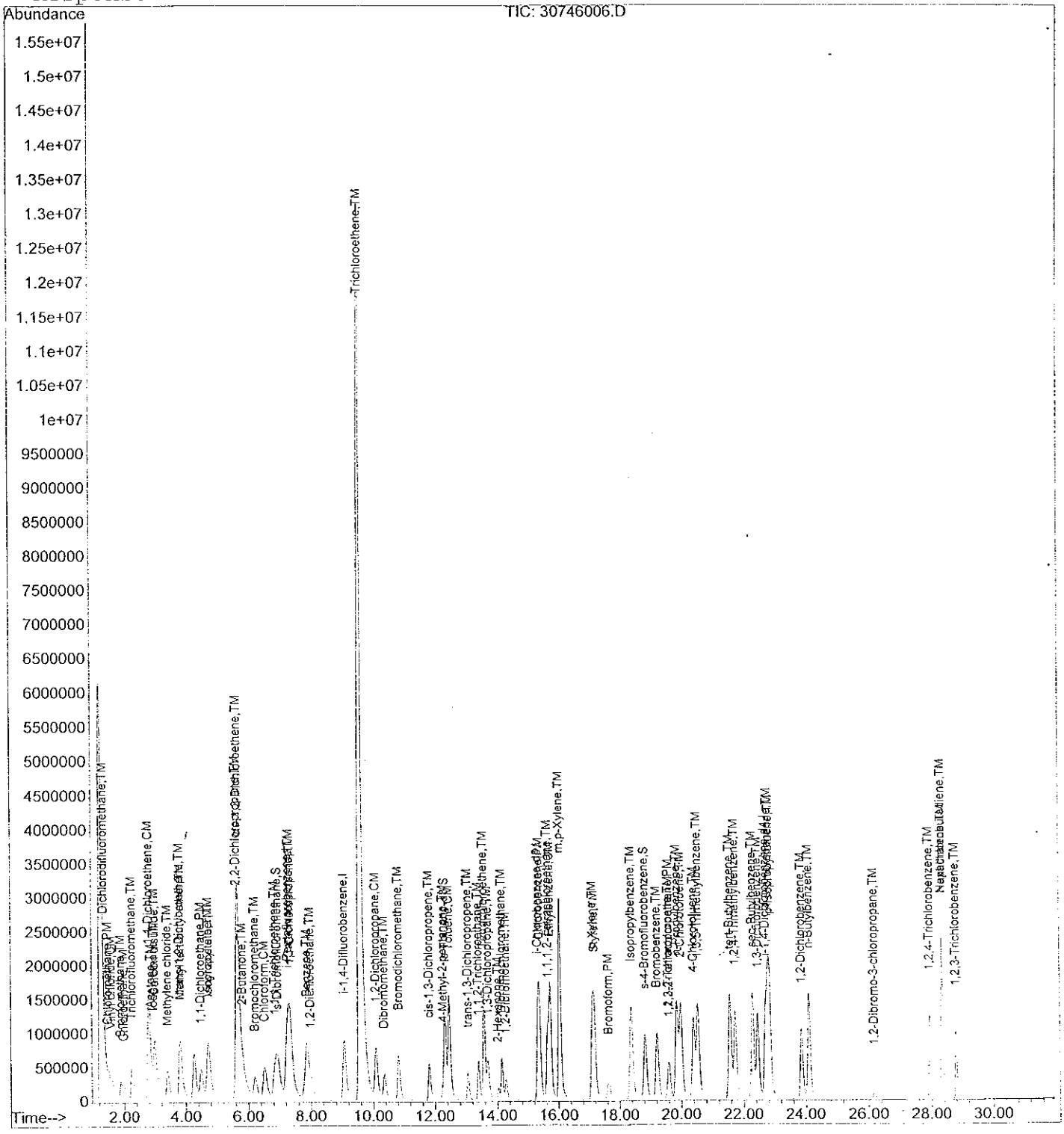
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.10	91	3639028	10.48	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.17	75	114156	10.58	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1039613	10.98	ug/L	98
75)	Hexachlorobutadiene	28.33	225	1062922	11.19	ug/L	98
76)	Naphthalene	28.34	128	809362	11.21	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	779293	11.04	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

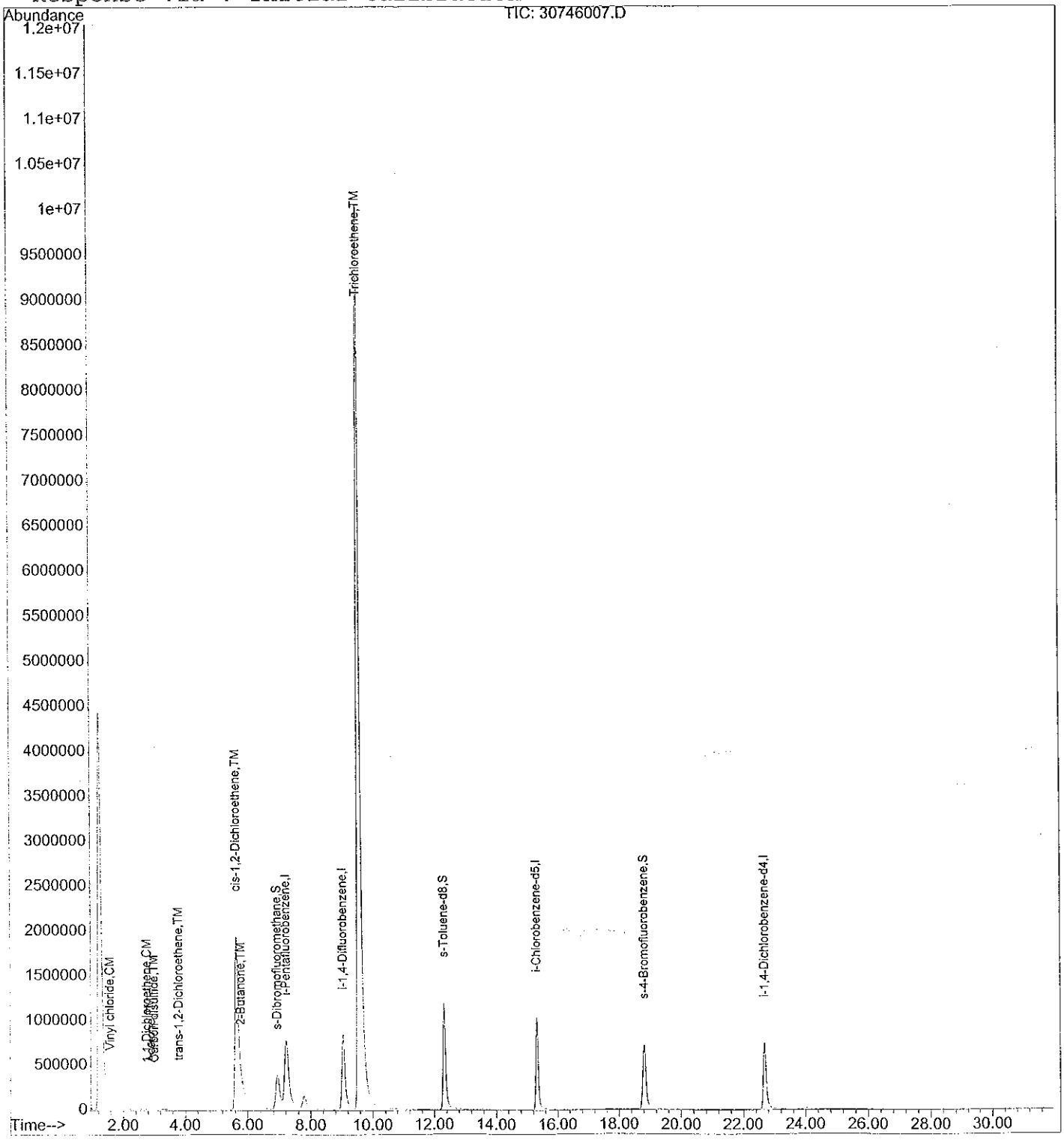
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

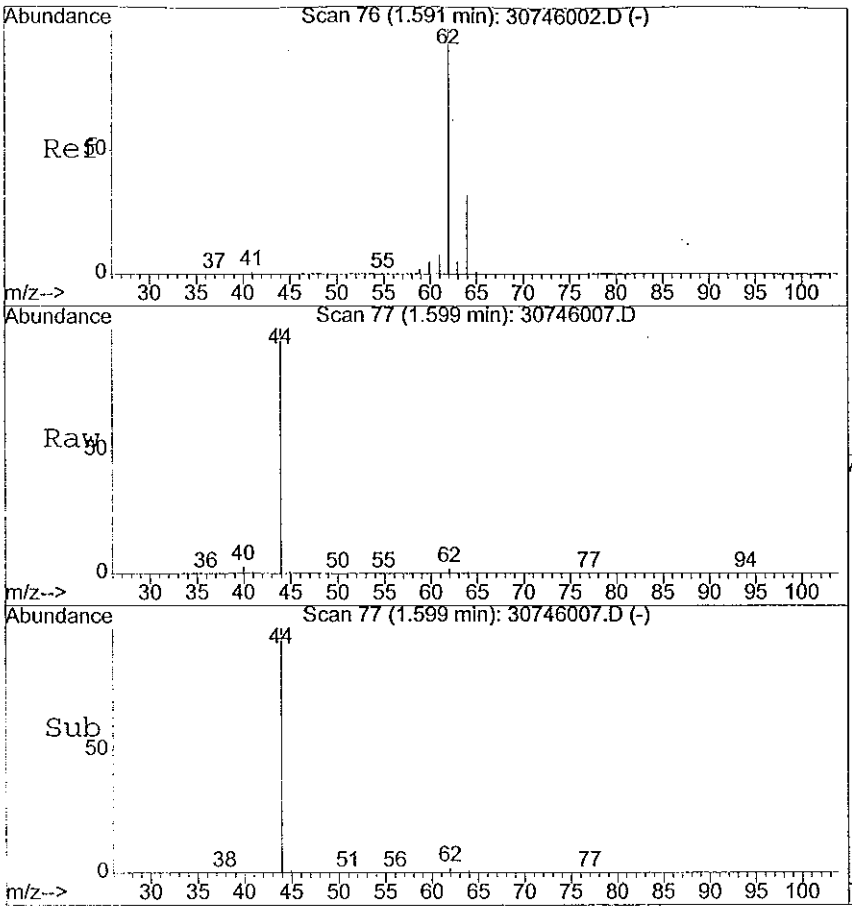
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2848937	10.00	ug/L	0.00 / 94.10%
25) i-1,4-Difluorobenzene	9.06	114	2758973	10.00	ug/L	0.00 / 90.65%
46) i-Chlorobenzene-d5	15.32	117	1839341	10.00	ug/L	0.00 / 84.58%
57) i-1,4-Dichlorobenzene-d4	22.69	152	831719	10.00	ug/L	0.00 / 67.40%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1222480	9.27	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.70%			
36) s-Toluene-d8	12.32	98	2573367	9.85	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.50%			
56) s-4-Bromofluorobenzene	18.82	95	1294157	9.26	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.60%			
Target Compounds						Qvalue
4) Vinyl chloride	1.60	62	17891m	0.18	ug/L	82
8) 1,1-Dichloroethene	2.76	96	27256	0.29	ug/L	86
9) Acetone	2.89	43	212177m	38.30	ug/L	98
11) Carbon disulfide	3.00	76	64643m	0.22	ug/L	100
13) trans-1,2-Dichloroethene	3.79	96	98945	0.96	ug/L	97
19) 2-Butanone	5.80	43	1058868m	91.90	ug/L	92
20) cis-1,2-Dichloroethene	5.65	96	4086473	43.38	ug/L	91
30) Trichloroethene	9.59	95	13863884	114.87	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 08:56:39 2001
Response via : Initial Calibration

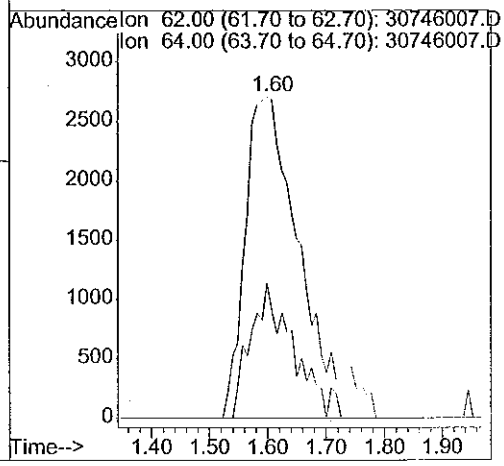


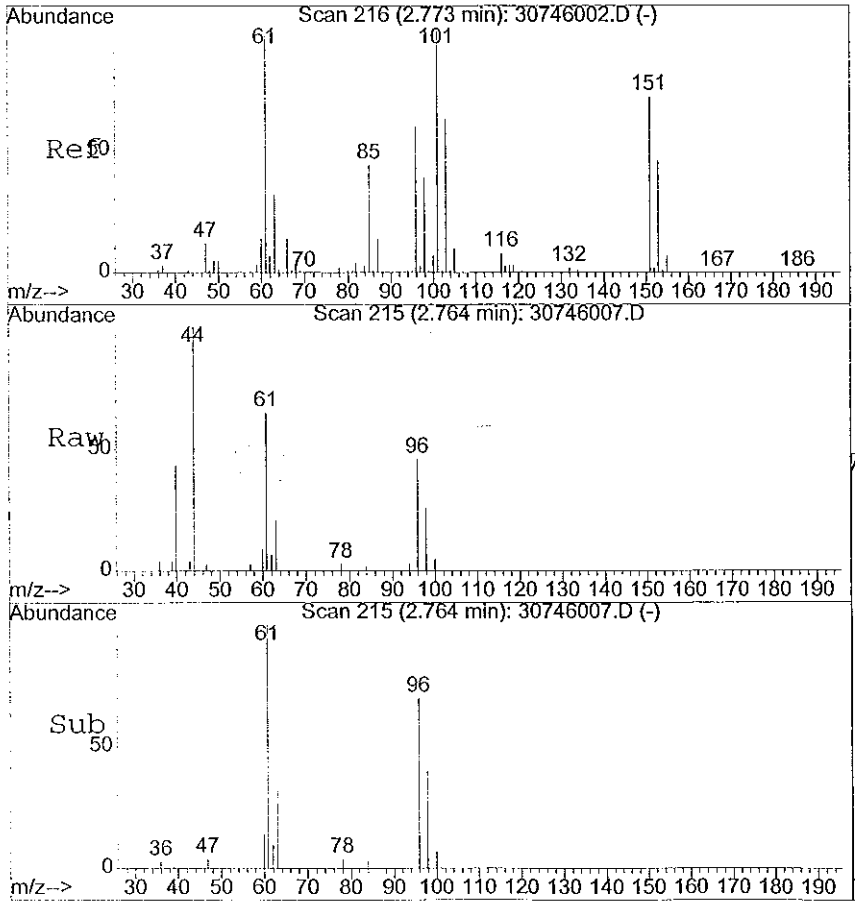


#4
Vinyl chloride
Concen: 0.18 ug/L m
RT: 1.60 min Scan# 77
Delta R.T. 0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 62 Resp: 17891

Ion	Ratio	Lower	Upper
62	100		
64	42.1	12.2	52.2

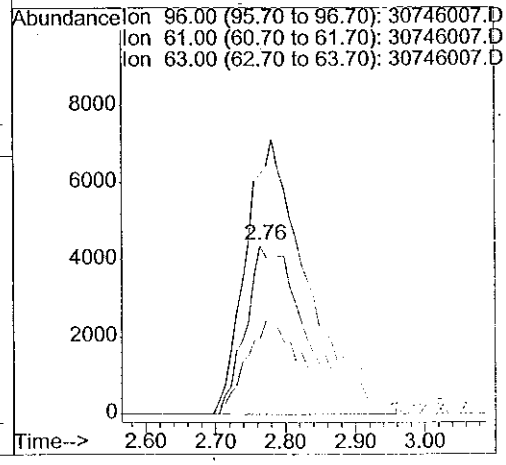


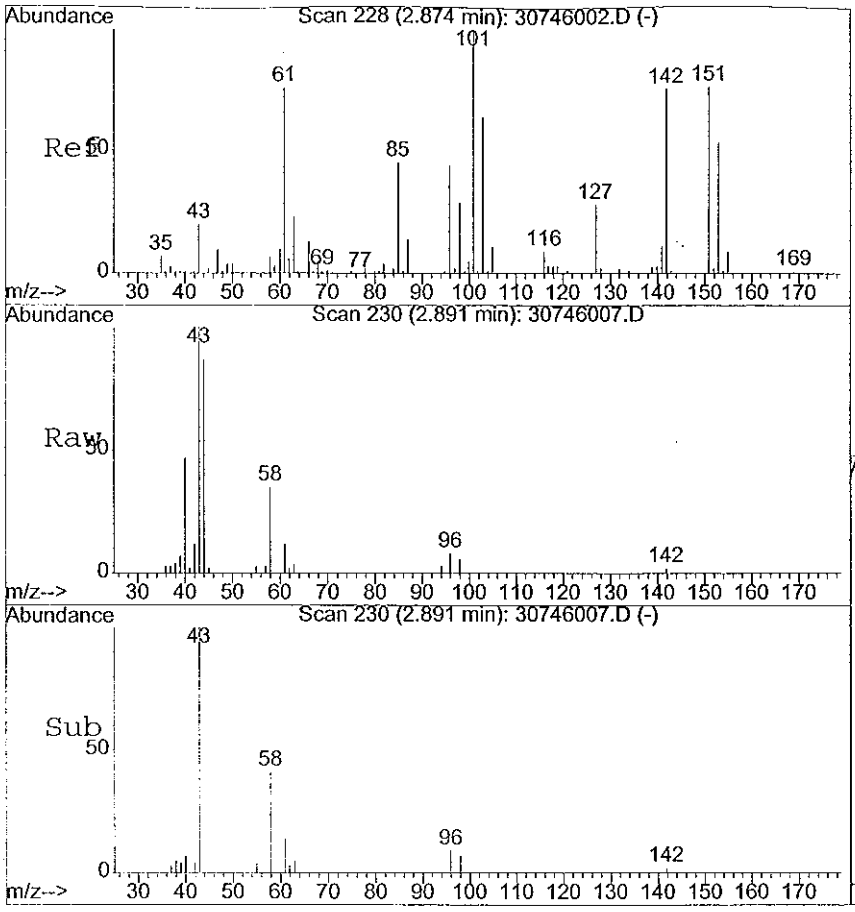


#8
1,1-Dichloroethene
Concen: 0.29 ug/L
RT: 2.76 min Scan# 215
Delta R.T. -0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 27256

Ion	Ratio	Lower	Upper
96	100		
61	142.3	141.0	181.0
63	45.2	33.7	73.7

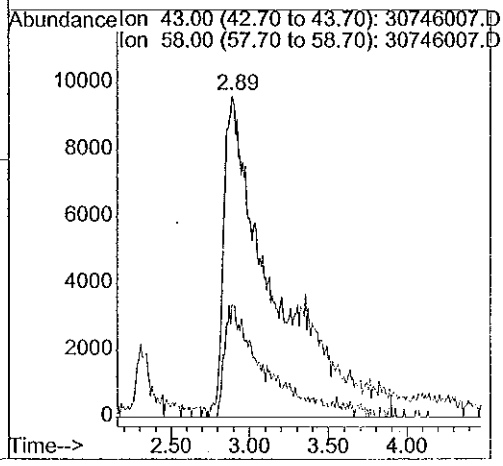


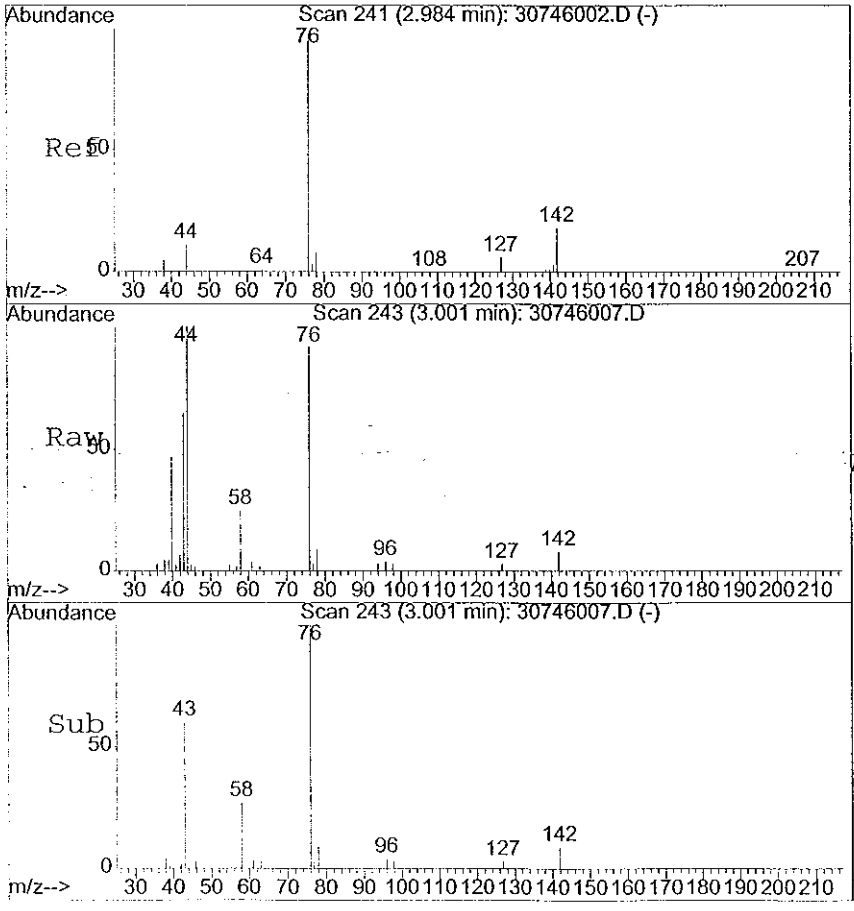


#9
Acetone
Concen: 38.30 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 43 Resp: 212177

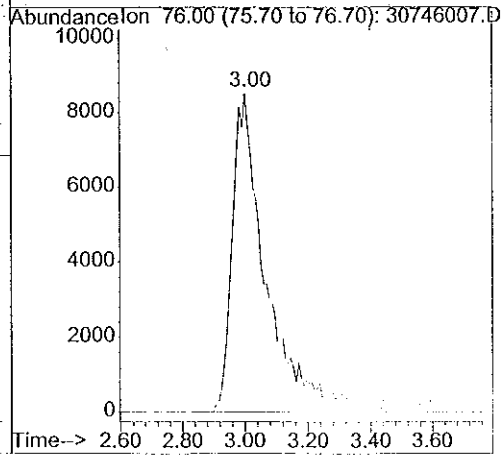
Ion	Ratio	Lower	Upper
43	100		
58	35.1	0.0	136.0

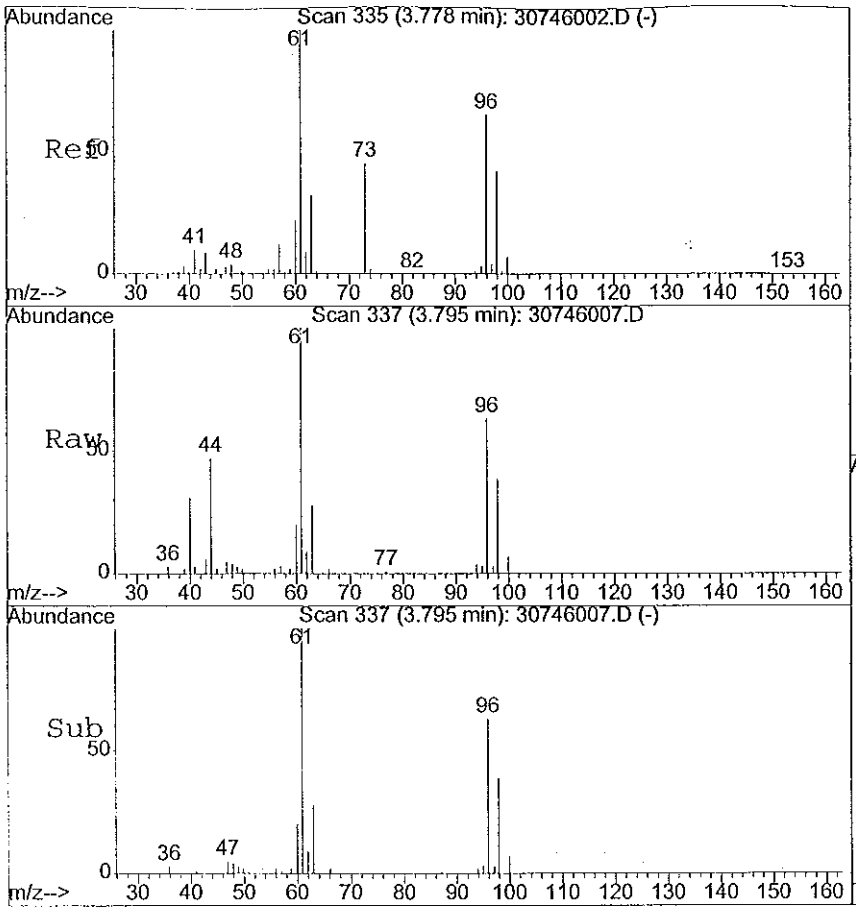




#11
Carbon disulfide
Concen: 0.22 ug/L m
RT: 3.00 min Scan# 243
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 76 Resp: 64643

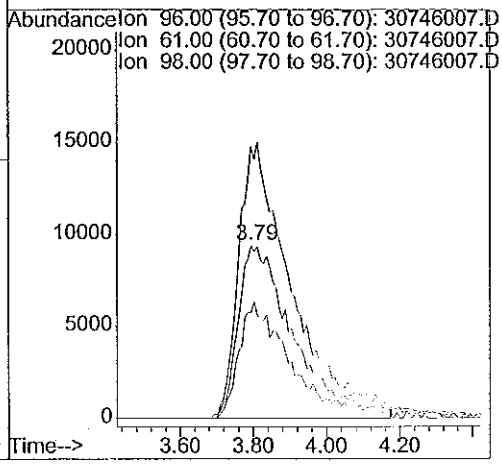


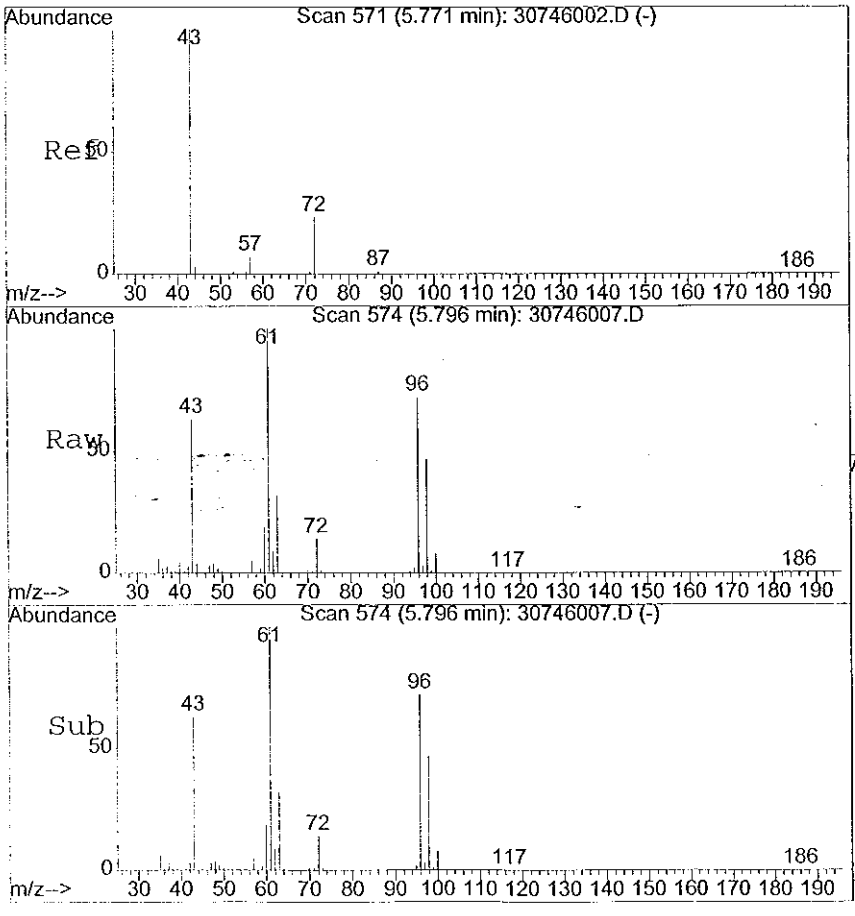


#13
trans-1,2-Dichloroethene
Concen: 0.96 ug/L
RT: 3.79 min Scan# 337
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 98945

Ion	Ratio	Lower	Upper
96	100		
61	157.6	133.8	173.8
98	61.4	45.0	85.0

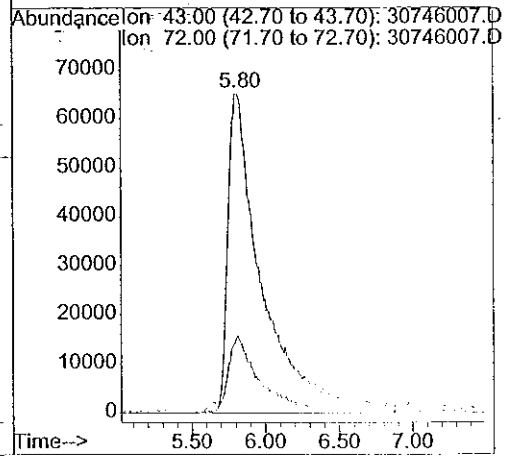


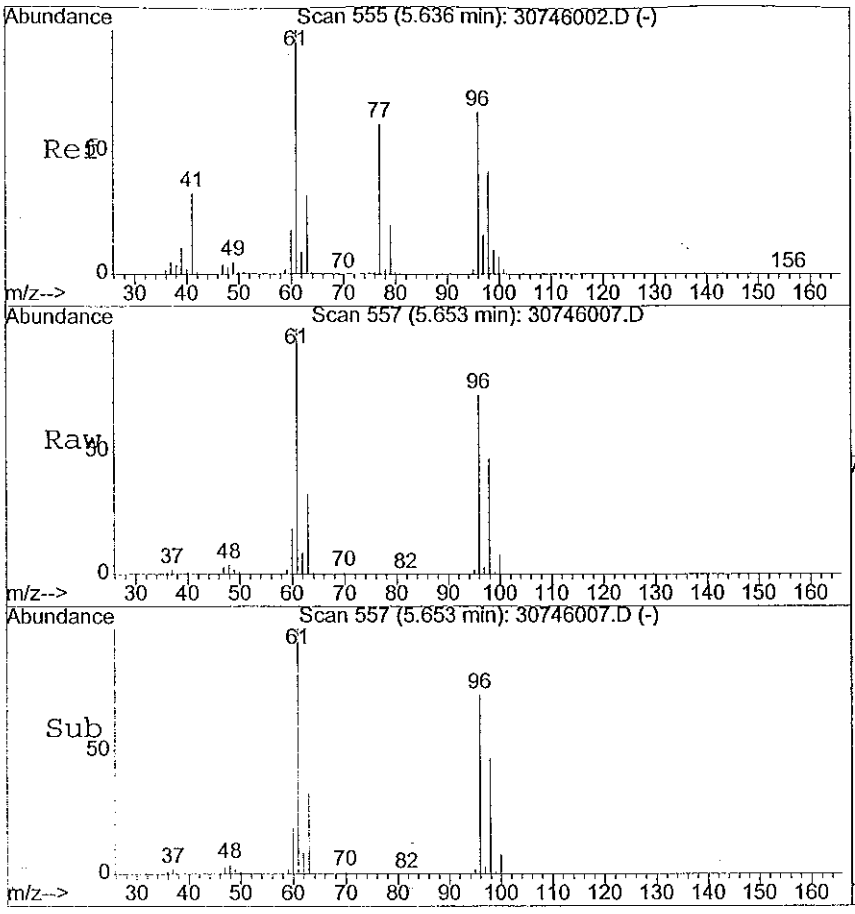


#19
2-Butanone
Concen: 91.90 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.03 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 43 Resp: 1058868

Ion	Ratio	Lower	Upper
43	100		
72	21.9	0.0	123.4

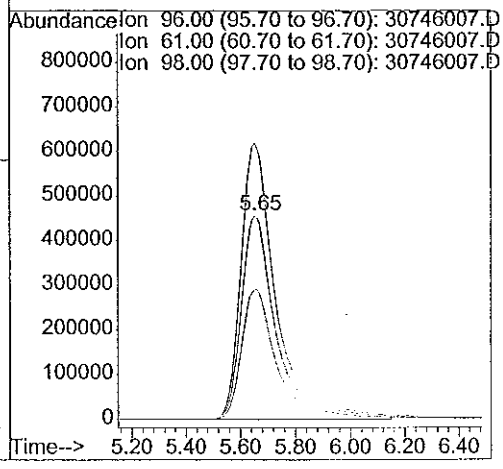


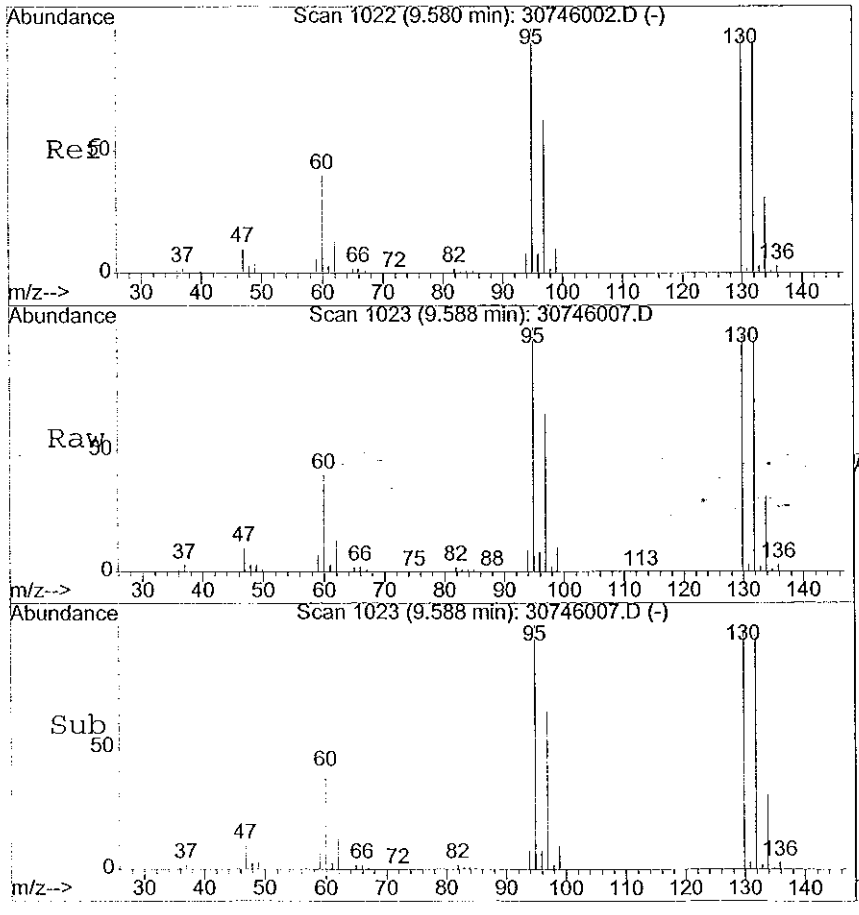


#20
cis-1,2-Dichloroethene
Concen: 43.38 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 4086473

Ion	Ratio	Lower	Upper
96	100		
61	136.1	132.3	172.3
98	63.8	43.6	83.6

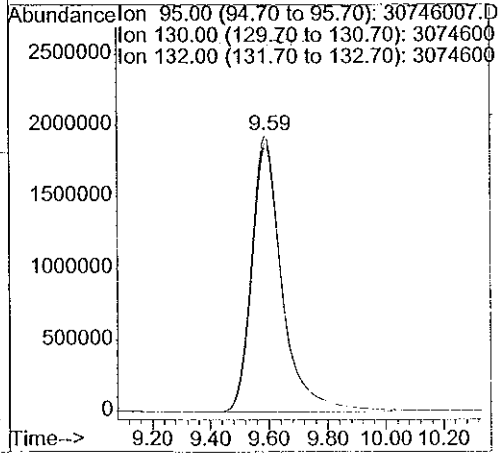




#30
Trichloroethene
Concen: 114.87 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 95 Resp:13863884

Ion	Ratio	Lower	Upper
95	100		
130	97.2	77.1	117.1
132	95.6	76.3	116.3



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 12:14
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746007.D
Name: 110611-1
Misc: CH2MHILL 3609C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746007.D V82625B1.M Mon Nov 05 08:58:53 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746008.D Vial: 5
Acq On : 1 Nov 2001 12:58 Operator: GRH
Sample : 110599-1 Inst : Bubba
Misc : CH2MHILL 3631C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 13:39 2001 Quant Results File: V82625B1.RES

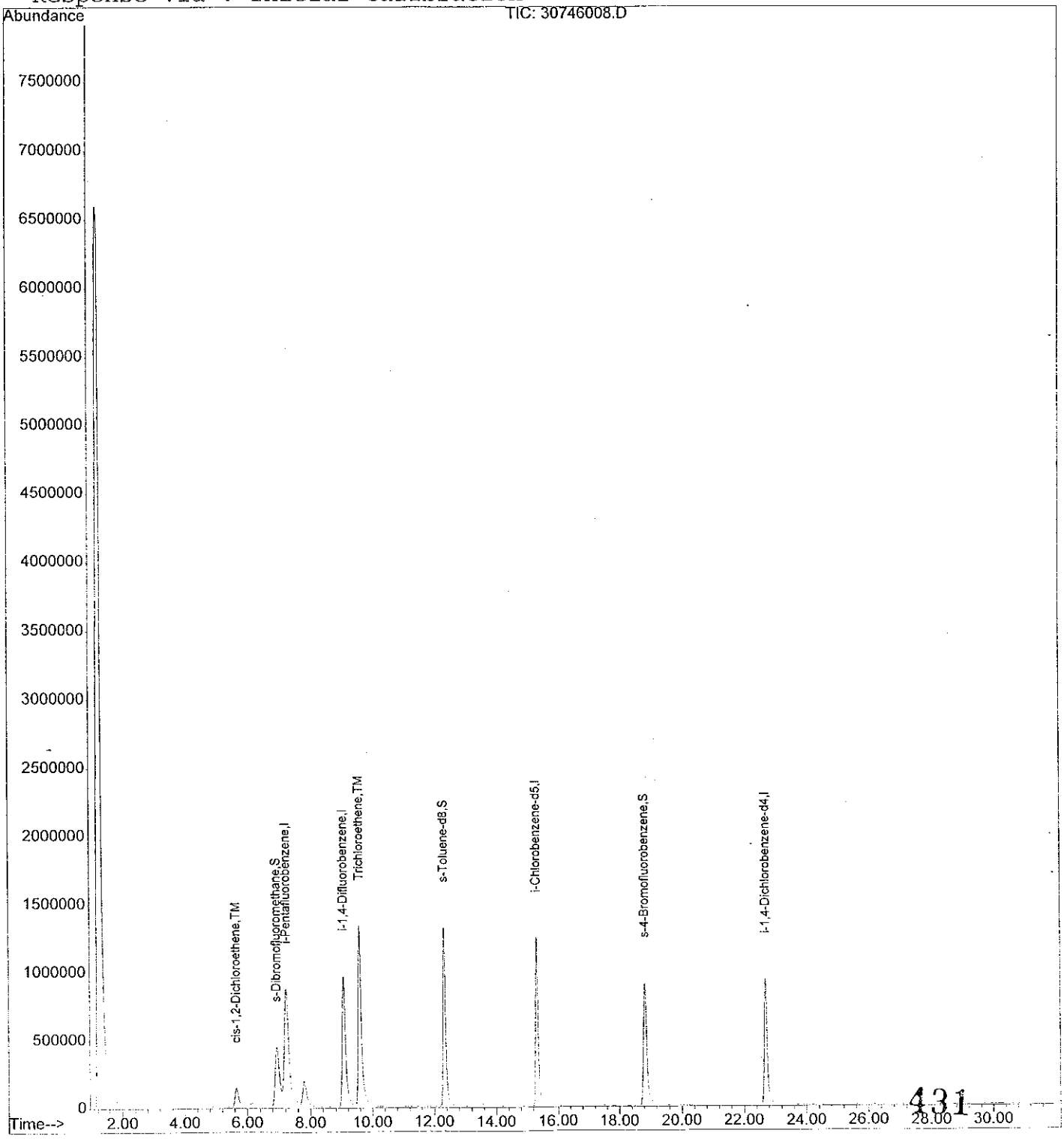
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

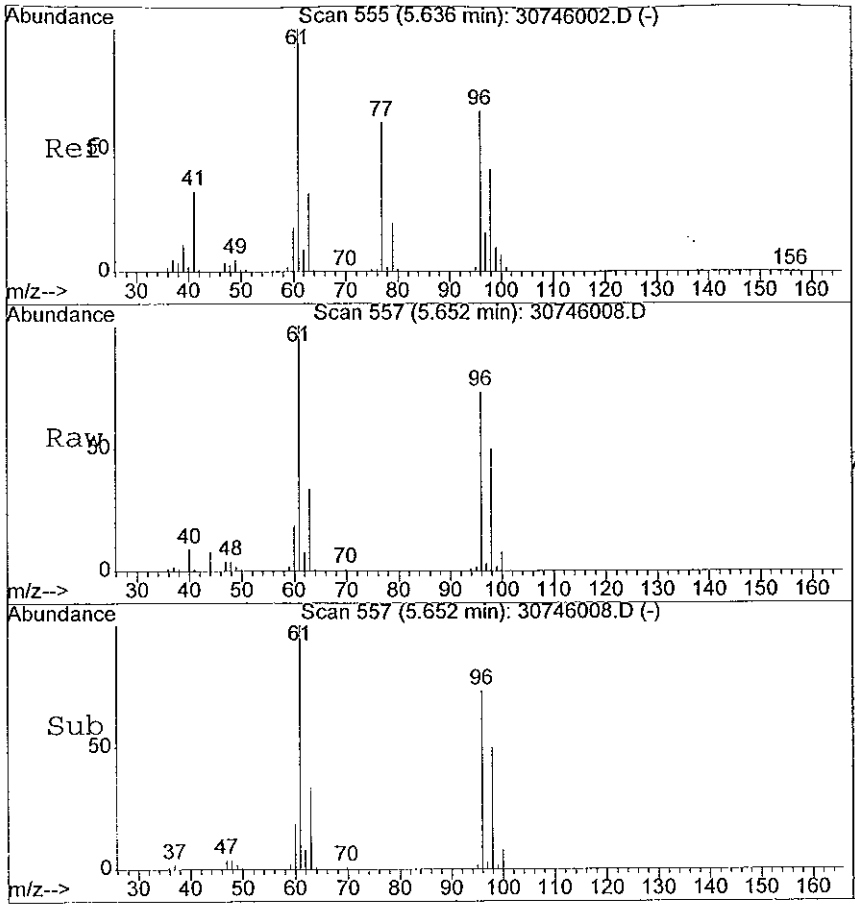
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3262908	10.00	ug/L	0.02 / 107.78%
25) i-1,4-Difluorobenzene	9.06	114	3169397	10.00	ug/L	0.02 / 104.13%
46) i-Chlorobenzene-d5	15.32	117	2216827	10.00	ug/L	0.00 / 101.94%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1063236	10.00	ug/L	0.02 / 86.16%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1467897	9.71	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.10%			
36) s-Toluene-d8	12.32	98	2888906	9.62	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.20%			
56) s-4-Bromofluorobenzene	18.83	95	1615687	9.59	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 95.90%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	296707	2.79	ug/L	90
30) Trichloroethene	9.59	95	1831189	13.21	ug/L	98

11-2

Data File : D:\HPCHEM\1\DATA\110101\30746008.D Vial: 5
Acq On : 1 Nov 2001 12:58 Operator: GRH
Sample : 110599-1 Inst : Bubba
Misc : CH2MHILL 3631C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 13:39 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

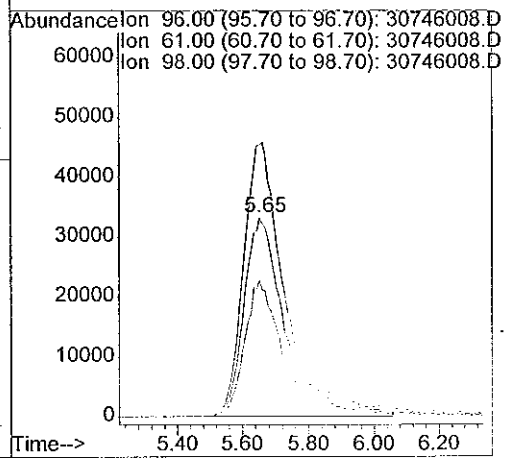


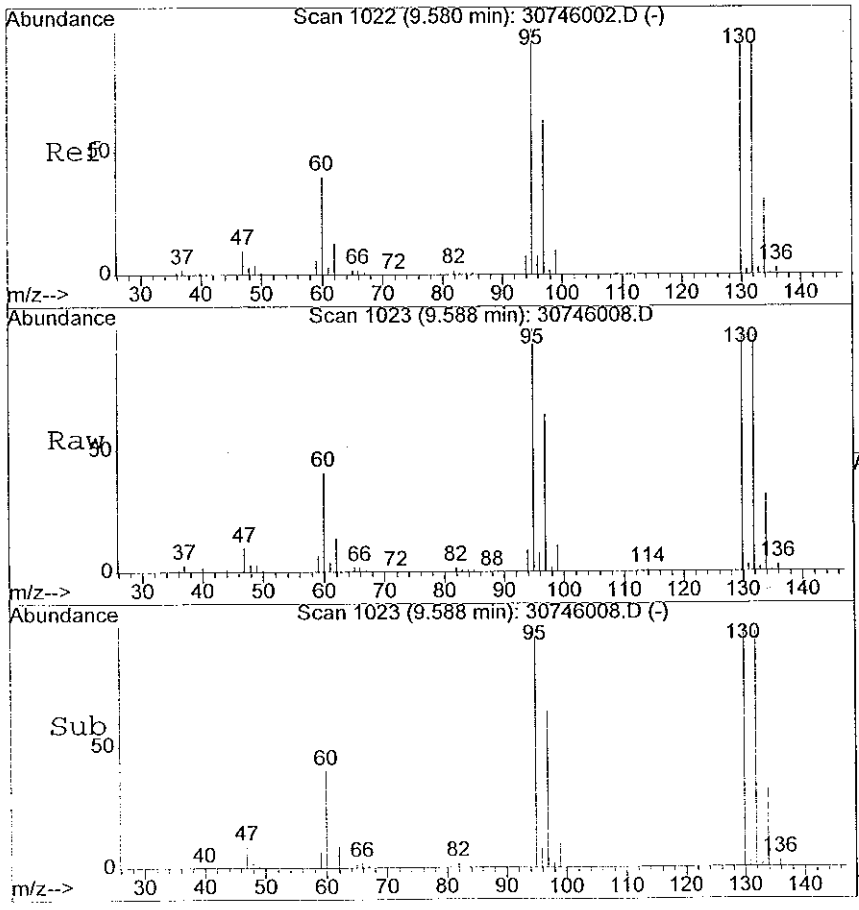


#20
cis-1,2-Dichloroethene
Concen: 2.79 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.02 min
Lab File: 30746008.D
Acq: 1 Nov 2001 12:58

Tgt Ion: 96 Resp: 296707

Ion	Ratio	Lower	Upper
96	100		
61	137.1	132.3	172.3
98	68.4	43.6	83.6

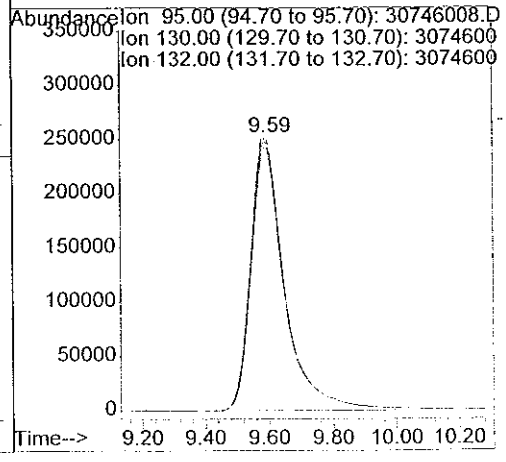




#30
Trichloroethene
Concen: 13.21 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.01 min
Lab File: 30746008.D
Acq: 1 Nov 2001 12:58

Tgt Ion: 95 Resp: 1831189

Ion	Ratio	Lower	Upper
95	100		
130	100.1	77.1	117.1
132	96.7	76.3	116.3



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 12:58
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746008.D
Name: 110599-1
Misc: CH2MHILL 3631C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746008.D V82625B1.M Mon Nov 05 09:00:54 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3023416	10.00	ug/L	0.03 99.87%
25) i-1,4-Difluorobenzene	9.07	114	3047744	10.00	ug/L	0.02 100.13%
46) i-Chlorobenzene-d5	15.33	117	2211554	10.00	ug/L	0.01 101.70%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1108654	10.00	ug/L	0.02 89.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1472970	10.52	ug/L	0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 105.20%			
36) s-Toluene-d8	12.34	98	2857844	9.90	ug/L	0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.00%			
56) s-4-Bromofluorobenzene	18.84	95	1649038	9.81	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.10%			
Target Compounds						Qvalue
9) Acetone	2.91	43	32414m	5.42	ug/L	67
19) 2-Butanone	5.85	43	101498m	8.30	ug/L	96
20) cis-1,2-Dichloroethene	5.67	96	82165	0.86	ug/L	91
30) Trichloroethene	9.59	95	640128	4.80	ug/L	99
45) 2-Hexanone	14.04	43	47161	2.26	ug/L	92

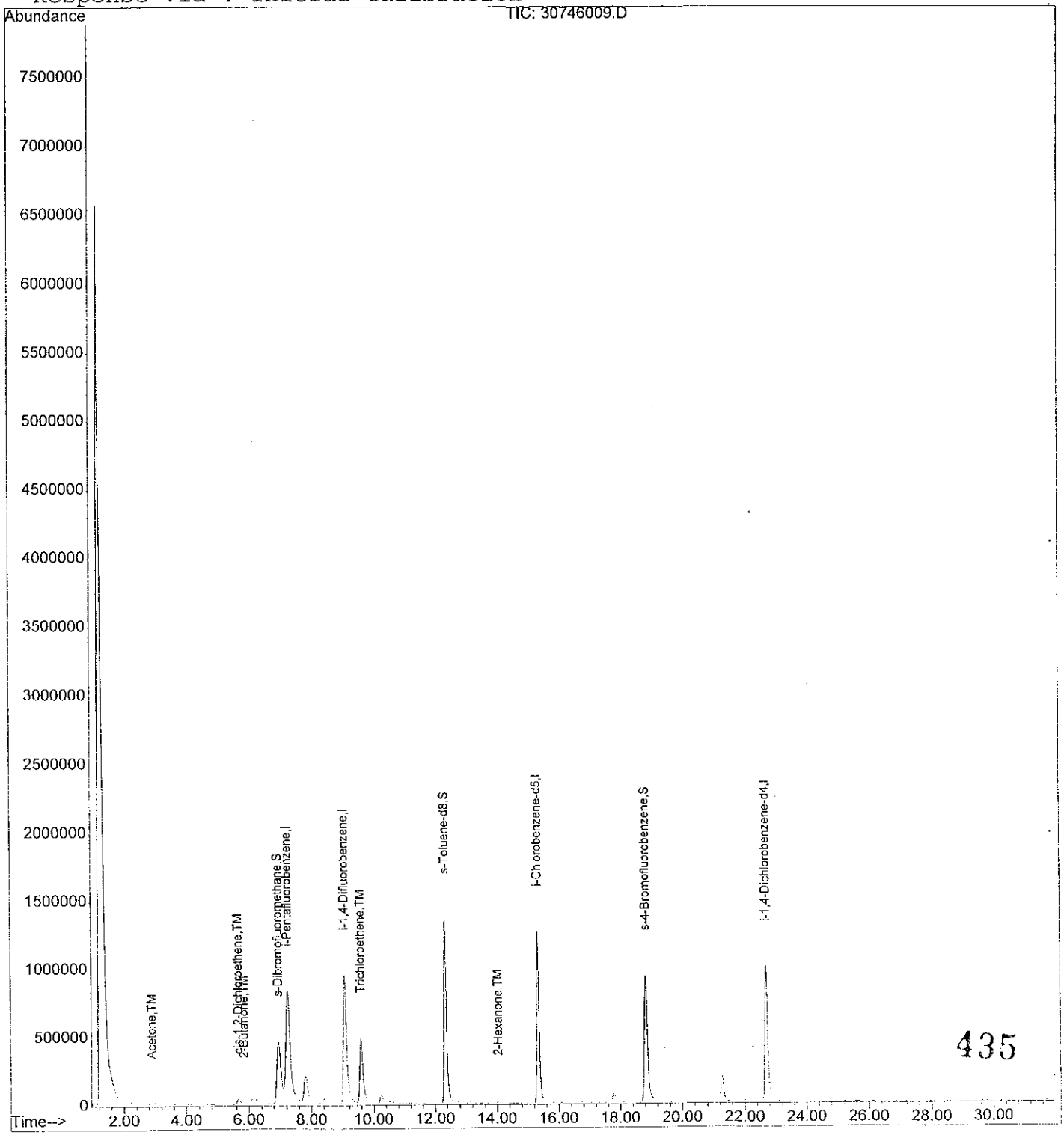
Q 11-2

434

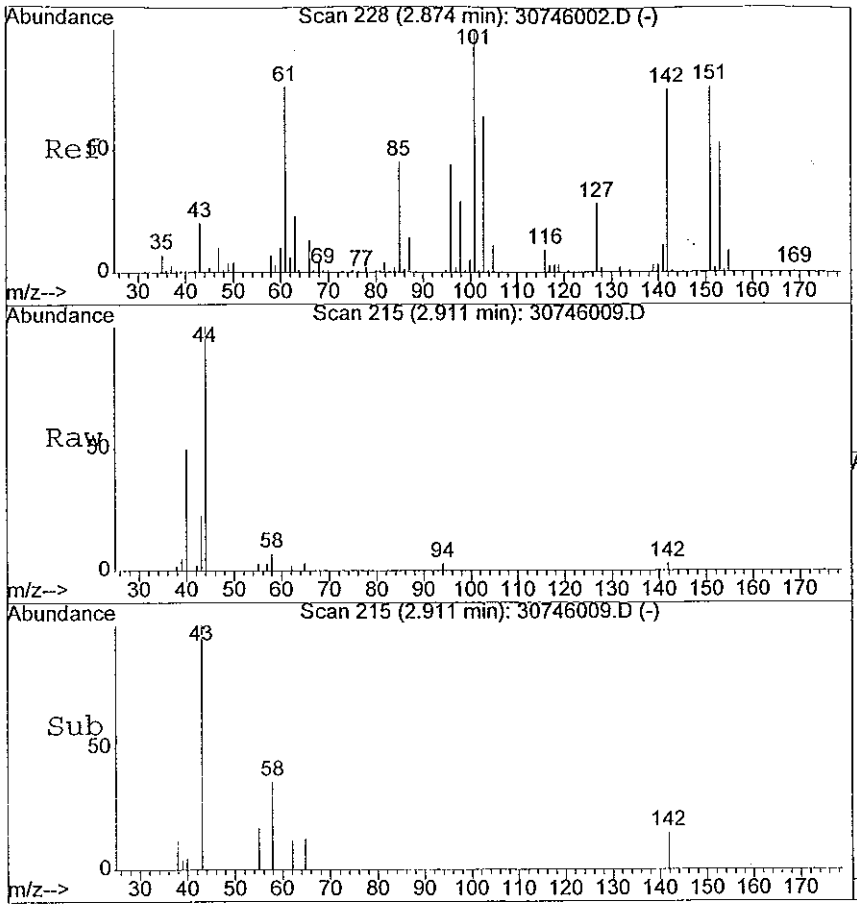
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:43 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



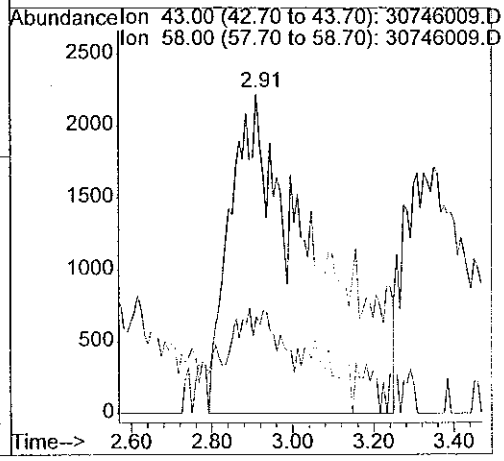
435

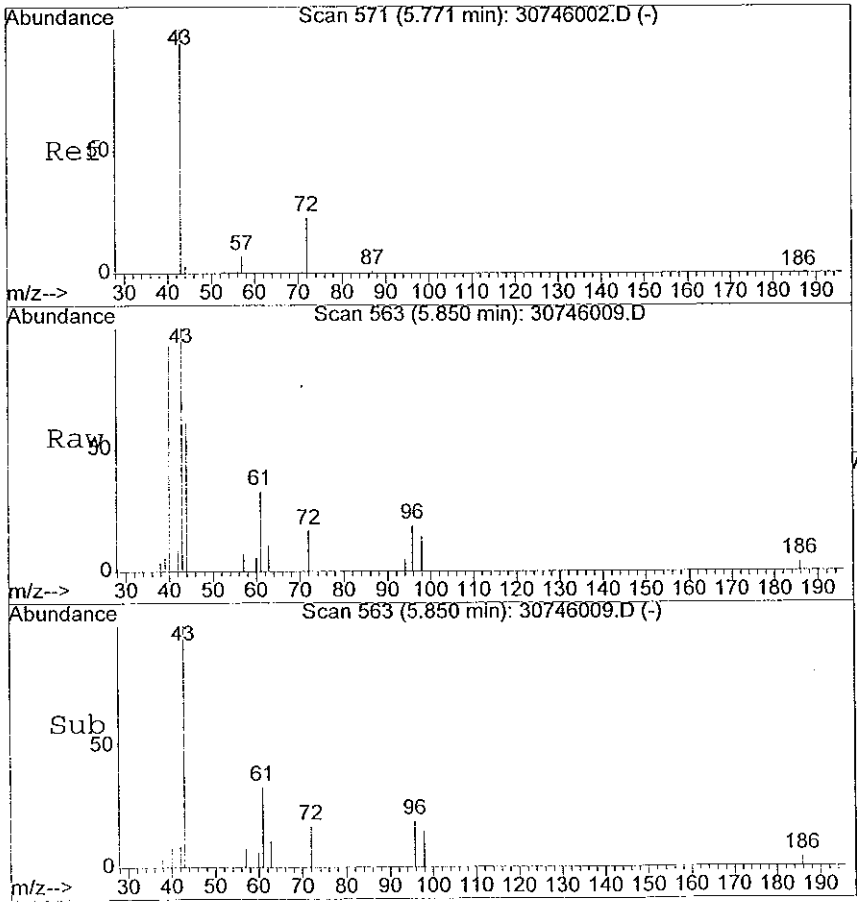


#9
Acetone
Concen: 5.42 ug/L m
RT: 2.91 min Scan# 215
Delta R.T. 0.04 min
Lab File: 30746009.D
Acq: 1 Nov 2001 13:38

Tgt Ion: 43 Resp: 32414

Ion	Ratio	Lower	Upper
43	100		
58	30.5	0.0	136.0

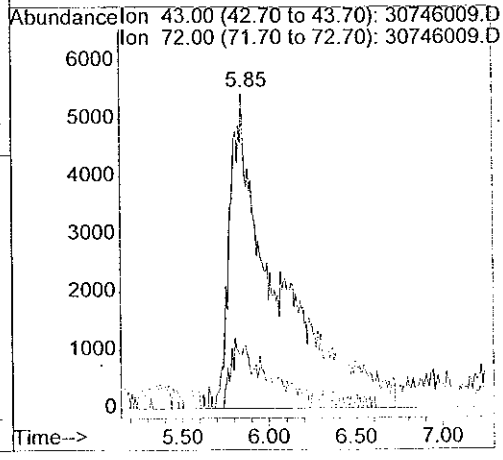


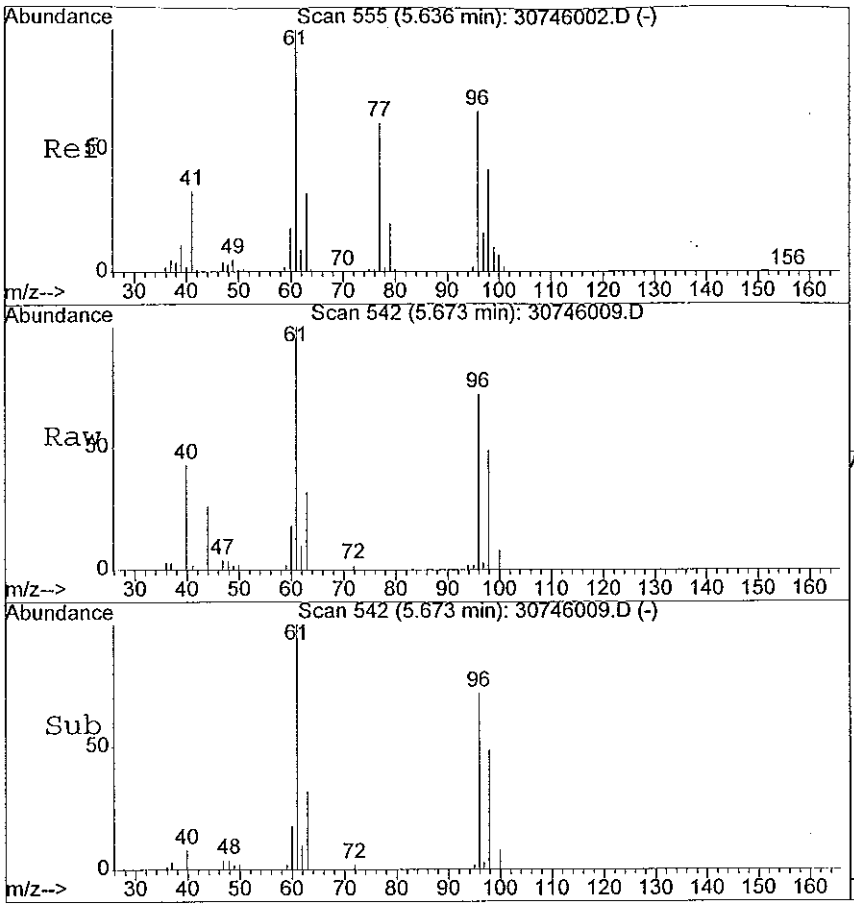


#19
2-Butanone
Concen: 8.30 ug/L m
RT: 5.85 min Scan# 563
Delta R.T. 0.08 min
Lab File: 30746009.D
Acq: 1 Nov 2001 13:38

Tgt Ion: 43 Resp: 101498

Ion	Ratio	Lower	Upper
43	100		
72	17.4	0.0	123.4

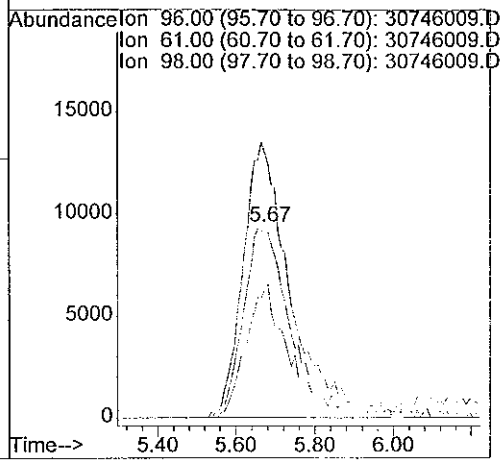


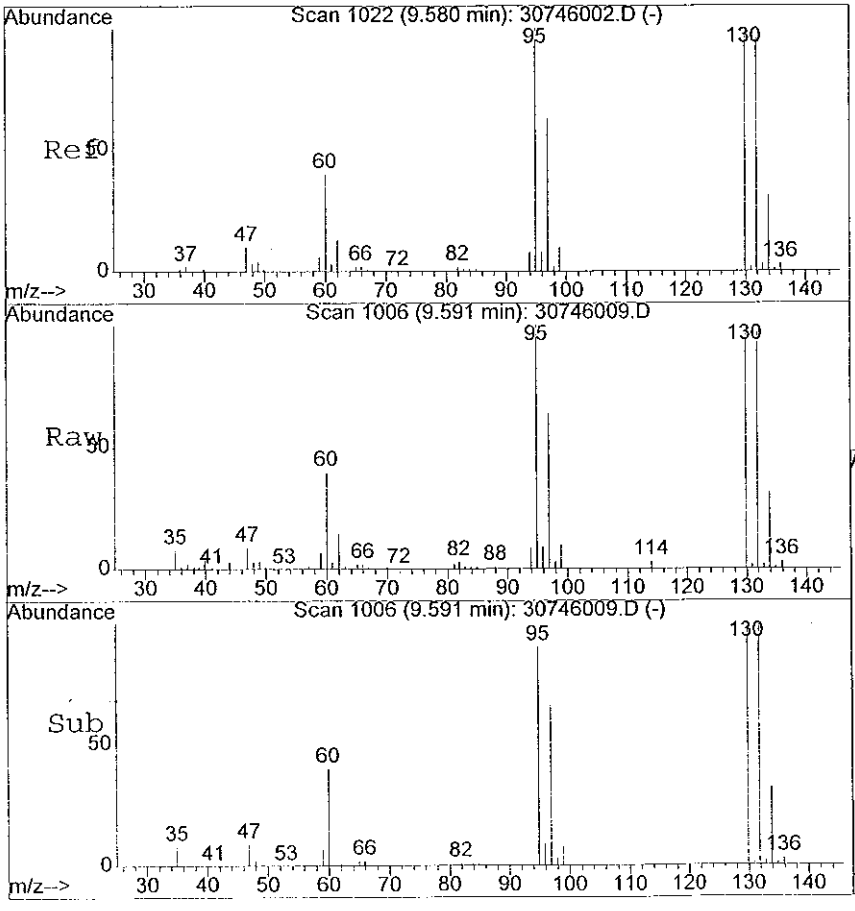


#20
cis-1,2-Dichloroethene
Concen: 0.86 ug/L
RT: 5.67 min Scan# 542
Delta R.T. 0.04 min
Lab File: 30746009.D
Acq: 1 Nov 2001 13:38

Tgt Ion: 96 Resp: 82165

Ion	Ratio	Lower	Upper
96	100		
61	139.4	132.3	172.3
98	68.3	43.6	83.6

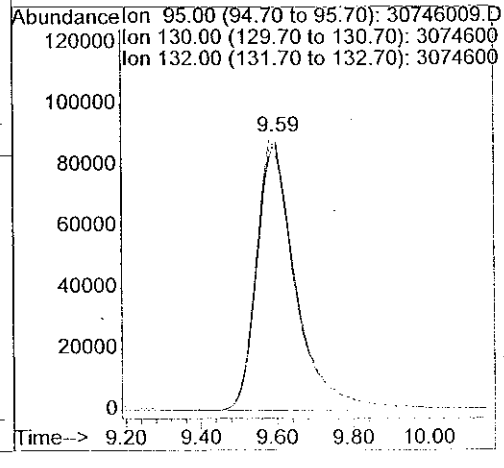


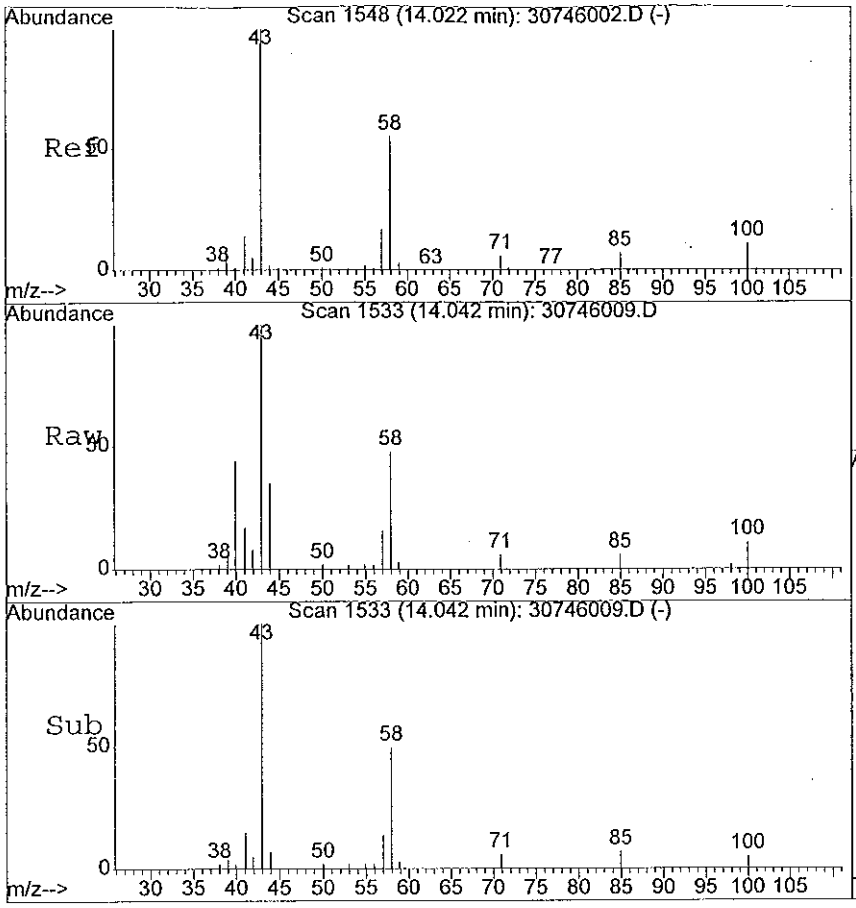


#30
Trichloroethene
Concen: 4.80 ug/L
RT: 9.59 min Scan# 1006
Delta R.T. 0.01 min
Lab File: 30746009.D
Acq: 1 Nov 2001 13:38

Tgt Ion: 95 Resp: 640128

Ion	Ratio	Lower	Upper
95	100		
130	97.8	77.1	117.1
132	96.8	76.3	116.3

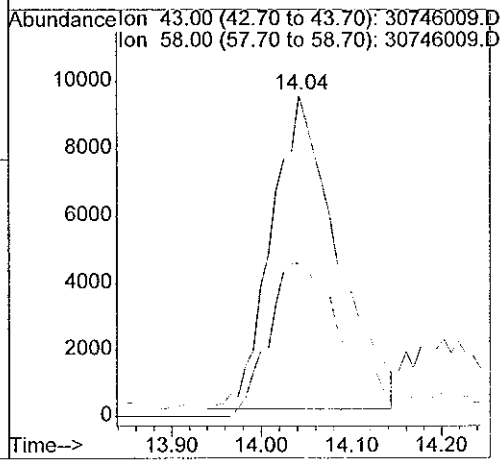




#45
2-Hexanone
Concen: 2.26 ug/L
RT: 14.04 min Scan# 1533
Delta R.T. 0.02 min
Lab File: 30746009.D
Acq: 1 Nov 2001 13:38

Tgt Ion: 43 Resp: 47161

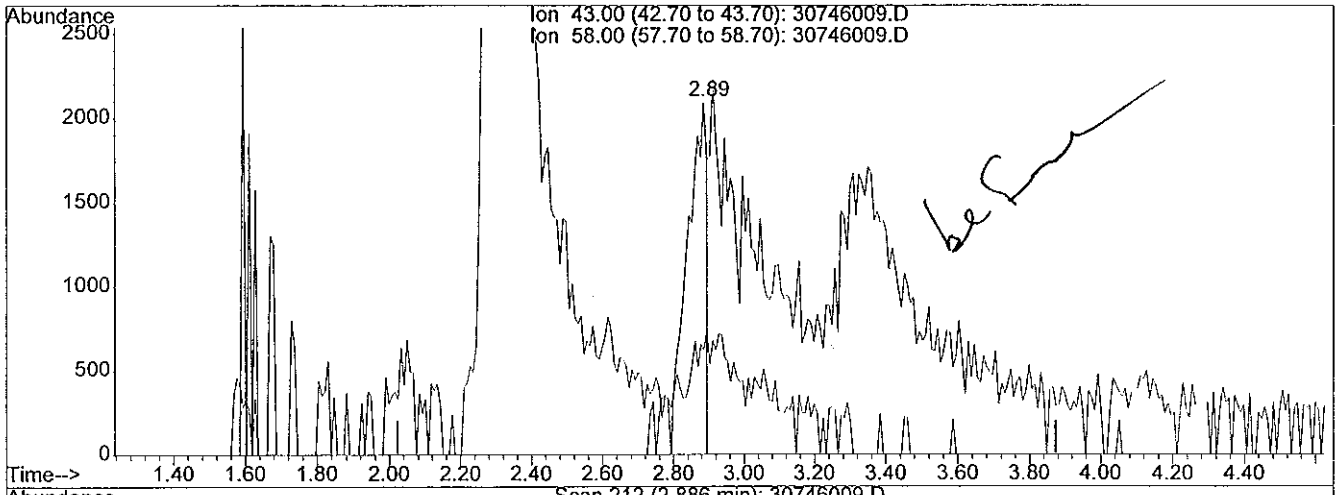
Ion	Ratio	Lower	Upper
43	100		
58	49.1	0.0	154.9

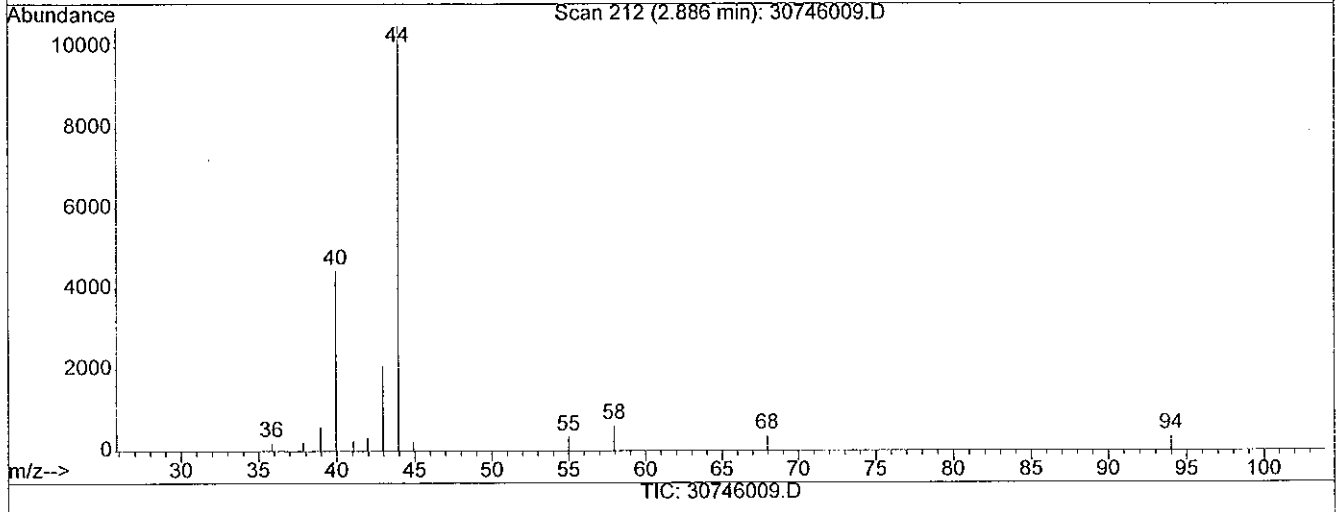


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:39 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746009.D

(9) Acetone (TM)

2.89min 1.27ug/L

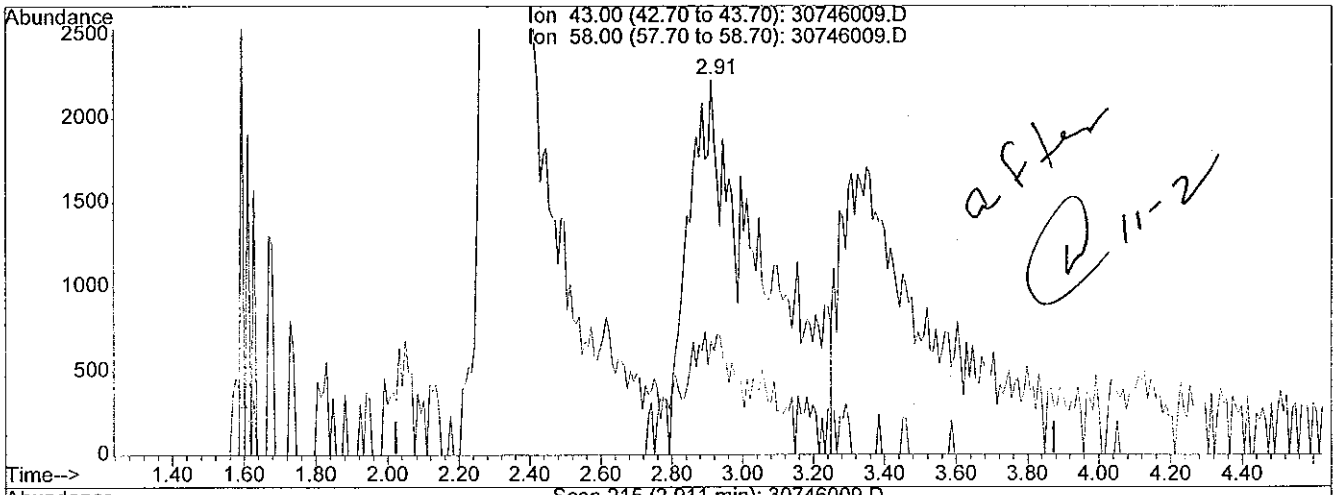
response 8064

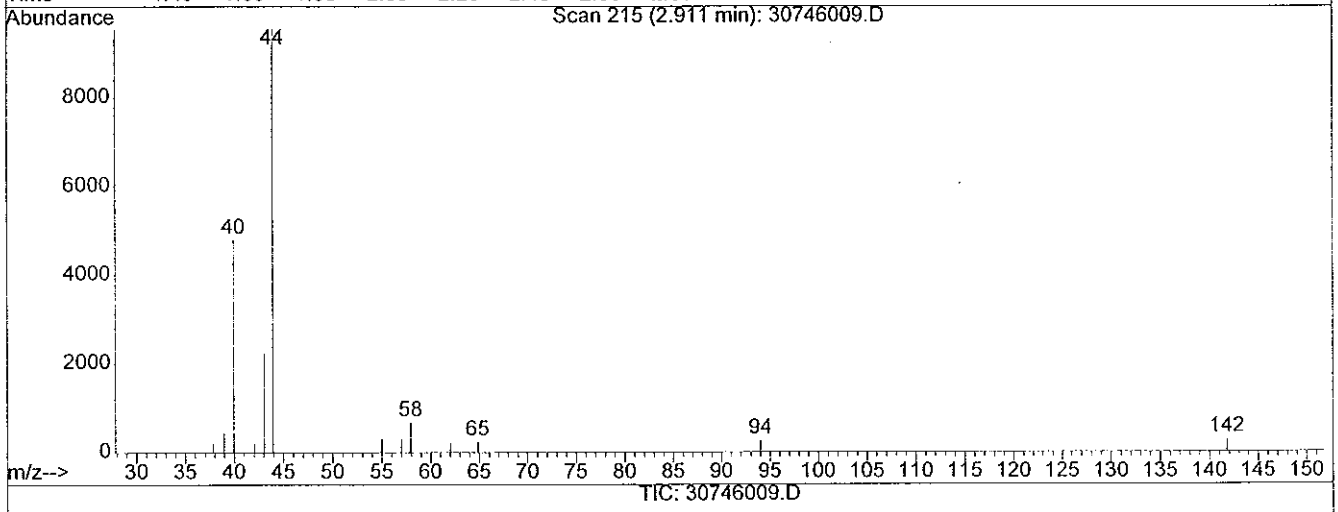
Ion	Exp%	Act%
43.00	100	100
58.00	36.00	16.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:41 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746009.D

(9) Acetone (TM)

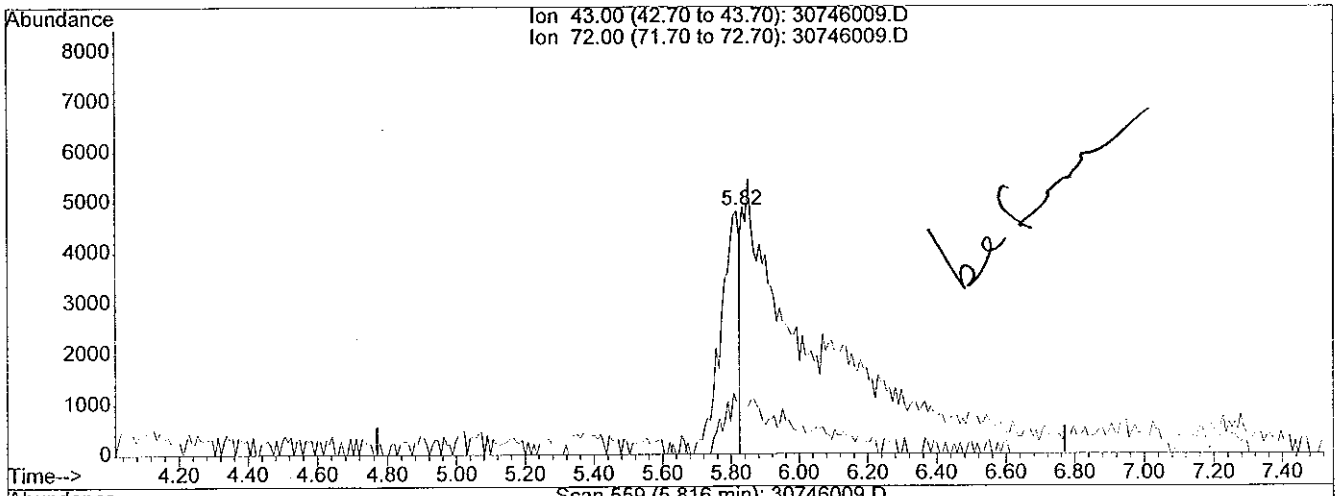
2.91min 5.42ug/L m

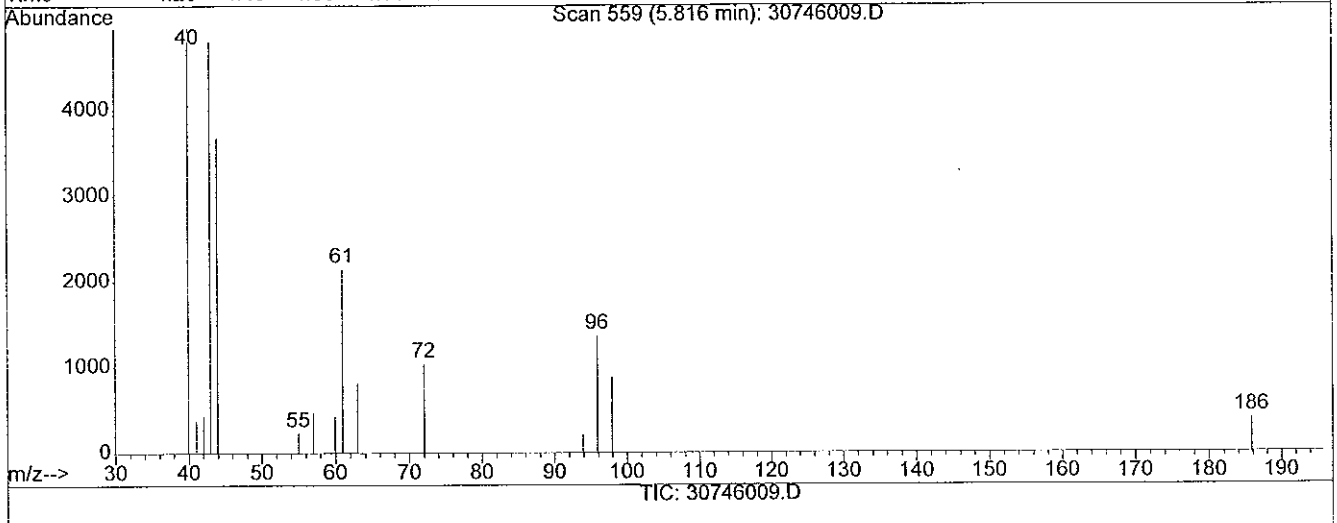
response 32414

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	30.50
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:42 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746009.D

(19) 2-Butanone (TM)

5.82min 1.47ug/L

response 18012

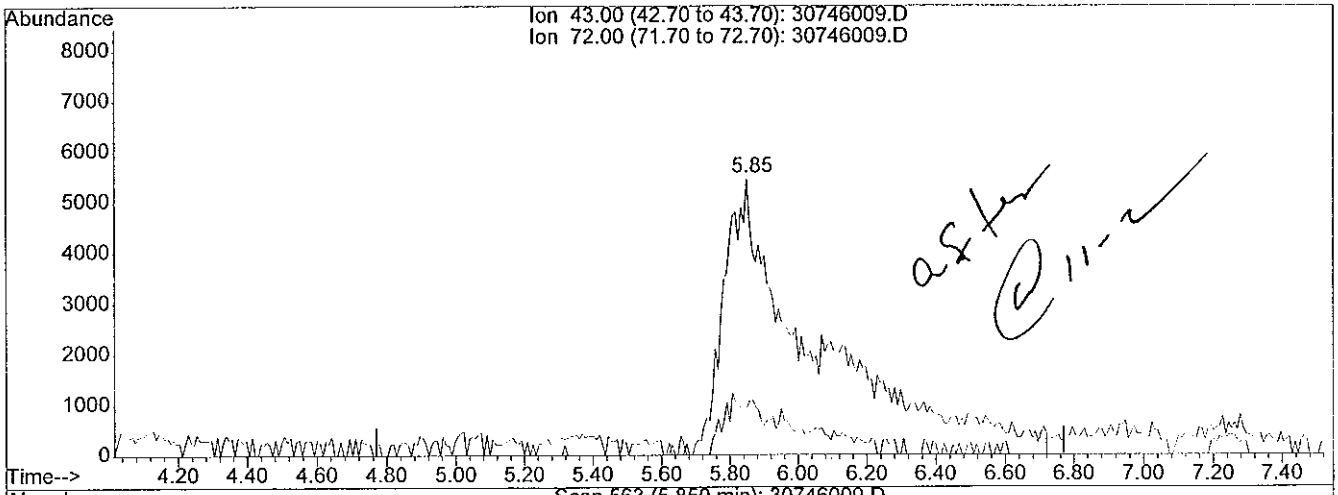
Ion	Exp%	Act%
43.00	100	100
72.00	23.40	21.66
0.00	0.00	0.00
0.00	0.00	0.00

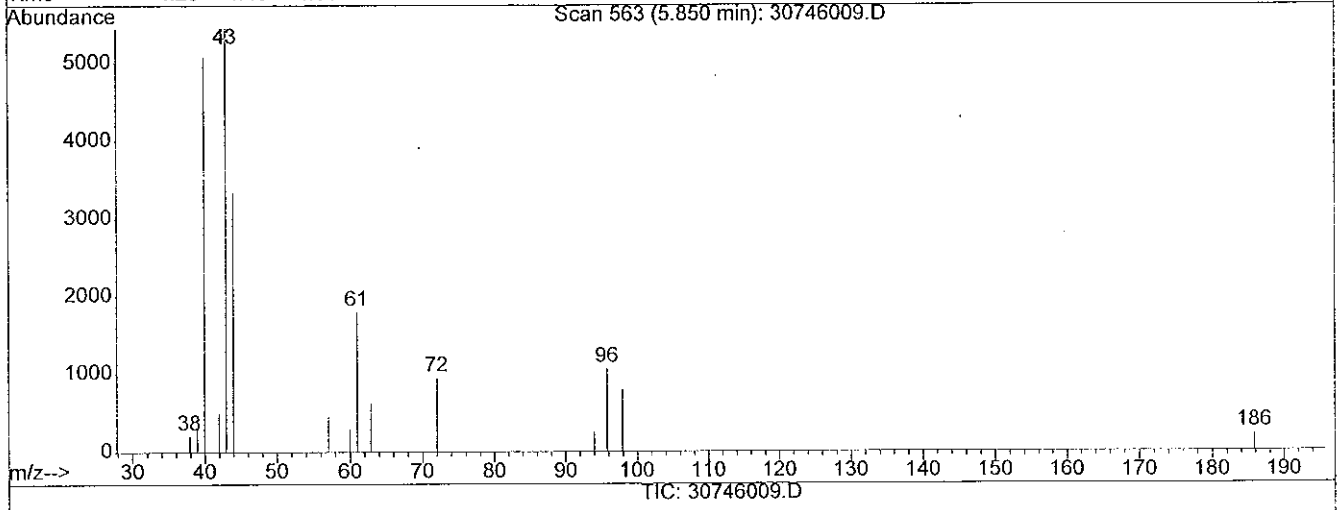
441

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:42 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746009.D

(19) 2-Butanone (TM)

5.85min 8.30ug/L m

response 101498

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	17.40
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746009.D Vial: 6
Acq On : 1 Nov 2001 13:38 Operator: GRH
Sample : 110599-2 Inst : Bubba
Misc : CH2MHILL 3626A-Q401 Multiplr: 1.00
MS Integration Params: LSCINT.P

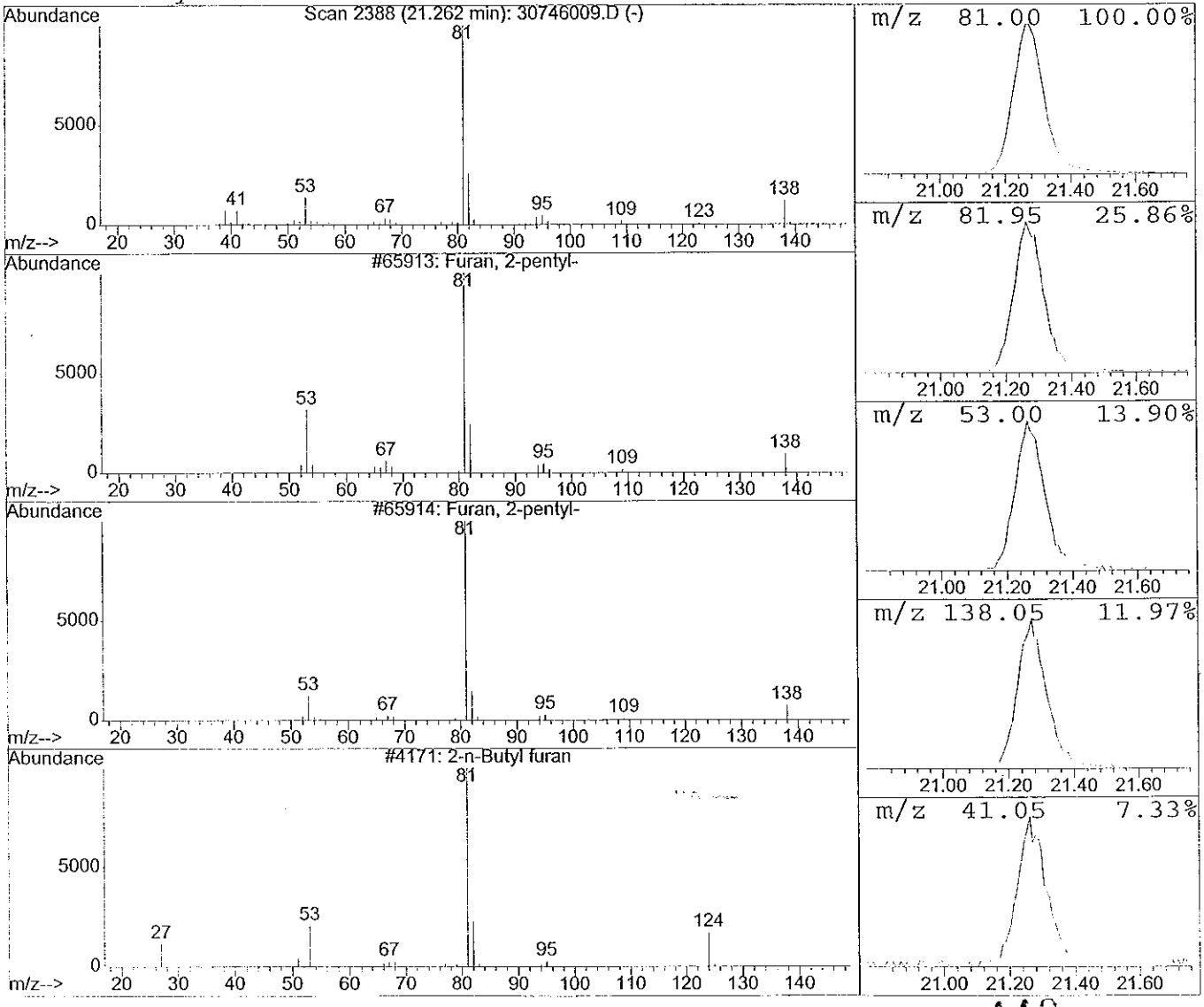
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Library : D:\DATABASE\NBS75K.L

****

Peak Number 1 Furan, 2-pentyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
21.26	1.95 ug/L	1256840	i-1,4-Dichloroben	6429730	22.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, 2-pentyl-	138	C9H14O	003777-69-3	91
2	Furan, 2-pentyl-	138	C9H14O	003777-69-3	90
3	2-n-Butyl furan	124	C8H12O	004466-24-4	56
4	2-n-Butyl furan	124	C8H12O	004466-24-4	42



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Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 13:38
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746009.D
Name: 110599-2
Misc: CH2MHILL 3626A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan, 2-pentyl-	21.26	2.0	ug/L	1256840	ISTD04	22.70	6429730	10.0

30746009.D V82625B1.M Mon Nov 05 09:01:23 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 6:29 2001 Quant Results File: V82625B1.RES

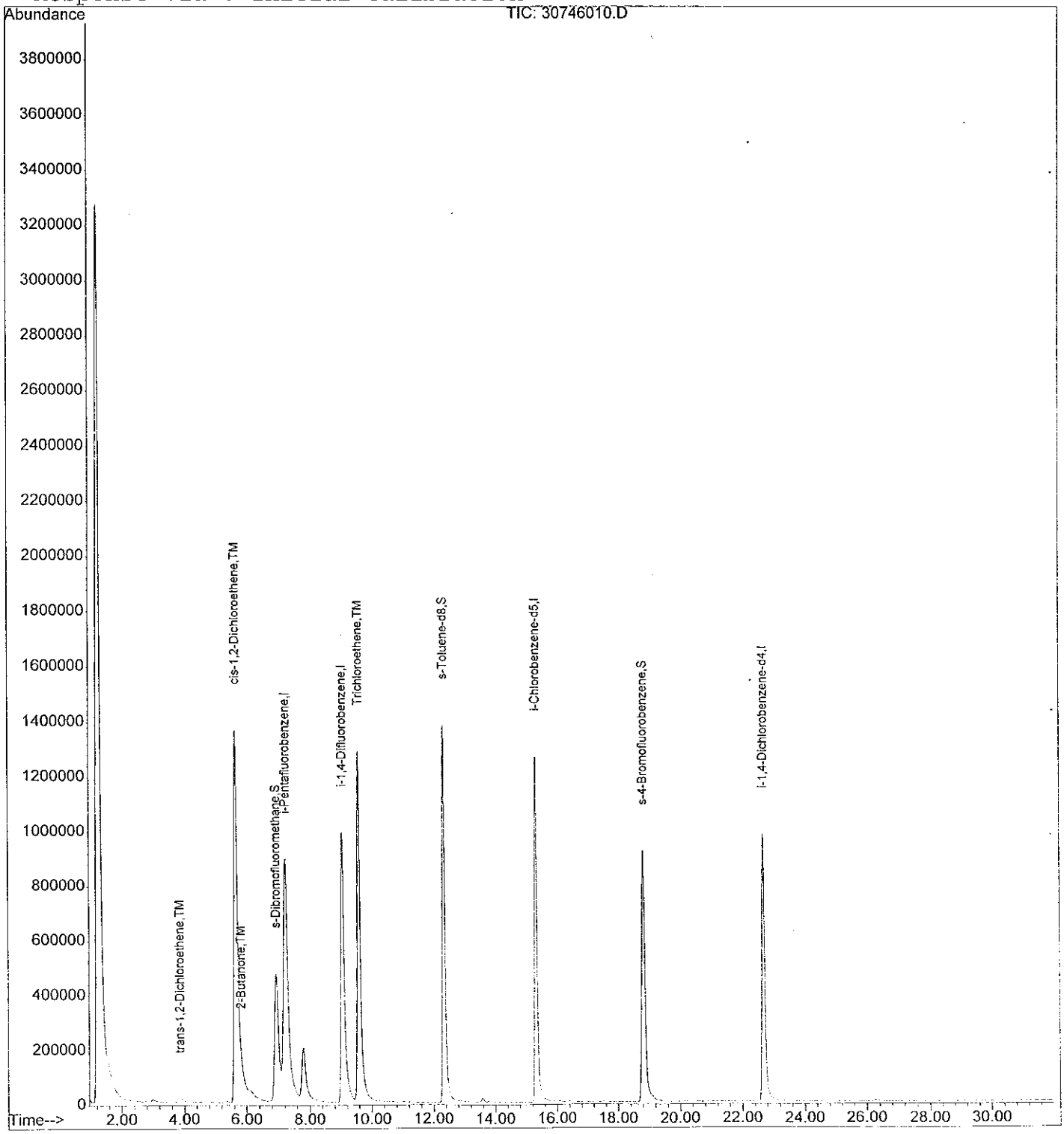
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

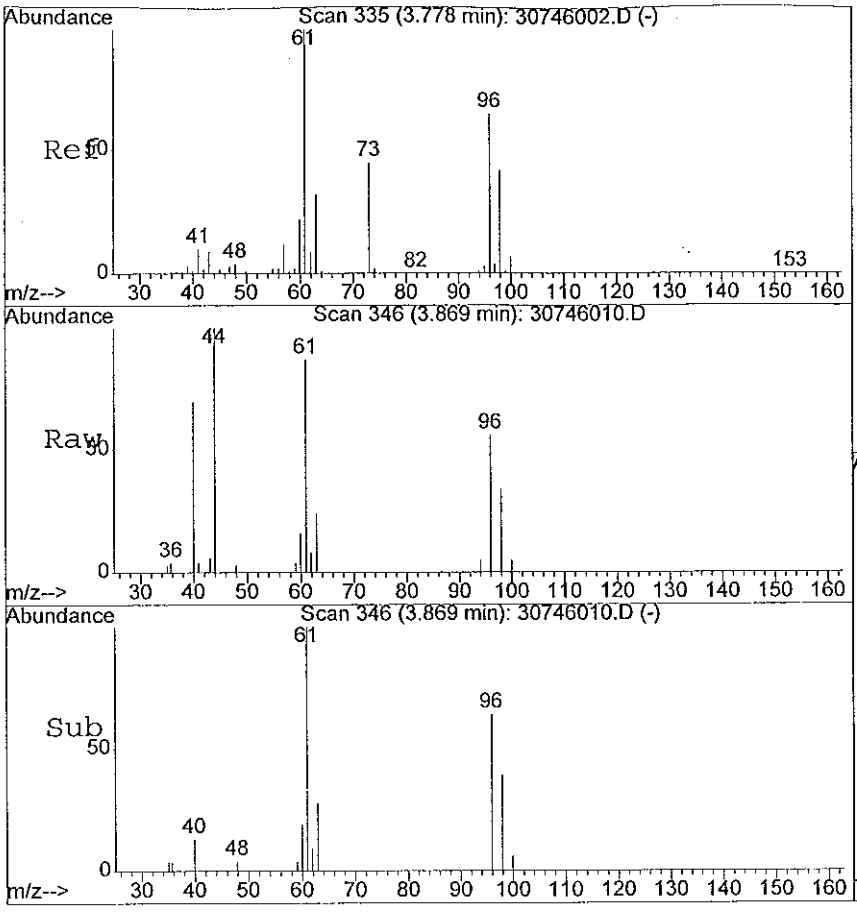
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3190094	10.00	ug/L	0.02 105.37%
25) i-1,4-Difluorobenzene	9.06	114	3183839	10.00	ug/L	0.02 104.60%
46) i-Chlorobenzene-d5	15.32	117	2244139	10.00	ug/L	0.00 103.20%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1093632	10.00	ug/L	0.00 88.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1483430	10.04	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.40%			
36) s-Toluene-d8	12.33	98	2994049	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.82	95	1661807	9.74	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.40%			
Target Compounds						Qvalue
13) trans-1,2-Dichloroethene	3.87	96	43269m	0.37	ug/L	97
19) 2-Butanone	5.84	43	171960m	13.33	ug/L	72
20) cis-1,2-Dichloroethene	5.65	96	2801917	26.58	ug/L	91
30) Trichloroethene	9.59	95	1722782	12.37	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 6:29 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

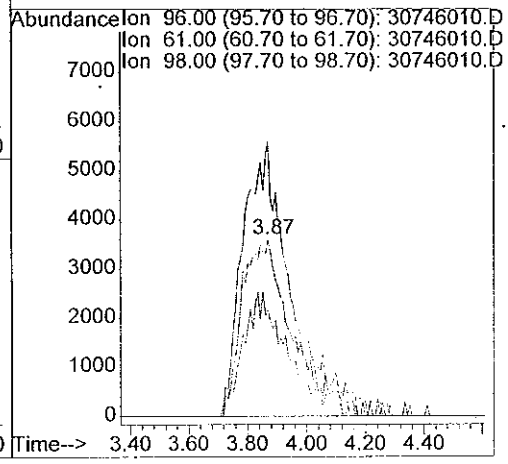


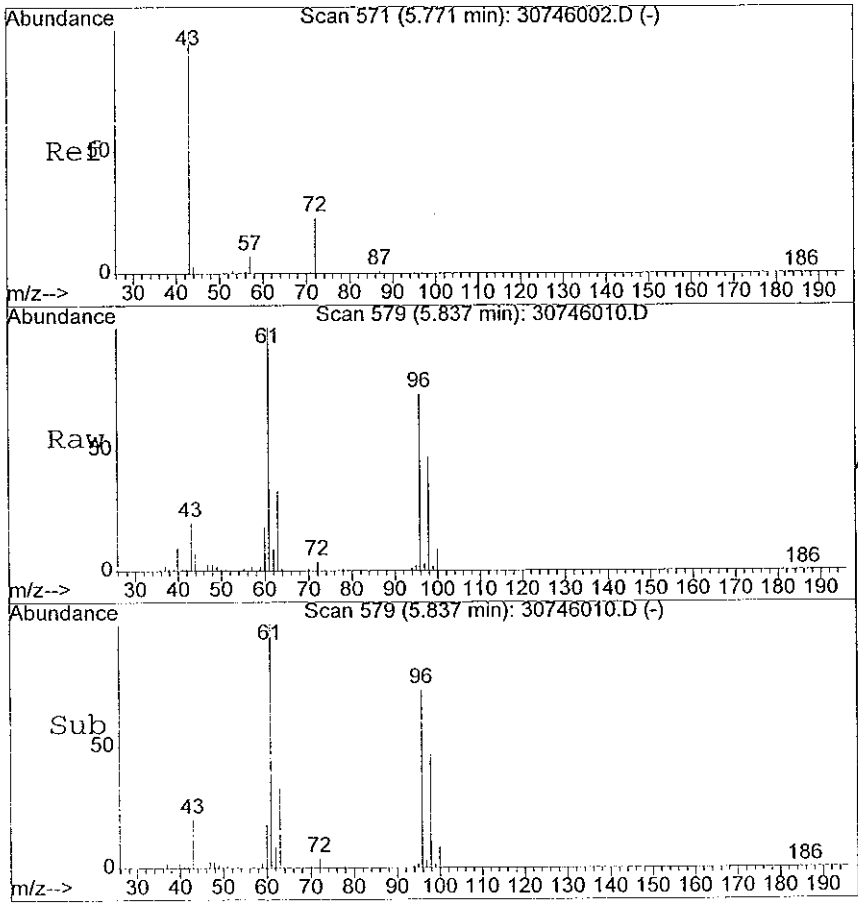


#13
trans-1,2-Dichloroethene
Concen: 0.37 ug/L m
RT: 3.87 min Scan# 346
Delta R.T. 0.09 min
Lab File: 30746010.D
Acq: 1 Nov 2001 14:21

Tgt Ion: 96 Resp: 43269

Ion	Ratio	Lower	Upper
96	100		
61	156.4	133.8	173.8
98	60.5	45.0	85.0

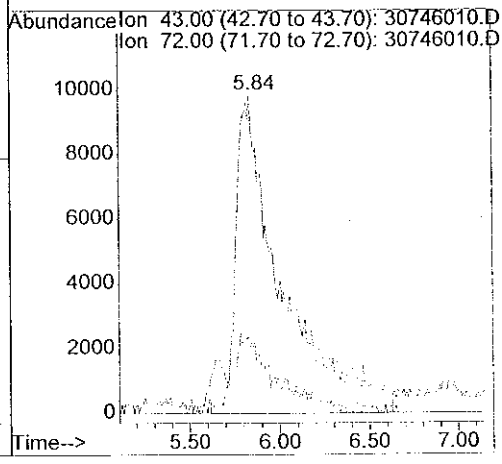




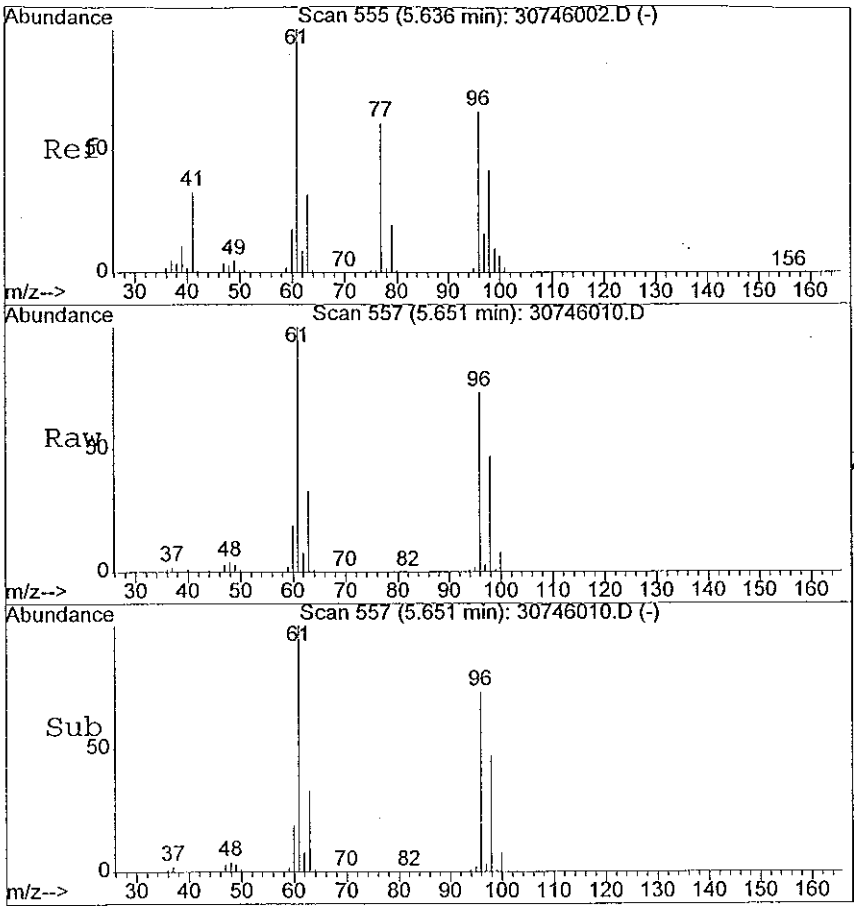
#19
2-Butanone
Concen: 13.33 ug/L m
RT: 5.84 min Scan# 579
Delta R.T. 0.07 min
Lab File: 30746010.D
Acq: 1 Nov 2001 14:21

Tgt Ion: 43 Resp: 171960

Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	123.4



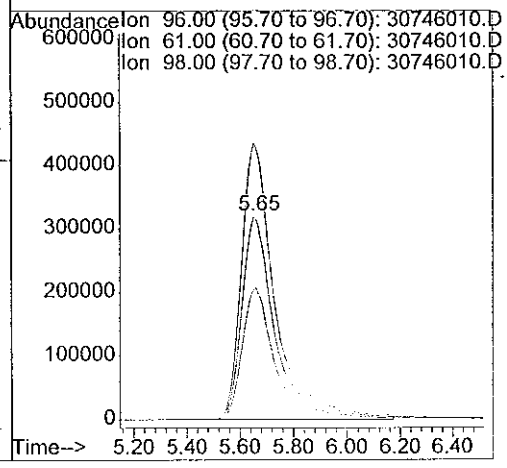
447

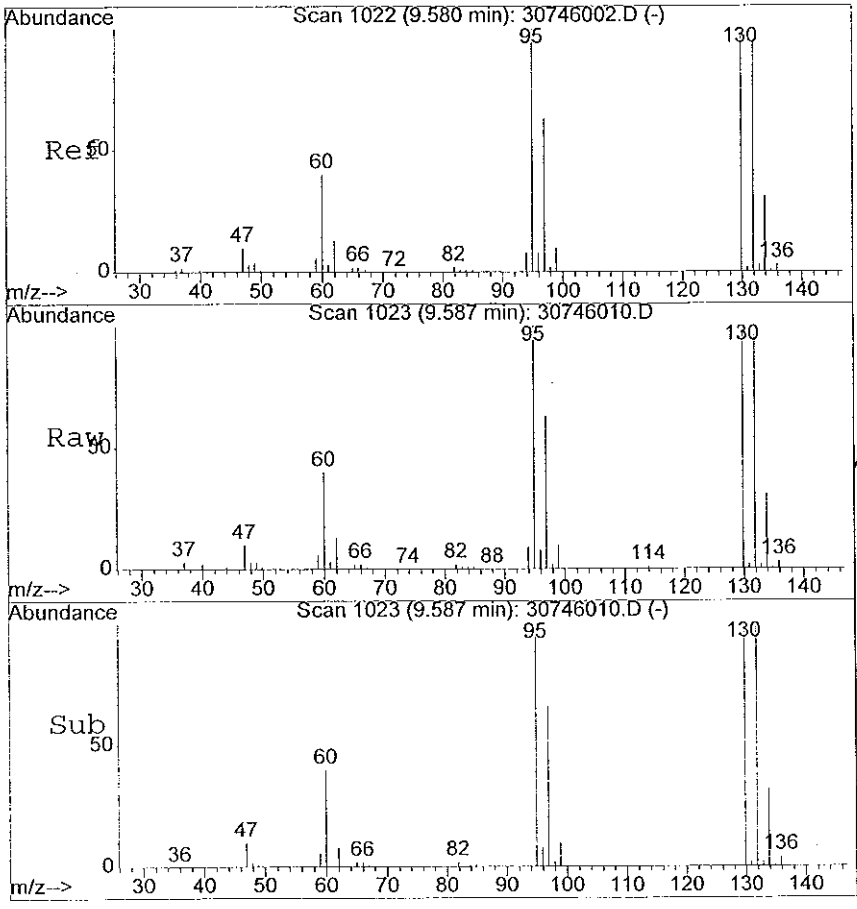


#20
cis-1,2-Dichloroethene
Concen: 26.58 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.02 min
Lab File: 30746010.D
Acq: 1 Nov 2001 14:21

Tgt Ion: 96 Resp: 2801917

Ion	Ratio	Lower	Upper
96	100		
61	136.7	132.3	172.3
98	64.2	43.6	83.6

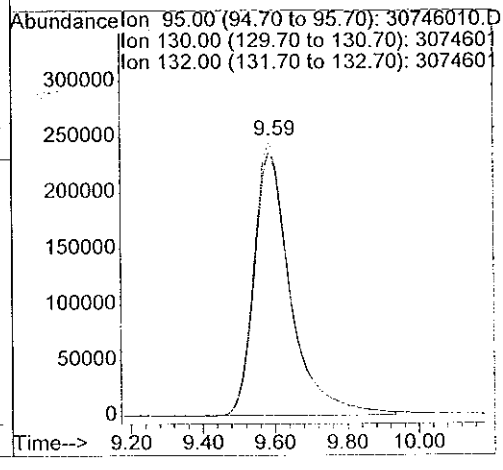




#30
Trichloroethene
Concen: 12.37 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.01 min
Lab File: 30746010.D
Acq: 1 Nov 2001 14:21

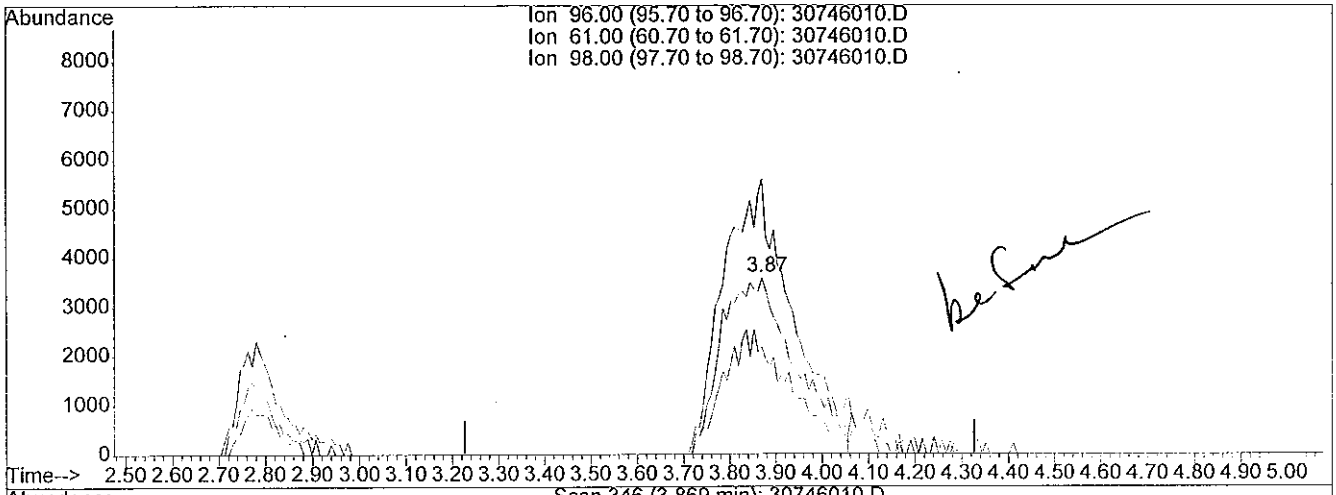
Tgt Ion: 95 Resp: 1722782

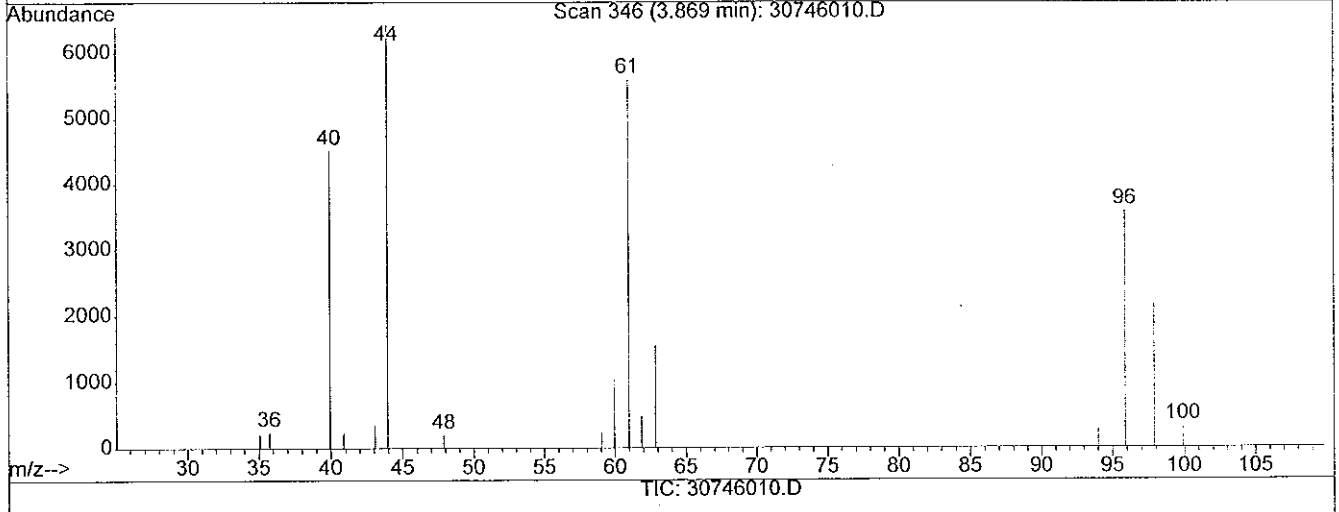
Ion	Ratio	Lower	Upper
95	100		
130	96.8	77.1	117.1
132	96.0	76.3	116.3



Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:40 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746010.D

(13) trans-1,2-Dichloroethene (TM)

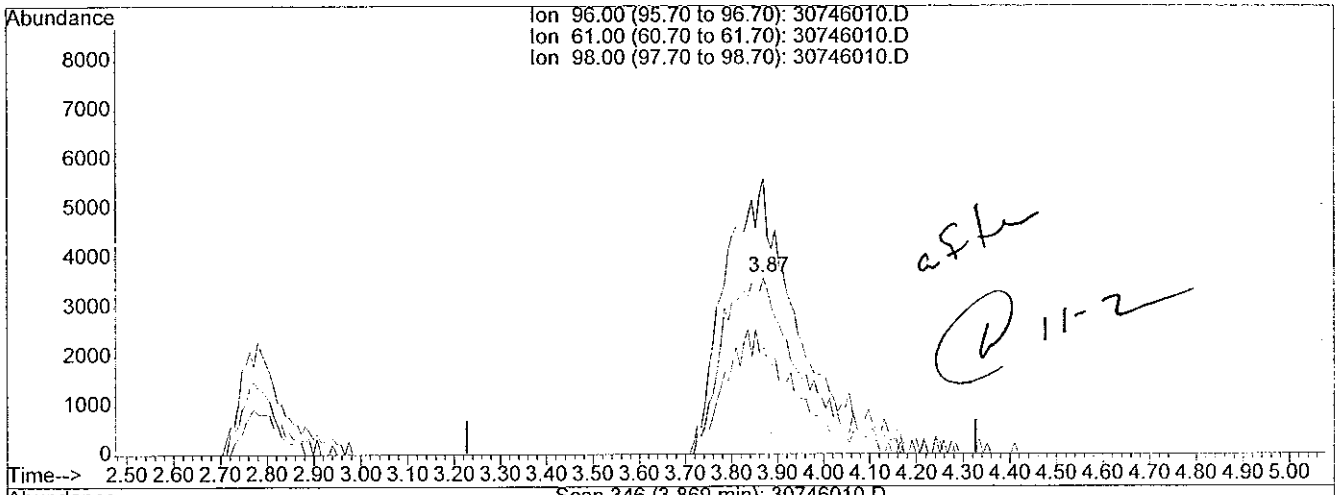
3.87min 0.34ug/L

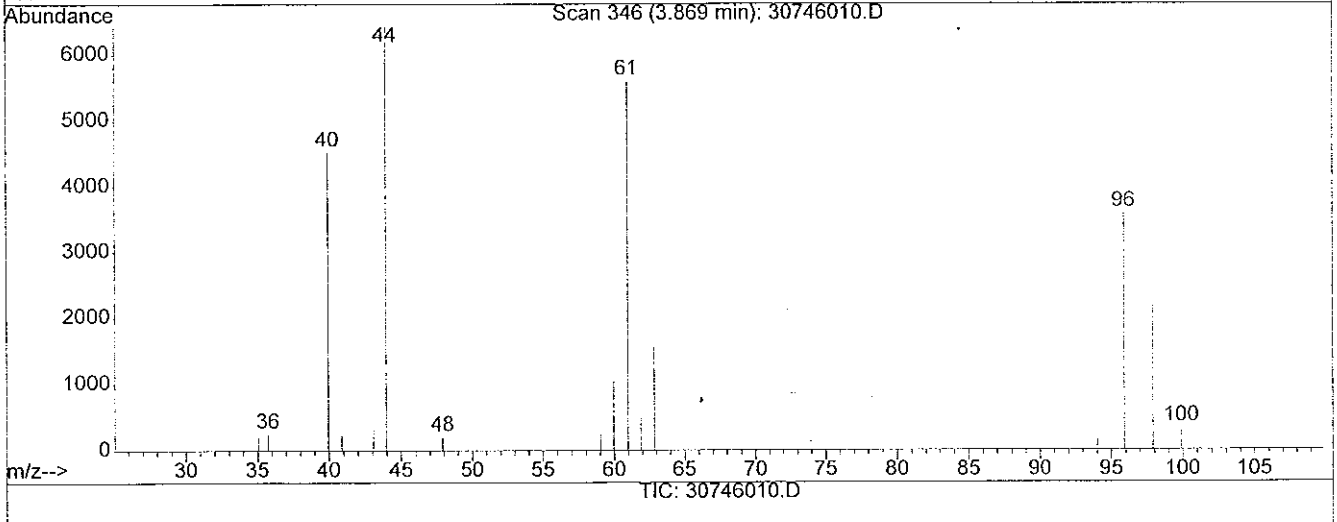
response 39493

Ion	Exp%	Act%
96.00	100	100
61.00	153.80	156.39
98.00	65.00	60.47
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:44 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746010.D

(13) trans-1,2-Dichloroethene (TM)

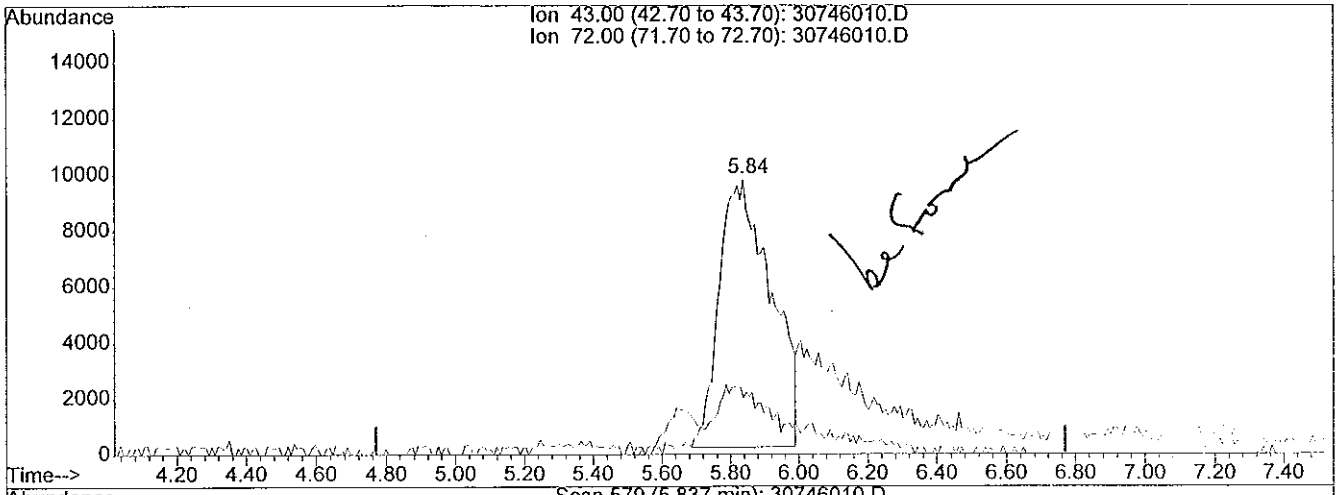
3.87min 0.37ug/L m

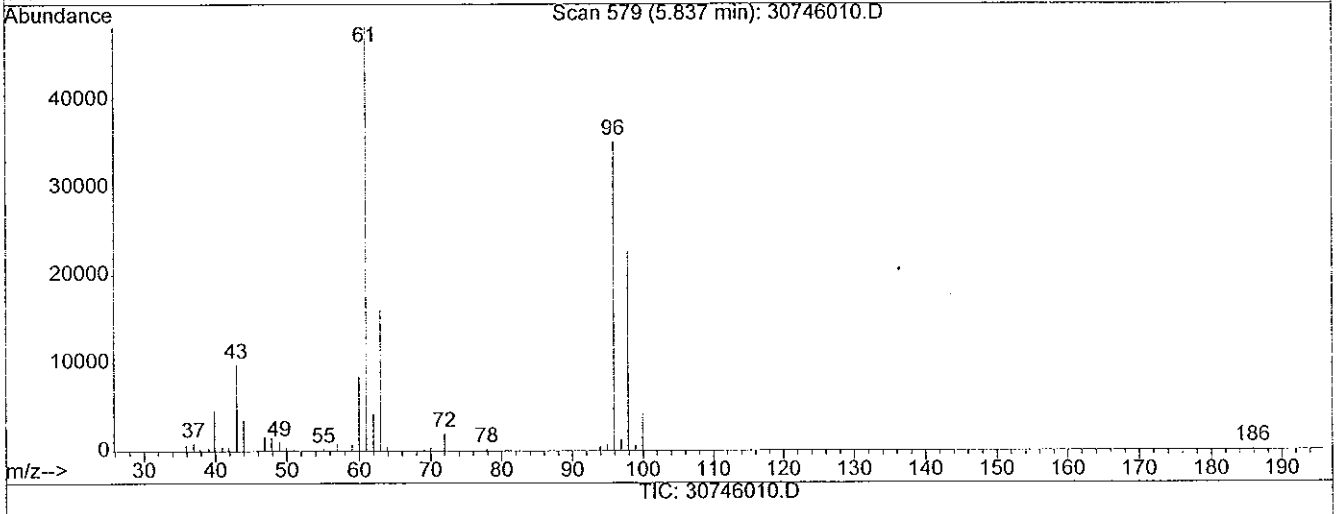
response 43269

Ion	Exp%	Act%
96.00	100	100
61.00	153.80	156.39
98.00	65.00	60.47
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:44 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746010.D

(19) 2-Butanone (TM)

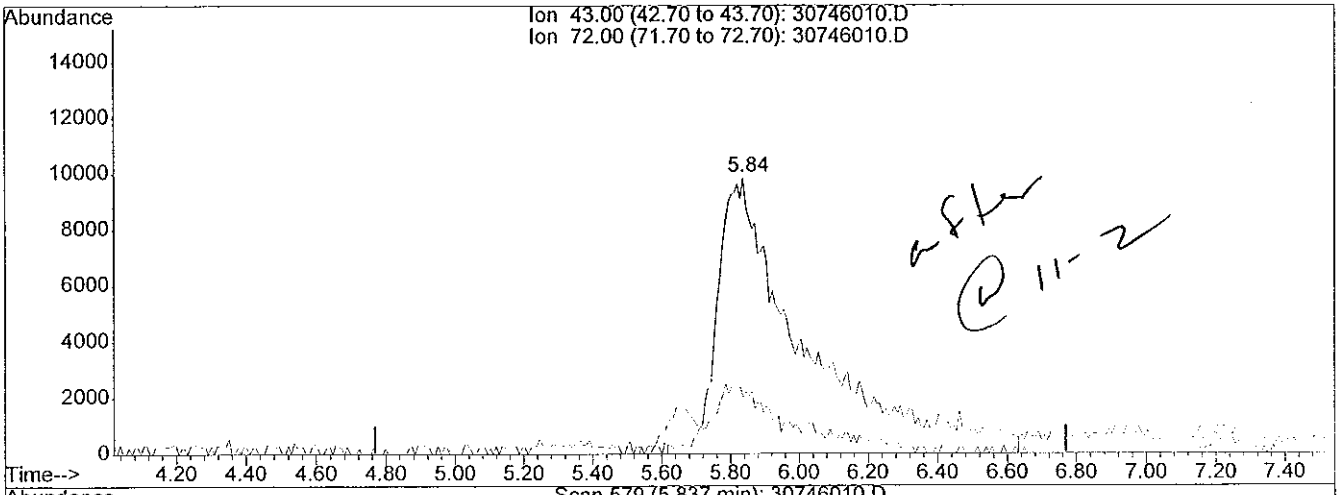
5.84min 7.80ug/L

response 100666

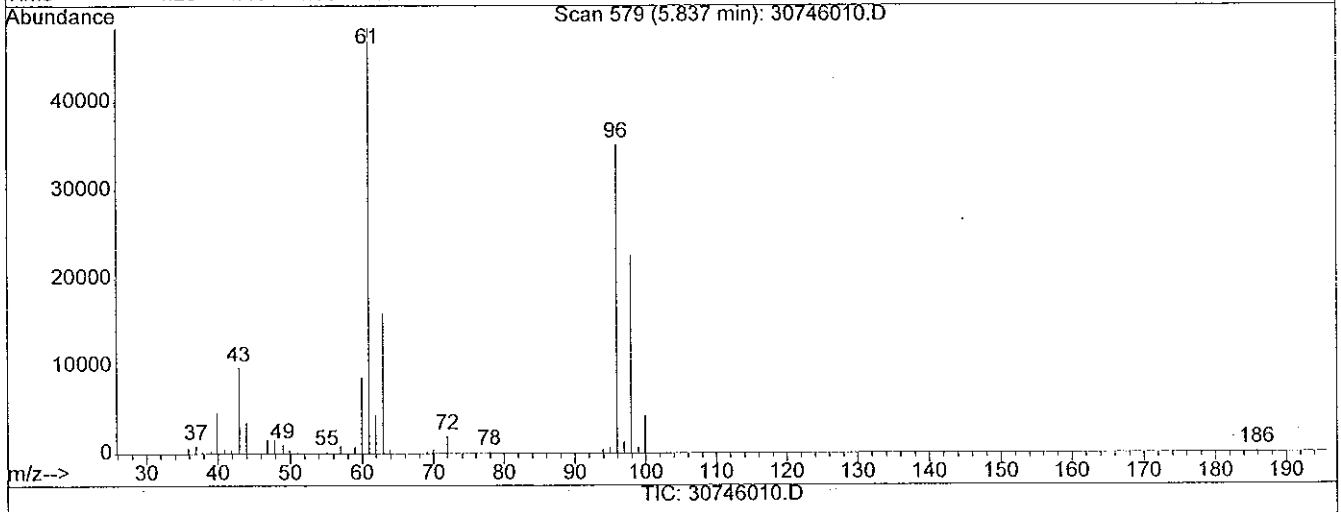
Ion	Exp%	Act%
43.00	100	100
72.00	23.40	9.71
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746010.D Vial: 7
Acq On : 1 Nov 2001 14:21 Operator: GRH
Sample : 110599-3 Inst : Bubba
Misc : CH2MHILL 3630C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 6:29 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



after @ 11-2



TIC: 30746010.D

(19) 2-Butanone (TM)

5.84min 13.33ug/L m

response 171960

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	20.53
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 14:21
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746010.D
Name: 110599-3
Misc: CH2MHILL 3630C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746010.D V82625B1.M Mon Nov 05 09:01:46 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746011.D Vial: 8
Acq On : 1 Nov 2001 15:06 Operator: GRH
Sample : 110599-4 Inst : Bubba
Misc : CH2MHILL 36TB2-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:46 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3108628	10.00	ug/L	0.00 102.68%
25) i-1,4-Difluorobenzene	9.05	114	2981142	10.00	ug/L	0.00 97.94%
46) i-Chlorobenzene-d5	15.31	117	1989489	10.00	ug/L	0.00 91.49%
57) i-1,4-Dichlorobenzene-d4	22.67	152	920785	10.00	ug/L	0.00 74.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1310447	9.10	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 91.00%			
36) s-Toluene-d8	12.32	98	2737792	9.69	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.90%			
56) s-4-Bromofluorobenzene	18.80	95	1416224	9.37	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 93.70%			

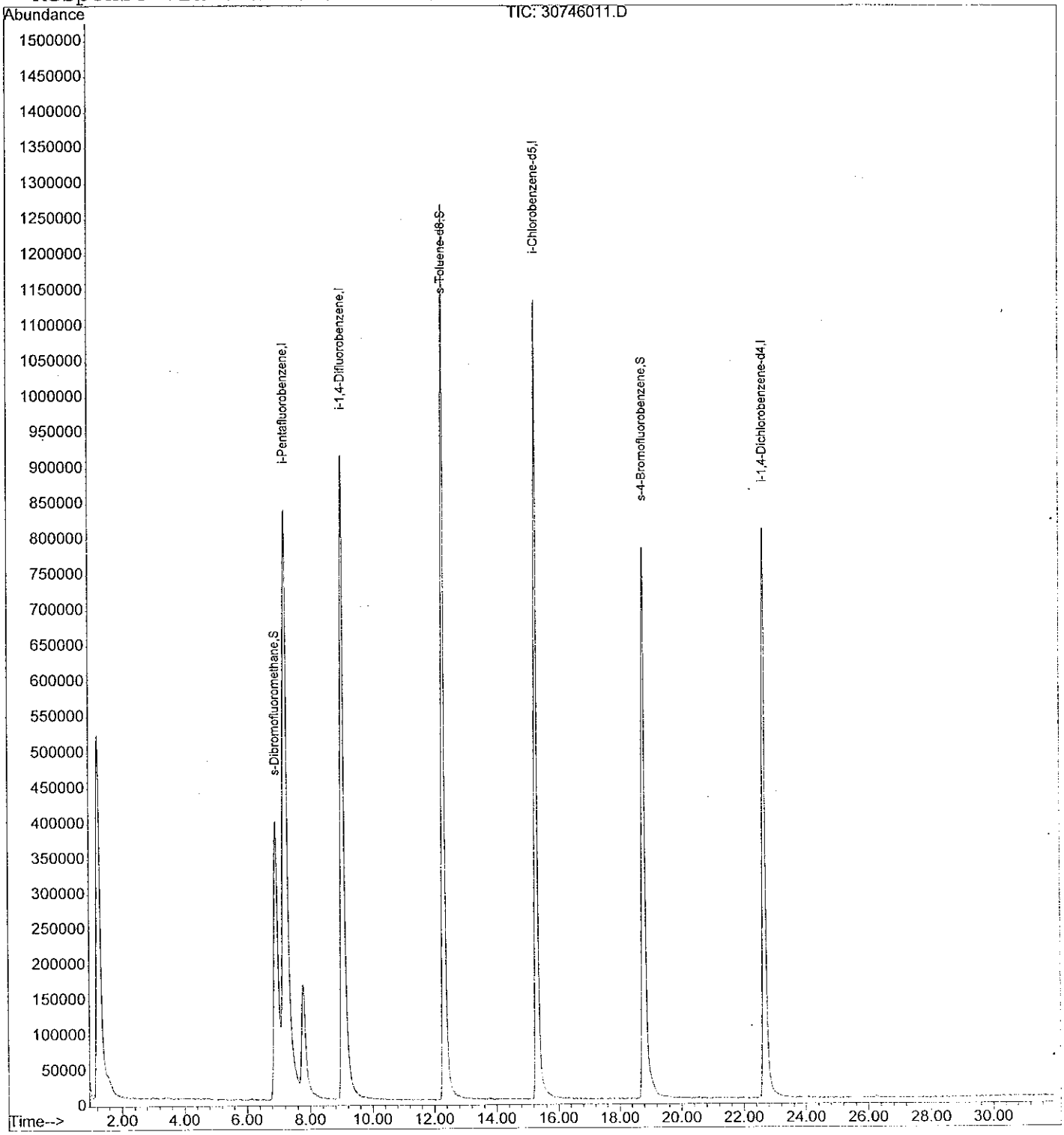
Target Compounds Qvalue

11-2

(#) = qualifier out of range (m) = manual integration
30746011.D V82625B1.M Fri Nov 02 05:46:08 2001 Page 1

Data File : D:\HPCHEM\1\DATA\110101\30746011.D Vial: 8
Acq On : 1 Nov 2001 15:06 Operator: GRH
Sample : 110599-4 Inst : Bubba
Misc : CH2MHILL 36TB2-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:46 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 15:06
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746011.D
Name: 110599-4
Misc: CH2MHILL 36TB2-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746011.D V82625B1.M Mon Nov 05 09:02:14 2001

STL PENSACOLA

GC/MS Log Book for Bubba

Operator: [signature] Date: 10/30/01 Client(s): Initial Calibration 8260B/25ml + 524.2

SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab # BFB	POS	Volume 5µL/5ppt BFB	Comments Daily Tune	Scan # Area =	pH <2? X	QC OK? ✓	Qarea Qdel Time
1	30744 001									08:43
2	002	10 ppb	std		10µl/5ml				✓	✓
3	003	5 ppb	std		5µl/5ml				✓	✓
4	004	2 ppb	std		2µl/5ml				✓	✓
5	005	1 ppb	std		1µl/5ml				✓	✓
6	006	0.3 ppb	std		0.3µl/5ml				✓	✓
7	007	0.5 ppb	std		0.5µl/5ml				✓	✓
8	008	10 ppb	std		10µl/5ml	not included in curve			✓	✓
9	009	20 ppb	std		20µl/5ml				✓	✓
10	010	30 ppb	std		30µl/5ml				✓	✓
11	011	Blank			5.0ml				✓	✓
12	012	2nd Source std			10µl/5ml	8-MSW-25-2			✓	✓
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

Signed [signature]

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* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

Operator: Q Date: 11/1/01 Client(s): _____
SDG: _____ Client(s): _____
ISS: 8MSW* 26-1 Std 1: 8MSW* 28-1 Std 2: ____*____ Std 3: ____*____
Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
1	30746 001		BFB	14	5µL/5ppt BFB	Daily Tune / Scan # Area =	X	✓	Time 08:05
2	002	10 ppb	std	15	10µl/25ml			✓	✓
3	003	BLW148ABK		16	25.0 ml			✓	✓
4	004	BLW148ALCS		1	10µl/25ml	8-MSW-25-2		✓	✓
5	005	3609C-Q401	110611-1	2	10µl/25ml	MS		✓	✓
6	006	3609C-Q401	110611-1	3	10µl/25ml	MSD		✓	✓
7	007	3609C-Q401	110611-1	4	25.0ml		✓	✓	✓
8	008	3631C-Q401	110599-1	5			✓	✓	✓
9	009	3626A-Q401	110599-2	6			✓	✓	✓
10	010	3630C-Q401	110599-3	7			✓	✓	✓
11	011	36TB2-Q401	110599-4	8			✓	✓	✓
12	012	3627A-Q401	110611-2	9			✓	✓	✓
13	013	3628B-Q401	110611-3	10		Rerun @ 10X	✓	✓	✓
14	014	36TB3-Q401	110611-4	11			✓	✓	✓
15	015	3609C-Q401	110611-1	12	2.5 ml	10X	✓	✓	✓
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed _____

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* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

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NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
Volatile Mix 6	LA89847	Supleco	2000 µg/ml	6/22/00	7/2001	1	8-VN 2-1
Iodomethane	LA89888	Supleco	20000 µg/ml	6/22/00	7/2001	1	8-VN 2-2
8260 Mix C	LA90026	Supleco	2000 µg/ml	6/22/00	5/2002	1	8-VN 2-3
8260 IS	A016078	Restek	2500 µg/ml	8/25/00	8/2003	10	8-VN 2-4
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810018	Acc STD	2000 µg/ml	10/20/00	11/1/2001	2	8-VN 2-5
1,1,2-Trichloro-1,2,2-Trifluoroethane	A016542	Restek	2000 µg/ml	10/17	10/17/2001	1	8-VN 2-6
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810028	Acc STD	2000 µg/ml	10/31	11/1/2001	2	8-VN 2-7
8260 Vol Kit	Various	Restek	2000 µg/ml	11/1/00	11	1	8-VN 2-8
MTBE/ Freon 113	A016494 A016542	Restek	2000	1/2004 ← 11/1/2001	11/1/00	drench	8-VN 2-9
n-Hexane	B0110235	Accustandard	2.0 mg/ml	11/16/00	12/1/01	2	8-VN 2-10
Iso-octane	B0110234	↓	↓	↓	↓	5	8-VN 2-11
BP Shortlist Std.	LA95178	Supelco	5000 µg/ml	12/20/00	12/20/01	3	8-VN 2-12
8260 Surr	A017973	Restek	2500 µg/ml	12/22/00	3/2004	10	8-VN 2-13
Nitrobenzene	LA91148	Supelco	5000 µg/ml	1/4/01	6/2003	1	8-VN 2-14
Nitrobenzene	044-072	Accustandard	1000 µg/ml	1/5/01	1/6/02	1	8-VN 2-15
Oxygenate Gasoline Add std	B 1010025	Accustandard	Varied	2/20/01	1/4/03	1	8-VN 2-16
Keytone Mix	A019217	Restek	Various	4/6/01	4/2003	5	8-VN 2-17
Vinyl Acetate	A019218	Restek	4000 µg/ml	4/6/01	4/2003	5	8-VN 2-18
Isopropyl Ether	A019194	Restek	2000 µg/ml	4/9/01	4/2004	3	8-VN 2-19
Int. STD. Mix-Tol4	A018018	Restek	2500 µg/ml	4/9/01	3/2005	5	8-VN 2-20
IS-8260	A018631	Restek	2500 µg/ml	4/13/01	6/2004	10	8-VN 2-21
Custom Mix	LA97340	Supelco	2000/4000 µg/ml	4/16/01	4/16/02	4	8-VN 2-22
Supleco Mix 6	LA95901	Supelco	2000 µg/ml	4/17	5/02	2	8-VN 2-23
Equity Keytone Mix	LA90477	Supelco	2000 µg/ml	4/17	11/01	4	8-VN 2-24
Freon 113	LA91143	Supleco	2000 µg/ml	4/17	6/03	2	8-VN 2-25
Equity Iodomethane	LA95986	Supelco	2000 µg/ml	4/17	5/02	2	8-VN 2-26
502/524 Mix	LA96091	Supleco	2000 µg/ml	4/17	4/03	2	8-VN 2-27

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
OXYGENATES MIX	A018874	RESTEK	2000 - 10,000	4/15/01	4/18/02	1	8-VN 3 - 1
Freon 113	A018831	Restek	2000	5/3/01	5/3/02	2	8-VN 3 - 2
MTBE	A017647	Restek	2000	5/3/01	6/04	2	8-VN 3 - 3
8260 Kit	Various	Restek	2000	5/3	Various	2	8-VN 3 - 4
Chloroprene	R1373	Ultra	100 µg/ml	5/4/01	12/2002	4	8-VN 3 - 5
Acrylonitrile	A015204	Restek	2000	5/4/01	1/02	1	8-VN 3 - 6
APPIX - Mix B	LA97780	Supelco	2000 µg/ml	5/7/01	5/7/02	4	8-VN 3 - 7
APPIX - Mix A	LA97779	Supelco	2000/6000 µg/ml	5/9/01	5/9/02	4	8-VN 3 - 8
Isopropyl Ether	A019529	Restek	2000 µg/ml	5/9	5/04	2	8-VN 3 - 9
Freon 113	A018830	Restek	2000 µg/ml	5/14	5/14/02	3	8-VN 3 - 10
8260 SMR	A019471	Restek	2500 µg/ml	9/14	8/04	10	8-VN 3 - 11
8260 IS	A020353	Restek	2500 µg/ml	9/14	11/04	10	8-VN 3 - 12
Freon 113	LA98546	Supleco	2000 µg/ml	~~9/21~~	6/04	2	8-VN 3 - 13
Vol Mix 6	LA99456	Supleco	2000 µg/ml	9/21	11/02	2	8-VN 3 - 14
502/524 Mix	LA98534	Supleco	2000 µg/ml	9/21	10/03	2	8-VN 3 - 15
Keytones	LA97438	Supleco	2000 µg/ml	9/21	9/03	4	8-VN 3 - 16
Iodomethane	LA95936	Supleco	2000 µg/ml	9/21	5/02	2	8-VN 3 - 17
Isopropyl ether	A020897	Restek	2000 µg/ml	9/29	9/04	3	8-VN 3 - 18
8260 STA Kit	Various	Restek	Various	10/22	11/3	2	8-VN 3 - 19
MTBE	A019410	Restek	2000 µg/ml	10/22	12/4	2	8-VN 3 - 20
Freon 113	A019795	Restek	2000 µg/ml	10/22	10/22/02	2	8-VN 3 - 21
EPA OLM04	LB00099	Supleco	2000 µg/ml	10/22	~~10/03~~	1	8-VN 3 - 22
Vinyl Acetate	A021212	Restek	4000 µg/ml	10/23	10/03	5	8-VN 3 - 23
Keytones	A022411	Restek	2000/4000 µg/ml	10/23	10/03	5	8-VN 3 - 24
VOA Calibration Mix #1 Ketones	A020419	RESTEK	5000 ug/ml	10/27	11/04	5	8-VN 3 - 25
							-VN -
						-	-VN -

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: APP IX-A
Date: 8/15/01
Analyst: [signature]

Standard I.D.: 8-MSW25-1
Location: Freezer MS018
Solvent: MeOH-VO4E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-8	LA97779	5/7/02	2000/6000 µg/ml	500 µl	10	100/300 µg/ml
Acrylonitrile+Propionitrile	@2000µg/ml					
Acrylonitrile, Acrolein, Isobutanol @6000µg/ml						

Comments: exp 4/15/02

Sol. Name: 2260 Matrix Spike
Date: 9/14/01
Analyst: MM

Standard I.D.: 8-MSW25-2
Location: MS018
Solvent: MeOH VO4E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
Custom Mix 8-VW3-23	LA97340	4/02	2000	625	50ml	25µg/ml
Iodomethane	LA95926	5/02	↓	↓	↓	↓
Mix 6	LA95901	5/02				
502/524	LA96091	4/03				
Dioxane 13	LA91143	6/03		↓		
Acrylonitrile 8-VW3-24	LA90479	11/01	↓	1250	↓	50µg/ml

Comments: expires 11/14/01

Sol. Name: IS/SURR - Prepmt
Date: 9/20/01
Analyst: MM

Standard I.D.: 8-MSW25-3
Location: KATANIWA ~Freezer
Solvent: VO4E74 MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN-2-13 Surr	A017973	3/04	2500	500	10	125µg/ml
8-VN-221 IS	A01863I	6/04	"	"	"	"

Comments: exp-3/20/01

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: IS/SURR
Date: 9-26-01
Analyst: MC

Standard I.D.: 8-MSW26-1
Location: Freezer MS018
Solvent: MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-21 IS	A018631	6/2004	2500	500	50	25 ug/ml
8-VN3-13 SURR	A017977	3/2004	2500	500	50	25 ug/ml

Comments: Expires 3-26-02

Sol. Name: 8260 STD
Date: 10
Analyst:

Standard I.D.: 8-MSW26-2
Location: MS018 Freezer
Solvent: MeOH V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name: TO14 IS/SURT
Date: 10-12-01
Analyst: SAM

Standard I.D.: 8-MSW26-3
Location: Freezer MS018
Solvent: Methanol

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
7-VN-3-6(IS)	A017265	11/01	2500ug/ml	500uls	50mls	25ppm
7-VN-2-16	A017764	↓	↓	↓	↓	↓

Comments: 4-10-02 expires

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: 8260 STD
Date: 10/17/01
Analyst: VD

Standard I.D.: 8 -MSW28-1
Location: MSC18
Solvent: MeOH VJ0240

Parent I.D.		Lot #	Exp. Date 4/08	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
502.2 Calib	Mix #1	A020628	11/03	2000	625	50	25
Mix 1	Mix #2	A017541	11/04				
	Mix #3	A018675	1/04				
8-VW3-19	Mix #4	A016454	6/03				
	Mix #5	A019955	7/04				
	Mix #6	A019741	1/05				
8-VW3-24 Ketones + 5 2-Hexanone		A021211	10/03	2000/4000			25/50 } 100 - Total Ketones
8-VW3-25 Ketones		A020419	11/04	5000	500		50
8-VW3-21 Freon 113		A019795	12/02	2000	625		25
8-VW3-20 MTBE		A019410	12/04	2000			25
8-VW3-9 IPE		A019529	5/04	2000			25
8 VW3-23 Vinyl Acetate		A021212	10/03	4000			50

Comments:
Exp: 4/27/02

Sol. Name: _____
Date: _____
Analyst: _____

Standard I.D.: -MSW -
Location: _____
Solvent: _____

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments: _____

Sol. Name: _____
Date: _____
Analyst: _____

Standard I.D.: -MSW -
Location: _____
Solvent: _____

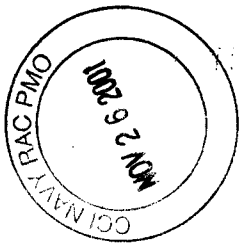
Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments: _____

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE



STL Order Number: C110599A/P0110417
Project: CH2M Hill Constructors
CTO-017, NTC Orlando, FL

Client Sample ID	STL Sample ID	Seeps Sample ID
17-3610B-Q401 ✓	C110599A-1	P0110417-1
17-3611C-Q401 ✓	C110599A-2	P0110417-2
17-3629B-Q401 ✓	C110599A-3	P0110417-3
17-3632C-Q401 ✓	C110599A-4	P0110417-4
17-3631C-Q401 ✓	C110599A-5	P0110417-5
17-3626A-Q401 ✓	C110599A-6	P0110417-6
17-3630C-Q401 ✓	C110599A-7	P0110417-7
17-36FD1-Q401	C110599A-8	P0110417-8
17-36FB1-Q401	C110599A-9	P0110417-9
17-36EB1-Q401	C110599A-10	P0110417-10

The above-referenced samples were received in good condition at STL Pensacola on October 23, 2001 and were then subcontracted to Microseeps for Metabolic Acids analyses.

Rick Hayes
Senior Project Manager

11/19/01

MICROSEEPS

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 1 of 15
Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Sample Identification

Lab Sample #	Client Sample ID
P0110417-01	17-3610B-Q401
P0110417-02	17-3611C-Q401
P0110417-03	17-3629B-Q401
P0110417-04	17-3632C-Q401
P0110417-05	17-3631C-Q401
P0110417-06	17-3626A-Q401
P0110417-07	17-3630C-Q401
P0110417-08	17-36FD1-Q401
P0110417-09	17-36FB1-Q401
P0110417-10	17-36EB1-Q401

Approved By: x Debbie Hallo

001

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3610B-Q401	Water	22 Oct. 01 12:45	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	2.5	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	120	5.0	ng/L	AM18
Ethene	940	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	620	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-02

Sample Description	Matrix	Sampled Date/Time	Received
17-3611C-Q401	Water	22 Oct. 01 13:00	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	48	5.0	ng/L	AM18
Ethene	110	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	44	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-03

Sample Description	Matrix	Sampled Date/Time	Received
17-3629B-Q401	Water	22 Oct. 01 16:50	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	2.2	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	67	5.0	ng/L	AM18
Ethene	730	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1000	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-04

Sample Description	Matrix	Sampled Date/Time	Received
17-3632C-Q401	Water	22 Oct. 01 17:15	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	1.1	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	260	5.0	ng/L	AM18
Ethene	250	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	7.5	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-05

Sample Description	Matrix	Sampled Date/Time	Received
17-3631C-Q401	Water	23 Oct. 01 11:15	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	4.2	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	58	5.0	ng/L	AM18
Ethene	410	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1400	0.015	ug/L	AM20GAX
Propionic acid	2.8	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-06

Sample Description	Matrix	Sampled Date/Time	Received
17-3626A-Q401	Water	23 Oct. 01 15:00	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	6.4	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	1000	5.0	ng/L	AM18
Ethene	890	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	7700	0.015	ug/L	AM20GAX
Propionic acid	7.8	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-07

Sample Description	Matrix	Sampled Date/Time	Received
17-3630C-Q401	Water	23 Oct. 01 15:40	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	6.1	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	180	5.0	ng/L	AM18
Ethene	1000	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	1300	0.015	ug/L	AM20GAX
Propionic acid	9.9	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-08

Sample Description	Matrix	Sampled Date/Time	Received
17-36FD1-Q401	Water	22 Oct. 01 0:00	26 Oct, 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	63	5.0	ng/L	AM18
Ethene	83	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	42	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-09

Sample Description	Matrix	Sampled Date/Time	Received
17-36FB1-Q401	Water	22 Oct. 01 9:45	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	45	5.0	ng/L	AM18
Ethene	310	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2.5	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110417-10

Sample Description	Matrix	Sampled Date/Time	Received
17-36EB1-Q401	Water	22 Oct. 01 10:30	26 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	50	5.0	ng/L	AM18
Ethene	51	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2.1	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M011030019-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M011030019-LCS

	%Recovery	Ctl Limits
Acetic Acid	91	70 - 130
Propionic acid	88	70 - 130
Butyric acid	91	70 - 130
Lactic Acid	89	70 - 130
Pyruvic acid	85	70 - 130

P0110417-02A-MS

	%Recovery	Ctl Limits
Acetic Acid	98	70 - 130
Propionic acid	97	70 - 130
Butyric acid	96	70 - 130
Lactic Acid	100	70 - 130
Pyruvic acid	85	70 - 130

P0110417-02A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	99	70 - 130	1.02	0 - 20
Propionic acid	97	70 - 130	0.00	0 - 20
Butyric acid	96	70 - 130	0.00	0 - 20
Lactic Acid	130	70 - 130	26.09	0 - 20
Pyruvic acid	97	70 - 130	13.19	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M011108001-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M011108001-LCS

	%Recovery	Ctl Limits
Ethene	99	89 - 115
Ethane	100	89 - 113

P0110417-02A-MS

	%Recovery	Ctl Limits
Ethene	97	70 - 130
Ethane	95	70 - 130

P0110417-02A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	97	70 - 130	0.00	0 - 20
Ethane	93	70 - 130	2.60	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M011108002-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M011108002-LCS

	%Recovery	Ctl Limits
Methane	100	90 - 108

P0110417-02A-MS

	%Recovery	Ctl Limits
Methane	85	70 - 130

P0110417-02A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	101	70 - 130	9.52	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Lab Project #: P0110417
Report Date: 11/12/01
Client Proj Name: CTO-017
Client project #: CTO-017

Case Narrative:CLIENT DID NOT PROVIDE MS/MSD FOR THE ANALYSES, THEY SAID FOR THE LAB TO CHOOSE SAMPLE FOR MS/MSD. THE RPD FOR LACTIC ACID WAS OUT OF CRITERIA. SINCE THE RECOVERIES FOR THE MS/MSD WERE IN CRITERIA THE SAMPLE WAS NOT REANALYZED.

Chain of Custody Record

P1104117

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

SEVERN TRENT SERVICES — **Severn Trent Laboratories, Inc.**

STL-4124 (1200) PEN (1100)

Client: STL	Project Manager: RICK HAYES	Date: 10-24-01	Chain of Custody Number: 063570
Address: 3355 MCLEMORE DR	Telephone Number (Area Code)/Fax Number: 850/474-1001, FAX: 850/478-2671	Lab Number: C110599A	Page 1 of 1
City: PENSACOLA State: FL Zip Code: 32514	Site Contact: —	Lab Contact: —	
Project Name and Location (State): CTO-017	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.: 01166			

	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: MEE/AM19GA	VFA/AM21G		Special Instructions/ Conditions of Receipt
01	17-3610B-Φ401	10-22-01	1245		✓									3	2	5	
02	17-3611C-Φ401	10-22-01	1300		✓									3	2	5	
03	17-3629B-Φ401	10-22-01	1650		✓									3	2	5	
04	17-3632C-Φ401	10-22-01	1715		✓									3	2	5	
05	17-3631C-Φ401	10-23-01	1115		✓									3	2	5	
06	17-3626A-Φ401	10-23-01	1500		✓									3	2	5	
07	17-3630C-Φ401	10-23-01	1540		✓									3	2	5	
08	17-36FD1-Φ401	10-22-01	—		✓									3	2	5	
09	17-36FB1-Φ401	10-22-01	0945		✓									3	2	5	
10	17-36EB1-Φ401	10-22-01	1030		✓									3	2	5	
																50	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other______

QC Requirements (Specify): CALL PM FOR QC REQUIREMENTS.

1. Relinquished By: [illegible signature]	Date: 10-24-01	Time: 1700	1. Received By: [illegible signature]	Date: 10/26/01	Time:
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: ____
Labeled by: ____
Delivered by: MHS

CH2M-CONST-GA C110599A
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
32 oz. Plastic											
16 oz. Plastic											
8 oz. Plastic											
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber											
500 ml Amber											
250 ml Amber											
120 ml Amber											
40 ml Vial	Subbed to			MicroSeeps Lab			0	50	MHS	10/24/01	1700
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

X178X9 OCT 24, 2001 ACT 40.6
SERVICE 1DA BILL 41
TRACKING# 1ZX178X90140921758
REF 1:
REF 2:

PUB SVC CHG $62.00 HPK 1
IV $0.00 COD $0.00
DC $0.00 RS $0.00
AH $0.00 SD $0.00
HNDL $0.00 SP $0.00
NTFY $0.00 HZMT $0.00
PUB/NET CHG $62.00 $62.00

To MicroSeeps

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110599A Date Received: 10/24/01

1. Was there a Chain of Custody? (Yes) No*
2. Was Chain of Custody properly filled out and relinquished? (Yes) No*
3. Were samples received cold? (Yes) No* N/A
   (Criteria: 2° - 6°C: STL-SOP
4. Were all samples properly labeled and identified? Yes (No*) MHS 10/24
5. Did samples require splitting or compositing♦? Yes* (No)
   Req By: PM Client Other*
6. Were samples received in proper containers for analysis requested? (Yes) No*
7. Were all sample containers received intact? (Yes) No*
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)+* (Yes) No* N/A
9. Is there sufficient volume for analysis requested? (Yes) No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* (No) N/A
12. If sent, were matrix spike bottles returned? Yes No* (N/A)
13. Was Project Manager notified of problems? (initials: MHS) PSIF (Yes) No* N/A

Airbill Number(s): 8307 0936 6774

Shipped By: FedEx

Cooler Number(s): 650L Client

Shipping Charges: N/A

2°C 2°C

Cooler Weight(s): 97#

Cooler Temp(s) (°C): 2°C 2°C

CCC3

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

~~#4 2 40ml vials for sample 17-3631C-Q401 10/23/01 @ 1115 for 8260 were not labeled at all.~~ MHS 10/24/01 PJE 10/24/01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS **Date:** 10/24/01 **Logged By:** JER **Date:** 10/24/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

BIOREM-2 **METHOD DETECTION LIMITS 2001**

PERMANENT GASES 01/10/01 MDL STANDARD: 3.0ML PG090998/524ML UHP HELIUM

RUN ID		CO_2	O_2	N_2	CH_4	CO
	SPIKE AMT.	0.0859%	0.0401%	0.3807%	0.0258%	0.0401%
X23 290	REP. #1	0.0832	0.1578	0.5359	0.0460	0.0313
X23 291	REP. #2	0.0817	0.1419	0.5673	0.0418	0.0469
X23 292	REP. #3	0.0726	0.1313	0.5712	0.0428	0.0417
X23 293	REP. #4	0.0829	0.1448	0.4880	0.0361	0.0356
X23 294	REP. #5	0.0811	0.1488	0.5705	0.0279	0.0306
X23 295	REP. #6	0.0833	0.1532	0.5977	0.0288	0.0322
X23 296	REP. #7	0.0833	0.1412	0.5964	0.0369	0.0342
	SUM	0.5681	1.0190	3.9270	0.2603	0.2525
	AVERAGE	0.0812	0.1456	0.5610	0.0372	0.0361
	STDEV	0.0039	0.0087	0.0383	0.0069	0.0061
	MDL VAP. ppmv	0.0122	0.0274	0.1203	0.0218	0.0190
	MDL BUB. mg/l	0.1855	0.0114	0.0222	0.0048	0.0053
	MDL H_2O mg/l	0.2590	0.1326	0.4890	0.0169	0.0792

LIGHT HYDROCARBONS 01/15/01 MDL STANDARD:0.25ML LH010401/500ML UHP HELIUM

RUN ID		METHANE	ETHANE	ETHENE	PROPANE	PROPENE	I-BUTANE	N-BUTANE
	SPIKE AMT.	0.1500ppmv	0.0500ppmv	0.0500ppmv	0.0500ppmv	0.0500ppmv	0.0500ppmv	0.0500ppmv
X23 345	REP. #1	0.2033	0.0604	0.0581	0.0574	0.0688	0.0547	0.0493
X23 346	REP. #2	0.2247	0.0592	0.0576	0.0649	0.0692	0.0599	0.0607
X23 347	REP. #3	0.2192	0.0582	0.0577	0.0645	0.0639	0.0637	0.0684
X23 348	REP. #4	0.2541	0.0627	0.0591	0.0637	0.0636	0.0716	0.0840
X23 349	REP. #5	0.2252	0.0684	0.0628	0.0656	0.0488	0.0537	0.0509
X23 350	REP. #6	0.2033	0.0615	0.0521	0.0523	0.0448	0.0500	0.0554
X23 351	REP. #7	0.2205	0.0597	0.0576	0.0637	0.0788	0.0640	0.0627
	SUM	1.5503	0.4301	0.4050	0.4321	0.4379	0.4176	0.4314
	AVERAGE	0.2215	0.0614	0.0579	0.0617	0.0626	0.0597	0.0616
	STDEV	0.0171	0.0034	0.0031	0.0050	0.0119	0.0074	0.0119
	MDL VAP. ppmv	0.0513	0.0102	0.0094	0.0149	0.0358	0.0223	0.0358
	MDL BUB ng/l	1.1187	0.5796	1.2925	2.0422	4.9045	3.0537	4.9040
	MDL H_2O ng/l	12.500	4.8206	4.9766	7.8631	18.8842	11.7578	18.8824

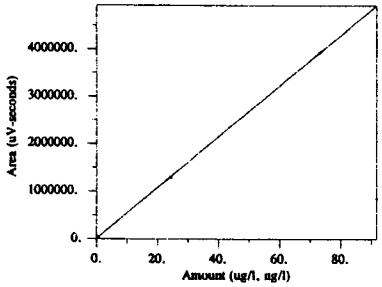
BIOREM-2
2001 DLS

Calibration File Name: **C:\CPWIN\X30\X30A_W1.CAL** Version = 9
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/l, ng/l
7 components with 3 levels each

1 METHANE, ug/L

Retention time = 0.680 min., Search window = 0.050 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

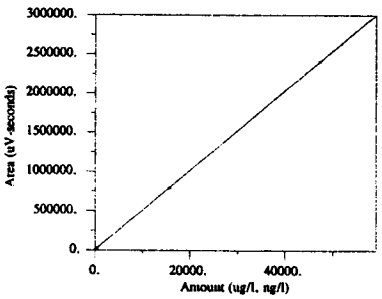
Level	Amount	Area	Area/Amt	Source	Date and time
1	0.733	39359.0	53688.45	Manual	9/4/2001 9:50:36
2	24.437	1293806.0	52944.55	Manual	9/4/2001 9:50:36
3	73.312	3933169.0	53649.73	Manual	9/4/2001 9:50:36



Calibration formula: Y = 53579.23 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 0.51%
Average CF = 53427.5800 with RSD = 0.78%

2 ETHANE, ng/L
Retention time = 1.070 min., Search window = 0.216 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

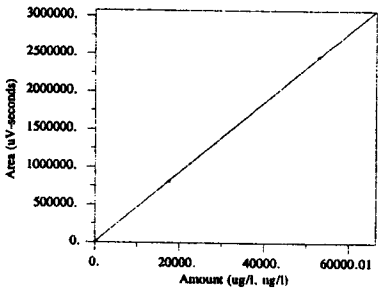
Level	Amount	Area	Area/Amt	Source	Date and time
1	472.630	23798.0	50.35228	Manual	9/4/2001 9:50:36
2	15754.000	790254.0	50.16212	Manual	9/4/2001 9:50:36
3	47263.000	2405886.0	50.90422	Manual	9/4/2001 9:50:36



Calibration formula: Y = 50.83 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 0.80%
Average CF = 50.4729 with RSD = 0.76%

3 ETHENE, ng/L
Retention time = 1.390 min., Search window = 0.198 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

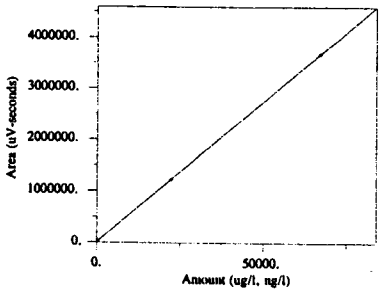
Level	Amount	Area	Area/Amt	Source	Date and time
1	530.440	24758.0	46.67446	Manual	9/4/2001 9:50:36
2	17681.000	810388.0	45.83383	Manual	9/4/2001 9:50:36
3	53044.000	2463257.0	46.438	Manual	9/4/2001 9:50:36



Calibration formula: Y = 46.378 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 0.65%
Average CF = 46.3154 with RSD = 0.94%

4 PROPANE, ng/L
Retention time = 2.360 min., Search window = 0.450 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

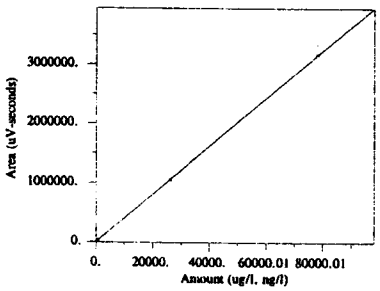
Level	Amount	Area	Area/Amt	Source	Date and time
1	673.110	42006.0	62.40585	Manual	9/4/2001 9:50:36
2	22437.000	1215251.0	54.16281	Manual	9/4/2001 9:50:36
3	67311.000	3678559.0	54.65019	Manual	9/4/2001 9:50:36



Calibration formula: Y = 54.602 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 5.06%
Average CF = 57.0730 with RSD = 8.10%

5 PROPENE, ng/L
Retention time = 4.230 min., Search window = 0.580 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

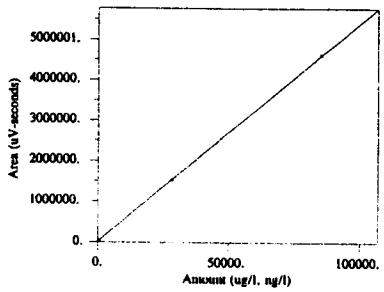
Level	Amount	Area	Area/Amt	Source	Date and time
1	783.060	31255.0	39.91393	Manual	9/4/2001 9:50:36
2	26102.000	1049266.0	40.19868	Manual	9/4/2001 9:50:36
3	78306.000	3166888.0	40.44247	Manual	9/4/2001 9:50:36



Calibration formula: Y = 40.418 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 0.62%
Average CF = 40.1850 with RSD = 0.66%

6 ISOBUTANE, ng/L
Retention time = 6.290 min., Search window = 0.381 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

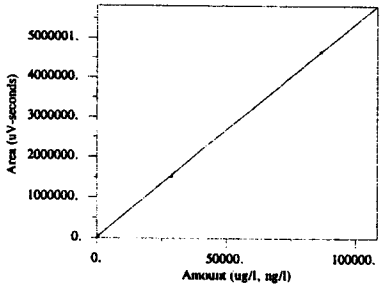
Level	Amount	Area	Area/Amt	Source	Date and time
1	854.350	44342.0	51.90145	Manual	9/4/2001 9:50:36
2	28478.000	1521899.0	53.44122	Manual	9/4/2001 9:50:36
3	85435.000	4611630.0	53.97823	Manual	9/4/2001 9:50:36



Calibration formula: Y = 53.924 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 1.58%
Average CF = 53.1070 with RSD = 2.03%

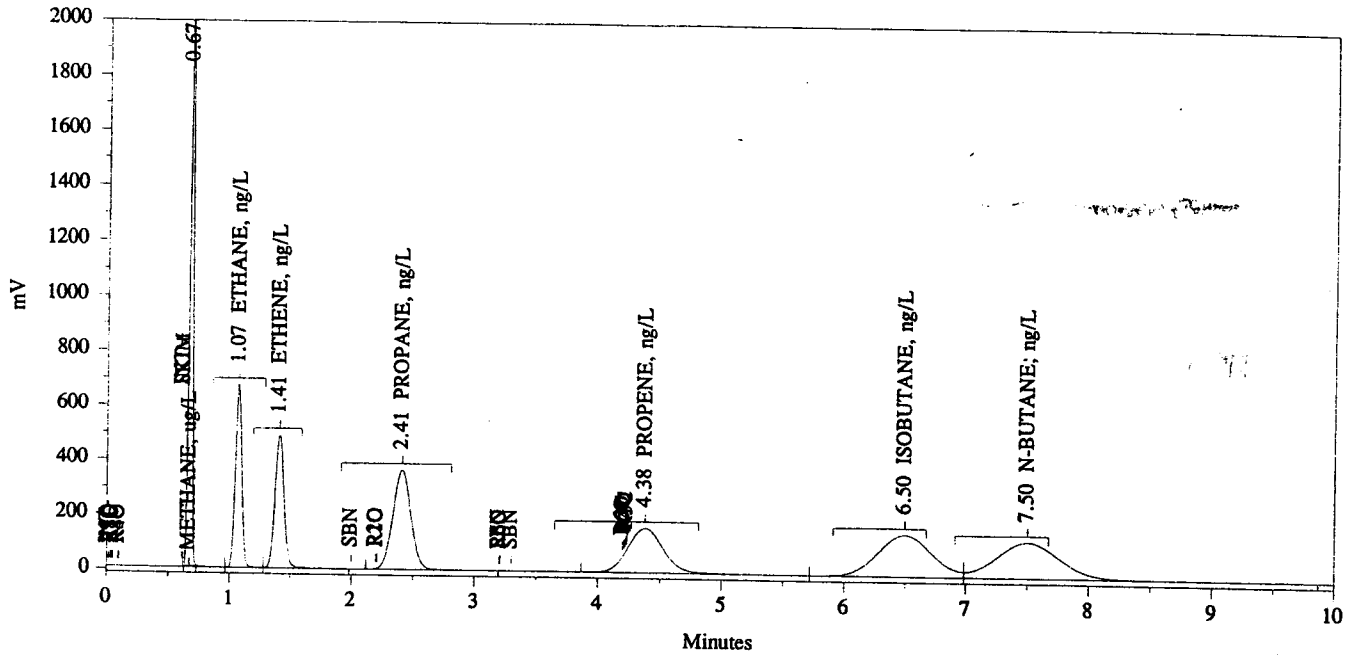
7 N-BUTANE, ng/L
Retention time = 7.290 min., Search window = 0.381 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	865.950	46748.0	53.98464	Manual	9/4/2001 9:50:36
2	28865.000	1523344.0	52.77478	Manual	9/4/2001 9:50:36
3	86595.000	4648692.0	53.68315	Manual	9/4/2001 9:50:36



Calibration formula: Y = 53.592 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9999, Average error = 0.81%
Average CF = 53.4809 with RSD = 1.18%

LH01052001



Sample Name: **LH01052001**
Acquired from Chrom1--FID via port 1 on 9/4/01 08:52:57am by RCW
FID

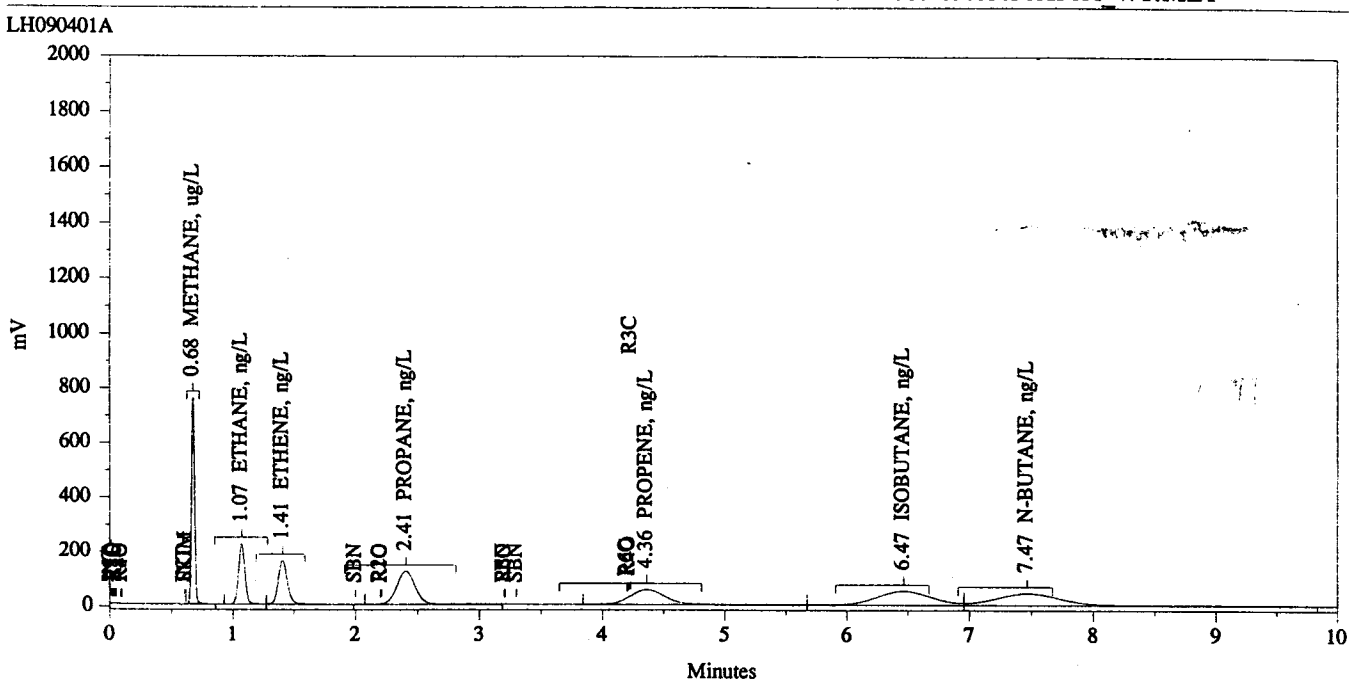
Data File: **C:\CPWIN\X30\X30A.05R**
Date Stamp: 9/4/01 08:52:56am
Sequence File: X30A.SEQ #5
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:12am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:26am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.673	METHANE, ug/L	59.5205	0.019	3933169.0	15.791	SBB	0.032	2027319.00	50.923
2	1.071	ETHANE, ng/L	35933.8400	11.328	2405886.0	9.659	TVV	0.060	669714.10	16.822
3	1.409	ETHENE, ng/L	40399.7900	12.736	2463257.0	9.889	TVB	0.085	485287.70	12.190
4	2.409	PROPANE, ng/L	50719.5500	15.989	3678559.0	14.769	BB	0.170	360585.20	9.057
5	4.380	PROPENE, ng/L	59509.6300	18.760	3166888.0	12.714	BV	0.329	160513.30	4.032
6	6.497	ISOBUTANE, ng/L	64536.8800	20.345	4611630.0	18.515	VV	0.513	149798.80	3.763
7	7.503	N-BUTANE, ng/L	66053.0600	20.823	4648692.0	18.663	VB	0.606	127889.70	3.212

Total Area = 24908080.0, Total Amount = 317212.3, Total Height = 3981108.0, Sample Units = ug/l, ng/l



Sample Name: **LH090401A**
Acquired from Chrom1--FID via port 1 on 9/4/01 09:05:50am by RCW
FID

Data File: **C:\CPWIN\X30\X30A.06R**
Date Stamp: 9/4/01 09:05:50am
Sequence File: X30A.SEQ #6
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:12am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:26am

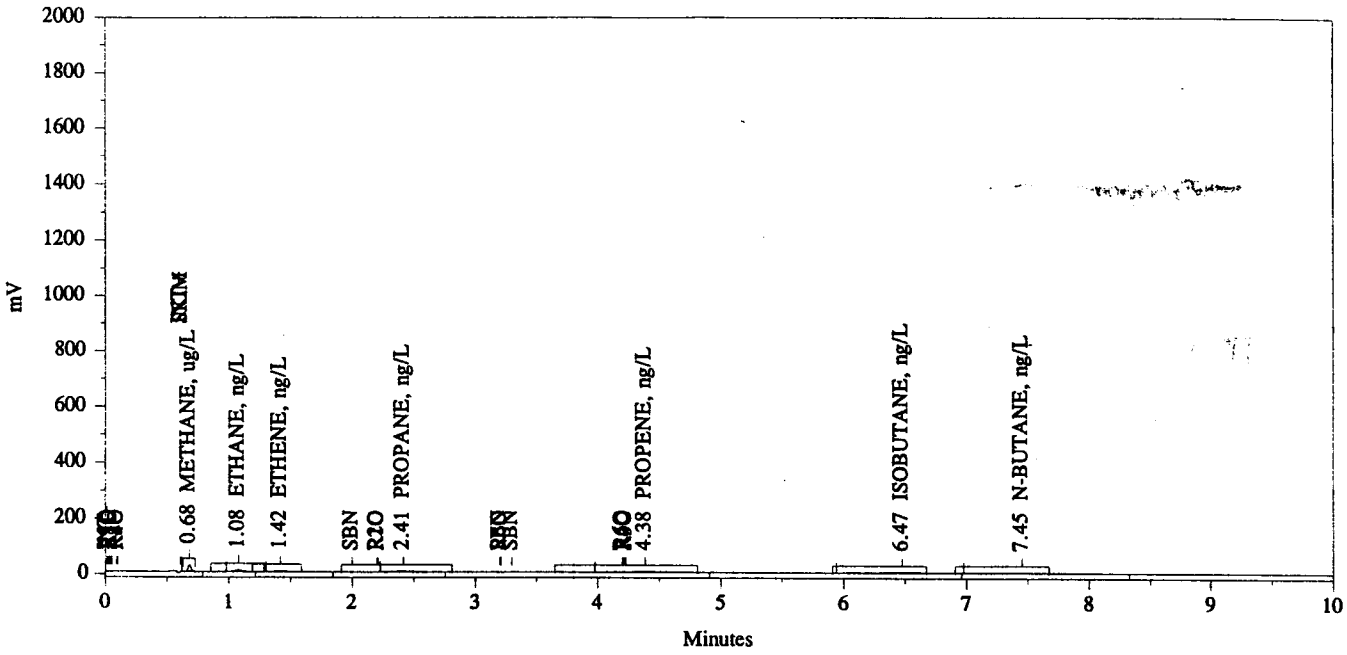
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.679	METHANE, ug/L	19.5791	0.019	1293806.0	15.770	BB	0.028	759869.50	54.118
2	1.074	ETHANE, ng/L	11803.0800	11.292	790253.6	9.632	BV	0.059	221626.60	15.784
3	1.410	ETHENE, ng/L	13291.1400	12.715	810387.9	9.878	VB	0.085	158469.30	11.286
4	2.406	PROPANE, ng/L	16755.7300	16.030	1215251.0	14.813	BB	0.169	119597.80	8.518
5	4.361	PROPENE, ng/L	19716.9700	18.863	1049266.0	12.789	BV	0.330	53000.95	3.775
6	6.466	ISOBUTANE, ng/L	21298.0200	20.375	1521899.0	18.550	VV	0.512	49560.37	3.530
7	7.467	N-BUTANE, ng/L	21645.1300	20.707	1523344.0	18.568	VB	0.605	41979.89	2.990

Total Area = 8204206.0, Total Amount = 104529.6, Total Height = 1404105.0, Sample Units = ug/l, ng/l

LH090401B



Sample Name: **LH090401B**
Acquired from Chrom1--FID via port 1 on 9/4/01 09:18:19am by RCW
FID

Data File: **C:\CPWIN\X30\X30A.07R**
Date Stamp: 9/4/01 09:18:18am
Sequence File: X30A.SEQ #7
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:12am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 6. Date Stamp: 9/4/01 09:36:36am

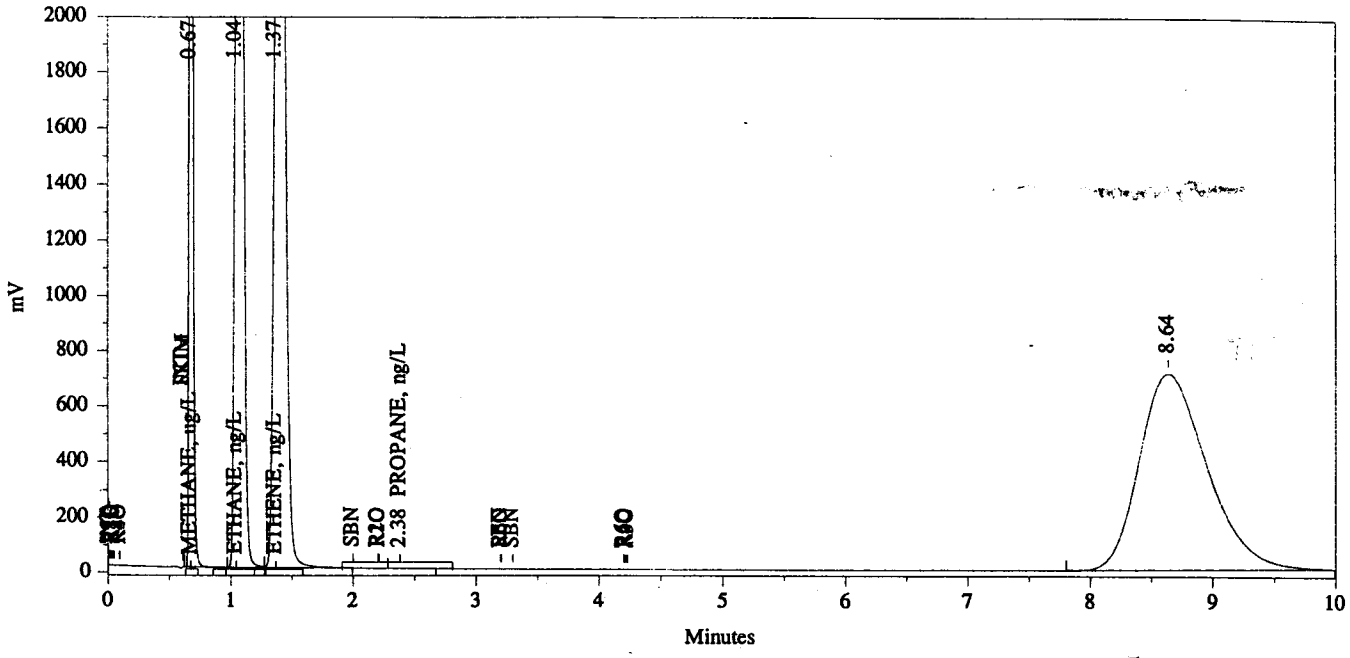
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.684	METHANE, ug/L	0.7202	0.017	39358.6	15.602	BB	0.028	23769.71	55.273
2	1.078	ETHANE, ng/L	468.1982	11.043	23798.5	9.434	BB	0.060	6627.56	15.411
3	1.419	ETHENE, ng/L	533.8418	12.591	24758.3	9.814	BB	0.093	4452.57	10.354
4	2.413	PROPANE, ng/L	769.2646	18.143	42005.8	16.651	BB	0.184	3797.33	8.830
5	4.384	PROPENE, ng/L	773.3008	18.239	31255.3	12.390	BB	0.333	1562.06	3.632
6	6.475	ISOBUTANE, ng/L	822.3027	19.394	44342.1	17.578	BV	0.494	1495.79	3.478
7	7.454	N-BUTANE, ng/L	872.2813	20.573	46747.6	18.531	VB	0.600	1299.21	3.021

Total Area = 252266.2, Total Amount = 4239.91, Total Height = 43004.21, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

LH090401C



Sample Name: **LH090401C**
Acquired from Chrom1--FID via port 1 on 9/4/01 09:59:47am by RCW
FID

Data File: **C:\CPWIN\X30\X30A.08R**
Date Stamp: 9/4/01 09:59:46am
Sequence File: X30A.SEQ #8
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:12am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 9. Date Stamp: 9/4/01 09:50:28am

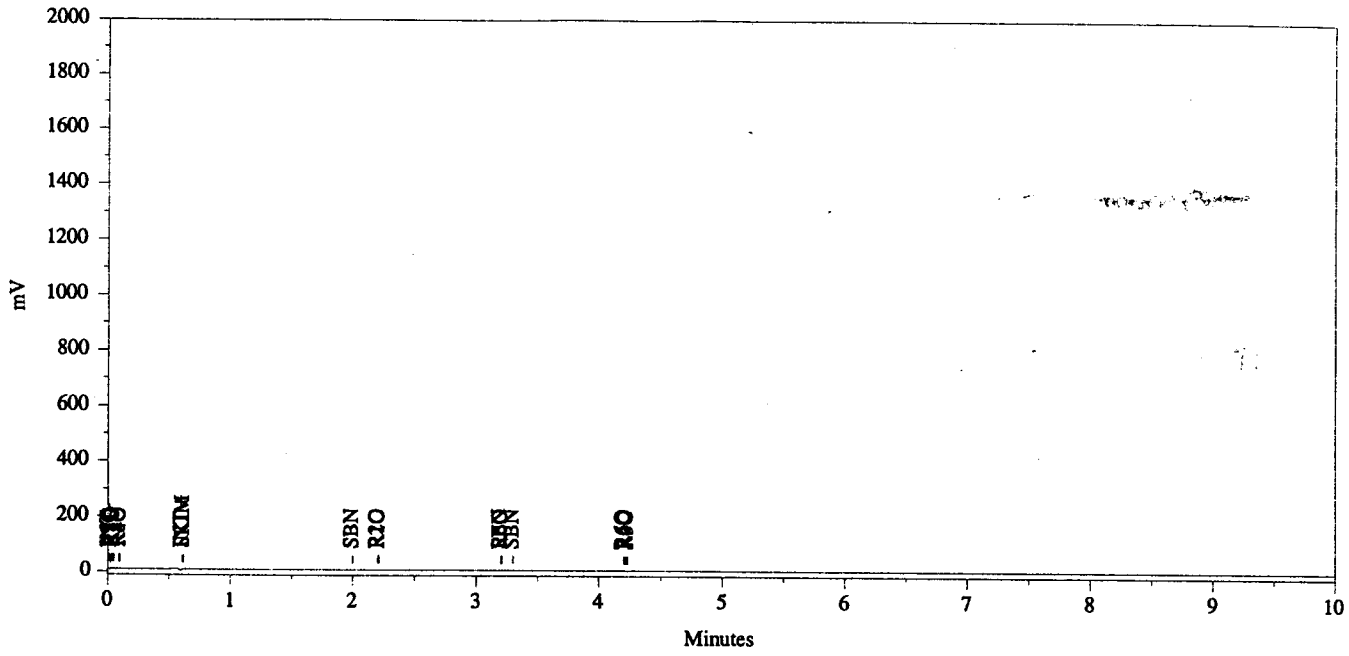
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.673	METHANE, ug/L	106.3911	0.019	5700354.0	9.455	BB	0.047	2009806.00	29.521
2	1.043	ETHANE, ng/L	233710.0000	41.316	11879470.0	19.705	BV	0.096	2052566.00	30.149
3	1.368	ETHENE, ng/L	331250.4000	58.559	15362600.0	25.483	VB	0.126	2032369.00	29.853
4	2.380	PROPANE, ng/L	88.5749	0.016	4836.4	0.008	BB	0.150	536.14	0.008
5	8.636		510.2516	0.090	27338890.0	45.349	BB	0.639	712725.30	10.469

Total Area = 60286150.0, Total Amount = 565665.6, Total Height = 6808003.0, Sample Units = ug/l, ng/l

MB090401A



Sample Name: **MB090401A**
Acquired from Chrom1--FID via port 1 on 9/4/01 10:25:10am by RCW
FID

Data File: **C:\CPWIN\X30\X30A.09R**
Date Stamp: 9/4/01 10:25:10am
Sequence File: X30A.SEQ #9
Method File: C:\CPWIN\X30\X30A_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:12am
Calibration File: C:\CPWIN\X30\X30A_W1.CAL
Version 9. Date Stamp: 9/4/01 09:50:28am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 2 Area Reject = 100
* Some peaks have been manually integrated.

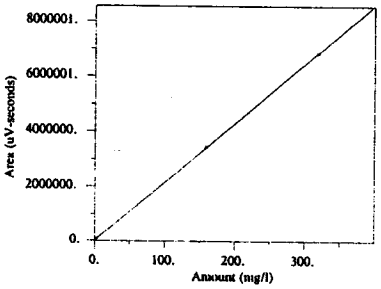
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug/l, ng/l
* Some peaks have been manually integrated,

Calibration File Name: **C:\CPWIN\X30\X30B_W1.CAL** Version = 4
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 1000
Amount units = mg/l
5 components with 3 levels each

1 CO2, mg/L
Retention time = 3.600 min., Search window = 0.396 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

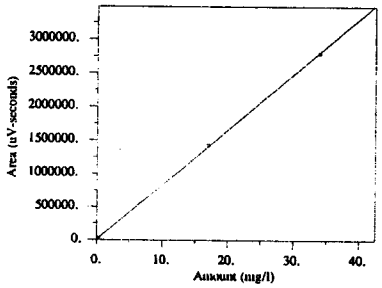
Level	Amount	Area	Area/Amt	Source	Date and time
1	3.195	72513.0	22695.78	Manual	9/4/2001 8:52:04
2	159.750	3449952.0	21595.94	Manual	9/4/2001 8:52:04
3	319.500	6842728.0	21416.99	Manual	9/4/2001 8:52:04



Calibration formula: Y = 21452.88 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.21%
Average CF = 21902.9000 with RSD = 3.16%

2 O2, mg/L
Retention time = 5.180 min., Search window = 0.342 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

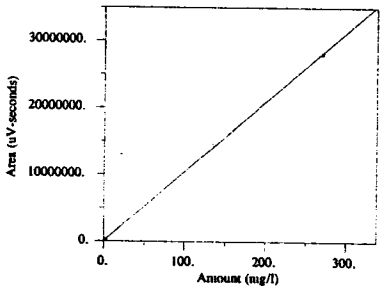
Level	Amount	Area	Area/Amt	Source	Date and time
1	0.340	32715.0	96362.3	Manual	9/4/2001 8:52:04
2	16.975	1425425.0	83972.02	Manual	9/4/2001 8:52:04
3	33.950	2791460.0	82222.68	Manual	9/4/2001 8:52:04



Calibration formula: Y = 82573.66 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9998, Average error = 6.27%
Average CF = 87519.0000 with RSD = 8.81%

3 N2, mg/L
Retention time = 5.750 min., Search window = 0.593 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

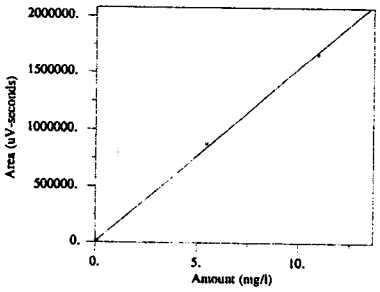
Level	Amount	Area	Area/Amt	Source	Date and time
1	2.700	301819.0	111789	Manual	9/4/2001 8:52:04
2	134.995	14433380.0	106917.9	Manual	9/4/2001 8:52:04
3	269.990	28048030.0	103885.4	Manual	9/4/2001 8:52:04



Calibration formula: Y = 104492.5 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9997, Average error = 3.29%
Average CF = 107530.8000 with RSD = 3.71%

4 CH4, mg/L
Retention time = 7.660 min., Search window = 0.575 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.109	17175.0	157064.5	Manual	9/4/2001 8:52:04
2	5.468	879925.0	160937.3	Manual	9/4/2001 8:52:04
3	10.935	1665621.0	152320.2	Manual	9/4/2001 8:52:04

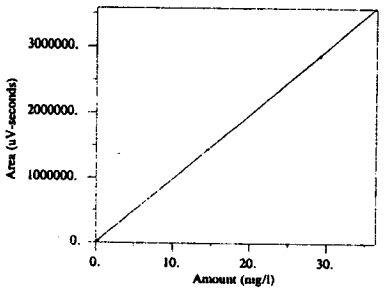


Calibration formula: Y = 154043.8 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9987, Average error = 2.52%
Average CF = 156774.0000 with RSD = 2.75%

5 CO, mg/L

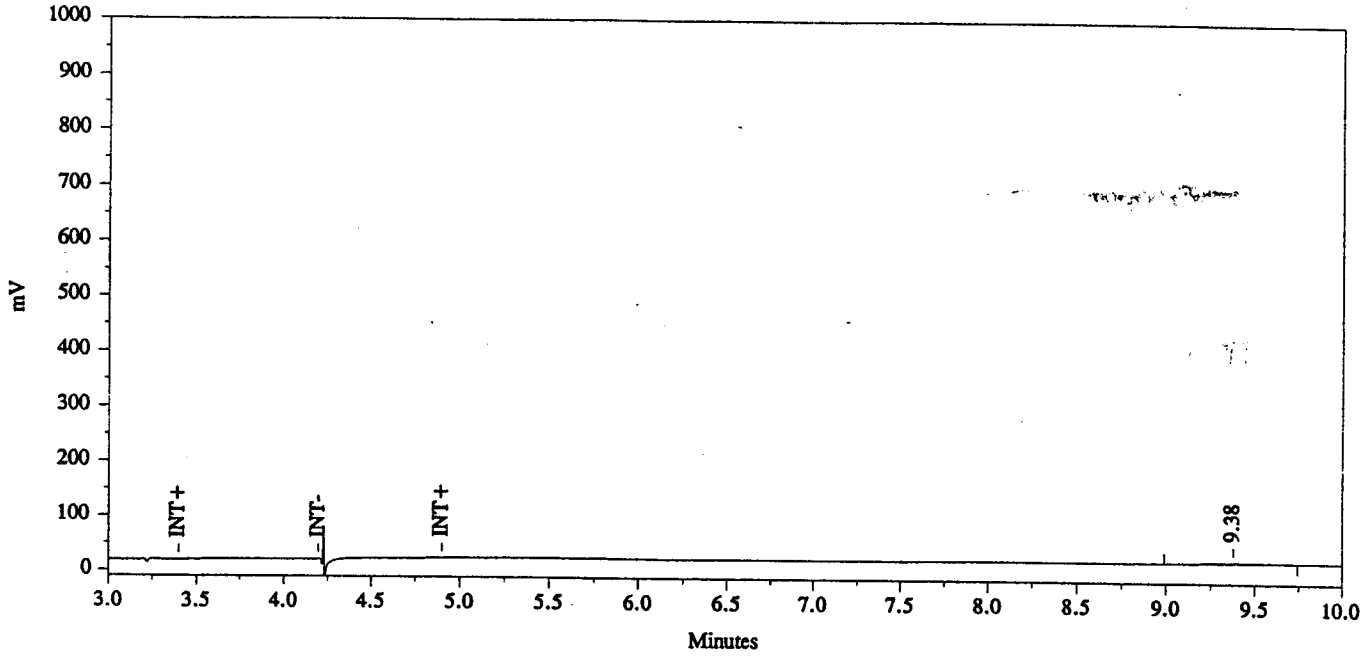
Retention time = 8.640 min., Search window = 0.629 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.291	22326.0	76713.74	Manual	9/4/2001 8:52:04
2	14.552	1447166.0	99451.33	Manual	9/4/2001 8:52:04
3	29.103	2868433.0	98561.41	Manual	9/4/2001 8:52:04



Calibration formula: Y = 98737.64 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 7.74%
Average CF = 91575.4900 with RSD = 14.06%

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from Chrom1--TCD via port 2 on 9/4/01 08:02:43am by RCW
TCD

Data File: **C:\CPWIN\X30\X30B.01R**
Date Stamp: 9/4/01 08:02:42am
Sequence File: X30A.SEQ #1
Method File: C:\CPWIN\X30\X30B_W1.MET
Version 2. Date Stamp: 9/4/01 07:40:36am
Calibration File: C:\CPWIN\X30\X30B_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:56am

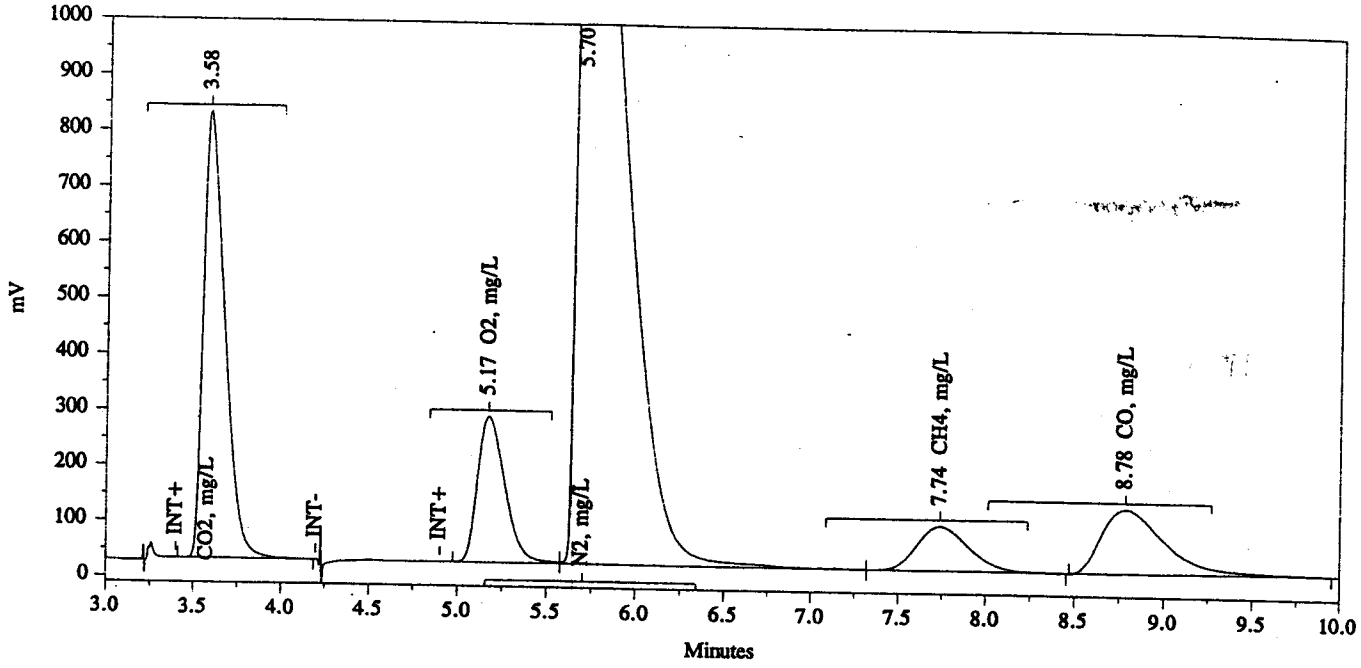
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	9.379		1.8891	100.000	44237.6	100.000	BB	0.368	2006.11	100.000

Total Area = 44237.6, Total Amount = 1.889, Total Height = 2006.11, Sample Units = mg/l

PG010201



Sample Name: **PG010201**
Acquired from Chrom1--TCD via port 2 on 9/4/01 08:12:56am by RCW
TCD

Data File: **C:\CPWIN\X30\X30B.02R**
Date Stamp: 9/4/01 08:12:56am
Sequence File: X30A.SEQ #2
Method File: C:\CPWIN\X30\X30B_W1.MET
Version 2. Date Stamp: 9/4/01 07:40:36am
Calibration File: C:\CPWIN\X30\X30B_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:56am

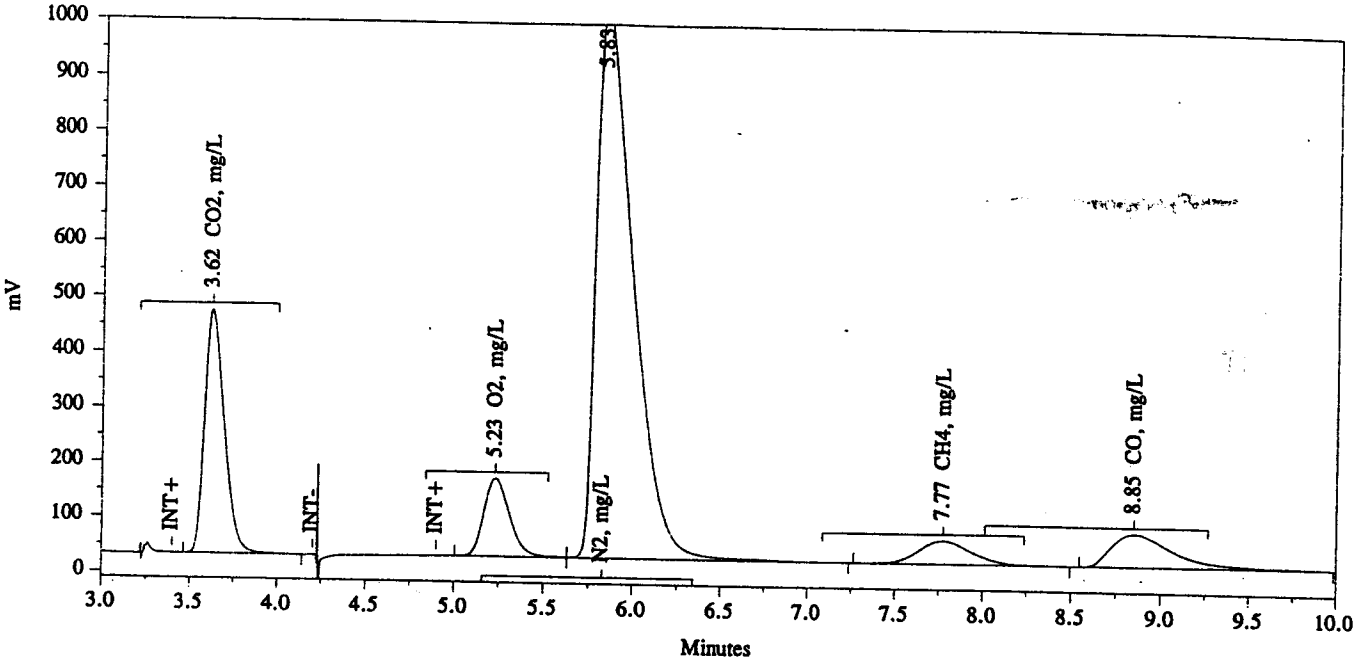
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.580	CO2, mg/L	292.2021	46.067	6842728.0	16.209	BB	0.142	800433.40	27.488
2	5.172	O2, mg/L	34.4292	5.428	2791460.0	6.612	BV	0.177	262401.80	9.011
3	5.701	N2, mg/L	268.3331	42.304	28048030.0	66.439	VB	0.283	1651926.00	56.729
4	7.738	CH4, mg/L	10.5157	1.658	1665621.0	3.945	BB	0.344	80727.10	2.772
5	8.784	CO, mg/L	28.8219	4.544	2868433.0	6.795	BB	0.410	116474.30	4.000

Total Area = 42216270.0, Total Amount = 634.302, Total Height = 2911962.0, Sample Units = mg/l

PG090401A



Sample Name: **PG090401A**
Acquired from Chrom1--TCD via port 2 on 9/4/01 08:24:18am by RCW
TCD

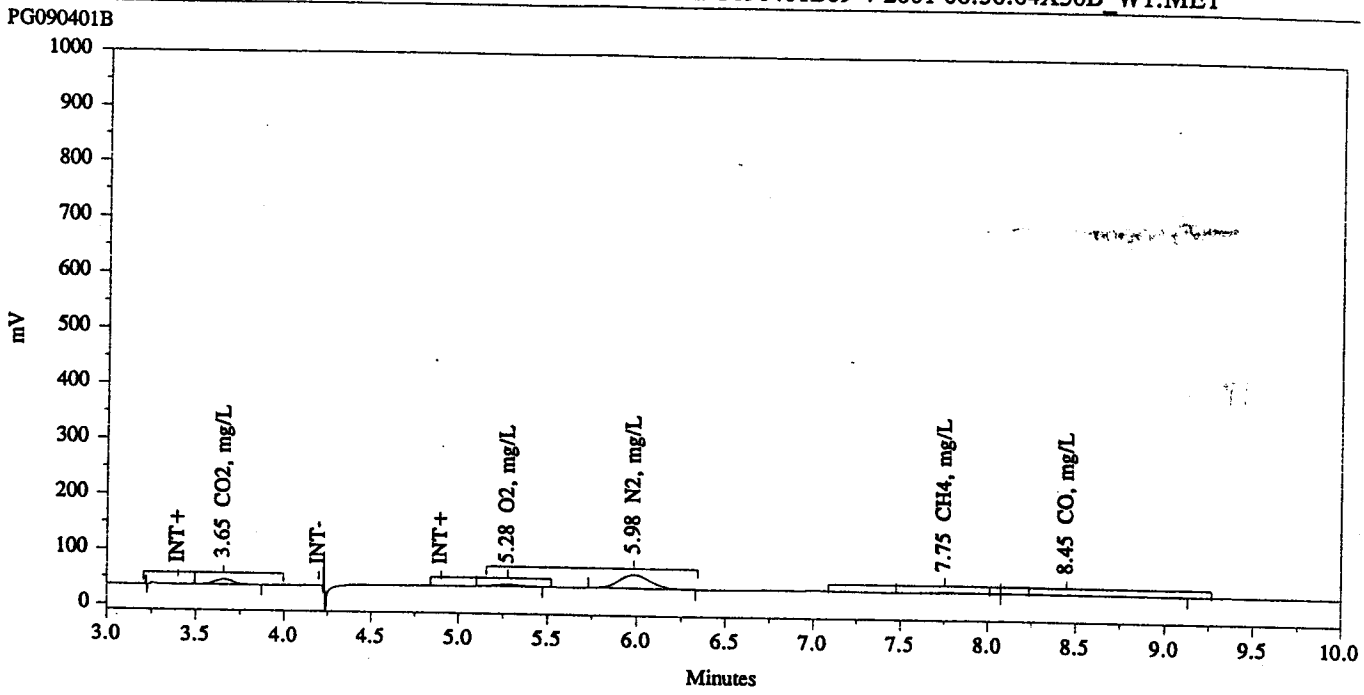
Data File: **C:\CPWIN\X30\X30B.03R**
Date Stamp: 9/4/01 08:24:18am
Sequence File: X30A.SEQ #3
Method File: C:\CPWIN\X30\X30B_W1.MET
Version 2. Date Stamp: 9/4/01 07:40:36am
Calibration File: C:\CPWIN\X30\X30B_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:56am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.620	CO2, mg/L	147.3219	45.599	3449952.0	15.946	BB	0.130	443191.60	26.273
2	5.228	O2, mg/L	17.5808	5.442	1425425.0	6.588	BV	0.167	142156.30	8.427
3	5.829	N2, mg/L	138.0829	42.739	14433380.0	66.710	VV	0.241	999935.50	59.278
4	7.775	CH4, mg/L	5.5553	1.719	879924.8	4.067	VB	0.351	41830.05	2.480
5	8.850	CO, mg/L	14.5411	4.501	1447166.0	6.689	BB	0.404	59731.82	3.541

Total Area = 21635850.0, Total Amount = 323.082, Total Height = 1686845.0, Sample Units = mg/l



Sample Name: **PG090401B**
Acquired from Chrom1--TCD via port 2 on 9/4/01 08:36:04am by RCW
TCD

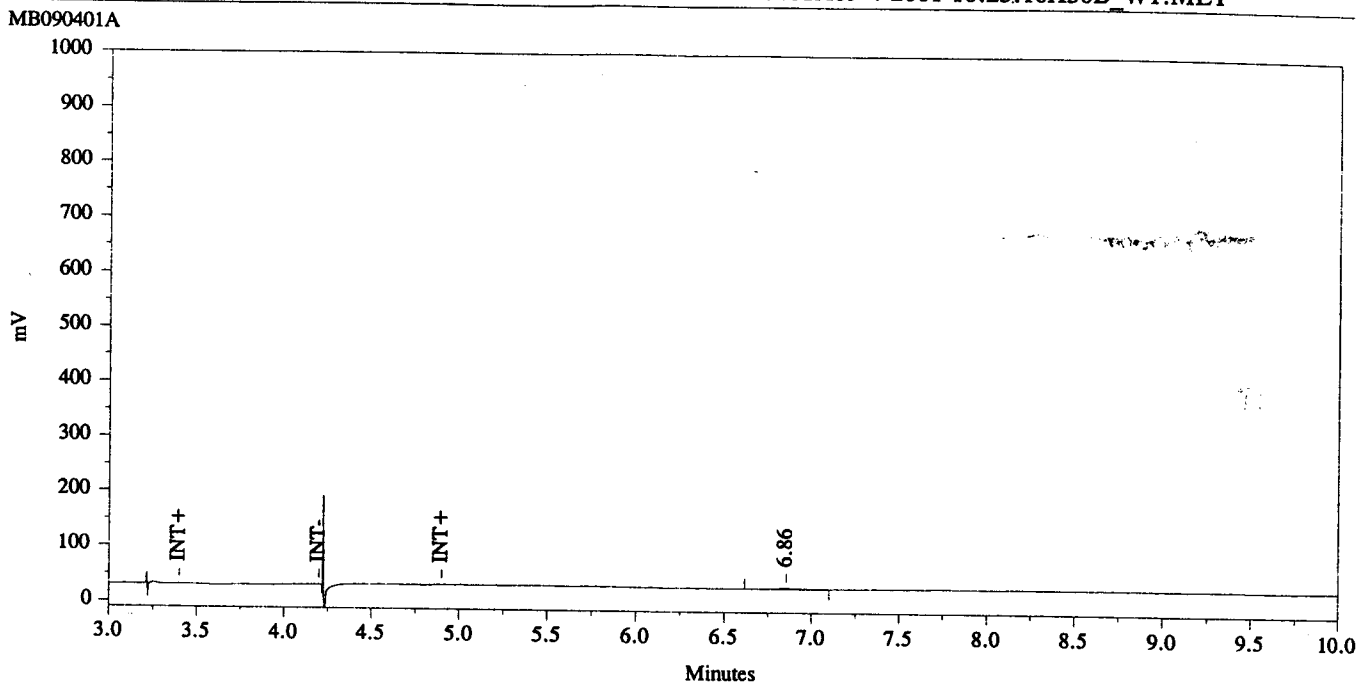
Data File: **C:\CPWIN\X30\X30B.04R**
Date Stamp: 9/4/01 08:36:04am
Sequence File: X30A.SEQ #4
Method File: C:\CPWIN\X30\X30B_W1.MET
Version 2. Date Stamp: 9/4/01 07:40:36am
Calibration File: C:\CPWIN\X30\X30B_W1.CAL
Version 1. Date Stamp: 8/31/01 11:29:56am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.654	CO2, mg/L	3.0965	46.077	72512.9	16.239	BB	0.122	9883.30	24.808
2	5.276	O2, mg/L	0.4035	6.004	32714.8	7.326	BB	0.149	3667.83	9.206
3	5.983	N2, mg/L	2.8875	42.967	301819.0	67.589	BB	0.205	24596.23	61.738
4	7.753	CH4, mg/L	0.1084	1.614	17175.0	3.846	BB	0.249	1148.61	2.883
5	8.451	CO, mg/L	0.2243	3.338	22325.7	5.000	BB	0.684	543.74	1.365

Total Area = 446547.4, Total Amount = 6.72, Total Height = 39839.71, Sample Units = mg/l
* Some peaks have been manually integrated,



Sample Name: **MB090401A**
Acquired from Chrom1--TCD via port 2 on 9/4/01 10:25:10am by RCW
TCD

Data File: **C:\CPWIN\X30\X30B.09R**
Date Stamp: 9/4/01 10:25:10am
Sequence File: X30A.SEQ #9
Method File: C:\CPWIN\X30\X30B_W1.MET
Version 2. Date Stamp: 9/4/01 07:40:36am
Calibration File: C:\CPWIN\X30\X30B_W1.CAL
Version 4. Date Stamp: 9/4/01 08:51:38am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 0
* Some peaks have been manually integrated.

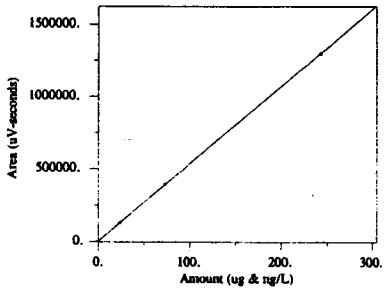
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	6.856		0.7645	100.000	16401.1	100.000	BB	0.190	1436.66	100.000

Total Area = 16401.1, Total Amount = 0.765, Total Height = 1436.66, Sample Units = mg/l
* Some peaks have been manually integrated,

Calibration File Name: **C:\CPWIN\X30\X30D_W1.CAL** Version = 5
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug & ng/L
3 components with 3 levels each

1 METHANE, ug/L
Retention time = 0.600 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

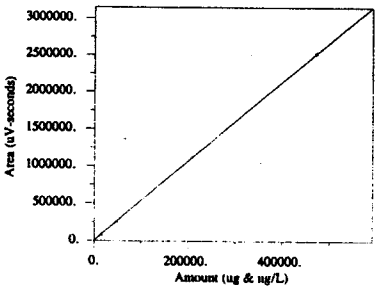
Level	Amount	Area	Area/Amt	Source	Date and time
1	24.437	130317.0	5332.774	Manual	9/4/2001 10:13:5
2	73.312	397170.0	5417.531	Manual	9/4/2001 10:13:5
3	243.600	1299736.0	5335.534	Manual	9/4/2001 10:13:5



Calibration formula: Y = 5342.256 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 0.57%
Average CF = 5361.9460 with RSD = 0.90%

2 ETHANE, ng/L
Retention time = 1.050 min., Search window = 0.191 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

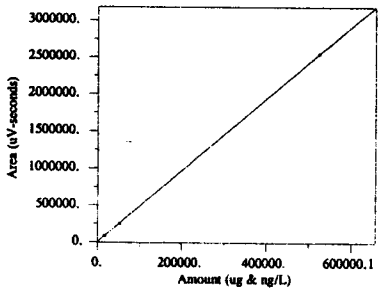
Level	Amount	Area	Area/Amt	Source	Date and time
1	15754.000	80084.0	5.083407	Manual	9/4/2001 10:13:5
2	47263.000	241794.0	5.115926	Manual	9/4/2001 10:13:5
3	472600.000	2522377.0	5.337234	Manual	9/4/2001 10:13:5



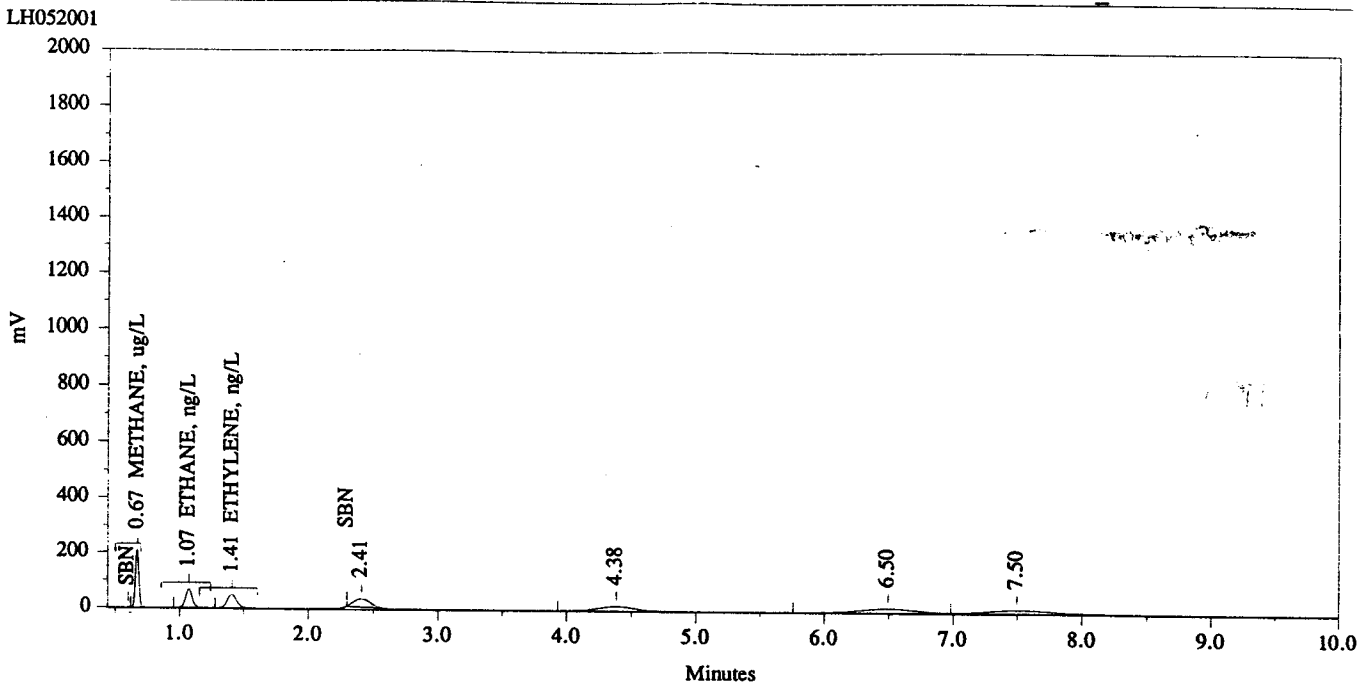
Calibration formula: Y = 5.335 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 2.95%
Average CF = 5.1789 with RSD = 2.67%

3 ETHYLENE, ng/L
Retention time = 1.380 min., Search window = 0.226 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	17681.000	83605.0	4.728522	Manual	9/4/2001 10:13:5
2	53044.000	249820.0	4.709675	Manual	9/4/2001 10:13:5
3	525200.000	2548357.0	4.852165	Manual	9/4/2001 10:13:5



Calibration formula: Y = 4.851 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 1.82%
Average CF = 4.7635 with RSD = 1.62%



Sample Name: **LH052001**
Acquired from Chrom2--FID 10X via port 4 on 9/4/01 08:52:57am by RCW
FID 10X

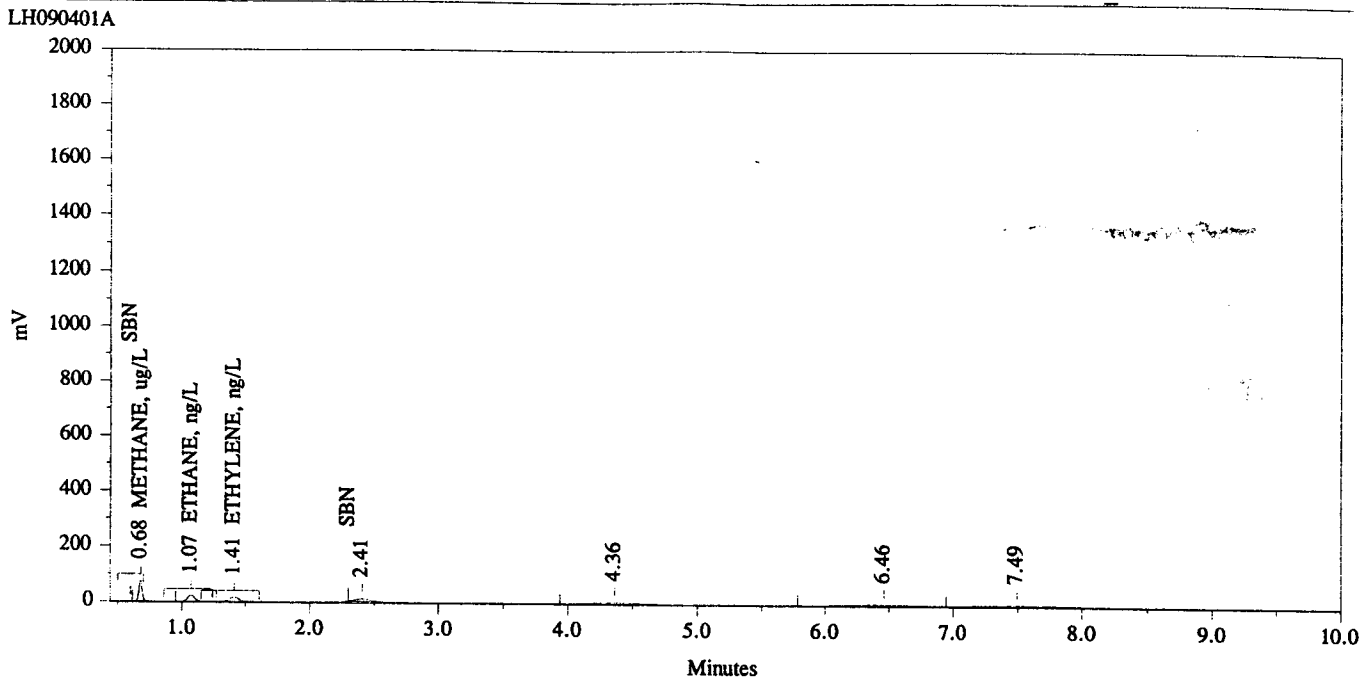
Data File: **C:\CPWIN\X30\X30D.05R**
Date Stamp: 9/4/01 08:52:56am
Sequence File: X30C.SEQ #5
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:46am
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 1. Date Stamp: 8/31/01 11:30:26am

Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.673	METHANE, ug/L	59.3435	0.075	397169.7	16.491	BB	0.031	210209.10	52.498
2	1.071	ETHANE, ng/L	36840.7300	46.536	241794.2	10.040	BV	0.060	66925.10	16.714
3	1.408	ETHYLENE, ng/L	42038.1600	53.102	249820.5	10.373	VB	0.086	48596.29	12.137
4	2.409		39.2473	0.050	262671.7	10.906	BB	0.143	30564.86	7.633
5	4.382		48.1751	0.061	322422.8	13.387	BV	0.333	16145.16	4.032
6	6.495		69.2705	0.088	463608.4	19.250	VV	0.512	15077.12	3.765
7	7.499		70.3621	0.089	470914.8	19.553	VB	0.609	12892.96	3.220

Total Area = 2408402.0, Total Amount = 79165.3, Total Height = 400410.6, Sample Units = ug & ng/L



Sample Name: **LH090401A**
Acquired from Chrom2--FID 10X via port 4 on 9/4/01 09:05:50am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D.06R**
Date Stamp: 9/4/01 09:05:50am
Sequence File: X30C.SEQ #6
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:46am
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 1. Date Stamp: 8/31/01 11:30:26am

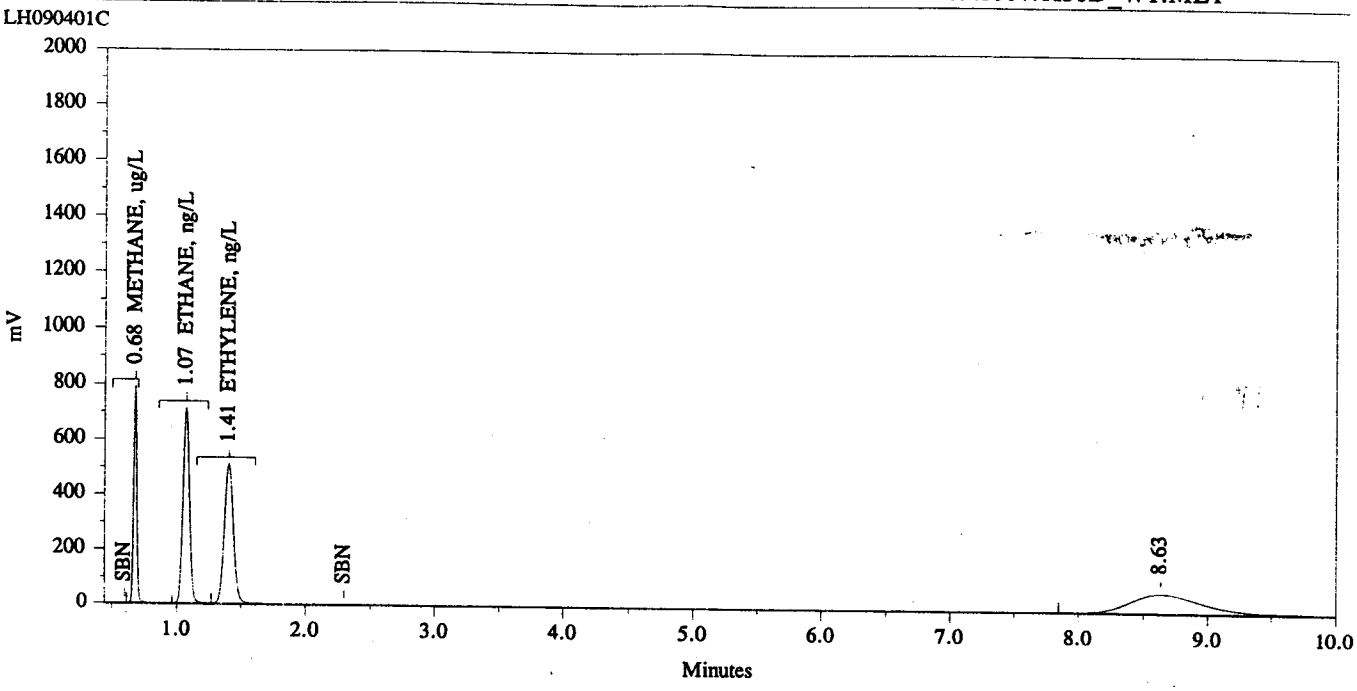
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.678	METHANE, ug/L	19.4715	0.074	130317.3	16.212	BB	0.029	75813.08	54.696
2	1.073	ETHANE, ng/L	12201.8400	46.279	80083.5	9.962	BB	0.060	22172.85	15.997
3	1.409	ETHYLENE, ng/L	14068.4900	53.358	83604.9	10.400	BB	0.088	15847.43	11.433
4	2.405		12.6410	0.048	84602.9	10.525	BB	0.141	10010.68	7.222
5	4.363		16.3547	0.062	109457.5	13.617	BB	0.339	5378.36	3.880
6	6.461		23.1616	0.088	155014.6	19.284	BV	0.509	5073.38	3.660
7	7.495		24.0225	0.091	160775.9	20.001	VB	0.622	4311.35	3.110

Total Area = 803856.6, Total Amount = 26365.98, Total Height = 138607.1, Sample Units = ug & ng/L

9/4/200110:00:03 AMC:\CPWIN\X30\X30D.08RLH090401C09-4-2001 09:59:47X30D_W1.MET



Sample Name: **LH090401C**
Acquired from Chrom2--FID 10X via port 4 on 9/4/01 09:59:47am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D.08R**
Date Stamp: 9/4/01 09:59:46am
Sequence File: X30C.SEQ #8
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:46am
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 1. Date Stamp: 8/31/01 11:30:26am

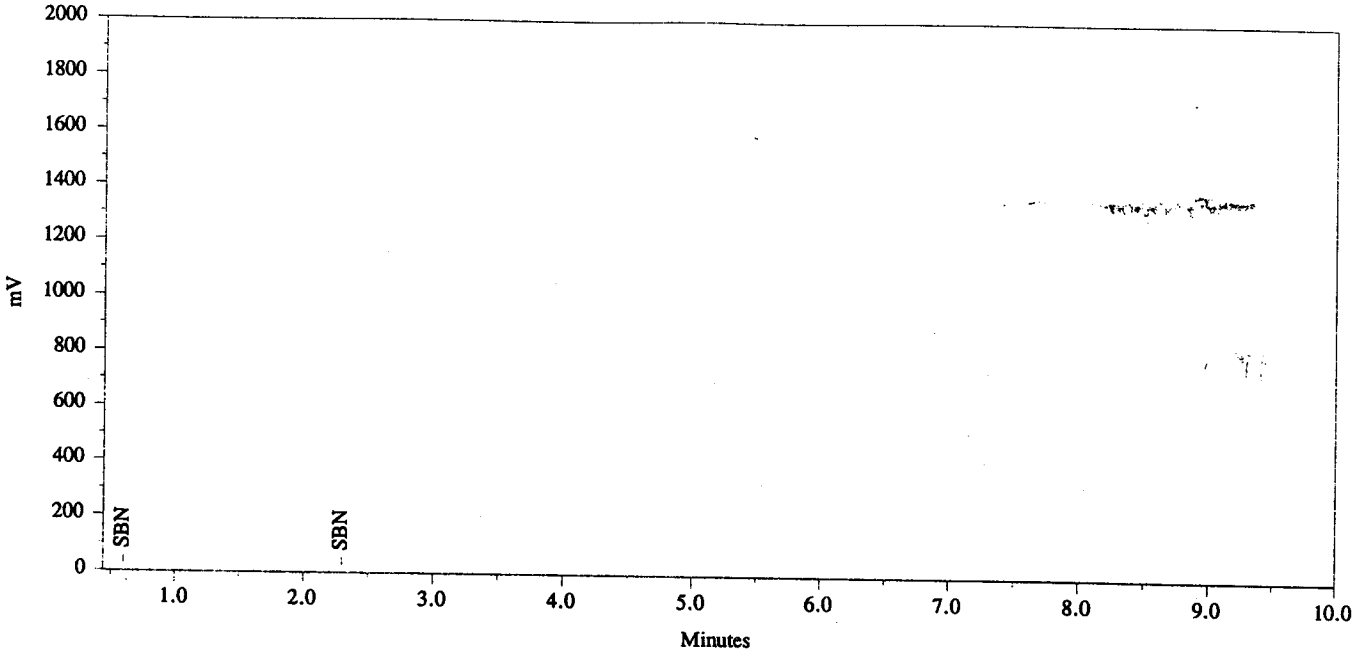
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.680	METHANE, ug/L	194.2012	0.024	1299736.0	14.272	BB	0.027	791456.90	37.872
2	1.073	ETHANE, ng/L	384319.5000	47.229	2522377.0	27.697	BV	0.059	715407.40	34.233
3	1.405	ETHYLENE, ng/L	428820.8000	52.697	2548357.0	27.983	VB	0.083	511707.90	24.485
4	8.634		408.8741	0.050	2736484.0	30.048	BB	0.640	71274.80	3.411

Total Area = 9106953.0, Total Amount = 813743.4, Total Height = 2089847.0, Sample Units = ug & ng/L

MB090401A



Sample Name: **MB090401A**
Acquired from Chrom2--FID 10X via port 4 on 9/4/01 10:25:10am by RCW
FID 10X

Data File: **C:\CPWIN\X30\X30D.09R**
Date Stamp: 9/4/01 10:25:10am
Sequence File: X30C.SEQ #9
Method File: C:\CPWIN\X30\X30D_W1.MET
Version 2. Date Stamp: 9/4/01 07:21:46am
Calibration File: C:\CPWIN\X30\X30D_W1.CAL
Version 5. Date Stamp: 9/4/01 10:13:50am

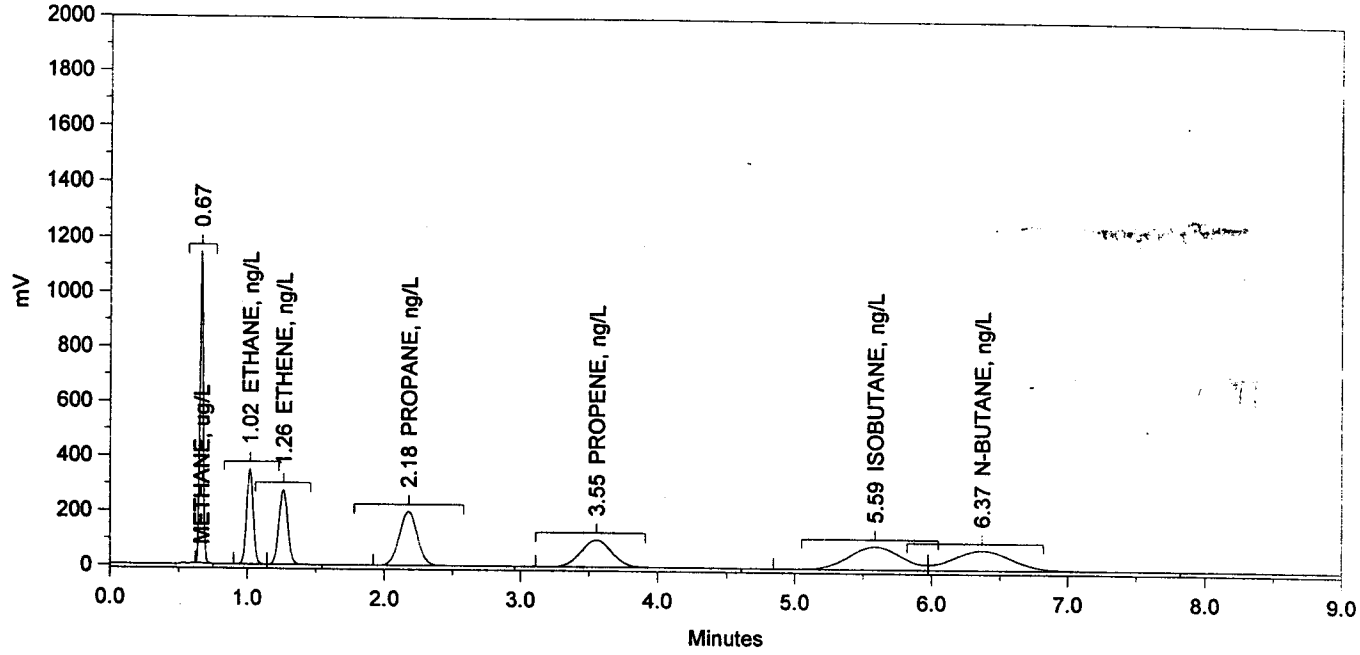
Run Time = 10.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

LH100801A



Sample Name: **LH100801A**
Acquired from Chrom1--FID via port 1 on 11/8/01 09:32:59am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.32R**
Date Stamp: 11/8/01 09:32:58am
Sequence File: X32A.SEQ #332
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

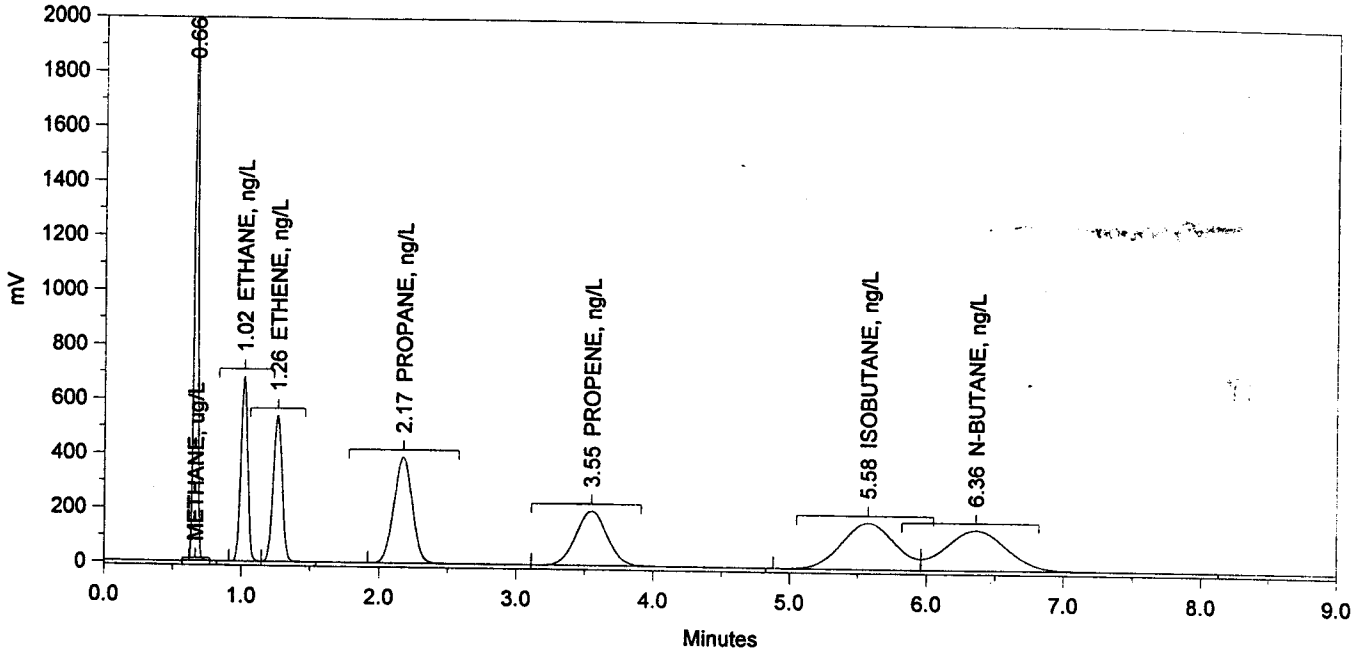
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.665	METHANE, ug/L	36.6172	0.017	1961919.0	15.761	BB	0.029	1141963.00	51.297
2	1.021	ETHANE, ng/L	23558.3900	11.259	1197472.0	9.620	BV	0.057	350089.60	15.726
3	1.264	ETHENE, ng/L	26480.2200	12.655	1228089.0	9.866	VB	0.074	275039.70	12.355
4	2.177	PROPANE, ng/L	33656.7500	16.085	1837731.0	14.764	BB	0.155	198040.40	8.896
5	3.554	PROPENE, ng/L	39355.3000	18.808	1590664.0	12.779	BB	0.264	100324.30	4.507
6	5.585	ISOBUTANE, ng/L	43209.6200	20.650	2330051.0	18.719	BV	0.450	86244.95	3.874
7	6.369	N-BUTANE, ng/L	42951.4600	20.527	2301870.0	18.492	VB	0.515	74477.38	3.346

Total Area = 12447800.0, Total Amount = 209248.4, Total Height = 2226180.0, Sample Units = ug/l, ng/l

LCS LH012700



Sample Name: **LCS LH012700**
Acquired from Chrom1--FID via port 1 on 11/8/01 09:44:30am by RCW
FID

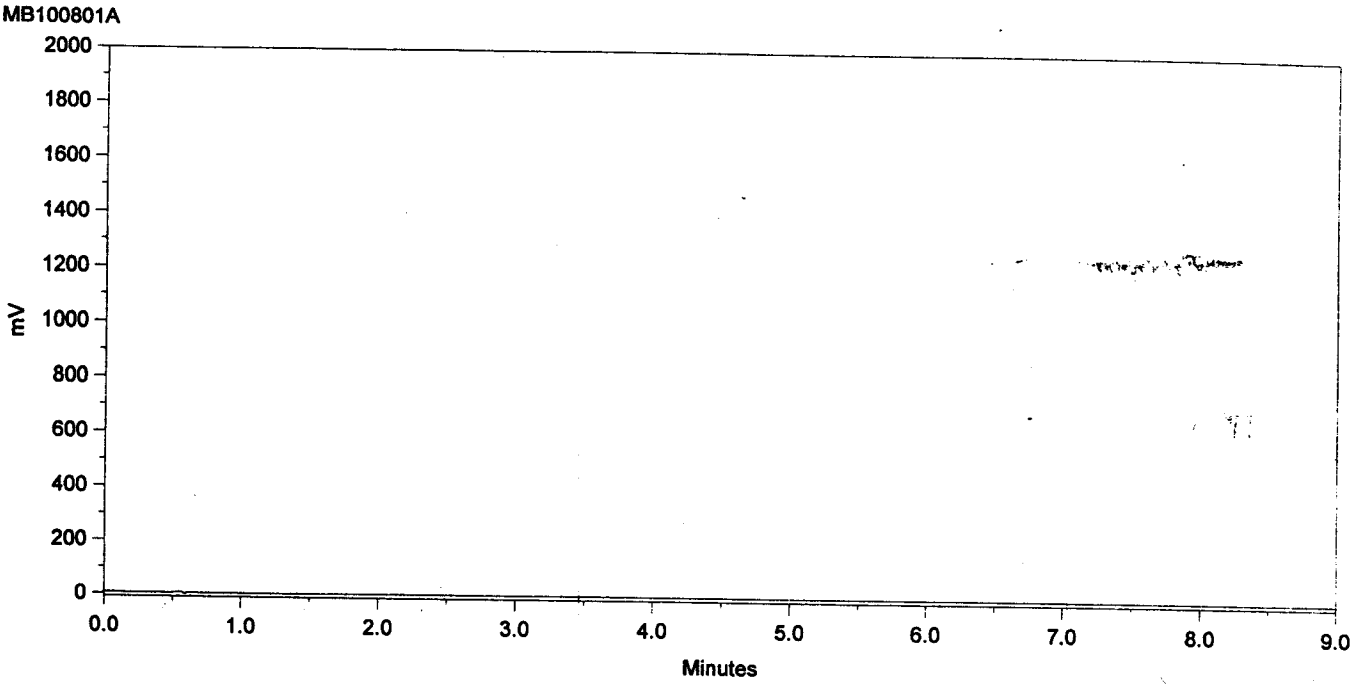
Data File: **C:\CPWIN\X32\X32A3.33R**
Date Stamp: 11/8/01 09:44:30am
Sequence File: X32A.SEQ #333
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.662	METHANE, ug/L	72.7889	0.018	3899974.0	15.789	BB	0.032	2039672.00	48.902
2	1.019	ETHANE, ng/L	46838.4100	11.283	2380795.0	9.639	BV	0.058	683596.90	16.390
3	1.262	ETHENE, ng/L	52617.4700	12.675	2440273.0	9.879	VB	0.075	540570.30	12.961
4	2.174	PROPANE, ng/L	66691.0900	16.066	3641477.0	14.742	BV	0.155	390870.30	9.371
5	3.549	PROPENE, ng/L	78114.0500	18.818	3157217.0	12.782	VB	0.265	198791.80	4.766
6	5.575	ISOBUTANE, ng/L	85262.3300	20.540	4597716.0	18.614	BV	0.450	170159.10	4.080
7	6.360	N-BUTANE, ng/L	85517.6600	20.601	4583093.0	18.555	VB	0.519	147238.50	3.530

Total Area = 24700540.0, Total Amount = 415113.8, Total Height = 4170899.0, Sample Units = ug/l, ng/l



Sample Name: **MB100801A**
Acquired from Chrom1--FID via port 1 on 11/8/01 09:55:50am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.34R**
Date Stamp: 11/8/01 09:55:50am
Sequence File: X32A.SEQ #334
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

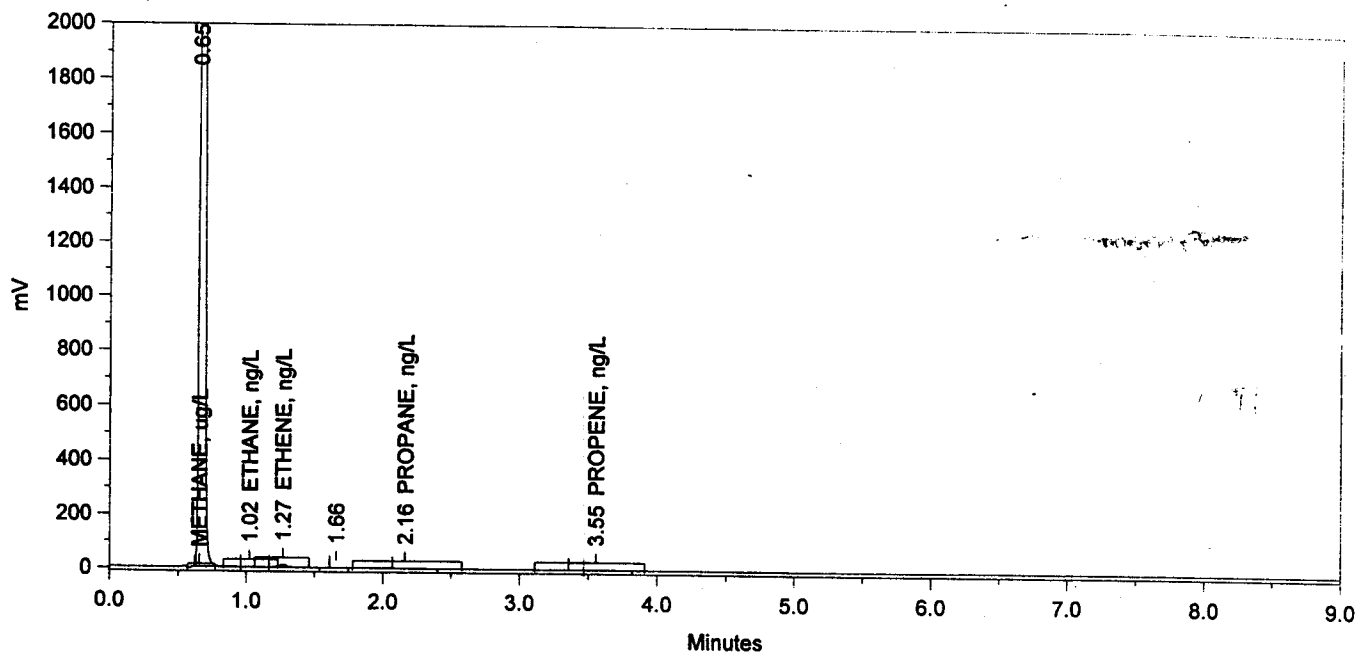
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug/l, ng/l

P0110417-01A



Sample Name: **P0110417-01A**
Acquired from Chrom1--FID via port 1 on 11/8/01 10:05:45am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.35R**
Date Stamp: 11/8/01 10:05:44am
Sequence File: X32A.SEQ #335
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

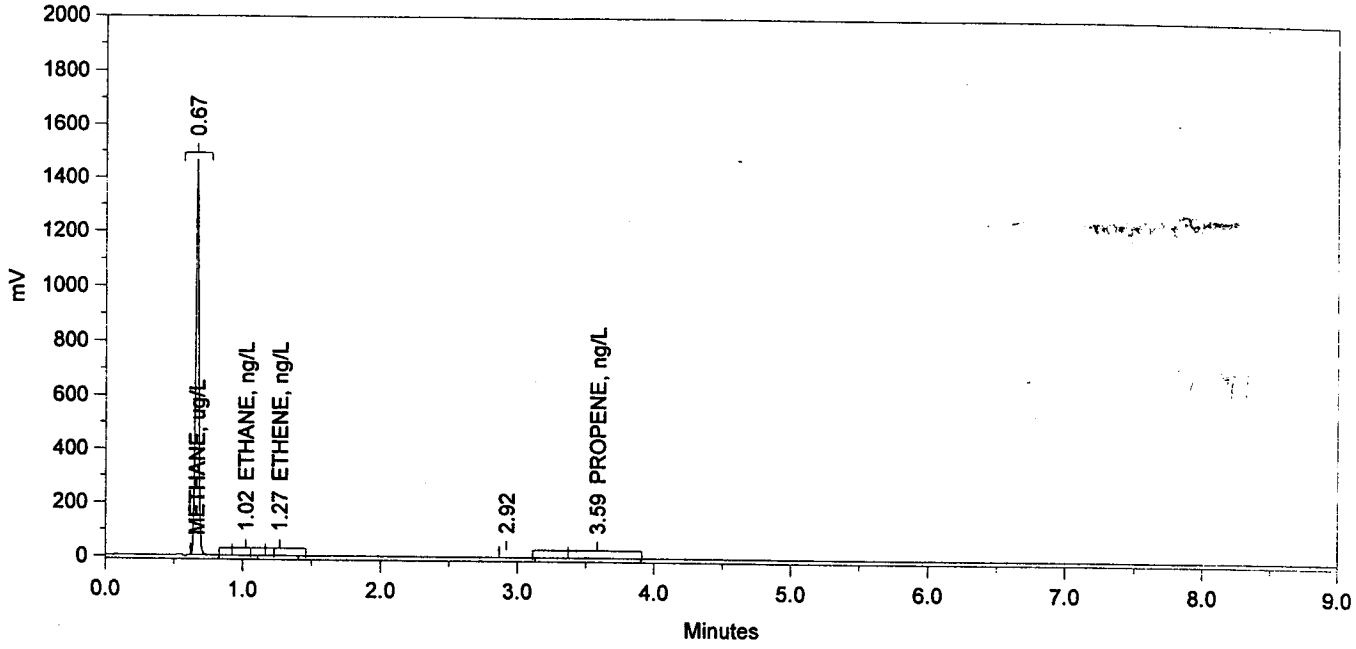
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.653	METHANE, ug/L	129.1939	9.962	6922109.0	99.203	SBB	0.055	2082857.00	99.412
2	1.022	ETHANE, ng/L	121.7114	9.385	6186.6	0.089	TVB	0.054	1892.44	0.090
3	1.266	ETHENE, ng/L	941.6230	72.607	43670.2	0.626	TBB	0.074	9783.48	0.467
4	1.657		0.0185	0.001	989.0	0.014	BB	0.073	225.13	0.011
5	2.162	PROPANE, ng/L	37.4900	2.891	2047.0	0.029	BB	0.145	234.68	0.011
6	3.555	PROPENE, ng/L	66.8348	5.154	2701.3	0.039	BB	0.257	174.95	0.008

Total Area = 6977703.0, Total Amount = 1296.872, Total Height = 2095168.0, Sample Units = ug/l, ng/l

P0110417-02A



Sample Name: **P0110417-02A**
Acquired from Chrom1--FID via port 1 on 11/8/01 10:15:29am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.36R**
Date Stamp: 11/8/01 10:15:28am
Sequence File: X32A.SEQ #336
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

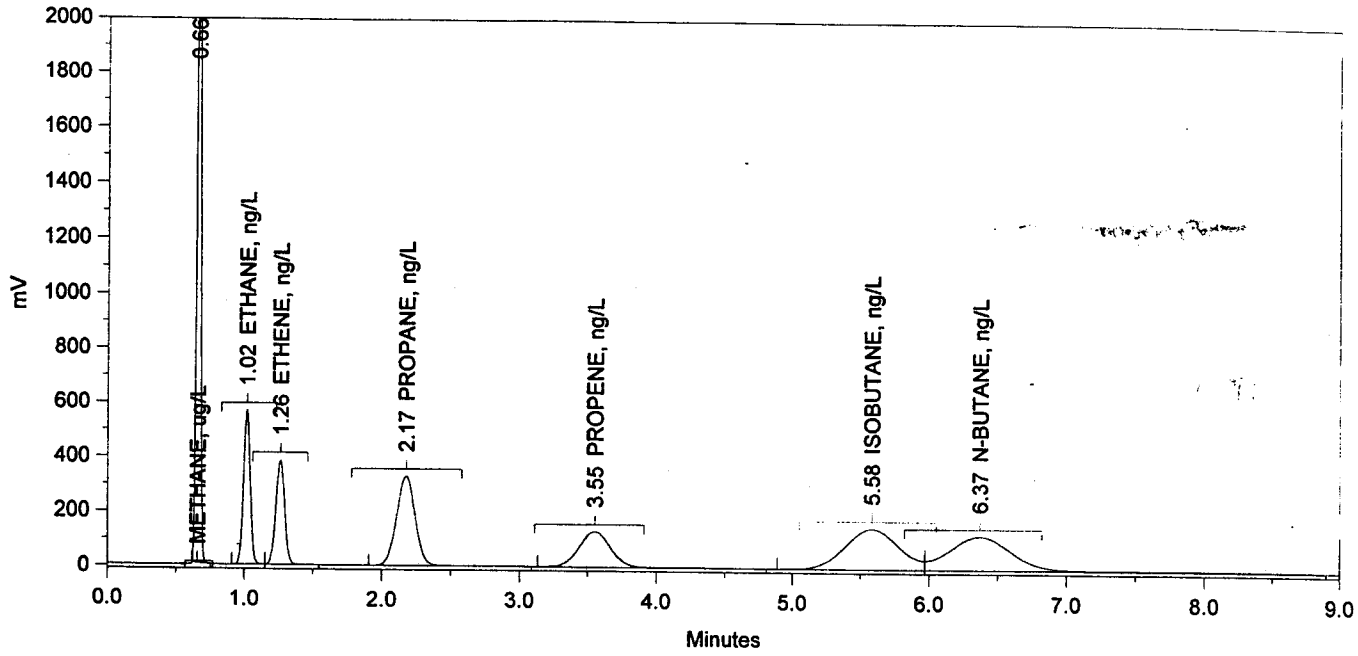
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.666	METHANE, ug/L	43.9395	16.578	2354247.0	99.538	BB	0.027	1466457.00	99.815
2	1.023	ETHANE, ng/L	47.8802	18.065	2433.7	0.103	BB	0.059	692.18	0.047
3	1.269	ETHENE, ng/L	110.8725	41.832	5142.0	0.217	BB	0.076	1122.79	0.076
4	2.920		0.0157	0.006	840.3	0.036	BB	0.019	739.16	0.050
5	3.585	PROPENE, ng/L	62.3364	23.519	2519.5	0.107	BB	0.264	159.19	0.011

Total Area = 2365182.0, Total Amount = 265.044, Total Height = 1469170.0, Sample Units = ug/l, ng/l

P0110417-02A MS



Sample Name: **P0110417-02A MS**
Acquired from Chrom1--FID via port 1 on 11/8/01 10:26:03am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.37R**
Date Stamp: 11/8/01 10:26:02am
Sequence File: X32A.SEQ #337
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

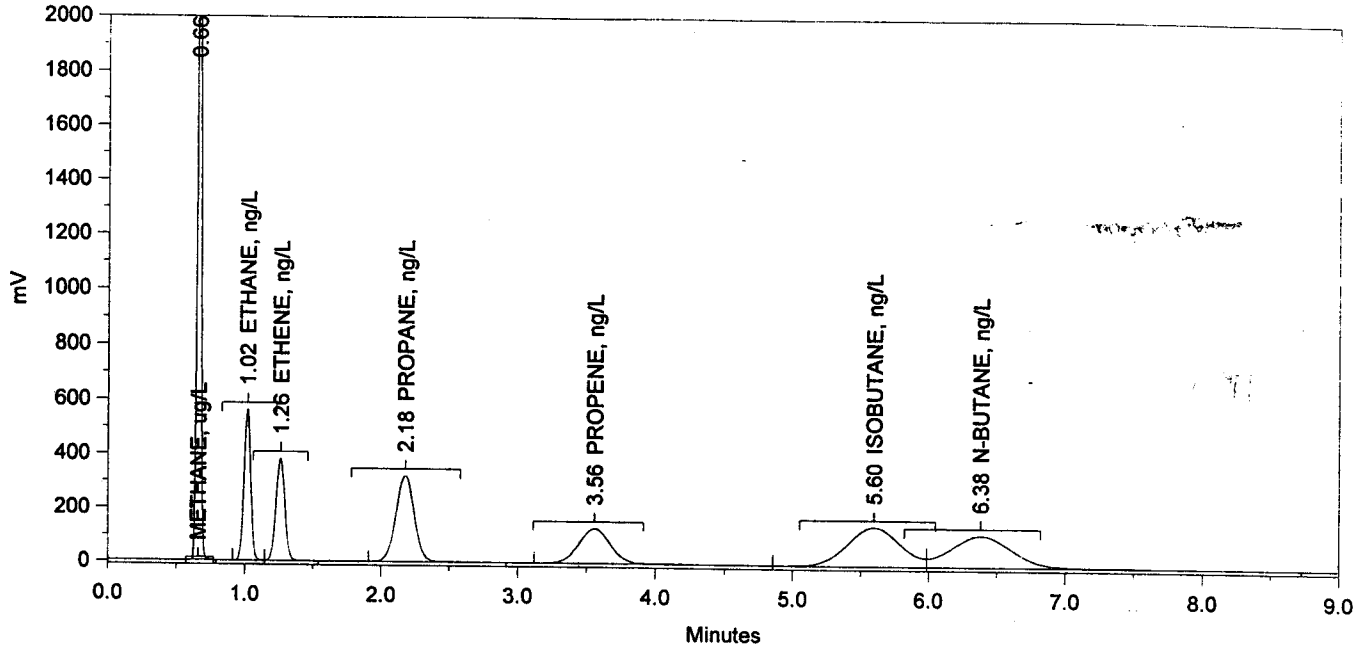
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.658	METHANE, ug/L	88.1217	0.027	4721491.0	22.042	BB	0.039	2031705.00	54.632
2	1.018	ETHANE, ng/L	38861.0500	11.782	1975306.0	9.221	BV	0.058	569410.40	15.311
3	1.262	ETHENE, ng/L	37488.4900	11.366	1738627.0	8.117	VB	0.075	386247.60	10.386
4	2.174	PROPANE, ng/L	56095.9000	17.007	3062957.0	14.299	BB	0.155	329215.90	8.853
5	3.550	PROPENE, ng/L	51355.3900	15.570	2075684.0	9.690	BB	0.265	130735.00	3.515
6	5.581	ISOBUTANE, ng/L	74447.2000	22.571	4014517.0	18.741	BV	0.451	148503.80	3.993
7	6.368	N-BUTANE, ng/L	71504.2600	21.678	3832081.0	17.890	VB	0.519	123044.20	3.309

Total Area = 21420660.0, Total Amount = 329840.4, Total Height = 3718862.0, Sample Units = ug/l, ng/l

P0110417-02A MSD



Sample Name: **P0110417-02A MSD**
Acquired from Chrom1--FID via port 1 on 11/8/01 11:00:46am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.38R**
Date Stamp: 11/8/01 11:00:46am
Sequence File: X32A.SEQ #338
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

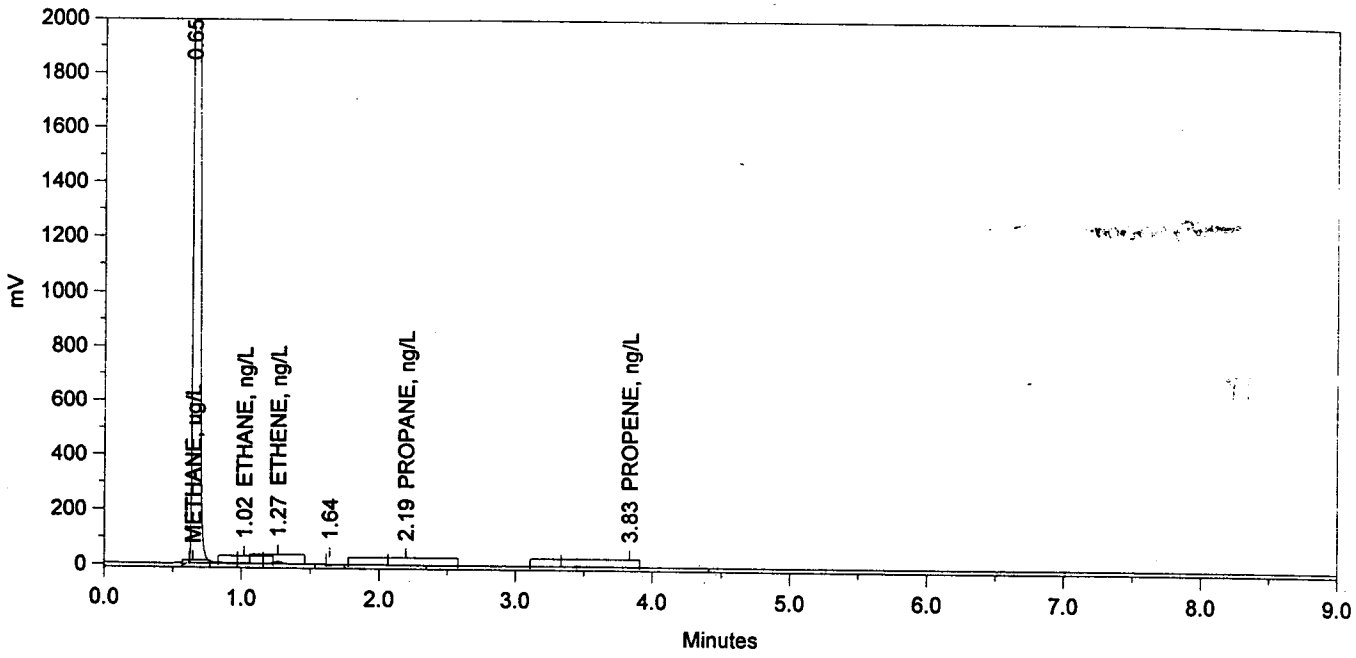
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.658	METHANE, ug/L	88.9741	0.028	4767163.0	22.600	BB	0.039	2026892.00	55.069
2	1.018	ETHANE, ng/L	38468.2900	11.920	1955342.0	9.270	BV	0.058	562154.60	15.273
3	1.262	ETHENE, ng/L	37095.3400	11.495	1720393.0	8.156	VB	0.075	380902.70	10.349
4	2.177	PROPANE, ng/L	55226.3900	17.113	3015480.0	14.296	BB	0.157	320744.70	8.714
5	3.558	PROPENE, ng/L	50826.3600	15.750	2054302.0	9.739	BB	0.266	128750.70	3.498
6	5.595	ISOBUTANE, ng/L	72974.2300	22.613	3935088.0	18.655	BV	0.453	144870.40	3.936
7	6.382	N-BUTANE, ng/L	68034.6100	21.082	3646135.0	17.285	VB	0.523	116301.80	3.160

Total Area = 21093900.0, Total Amount = 322714.2, Total Height = 3680617.0, Sample Units = ug/l, ng/l

P0110417-03A



Sample Name: **P0110417-03A**
Acquired from Chrom1--FID via port 1 on 11/8/01 11:12:01am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.39R**
Date Stamp: 11/8/01 11:12:00am
Sequence File: X32A.SEQ #339
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

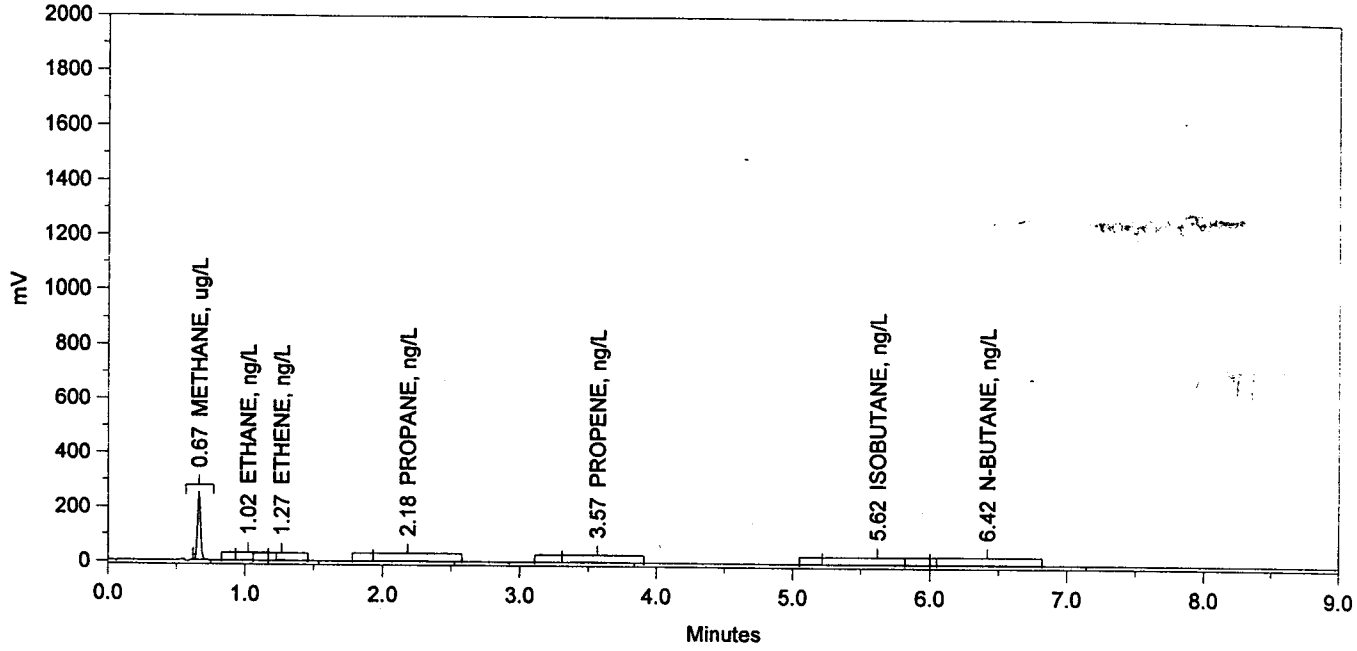
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.648	METHANE, ug/L	140.6277	12.490	7534726.0	99.059	SBB	0.059	2127476.00	99.301
2	1.020	ETHANE, ng/L	67.3509	5.982	3423.4	0.045	TVB	0.051	1119.52	0.052
3	1.265	ETHENE, ng/L	727.5938	64.623	33744.1	0.444	TBB	0.074	7598.94	0.355
4	1.641		0.4860	0.043	26041.8	0.342	BB	0.084	5142.58	0.240
5	2.194	PROPANE, ng/L	49.5163	4.398	2703.7	0.036	BB	0.138	327.09	0.015
6	3.835	PROPENE, ng/L	140.3379	12.464	5672.2	0.075	BB	0.121	780.67	0.036

Total Area = 7606311.0, Total Amount = 1125.913, Total Height = 2142445.0, Sample Units = ug/l, ng/l

P0110417-04A



Sample Name: **P0110417-04A**
Acquired from Chrom1--FID via port 1 on 11/8/01 11:21:45am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.40R**
Date Stamp: 11/8/01 11:21:44am
Sequence File: X32A.SEQ #340
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

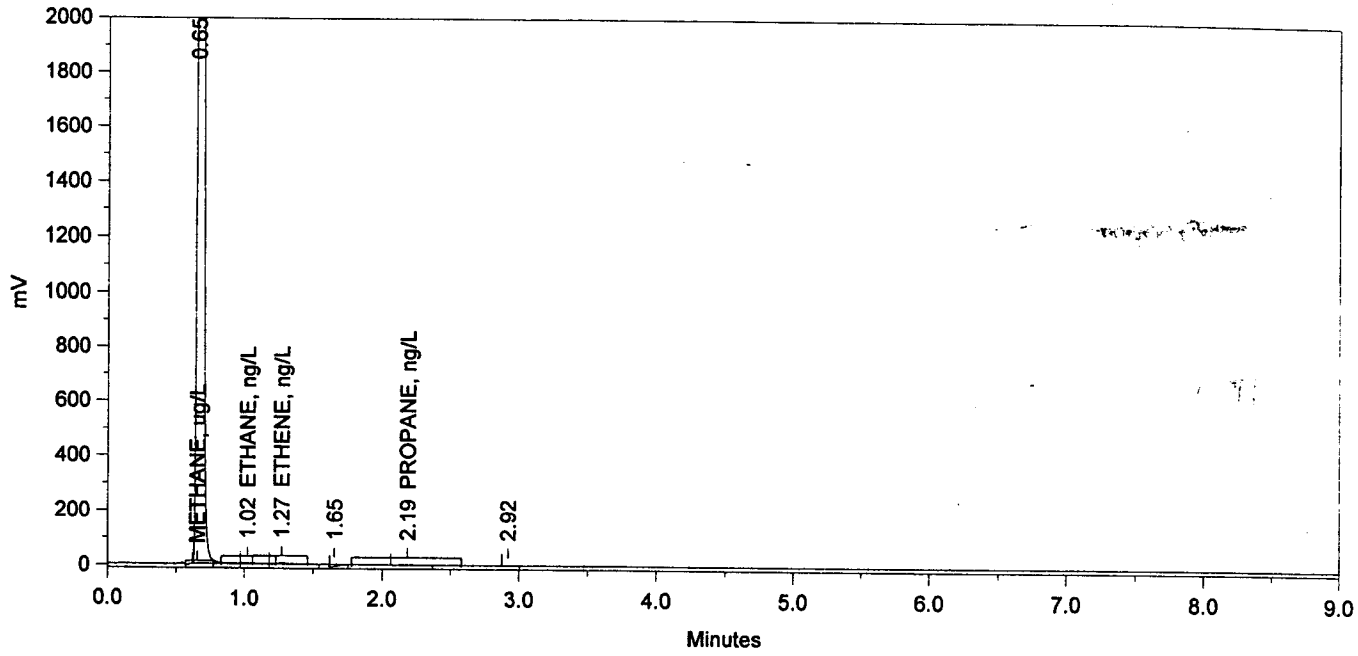
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.666	METHANE, ug/L	7.5391	0.237	403941.5	72.394	BB	0.027	251264.30	95.055
2	1.022	ETHANE, ng/L	257.2617	8.080	13076.6	2.344	BB	0.057	3807.70	1.440
3	1.267	ETHENE, ng/L	253.7944	7.971	11770.4	2.109	BB	0.078	2523.12	0.955
4	2.181	PROPANE, ng/L	448.7363	14.093	24502.0	4.391	BB	0.160	2547.62	0.964
5	3.567	PROPENE, ng/L	1080.4510	33.933	43669.7	7.826	BB	0.351	2074.55	0.785
6	5.621	ISOBUTANE, ng/L	366.6895	11.516	19773.5	3.544	BV	0.438	753.22	0.285
7	6.419	N-BUTANE, ng/L	769.5692	24.170	41243.0	7.392	VB	0.503	1366.37	0.517

Total Area = 557976.7, Total Amount = 3184.042, Total Height = 264336.8, Sample Units = ug/l, ng/l

P0110417-05A



Sample Name: **P0110417-05A**
Acquired from Chrom1--FID via port 1 on 11/8/01 11:31:33am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.41R**
Date Stamp: 11/8/01 11:31:32am
Sequence File: X32A.SEQ #341
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

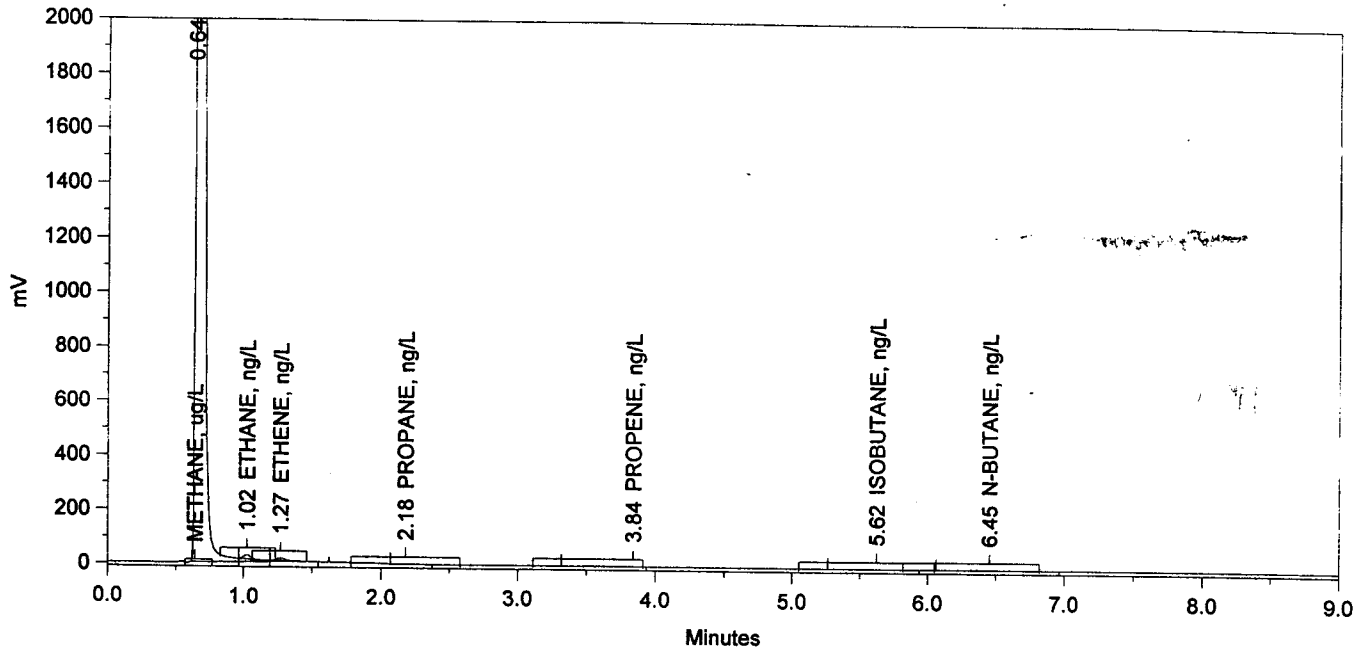
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.653	METHANE, ug/L	148.7015	22.678	7967309.0	99.119	SBB	0.065	2029240.00	99.256
2	1.022	ETHANE, ng/L	58.3008	8.891	2963.4	0.037	TVB	0.051	962.41	0.047
3	1.269	ETHENE, ng/L	408.2480	62.260	18933.6	0.236	TBB	0.073	4322.79	0.211
4	1.655		0.8607	0.131	46115.8	0.574	BB	0.091	8485.83	0.415
5	2.186	PROPANE, ng/L	39.5883	6.037	2161.6	0.027	BB	0.137	263.79	0.013
6	2.920		0.0117	0.002	625.7	0.008	BB	0.009	1177.36	0.058

Total Area = 8038109.0, Total Amount = 655.711, Total Height = 2044452.0, Sample Units = ug/l, ng/l

P0110417-06A



Sample Name: **P0110417-06A**
Acquired from Chrom1--FID via port 1 on 11/8/01 11:41:01am by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.42R**
Date Stamp: 11/8/01 11:41:00am
Sequence File: X32A.SEQ #342
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

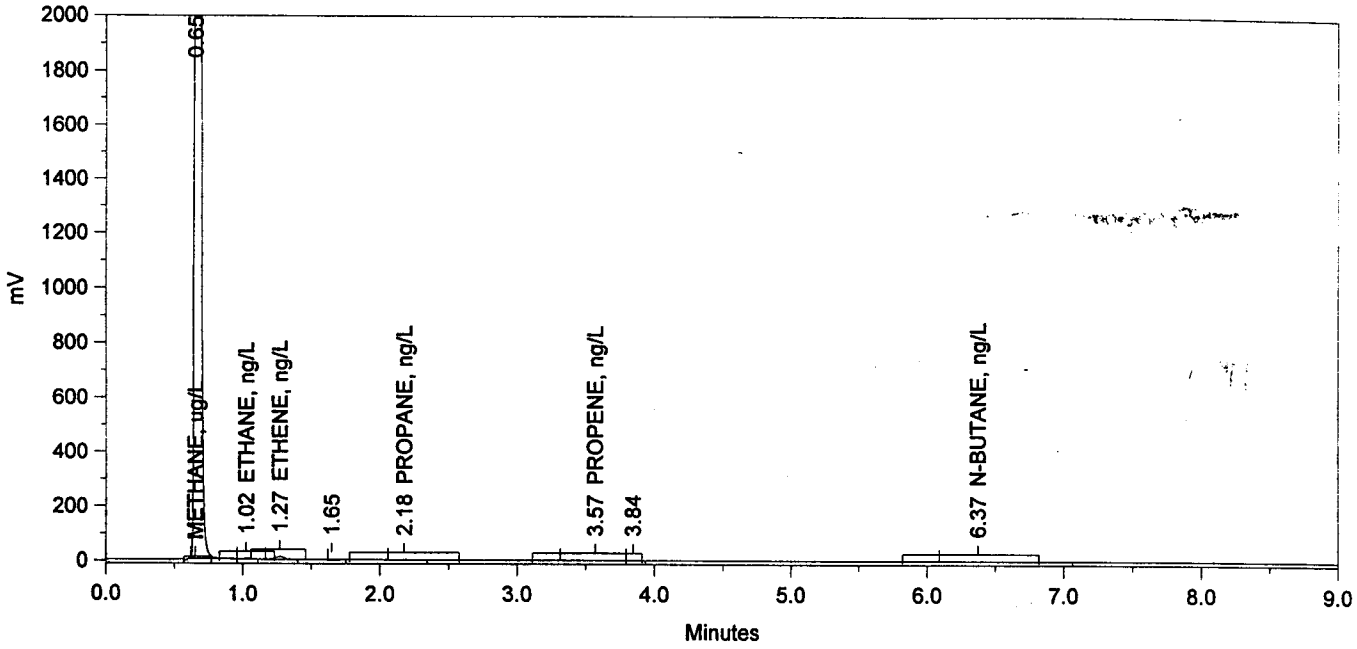
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.642	METHANE, ug/L	209.3099	7.444	11214670.0	98.873	SBB	0.086	2165023.00	98.708
2	1.024	ETHANE, ng/L	998.1230	35.496	50734.5	0.447	TVB	0.053	15831.75	0.722
3	1.268	ETHENE, ng/L	888.8105	31.609	41220.9	0.363	TBB	0.071	9664.06	0.441
4	2.180	PROPANE, ng/L	124.0070	4.410	6771.0	0.060	BB	0.139	809.11	0.037
5	3.840	PROPENE, ng/L	202.2523	7.193	8174.6	0.072	BB	0.109	1246.55	0.057
6	5.624	ISOBUTANE, ng/L	94.8285	3.372	5113.6	0.045	BV	0.369	230.88	0.011
7	6.455	N-BUTANE, ng/L	294.5645	10.476	15786.4	0.139	VB	0.480	548.00	0.025

Total Area = 11342470.0, Total Amount = 2811.896, Total Height = 2193353.0, Sample Units = ug/l, ng/l

P0110417-07A



Sample Name: **P0110417-07A**
Acquired from Chrom1--FID via port 1 on 11/8/01 12:03:18pm by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.43R**
Date Stamp: 11/8/01 12:03:18pm
Sequence File: X32A.SEQ #343
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

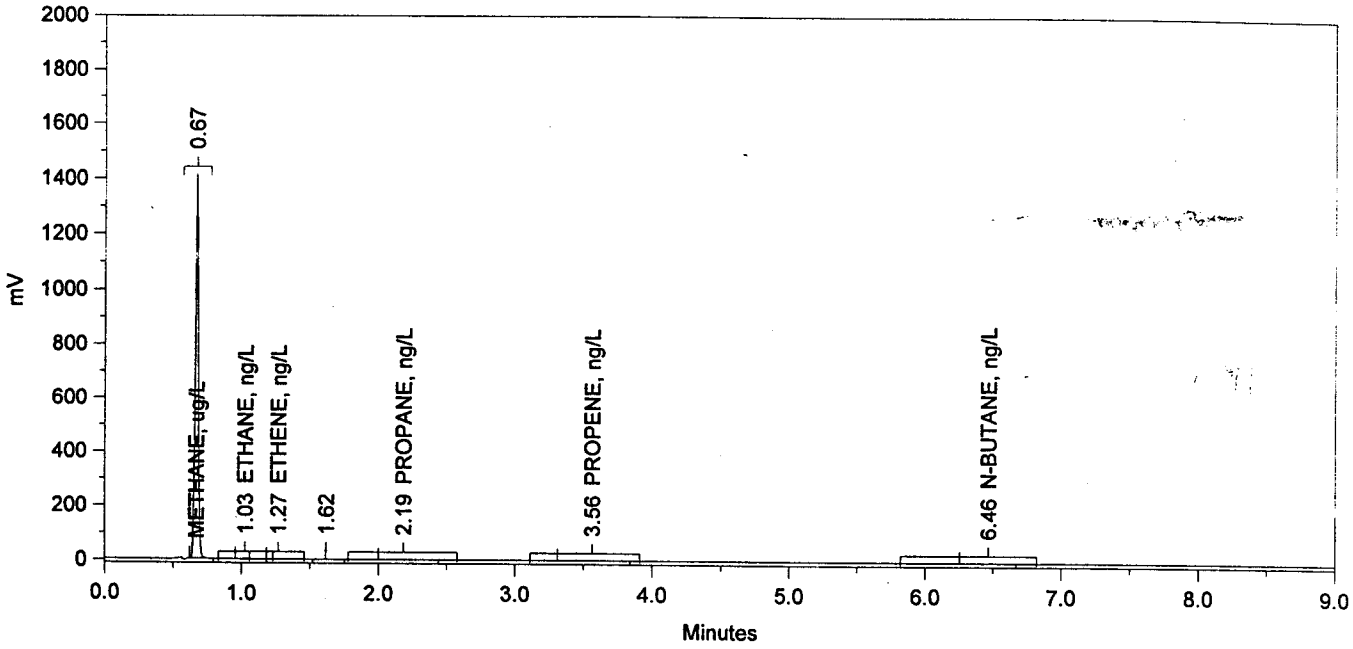
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.653	METHANE, ug/L	146.5845	8.752	7853883.0	98.894	BB	0.064	2058275.00	99.127
2	1.025	ETHANE, ng/L	175.1396	10.457	8902.3	0.112	BB	0.053	2787.46	0.134
3	1.269	ETHENE, ng/L	1033.5350	61.711	47932.9	0.604	BB	0.074	10858.38	0.523
4	1.649		0.2756	0.016	14769.0	0.186	BB	0.085	2884.28	0.139
5	2.177	PROPANE, ng/L	77.9724	4.656	4257.5	0.054	BB	0.143	494.82	0.024
6	3.568	PROPENE, ng/L	116.6548	6.965	4715.0	0.059	BV	0.254	309.42	0.015
7	3.845		0.0115	0.001	615.4	0.008	VB	0.019	534.75	0.026
8	6.374	N-BUTANE, ng/L	124.6338	7.442	6679.4	0.084	BB	0.444	250.93	0.012

Total Area = 7941755.0, Total Amount = 1674.807, Total Height = 2076395.0, Sample Units = ug/l, ng/l

P0110417-08A



Sample Name: **P0110417-08A**
Acquired from Chrom1--FID via port 1 on 11/8/01 12:12:55pm by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.44R**
Date Stamp: 11/8/01 12:12:54pm
Sequence File: X32A.SEQ #344
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

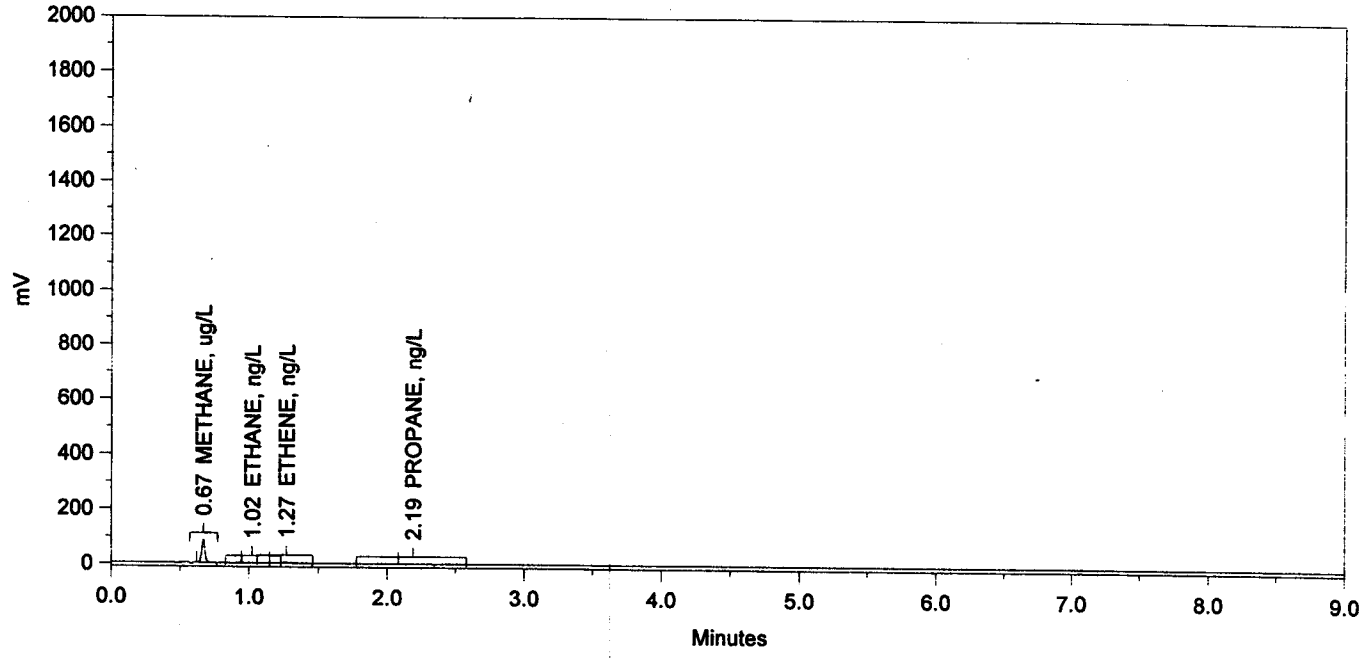
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.670	METHANE, ug/L	42.1562	5.456	2258696.0	98.529	BB	0.027	1413985.00	99.713
2	1.026	ETHANE, ng/L	63.2728	8.189	3216.2	0.140	BV	0.064	843.54	0.059
3	1.270	ETHENE, ng/L	83.4077	10.795	3868.2	0.169	VB	0.084	765.88	0.054
4	1.620		0.0232	0.003	1241.8	0.054	BB	0.020	1053.58	0.074
5	2.185	PROPANE, ng/L	88.4863	11.452	4831.5	0.211	BB	0.163	494.26	0.035
6	3.564	PROPENE, ng/L	453.2852	58.666	18320.9	0.799	BB	0.413	738.63	0.052
7	6.465	N-BUTANE, ng/L	42.0188	5.438	2251.9	0.098	BB	0.211	177.59	0.013

Total Area = 2292427.0, Total Amount = 772.65, Total Height = 1418059.0, Sample Units = ug/l, ng/l

P0110417-09A



Sample Name: **P0110417-09A**
Acquired from Chrom1--FID via port 1 on 11/8/01 12:23:17pm by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.45R**
Date Stamp: 11/8/01 12:23:18pm
Sequence File: X32A.SEQ #345
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

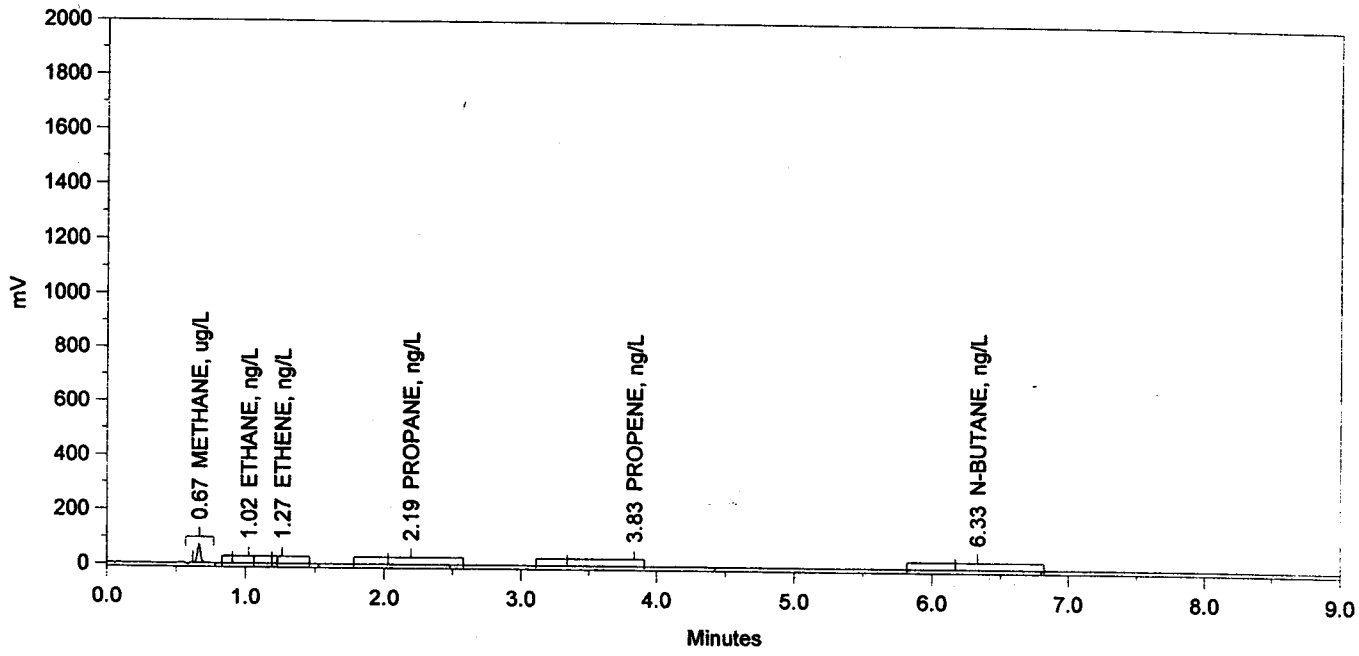
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.667	METHANE, ug/L	2.5363	0.666	135893.3	88.356	BB	0.027	84225.38	95.448
2	1.023	ETHANE, ng/L	44.9403	11.795	2284.3	1.485	BV	0.063	608.69	0.690
3	1.268	ETHENE, ng/L	314.6481	82.583	14592.6	9.488	VB	0.075	3263.53	3.698
4	2.189	PROPANE, ng/L	18.8832	4.956	1031.1	0.670	BB	0.119	144.81	0.164

Total Area = 153801.3, Total Amount = 381.008, Total Height = 88242.41, Sample Units = ug/l, ng/l

P0110417-10A



Sample Name: **P0110417-10A**
Acquired from Chrom1--FID via port 1 on 11/8/01 12:34:59pm by RCW
FID

Data File: **C:\CPWIN\X32\X32A3.46R**
Date Stamp: 11/8/01 12:34:58pm
Sequence File: X32A.SEQ #346
Method File: C:\CPWIN\X32\X32A_W1.MET
Version 36. Date Stamp: 11/7/01 10:30:54am
Calibration File: C:\CPWIN\X32\X32A_W1.CAL
Version 2. Date Stamp: 10/15/01 09:03:56am

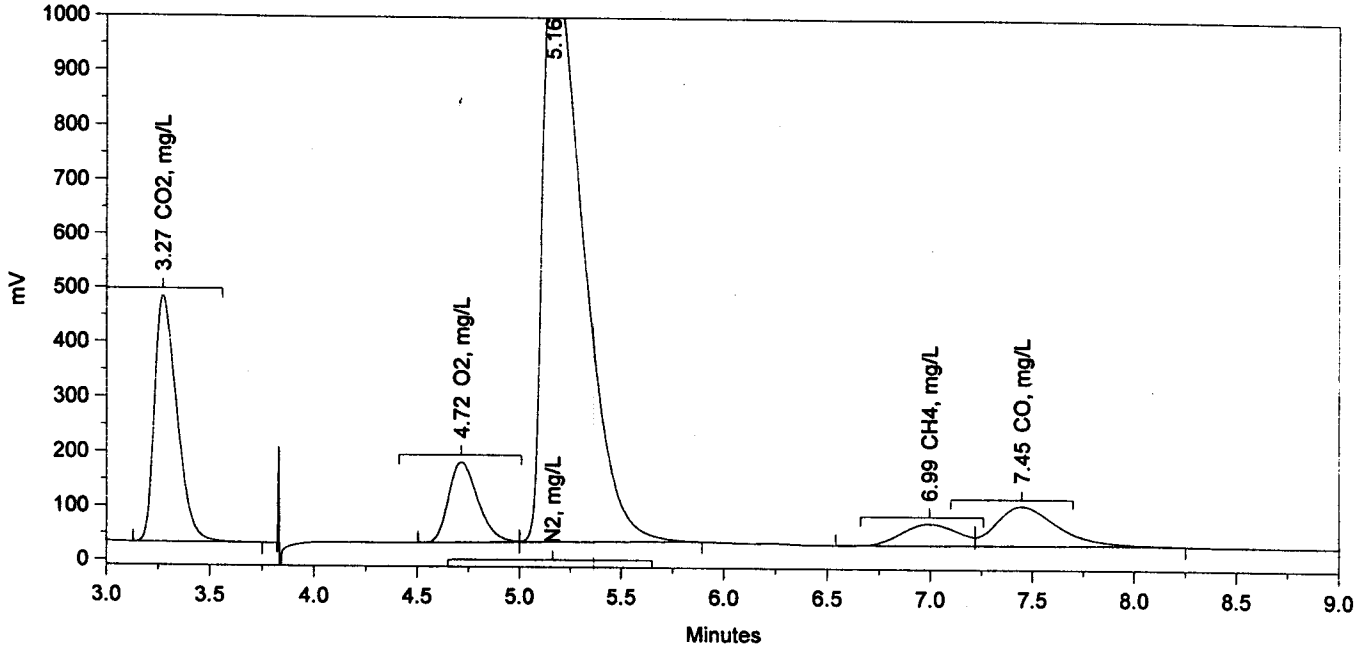
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 1 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.667	METHANE, ug/L	2.1243	0.529	113820.6	85.831	BB	0.027	70434.91	97.164
2	1.022	ETHANE, ng/L	49.6356	12.366	2523.0	1.903	BV	0.065	642.22	0.886
3	1.265	ETHENE, ng/L	51.4109	12.809	2384.3	1.798	VB	0.089	445.52	0.615
4	2.194	PROPANE, ng/L	63.6734	15.864	3476.7	2.622	BB	0.163	356.25	0.491
5	3.835	PROPENE, ng/L	164.1748	40.903	6635.6	5.004	BB	0.248	446.56	0.616
6	6.331	N-BUTANE, ng/L	70.3546	17.528	3770.5	2.843	BB	0.380	165.52	0.228

Total Area = 132610.7, Total Amount = 401.374, Total Height = 72490.98, Sample Units = ug/l, ng/l

PG100801A



Sample Name: **PG100801A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 09:18:19am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.31R**
Date Stamp: 11/8/01 09:18:18am
Sequence File: X32A.SEQ #331
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

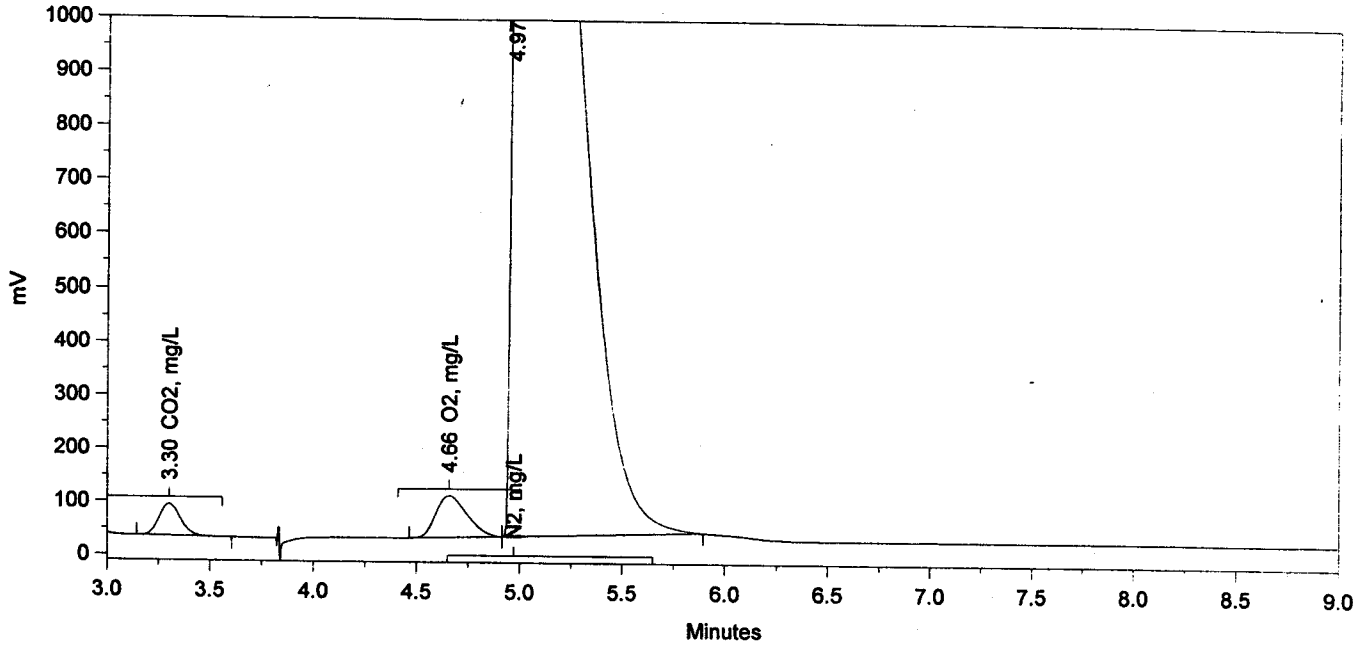
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.273	CO2, mg/L	158.3767	46.635	3397637.0	15.372	BB	0.125	452754.70	24.766
2	4.715	O2, mg/L	17.9222	5.277	1479901.0	6.696	BV	0.166	148801.80	8.140
3	5.164	N2, mg/L	142.3203	41.907	14871410.0	67.285	VB	0.223	1112174.00	60.837
4	6.995	CH4, mg/L	5.0745	1.494	781700.4	3.537	BV	0.321	40621.10	2.222
5	7.446	CO, mg/L	15.9156	4.686	1571472.0	7.110	VB	0.355	73776.60	4.036

Total Area = 22102120.0, Total Amount = 339.609, Total Height = 1828129.0, Sample Units = mg/l

LCS LH012700



Sample Name: **LCS LH012700**
Acquired from Chrom1--TCD via port 2 on 11/8/01 09:44:30am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.33R**
Date Stamp: 11/8/01 09:44:30am
Sequence File: X32A.SEQ #333
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

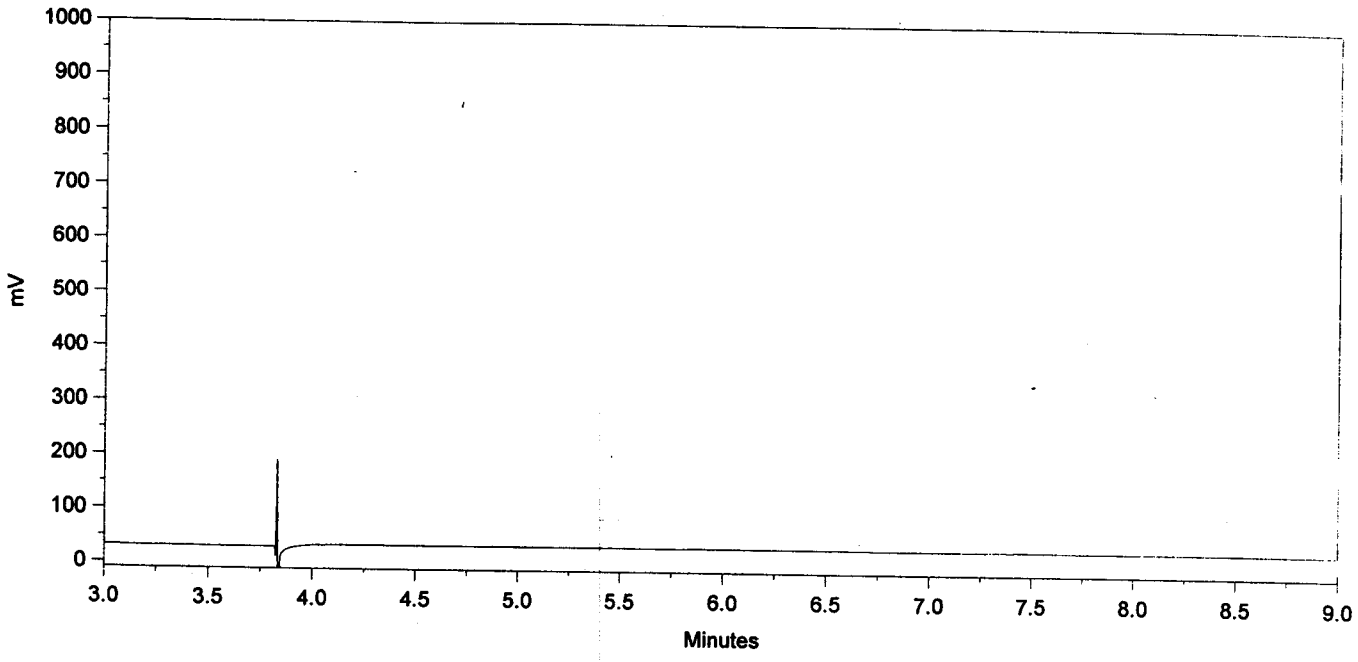
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.303	CO2, mg/L	20.2705	4.855	434860.4	1.042	BB	0.120	60465.80	2.829
2	4.659	O2, mg/L	9.9555	2.385	822061.7	1.970	BB	0.175	78415.96	3.668
3	4.973	N2, mg/L	387.2694	92.760	40466760.0	96.988	BB	0.337	1998732.00	93.503

Total Area = 41723680.0, Total Amount = 417.495, Total Height = 2137614.0, Sample Units = mg/l

MB100801A



Sample Name: **MB100801A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 09:55:50am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.34R**
Date Stamp: 11/8/01 09:55:50am
Sequence File: X32A.SEQ #334
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

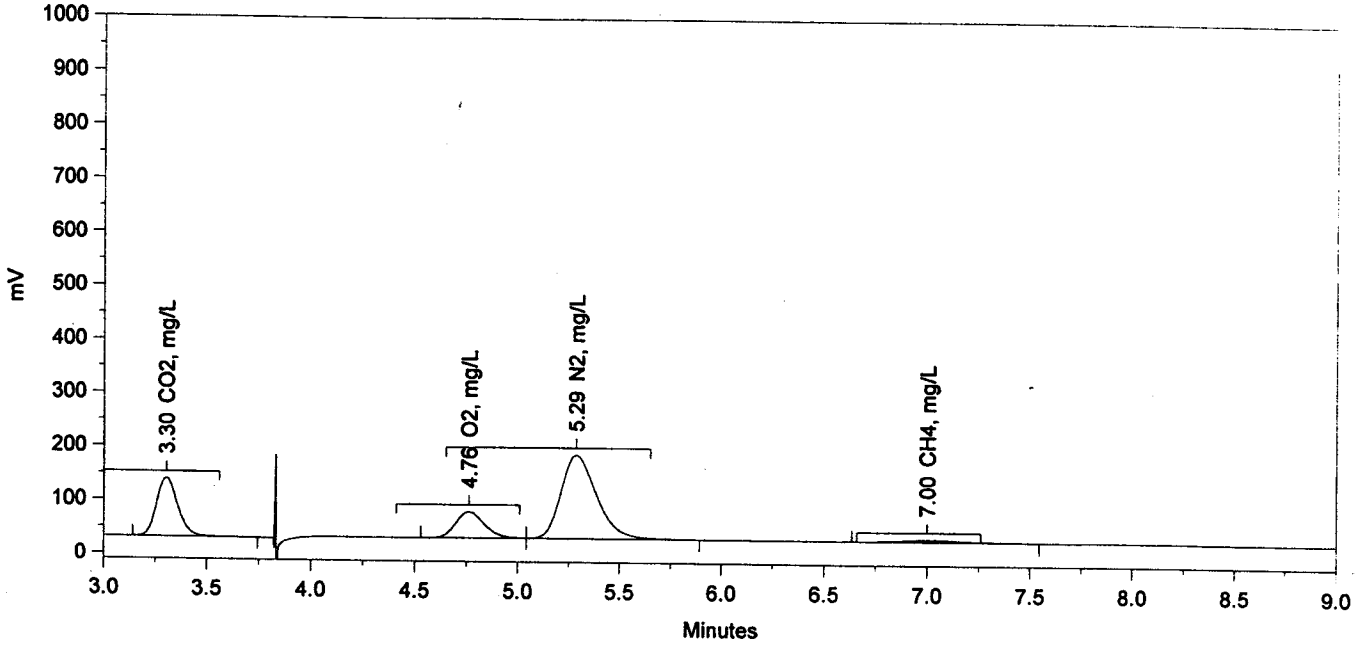
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = mg/l

P0110417-01A



Sample Name: **P0110417-01A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 10:05:45am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.35R**
Date Stamp: 11/8/01 10:05:44am
Sequence File: X32A.SEQ #335
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

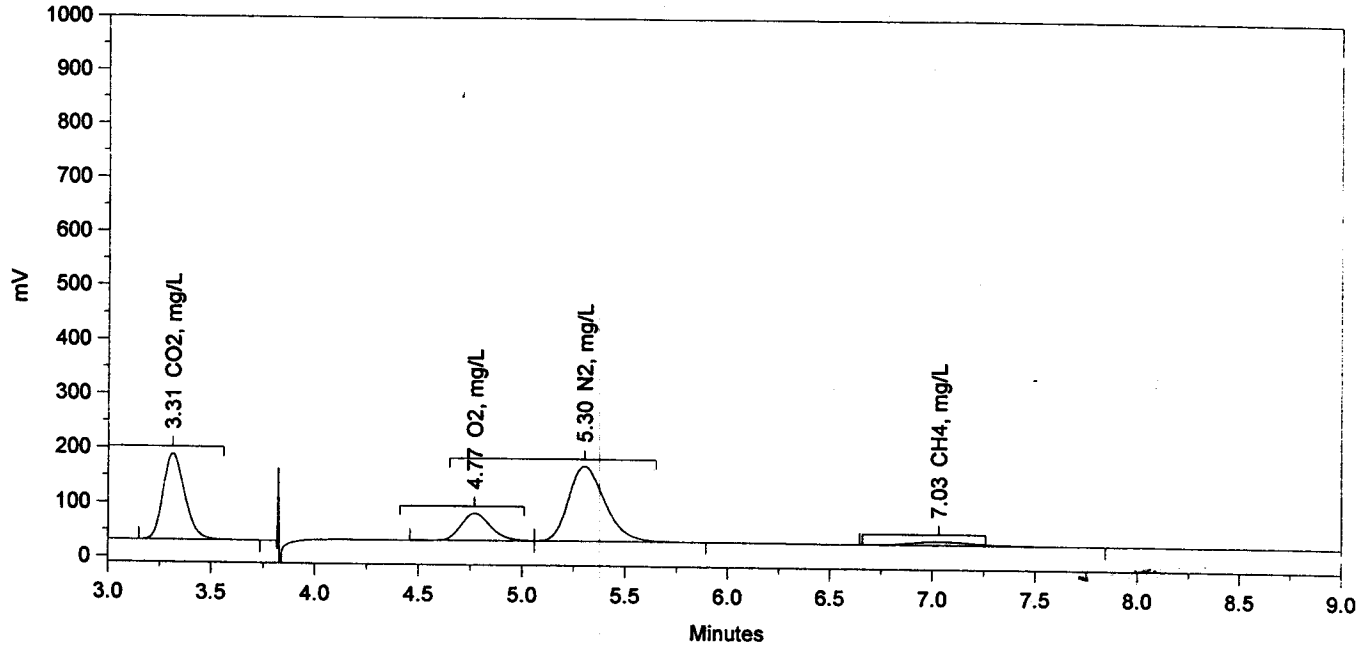
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.304	CO2, mg/L	36.2853	59.548	778424.6	23.888	BB	0.119	108713.80	34.218
2	4.761	O2, mg/L	5.7552	9.445	475228.8	14.584	BV	0.163	48674.37	15.320
3	5.287	N2, mg/L	18.2757	29.992	1909673.0	58.603	VB	0.204	155843.10	49.052
4	7.000	CH4, mg/L	0.6188	1.015	95315.7	2.925	BB	0.355	4480.77	1.410

Total Area = 3258642.0, Total Amount = 60.935, Total Height = 317712.0, Sample Units = mg/l

P0110417-03A



Sample Name: **P0110417-03A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 11:12:01am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.39R**
Date Stamp: 11/8/01 11:12:00am
Sequence File: X32A.SEQ #339
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

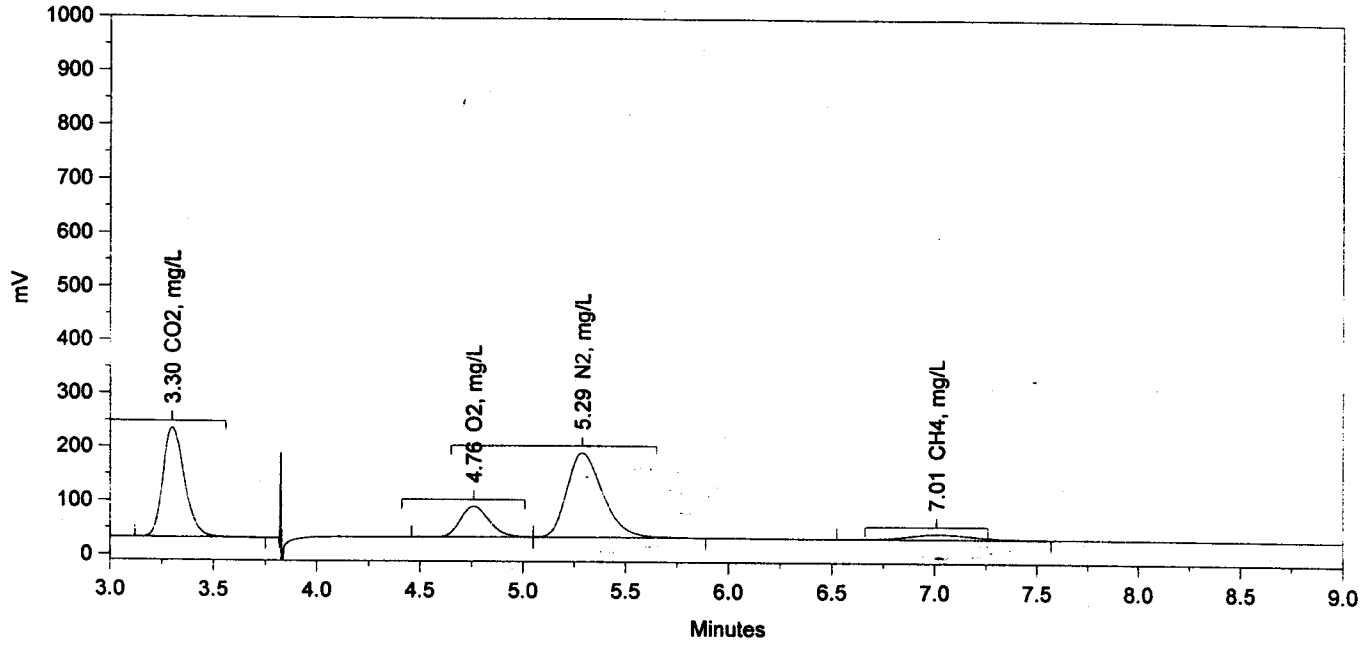
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.314	CO2, mg/L	53.9264	69.651	1156876.0	32.782	BB	0.122	158343.40	44.686
2	4.772	O2, mg/L	6.1419	7.933	507155.2	14.371	BV	0.167	50722.64	14.314
3	5.302	N2, mg/L	16.3160	21.074	1704901.0	48.311	VB	0.206	138092.00	38.971
4	7.032	CH4, mg/L	1.0391	1.342	160069.0	4.536	BB	0.371	7190.31	2.029

Total Area = 3529001.0, Total Amount = 77.423, Total Height = 354348.4, Sample Units = mg/l

P0110417-05A



Sample Name: **P0110417-05A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 11:31:33am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.41R**
Date Stamp: 11/8/01 11:31:32am
Sequence File: X32A.SEQ #341
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

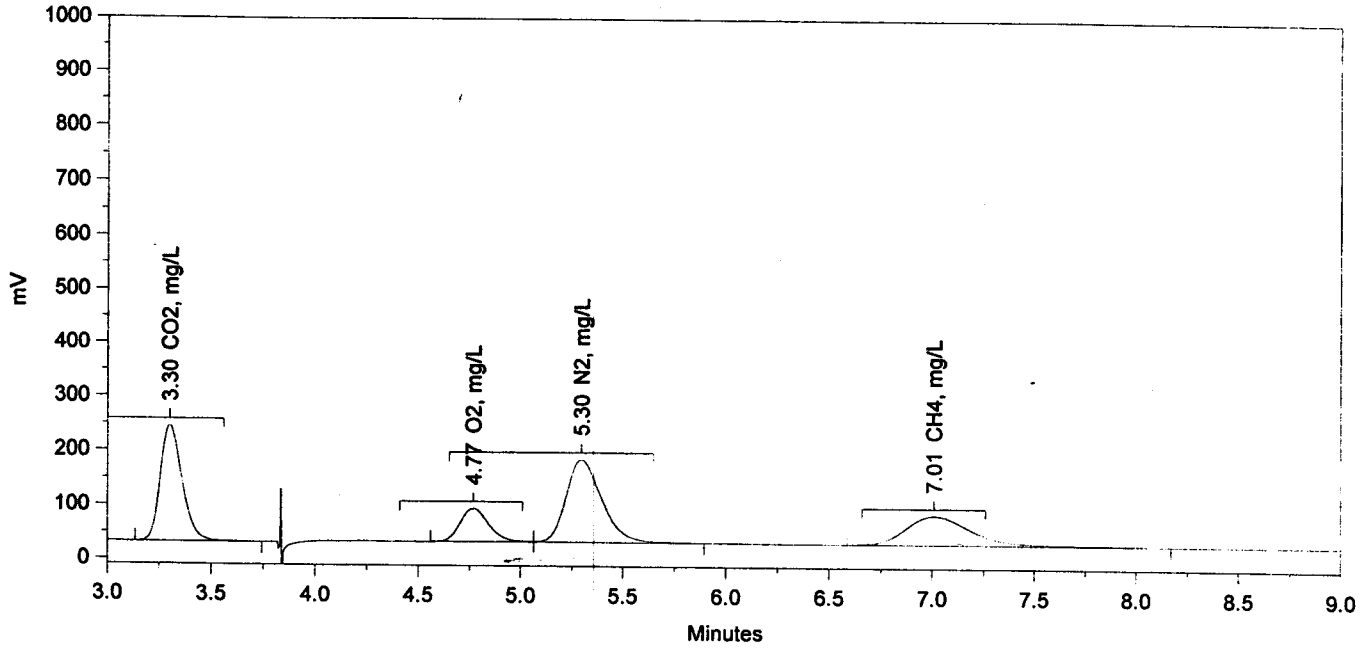
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.300	CO2, mg/L	68.9078	72.090	1478271.0	35.322	BB	0.121	203587.10	47.565
2	4.760	O2, mg/L	6.8476	7.164	565427.6	13.510	BV	0.163	57677.12	13.475
3	5.290	N2, mg/L	18.4310	19.282	1925897.0	46.018	VB	0.205	156915.70	36.661
4	7.010	CH4, mg/L	1.3991	1.464	215518.3	5.150	BB	0.365	9839.57	2.299

Total Area = 4185113.0, Total Amount = 95.585, Total Height = 428019.4, Sample Units = mg/l

P0110417-06A



Sample Name: **P0110417-06A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 11:41:01am by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.42R**
Date Stamp: 11/8/01 11:41:00am
Sequence File: X32A.SEQ #342
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

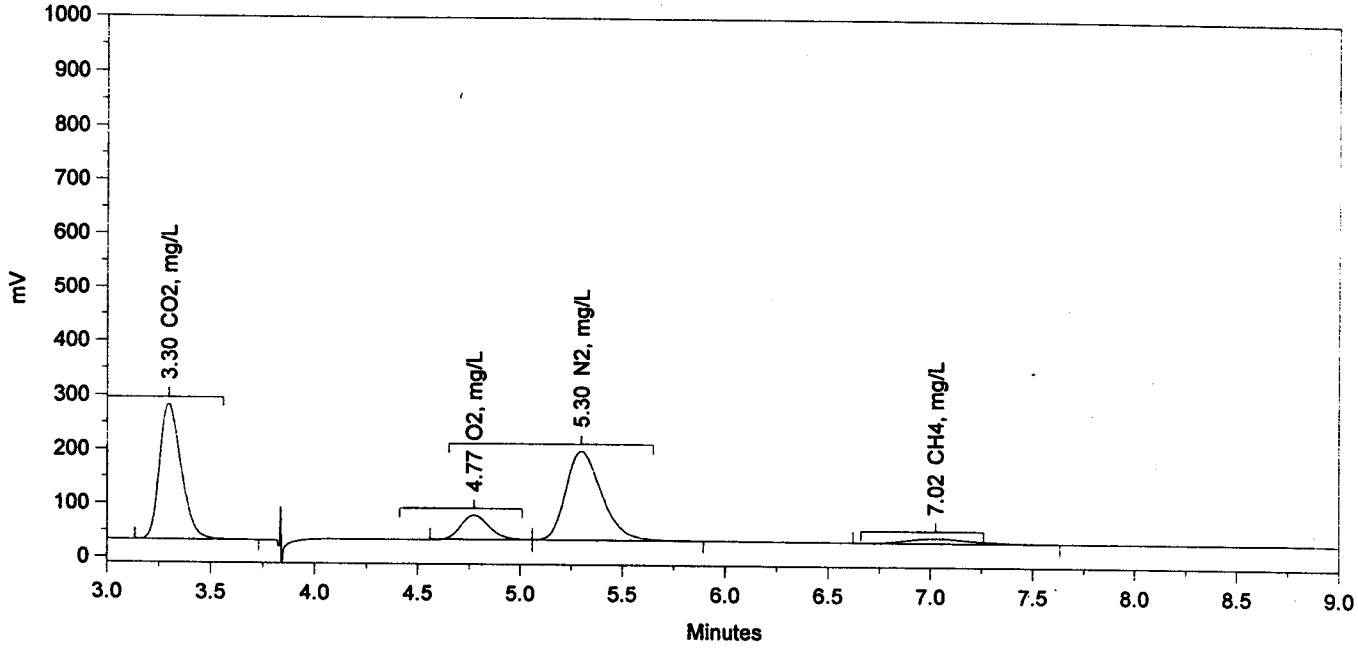
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.301	CO2, mg/L	72.2899	68.756	1550826.0	29.782	BB	0.121	213125.80	44.345
2	4.767	O2, mg/L	7.2792	6.923	601069.4	11.543	BV	0.162	61669.64	12.832
3	5.298	N2, mg/L	17.8294	16.958	1863042.0	35.777	VB	0.204	152191.70	31.666
4	7.009	CH4, mg/L	7.7406	7.362	1192399.0	22.898	BB	0.371	53621.21	11.157

Total Area = 5207336.0, Total Amount = 105.139, Total Height = 480608.4, Sample Units = mg/l

P0110417-07A



Sample Name: **P0110417-07A**
Acquired from Chrom1--TCD via port 2 on 11/8/01 12:03:18pm by RCW
TCD

Data File: **C:\CPWIN\X32\X32B3.43R**
Date Stamp: 11/8/01 12:03:18pm
Sequence File: X32A.SEQ #343
Method File: C:\CPWIN\X32\X32B_W1.MET
Version 20. Date Stamp: 11/7/01 08:42:06am
Calibration File: C:\CPWIN\X32\X32B_W1.CAL
Version 6. Date Stamp: 11/7/01 08:47:34am

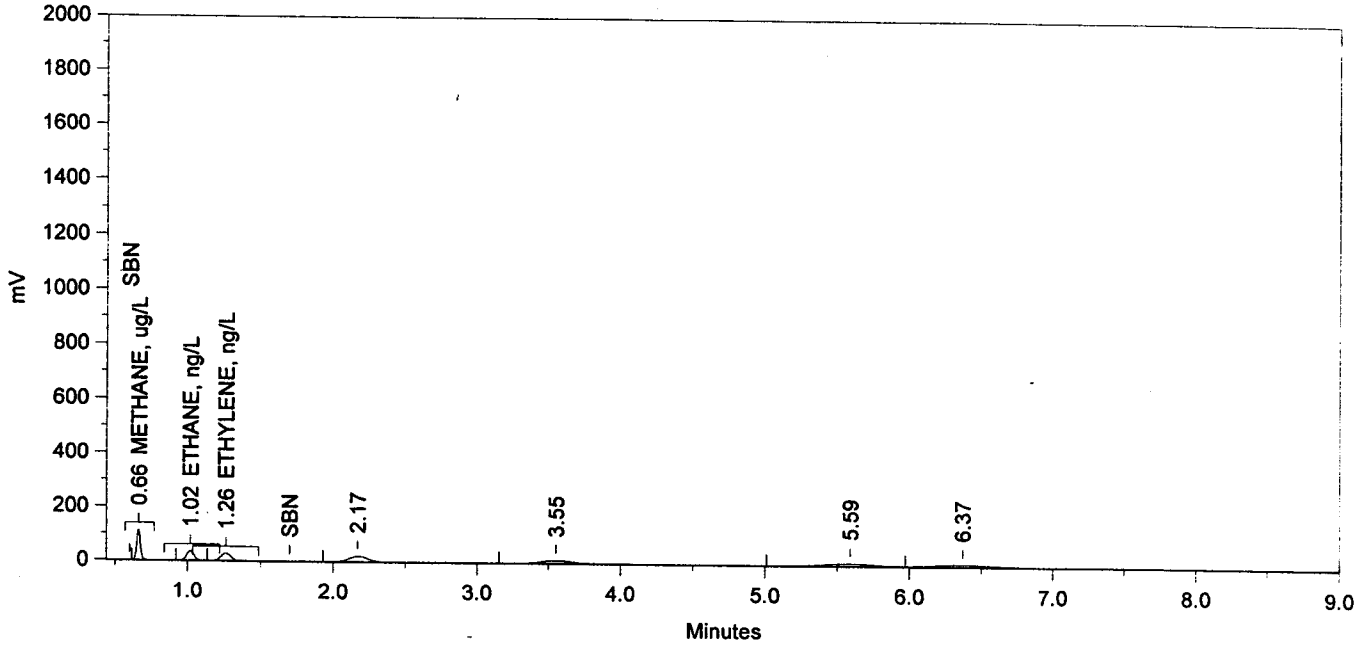
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 6 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.297	CO2, mg/L	85.2612	76.473	1829098.0	40.499	BB	0.121	251587.30	53.263
2	4.773	O2, mg/L	5.4408	4.880	449266.0	9.947	BV	0.164	45777.85	9.691
3	5.298	N2, mg/L	19.4631	17.457	2033743.0	45.030	VB	0.205	165602.20	35.059
4	7.024	CH4, mg/L	1.3261	1.189	204283.6	4.523	BB	0.363	9385.97	1.987

Total Area = 4516392.0, Total Amount = 111.491, Total Height = 472353.3, Sample Units = mg/l

LH100801A



Sample Name: **LH100801A**
Acquired from Chrom2--FID 10X via port 4 on 11/8/01 09:32:59am by RCW
FID 10X

Data File: **C:\CPWIN\X32\X32D3.32R**
Date Stamp: 11/8/01 09:32:58am
Sequence File: X32C.SEQ #332
Method File: C:\CPWIN\X32\X32D_W1.MET
Version 1. Date Stamp: 10/12/01 09:42:00am
Calibration File: C:\CPWIN\X32\X32D_W1.CAL
Version 2. Date Stamp: 10/15/01 09:04:22am

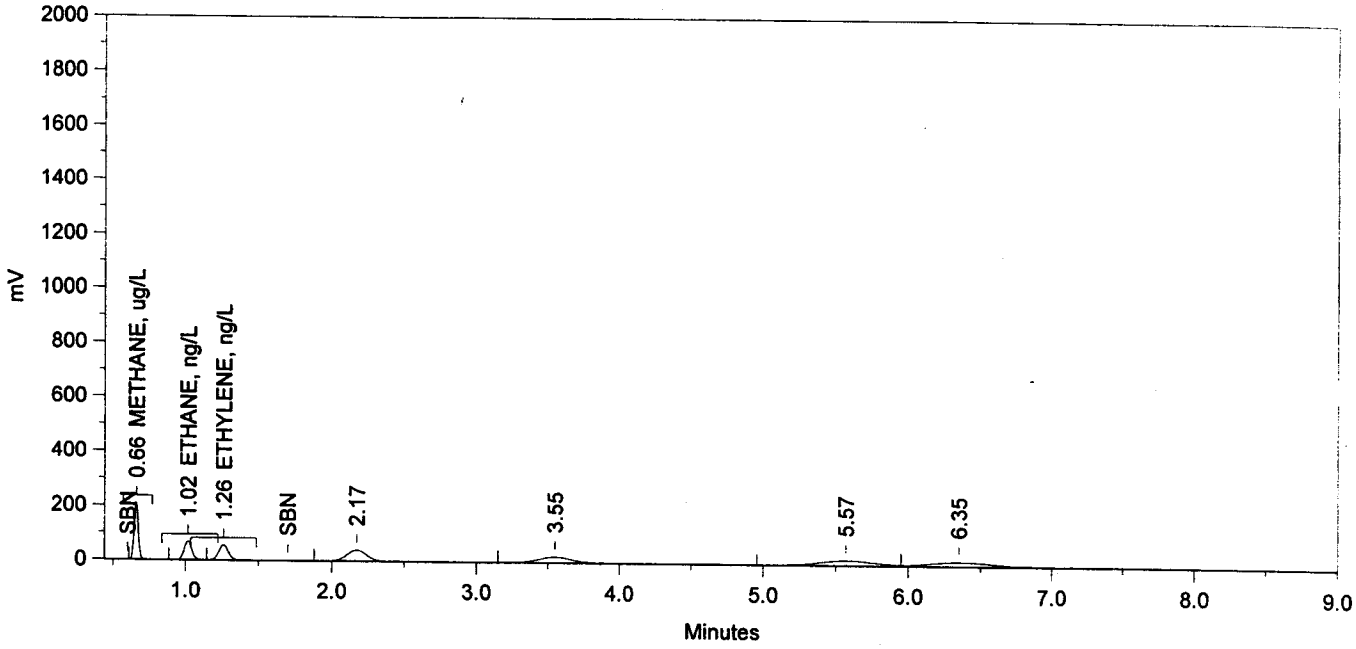
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.664	METHANE, ug/L	36.7679	0.076	196423.4	15.510	BB	0.029	113962.20	51.179
2	1.020	ETHANE, ng/L	22508.8000	46.561	120079.2	9.482	BV	0.057	34929.11	15.686
3	1.263	ETHYLENE, ng/L	25642.2200	53.043	124379.9	9.821	VB	0.075	27476.66	12.339
4	2.172		34.8089	0.072	185958.0	14.683	BB	0.156	19829.92	8.905
5	3.553		30.9696	0.064	165447.3	13.064	BB	0.272	10126.68	4.548
6	5.590		44.0425	0.091	235286.1	18.578	BV	0.447	8765.04	3.936
7	6.370		44.7150	0.092	238879.1	18.862	VB	0.525	7585.01	3.406

Total Area = 1266453.0, Total Amount = 48342.32, Total Height = 222674.6, Sample Units = ug & ng/L

LCS LH012700



Sample Name: **LCS LH012700**
Acquired from Chrom2--FID 10X via port 4 on 11/8/01 09:44:30am by RCW
FID 10X

Data File: **C:\CPWIN\X32\X32D3.33R**
Date Stamp: 11/8/01 09:44:30am
Sequence File: X32C.SEQ #333
Method File: C:\CPWIN\X32\X32D_W1.MET
Version 1. Date Stamp: 10/12/01 09:42:00am
Calibration File: C:\CPWIN\X32\X32D_W1.CAL
Version 2. Date Stamp: 10/15/01 09:04:22am

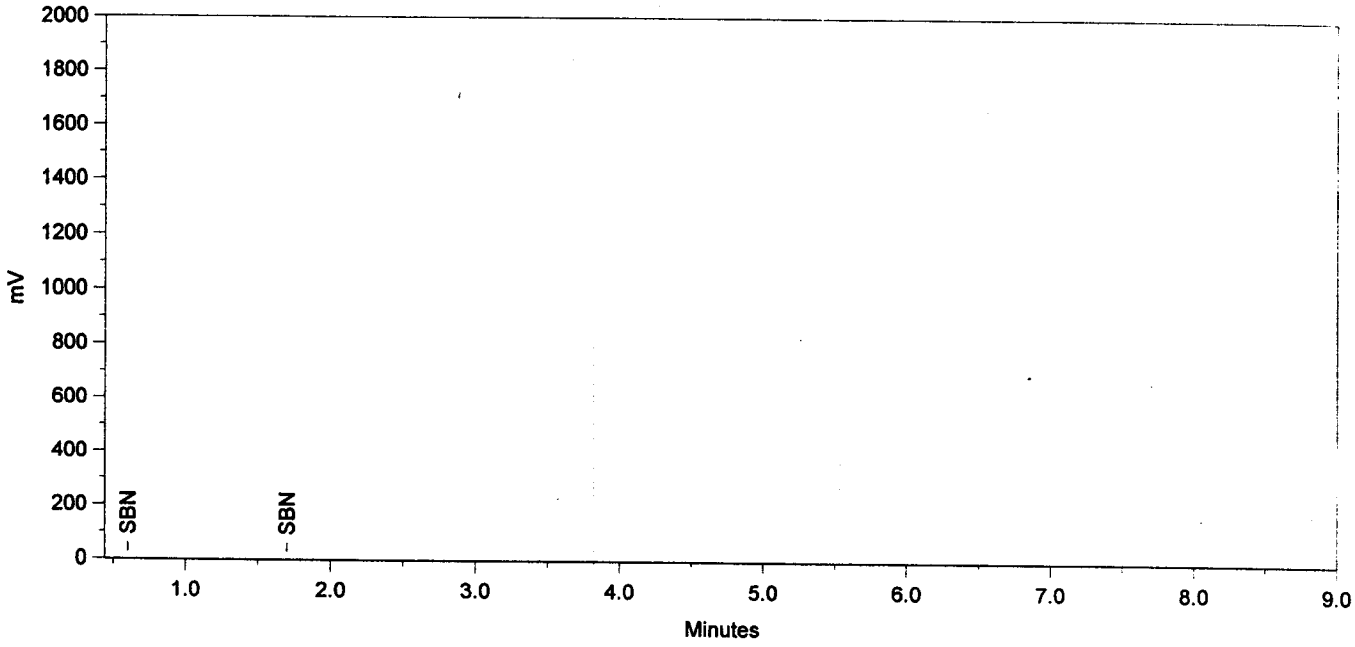
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.660	METHANE, ug/L	73.6371	0.077	393388.0	15.733	BB	0.031	209430.00	49.543
2	1.018	ETHANE, ng/L	44762.1000	46.725	238795.3	9.551	BV	0.058	68267.41	16.149
3	1.261	ETHYLENE, ng/L	50658.9300	52.881	245725.6	9.828	VB	0.076	53994.43	12.773
4	2.173		68.8954	0.072	368056.8	14.720	BB	0.157	39050.92	9.238
5	3.549		60.3758	0.063	322543.0	12.900	BV	0.269	19995.66	4.730
6	5.569		86.3524	0.090	461316.8	18.450	VV	0.449	17131.67	4.053
7	6.350		88.0729	0.092	470508.1	18.818	VB	0.528	14857.02	3.515

Total Area = 2500334.0, Total Amount = 95798.36, Total Height = 422727.1, Sample Units = ug & ng/L

MB100801A



Sample Name: **MB100801A**
Acquired from Chrom2--FID 10X via port 4 on 11/8/01 09:55:50am by RCW
FID 10X

Data File: **C:\CPWIN\X32\X32D3.34R**
Date Stamp: 11/8/01 09:55:50am
Sequence File: X32C.SEQ #334
Method File: C:\CPWIN\X32\X32D_W1.MET
Version 1. Date Stamp: 10/12/01 09:42:00am
Calibration File: C:\CPWIN\X32\X32D_W1.CAL
Version 2. Date Stamp: 10/15/01 09:04:22am

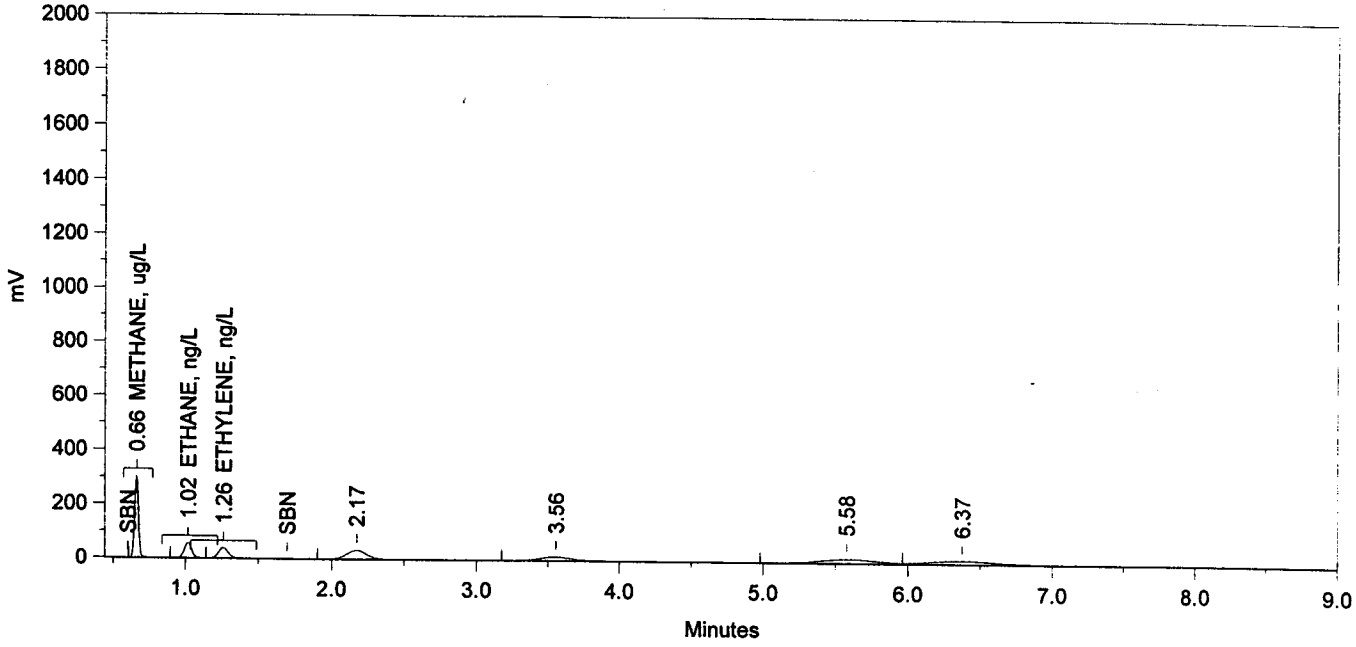
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug & ng/L

P0110417-02A MS



Sample Name: **P0110417-02A MS**
Acquired from Chrom2--FID 10X via port 4 on 11/8/01 10:26:03am by RCW
FID 10X

Data File: **C:\CPWIN\X32\X32D3.37R**
Date Stamp: 11/8/01 10:26:02am
Sequence File: X32C.SEQ #337
Method File: C:\CPWIN\X32\X32D_W1.MET
Version 1. Date Stamp: 10/12/01 09:42:00am
Calibration File: C:\CPWIN\X32\X32D_W1.CAL
Version 2. Date Stamp: 10/15/01 09:04:22am

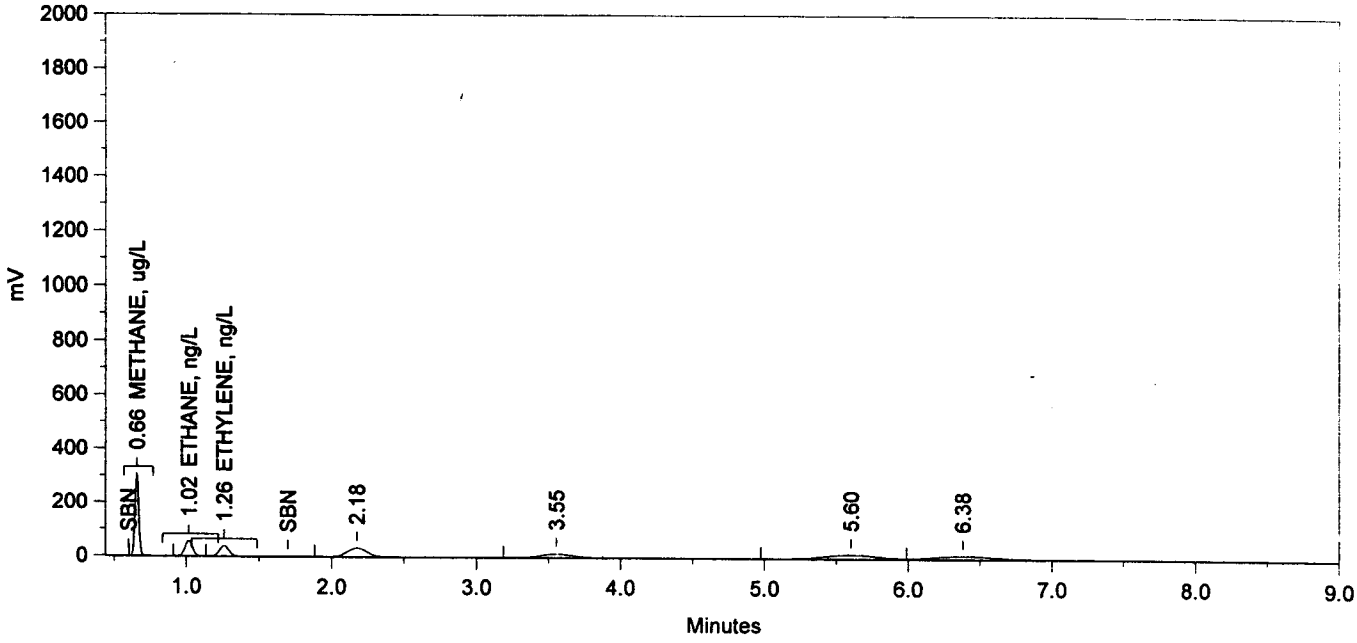
Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.661	METHANE, ug/L	105.2493	0.143	562268.5	24.903	BB	0.031	302506.40	64.131
2	1.018	ETHANE, ng/L	37159.9700	50.441	198239.8	8.780	BV	0.058	56986.71	12.081
3	1.261	ETHYLENE, ng/L	36156.9300	49.080	175382.4	7.768	VB	0.076	38703.68	8.205
4	2.174		58.3004	0.079	311455.8	13.794	BB	0.157	33030.16	7.002
5	3.555		39.7568	0.054	212390.9	9.407	BB	0.269	13145.00	2.787
6	5.576		75.1433	0.102	401434.8	17.779	BV	0.448	14935.93	3.166
7	6.374		74.2550	0.101	396689.3	17.569	VB	0.533	12395.95	2.628

Total Area = 2257862.0, Total Amount = 73669.61, Total Height = 471703.8, Sample Units = ug & ng/L

P0110417-02A MSD



Sample Name: **P0110417-02A MSD**
Acquired from Chrom2--FID 10X via port 4 on 11/8/01 11:00:46am by RCW
FID 10X

Data File: **C:\CPWIN\X32\X32D3.38R**
Date Stamp: 11/8/01 11:00:46am
Sequence File: X32C.SEQ #338
Method File: C:\CPWIN\X32\X32D_W1.MET
Version 1. Date Stamp: 10/12/01 09:42:00am
Calibration File: C:\CPWIN\X32\X32D_W1.CAL
Version 2. Date Stamp: 10/15/01 09:04:22am

Run Time = 9.0 min Sample Rate = 3.33 per sec.
Amount Inj. = 0.000 Dilution Factor = 1.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 5 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.660	METHANE, ug/L	106.5129	0.146	569019.4	25.564	BB	0.031	306132.90	64.886
2	1.018	ETHANE, ng/L	36747.6100	50.387	196039.9	8.808	BV	0.058	56200.79	11.912
3	1.261	ETHYLENE, ng/L	35835.3800	49.136	173822.7	7.809	VB	0.076	38150.99	8.086
4	2.175		56.7084	0.078	302950.5	13.611	BB	0.158	32038.97	6.791
5	3.554		39.6791	0.054	211976.0	9.523	BB	0.272	12965.16	2.748
6	5.600		74.1558	0.102	396159.1	17.798	BV	0.453	14574.15	3.089
7	6.380		70.3563	0.096	375861.1	16.886	VB	0.534	11736.58	2.488

Total Area = 2225829.0, Total Amount = 72930.41, Total Height = 471799.5, Sample Units = ug & ng/L

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Acetic Acid

* - Replicate Not Used

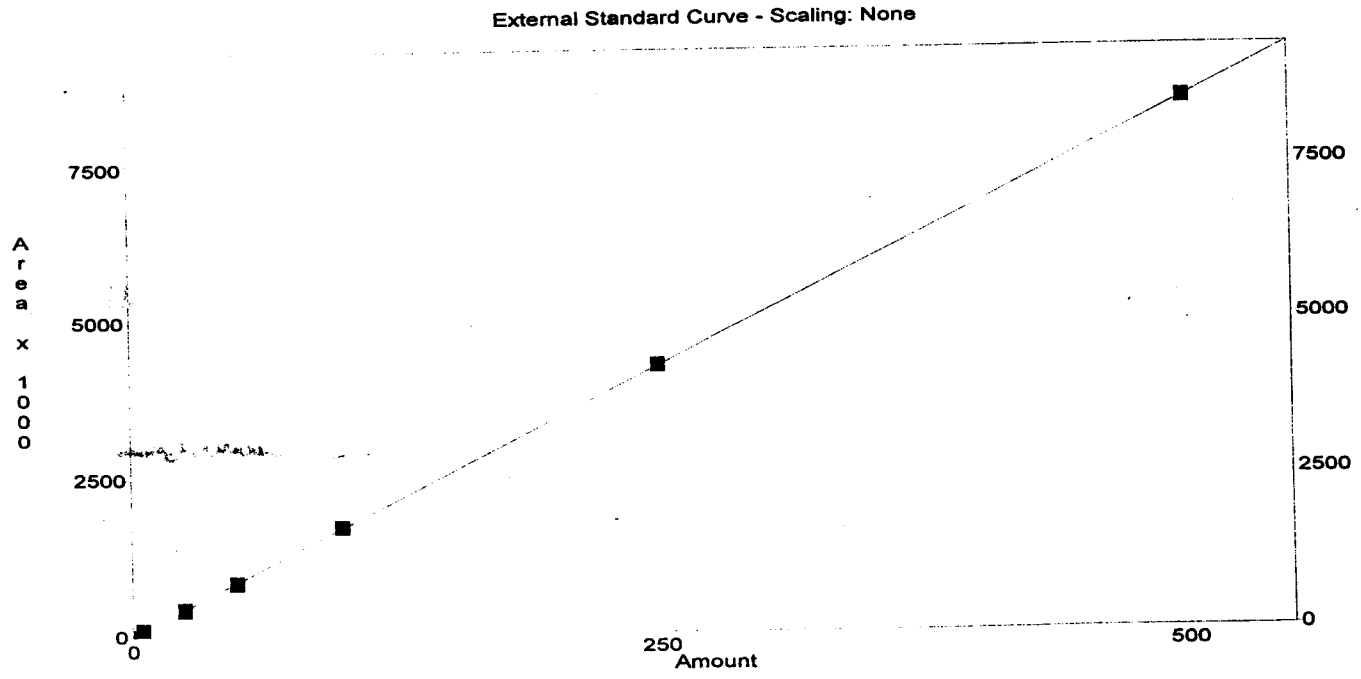
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	107381	5	21476.20	107381							0
2	427451	25	17098.04	427451							0
3	841527	50	16830.54	841527							0
4	1718680	100	17186.80	1718680							0
5	4278821	250	17115.28	4278821							0
6	8521615	500	17043.23	8521615							0

Calib Flag: Replace

Average RF: 17791.7
RF StdDev: 1809.1
RF %RSD: 10.168

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 5.87012e-005 x Area - 0.514027
R^2 = 0.999985



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Propionic Acid

* - Replicate Not Used

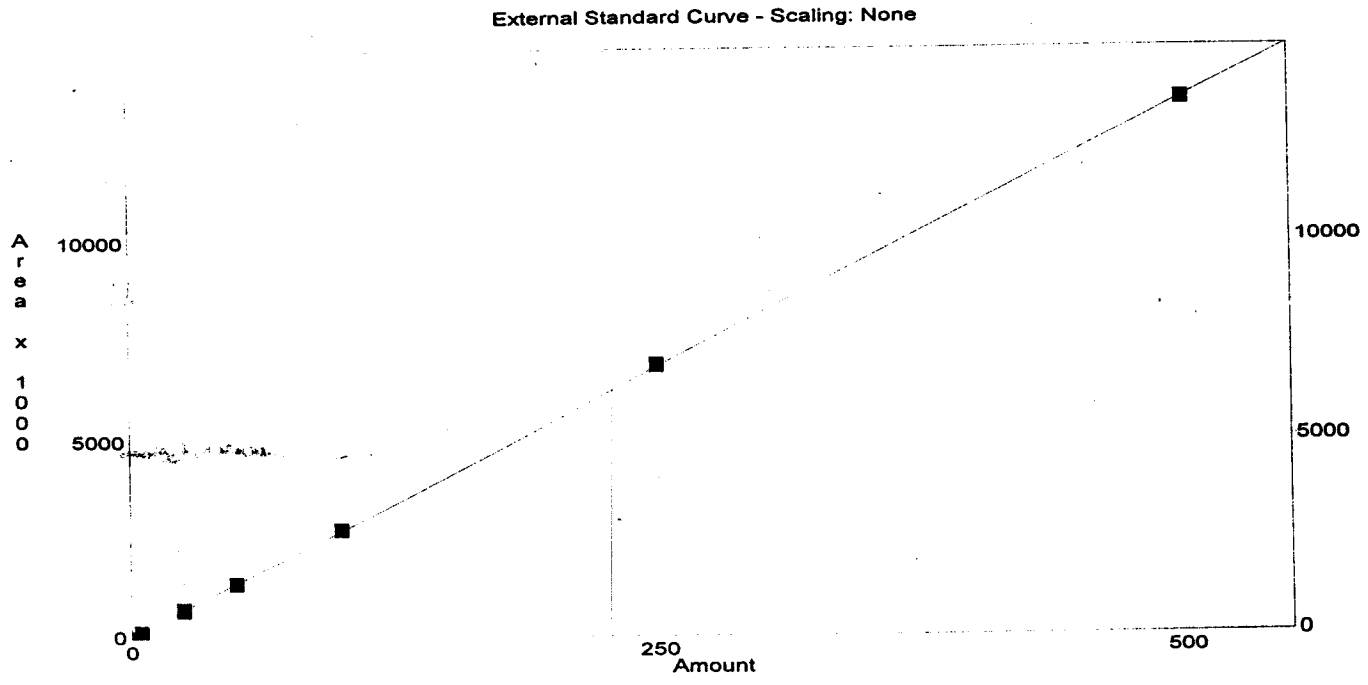
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	134063	5	26812.60	134063							0
2	678625	25	27145.00	678625							0
3	1354374	50	27087.48	1354374							0
4	2762919	100	27629.19	2762919							0
5	6869082	250	27476.33	6869082							0
6	13615526	500	27231.05	13615526							0

Calib Flag: Replace

Average RF: 27230.3
RF StdDev: 290.445
RF %RSD: 1.067

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.66847e-005 x Area - 0.387884
R^2 = 0.999971



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Pyruvic Acid

* - Replicate Not Used

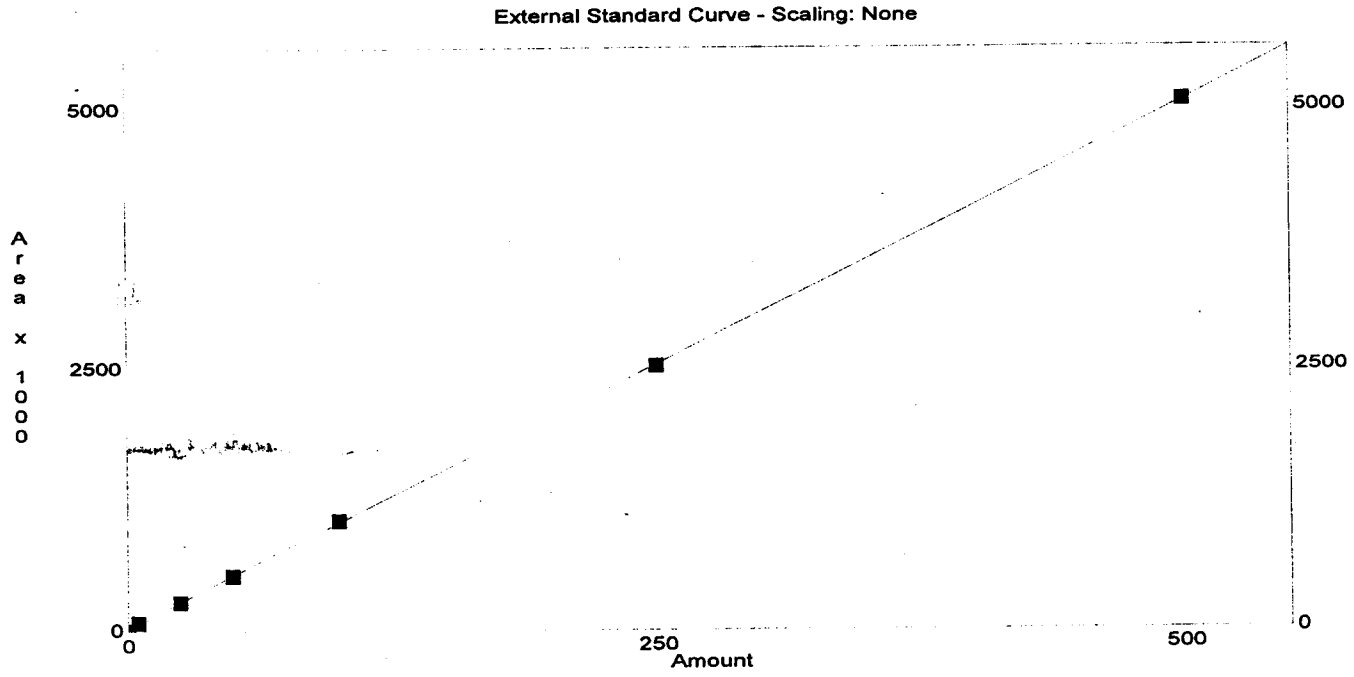
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	72265	5	14453.00	72265							0
2	260157	25	10406.28	260157							0
3	509391	50	10187.82	509391							0
4	1037188	100	10371.88	1037188							0
5	2520360	250	10081.44	2520360							0
6	5067290	500	10134.58	5067290							0

Calib Flag: Replace

Average RF: 10939.2
RF StdDev: 1726.29
RF %RSD: 15.781

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 9.90435e-005 x Area - 1.26843
R^2 = 0.999962



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Butyric Acid

* - Replicate Not Used

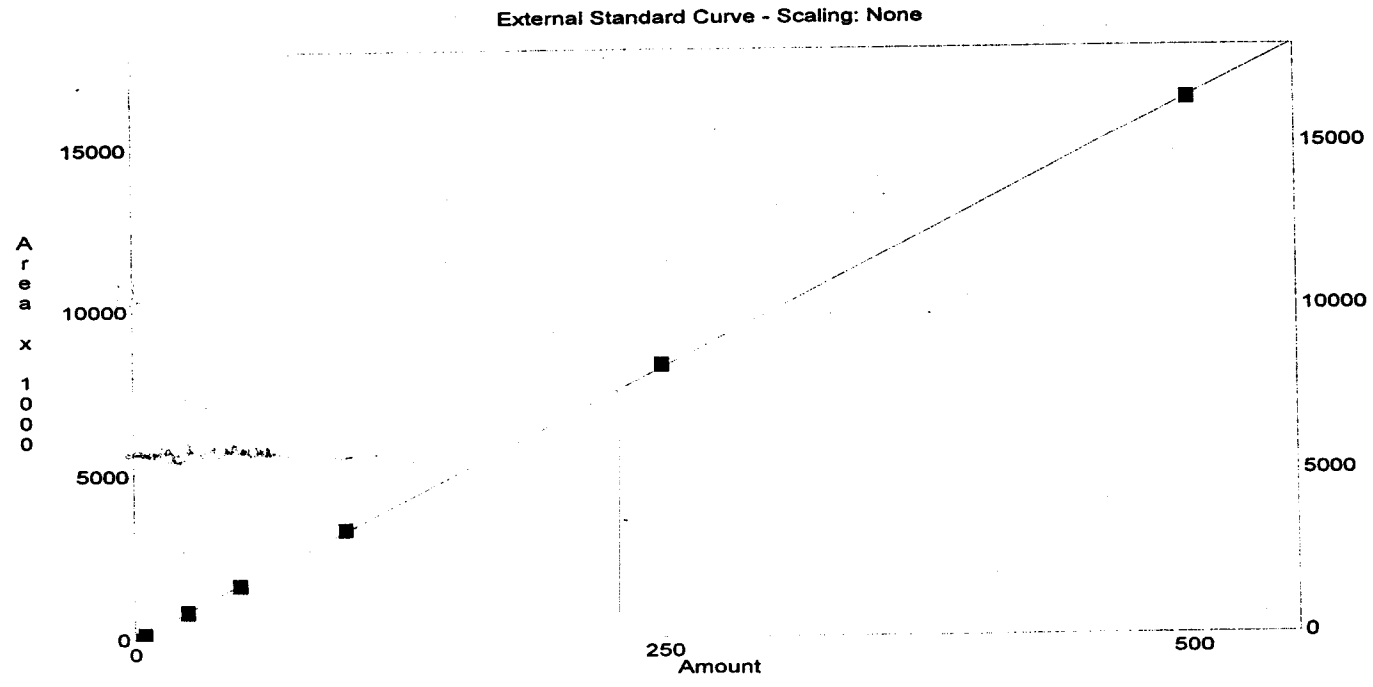
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	150913	5	30182.60	150913							0
2	827458	25	33098.32	827458							0
3	1630082	50	32601.64	1630082							0
4	3357055	100	33570.55	3357055							0
5	8312637	250	33250.55	8312637							0
6	16405186	500	32810.37	16405186							0

Calib Flag: Replace

Average RF: 32585.7
RF StdDev: 1224.77
RF %RSD: 3.759

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.04332e-005 x Area - 0.631947
R^2 = 0.999933



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Lactic Acid

* - Replicate Not Used

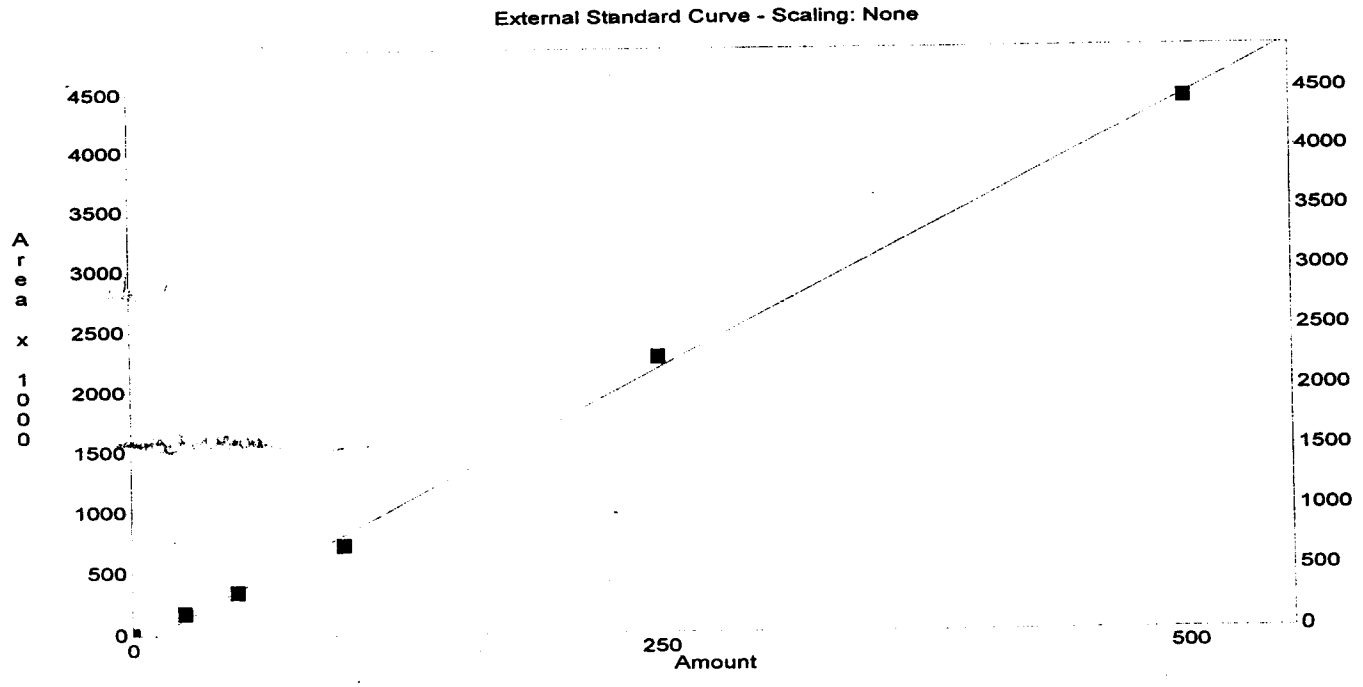
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
2	174310	25	6972.40	174310							0
3	343942	50	6878.84	343942							0
4	723621	100	7236.21	723621							0
5	2269445	250	9077.78	2269445							0
6	4425103	500	8850.21	4425103							0

Calib Flag: Replace

Average RF: 7803.09
RF StdDev: 1070.86
RF %RSD: 13.723

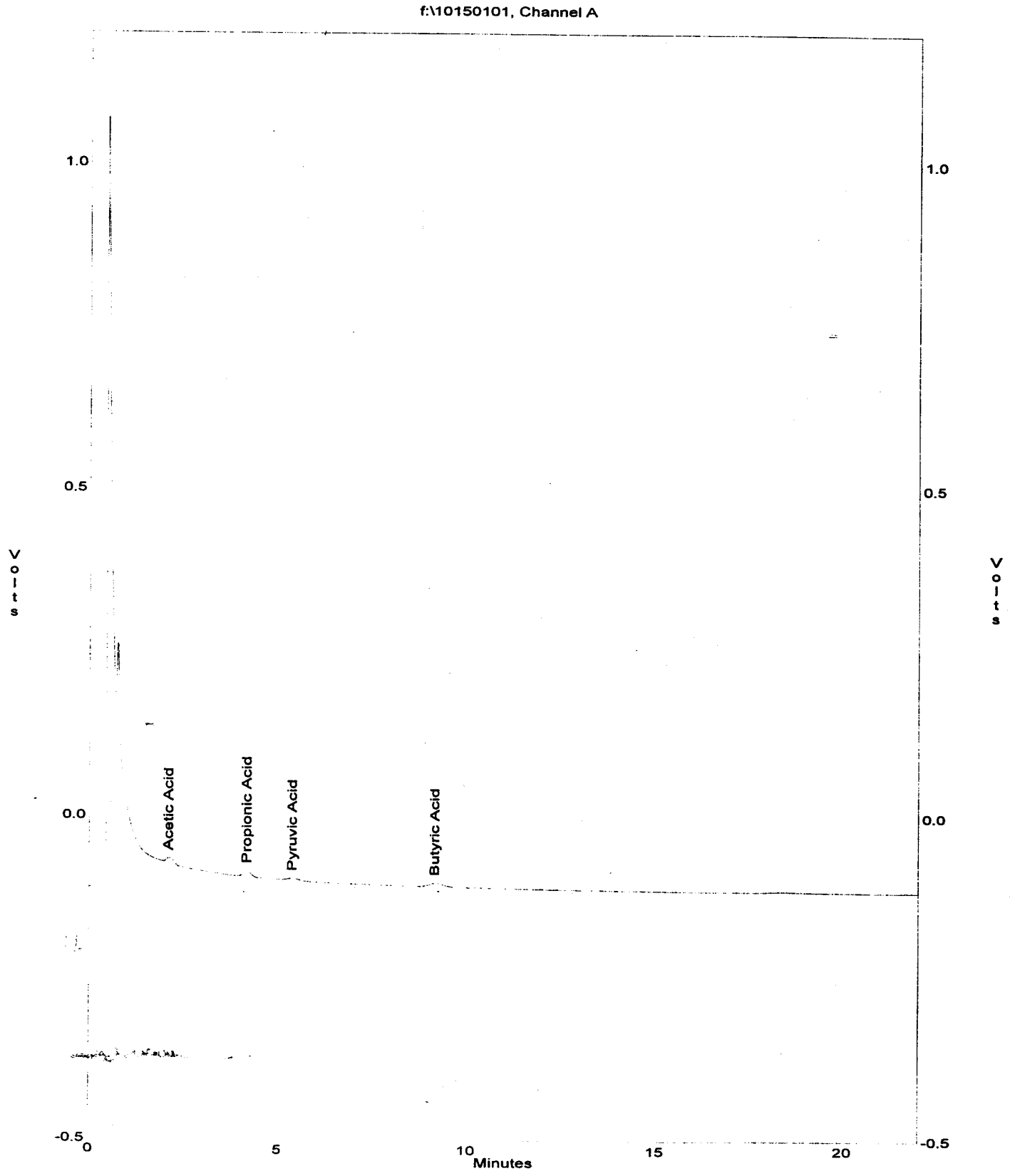
RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 0.000109753 x Area + 10.7909
R^2 = 0.998498



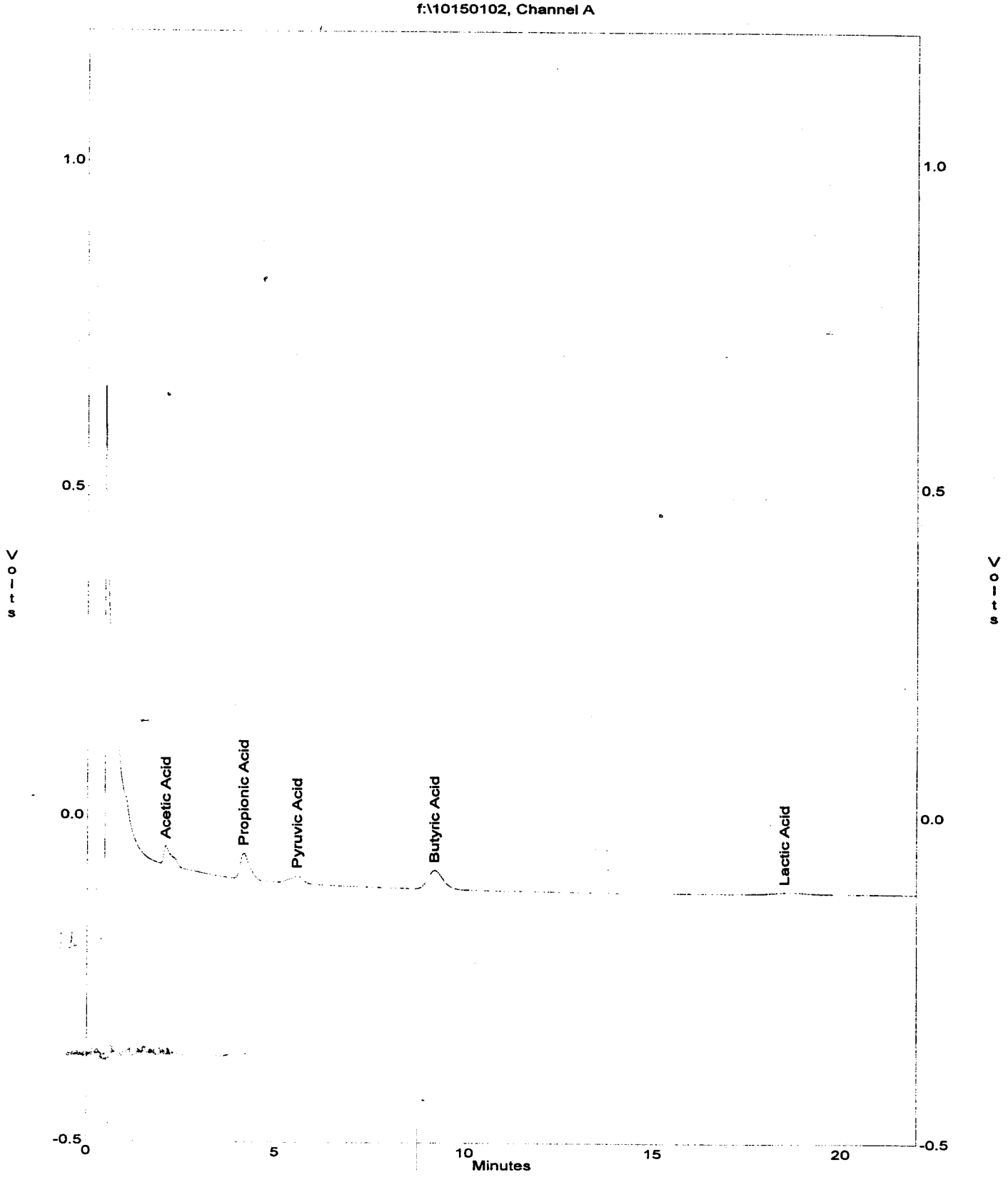
External Standard Report -- Channel A
File : f:\10150101
Method : f:\vfa.met
Sample ID : 5 ppm
Acquired : Oct 16, 2001 10:24:22
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.097	5.789 mg/l	107381	7829
2	Propionic Acid	4.165	4.530 mg/l	134063	9378
3	Pyruvic Acid	5.375	5.889 mg/l	72265	3520
4	Butyric Acid	9.165	3.961 mg/l	150913	5710
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			20.169	464622	26437


f:\10150101, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
0
5
10
15
20
Minutes

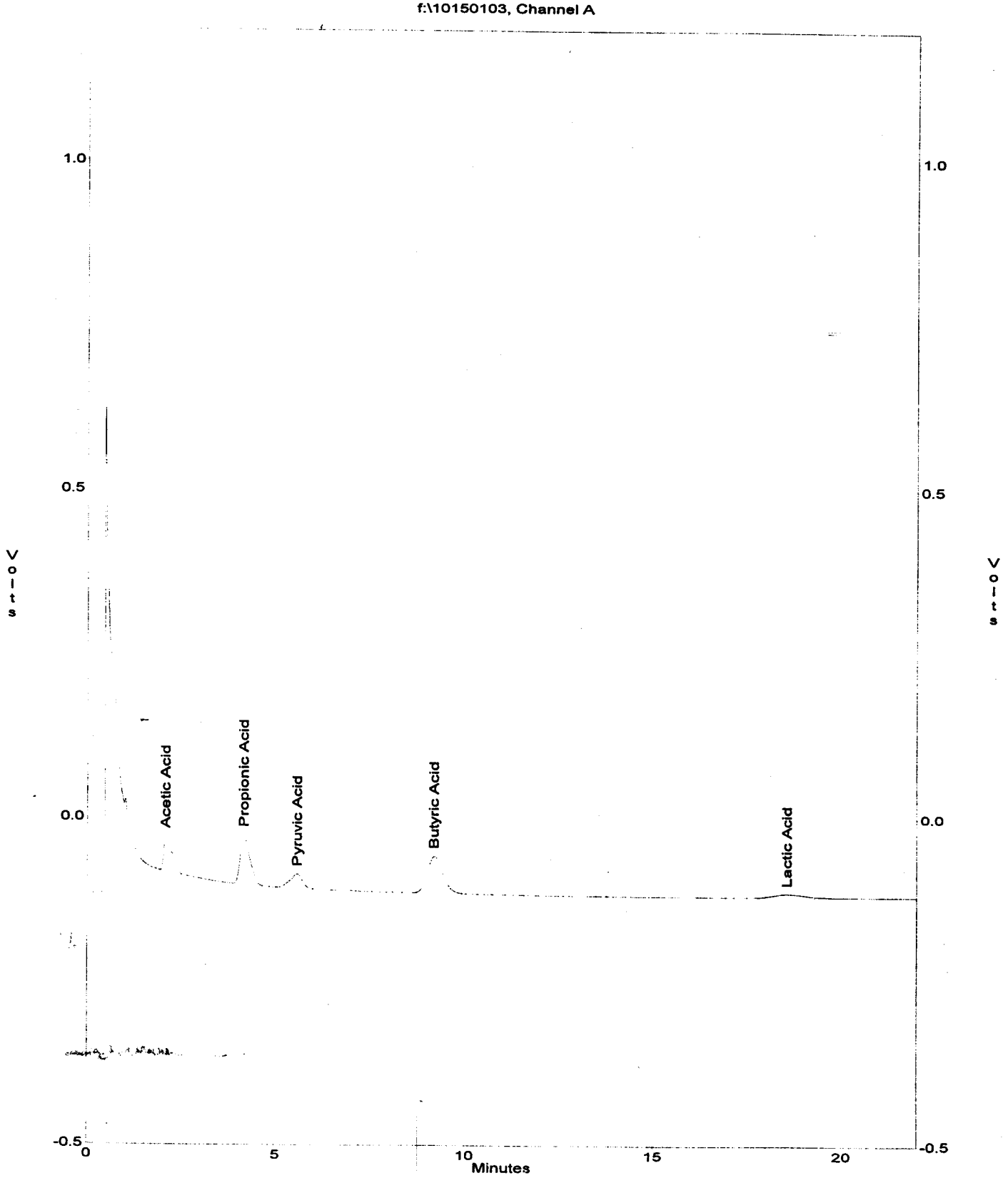
External Standard Report -- Channel A
File : f:\10150102
Method : f:\vfa.met
Sample ID : 25 ppm
Acquired : Oct 16, 2001 10:47:06
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	24.578 mg/l	427451	28597
2	Propionic Acid	4.155	24.507 mg/l	678625	39804
3	Pyruvic Acid	5.568	24.498 mg/l	260157	11333
4	Butyric Acid	9.197	24.550 mg/l	827458	29073
5	Lactic Acid	18.518	29.922 mg/l	174310	2721
Totals			128.056	2368001	111528


f:\10150102, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

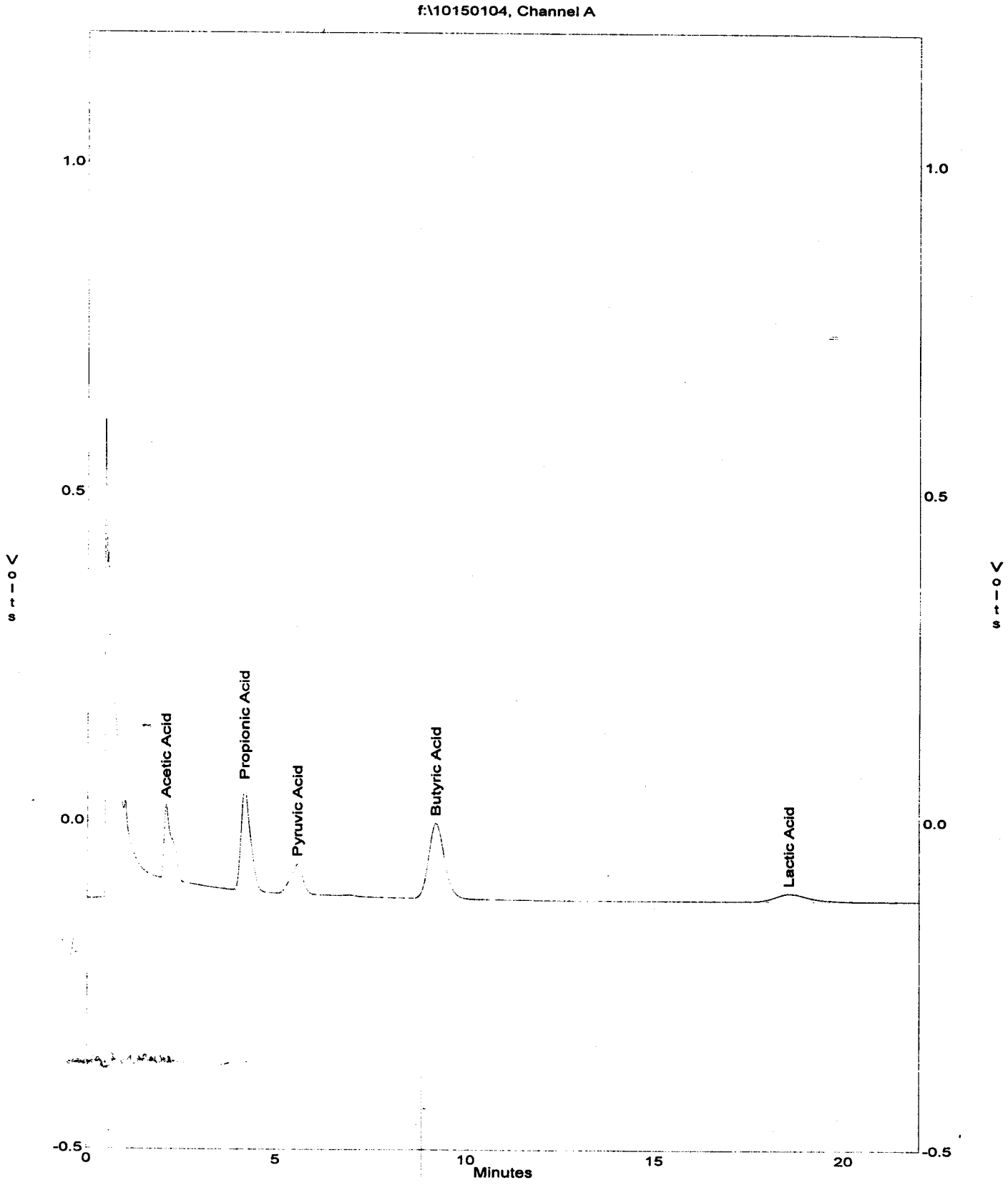
External Standard Report -- Channel A
File : f:\10150103
Method : f:\vfa.met
Sample ID : 50 ppm
Acquired : Oct 16, 2001 11:09:48
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	48.885 mg/l	841527	55208
2	Propionic Acid	4.157	49.297 mg/l	1354374	77921
3	Pyruvic Acid	5.567	49.183 mg/l	509391	22305
4	Butyric Acid	9.197	48.977 mg/l	1630082	56778
5	Lactic Acid	18.577	48.540 mg/l	343942	5632
Totals			244.881	4679316	217844


f:\10150103, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

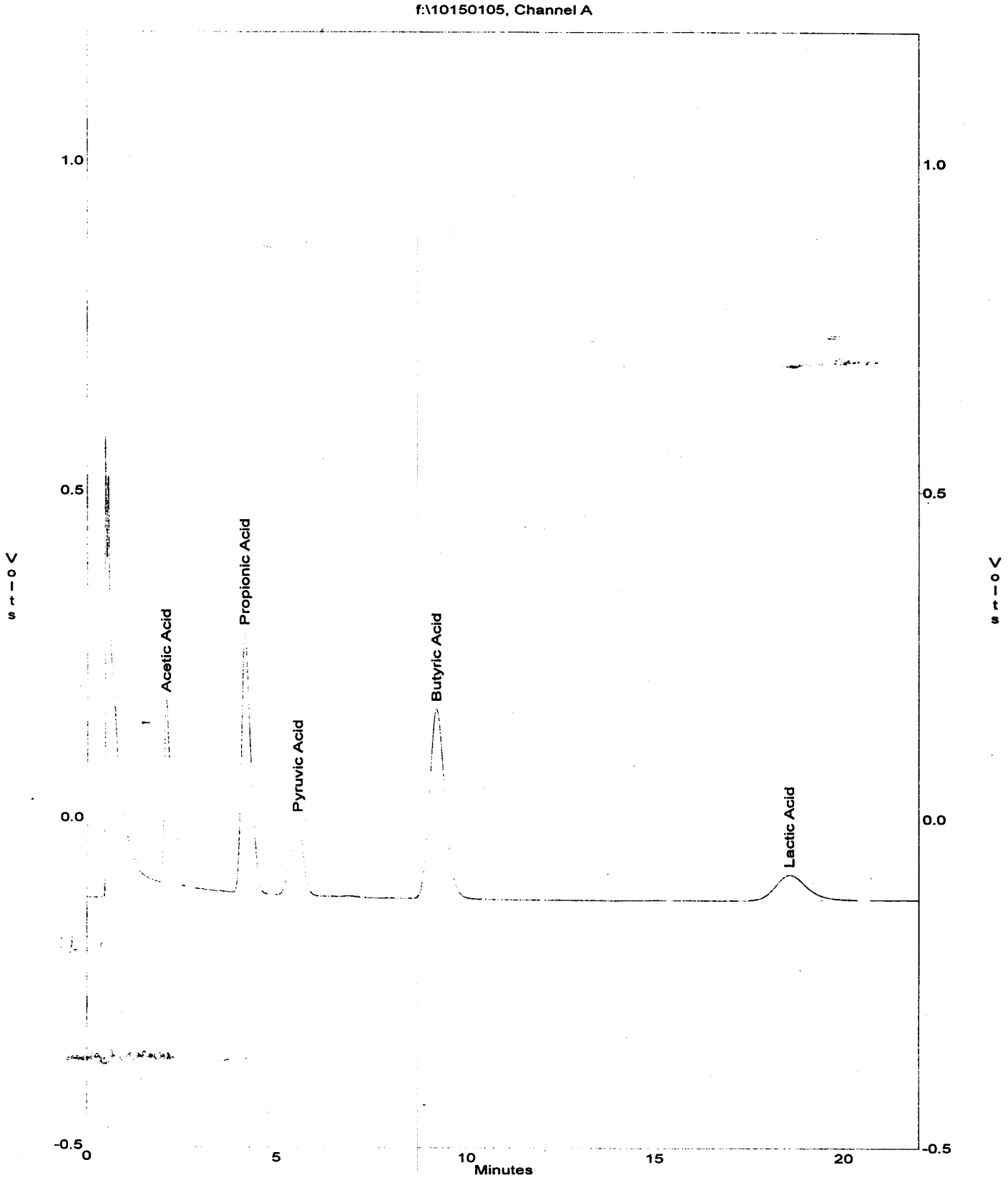
External Standard Report -- Channel A
File : f:\10150104
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Oct 16, 2001 11:32:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	100.375 mg/l	1718680	113591
2	Propionic Acid	4.157	100.969 mg/l	2762919	159997
3	Pyruvic Acid	5.560	101.458 mg/l	1037188	46264
4	Butyric Acid	9.202	101.534 mg/l	3357055	116632
5	Lactic Acid	18.578	90.210 mg/l	723621	11805
Totals			494.546	9599463	448289


f:\10150104, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

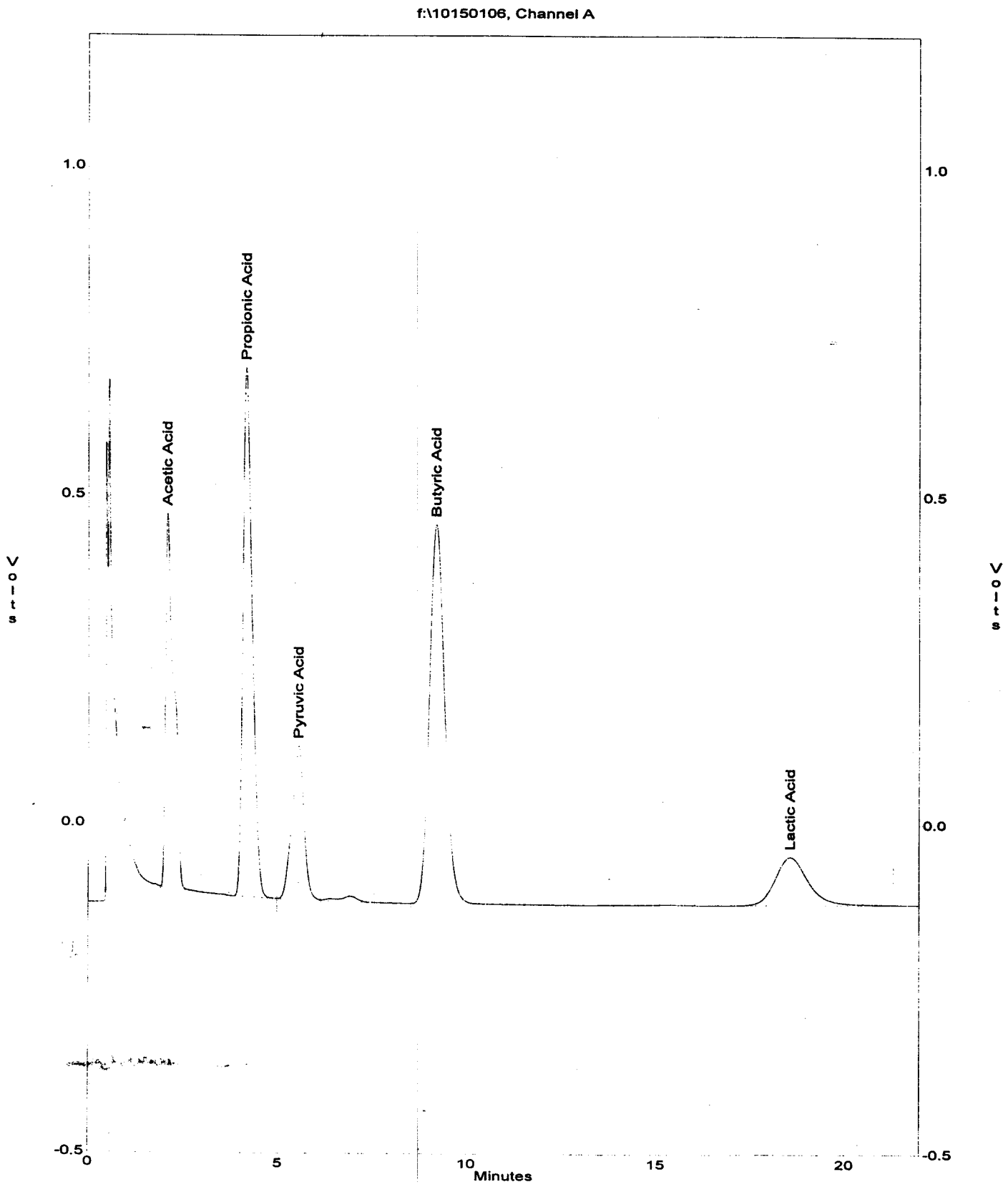
External Standard Report -- Channel A
File : f:\10150105
Method : f:\vfa.met
Sample ID : 250 ppm
Acquired : Oct 16, 2001 12:40:54
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	250.658 mg/l	4278821	280125
2	Propionic Acid	4.157	251.603 mg/l	6869082	397088
3	Pyruvic Acid	5.552	248.357 mg/l	2520360	116022
4	Butyric Acid	9.202	252.348 mg/l	8312637	289335
5	Lactic Acid	18.577	259.869 mg/l	2269445	38400
Totals			1262.835	24250344	1120970


f:\10150105, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

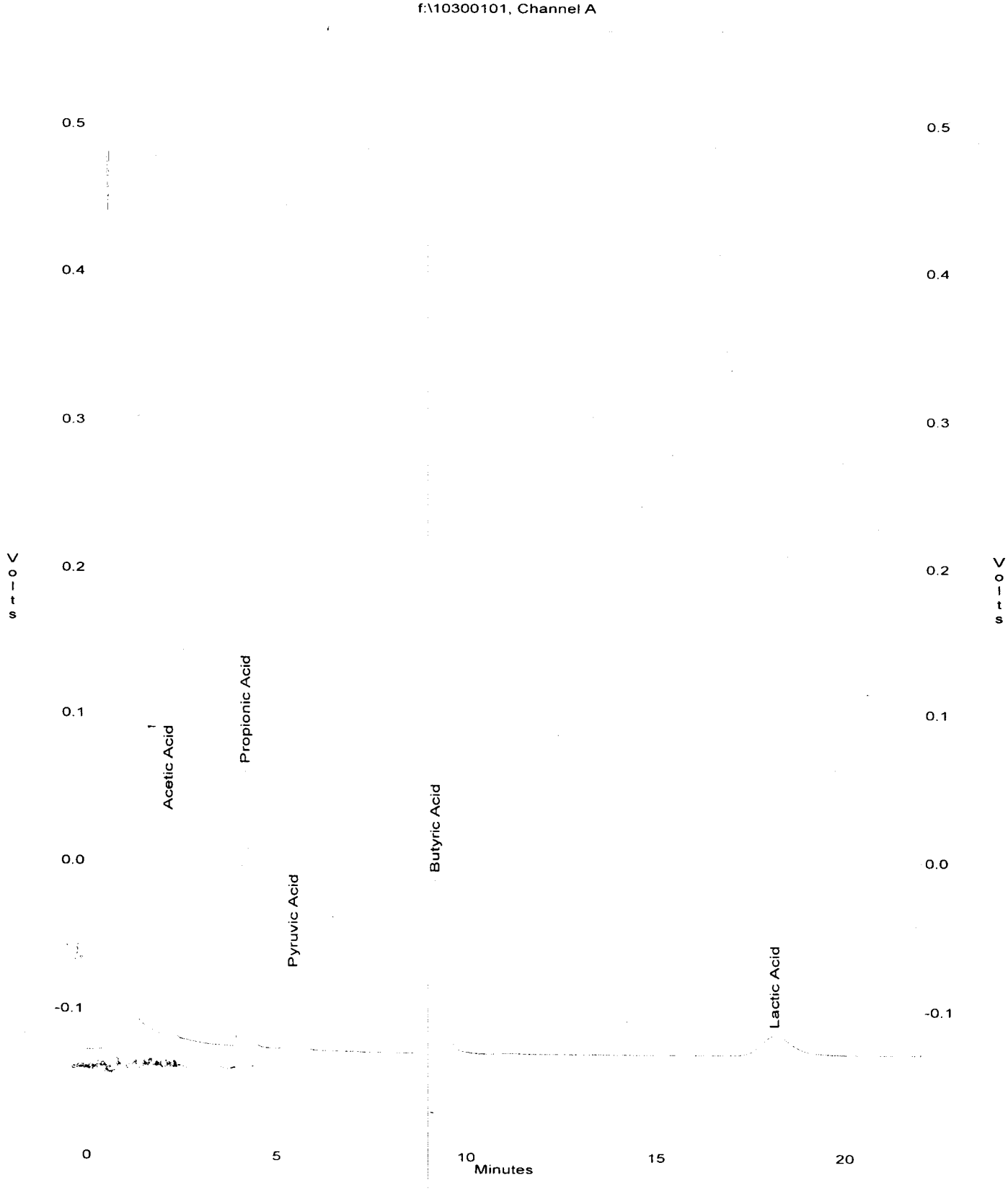
External Standard Report -- Channel A
File : f:\10150106
Method : f:\vfa.met
Sample ID : 500 ppm
Acquired : Oct 16, 2001 13:03:38
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.088	500.000 mg/l	8521615	571842
2	Propionic Acid	4.157	500.000 mg/l	13615526	806154
3	Pyruvic Acid	5.542	500.000 mg/l	5067290	234356
4	Butyric Acid	9.202	500.000 mg/l	16405186	578881
5	Lactic Acid	18.577	500.000 mg/l	4425103	72955
Totals			2500.000	48034720	2264188


f:\10150106, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10300101
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Oct 30, 2001 11:40:30
User : System

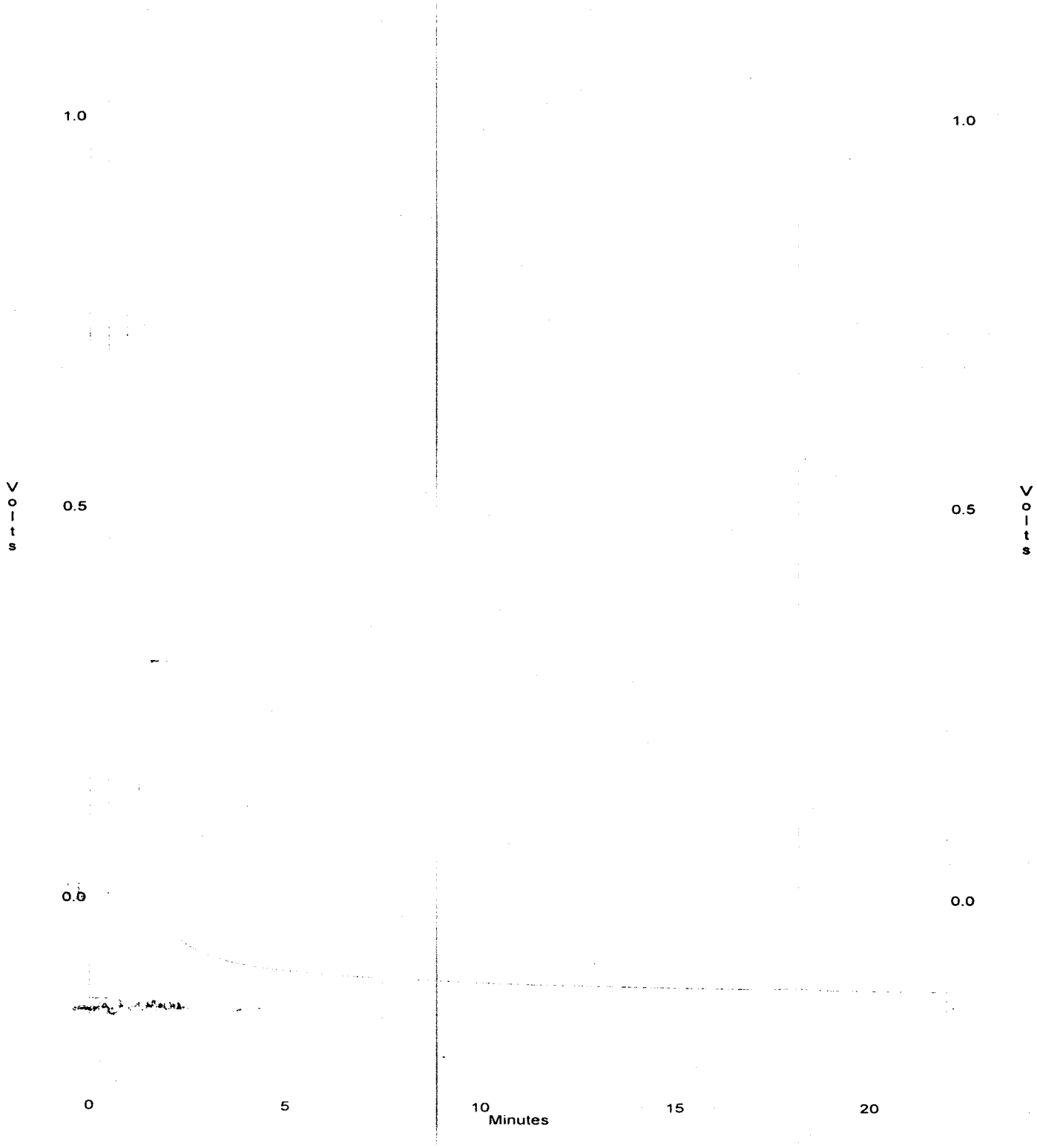
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.107	96.899 mg/l	1659472	146906
2	Propionic Acid	4.130	95.195 mg/l	2605521	185999
3	Pyruvic Acid	5.408	85.114 mg/l	872162	50035
4	Butyric Acid	9.150	95.588 mg/l	3161687	116539
5	Lactic Acid	18.127	98.067 mg/l	795202	13542
Totals			470.862	9094044	513021


f:\10300101, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10300102
Method : f:\vfa.met
Sample ID : ib
Acquired : Oct 30, 2001 12:03:14
User : System

--- No Peaks Found.

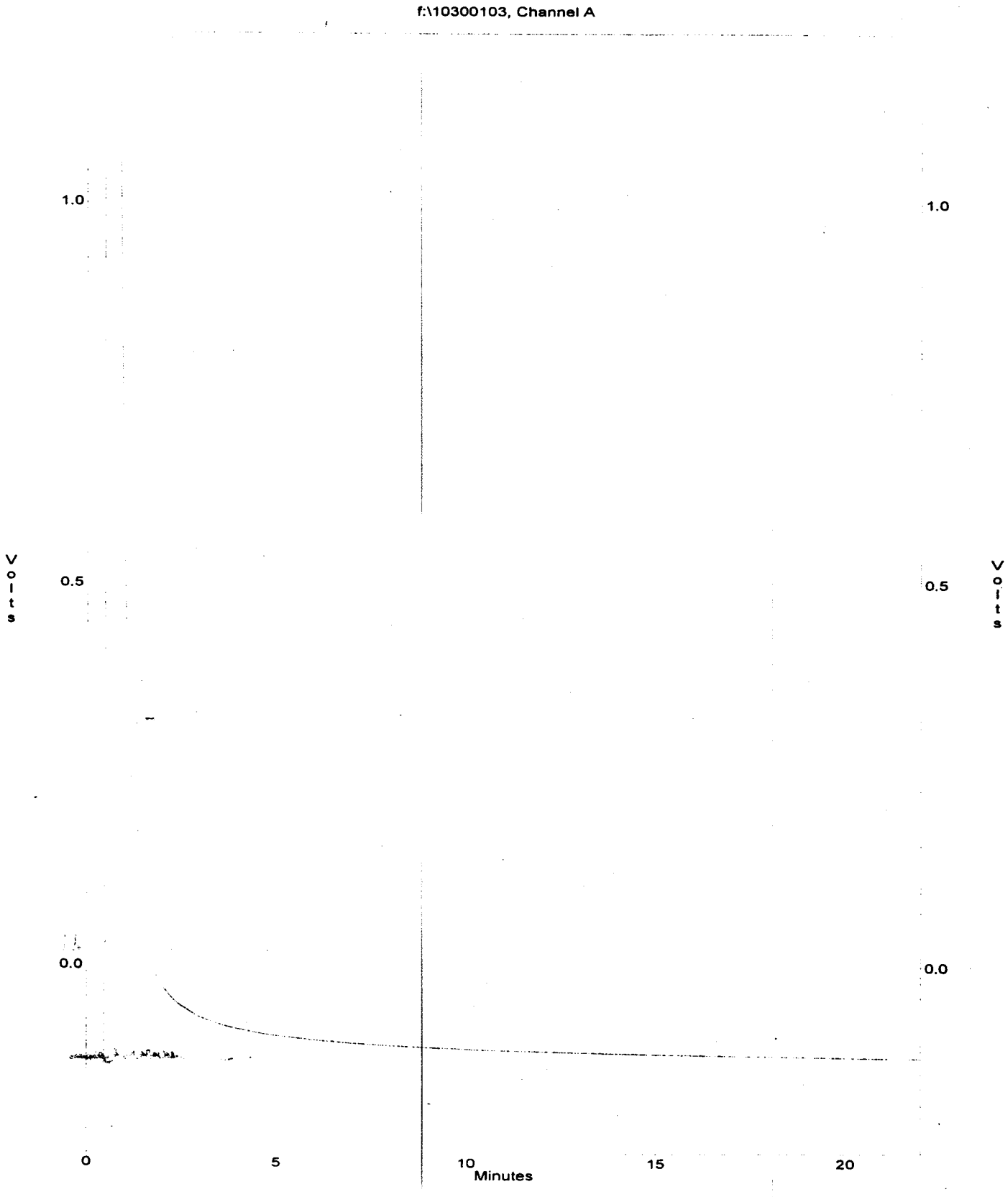
f:\10300102, Channel A



External Standard Report -- Channel A
File : f:\10300103
Method : f:\vfa.met
Sample ID : mb
Acquired : Oct 30, 2001 13:32:55
User : System

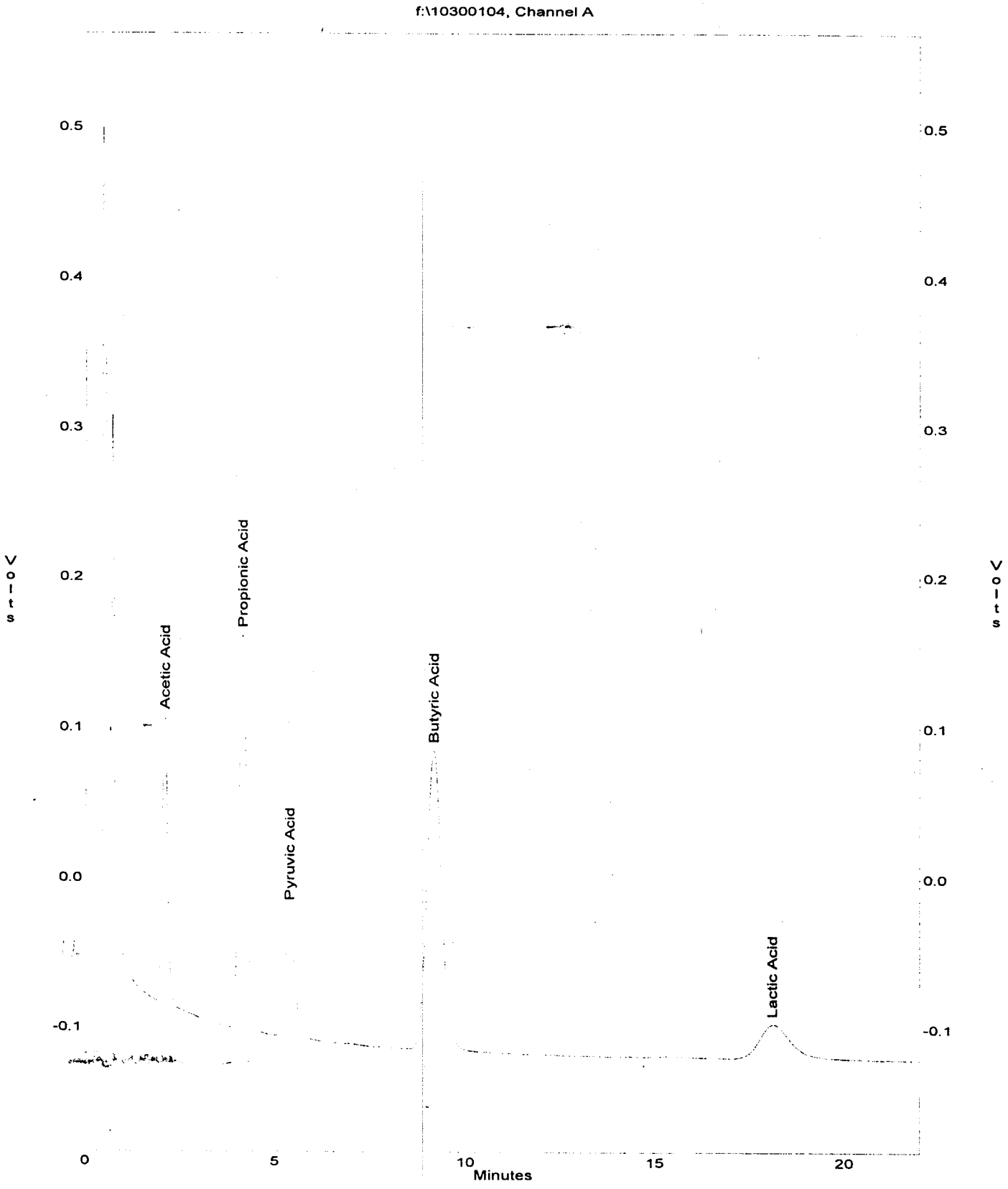
==========

--- No Peaks Found.


f:\10300103, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

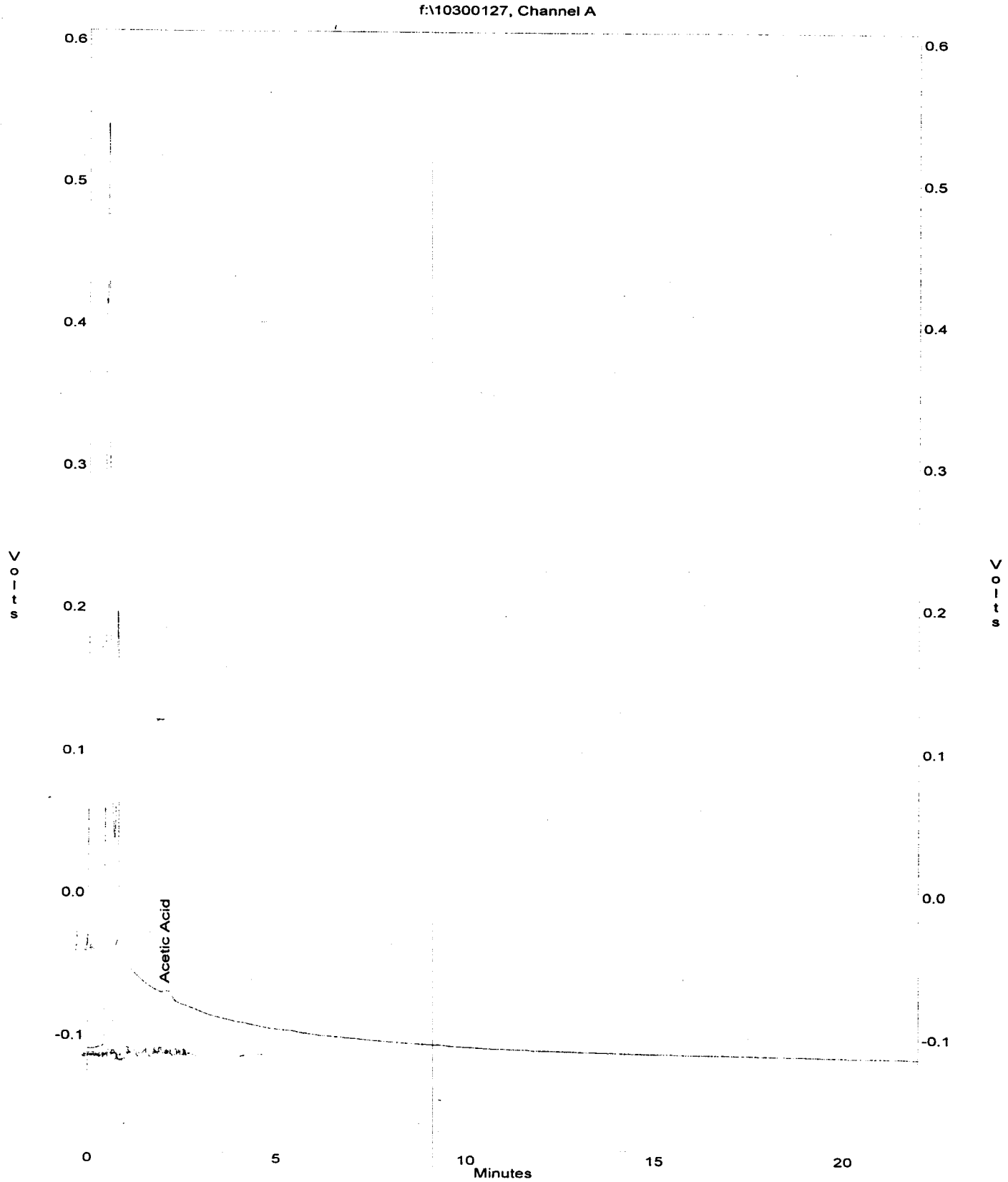
External Standard Report -- Channel A
File : f:\10300104
Method : f:\vfa.met
Sample ID : lcssupelco5x 103001
Acquired : Oct 30, 2001 13:55:40
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.088	110.381 mg/l	1889136	190238
2	Propionic Acid	4.125	133.999 mg/l	3663306	261921
3	Pyruvic Acid	5.380	147.520 mg/l	1502248	86466
4	Butyric Acid	9.152	164.302 mg/l	5419534	199488
5	Lactic Acid	18.108	158.069 mg/l	1341910	22962
Totals			714.271	13816134	761075


f:\10300104, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

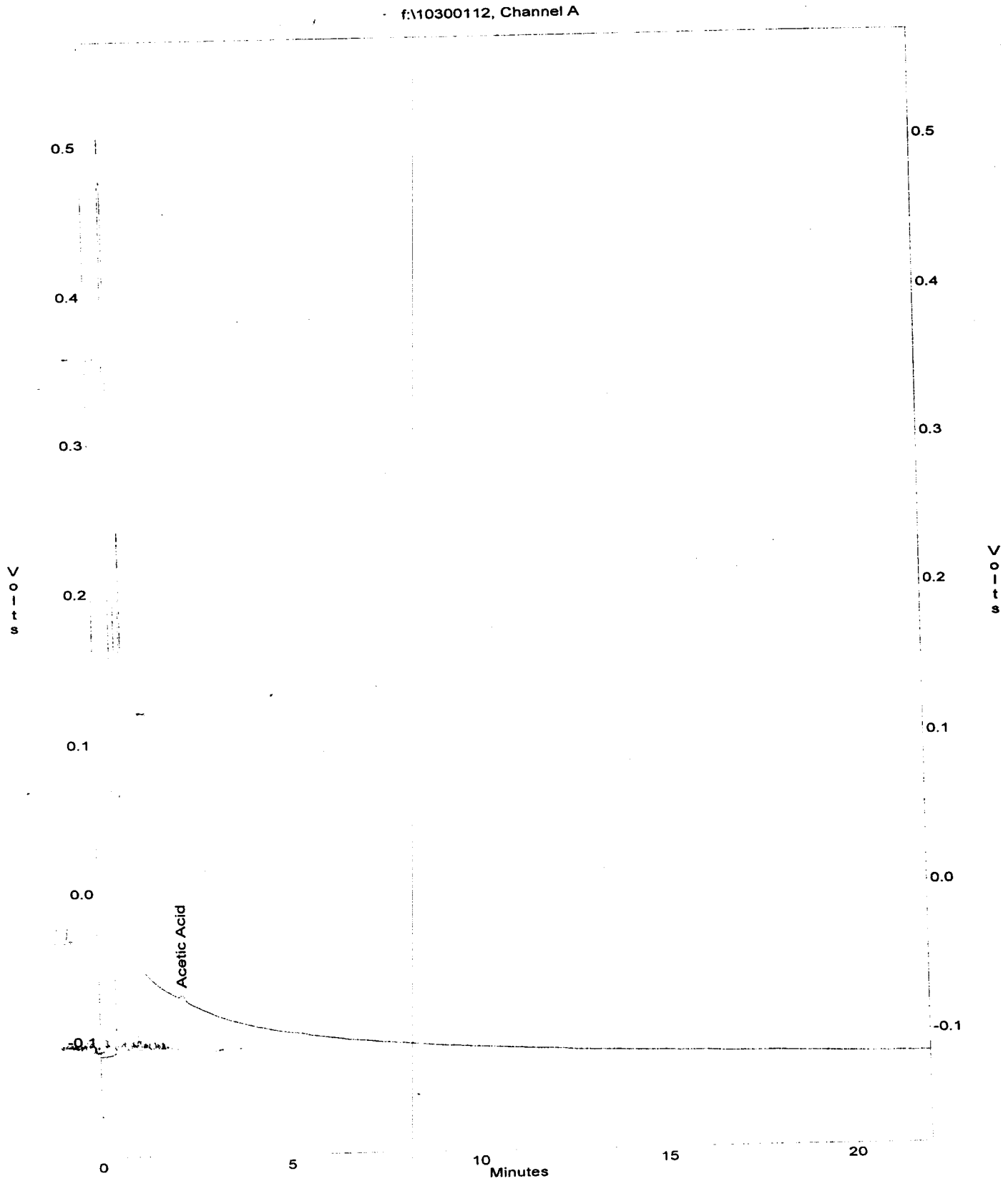
External Standard Report -- Channel A
File : f:\10300127
Method : f:\vfa.met
Sample ID : p110417-01a
Acquired : Oct 30, 2001 22:38:14
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.045	2.484 mg/l	51073	2534
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			2.484	51073	2534


f:\10300127, Channel A
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
0
5
10
15
20
Minutes

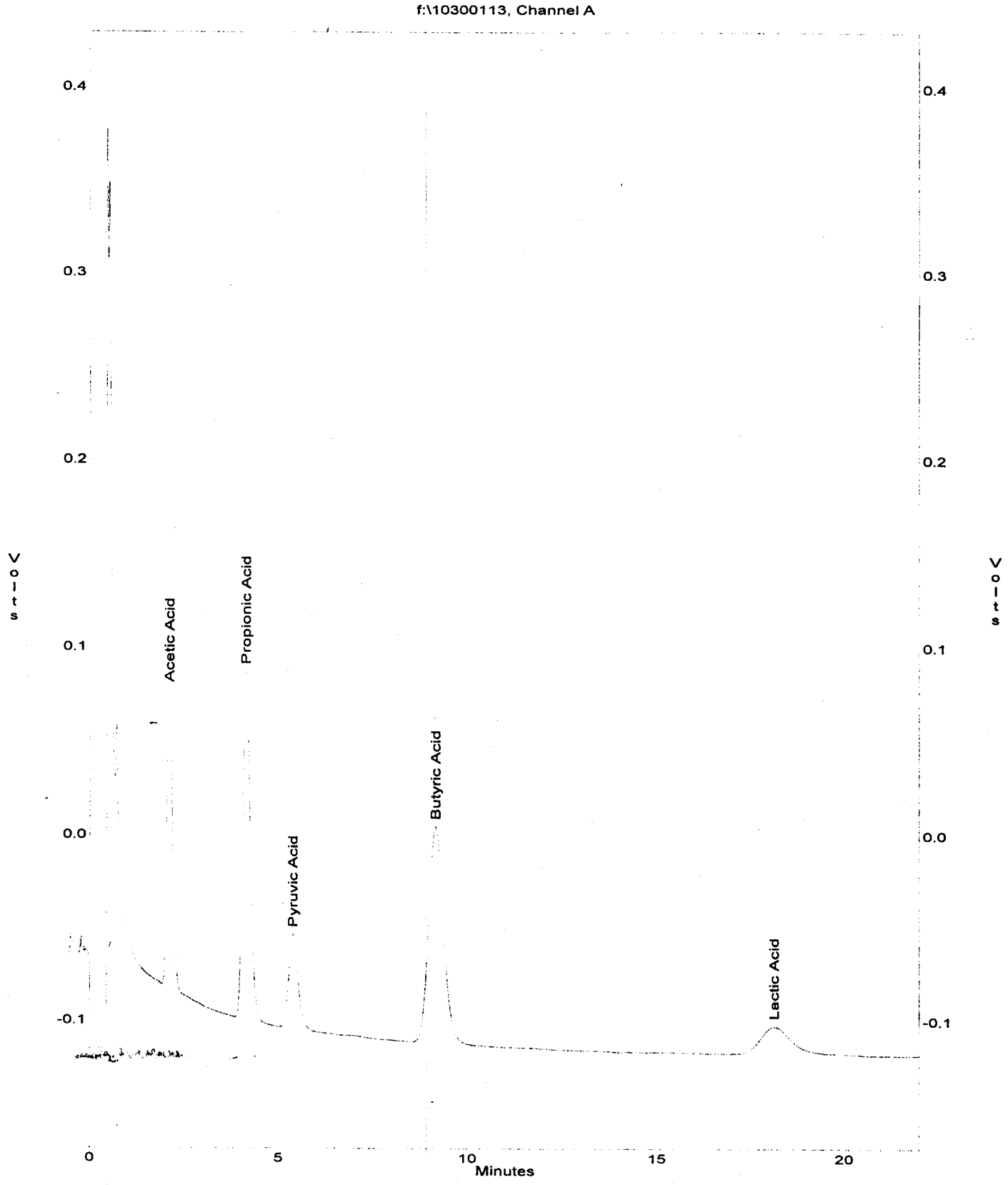
External Standard Report -- Channel A
File : f:\10300112
Method : f:\vfa.met
Sample ID : p110417-02a
Acquired : Oct 30, 2001 16:57:26
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.195	0.635 mg/l	19576	2973
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.635	19576	2973


f:\10300112, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
0
5
10
15
20
Minutes

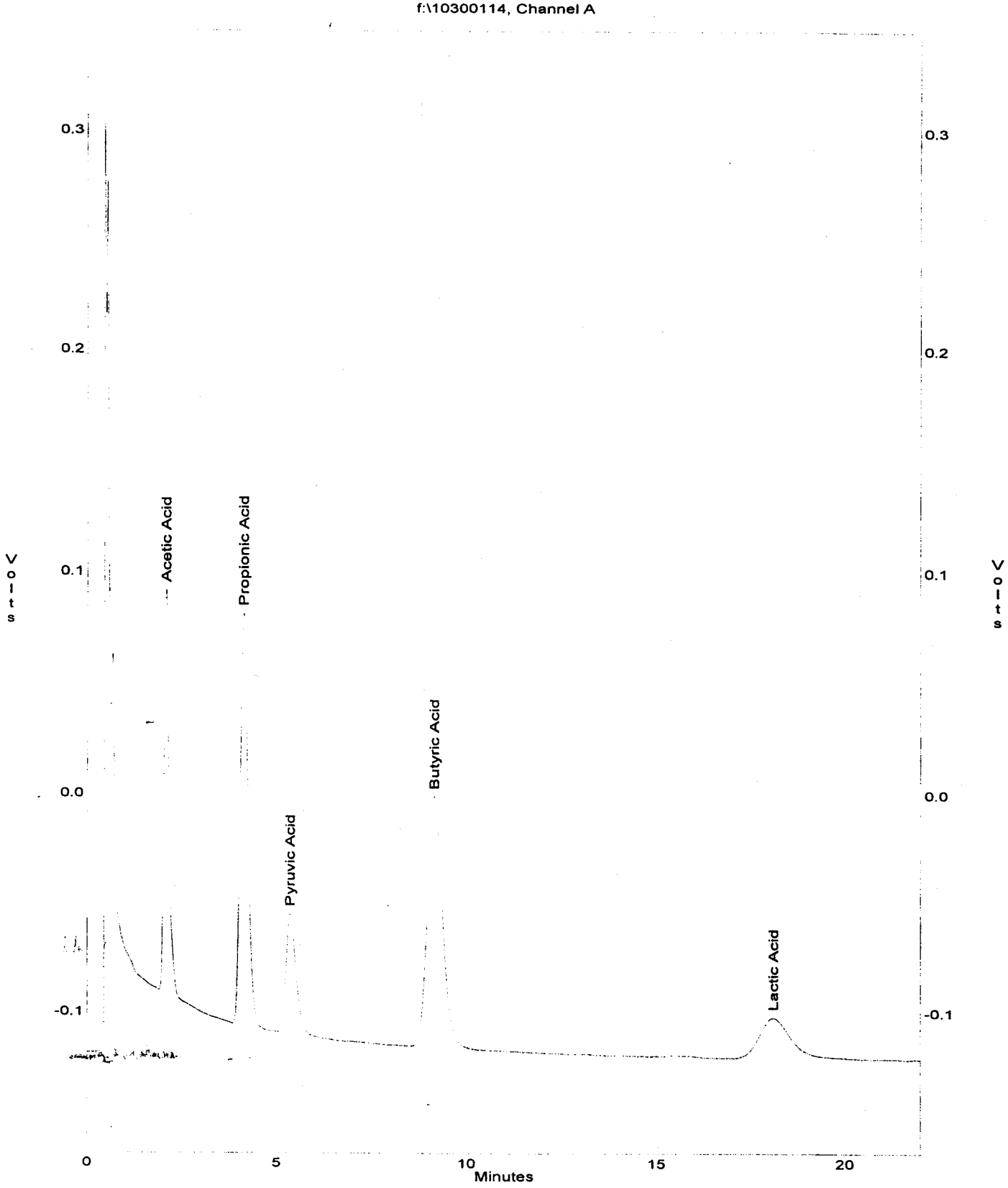
External Standard Report -- Channel A
File : f:\10300113
Method : f:\vfa.met
Sample ID : p110417-02a ms
Acquired : Oct 30, 2001 17:20:08
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.102	98.410 mg/l	1685218	159641
2	Propionic Acid	4.130	96.787 mg/l	2648918	186309
3	Pyruvic Acid	5.385	85.047 mg/l	871490	50285
4	Butyric Acid	9.162	95.758 mg/l	3167267	116493
5	Lactic Acid	18.148	100.302 mg/l	815568	14560
Totals			476.304	9188461	527288


f:\10300113, Channel A
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

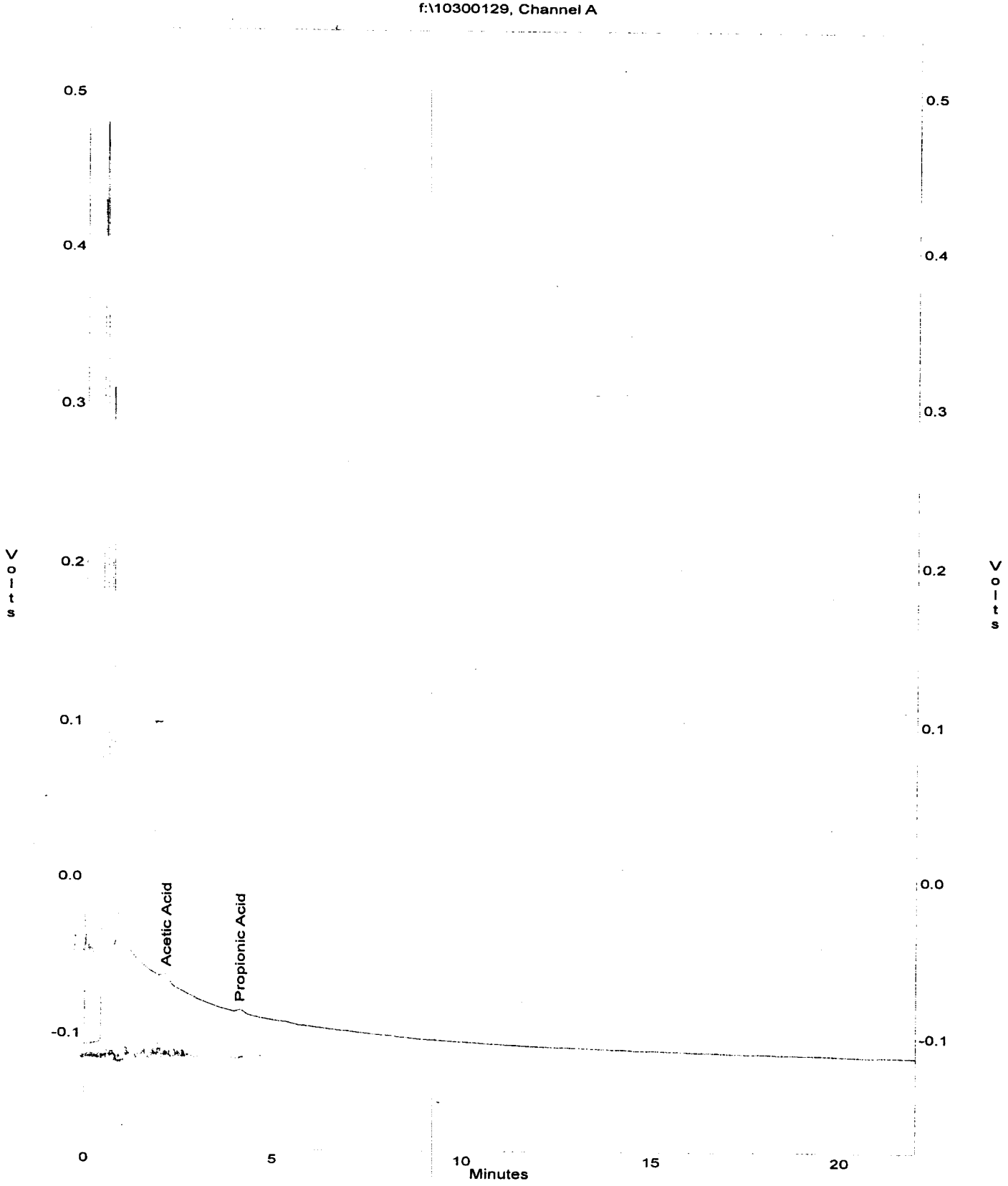
External Standard Report -- Channel A
File : f:\10300114
Method : f:\vfa.met
Sample ID : p110417-02a msd
Acquired : Oct 30, 2001 17:42:52
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.083	98.817 mg/l	1692150	183153
2	Propionic Acid	4.127	96.741 mg/l	2647659	187537
3	Pyruvic Acid	5.365	97.238 mg/l	994580	54724
4	Butyric Acid	9.162	95.539 mg/l	3160079	114735
5	Lactic Acid	18.128	128.902 mg/l	1076157	18522
Totals			517.238	9570625	558671


f:\10300114, Channel A
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

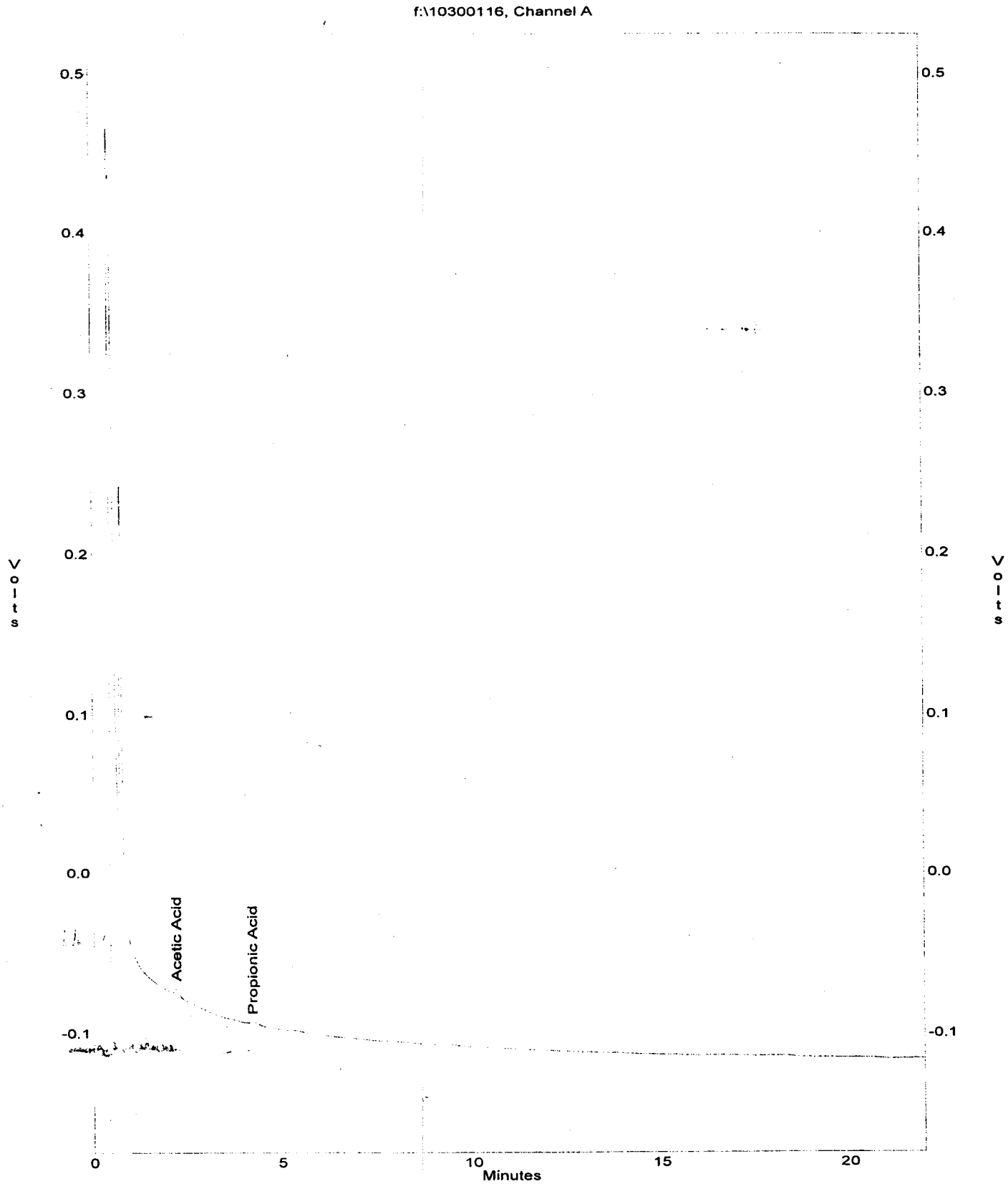
External Standard Report -- Channel A
File : f:\10300129
Method : f:\vfa.met
Sample ID : p110417-03a
Acquired : Oct 30, 2001 23:23:41
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.157	2.204 mg/l	46298	4089
2	Propionic Acid	4.117	0.462 mg/l	23158	1903
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			2.665	69456	5992


f:\10300129, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

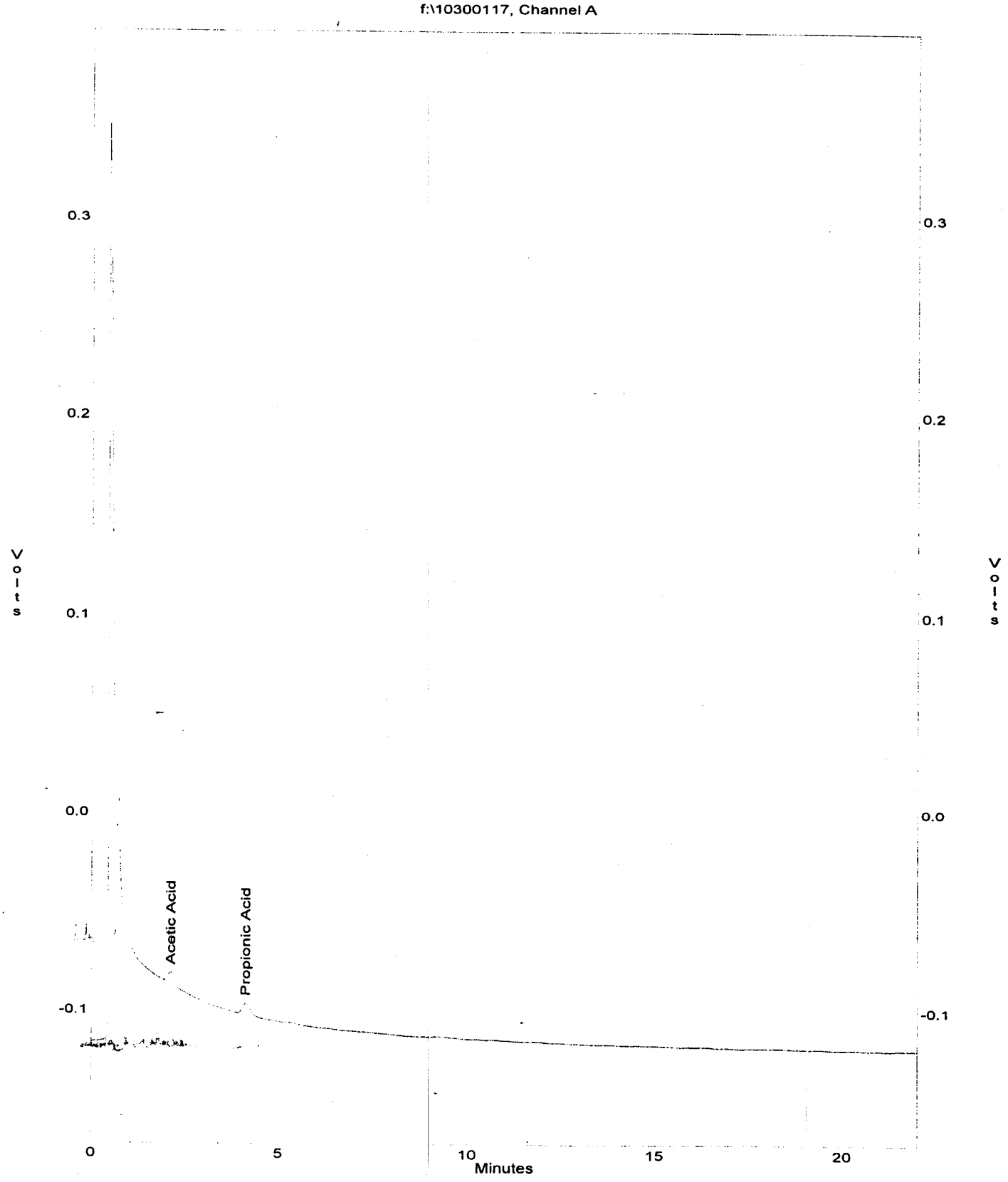
External Standard Report -- Channel A
File : f:\10300116
Method : f:\vfa.met
Sample ID : p110417-04a
Acquired : Oct 30, 2001 18:28:19
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	1.060 mg/l	26815	3874
2	Propionic Acid	4.215	0.156 mg/l	14816	1194
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			1.216	41631	5068


f:\10300116, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

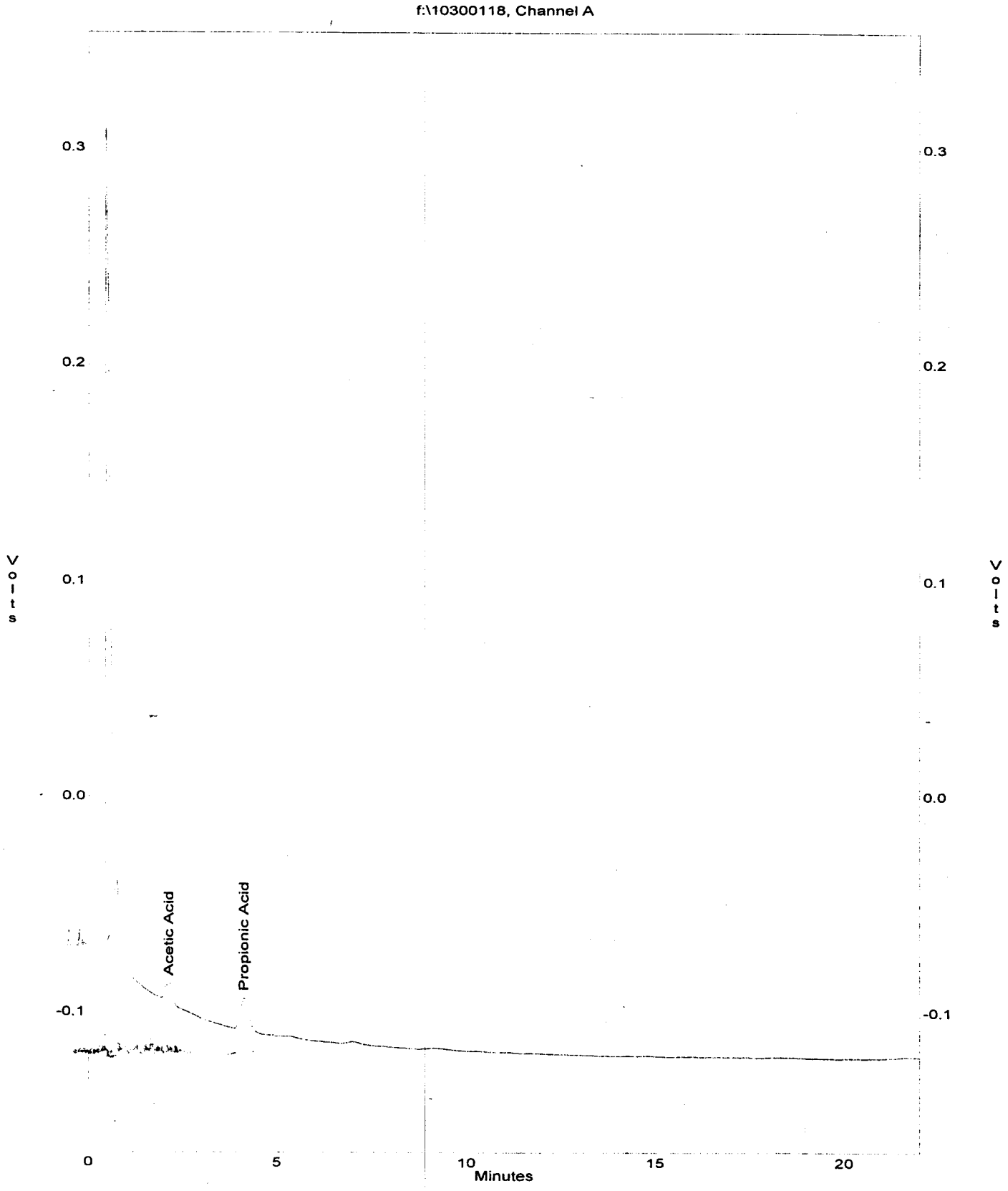
External Standard Report -- Channel A
File : f:\10300117
Method : f:\vfa.met
Sample ID : p110417-05a
Acquired : Oct 30, 2001 18:51:01
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.127	4.216 mg/l	80577	5997
2	Propionic Acid	4.127	2.794 mg/l	86729	5800
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			7.010	167306	11797


f:\10300117, Channel A
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

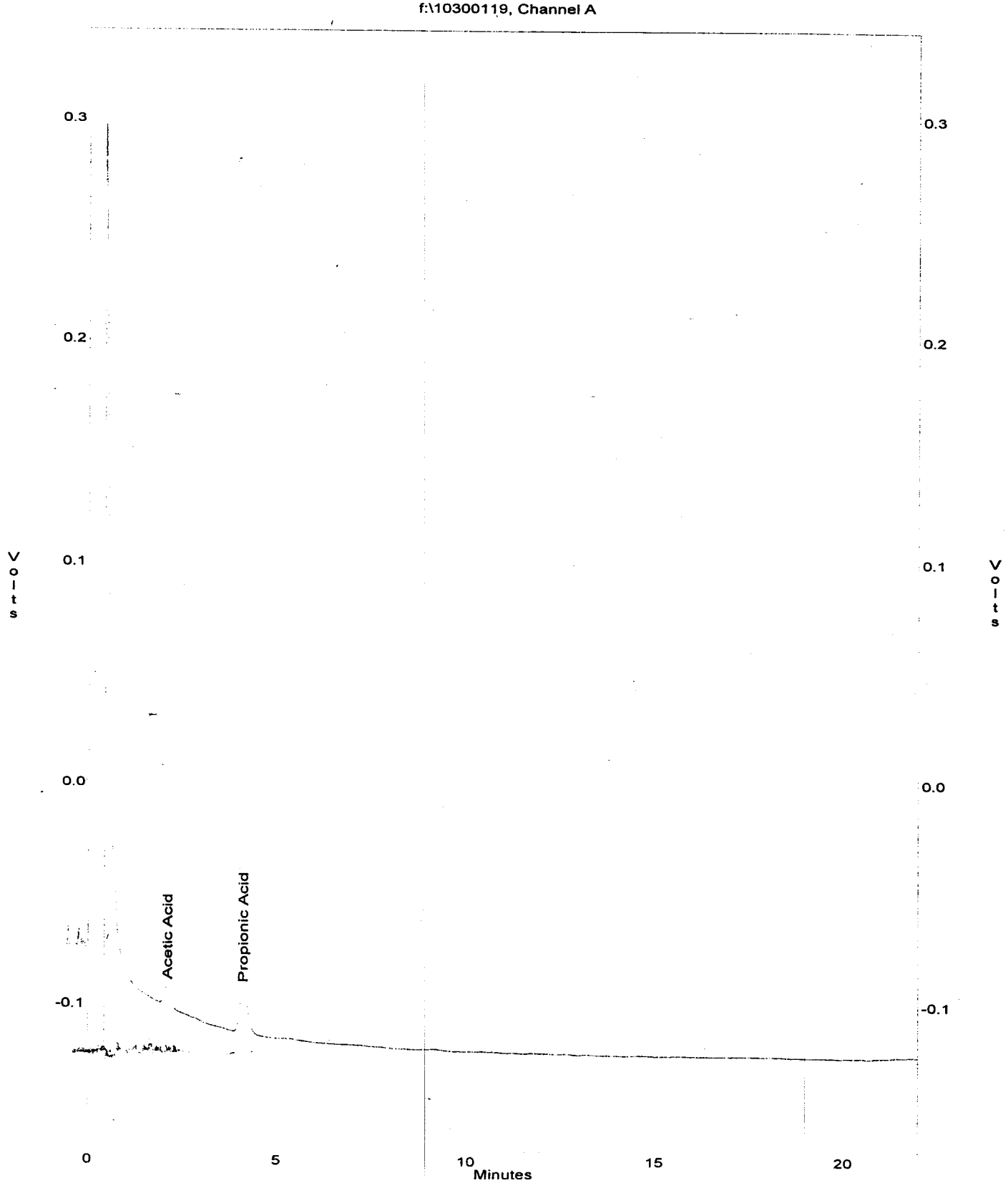
External Standard Report -- Channel A
File : f:\10300118
Method : f:\vfa.met
Sample ID : p110417-06a
Acquired : Oct 30, 2001 19:13:45
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.135	6.411 mg/l	117967	8907
2	Propionic Acid	4.127	7.781 mg/l	222678	14710
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			14.192	340645	23617


f:\10300118, Channel A
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

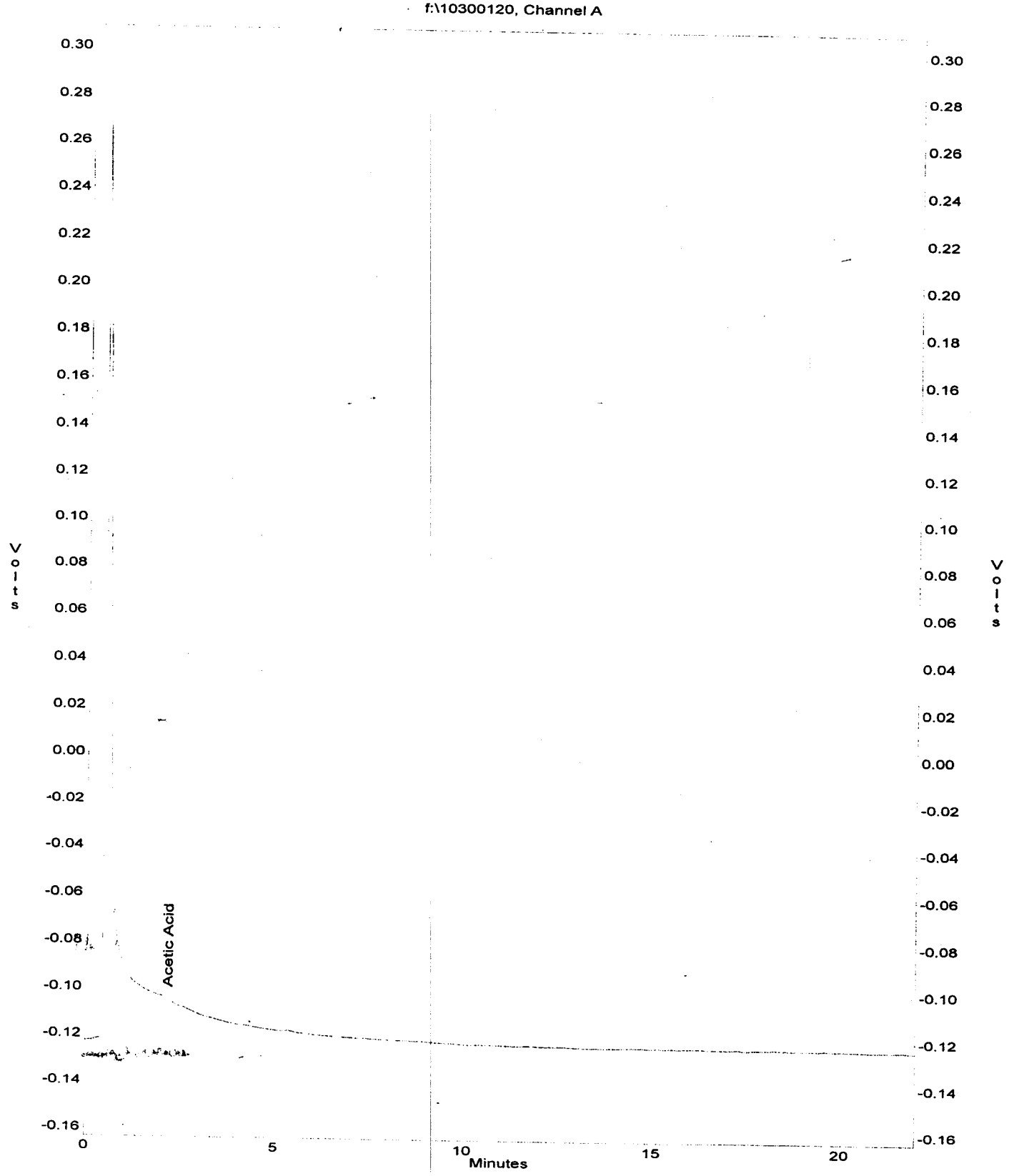
External Standard Report -- Channel A
File : f:\10300119
Method : f:\vfa.met
Sample ID : p110417-07a
Acquired : Oct 30, 2001 19:36:27
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.123	6.101 mg/l	112686	8628
2	Propionic Acid	4.127	9.942 mg/l	281578	19218
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			16.043	394264	27846


f:\10300119, Channel A
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

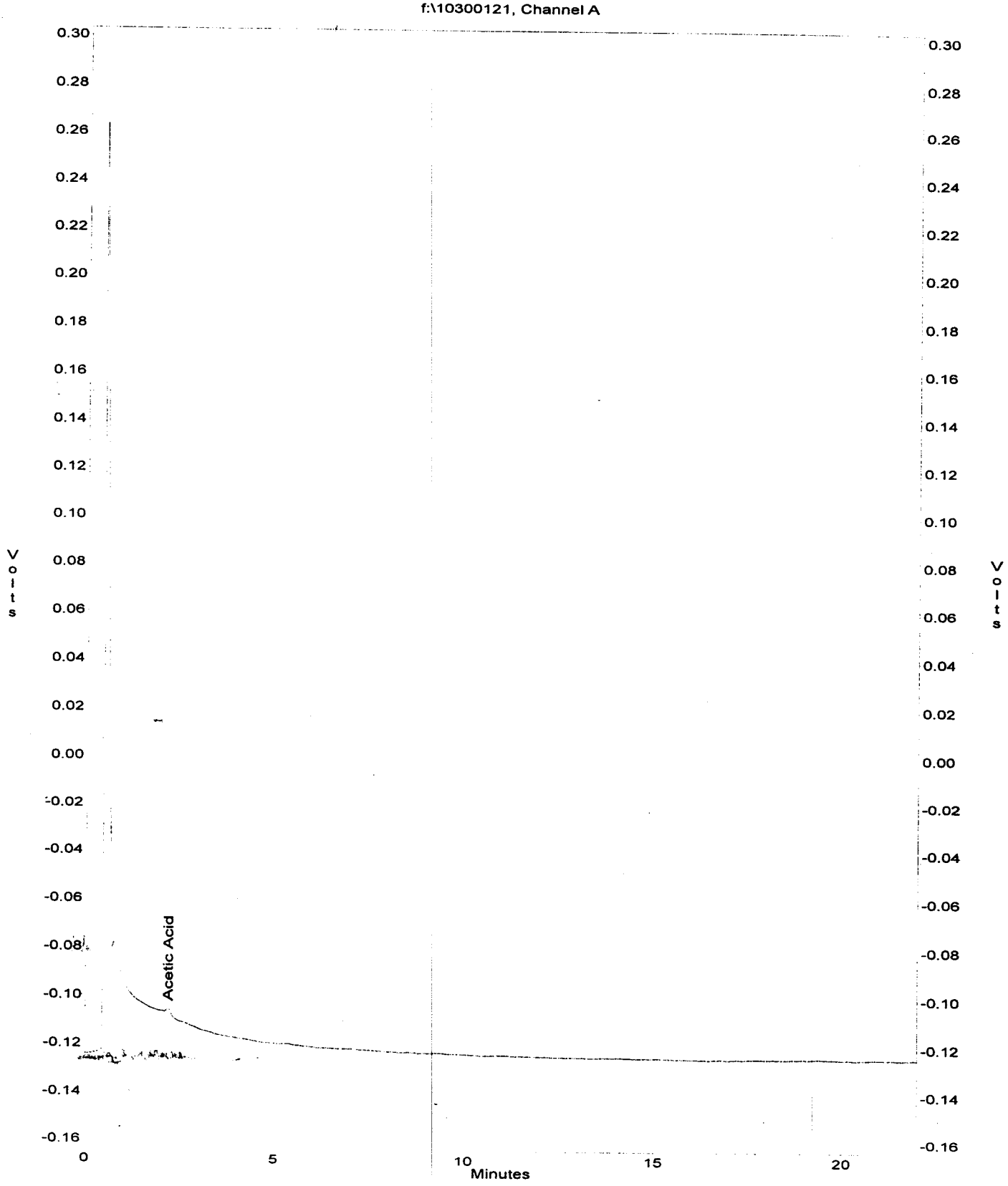
External Standard Report -- Channel A
File : f:\10300120
Method : f:\vfa.met
Sample ID : p110417-08a
Acquired : Oct 30, 2001 19:59:12
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	0.611 mg/l	19158	2068
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.611	19158	2068


f:\10300120, Channel A
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
0
5
10
15
20
Minutes

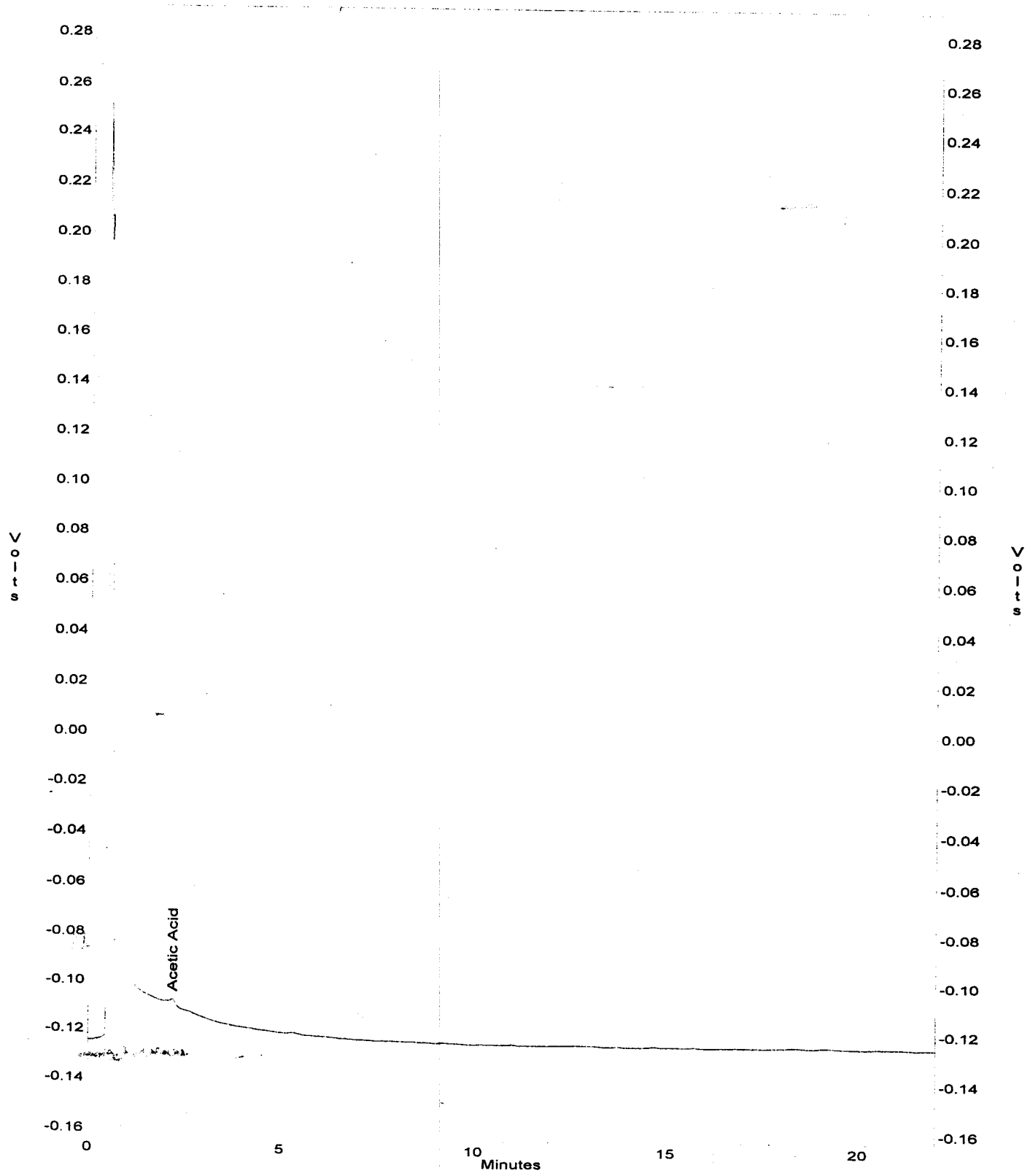
External Standard Report -- Channel A
File : f:\10300121
Method : f:\vfa.met
Sample ID : p110417-09a
Acquired : Oct 30, 2001 20:21:54
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	0.324 mg/l	14277	2058
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.324	14277	2058


f:\10300121, Channel A
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10300122
Method : f:\vfa.met
Sample ID : p110417-10a
Acquired : Oct 30, 2001 20:44:38
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	0.002 mg/l	8786	1430
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.002	8786	1430


f:\10300122, Channel A
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
0
5
10
15
20
Minutes

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110611
Project: CH2M Hill
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
17-3609C-Q401	C110611-1
17-3627A-Q401	C110611-2
17-3628B-Q401	C110611-3
17-36TB3-Q401	C110611-4

The above samples were received in good condition at STL Pensacola on October 25, 2001. The cooler temperature was 2°C.

Sample 17-3609C-Q401 (C110611-1) was spiked for MS/MSD.

Please reference CLP and STL Pensacola data qualifier sheets for flag information.

Rick Hayes
Senior Project Manager

11/8/01

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	210	350	57
Dilution Factor	1	1	1
Analysis Date	10.26.01	10.26.01	10.26.01
Analysis Time	17:50	17:50	17:50
Batch ID	AEW059	AEW059	AEW059
Analyst	BE	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)			
Nitrate + Nitrite-N, mg/l	0.23	2.8	0.19@
Nitrate-N, mg/l	0.23	2.8	0.19
Nitrite-N, mg/l	0.10U	0.10U	0.50U
Dilution Factor	1	1	1
Prep Date	10.25.01	10.25.01	10.25.01
Prep Time	13:30	13:30	13:30
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	13:08	13:08	13:08
Batch ID	N3W65D	N3W65D	N3W65D
Prep Method	4500N02B	4500N02B	4500N02B
Analyst	CR	CR	CR

CCI NAVY RAC PMO
NOV 13 2001

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
Chloride (325.2/4500E/9251), mg/l	17	8.9	48@
Dilution Factor	1	1	10
Prep Date	11.01.01	11.01.01	11.01.01
Prep Time	07:00	07:00	07:00
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	09:58	09:58	09:58
Batch ID	CKW60A	CKW60A	CKW60A
Prep Method	325.2	325.2	325.2
Analyst	AB	AB	AB
Total Dissolved Solids (160.1), mg/l	300	230	340
Dilution Factor	1	1	1
Prep Date	10.25.01	10.25.01	10.25.01
Prep Time	07:50	07:50	07:50
Analysis Date	10.26.01	10.26.01	10.26.01
Analysis Time	13:55	13:55	13:55
Batch ID	TDW094	TDW094	TDW094
Prep Method	160.1	160.1	160.1
Analyst	ST	ST	ST
Total Organic Carbon (9060), mg/l	35	18	48
Dilution Factor	5	1	10
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	09:44	09:44	09:44
Batch ID	TOW020	TOW020	TOW020
Prep Method			
Analyst	WG	WG	WG

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
Sulfide (376.1), mg/l	4.2	2.2	3.3
Dilution Factor	1	1	1
Analysis Date	10.31.01	10.31.01	10.31.01
Analysis Time	10:20	10:20	10:20
Batch ID	FEW045	FEW045	FEW045
Analyst	BH	BH	BH
Iron, Dissolved (6010B), ug/l	27B	77B	330
Dilution Factor	1	1	1
Prep Date	10.26.01	10.26.01	10.26.01
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	12:15	12:20	12:26
Batch ID	PD131	PD131	PD131
Prep Method	3005A	3005A	3005A
Analyst	CH	CH	CH

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LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
Petroleum Hydrocarbons (FL-PRO)			
Petroleum Range Organics (FL-PRO), ug/l	100U	100U	100U
Surrogate - o-Terphenyl	104 %	109 %	101 %
Surrogate - Nonatriacontane (C39)	90 %	102 %	94 %
Dilution Factor	1	1	1
Prep Date	10.30.01	10.30.01	10.30.01
Prep Time	14:37	14:37	14:37
Analysis Date	11.02.01	11.02.01	11.02.01
Analysis Time	01:46	01:54	02:02
Batch ID	FLW291	FLW291	FLW291
Prep Method	3520C	3520C	3520C
Analyst	KA	KA	KA

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
Volatile Organic Compounds (8260B)			
Benzene, ug/l	5.0U	5.0U	5.0U
Bromobenzene, ug/l	5.0U	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U	5.0U
Bromoform, ug/l	5.0U	5.0U	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,3-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,4-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0U	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U	5.0U

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LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
1,1-Dichloroethene, ug/l	0.29JU	5.0U	5.0U
cis-1,2-Dichloroethene, ug/l	57D	7.1	33D
trans-1,2-Dichloroethene, ug/l	0.96	5.0U	0.53
1,2-Dichloropropane, ug/l	5.0U	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U	5.0U
p-Isopropyltoluene, ug/l	5.0U	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U	5.0U
n-Propylbenzene , ug/l	5.0U	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U	5.0U
Styrene, ug/l	5.0U	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
Tetrachloroethene, ug/l	5.0U	0.40	5.0U
Toluene, ug/l	5.0U	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	5.0U	5.0U

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Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-1	17-3609C-Q401	10-24-01/11:00
10611-2	17-3627A-Q401	10-24-01/15:15
10611-3	17-3628B-Q401	10-24-01/16:00

PARAMETER	10611-1	10611-2	10611-3
1,1,2-Trichloroethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
Trichloroethene, ug/l	150D	1.5	6.8
Trichlorofluoromethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
Vinyl chloride, ug/l	0.18J	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U	10U
Surrogate - Dibromofluoromethane	93 %	86 %	100 %
Surrogate - Toluene-d8	99 %	99 %	99 %
Surrogate - 4-Bromofluorobenzene	93 %	93 %	99 %
Dilution Factor	1,10	1	1,5
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	12:14	15:48	16:32
Batch ID	BUW148	BUW148	BUW148
Prep Method	5030B	5030B	5030B
Analyst	GH	GH	GH

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-4	17-36TB3-Q401	10-24-01

PARAMETER	10611-4
Volatile Organic Compounds (8260B)	
Benzene, ug/l	5.0U
Bromobenzene, ug/l	5.0U
Bromochloromethane, ug/l	5.0U
Bromodichloromethane, ug/l	5.0U
Bromoform, ug/l	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U
Carbon tetrachloride, ug/l	5.0U
Chlorobenzene, ug/l	5.0U
Chloroethane, ug/l	5.0U
Chloroform, ug/l	5.0U
Chloromethane, ug/l	5.0U
2-Chlorotoluene, ug/l	5.0U
4-Chlorotoluene, ug/l	5.0U
Dibromochloromethane, ug/l	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U
1,2-Dibromo-3-chloropropane, ug/l	5.0U
1,2-Dichlorobenzene, ug/l	5.0U
1,3-Dichlorobenzene, ug/l	5.0U
1,4-Dichlorobenzene, ug/l	5.0U
Dichlorodifluoromethane, ug/l	5.0U
1,1-Dichloroethane, ug/l	5.0U
1,2-Dichloroethane, ug/l	5.0U
1,1-Dichloroethene, ug/l	5.0U
cis-1,2-Dichloroethene, ug/l	5.0U

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-4	17-36TB3-Q401	10-24-01

PARAMETER	10611-4
trans-1,2-Dichloroethene, ug/l	5.0U
1,2-Dichloropropane, ug/l	5.0U
1,3-Dichloropropane, ug/l	5.0U
2,2 Dichloropropane, ug/l	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U
Ethylbenzene, ug/l	5.0U
Hexachlorobutadiene, ug/l	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U
p-Isopropyltoluene, ug/l	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U
Naphthalene, ug/l	5.0U
n-Butylbenzene, ug/l	5.0U
n-Propylbenzene , ug/l	5.0U
sec-Butylbenzene, ug/l	5.0U
Styrene, ug/l	5.0U
t-Butylbenzene, ug/l	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U
Tetrachloroethene, ug/l	5.0U
Toluene, ug/l	5.0U
1,1,1-Trichloroethane, ug/l	5.0U
1,1,2-Trichloroethane, ug/l	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U
Trichloroethene, ug/l	5.0U

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Project: CTO-017, NTC ORLANDO
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Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-4	17-36TB3-Q401	10-24-01

PARAMETER	10611-4
Trichlorofluoromethane, ug/l	5.0U
1,2,3-Trichloropropane, ug/l	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U
Vinyl chloride, ug/l	5.0U
o-Xylene, ug/l	5.0U
m&p-Xylene, ug/l	10U
Surrogate - Dibromofluoromethane	90 %
Surrogate - Toluene-d8	97 %
Surrogate - 4-Bromofluorobenzene	93 %
Dilution Factor	1
Analysis Date	11.01.01
Analysis Time	17:12
Batch ID	BUW148
Prep Method	5030B
Analyst	GH

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Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	256	102 %	90-110
Dilution Factor	1	1	1	---	---
Analysis Date	10.26.01	10.26.01	10.26.01	---	---
Analysis Time	17:50	17:50	17:50	---	---
Batch ID	AEW059	AEW059	AEW059	AEW059	AEW059
Analyst	BE	BE	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	2.0	2.05	103 %	90-110
Nitrite-N, mg/l	0.10U	0.20	0.20	100 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	10.25.01	---	10.25.01	---	---
Prep Time	13:30	---	13:30	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	13:08	---	13:08	---	---
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	4500N02B	---	4500N02B	---	---
Analyst	CR	---	CR	---	---

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Chloride (325.2/4500E/9251), mg/l	<2.0	50.0	50.0	100 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	11.01.01	---	11.01.01	---	---
Prep Time	07:00	---	07:00	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	09:58	---	09:58	---	---
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A	CKW60A
Prep Method	325.2	---	325.2	---	---
Analyst	AB	---	AB	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	276	94 %	68-120
Dilution Factor	1		1	---	---
Prep Date	10.25.01	---	10.25.01	---	---
Prep Time	07:50	00:00	07:50	---	---
Analysis Date	10.26.01	---	10.26.01	---	---
Analysis Time	13:55	00:00	13:55	---	---
Batch ID	TDW094	TDW094	TDW094	TDW094	TDW094
Prep Method	160.1		160.1	---	---
Analyst	ST		ST	---	---

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Total Organic Carbon (9060), mg/l	1.0U	10	9.65	97 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	09:44	---	09:44	---	---
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Prep Method					
Analyst	WG	---	WG	---	---
Sulfide (376.1), mg/l	1.0U	20	18.5	93 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	10:20	---	10:20	---	---
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	100.0U	10000.0	9790.5	97.9 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	10.26.01	---	10.26.01	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	10:39	---	10:45	---	---
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method	3005A		3005A		
Analyst	CH	---	CH	---	---

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10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3690	109 %	55-118
Surrogate - o-Terphenyl	121 %	125	137	110 %	82-142
Surrogate - Nonatriacontane (C39)	121 %	50	43	86 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	14:37	---	14:37	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	01:14	---	01:22	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

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LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Volatile Organic Compounds (8260B)					
Benzene, ug/l	5.0U	10	9.9	99 %	89-111
Bromobenzene, ug/l	5.0U	10	9.7	97 %	63-153
Bromochloromethane, ug/l	5.0U	10	10.1	101 %	91-129
Bromodichloromethane, ug/l	5.0U	10	9.8	98 %	87-119
Bromoform, ug/l	5.0U	10	10.4	104 %	52-127
Bromomethane (Methyl bromide), ug/l	5.0U	10	9.5	95 %	63-140
Carbon tetrachloride, ug/l	5.0U	10	9.5	95 %	73-116
Chlorobenzene, ug/l	5.0U	10	10.0	100 %	93-113
Chloroethane, ug/l	5.0U	10	10.0	100 %	76-116
Chloroform, ug/l	5.0U	10	9.6	96 %	90-115
Chloromethane, ug/l	5.0U	10	9.3	93 %	60-118
2-Chlorotoluene, ug/l	5.0U	10	10.0	100 %	84-121
4-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	90-113
Dibromochloromethane, ug/l	5.0U	10	9.8	98 %	73-125
Dibromomethane (Methylene bromide), ug/l	5.0U	10	9.6	96 %	83-125
1,2-Dibromoethane (EDB), ug/l	5.0U	10	9.8	98 %	31-152
1,2-Dibromo-3-chloropropane, ug/l	5.0U	10	10.3	103 %	56-125
1,2-Dichlorobenzene, ug/l	5.0U	10	9.8	98 %	87-115
1,3-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	90-113

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Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
1,4-Dichlorobenzene, ug/l	5.0U	10	9.8	98 %	92-113
Dichlorodifluoromethane, ug/l	5.0U	10	8.8	88 %	30-152
1,1-Dichloroethane, ug/l	5.0U	10	9.4	94 %	90-114
1,2-Dichloroethane, ug/l	5.0U	10	9.5	95 %	88-125
1,1-Dichloroethene, ug/l	5.0U	10	10.0	100 %	84-117
cis-1,2-Dichloroethene, ug/l	5.0U	10	10.3	103 %	90-117
trans-1,2-Dichloroethene, ug/l	5.0U	10	9.5	95 %	88-112
1,2-Dichloropropane, ug/l	5.0U	10	10.1	101 %	87-112
1,3-Dichloropropane, ug/l	5.0U	10	10.1	101 %	73-124
2,2 Dichloropropane, ug/l	5.0U	10	9.9	99 %	74-112
cis-1,3-Dichloropropene, ug/l	5.0U	10	10.0	100 %	61-133
trans-1,3-Dichloropropene, ug/l	5.0U	10	10.0	100 %	51-144
Ethylbenzene, ug/l	5.0U	10	9.9	99 %	69-123
Hexachlorobutadiene, ug/l	5.0U	10	11.7	117 %	74-140
Isopropylbenzene (Cumene), ug/l	5.0U	10	10.3	103 %	56-134
p-Isopropyltoluene, ug/l	5.0U	10	10.7	107 %	30-172
Methylene chloride (Dichloromethane), ug/l	5.0U	10	9.9	99 %	81-117
Naphthalene, ug/l	5.0U	10	10.8	108 %	18-229
n-Butylbenzene, ug/l	5.0U	10	11.1	111 %	1-237
n-Propylbenzene , ug/l	5.0U	10	10.4	104 %	73-116
sec-Butylbenzene, ug/l	5.0U	10	10.4	104 %	53-134

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Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9
Styrene, ug/l	5.0U	10	10.1	101 %	76-127
t-Butylbenzene, ug/l	5.0U	10	10.0	100 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	5.0U	10	10.1	101 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	5.0U	10	9.5	95 %	69-134
Tetrachloroethene, ug/l	5.0U	10	10.2	102 %	88-117
Toluene, ug/l	5.0U	10	9.9	99 %	85-117
1,1,1-Trichloroethane, ug/l	5.0U	10	10.3	103 %	88-117
1,1,2-Trichloroethane, ug/l	5.0U	10	9.9	99 %	86-121
1,2,3-Trichlorobenzene, ug/l	5.0U	10	10.8	108 %	43-204
1,2,4-Trichlorobenzene, ug/l	5.0U	10	11.0	110 %	31-211
Trichloroethene, ug/l	5.0U	10	10.1	101 %	85-108
Trichlorofluoromethane, ug/l	5.0U	10	10.3	103 %	84-118
1,2,3-Trichloropropane, ug/l	5.0U	10	9.9	99 %	38-159
1,2,4-Trimethylbenzene, ug/l	5.0U	10	10.4	104 %	63-142
1,3,5-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	84-125
Vinyl chloride, ug/l	5.0U	10	9.6	96 %	72-116
o-Xylene, ug/l	5.0U	10	10.3	103 %	73-122
m&p-Xylene, ug/l	10U	20	20.4	102 %	70-125
Surrogate - Dibromofluoromethane	101 %	10	9.38	94 %	77-119
Surrogate - Toluene-d8	100 %	10	9.99	100 %	78-118
Surrogate - 4-Bromofluorobenzene	98 %	10	10.02	100 %	79-116
Dilution Factor	1	---	---	---	---
Analysis Date	11.01.01	---	---	---	---
Analysis Time	09:26	---	---	---	---
Batch ID	BUW148	BUW148	BUW148	BUW148	BUW148
Prep Method	5030B	---	---	---	---
Analyst	GH	---	---	---	---

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CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-5	Method Blank	
10611-6	Lab Control Standard True Value	
10611-7	Lab Control Standard Result	
10611-8	Lab Control Standard % Recovery	
10611-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10611-5	10611-6	10611-7	10611-8	10611-9

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	232	88 %	25	233
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.26.01	---	---	10.26.01
Analysis Time	---	17:50	---	---	17:50
Batch ID	AEW059	AEW059	AEW059	AEW059	AEW059
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.17	94 %	1.0	1.17
Nitrite-N, mg/l	0.40	0.31	78 %	0.40	0.39
Dilution Factor	---	1	---	---	1
Prep Date	---	10.25.01	---	---	10.25.01
Prep Time	---	13:30	---	---	13:30
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	13:08	---	---	13:08
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D	N3W65D
Prep Method	---	4500N02B	---	---	4500N02B
Analyst	---	CR	---	---	CR

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Chloride (325.2/4500E/9251), mg/l	25.0	44.4	108 %	25.0	45.1
Dilution Factor	---	1	---	---	1
Prep Date	---	11.01.01	---	---	11.01.01
Prep Time	---	07:00	---	---	07:00
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	09:58	---	---	09:58
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A	CKW60A
Prep Method	---	325.2	---	---	325.2
Analyst	---	AB	---	---	AB
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	10	41.3	58 %	10	41.2
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	09:44	---	---	09:44
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Prep Method					
Analyst	---	WG	---	---	WG

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Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Sulfide (376.1), mg/l	10	12.8	86 %	10	13.5
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.31.01	---	---	10.31.01
Analysis Time	---	10:20	---	---	10:20
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	---	BH	---	---	BH
Iron, Dissolved (6010B), ug/l	10000.0	10117.5	100.6 %	10000.0	10237.0
Dilution Factor	---	1	---	---	1
Prep Date	---	10.26.01	---	---	10.26.01
Analysis Date	---	10.29.01	---	---	10.29.01
Analysis Time	---	11:02	---	---	11:07
Batch ID	PD131	PD131	PD131	PD131	PD131
Prep Method		3005A			3005A
Analyst	---	CH	---	---	CH

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Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	3400	4031	116 %	3400	3816
Surrogate - o-Terphenyl	125	129	103 %	125	128
Surrogate - Nonatriacontane (C39)	50	53	106 %	50	41
Dilution Factor	---	1	---	---	1
Prep Date	---	10.30.01	---	---	10.30.01
Prep Time	---	14:37	---	---	14:37
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	01:30	---	---	01:38
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	---	3520C	---	---	3520C
Analyst	---	KA	---	---	KA

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Volatile Organic Compounds (8260B)					
Benzene, ug/l	10	9.9	99 %	10	9.7
Bromobenzene, ug/l	10	10.0	100 %	10	9.7
Bromochloromethane, ug/l	10	9.4	94 %	10	9.6
Bromodichloromethane, ug/l	10	9.5	95 %	10	9.9
Bromoform, ug/l	10	9.8	98 %	10	10.5
Bromomethane (Methyl bromide), ug/l	10	8.3	83 %	10	6.8
Carbon tetrachloride, ug/l	10	9.4	94 %	10	8.9
Chlorobenzene, ug/l	10	10.0	100 %	10	9.8
Chloroethane, ug/l	10	9.7	97 %	10	9.4
Chloroform, ug/l	10	9.5	95 %	10	9.9
Chloromethane, ug/l	10	8.4	84 %	10	7.8
2-Chlorotoluene, ug/l	10	10.3	103 %	10	9.6
4-Chlorotoluene, ug/l	10	10.4	104 %	10	9.7
Dibromochloromethane, ug/l	10	9.4	94 %	10	10.2
Dibromomethane (Methylene bromide), ug/l	10	9.3	93 %	10	9.8
1,2-Dibromoethane (EDB), ug/l	10	9.5	95 %	10	10.1
1,2-Dibromo-3-chloropropane, ug/l	10	9.6	96 %	10	10.7
1,2-Dichlorobenzene, ug/l	10	9.9	99 %	10	9.8
1,3-Dichlorobenzene, ug/l	10	10.1	101 %	10	9.6
1,4-Dichlorobenzene, ug/l	10	9.8	98 %	10	9.5

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
Dichlorodifluoromethane, ug/l	10	8.1	81 %	10	8.5
1,1-Dichloroethane, ug/l	10	9.0	90 %	10	9.3
1,2-Dichloroethane, ug/l	10	9.3	93 %	10	9.8
1,1-Dichloroethene, ug/l	10	9.9	99 %	10	10.0
cis-1,2-Dichloroethene, ug/l	10	N/C	---	10	N/C
trans-1,2-Dichloroethene, ug/l	10	10.0	90 %	10	10.6
1,2-Dichloropropane, ug/l	10	9.9	99 %	10	10.2
1,3-Dichloropropane, ug/l	10	9.6	96 %	10	10.4
2,2 Dichloropropane, ug/l	10	9.5	95 %	10	9.6
cis-1,3-Dichloropropene, ug/l	10	9.5	95 %	10	9.5
trans-1,3-Dichloropropene, ug/l	10	9.6	96 %	10	9.7
Ethylbenzene, ug/l	10	10.0	100 %	10	9.6
Hexachlorobutadiene, ug/l	10	12.4	124 %	10	11.2
Isopropylbenzene (Cumene), ug/l	10	10.4	104 %	10	9.9
p-Isopropyltoluene, ug/l	10	10.9	109 %	10	10.1
Methylene chloride (Dichloromethane), ug/l	10	9.5	95 %	10	10.0
Naphthalene, ug/l	10	10.6	106 %	10	11.2
n-Butylbenzene, ug/l	10	11.2	112 %	10	10.5
n-Propylbenzene , ug/l	10	10.6	106 %	10	10.0
sec-Butylbenzene, ug/l	10	10.7	107 %	10	9.8
Styrene, ug/l	10	9.9	99 %	10	9.7

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Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-10	MS True Value	
10611-11	Matrix Spike Result	
10611-12	Matrix Spike % Recovery	
10611-13	MSD True Value	
10611-14	Matrix Spike Duplicate Result	

PARAMETER	10611-10	10611-11	10611-12	10611-13	10611-14
t-Butylbenzene, ug/l	10	10.1	101 %	10	9.5
1,1,1,2-Tetrachloroethane, ug/l	10	9.9	99 %	10	10.1
1,1,2,2-Tetrachloroethane, ug/l	10	9.4	94 %	10	10.0
Tetrachloroethene, ug/l	10	10.3	103 %	10	10.0
Toluene, ug/l	10	9.7	97 %	10	9.7
1,1,1-Trichloroethane, ug/l	10	10.0	100 %	10	10.2
1,1,2-Trichloroethane, ug/l	10	9.3	93 %	10	10.2
1,2,3-Trichlorobenzene, ug/l	10	10.9	109 %	10	11.0
1,2,4-Trichlorobenzene, ug/l	10	11.0	110 %	10	11.0
Trichloroethene, ug/l	10	N/C	---	10	N/C
Trichlorofluoromethane, ug/l	10	9.7	97 %	10	10.0
1,2,3-Trichloropropane, ug/l	10	9.7	97 %	10	10.2
1,2,4-Trimethylbenzene, ug/l	10	10.6	106 %	10	10.0
1,3,5-Trimethylbenzene, ug/l	10	10.1	101 %	10	9.4
Vinyl chloride, ug/l	10	9.3	91 %	10	9.4
o-Xylene, ug/l	10	10.3	103 %	10	10.0
m&p-Xylene, ug/l	20	20.5	103 %	20	19.8
Surrogate - Dibromofluoromethane	10	---	98 %	10	---
Surrogate - Toluene-d8	10	---	99 %	10	---
Surrogate - 4-Bromofluorobenzene	10	---	99 %	10	---
Dilution Factor	---	1	---	---	5
Analysis Date	---	11.01.01	---	---	11.02.01
Analysis Time	---	10:48	---	---	12:44
Batch ID	BUW148	BUW148	BUW148	BUW148	BUW148
Prep Method	---	5030B	---	---	5030B
Analyst	---	GH	---	---	GH

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SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-10611
Received: 25 OCT 01
Reported: 07 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 17531117

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10611-15	Matrix Spike Duplicate % Recovery	
10611-16	MS Accuracy Advisory Limit (%R)	
10611-17	Precision (%RPD) MS/MSD	
10611-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10611-15	10611-16	10611-17	10611-18
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	92 %	90-110	4	20
Batch ID	AEW059	AEW059	AEW059	AEW059
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	94 %	67-126	0	20
Nitrite-N, mg/l	98 %	72-128	23	20
Batch ID	N3W65D	N3W65D	N3W65D	N3W65D
Chloride (325.2/4500E/9251), mg/l	111 %	81-131	3	20
Batch ID	CKW60A	CKW60A	CKW60A	CKW60A
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	57 %	52-139	2	27
Batch ID	TOW020	TOW020	TOW020	TOW020
Prep Method				
Sulfide (376.1), mg/l	93 %	90-110	8	20
Batch ID	FEW045	FEW045	FEW045	FEW045
Iron, Dissolved (6010B), ug/l	101.8 %	75-125	1.2	20
Batch ID	PD131	PD131	PD131	PD131
Prep Method				

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REPORT OF RESULTS

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10611-15	Matrix Spike Duplicate % Recovery	
10611-16	MS Accuracy Advisory Limit (%R)	
10611-17	Precision (%RPD) MS/MSD	
10611-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10611-15	10611-16	10611-17	10611-18
Petroleum Hydrocarbons (FL-PRO)				
Petroleum Range Organics (FL-PRO), ug/l	110 %	41-101	20	6
Surrogate - o-Terphenyl	102 %	82-142	---	---
Surrogate - Nonatriacontane (C39)	82 %	42-193	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291

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Code: 17531117

REPORT OF RESULTS

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10611-15	Matrix Spike Duplicate % Recovery	
10611-16	MS Accuracy Advisory Limit (%R)	
10611-17	Precision (%RPD) MS/MSD	
10611-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10611-15	10611-16	10611-17	10611-18
Volatile Organic Compounds (8260B)				
Benzene, ug/l	97 %	67-148	2	8
Bromobenzene, ug/l	97 %	73-140	3	14
Bromochloromethane, ug/l	96 %	85-130	2	18
Bromodichloromethane, ug/l	99 %	65-133	4	19
Bromoform, ug/l	105 %	62-124	7	29
Bromomethane (Methyl bromide), ug/l	68 %	59-152	21M2	17
Carbon tetrachloride, ug/l	89 %	78-121	5	11
Chlorobenzene, ug/l	98 %	66-156	2	10
Chloroethane, ug/l	94 %	73-123	3	10
Chloroform, ug/l	99 %	87-117	4	13
Chloromethane, ug/l	78 %	60-124	7	10
2-Chlorotoluene, ug/l	96 %	85-122	7	15
4-Chlorotoluene, ug/l	97 %	87-122	7	13
Dibromochloromethane, ug/l	102 %	83-122	8	27
Dibromomethane (Methylene bromide), ug/l	98 %	81-130	5	20
1,2-Dibromoethane (EDB), ug/l	101 %	36-153	6	26
1,2-Dibromo-3-chloropropane, ug/l	107 %	71-118	11	33
1,2-Dichlorobenzene, ug/l	98 %	86-120	1	12
1,3-Dichlorobenzene, ug/l	96 %	89-118	5	10
1,4-Dichlorobenzene, ug/l	95 %	78-138	3	10
Dichlorodifluoromethane, ug/l	85 %	35-160	5	12
1,1-Dichloroethane, ug/l	93 %	85-121	3	10

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10611-16	MS Accuracy Advisory Limit (%R)	
10611-17	Precision (%RPD) MS/MSD	
10611-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10611-15	10611-16	10611-17	10611-18
1,2-Dichloroethane, ug/l	98 %	85-129	5	17
1,1-Dichloroethene, ug/l	100 %	84-119	1	13
trans-1,2-Dichloroethene, ug/l	96 %	87-115	6	9
1,2-Dichloropropane, ug/l	102 %	88-114	3	12
1,3-Dichloropropane, ug/l	104 %	73-126	8	19
2,2 Dichloropropane, ug/l	96 %	78-116	1	10
cis-1,3-Dichloropropene, ug/l	95 %	65-133	0	19
trans-1,3-Dichloropropene, ug/l	97 %	53-144	1	19
Ethylbenzene, ug/l	96 %	78-132	4	14
Hexachlorobutadiene, ug/l	112 %	70-156	10	18
Isopropylbenzene (Cumene), ug/l	99 %	65-149	5	20
p-Isopropyltoluene, ug/l	101 %	35-190	8	22
Methylene chloride (Dichloromethane), ug/l	100 %	81-121	5	18
Naphthalene, ug/l	112 %	17-260	6	42
n-Butylbenzene, ug/l	105 %	1-270	7	40
n-Propylbenzene , ug/l	100 %	76-123	6	16
sec-Butylbenzene, ug/l	98 %	62-144	9	18
Styrene, ug/l	97 %	55-138	2	43
t-Butylbenzene, ug/l	95 %	73-113	6	16
1,1,1,2-Tetrachloroethane, ug/l	101 %	84-124	2	12
1,1,2,2-Tetrachloroethane, ug/l	100 %	75-127	6	25
Tetrachloroethene, ug/l	100 %	87-131	3	13
Toluene, ug/l	97 %	86-123	0	8

029

SEVERN TRENT SERVICES

STL Pensacola

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10611-16	MS Accuracy Advisory Limit (%R)	
10611-17	Precision (%RPD) MS/MSD	
10611-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10611-15	10611-16	10611-17	10611-18
1,1,1-Trichloroethane, ug/l	102 %	90-120	2	10
1,1,2-Trichloroethane, ug/l	102 %	85-125	9	20
1,2,3-Trichlorobenzene, ug/l	110 %	49-214	1	33
1,2,4-Trichlorobenzene, ug/l	110 %	30-230	0	32
Trichlorofluoromethane, ug/l	100 %	84-125	3	10
1,2,3-Trichloropropane, ug/l	102 %	75-127	5	26
1,2,4-Trimethylbenzene, ug/l	100 %	50-158	6	30
1,3,5-Trimethylbenzene, ug/l	94 %	72-140	7	25
Vinyl chloride, ug/l	92 %	74-125	1	9
o-Xylene, ug/l	100 %	76-127	3	13
m&p-Xylene, ug/l	99 %	76-129	4	20
Surrogate - Dibromofluoromethane	102 %	77-119	---	---
Surrogate - Toluene-d8	100 %	78-118	---	---
Surrogate - 4-Bromofluorobenzene	101 %	79-116	---	---
cis-1,2-Dichloroethene, ug/l	---	65-133	N/C	19
Trichloroethene, ug/l	---	86-115	N/C	11
Batch ID	BUW148	BUW148	BUW148	BUW148

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

Final Page Of Report

030

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110611 Date Received: 10-25-01

1. Was there a Chain of Custody? (Yes) No♣
2. Was Chain of Custody properly filled out and relinquished? (Yes) No♣
3. Were samples received cold? (Yes) No♣ N/A
   (Criteria: 2° - 6°C: STL-SOP
4. Were all samples properly labeled and identified? (Yes) No♣
5. Did samples require splitting or compositing♦? Yes♣ (No)
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? (Yes) No♣
7. Were all sample containers received intact? (Yes) No♣
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ (Yes) No♣ N/A
9. Is there sufficient volume for analysis requested? (Yes) No♣ N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No♣
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes♣ (No) N/A
12. If sent, were matrix spike bottles returned? (Yes) No♣ N/A
13. Was Project Manager notified of problems? (initials: PSI DMH 10.25.01) (Yes) No♣ N/A

Airbill Number(s): 8307 0936 7102

Shipped By: FedEx

Cooler Number(s): 8221

Shipping Charges: N/A

Cooler Weight(s): 83*

Cooler Temp(s) (°C): 2.0°C (CCK3)
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

12. MS/MSD returned for all parameters for sample 36096C. DMH 10-25-01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH Date: 10-25-01 Logged By: PRE Date: 10/25/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

C11061

FedEx Express -USA Airbill

FedEx Tracking Number 830709367102

Form ID No. 0200 Recipient's Copy

1 From

Date 10-24-01

Sender's Name ISAAC LYNCH Phone 352 339 6820

Company CRM H.I.C. / CCI

Address 1060 Wade House Dept./Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.72:01.08

3 To

Recipient's Name RICK HAYES Phone 850 474 1001

Company SYNNT TYNT LABS

Address 3355 MCLemore DR

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8307 0936 7102

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	183	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

033

STL Pensacola

Labeled by: DMH
Delivered by: DMH

CH2M-CONST-GA C110611
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
~~1/2 Gal~~ 800 Plastic		✓					H2003	5	~	~	
32 oz. Plastic											
16 oz. Plastic	✓						ZnAc/NaOH	5	BE	10.25.01	1040
8 oz. Plastic	✓						H2SO4 Ø	5 20	↓	10-25-01	↓
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCl	5	~	~	
500 ml Amber											
250 ml Amber											
~~120~~ 40ml ml Amber						✓	HCl Ø	1	BH	10-25-01	10:51
40 ml Vial	✓						H2SO4	10	BE	10.25.01	1040
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

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Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension grante

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/0

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/01

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

Total Dissolved Solids Worksheet

Method # 160.1, SM2540C

Batch #	TDW094
Prep Date	10/25/01 0750
Run Date	10/26/01 1355

Analyst	ST

	batch sample id's	Conductivity	tare number	sample volume (mls)	dish weight before (g)	dish weight final (g) @ 180c	TDS final result (mg/l)	
Prep Blank	PREP BLANK		7	50	56.8298	56.8298	0.0	ND
LCS-1	LCS 293 mg/l		417	50	53.4851	53.4989	276.0	94%
original 1	110557-1		423	50	51.0631	51.0686	110.0	RPD=
duplicate 1	110557-1		6	50	56.7281	56.7336	110.0	0%
2	-2		3	50	55.7612	55.7637	50.0	
3	-3		404	50	52.4031	52.4103	144.0	
4	-4		320	50	48.6205	48.6237	64.0	
5	-5		24	50	57.7262	57.7286	48.0	
6	-6		111	50	57.8532	57.8534	4.0	
7	-7		4	50	56.7536	56.7536	0.0	
8	110599-1		1	50	55.6243	55.6258	30.0	
9	-2		315	50	53.0887	53.0908	42.0	
10	-3		408	50	52.7719	52.7745	52.0	
LCS-2	LCS 293 mg/l		300	50	49.9239	49.9373	268.0	91%
1220 *11*	110611-1		115	50	59.1500	59.1651	302.0	RPD=
duplicate 11	110611-1		403	50	53.7639	53.7791	304.0	1%
12	-2		416	50	53.2792	53.2905	226.0	
13	-3		305	50	49.2939	49.3110	342.0	
14								
15								
16								
17								
18								
19								
20								

10-29-01

Custody for the above referenced samples was maintained by the analyst listed at the top of this page. ST

Q/C Limits		
	Reporting limit is	5 mg/L
	LCS Recovery range limit is	68-120%
	RPD limit is	19.

PROOFED BY AS

DATED 10-29-01

Printed : 10/26/01 14:01

041

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW059

Analysis Date: 10-26-01 Analysis Time On: 1750 Analysis Time Off: 1830 Data Reviewed By: AB 10/30/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0202 LOT # H_2SO_4 = T3268 Baker LOT # 0.05N Na_2CO_3 = 7528 Mallinckrodt

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	23.30	H_2SO_4-N -12-10-01	0.02024
10 ml	Na_2CO_3-N- 12-11-01	23.39	H_2SO_4-N- 12-10-01	0.02016

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant HI (B)	ml Titrant LO (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.49	N/A	50 ml		0.40	12.90	256/250	1.0
1. 116611-1 C NI		10.54	WA	100		2.98		210	
MS[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 1A		10.70				23.00		232-216/25 = 88%	
MSD[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 1B		10.70				23.12		233-210/25 = 92%	
2. -2		6.87				3.470		350	
3. -3		5.89				5.65		57.0	
4. 116655 -1		5.61				6.59		66.5	
5. -2		5.58				7.37		74	
6. -3		5.68				7.02		70.9	
7.									
8.									
9.				BE 10-30-01					
10.									
[7]Alk-CCV-I- 12-01-01	N/A	10.42	QC	10 ml / 100 ml		25.07		253	1.0
CCB (blank)	N/A	5.60	DI Water			0.20	0.40	ND	
DUP[5]									
11.									
12.									
13.									
14.									
15.				BE 10-30-01					
16.									
17.									
18.									
19.									
20.									
[7]Alk-CCV-I-	N/A		QC	10 ml / 100 ml					
CCB (blank)	N/A		DI Water						

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or ↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

word\forms\alkalin\al-bench.doc (ab 07/03/01)

[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

N02N03 353.2/SM4500NO3 F

N3W65A,B,C,D

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	51520112	5.0	51520112					0.0	0.0	1.6
2	32807866	3.0	32807866					0.0	0.0	-3.9
3	11160541	1.0	11160541					0.0	0.0	-3.0
4	5716317	0.5	5716317					0.0	0.0	-1.0
5	1264397	0.1	1264397					0.0	0.0	24.2
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.639e-008 Area - 4.609e-002
r = 0.9994

Scaling: None - Weighting: None

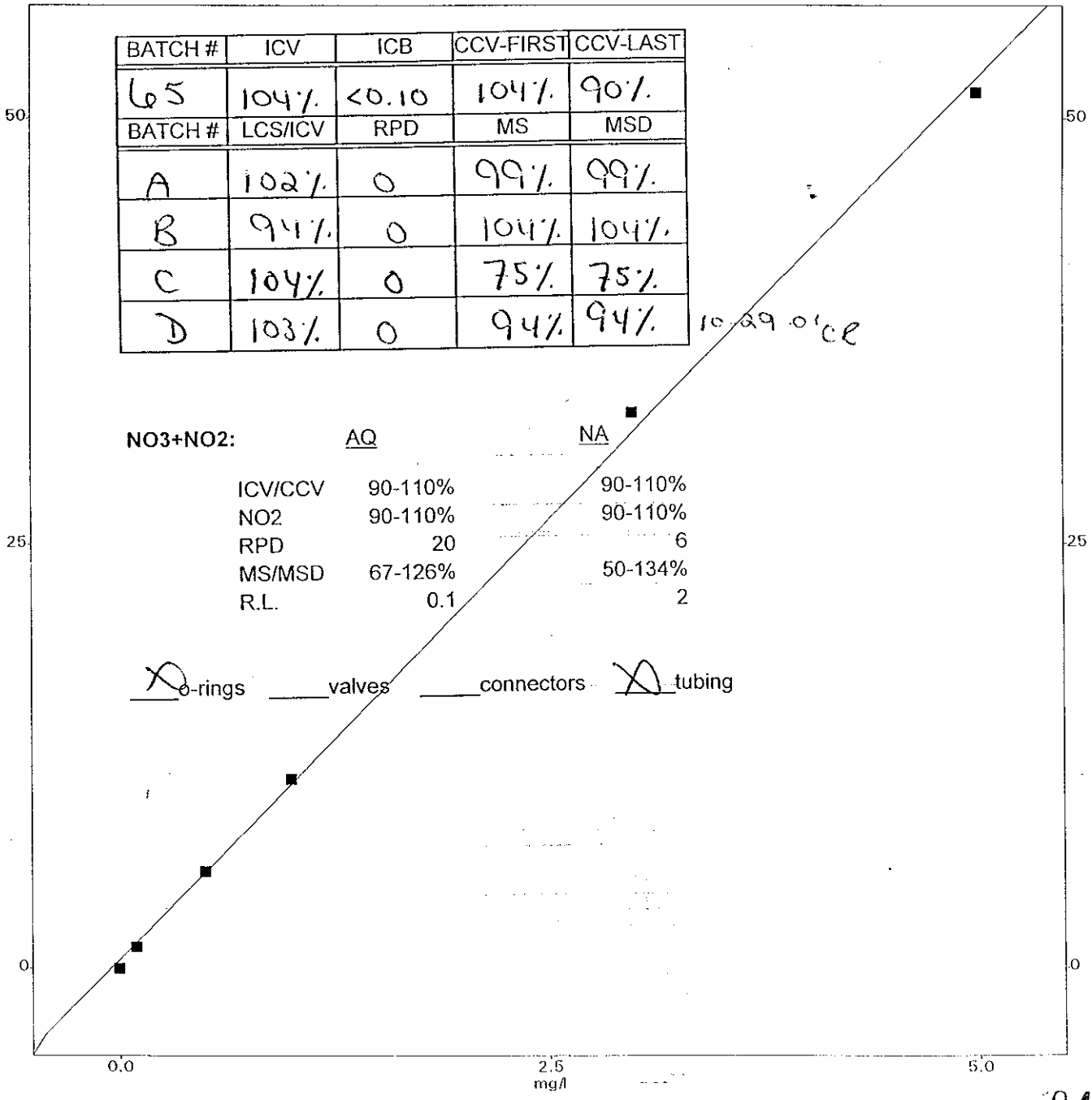
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
65	104%	<0.10	104%	90%
BATCH #	LCS/ICV	RPD	MS	MSD
A	102%	0	99%	99%
B	94%	0	104%	104%
C	104%	0	75%	75%
D	103%	0	94%	94%

10-29-01 CE

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings ____valves ____connectors X tubing



Printed: Monday, October 29, 2001 - 09:29 AM

N3W65A;B;C;D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 8:17:03
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65A.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 7:26:35
Modified: Oct 29, 2001 7:26:35
N3W65A
DATA DESCRIPTION:
Created: Oct 29, 2001 8:17:03
Modified: Oct 29, 2001 8:17:03

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	29 Oct 2001	08:17:04	1	51520112.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	29 Oct 2001	08:17:57	1	32807866.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	29 Oct 2001	08:18:49	1	11160541.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	29 Oct 2001	08:19:42	1	5716317.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	29 Oct 2001	08:20:35	1	1264397.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	29 Oct 2001	08:21:29	1	0.00	1.0	1.00	1.00000	g

N3W65D

OPERATOR: C ROBERTS
ACQ. TIME: Oct 29, 2001 13:08:12
DATA FILENAME: C:\OMNION\DATA\NO3\N3W65D.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W65D.TRA

TRAY DESCRIPTION:
Created: Oct 29, 2001 13:03:02
Modified: Oct 29, 2001 13:03:02
N3W65D
DATA DESCRIPTION:
Created: Oct 29, 2001 13:08:12
Modified: Oct 29, 2001 13:08:12

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 22, 2001 11:47:26
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit

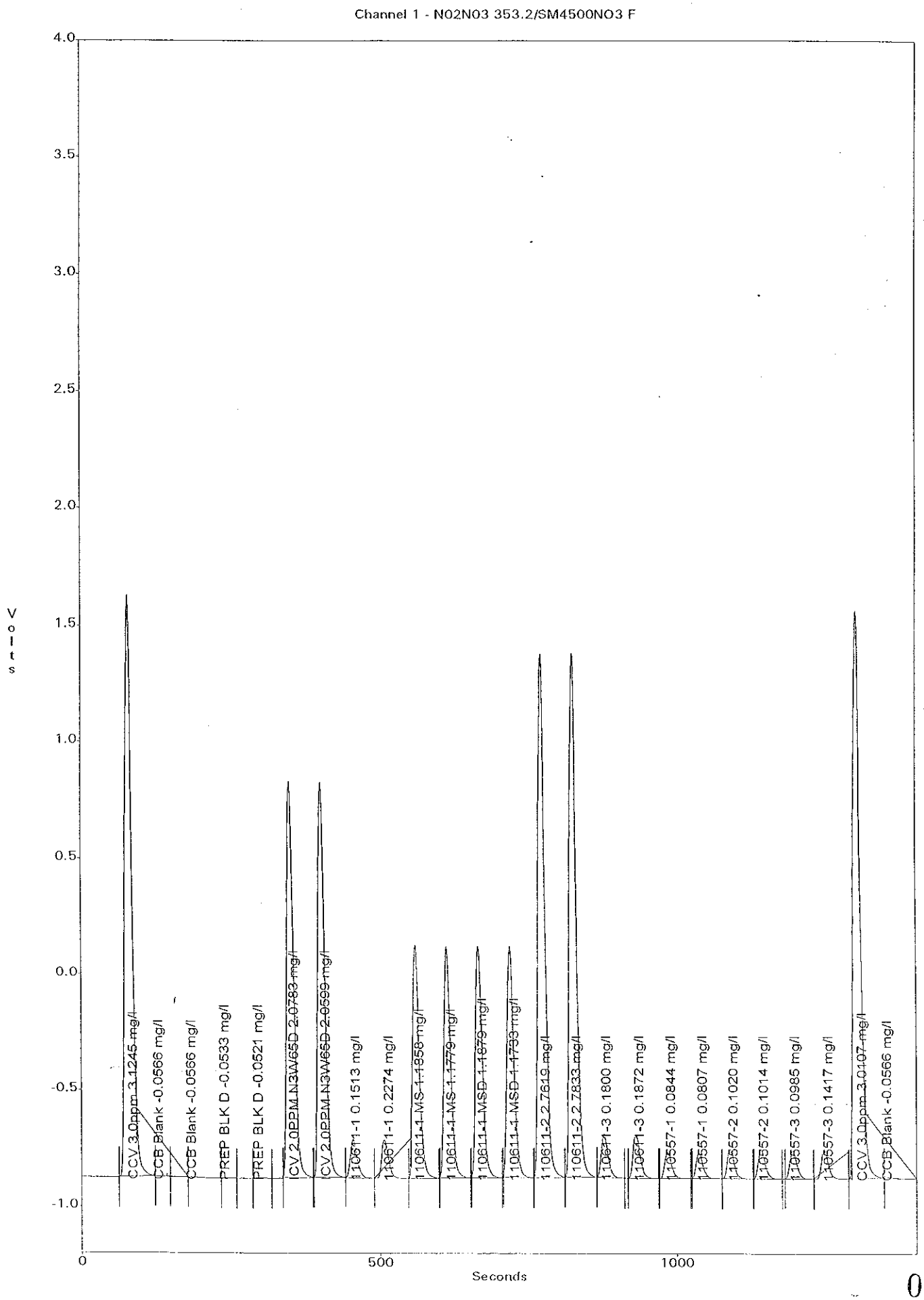
NO SAMPLE INFO FOR THE SELECTED CUP RANGE

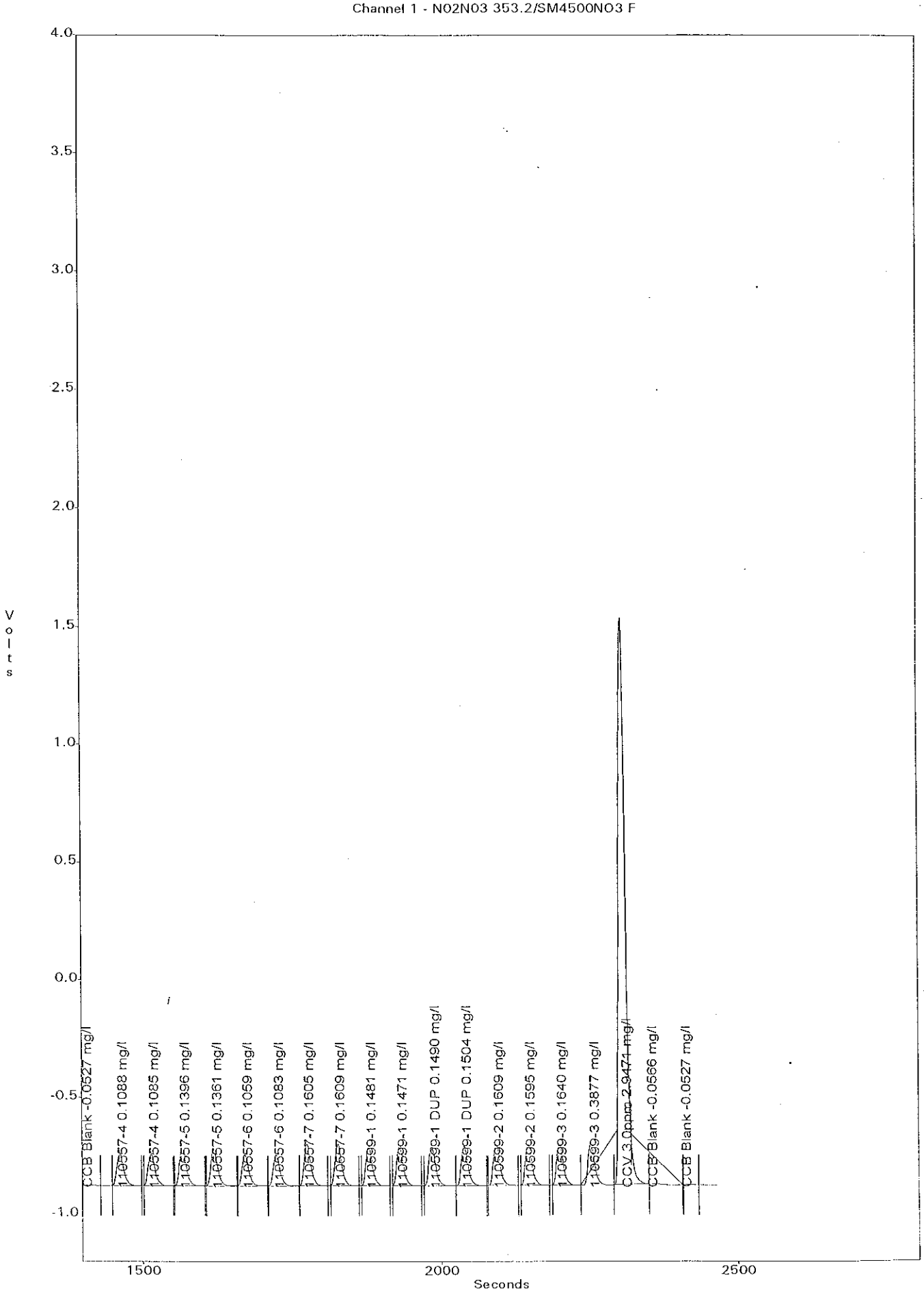
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)		Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK D	Blank	29 Oct 2001	13:10:59	1	~0	-0.0533	1.0	1.00	1.00000	g
				13:11:54	2		-0.0521				
2	ICV 2.0PPM N3W65D	RelChkStd	29 Oct 2001	13:12:47	1	103%	2.0783	1.0	1.00	1.00000	g
				13:13:40	2		2.0599				
				Known Concentration:			0.0000				
				% Difference:			0.0000				
3	110611-1	Dup1	29 Oct 2001	13:14:33	1		0.1513	1.0	1.00	1.00000	g
				13:15:26	2		0.2274				
4	110611-1 MS	Spiked	29 Oct 2001	13:16:19	1	94%	1.1858	1.0	1.00	1.00000	g
				13:17:12	2		1.1779				
				Spike Level:			1.0000				
				% Spike Recovery:		RPD=0	99.2494				
5	110611-1 MSD	Spiked	29 Oct 2001	13:18:05	1	94%	1.1879	1.0	1.00	1.00000	g
				13:18:58	2		1.1733				
				Spike Level:			1.0000				
				% Spike Recovery:			99.1280				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:08:16	1	104%	3.1245	1.0	1.00	1.00000	g
				Known Concentration:			3.0000				
				% Difference:			4.1489				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:28:39	1	100%	3.0107	1.0	1.00	1.00000	g
				Known Concentration:			3.0000				
				% Difference:			0.3563				
15	CCV 3.0ppm	RelChkStd	29 Oct 2001	13:45:26	1	98%	2.9471	1.0	1.00	1.00000	g
				Known Concentration:			3.0000				
				% Difference:			-1.7637				
16	CCB Blank	Blank	29 Oct 2001	13:09:11	1	~0	-0.0566	1.0	1.00	1.00000	g
				13:10:06	2		-0.0566				
16	CCB Blank	Blank	29 Oct 2001	13:29:33	1	~0	-0.0566	1.0	1.00	1.00000	g
				13:30:28	2		-0.0527				
16	CCB Blank	Blank	29 Oct 2001	13:46:20	1	~0	-0.0566	1.0	1.00	1.00000	g
				13:47:15	2		-0.0527				

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110611-2	29 Oct 2001	13:19:51	1	2.7619	1.0	1.00	1.00000	g	
			13:20:44	2	2.7833					
7	110611-3	29 Oct 2001	13:21:37	1	0.1800	1.0	1.00	1.00000	g	
			13:22:30	2	0.1872					
8	110557-1	29 Oct 2001	13:23:23	1	~ND 0.0844	1.0	1.00	1.00000	g	
			13:24:16	2	0.0807					
9	110557-2	29 Oct 2001	13:25:08	1	0.1020	1.0	1.00	1.00000	g	
			13:26:00	2	0.1014					
10	110557-3	29 Oct 2001	13:26:52	1	~ND 0.0985	1.0	1.00	1.00000	g	See graph
			13:27:44	2	0.1417					
11	110557-4	29 Oct 2001	13:31:21	1	0.1088	1.0	1.00	1.00000	g	
			13:32:13	2	0.1085					
12	110557-5	29 Oct 2001	13:33:05	1	0.1396	1.0	1.00	1.00000	g	
			13:33:57	2	0.1361					
13	110557-6	29 Oct 2001	13:34:49	1	0.1059	1.0	1.00	1.00000	g	
			13:35:41	2	0.1083					
14	110557-7	29 Oct 2001	13:36:33	1	0.1605	1.0	1.00	1.00000	g	
			13:37:25	2	0.1609					
15	110599-1	29 Oct 2001	13:38:17	1	0.1481	1.0	1.00	1.00000	g	
			13:39:09	2	0.1471					
16	110599-1 DUP	29 Oct 2001	13:40:03	1	0.1490	1.0	1.00	1.00000	g	
			13:40:57	2	0.1504					
17	110599-2	29 Oct 2001	13:41:51	1	0.1609	1.0	1.00	1.00000	g	
			13:42:45	2	0.1595					
18	110599-3	29 Oct 2001	13:43:38	1	0.1640	1.0	1.00	1.00000	g	See graph
			13:44:31	2	0.3877					


Channel 1 - N02N03 353.2/SM4500NO3 F
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
0
500
1000
Seconds
CCV 3.0ppm 3.1245 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0566 mg/l
PREP BLK D -0.0533 mg/l
PREP BLK D -0.0521 mg/l
ICV 2.0PPM N3W65D 2.0783 mg/l
CV 2.0PPM N3W65D 2.0599 mg/l
110611-1 0.1513 mg/l
110611-1 0.2274 mg/l
110611-4 MS 1.1858 mg/l
110611-4 MS 1.1779 mg/l
110611-4 MSD 1.1879 mg/l
110611-4 MSD 1.1733 mg/l
110611-2 2.7619 mg/l
110611-2 2.7833 mg/l
110611-3 0.1800 mg/l
110611-3 0.1872 mg/l
110557-1 0.0844 mg/l
110557-1 0.0807 mg/l
110557-2 0.1020 mg/l
110557-2 0.1014 mg/l
110557-3 0.0985 mg/l
110557-3 0.1417 mg/l
CCV 3.0ppm 3.0107 mg/l
CCB Blank -0.0566 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
Volts
1500
2000
2500
Seconds
CCB Blank -0.0527 mg/l
10557-4 0.1088 mg/l
10557-4 0.1085 mg/l
10557-5 0.1396 mg/l
10557-5 0.1361 mg/l
10557-6 0.1059 mg/l
10557-6 0.1083 mg/l
10557-7 0.1605 mg/l
10557-7 0.1609 mg/l
10599-1 0.1481 mg/l
10599-1 0.1471 mg/l
10599-1 DUP 0.1490 mg/l
10599-1 DUP 0.1504 mg/l
10599-2 0.1609 mg/l
10599-2 0.1595 mg/l
10599-3 0.1640 mg/l
10599-3 0.3877 mg/l
CCV 3.0ppm 2.9474 mg/l
CCB Blank -0.0566 mg/l
CCB Blank -0.0527 mg/l

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
10-26-01	110581-16	WQ	1400 N3W65C (cont.
↓	-17	↓	↓
10-29-01	110254-15		
↓	↓ -16	↓	↓
10-29-01	PREP BLK		0700 N3W65D
↓	ICV		↓
	110611-1	WQ	
	↓ -2	↓	
	↓ -3		
	110557-1		
	↓ -2	↓	
	-3		
	-4		
	-5		
	-6		
	↓ -7		
	110599-1		
	↓ -2	↓	
↓	↓ -3	↓	↓

REVIEWED AB 10/24/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

	Water	Soil
RPD	20	20
SPIKE	72-128%	70-127%
ICV/CCV	90-110%	90-110%

Chemist[1]: RB & CR Batch #: N2W 203

Analysis Date: 10-25-01 Analysis Time On: 13:30 Analysis Time Off: 14:05

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]	
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A	ND	0.10	
ICV (0.2 ppm) 10-25-01	NO_2-ICV-I[4]	0.5/25 mL	N/A	0.535	0.204	N/A	.20/.20=	0.10	100%
CCV LOW (0.2 ppm) 10-25-01	NO_2-CCV-I[5]	0.5/25 mL	N/A	0.542	0.207	N/A	.21/.20=	0.10	105%
[1] 110611-1	wa	25ml	–	0.018	0.007	–	ND	0.10	
MS[6] (0.2 ppm) -1 10-25-01	NO_2-CCV-I[5]	0.5/25 mL	–	0.400	0.153	X2	.31/.40=	0.10	78%
MSD[6] (0.2 ppm) -1 10-25-01	NO_2-CCV-I[5]	0.5/25 mL	–	0.512	0.195	X2	.39/.40=	0.10	98%
2 -2	wa	25ml	–	0.165	0.063	–	ND	0.10	
3 -3	↓	5/25	0.435	0.364	0.026	X5	ND	~~0.10~~ 0.50	0.29
[4] 110615-1		5/25	0.144	0.256	0.043	X5	ND	~~0.10~~ 0.50	
5 -2		25ml	–	1.439	Over Cal		see Below	0.10	
6 -3		25ml	–	0.102	0.039	–	ND	0.10	
7 -4		25ml	–	0.009	0.004	–	ND	0.10	
8 110615-2	wa	~~5~~/25ml	0.004	0.239	0.090	X5	ND	~~0.10~~ 0.50	10-29-01
9								0.10	
								0.10	
NO_2-CCV-I (0.4 ppm) 10-25-01	CCV HIGH	1.0/25mL	N/A	1.100	0.419	N/A	.42/.40=	0.10	105%
DUP[7]	Duplicate							0.10	
11								0.10	
12								0.10	
13								0.10	
14								0.10	
15								0.10	
16								0.10	
17								0.10	
18								0.10	
19								0.10	
20								0.10	
NO_2-CCV-I 10-25-01	CCV LOW	0.5/25mL	N/A	0.522	0.199	N/A	~~.20~~/.20=	0.10	100%
ICB (Blank)	DI Water	25mL	N/A	0.000	–	N/A	ND	0.10	

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the intermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ↓".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

CKW60A; B; C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 9:58:06
DATA FILENAME: C:\OMNION\DATA\CKW60A.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60A.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	01 Nov 2001	09:58:08	1	763710.00
2	50.0 PPM CHLO	01 Nov 2001	09:58:45	1	525748.00
3	25.0 PPM CHLO	01 Nov 2001	09:59:23	1	334290.00
4	10.0 PPM CHLO	01 Nov 2001	10:00:01	1	163072.00
5	5.00 PPM CHLO	01 Nov 2001	10:00:39	1	82474.00
6	2.50 PPM CHLO	01 Nov 2001	10:01:18	1	43492.00
7	1.00 PPM CHLO	01 Nov 2001	10:01:57	1	18512.00
8	0.00 PPM CHLO	01 Nov 2001	10:02:37	1	0.00

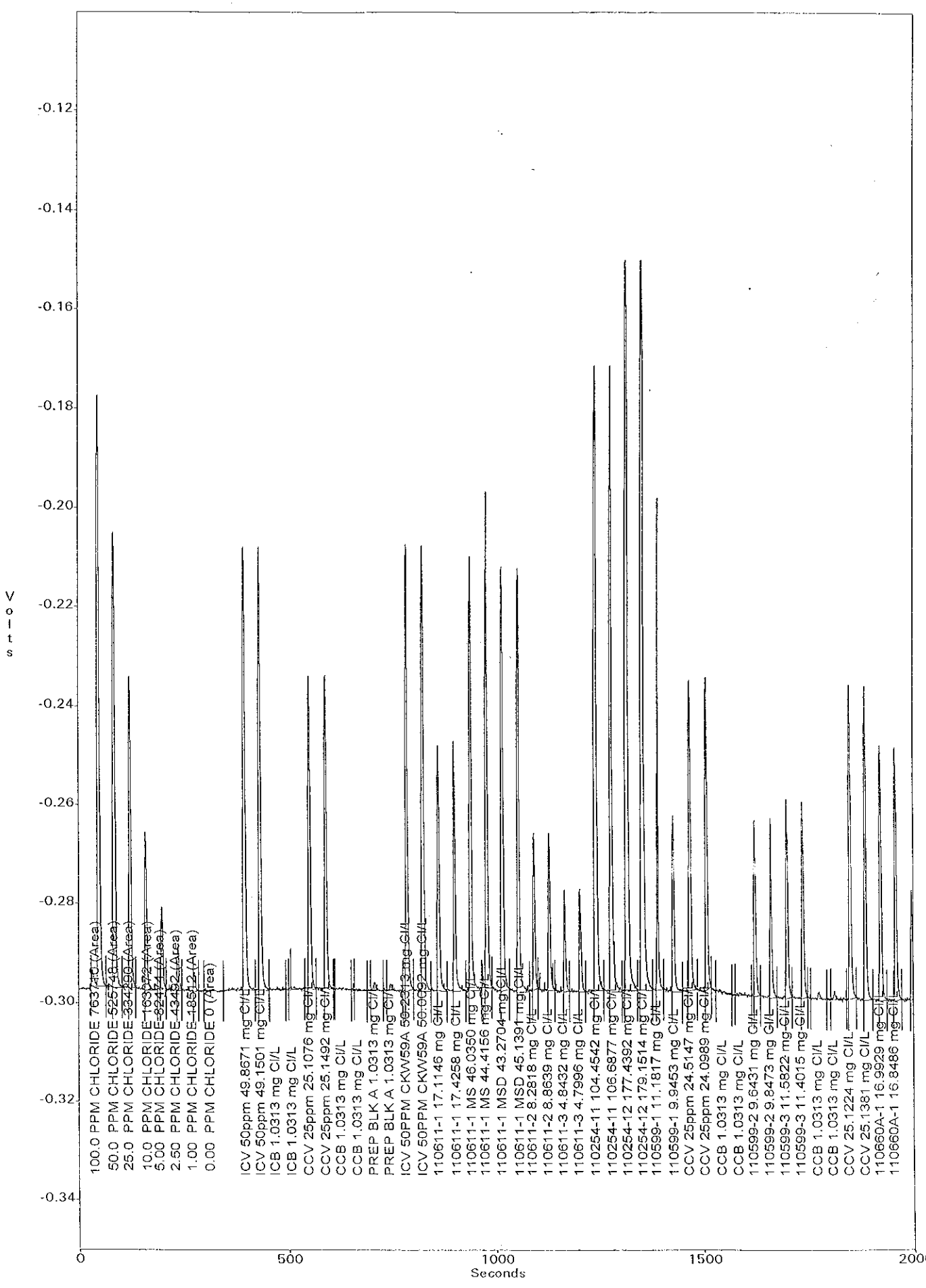
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

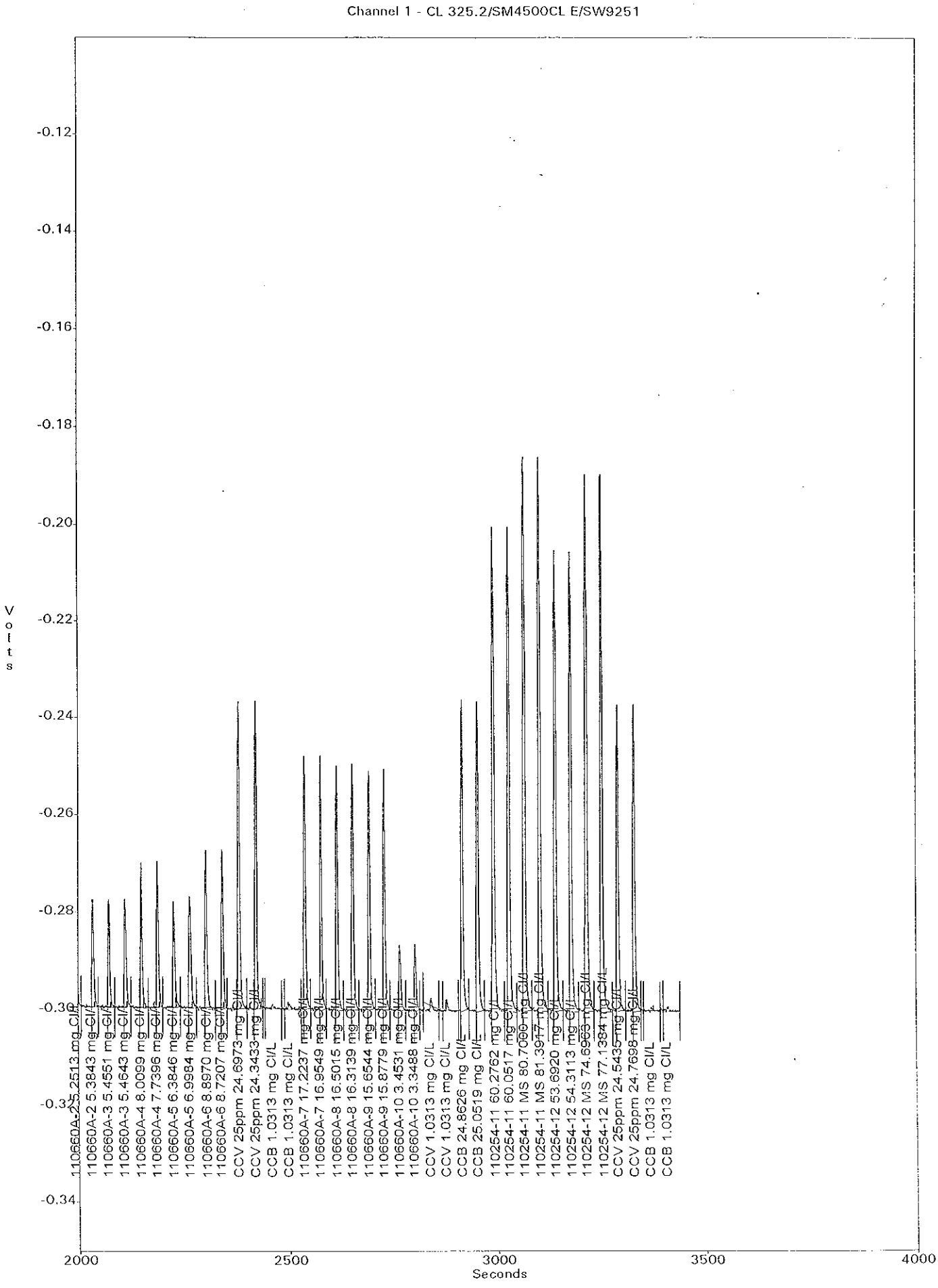
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	01 Nov 2001	10:09:10	1	~D 1.0313	1.0	1.00	1.00000	g
				10:09:48	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	10:10:27	1	100% 50.2313	1.0	1.00	1.00000	g
				10:11:05	2	50.0092				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	01 Nov 2001	10:11:43	1	17.1146	1.0	1.00	1.00000	g
				10:12:22	2	17.4258				
4	110611-1 MS	Spiked	01 Nov 2001	10:13:00	1	46.0350	1.0	1.00	1.00000	g
				10:13:39	2	108% 44.4156				
				Spike Level:		0.0000				
				% Spike Recovery:		KPD=3 100.0000				
5	110611-1 MSD	Dup1	01 Nov 2001	10:14:17	1	111% 43.2704	1.0	1.00	1.00000	g
				10:14:56	2	45.1391				
9	ICV 50ppm	RelChkStd	01 Nov 2001	10:03:55	1	49.8671	1.0	1.00	1.00000	g
				10:04:33	2	98% 49.1501				
				Known Concentration:		50.0000				
				% Difference:		-0.9827				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:06:32	1	25.1076	1.0	1.00	1.00000	g
				10:07:11	2	100% 25.1492				
				Known Concentration:		25.0000				
				% Difference:		0.5137				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:21:50	1	24.5147	1.0	1.00	1.00000	g
				10:22:30	2	96% 24.0989				
				Known Concentration:		25.0000				
				% Difference:		-2.7729				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:37:03	1	24.6973	1.0	1.00	1.00000	g
				10:37:43	2	97% 24.3433				
				Known Concentration:		25.0000				
				% Difference:		-1.9187				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:52:13	1	24.5435	1.0	1.00	1.00000	g
				10:52:52	2	98% 24.7698				
				Known Concentration:		25.0000				
				% Difference:		-1.3734				
16	ICB	Blank	01 Nov 2001	10:05:13	1	~D 1.0313	1.0	1.00	1.00000	g
				10:05:53	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:07:51	1	~D 1.0313	1.0	1.00	1.00000	g
				10:08:31	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:23:10	1	~D 1.0313	1.0	1.00	1.00000	g
				10:23:49	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:38:23	1	~D 1.0313	1.0	1.00	1.00000	g
				10:39:02	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:53:32	1	~D 1.0313	1.0	1.00	1.00000	g
				10:54:11	2	1.0313				

CKW60A, B, C

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110611-2	01 Nov 2001	10:15:34	1	8.2818	1.0	1.00	1.00000	g	
			10:16:11	2	8.8639					
7	110611-3	01 Nov 2001	10:16:49	1	48.4321 1/10	10.0 @	1.00	1.00000	g	
			10:17:26	2	47.9964					
8	110254-11	01 Nov 2001	10:18:03	1	104.4542	1.0	1.00	1.00000	g	See Cup 27
			10:18:41	2	106.6877					
9	110254-12	01 Nov 2001	10:19:18	1	177.4392	1.0	1.00	1.00000	g	29
			10:19:56	2	179.1514					
10	110599-1	01 Nov 2001	10:20:33	1	11.1817	1.0	1.00	1.00000	g	
			10:21:10	2	9.9453					
11	110599-2	01 Nov 2001	10:24:26	1	9.6431	1.0	1.00	1.00000	g	
			10:25:03	2	9.8473					
12	110599-3	01 Nov 2001	10:25:41	1	11.5822	1.0	1.00	1.00000	g	
			10:26:18	2	11.4015					
13	CCB	01 Nov 2001	10:26:55	1	~0 1.0313	1.0	1.00	1.00000	g	
			10:27:33	2	1.0313					
14	CCV	01 Nov 2001	10:28:10	1	100% 25.1224	1.0	1.00	1.00000	g	
			10:28:46	2	25.1381					
15	110660A-1	01 Nov 2001	10:29:23	1	16.9929	1.0	1.00	1.00000	g	
			10:29:59	2	16.8486					
16	110660A-2	01 Nov 2001	10:30:38	1	5.2513	1.0	1.00	1.00000	g	
			10:31:16	2	5.3843					
17	110660A-3	01 Nov 2001	10:31:55	1	5.4551	1.0	1.00	1.00000	g	
			10:32:33	2	5.4643					
18	110660A-4	01 Nov 2001	10:33:11	1	8.0099	1.0	1.00	1.00000	g	
			10:33:50	2	7.7396					
19	110660A-5	01 Nov 2001	10:34:28	1	6.3846	1.0	1.00	1.00000	g	
			10:35:07	2	6.9984					
20	110660A-6	01 Nov 2001	10:35:45	1	8.8970	1.0	1.00	1.00000	g	
			10:36:24	2	8.7207					
21	110660A-7	01 Nov 2001	10:39:40	1	17.2237	1.0	1.00	1.00000	g	
			10:40:19	2	16.9549					
22	110660A-8	01 Nov 2001	10:40:57	1	16.5015	1.0	1.00	1.00000	g	
			10:41:36	2	16.3139					
23	110660A-9	01 Nov 2001	10:42:14	1	15.6544	1.0	1.00	1.00000	g	
			10:42:51	2	15.8779					
24	110660A-10	01 Nov 2001	10:43:29	1	3.4531	1.0	1.00	1.00000	g	
			10:44:06	2	3.3488					
25	CCV 3	01 Nov 2001	10:44:43	1	~0 1.0313	1.0	1.00	1.00000	g	
			10:45:21	2	1.0313					
26	CCB ✓ 11-9-01 CR	01 Nov 2001	10:45:58	1	100% 24.8626	1.0	1.00	1.00000	g	
			10:46:35	2	25.0519					
27	110254-11	01 Nov 2001	10:47:13	1	120.5524 5/10	2.0	1.00	1.00000	g	
			10:47:50	2	120.1033					
28	110254-11 MS	01 Nov 2001	10:48:28	1	84% 161.3999	↓	2.0	1.00	1.00000	g
			10:49:05	2	162.7834					
29	110254-12	01 Nov 2001	10:49:42	1	268.4598 5/10	5.0	1.00	1.00000	g	
			10:50:20	2	271.5565					
30	110254-12 MS	01 Nov 2001	10:50:57	1	91% 373.4813	↓	5.0	1.00	1.00000	g
			10:51:33	2	385.6922					


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
100.0 PPM CHLORIDE 763
50.0 PPM CHLORIDE 525
25.0 PPM CHLORIDE 334
10.0 PPM CHLORIDE 163
5.00 PPM CHLORIDE 82
2.50 PPM CHLORIDE 43
1.00 PPM CHLORIDE 18
0.00 PPM CHLORIDE 0
ICV 50ppm 49.8671 mg Cl/L
ICV 50ppm 49.1501 mg Cl/L
ICB 1.0313 mg Cl/L
ICB 1.0313 mg Cl/L
CCV 25ppm 25.1076 mg Cl/L
CCV 25ppm 25.1492 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A 50.2313 mg Cl/L
ICV 50PPM CKW59A 50.0092 mg Cl/L
110611-1 17.1146 mg Cl/L
110611-1 17.4258 mg Cl/L
110611-1 MS 46.0350 mg Cl/L
110611-1 MS 44.4156 mg Cl/L
110611-1 MSD 43.2704 mg Cl/L
110611-1 MSD 45.1391 mg Cl/L
110611-2 8.2818 mg Cl/L
110611-2 8.8639 mg Cl/L
110611-3 4.8432 mg Cl/L
110611-3 4.7996 mg Cl/L
110254-11 104.4542 mg Cl/L
110254-11 106.6877 mg Cl/L
110254-12 177.4392 mg Cl/L
110254-12 179.1514 mg Cl/L
110599-1 11.1817 mg Cl/L
110599-1 9.9453 mg Cl/L
CCV 25ppm 24.5147 mg Cl/L
CCV 25ppm 24.0989 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110599-2 9.6431 mg Cl/L
110599-2 9.8473 mg Cl/L
110599-3 11.5822 mg Cl/L
110599-3 11.4015 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
CCV 25.1224 mg Cl/L
CCV 25.1381 mg Cl/L
110660A-1 16.9929 mg Cl/L
110660A-1 16.8486 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
2000
2500
3000
3500
4000
Seconds
110660A-2 5.3843 mg Cl/L
110660A-3 5.4551 mg Cl/L
110660A-3 5.4643 mg Cl/L
110660A-4 8.0099 mg Cl/L
110660A-4 7.7396 mg Cl/L
110660A-5 6.3846 mg Cl/L
110660A-5 6.9984 mg Cl/L
110660A-6 8.8970 mg Cl/L
110660A-6 8.7207 mg Cl/L
CCV 25ppm 24.6973 mg Cl/L
CCV 25ppm 24.3433 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110660A-7 17.2237 mg Cl/L
110660A-7 16.9549 mg Cl/L
110660A-8 16.5015 mg Cl/L
110660A-8 16.3139 mg Cl/L
110660A-9 15.6544 mg Cl/L
110660A-9 15.8779 mg Cl/L
110660A-10 3.4531 mg Cl/L
110660A-10 3.3488 mg Cl/L
CCV 1.0313 mg Cl/L
CCV 1.0313 mg Cl/L
CCB 24.8626 mg Cl/L
CCB 25.0519 mg Cl/L
110254-11 60.2762 mg Cl/L
110254-11 60.0517 mg Cl/L
110254-11 MS 80.7000 mg Cl/L
110254-11 MS 81.3917 mg Cl/L
110254-12 53.6920 mg Cl/L
110254-12 54.3113 mg Cl/L
110254-12 MS 74.6963 mg Cl/L
110254-12 MS 77.1384 mg Cl/L
CCV 25ppm 24.5435 mg Cl/L
CCV 25ppm 24.7698 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

CKW60B

OPERATOR:	C ROBERTS
ACQ. TIME:	Nov 1, 2001 11:21:42
DATA FILENAME:	C:\OMNION\DATA\CKW60B.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW60B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 26, 2001 12:50:11

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK B	Blank	01 Nov 2001	11:24:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:25:02	2	1.0313				
2	ICV 50PPM CKW59B 10/31/01	RelChkStd	01 Nov 2001	11:25:40	1	47.8887	1.0	1.00	1.00000	g
				11:26:19	2	98% 49.0122				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110655-1	Dup1	01 Nov 2001	11:26:57	1	22.9695	1.0	1.00	1.00000	g
				11:27:36	2	22.5327				
4	110655-1 MS	Spiked	01 Nov 2001	11:28:14	1	60.3614	1.0	1.00	1.00000	g
				11:28:53	2	58.7929				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
5	110655-1 MSD	Dup1	01 Nov 2001	11:29:31	1	58.9417	1.0	1.00	1.00000	g
				11:30:09	2	58.7593				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:21:46	1	24.3954	1.0	1.00	1.00000	g
				11:22:26	2	98% 24.6708				
				Known Concentration:		25.0000				
				% Difference:		-1.8676				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:37:04	1	24.4495	1.0	1.00	1.00000	g
				11:37:43	2	97% 24.3504				
				Known Concentration:		25.0000				
				% Difference:		-2.4003				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:52:18	1	24.4839	1.0	1.00	1.00000	g
				11:52:58	2	97% 24.3551				
				Known Concentration:		25.0000				
				% Difference:		-2.3221				
15	CCV 25ppm	RelChkStd	01 Nov 2001	12:01:17	1	24.6365	1.0	1.00	1.00000	g
				12:01:57	2	98% 24.5930				
				Known Concentration:		25.0000				
				% Difference:		-1.5411				
16	CCB	Blank	01 Nov 2001	11:23:06	1	ND 1.0313	1.0	1.00	1.00000	g
				11:23:45	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:38:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:39:03	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:53:38	1	ND 1.0313	1.0	1.00	1.00000	g
				11:54:17	2	1.0313				
16	CCB	Blank	01 Nov 2001	12:02:37	1	ND 1.0313	1.0	1.00	1.00000	g
				12:03:17	2	1.0313				

See Cup # 24 - Sample # Spiked

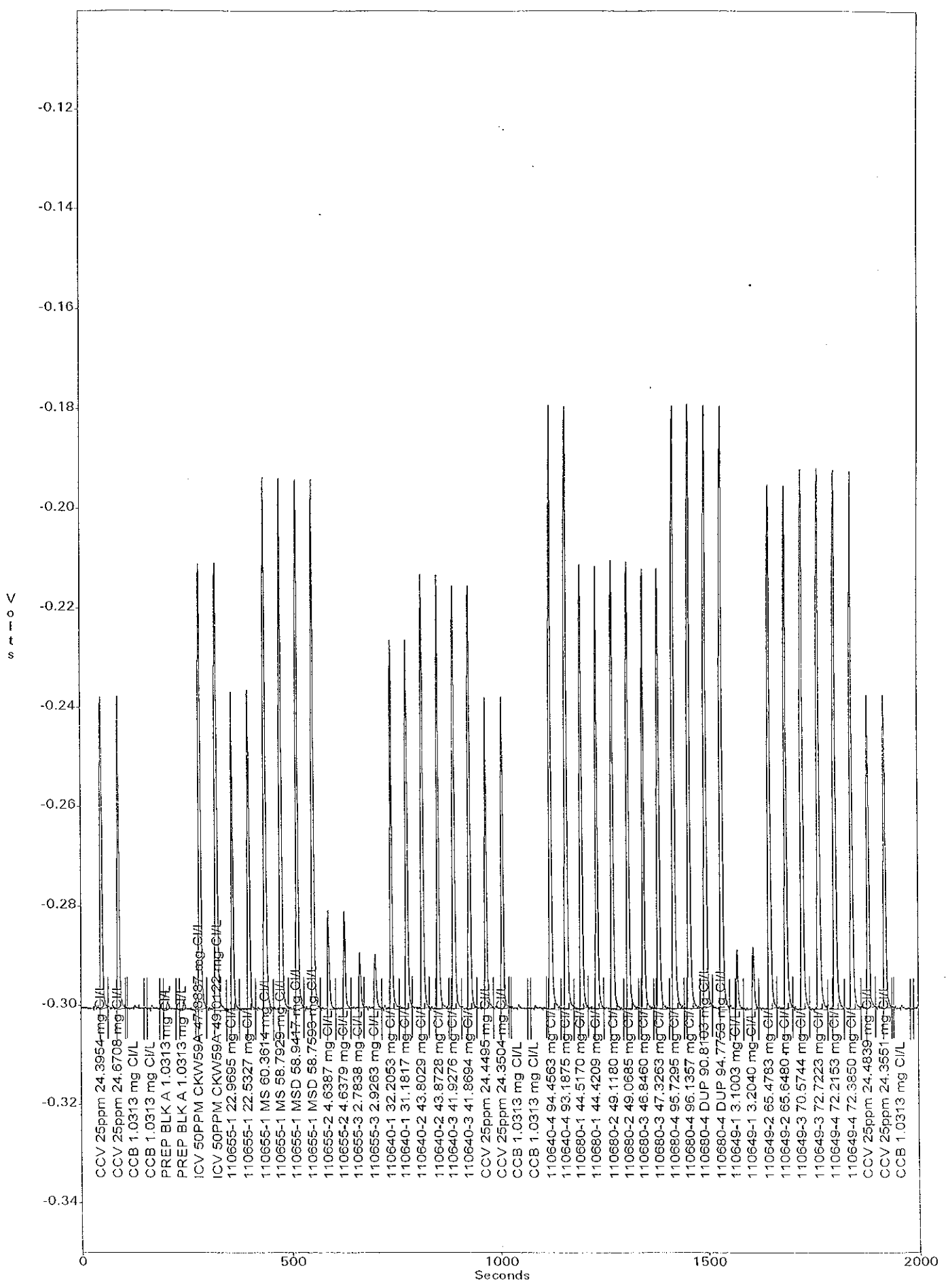
UKW60B

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110655-2	01 Nov 2001	11:30:47	1	115.9687	1/25 25.0	@ 1.00	1.00000	g
			11:31:25	2	115.9483				
7	110655-3	01 Nov 2001	11:32:02	1	69.5947	↓ 25.0	@ 1.00	1.00000	g
			11:32:40	2	73.1586				
8	110640-1	01 Nov 2001	11:33:17	1	644.1053	5/10 20.0	1.00	1.00000	g
			11:33:54	2	623.6337				
9	110640-2	01 Nov 2001	11:34:32	1	438.0289	1/10 10.0	1.00	1.00000	g
			11:35:09	2	438.7276				
10	110640-3	01 Nov 2001	11:35:47	1	419.2757	↓ 10.0	1.00	1.00000	g
			11:36:24	2	418.6936				
11	110640-4	01 Nov 2001	11:39:40	1	94.4563	1.0	1.00	1.00000	g
			11:40:17	2	93.1875				
12	110680-1	01 Nov 2001	11:40:55	1	890.3407	5/10 20.0	1.00	1.00000	g
			11:41:32	2	888.4174				
13	110680-2	01 Nov 2001	11:42:10	1	491.1796	1/10 10.0	1.00	1.00000	g
			11:42:47	2	490.6851				
14	110680-3	01 Nov 2001	11:43:24	1	468.4598	↓ 10.0	1.00	1.00000	g
			11:44:01	2	473.2631				
15	110680-4	01 Nov 2001	11:44:37	1	95.7295	1.0	1.00	1.00000	g
			11:45:14	2	96.1357				
16	110680-4 DUP	01 Nov 2001	11:45:52	1	90.8103	1.0	1.00	1.00000	g
			11:46:31	2	94.7753				
17	110649-1	01 Nov 2001	11:47:09	1	3.1003	1.0	1.00	1.00000	g
			11:47:48	2	3.2040				
18	110649-2	01 Nov 2001	11:48:26	1	65.4783	1.0	1.00	1.00000	g
			11:49:04	2	65.6480				
19	110649-3	01 Nov 2001	11:49:43	1	70.5744	1.0	1.00	1.00000	g
			11:50:21	2	72.7223				
20	110649-4	01 Nov 2001	11:51:00	1	72.2153	1.0	1.00	1.00000	g
			11:51:38	2	72.3850				
21	110649-5	01 Nov 2001	11:54:55	1	12.1209	1.0	1.00	1.00000	g
			11:55:33	2	12.0405				
22	110649-6	01 Nov 2001	11:56:12	1	44.8584	1.0	1.00	1.00000	g
			11:56:51	2	44.2778				
23	110649-7	01 Nov 2001	11:57:29	1	152.6755	1.0	1.00	1.00000	g
			11:58:08	2	149.0051				
24	110655-2 MS	01 Nov 2001	11:58:46	1	862.2911	1/25 25.0	1.00	1.00000	g
			11:59:23	2	878.3884				
25	110655-2 MSD	01 Nov 2001	12:00:00	1	870.0118	↓ 25.0	1.00	1.00000	g
			12:00:38	2	863.8592				

RPD = 2 / 120%

See Cup # 24 Sum & Batch


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
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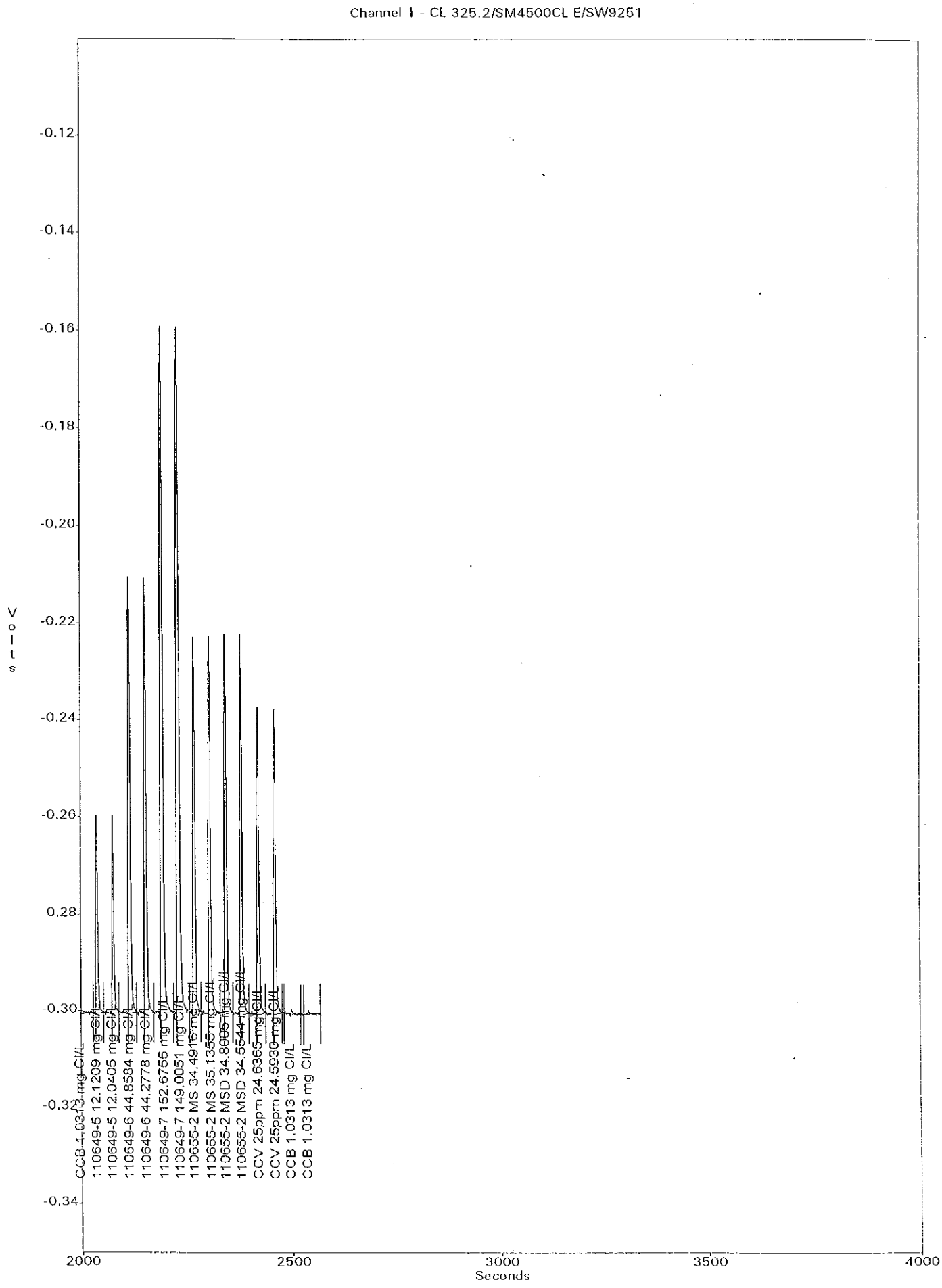
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
CCV 25ppm 24.3954 mg Cl/L
CCV 25ppm 24.6708 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A 47.9387 mg Cl/L
ICV 50PPM CKW59A 49.0122 mg Cl/L
110655-1 22.9695 mg Cl/L
110655-1 22.5327 mg Cl/L
110655-1 MS 60.3614 mg Cl/L
110655-1 MS 58.7929 mg Cl/L
110655-1 MSD 58.9417 mg Cl/L
110655-1 MSD 58.7593 mg Cl/L
110655-2 4.6387 mg Cl/L
110655-2 4.6379 mg Cl/L
110655-3 2.7838 mg Cl/L
110655-3 2.9263 mg Cl/L
110640-1 32.2053 mg Cl/L
110640-1 31.1817 mg Cl/L
110640-2 43.8029 mg Cl/L
110640-2 43.8728 mg Cl/L
110640-3 41.9276 mg Cl/L
110640-3 41.8694 mg Cl/L
CCV 25ppm 24.4495 mg Cl/L
CCV 25ppm 24.3504 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110640-4 94.4563 mg Cl/L
110640-4 93.1875 mg Cl/L
110680-1 44.5170 mg Cl/L
110680-1 44.4209 mg Cl/L
110680-2 49.1180 mg Cl/L
110680-2 49.0685 mg Cl/L
110680-3 46.8460 mg Cl/L
110680-3 47.3263 mg Cl/L
110680-4 95.7295 mg Cl/L
110680-4 96.1357 mg Cl/L
110680-4 DUP 90.8103 mg Cl/L
110680-4 DUP 94.7758 mg Cl/L
110649-1 3.1003 mg Cl/L
110649-1 3.2040 mg Cl/L
110649-2 65.4783 mg Cl/L
110649-2 65.6480 mg Cl/L
110649-3 70.5744 mg Cl/L
110649-3 72.7223 mg Cl/L
110649-4 72.2153 mg Cl/L
110649-4 72.3850 mg Cl/L
CCV 25ppm 24.4839 mg Cl/L
CCV 25ppm 24.3551 mg Cl/L
CCB 1.0313 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
CCB 1.0313 mg Cl/L
110649-5 12.1209 mg Cl/L
110649-5 12.0405 mg Cl/L
110649-6 44.8584 mg Cl/L
110649-6 44.2778 mg Cl/L
110649-7 152.6755 mg Cl/L
110649-7 149.0051 mg Cl/L
110655-2 MS 34.4916 mg Cl/L
110655-2 MS 35.1355 mg Cl/L
110655-2 MSD 34.8895 mg Cl/L
110655-2 MSD 34.5544 mg Cl/L
CCV 25ppm 24.6365 mg Cl/L
CCV 25ppm 24.5930 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

CKW60C

OPERATOR:	C ROBERTS
ACQ. TIME:	Nov 1, 2001 13:34:36
DATA FILENAME:	C:\OMNION\DATA\CKW60C.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW60C.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Oct 26, 2001 12:50:11

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

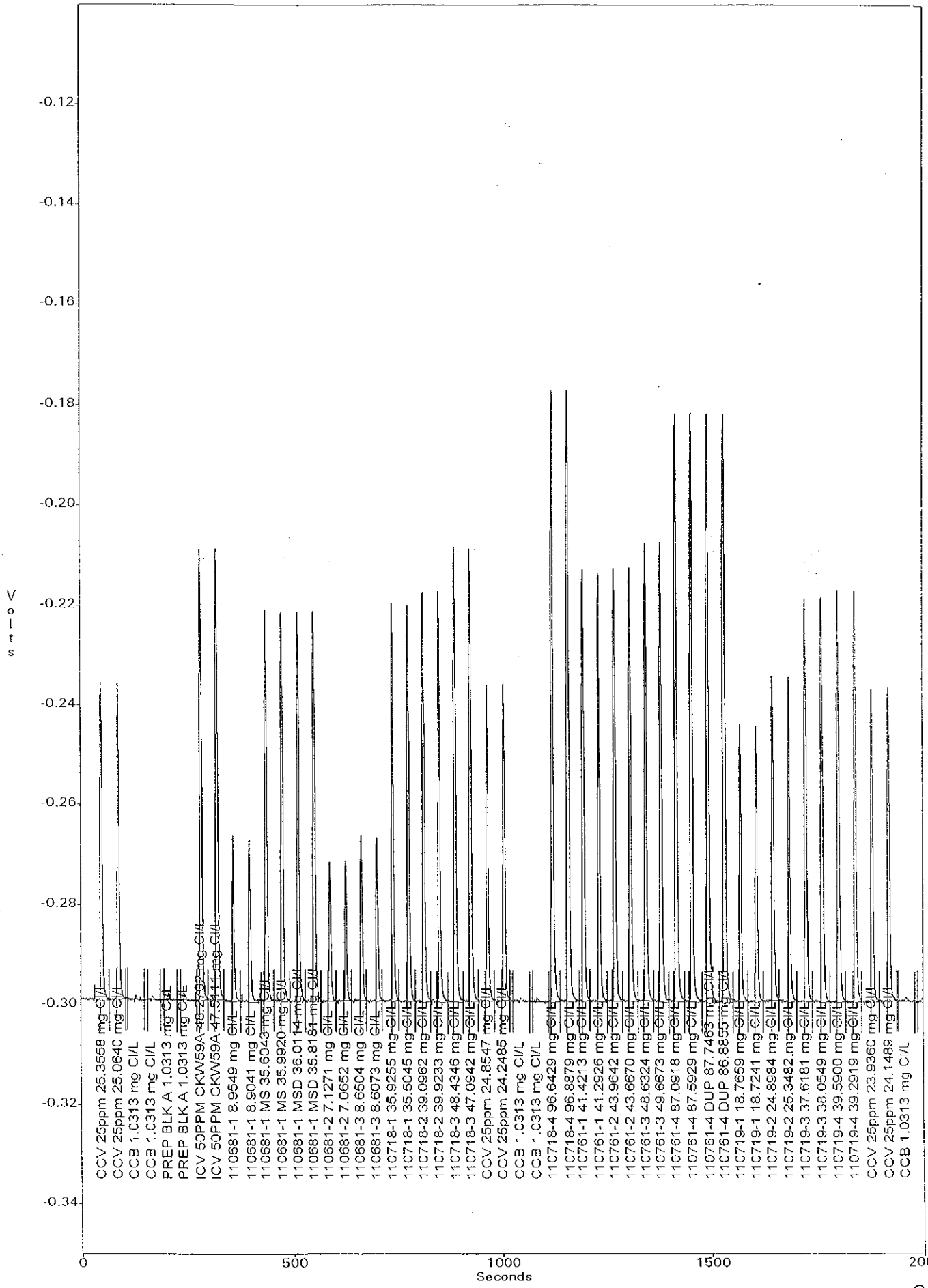
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK C	Blank	01 Nov 2001	13:37:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:37:56	2	1.0313				
2	ICV 50PPM CKW59A C 11/1/01	RelChkStd	01 Nov 2001	13:38:34	1	95% 48.2702	1.0	1.00	1.00000	g
				13:39:13	2	47.5111				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110681-1	Dup1	01 Nov 2001	13:39:51	1	8.9549	1.0	1.00	1.00000	g
				13:40:30	2	8.9041				
4	110681-1 MS	Spiked	01 Nov 2001	13:41:08	1	108% 35.6043	1.0	1.00	1.00000	g
				13:41:47	2	35.9920				
				Spike Level:		RPD=0 0.0000				
				% Spike Recovery:		100.0000				
5	110681-1 MSD	Dup1	01 Nov 2001	13:42:25	1	108% 36.0114	1.0	1.00	1.00000	g
				13:43:03	2	35.8181				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:34:40	1	25.3558	1.0	1.00	1.00000	g
				13:35:20	2	100% 25.0640				
				Known Concentration:		25.0000				
				% Difference:		0.8396				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:49:57	1	24.8547	1.0	1.00	1.00000	g
				13:50:37	2	97% 24.2485				
				Known Concentration:		25.0000				
				% Difference:		-1.7937				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:05:11	1	23.9360	1.0	1.00	1.00000	g
				14:05:50	2	96% 24.1489				
				Known Concentration:		25.0000				
				% Difference:		-3.8301				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:12:55	1	23.5740	1.0	1.00	1.00000	g
				14:13:35	2	94% 23.4090				
				Known Concentration:		25.0000				
				% Difference:		-6.0339				
16	CCB	Blank	01 Nov 2001	13:36:00	1	ND 1.0313	1.0	1.00	1.00000	g
				13:36:39	2	1.0313				
16	CCB	Blank	01 Nov 2001	13:51:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:51:57	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:06:30	1	ND 1.0313	1.0	1.00	1.00000	g
				14:07:10	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:14:15	1	ND 1.0313	1.0	1.00	1.00000	g
				14:14:54	2	1.0313				

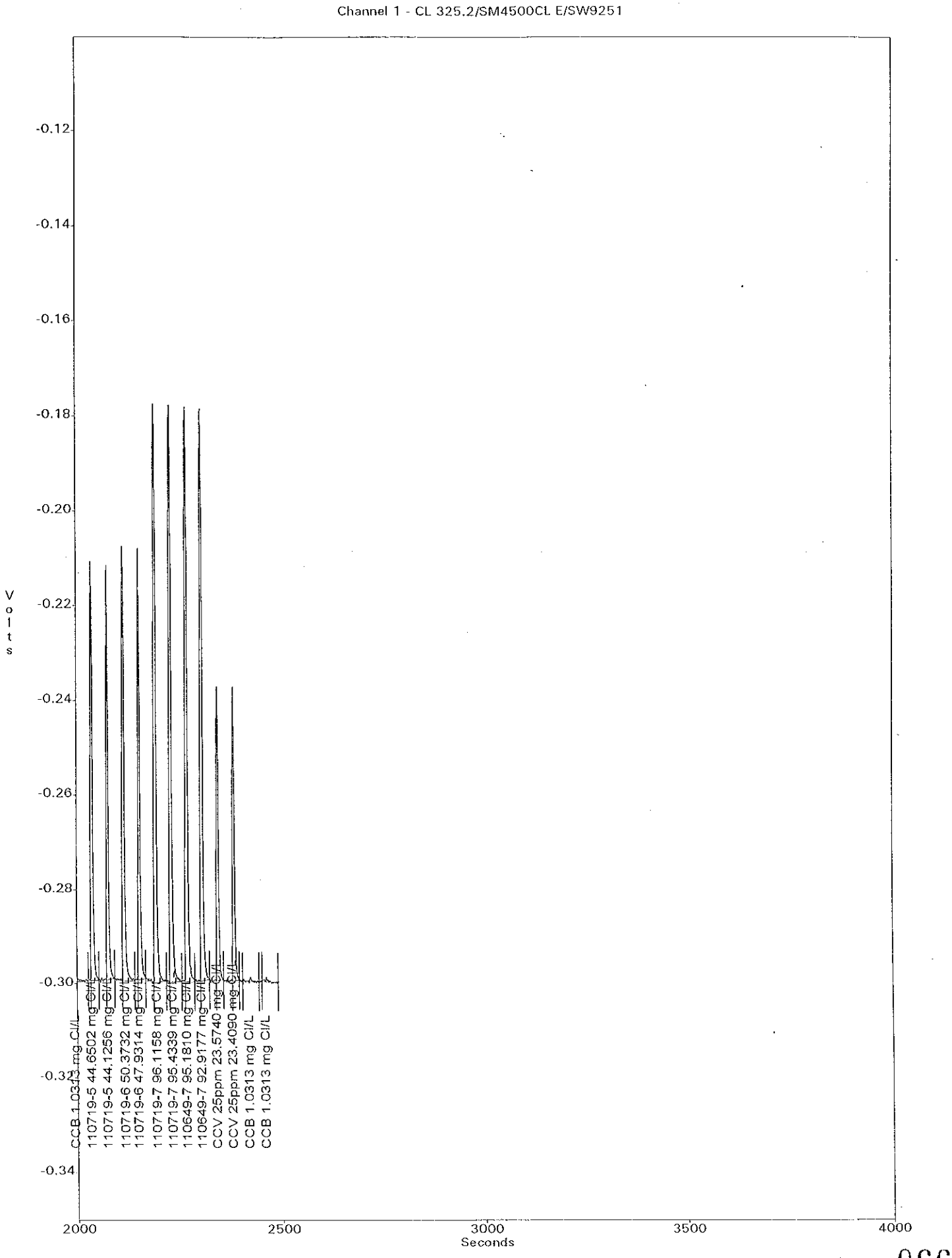
CKW600

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110681-2	01 Nov 2001	13:43:41	1	7.1271	1.0	1.00	1.00000	g
			13:44:18	2	7.0652				
7	110681-3	01 Nov 2001	13:44:56	1	8.6504	1.0	1.00	1.00000	g
			13:45:33	2	8.6073				
8	110718-1	01 Nov 2001	13:46:11	1	718.5095	.5/10 20.0	1.00	1.00000	g
			13:46:48	2	710.0909				
9	110718-2	01 Nov 2001	13:47:25	1	390.9624	1/10 10.0	1.00	1.00000	g
			13:48:03	2	399.2334				
10	110718-3	01 Nov 2001	13:48:40	1	484.3456	1/10 10.0	1.00	1.00000	g
			13:49:18	2	470.9424				
11	110718-4	01 Nov 2001	13:52:33	1	96.6429	1.0	1.00	1.00000	g
			13:53:11	2	96.8879				
12	110761-1	01 Nov 2001	13:53:48	1	828.4258	.5/10 20.0	1.00	1.00000	g
			13:54:26	2	825.8515				
13	110761-2	01 Nov 2001	13:55:03	1	439.6416	1/10 10.0	1.00	1.00000	g
			13:55:40	2	436.6700				
14	110761-3	01 Nov 2001	13:56:17	1	486.3237	" 10.0	1.00	1.00000	g
			13:56:53	2	496.6732				
15	110761-4	01 Nov 2001	13:57:29	1	87.0918	1.0	1.00	1.00000	g
			13:58:06	2	87.5929				
16	110761-4 DUP	01 Nov 2001	13:58:45	1	87.7463	1.0	1.00	1.00000	g
			13:59:23	2	86.8855				
17	110719-1	01 Nov 2001	14:00:02	1	375.3183	.5/10 20.0	1.00	1.00000	g
			14:00:40	2	374.4811				
18	110719-2	01 Nov 2001	14:01:19	1	248.9843	1/10 10.0	1.00	1.00000	g
			14:01:57	2	253.4816				
19	110719-3	01 Nov 2001	14:02:36	1	376.1814	1/10 10.0	1.00	1.00000	g
			14:03:14	2	380.5491				
20	110719-4	01 Nov 2001	14:03:52	1	791.7993	.5/10 20.0	1.00	1.00000	g
			14:04:31	2	785.8374				
21	110719-5	01 Nov 2001	14:07:48	1	446.5019	1/10 10.0	1.00	1.00000	g
			14:08:26	2	441.2558				
22	110719-6	01 Nov 2001	14:09:05	1	503.7319	" 10.0	1.00	1.00000	g
			14:09:43	2	479.3140				
23	110719-7	01 Nov 2001	14:10:22	1	96.1158	1.0	1.00	1.00000	g
			14:11:00	2	95.4339				
24	110649-7	01 Nov 2001	14:11:38	1	190.3621	5/10 2.0	1.00	1.00000	g
			14:12:16	2	185.8354				

Channel 1 - CL 325.2/SM4500CL E/SW9251

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-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
CCB 1.0313 mg Cl/L
110719-5 44.6502 mg Cl/L
110719-5 44.1256 mg Cl/L
110719-6 50.3732 mg Cl/L
110719-6 47.9314 mg Cl/L
110719-7 96.1158 mg Cl/L
110719-7 95.4339 mg Cl/L
110649-7 95.1810 mg Cl/L
110649-7 92.9177 mg Cl/L
CCV 25ppm 23.5740 mg Cl/L
CCV 25ppm 23.4090 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LB

Time 700

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-21-01	Prep Blk	Diwater	CKW60A
	ICV	↓	
	110611-1	WW	
	-2		
	-3		
	110254-11		
	-12		
	110599-1		
	-2		
	-3		
	110660A-1		
	2		
	3		
	4		
	-5		
	-6		
	-7		
	-8		
	-9		
↓	110660A-10	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL- E / SW 9251

ANALYST LD

TMC 830

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	Prep Blk	DI Wat	CKW60B
	ICV	↓	
	110655-1	WW	
	-2		
	-3		
	110640-1		
	-2		
	-3		
	-4		
	110680-1		
	2		
	3		
	4		
	110649-1		
	2		
	-3		
	-4		
	-5		
	-6		
↓	-7	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST RB Time 10:00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	PrepBlk	DI water	CKW60C
	ICV	↓	
	~~LCS~~ 110681-1	WW	
	-2		
	-3		
	110718-1		
	2		
	3		
	4		
	110761-1		
	2		
	3		
	4		
	110719-1		
	2		
	3		
	4		
	5		
	6		
↓	7	↓	

069

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/31/01 Preparation[1] Time On: 0940 Preparation[1] Time Off: 1015

Analysis Date: 10/31/01 Analysis Time On: 1020 Analysis Time Off: 1450

1 #: FEN045 RPD: 20

Chemist[2]: BM Data Reviewed By: AB 11/2/01 Spike: 79-102%

LCS: 90-110%

N of $Na_2S_2O_3$= (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0244 LOT # $Na_2S_2O_3$ = 8150 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0248 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.74	0.025 N $Na_2S_2O_3$	0.02442	5	5.07	0.025 N I_2	0.02474
5.75	↓	0.02438	5	5.08	↓	0.02479

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.10	ND	1.0
SF-LCS-S[7] 12-28-01	N/A	0.2/100 ml	↓	10	5.42	18.5/20.0=	1.0 93%
Prep Blank (distilled)	DI Water	100 ml	N/A				
1 110611-1	WA	200		5	2.93	4.2	1.0
MS[6] (10 ppm) -1B		.2/200		10	3.61	12.8-4.2/10.0=86%	
MSD[6] (10 ppm) -1A		.2/200		10	3.23	13.5-4.2/10.0=93%	
2 -2		200		5	3.98	2.2	1.0
3 ↓ -3		200		5	3.40	3.3	
4 110655-1		200		5	3.61	2.9	
5 -2		200		5	4.77	ND	
6 ↓ -3		200		5	5.12	ND	
7 110681-1		200		5	5.17	ND	
8 -2		200		5	5.14	ND	
9 ↓ -3		200		5	5.51	ND	
10 110649-1	↓	200		5	5.09	ND	↓
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls		10	5.40	18.6/20.0=	1.0 93%
CCB (blank)	DI Water	100 mls		5	5.05	ND	1.0
DUP[5] 110649-1	WA	200		5	5.45	ND	
11 -2		200		5	5.10	ND	
12 -3		200		5	5.00	ND	
13 ↓ -4		200		5	4.92	ND	
14 110728-1	↓	200		5	5.11	ND	
15 110649-5	WA	200	WA	5	5.18	ND	
16 -6		200		5	5.61	ND	
17 ↓ -7	↓	200	↓	5	5.09	ND	↓
18 110728-1 MS	WA	200	WA	10	4.95	10.2/10.0=	102%
~~19~~			BM 10/31/01				
~~20~~							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	WA	10	5.46	18.4/20.0=	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.04	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20 \text{ L gas}}$ = ppmv H_2S

[4] = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

= Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

070

E-Autosampler or cover is off. 29Oct2001 08:36

E-Possible gas flow restriction. 29Oct2001 09:39

METHODS

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

SEQUENCE

TOW020 Mon Oct 29 09:44:59 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110502-13 X5 DO	default	Sample	1	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
8	110469-24	default	Sample	2	5.000	0	No	
9	110254-13 X5 rerun	default	Sample	2	5.000	0	No	
10	110254-14 X10	default	Sample	2	5.000	0	No	
11	110611-2	default	Sample	1	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
13	110557-1	default	Sample	1	5.000	0	No	
14	110557-2	default	Sample	1	5.000	0	No	
15	110557-3	default	Sample	1	5.000	0	No	

Tow020

16	110557-4	default	Chk. 3	3	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110557-5	default	Sample	1	5.000	0 No
20	110557-5 DUP	default	Sample	1	5.000	0 No
21	110557-6	default	Sample	1	5.000	0 No
22	110557-7	default	Sample	1	5.000	0 No
23	110599-1	default	Sample	1	5.000	0 No
24	110599-2	default	Sample	1	5.000	0 No
25	110599-3	default	Sample	1	5.000	0 No
26	110616-1X2	default	Sample	1	5.000	0 No
27	110681-1	default	Sample	1	5.000	0 No
28	110681-2	default	Sample	1	5.000	0 No
29	110681-3	default	Sample	1	5.000	0 No
30	CCB	default	Chk. 3	3	5.000	0 No
31	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****
** RESULTS - TOW020 **
****

Pos/Vial: 1 Name: PREP BLK Analyzed: 29Oct2001 09:45
Run ID: 39 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027071	744	-0.345	-0.0689
2	1027072	1012	-0.038	-0.0076
3	1027073	771	-0.314	-0.0627
Avg		842	-0.232	-0.0464 ND
Std.Dev.		147.55		
RSD (%)		17.52		

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 29Oct2001 10:13
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027074	42473	47.355	9.4690
2	1027075	44117	49.234	9.8448

Tow020 w10.31-01

Avg	43295	48.294	9.6569/10 = 97%
Std.Dev.	1162.48		
RSD (%)	2.68		

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 29Oct2001 10:33
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027076	67015	75.408	15.0785
2	1027077	65154	73.281	14.6532
Avg		66084	74.344	14.8659/15 = 99%
Std.Dev.		1315.93		
RSD (%)		1.99		

w/w10.31-01

****

Pos/Vial: 4 Name: 110502-13 X5 DO Analyzed: 29Oct2001 10:52
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027078	6070	6.837	1.3671	24986	28.272	5.6532X5= 28.2

****

Pos/Vial: 5 Name: 110611-1 Analyzed: 29Oct2001 11:02
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027079	54741	62.471	12.4917	125637	143.323	28.6588 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 11:12

****

Tow020

Pos/Vial: 6 Name: 110611-1 MS Analyzed: 29Oct2001 11:13
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027080	37815	43.123	8.6230	152033	173.495	34.6921	Dilute

****

Pos/Vial: 7 Name: 110611-1 MSD Analyzed: 29Oct2001 11:23
Run ID: 6 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027081	37592	42.869	8.5720	150180	171.377	34.2686	Dilute

****

Pos/Vial: 8 Name: 110469-24 Analyzed: 29Oct2001 11:33
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027082	504	0.474	0.0949	12831	14.378	2.8749
2	1027083	389	0.343	0.0686	12420	13.908	2.7810
Avg		446	0.409	0.0817	12625	14.143	2.8280
Std.Dev.		81.32			290.62		
RSD (%)		18.21			2.30		

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 29Oct2001 11:52
Run ID: 8 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027084	696	0.694	0.1387	33026	37.462	7.4909	Rerun
2	1027085	582	0.564	0.1127	15705	17.663	3.5318	

Tow020

Avg	639	0.629	0.1257	24365	27.562	5.5114 Rerun
Std.Dev.	80.61			12247.80		
RSD (%)	12.62			50.27		

****

Pos/Vial: 10 Name: 110254-14 X10 Analyzed: 29Oct2001 12:12
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027086	298	0.239	0.0478	41098	46.689	9.3359
2	1027087	282	0.221	0.0441	41978	47.695	9.5370
Avg		290	0.230	0.0459	41538	47.192	9.4364X10=94.3
Std.Dev.		11.31			622.25		
RSD (%)		3.90			1.50		

****

Pos/Vial: 11 Name: 110611-2 Analyzed: 29Oct2001 12:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027088	178505	203.942	40.7803	80640	91.888	18.3739

A-Linear range exceeded (130ugC). 29Oct2001 12:41

****

Pos/Vial: 12 Name: 110611-3 Analyzed: 29Oct2001 12:41
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027089	162178	185.279	37.0484	113014	128.894	25.7736 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 12:51

075

****

Pos/Vial: 13 Name: 110557-1 Analyzed: 29Oct2001 12:51
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027090	78346	89.453	17.8871	50269	57.172	11.4321

****

Pos/Vial: 14 Name: 110557-2 Analyzed: 29Oct2001 13:02
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027091	101075	115.434	23.0822	42563	48.363	9.6707

****

Pos/Vial: 15 Name: 110557-3 Analyzed: 29Oct2001 13:12
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027092	95121	108.628	21.7213	39458	44.814	8.9610

****

Pos/Vial: 16 Name: 110557-4 Analyzed: 29Oct2001 13:22
Run ID: 15 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027093	28184	31.021	6.2030
2	1027094	29602	32.642	6.5271
3	1027095	29462	32.482	6.4951

Tow020

Avg	29082	32.048	6.4084
Std.Dev.	781.41		
RSD (%)	2.69		

****

Pos/Vial: 17 Name: CCB Analyzed: 29Oct2001 13:50
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027096	1107	0.070	0.0141
2	1027097	726	-0.365	-0.0730
3	1027098	661	-0.439	-0.0879
Avg		831	-0.245	-0.0489 ND
Std.Dev.		240.94		
RSD (%)		28.98		

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 29Oct2001 14:18
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027099	62697	70.472	14.0916
2	1027100	63841	71.780	14.3531
Avg		63269	71.126	~~14.2223~~ 14.2126
Std.Dev.		808.93		
RSD (%)		1.28		

Wed 10-31-01
14.2126/15 = 95%

****

Pos/Vial: 19 Name: 110557-5 Analyzed: 29Oct2001 14:37
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027101	106648	121.804	24.3560	41563	47.220	9.4422

****

Pos/Vial: 20 Name: 110557-5 DUP Analyzed: 29Oct2001 14:48
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027102	103004	117.639	23.5231	41953	47.666	9.5313

****

Pos/Vial: 21 Name: 110557-6 Analyzed: 29Oct2001 14:58
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027103	455	0.418	0.0837	1008	0.863	0.1726

****

Pos/Vial: 22 Name: 110557-7 Analyzed: 29Oct2001 15:08
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027104	536	0.511	0.1022	2036	2.038	0.4075

****

Pos/Vial: 23 Name: 110599-1 Analyzed: 29Oct2001 15:19
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027105	106619	121.771	24.3494	31416	35.622	7.1229

****

Pos/Vial: 24 Name: 110599-2 Analyzed: 29Oct2001 15:29
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027106	110596	126.317	25.2584	84445	96.237	19.2436

****

Pos/Vial: 25 Name: 110599-3 Analyzed: 29Oct2001 15:39
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027107	119337	136.309	27.2563	54525	62.037	12.4049

A-Linear range exceeded (130ugC). 29Oct2001 15:49

****

Pos/Vial: 26 Name: 110616-1 Analyzed: 29Oct2001 15:49
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027108	116667	133.257	26.6460	109093	124.412	24.8774

Dilute

****

Pos/Vial: 27 Name: 110681-1 Analyzed: 29Oct2001 16:00
Run ID: 26 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027109	55231	63.031	12.6037	18047	20.340	4.0671

****

Pos/Vial: 28 Name: 110681-2 Analyzed: 29Oct2001 16:10
Run ID: 27 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027110	76860	87.755	17.5474	17551	19.773	3.9538

****

Pos/Vial: 29 Name: 110681-3 Analyzed: 29Oct2001 16:20
Run ID: 28 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027111	55432	63.261	12.6497	17262	19.442	3.8877

****

Pos/Vial: 30 Name: CCB Analyzed: 29Oct2001 16:30
Run ID: 29 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027112	940	-0.121	-0.0241
2	1027113	796	-0.285	-0.0570
3	1027114	708	-0.386	-0.0771
Avg		814	-0.264	-0.0528 ND
Std.Dev.		117.12		
RSD (%)		14.38		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 29Oct2001 16:58
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027115	63811	71.745	14.3462
2	1027116	62880	70.681	14.1334
Avg		63345	71.213	14.2398

W61031-01
/15 - 95%

Std.Dev.	658.32
RSD (%)	1.04

E-Autosampler or cover is off. 30Oct2001 07:45

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020A Tue Oct 30 07:43:26 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
9	110254-13 X5	default	Sample	2	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
26	110616-1 X2	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

10-30-01

****
** RESULTS - TOW020A **
****

Pos/Vial: 1 Name: CCB Analyzed: 30Oct2001 08:28
Run ID: 31 Meth: default Vol (mL): 5.001

CHK. 3	TOC	TOC	TOC

Tow020a

Rep	Datafile	Area (cts)	Mass (ugC)	Conc (ppm)
1	1027A117	791	-0.291	-0.0582
2	1027A118	920	-0.143	-0.0287
3	1027A119	755	-0.332	-0.0664
Avg		822	-0.255	-0.0511 ND
Std.Dev.		86.76		
RSD (%)		10.55		

****

Pos/Vial: 2 Name: CCV 15PPM Analyzed: 30Oct2001 08:56
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A120	63619	71.526	14.3023
2	1027A121	64594	72.640	14.5252
Avg		64106	72.083	14.4138
Std.Dev.		689.43		
RSD (%)		1.08		

wt 1031-01
14.4138/15 = 96%

****

Pos/Vial: 5 Name: 110611-1 X5 Analyzed: 30Oct2001 09:16
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A122	4127	4.616	0.9230	31301	35.490	7.0966 x5 = 35.4

****

Pos/Vial: 6 Name: 110611-1 MS X5 Analyzed: 30Oct2001 09:26
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A123	2115	2.316	0.4631	36376	41.291	8.2566 x5

$\frac{41.28 - 35.48}{10} = 58\%$

083

****

Pos/Vial: 7 Name: 110611-1 MSD X5 Analyzed: 30Oct2001 09:36
Run ID: 6 Meth: default Vol (mL): 5.001

RPD=2

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A124	2431	2.677	0.5353	36287	41.189	8.2362

8.2362X5=41.18
41.18-35.48/10=5%

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 30Oct2001 09:47
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A125	787	0.798	0.1595	32234	36.557	7.3098
2	1027A126	830	0.847	0.1694	31995	36.283	7.2552
Avg		808	0.822	0.1645	32114	36.420	7.2825
Std.Dev.		30.41			169.00		
RSD (%)		3.76			0.53		

7.2825 X5 = 36.41

****

Pos/Vial: 12 Name: 110611~~-3 X2~~ 6-1 X2 Analyzed: 30Oct2001 10:06
Run ID: 9 Meth: default~~1Oct-30-01~~ Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A127	21679	24.679	4.9348	56263	64.023	12.8021

12.8021 X2 = 25.60

****

Pos/Vial: 26 Name: ~~110616-1~~ 1-3 X2 Analyzed: 30Oct2001 10:16
Run ID: 12 Meth: default~~Oct-30-01~~ Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

Dilute

Tow020a

1	1027A128	29851	34.020	6.8027	133255	152.031	30.4001	Dilute

A-Linear range exceeded (130ugC). 30Oct2001 10:26

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 10:26
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027A129	1324	0.318	0.0637	
2	1027A130	982	-0.073	-0.0145	
3	1027A131	847	-0.227	-0.0454	
Avg		1051	0.006	0.0013	ND
Std.Dev.		245.87			
RSD (%)		23.39			

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 10:54
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A132	63211	71.060	14.2091
2	1027A133	62599	70.360	14.0692
Avg		62905	70.710	14.1391
Std.Dev.		432.75		
RSD (%)		0.69		

w&10-31-01

14.1391/15 = 94%

E-Autosampler or cover is off. 30Oct2001 12:42

E-Autosampler or cover is off. 30Oct2001 12:43

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020B Tue Oct 30 12:43:38 2001

Start Pos/Vial #: 26, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
26	110611-3 X10	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW020B **
****

Pos/Vial: 26 Name: 110611-3 X10 Analyzed: 30Oct2001 12:49
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

Tow020b

1	1027B134	2782	3.078	0.6155	21079	23.806	4.7602 x10=47.6

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 13:00
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B135	756	-0.331	-0.0662
2	1027B136	740	-0.349	-0.0698
3	1027B137	681	-0.417	-0.0833
Avg		725	-0.366	-0.0731 ND
Std.Dev.		39.50		
RSD (%)		5.44		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 13:28
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B138	63698	71.616	14.3204
2	1027B139	61970	69.641	13.9254
Avg		62834	70.629	14.1229 (15 = 94%)
Std.Dev.		1221.88		
RSD (%)		1.94		

(1103R01)

E-Autosampler or cover is off. 30Oct2001 14:06

METHODS

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

SEQUENCE

TOW020C Tue Oct 30 14:00:50 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110401-1	default	Sample	1	5.000	0	No	
2	110401-4	default	Sample	1	5.000	0	No	
3	110401-5 X10	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Sample	2	5.000	0	No	

To Confirm

RESULTS - TOW020C

Pos/Vial: 1 Name: 110401-1 Analyzed: 30Oct2001 14:08
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C140	223271	255.113	51.0123	14356	16.121	3.2235

088

A-Linear range exceeded (130ugC). 30Oct2001 14:18

****

Pos/Vial: 2 Name: 110401-4 Analyzed: 30Oct2001 14:19
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C141	183149	209.250	41.8417	5049	5.482	1.0962

****

Pos/Vial: 3 Name: 110401-5 X10 Analyzed: 30Oct2001 14:29
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C142	1084	1.137	0.2274	68686	78.224	15.6416

x10=156

****

Pos/Vial: 4 Name: CCB Analyzed: 30Oct2001 14:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C143	1651	0.692	0.1384
2	1027C144	1410	0.417	0.0833
3	1027C145	1312	0.305	0.0609
Avg		1457	0.471	0.0942
Std.Dev.		174.45		
RSD (%)		11.97		

ND

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 30Oct2001 15:07
Run ID: 4 Meth: default Vol (mL): 5.001

Tow020c

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C146	281	0.219	0.0439	62447	71.092	14.2156
2	1027C147	282	0.221	0.0441	62251	70.868	14.1708
Avg		281	0.220	0.0440	62349	70.980	14.1932
Std.Dev.		0.71			138.59		
RSD (%)		0.25			0.22		

WG10-31-01
15 - 95%

DISSOLVED IRON

- **Metals**
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110557 **Method Type:** SW 846 **SAS No.:** N/A

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** N/A

Lab Sample ID	Client Sample ID
C110557-1	17-3610B-Q401
C110557-2	17-3611C-Q401
C110557-3	17-3629B-Q401
C110557-4	17-3632C-Q401
C110557-5	17-36FD1-Q401
C110557-6	17-36FB1-Q401
C110557-7	17-36EB1-Q401
C110599-1	17-3631C-Q401
C110599-2	17-3626A-Q401
C110599-3	17-3630C-Q401
C110611-1	17-3609C-Q401
C110611-2	17-3627A-Q401
C110611-3	17-3628B-Q401
C110655-1	17-3608B-Q401
C110655-2	17-3607A-Q401
C110655-3	17-3606A-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

All duplicate results reported on Form 6 are the matrix spike and matrix spike duplicate (MS/MSD) results. The acceptance limit for the duplicate is ±20%.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards Name: Marty Edwards

Date: 10/31/01 Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-1 **Client ID:** 17-3610B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	54	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-2 **Client ID:** 17-3611C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-3 **Client ID:** 17-3629B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	600	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-4 **Client ID:** 17-3632C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	190	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-5 **Client ID:** 17-36FD1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	74	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-6 **Client ID:** 17-36FB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110557-7 **Client ID:** 17-36EB1-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/23/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-1 **Client ID:** 17-3631C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	250	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-2 **Client ID:** 17-3626A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	280	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110599-3 **Client ID:** 17-3630C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/24/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	500	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-1 **Client ID:** 17-3609C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	27	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-2 **Client ID:** 17-3627A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	77	ug/L	B		P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110611-3 **Client ID:** 17-3628B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/25/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	330	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-1 **Client ID:** 17-3608B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	400	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-2 **Client ID:** 17-3607A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	720	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110557 **Method Type:** SW846

Sample ID: C110655-3 **Client ID:** 17-3606A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/26/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	120	ug/L			P	7.0	TJA61E Trace	TOCT29A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Calcium	9919	10000	99.2	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	10007	10000	100.1	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Iron	9969	10000	99.7	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
	Magnesium	9877	10000	98.8	90.0 - 110.0	P	10/29/01	09:45	TOCT29A
CCV1									
	Aluminum	10066	10000	100.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Calcium	10065	10000	100.6	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10054	10000	100.5	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Iron	10041	10000	100.4	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
	Magnesium	9974	10000	99.7	90.0 - 110.0	P	10/29/01	10:28	TOCT29A
CCV2									
	Aluminum	10069	10000	100.7	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Calcium	10107	10000	101.1	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10125	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Iron	10115	10000	101.2	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
	Magnesium	10088	10000	100.9	90.0 - 110.0	P	10/29/01	11:35	TOCT29A
CCV3									
	Aluminum	10145	10000	101.4	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Calcium	10189	10000	101.9	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10158	10000	101.6	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Iron	10178	10000	101.8	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
	Magnesium	10220	10000	102.2	90.0 - 110.0	P	10/29/01	12:43	TOCT29A
CCV4									
	Aluminum	10402	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Calcium	10406	10000	104.1	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10336	10000	103.4	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Iron	10347	10000	103.5	90.0 - 110.0	P	10/29/01	13:16	TOCT29A
	Magnesium	10395	10000	104.0	90.0 - 110.0	P	10/29/01	13:16	TOCT29A

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	09:51	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	09:51	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	09:51	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	09:51	TOCT29A
	Magnesium	9.26	+/-500.00	B	6.00	500.00	P	10/29/01	09:51	TOCT29A
CCB1										
	Aluminum	15.5	+/-100.0	B	10.0	100.0	P	10/29/01	10:34	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	10:34	TOCT29A
	Iron	10.2	+/-100.0	B	7.0	100.0	P	10/29/01	10:34	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	10:34	TOCT29A
	Magnesium	16.08	+/-500.00	B	6.00	500.00	P	10/29/01	10:34	TOCT29A
CCB2										
	Aluminum	12.1	+/-100.0	B	10.0	100.0	P	10/29/01	11:41	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	11:41	TOCT29A
	Iron	10.3	+/-100.0	B	7.0	100.0	P	10/29/01	11:41	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	11:41	TOCT29A
	Magnesium	11.20	+/-500.00	B	6.00	500.00	P	10/29/01	11:41	TOCT29A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	12:48	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	12:48	TOCT29A
	Iron	9.4	+/-100.0	B	7.0	100.0	P	10/29/01	12:48	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	12:48	TOCT29A
	Magnesium	10.62	+/-500.00	B	6.00	500.00	P	10/29/01	12:48	TOCT29A
CCB4										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	10/29/01	13:22	TOCT29A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	10/29/01	13:22	TOCT29A
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	13:22	TOCT29A
	Iron	4000.0	+/-4000.0	U	20.0	4000.0	P	10/29/01	13:22	TOCT29A
	Magnesium	7.25	+/-500.00	B	6.00	500.00	P	10/29/01	13:22	TOCT29A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD131			**WATER**							
	Iron	100.0	+/-100.0	U	7.0	100.0	P	10/29/01	10:39	TOCT29A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	505123.8	500000.0	101.0	80 - 120	10/29/01	10:14	TOCT29A
	Calcium	457432.4	500000.0	91.5	80 - 120	10/29/01	10:14	TOCT29A
	Iron	179365.8	200000.0	89.7	80 - 120	10/29/01	10:14	TOCT29A
	Iron	195817.1	200000.0	97.9	80 - 120	10/29/01	10:14	TOCT29A
	Magnesium	520278.3	500000.0	104.1	80 - 120	10/29/01	10:14	TOCT29A
ICS-AB1								
	Aluminum	518567.3	510000.0	101.7	80 - 120	10/29/01	10:19	TOCT29A
	Calcium	466097.7	510000.0	91.4	80 - 120	10/29/01	10:19	TOCT29A
	Iron	187095.4	210000.0	89.1	80 - 120	10/29/01	10:19	TOCT29A
	Iron	206396.8	210000.0	98.3	80 - 120	10/29/01	10:19	TOCT29A
	Magnesium	531834.0	510000.0	104.3	80 - 120	10/29/01	10:19	TOCT29A
ICS-A2								
	Aluminum	507448.8	500000.0	101.5	80 - 120	10/29/01	13:05	TOCT29A
	Calcium	467315.8	500000.0	93.5	80 - 120	10/29/01	13:05	TOCT29A
	Iron	182724.8	200000.0	91.4	80 - 120	10/29/01	13:05	TOCT29A
	Iron	200130.7	200000.0	100.1	80 - 120	10/29/01	13:05	TOCT29A
	Magnesium	538197.9	500000.0	107.6	80 - 120	10/29/01	13:05	TOCT29A
ICS-AB2								
	Aluminum	523991.0	510000.0	102.7	80 - 120	10/29/01	13:11	TOCT29A
	Calcium	479027.8	510000.0	93.9	80 - 120	10/29/01	13:11	TOCT29A
	Iron	191347.1	210000.0	91.1	80 - 120	10/29/01	13:11	TOCT29A
	Iron	211288.9	210000.0	100.6	80 - 120	10/29/01	13:11	TOCT29A
	Magnesium	551149.5	510000.0	108.1	80 - 120	10/29/01	13:11	TOCT29A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10117.5		53.6	B	10000.0	100.6		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1 **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110557-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10237.0		53.6	B	10000.0	101.8		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110557-1S **Client ID:** 17-3610B-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110557-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10117.5		10237.0		1.2		P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD131								
	Iron	ug/L	10000.0	9790.5		97.9	80.0 - 120.0	P

Metals

- 9 -

SERIAL DILUTION SAMPLE SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Level:** LOW **Client ID:** 17-3610B-Q401L

Sample ID: C110557-1 **Serial Dilution ID:** C110557-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	53.6		63.9	B	19.2		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA
SA-36-CTO-017

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CCI SDG No.: C110557

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: NA SAS No.: NA

Instrument ID: TJA61E Trace Date: 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals
- 12 -
LINEAR RANGES

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110557

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P
SA-36-CTO-017 **Case No.:** NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PD131							
PBWPD131	PBWPD131	MB	WATER	10/26/01	50.0	50.0	
LCSWPD131	LCSWPD131	LCS	WATER	10/26/01	50.0	50.0	
C110557-1	17-3610B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-1S	17-3610B-Q401S	MS	WATER	10/26/01	50.0	50.0	
C110557-1SD	17-3610B-Q401SD	MSD	WATER	10/26/01	50.0	50.0	
C110557-2	17-3611C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-3	17-3629B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-4	17-3632C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-5	17-36FD1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-6	17-36FB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110557-7	17-36EB1-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-1	17-3631C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-2	17-3626A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110599-3	17-3630C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-1	17-3609C-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-2	17-3627A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110611-3	17-3628B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-1	17-3608B-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-2	17-3607A-Q401	SAM	WATER	10/26/01	50.0	50.0	
C110655-3	17-3606A-Q401	SAM	WATER	10/26/01	50.0	50.0	

DIGESTION LIQUIDS

Job No: 3625

Batch No: PD131

Job Date: 10.26.01

ANALYSIS

ICP | AA | HG | FLAME | TCLP | MISC

Date/Time Started: 10/26/01

Date/Time Completed: NA

Analyst: KW

Method/SOP: NA

Final Volume: NA

Acid Lot #(s): NA

NA

NA

Hood: NA

Bath Temp(Hg only): NA

Final Project Check: ME 10/26/01

	ID	LOT#	AMT (mL)	INIT
Spike		NA		
Spike		NA		
Spike		NA		
Spike		NA		

SAMPLE ID/MTX/DESCRIPTION	D-D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1. C110557*1/LI/017-OLD-3610B-Q401	11.02		ICP				*XNE| DISSOLVES
2. C110557*2/LI/017-OLD-3611C-Q401	11.02		ICP				*XNE|
3. C110557*3/LI/017-OLD-3629B-Q401	11.02		ICP				*XNE|
4. C110557*4/LI/017-OLD-3632C-Q401	11.02		ICP				*XNE|
5. C110557*5/LI/017-OLD-36FD1-Q401	11.02		ICP				*XNE|
6. C110557*6/LI/017-OLD-36FB1-Q401	11.02		ICP				*XNE|
7. C110557*7/LI/017-OLD-36EB1-Q401	11.02		ICP				*XNE|
8. C110599*1/LI/17-3631C-Q401	11.02		ICP				*XNE|
9. C110599*2/LI/17-3626A-Q401	11.02		ICP				*XNE|
10. C110599*3/LI/17-3630C-Q401	11.02		ICP				*XNE|
11. C110611*1/LI/17-3609C-Q401 A	11.05		ICP				*XNE| post spike
12. C110611*2/LI/17-3627A-Q401	11.05		ICP				*XNE|
13. C110611*3/LI/17-3628B-Q401	11.05		ICP				*XNE|
14. C110655*1/LI/17-3608B-Q401	11.05		ICP				*XNE|
15. C110655*2/LI/17-3607A-Q401	11.05		ICP				*XNE|
16. C110655*3/LI/17-3606A-Q401 B	11.05		ICP				*XNE|
17.							
18.							
19.							
20.							
Lab Blank							
Lab Spike #1							
Lab Spike #2							

10/26/01 KW

10/26/01 KW

Comments: field filtered & preserved

TJA Trace ICP (499890) Calibration/Maintenance/Run Log

File Name: Oct 29A Date: 10.29.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☑ Rotate Peri-Pump Tubing ☑ Other: back flushed neb.

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: -009907 Profile Intensity: 18169 Spectrum Shifter: 560

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 11447 Cu:Mn Ratio (Std 1): 9.6/11.0=.87

Standards Reference:

Std 1: M02739 ICV/CCV: M02750 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PD131	level "C"		
PD130			
Pw378			
Pw376			

Comments:

File Name: _____ Date: _____ Analyst: _____

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☐ Rotate Peri-Pump Tubing ☐ Other: _____

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: _____ Profile Intensity: _____ Spectrum Shifter: _____

Nebulizer Pressure: _____ Purge Pressure: _____

Y Intensity (Std 1): _____ Cu:Mn Ratio (Std 1): _____

Standards Reference:

Std 1: _____ ICV/CCV: _____ ICSA: _____ ICSAB: _____

Batch ID's:

Batch #	Comments	Batch #	Comments

Comments:

10.4.01 Vendor: J.T. Baker M02735
QC STD: Cal STD #2-R2
Conc: See COC
Exp: 11/02
Cat # Cal STD #2-R2
Lot # 127117

10.04.01 RLCHKS1 exp 10.05.01 M02736
QC Place 19.95mls of blank/diluent into a 25ml A/S cup.
Add 0.05mls of Std 1 & mix well.

RLCHKS2 exp 10.05.01 M02737
Place 19.90mls of blank/diluent into a 25ml A/S cup.
Add 0.1mls of Std 1 & mix well.

10.05.01 ICV/CCV Exp 11.05.01 M02738
QC To A 1000 ml vol flask Add ~300 ml type I H_2O. Add 50ml conc HCl & 'Or' conc HNO_3. Add STD Listed below & QS to vol.
5.0ml STD #1 M02604 Exp 1/03
5.0mL STD #2 M02605 Exp 1/03

10.05.01 STD1 exp 11.05.01 M02739
QC To a clean 500 ml vol flask add ~200mls Blank/diluent soln. Add stds listed below & bring to volume w/diluent
5.0mls Cal Std 1B-R1 M02670 exp 08.31.02
5.0mls Cal Std #2-R2 M02682 exp 09.31.02

10.05.01 RLCHKS1 Exp 10.6.01 M02740
QC Place 19.95 ml of Blk/Rin Soln into a 25 ml A/S Cup
Add .05ml of STD1 & mix well.

10.6.01 RLCHKS1 Exp 10.7.01 M02741
QC Place 19.95ml of Blk/Rin soln into A 25 ml A/S Cup. Add .05ml of STD1 & mix well.

Continued on Page

Read and Understood By

10.6.01

Signed Date Signed Date

10.15.01 RLCHKS1 exp 10.16.01 MO2746
(QP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 MO27
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA EXP 11.16.01 MO2748
GP To A Clean 500 ml Vol Flask Add ~300 ml of Type I H_2O. Add 50 ml conc HCL & 10 ml of Conc HNO_3.
Add STD Listed below & QS to Volume w/ Type I H_2O.
50.0 mL CCP-InF-1 MO2734 EXP 11/02

10.16.01

Continued on Page _____

Read and Understood By

Gary Sobera 10.16.01
Signed Date

Signed Date

10.19.01 ICV/CCV Exp 10.11.01 MO2750
GH To A clean 1000 ml vol FLASK Add ~300 ml blk/Diln
Soln. Add STD Listed below + Bring to volume
5.0 STL #1 MO2664 Exp 1/03
5.0 STL #2 MO2665 Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO275
GP Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO275
GP Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO27
GP Do a clean 500 ml vol flask add ~300 mls of blank/diluent
soln. Add Stds listed below & bring to volume with diluent
50.0 mls CLP-INF-1 MO2734 exp 11.2002
2.5 mls CAL STD 1B-R1 MO2670 exp 08.2002
2.5 mls CAL STD #2-R2 MO2735 exp 11.2002

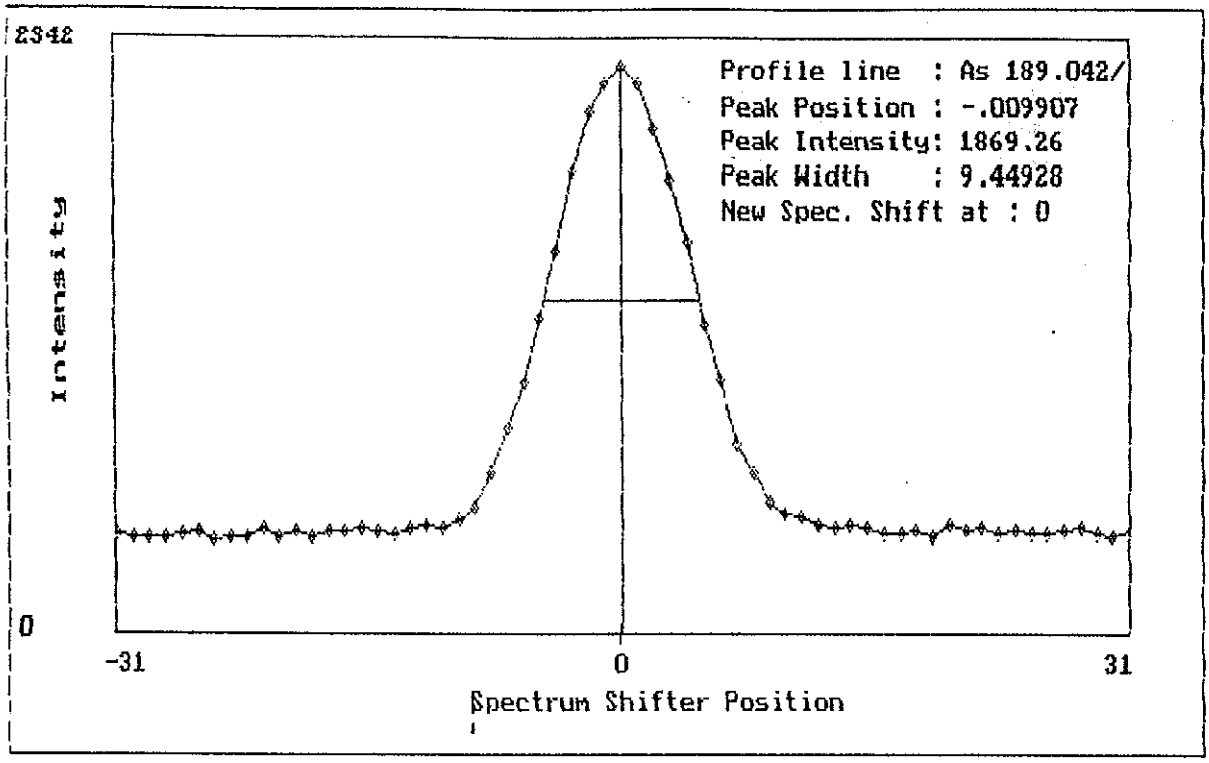
10.25.01 RLCHS1 EXP 10.26.01 MO275
GH PLACE 19.95 mls OF blk/dil into A 25 ml A/S Cup
Add 0.05 mls OF STD 1 & mix well.

10.25.01

Continued on Page

Read and Understood By

Signed Date Signed Date


2342
Intensity
0
Profile line : As 189.042/
Peak Position : -.009907
Peak Intensity: 1869.26
Peak Width : 9.44928
New Spec. Shift at : 0
-31
0
31
Spectrum Shifter Position

C 10.29.01

Method: 60102007 Standard: CAL BLK
Run Time: 10/29/01 09:29:05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00337	.05276	-.00825	.00126	.00048	.07444	.01525
SDev	.00697	.00355	.00714	.01021	.00165	.00016	.00106
%RSD	206.55	6.7313	86.549	810.25	346.48	.21168	6.9400
#1	.00830	.05527	-.00320	.00848	.00164	.07455	.01600
#2	-.00155	.05024	-.01330	-.00596	-.00069	.07433	.01450

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00419	-.00255	.00104	.02200	-.00203	.00303	-.60641
SDev	.00092	.00421	.00550	.00718	.00299	.00367	.03099
%RSD	21.996	165.44	528.64	32.630	147.45	121.25	5.1099
#1	.00484	.00043	.00493	.02707	.00009	.00562	-.58450
#2	.00354	-.00553	-.00285	.01692	-.00414	.00043	-.62832

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	.00139	.00000	.00039	.00334	-.00194	-.00034	.00376
SDev	.00416	.00073	.00006	.01974	.00568	.01246	.00092
%RSD	300.07	154310.	15.841	591.09	292.70	3692.4	24.509
#1	.00432	.00052	.00043	.01730	.00208	.00848	.00441
#2	-.00155	-.00052	.00035	-.01062	-.00596	-.00915	.00311

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	.00030	-.01447	-.00116	.00039	.00026	.08501	-.01972
SDev	.00312	.01300	.01155	.00214	.00232	.03659	.02398
%RSD	1023.7	89.841	996.21	548.15	890.63	43.040	121.61
#1	.00251	-.00528	.00701	.00190	.00190	.11088	-.03667
#2	-.00190	-.02365	-.00932	-.00112	-.00138	.05914	-.00276

Elem	1960/1	1960/2	Li6707
Avge	.00297	.00821	-.00034
SDev	.02254	.00072	.00134
%RSD	759.89	8.8028	389.76
#1	-.01297	.00770	.00061
#2	.01891	.00872	-.00129

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11573	--	--	--	--	--	--
SDev	14.99840	--	--	--	--	--	--
%RSD	.1296021	--	--	--	--	--	--
#1	11562	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: 60102007 Standard: STD 1
Run Time: 10/29/01 09:34:43

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1870	7.9700	9.1680	7.6022	6.8206	18.683	11.828
SDev	.0150	.0151	.0742	.0691	.0358	.110	.037
%RSD	.47110	.18887	.80945	.90869	.52422	.59042	.31144
#1	3.1764	7.9594	9.1156	7.5534	6.7953	18.605	11.802
#2	3.1976	7.9807	9.2205	7.6511	6.8459	18.761	11.854

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.837	10.877	11.428	9.5706	4.5592	82.174	47.199
SDev	.100	.054	.050	.0535	.0164	.372	.005
%RSD	.37325	.49628	.43697	.55851	.36008	.45235	.01118
#1	26.766	10.839	11.393	9.5328	4.5476	81.911	47.195
#2	26.908	10.916	11.463	9.6084	4.5708	82.437	47.203

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.542	11.004	6.8335	.85475	12.047	5.2021	7.1293
SDev	.032	.045	.0414	.00817	.048	.0312	.0265
%RSD	.27422	.40986	.60569	.95563	.40000	.60068	.37184
#1	11.520	10.972	6.8042	.86053	12.013	5.1800	7.1106
#2	11.565	11.035	6.8627	.84897	12.081	5.2242	7.1480

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	38.836	50.738	8.8389	3.1290	10.082	57.039	35.706
SDev	.199	.184	.0513	.0143	.036	.167	.084
%RSD	.51151	.36336	.57985	.45613	.36036	.29193	.23491
#1	38.695	50.607	8.8026	3.1189	10.056	57.157	35.647
#2	38.976	50.868	8.8751	3.1391	10.108	56.922	35.765

Elem	1960/1	1960/2	Li6707
Avge	11.472	10.323	70.305
SDev	.040	.019	.270
%RSD	.34504	.18510	.38373
#1	11.500	10.309	70.496
#2	11.444	10.336	70.114

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11447	--	--	--	--	--	--
SDev	12.21555	--	--	--	--	--	--
%RSD	.1067125	--	--	--	--	--	--
#1	11456	--	--	--	--	--	--
#2	11439	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 10/29/01 09:40:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0043	20.025	2.0151	2.0143	2.0072	1.0073	20.032
SDev	.0021	.031	.0010	.0005	.0042	.0017	.033
%RSD	.20909	.15370	.04736	.02509	.21024	.16835	.16573
#1	1.0028	20.003	2.0144	2.0139	2.0042	1.0061	20.008
#2	1.0057	20.047	2.0157	2.0146	2.0102	1.0085	20.055
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0044	2.0040	2.0064	2.0100	20.062	20.067	19.951
SDev	.0024	.0031	.0028	.0034	.035	.031	.013
%RSD	.24199	.15606	.13855	.16682	.17304	.15369	.06383
#1	1.0027	2.0018	2.0045	2.0076	20.037	20.046	19.960
#2	1.0061	2.0063	2.0084	2.0124	20.086	20.089	19.942
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	20.029	2.0048	2.0093	19.852	2.0091	2.0018	2.0111
SDev	.024	.0042	.0032	.093	.0043	.0056	.0082
%RSD	.11862	.21121	.16037	.46896	.21600	.27735	.40719
#1	20.012	2.0018	2.0070	19.918	2.0061	1.9979	2.0053
#2	20.045	2.0078	2.0116	19.787	2.0122	2.0058	2.0168
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0122	2.0079	2.0111	2.0058	2.0106	2.0080	2.0011
SDev	.0008	.0002	.0048	.0036	.0009	.0044	.0022
%RSD	.03986	.01210	.23750	.18148	.04332	.21681	.10899
#1	2.0117	2.0077	2.0077	2.0032	2.0100	2.0049	1.9996
#2	2.0128	2.0081	2.0145	2.0083	2.0113	2.0111	2.0027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	2.0038	2.0009	2.0182	2.0075	1.9783
SDev	.0068	.0049	.0058	.0094	.0023
%RSD	.33734	.24736	.28549	.46828	.11754
#1	1.9990	1.9974	2.0142	2.0008	1.9766
#2	2.0085	2.0044	2.0223	2.0141	1.9799
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					2.0000
Range					5.0000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11469	--	--	--	--	--	--
SDev	58.20027	--	--	--	--	--	--
%RSD	.5074367	--	--	--	--	--	--
#1	11511	--	--	--	--	--	--
#2	11428	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 10/29/01 09:45:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50171	9.9188	.98549	.98407	.97214	.49282	9.9192
SDev	.00084	.0170	.00998	.00678	.00413	.00278	.0250
%RSD	.16826	.17171	1.0128	.68912	.42438	.56471	.25175
#1	.50231	9.9308	.99255	.98887	.97506	.49479	9.9369
#2	.50112	9.9067	.97844	.97928	.96923	.49086	9.9016
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49479	1.0012	.99063	.98667	9.9689	10.007	9.5642
SDev	.00187	.0057	.00315	.00536	.0410	.055	.0018
%RSD	.37897	.57180	.31844	.54317	.41099	.55368	.01833
#1	.49612	1.0052	.99286	.99046	9.9979	10.046	9.5629
#2	.49346	.99715	.98840	.98288	9.9399	9.9673	9.5654
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.8768	.98852	.99783	9.6660	1.0022	.99715	.98893
SDev	.0326	.00398	.00403	.2665	.0028	.00119	.00211
%RSD	.32989	.40316	.40385	2.7575	.27983	.11895	.21331
#1	9.8999	.99134	1.0007	9.4775	1.0042	.99798	.99042
#2	9.8538	.98570	.99498	9.8544	1.0002	.99631	.98744
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0050	1.0052	.98325	1.0059	.99724	.98710	.98634
SDev	.0036	.0040	.00358	.0041	.00250	.00362	.00310
%RSD	.36013	.39891	.36447	.40761	.25096	.36682	.31399
#1	1.0076	1.0081	.98578	1.0088	.99901	.98966	.98853
#2	1.0025	1.0024	.98072	1.0030	.99547	.98454	.98415
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.99692	.99726	.99310	.98685	1.0128
SDev	.00623	.00133	.00955	.00161	.0043
%RSD	.62527	.13374	.96183	.16277	.42761
#1	1.0013	.99632	.99986	.98572	1.0097
#2	.99251	.99820	.98635	.98799	1.0159
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					10.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11585	--	--	--	--	--	--
SDev	22.07292	--	--	--	--	--	--
%RSD	.1905248	--	--	--	--	--	--
#1	11601	--	--	--	--	--	--
#2	11570	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator: GSP
Run Time: 10/29/01 09:51:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	.00716	.00077	.00223	.00108	.00059	.01233
SDev	.00086	.00430	.00016	.00128	.00021	.00001	.00074
%RSD	94.829	60.126	21.452	57.256	19.709	1.6389	5.9754
#1	.00151	.01020	.00089	.00314	.00123	.00058	.01285
#2	.00030	.00411	.00065	.00133	.00093	.00060	.01181
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00143	.00139	.00105	.00831	.01020	.03179
SDev	.00021	.00019	.00025	.00060	.01205	.00055	.00160
%RSD	34.455	13.209	18.211	57.105	144.91	5.3502	5.0174
#1	.00076	.00156	.00157	.00148	.01683	.00982	.03292
#2	.00046	.00130	.00121	.00063	-.00020	.01059	.03066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00926	.00111	.00165	.15038	.00112	.00125	.00003
SDev	.00632	.00010	.00091	.03219	.00013	.00099	.00047
%RSD	68.239	8.7780	54.846	21.406	11.572	79.357	1360.1
#1	.01373	.00117	.00230	.17314	.00121	.00195	.00037
#2	.00479	.00104	.00101	.12761	.00103	.00055	-.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	.00183	.00123	.00108	-.00013	.00138	.00126
SDev	.00320	.00078	.00009	.00047	.00185	.00004	.00030
%RSD	276.78	42.757	6.9238	44.008	1411.3	2.8096	23.804
#1	.00342	.00238	.00129	.00142	.00118	.00140	.00147
#2	-.00111	.00128	.00117	.00074	-.00144	.00135	.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00191	.00092	.00385	-.00187	.00138		
SDev	.00138	.00080	.00283	.00212	.00013		
%RSD	72.150	86.825	73.670	113.44	9.5640		
#1	.00288	.00148	.00184	-.00037	.00148		
#2	.00093	.00035	.00585	-.00337	.00129		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11583	--	--	--	--	--	--
SDev	27.26090	--	--	--	--	--	--
%RSD	.2353488	--	--	--	--	--	--
#1	11602	--	--	--	--	--	--
#2	11564	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator: GSP
Run Time: 10/29/01 09:57:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00172	Q.08758	Q.00471	Q.09164	Q.00903	Q.00478	Q.45712
SDev	.00057	.00518	.00152	.00073	.00026	.00002	.00097
%RSD	33.149	5.9187	32.196	.79177	2.9148	.33867	.21278
#1	Q.00213	Q.09125	.00578	Q.09215	Q.00922	Q.00476	Q.45643
#2	Q.00132	Q.08392	Q.00364	Q.09113	Q.00884	Q.00479	Q.45781
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00462	Q.00935	Q.00414	Q.00749	.08864	Q.09598	Q.84076
SDev	.00005	.00053	.00015	.00036	.00712	.00058	.00777
%RSD	1.1369	5.6677	3.6489	4.7825	8.0273	.59984	.92389
#1	Q.00459	Q.00972	Q.00425	Q.00774	.09367	Q.09558	Q.83527
#2	Q.00466	Q.00897	Q.00404	Q.00724	.08361	Q.09639	Q.84625
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q.45664	Q.00955	Q.00937	Q.36012	Q.00458	Q.00400	Q.00958
SDev	.00041	.00014	.00022	.01187	.00097	.00110	.00034
%RSD	.08912	1.4505	2.3449	3.2955	21.086	27.570	3.5209
#1	Q.45693	Q.00945	Q.00953	Q.35173	.00526	Q.00322	Q.00982
#2	Q.45635	Q.00965	Q.00922	Q.36852	Q.00390	Q.00478	Q.00935
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.04787	Q.00384	Q.00457	Q.00465	Q.00702	Q.00806	Q.01924
SDev	.00123	.00006	.00007	.00024	.00044	.00016	.00009
%RSD	2.5753	1.5620	1.5326	5.0724	6.2004	2.0154	.47799
#1	Q.04700	Q.00388	Q.00452	Q.00481	Q.00671	Q.00818	Q.01917
#2	Q.04875	Q.00380	Q.00462	Q.00448	Q.00732	Q.00795	Q.01930
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00018	.00590	.00756	.01060	Q.04628		
SDev	.00227	.00052	.00312	.00206	.00000		
%RSD	1227.5	8.8203	41.337	19.488	.00098		
#1	-.00142	.00553	.00535	.01206	Q.04628		
#2	.00179	.00627	.00976	.00914	Q.04628		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					.10000		
Range					50.000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11577	--	--	--	--	--	--
SDev	60.98313	--	--	--	--	--	--
%RSD	.5267724	--	--	--	--	--	--
#1	11534	--	--	--	--	--	--
#2	11620	--	--	--	--	--	--

Method: 60102007 Sample Name: AL500 Operator: GSP
Run Time: 10/29/01 10:02:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	498.35	-.00118	.00078	.00054	.00047	.01552
SDev	.00010	1.21	.00423	.00138	.00032	.00003	.00060
%RSD	8.2169	.24293	358.67	176.68	58.615	6.2303	3.8773
#1	-.00117	497.50	.00181	-.00019	.00076	.00045	.01594
#2	-.00132	499.21	-.00417	.00176	.00032	.00049	.01509
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00027	.03058	.00182	.11153	.12281	.02946
SDev	.00018	.00060	.00013	.00021	.01515	.00012	.01403
%RSD	18.279	217.58	.43578	11.804	13.584	.09541	47.613
#1	-.00086	.00015	.03049	.00197	.12224	.12289	.03938
#2	-.00111	-.00070	.03068	.00167	.10082	.12272	.01954
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00162	.00180	.01010	.14830	.00564	-.00388	-.00368
SDev	.00277	.00009	.00079	.01502	.00145	.00006	.00138
%RSD	171.01	5.2063	7.8312	10.127	25.713	1.5506	37.555
#1	.00357	.00186	.01066	.15891	.00667	-.00384	-.00466
#2	-.00034	.00173	.00954	.13768	.00462	-.00392	-.00270
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00377	-.00203	.00013	-.00003	.00540	.00034	.00297
SDev	.00098	.00157	.00001	.00018	.00199	.00025	.00042
%RSD	26.022	77.118	6.8151	644.85	36.762	71.625	13.964
#1	-.00308	-.00314	.00014	.00010	.00681	.00052	.00326
#2	-.00446	-.00092	.00013	-.00015	.00400	.00017	.00268
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	Q.01208	Q-.01185	Q.00789	Q-.00946	.00026
SDev	.00449	.00233	.00868	.00226	.00004
%RSD	37.167	19.676	110.02	23.924	14.185
#1	Q.00891	Q-.01020	.00175	Q-.00786	.00029
#2	Q.01526	Q-.01350	Q.01403	Q-.01106	.00023

Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00300	.00300	.00500	.00500	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10975	--	--	--	--	--	--
SDev	71.78377	--	--	--	--	--	--
%RSD	.6540930	--	--	--	--	--	--
#1	11025	--	--	--	--	--	--
#2	10924	--	--	--	--	--	--

Method: 60102007 Sample Name: FE500 Operator: GSP
Run Time: 10/29/01 10:08:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.12625	.00256	-.00021	.00055	.00055	-.00689
SDev	.00089	.04292	.00223	.00060	.00034	.00001	.00064
%RSD	140.22	33.992	87.273	290.89	61.526	2.5794	9.3229
#1	.00126	.15660	Q.00414	.00022	.00078	.00056	-.00644
#2	.00001	.09591	.00098	-.00063	.00031	.00054	-.00735
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00300				.10000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00159	.00010	-.00384	-.00122	542.17	391.03	.03360
SDev	.00003	.00010	.00021	.00023	1.30	1.07	.01337
%RSD	1.8181	102.77	5.4811	18.779	.23918	.27297	39.774
#1	Q.00157	.00003	-.00369	-.00106	543.08	391.78	.04305
#2	Q.00161	.00017	-.00399	-.00139	541.25	390.27	.02415
Errors	QC Fail	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04036	-.00297	-.00128	.03566	-.00771	-.00182	.00158
SDev	.00335	.00005	.00009	.04857	.00026	.00056	.00025
%RSD	8.3085	1.8340	7.1463	136.20	3.4148	30.646	15.941
#1	-.03798	-.00293	-.00135	.07000	-.00790	-.00143	.00176
#2	-.04273	-.00301	-.00122	.00132	-.00752	-.00221	.00140
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	.00252	-.00034	-.00018	Q-.00534	.00044	-.00400
SDev	.00194	.00050	.00004	.00027	.00316	.00032	.00022
%RSD	63.555	19.748	11.790	147.45	59.254	74.174	5.4161
#1	-.00168	.00288	-.00031	.00001	Q-.00310	.00021	-.00416
#2	-.00443	.00217	-.00037	-.00037	Q-.00758	.00066	-.00385
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00027	Q-.00287	-.00034	.00254	.00007
SDev	.00004	.00082	.00058	.00009	.00003
%RSD	14.181	28.504	171.99	3.4855	40.397
#1	.00030	Q-.00229	.00007	.00260	.00009
#2	.00025	Q-.00344	-.00075	.00248	.00005

Errors	QC Pass	QC Fail	QC Pass	QC Pass	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00200	.00200	.00300	.00300	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10591	--	--	--	--	--	--
SDev	32.92052	--	--	--	--	--	--
%RSD	.3108262	--	--	--	--	--	--
#1	10568	--	--	--	--	--	--
#2	10615	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSA Operator: GSP
Run Time: 10/29/01 10:14:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	505.12	.00143	.00436	.00197	.00083	457.43
SDev	.00030	.54	.00179	.00072	.00007	.00001	.61
%RSD	115.20	.10745	125.81	16.432	3.3315	.70717	.13442
#1	-.00005	504.74	.00016	.00385	.00202	.00083	457.00
#2	-.00048	505.51	.00270	.00487	.00193	.00084	457.87
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00064	.00363	-.00185	.00035	195.82	179.37	.02642
SDev	.00002	.00023	.00035	.00097	.02	.01	.00634
%RSD	3.2127	6.4588	18.765	277.01	.00874	.00463	24.015
#1	-.00063	.00346	-.00160	.00104	195.80	179.37	.03091
#2	-.00065	.00380	-.00209	-.00034	195.83	179.36	.02194
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	520.28	.00347	-.00128	.10097	-.00127	.00215	-.00030
SDev	.60	.00004	.00056	.23112	.00049	.00054	.00415
%RSD	.11442	1.2538	43.617	228.89	39.090	24.993	1376.1
#1	519.86	.00344	-.00167	.26439	-.00092	.00177	-.00323
#2	520.70	.00350	-.00088	-.06245	-.00162	.00254	.00263
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00047	-.00130	-.00275	.00448	-.00360	.00391
SDev	.00228	.00083	.00012	.00038	.00122	.00072	.00020
%RSD	147.38	177.68	9.3614	13.651	27.198	19.881	5.1686
#1	.00316	-.00105	-.00122	-.00302	.00362	-.00310	.00377
#2	-.00007	.00012	-.00139	-.00249	.00534	-.00411	.00405
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.02161	.01402	-.00322	.00115	.00042
SDev	.00420	.00290	.00086	.00579	.00003
%RSD	19.431	20.713	26.577	501.52	7.6979
#1	-.01864	.01196	-.00382	-.00294	.00044
#2	-.02457	.01607	-.00261	.00525	.00039
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					.00000
Range					.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10267	--	--	--	--	--	--
SDev	19.24311	--	--	--	--	--	--
%RSD	.1874341	--	--	--	--	--	--
#1	10253	--	--	--	--	--	--
#2	10280	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator: GSP
Run Time: 10/29/01 10:19:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57129	518.57	1.0195	1.0367	1.1253	.51551	466.10
SDev	.00103	.27	.0018	.0043	.0015	.00049	.53
%RSD	.18033	.05286	.17556	.41381	.13682	.09446	.11276
#1	.57202	518.76	1.0207	1.0336	1.1264	.51585	466.47
#2	.57057	518.37	1.0182	1.0397	1.1242	.51516	465.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47311	.94920	.99681	1.1030	206.40	187.10	14.114
SDev	.00051	.00076	.00112	.0012	.26	.33	.019
%RSD	.10826	.08007	.11256	.11295	.12575	.17633	.13606
#1	.47347	.94973	.99760	1.1038	206.58	187.33	14.127
#2	.47275	.94866	.99601	1.1021	206.21	186.86	14.100
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	531.83	1.0159	1.0334	11.619	.93315	.95829	1.0186
SDev	.78	.0015	.0000	.025	.00065	.00345	.0071
%RSD	.14707	.14932	.00281	.21819	.07019	.36030	.69919
#1	532.39	1.0170	1.0334	11.601	.93361	.96073	1.0236
#2	531.28	1.0149	1.0333	11.636	.93268	.95585	1.0135
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0560	1.0102	1.0973	1.0716	.98411	1.0273	.93687
SDev	.0042	.0017	.0005	.0015	.00035	.0011	.00211
%RSD	.39583	.16436	.04542	.14252	.03515	.10823	.22486
#1	1.0589	1.0090	1.0977	1.0727	.98386	1.0280	.93836
#2	1.0530	1.0114	1.0970	1.0705	.98435	1.0265	.93538
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.92829	.97327	1.0128	1.0214	1.0998
SDev	.00359	.00339	.0020	.0117	.0002
%RSD	.38631	.34792	.20012	1.1444	.01868
#1	.93082	.97567	1.0114	1.0297	1.1000
#2	.92575	.97088	1.0142	1.0132	1.0997
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10334	--	--	--	--	--	--
SDev	21.31747	--	--	--	--	--	--
%RSD	.2062922	--	--	--	--	--	--
#1	10319	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 10:28:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50459	10.066	.98612	.98262	.97624	.49294	10.065
SDev	.00137	.018	.00005	.00048	.00182	.00053	.024
%RSD	.27172	.17976	.00459	.04879	.18666	.10670	.23577
#1	.50556	10.053	.98615	.98296	.97753	.49332	10.048
#2	.50362	10.078	.98609	.98228	.97496	.49257	10.082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49544	.99890	.98874	.98692	10.041	10.054	9.5845
SDev	.00007	.00086	.00123	.00127	.012	.002	.0149
%RSD	.01348	.08618	.12459	.12881	.12135	.02391	.15567
#1	.49539	.99951	.98962	.98782	10.050	10.052	9.5950
#2	.49548	.99829	.98787	.98602	10.033	10.056	9.5739
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9738	.98924	.99865	9.6367	1.0003	.99944	.99262
SDev	.0233	.00147	.00079	.0953	.0028	.00222	.00151
%RSD	.23399	.14865	.07887	.98850	.27801	.22170	.15190
#1	9.9573	.99028	.99810	9.5694	.99834	.99788	.99155
#2	9.9903	.98820	.99921	9.7041	1.0023	1.0010	.99369
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0098	1.0021	.98783	1.0075	.99755	.98752	.98364
SDev	.0019	.0014	.00106	.0008	.00631	.00064	.00038
%RSD	.18626	.13741	.10748	.07771	.63248	.06518	.03813
#1	1.0112	1.0011	.98858	1.0081	1.0020	.98798	.98338
#2	1.0085	1.0031	.98708	1.0070	.99309	.98707	.98391
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99406	1.0021	1.0001	.98887	1.0130		
SDev	.00096	.0028	.0037	.00412	.0021		
%RSD	.09621	.28384	.37234	.41660	.20831		
#1	.99338	1.0001	1.0028	.98595	1.0115		
#2	.99473	1.0041	.99750	.99178	1.0145		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11589	--	--	--	--	--	--
SDev	20.84584	--	--	--	--	--	--
%RSD	.1798721	--	--	--	--	--	--
#1	11604	--	--	--	--	--	--
#2	11575	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 10:34:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.01551	.00101	.00153	.00056	.00042	.01676
SDev	.00015	.00998	.00020	.00024	.00005	.00006	.01455
%RSD	70.093	64.389	19.453	15.813	9.6732	13.631	86.805
#1	.00011	.00845	.00115	.00170	.00052	.00038	.00647
#2	.00033	.02257	.00087	.00136	.00060	.00046	.02704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00077	.00033	-.00043	.01612	.01023	.01764
SDev	.00006	.00014	.00052	.00051	.00107	.00608	.00535
%RSD	37.415	17.659	154.11	119.49	6.6601	59.411	30.336
#1	.00011	.00087	-.00003	-.00007	.01688	.00593	.01386
#2	.00019	.00068	.00070	-.00079	.01536	.01453	.02142
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01609	.00058	.00090	.03335	.00076	.00011	-.00106
SDev	.01042	.00008	.00056	.07711	.00019	.00022	.00031
%RSD	64.772	13.573	61.699	231.18	25.359	198.09	28.992
#1	.00872	.00052	.00129	-.02117	.00062	.00027	-.00127
#2	.02345	.00063	.00051	.08787	.00090	-.00004	-.00084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00410	.00124	.00048	.00070	-.00097	.00045	.00065
SDev	.00165	.00136	.00011	.00004	.00100	.00019	.00002
%RSD	40.176	109.20	22.111	6.2044	102.56	43.628	3.6911
#1	.00527	.00221	.00041	.00067	-.00168	.00058	.00067
#2	.00294	.00028	.00056	.00073	-.00027	.00031	.00064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00162	.00097	.00001	-.00159	.00052		
SDev	.00153	.00110	.00056	.00074	.00012		
%RSD	94.945	112.61	4991.0	46.377	22.816		
#1	-.00270	.00175	.00040	-.00211	.00044		
#2	-.00053	.00020	-.00038	-.00107	.00060		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11531	--	--	--	--	--	--
SDev	3.018324	--	--	--	--	--	--
%RSD	.0261751	--	--	--	--	--	--
#1	11533	--	--	--	--	--	--
#2	11529	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD131 Operator:
Run Time: 10/29/01 10:39:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00030	.01083	-.00010	.00050	.00011	.00019	.01421
SDev	.00030	.01389	.00284	.00040	.00014	.00006	.01033
%RSD	100.68	128.24	2792.1	80.507	126.22	29.826	72.724
#1	-.00052	.00101	-.00211	.00021	.00001	.00015	.00690
#2	-.00009	.02065	.00191	.00078	.00021	.00023	.02152
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00050	-.00003	-.00063	.00549	.00605	.02090
SDev	.00002	.00072	.00009	.00000	.00054	.00541	.00136
%RSD	308.43	143.78	272.89	.67188	9.8553	89.437	6.5260
#1	-.00001	-.00001	.00003	-.00063	.00511	.00222	.02186
#2	.00002	.00101	-.00009	-.00062	.00588	.00988	.01994
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00811	.00023	-.00015	.03439	.00000	-.00019	-.00045
SDev	.01212	.00014	.00034	.02813	.00023	.00026	.00146
%RSD	149.38	63.216	222.94	81.786	21800.	138.36	325.14
#1	-.00046	.00013	-.00039	.01450	-.00016	-.00037	.00058
#2	.01668	.00033	.00009	.05428	.00017	-.00000	-.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	-.00044	.00017	.00016	-.00297	-.00019	.00307
SDev	.00164	.00008	.00010	.00020	.00006	.00023	.00028
%RSD	108.08	19.167	56.009	121.77	2.0720	121.34	9.1928
#1	.00036	-.00050	.00010	.00002	-.00302	-.00003	.00287
#2	.00268	-.00038	.00024	.00030	-.00293	-.00036	.00327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	.00035	.00189	-.00162	.00016
SDev	.00168	.00123	.00573	.00067	.00012
%RSD	134.33	355.44	304.05	41.665	77.000
#1	-.00006	-.00052	.00594	-.00209	.00007
#2	-.00244	.00121	-.00217	-.00114	.00025
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11606	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2133388	--	--	--	--	--	--
#1	11589	--	--	--	--	--	--
#2	11624	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD131 Operator:
Run Time: 10/29/01 10:45:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48741	9.7452	.98010	.96828	.96383	.48860	9.7974
SDev	.00036	.0114	.00604	.00064	.00006	.00026	.0144
%RSD	.07311	.11690	.61652	.06635	.00616	.05302	.14690
#1	.48767	9.7532	.97583	.96783	.96387	.48879	9.8075
#2	.48716	9.7371	.98437	.96874	.96379	.48842	9.7872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49331	.97400	.97689	.96367	L9.7927	9.7905	9.4551
SDev	.00032	.00047	.00164	.00007	.0012	.0101	.0578
%RSD	.06402	.04871	.16772	.00743	.01229	.10354	.61111
#1	.49354	.97434	.97804	.96362	L9.7919	9.7977	9.4960
#2	.49309	.97367	.97573	.96372	L9.7936	9.7833	9.4143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.7209	.97567	.98472	9.4709	.98434	.98570	.98234
SDev	.0091	.00113	.00081	.0416	.00045	.00558	.00642
%RSD	.09410	.11548	.08232	.43880	.04558	.56592	.65353
#1	9.7274	.97647	.98415	9.4415	.98466	.98964	.98688
#2	9.7144	.97487	.98529	9.5003	.98403	.98175	.97780
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97125	.99358	.97689	.98119	.98107	.97004	.98554
SDev	.00139	.00184	.00047	.00086	.00190	.00086	.00197
%RSD	.14299	.18558	.04830	.08729	.19361	.08910	.19933
#1	.97027	.99489	.97723	.98179	.98242	.97065	.98693
#2	.97223	.99228	.97656	.98058	.97973	.96943	.98415
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.97917	.98896	.98684	.98009	.99751		
SDev	.00839	.00418	.00826	.00550	.00370		
%RSD	.85639	.42235	.83659	.56151	.37146		
#1	.98510	.99191	.99268	.98398	1.0001		
#2	.97324	.98600	.98100	.97620	.99489		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11668	--	--	--	--	--	--
SDev	63.52982	--	--	--	--	--	--
%RSD	.5444667	--	--	--	--	--	--
#1	11623	--	--	--	--	--	--
#2	11713	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1 Operator:
Run Time: 10/29/01 10:51:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.54150	.00107	.02567	.00216	.00016	12.139
SDev	.00050	.00310	.00041	.00123	.00001	.00000	.081
%RSD	523.55	.57265	38.745	4.7821	.42116	.43285	.66716
#1	.00045	.53930	.00136	.02654	.00216	.00016	12.082
#2	-.00026	.54369	.00078	.02481	.00215	.00016	12.196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	-.00002	.00053	-.00003	L.04733	.05358	3.5392
SDev	.00003	.00026	.00004	.00001	.00093	.00051	.0068
%RSD	17.195	1185.1	7.4011	28.632	1.9640	.95865	.19112
#1	.00013	-.00021	.00056	-.00002	L.04667	.05395	3.5344
#2	.00017	.00016	.00050	-.00003	L.04799	.05322	3.5440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.82471	.00182	.00025	5.2648	.00057	-.00007	.00131
SDev	.00720	.00010	.00038	.0309	.00023	.00016	.00060
%RSD	.87342	5.6164	149.80	.58663	40.094	230.82	45.982
#1	.81962	.00189	-.00001	5.2429	.00073	.00004	.00174
#2	.82981	.00175	.00052	5.2866	.00041	-.00018	.00089
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00227	.00381	.16457	.00384	-.00252	.00103	.01614
SDev	.00015	.00010	.00067	.00010	.00015	.00019	.00011
%RSD	6.4040	2.6228	.40395	2.7097	5.7935	18.027	.66183
#1	-.00217	.00388	.16410	.00377	-.00242	.00116	.01621
#2	-.00238	.00373	.16504	.00392	-.00262	.00090	.01606
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00071	.00589	-.00097	.01333
SDev	.00106	.00029	.00354	.00086	.00003
%RSD	86.381	40.233	60.111	88.836	.20647
#1	.00197	-.00092	.00839	-.00158	.01334
#2	.00048	-.00051	.00339	-.00036	.01331
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	43.57960	--	--	--	--	--	--
%RSD	.3690444	--	--	--	--	--	--
#1	11840	--	--	--	--	--	--
#2	11778	--	--	--	--	--	--

Method: 60102007 Sample Name: 11055/-1L Operator:
Run Time: 10/29/01 10:56:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	.10850	.00052	.00618	.00043	.00017	2.4817
SDev	.00152	.00042	.00183	.00102	.00016	.00002	.0019
%RSD	186.22	.38546	350.09	16.548	37.635	8.8439	.07668
#1	.00026	.10879	.00182	.00691	.00054	.00018	2.4804
#2	-.00189	.10820	-.00077	.00546	.00031	.00016	2.4830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.00010	.00033	-.00074	L.00514	.01278	.71347
SDev	.00006	.00013	.00095	.00017	.00053	.00011	.00756
%RSD	1957.3	128.07	291.31	22.555	10.373	.86108	1.0593
#1	.00004	.00020	.00100	-.00062	L.00476	.01286	.71881
#2	-.00005	.00001	-.00035	-.00086	L.00552	.01271	.70812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.16534	.00040	-.00036	.99653	.00066	-.00043	-.00108
SDev	.00177	.00007	.00000	.18384	.00005	.00016	.00026
%RSD	1.0674	16.462	.04574	18.448	7.5778	36.646	24.230
#1	.16659	.00045	-.00036	1.1265	.00069	-.00055	-.00089
#2	.16410	.00036	-.00036	.86653	.00062	-.00032	-.00126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-!00044	-.00033	.03291	.00080	-.00108	-.00019	.00757
SDev	.00091	.00071	.00004	.00029	.00369	.00054	.00010
%RSD	207.91	213.41	.12891	36.476	341.02	281.08	1.3295
#1	.00021	-.00084	.03288	.00101	.00153	.00019	.00764
#2	-.00108	.00017	.03294	.00060	-.00369	-.00057	.00750
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	.00006	-.00073	-.00125	.00286
SDev	.00090	.00069	.00258	.00168	.00002
%RSD	63.351	1144.9	353.83	134.49	.65353
#1	-.00079	-.00043	-.00255	-.00006	.00287
#2	-.00206	.00055	.00109	-.00243	.00285
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11674	--	--	--	--	--	--
SDev	5.942735	--	--	--	--	--	--
%RSD	.0509053	--	--	--	--	--	--
#1	11670	--	--	--	--	--	--
#2	11678	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-1S Operator:
Run Time: 10/29/01 11:02:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49817	10.487	1.0247	1.0171	.99034	.49991	22.178
SDev	.00271	.076	.0051	.0096	.00753	.00410	.150
%RSD	.54398	.72782	.49943	.94420	.76033	.81998	.67506
#1	.49626	10.433	1.0211	1.0103	.98502	.49701	22.072
#2	.50009	10.541	1.0283	1.0239	.99567	.50281	22.284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50679	1.0007	1.0004	.98877	L10.090	10.118	14.322
SDev	.00406	.0075	.0070	.00638	.076	.078	.087
%RSD	.80136	.75350	.70420	.64566	.75124	.76831	.61056
#1	.50391	.99536	.99543	.98426	L10.036	10.063	14.261
#2	.50966	1.0060	1.0054	.99329	L10.143	10.172	14.384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.779	1.0018	1.0084	15.119	1.0104	1.0181	1.0436
SDev	.064	.0074	.0120	.156	.0068	.0055	.0051
%RSD	.59529	.73514	1.1936	1.0350	.67159	.54504	.49275
#1	10.733	.99661	.99991	15.230	1.0056	1.0142	1.0400
#2	10.824	1.0070	1.0169	15.009	1.0152	1.0220	1.0472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97190	.99058	1.1640	1.0089	1.0107	.99978	1.0375
SDev	.05032	.01534	.0084	.0085	.0093	.00605	.0076
%RSD	5.1777	1.5489	.71970	.84464	.91816	.60561	.72785
#1	.93632	.97974	1.1581	1.0029	1.0042	.99550	1.0321
#2	1.0075	1.0014	1.1700	1.0149	1.0173	1.0041	1.0428
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0120	1.0211	1.0503	1.0403	.97297
SDev	.0070	.0048	.0075	.0040	.00555
%RSD	.69212	.47226	.71244	.38201	.57065
#1	1.0071	1.0177	1.0450	1.0375	.96904
#2	1.0170	1.0245	1.0556	1.0431	.97690
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11640	--	--	--	--	--	--
SDev	91.21471	--	--	--	--	--	--
%RSD	.7836079	--	--	--	--	--	--
#1	11705	--	--	--	--	--	--
#2	11576	--	--	--	--	--	--

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0191	1.0314	1.0588	1.0468	.97818
SDev	.0082	.0059	.0133	.0100	.00675
%RSD	.80627	.57364	1.2519	.95224	.68992
#1	1.0249	1.0356	1.0681	1.0539	.98295
#2	1.0133	1.0272	1.0494	1.0398	.97341
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11571	--	--	--	--	--	--
SDev	16.55486	--	--	--	--	--	--
%RSD	.1430718	--	--	--	--	--	--
#1	11559	--	--	--	--	--	--
#2	11583	--	--	--	--	--	--

Method: e0102007 Sample Name: 110557-2 Operator:
Run Time: 10/29/01 11:13:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.18679	.00244	.02647	.00523	.00027	5.8823
SDev	.00011	.00268	.00009	.00099	.00032	.00002	.0070
%RSD	16.250	1.4354	3.5993	3.7309	6.0420	6.0286	.11923
#1	.00074	.18869	.00250	.02717	.00546	.00028	5.8773
#2	.00058	.18490	.00238	.02577	.00501	.00026	5.8872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00056	.00137	.00040	L.07465	.07722	1.7251
SDev	.00008	.00072	.00026	.00063	.00085	.00125	.0070
%RSD	40.767	129.82	18.623	156.76	1.1417	1.6195	.40434
#1	.00026	.00107	.00119	-.00004	L.07525	.07810	1.7201
#2	.00015	.00005	.00155	.00084	L.07404	.07633	1.7300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72012	.00114	.00193	5.0480	.00095	.00059	-.00014
SDev	.00294	.00008	.00059	.0968	.00049	.00055	.00134
%RSD	.40849	7.3221	30.377	1.9170	51.917	93.624	962.89
#1	.71804	.00120	.00235	4.9795	.00130	.00098	-.00109
#2	.72220	.00108	.00152	5.1164	.00060	.00020	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00539	.01908	.00264	-.00229	.00168	.01246
SDev	.00007	.00040	.00009	.00032	.00091	.00004	.00014
%RSD	54.448	7.4910	.47716	11.974	39.763	2.6043	1.1264
#1	.00008	.00510	.01914	.00286	-.00293	.00165	.01256
#2	.00018	.00568	.01902	.00241	-.00164	.00171	.01236
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00088	.00044	.00644	-.00342	.00120
SDev	.00288	.00227	.00497	.00047	.00009
%RSD	325.41	509.30	77.170	13.647	7.0776
#1	-.00115	.00205	.00292	-.00309	.00126
#2	.00292	-.00116	.00995	-.00375	.00114
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11870	--	--	--	--	--	--
SDev	34.76010	--	--	--	--	--	--
%RSD	.2928309	--	--	--	--	--	--
#1	11895	--	--	--	--	--	--
#2	11846	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-3 Operator:
Run Time: 10/29/01 11:19:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	2.1485	.00194	.03336	.01145	.00021	4.8813
SDev	.00034	.0094	.00067	.00003	.00006	.00002	.0230
%RSD	1508.8	.43827	34.586	.08815	.56144	11..457	.47027
#1	.00022	2.1418	.00146	.03338	.01140	.00019	4.8651
#2	-.00026	2.1552	.00241	.03334	.01149	.00022	4.8975
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	-.00027	.00135	-.00046	L.58650	.60423	3.2135
SDev	.00000	.00023	.00005	.00005	.00110	.00257	.0336
%RSD	20.947	87.265	3.7749	11.760	.18793	.42575	1.0465
#1	-.00002	-.00010	.00139	-.00050	L.58572	.60241	3.1897
#2	-.00002	-.00043	.00132	-.00042	L.58728	.60605	3.2372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.56758	.00286	.00031	9.9876	.00050	-.00024	.00234
SDev	.00316	.00003	.00037	.0694	.00016	.00048	.00058
%RSD	.55756	1.0440	119.62	.69491	32.250	203.46	24.810
#1	.56534	.00288	.00057	10.037	.00038	-.00057	.00193
#2	.56981	.00284	.00005	9.9385	.00061	.00010	.00275
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00294	.00311	.04944	.01895	-.00271	.00161	.01331
SDev	.00137	.00082	.00019	.00001	.00358	.00026	.00012
%RSD	46.651	26.367	.37958	.04015	132.28	16.457	.88170
#1	-.00197	.00369	.04930	.01895	-.00017	.00180	.01340
#2	-.00390	.00253	.04957	.01894	-.00524	.00142	.01323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00181	-.00126	.00872	-.00084	.00115
SDev	.00065	.00104	.00021	.00098	.00002
%RSD	35.726	82.851	2.4120	115.88	1.7346
#1	.00227	-.00200	.00887	-.00153	.00113
#2	.00135	-.00052	.00857	-.00015	.00116
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11804	--	--	--	--	--	--
SDev	11.79087	--	--	--	--	--	--
%RSD	.0998845	--	--	--	--	--	--
#1	11813	--	--	--	--	--	--
#2	11796	--	--	--	--	--	--

Method: e0102007 Sample Name: 110557-4 Operator:
Run Time: 10/29/01 11:24:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.19134	.00182	.02392	.01270	.00012	5.0255
SDev	.00077	.00061	.00043	.00072	.00010	.00003	.0016
%RSD	177.41	.31932	23.494	3.0125	.81999	20.327	.03100
#1	-.00098	.19178	.00152	.02443	.01277	.00011	5.0266
#2	.00011	.19091	.00213	.02341	.01263	.00014	5.0244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	-.00001	.00022	-.00065	L.18699	.19379	2.1106
SDev	.00002	.00046	.00022	.00087	.00970	.00388	.0182
%RSD	85.920	8366.5	98.315	133.08	5.1895	2.0023	.86226
#1	-.00005	-.00033	.00007	-.00127	L.18013	.19104	2.0977
#2	-.00001	.00032	.00038	-.00004	L.19385	.19653	2.1235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.54167	.00263	-.00034	7.7958	.00019	.00011	.00092
SDev	.00027	.00001	.00034	.2078	.00005	.00040	.00083
%RSD	.05060	.27068	99.554	2.6659	26.576	380.80	90.169
#1	.54148	.00263	-.00058	7.6488	.00015	.00039	.00033
#2	.54187	.00262	-.00010	7.9427	.00022	-.00018	.00150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00339	.00255	.06263	.00307	-.00336	.00045	.01198
SDev	.00061	.00020	.00014	.00021	.00112	.00100	.00008
%RSD	18.001	7.6901	.22784	6.8808	33.213	220.36	.64412
#1	-.00383	.00269	.06273	.00292	-.00415	-.00025	.01203
#2	-.00296	.00242	.06253	.00322	-.00257	.00115	.01192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00046	.00580	-.00152	.01302
SDev	.00129	.00125	.00167	.00041	.00009
%RSD	104.76	273.33	28.751	26.750	.69450
#1	.00032	.00043	.00462	-.00181	.01296
#2	.00214	-.00134	.00698	-.00123	.01309
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11819	--	--	--	--	--	--
SDev	17.21501	--	--	--	--	--	--
%RSD	.1456603	--	--	--	--	--	--
#1	11831	--	--	--	--	--	--
#2	11806	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-5 Operator:
Run Time: 10/29/01 11:30:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00029	.19452	.00277	.02489	.00499	.00020	6.2414
SDev	.00023	.00655	.00072	.00105	.00035	.00002	.0209
%RSD	79.217	3.3682	25.857	4.2019	7.0314	11.727	.33443
#1	-.00013	.19915	.00328	.02563	.00524	.00022	6.2267
#2	-.00045	.18988	.00227	.02415	.00474	.00019	6.2562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00051	.00031	-.00016	1.07594	.07415	1.7075
SDev	.00003	.00099	.00023	.00013	.01414	.00013	.0170
%RSD	32.756	194.06	75.867	80.148	18.620	.18117	.99837
#1	.00008	.00121	.00047	-.00007	1.08594	.07424	1.7195
#2	.00013	-.00019	.00014	-.00025	1.06594	.07405	1.6954
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.72580	.00352	-.00013	4.9992	.00045	-.00006	.00151
SDev	.00202	.00011	.00078	.0790	.00058	.00113	.00101
%RSD	.27901	3.1135	594.77	1.5811	128.66	1984.1	66.715
#1	.72723	.00360	.00042	4.9433	.00086	.00074	.00080
#2	.72437	.00345	-.00068	5.0551	.00004	-.00086	.00222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00115	.00326	.01935	.00267	-.00094	.00082	.01996
SDev	.00437	.00037	.00006	.00068	.00176	.00020	.00009
%RSD	381.03	11.434	.32696	25.672	187.41	24.055	.43616
#1	.00194	.00299	.01930	.00315	.00030	.00096	.01990
#2	-.00424	.00352	.01939	.00218	-.00218	.00068	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.00024	.00487	-.00017	.00088
SDev	.00335	.00337	.00364	.00031	.00006
%RSD	512.96	1400.1	74.806	183.94	6.5458
#1	-.00302	.00262	.00229	.00005	.00092
#2	.00172	-.00214	.00744	-.00039	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11809	--	--	--	--	--	--
SDev	39.57036	--	--	--	--	--	--
%RSD	.3350978	--	--	--	--	--	--
#1	11781	--	--	--	--	--	--
#2	11837	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 11:35:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50893	10.069	1.0034	.98960	.97464	.49722	10.107
SDev	.00032	.030	.0049	.00543	.00317	.00178	.023
%RSD	.06245	.29369	.48910	.54918	.32494	.35746	.23131
#1	.50870	10.048	.99991	.98576	.97240	.49596	10.090
#2	.50915	10.090	1.0069	.99345	.97688	.49848	10.124
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50488	1.0107	.99767	.98631	10.115	10.125	9.7692
SDev	.00083	.0037	.00319	.00300	.017	.032	.0359
%RSD	.16479	.36577	.31994	.30430	.16901	.31270	.36751
#1	.50429	1.0081	.99541	.98419	10.103	10.102	9.7945
#2	.50547	1.0133	.99993	.98843	10.127	10.147	9.7438
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.088	.99704	1.0065	9.6640	1.0176	1.0187	1.0157
SDev	.014	.00286	.0065	.1388	.0013	.0034	.0025
%RSD	.13749	.28656	.65003	1.4367	.12954	.33502	.24518
#1	10.078	.99502	1.0018	9.7622	1.0167	1.0163	1.0140
#2	10.098	.99906	1.0111	9.5658	1.0185	1.0212	1.0175
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0187	1.0209	.98922	1.0115	1.0153	.99199	1.0049
SDev	.0044	.0010	.00362	.0027	.0024	.00220	.0009
%RSD	.42907	.09406	.36572	.26844	.23352	.22142	.09345
#1	1.0156	1.0202	.98666	1.0095	1.0137	.99043	1.0043
#2	1.0218	1.0215	.99178	1.0134	1.0170	.99354	1.0056
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0116	1.0223	1.0209	1.0131	1.0449
SDev	.0017	.0060	.0004	.0039	.0010
%RSD	.17098	.58497	.03826	.38777	.09516
#1	1.0128	1.0181	1.0212	1.0104	1.0456
#2	1.0103	1.0266	1.0206	1.0159	1.0442
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					1.0000
Range					10.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11641	--	--	--	--	--	--
SDev	50.37100	--	--	--	--	--	--
%RSD	.4327003	--	--	--	--	--	--
#1	11677	--	--	--	--	--	--
#2	11605	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 11:41:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00052	.01215	.00142	.00088	.00043	.00049	.01636
SDev	.00171	.00742	.00056	.00015	.00016	.00005	.00082
%RSD	327.49	61.091	39.154	16.728	37.841	10.070	4.9898
#1	.00069	.00690	.00103	.00077	.00031	.00046	.01579
#2	-.00173	.01739	.00182	.00098	.00054	.00053	.01694
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00024	.00029	.00031	-.00034	.00025	.01034	.01831
SDev	.00009	.00028	.00055	.00041	.00583	.00205	.04330
%RSD	39.271	96.879	176.10	119.90	2309.3	19.806	236.42
#1	.00031	.00009	.00070	-.00005	-.00387	.00889	.04893
#2	.00017	.00048	-.00008	-.00063	.00438	.01179	-.01230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01120	.00061	.00096	-.12591	.00003	.00024	-.00132
SDev	.00434	.00018	.00022	.29085	.00035	.00017	.00014
%RSD	38.741	29.226	23.385	231.00	1133.9	69.961	10.274
#1	.00814	.00048	.00080	.07975	-.00022	.00036	-.00141
#2	.01427	.00073	.00112	-.33158	.00028	.00012	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	-.00020	.00058	.00055	-.00087	.00005	.00048
SDev	.00101	.00059	.00001	.00022	.00100	.00081	.00020
%RSD	219.68	294.76	.84298	40.552	115.00	1580.7	42.395
#1	-.00025	.00022	.00058	.00039	-.00016	.00062	.00034
#2	.00117	-.00062	.00058	.00071	-.00158	-.00052	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00046	.00013	.00212	-.00303	.00076
SDev	.00533	.00240	.00519	.00279	.00005
%RSD	1159.4	1783.5	245.07	92.121	5.9217
#1	.00423	-.00157	.00579	-.00501	.00073
#2	-.00331	.00183	-.00155	-.00106	.00079
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11659	--	--	--	--	--	--
SDev	27.07169	--	--	--	--	--	--
%RSD	.2321898	--	--	--	--	--	--
#1	11678	--	--	--	--	--	--
#2	11640	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-6 Operator:
Run Time: 10/29/01 11:47:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00456	.00078	.00077	.00027	.00028	.01535
SDev	.00026	.00029	.00140	.00007	.00002	.00002	.00216
%RSD	81.095	6.4093	179.33	9.2920	5.5515	8.4151	14.099
#1	-.00014	.00436	-.00021	.00082	.00028	.00030	.01688
#2	-.00050	.00477	.00177	.00072	.00026	.00027	.01382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00093	.00017	-.00049	L.01003	.00268	.03674
SDev	.00021	.00024	.00073	.00026	.00734	.00104	.05383
%RSD	314.91	26.160	428.61	52.789	73.174	38.741	146.50
#1	.00021	.00076	.00069	-.00031	L.00484	.00342	.07480
#2	-.00008	.00111	-.00035	-.00068	L.01522	.00195	-.00132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00565	.00033	-.00008	.11701	.00048	-.00058	-.00056
SDev	.00005	.00010	.00026	.08354	.00033	.00026	.00038
%RSD	.90929	29.029	337.59	71.397	67.461	45.289	68.776
#1	.00561	.00040	.00011	.17608	.00071	-.00039	-.00029
#2	.00569	.00026	-.00026	.05793	.00025	-.00076	-.00083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00256	-.00013	.00022	.00042	.00002	.00007	.01171
SDev	.00080	.00110	.00019	.00003	.00091	.00068	.00000
%RSD	31.399	818.84	85.559	5.9900	4654.2	910.01	.03051
#1	.00199	.00064	.00036	.00040	.00066	.00056	.01170
#2	.00312	-.00091	.00009	.00044	-.00062	-.00041	.01171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00229	.00028	.00169	-.00168	.00019
SDev	.00458	.00189	.00358	.00122	.00021
%RSD	199.52	683.04	212.07	72.553	110.85
#1	.00094	-.00106	.00422	-.00253	.00034
#2	-.00553	.00161	-.00084	-.00082	.00004
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11841	--	--	--	--	--	--
SDev	75.55685	--	--	--	--	--	--
%RSD	.6381212	--	--	--	--	--	--
#1	11894	--	--	--	--	--	--
#2	11787	--	--	--	--	--	--

Method: 60102007 Sample Name: 110557-7 Operator:
Run Time: 10/29/01 11:52:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00447	-.00075	-.00027	-.00007	.00013	.00050
SDev	.00096	.00226	.00035	.00090	.00014	.00005	.00045
%RSD	132.15	50.496	46.946	336.41	207.94	36.693	89.509
#1	.00140	-.00287	-.00100	.00037	.00003	.00010	.00082
#2	.00005	-.00606	-.00050	-.00091	-.00016	.00017	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	-.00010	.00044	-.00027	L-.01147	.00001	.05403
SDev	.00002	.00015	.00026	.00043	.00815	.00030	.02019
%RSD	15.754	148.92	58.147	157.99	71.040	5719.6	37.372
#1	.00012	-.00021	.00062	.00003	L-.00571	.00022	.03976
#2	.00015	.00001	.00026	-.00058	L-.01724	-.00021	.06831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00422	.00001	-.00019	.17921	-.00014	-.00032	.00066
SDev	.00196	.00005	.00029	.07974	.00014	.00044	.00085
%RSD	46.400	713.50	147.26	44.494	102.51	137.64	127.13
#1	-.00283	.00005	.00001	.23559	-.00004	-.00063	.00126
#2	-.00560	-.00003	-.00040	.12283	-.00024	-.00001	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00087	.00010	-.00021	.00073	.00063	.01165
SDev	.00199	.00112	.00004	.00014	.00020	.00041	.00011
%RSD	183.83	129.03	43.667	68.706	27.971	65.767	.94524
#1	.00032	.00166	.00013	-.00011	.00058	.00092	.01172
#2	-.00249	.00008	.00007	-.00031	.00087	.00034	.01157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00377	-.00236	.00759	-.00279	.00006
SDev	.00124	.00128	.00078	.00088	.00003
%RSD	32.885	54.231	10.263	31.448	49.322
#1	.00465	-.00327	.00814	-.00217	.00004
#2	.00289	-.00146	.00704	-.00341	.00007
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11961	--	--	--	--	--	--
SDev	67.44445	--	--	--	--	--	--
%RSD	.5638739	--	--	--	--	--	--
#1	12009	--	--	--	--	--	--
#2	11913	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-1 Operator:
Run Time: 10/29/01 11:58:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	.16075	.00151	.02615	.00228	.00006	1.1798
SDev	.00043	.00712	.00018	.00117	.00017	.00004	.0163
%RSD	44.244	4.4276	11.698	4.4723	7.3907	66.194	1.3802
#1	-.00066	.16578	.00163	.02697	.00240	.00009	1.1913
#2	-.00127	.15572	.00138	.02532	.00216	.00003	1.1683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00048	.00024	-.00099	L.25156	.25177	1.0327
SDev	.00006	.00035	.00028	.00035	.00433	.00401	.0537
%RSD	101.15	72.148	120.71	35.934	1.7209	1.5912	5.1965
#1	-.00002	.00073	.00044	-.00073	L.25462	.25461	1.0706
#2	-.00011	.00024	.00003	-.00124	L.24850	.24894	.99472
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.26558	.00143	-.00043	6.2094	.00092	-.00008	.00209
SDev	.00438	.00004	.00010	.1419	.00049	.00072	.00036
%RSD	1.6473	2.7440	23.221	2.2845	52.761	915.53	17.272
#1	.26868	.00146	-.00050	6.3097	.00127	.00043	.00234
#2	.26249	.00141	-.00036	6.1091	.00058	-.00059	.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00084	.00231	.00641	.00235	-.00176	.00043	.01276
SDev	.00010	.00079	.00014	.00042	.00019	.00005	.00014
%RSD	12.253	34.093	2.2483	17.665	10.513	10.722	1.0746
#1	-.00077	.00287	.00652	.00264	-.00189	.00047	.01286
#2	-.00092	.00175	.00631	.00206	-.00163	.00040	.01266
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00152	.00064	.00358	.00134	.00023
SDev	.00038	.00089	.00064	.00086	.00011
%RSD	25.219	138.87	17.821	63.971	48.616
#1	-.00125	.00127	.00313	.00195	.00031
#2	-.00179	.00001	.00403	.00074	.00015
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11991	--	--	--	--	--	--
SDev	150.0289	--	--	--	--	--	--
%RSD	1.251225	--	--	--	--	--	--
#1	11884	--	--	--	--	--	--
#2	12097	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-2 Operator:
Run Time: 10/29/01 12:03:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.57648	.00256	.02609	.00300	.00010	4.7344
SDev	.00100	.00344	.00002	.00021	.00010	.00001	.0041
%RSD	230.66	.59582	.64722	.79822	3.4724	10.961	.08566
#1	-.00114	.57405	.00255	.02594	.00292	.00009	4.7373
#2	.00027	.57891	.00257	.02624	.00307	.00011	4.7316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00126	.00084	-.00026	1.28056	.28122	1.2823
SDev	.00005	.00003	.00055	.00094	.01488	.00033	.0050
%RSD	63.542	2.5035	64.803	359.00	5.3026	.11733	.38794
#1	.00005	.00124	.00046	-.00093	1.27004	.28099	1.2787
#2	.00012	.00128	.00123	.00040	1.29108	.28145	1.2858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.90048	.00266	-.00012	2.2505	.00059	-.00071	.00250
SDev	.00133	.00000	.00017	.2896	.00027	.00041	.00040
%RSD	.14748	.05432	139.13	12.869	45.209	57.807	16.000
#1	.89954	.00266	-.00000	2.0457	.00040	-.00100	.00222
#2	.90142	.00266	-.00024	2.4553	.00078	-.00042	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00191	.00935	.00690	-.00237	.00056	.01730
SDev	.00066	.00211	.00005	.00045	.00159	.00096	.00017
%RSD	2647.0	110.29	.58003	6.5432	67.031	171.64	.98689
#1	.00049	.00042	.00932	.00658	-.00350	-.00012	.01718
#2	-.00044	.00340	.00939	.00722	-.00125	.00124	.01743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00166	-.00024	.00302	.00224	.00059
SDev	.00318	.00098	.00153	.00016	.00002
%RSD	192.22	413.42	50.494	7.2621	3.1587
#1	-.00391	.00045	.00194	.00235	.00057
#2	.00060	-.00093	.00410	.00212	.00060
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11774	--	--	--	--	--	--
SDev	5.754219	--	--	--	--	--	--
%RSD	.0488702	--	--	--	--	--	--
#1	11770	--	--	--	--	--	--
#2	11779	--	--	--	--	--	--

Method: 60102007 Sample Name: 110599-3 Operator:
Run Time: 10/29/01 12:09:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.15118	.00012	.02815	.00619	.00009	6.1267
SDev	.00026	.00211	.00139	.00110	.00005	.00002	.0111
%RSD	81.883	1.3939	1130.1	3.9105	.85348	19.295	.18072
#1	-.00013	.15267	.00111	.02893	.00623	.00008	6.1189
#2	-.00050	.14969	-.00086	.02737	.00616	.00010	6.1345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00014	.00057	-.00049	L.49090	.49570	1.4175
SDev	.00006	.00021	.00006	.00010	.00262	.00107	.0051
%RSD	68.021	145.06	10.625	20.028	.53420	.21500	.35753
#1	-.00005	.00029	.00061	-.00056	L.49275	.49495	1.4139
#2	-.00013	-.00000	.00053	-.00042	L.48904	.49646	1.4211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.53955	.00353	-.00067	6.5772	.00048	.00074	.00369
SDev	.00050	.00003	.00014	.0723	.00023	.00038	.00271
%RSD	.09270	.95650	20.649	1.0991	47.832	50.919	73.517
#1	.53991	.00356	-.00077	6.6283	.00064	.00047	.00177
#2	.53920	.00351	-.00057	6.5261	.00031	.00100	.00561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	.00211	.01703	.00202	-.00363	.00070	.01199
SDev	.00370	.00026	.00003	.00014	.00031	.00023	.00029
%RSD	198.29	12.335	.14529	6.9256	8.4656	32.806	2.3938
#1	.00075	.00192	.01702	.00211	-.00341	.00054	.01219
#2	-.00449	.00229	.01705	.00192	-.00385	.00086	.01179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00118	.00052	.00675	.00216	.00324
SDev	.00046	.00033	.00012	.00413	.00000
%RSD	39.306	64.126	1.7139	190.76	.05965
#1	.00085	.00028	.00683	-.00075	.00324
#2	.00151	.00075	.00667	.00508	.00324
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11849	--	--	--	--	--	--
SDev	32.02490	--	--	--	--	--	--
%RSD	.2702792	--	--	--	--	--	--
#1	11871	--	--	--	--	--	--
#2	11826	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-1 Operator:
Run Time: 10/29/01 12:15:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00103	6.0627	.00328	.03158	.01865	.00009	76.725
SDev	.00069	.0011	.00052	.00070	.00018	.00002	.105
%RSD	66.518	.01851	15.919	2.2163	.95327	20.251	.13704
#1	-.00152	6.0635	.00365	.03207	.01877	.00010	76.651
#2	-.00055	6.0619	.00291	.03108	.01852	.00007	76.799
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00029	-.00018	-.00070	L.01833	.02664	5.0115
SDev	.00013	.00021	.00060	.00063	.00535	.00029	.0085
%RSD	66.876	73.564	327.00	90.071	29.192	1.0810	.17022
#1	-.00030	.00044	-.00060	-.00114	L.02211	.02684	5.0054
#2	-.00011	.00014	.00024	-.00025	L.01454	.02644	5.0175
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.30325	.00068	.00123	8.5397	.00141	.00025	.00161
SDev	.00184	.00001	.00012	.1268	.00036	.00039	.00084
%RSD	.60544	1.8144	9.6378	1.4848	25.962	157.57	51.852
#1	.30454	.00068	.00131	8.4501	.00167	.00052	.00102
#2	.30195	.00067	.00114	8.6294	.00115	-.00003	.00220
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00210	.00106	.73213	-.00001	-.00264	.00219	.01440
SDev	.00204	.00070	.00084	.00014	.00005	.00042	.00002
%RSD	97.357	65.898	.11523	1542.7	1.8640	19.180	.15057
#1	-.00354	.00056	.73154	.00009	-.00260	.00190	.01438
#2	-.00065	.00155	.73273	-.00011	-.00267	.00249	.01441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00024	.00542	-.00029	.00363
SDev	.00477	.00297	.00662	.00205	.00000
%RSD	387.31	1223.2	122.07	701.59	.09104
#1	-.00214	.00186	.00074	.00116	.00363
#2	.00460	-.00234	.01010	-.00174	.00362
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11629	--	--	--	--	--	--
SDev	21.74215	--	--	--	--	--	--
%RSD	.1869653	--	--	--	--	--	--
#1	11614	--	--	--	--	--	--
#2	11644	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-2 Operator:
Run Time: 10/29/01 12:20:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	.30567	.00176	.03336	.00651	.00008	50.260
SDev	.00004	.00151	.00104	.00076	.00017	.00002	.185
%RSD	11.404	.49308	59.001	2.2683	2.6666	20.016	.36850
#1	-.00037	.30460	.00103	.03283	.00638	.00007	50.129
#2	-.00032	.30673	.00250	.03390	.00663	.00009	50.391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00008	.00104	.00002	L.06721	.07670	11.543
SDev	.00004	.00029	.00021	.00012	.01087	.00026	.049
%RSD	677.61	367.05	19.742	625.92	16.176	.33792	.42663
#1	-.00003	.00028	.00119	-.00007	L.05952	.07651	11.508
#2	.00002	-.00012	.00090	.00011	L.07490	.07688	11.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.4474	.00768	.00137	16.632	-.00013	-.00004	.00314
SDev	.0120	.00009	.00032	.062	.00061	.00002	.00088
%RSD	.49050	1.2281	23.233	.37577	484.79	43.899	27.930
#1	2.4389	.00761	.00114	16.588	-.00056	-.00005	.00376
#2	2.4559	.00774	.00159	16.676	.00031	-.00003	.00252
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00093	.00426	.04932	.00879	-.00455	.00799	.01141
SDev	.00113	.00033	.00008	.00023	.00104	.00017	.00015
%RSD	121.13	7.7694	.16171	2.5807	22.794	2.1853	1.2765
#1	-.00173	.00403	.04926	.00863	-.00382	.00787	.01131
#2	-.00013	.00450	.04937	.00895	-.00529	.00812	.01151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00295	-.00153	.00892	.00026	.00761
SDev	.00008	.00006	.00035	.00114	.00007
%RSD	2.5603	4.0647	3.9548	442.40	.86551
#1	.00301	-.00157	.00916	.00106	.00756
#2	.00290	-.00149	.00867	-.00055	.00765
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11846	--	--	--	--	--	--
SDev	28.53424	--	--	--	--	--	--
%RSD	.2408844	--	--	--	--	--	--
#1	11866	--	--	--	--	--	--
#2	11825	--	--	--	--	--	--

Method: 60102007 Sample Name: 110611-3 Operator:
Run Time: 10/29/01 12:26:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	.96787	.00179	.03515	.00829	.00016	14.343
SDev	.00072	.00153	.00037	.00007	.00004	.00004	.014
%RSD	104.15	.15782	20.729	.20315	.49290	22.228	.09748
#1	-.00119	.96679	.00205	.03520	.00832	.00014	14.353
#2	-.00018	.96895	.00153	.03510	.00826	.00019	14.333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00013	.00007	.00076	-.00060	1.31687	.32849	8.8912
SDev	.00001	.00018	.00028	.00059	.00284	.00073	.0095
%RSD	6.9043	242.01	37.257	97.373	.89573	.22331	.10732
#1	-.00012	-.00005	.00056	-.00102	1.31887	.32901	8.8844
#2	-.00013	.00020	.00096	-.00019	1.31486	.32798	8.8979
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.52459	.00313	-.00067	12.934	.00039	.00014	.00157
SDev	.00172	.00003	.00038	.156	.00103	.00009	.00048
%RSD	.32836	1.1136	56.695	1.2057	260.21	60.280	30.463
#1	.52338	.00315	-.00093	12.824	-.00033	.00020	.00190
#2	.52581	.00310	-.00040	13.044	.00112	.00008	.00123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00208	.00313	.06117	.00903	-.00062	.00103	.01452
SDev	.00028	.00033	.00009	.00016	.00217	.00023	.00011
%RSD	13.351	10.662	.14316	1.7424	348.72	22.186	.72336
#1	-.00228	.00290	.06123	.00892	-.00216	.00087	.01459
#2	-.00189	.00337	.06111	.00914	.00091	.00119	.01444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00081	-.00019	.00562	-.00046	.00085
SDev	.00208	.00117	.00441	.00292	.00000
%RSD	255.55	607.28	78.535	637.07	.46967
#1	-.00066	.00063	.00250	.00161	.00085
#2	.00228	-.00102	.00874	-.00252	.00084
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	7.970834	--	--	--	--	--	--
%RSD	.0676129	--	--	--	--	--	--
#1	11783	--	--	--	--	--	--
#2	11795	--	--	--	--	--	--

Method: 60102007 Sample Name: LJ0655-1 Operator:
Run Time: 10/29/01 12:32:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00028	.30389	.00235	.03677	.02131	.00014	28.581
SDev	.00175	.00144	.00464	.00041	.00000	.00002	.070
%RSD	623.04	.47359	197.62	1.1089	.01708	11.716	.24535
#1	-.00152	.30287	-.00093	.03706	.02131	.00013	28.631
#2	.00096	.30491	.00563	.03648	.02131	.00016	28.532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00007	.00047	.00023	-.00039	L.39412	.40251	3.6119
SDev	.00006	.00022	.00058	.00105	.00100	.00027	.0134
%RSD	78.307	46.937	254.90	272.21	.25263	.06714	.37028
#1	-.00011	.00032	-.00018	-.00113	L.39482	.40270	3.6025
#2	-.00003	.00063	.00064	.00036	L.39341	.40232	3.6214
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.0773	.00412	-.00043	5.2546	.00076	.00029	.00234
SDev	.0022	.00004	.00045	.2726	.00032	.00098	.00140
%RSD	.10414	1.0496	104.26	5.1880	42.478	332.50	60.112
#1	2.0789	.00415	-.00011	5.0618	.00053	.00099	.00333
#2	2.0758	.00409	-.00075	5.4473	.00098	-.00040	.00134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00253	.00443	.28323	.00490	-.00563	.00068	.01499
SDev	.00218	.00192	.00111	.00006	.00022	.00069	.00009
%RSD	86.124	43.337	.39254	1.2768	3.9150	102.03	.58151
#1	-.00099	.00307	.28402	.00486	-.00547	.00019	.01493
#2	-.00407	.00579	.28244	.00495	-.00578	.00117	.01505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00140	-.00026	.00876	-.00087	.01272
SDev	.00355	.00324	.00278	.00349	.00006
%RSD	252.71	1253.5	31.698	400.94	.43642
#1	-.00110	.00203	.00680	.00160	.01268
#2	.00391	-.00255	.01073	-.00334	.01276
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11690	--	--	--	--	--	--
SDev	1.981142	--	--	--	--	--	--
%RSD	.0169475	--	--	--	--	--	--
#1	11691	--	--	--	--	--	--
#2	11688	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-2 Operator:
Run Time: 10/29/01 12:37:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	4.1140	.00054	.01945	.00688	.00027	14.853
SDev	.00053	.0017	.00181	.00118	.00019	.00002	.019
%RSD	69.753	.04032	334.01	6.0561	2.8283	6.9759	.13014
#1	-.00114	4.1128	-.00074	.01861	.00674	.00026	14.866
#2	-.00039	4.1151	.00182	.02028	.00702	.00029	14.839
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00043	.00253	.00013	L.70380	.71738	12.294
SDev	.00016	.00094	.00068	.00023	.00975	.00170	.002
%RSD	183.48	215.96	26.813	177.24	1.3855	.23746	.01871
#1	-.00020	-.00023	.00205	-.00003	L.69690	.71858	12.296
#2	.00003	.00109	.00301	.00029	L.71069	.71617	12.292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.7242	.00774	-.00058	14.469	.00072	-.00034	.00164
SDev	.0021	.00008	.00011	.262	.00073	.00028	.00005
%RSD	.05644	.98433	18.416	1.8115	102.51	83.264	3.0100
#1	3.7257	.00769	-.00065	14.284	.00020	-.00053	.00161
#2	3.7228	.00779	-.00050	14.654	.00124	-.00014	.00168
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00278	.00353	.07709	.02284	-.00387	.00412	.01767
SDev	.00178	.00031	.00016	.00047	.00144	.00043	.00026
%RSD	64.104	8.6952	.21300	2.0692	37.136	10.375	1.4885
#1	-.00404	.00375	.07720	.02250	-.00489	.00382	.01749
#2	-.00152	.00331	.07697	.02317	-.00286	.00442	.01786
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00049	-.00075	.00457	.00018	.00713
SDev	.00026	.00029	.00099	.00042	.00005
%RSD	53.824	38.530	21.718	230.04	.73798
#1	.00030	-.00095	.00387	.00048	.00709
#2	.00067	-.00054	.00527	-.00011	.00717
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11670	--	--	--	--	--	--
SDev	1.320301	--	--	--	--	--	--
%RSD	.0113134	--	--	--	--	--	--
#1	11669	--	--	--	--	--	--
#2	11671	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 10/29/01 12:43:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50832	10.145	1.0060	.98468	.97042	.49761	10.189
SDev	.00002	.019	.0002	.00212	.00136	.00050	.022
%RSD	.00371	.19033	.02024	.21521	.14032	.10019	.21824
#1	.50834	10.132	1.0061	.98618	.96946	.49726	10.173
#2	.50831	10.159	1.0058	.98318	.97138	.49796	10.204
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51046	1.0164	1.0015	.98180	10.178	10.158	9.9273
SDev	.00018	.0008	.0014	.00027	.019	.012	.0267
%RSD	.03626	.08283	.14127	.02736	.18256	.11712	.26849
#1	.51033	1.0158	1.0005	.98199	10.165	10.149	9.9085
#2	.51059	1.0170	1.0025	.98161	10.192	10.166	9.9462
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.220	1.0004	1.0075	10.042	1.0251	1.0379	1.0219
SDev	.026	.0014	.0031	.057	.0011	.0004	.0010
%RSD	.25825	.14482	.30704	.56957	.11031	.03866	.10146
#1	10.201	.99933	1.0053	10.082	1.0243	1.0376	1.0226
#2	10.238	1.0014	1.0097	10.002	1.0259	1.0382	1.0211
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0168	1.0310	.98712	1.0134	1.0241	.99414	1.0189
SDev	.0029	.0001	.00088	.0019	.0003	.00098	.0011
%RSD	.28576	.00553	.08887	.18495	.03013	.09902	.10595
#1	1.0189	1.0310	.98650	1.0121	1.0243	.99345	1.0182
#2	1.0148	1.0311	.98774	1.0147	1.0239	.99484	1.0197
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0296	1.0421	1.0318	1.0169	1.0817		
SDev	.0017	.0002	.0024	.0004	.0058		
%RSD	.16510	.02372	.22815	.03728	.53329		
#1	1.0284	1.0422	1.0335	1.0171	1.0777		
#2	1.0308	1.0419	1.0302	1.0166	1.0858		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11675	--	--	--	--	--	--
SDev	28.34573	--	--	--	--	--	--
%RSD	.2427803	--	--	--	--	--	--
#1	11696	--	--	--	--	--	--
#2	11655	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 10/29/01 12:48:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00751	.00166	.00130	.00032	.00056	.01574
SDev	.00028	.00787	.00020	.00069	.00037	.00005	.00345
%RSD	381.99	104.78	11.912	53.456	115.14	9.6435	21.898
#1	.00027	.01308	.00180	.00179	.00058	.00060	.01818
#2	-.00013	.00195	.00152	.00081	.00006	.00052	.01331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00062	.00038	-.00067	.00014	.00945	.00176
SDev	.00009	.00018	.00029	.00035	.01923	.00185	.00765
%RSD	56.871	28.205	76.855	52.164	13740.	19.631	434.09
#1	.00023	.00075	.00059	-.00043	.01374	.01076	.00717
#2	.00010	.00050	.00017	-.00092	-.01346	.00813	-.00365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01063	.00056	.00087	-.02628	.00039	.00103	.00068
SDev	.00739	.00022	.00048	.00562	.00089	.00008	.00085
%RSD	69.519	39.232	55.263	21.401	229.93	8.1790	125.14
#1	.01585	.00071	.00122	-.02231	.00101	.00109	.00008
#2	.00540	.00040	.00053	-.03026	-.00024	.00097	.00127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00055	.00054	.00047	-.00043	.00016	.00055
SDev	.00370	.00184	.00014	.00048	.00201	.00012	.00042
%RSD	285.81	331.72	25.395	102.57	468.51	76.399	76.360
#1	.00391	.00185	.00063	.00080	-.00185	.00024	.00084
#2	-.00132	-.00075	.00044	.00013	.00099	.00007	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00136	.00546	-.00171	.00067
SDev	.00125	.00075	.00299	.00022	.00013
%RSD	342.92	55.357	54.711	13.058	19.736
#1	-.00052	.00189	.00335	-.00156	.00076
#2	.00125	.00083	.00758	-.00187	.00057
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11772	--	--	--	--	--	--
SDev	2.782852	--	--	--	--	--	--
%RSD	.0236398	--	--	--	--	--	--
#1	11774	--	--	--	--	--	--
#2	11770	--	--	--	--	--	--

Method: 60102007 Sample Name: 110655-3 Operator:
Run Time: 10/29/01 12:54:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	3.1656	.00158	.01308	.00145	.00031	6.9078
SDev	.00051	.0022	.00101	.00045	.00010	.00002	.0047
%RSD	403.16	.06911	63.978	3.4470	7.0689	5.7253	.06874
#1	-.00023	3.1640	.00230	.01276	.00153	.00029	6.9044
#2	.00049	3.1671	.00087	.01340	.00138	.00032	6.9112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00089	.00473	.00090	L.12053	.12423	.61194
SDev	.00010	.00013	.00061	.00012	.00453	.00115	.00549
%RSD	121.81	14.467	12.920	13.633	3.7617	.92314	.89798
#1	.00001	.00098	.00516	.00081	L.12374	.12341	.60805
#2	.00015	.00080	.00429	.00099	L.11733	.12504	.61583
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98521	.00171	.00179	.67460	.00087	.00057	.00037
SDev	.00279	.00002	.00023	.06445	.00018	.00085	.00097
%RSD	.28270	1.0864	12.976	9.5540	20.700	148.91	257.38
#1	.98718	.00173	.00162	.72017	.00074	.00118	.00106
#2	.98324	.00170	.00195	.62902	.00100	-.00003	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.00147	.01186	.08760	.00132	.00512	.02005
SDev	.00019	.00008	.00002	.00112	.00072	.00026	.00005
%RSD	5.9938	5.3978	.13168	1.2751	54.702	5.0634	.23571
#1	.00323	.00152	.01185	.08839	.00081	.00530	.02008
#2	.00297	.00141	.01188	.08681	.00183	.00494	.02002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00102	.00425	-.00156	.00018
SDev	.00059	.00158	.00141	.00215	.00001
%RSD	187.34	154.86	33.212	137.87	6.6363
#1	-.00073	.00213	.00325	-.00004	.00018
#2	.00010	-.00010	.00525	-.00308	.00019
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11783	--	--	--	--	--	--
SDev	21.36512	--	--	--	--	--	--
%RSD	.1813228	--	--	--	--	--	--
#1	11798	--	--	--	--	--	--
#2	11768	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator:
Run Time: 10/29/01 13:00:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00804	.18479	.00949	.18007	.01766	.00964	.93167
SDev	.00102	.00034	.00271	.00020	.00001	.00000	.00196
%RSD	12.743	.18284	28.543	.11355	.03224	.01501	.21074
#1	.00731	.18456	.01141	.18021	.01766	.00964	.93306
#2	.00876	.18503	.00758	.17992	.01765	.00964	.93029
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00970	.01924	.00919	.01731	.18610	.19085	1.7483
SDev	.00005	.00021	.00030	.00032	.00003	.00043	.0104
%RSD	.55852	1.1050	3.2923	1.8660	.01675	.22309	.59569
#1	.00966	.01939	.00897	.01709	.18608	.19115	1.7409
#2	.00974	.01909	.00940	.01754	.18612	.19055	1.7556
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.93842	.01887	.01900	1.6989	.00941	.00974	.01805
SDev	.00185	.00002	.00052	.1191	.00011	.00085	.00126
%RSD	.19759	.10029	2.7184	7.0094	1.1427	8.7645	6.9826
#1	.93973	.01886	.01937	1.6147	.00933	.01035	.01894
#2	.93711	.01889	.01864	1.7831	.00948	.00914	.01716
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09439	.01004	.00903	.00925	.02076	.01802	.03939
SDev	.00052	.00066	.00003	.00015	.00064	.00028	.00009
%RSD	.54828	6.5665	.38248	1.6051	3.0712	1.5661	.23230
#1	.09402	.00957	.00901	.00936	.02121	.01782	.03933
#2	.09475	.01050	.00905	.00915	.02030	.01822	.03946
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.01138	.00892	.02160	.01627	.10438
SDev	.00017	.00136	.00006	.00186	.00014
%RSD	1.4862	15.292	.27999	11.424	.13733
#1	.01126	.00989	.02164	.01759	.10448
#2	.01150	.00796	.02156	.01496	.10428
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					.10000
Range					50.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11791	--	--	--	--	--	--
SDev	15.42308	--	--	--	--	--	--
%RSD	.1308091	--	--	--	--	--	--
#1	11780	--	--	--	--	--	--
#2	11801	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator:
Run Time: 10/29/01 13:05:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	507.45	-.00019	.00459	.00188	.00115	467.32
SDev	.00118	.06	.00172	.00054	.00059	.00005	.41
%RSD	126.13	.01274	886.30	11.684	31.664	3.9071	.08762
#1	.00177	507.49	-.00141	.00497	.00230	.00118	467.61
#2	.00010	507.40	.00102	.00421	.00146	.00112	467.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00108	.00442	-.00135	.00012	200.13	182.72	.01217
SDev	.00000	.00070	.00086	.00136	.08	.11	.05542
%RSD	.23215	15.859	64.051	1105.2	.04017	.05990	455.34
#1	-.00108	.00492	-.00074	.00109	200.19	182.80	.05136
#2	-.00108	.00393	-.00196	-.00084	200.07	182.65	-.02701
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	538.20	.00345	-.00158	.19802	-.00062	.00084	.00100
SDev	.05	.00004	.00037	.31921	.00075	.00099	.00341
%RSD	.00974	1.1163	23.224	161.20	119.90	117.97	342.23
#1	538.23	.00348	-.00184	.42374	-.00009	.00014	.00341
#2	538.16	.00343	-.00132	-.02770	-.00115	.00154	-.00142
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00053	.00060	-.00163	-.00280	.00733	-.00186	.00433
SDev	.00203	.00120	.00009	.00069	.00272	.00036	.00035
%RSD	385.91	199.63	5.7465	24.672	37.145	19.384	8.0186
#1	-.00196	-.00025	-.00157	-.00231	.00541	-.00161	.00409
#2	.00091	.00145	-.00170	-.00328	.00926	-.00212	.00458
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00094	.00079	-.00468	.00383	.00053		
SDev	.00059	.00119	.00117	.00453	.00017		
%RSD	62.607	150.92	24.989	118.36	31.995		
#1	.00052	-.00005	-.00385	.00703	.00065		
#2	.00135	.00163	-.00550	.00062	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10491	--	--	--	--	--	--
SDev	84.32939	--	--	--	--	--	--
%RSD	.8038586	--	--	--	--	--	--
#1	10431	--	--	--	--	--	--
#2	10550	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 10/29/01 13:11:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57548	523.99	1.0468	1.0369	1.1180	.52214	479.03
SDev	.00171	1.22	.0012	.0037	.0048	.00221	.82
%RSD	.29715	.23220	.11572	.35842	.43323	.42361	.17014
#1	.57669	524.85	1.0477	1.0395	1.1215	.52370	479.60
#2	.57427	523.13	1.0460	1.0342	1.1146	.52058	478.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49186	.97159	1.0156	1.0915	211.29	191.35	14.817
SDev	.00188	.00420	.0035	.0064	.74	.48	.034
%RSD	.38220	.43271	.34736	.58959	.35048	.25190	.22778
#1	.49319	.97457	1.0181	1.0961	211.81	191.69	14.793
#2	.49053	.96862	1.0131	1.0870	210.77	191.01	14.841
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	551.15	1.0322	1.0496	12.042	.96252	.99928	1.0382
SDev	2.24	.0036	.0014	.122	.00156	.00089	.0034
%RSD	.40698	.35014	.12981	1.0093	.16237	.08952	.32631
#1	552.74	1.0348	1.0506	11.956	.96363	.99991	1.0406
#2	549.56	1.0297	1.0486	12.128	.96142	.99865	1.0358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0656	1.0422	1.0986	1.0794	1.0093	1.0398	.97983
SDev	.0033	.0007	.0043	.0039	.0002	.0029	.00199
%RSD	.31406	.06436	.38970	.35670	.01705	.28145	.20362
#1	1.0680	1.0417	1.1016	1.0822	1.0095	1.0419	.98124
#2	1.0632	1.0426	1.0956	1.0767	1.0092	1.0378	.97842
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.98490	1.0065	1.0356	1.0396	1.1746		
SDev	.00324	.0003	.0045	.0028	.0007		
%RSD	.32922	.02759	.43676	.27137	.06093		
#1	.98719	1.0063	1.0388	1.0416	1.1751		
#2	.98261	1.0067	1.0324	1.0376	1.1741		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10427	--	--	--	--	--	--
SDev	20.13873	--	--	--	--	--	--
%RSD	.1931456	--	--	--	--	--	--
#1	10412	--	--	--	--	--	--
#2	10441	--	--	--	--	--	--

Method: 60102007 Sample Name: CCV1 Operator:
Run Time: 10/29/01 13:16:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51641	10.402	1.0156	1.0017	.98656	.50504	10.406
SDev	.00021	.028	.0033	.0043	.00104	.00008	.030
%RSD	.04002	.27195	.32726	.42636	.10585	.01613	.29083
#1	.51626	10.422	1.0132	.99872	.98730	.50498	10.427
#2	.51655	10.382	1.0179	1.0048	.98582	.50510	10.384
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51907	1.0307	1.0182	.99579	10.347	10.336	10.168
SDev	.00019	.0003	.0007	.00114	.008	.016	.028
%RSD	.03641	.03055	.06509	.11491	.08006	.15726	.27197
#1	.51920	1.0305	1.0177	.99499	10.353	10.348	10.149
#2	.51894	1.0309	1.0186	.99660	10.341	10.325	10.188
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.395	1.0168	1.0248	10.066	1.0426	1.0500	1.0277
SDev	.024	.0005	.0011	.294	.0006	.0041	.0037
%RSD	.23528	.04961	.10603	2.9202	.05372	.39519	.35955
#1	10.413	1.0172	1.0256	9.8579	1.0422	1.0529	1.0303
#2	10.378	1.0165	1.0241	10.274	1.0430	1.0470	1.0251
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0319	1.0448	1.0049	1.0310	1.0436	1.0099	1.0353
SDev	.0006	.0036	.0012	.0003	.0034	.0007	.0010
%RSD	.05402	.34560	.12355	.02848	.32188	.07147	.09244
#1	1.0316	1.0422	1.0058	1.0312	1.0412	1.0094	1.0346
#2	1.0323	1.0473	1.0040	1.0308	1.0460	1.0104	1.0360
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0392	1.0553	1.0330	1.0250	Q1.1261		
SDev	.0029	.0048	.0010	.0050	.0005		
%RSD	.28232	.45069	.10123	.48952	.04277		
#1	1.0413	1.0587	1.0337	1.0286	Q1.1257		
#2	1.0372	1.0520	1.0323	1.0215	Q1.1264		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11621	--	--	--	--	--	--
SDev	82.48981	--	--	--	--	--	--
%RSD	.7098396	--	--	--	--	--	--
#1	11563	--	--	--	--	--	--
#2	11679	--	--	--	--	--	--

Method: 60102007 Sample Name: CCB1 Operator:
Run Time: 10/29/01 13:22:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00315	.00094	.00001	.00022	.00046	.01496
SDev	.00059	.00668	.00238	.00058	.00037	.00001	.00153
%RSD	89.664	211.97	254.45	4637.1	167.43	1.4543	10.247
#1	.00024	.00787	.00262	.00042	.00048	.00047	.01604
#2	.00107	-.00157	-.00075	-.00040	-.00004	.00046	.01388
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.00057	.00070	-.00012	-.00613	.00581	.00855
SDev	.00006	.00052	.00005	.00028	.01497	.00117	.00819
%RSD	33.291	90.583	7.2413	232.33	244.20	20.029	95.732
#1	.00022	.00094	.00073	.00008	.00445	.00664	.00276
#2	.00014	.00020	.00066	-.00032	-.01671	.00499	.01434
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00726	.00036	.00125	.23627	.00005	.00052	.00029
SDev	.00806	.00016	.00044	.22734	.00011	.00035	.00282
%RSD	111.03	44.899	35.386	96.223	220.57	67.325	961.83
#1	.01296	.00048	.00157	.07551	-.00003	.00027	-.00170
#2	.00156	.00025	.00094	.39702	.00013	.00076	.00229
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00001	.00039	.00026	.00002	.00061	.00061
SDev	.00343	.00020	.00004	.00037	.00091	.00000	.00037
%RSD	27925.	1629.0	10.124	139.89	4082.2	.39698	59.990
#1	.00241	-.00013	.00041	.00052	.00066	.00061	.00087
#2	-.00244	.00016	.00036	.00000	-.00062	.00061	.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00366	-.00105	.00664	-.00288	.00040
SDev	.00399	.00147	.00615	.00116	.00001
%RSD	109.00	139.78	92.560	40.504	3.1817
#1	.00084	-.00001	.00229	-.00370	.00041
#2	.00648	-.00209	.01099	-.00205	.00039
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High					.05000
Low					-.05000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11831	--	--	--	--	--	--
SDev	24.76117	--	--	--	--	--	--
%RSD	.2092845	--	--	--	--	--	--
#1	11849	--	--	--	--	--	--
#2	11814	--	--	--	--	--	--

Method: 60102007 Sample Name: P8WPD130 Operator:
Run Time: 10/29/01 13:28:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00236	.00297	.00059	.00011	.00031	.00607
SDev	.00050	.00300	.00174	.00244	.00025	.00000	.00132
%RSD	254.19	127.12	58.476	410.15	226.88	1.0991	21.770
#1	.00016	.00024	.00174	-.00113	-.00007	.00030	.00701
#2	-.00055	.00448	.00420	.00232	.00028	.00031	.00514
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00001	.00011	-.00072	.00484	.00247	.01568
SDev	.00018	.00032	.00011	.00038	.01256	.00028	.00816
%RSD	676.30	3141.0	107.87	51.917	259.55	11.384	51.999
#1	.00010	-.00021	.00019	-.00046	-.00404	.00267	.02145
#2	-.00015	.00023	.00003	-.00099	.01372	.00227	.00992
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00390	.00017	.00010	-.02870	.00024	-.00051	-.00072
SDev	.00271	.00000	.00049	.00573	.00053	.00008	.00026
%RSD	69.519	.21593	511.33	19.959	224.20	16.133	36.135
#1	.00198	.00017	.00044	-.03275	-.00014	-.00057	-.00054
#2	.00582	.00017	-.00025	-.02465	.00062	-.00045	-.00091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00046	.00012	.00022	-.00017	.00016	.00317
SDev	.00341	.00053	.00002	.00025	.00031	.00095	.00020
%RSD	405.04	115.32	14.597	110.87	184.82	610.76	6.2935
#1	-.00157	.00084	.00014	.00005	-.00039	.00082	.00302
#2	.00325	.00009	.00011	.00040	.00005	-.00051	.00331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00076	-.00038	.00310	-.00263	.00016		
SDev	.00382	.00203	.00407	.00164	.00004		
%RSD	501.33	529.77	131.35	62.324	24.914		
#1	.00194	-.00182	.00598	-.00380	.00018		
#2	-.00346	.00105	.00022	-.00147	.00013		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11837	--	--	--	--	--	--
SDev	35.23174	--	--	--	--	--	--
%RSD	.2976387	--	--	--	--	--	--
#1	11862	--	--	--	--	--	--
#2	11812	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWPD130 Operator:
Run Time: 10/29/01 13:33:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49987	10.049	1.0075	.98892	.97953	.50128	10.127
SDev	.00017	.016	.0032	.00557	.00171	.00062	.013
%RSD	.03440	.16270	.31273	.56364	.17489	.12385	.12608
#1	.49975	10.038	1.0052	.98498	.97831	.50084	10.118
#2	.49999	10.061	1.0097	.99286	.98074	.50172	10.136
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51400	1.0032	1.0036	.97798	L10.092	10.100	9.9670
SDev	.00006	.0017	.0016	.00054	.018	.014	.0095
%RSD	.01265	.16946	.15690	.05508	.18253	.13666	.09508
#1	.51405	1.0020	1.0025	.97760	L10.079	10.090	9.9603
#2	.51396	1.0044	1.0047	.97836	L10.105	10.109	9.9737
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.092	1.0025	1.0144	9.8394	1.0209	1.0285	1.0121
SDev	.026	.0015	.0035	.1132	.0010	.0010	.0056
%RSD	.25590	.14637	.34588	1.1506	.09427	.10200	.55773
#1	10.074	1.0015	1.0119	9.9194	1.0216	1.0277	1.0081
#2	10.111	1.0035	1.0169	9.7593	1.0202	1.0292	1.0161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99697	1.0316	.99836	1.0054	1.0186	.99377	1.0288
SDev	.00168	.0017	.00202	.0023	.0008	.00136	.0009
%RSD	.16881	.16439	.20189	.22675	.07765	.13715	.09170
#1	.99578	1.0328	.99693	1.0037	1.0191	.99281	1.0282
#2	.99816	1.0304	.99978	1.0070	1.0180	.99473	1.0295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0207	1.0323	1.0249	1.0057	1.0781
SDev	.0001	.0015	.0019	.0075	.0027
%RSD	.00856	.14812	.18332	.74822	.25495
#1	1.0206	1.0313	1.0236	1.0004	1.0762
#2	1.0208	1.0334	1.0263	1.0111	1.0800
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11684	--	--	--	--	--	--
SDev	2.640602	--	--	--	--	--	--
%RSD	.0226011	--	--	--	--	--	--
#1	11682	--	--	--	--	--	--
#2	11685	--	--	--	--	--	--

Method: 60102007 Sample Name: 110538-1 Operator:
Run Time: 10/29/01 13:39:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.09463	.09834	.06229	.00513	.00037	19.888
SDev	.00103	.00538	.00259	.00113	.00025	.00001	.001
%RSD	532.77	5.6874	2.6328	1.8108	4.8083	3.7014	.00294
#1	-.00053	.09083	.09651	.06149	.00495	.00038	19.888
#2	.00092	.09844	.10017	.06309	.00530	.00036	19.889
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.00066	.00064	.00165	L.02399	.02003	2.2476
SDev	.00011	.00064	.00052	.00065	.01094	.00023	.0295
%RSD	56.855	97.582	81.039	39.371	45.599	1.1686	1.3118
#1	.00012	.00020	.00027	.00119	L.01625	.02019	2.2268
#2	.00028	.00112	.00101	.00211	L.03172	.01986	2.2685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	2.3798	.00189	.00220	H136.05	.00089	.00119	.00407
SDev	.0001	.00002	.00005	.09	.00023	.00015	.00070
%RSD	.00502	1.1942	2.3165	.06257	25.510	12.580	17.244
#1	2.3799	.00187	.00223	H135.99	.00105	.00108	.00358
#2	2.3797	.00190	.00216	H136.11	.00073	.00129	.00457
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00153	.00066	.09717	.00213	-.00147	.00676	.06069
SDev	.00089	.00100	.00002	.00019	.00141	.00023	.00014
%RSD	57.997	150.69	.01972	9.1653	95.678	3.4665	.23105
#1	.00090	-.00004	.09719	.00199	-.00247	.00660	.06059
#2	.00215	.00137	.09716	.00226	-.00048	.00693	.06079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00151	.00728	.00247	.00022
SDev	.00122	.00084	.00060	.00075	.00002
%RSD	224.46	55.396	8.3000	30.407	6.9998
#1	.00141	.00092	.00686	.00194	.00021
#2	-.00032	.00210	.00771	.00300	.00023
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11915	--	--	--	--	--	--
SDev	6.602886	--	--	--	--	--	--
%RSD	.0554187	--	--	--	--	--	--
#1	11919	--	--	--	--	--	--
#2	11910	--	--	--	--	--	--

PETROLEUM HYDROCARBONS
FL-PRO

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110611
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/24/01
Dry Weight	N/A	Date Extracted:	10/30/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	17-3609C-Q401	C110611-1	4901073.D	1	U	100
2	17-3627A-Q401	C110611-2	5001074.D	1	U	100
3	17-3628B-Q401	C110611-3	5101075.D	1	U	100

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola
Contract: NTC ORLANDO SA-36-CTO-017
Lab Code: STL PN
SDG No.: C110611
Instrument ID: FLASH
FL PRO Detector: FID
Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 291	121%	121%		
02		LCS FLW 291	110%	86%		
03	17-3609C-Q401	C110611-1 MS	103%	106%		
04	17-3909C-Q401	C110611-1 MSD	102%	82%		
05	17-3609C-Q401	C110611-1	104%	90%		
06	17-3627A-Q401	C110611-2	109%	102%		
07	17-3628B-Q401	C110611-3	101%	94%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

CLP Like Form 3

FL PRO Matrix Spike / Matrix Spike Duplicate Summary Sheet

Lab Name: STL Pensacola Contract: NTC ORLANDO SA-36-CTO-017

Lab Code: STL PN SDG No.: C110611

FL PRO Detector: FID Lab Sample ID: C110611-1

Instrument ID: FLASH Matrix: Water

NOTE: NO MS/MSD FOR THIS BATCH

Parameter	Sample Results	Spike Amount (ppb)	MS Results (ppb)	MS %Rec	MSD Results (ppb)	MSD %Rec	MS/MSD %Rec Limits	MS/MSD RPD	MS/MSD RPD Limits
FL PRO	79.800	3400.00	4031.00	116	3816.00	110	41-101	6	20

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK FLW 291

Lab File ID:	4501069.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110611
Matrix:	Water	Date Extracted:	10/30/01
Prep Method:	3520 C	Date Analyzed:	11/2/01
Instrument ID:	FLASH	Time Analyzed:	1:14
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 291	11/2/01
02		LCS FLW 291	11/2/01
03	17-3609C-Q401	C110611-1 MS	11/2/01
04	17-3909C-Q401	C110611-1 MSD	11/2/01
05	17-3609C-Q401	C110611-1	11/2/01
06	17-3627A-Q401	C110611-2	11/2/01
07	17-3628B-Q401	C110611-3	11/2/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110611
Instrument ID:	FLASH	Date Analyzed	11/2/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

Sequence Name: I:\1101CAL.S
Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min.

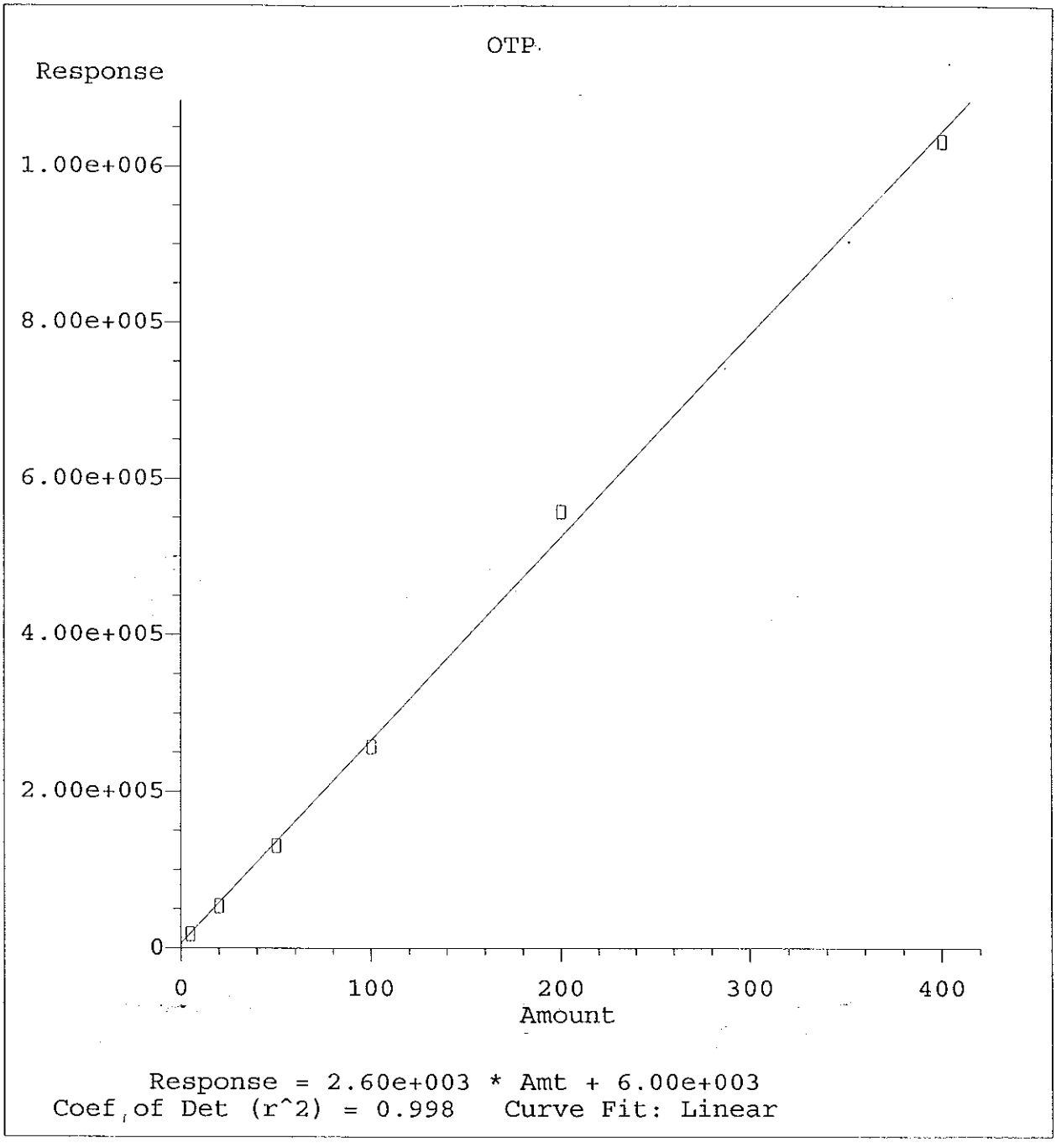
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

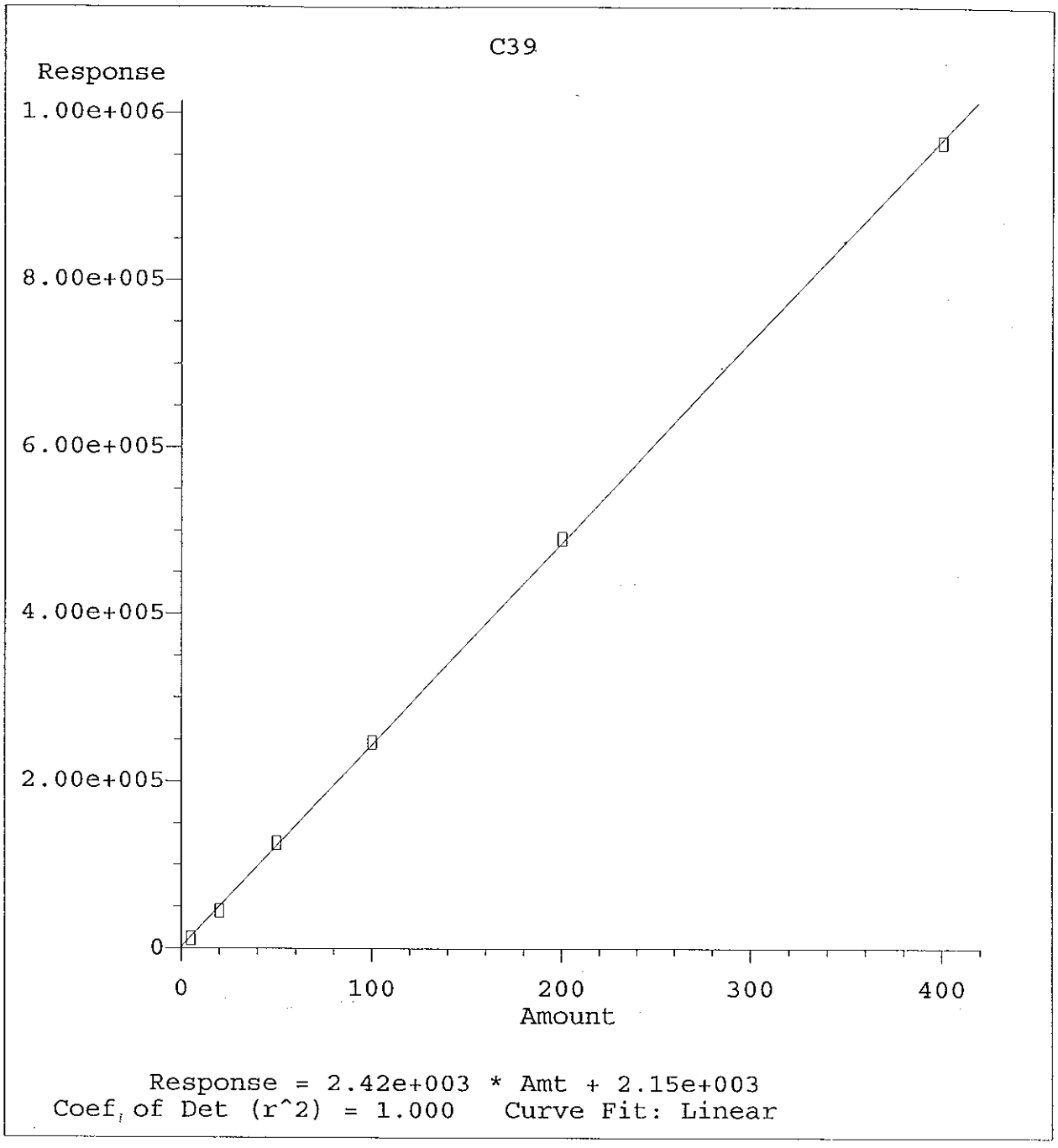
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

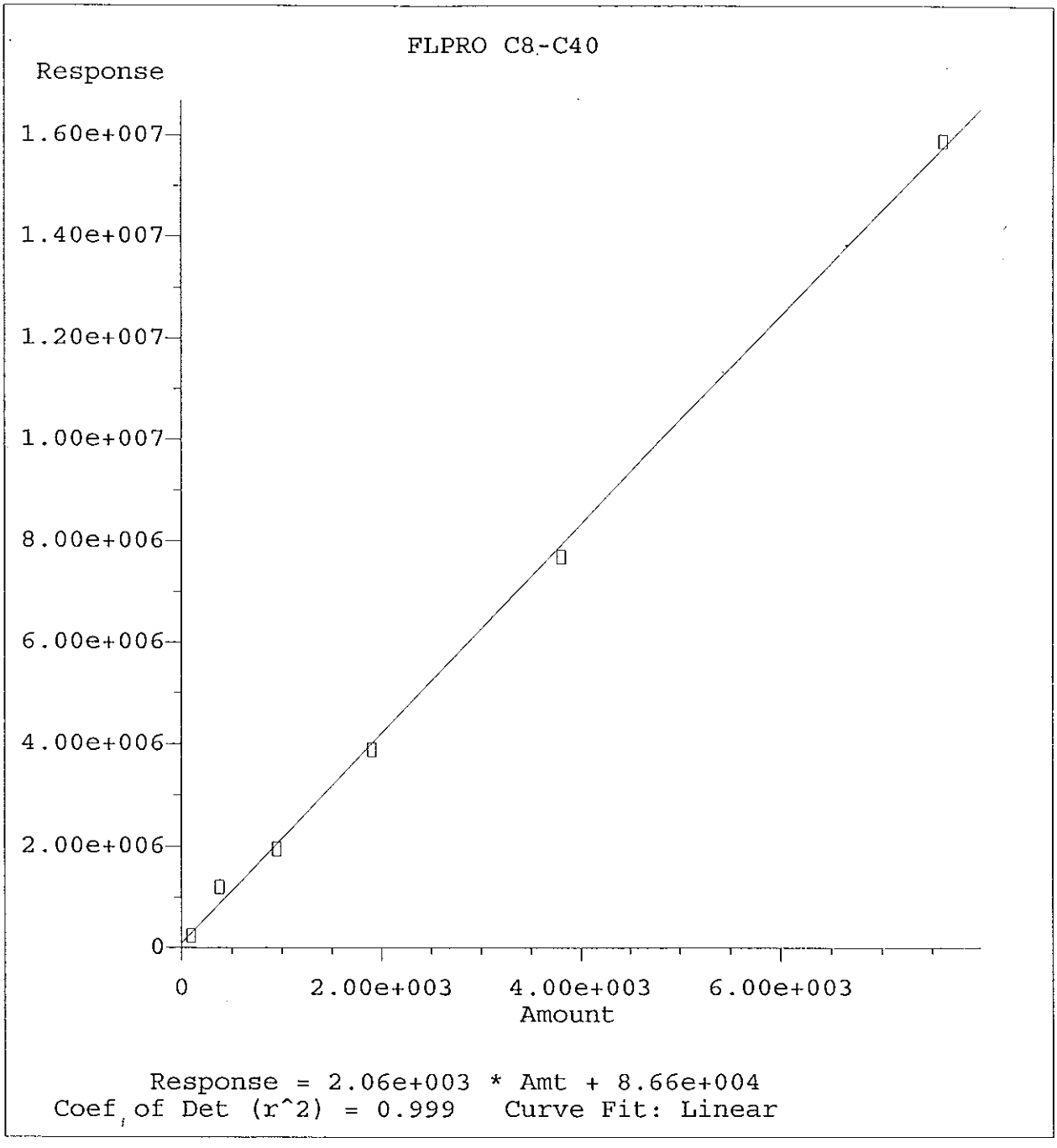
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Data File : F:\2\DATA\1101CAL\CCTPH005.D Vial: 44
Acq On : 2 Nov 2001 00:58 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1819.412	4.2	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:09 2001

Data File : F:\2\DATA\1101CAL\CCTPH006.D Vial: 55
Acq On : 2 Nov 2001 2:35 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM	FLPRO C8-C40	1900.000	1854.571	2.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:44 2001

EXTRACTION LOG

Job No: 820

Batch No: 291

Date Extracted: 10.30.01

Start Time: 1437

Stop Time:

Analysis Required: FPRO

Prep Method: 3520C

Analyst/Activity Code*

Initial Project Check:

Final Project Check:

Date Concentrated:

Initials:

Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	H-DRCW	0190-2	1ml	
Surr.				
Spike	d-DRCW	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments

Solvent(s) Lot No:

MeCl2 V31E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D-D	H-D	COMMENTS
1. C110611*1/17-3609C-Q401 A		LI	1L	1		2	11.05	10.31	Strong odor
2. C110611*2/17-3627A-Q401		LI	1L	1		1	11.05	10.31	
3. C110611*3/17-3628B-Q401		LI	1L	1			11.05	10.31	
4. C110655*1/17-3608B-Q401		LI	1L	1			11.05	11.01	
5. C110655*2/17-3607A-Q401		LI	1L	1			11.05	11.01	
6. C110655*3/17-3606A-Q401		LI	1L	1			11.05	11.01	
7. C110681*1/17-3619A-Q401		LI	1L	1			11.06	11.02	
8. C110681*2/17-3624B-Q401		LI	1L	1			11.06	11.02	
9. C110681*3/17-36FD2-Q401		LI	1L	1			11.06	11.02	
10. 110728-1			1L	1		2			
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		1			
Lab Spike #2 110611-1 MS			1L	1		2			
-1L MSD						-	-		

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

10/30/01

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

GC/Organics Department Extracts Cleanup Logbook

Date: 10-31-01 **Analyst(s):** SB

Method: FLPRO Silica Gel, MAEPH Fractionation, Other (Specify) _____

Solvent 1: _____ **Lot #:** _____ **Solvent 2:** _____ **Lot #:** _____

Surrogate: _____ **Amount:** _____

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW290	1.7 SB	
2	LCS		~~2.0~~ 1.9 10-13-01	
3	634-5 MS		1.9	
4	634-5 MD		1.7	
5	634-1		1.7	
6	-2		1.9	
7	-3		2.0	
8	-4		1.7	
9	-5		1.9	
10	-6		1.8	
11	-7		1.8	
12	-8		1.5	
13	-9		1.7	
14	-10		1.7	
15	-11		1.8	
16	-12	↓	1.9	
17	BLK	FLW291	1.7	
18	LCS		1.8	
19	611-1 MS		1.9	
20	611-1 MD		2.0	
21	611-1		1.6	
22	-2		1.9	
23	-3		1.9	
24	655-1		2.0	
25	-2		1.7	
26	-3		2.0	
27	681-1		2.0	
28	-2		1.9	
29	-3		1.8	
30	708-1	↓	1.8	
31				
32			SB	
33			10/31	

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL PRO Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% CS2 MIO9648KI

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	4000ml	100 mls	200 ppm ea
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: Expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100% MeCl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OT? A	04-ORGN045-1	10,000	6500ml	250 mls	250 ppm each
B					
C,PC	04-ORGW044-1	5017	6295ml		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: Expires ~~Mar~~ 4-3-02

KA 10/3/01

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Phil's hood

Preparation Analyst: KA Solvent Lot #: 100% meCl2

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org.045-1	10,000 ppm	6500 ml	250mls	250 ppm each
	B				
	C				
CDD	D 4-Org.044-1	9617 ppm	6225 ml		
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: EXPIRES 4-17-02

Solution Name: FLPRO Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Phil's hood

Preparation Analyst: KA Solvent Lot #: 1:1 C52/meCl MI0964814E V34E39

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org.045-1	10,000	6250 ml	250mls	250 ppm
	B				
	C				
C39	D 4-Org.044-3	2500	10,000 ml		100 ppm
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: EXPIRES ~~4-22-02~~ KA 10/22/01
4-22-02

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1. Book 4/Page 190

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER ~~290~~ >91 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

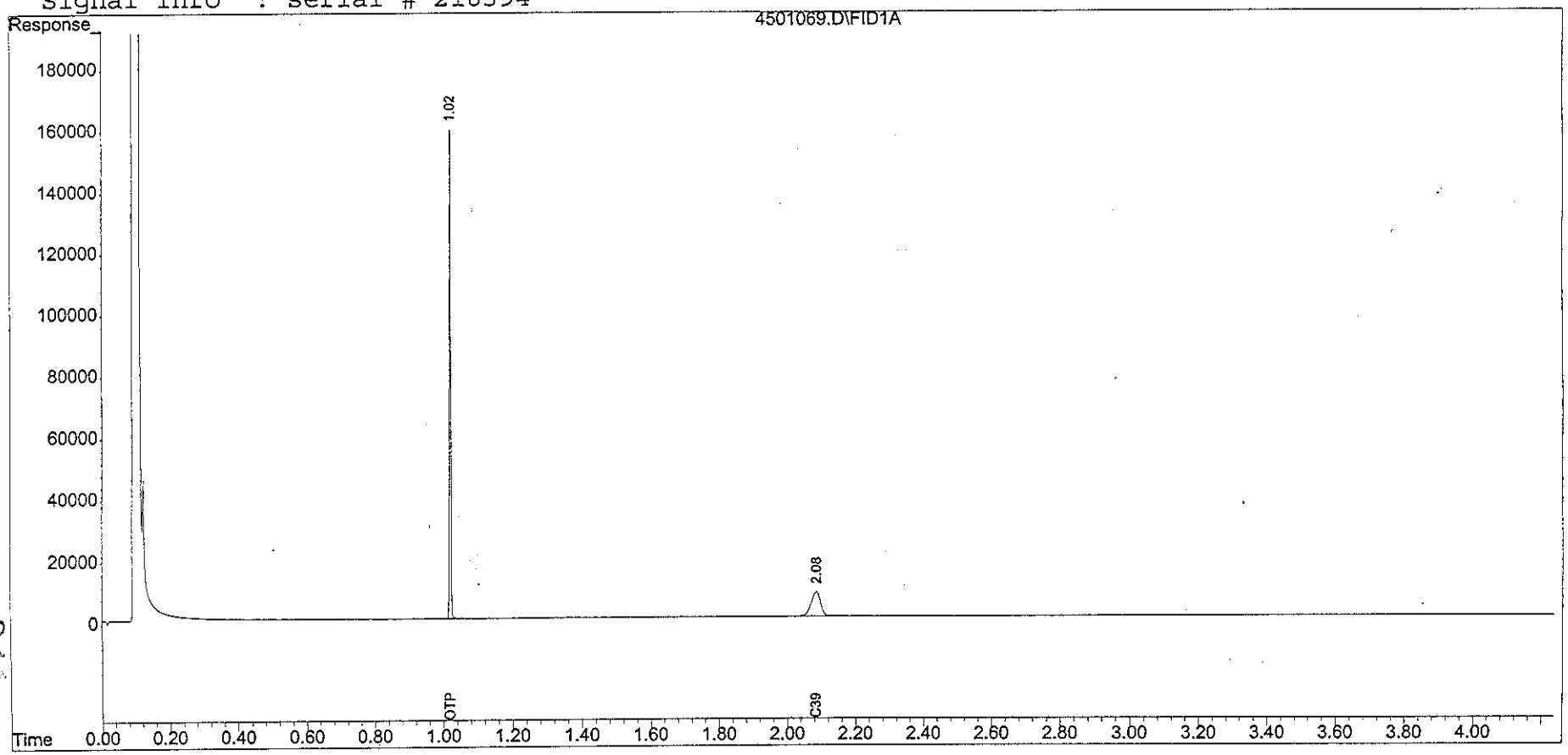
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	397913	150.760 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 120.61% ✓	
2) S C39	2.08	149017	60.744 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 121.49% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	40387	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	361962	136.931 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 109.54%	
2) S C39	2.09	106556	43.182 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 86.36%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4313575	3689.666 ppb

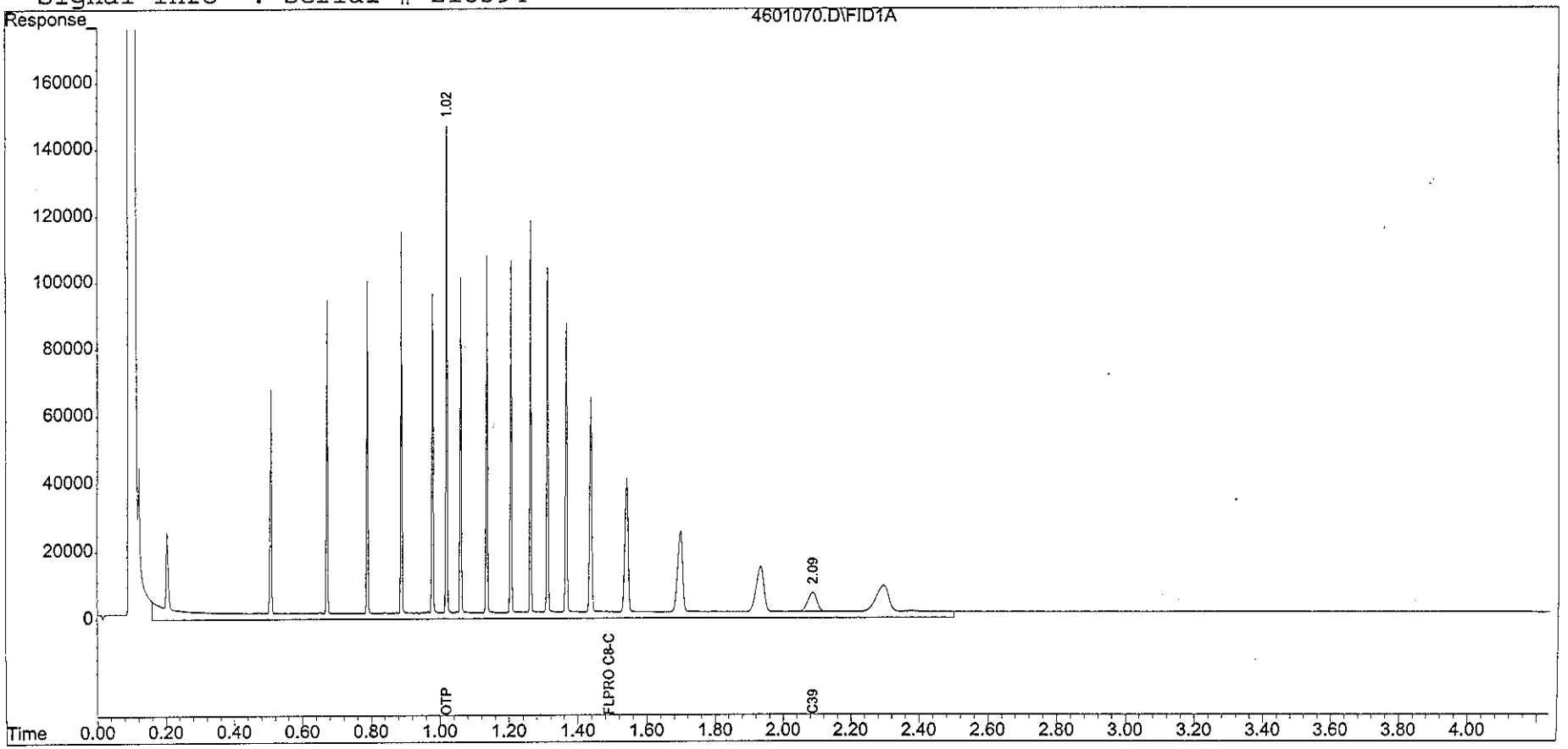
1091.

Quantitation Report

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



243

Spike Recovery and RPD Summary Report - WATER

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration

Non-Spiked Sample: 4901073.D

	Spike Sample	Spike Duplicate Sample
File ID :	4701071.D	4801072.D
Sample :	C110611-1 MS	C110611-1 MSD
Acq Time:	2 Nov 2001 1:30	2 Nov 2001 1:38

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
FLPRO C8-C40	79.8	3400	4031	3816	116#	110#	6	20	41-101

- Fails Limit Check

FL-PRO12.M Fri Nov 02 09:23:24 2001

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

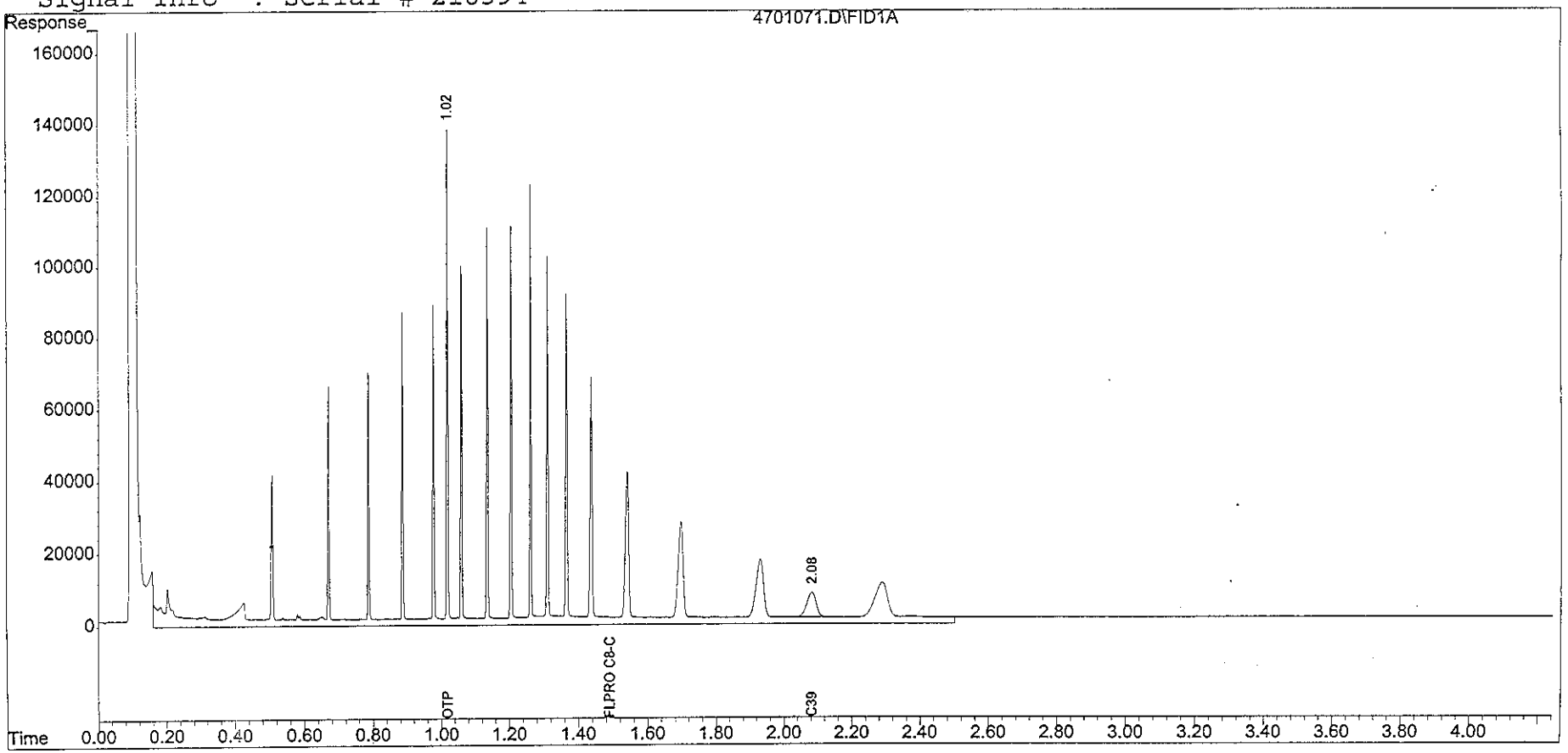
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	341260	128.967 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 103.17%	
2) S C39	2.08	130063	52.905 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 105.81%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4242425	4030.623 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



246

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

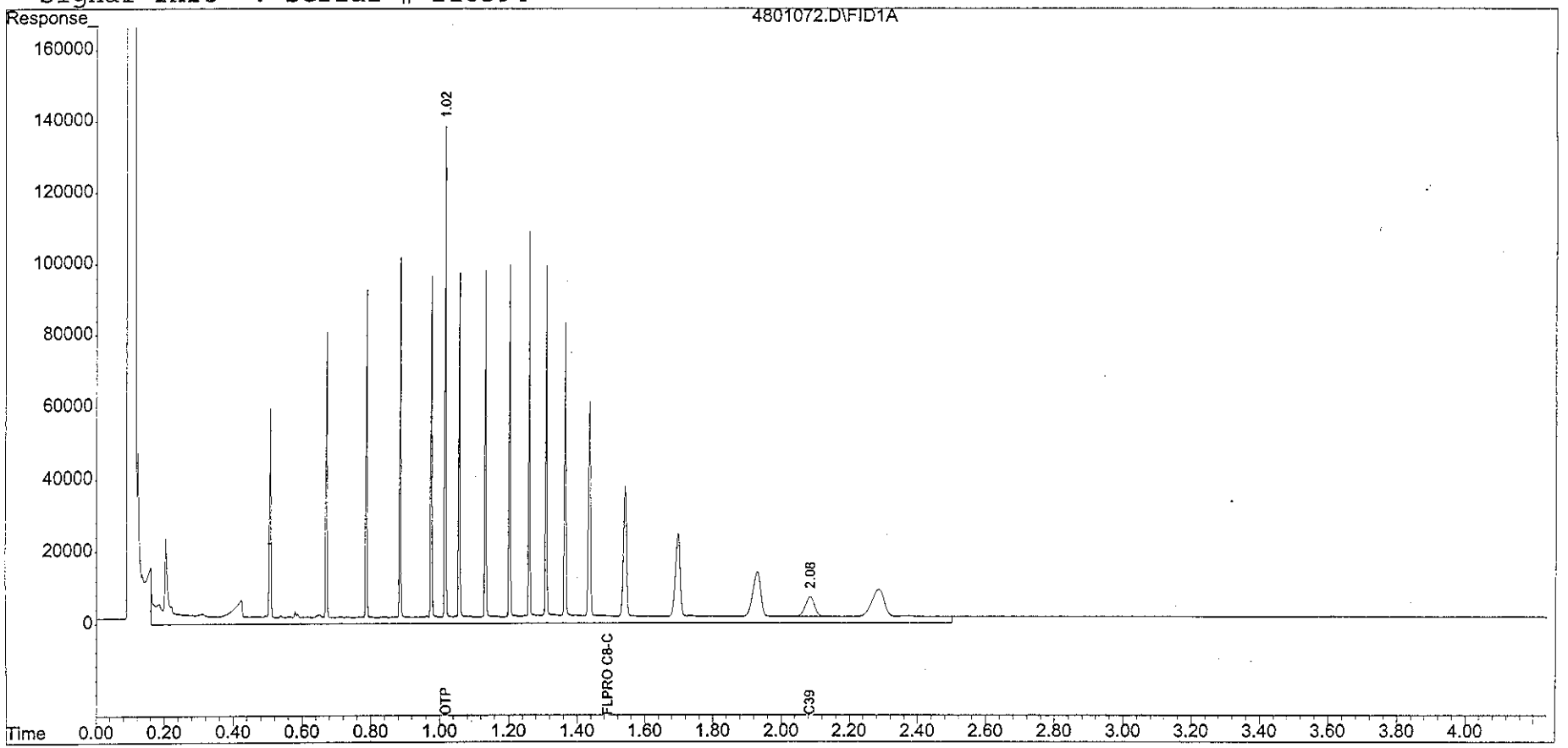
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	337874	127.665 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 102.13%		
2) S C39	2.08	100875	40.833 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 81.67%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4020991	3815.858 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



248

Data File : D:\HPCHEM\2\DATA\1101CAL\4901073.D Vial: 49
Acq On : 2 Nov 2001 1:46 am Operator: IE\KJA
Sample : C110611-1 Inst : FLASH
Misc : FL WATER 290-91 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

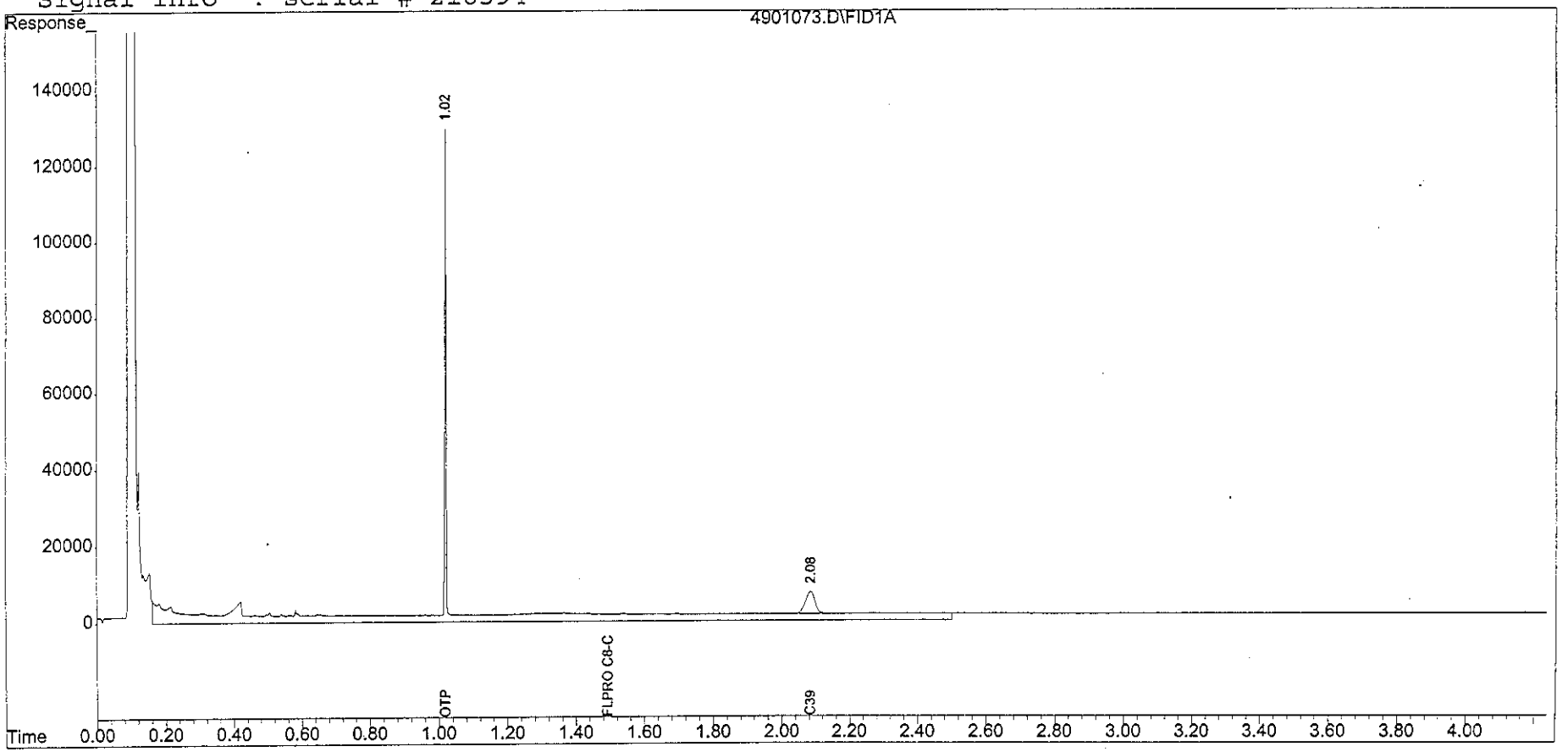
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	343002	129.637 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery =	103.71%
2) S C39	2.08	111268	45.131 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery =	90.26%
Target Compounds			
3) HM FLPRO C8-C40	1.50	168877	79.760 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4901073.D Vial: 49
Acq On : 2 Nov 2001 1:46 am Operator: IE\KJA
Sample : C110611-1 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



250

Data File : D:\HPCHEM\2\DATA\1101CAL\5001074.D Vial: 50
Acq On : 2 Nov 2001 1:54 am Operator: IE\KJA
Sample : C110611-2 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:02 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

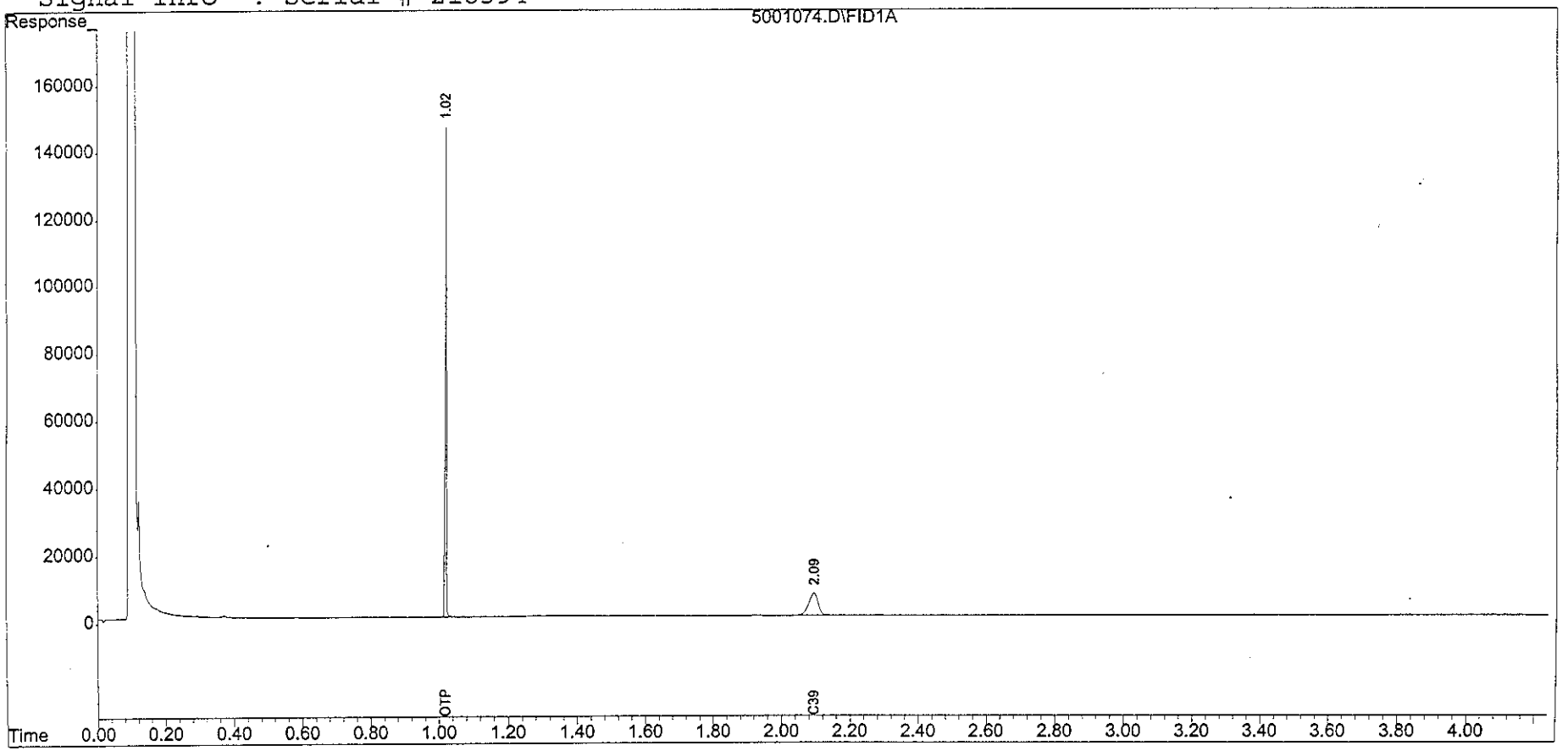
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	359964	136.162 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 108.93%	
2) S C39	2.09	125797	51.141 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 102.28%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	76576	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5001074.D Vial: 50
Acq On : 2 Nov 2001 1:54 am Operator: IE\KJA
Sample : C110611-2 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:02 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



252

Data File : D:\HPCHEM\2\DATA\1101CAL\5101075.D Vial: 51
Acq On : 2 Nov 2001 2:02 am Operator: IE\KJA
Sample : C110611-3 Inst : FLASH
Misc : FL WATER 290291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:03 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound				R.T.	Response	Conc Units
System Monitoring Compounds						
1) S OTP				1.02	335296	126.673 ug/mlm
Spiked Amount	125.000	Range	82 - 142		Recovery =	101.34%
2) S C39				2.09	116349	47.233 ug/mlm
Spiked Amount	50.000	Range	42 - 193		Recovery =	94.47%
Target Compounds						
3) HM FLPRO C8-C40				1.50	93462	6.616 ppb

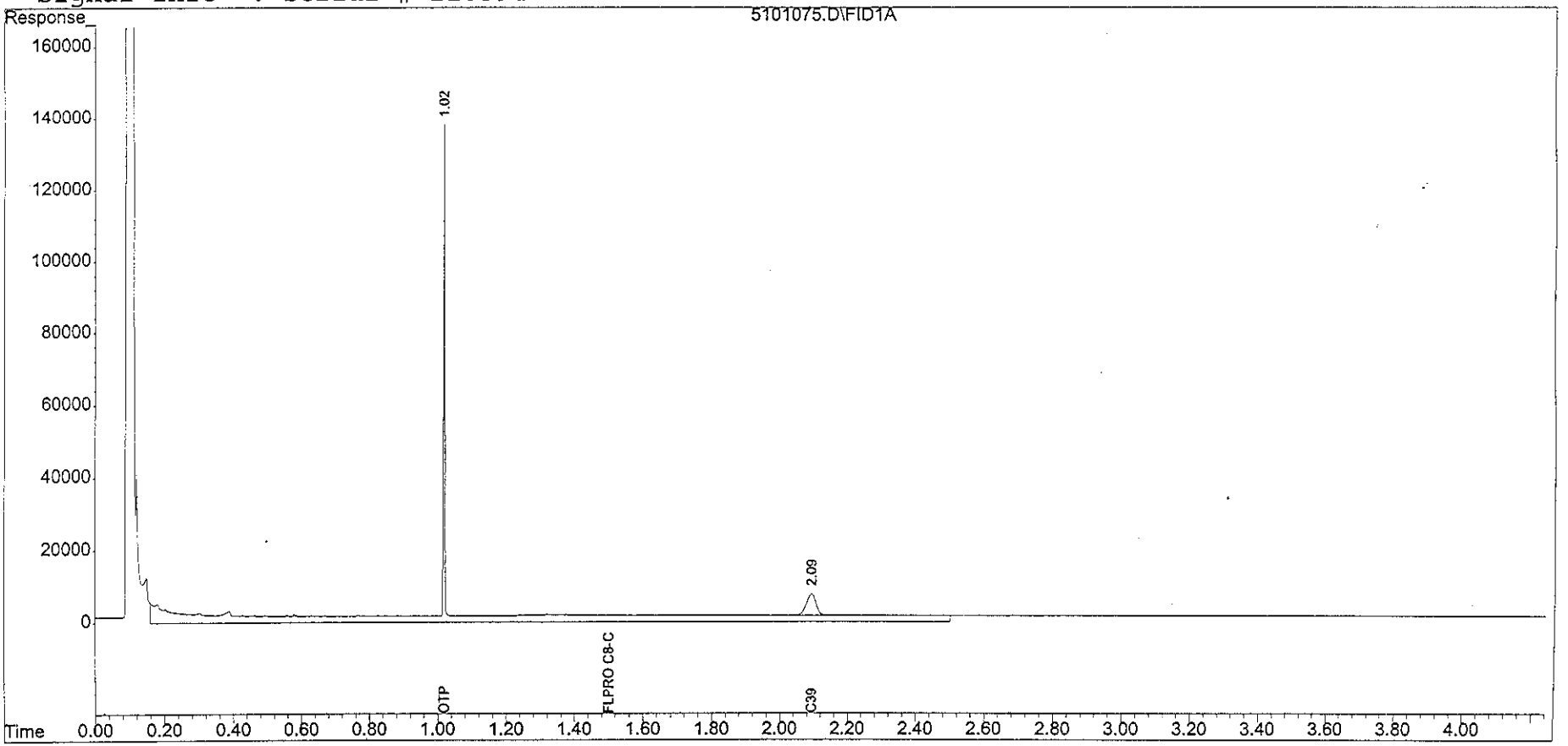
(f)=RT Delta > 1/2 Window (m)=manual int.
5101075.D FL-PRO12.M Fri Nov 02 09:13:07 2001 Page 1

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5101075.D Vial: 51
Acq On : 2 Nov 2001 2:02 am Operator: IE\KJA
Sample : C110611-3 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:03 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110611
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 25, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3609C-Q401	110611-1	3609C
17-3627A-Q401	110611-2	3627A
17-3628B-Q401	110611-3	3628B
17-36TB3-Q401	110611-4	36TB3

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 5, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.2	J	0.18 J
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	J	0.29 J
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	1.0		0.96
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	43	E	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	110	E	
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

LMO 11-5-01

1.6 U

1.9 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-09-2	Methylene chloride	3	U
540-59-0	trans-1,2-Dichloroethene	3	U
75-34-4	1,1-Dichloroethane	3	U
594-20-7	2,2-Dichloropropane	3	U
156-59-2	cis-1,2-Dichloroethene	57	D
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
71-43-2	Benzene	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	150	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
142-28-9	1,3-Dichloropropane	3	U
124-48-1	Dibromochloromethane	3	U
106-93-4	1,2-Dibromoethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
	m,p-Xylene	6	U
95-47-6	o-Xylene	3	U
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropylbenzene	3	U
108-86-1	Bromobenzene	3	U

5.3 u

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	3	U
96-18-4	1,2,3-Trichloropropane	16	U
103-65-1	n-Propylbenzene	3	U
95-49-8	2-Chlorotoluene	3	U
106-43-4	4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethylbenzene	3	U
98-06-6	tert-Butylbenzene	3	U
95-63-6	1,2,4-Trimethylbenzene	3	U
135-98-8	sec-Butylbenzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
99-87-6	p-Isopropyltoluene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
104-51-8	n-Butylbenzene	3	U
96-12-8	1,2-Dibromo-3-chloropropane	19	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
91-20-3	Naphthalene	3	U
87-67-6	1,2,3-Trichlorobenzene	3	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	7		7.1
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	2		1.5
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.4		0.40
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.534
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.5		0.53
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	33	E	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	7		6.8
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	33	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	8	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

2.6 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	2	U	
96-18-4	1,2,3-Trichloropropane	8	U	8.0u
103-65-1	n-Propylbenzene	2	U	
95-49-8	2-Chlorotoluene	2	U	
106-43-4	4-Chlorotoluene	2	U	
108-67-8	1,3,5-Trimethylbenzene	2	U	
98-06-6	tert-Butylbenzene	2	U	
95-63-6	1,2,4-Trimethylbenzene	2	U	
135-98-8	sec-Butylbenzene	2	U	
541-73-1	1,3-Dichlorobenzene	2	U	
99-87-6	p-Isopropyltoluene	2	U	
106-46-7	1,4-Dichlorobenzene	2	U	
95-50-1	1,2-Dichlorobenzene	2	U	
104-51-8	n-Butylbenzene	2	U	
96-12-8	1,2-Dibromo-3-chloropropane	10	U	9.5u
120-82-1	1,2,4-Trichlorobenzene	2	U	
87-68-3	Hexachlorobutadiene	2	U	
91-20-3	Naphthalene	2	U	
87-67-6	1,2,3-Trichlorobenzene	2	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 u
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 u
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 u
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 u
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/25/01

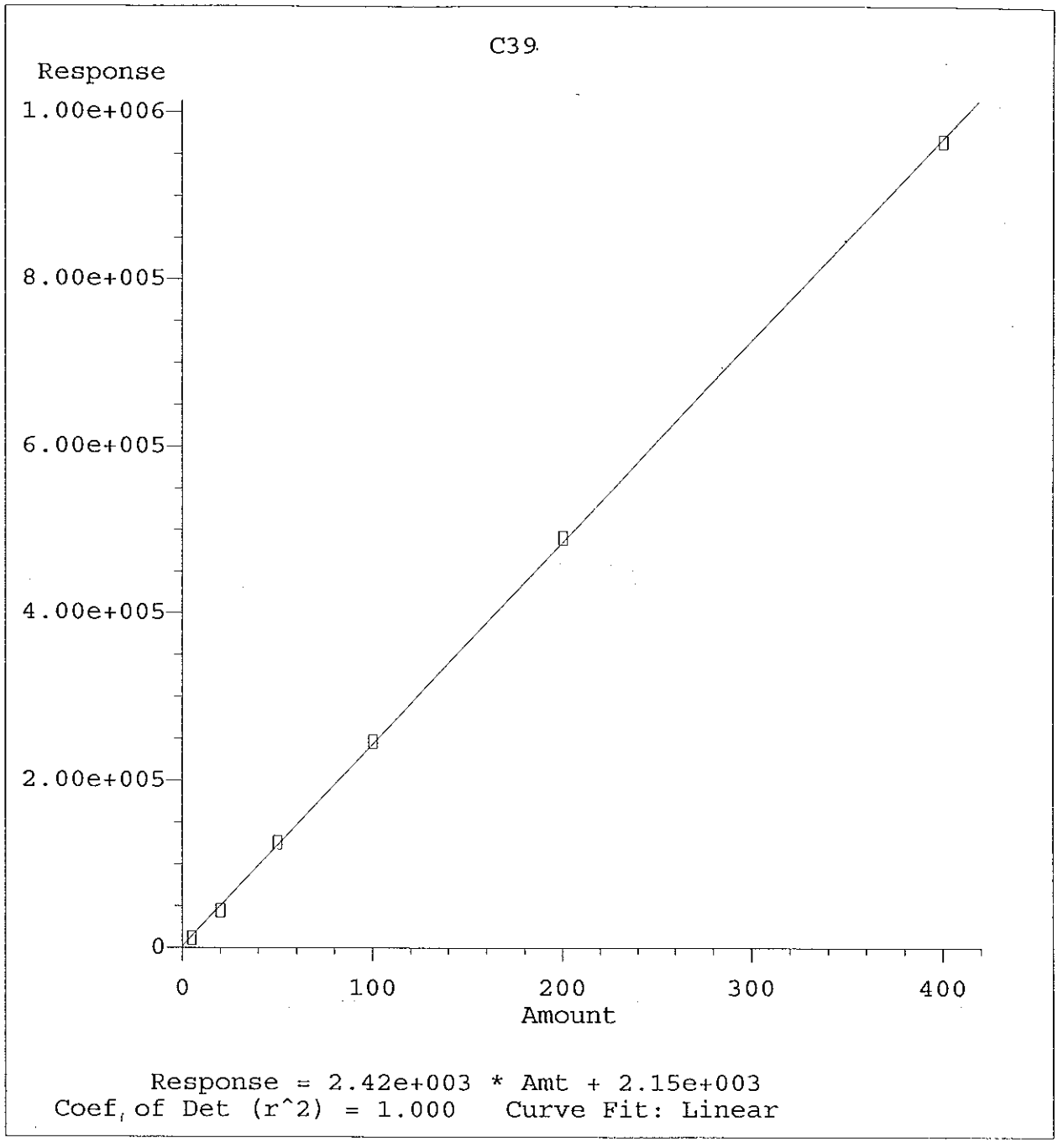
% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

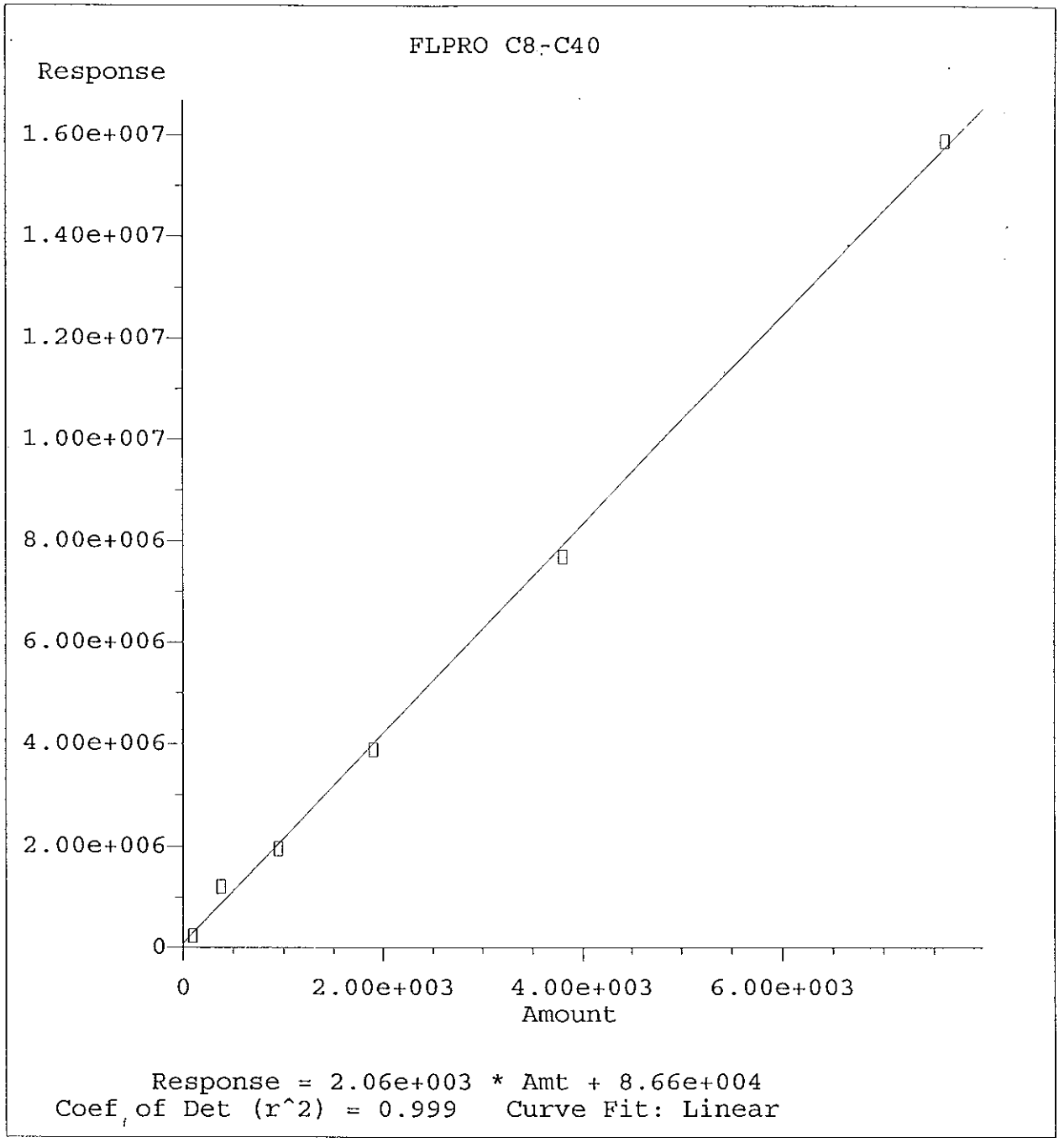
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Data File : F:\2\DATA\1101CAL\CCTPH005.D Vial: 44
Acq On : 2 Nov 2001 00:58 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1819.412	4.2	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:09 2001

Data File : F:\2\DATA\1101CAL\CCTPH006.D Vial: 55
Acq On : 2 Nov 2001 2:35 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM	FLPRO C8-C40	1900.000	1854.571	2.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:44 2001

EXTRACTION LOG

Job No: 820

Batch No: 291

Date Extracted: 10.30.01

Start Time: 1437

Stop Time:

Analysis Required: FRO

Prep Method: 3520

Analyst/Activity Code*

Initial Project Check:

Final Project Check:

Date Concentrated:

Initials:

Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	H-DRO	0190-2	1ml	
Surr.				
Spike	d-DRO	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments

Solvent(s) Lot No:

MeCl2 V31E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D.D	H.D	COMMENTS
1. C110611*1/17-3609C-Q401 A		LI	1L	1		2	11.05	10.31	Strong odor
2. C110611*2/17-3627A-Q401		LI	1L	1			11.05	10.31	
3. C110611*3/17-3628B-Q401		LI	1L	1			11.05	10.31	
4. C110655*1/17-3608B-Q401		LI	1L	1			11.05	11.01	
5. C110655*2/17-3607A-Q401		LI	1L	1			11.05	11.01	
6. C110655*3/17-3606A-Q401		LI	1L	1			11.05	11.01	
7. C110681*1/17-3619A-Q401		LI	1L	1			11.06	11.02	
8. C110681*2/17-3624B-Q401		LI	1L	1			11.06	11.02	
9. C110681*3/17-36FD2-Q401		LI	1L	1			11.06	11.02	
10. 110728-1			1L	1		2			
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		1			
Lab Spike #2 110611-1 BMS			1L	1		2			
-1L MSD			1L	1		2			

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

GC/Organics Department Extracts Cleanup Logbook

Date: 10-31-01 **Analyst(s):** SB

Method: FLPRO Silica Gel, MAEPH Fractionation, Other (Specify) _____

Solvent 1: _____ **Lot #:** _____ **Solvent 2:** _____ **Lot #:** _____

Surrogate: _____ **Amount:** _____

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW290	1.7	
2	LCS		~~2.0~~ 1.9 SB 10-13-01	
3	634-5 MS		1.9	
4	634-5 MD		1.7	
5	634-1		1.7	
6	-2		1.9	
7	-3		2.0	
8	-4		1.7	
9	-5		1.9	
10	-6		1.8	
11	-7		1.8	
12	-8		1.5	
13	-9		1.7	
14	-10		1.7	
15	-11		1.8	
16	-12	↓	1.9	
17	BLK	FLW291	1.7	
18	LCS		1.8	
19	611-1 MS		1.9	
20	611-1 MD		2.0	
21	611-1		1.6	
22	-2		1.9	
23	-3		1.9	
24	655-1		2.0	
25	-2		1.7	
26	-3		2.0	
27	681-1		2.0	
28	-2		1.9	
29	-3		1.8	
30	728-1	↓	1.8	
31				
32			SB 1031	
33				

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL AW Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% CS2 MI09648KI

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	4000ul	100 mls	200 ppm
B					ea
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100% Mecl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OT A	4-ORGN045-1	10,000	6500ul	250 mls	250 ppm
B					
C SOC	4-ORGW044-1	5617	6295ul		each
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires ~~4-4~~ 4-3-02

KA 10/3/01

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: 100% meth

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org.045-1	10,000 ppm	6500 ml	250mls	250 ppm each
	B				
	C				
C10	D 4-Org.044-1	9617 ppm	6245 ml		
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: 1x Dms 4-17-02

Solution Name: FLPRO Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: MI0964814 1:1 C52/meth V34E34

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP	A 4-Org.045-1	10,000	6250 ml	250mls	250 ppm
	B				
	C				
C39	D 4-Org.044-3	2500	10,000 ml		100 ppm
	E				
	F				
	G				
	H				
	I				
	J				

COMMENTS: ~~1x Dms 4-22-02~~ KA 10/22/01
4-22-02

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

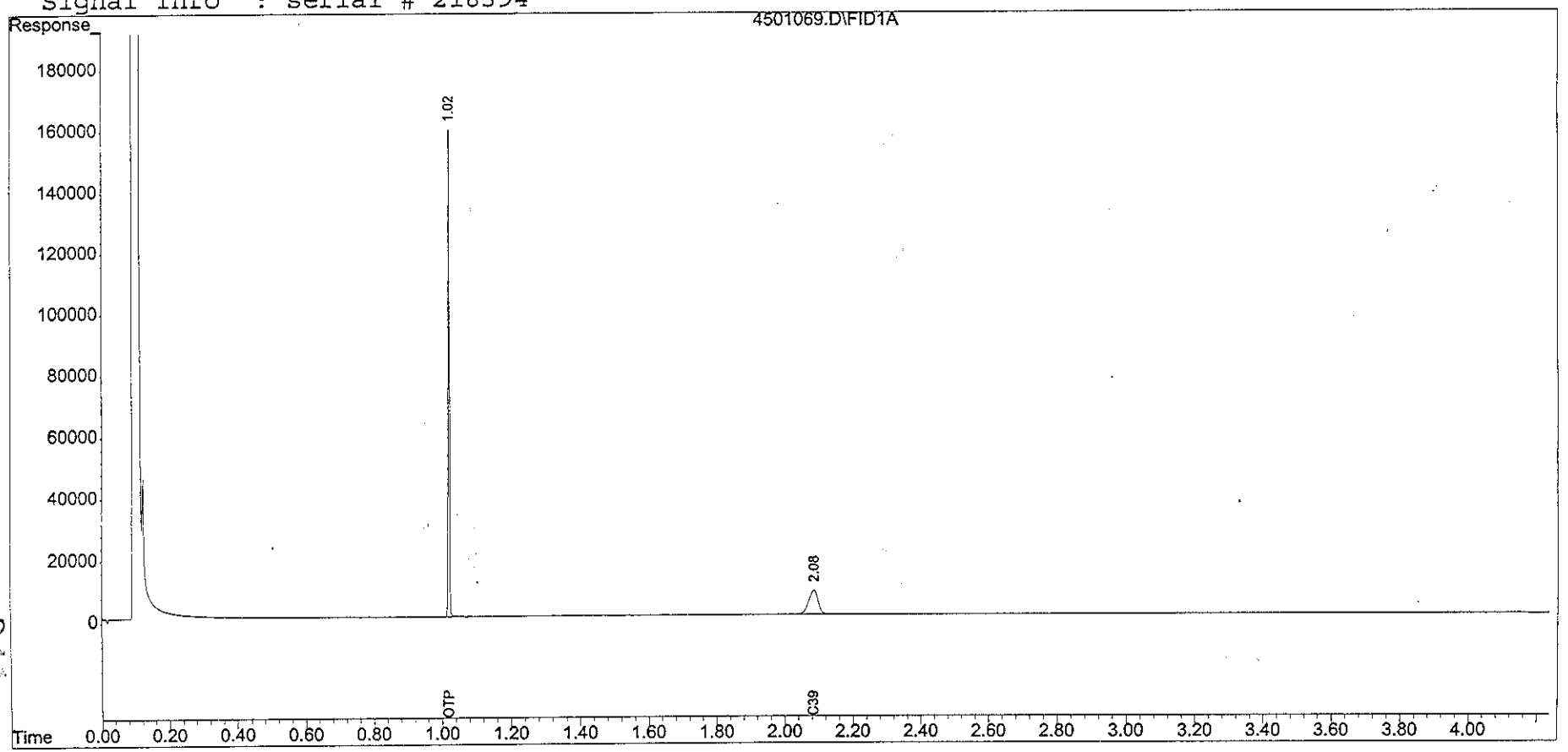
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	397913	150.760 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 120.61% ✓	
2) S C39	2.08	149017	60.744 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 121.49% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	40387	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	361962	136.931 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 109.54%	
2) S C39	2.09	106556	43.182 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 86.36%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4313575	3689.666 ppb

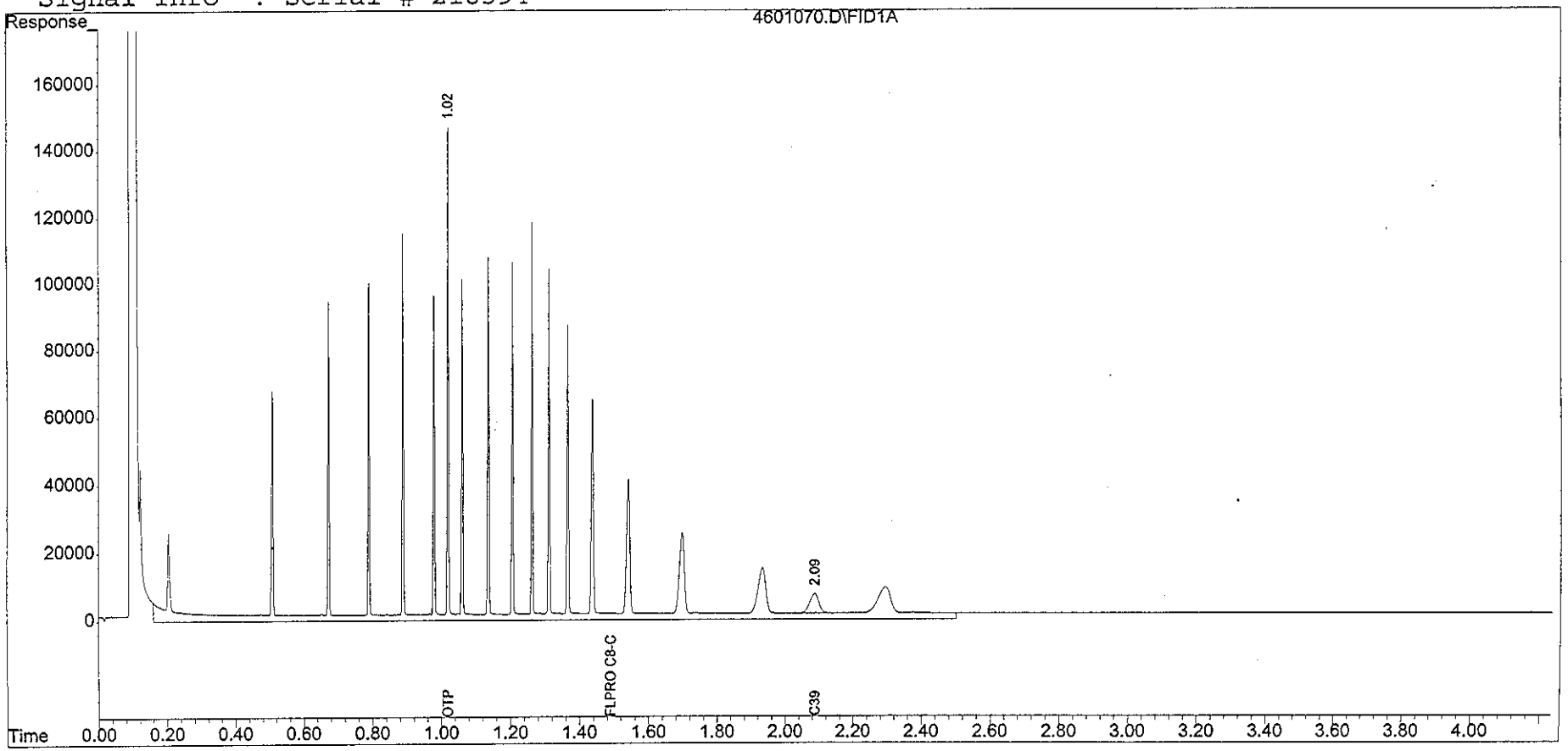
1091.

Quantitation Report

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Spike Recovery and RPD Summary Report - WATER

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration

Non-Spiked Sample: 4901073.D

	Spike Sample	Spike Duplicate Sample
File ID :	4701071.D	4801072.D
Sample :	C110611-1 MS	C110611-1 MSD
Acq Time:	2 Nov 2001 1:30	2 Nov 2001 1:38

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
FLPRO C8-C40	79.8	3400	4031	3816	116#	110#	6	20	41-101

- Fails Limit Check

FL-PRO12.M Fri Nov 02 09:23:24 2001

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

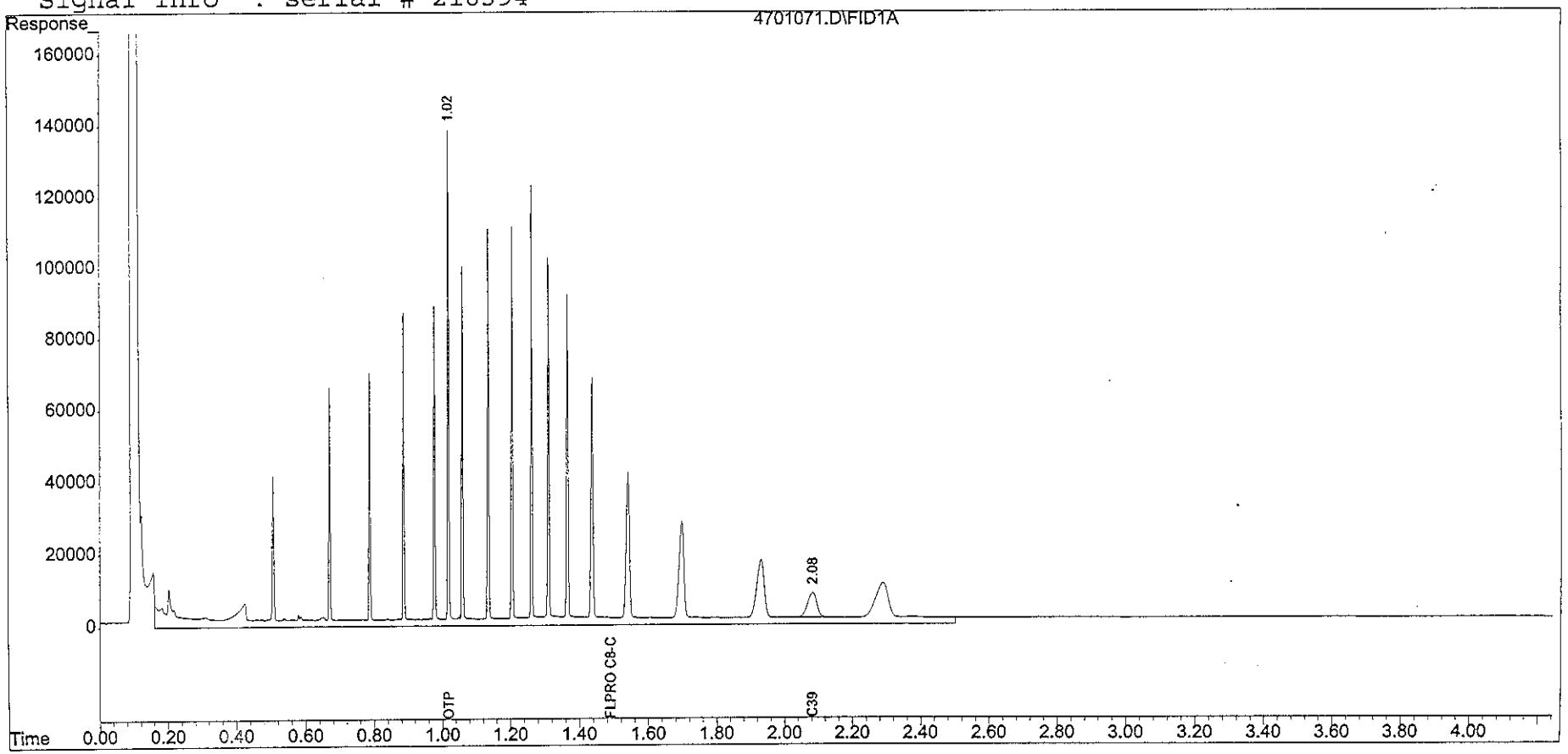
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	341260	128.967 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 103.17%	
2) S C39	2.08	130063	52.905 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 105.81%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4242425	4030.623 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

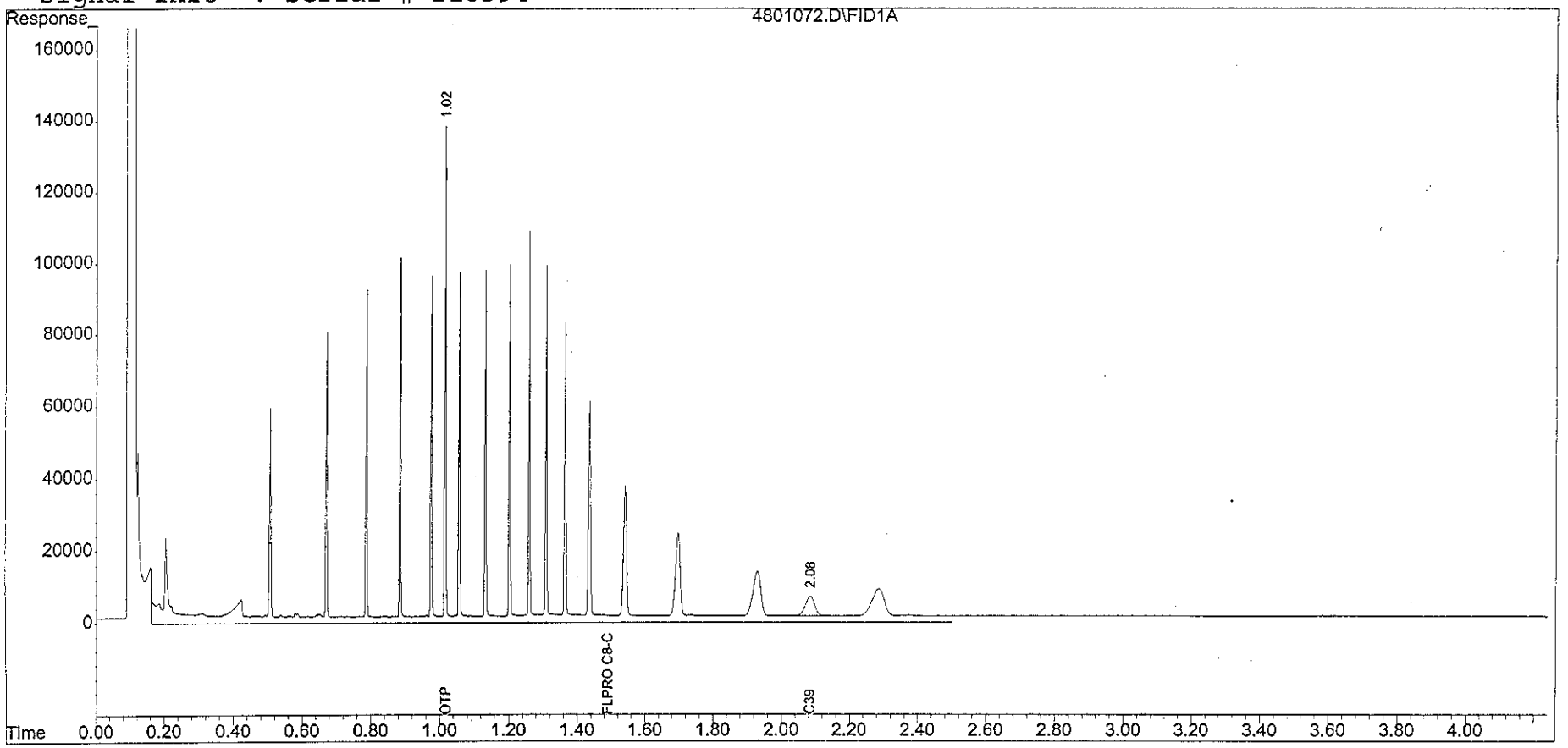
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	337874	127.665 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 102.13%		
2) S C39	2.08	100875	40.833 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 81.67%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4020991	3815.858 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\4901073.D Vial: 49
Acq On : 2 Nov 2001 1:46 am Operator: IE\KJA
Sample : C110611-1 Inst : FLASH
Misc : FL WATER 290-91 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	343002	129.637 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 103.71%	
2) S C39	2.08	111268	45.131 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 90.26%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	168877	79.760 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

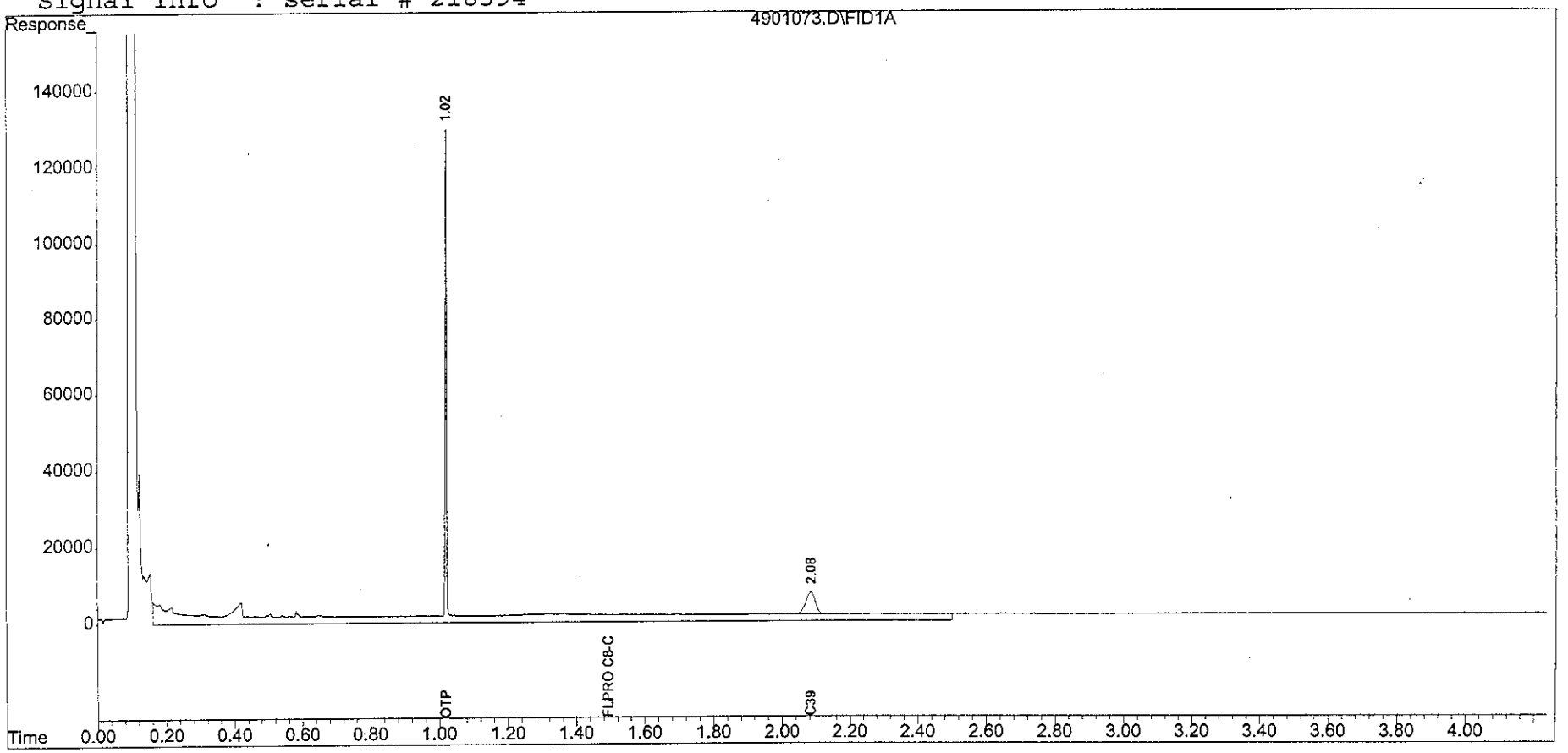
Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4901073.D
Acq On : 2 Nov 2001 1:46 am
Sample : C110611-1
Misc : FL WATER 290
IntFile : HC.E
Quant Time: Nov 2 9:01 2001 Quant Results File: FL-PRO12.RES

Vial: 49
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\5001074.D Vial: 50
Acq On : 2 Nov 2001 1:54 am Operator: IE\KJA
Sample : C110611-2 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:02 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

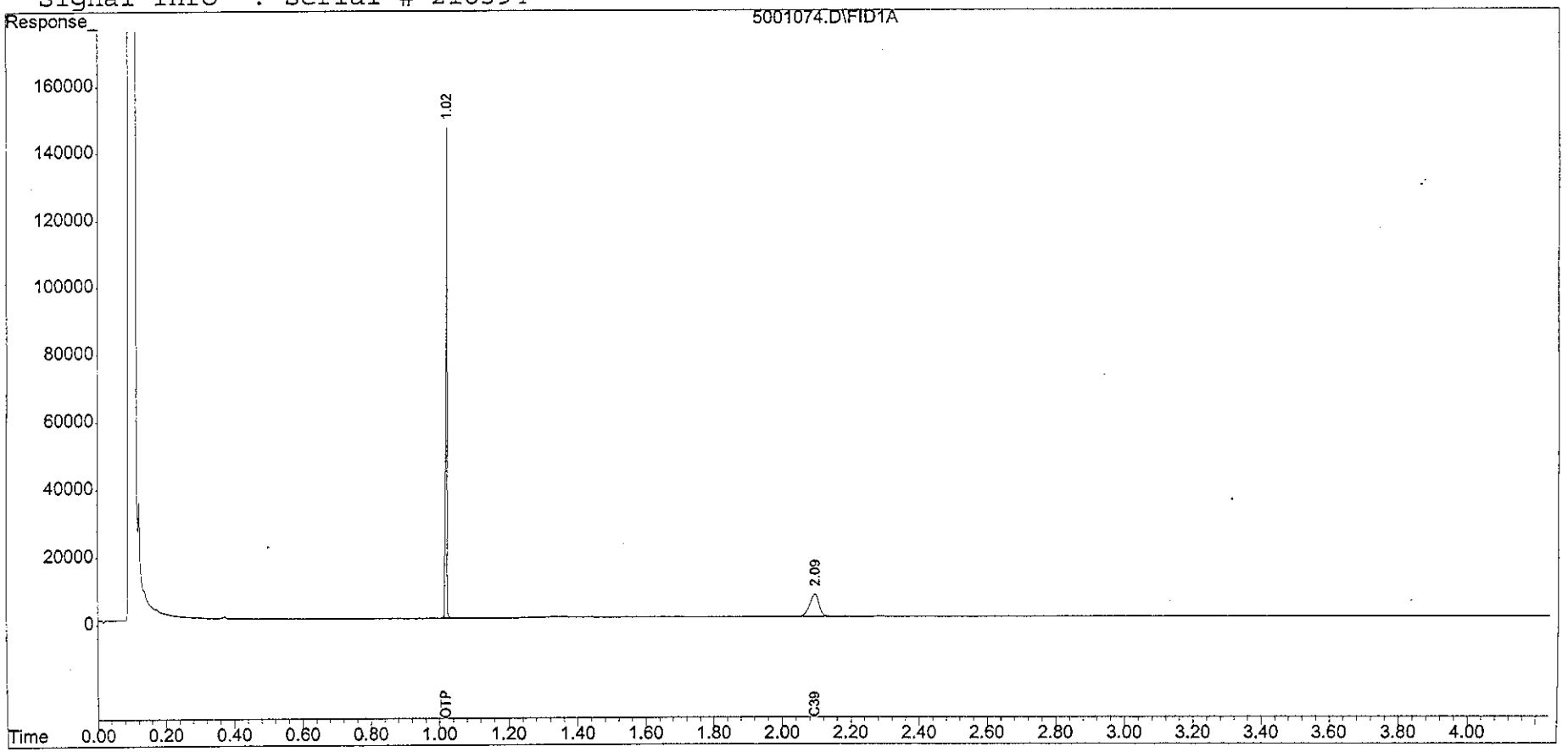
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	359964	136.162 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 108.93%		
2) S C39	2.09	125797	51.141 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 102.28%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	76576	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5001074.D Vial: 50
Acq On : 2 Nov 2001 1:54 am Operator: IE\KJA
Sample : C110611-2 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:02 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\5101075.D Vial: 51
Acq On : 2 Nov 2001 2:02 am Operator: IE\KJA
Sample : C110611-3 Inst : FLASH
Misc : FL WATER 290291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:03 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

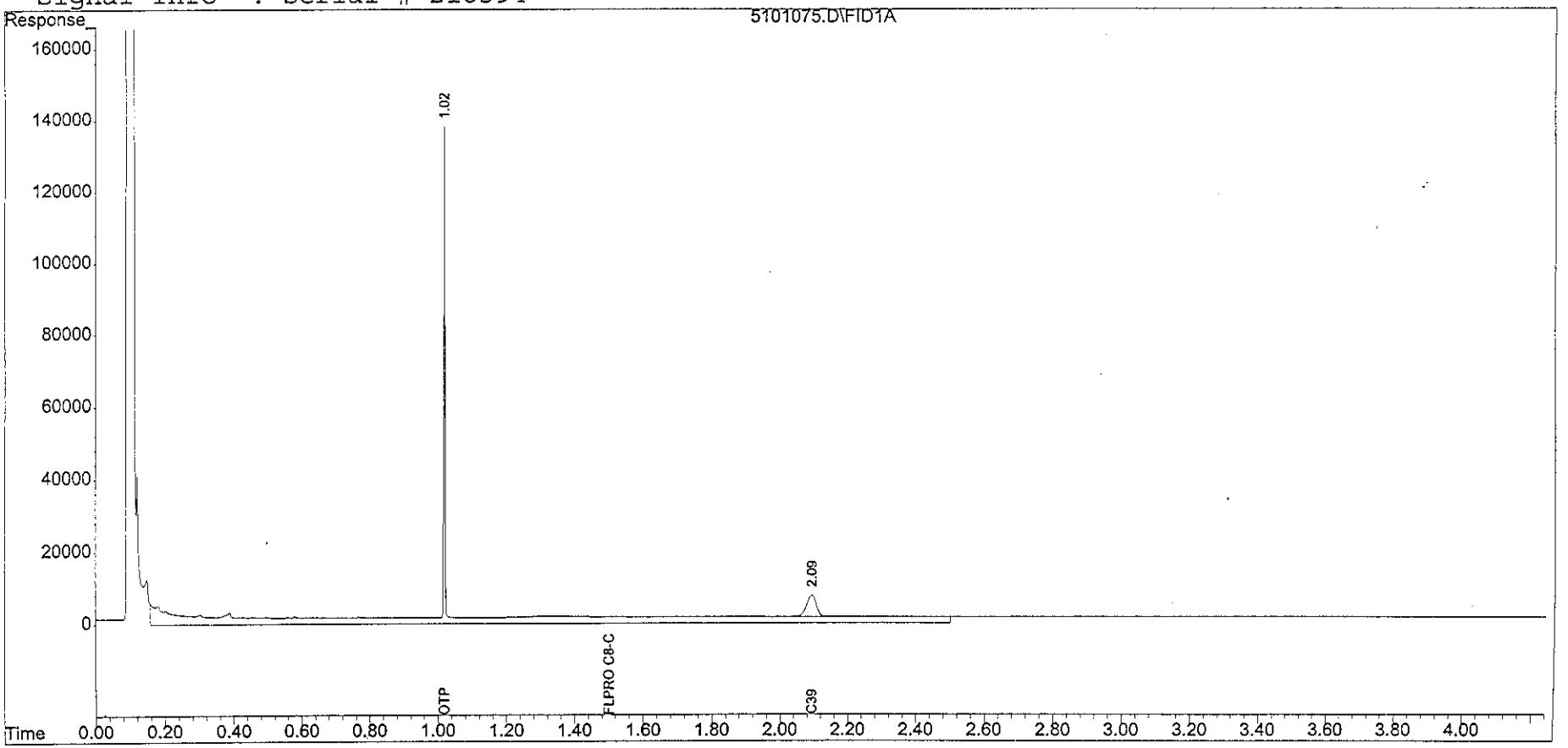
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	335296	126.673 ug/ml
Spiked Amount 125.000	Range 82 - 142	Recovery = 101.34%	
2) S C39	2.09	116349	47.233 ug/ml
Spiked Amount 50.000	Range 42 - 193	Recovery = 94.47%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	93462	6.616 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5101075.D Vial: 51
Acq On : 2 Nov 2001 2:02 am Operator: IE\KJA
Sample : C110611-3 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:03 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110611
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 25, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3609C-Q401	110611-1	3609C
17-3627A-Q401	110611-2	3627A
17-3628B-Q401	110611-3	3628B
17-36TB3-Q401	110611-4	36TB3

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 5, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.2	J	0.18 J
74-83-9	Bromomethane	0.5	U	0.53 J
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	J	0.29 J
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	1.0		0.96
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	43	E	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	110	E	
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

LMO 11-5-01

1.6 U

1.9 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3609C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-09-2	Methylene chloride	3	U
540-59-0	trans-1,2-Dichloroethene	3	U
75-34-4	1,1-Dichloroethane	3	U
594-20-7	2,2-Dichloropropane	3	U
156-59-2	cis-1,2-Dichloroethene	57	D
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
71-43-2	Benzene	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	150	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
142-28-9	1,3-Dichloropropane	3	U
124-48-1	Dibromochloromethane	3	U
106-93-4	1,2-Dibromoethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
	m,p-Xylene	6	U
95-47-6	o-Xylene	3	U
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropylbenzene	3	U
108-86-1	Bromobenzene	3	U

5.3 u

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	3	U
96-18-4	1,2,3-Trichloropropane	16	U
103-65-1	n-Propylbenzene	3	U
95-49-8	2-Chlorotoluene	3	U
106-43-4	4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethylbenzene	3	U
98-06-6	tert-Butylbenzene	3	U
95-63-6	1,2,4-Trimethylbenzene	3	U
135-98-8	sec-Butylbenzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
99-87-6	p-Isopropyltoluene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
104-51-8	n-Butylbenzene	3	U
96-12-8	1,2-Dibromo-3-chloropropane	19	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
91-20-3	Naphthalene	3	U
87-67-6	1,2,3-Trichlorobenzene	3	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3609CDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 2.5ml 10

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746015.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 10.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	7		7.1
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	2		1.5
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.4		0.40
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.64
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.94
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3627A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.5		0.53
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	33	E	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	7		6.8
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.3	U	
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746013.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	33	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	8	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

2.6 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	2	U	
96-18-4	1,2,3-Trichloropropane	8	U	8.0u
103-65-1	n-Propylbenzene	2	U	
95-49-8	2-Chlorotoluene	2	U	
106-43-4	4-Chlorotoluene	2	U	
108-67-8	1,3,5-Trimethylbenzene	2	U	
98-06-6	tert-Butylbenzene	2	U	
95-63-6	1,2,4-Trimethylbenzene	2	U	
135-98-8	sec-Butylbenzene	2	U	
541-73-1	1,3-Dichlorobenzene	2	U	
99-87-6	p-Isopropyltoluene	2	U	
106-46-7	1,4-Dichlorobenzene	2	U	
95-50-1	1,2-Dichlorobenzene	2	U	
104-51-8	n-Butylbenzene	2	U	
96-12-8	1,2-Dibromo-3-chloropropane	10	U	9.5u
120-82-1	1,2,4-Trichlorobenzene	2	U	
87-68-3	Hexachlorobutadiene	2	U	
91-20-3	Naphthalene	2	U	
87-67-6	1,2,3-Trichlorobenzene	2	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.6 U

1.9 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB3

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746014.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53u

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.64
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.94
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW148ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746004.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	21	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MS

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746005.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	8	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	8	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	60	E
74-97-5	Bromochloromethane	9	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	9	
79-01-6	Trichloroethene	140	E
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	9	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	9	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	9	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	21	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MS

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746005.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	9	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	11	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	11	
135-98-8	sec-Butylbenzene	11	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MSD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746006.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	8	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	7	
75-00-3	Chloroethane	9	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	11	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	62	E
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	130	E
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3609CMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-1 MSD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30746006.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/1/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	9	
98-06-6	tert-Butylbenzene	9	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	10	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BMSDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	36	D
74-87-3	Chloromethane	40	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	44	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	45	D
540-59-0	trans-1,2-Dichloroethene	45	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	44	D
156-59-2	cis-1,2-Dichloroethene	80	D
74-97-5	Bromochloromethane	46	D
67-66-3	Chloroform	46	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	45	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	43	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	48	D
74-95-3	Dibromomethane	44	D
75-27-4	Bromodichloromethane	45	D
10061-01-5	cis-1,3-Dichloropropene	45	D
108-88-3	Toluene	47	D
10061-02-6	trans-1,3-Dichloropropene	44	D
79-00-5	1,1,2-Trichloroethane	44	D
127-18-4	Tetrachloroethene	48	D
142-28-9	1,3-Dichloropropane	45	D
124-48-1	Dibromochloromethane	46	D
106-93-4	1,2-Dibromoethane	44	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	48	D
100-41-4	Ethylbenzene	48	D
	m,p-Xylene	97	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	47	D
75-25-2	Bromoform	47	D
98-82-8	Isopropylbenzene	50	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BMSDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	44	D
96-18-4	1,2,3-Trichloropropane	45	D
103-65-1	n-Propylbenzene	51	D
95-49-8	2-Chlorotoluene	50	D
106-43-4	4-Chlorotoluene	50	D
108-67-8	1,3,5-Trimethylbenzene	48	D
98-06-6	tert-Butylbenzene	48	D
95-63-6	1,2,4-Trimethylbenzene	50	D
135-98-8	sec-Butylbenzene	51	D
541-73-1	1,3-Dichlorobenzene	48	D
99-87-6	p-Isopropyltoluene	52	D
106-46-7	1,4-Dichlorobenzene	48	D
95-50-1	1,2-Dichlorobenzene	47	D
104-51-8	n-Butylbenzene	53	D
96-12-8	1,2-Dibromo-3-chloropropane	45	D
120-82-1	1,2,4-Trichlorobenzene	53	D
87-68-3	Hexachlorobutadiene	60	D
91-20-3	Naphthalene	51	D
87-67-6	1,2,3-Trichlorobenzene	52	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BMSDDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	35	D
74-87-3	Chloromethane	42	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	43	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	49	D
540-59-0	trans-1,2-Dichloroethene	46	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	43	D
156-59-2	cis-1,2-Dichloroethene	85	D
74-97-5	Bromochloromethane	51	D
67-66-3	Chloroform	48	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	44	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	49	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	52	D
75-27-4	Bromodichloromethane	50	D
10061-01-5	cis-1,3-Dichloropropene	50	D
108-88-3	Toluene	46	D
10061-02-6	trans-1,3-Dichloropropene	52	D
79-00-5	1,1,2-Trichloroethane	52	D
127-18-4	Tetrachloroethene	47	D
142-28-9	1,3-Dichloropropane	54	D
124-48-1	Dibromochloromethane	52	D
106-93-4	1,2-Dibromoethane	52	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	50	D
100-41-4	Ethylbenzene	46	D
	m,p-Xylene	96	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	48	D
75-25-2	Bromoform	55	D
98-82-8	Isopropylbenzene	47	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BMSDDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	51	D
96-18-4	1,2,3-Trichloropropane	53	D
103-65-1	n-Propylbenzene	47	D
95-49-8	2-Chlorotoluene	46	D
106-43-4	4-Chlorotoluene	48	D
108-67-8	1,3,5-Trimethylbenzene	45	D
98-06-6	tert-Butylbenzene	44	D
95-63-6	1,2,4-Trimethylbenzene	47	D
135-98-8	sec-Butylbenzene	46	D
541-73-1	1,3-Dichlorobenzene	47	D
99-87-6	p-Isopropyltoluene	48	D
106-46-7	1,4-Dichlorobenzene	47	D
95-50-1	1,2-Dichlorobenzene	49	D
104-51-8	n-Butylbenzene	51	D
96-12-8	1,2-Dibromo-3-chloropropane	55	D
120-82-1	1,2,4-Trichlorobenzene	57	D
87-68-3	Hexachlorobutadiene	55	D
91-20-3	Naphthalene	60	D
87-67-6	1,2,3-Trichlorobenzene	58	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/25/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	101	100	98	0
03	LCS 1	94	100	100	0
04	3609CMS	98	99	99	0
05	3609CMSD	102	100	101	0
06	3609C	93	99	93	0
07	3627A	86	99	93	0
08	3628B	100	99	99	0
09	36TB3	90	97	93	0
10	3609CDL	110	100	99	0
11	VBLKBB	100	100	97	0
12	LCS 2	96	100	100	0
13	3628BMSDL	92	99	99	0
14	3628BMSDDL	102	100	101	0
15	3628BDL	91	99	89	0

			QC LIMITS
SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.38	10.00	93.85	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.99	10.00	99.87	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.21	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.80	10.00	88.02	30 to 152%	[ ]
3)	PM	Chloromethane	9.27	10.00	92.66	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.57	10.00	95.68	72 to 116%	[ ]
5)	T	Bromomethane	9.48	10.00	94.83	63 to 140%	[ ]
6)	T	Chloroethane	9.98	10.00	99.76	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	103.03	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.00	10.00	100.01	84 to 117%	[ ]
9)	T	Acetone	14.75	20.00	73.77	24 to 158%	[ ]
10)	T	Iodomethane	9.93	10.00	99.33	60 to 135%	[ ]
11)	T	Carbon disulfide	10.52	10.00	105.19	79 to 118%	[ ]
12)	T	Methylene chloride	9.91	10.00	99.09	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.49	10.00	94.86	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.68	10.00	96.79	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.39	10.00	93.85	90 to 114%	[ ]
16)	T	Vinyl acetate	13.89	20.00	69.44	75 to 114%	[*]
17)	T	Isopropyl ether	10.30	10.00	103.02	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.89	10.00	98.91	74 to 112%	[ ]
19)	T	2-Butanone	18.27	20.00	91.36	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.32	10.00	103.21	90 to 117%	[ ]
21)	T	Bromochloromethane	10.08	10.00	100.84	91 to 129%	[ ]
22)	CM	Chloroform	9.63	10.00	96.33	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.26	10.00	102.57	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.52	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	11.09	10.00	110.89	84 to 112%	[ ]
28)	T	Benzene	9.87	10.00	98.66	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.52	10.00	95.15	88 to 125%	[ ]
30)	T	Trichloroethene	10.05	10.00	100.45	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.13	10.00	101.29	87 to 112%	[ ]
32)	T	Dibromomethane	9.64	10.00	96.39	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.00	10.00	0.00	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.75	10.00	97.53	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.95	10.00	99.48	61 to 133%	[ ]
37)	CM	Toluene	9.86	10.00	98.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.04	10.00	100.40	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.87	10.00	98.68	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.19	10.00	101.88	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.06	10.00	100.57	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.82	10.00	98.21	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.80	10.00	98.01	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.30	20.00	91.51	70 to 128%	[ ]
45)	T	2-Hexanone	18.91	20.00	94.56	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.97	10.00	99.75	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.11	10.00	101.06	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.92	10.00	99.22	69 to 123%	[ ]
51)	T	m,p-Xylene	20.41	20.00	102.07	70 to 125%	[ ]
52)	T	o-Xylene	10.31	10.00	103.15	73 to 122%	[ ]
53)	T	Styrene	10.10	10.00	100.99	76 to 127%	[ ]
54)	PM	Bromoform	10.39	10.00	103.87	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.29	10.00	102.88	56 to 134%	[ ]
58)	T	Bromobenzene	9.74	10.00	97.40	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.48	10.00	94.75	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	9.92	10.00	99.25	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.37	10.00	103.69	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.03	10.00	100.28	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.26	10.00	102.59	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.96	10.00	99.56	84 to 125%	[ ]
65)	T	tert-Butylbenzene	10.03	10.00	100.31	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.41	10.00	104.13	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.37	10.00	103.68	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.89	10.00	98.88	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.65	10.00	106.53	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.84	10.00	98.44	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.81	10.00	98.10	87 to 115%	[ ]
72)	T	n-Butylbenzene	11.08	10.00	110.82	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.31	10.00	103.14	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.00	10.00	109.97	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.74	10.00	117.38	74 to 140%	[ ]
76)	T	Naphthalene	10.84	10.00	108.40	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.76	10.00	107.62	43 to 204%	[ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128%	[ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123%	[ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125%	[ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122%	[ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127%	[ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134%	[ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140%	[ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204%	[ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128% [ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169% [ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123% [ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125% [ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122% [ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127% [ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127% [ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134% [ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159% [ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140% [ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204% [ ]

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	50	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	50	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	50	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	50	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	50	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	50	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	50	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	50	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	50	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	50	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	50	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	50	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	50	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	50	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	50	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	50	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	50	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	50	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	50	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	50	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	50	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	50	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	50	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	50	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	50	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	50	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	50	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	50	44.46	51.49	89	103	14.7	20	85-125
Tetrachloroet	0.0	50	48.51	47.23	97	94	2.7	13	87-131
1,3-Dichlorop	0.0	50	45.37	53.65	91	107	16.7	19	73-126

Dibromochloro	0.0	50	45.49	52.17	91	104	13.7	27	83-122
1,2-Dibromoet	0.0	50	44.37	51.97	89	104	15.8	26	36-153
4-Methyl-2-pe	0.0	100	76.76	103.04	77	103	29.2	35	64-133
2-Hexanone	0.0	100	81.06	105.10	81	105	25.8	36	49-144
Chlorobenzene	0.0	50	48.02	48.06	96	96	0.1	10	66-156
1,1,1,2-Tetra	0.0	50	48.01	49.75	96	100	3.6	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.87	45.93	96	92	4.1	14	78-132
m,p-Xylene	0.0	100	97.05	95.62	97	96	1.5	20	76-129
o-Xylene	0.0	50	48.73	48.61	97	97	0.2	13	76-127
Styrene	0.0	50	47.00	48.45	94	97	3.0	43	55-138
Bromoform	0.0	50	47.26	55.03	95	110	15.2	29	62-124
Isopropylbenz	0.0	50	49.89	47.34	100	95	5.2	20	65-149
Bromobenzene	0.0	50	47.88	48.05	96	96	0.4	14	73-140
1,1,2,2-Tetra	0.0	50	43.80	50.74	88	101	14.7	25	75-127
1,2,3-Trichlo	0.0	50	45.39	52.74	91	105	15.0	26	75-127
n-Propylbenze	0.0	50	51.13	46.79	102	94	8.9	16	76-123
2-Chlorotolue	0.0	50	49.64	46.31	99	93	6.9	15	85-122
4-Chlorotolue	0.0	50	50.37	48.23	101	96	4.3	13	87-122
1,3,5-Trimeth	0.0	50	48.51	45.41	97	91	6.6	25	72-140
tert-Butylben	0.0	50	48.30	44.28	97	89	8.7	16	73-113
1,2,4-Trimeth	0.0	50	50.52	47.25	101	94	6.7	30	50-158
sec-Butylbenz	0.0	50	50.66	46.32	101	93	8.9	18	62-144
1,3-Dichlorob	0.0	50	48.11	47.44	96	95	1.4	10	89-118
p-Isopropylto	0.0	50	51.94	48.33	104	97	7.2	22	35-190
1,4-Dichlorob	0.0	50	48.48	46.70	97	93	3.7	10	78-138
1,2-Dichlorob	0.0	50	47.18	49.06	94	98	3.9	12	86-120
n-Butylbenzen	0.0	50	53.21	50.54	106	101	5.2	40	0-270
1,2-Dibromo-3	0.0	50	45.16	54.85	90	110	19.4	33	71-118
1,2,4-Trichlo	0.0	50	53.27	56.92	107	114	6.6	32	30-230
Hexachlorobut	0.0	50	60.38	54.77	121	110	9.7	18	70-156
Naphthalene	0.0	50	50.56	59.78	101	120	16.7	42	17-260
1,2,3-Trichlo	0.0	50	51.73	57.72	103	115	11.0	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID: 30746003.D Lab Sample ID: BUW148ABK BLA

Date Analyzed: 11/1/01 Time Analyzed: 9:26

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 1	BUW148ALCS LCS 11-01	30746004.D	10:05
02	3609CMS	110611-1 MS	30746005.D	10:48
03	3609CMSD	110611-1 MSD	30746006.D	11:31
04	3609C	110611-1	30746007.D	12:14
05	3627A	110611-2	30746012.D	15:48
06	3628B	110611-3	30746013.D	16:32
07	36TB3	110611-4	30746014.D	17:12
08	3609CDL	110611-1 2.5ML 10X	30746015.D	17:51

COMMENTS

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBB

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID: 30747003.D Lab Sample ID: BUW149ABK BLA

Date Analyzed: 11/2/01 Time Analyzed: 10:35

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 2	BUW149ALCS LCS 11-02	30747004.D	11:19
02	3628BMSDL	110611-3 MS 5.00ML 5X	30747005.D	12:03
03	3628BMSDDL	110611-3 MSD 5.00ML 5	30747006.D	12:44
04	3628BDL	110611-3 5.00ML 5X	30747007.D	13:25

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID: 30746001.D BFB Injection Date: 11/1/01

Instrument ID: BUBBA BFB Injection Time: 8:05

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	69.5
175	4.0 - 9.0% of mass 174	5.0 (7.2)1
176	93.0 - 101.0% of mass 174	67.3 (96.9)1
177	5.0 - 9.0% of mass 176	4.4 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30746002.D	11/1/01	8:46
02	VBLKBA	BUW148ABK BLANK 11-	30746003.D	11/1/01	9:26
03	LCS 1	BUW148ALCS LCS 11-01	30746004.D	11/1/01	10:05
04	3609CMS	110611-1 MS	30746005.D	11/1/01	10:48
05	3609CMSD	110611-1 MSD	30746006.D	11/1/01	11:31
06	3609C	110611-1	30746007.D	11/1/01	12:14
07	3627A	110611-2	30746012.D	11/1/01	15:48
08	3628B	110611-3	30746013.D	11/1/01	16:32
09	36TB3	110611-4	30746014.D	11/1/01	17:12
10	3609CDL	110611-1 2.5ML 10X	30746015.D	11/1/01	17:51

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID: 30747001.D BFB Injection Date: 11/2/01

Instrument ID: BUBBA BFB Injection Time: 9:13

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.1
75	30.0 - 66.0% of mass 95	43.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	69.1
175	4.0 - 9.0% of mass 174	4.8 (7.0)1
176	93.0 - 101.0% of mass 174	68.6 (99.2)1
177	5.0 - 9.0% of mass 176	4.3 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BB	10PPB VOA STD	30747002.D	11/2/01	9:55
02	VBLKBB	BUW149ABK BLANK 11-	30747003.D	11/2/01	10:35
03	LCS 2	BUW149ALCS LCS 11-02	30747004.D	11/2/01	11:19
04	3628BMSDL	110611-3 MS 5.00ML 5X	30747005.D	11/2/01	12:03
05	3628BMSDDL	110611-3 MSD 5.00ML 5	30747006.D	11/2/01	12:44
06	3628BDL	110611-3 5.00ML 5X	30747007.D	11/2/01	13:25

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------	----------	ISTD	----------	----------	----------		
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------	----------	ISTD	----------	----------	----------		
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

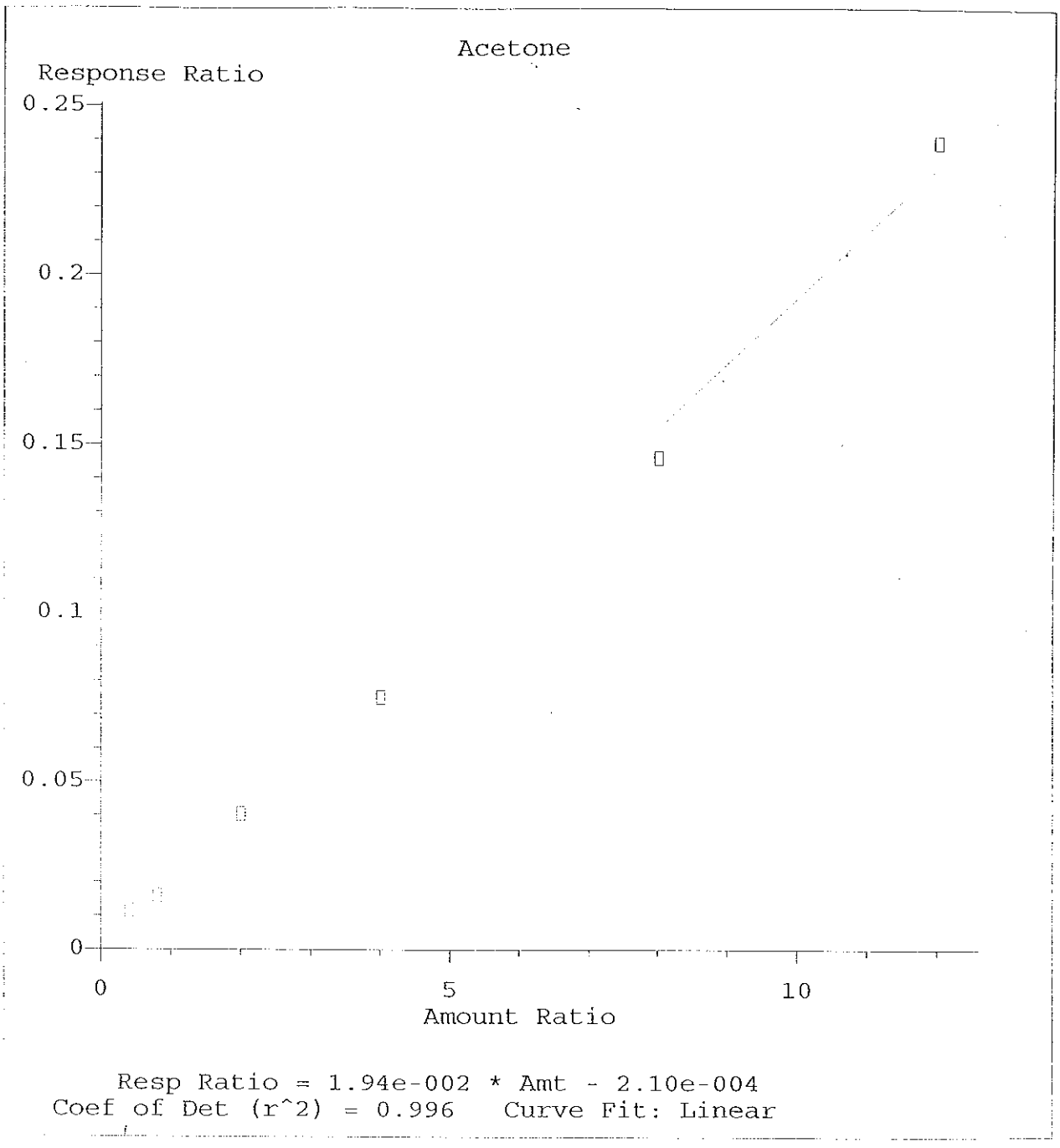
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integra
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

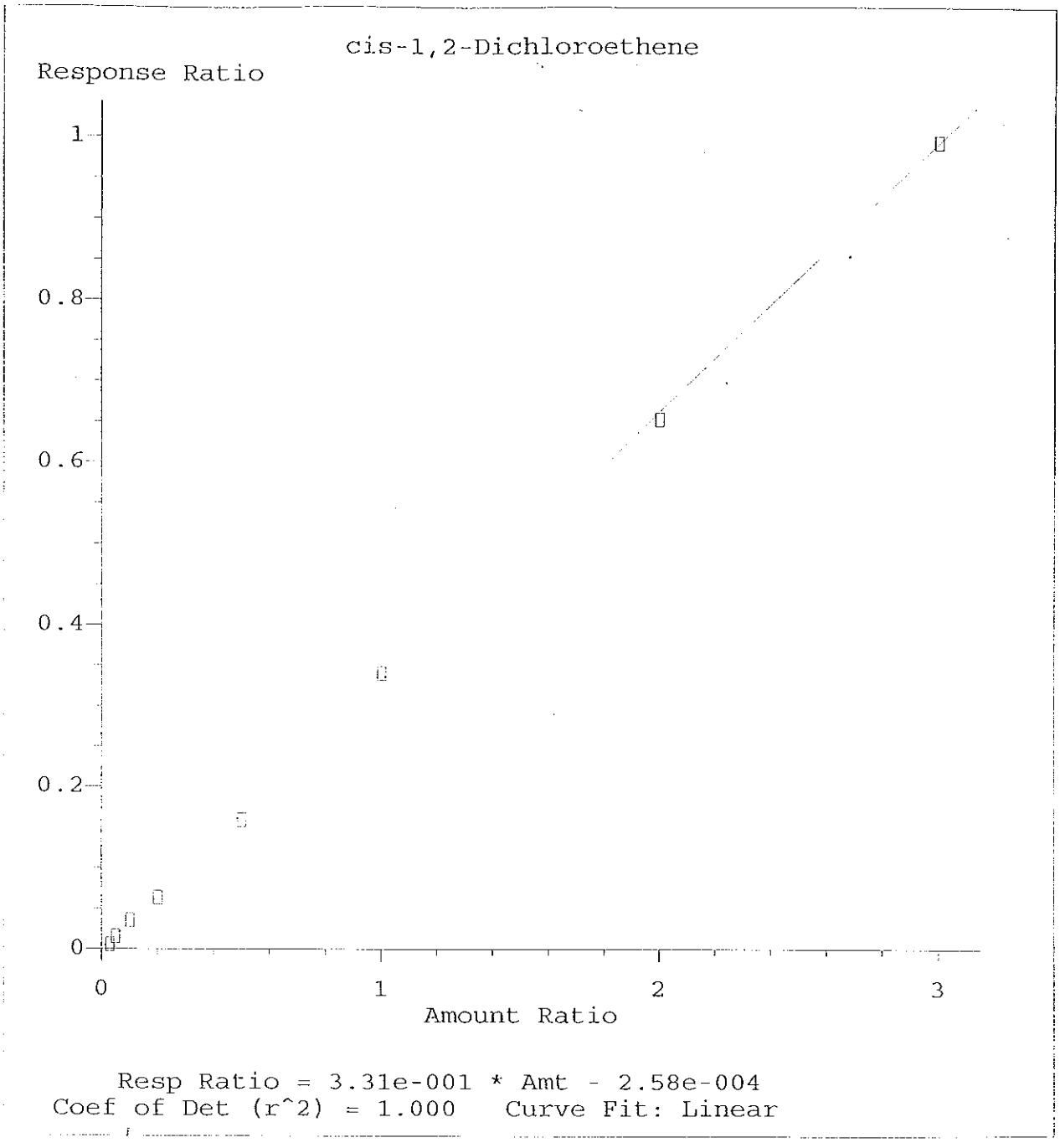
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

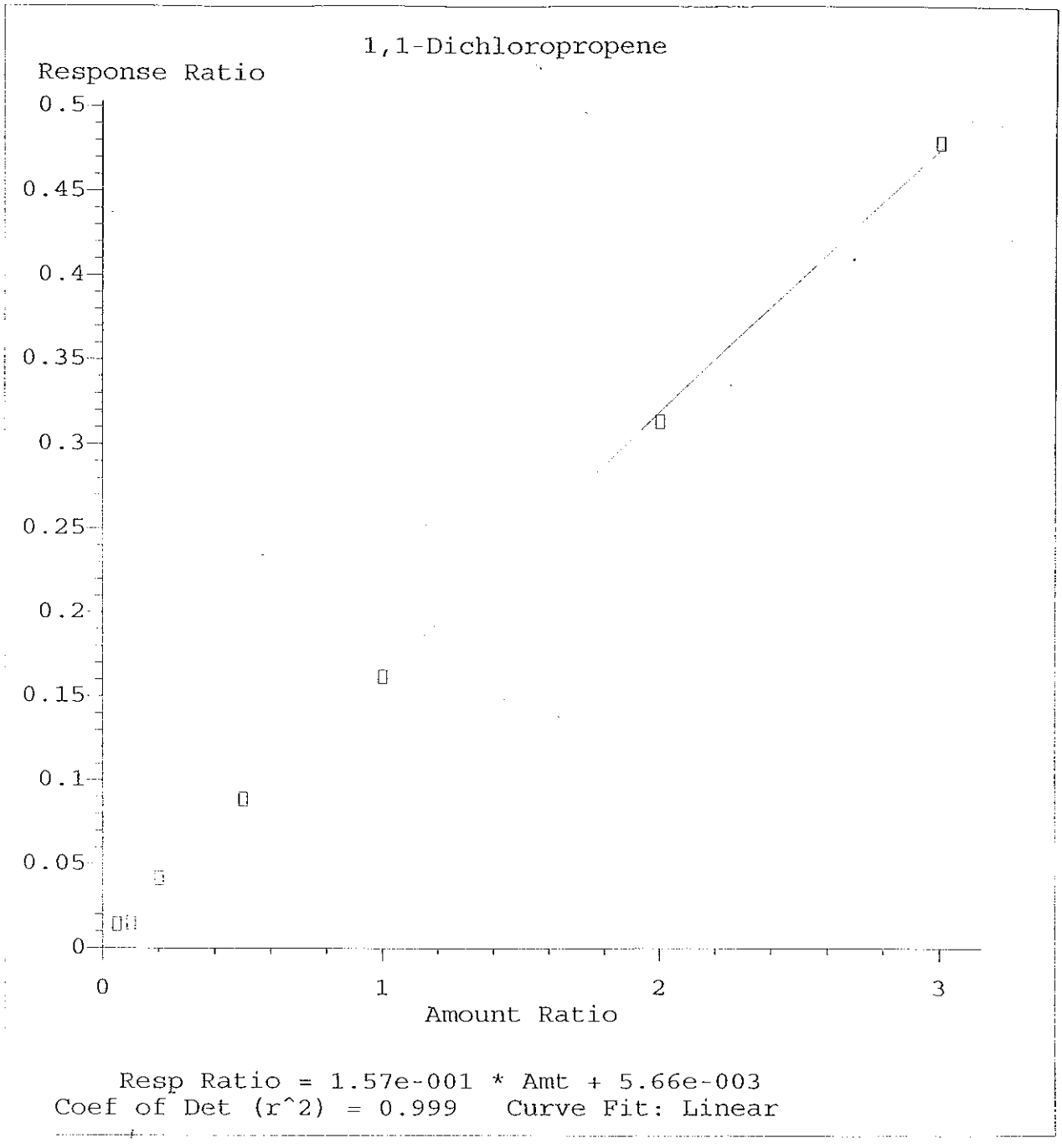
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



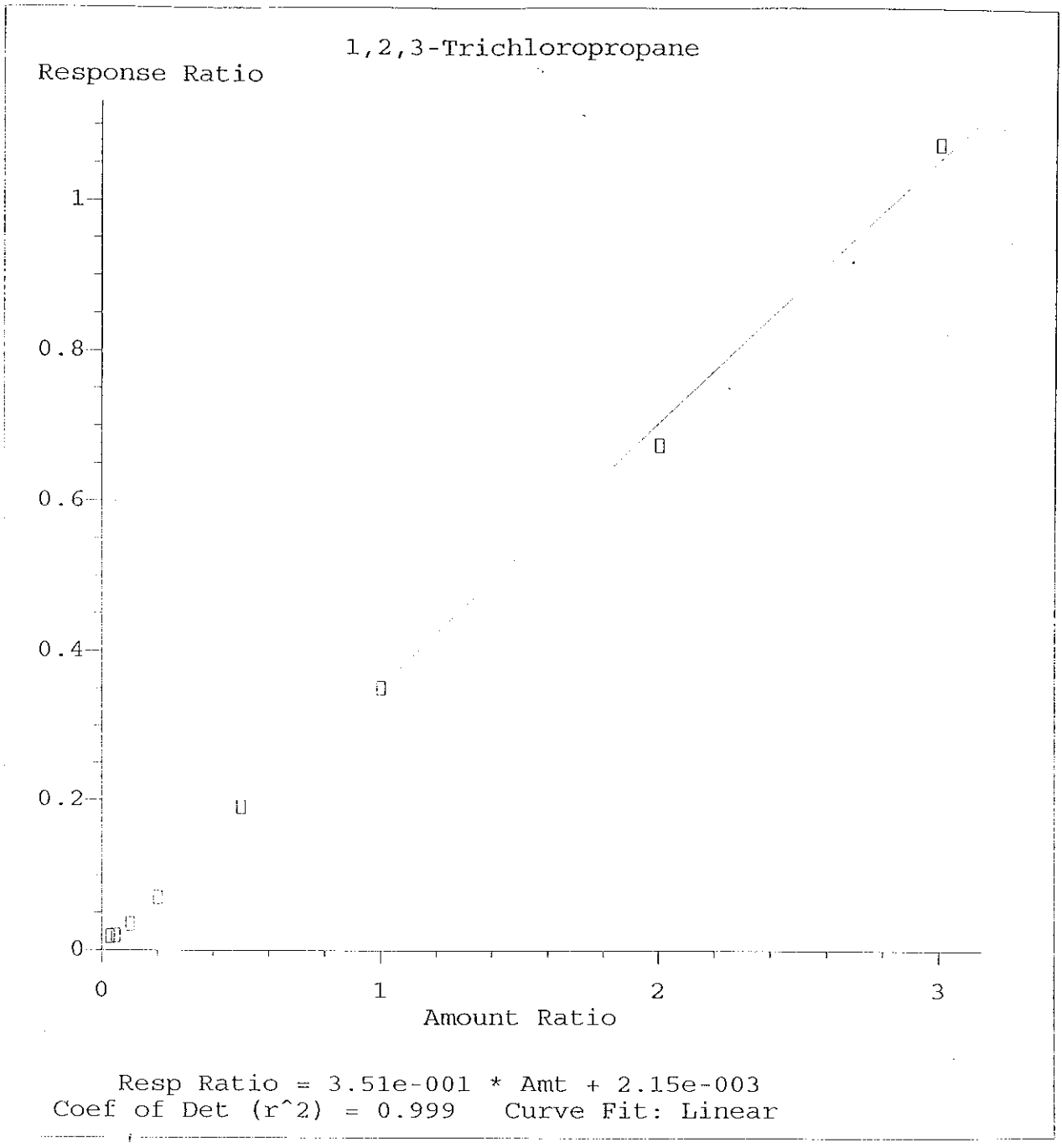
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



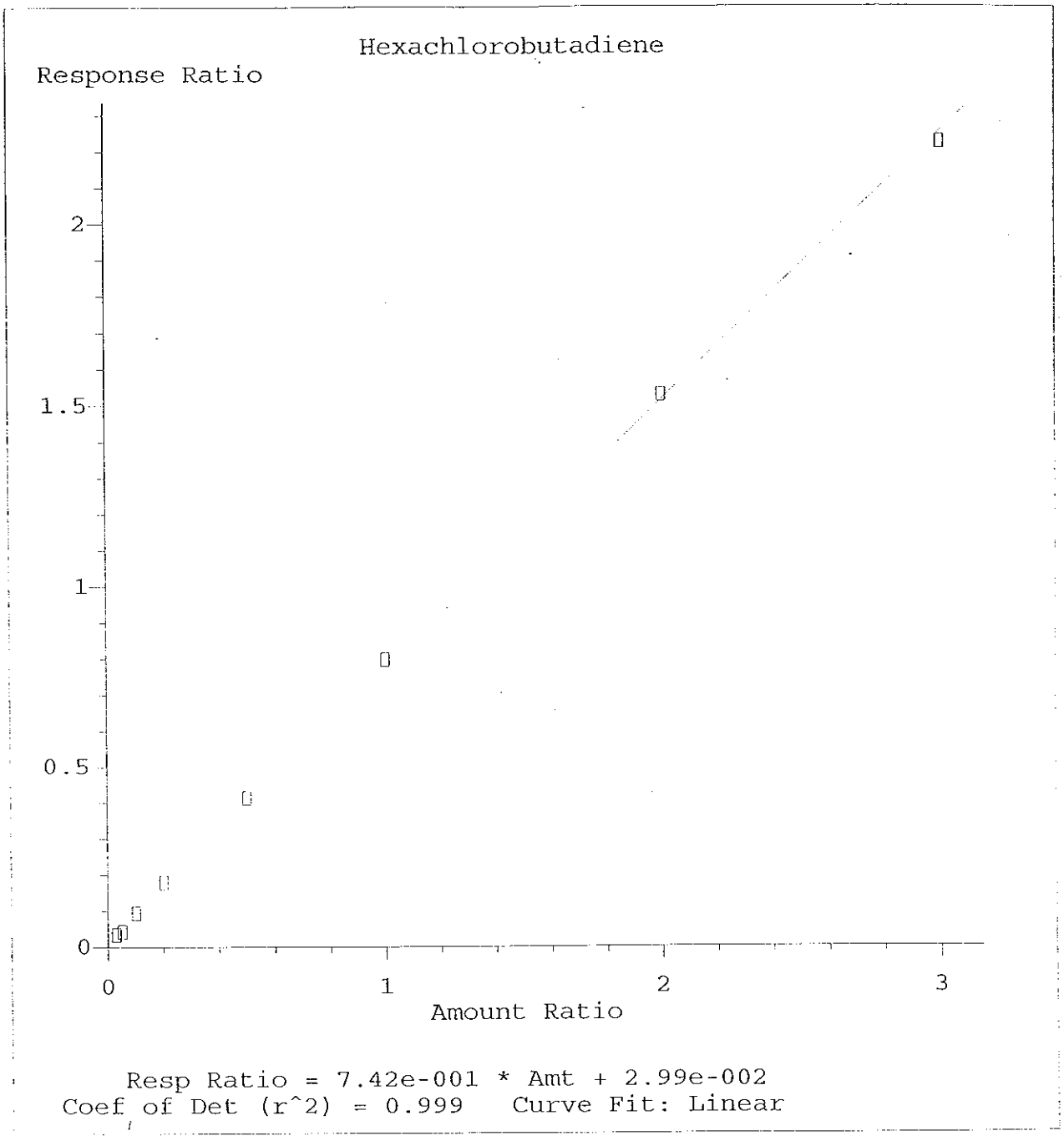
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 14:48:19 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	102	0.00
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	101	0.00
3	PM	Chloromethane	0.324	0.308	4.9	99	0.00
4	CM	Vinyl chloride	0.340	0.321	5.6#	101	0.00
5	TM	Bromomethane	0.307	0.276	10.1	95	0.00
6	TM	Chloroethane	0.199	0.190	4.5	99	0.00
7	TM	Trichlorofluoromethane	0.557	0.546	2.0	102	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	101	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.367	8.9	93	0.00
11	TM	Carbon disulfide	1.028	0.982	4.5	99	0.00
12	TM	Methylene chloride	0.267	0.259	3.0	99	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.348	4.1	98	0.00
14	TM	Methyl tert-butyl ether	0.399	0.414	-3.8	106	0.00
15	PM	1,1-Dichloroethane	0.645	0.622	3.6	99	0.00
16	TM	Vinyl acetate	0.489	0.484	1.0	101	0.00
17	TM	Isopropyl ether	1.015	1.030	-1.5	101	0.00
18	TM	2,2-Dichloropropane	0.478	0.446	6.7	94	0.00
19	TM	2-Butanone	0.040	0.042#	-5.0	106	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.320	-2.9	96	0.00
21	TM	Bromochloromethane	0.130	0.135	-3.8	106	0.00
22	CM	Chloroform	0.645	0.620	3.9#	99	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.528	2.0	99	0.00
24	S	s-Dibromofluoromethane	0.463	0.465	-0.4	102	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.459	8.2	101	0.00
27	TM	1,1-Dichloropropene	0.186	0.164	11.8	102	0.00
28	TM	Benzene	1.086	1.048	3.5	99	0.00
29	TM	1,2-Dichloroethane	0.217	0.208	4.1	99	0.00
30	TM	Trichloroethene	0.437	0.419	4.1	100	0.00
31	CM	1,2-Dichloropropane	0.363	0.352	3.0#	99	0.00
32	TM	Dibromomethane	0.162	0.163	-0.6	103	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.063	-5.0	101	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.395	-1.0	102	0.00
36	S	s-Toluene-d8	0.947	0.957	-1.1	101	0.00
37	CM	Toluene	0.699	0.665	4.9#	99	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.251	-4.1	103	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.162	0.0	103	0.00
40	TM	Tetrachloroethene	0.505	0.484	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 14:48:19 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.313	-1.3	103	0.00
42	TM	Dibromochloromethane	0.295	0.301	-2.0	103	0.00
43	TM	1,2-Dibromoethane	0.200	0.205	-2.5	103	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.118	-3.5	110	0.00
45	TM	2-Hexanone	0.069	0.076	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
47	PM	Chlorobenzene	1.050	0.994	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.451	3.0	100	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	95	0.00
50	CM	Ethylbenzene	0.567	0.530	6.5#	99	0.00
51	TM	m,p-Xylene	0.683	0.651	4.7	98	0.00
52	TM	o-Xylene	0.635	0.607	4.4	98	0.00
53	TM	Styrene	1.007	0.987	2.0	99	0.00
54	PM	Bromoform	0.245	0.259	-5.7	106	0.00
55	TM	Isopropylbenzene	2.040	1.960	3.9	99	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.775	-2.0	102	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
58	TM	Bromobenzene	0.928	0.866	6.7	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	105	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.363	8.1	106	0.00
61	TM	n-Propylbenzene	0.909	0.863	5.1	99	0.00
62	TM	2-Chlorotoluene	0.856	0.773	9.7	99	0.00
63	TM	4-Chlorotoluene	2.990	2.831	5.3	101	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.572	7.6	99	0.00
65	TM	tert-Butylbenzene	1.825	1.685	7.7	101	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.306	5.6	97	0.00
67	TM	sec-Butylbenzene	4.012	3.803	5.2	100	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.588	7.1	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	100	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.534	5.9	105	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.278	6.0	101	0.00
72	TM	n-Butylbenzene	2.797	2.892	-3.4	100	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	106	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.804	-5.4	105	0.00
75	TM	Hexachlorobutadiene	0.873	0.803	8.0	103	0.00
76	TM	Naphthalene	0.582	0.627	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.605	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 14:48:19 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	102	0.00
2	TM	Dichlorodifluoromethane	10.000	9.346	6.5	101	0.00
3	PM	Chloromethane	10.000	9.498	5.0	99	0.00
4	CM	Vinyl chloride	10.000	9.443	5.6#	101	0.00
5	TM	Bromomethane	10.000	8.996	10.0	95	0.00
6	TM	Chloroethane	10.000	9.510	4.9	99	0.00
7	TM	Trichlorofluoromethane	10.000	9.813	1.9	102	0.00
8	CM	1,1-Dichloroethene	10.000	9.629	3.7#	101	0.00
9	TM	Acetone	40.000	40.305	-0.8	106	0.00
10	TM	Iodomethane	10.000	9.123	8.8	93	0.00
11	TM	Carbon disulfide	10.000	9.551	4.5	99	0.00
12	TM	Methylene chloride	10.000	9.687	3.1	99	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.581	4.2	98	0.00
14	TM	Methyl tert-butyl ether	10.000	10.363	-3.6	106	0.00
15	PM	1,1-Dichloroethane	10.000	9.644	3.6	99	0.00
16	TM	Vinyl acetate	20.000	19.788	1.1	101	0.00
17	TM	Isopropyl ether	10.000	10.145	-1.4	101	0.00
18	TM	2,2-Dichloropropane	10.000	9.333	6.7	94	0.00
19	TM	2-Butanone	40.000	41.098	-2.7	106	0.00
20	TM	cis-1,2-Dichloroethene	10.000	9.710	2.9	96	0.00
21	TM	Bromochloromethane	10.000	10.443	-4.4	106	0.00
22	CM	Chloroform	10.000	9.602	4.0#	99	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.793	2.1	99	0.00
24	S	s-Dibromofluoromethane	10.000	10.049	-0.5	102	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	9.189	8.1	101	0.00
27	TM	1,1-Dichloropropene	10.000	10.116	-1.2	102	0.00
28	TM	Benzene	10.000	9.653	3.5	99	0.00
29	TM	1,2-Dichloroethane	10.000	9.602	4.0	99	0.00
30	TM	Trichloroethene	10.000	9.579	4.2	100	0.00
31	CM	1,2-Dichloropropane	10.000	9.687	3.1#	99	0.00
32	TM	Dibromomethane	10.000	10.090	-0.9	103	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.519	-5.2	101	0.00
34	TM	Bromodichloromethane	10.000	9.821	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	10.000	10.100	-1.0	102	0.00
36	S	s-Toluene-d8	10.000	10.098	-1.0	101	0.00
37	CM	Toluene	10.000	9.521	4.8#	99	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.394	-3.9	103	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.976	0.2	103	0.00
40	TM	Tetrachloroethene	10.000	9.579	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 14:48:19 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.115	-1.2	103	0.00
42	TM	Dibromochloromethane	10.000	10.203	-2.0	103	0.00
43	TM	1,2-Dibromoethane	10.000	10.232	-2.3	103	0.00
44	TM	4-Methyl-2-pentanone	40.000	41.561	-3.9	110	0.00
45	TM	2-Hexanone	40.000	44.026	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	101	0.00
47	PM	Chlorobenzene	10.000	9.469	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.709	2.9	100	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	95	0.00
50	CM	Ethylbenzene	10.000	9.341	6.6#	99	0.00
51	TM	m,p-Xylene	20.000	19.076	4.6	98	0.00
52	TM	o-Xylene	10.000	9.560	4.4	98	0.00
53	TM	Styrene	10.000	9.796	2.0	99	0.00
54	PM	Bromoform	10.000	10.581	-5.8	106	0.00
55	TM	Isopropylbenzene	10.000	9.606	3.9	99	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.198	-2.0	102	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	0.00
58	TM	Bromobenzene	10.000	9.324	6.8	102	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.656	3.4	105	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.251	-2.5	106	0.00
61	TM	n-Propylbenzene	10.000	9.496	5.0	99	0.00
62	TM	2-Chlorotoluene	10.000	9.031	9.7	99	0.00
63	TM	4-Chlorotoluene	10.000	9.471	5.3	101	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.238	7.6	99	0.00
65	TM	tert-Butylbenzene	10.000	9.235	7.7	101	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.442	5.6	97	0.00
67	TM	sec-Butylbenzene	10.000	9.480	5.2	100	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.293	7.1	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.696	3.0	100	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.410	5.9	105	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.405	6.0	101	0.00
72	TM	n-Butylbenzene	10.000	10.340	-3.4	100	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.003	-0.0	106	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.537	-5.4	105	0.00
75	TM	Hexachlorobutadiene	10.000	10.461	-4.6	103	0.00
76	TM	Naphthalene	10.000	10.768	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.633	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.00
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.00
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.00
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.00
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.00
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.00
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.00
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.00
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	0.00
37	CM	Toluene	0.699	0.656	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	0.00
45	TM	2-Hexanone	0.069	0.073	-5.8	106	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	0.00
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.00
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.00
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.00
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.00
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.00
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.00
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.00
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.00
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.00
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	0.00
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	0.00
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	0.00
37	CM	Toluene	10.000	9.383	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	0.00
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	0.00
45	TM	2-Hexanone	40.000	42.488	-6.2	106	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	0.00
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	0.00
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID (Standard): 30746002.D Date Analyzed: 11/1/01

Instrument ID: BUBBA Time Analyzed: 8:46

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	3027449	7.21	3043688	9.05	2174579	15.31
	UPPER LIMIT	6054898	7.71	6087376	9.55	4349158	15.81
	LOWER LIMIT	1513725	6.71	1521844	8.55	1087290	14.81
	EPA SAMPLE NO.						
01	VBLKBA	3173460	7.25	3152823	9.06	2245110	15.31
02	LCS 1	3117602	7.25	3081087	9.07	2131075	15.33
03	3609CMS	3072249	7.24	2998298	9.06	2053033	15.32
04	3609CMSD	3091188	7.25	3129479	9.06	2197938	15.31
05	3609C	2848937	7.22	2758973	9.06	1839341	15.32
06	3627A	3250463	7.22	3030860	9.06	2049129	15.32
07	3628B	3196050	7.22	3175920	9.05	2307612	15.31
08	36TB3	3036420	7.23	2919137	9.06	1947661	15.33
09	3609CDL	2907775	7.25	3034454	9.07	2197557	15.33

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID (Standard): 30746002.D Date Analyzed: 11/01/01

Instrument ID: BUBBA Time Analyzed: 08:46

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1234004	22.68				
	UPPER LIMIT	2468008	22.18				
	LOWER LIMIT	617002	23.18				
	EPA SAMPLE NO.						
01	VBLKBA	1088520	22.68				
02	LCS 1	1195267	22.70				
03	3609CMS	1111202	22.69				
04	3609CMSD	1240862	22.69				
05	3609C	831719	22.69				
06	3627A	958963	22.70				
07	3628B	1134134	22.68				
08	36TB3	882664	22.69				
09	3609CDL	1092338	22.70				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID (Standard): 30747002.D Date Analyzed: 11/2/01

Instrument ID: BUBBA Time Analyzed: 9:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2992359	7.21	3040284	9.04	2141284	15.30
	UPPER LIMIT	5984718	7.71	6080568	9.54	4282568	15.80
	LOWER LIMIT	1496180	6.71	1520142	8.54	1070642	14.80
	EPA SAMPLE NO.						
01	VBLKBB	3178649	7.23	3115359	9.05	2224472	15.31
02	LCS 2	3030766	7.22	3009380	9.06	2091671	15.31
03	3628BMSDL	3092066	7.22	3041235	9.04	2078003	15.30
04	3628BMSDDL	3136655	7.24	3157024	9.05	2246131	15.32
05	3628BDL	2847498	7.23	2706882	9.05	1838266	15.31

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110611

Lab File ID (Standard): 30747002.D Date Analyzed: 11/02/01

Instrument ID: BUBBA Time Analyzed: 09:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1216124	22.67				
	UPPER LIMIT	2432248	22.17				
	LOWER LIMIT	608062	23.17				
	EPA SAMPLE NO.						
01	VBLKBB	1077862	22.68				
02	LCS 2	1152357	22.68				
03	3628BMSDL	1130970	22.66				
04	3628BMSDDL	1272483	22.69				
05	3628BDL	825003	22.68				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. WC 10-31-01

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	ISTD							
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	ISTD							
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

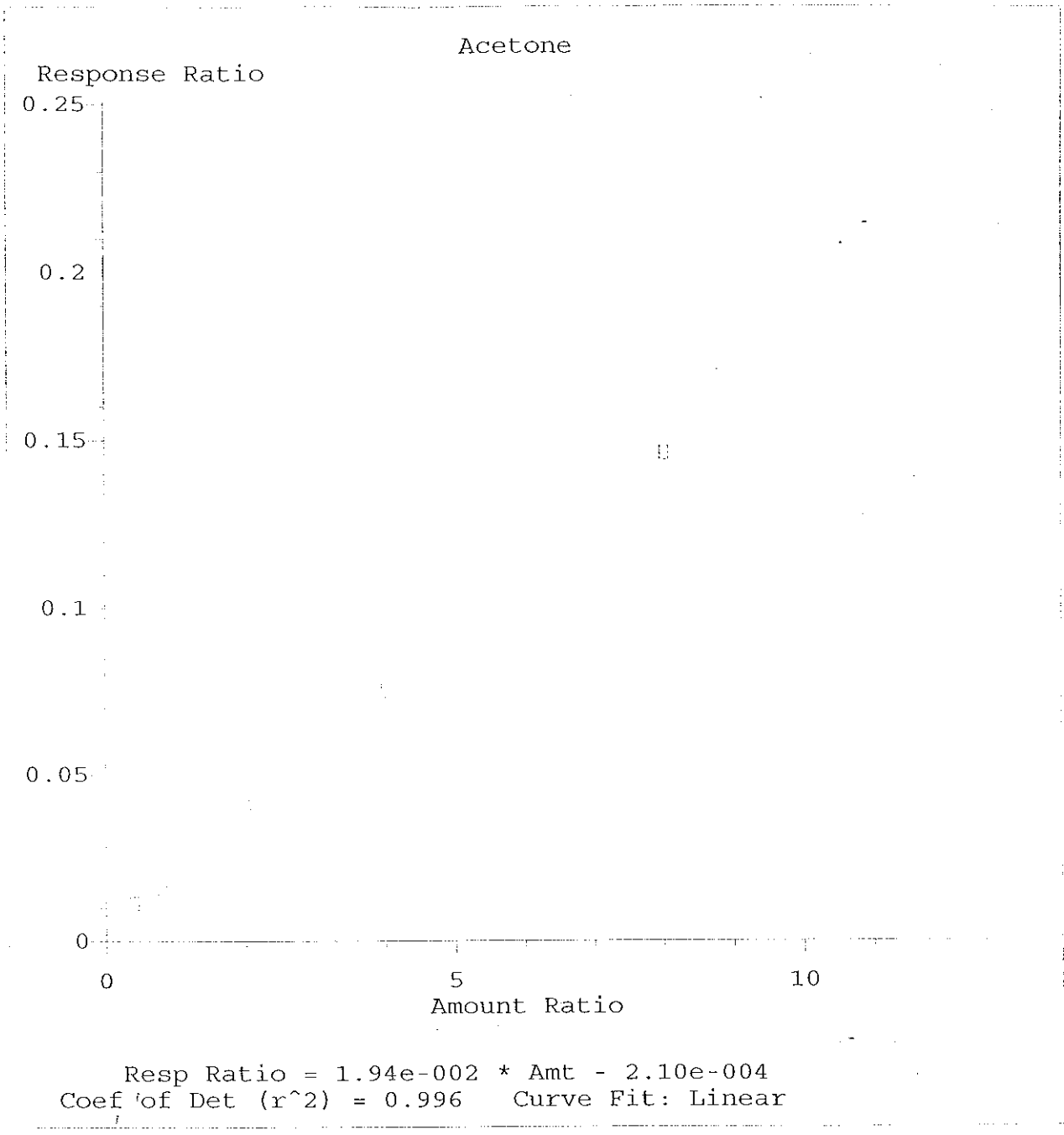
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

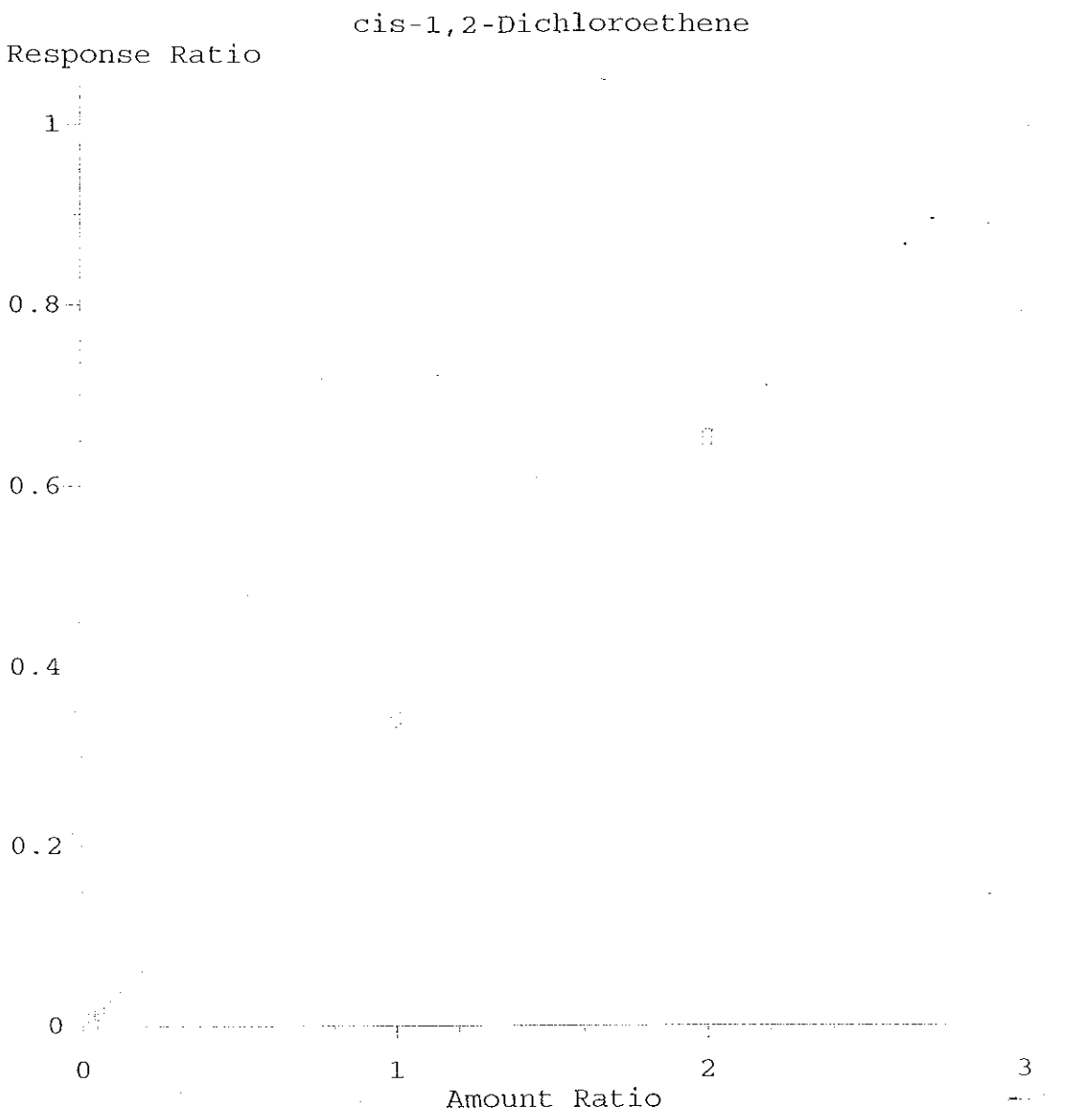
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

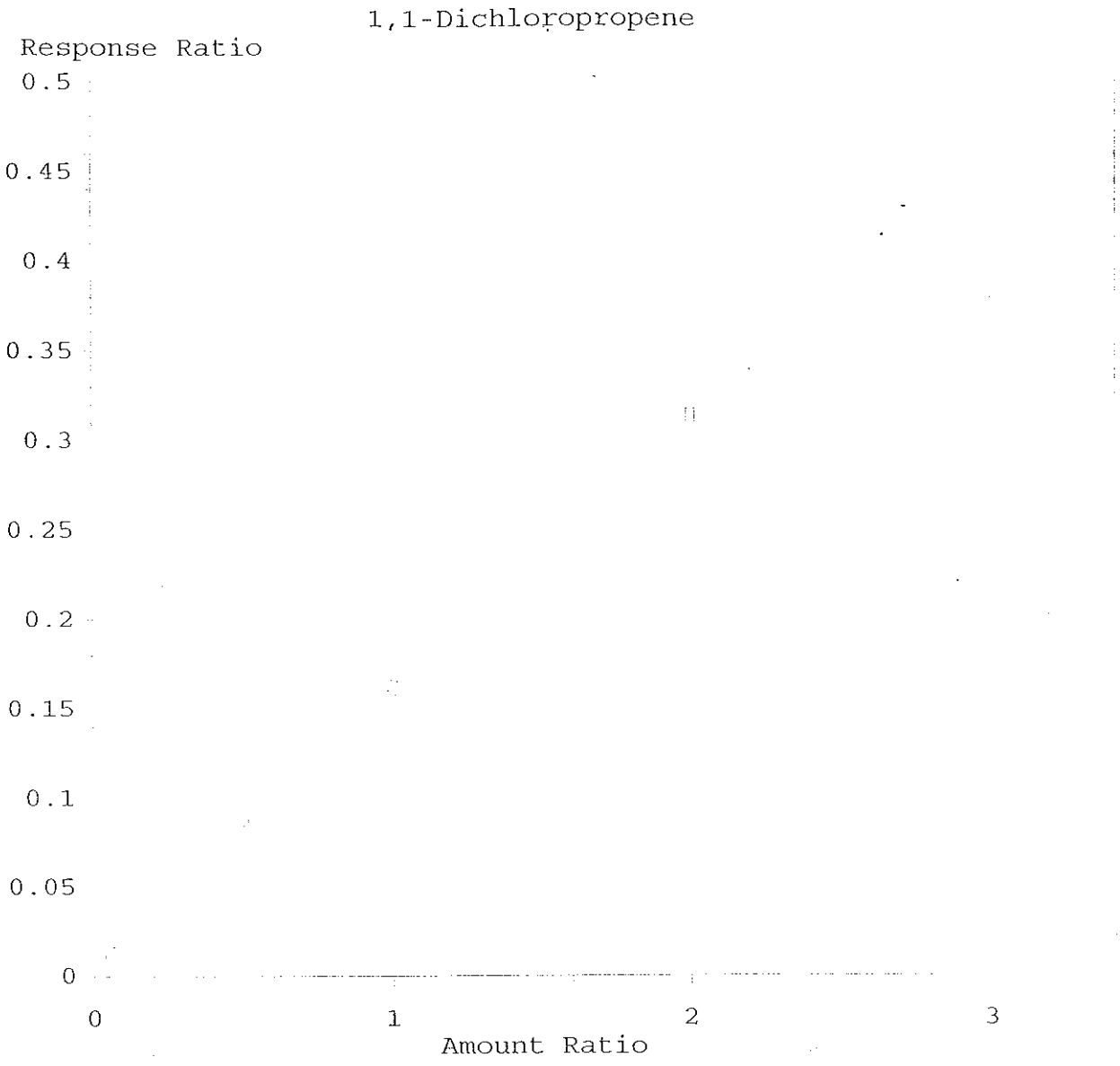


Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



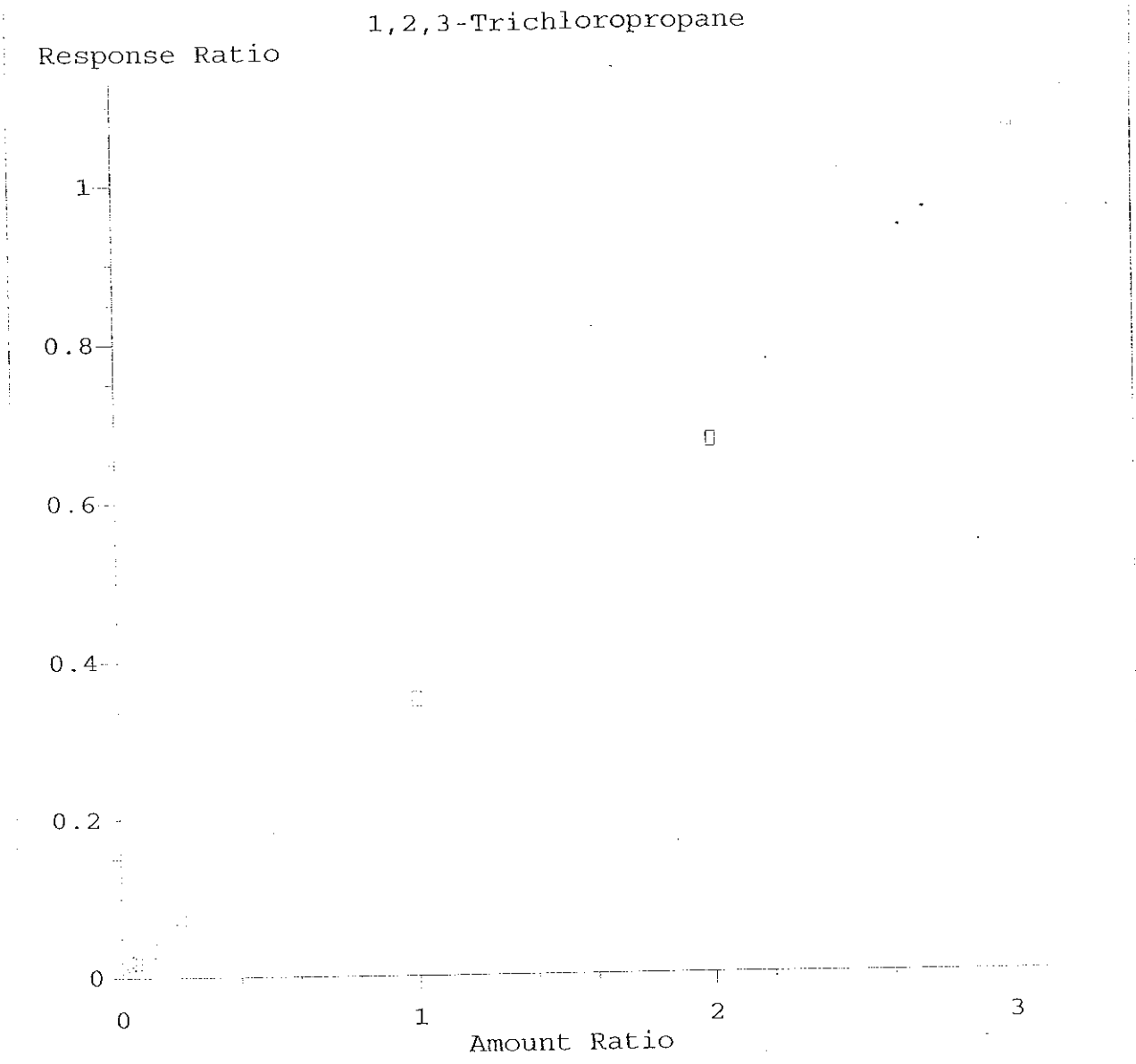
Resp Ratio = 3.31e-001 * Amt - 2.58e-004
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



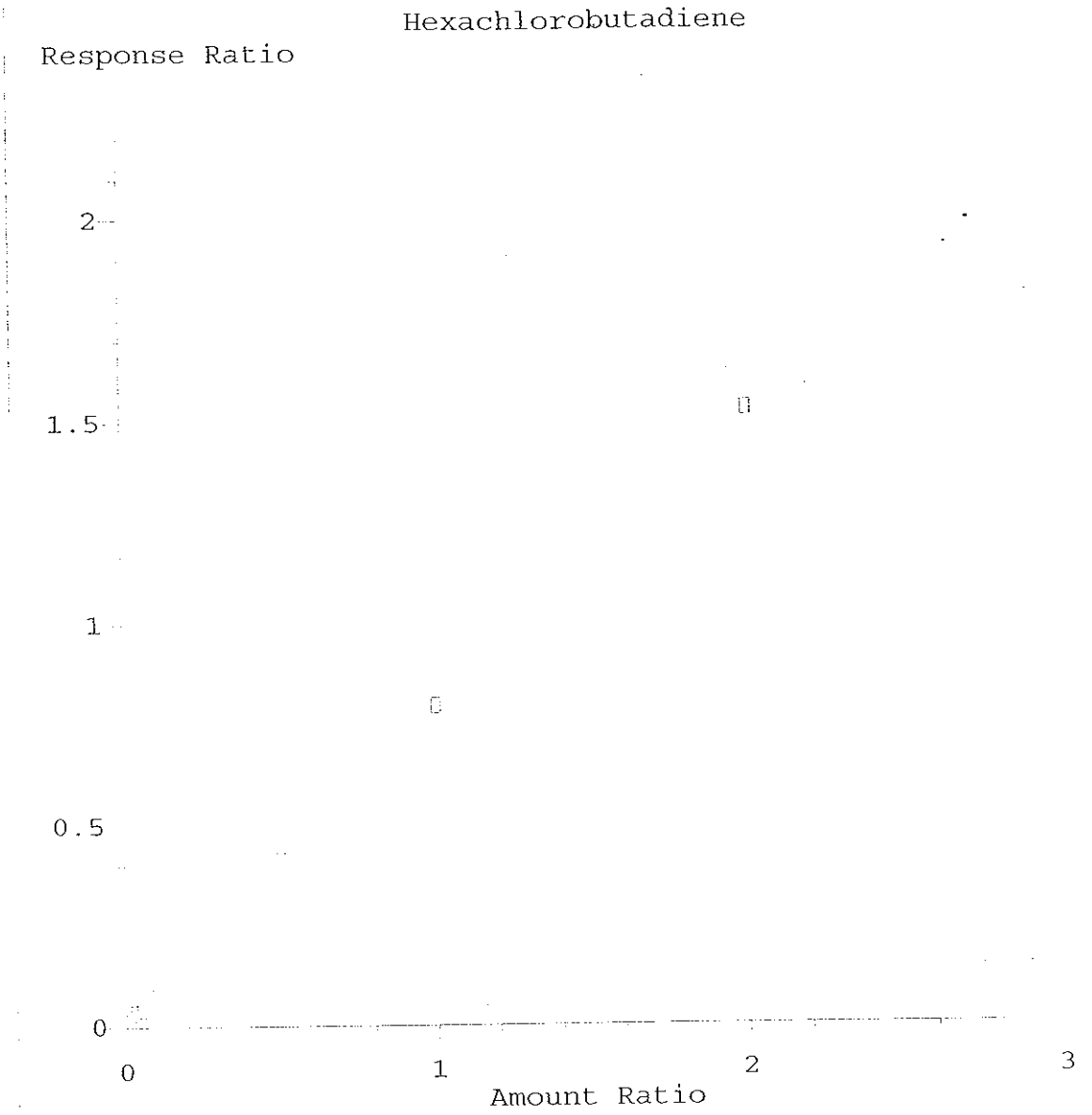
Resp Ratio = 1.57e-001 * Amt + 5.66e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 3.51e-001 * Amt + 2.15e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 7.42e-001 * Amt + 2.99e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1203723		22.66		0		0.00		0		0.00	
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00	
LOWER LIMIT	601862		22.16		0		0.00		0		0.00	
File ID Sample												
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00	
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00	
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00	
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00	
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00	
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00	
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00	
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00	
30744011 BLANK	784520		22.66		0		0.00		0		0.00	
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

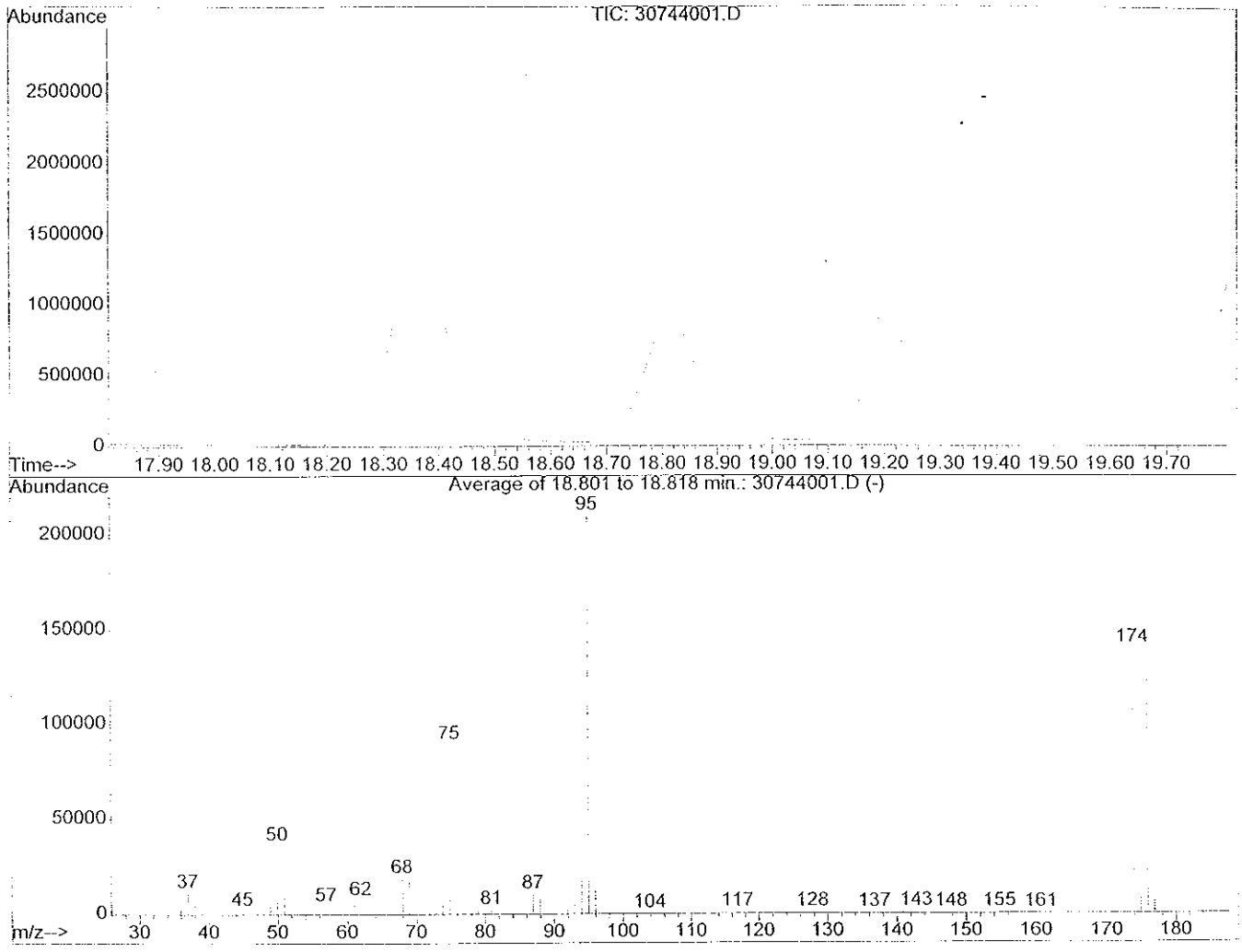
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

30744001.D V82625B1.M Tue Oct 30 10:41:16 2001

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09 ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77 ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70 ug/L	100
28)	Benzene	7.87	78	3218196	10.14 ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84 ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96 ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47 ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69 ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22 ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59 ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30 ug/L	99
37)	Toluene	12.46	92	2053124	10.21 ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75 ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12 ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95 ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81 ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93 ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96 ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11 ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30 ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92 ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08 ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68 ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15 ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80 ug/L	99
53)	Styrene	17.16	104	2162622	9.89 ug/L	100
54)	Bromoform	17.61	173	532882	10.82 ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52 ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92 ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92 ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84 ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36 ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57 ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48 ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42 ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35 ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56 ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26 ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94 ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23 ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65 ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72) n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74) 1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75) Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76) Naphthalene	28.32	128	709233	10.75	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

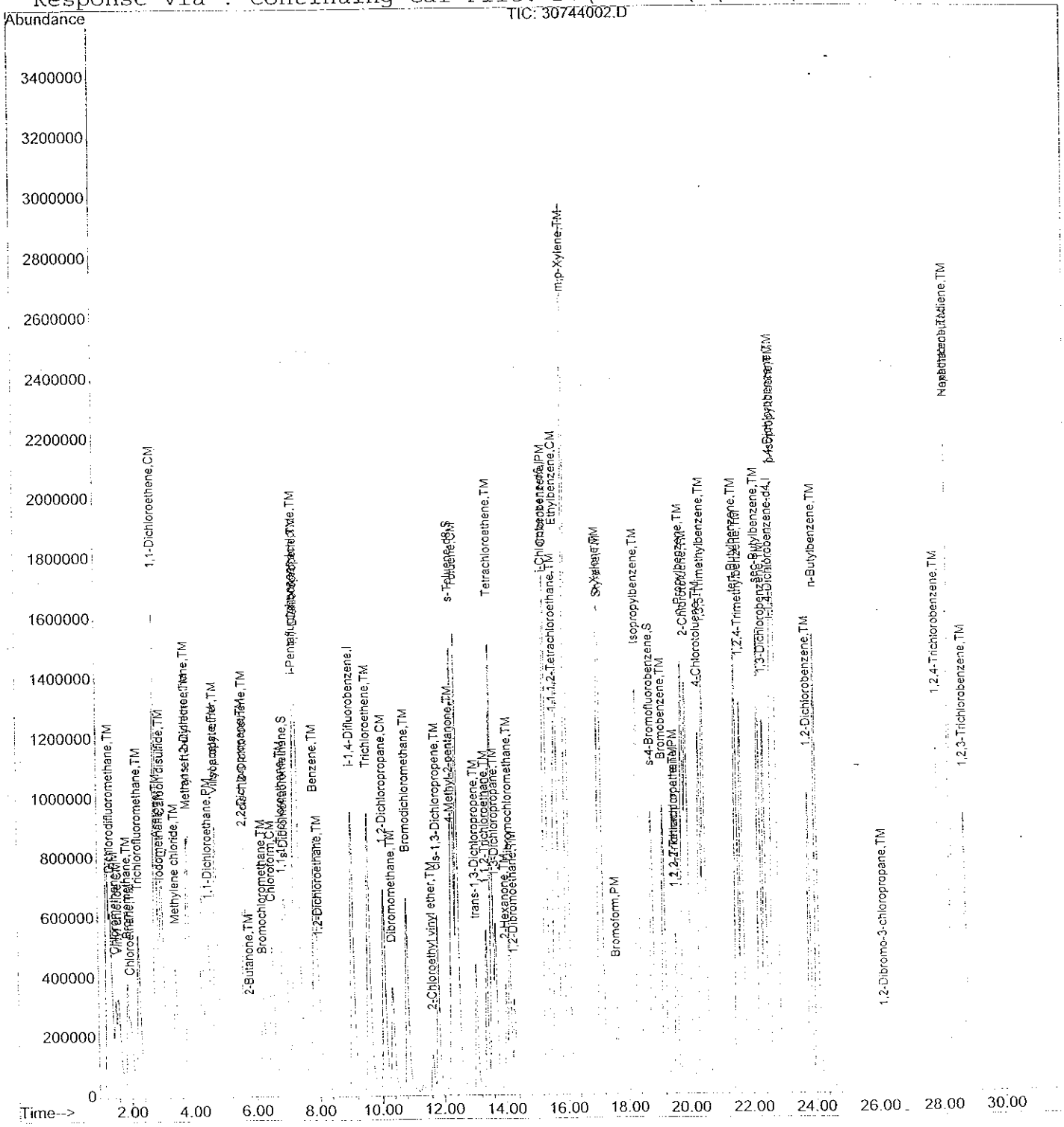
(#) = qualifier out of range (m) = manual integration

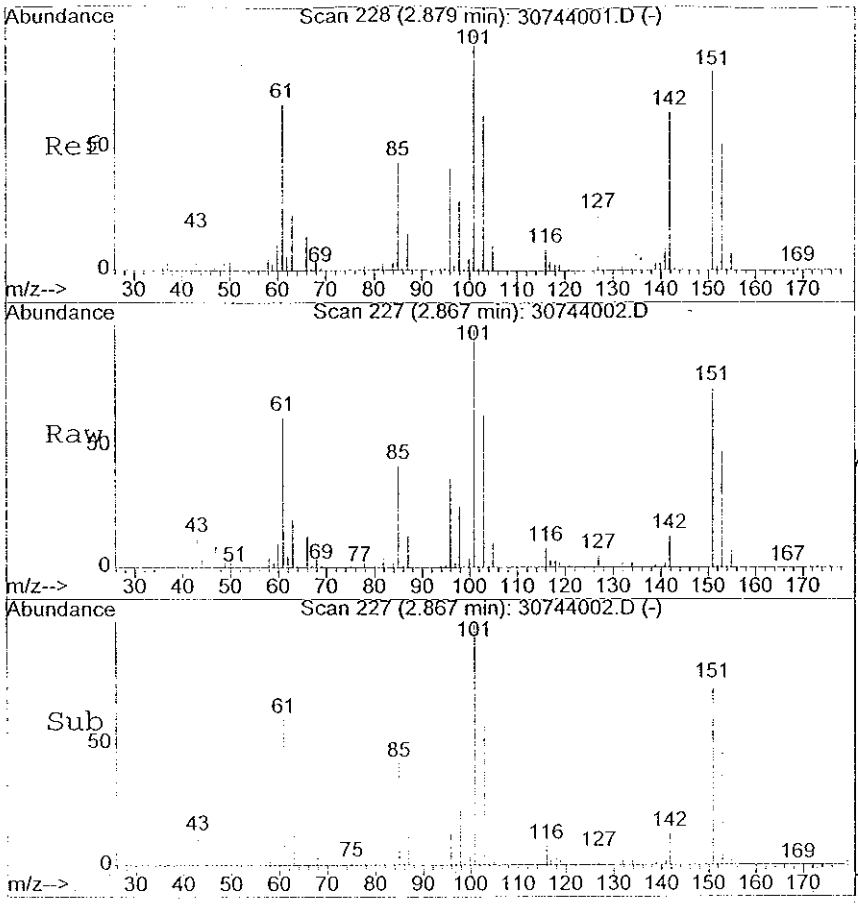
Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D

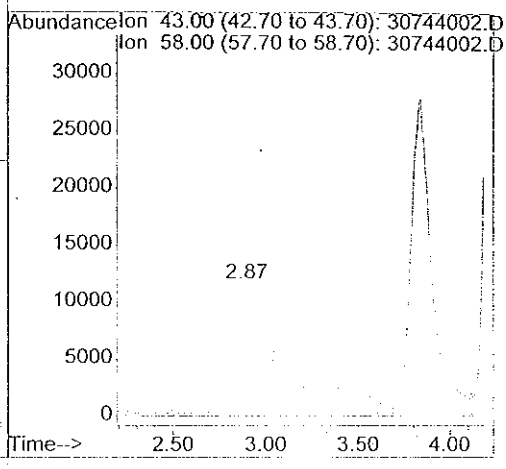




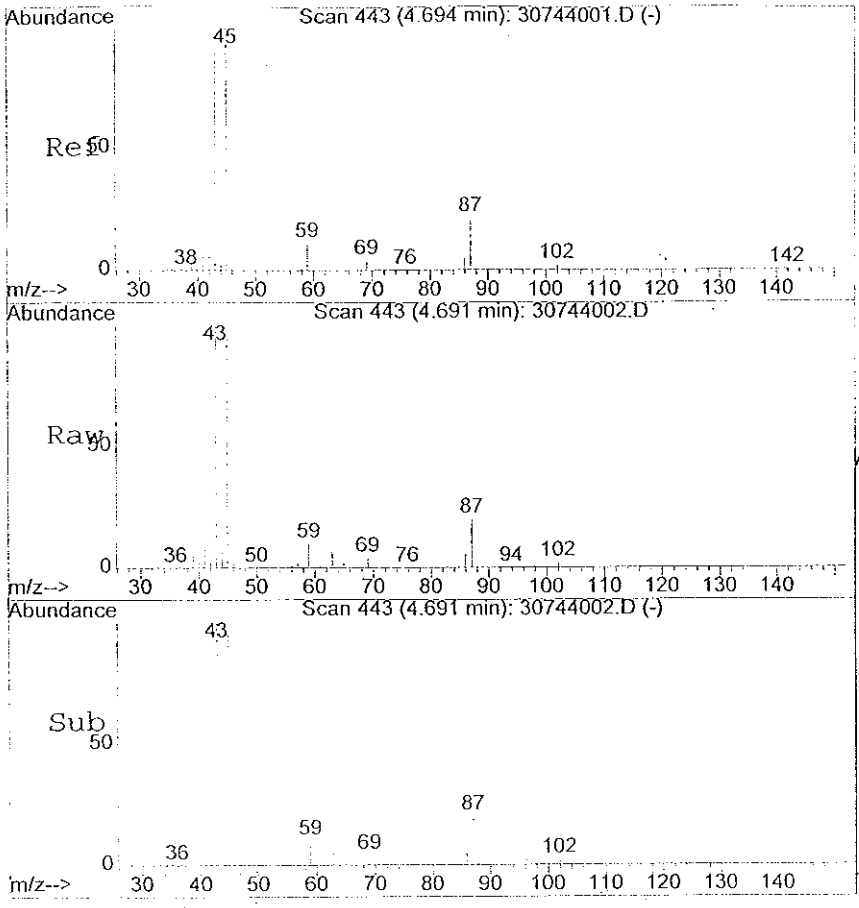
#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 222836

Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



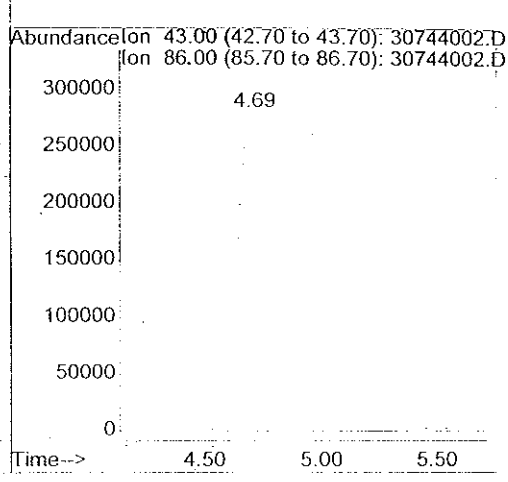
10-31



#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 2908842

Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



10-31

for 13.31-01

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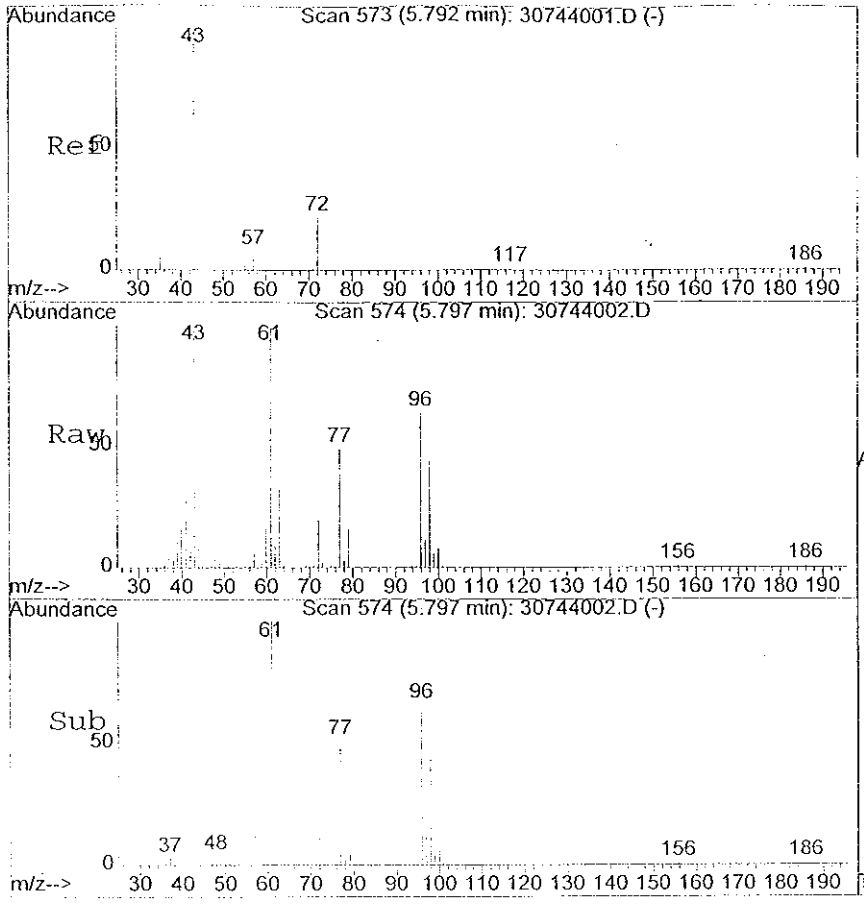
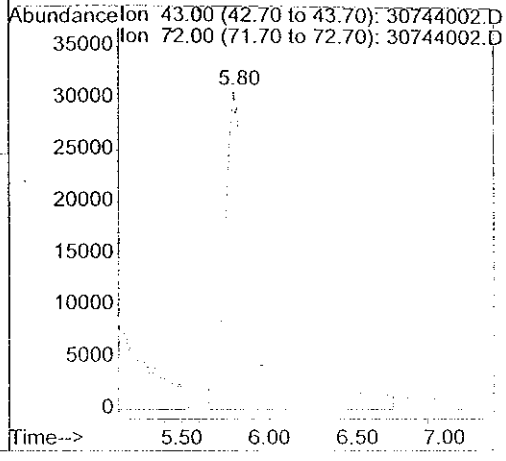


#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43	Resp:	472562	
Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



10-31

Init 10-31-01

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30744002.D V82625B1.M Acq :30 Oct 2001 9:23
Sample = 10ppb VOA STD Misc = 10ppb VOA STD

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26)	Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27)	1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28)	Benzene	7.87	78	1633119	5.05	ug/L	98
29)	1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30)	Trichloroethene	9.59	95	648267	5.04	ug/L	98
31)	1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32)	Dibromomethane	10.36	93	249630	5.17	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34)	Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35)	cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37)	Toluene	12.45	92	1033568	5.01	ug/L	98
38)	trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40)	Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41)	1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42)	Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43)	1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45)	2-Hexanone	14.01	43	437726	20.75	ug/L	99
47)	Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50)	Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51)	m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52)	o-Xylene	17.06	106	679324	5.08	ug/L	98
53)	Styrene	17.13	104	1097998	5.11	ug/L	100
54)	Bromoform	17.59	173	270430	5.10	ug/L	97
55)	Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58)	Bromobenzene	19.17	156	530064	5.23	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60)	1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61)	n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62)	2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63)	4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64)	1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65)	tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66)	1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67)	sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68)	1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69)	p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70)	1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

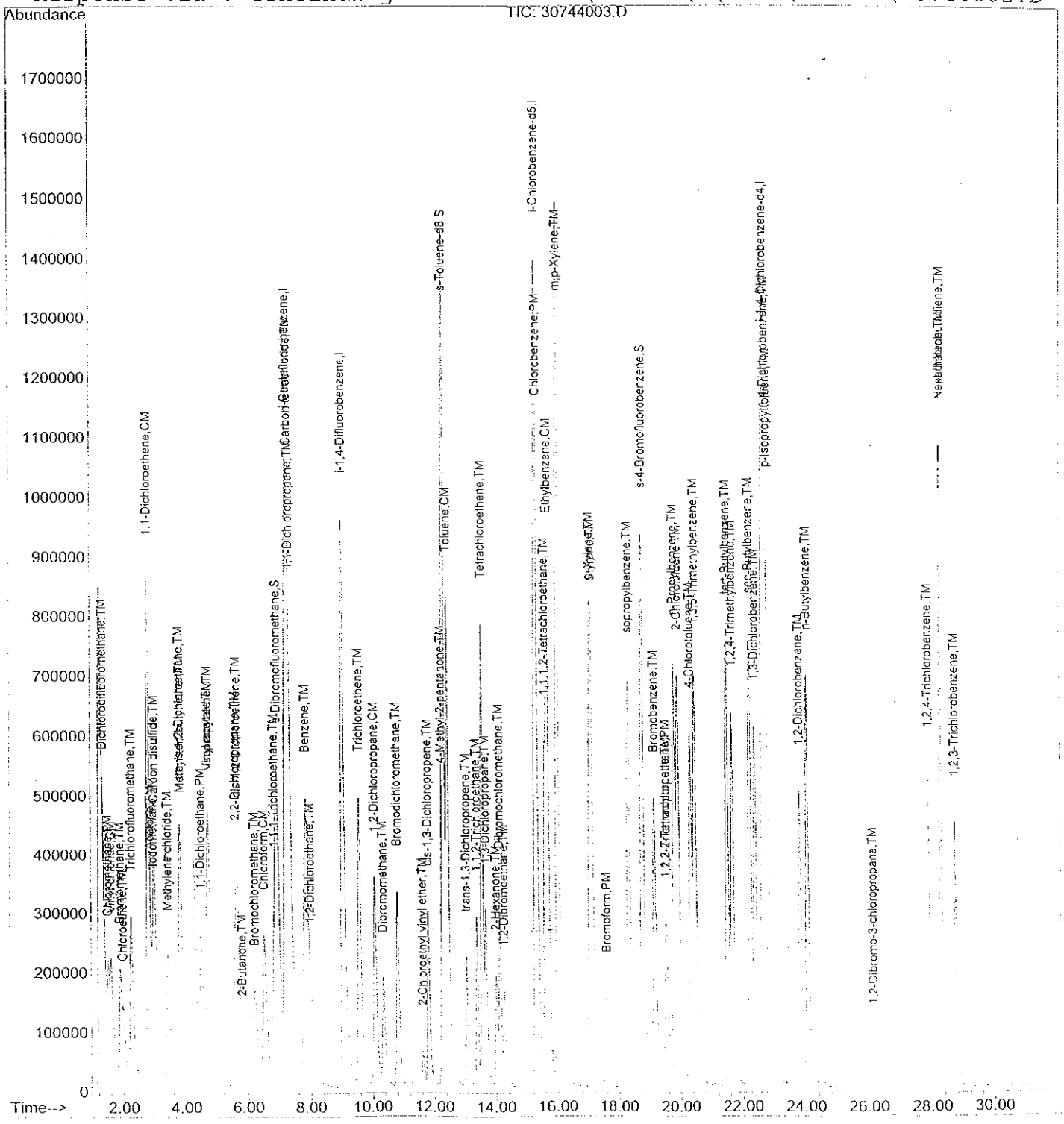
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

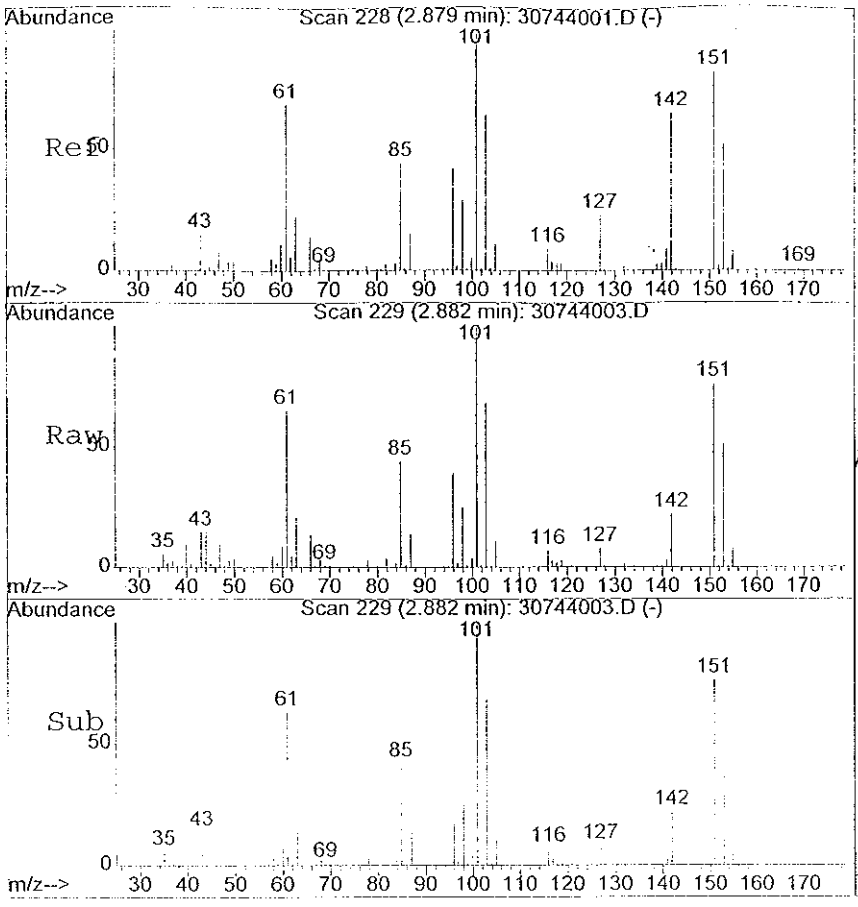
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72) n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73) 1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74) 1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75) Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76) Naphthalene	28.32	128	336450	4.89	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

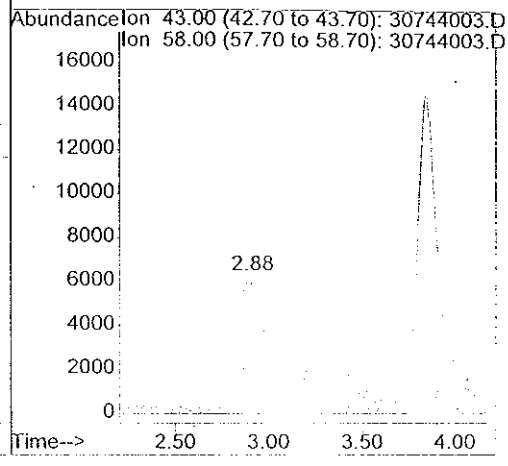




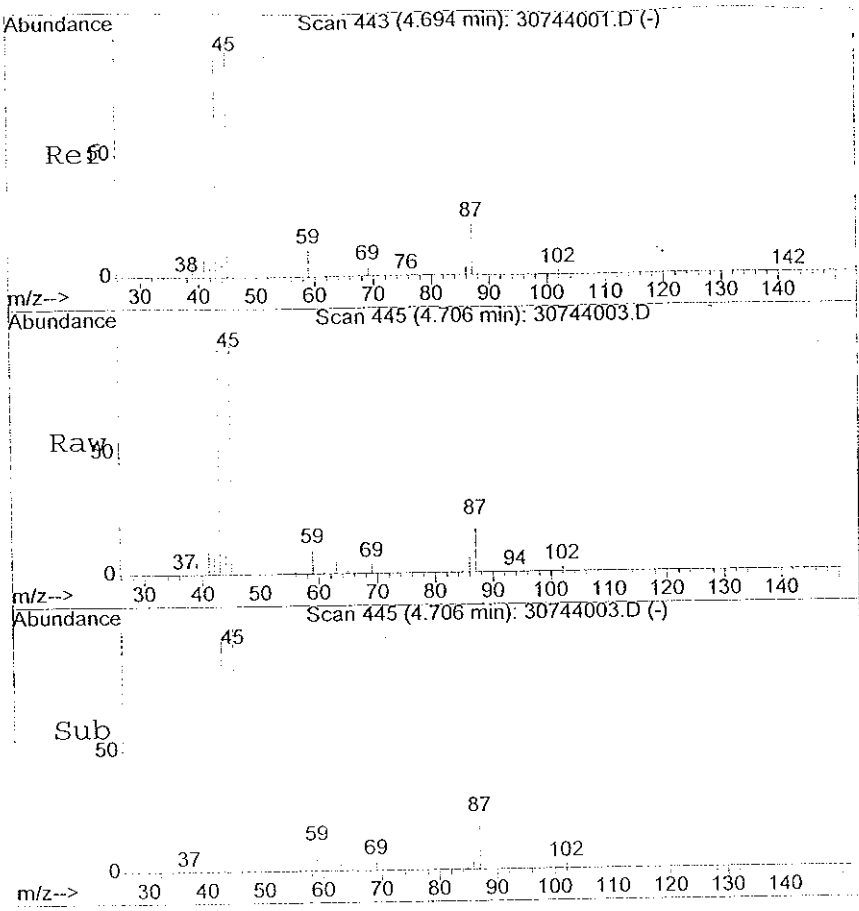
#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 123507

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



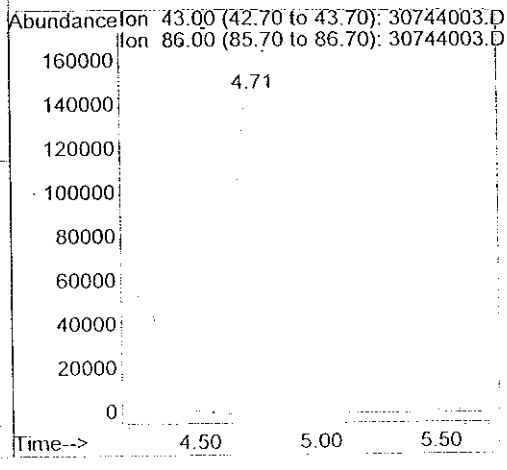
10-31



#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 1483176

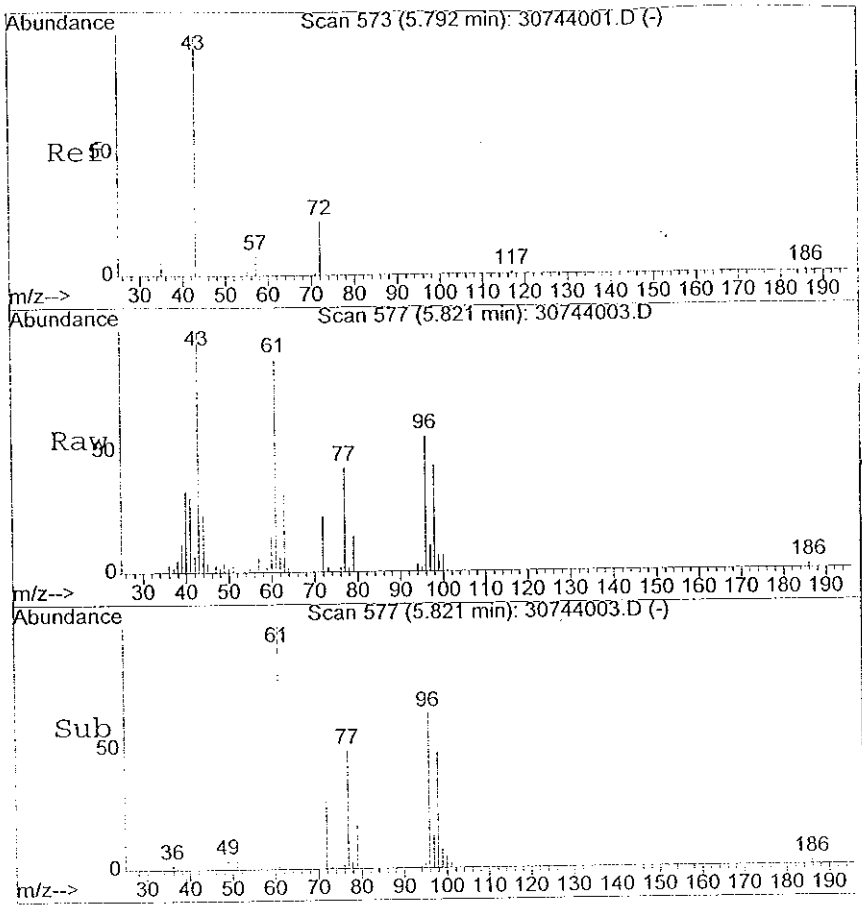
Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



10-31

10-31-01

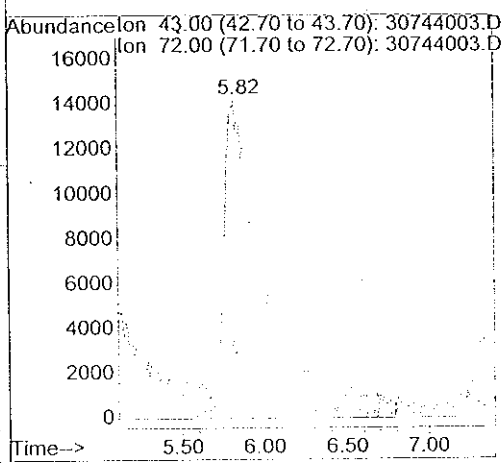
30744003.D V82625B1.M Acq :30 Oct 2001 10:04
Sample = 5.0ppb VOA STD Misc = 5.0ppb VOA STD



#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 252935

Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



10-31

10-31-01

355

Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 / 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 / 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 / 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 / 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26)	Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27)	1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28)	Benzene	7.87	78	675144	2.07	ug/L	99
29)	1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30)	Trichloroethene	9.58	95	265106	2.05	ug/L	97
31)	1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32)	Dibromomethane	10.35	93	93729	1.92	ug/L	100
33)	2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34)	Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35)	cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37)	Toluene	12.44	92	425380	2.04	ug/L	96
38)	trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40)	Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41)	1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42)	Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43)	1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45)	2-Hexanone	14.01	43	141858	6.67	ug/L	99
47)	Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48)	1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50)	Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51)	m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52)	o-Xylene	17.07	106	269886	2.06	ug/L	97
53)	Styrene	17.13	104	412466	1.96	ug/L	99
54)	Bromoform	17.59	173	94103	1.81	ug/L	99
55)	Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58)	Bromobenzene	19.18	156	205095	2.16	ug/L	94
59)	1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60)	1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61)	n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62)	2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63)	4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64)	1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65)	tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66)	1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67)	sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68)	1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69)	p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70)	1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72)	n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73)	1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74)	1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75)	Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76)	Naphthalene	28.32	128	112451	1.74	ug/L		100
77)	1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

(#) = qualifier out of range (m) = manual integration

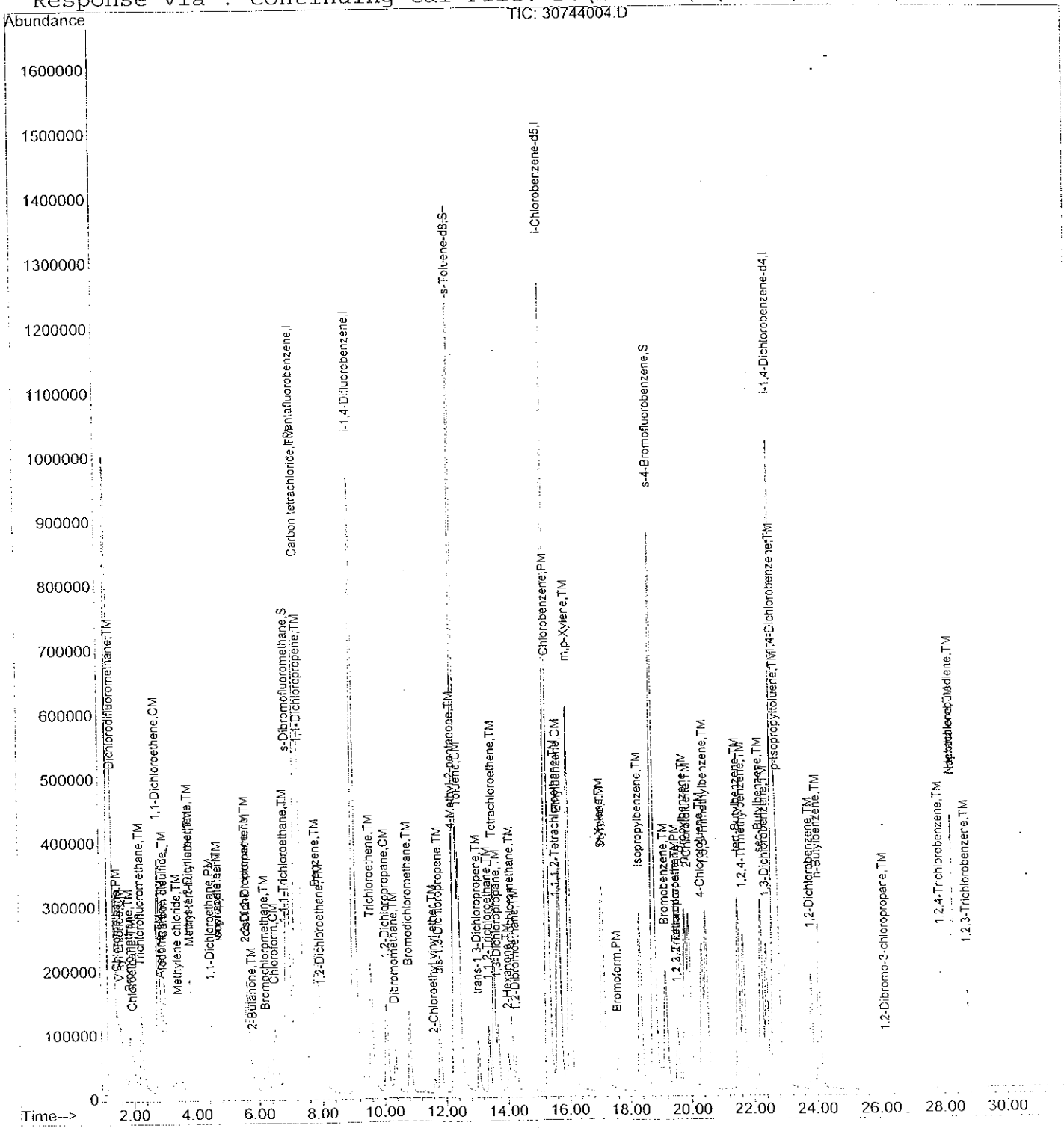
Quantitation Report

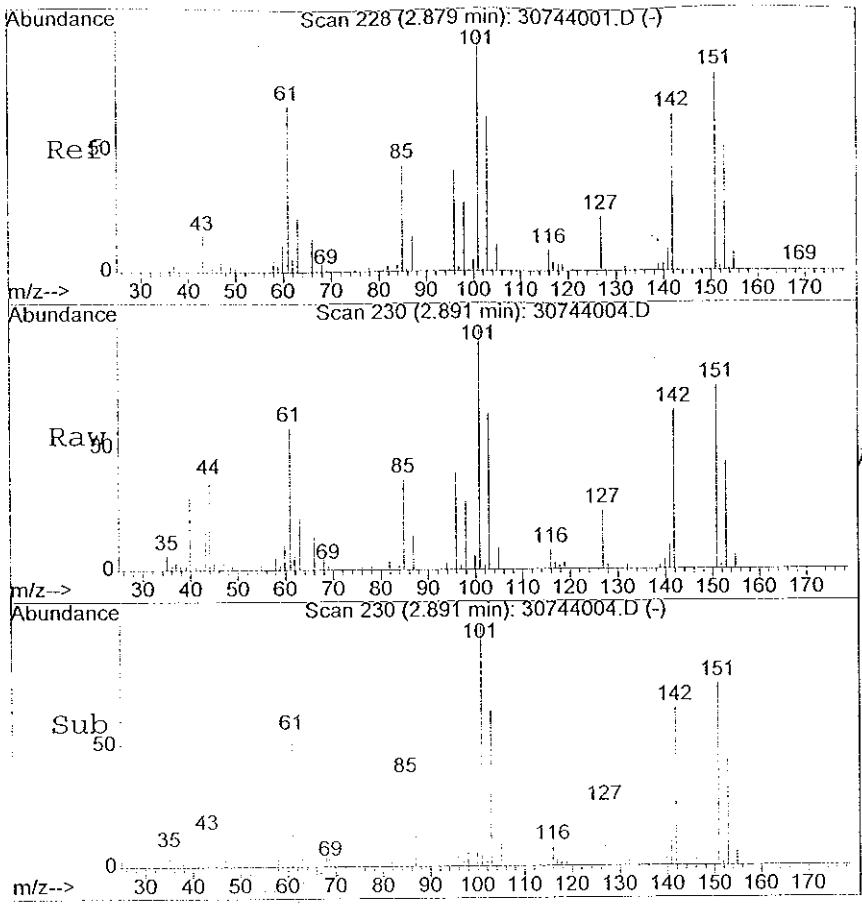
Data File : D:\HPCHEM\1\DATA\103001\30744004.D
Acq On : 30 Oct 2001 10:45
Sample : 2.0ppb VOA STD
Misc : 2.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

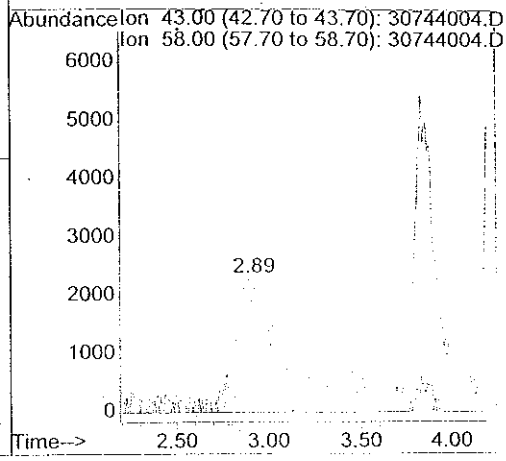




#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

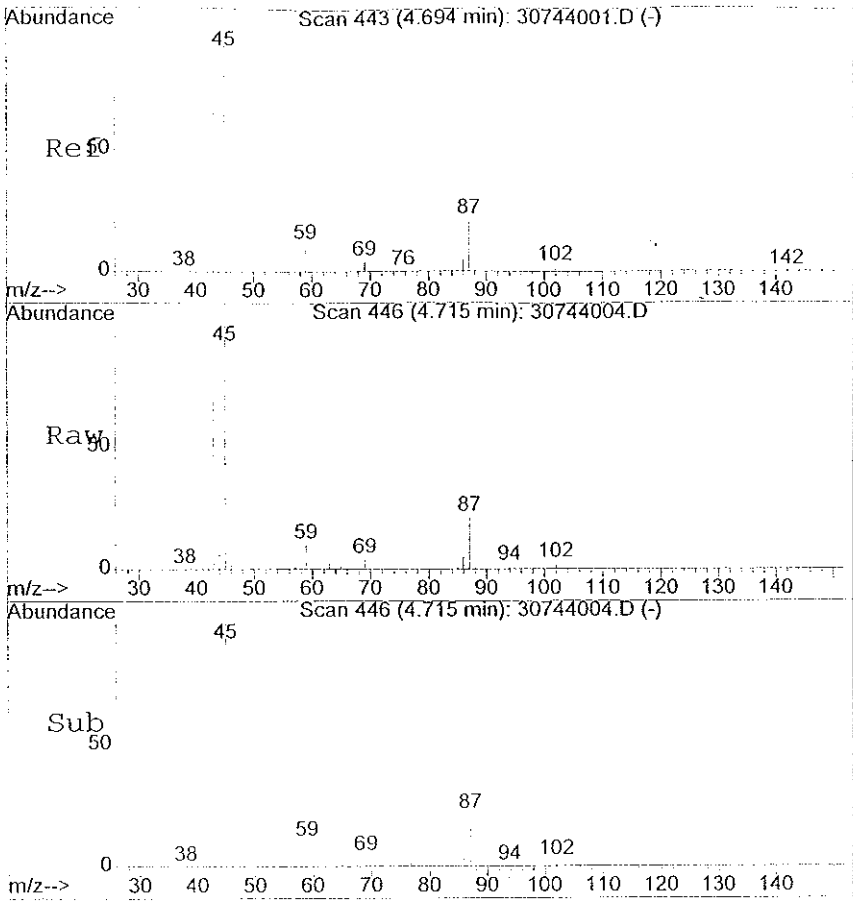
Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



10-31

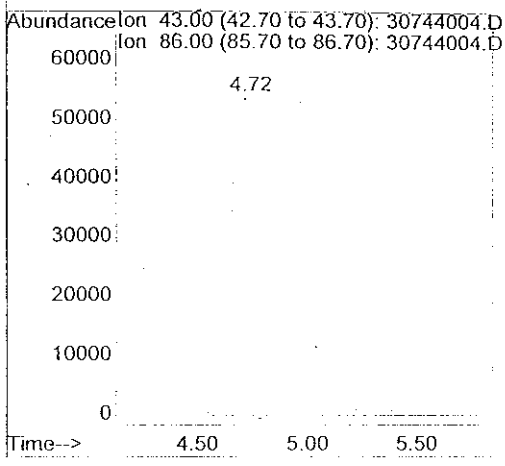
11-31-01



#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

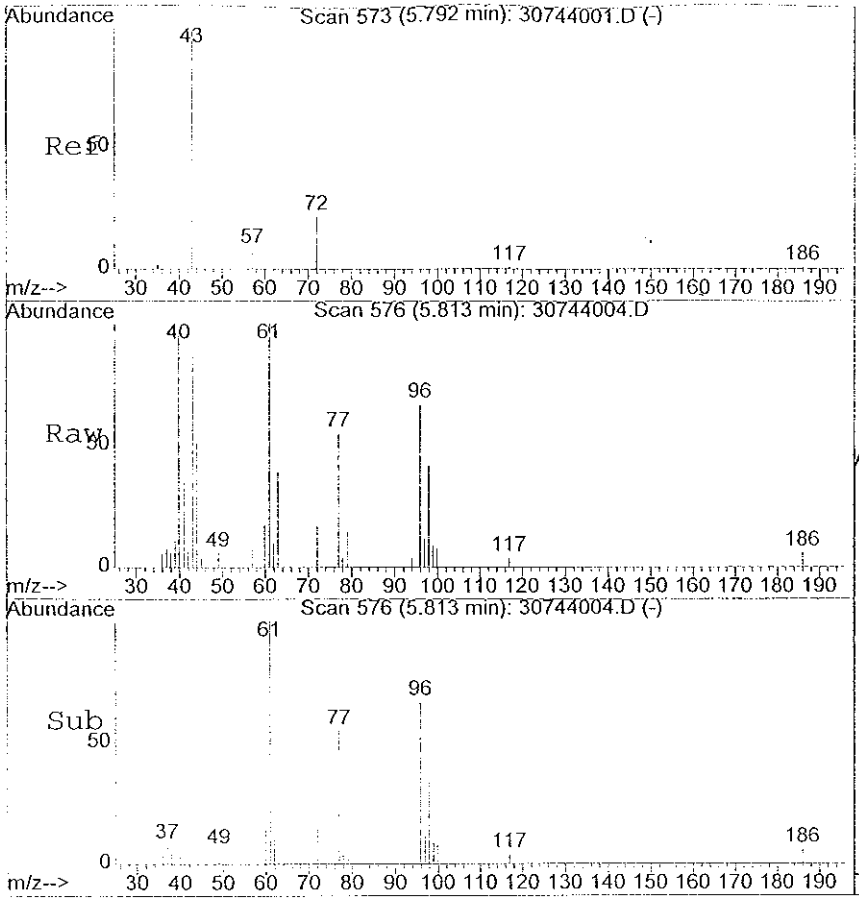
Tgt Ion: 43 Resp: 566802

Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9



10-31
10-31-01

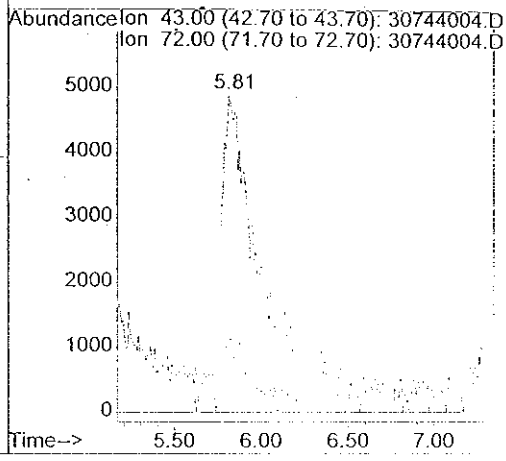
30744004.D V82625B1.M Acq :30 Oct 2001 10:45
Sample = 2.0ppb VOA STD Misc = 2.0ppb VOA STD



#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 90514

Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



10-31

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	94
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	96
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	97
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	9
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	9
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	9
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	8
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	9
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	9
22) Chloroform	6.49	83	197755	1.03	ug/L	9

(#) = qualifier out of range (m) = manual integration
30744005.D V82625B1.M Wed Oct 31 05:35:20 2001

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	160704	0.98	ug/L	97
26) Carbon tetrachloride	7.27	119	156850	1.13	ug/L	28
27) 1,1-Dichloropropene	7.32	110	45627	0.93	ug/L	100
28) Benzene	7.86	78	328909	1.02	ug/L	98
29) 1,2-Dichloroethane	7.98	62	67098	1.05	ug/L	94
30) Trichloroethene	9.58	95	137400	1.07	ug/L	91
31) 1,2-Dichloropropane	10.08	63	113727	1.06	ug/L	98
32) Dibromomethane	10.34	93	49811	1.04	ug/L	98
33) 2-Chloroethyl vinyl ether	11.61	63	17709	0.93	ug/L	96
34) Bromodichloromethane	10.81	83	152578	1.01	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	119952	1.02	ug/L	97
37) Toluene	12.45	92	217555	1.06	ug/L	95
38) trans-1,3-Dichloropropene	13.03	75	73674	0.99	ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	49836	1.04	ug/L	96
40) Tetrachloroethene	13.56	166	155924	1.06	ug/L	96
41) 1,3-Dichloropropane	13.68	76	95524	1.04	ug/L	98
42) Dibromochloromethane	14.12	129	89919	1.01	ug/L	98
43) 1,2-Dibromoethane	14.27	107	61862	1.02	ug/L	100
44) 4-Methyl-2-pentanone	12.26	43	149476	4.54	ug/L	93
45) 2-Hexanone	14.02	43	81218	3.87	ug/L	97
47) Chlorobenzene	15.35	112	226960	1.05	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04	ug/L	96
50) Ethylbenzene	15.70	106	123576	1.07	ug/L	100
51) m,p-Xylene	16.01	106	298103	2.09	ug/L	99
52) o-Xylene	17.07	106	137776	1.04	ug/L	89
53) Styrene	17.13	104	207557	0.97	ug/L	100
54) Bromoform	17.58	173	51970	0.99	ug/L	95
55) Isopropylbenzene	18.34	105	434393	1.02	ug/L	100
58) Bromobenzene	19.16	156	106700	1.12	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12	ug/L	87
60) 1,2,3-Trichloropropane	19.54	75	38655	1.01	ug/L	88
61) n-Propylbenzene	19.79	120	98095	1.00	ug/L	100
62) 2-Chlorotoluene	19.92	126	96679	1.10	ug/L	100
63) 4-Chlorotoluene	20.33	91	348446	1.11	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	316067	1.09	ug/L	97
65) tert-Butylbenzene	21.50	91	211087	1.12	ug/L	96
66) 1,2,4-Trimethylbenzene	21.68	105	268480	1.00	ug/L	98
67) sec-Butylbenzene	22.24	105	435328	1.02	ug/L	98
68) 1,3-Dichlorobenzene	22.39	146	197666	1.11	ug/L	99
69) p-Isopropyltoluene	22.78	119	328183	1.00	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	184452	1.12	ug/L	95

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72) n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73) 1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74) 1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75) Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76) Naphthalene	28.34	128	64010	0.99	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

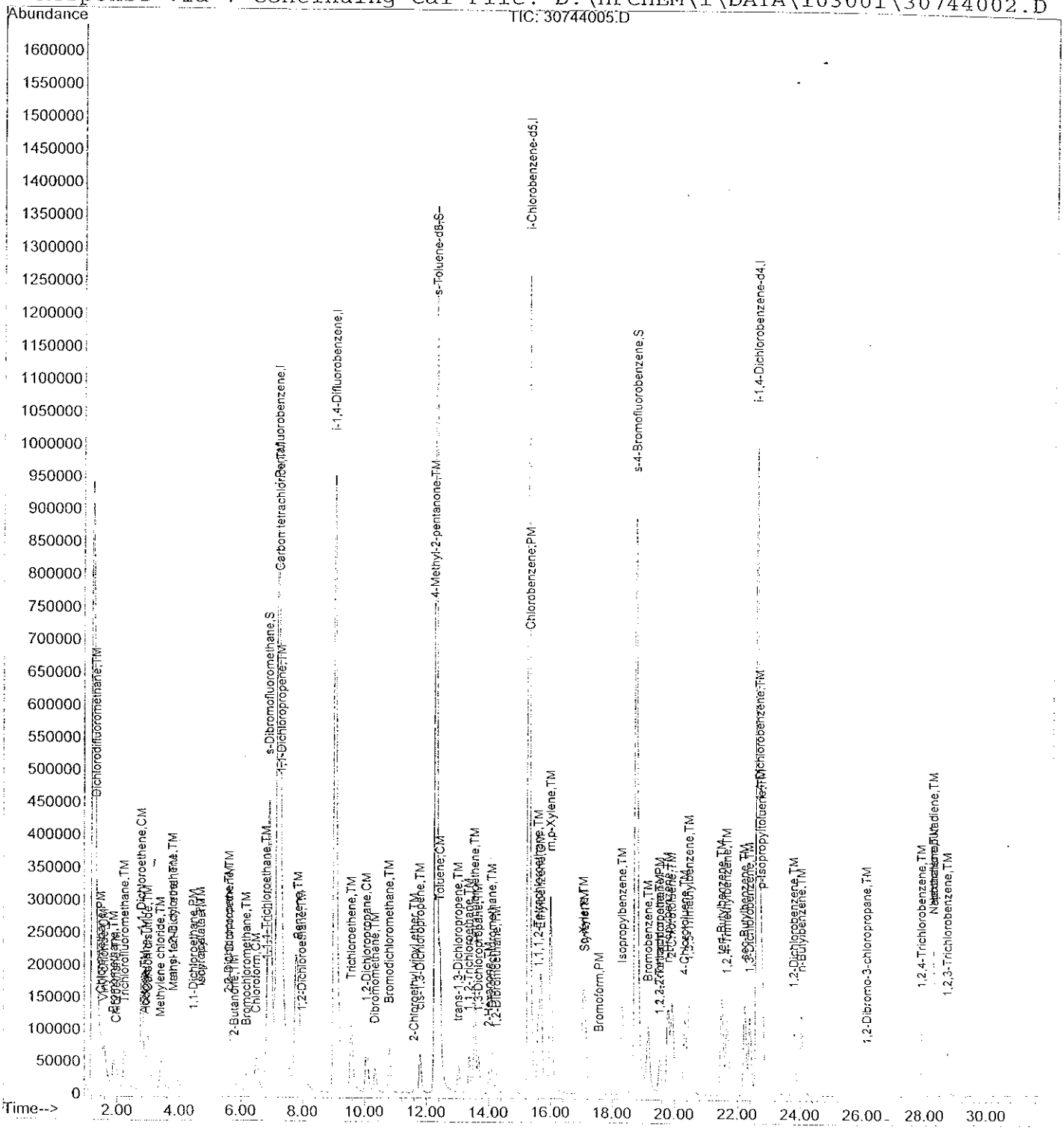
(#) = qualifier out of range (m) = manual integration

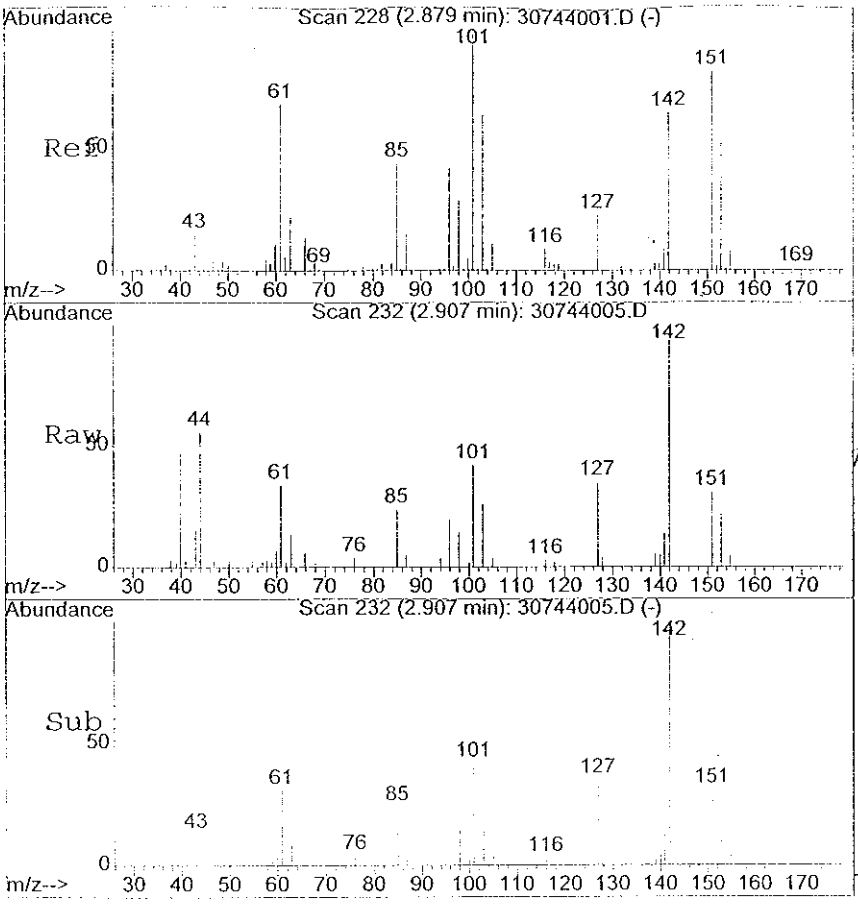
Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.R

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

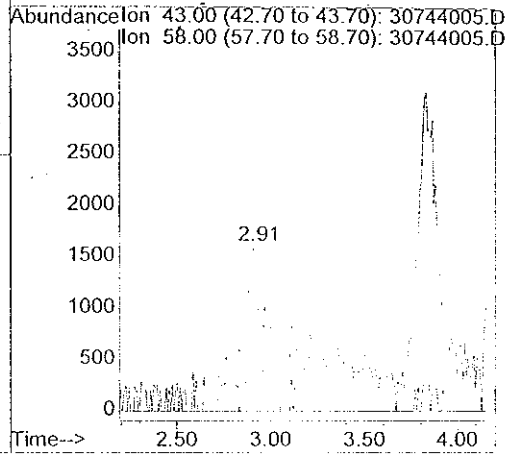




#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

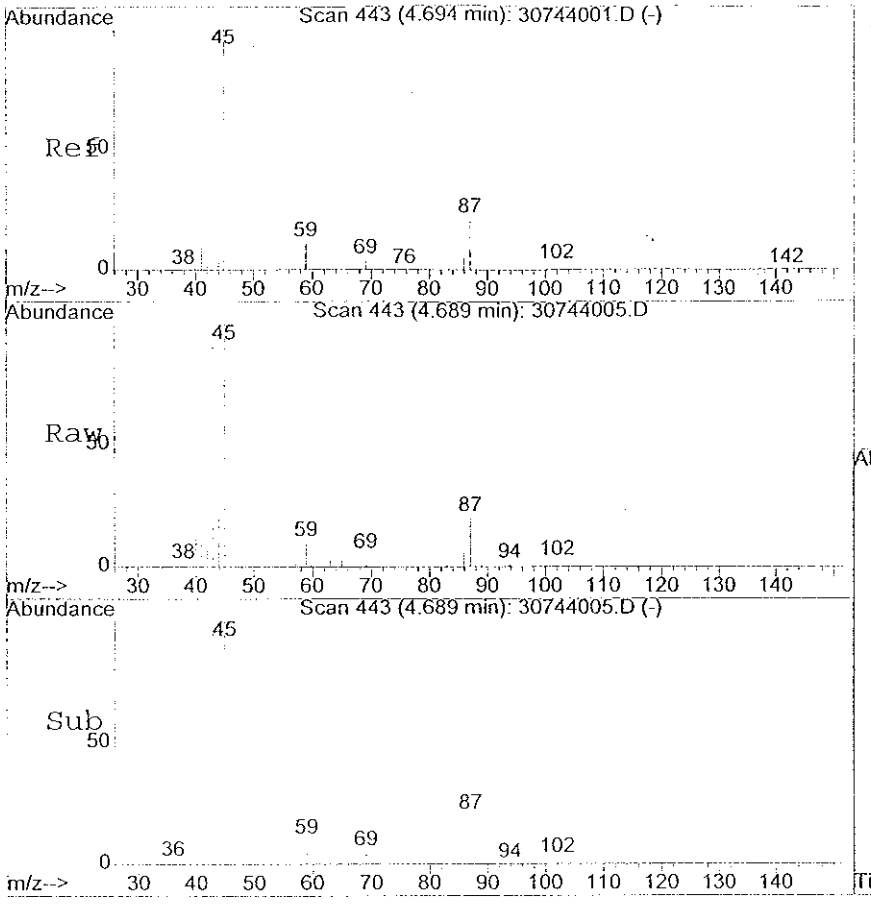
Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



10-31

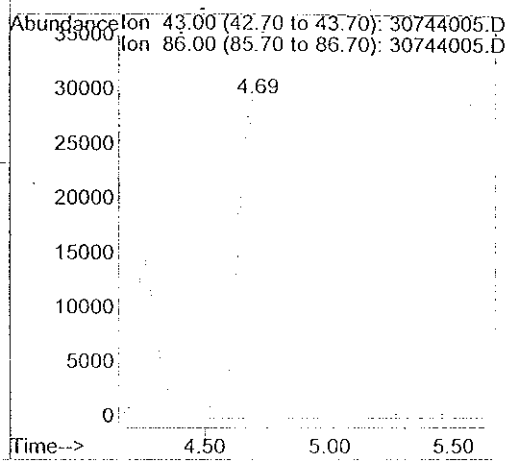
10-31



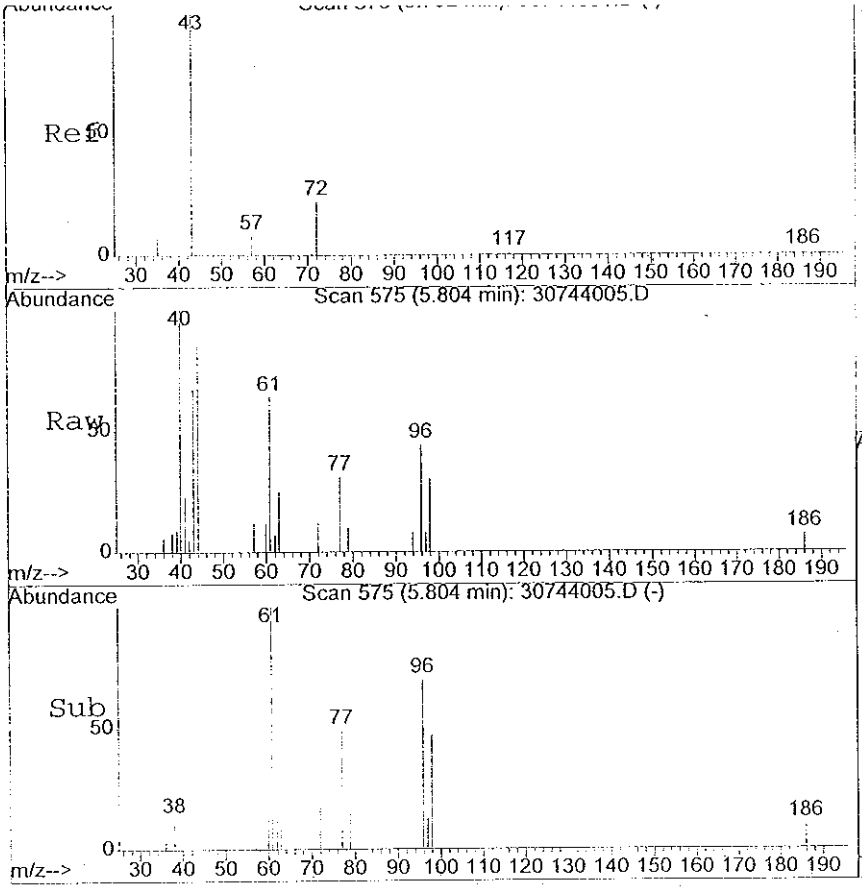
#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. -0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9

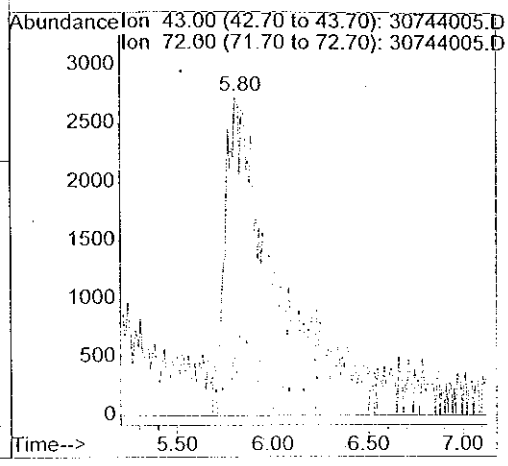


10-31
for 10-31-01



#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43	Resp:	53339	
Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



10-31

fwd 10-31-A

30744005.D V82625B1.M Acq :30 Oct 2001 11:26
Sample = 1.0ppb VOA STD Misc = 1.0ppb VOA STD

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L	0.00 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L	0.00 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L	0.00 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L	0.02 86.94%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L	99
3) Chloromethane	1.50	50	3615m	0.37	ug/L	9[illegible]
4) Vinyl chloride	1.60	62	36552	0.36	ug/L	92
5) Bromomethane	1.89	96	35015	0.38	ug/L	97
6) Chloroethane	2.00	64	20942	0.35	ug/L	84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L	93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L #	85
10) Iodomethane	2.94	142	40544	0.32	ug/L	100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L	100
12) Methylene chloride	3.41	84	26091	0.31	ug/L	91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L	98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L	42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L	98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L	94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L	99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L	94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L #	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L	92
22) Chloroform	6.51	83	64718	0.33	ug/L	93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L	94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L #	1

(#) = qualifier out of range (m) = manual integration
30744006.D V82625B1.M Wed Oct 31 05:35:29 2001 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
27) 1,1-Dichloropropene	7.33	110	35089m	0.70 ug/L	100
28) Benzene	7.89	78	114261	0.35 ug/L	93
29) 1,2-Dichloroethane	8.00	62	23568	0.36 ug/L	92
30) Trichloroethene	9.60	95	46357	0.36 ug/L	92
31) 1,2-Dichloropropane	10.10	63	39985	0.37 ug/L	98
32) Dibromomethane	10.35	93	17027	0.35 ug/L	94
33) 2-Chloroethyl vinyl ether	11.62	63	5704	0.29 ug/L	94
34) Bromodichloromethane	10.81	83	52711	0.34 ug/L	90
35) cis-1,3-Dichloropropene	11.83	75	39813	0.33 ug/L	88
37) Toluene	12.46	92	74994	0.36 ug/L	99
38) trans-1,3-Dichloropropene	13.07	75	22608	0.30 ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	17217	0.36 ug/L #	78
40) Tetrachloroethene	13.57	166	54802	0.37 ug/L	94
41) 1,3-Dichloropropane	13.70	76	31625	0.34 ug/L	99
42) Dibromochloromethane	14.15	129	29043	0.32 ug/L	99
43) 1,2-Dibromoethane	14.29	107	20047	0.32 ug/L	95
47) Chlorobenzene	15.37	112	76094	0.35 ug/L	95
48) 1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33 ug/L	96
50) Ethylbenzene	15.72	106	41978	0.36 ug/L	100
51) m,p-Xylene	16.03	106	96766	0.67 ug/L	96
52) o-Xylene	17.09	106	44284	0.33 ug/L #	85
53) Styrene	17.16	104	69328	0.33 ug/L	92
54) Bromoform	17.63	173	16043	0.30 ug/L	100
55) Isopropylbenzene	18.36	105	143324	0.33 ug/L	96
58) Bromobenzene	19.21	156	34447	0.38 ug/L	93
59) 1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38 ug/L	88
60) 1,2,3-Trichloropropane	19.59	75	19472	0.53 ug/L	98
61) n-Propylbenzene	19.85	120	32615	0.35 ug/L	100
62) 2-Chlorotoluene	19.97	126	32953	0.39 ug/L	100
63) 4-Chlorotoluene	20.39	91	96642	0.32 ug/L	98
64) 1,3,5-Trimethylbenzene	20.51	105	101910	0.37 ug/L	98
65) tert-Butylbenzene	21.55	91	67600	0.38 ug/L	93
66) 1,2,4-Trimethylbenzene	21.71	105	84737	0.33 ug/L	94
67) sec-Butylbenzene	22.28	105	142616	0.35 ug/L	95
68) 1,3-Dichlorobenzene	22.45	146	64255	0.38 ug/L	99
69) p-Isopropyltoluene	22.82	119	101423	0.32 ug/L	97
70) 1,4-Dichlorobenzene	22.76	146	63283	0.40 ug/L	98
71) 1,2-Dichlorobenzene	23.85	146	50172	0.37 ug/L	90
72) n-Butylbenzene	24.10	91	87558	0.28 ug/L	98
73) 1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34 ug/L #	88
74) 1,2,4-Trichlorobenzene	27.95	180	26621	0.32 ug/L	94

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

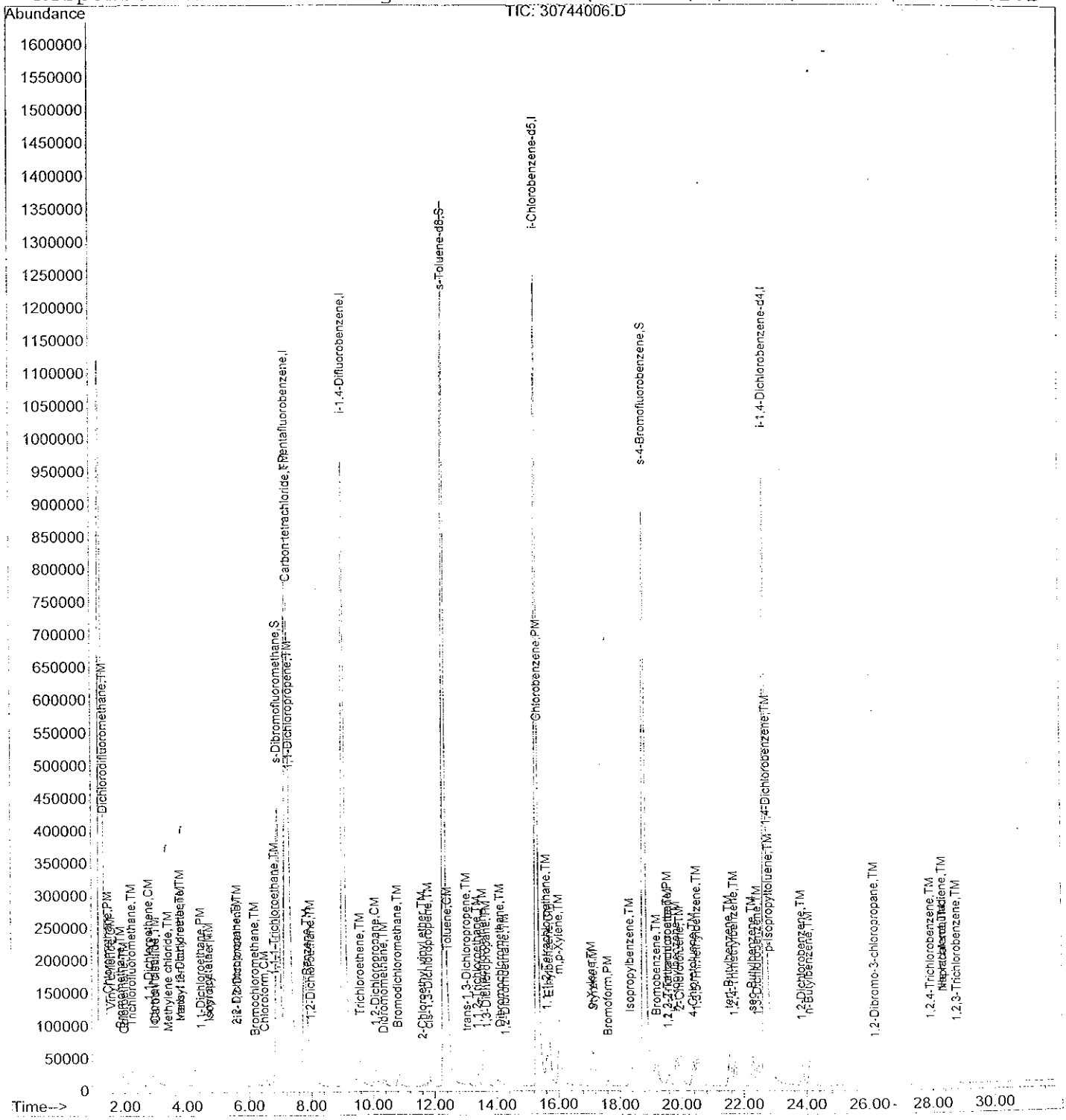
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

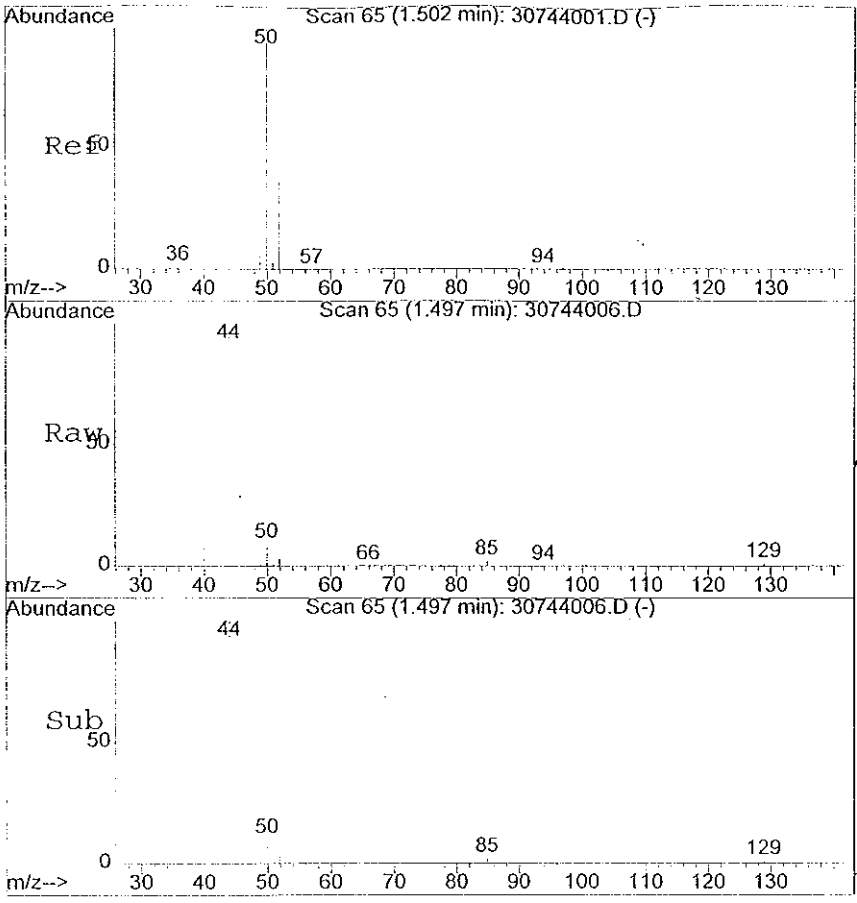
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76)	Naphthalene	28.35	128	20463	0.33	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

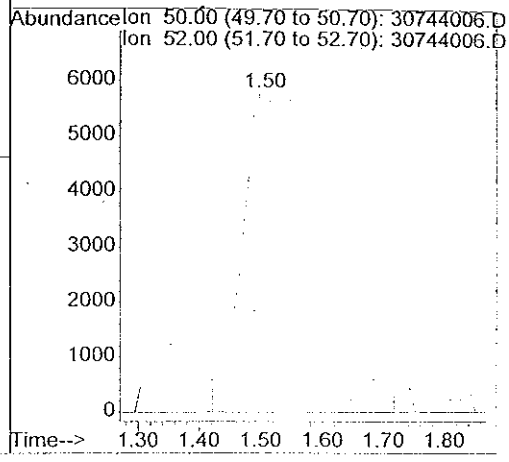




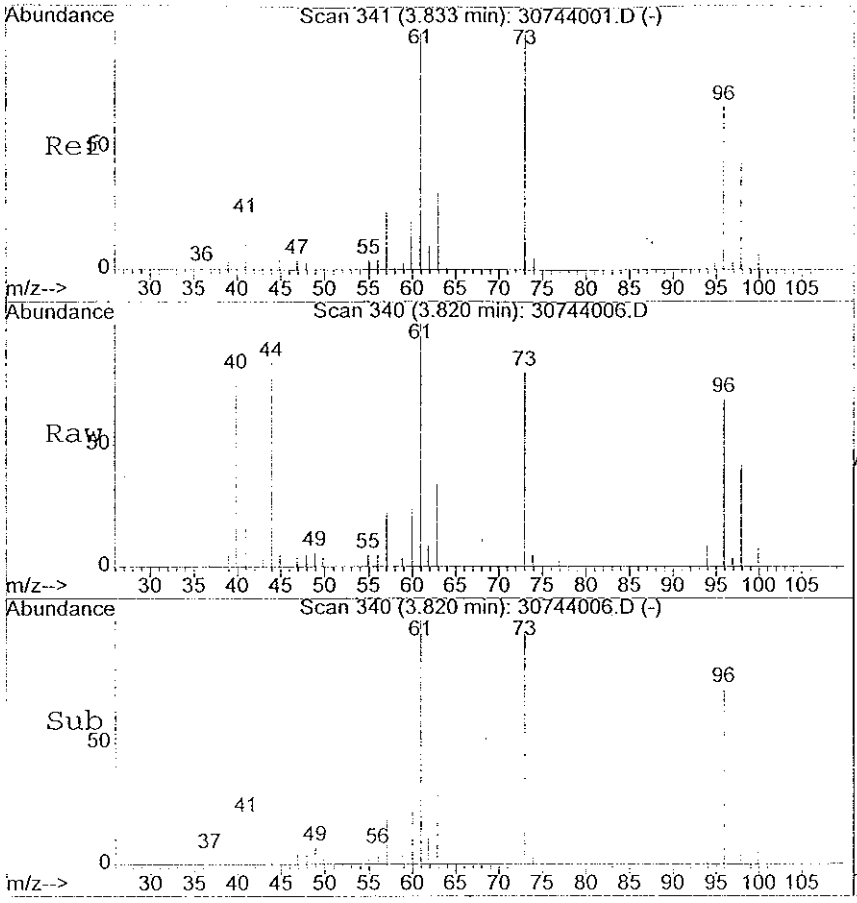
#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0



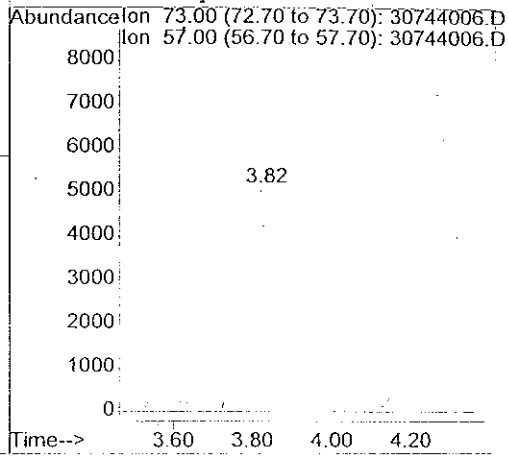
10-31
10-31-01



#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

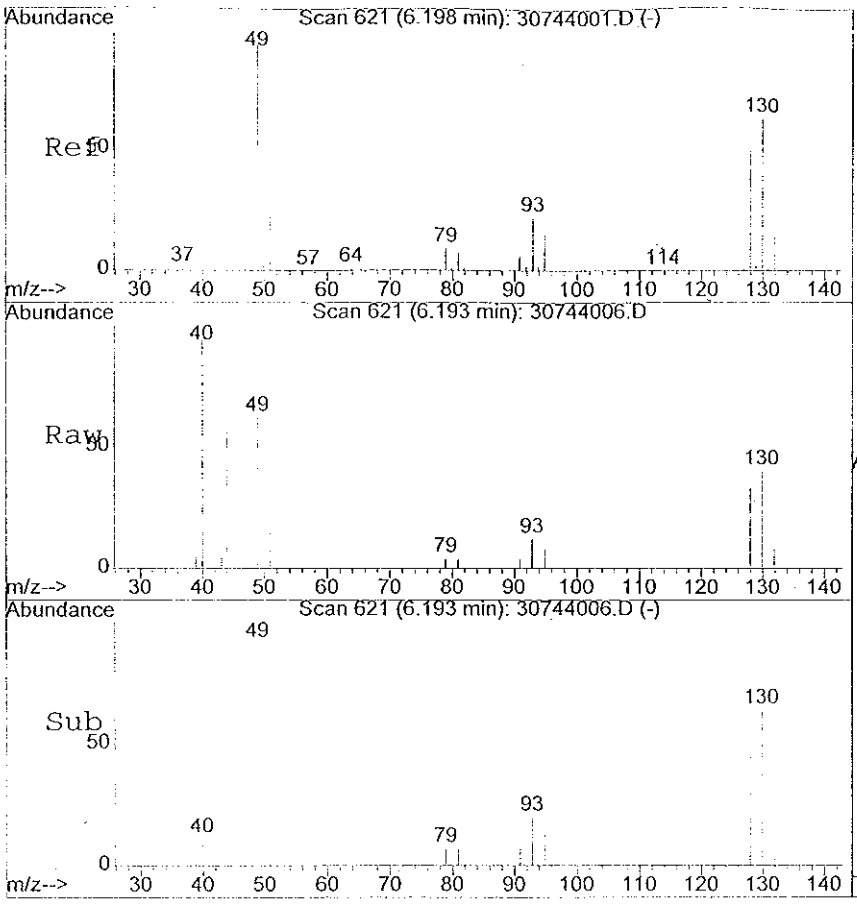
Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6



10-31

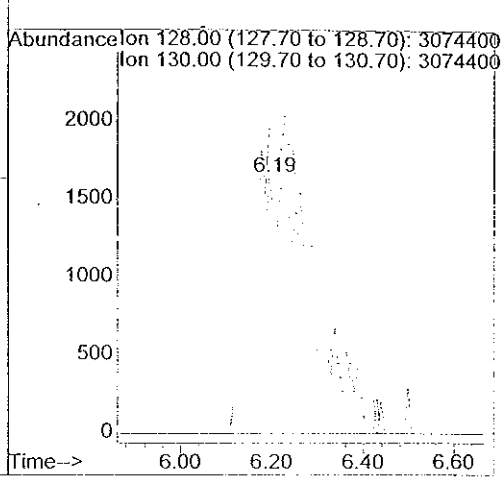
for 10-31-01



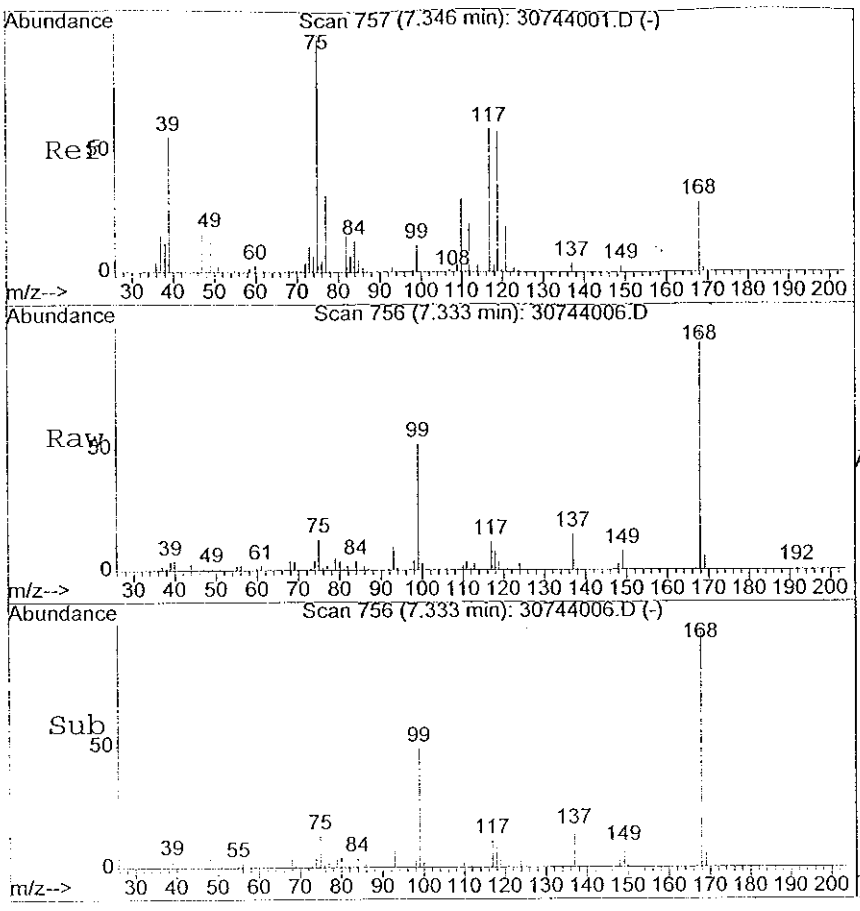
#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:128 Resp: 13540

Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0

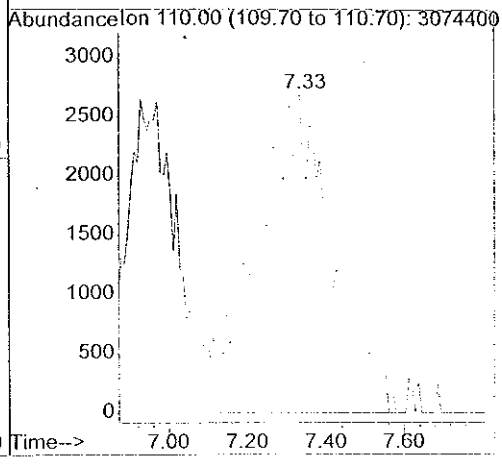


10-31
10-31-01



#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



10-31
10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00	ug/L	0.02 / 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00	ug/L	0.02 / 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00	ug/L	0.00 / 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00	ug/L	0.04 / 93.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1490634	9.78	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%			
36) s-Toluene-d8	12.34	98	3048951	9.94	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54	ug/L	95
3) Chloromethane	1.51	50	57047	0.55	ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56	ug/L	95
5) Bromomethane	1.89	96	50840	0.53	ug/L	93
6) Chloroethane	2.00	64	32710	0.51	ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52	ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51	ug/L	96
10) Iodomethane	2.95	142	61980	0.47	ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50	ug/L	100
12) Methylene chloride	3.42	84	42127	0.48	ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50	ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46	ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50	ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85	ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46	ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46	ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46	ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45	ug/L	99
22) Chloroform	6.55	83	108615m	0.52	ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47	ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58	ug/L #	1

(#) = qualifier out of range (m) = manual integration
30744007.D V82625B1.M Wed Oct 31 05:35:40 2001 Page 1

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27)	1,1-Dichloropropene	7.37	110	45959m	0.88	ug/L	100
28)	Benzene	7.89	78	175270	0.51	ug/L	97
29)	1,2-Dichloroethane	8.01	62	36739	0.54	ug/L	94
30)	Trichloroethene	9.60	95	72610	0.53	ug/L	92
31)	1,2-Dichloropropane	10.09	63	54961	0.48	ug/L	100
32)	Dibromomethane	10.36	93	25641	0.50	ug/L	93
33)	2-Chloroethyl vinyl ether	11.65	63	9558	0.47	ug/L	90
34)	Bromodichloromethane	10.82	83	80038	0.50	ug/L	89
35)	cis-1,3-Dichloropropene	11.83	75	61200	0.49	ug/L	96
37)	Toluene	12.47	92	115598	0.53	ug/L	92
38)	trans-1,3-Dichloropropene	13.07	75	37014	0.47	ug/L	95
39)	1,1,2-Trichloroethane	13.40	83	27199	0.54	ug/L	92
40)	Tetrachloroethene	13.59	166	83043	0.53	ug/L	98
41)	1,3-Dichloropropane	13.71	76	49118	0.50	ug/L	92
42)	Dibromochloromethane	14.16	129	45286	0.48	ug/L	97
43)	1,2-Dibromoethane	14.29	107	30668	0.47	ug/L	89
44)	4-Methyl-2-pentanone	12.29	43	80377	2.29	ug/L	84
45)	2-Hexanone	14.05	43	42639	1.90	ug/L	91
47)	Chlorobenzene	15.39	112	116784	0.51	ug/L	95
48)	1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49	ug/L	96
50)	Ethylbenzene	15.73	106	63777	0.52	ug/L	100
51)	m,p-Xylene	16.04	106	150249	1.00	ug/L	96
52)	o-Xylene	17.11	106	69489	0.50	ug/L	96
53)	Styrene	17.17	104	108692	0.48	ug/L	98
54)	Bromoform	17.64	173	24986	0.45	ug/L	97
55)	Isopropylbenzene	18.39	105	225817	0.50	ug/L	99
58)	Bromobenzene	19.22	156	55086	0.56	ug/L	96
59)	1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54	ug/L	94
60)	1,2,3-Trichloropropane	19.59	75	22893	0.58	ug/L	99
61)	n-Propylbenzene	19.87	120	51067	0.51	ug/L	100
62)	2-Chlorotoluene	19.98	126	49909	0.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	176547	0.54	ug/L	97
64)	1,3,5-Trimethylbenzene	20.53	105	157487	0.52	ug/L	100
65)	tert-Butylbenzene	21.55	91	105846	0.54	ug/L	90
66)	1,2,4-Trimethylbenzene	21.73	105	130302	0.47	ug/L	96
67)	sec-Butylbenzene	22.29	105	223693	0.51	ug/L	98
68)	1,3-Dichlorobenzene	22.45	146	95809	0.52	ug/L	98
69)	p-Isopropyltoluene	22.82	119	161812	0.48	ug/L	95
70)	1,4-Dichlorobenzene	22.76	146	94624	0.56	ug/L	96
71)	1,2-Dichlorobenzene	23.87	146	78043	0.53	ug/L	99
72)	n-Butylbenzene	24.10	91	134579	0.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73)	1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52	ug/L	#	86
74)	1,2,4-Trichlorobenzene	27.94	180	36654	0.41	ug/L		100
75)	Hexachlorobutadiene	28.33	225	48563	0.54	ug/L		98
76)	Naphthalene	28.34	128	27310	0.41	ug/L		100
77)	1,2,3-Trichlorobenzene	28.79	180	26742	0.40	ug/L		92

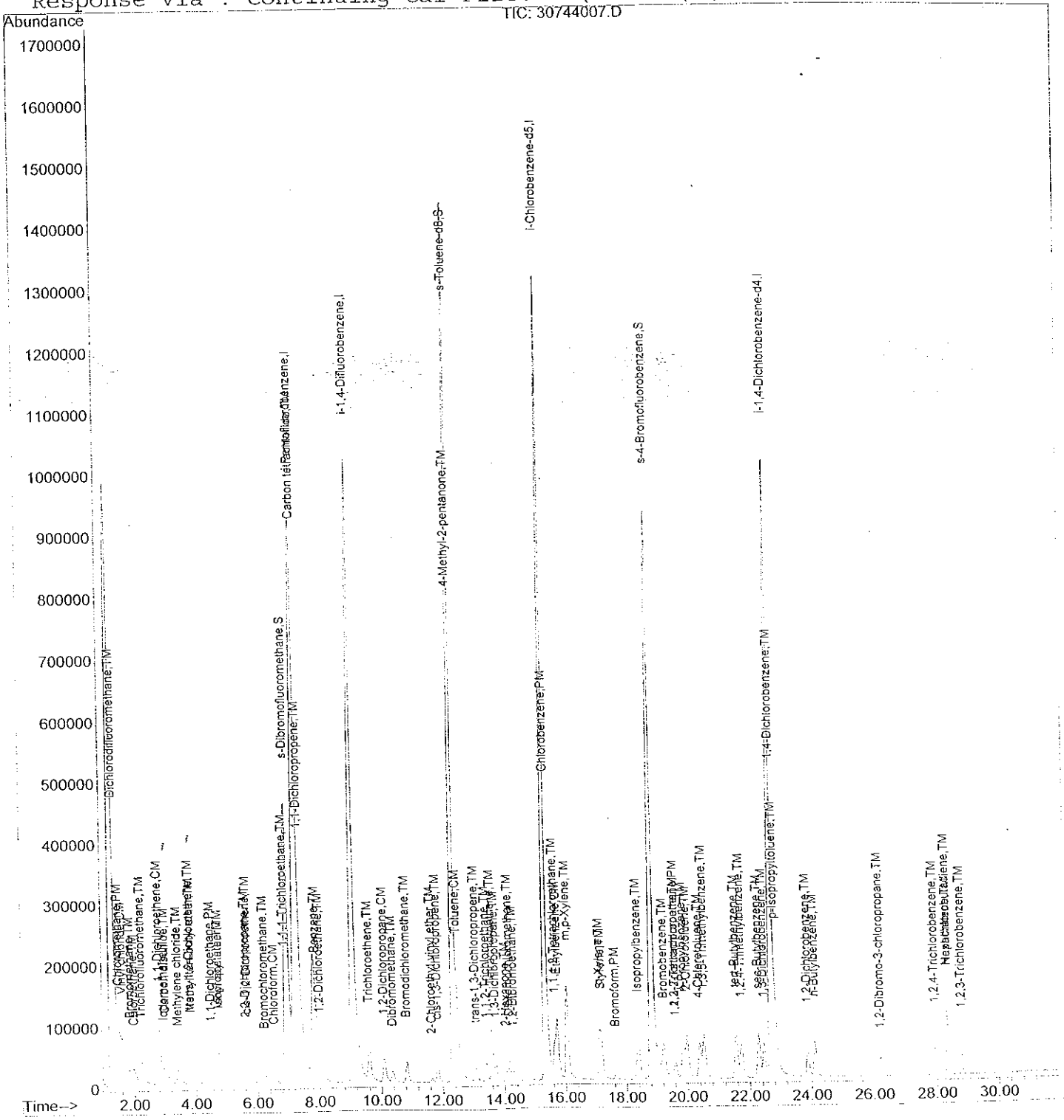
(#) = qualifier out of range (m) = manual integration

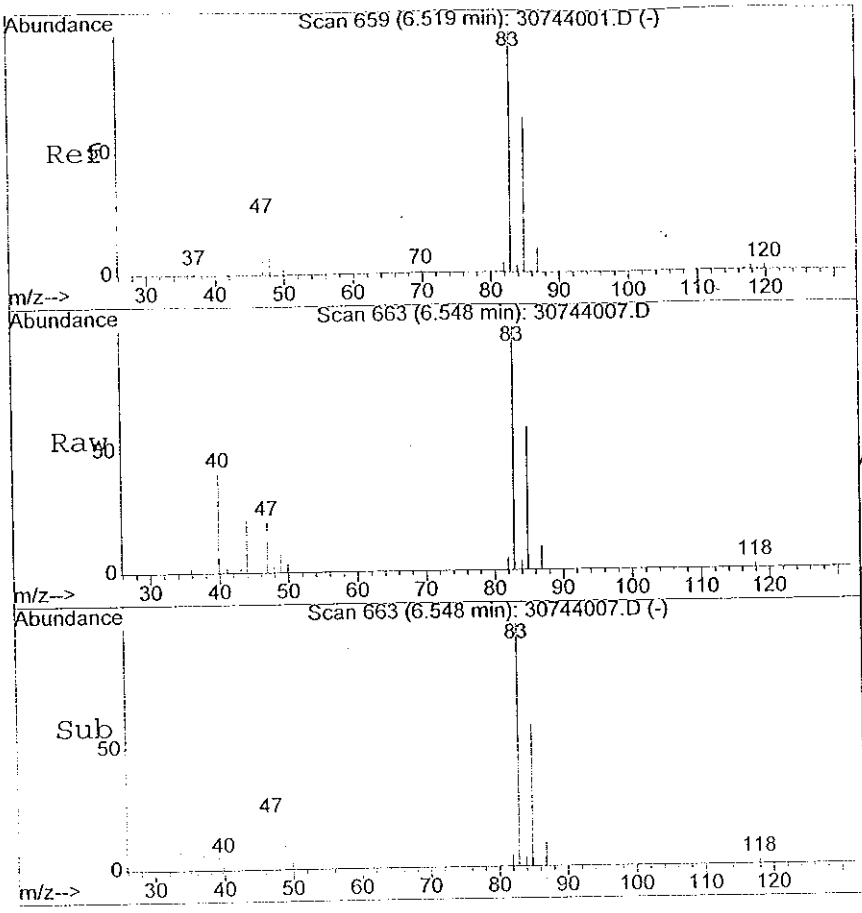
Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

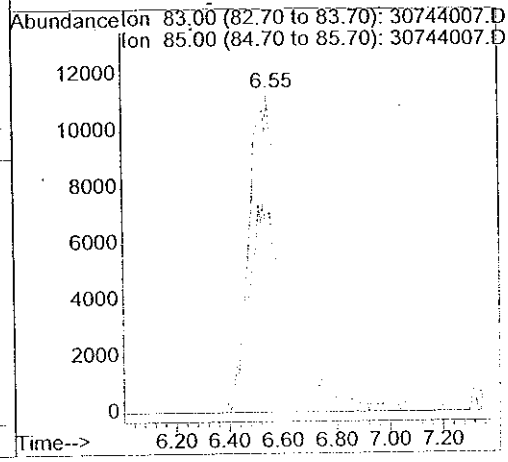




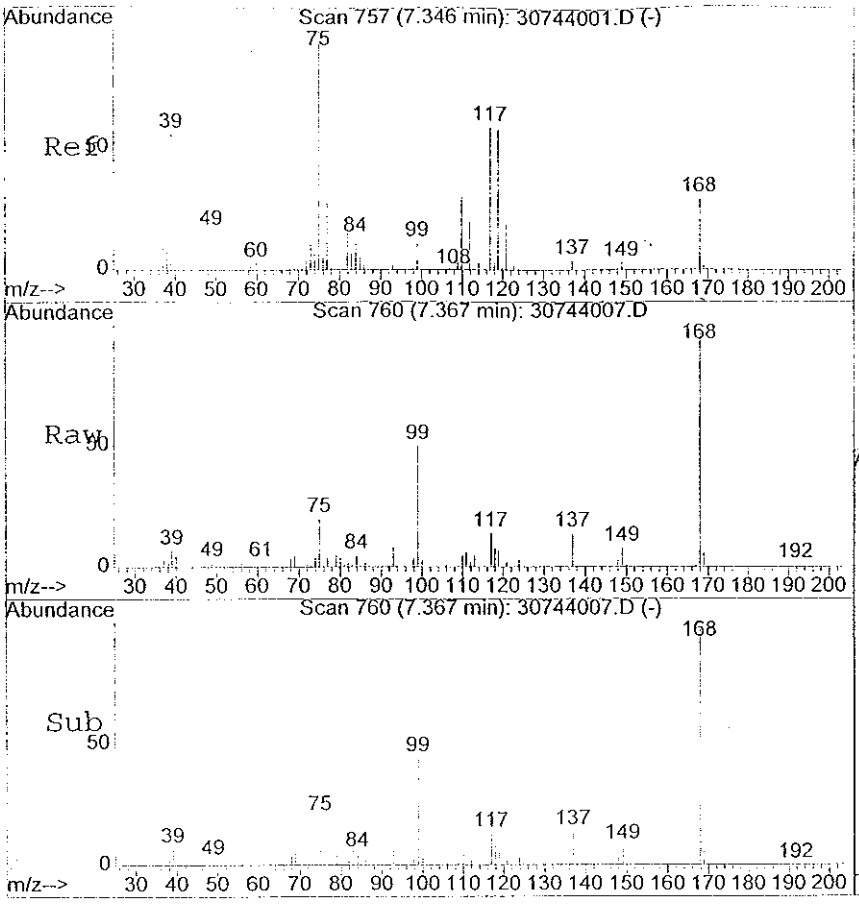
#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion: 83 Resp: 108615

Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6

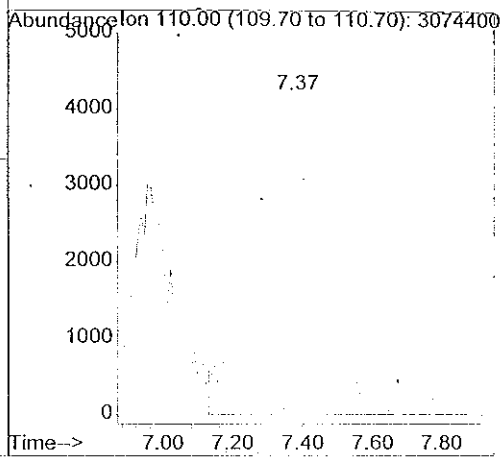


10-31
for 10-31-01



#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959



10-31
10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration
30744009.D V82625B1.M Wed Oct 31 05:35:50 2001

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26)	Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27)	1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28)	Benzene	7.87	78	6215127	19.11	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30)	Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31)	1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32)	Dibromomethane	10.35	93	939957	19.35	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34)	Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35)	cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37)	Toluene	12.47	92	3949672	19.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40)	Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42)	Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43)	1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45)	2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47)	Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50)	Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51)	m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52)	o-Xylene	17.10	106	2595783	19.18	ug/L	98
53)	Styrene	17.16	104	4271963	19.62	ug/L	100
54)	Bromoform	17.63	173	1061009	19.77	ug/L	99
55)	Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58)	Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61)	n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62)	2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63)	4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64)	1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65)	tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67)	sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68)	1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69)	p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

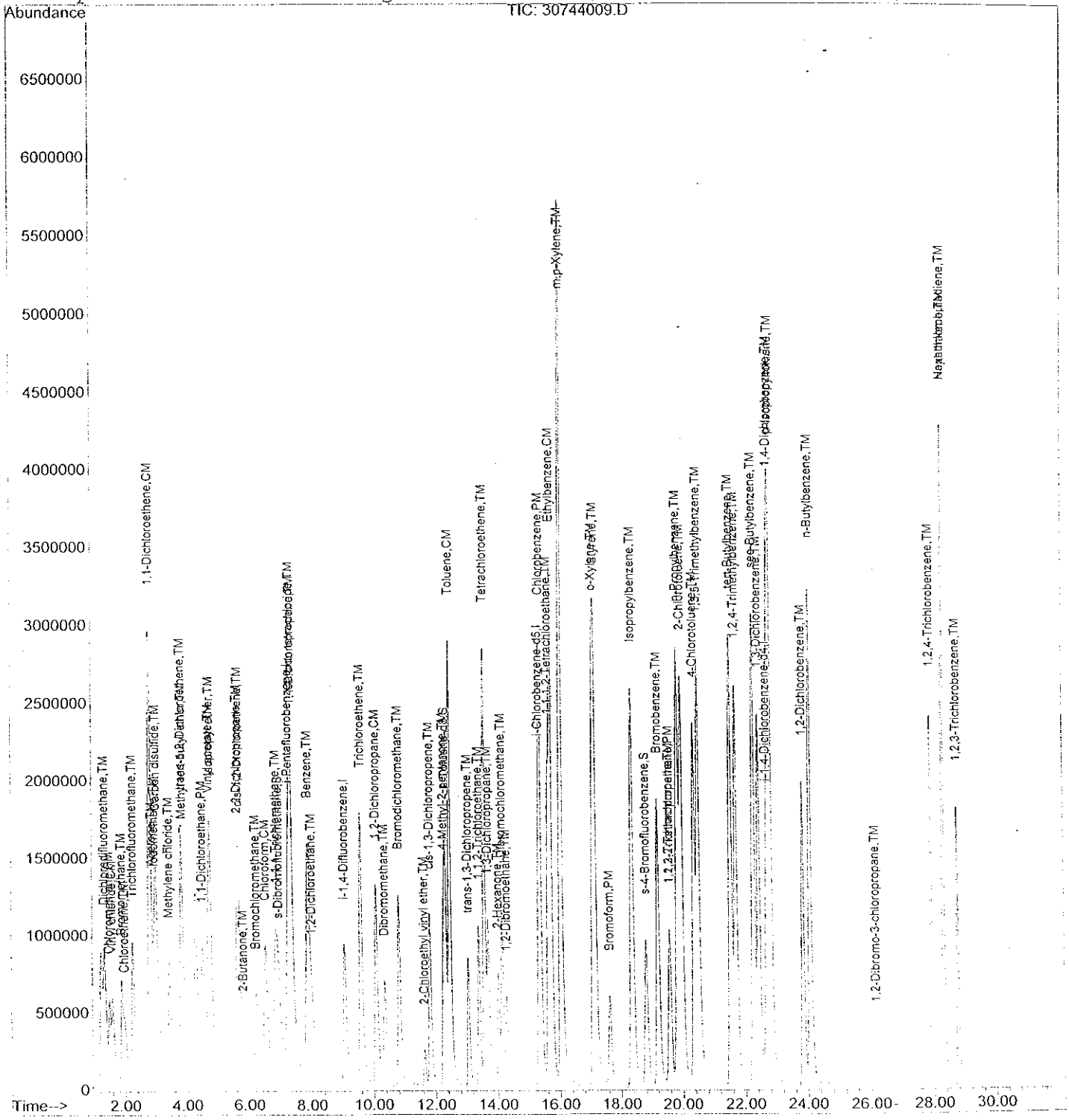
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

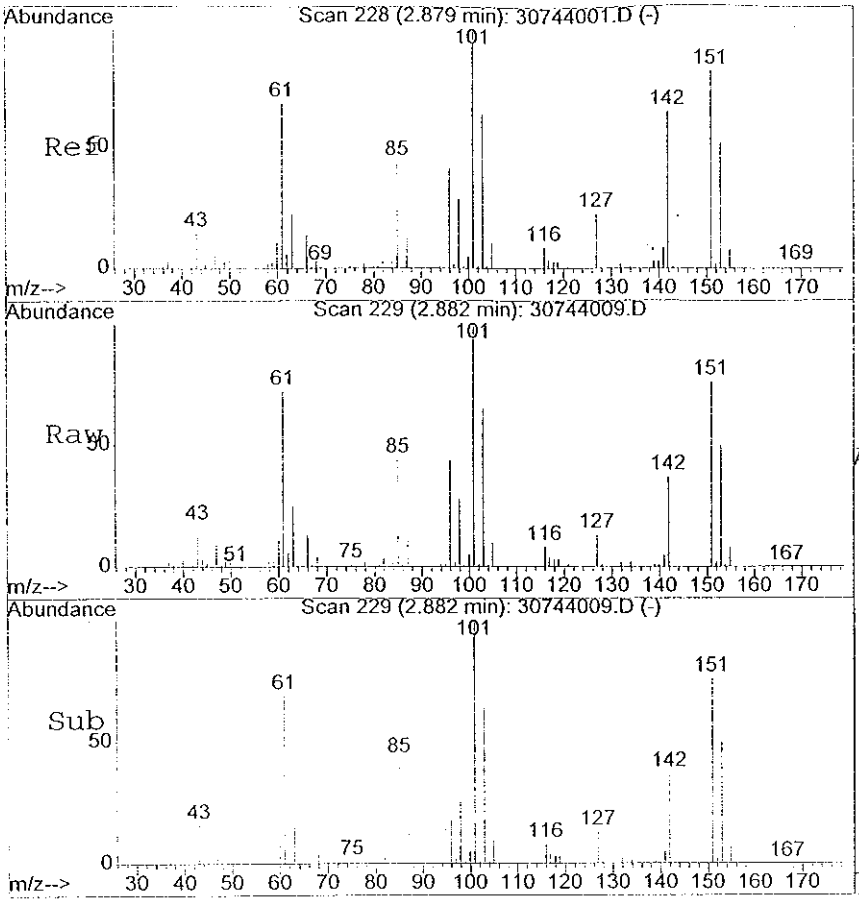
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72) n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74) 1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75) Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76) Naphthalene	28.33	128	1514801	20.78	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

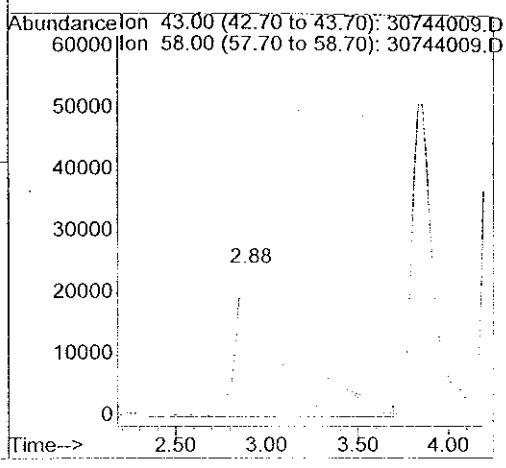




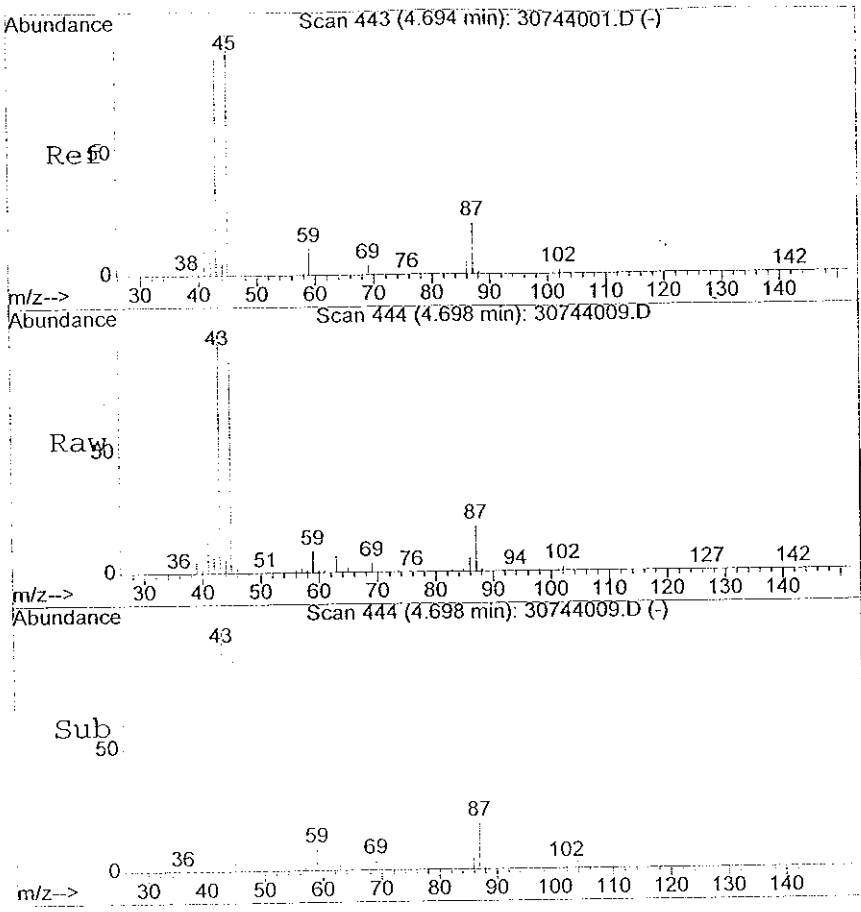
#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



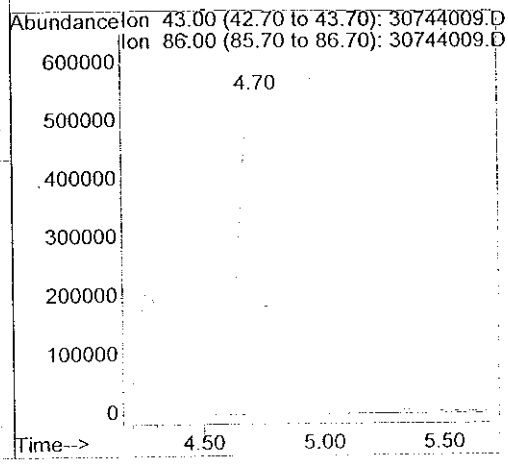
10-31



#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

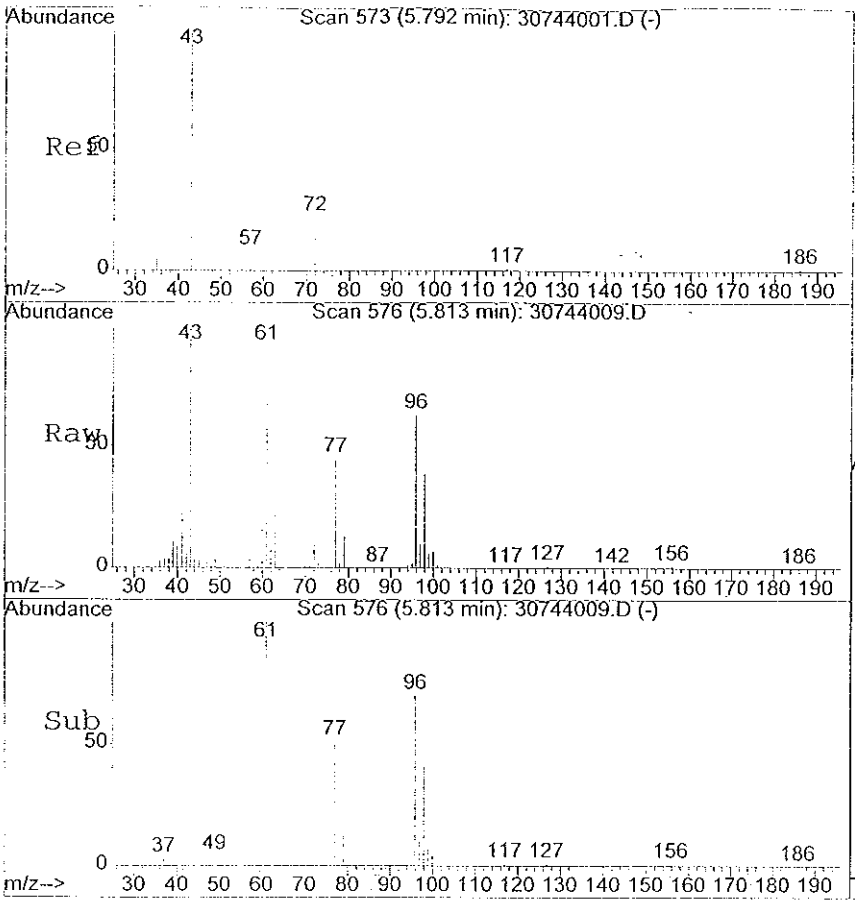
Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



10-31
MK 11-21-01

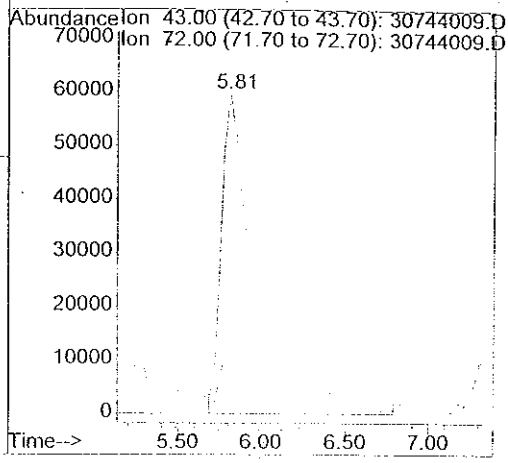
389



#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



10-31
lw 10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 / 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 / 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 / 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 / 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26)	Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27)	1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28)	Benzene	7.88	78	9780889	29.34	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30)	Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31)	1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32)	Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33)	2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34)	Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35)	cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37)	Toluene	12.48	92	6204841	29.18	ug/L	100
38)	trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39)	1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40)	Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41)	1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42)	Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43)	1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44)	4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45)	2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47)	Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50)	Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51)	m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52)	o-Xylene	17.12	106	4111508	29.27	ug/L	98
53)	Styrene	17.19	104	6844185	30.28	ug/L	100
54)	Bromoform	17.64	173	1805093	32.41	ug/L	100
55)	Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58)	Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60)	1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61)	n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62)	2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63)	4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64)	1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65)	tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66)	1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67)	sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69)	p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

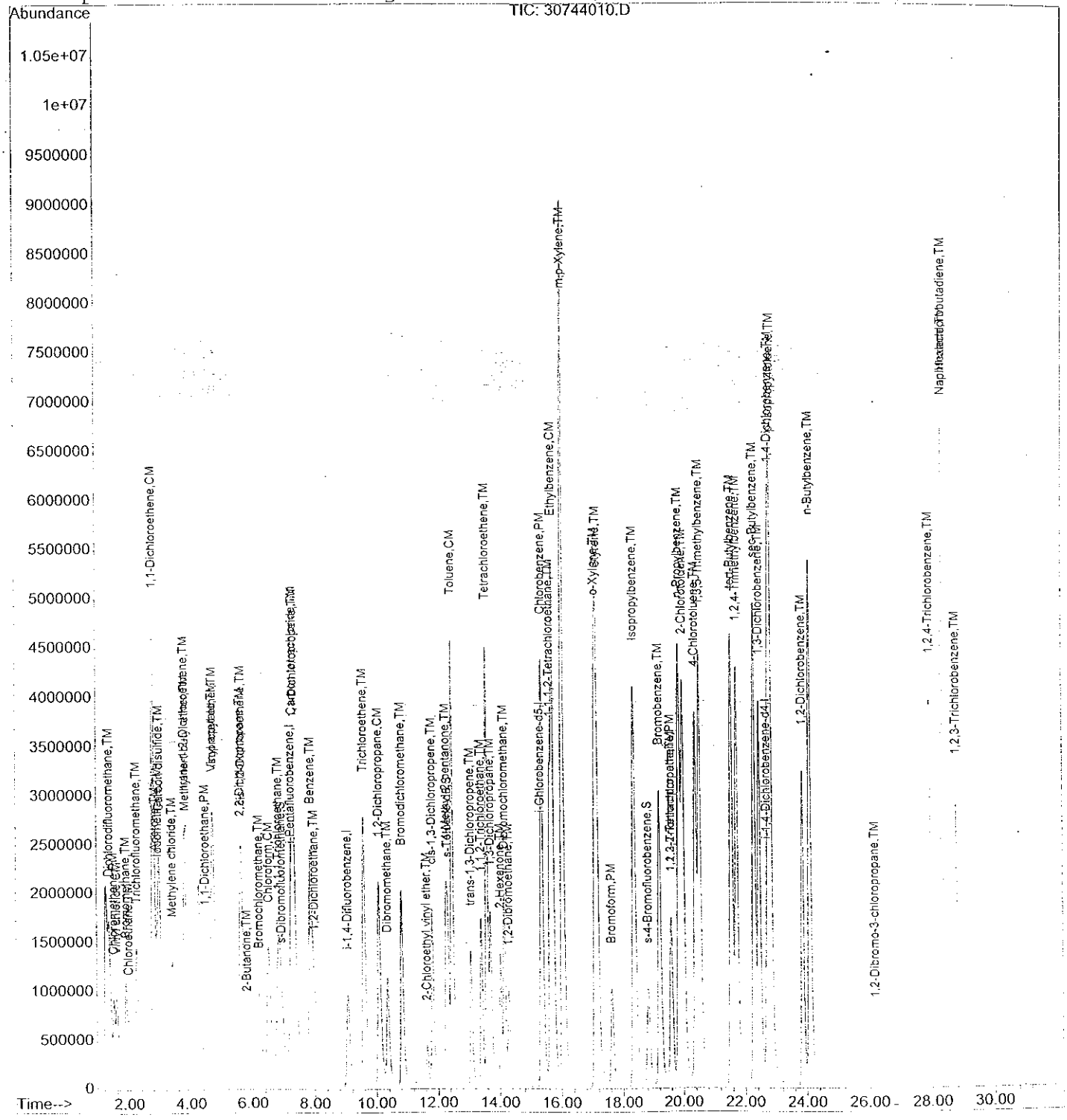
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

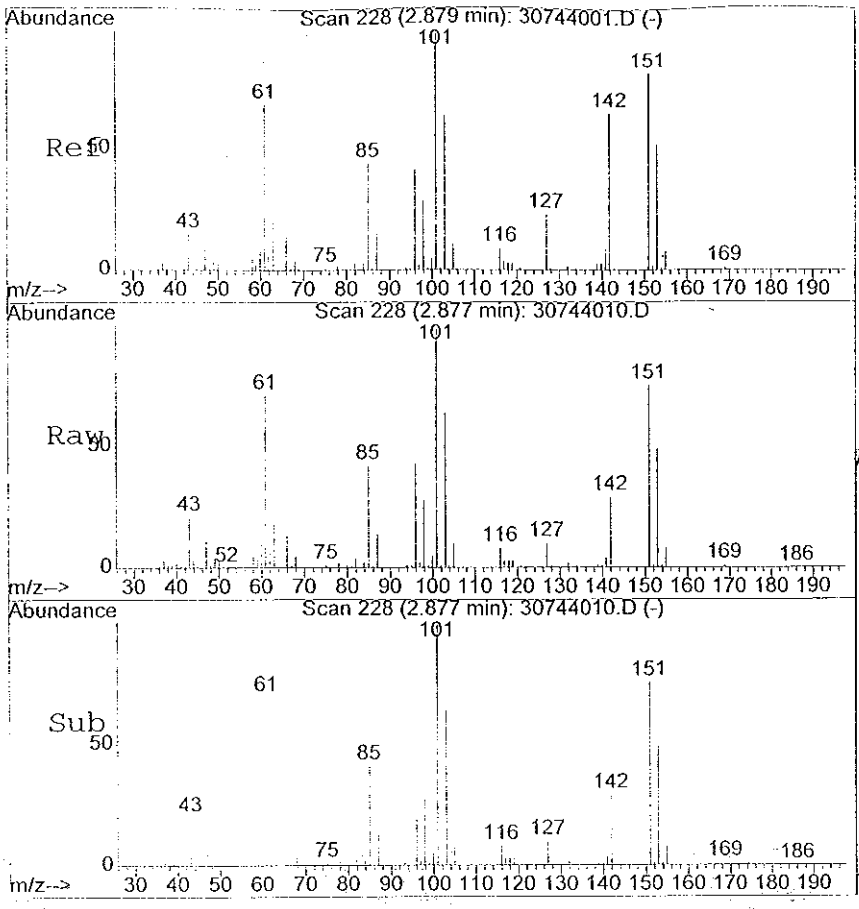
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72)	n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74)	1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75)	Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76)	Naphthalene	28.35	128	2562909	32.91	ug/L	100
77)	1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

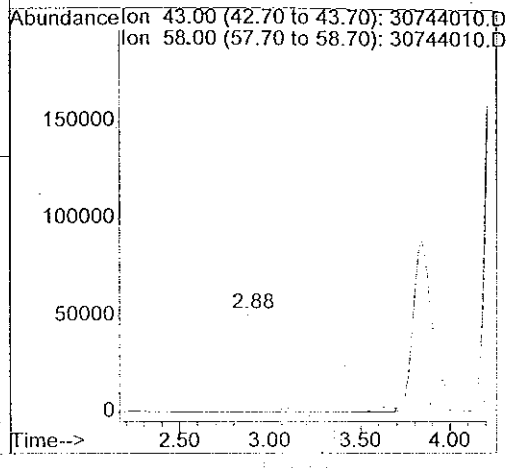




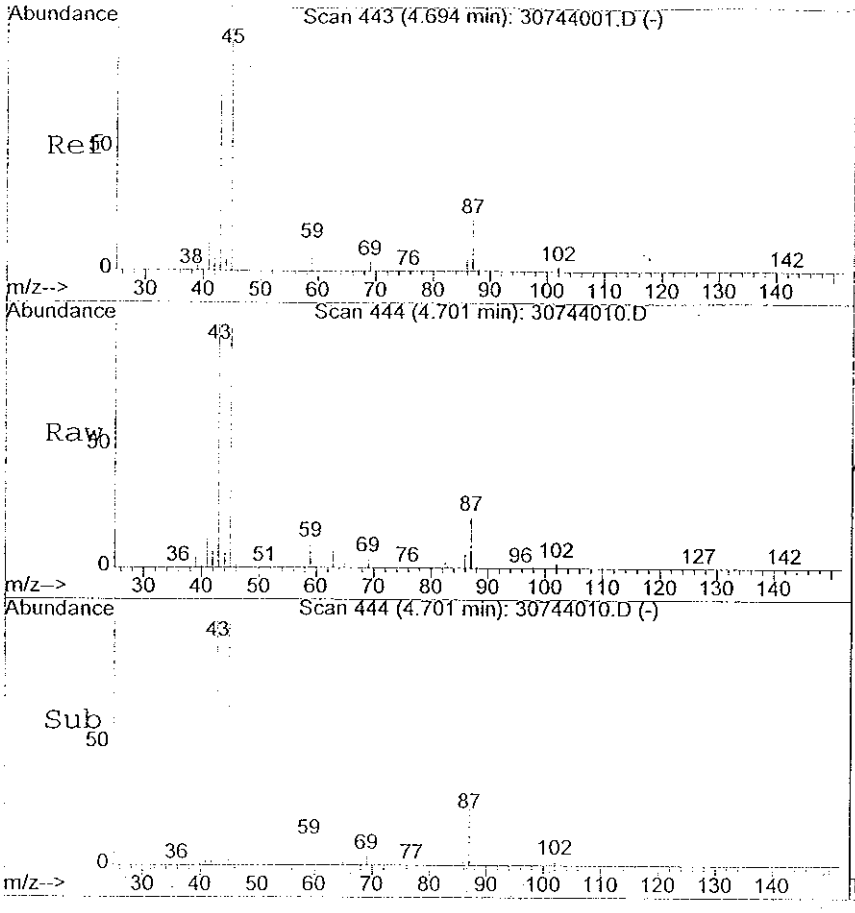
#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



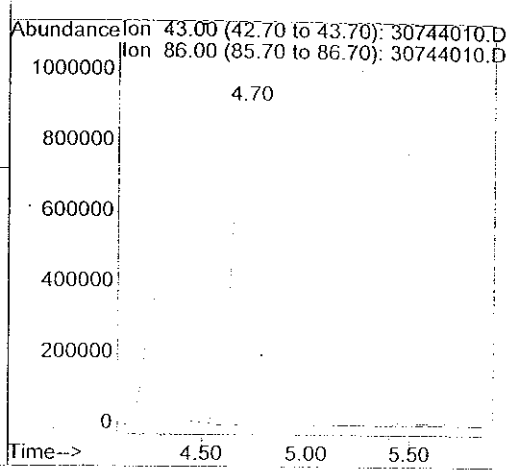
10-31
for 10/31-01



#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

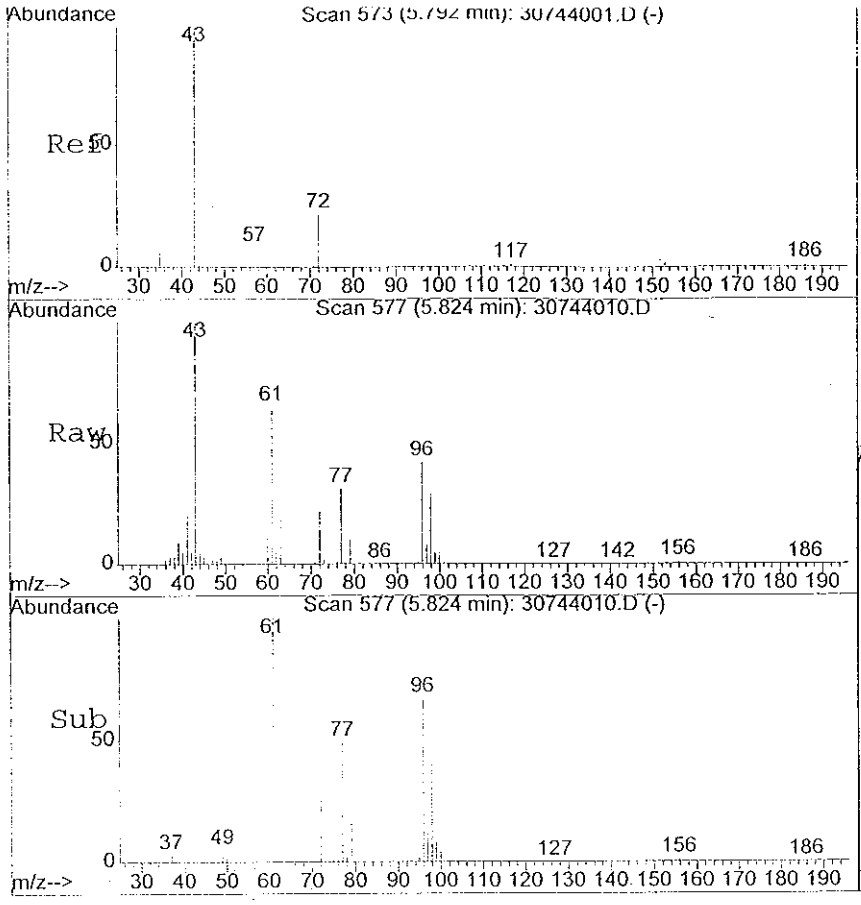
Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9



10-31
10-31-01

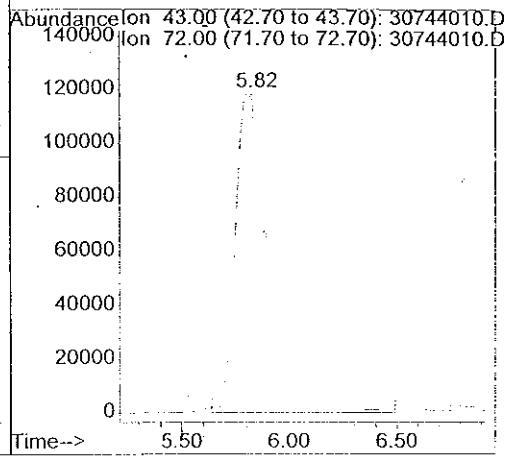
396



#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



10-31
AM 10-31-01

30744010.D V82625B1.M Acq :30 Oct 2001 14:43
Sample = 30ppb VOA STD Misc = 30ppb VOA STD

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

* = out of control limits
Wed Oct 31 05:36:32 2001

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26) Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27) 1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28) Benzene	7.87	78	3192959	9.73	ug/L	99
29) 1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30) Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31) 1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32) Dibromomethane	10.35	93	503678	10.29	ug/L	99
33) 2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34) Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35) cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37) Toluene	12.46	92	2053379	9.72	ug/L	100
38) trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40) Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41) 1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42) Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43) 1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44) 4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45) 2-Hexanone	14.01	43	421508	20.32	ug/L	99
47) Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48) 1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50) Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51) m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52) o-Xylene	17.08	106	1353170	10.02	ug/L	98
53) Styrene	17.15	104	2130325	9.94	ug/L	99
54) Bromoform	17.61	173	551199	10.58	ug/L	100
55) Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58) Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60) 1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61) n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62) 2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63) 4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64) 1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65) tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66) 1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67) sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68) 1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69) p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72)	n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74)	1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75)	Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76)	Naphthalene	28.32	128	757496	10.96	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

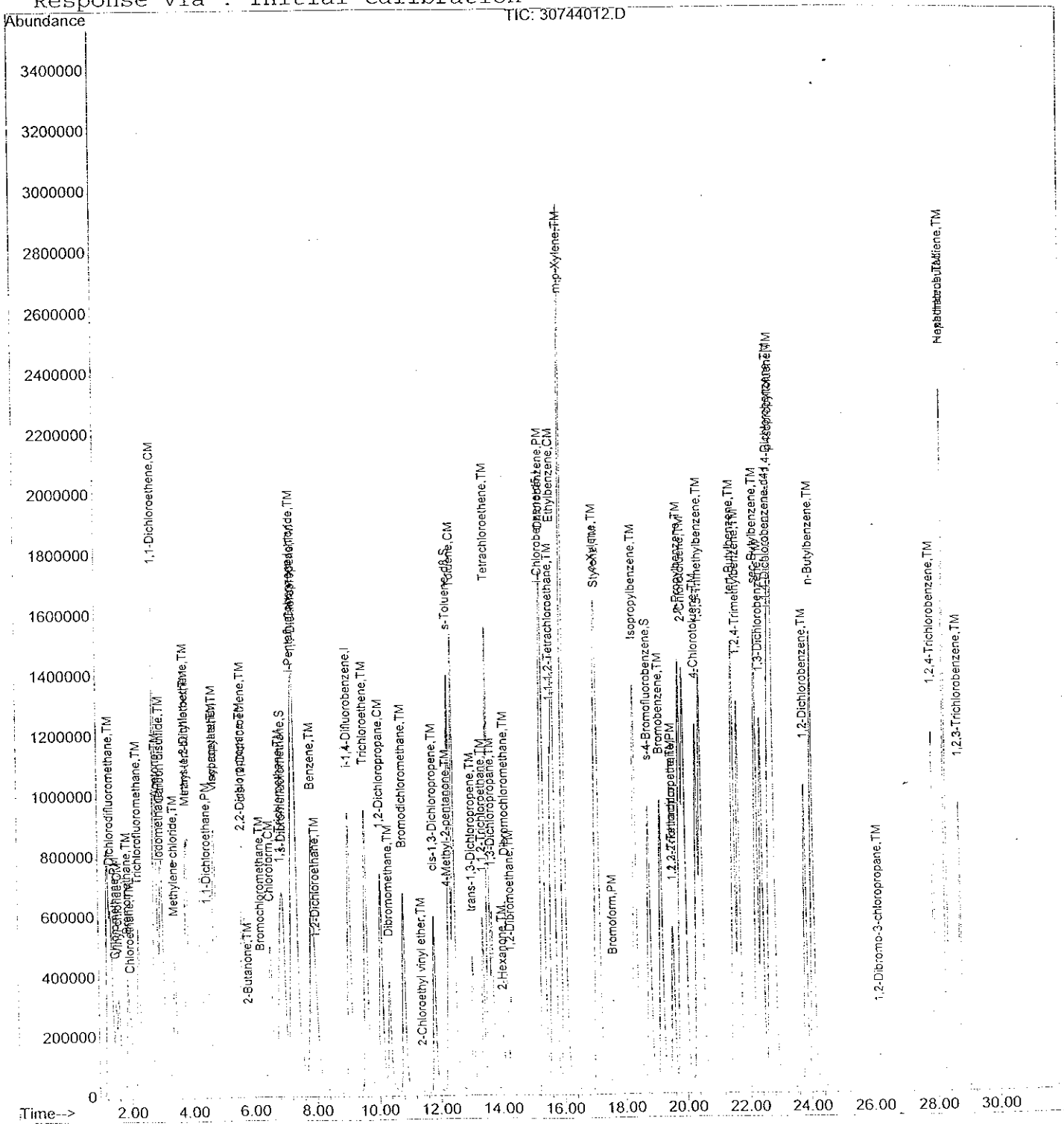
(#) = qualifier out of range (m) = manual integration

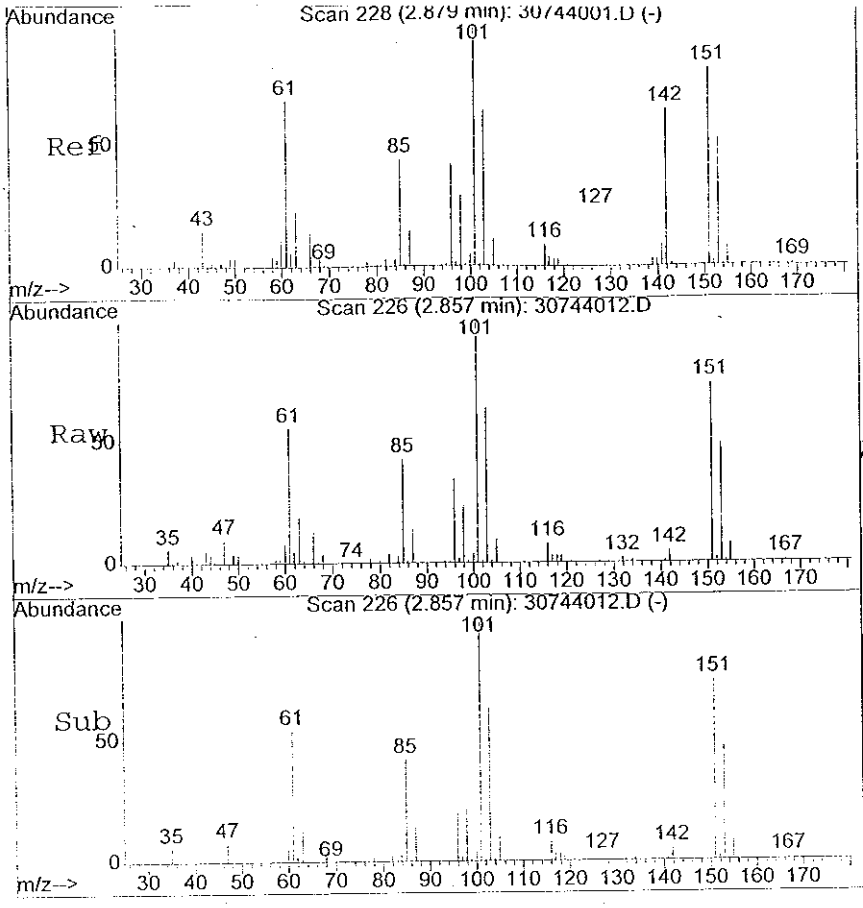
Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration

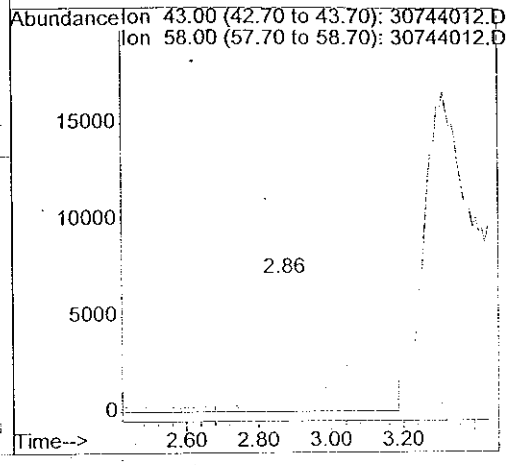




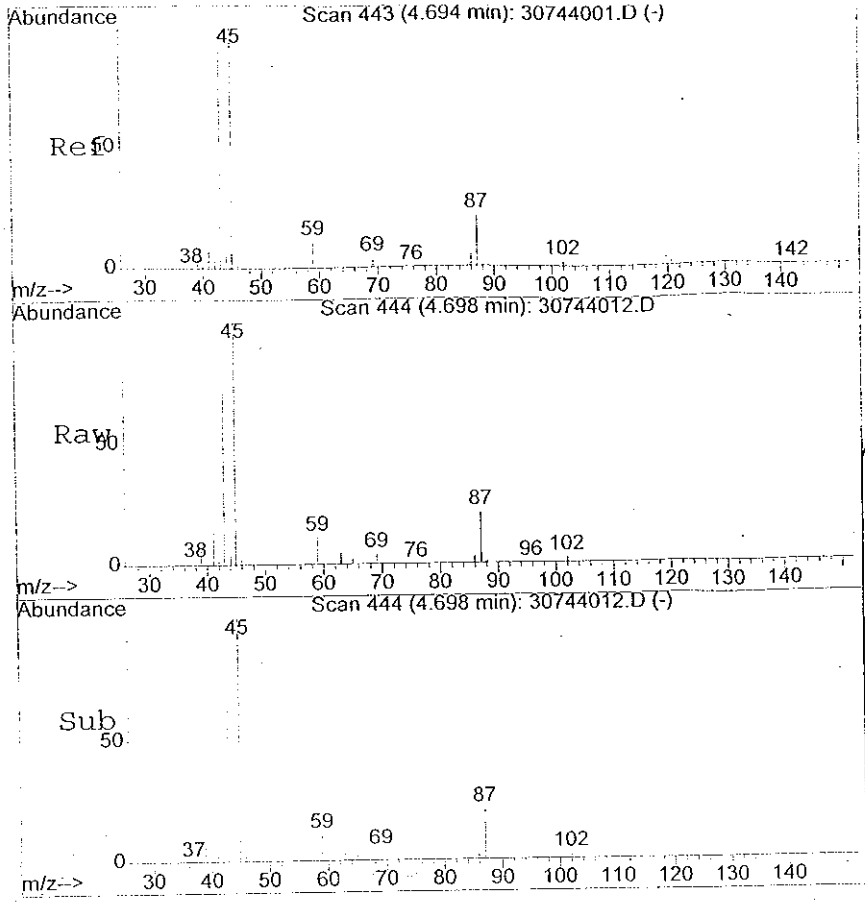
#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 93381

Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



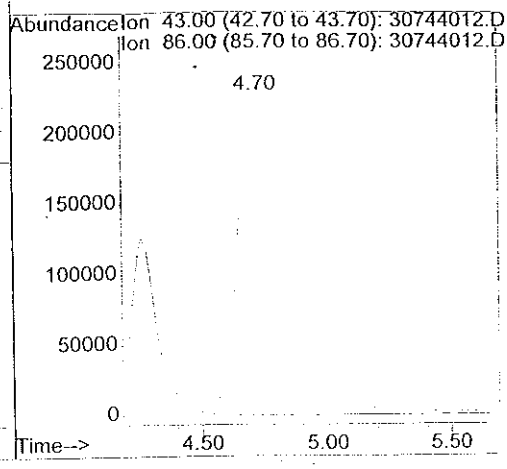
10-31
10-31-01



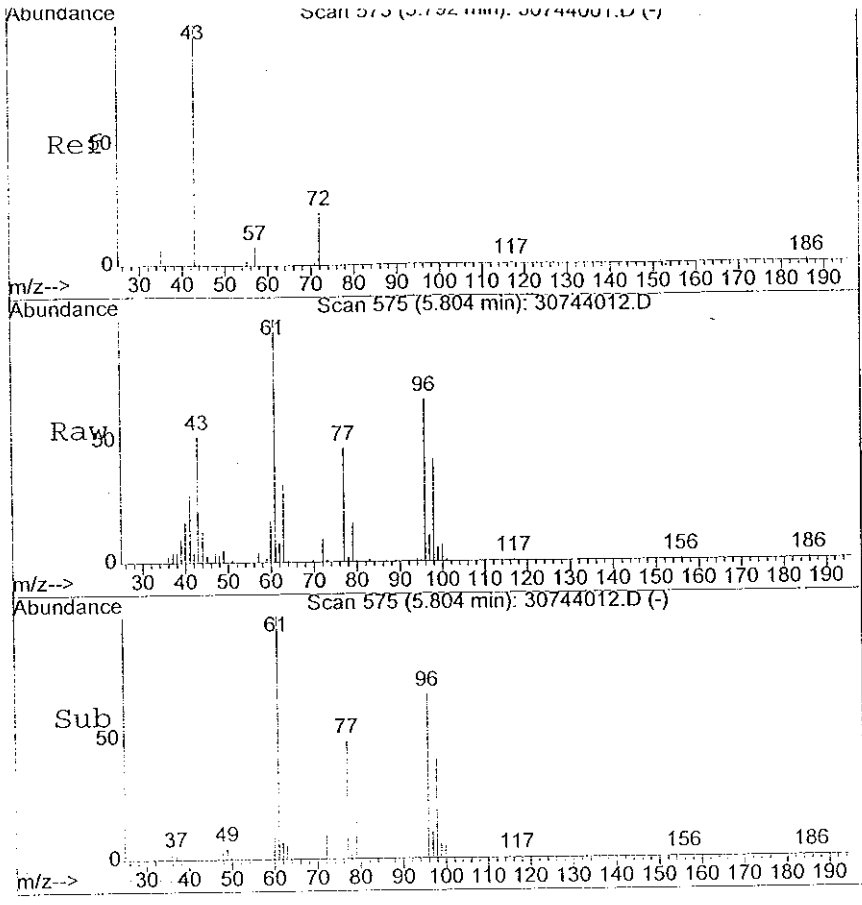
#16
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 2328403

Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9

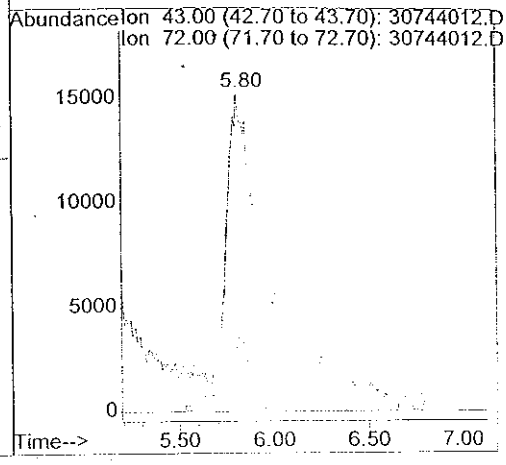


10-31



#19
2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43	Resp:	250575	
Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
MW 10-31-01

30744012.D V82625B1.M Acq :30 Oct 2001 16:03
Sample = 2nd SOURCE STD 8-MSW Misc = IND CHK STD 8-MSW-25-2

Sequence Name: D:\HPCHEM\1\SEQUENCE\110101.S
Comment: 11-01-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110101\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30746001	V82625A	TUNE
3	Sample	15	30746002	V82625A	10ppb VOA STD
4	Sample	16	30746003	V82625A	BUW148ABK BLANK 11-01-01
5	Sample	1	30746004	V82625A	BUW148ALCS LCS 11-01-01
6	Sample	2	30746005	V82625A	110611-1 MS
7	Sample	3	30746006	V82625A	110611-1 MSD
8	Sample	4	30746007	V82625A	110611-1
9	Sample	5	30746008	V82625A	110599-1
10	Sample	6	30746009	V82625A	110599-2
11	Sample	7	30746010	V82625A	110599-3
12	Sample	8	30746011	V82625A	110599-4
13	Sample	9	30746012	V82625A	110611-2
14	Sample	10	30746013	V82625A	110611-3
15	Sample	11	30746014	V82625A	110611-4
16	Sample	12	30746015	V82625A	110611-1 2.5ml 10X
17	Sample	13	BLANK	V82625A	BLANK

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30746002.D Date Analyzed : 1 Nov 2001
Instrument ID : Bubba Time Analyzed : 8:46
GC Column : ID : (mm) Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30746003	BUW148ABK BLANK	101	100	98	0	0	0	0
30746004	BUW148ALCS LCS	94	100	100	0	0	0	0
30746005	110611-1 MS	98	99	99	0	0	0	0
30746006	110611-1 MSD	102	100	101	0	0	0	0
30746007	110611-1	93	98	93	0	0	0	0
30746008	110599-1	97	96	96	0	0	0	0
30746009	110599-2	105	99	98	0	0	0	0
30746010	110599-3	100	99	97	0	0	0	0
30746011	110599-4	91	97	94	0	0	0	0
30746012	110611-2	86	99	93	0	0	0	0
30746013	110611-3	100	99	99	0	0	0	0
30746014	110611-4	90	97	92	0	0	0	0
30746015	110611-1 2.5ml	110	100	99	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30746002.D Date Analyzed : 1 Nov 2001
Instrument ID : Bubba Time Analyzed : 8:46
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	3027449		7.21		3043688		9.05		2174579		15.31	
UPPER LIMIT	6054898		7.71		6087376		9.55		4349158		15.81	
LOWER LIMIT	1513725		6.71		1521844		8.55		1087290		14.81	
File ID Sample												
30746003 BUW148ABK	3173460		7.25		3152823		9.06		2245110		15.31	
30746004 BUW148ALC	3117602		7.25		3081087		9.07		2131075		15.33	
30746005 110611-1	3072249		7.24		2998298		9.06		2053033		15.32	
30746006 110611-1	3091188		7.25		3129479		9.06		2197938		15.31	
30746007 110611-1	2848937		7.22		2758973		9.06		1839341		15.32	
30746008 110599-1	3262908		7.23		3169397		9.06		2216827		15.32	
30746009 110599-2	3023416		7.24		3047744		9.07		2211554		15.33	
30746010 110599-3	3190094		7.24		3183839		9.06		2244139		15.32	
30746011 110599-4	3108628		7.22		2981142		9.05		1989489		15.31	
30746012 110611-2	3250463		7.22		3030860		9.06		2049129		15.32	
30746013 110611-3	3196050		7.22		3175920		9.05		2307612		15.31	
30746014 110611-4	3036420		7.23		2919137		9.06		1947661		15.33	
30746015 110611-1	2907775		7.25		3034454		9.07		2197557		15.33	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

409

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30746002.D Date Analyzed : 1 Nov 2001
Instrument ID : Bubba Time Analyzed : 8:46
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1234004		22.68		0		0.00		0		0.00	
UPPER LIMIT	2468008		23.18		0		0.00		0		0.00	
LOWER LIMIT	617002		22.18		0		0.00		0		0.00	
File ID Sample												
30746003 BUW148ABK	1088520		22.68		0		0.00		0		0.00	
30746004 BUW148ALC	1195267		22.70		0		0.00		0		0.00	
30746005 110611-1	1111202		22.69		0		0.00		0		0.00	
30746006 110611-1	1240862		22.69		0		0.00		0		0.00	
30746007 110611-1	831719		22.69		0		0.00		0		0.00	
30746008 110599-1	1063236		22.69		0		0.00		0		0.00	
30746009 110599-2	1108654		22.70		0		0.00		0		0.00	
30746010 110599-3	1093632		22.68		0		0.00		0		0.00	
30746011 110599-4	920785		22.67		0		0.00		0		0.00	
30746012 110611-2	958963		22.70		0		0.00		0		0.00	
30746013 110611-3	1134134		22.68		0		0.00		0		0.00	
30746014 110611-4	882664		22.69		0		0.00		0		0.00	
30746015 110611-1	1092338		22.70		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

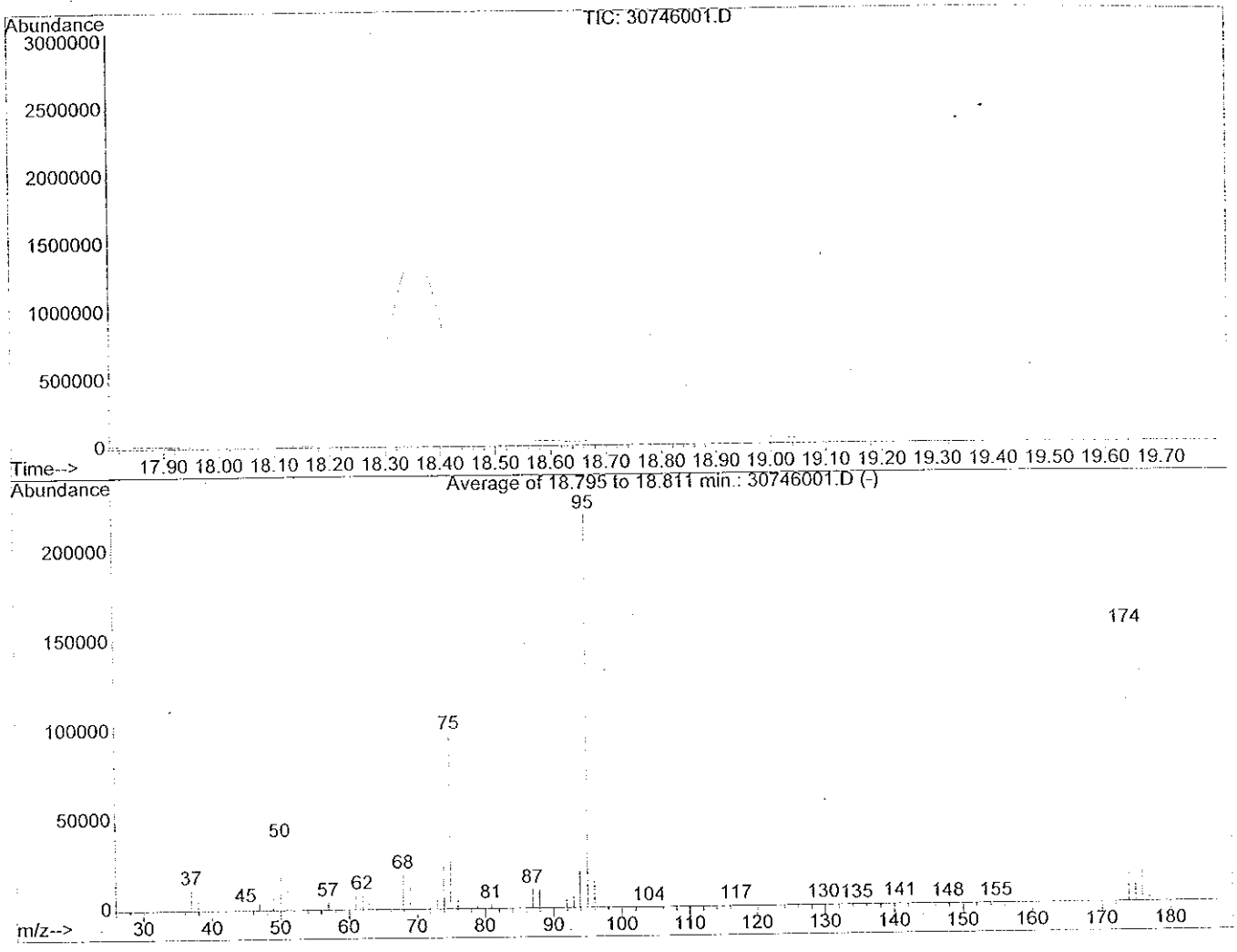
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\110101\30746001.D
Acq On : 1 Nov 2001 8:05
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2114 (18.80 min)
Average of 3 scans: 2113,2114,2115 minus background scan 2094 (18.63 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	37840	PASS
75	95	30	60	44.3	97312	PASS
95	95	100	100	100.0	219755	PASS
96	95	5	9	6.8	14893	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	69.5	152683	PASS
175	174	5	9	7.2	10993	PASS
176	174	95	101	96.9	147883	PASS
177	176	5	9	6.5	9571	PASS

Average of 18.795 to 18.811 min.: 30746001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	2367	57.00	4433	75.00	97312	173.90	152683
36.95	11712	59.95	1711	76.00	7362	174.90	10993
37.90	9137	60.95	7700	78.90	2154	175.90	147883
38.95	3442	61.95	8154	80.90	2512	176.90	9571
44.95	1690	62.95	5086	86.95	10711		
46.90	4168	67.95	19411	87.95	10247		
47.85	1175	68.95	19333	91.95	4673		
48.95	7838	69.90	1539	92.95	6529		
50.00	37840	71.95	1139	93.90	20329		
51.00	11005	73.00	7717	95.00	219755		
56.00	2438	74.00	27915	96.00	14893		

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.313	-1.3	103	-0.02
42	TM	Dibromochloromethane	0.295	0.301	-2.0	103	0.00
43	TM	1,2-Dibromoethane	0.200	0.205	-2.5	103	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.118	-3.5	110	0.00
45	TM	2-Hexanone	0.069	0.076	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
47	PM	Chlorobenzene	1.050	0.994	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.451	3.0	100	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	95	0.00
50	CM	Ethylbenzene	0.567	0.530	6.5#	99	0.00
51	TM	m,p-Xylene	0.683	0.651	4.7	98	0.00
52	TM	o-Xylene	0.635	0.607	4.4	98	0.00
53	TM	Styrene	1.007	0.987	2.0	99	-0.02
54	PM	Bromoform	0.245	0.259	-5.7	106	-0.02
55	TM	Isopropylbenzene	2.040	1.960	3.9	99	-0.02
56	S	s-4-Bromofluorobenzene	0.760	0.775	-2.0	102	-0.03
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	-0.02
58	TM	Bromobenzene	0.928	0.866	6.7	102	-0.02
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	105	-0.02
60	TM	1,2,3-Trichloropropane	0.395	0.363	8.1	106	-0.03
61	TM	n-Propylbenzene	0.909	0.863	5.1	99	-0.02
62	TM	2-Chlorotoluene	0.856	0.773	9.7	99	-0.03
63	TM	4-Chlorotoluene	2.990	2.831	5.3	101	-0.03
64	TM	1,3,5-Trimethylbenzene	2.784	2.572	7.6	99	-0.02
65	TM	tert-Butylbenzene	1.825	1.685	7.7	101	-0.03
66	TM	1,2,4-Trimethylbenzene	2.442	2.306	5.6	97	-0.02
67	TM	sec-Butylbenzene	4.012	3.803	5.2	100	-0.02
68	TM	1,3-Dichlorobenzene	1.709	1.588	7.1	100	-0.02
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	100	-0.02
70	TM	1,4-Dichlorobenzene	1.630	1.534	5.9	105	-0.02
71	TM	1,2-Dichlorobenzene	1.359	1.278	6.0	101	-0.03
72	TM	n-Butylbenzene	2.797	2.892	-3.4	100	-0.03
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	106	-0.02
74	TM	1,2,4-Trichlorobenzene	0.763	0.804	-5.4	105	0.00
75	TM	Hexachlorobutadiene	0.873	0.803	8.0	103	0.00
76	TM	Naphthalene	0.582	0.627	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.605	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	102	-0.03
2	TM	Dichlorodifluoromethane	10.000	9.346	6.5	101	0.00
3	PM	Chloromethane	10.000	9.498	5.0	99	0.00
4	CM	Vinyl chloride	10.000	9.443	5.6#	101	0.00
5	TM	Bromomethane	10.000	8.996	10.0	95	0.00
6	TM	Chloroethane	10.000	9.510	4.9	99	0.00
7	TM	Trichlorofluoromethane	10.000	9.813	1.9	102	0.00
8	CM	1,1-Dichloroethene	10.000	9.629	3.7#	101	0.00
9	TM	Acetone	40.000	40.305	-0.8	106	0.00
10	TM	Iodomethane	10.000	9.123	8.8	93	-0.03
11	TM	Carbon disulfide	10.000	9.551	4.5	99	-0.02
12	TM	Methylene chloride	10.000	9.687	3.1	99	-0.02
13	TM	trans-1,2-Dichloroethene	10.000	9.581	4.2	98	-0.02
14	TM	Methyl tert-butyl ether	10.000	10.363	-3.6	106	0.00
15	PM	1,1-Dichloroethane	10.000	9.644	3.6	99	-0.03
16	TM	Vinyl acetate	20.000	19.788	1.1	101	-0.02
17	TM	Isopropyl ether	10.000	10.145	-1.4	101	-0.03
18	TM	2,2-Dichloropropane	10.000	9.333	6.7	94	-0.02
19	TM	2-Butanone	40.000	41.098	-2.7	106	-0.06
20	TM	cis-1,2-Dichloroethene	10.000	9.710	2.9	96	-0.03
21	TM	Bromochloromethane	10.000	10.443	-4.4	106	-0.02
22	CM	Chloroform	10.000	9.602	4.0#	99	-0.03
23	TM	1,1,1-Trichloroethane	10.000	9.793	2.1	99	-0.04
24	S	s-Dibromofluoromethane	10.000	10.049	-0.5	102	-0.03
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	-0.02
26	TM	Carbon tetrachloride	10.000	9.189	8.1	101	-0.03
27	TM	1,1-Dichloropropene	10.000	10.116	-1.2	102	-0.02
28	TM	Benzene	10.000	9.653	3.5	99	-0.03
29	TM	1,2-Dichloroethane	10.000	9.602	4.0	99	-0.04
30	TM	Trichloroethene	10.000	9.579	4.2	100	0.00
31	CM	1,2-Dichloropropane	10.000	9.687	3.1#	99	-0.02
32	TM	Dibromomethane	10.000	10.090	-0.9	103	-0.02
33	TM	2-Chloroethyl vinyl ether	10.000	10.519	-5.2	101	0.00
34	TM	Bromodichloromethane	10.000	9.821	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	10.000	10.100	-1.0	102	-0.02
36	S	s-Toluene-d8	10.000	10.098	-1.0	101	0.00
37	CM	Toluene	10.000	9.521	4.8#	99	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.394	-3.9	103	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.976	0.2	103	0.00
40	TM	Tetrachloroethene	10.000	9.579	4.2	100	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	10.115	-1.2	103	-0.02
42	TM	Dibromochloromethane	10.000	10.203	-2.0	103	0.00
43	TM	1,2-Dibromoethane	10.000	10.232	-2.3	103	0.00
44	TM	4-Methyl-2-pentanone	40.000	41.561	-3.9	110	0.00
45	TM	2-Hexanone	40.000	44.026	-10.1	110	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	101	0.00
47	PM	Chlorobenzene	10.000	9.469	5.3	99	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.709	2.9	100	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	95	0.00
50	CM	Ethylbenzene	10.000	9.341	6.6#	99	0.00
51	TM	m,p-Xylene	20.000	19.076	4.6	98	0.00
52	TM	o-Xylene	10.000	9.560	4.4	98	0.00
53	TM	Styrene	10.000	9.796	2.0	99	-0.02
54	PM	Bromoform	10.000	10.581	-5.8	106	-0.02
55	TM	Isopropylbenzene	10.000	9.606	3.9	99	-0.02
56	S	s-4-Bromofluorobenzene	10.000	10.198	-2.0	102	-0.03
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	103	-0.02
58	TM	Bromobenzene	10.000	9.324	6.8	102	-0.02
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.656	3.4	105	-0.02
60	TM	1,2,3-Trichloropropane	10.000	10.251	-2.5	106	-0.03
61	TM	n-Propylbenzene	10.000	9.496	5.0	99	-0.02
62	TM	2-Chlorotoluene	10.000	9.031	9.7	99	-0.03
63	TM	4-Chlorotoluene	10.000	9.471	5.3	101	-0.03
64	TM	1,3,5-Trimethylbenzene	10.000	9.238	7.6	99	-0.02
65	TM	tert-Butylbenzene	10.000	9.235	7.7	101	-0.03
66	TM	1,2,4-Trimethylbenzene	10.000	9.442	5.6	97	-0.02
67	TM	sec-Butylbenzene	10.000	9.480	5.2	100	-0.02
68	TM	1,3-Dichlorobenzene	10.000	9.293	7.1	100	-0.02
69	TM	p-Isopropyltoluene	10.000	9.696	3.0	100	-0.02
70	TM	1,4-Dichlorobenzene	10.000	9.410	5.9	105	-0.02
71	TM	1,2-Dichlorobenzene	10.000	9.405	6.0	101	-0.03
72	TM	n-Butylbenzene	10.000	10.340	-3.4	100	-0.03
73	TM	1,2-Dibromo-3-chloropropane	10.000	10.003	-0.0	106	-0.02
74	TM	1,2,4-Trichlorobenzene	10.000	10.537	-5.4	105	0.00
75	TM	Hexachlorobutadiene	10.000	10.461	-4.6	103	0.00
76	TM	Naphthalene	10.000	10.768	-7.7	109	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.633	-6.3	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30745002.D (31 Oct 2001 9:07)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	3027449	10.00	ug/L	-0.03 / 103.20%
25) i-1,4-Difluorobenzene	9.05	114	3043688	10.00	ug/L	-0.02 / 98.79%
46) i-Chlorobenzene-d5	15.31	117	2174579	10.00	ug/L	0.00 / 99.13%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1234004	10.00	ug/L	-0.02 / 99.46%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1408935	10.05	ug/L	-0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.50%			
36) s-Toluene-d8	12.32	98	2911662	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.81	95	1685265	10.20	ug/L	-0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1437771	9.35	ug/L	99
3) Chloromethane	1.50	50	931426	9.50	ug/L	99
4) Vinyl chloride	1.59	62	972374	9.44	ug/L	98
5) Bromomethane	1.89	96	837028	9.00	ug/L	99
6) Chloroethane	1.98	64	573882	9.51	ug/L	96
7) Trichlorofluoromethane	2.22	101	1653555	9.81	ug/L	97
8) 1,1-Dichloroethene	2.77	96	953730	9.63	ug/L	99
9) Acetone	2.87	43	237252m	40.30	ug/L	85
10) Iodomethane	2.92	142	1112219	9.12	ug/L	100
11) Carbon disulfide	2.98	76	2973491	9.55	ug/L	100
12) Methylene chloride	3.39	84	783503	9.69	ug/L	99
13) trans-1,2-Dichloroethene	3.78	96	1052780	9.58	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1252246	10.36	ug/L	100
15) 1,1-Dichloroethane	4.46	63	1883216	9.64	ug/L	98
16) Vinyl acetate	4.68	43	2928917m	19.79	ug/L	100
17) Isopropyl ether	4.70	45	3116805	10.14	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1351483	9.33	ug/L	100
19) 2-Butanone	5.77	43	503184m	41.10	ug/L	100
20) cis-1,2-Dichloroethene	5.64	96	968888	9.71	ug/L	95
21) Bromochloromethane	6.19	128	410080	10.44	ug/L	96
22) Chloroform	6.49	83	1876298	9.60	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.82	97	1598515	9.79	ug/L	98
26)	Carbon tetrachloride	7.27	119	1397321	9.19	ug/L	99
27)	1,1-Dichloropropene	7.32	110	500154	10.12	ug/L	100
28)	Benzene	7.85	78	3189474	9.65	ug/L	98
29)	1,2-Dichloroethane	7.97	62	634114	9.60	ug/L	95
30)	Trichloroethene	9.58	95	1275412	9.58	ug/L	98
31)	1,2-Dichloropropane	10.07	63	1070134	9.69	ug/L	100
32)	Dibromomethane	10.34	93	497383	10.09	ug/L	96
33)	2-Chloroethyl vinyl ether	11.63	63	192173	10.52	ug/L	99
34)	Bromodichloromethane	10.81	83	1501247	9.82	ug/L	100
35)	cis-1,3-Dichloropropene	11.81	75	1201714	10.10	ug/L	98
37)	Toluene	12.46	92	2025528	9.52	ug/L	99
38)	trans-1,3-Dichloropropene	13.05	75	762583	10.39	ug/L	100
39)	1,1,2-Trichloroethane	13.39	83	491621	9.98	ug/L	98
40)	Tetrachloroethene	13.57	166	1472839	9.58	ug/L	100
41)	1,3-Dichloropropane	13.69	76	952215	10.11	ug/L	99
42)	Dibromochloromethane	14.14	129	916096	10.20	ug/L	99
43)	1,2-Dibromoethane	14.28	107	623997	10.23	ug/L	98
44)	4-Methyl-2-pentanone	12.26	43	1440450	41.56	ug/L	99
45)	2-Hexanone	14.02	43	919496	44.03	ug/L	97
47)	Chlorobenzene	15.37	112	2162448	9.47	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	981130	9.71	ug/L	99
50)	Ethylbenzene	15.72	106	1152005	9.34	ug/L	100
51)	m,p-Xylene	16.03	106	2832057	19.08	ug/L	100
52)	o-Xylene	17.09	106	1320214	9.56	ug/L	100
53)	Styrene	17.15	104	2145922	9.80	ug/L	99
54)	Bromoform	17.62	173	563389	10.58	ug/L	99
55)	Isopropylbenzene	18.36	105	4261613	9.61	ug/L	98
58)	Bromobenzene	19.21	156	1068146	9.32	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	767568	9.66	ug/L	98
60)	1,2,3-Trichloropropane	19.57	75	447524	10.25	ug/L	98
61)	n-Propylbenzene	19.84	120	1064636	9.50	ug/L	100
62)	2-Chlorotoluene	19.97	126	953879	9.03	ug/L	100
63)	4-Chlorotoluene	20.36	91	3493924	9.47	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3173298	9.24	ug/L	99
65)	tert-Butylbenzene	21.53	91	2079279	9.23	ug/L	95
66)	1,2,4-Trimethylbenzene	21.71	105	2845648	9.44	ug/L	99
67)	sec-Butylbenzene	22.26	105	4692681	9.48	ug/L	99
68)	1,3-Dichlorobenzene	22.43	146	1959362	9.29	ug/L	99
69)	p-Isopropyltoluene	22.81	119	3613678	9.70	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	1892921	9.41	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

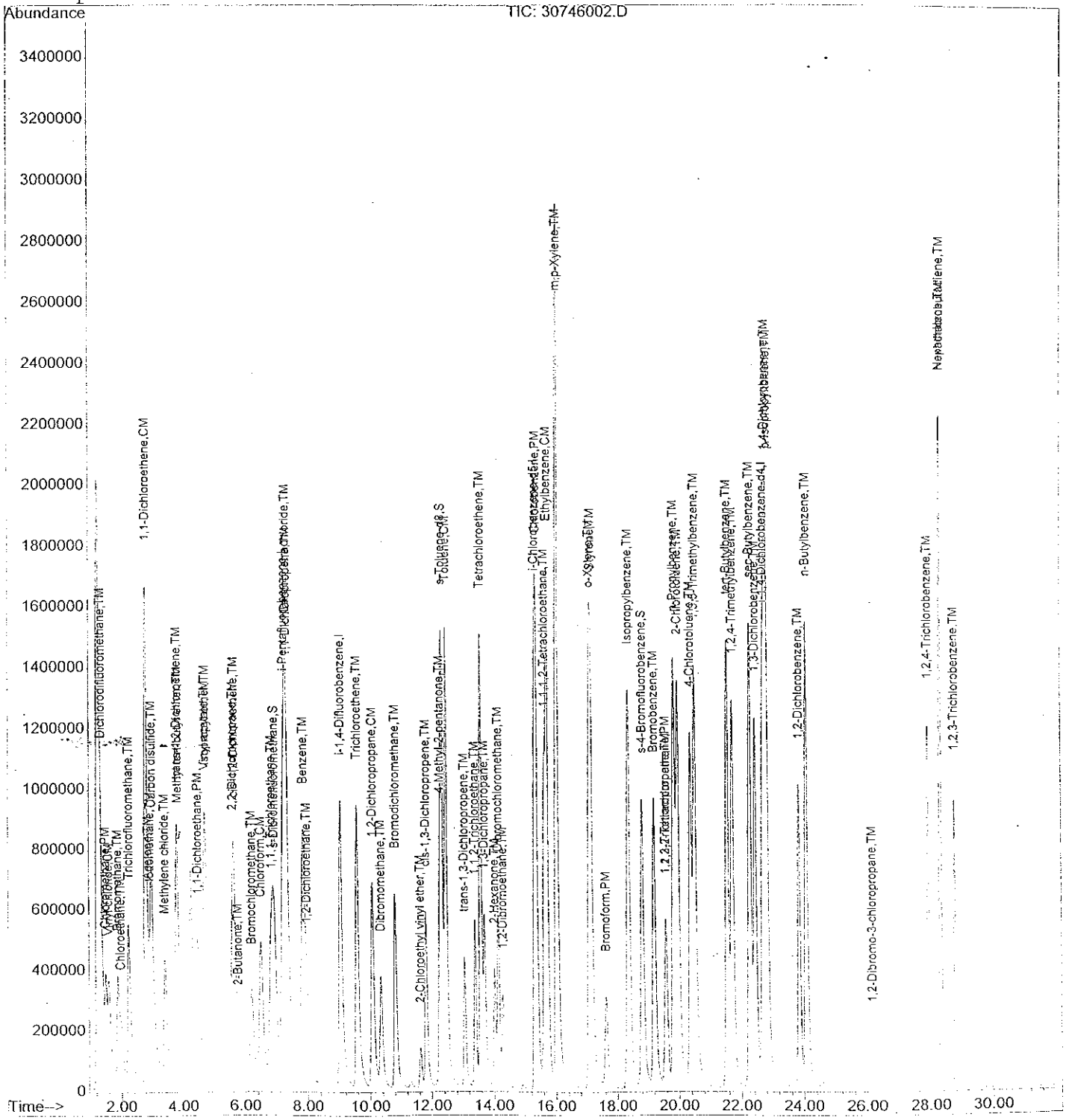
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.84	146	1577665	9.40	ug/L	100
72)	n-Butylbenzene	24.08	91	3569105	10.34	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	107339	10.00	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	992313	10.54	ug/L	99
75)	Hexachlorobutadiene	28.32	225	990395	10.46	ug/L	97
76)	Naphthalene	28.34	128	773437	10.77	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	746495	10.63	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

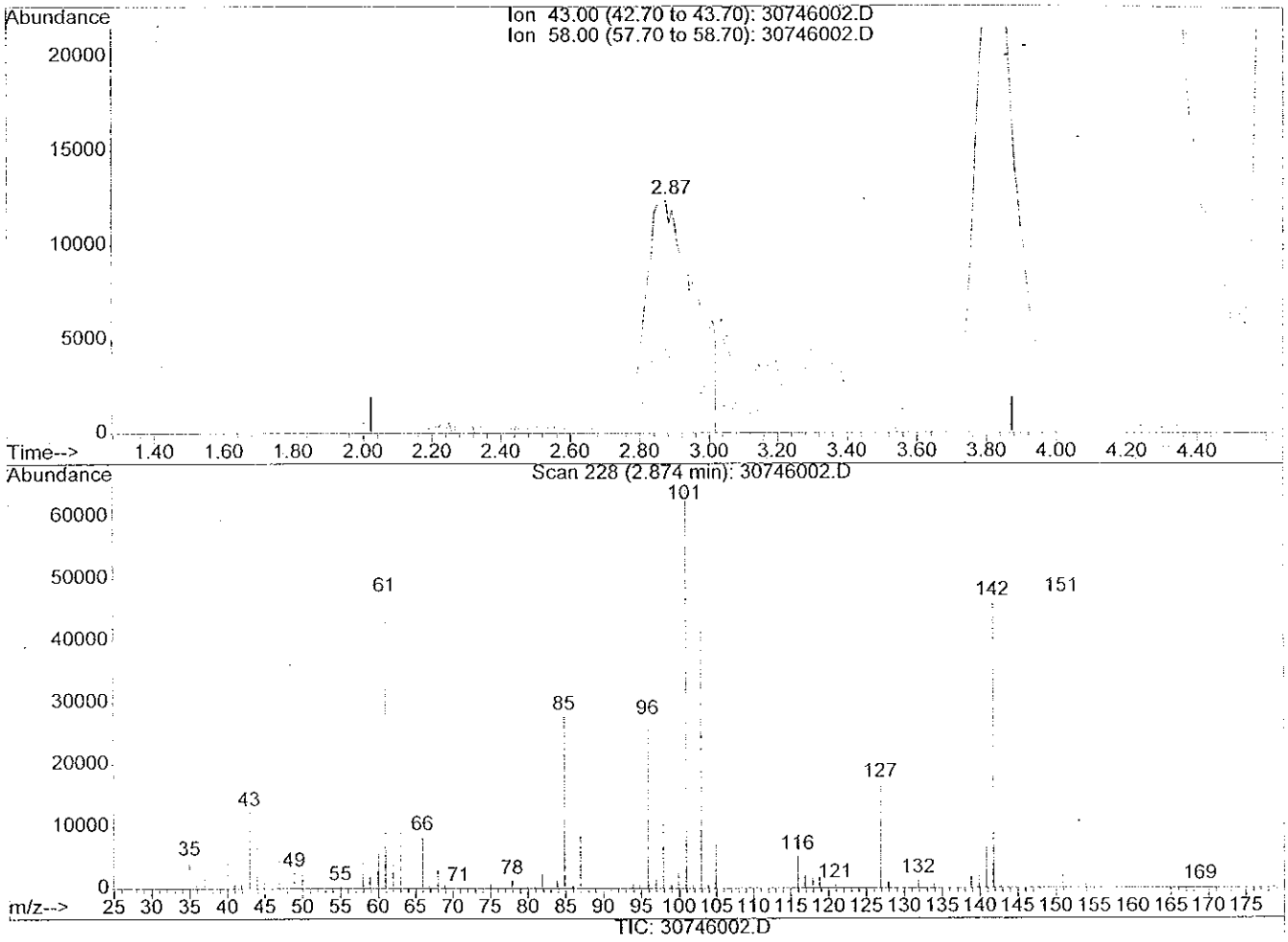


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:16 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min, 21.33ug/L

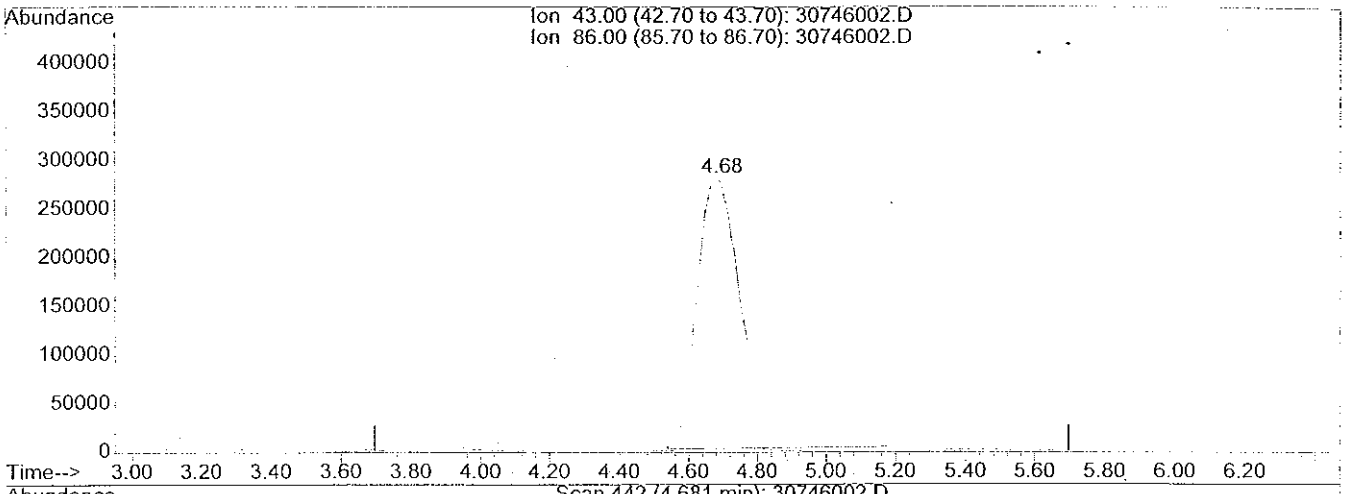
response 125834

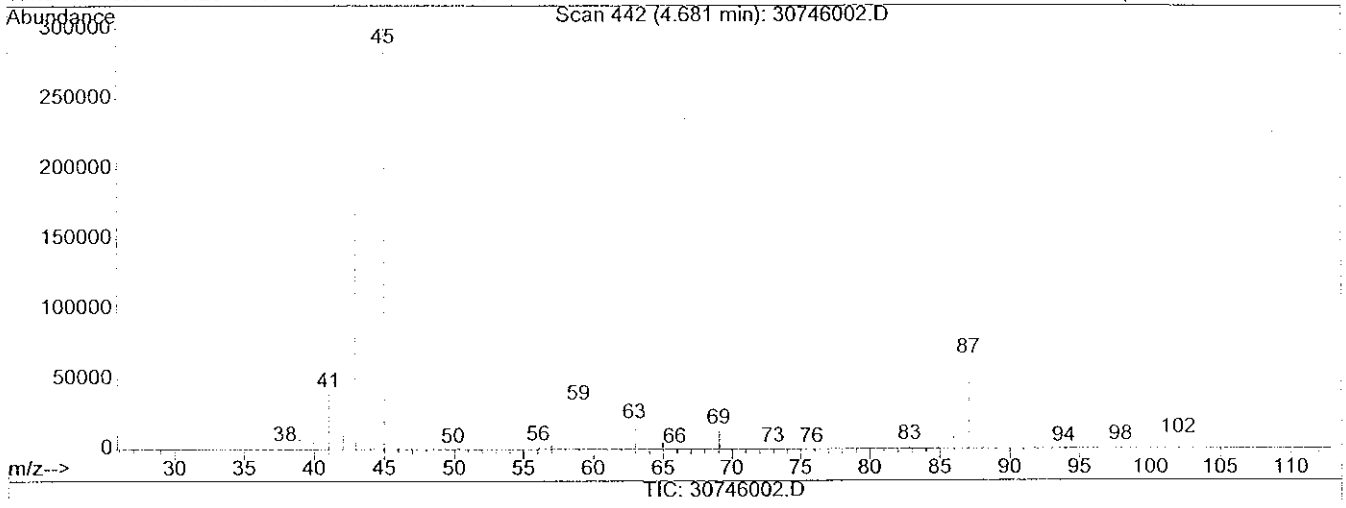
Ion	Exp%	Act%
43.00	100	100
58.00	28.00	35.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration





TIC: 30746002.D

(16) Vinyl acetate (TM)

4.68min 18.30ug/L

response 2709340

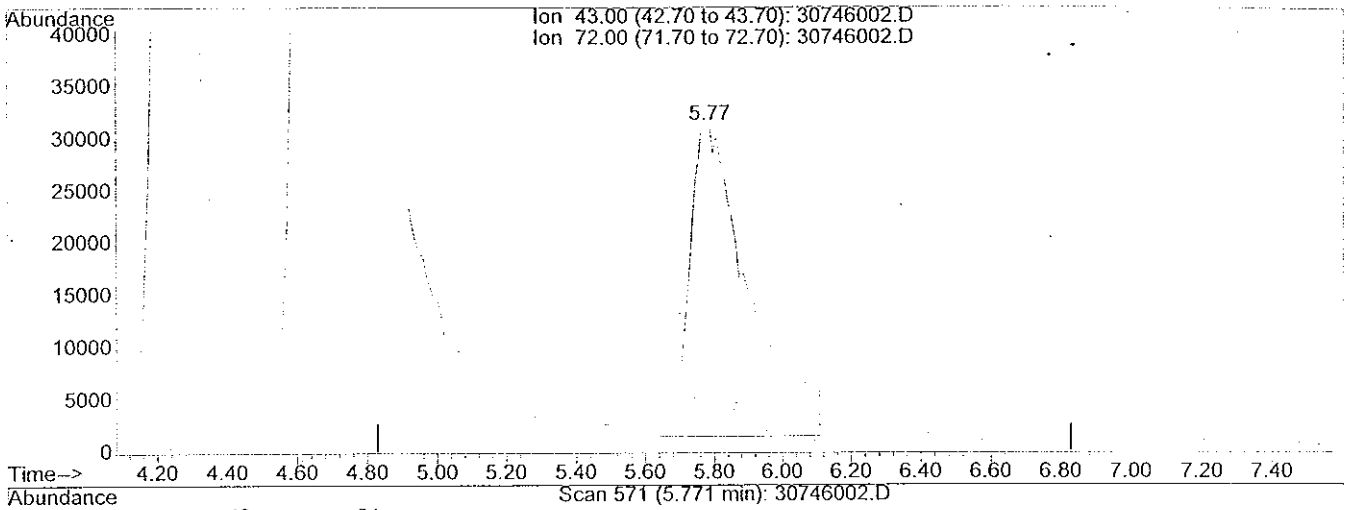
Ion	Exp%	Act%
43.00	100	100
86.00	6.10	5.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

5.77min 29.73ug/L

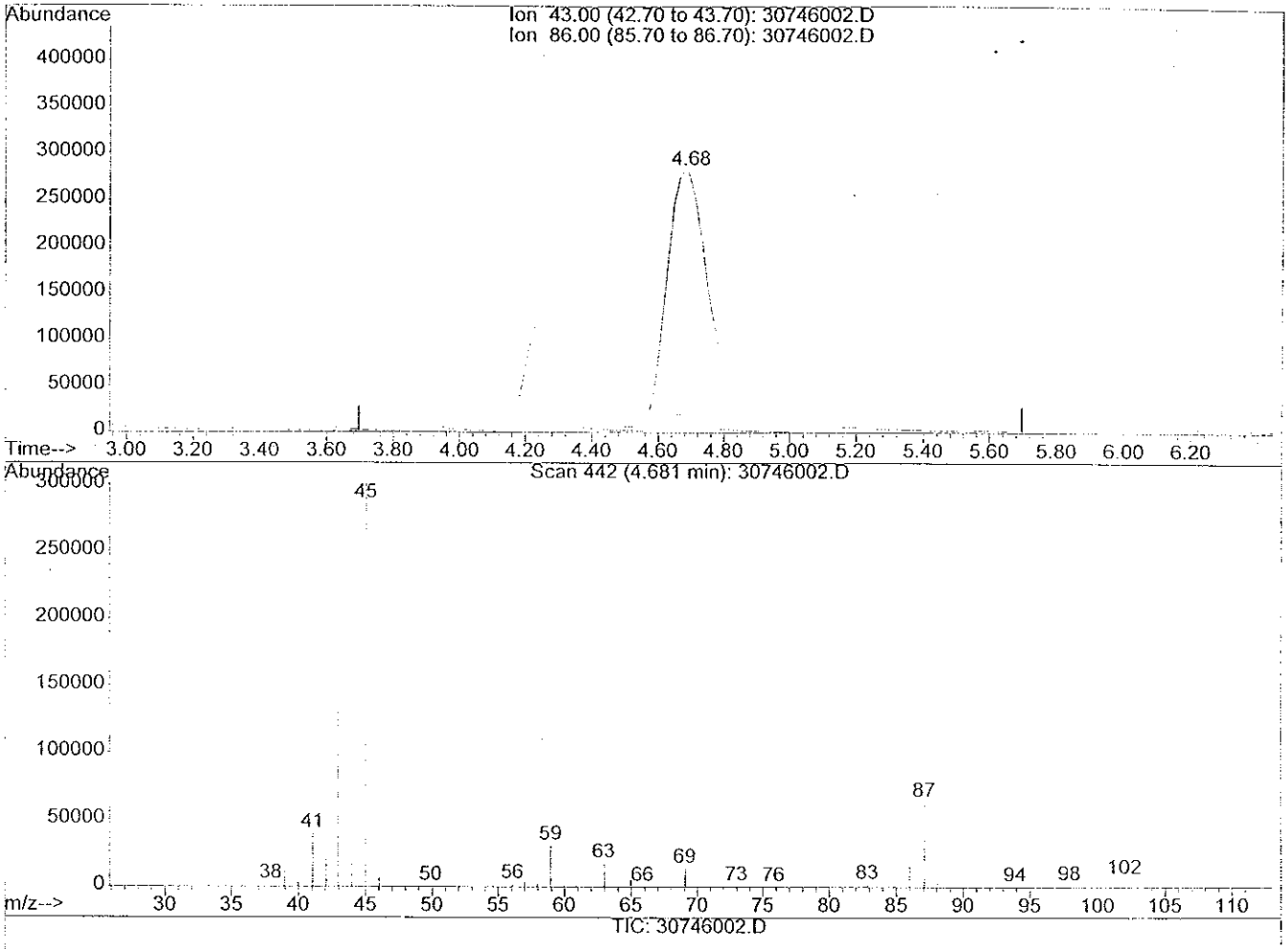
response 363987

Ion	Exp%	Act%
43.00	100	100
72.00	21.70	21.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

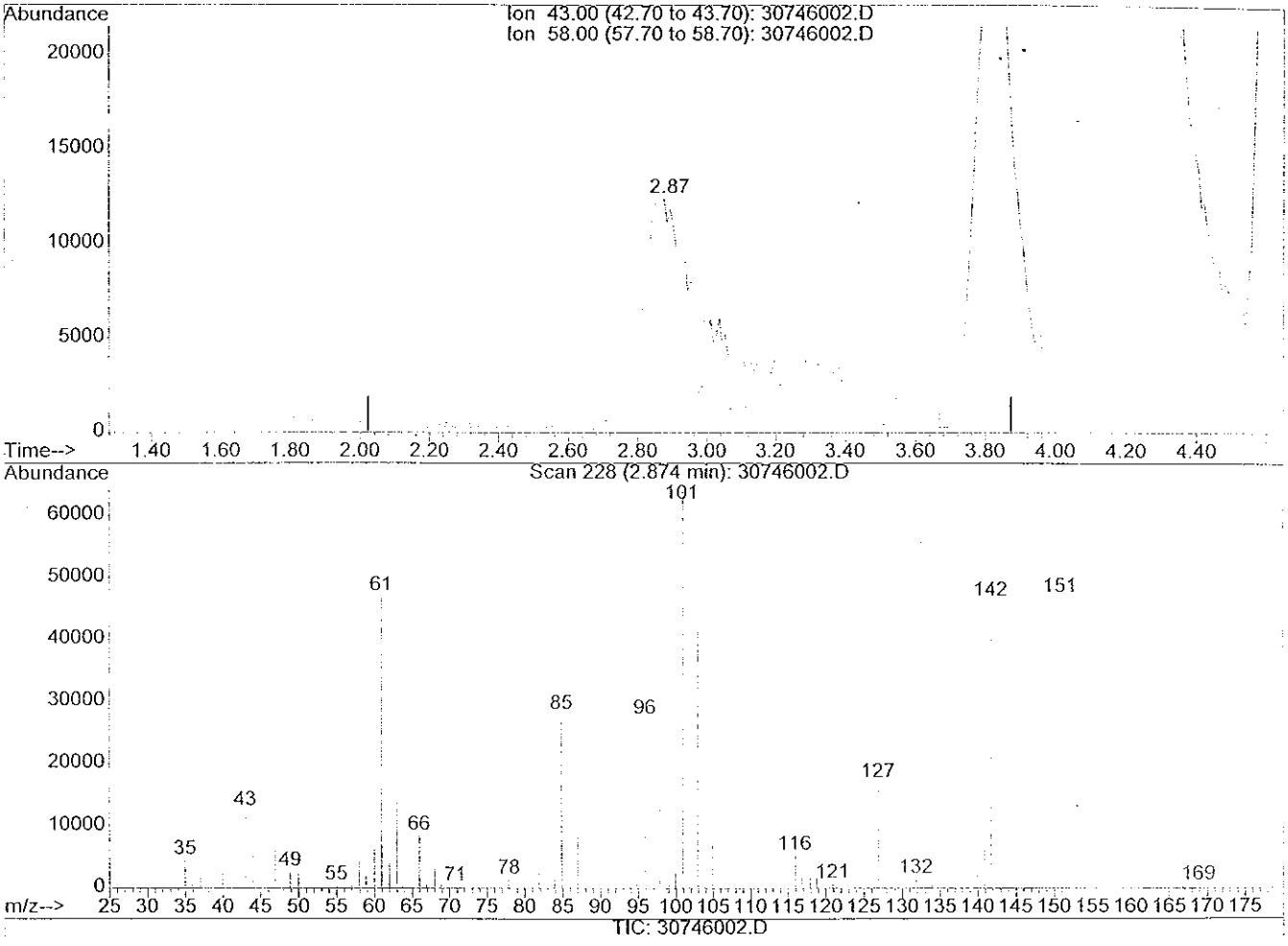
4.68min 19.79ug/L m

response 2928917

Ion	Exp%	Act%
43.00	100	100
86.00	6.10	6.03
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:18 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 40.30ug/L m

response 237252

Ion	Exp%	Act%
43.00	100	100
58.00	28.00	35.98
0.00	0.00	0.00
0.00	0.00	0.00

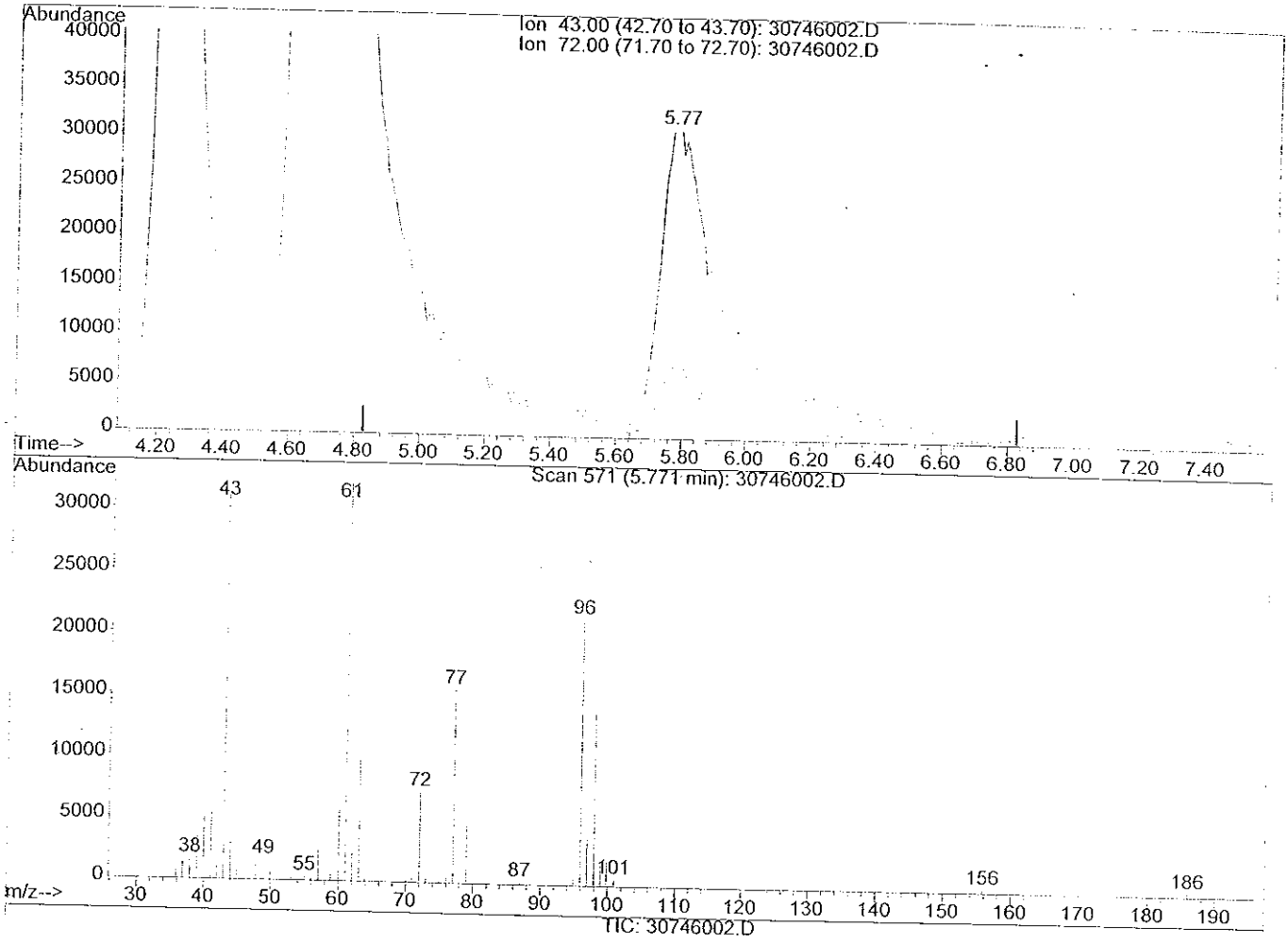
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.re

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



TIC: 30746002.D

(19) 2-Butanone (TM)

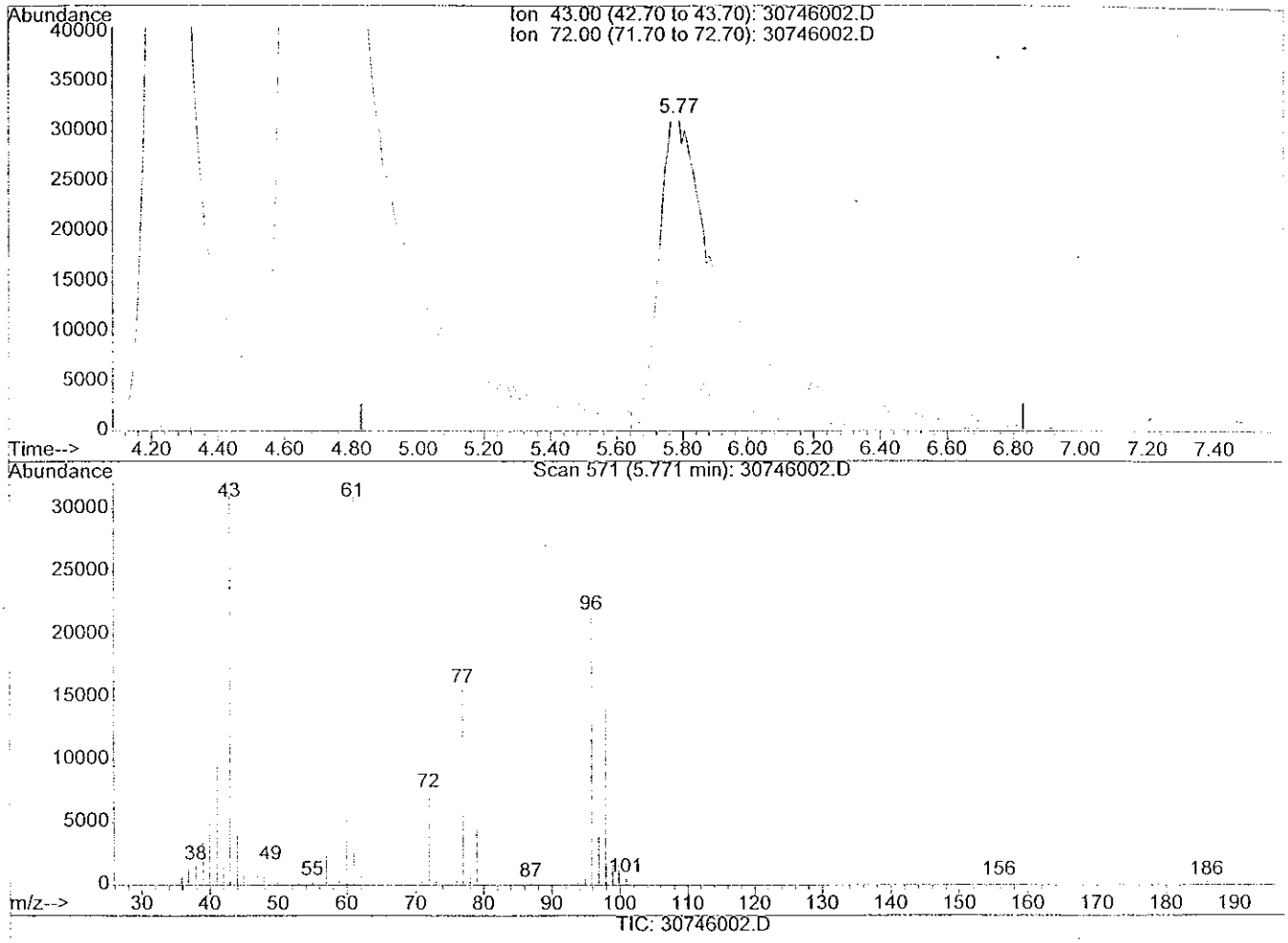
5.77min , 41.10ug/L m

response 503184

Ion	Exp%	Act%
43.00	100	100
72.00	21.70	23.43
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746002.D Vial: 15
Acq On : 1 Nov 2001 8:46 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 9:19 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration



(19) 2-Butanone (TM)

5.77min $_{t}$ 41.10ug/L m

response 503184

Ion	Exp%	Act%
43.00	100	100
72.00	21.70	23.43
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746002.D
Acq On : 1 Nov 2001 8:46
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 09:56:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	102	-0.03
2	TM	Dichlorodifluoromethane	0.508	0.475	6.5	101	0.00
3	PM	Chloromethane	0.324	0.308	4.9	99	0.00
4	CM	Vinyl chloride	0.340	0.321	5.6#	101	0.00
5	TM	Bromomethane	0.307	0.276	10.1	95	0.00
6	TM	Chloroethane	0.199	0.190	4.5	99	0.00
7	TM	Trichlorofluoromethane	0.557	0.546	2.0	102	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	101	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.367	8.9	93	-0.03
11	TM	Carbon disulfide	1.028	0.982	4.5	99	-0.02
12	TM	Methylene chloride	0.267	0.259	3.0	99	-0.02
13	TM	trans-1,2-Dichloroethene	0.363	0.348	4.1	98	-0.02
14	TM	Methyl tert-butyl ether	0.399	0.414	-3.8	106	0.00
15	PM	1,1-Dichloroethane	0.645	0.622	3.6	99	-0.03
16	TM	Vinyl acetate	0.489	0.484	1.0	101	-0.02
17	TM	Isopropyl ether	1.015	1.030	-1.5	101	-0.03
18	TM	2,2-Dichloropropane	0.478	0.446	6.7	94	-0.02
19	TM	2-Butanone	0.040	0.042#	-5.0	106	-0.06
20	TM	cis-1,2-Dichloroethene	0.311	0.320	-2.9	96	-0.03
21	TM	Bromochloromethane	0.130	0.135	-3.8	106	-0.02
22	CM	Chloroform	0.645	0.620	3.9#	99	-0.03
23	TM	1,1,1-Trichloroethane	0.539	0.528	2.0	99	-0.04
24	S	s-Dibromofluoromethane	0.463	0.465	-0.4	102	-0.03
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	-0.02
26	TM	Carbon tetrachloride	0.500	0.459	8.2	101	-0.03
27	TM	1,1-Dichloropropene	0.186	0.164	11.8	102	-0.02
28	TM	Benzene	1.086	1.048	3.5	99	-0.03
29	TM	1,2-Dichloroethane	0.217	0.208	4.1	99	-0.04
30	TM	Trichloroethene	0.437	0.419	4.1	100	0.00
31	CM	1,2-Dichloropropane	0.363	0.352	3.0#	99	-0.02
32	TM	Dibromomethane	0.162	0.163	-0.6	103	-0.02
33	TM	2-Chloroethyl vinyl ether	0.060	0.063	-5.0	101	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	0.391	0.395	-1.0	102	-0.02
36	S	s-Toluene-d8	0.947	0.957	-1.1	101	0.00
37	CM	Toluene	0.699	0.665	4.9#	99	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.251	-4.1	103	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.162	0.0	103	0.00
40	TM	Tetrachloroethene	0.505	0.484	4.2	100	0.00

(#) = Out of Range

Quantitation Report

Data File : d:\HPCHEM\1\DATA\110101\30746003.D Vial: 16
Acq On : 1 Nov 2001 9:26 Operator: GRH
Sample : BUW148ABK BLANK 11-01-01 Inst : Bubba
Misc : BUW148ABK BLANK 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:13 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3173460	10.00	ug/L	0.03 / 104.82%
25) i-1,4-Difluorobenzene	9.06	114	3152823	10.00	ug/L	0.02 / 103.59%
46) i-Chlorobenzene-d5	15.31	117	2245110	10.00	ug/L	0.00 / 103.24%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1088520	10.00	ug/L	0.00 / 88.21%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1478838	10.06	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.60%			
36) s-Toluene-d8	12.33	98	2983964	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1671994	9.80	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.00%			

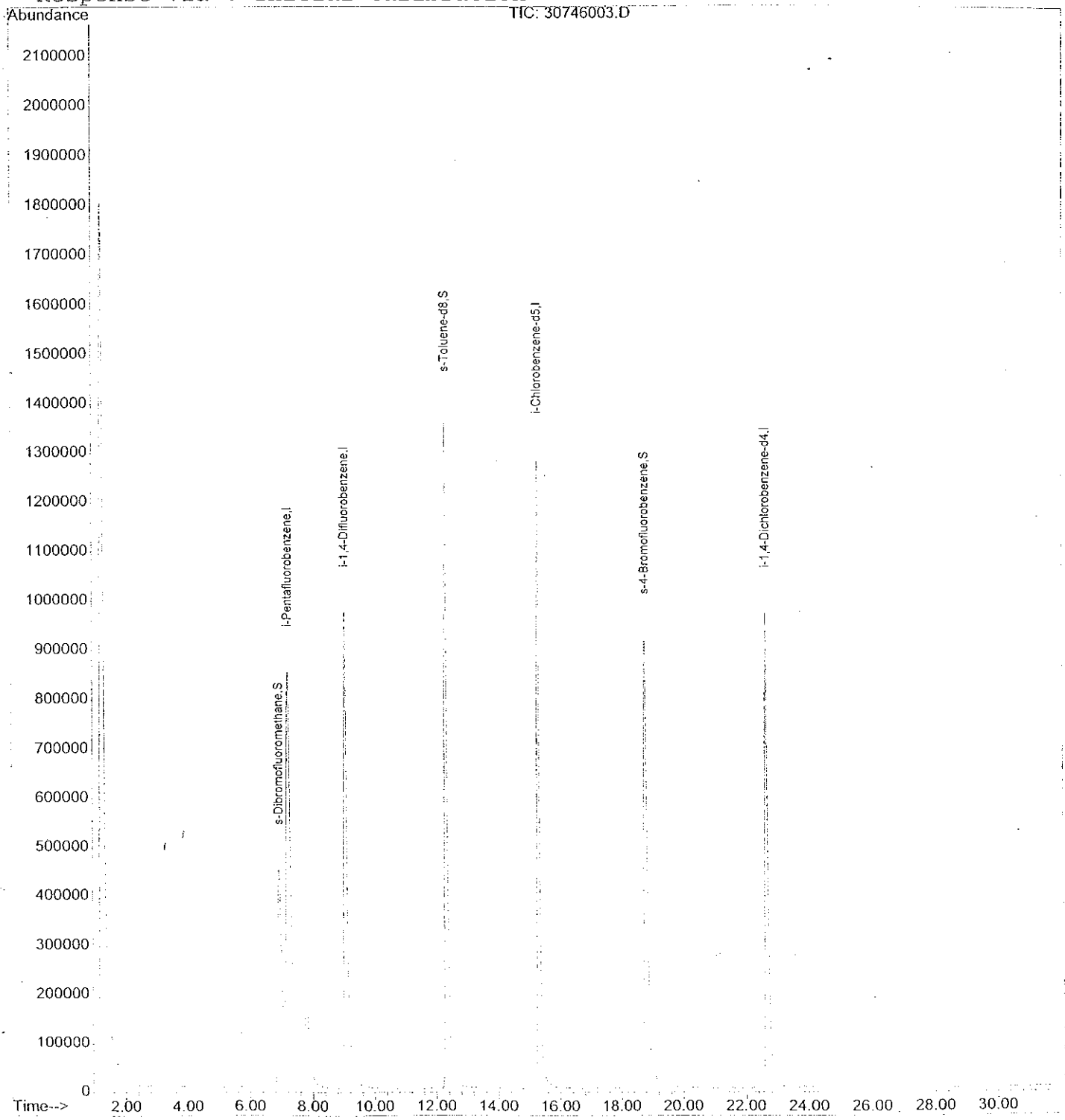
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : d:\HPCHEM\1\DATA\110101\30746003.D
Acq On : 1 Nov 2001 9:26
Sample : BUW148ABK BLANK 11-01-01
Misc : BUW148ABK BLANK 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:13 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RI

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 9:26
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746003.D
Name: BUW148ABK BLANK 11-01-01
Misc: BUW148ABK BLANK 11-01-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746003.D V82625B1.M Mon Nov 05 14:51:35 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.38	10.00	93.85	77 to 119%	[ ]
36)	S	s-Toluene-d8	9.99	10.00	99.87	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.21	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.80	10.00	88.02	30 to 152%	[ ]
3)	PM	Chloromethane	9.27	10.00	92.66	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.57	10.00	95.68	72 to 116%	[ ]
5)	T	Bromomethane	9.48	10.00	94.83	63 to 140%	[ ]
6)	T	Chloroethane	9.98	10.00	99.76	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	103.03	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	10.00	10.00	100.01	84 to 117%	[ ]
9)	T	Acetone	14.75	20.00	73.77	24 to 158%	[ ]
10)	T	Iodomethane	9.93	10.00	99.33	60 to 135%	[ ]
11)	T	Carbon disulfide	10.52	10.00	105.19	79 to 118%	[ ]
12)	T	Methylene chloride	9.91	10.00	99.09	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.49	10.00	94.86	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.68	10.00	96.79	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.39	10.00	93.85	90 to 114%	[ ]
16)	T	Vinyl acetate	13.89	20.00	69.44	75 to 114%	[*]
17)	T	Isopropyl ether	10.30	10.00	103.02	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.89	10.00	98.91	74 to 112%	[ ]
19)	T	2-Butanone	18.27	20.00	91.36	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.32	10.00	103.21	90 to 117%	[ ]
21)	T	Bromochloromethane	10.08	10.00	100.84	91 to 129%	[ ]
22)	CM	Chloroform	9.63	10.00	96.33	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.26	10.00	102.57	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.52	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	11.09	10.00	110.89	84 to 112%	[ ]
28)	T	Benzene	9.87	10.00	98.66	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.52	10.00	95.15	88 to 125%	[ ]
30)	T	Trichloroethene	10.05	10.00	100.45	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.13	10.00	101.29	87 to 112%	[ ]
32)	T	Dibromomethane	9.64	10.00	96.39	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.00	10.00	0.00	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.75	10.00	97.53	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.95	10.00	99.48	61 to 133%	[ ]
37)	CM	Toluene	9.86	10.00	98.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.04	10.00	100.40	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.87	10.00	98.68	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.19	10.00	101.88	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.06	10.00	100.57	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.82	10.00	98.21	73 to 125%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.80	10.00	98.01	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.30	20.00	91.51	70 to 128%	[ ]
45)	T	2-Hexanone	18.91	20.00	94.56	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.97	10.00	99.75	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.11	10.00	101.06	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.92	10.00	99.22	69 to 123%	[ ]
51)	T	m,p-Xylene	20.41	20.00	102.07	70 to 125%	[ ]
52)	T	o-Xylene	10.31	10.00	103.15	73 to 122%	[ ]
53)	T	Styrene	10.10	10.00	100.99	76 to 127%	[ ]
54)	PM	Bromoform	10.39	10.00	103.87	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.29	10.00	102.88	56 to 134%	[ ]
58)	T	Bromobenzene	9.74	10.00	97.40	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.48	10.00	94.75	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	9.92	10.00	99.25	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.37	10.00	103.69	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.03	10.00	100.28	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.26	10.00	102.59	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.96	10.00	99.56	84 to 125%	[ ]
65)	T	tert-Butylbenzene	10.03	10.00	100.31	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.41	10.00	104.13	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.37	10.00	103.68	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.89	10.00	98.88	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.65	10.00	106.53	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.84	10.00	98.44	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.81	10.00	98.10	87 to 115%	[ ]
72)	T	n-Butylbenzene	11.08	10.00	110.82	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.31	10.00	103.14	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.00	10.00	109.97	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.74	10.00	117.38	74 to 140%	[ ]
76)	T	Naphthalene	10.84	10.00	108.40	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.76	10.00	107.62	43 to 204%	[ ]

* = out of control limits
Thu Nov 01 10:39:15 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3117602	10.00	ug/L	0.03 102.98%
25) i-1,4-Difluorobenzene	9.07	114	3081087	10.00	ug/L	0.03 101.23%
46) i-Chlorobenzene-d5	15.33	117	2131075	10.00	ug/L	0.02 98.00%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1195267	10.00	ug/L	0.02 96.86%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1355026	9.38	ug/L	0.04
Spiked Amount 10.000	Range 77 - 119		Recovery = 93.80%			
36) s-Toluene-d8	12.34	98	2915036	9.99	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.84	95	1623001	10.02	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1394289	8.80	ug/L	98
3) Chloromethane	1.50	50	935785	9.27	ug/L	98
4) Vinyl chloride	1.59	62	1014604	9.57	ug/L	99
5) Bromomethane	1.89	96	908652	9.48	ug/L	96
6) Chloroethane	1.99	64	619930	9.98	ug/L	95
7) Trichlorofluoromethane	2.23	101	1787824	10.30	ug/L	97
8) 1,1-Dichloroethene	2.78	96	1020123	10.00	ug/L	98
9) Acetone	2.87	43	89849	14.75	ug/L	92
10) Iodomethane	2.94	142	1246994	9.93	ug/L	100
11) Carbon disulfide	3.00	76	3372354	10.52	ug/L	100
12) Methylene chloride	3.41	84	825319	9.91	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	1073370	9.49	ug/L	99
14) Methyl tert-butyl ether	3.84	73	1204424	9.68	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1887348	9.39	ug/L	99
16) Vinyl acetate	4.71	43	2116832	13.89	ug/L	94
17) Isopropyl ether	4.73	45	3259465	10.30	ug/L	99
18) 2,2-Dichloropropane	5.62	77	1474940	9.89	ug/L	97
19) 2-Butanone	5.84	43	230362m	18.27	ug/L	84
20) cis-1,2-Dichloroethene	5.67	96	1060764	10.32	ug/L	97
21) Bromochloromethane	6.21	128	407777	10.08	ug/L	99
22) Chloroform	6.52	83	1938422	9.63	ug/L	96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	1724197	10.26	ug/L	97
26)	Carbon tetrachloride	7.32	119	1464752	9.52	ug/L	99
27)	1,1-Dichloropropene	7.36	110	553281	11.09	ug/L	100
28)	Benzene	7.89	78	3299811	9.87	ug/L	100
29)	1,2-Dichloroethane	8.01	62	636148	9.52	ug/L	100
30)	Trichloroethene	9.60	95	1353984	10.05	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1132674	10.13	ug/L	99
32)	Dibromomethane	10.36	93	480981	9.64	ug/L	98
34)	Bromodichloromethane	10.83	83	1509177	9.75	ug/L	99
35)	cis-1,3-Dichloropropene	11.83	75	1198149	9.95	ug/L	99
37)	Toluene	12.48	92	2123454	9.86	ug/L	98
38)	trans-1,3-Dichloropropene	13.08	75	745641	10.04	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	492286	9.87	ug/L	98
40)	Tetrachloroethene	13.60	166	1585641	10.19	ug/L	99
41)	1,3-Dichloropropane	13.72	76	958420	10.06	ug/L	99
42)	Dibromochloromethane	14.16	129	892617	9.82	ug/L	100
43)	1,2-Dibromoethane	14.30	107	605090	9.80	ug/L	97
44)	4-Methyl-2-pentanone	12.27	43	642128	18.30	ug/L	100
45)	2-Hexanone	14.04	43	399823	18.91	ug/L	98
47)	Chlorobenzene	15.40	112	2232389	9.97	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.66	131	1000899	10.11	ug/L	97
50)	Ethylbenzene	15.74	106	1199118	9.92	ug/L	100
51)	m,p-Xylene	16.06	106	2970001	20.41	ug/L	100
52)	o-Xylene	17.12	106	1396025	10.31	ug/L	97
53)	Styrene	17.19	104	2168149	10.10	ug/L	98
54)	Bromoform	17.65	173	542000	10.39	ug/L	99
55)	Isopropylbenzene	18.40	105	4472881	10.29	ug/L	99
58)	Bromobenzene	19.22	156	1080706	9.74	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.60	83	729538	9.48	ug/L	97
60)	1,2,3-Trichloropropane	19.60	75	419759	9.92	ug/L	97
61)	n-Propylbenzene	19.87	120	1126038	10.37	ug/L	100
62)	2-Chlorotoluene	20.01	126	1025961	10.03	ug/L	100
63)	4-Chlorotoluene	20.40	91	3665951	10.26	ug/L	99
64)	1,3,5-Trimethylbenzene	20.54	105	3312596	9.96	ug/L	98
65)	tert-Butylbenzene	21.57	91	2187702	10.03	ug/L	96
66)	1,2,4-Trimethylbenzene	21.73	105	3039563	10.41	ug/L	100
67)	sec-Butylbenzene	22.30	105	4971269	10.37	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	2019318	9.89	ug/L	99
69)	p-Isopropyltoluene	22.84	119	3845734	10.65	ug/L	99
70)	1,4-Dichlorobenzene	22.77	146	1918022	9.84	ug/L	99
71)	1,2-Dichlorobenzene	23.88	146	1593982	9.81	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RES

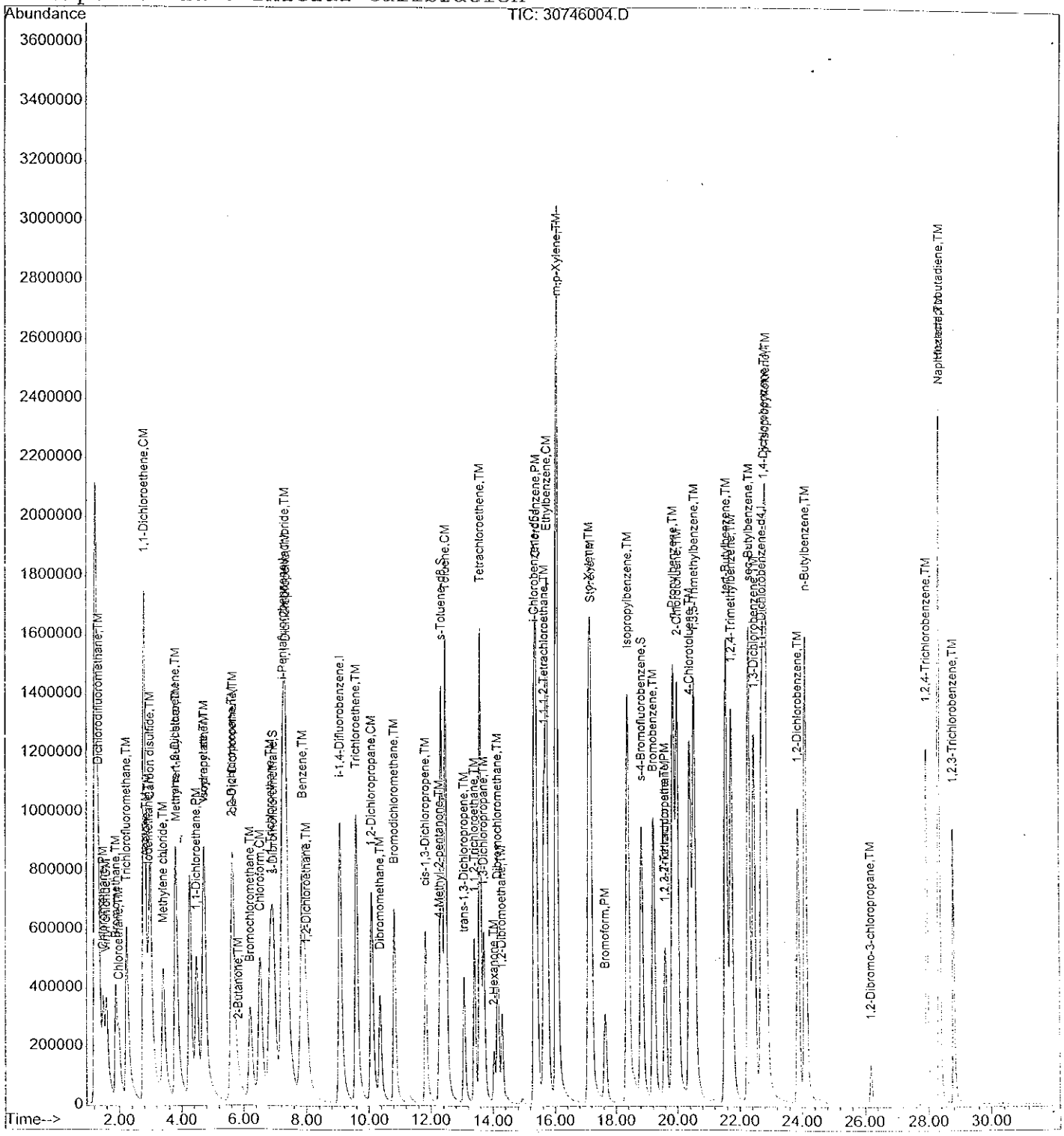
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.11	91	3705425	11.08	ug/L	98
73)	1,2-Dibromo-3-chloropropan	26.20	75	107208	10.31	ug/L	95
74)	1,2,4-Trichlorobenzene	27.96	180	1003193	11.00	ug/L	99
75)	Hexachlorobutadiene	28.34	225	1072458	11.74	ug/L	98
76)	Naphthalene	28.36	128	754171	10.84	ug/L	100
77)	1,2,3-Trichlorobenzene	28.80	180	731829	10.76	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746004.D Vial: 1
Acq On : 1 Nov 2001 10:05 Operator: GRH
Sample : BUW148ALCS LCS 11-01-01 Inst : Bubba
Misc : BUW148ALCS LCS 11-01-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

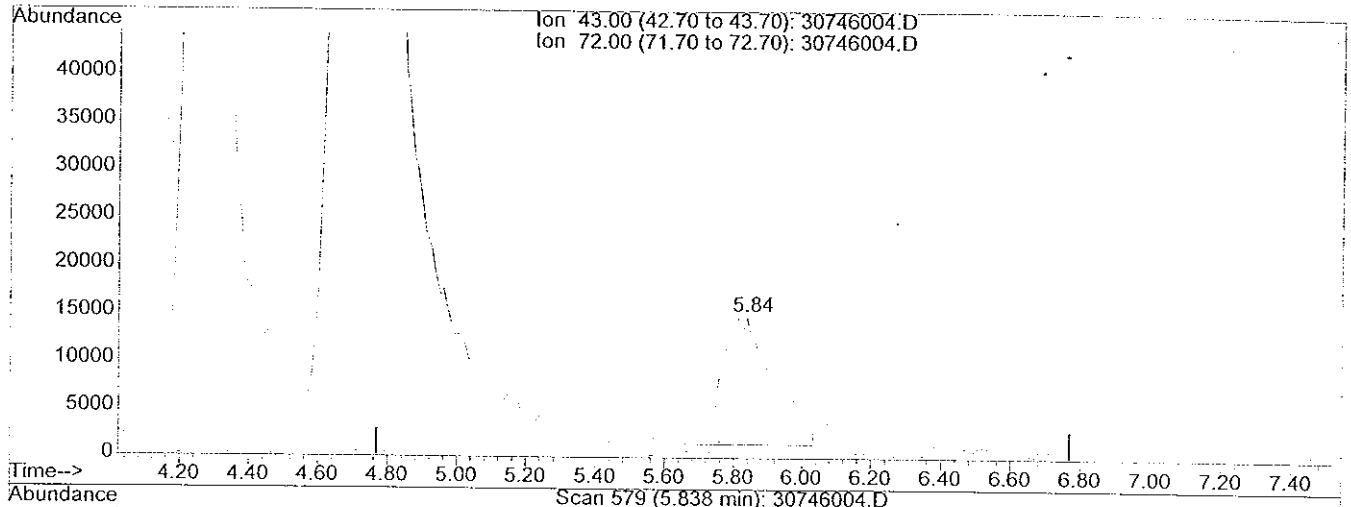


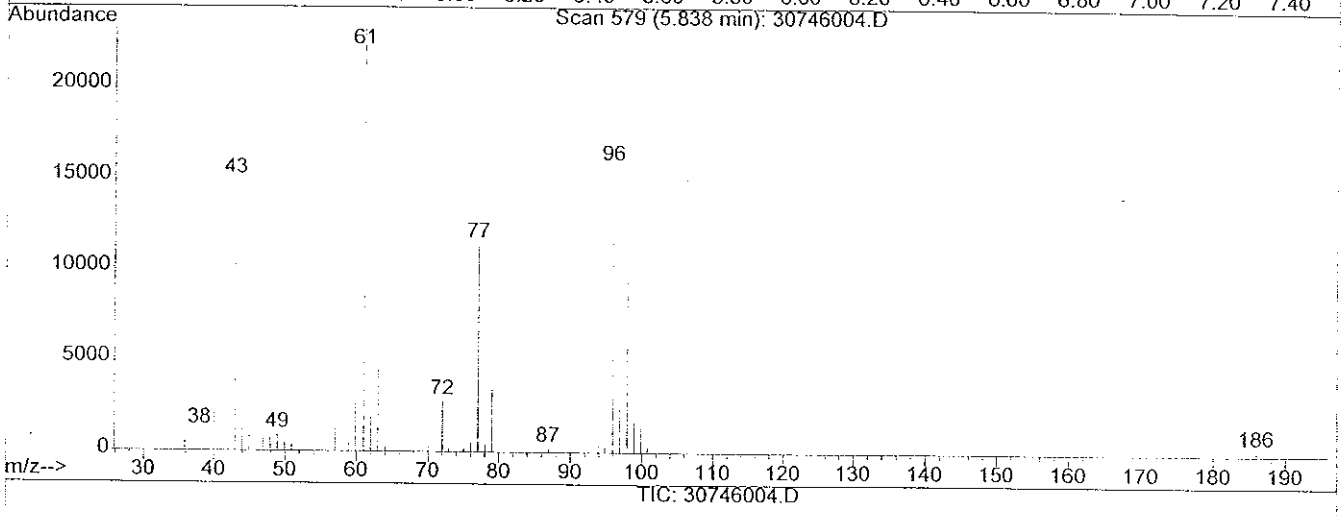
Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





(19) 2-Butanone (TM)

5.84min 11.34ug/L

response 143027

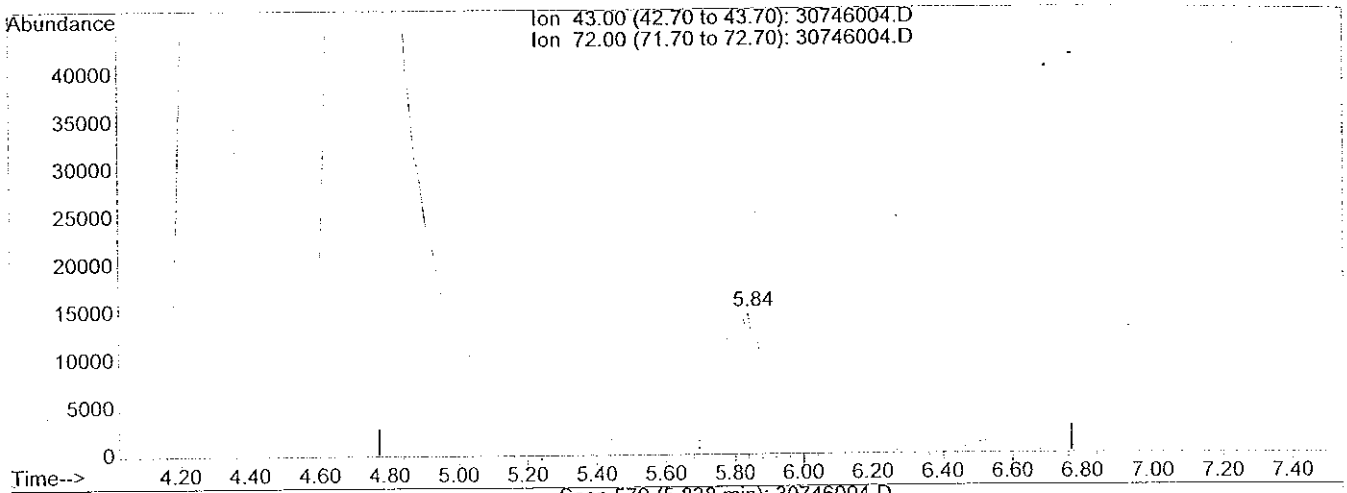
Ion	Exp%	Act%
43.00	100	100
72.00	23.40	15.56
0.00	0.00	0.00
0.00	0.00	0.00

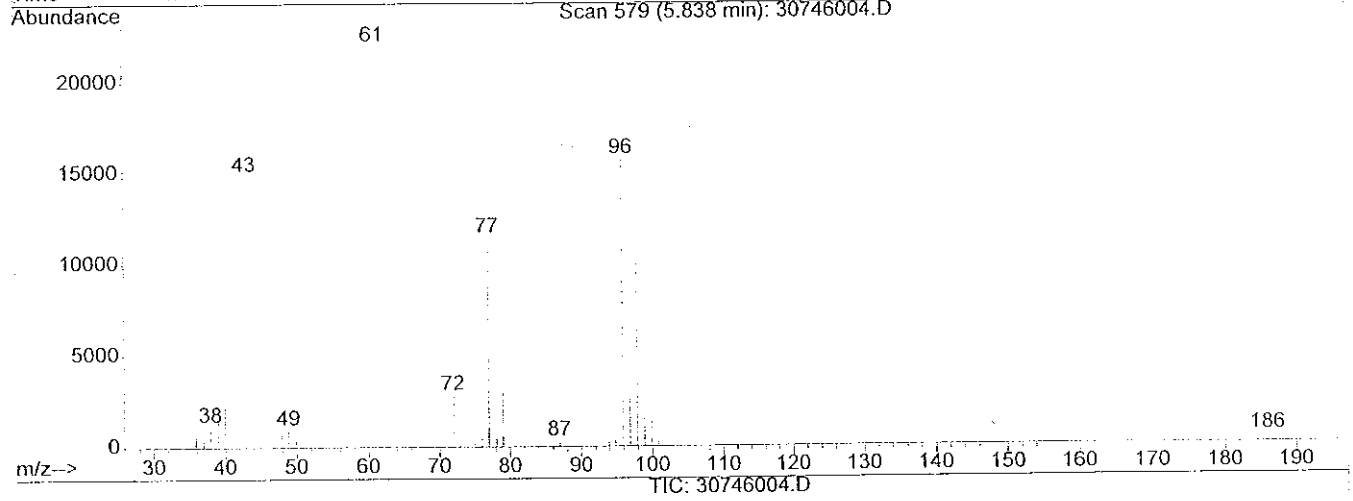
Data File : D:\HPCHEM\1\DATA\110101\30746004.D
Acq On : 1 Nov 2001 10:05
Sample : BUW148ALCS LCS 11-01-01
Misc : BUW148ALCS LCS 11-01-01
MS Integration Params: rteint.p
Quant Time: Nov 1 10:38 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





(19) 2-Butanone (TM)

5.84min 18.27ug/L m

response 230362

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.68
0.00	0.00	0.00
0.00	0.00	0.00

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

Non-Spiked Sample: 30746007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30746005.D	30746006.D
Sample :	110611-1 MS	110611-1 MSD
Acq Time:	1 Nov 2001 10:48	1 Nov 2001 11:31

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	9.3	10	93	9.8	98	10.2	102	77-119
s-Toluene-d8	9.8	10	98	9.9	99	10.0	100	78-118
s-4-Bromofluorobenze	9.3	10	93	9.9	99	10.1	101	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	10	8.12	8.48	81	85	4.3	12	35-16(
Chloromethane	0.0	10	8.42	7.84	84	78	7.2	10	60-12
Vinyl chlorid	0.2	10	9.26	9.38	91	92	1.3	9	74-12
Bromomethane	0.0	10	8.34	6.75	83	68	21.0#	17	59-15
Chloroethane	0.0	10	9.66	9.41	97	94	2.6	10	73-12
Trichlorofluo	0.0	10	9.68	10.00	97	100	3.3	10	84-12
1,1-Dichloroe	0.3	10	9.88	10.00	96	97	1.2	13	84-11
Acetone	38.3	20	11.65	46.23	-133#	40	99.0#	44	19-2(
Iodomethane	0.0	10	13.18	11.62	132	116	12.6	15	53-15
Carbon disulf	0.2	10	10.97	11.09	107	109	1.1	12	79-12
Methylene chl	0.0	10	9.54	10.00	95	100	4.7	18	81-12
trans-1,2-Dic	1.0	10	9.99	10.63	90	97	6.8	9	87-11
Methyl tert-b	0.0	10	8.85	10.20	89	102	14.1	32	68-13
1,1-Dichloroe	0.0	10	9.04	9.34	90	93	3.2	10	85-12
Vinyl acetate	0.0	20	12.61	14.27	63#	71	12.4	20	69-12
Isopropyl eth	0.0	10	9.61	10.53	96	105	9.1	18	79-11
2,2-Dichlorop	0.0	10	9.50	9.63	95	96	1.4	10	78-11
2-Butanone	91.9	20	111.22	131.73	97	199#	69.4#	47	65-13
cis-1,2-Dichl	43.4	10	59.83	61.58	164#	182#	10.1	14	88-12
Bromochlorome	0.0	10	9.42	9.58	94	96	1.7	18	85-13(
Chloroform	0.0	10	9.48	9.89	95	99	4.3	13	87-11
1,1,1-Trichlo	0.0	10	9.96	10.22	100	102	2.6	10	90-12(
Carbon tetrac	0.0	10	9.40	8.90	94	89	5.5	11	78-12
1,1-Dichlorop	0.0	10	10.20	9.98	102	100	2.1	12	84-11
Benzene	0.0	10	9.85	9.74	99	97	1.1	8	67-14
1,2-Dichloroe	0.0	10	9.29	9.80	93	98	5.3	17	85-12
Trichloroethe	114.9	10	138.70	133.55	238#	187#	24.2#	11	86-1
1,2-Dichlorop	0.0	10	9.89	10.16	99	102	2.7	12	88-11
Dibromomethan	0.0	10	9.30	9.78	93	98	5.1	20	81-13
2-Chloroethyl	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-15
Bromodichloro	0.0	10	9.45	9.87	95	99	4.3	15	87-12
cis-1,3-Dichl	0.0	10	9.52	9.52	95	95	0.0	19	65-13
Toluene	0.0	10	9.72	9.66	97	97	0.6	8	86-12
trans-1,3-Dic	0.0	10	9.55	9.71	95	97	1.7	19	53-14
1,1,2-Trichlo	0.0	10	9.27	10.18	93	102	9.3	2(	85-12

Tetrachloroet	0.0	10	10.26	10.00	103	100	2.5	13	87-13
1,3-Dichlorop	0.0	10	9.59	10.35	96	103	7.6	19	73-12
Dibromochloro	0.0	10	9.41	10.20	94	102	8.1	27	83-12
1,2-Dibromoet	0.0	10	9.51	10.14	95	101	6.4	26	36-15
4-Methyl-2-pe	0.0	20	16.57	19.57	83	98	16.6	35	64-13
2-Hexanone	0.0	20	16.56	19.96	83	100	18.6	36	49-14
Chlorobenzene	0.0	10	9.97	9.83	100	98	1.4	10	66-15
1,1,1,2-Tetra	0.0	10	9.91	10.10	99	101	1.9	12	84-12
1-Chlorohexan	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-15
Ethylbenzene	0.0	10	9.99	9.55	100	95	4.5	14	78-13
m,p-Xylene	0.0	20	20.54	19.75	103	99	3.9	20	76-12
o-Xylene	0.0	10	10.28	9.96	103	100	3.2	13	76-12
Styrene	0.0	10	9.89	9.73	99	97	1.6	43	55-13
Bromoform	0.0	10	9.81	10.51	98	105	6.9	29	62-12
Isopropylbenz	0.0	10	10.37	9.93	104	99	4.3	20	65-14
Bromobenzene	0.0	10	10.04	9.74	100	97	3.0	14	73-14
1,1,2,2-Tetra	0.0	10	9.36	9.95	94	99	6.1	25	75-12
1,2,3-Trichlo	0.0	10	9.68	10.20	97	102	5.3	26	75-12
n-Propylbenze	0.0	10	10.64	9.95	106	100	6.7	16	76-12
2-Chlorotolue	0.0	10	10.25	9.55	102	95	7.1	15	85-12
4-Chlorotolue	0.0	10	10.41	9.68	104	97	7.3	13	87-12
1,3,5-Trimeth	0.0	10	10.12	9.42	101	94	7.2	25	72-14
tert-Butylben	0.0	10	10.10	9.45	101	94	6.6	16	73-11
1,2,4-Trimeth	0.0	10	10.59	9.95	106	99	6.2	30	50-15
sec-Butylbenz	0.0	10	10.65	9.80	107	98	8.4	18	62-14
1,3-Dichlorob	0.0	10	10.08	9.63	101	96	4.6	10	89-11
p-Isopropylto	0.0	10	10.87	10.12	109	101	7.1	22	35-19
1,4-Dichlorob	0.0	10	9.79	9.48	98	95	3.3	10	78-13
1,2-Dichlorob	0.0	10	9.92	9.81	99	98	1.0	12	86-12
n-Butylbenzen	0.0	10	11.20	10.48	112	105	6.6	40	0-27
1,2-Dibromo-3	0.0	10	9.62	10.58	96	106	9.5	33	71-11
1,2,4-Trichlo	0.0	10	11.01	10.98	110	110	0.3	32	30-23
Hexachlorobut	0.0	10	12.38	11.19	124	112	10.1	18	70-15
Naphthalene	0.0	10	10.58	11.21	106	112	5.7	42	17-26
1,2,3-Trichlo	0.0	10	10.85	11.04	108	110	1.8	33	49-21

- Fails Limit Check

V82625B1.M Thu Nov 01 12:52:10 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746005.D
Acq On : 1 Nov 2001 10:48
Sample : 110611-1 MS
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3072249	10.00	ug/L	0.02 101.48%
25) i-1,4-Difluorobenzene	9.06	114	2998298	10.00	ug/L	0.02 98.51%
46) i-Chlorobenzene-d5	15.32	117	2053033	10.00	ug/L	0.00 94.41%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1111202	10.00	ug/L	0.02 90.05%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1393637	9.79	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.90%			
36) s-Toluene-d8	12.33	98	2817247	9.92	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.20%			
56) s-4-Bromofluorobenzene	18.83	95	1537101	9.85	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1267571	8.12	ug/L	99
3) Chloromethane	1.50	50	837962	8.42	ug/L	99
4) Vinyl chloride	1.60	62	967703	9.26	ug/L	99
5) Bromomethane	1.89	96	787319	8.34	ug/L	99
6) Chloroethane	1.99	64	591487	9.66	ug/L	99
7) Trichlorofluoromethane	2.23	101	1654453	9.68	ug/L	98
8) 1,1-Dichloroethene	2.78	96	992700	9.88	ug/L	96
9) Acetone	2.86	43	70049	11.65	ug/L	96
10) Iodomethane	2.95	142	1630349	13.18	ug/L	100
11) Carbon disulfide	3.00	76	3465077	10.97	ug/L	100
12) Methylene chloride	3.41	84	782916	9.54	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1114331	9.99	ug/L	98
14) Methyl tert-butyl ether	3.84	73	1085903	8.85	ug/L	99
15) 1,1-Dichloroethane	4.49	63	1792466	9.04	ug/L	99
16) Vinyl acetate	4.72	43	1893445	12.61	ug/L	93
17) Isopropyl ether	4.73	45	2997039	9.61	ug/L	99
18) 2,2-Dichloropropane	5.62	77	1395607	9.50	ug/L	83
19) 2-Butanone	5.81	43	1381848	111.22	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	6079059	59.83	ug/L	93
21) Bromochloromethane	6.20	128	375335	9.42	ug/L	98
22) Chloroform	6.52	83	1879354	9.48	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	1650538	9.96	ug/L	97
26) Carbon tetrachloride	7.30	119	1408384	9.40	ug/L	99
27) 1,1-Dichloropropene	7.35	110	496659	10.20	ug/L	100
28) Benzene	7.88	78	3207241	9.85	ug/L	99
29) 1,2-Dichloroethane	8.00	62	604488	9.29	ug/L	100
30) Trichloroethene	9.60	95	18193207	138.70	ug/L	100
31) 1,2-Dichloropropane	10.08	63	1076499	9.89	ug/L	99
32) Dibromomethane	10.36	93	451413	9.30	ug/L	99
34) Bromodichloromethane	10.82	83	1423063	9.45	ug/L	100
35) cis-1,3-Dichloropropene	11.82	75	1116043	9.52	ug/L	98
37) Toluene	12.47	92	2036696	9.72	ug/L	97
38) trans-1,3-Dichloropropene	13.06	75	689918	9.55	ug/L	99
39) 1,1,2-Trichloroethane	13.40	83	450121	9.27	ug/L	97
40) Tetrachloroethene	13.58	166	1553490	10.26	ug/L	99
41) 1,3-Dichloropropane	13.71	76	889119	9.59	ug/L	98
42) Dibromochloromethane	14.15	129	832215	9.41	ug/L	100
43) 1,2-Dibromoethane	14.28	107	571537	9.51	ug/L	98
44) 4-Methyl-2-pentanone	12.26	43	565827	16.57	ug/L	96
45) 2-Hexanone	14.03	43	340786	16.56	ug/L	97
47) Chlorobenzene	15.38	112	2148872	9.97	ug/L	98
48) 1,1,1,2-Tetrachloroethane	15.63	131	945529	9.91	ug/L	99
50) Ethylbenzene	15.73	106	1162949	9.99	ug/L	100
51) m,p-Xylene	16.04	106	2878524	20.54	ug/L	100
52) o-Xylene	17.09	106	1340535	10.28	ug/L	100
53) Styrene	17.17	104	2045821	9.89	ug/L	100
54) Bromoform	17.63	173	493176	9.81	ug/L	98
55) Isopropylbenzene	18.38	105	4341387	10.37	ug/L	98
58) Bromobenzene	19.21	156	1036074	10.04	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.59	83	669759	9.36	ug/L	98
60) 1,2,3-Trichloropropane	19.58	75	380628	9.68	ug/L	99
61) n-Propylbenzene	19.86	120	1074165	10.64	ug/L	100
62) 2-Chlorotoluene	19.98	126	974903	10.25	ug/L	100
63) 4-Chlorotoluene	20.38	91	3458230	10.41	ug/L	100
64) 1,3,5-Trimethylbenzene	20.52	105	3131355	10.12	ug/L	99
65) tert-Butylbenzene	21.55	91	2047043	10.10	ug/L	94
66) 1,2,4-Trimethylbenzene	21.73	105	2872784	10.59	ug/L	98
67) sec-Butylbenzene	22.29	105	4749328	10.65	ug/L	100
68) 1,3-Dichlorobenzene	22.46	146	1914277	10.08	ug/L	99
69) p-Isopropyltoluene	22.83	119	3647141	10.87	ug/L	100
70) 1,4-Dichlorobenzene	22.76	146	1773518	9.79	ug/L	99
71) 1,2-Dichlorobenzene	23.87	146	1498130	9.92	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RES

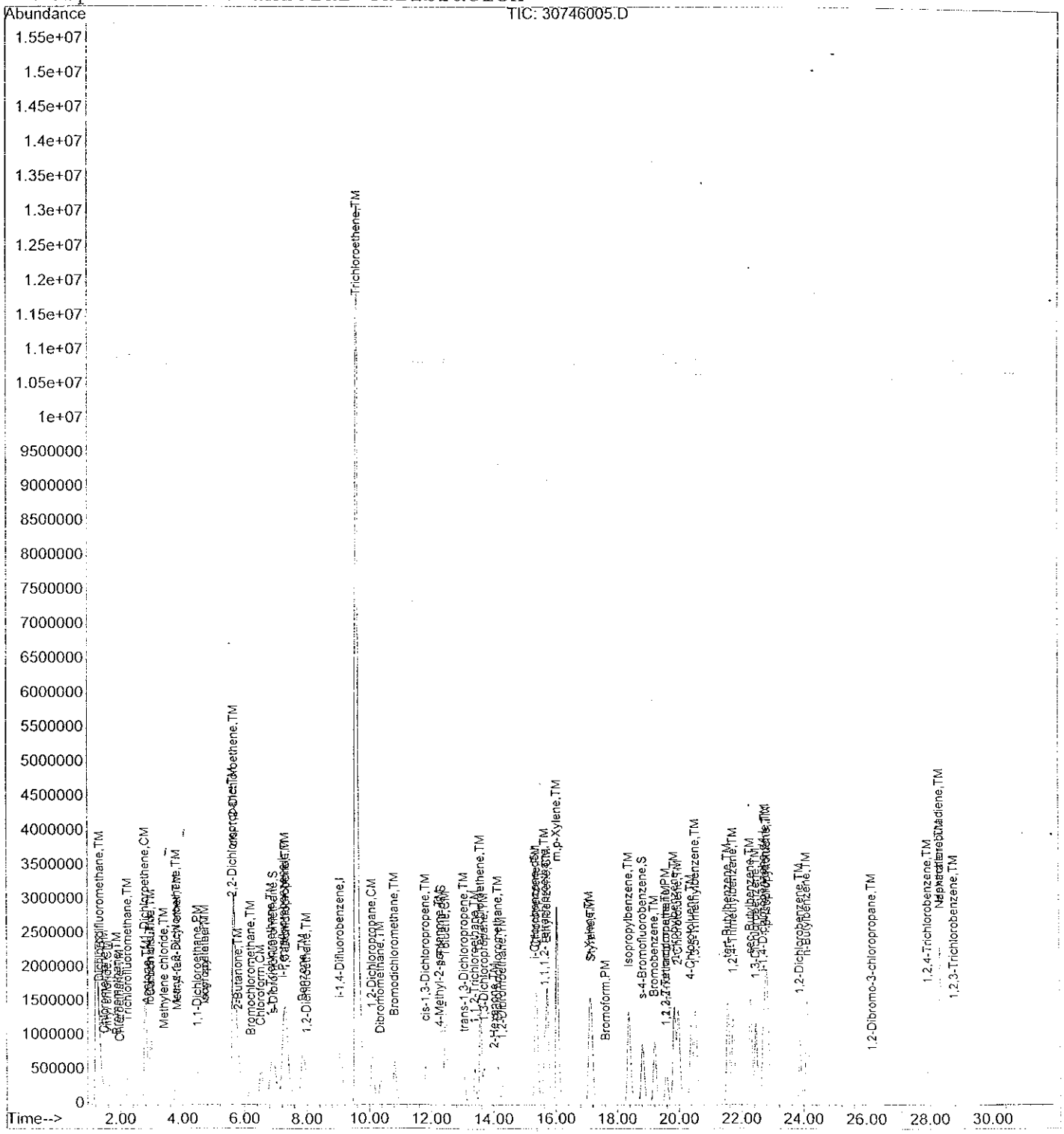
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.10	91	3482663	11.20	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.18	75	92956	9.62	ug/L	97
74)	1,2,4-Trichlorobenzene	27.95	180	933509	11.01	ug/L	99
75)	Hexachlorobutadiene	28.33	225	1049679	12.38	ug/L	98
76)	Naphthalene	28.35	128	684580	10.58	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	685683	10.85	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746005.D Vial: 2
Acq On : 1 Nov 2001 10:48 Operator: GRH
Sample : 110611-1 MS Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 11:20 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110101\30746006.D
Acq On : 1 Nov 2001 11:31
Sample : 110611-1 MSD
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3091188	10.00 ug/L	0.03 102.11%
25) i-1,4-Difluorobenzene	9.06	114	3129479	10.00 ug/L	0.02 102.82%
46) i-Chlorobenzene-d5	15.31	117	2197938	10.00 ug/L	0.00 101.07%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1240862	10.00 ug/L	0.02 100.56%
System Monitoring Compounds					
24) s-Dibromofluoromethane	6.94	113	1456585	10.17 ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.70%		
36) s-Toluene-d8	12.32	98	2954258	9.96 ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.60%		
56) s-4-Bromofluorobenzene	18.83	95	1692550	10.13 ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.30%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.35	85	1331463	8.48 ug/L	100
3) Chloromethane	1.50	50	784792	7.84 ug/L	99
4) Vinyl chloride	1.60	62	986310	9.38 ug/L	95
5) Bromomethane	1.89	96	641339	6.75 ug/L	97
6) Chloroethane	1.98	64	579579	9.41 ug/L	98
7) Trichlorofluoromethane	2.24	101	1721151	10.00 ug/L	98
8) 1,1-Dichloroethene	2.79	96	1010881	10.00 ug/L	99
9) Acetone	2.87	43	277781	46.23 ug/L	98
10) Iodomethane	2.94	142	1446184	11.62 ug/L	100
11) Carbon disulfide	3.00	76	3524051	11.09 ug/L	100
12) Methylene chloride	3.41	84	825482	10.00 ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1192052	10.63 ug/L	96
14) Methyl tert-butyl ether	3.84	73	1258061	10.20 ug/L	98
15) 1,1-Dichloroethane	4.49	63	1862621	9.34 ug/L	99
16) Vinyl acetate	4.71	43	2156213	14.27 ug/L	95
17) Isopropyl ether	4.73	45	3302147	10.53 ug/L	99
18) 2,2-Dichloropropane	5.62	77	1423767	9.63 ug/L	83
19) 2-Butanone	5.81	43	1646741	131.73 ug/L	97
20) cis-1,2-Dichloroethene	5.67	96	6295641	61.58 ug/L	91
21) Bromochloromethane	6.22	128	384129	9.58 ug/L	100
22) Chloroform	6.52	83	1973558	9.89 ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1704005	10.22	ug/L	95
26)	Carbon tetrachloride	7.31	119	1391701	8.90	ug/L	99
27)	1,1-Dichloropropene	7.34	110	507768	9.98	ug/L	100
28)	Benzene	7.87	78	3309995	9.74	ug/L	99
29)	1,2-Dichloroethane	7.99	62	665333	9.80	ug/L	98
30)	Trichloroethene	9.60	95	18283374	133.55	ug/L	99
31)	1,2-Dichloropropane	10.09	63	1153986	10.16	ug/L	99
32)	Dibromomethane	10.36	93	495580	9.78	ug/L	99
34)	Bromodichloromethane	10.81	83	1550601	9.87	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1164847	9.52	ug/L	98
37)	Toluene	12.46	92	2113532	9.66	ug/L	97
38)	trans-1,3-Dichloropropene	13.05	75	732234	9.71	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	515552	10.18	ug/L	99
40)	Tetrachloroethene	13.58	166	1581613	10.00	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1001766	10.35	ug/L	99
42)	Dibromochloromethane	14.15	129	942015	10.20	ug/L	99
43)	1,2-Dibromoethane	14.28	107	635987	10.14	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	697270	19.57	ug/L	97
45)	2-Hexanone	14.02	43	428523	19.96	ug/L	97
47)	Chlorobenzene	15.38	112	2267954	9.83	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1031857	10.10	ug/L	98
50)	Ethylbenzene	15.73	106	1190242	9.55	ug/L	100
51)	m,p-Xylene	16.04	106	2963634	19.75	ug/L	98
52)	o-Xylene	17.10	106	1390203	9.96	ug/L	99
53)	Styrene	17.17	104	2155171	9.73	ug/L	98
54)	Bromoform	17.64	173	565713	10.51	ug/L	99
55)	Isopropylbenzene	18.38	105	4451759	9.93	ug/L	100
58)	Bromobenzene	19.22	156	1122392	9.74	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.60	83	795233	9.95	ug/L	97
60)	1,2,3-Trichloropropane	19.60	75	447828	10.20	ug/L	98
61)	n-Propylbenzene	19.86	120	1122077	9.95	ug/L	100
62)	2-Chlorotoluene	19.99	126	1014281	9.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	3589615	9.68	ug/L	100
64)	1,3,5-Trimethylbenzene	20.52	105	3255122	9.42	ug/L	100
65)	tert-Butylbenzene	21.55	91	2139194	9.45	ug/L	94
66)	1,2,4-Trimethylbenzene	21.72	105	3014630	9.95	ug/L	99
67)	sec-Butylbenzene	22.28	105	4877084	9.80	ug/L	100
68)	1,3-Dichlorobenzene	22.45	146	2042476	9.63	ug/L	99
69)	p-Isopropyltoluene	22.82	119	3792792	10.12	ug/L	99
70)	1,4-Dichlorobenzene	22.76	146	1917104	9.48	ug/L	98
71)	1,2-Dichlorobenzene	23.86	146	1655546	9.81	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

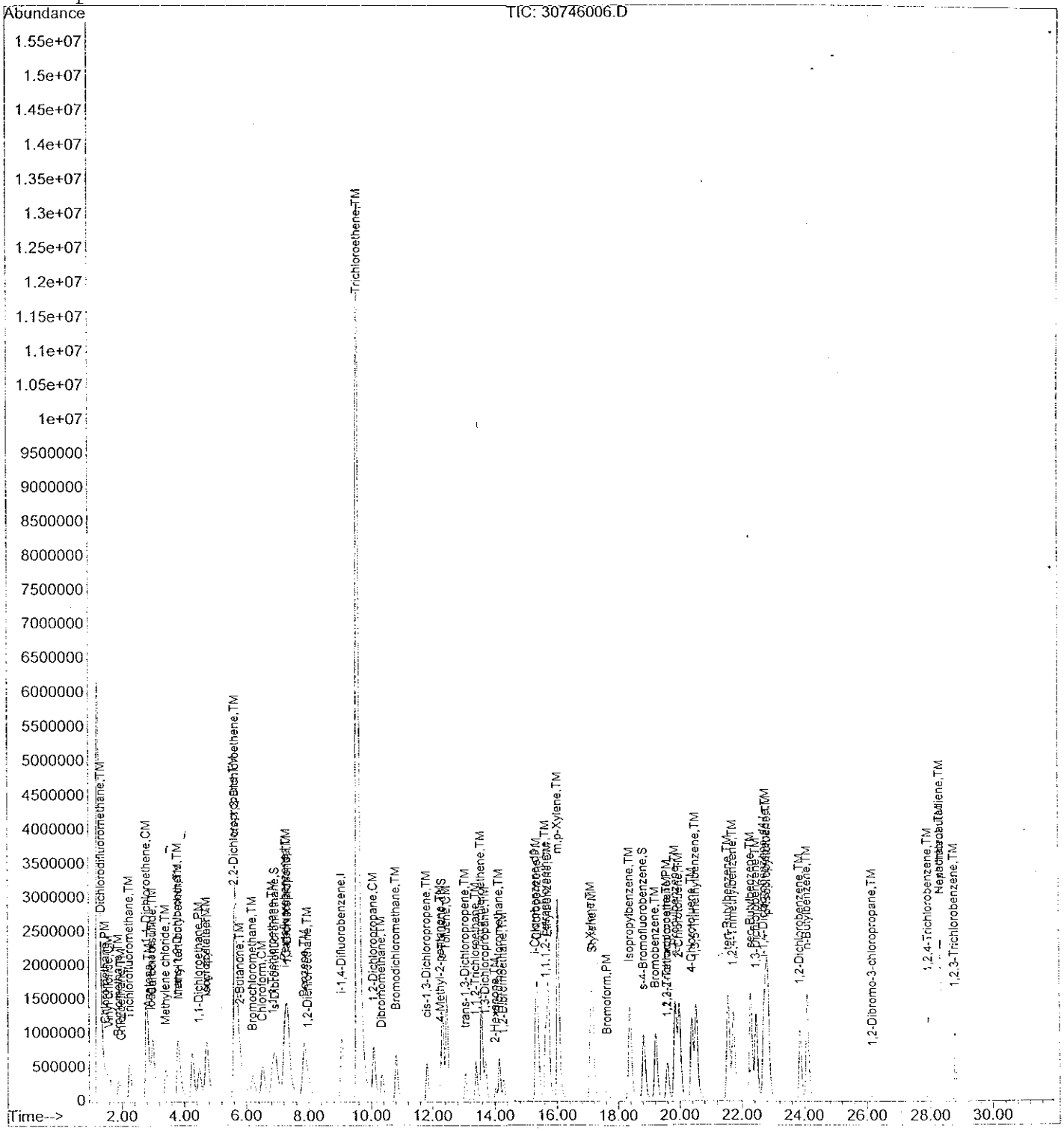
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72)	n-Butylbenzene	24.10	91	3639028	10.48	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.17	75	114156	10.58	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1039613	10.98	ug/L	98
75)	Hexachlorobutadiene	28.33	225	1062922	11.19	ug/L	98
76)	Naphthalene	28.34	128	809362	11.21	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	779293	11.04	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746006.D Vial: 3
Acq On : 1 Nov 2001 11:31 Operator: GRH
Sample : 110611-1 MSD Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



445

Comment: 11-02-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110201\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30747001	V82625A	TUNE
3	Sample	15	30747002	V82625A	10ppb VOA STD
4	Sample	16	30747003	V82625A	BUW149ABK BLANK 11-02-01
5	Sample	1	30747004	V82625A	BUW149ALCS LCS 11-02-01
6	Sample	2	30747005	V82625A	110611-3 MS 5.00ml 5X
7	Sample	3	30747006	V82625A	110611-3 MSD 5.00ml 5X
8	Sample	4	30747007	V82625A	110611-3 5.00ml 5X
9	Sample	5	30747008	V82625A	110655-1
10	Sample	6	30747009	V82625A	110655-2
11	Sample	7	30747010	V82625A	110655-3
12	Sample	8	30747011	V82625A	110655-4
13	Sample	9	30747012	V82625A	110681-1
14	Sample	10	30747013	V82625A	110681-2
15	Sample	11	30747014	V82625A	110681-3
16	Sample	12	30747015	V82625A	110681-4
17	Sample	13	BLANK	V82625A	BLANK

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name :
Project : Site :
Lab File ID (Standard): 30747002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 2 Nov 2001
Time Analyzed : 9:55
Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30747003	BUW149ABK BLANK	100	100	97	0	0	0	0
30747004	BUW149ALCS LCS	96	100	100	0	0	0	0
30747005	110611-3 MS 5.0	92	99	99	0	0	0	0
30747006	110611-3 MSD 5.	102	100	101	0	0	0	0
30747007	110611-3 5.00ml	91	99	89	0	0	0	0
30747008	110655-1	98	97	97	0	0	0	0
30747009	110655-2	98	97	96	0	0	0	0
30747010	110655-3	96	98	96	0	0	0	0
30747011	110655-4	90	97	91	0	0	0	0
30747012	110681-1	102	99	98	0	0	0	0
30747013	110681-2	109	99	98	0	0	0	0
30747014	110681-3	102	98	97	0	0	0	0
30747015	110681-4	107	97	98	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30747002.D Date Analyzed : 2 Nov 2001
Instrument ID : Bubba Time Analyzed : 9:55
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2992359		7.21		3040284		9.04		2141284		15.30	
UPPER LIMIT	5984718		7.71		6080568		9.54		4282568		15.80	
LOWER LIMIT	1496180		6.71		1520142		8.54		1070642		14.80	
File ID Sample												
30747003 BUW149ABK	3178649		7.23		3115359		9.05		2224472		15.31	
30747004 BUW149ALC	3030766		7.22		3009380		9.06		2091671		15.31	
30747005 110611-3	3092066		7.22		3041235		9.04		2078003		15.30	
30747006 110611-3	3136655		7.24		3157024		9.05		2246131		15.32	
30747007 110611-3	2847498		7.23		2706882		9.05		1838266		15.31	
30747008 110655-1	3095736		7.23		3044663		9.06		2166775		15.31	
30747009 110655-2	2792216		7.24		2749255		9.06		1952081		15.32	
30747010 110655-3	3117425		7.24		3060651		9.06		2116458		15.33	
30747011 110655-4	2983542		7.23		2870801		9.06		1941523		15.32	
30747012 110681-1	2945492		7.24		2935106		9.06		2093397		15.32	
30747013 110681-2	2949276		7.23		2980277		9.06		2249344		15.31	
30747014 110681-3	2775287		7.22		2812628		9.05		2000796		15.30	
30747015 110681-4	2830547		7.21		2976088		9.05		2154939		15.29	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30747002.D Date Analyzed : 2 Nov 2001
Instrument ID : Bubba Time Analyzed : 9:55
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1216124		22.67		0		0.00		0		0.00	
UPPER LIMIT	2432248		23.17		0		0.00		0		0.00	
LOWER LIMIT	608062		22.17		0		0.00		0		0.00	
File ID Sample												
30747003 BUW149ABK	1077862		22.68		0		0.00		0		0.00	
30747004 BUW149ALC	1152357		22.68		0		0.00		0		0.00	
30747005 110611-3	1130970		22.66		0		0.00		0		0.00	
30747006 110611-3	1272483		22.69		0		0.00		0		0.00	
30747007 110611-3	825003		22.68		0		0.00		0		0.00	
30747008 110655-1	1059555		22.68		0		0.00		0		0.00	
30747009 110655-2	970343		22.70		0		0.00		0		0.00	
30747010 110655-3	1003889		22.69		0		0.00		0		0.00	
30747011 110655-4	893778		22.69		0		0.00		0		0.00	
30747012 110681-1	1008218		22.68		0		0.00		0		0.00	
30747013 110681-2	1071416		22.68		0		0.00		0		0.00	
30747014 110681-3	941416		22.65		0		0.00		0		0.00	
30747015 110681-4	1024600		22.66		0		0.00		0		0.00	

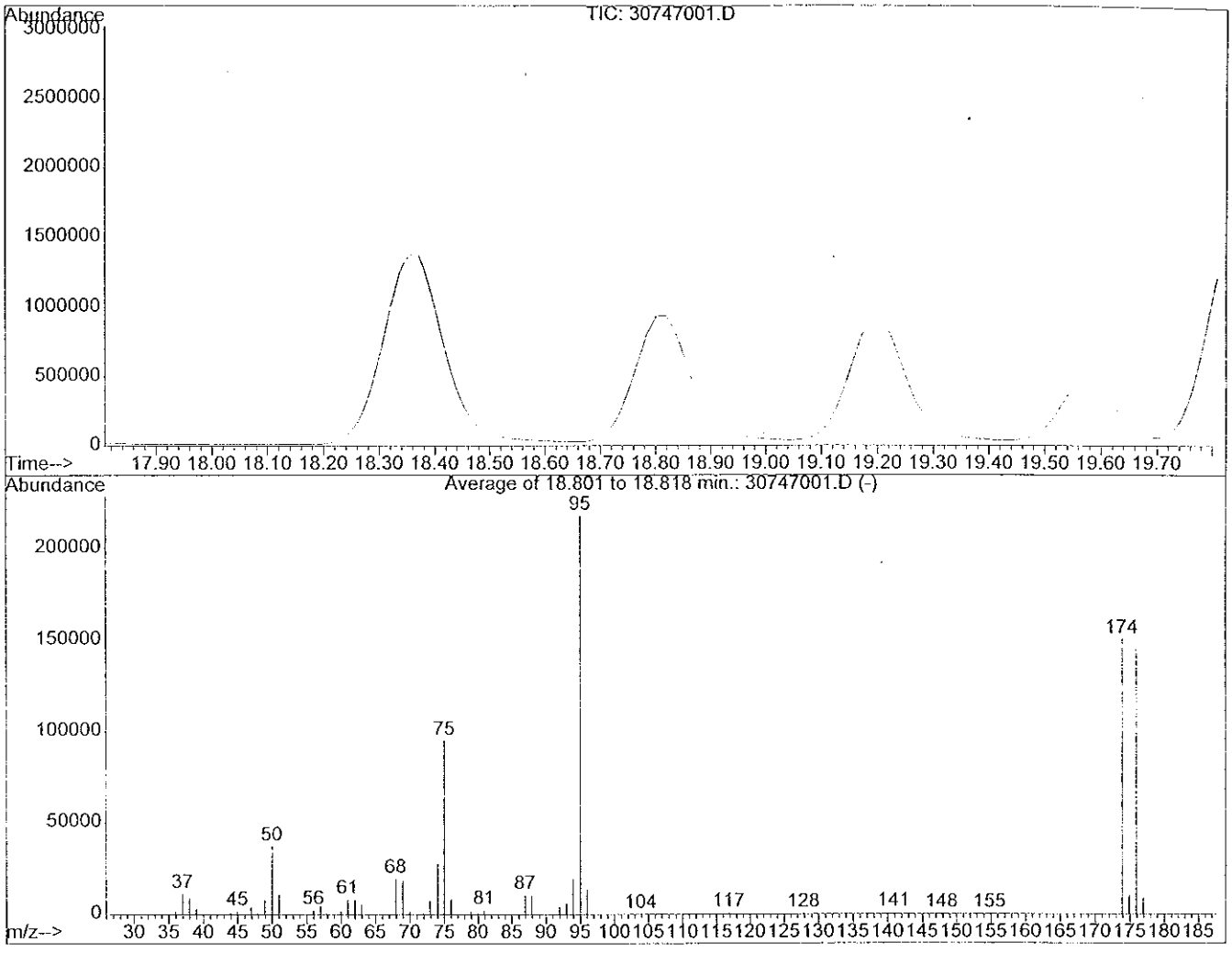
IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\110201\30747001.D Vial: 14
Acq On : 2 Nov 2001 9:13 Operator: GRH
Sample : TUNE Inst : Bubba
Misc : 50ng BFB Multiplr: 1.00
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	37213	PASS
75	95	30	60	43.7	95144	PASS
95	95	100	100	100.0	217792	PASS
96	95	5	9	6.4	13890	PASS
173	174	0	2	0.2	283	PASS
174	95	50	100	69.1	150464	PASS
175	174	5	9	7.0	10493	PASS
176	174	95	101	99.2	149312	PASS
177	176	5	9	6.2	9274	PASS

Average of 18.801 to 18.818 min.: 30747001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	1994	59.95	1778	78.90	1753	175.90	149312
36.95	11368	60.95	8163	80.90	2648	176.90	9274
37.95	9204	61.95	7850	86.95	10726		
38.95	3235	62.95	5398	87.90	10485		
44.95	2022	67.95	19555	91.95	4232		
46.90	4325	68.95	18515	92.95	6366		
48.95	7845	69.95	1595	93.95	19621		
50.00	37213	72.90	7660	95.00	217792		
51.00	10937	74.00	28077	96.00	13890		
56.00	2402	75.00	95144	173.90	150464		
57.00	4737	76.00	8397	174.90	10493		

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.02
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.02
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.02
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.02
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.02
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.03
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.03
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.02
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.02
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.02
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	-0.02
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	-0.02
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	-0.02
37	CM	Toluene	10.000	9.383	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	-0.02
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	-0.02
45	TM	2-Hexanone	40.000	42.488	-6.2	106	-0.02
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	-0.02
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	-0.02
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.02
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.02
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.02
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.02
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.02
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.03
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.03
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.02
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.02
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.02
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	-0.02
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	-0.02
37	CM	Toluene	0.699	0.656	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	-0.02
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	-0.02
45	TM	2-Hexanone	0.069	0.073	-5.8	106	-0.02
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	-0.02
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	-0.02
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2992359	10.00	ug/L	0.00 / 98.84%
25) i-1,4-Difluorobenzene	9.04	114	3040284	10.00	ug/L	0.00 / 99.89%
46) i-Chlorobenzene-d5	15.30	117	2141284	10.00	ug/L	-0.02 / 98.47%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1216124	10.00	ug/L	0.00 / 98.55%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1458722	10.53	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 105.30%			
36) s-Toluene-d8	12.31	98	2881280	10.00	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.80	95	1650047	10.14	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1342962	8.83	ug/L	99
3) Chloromethane	1.50	50	853940	8.81	ug/L	99
4) Vinyl chloride	1.60	62	927620	9.11	ug/L	99
5) Bromomethane	1.89	96	832899	9.06	ug/L	99
6) Chloroethane	1.99	64	558628	9.37	ug/L	99
7) Trichlorofluoromethane	2.23	101	1542881	9.26	ug/L	99
8) 1,1-Dichloroethene	2.78	96	931879	9.52	ug/L	97
9) Acetone	2.87	43	237147m	40.76	ug/L	94
10) Iodomethane	2.93	142	1091440	9.06	ug/L	100
11) Carbon disulfide	2.99	76	2920954	9.49	ug/L	100
12) Methylene chloride	3.41	84	789248	9.87	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1024839	9.44	ug/L	100
14) Methyl tert-butyl ether	3.84	73	1190740	9.97	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1838790	9.53	ug/L	98
16) Vinyl acetate	4.70	43	2875373m	19.65	ug/L	100
17) Isopropyl ether	4.72	45	3056176	10.06	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1308328	9.14	ug/L	100
19) 2-Butanone	5.80	43	494525m	40.86	ug/L	89
20) cis-1,2-Dichloroethene	5.64	96	971540	9.85	ug/L	97
21) Bromochloromethane	6.19	128	393500	10.14	ug/L	98
22) Chloroform	6.50	83	1856938	9.61	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	1536102	9.52	ug/L	97
26) Carbon tetrachloride	7.27	119	1317204	8.67	ug/L	97
27) 1,1-Dichloropropene	7.34	110	496176	10.04	ug/L	100
28) Benzene	7.86	78	3154851	9.56	ug/L	98
29) 1,2-Dichloroethane	7.98	62	641256	9.72	ug/L	99
30) Trichloroethene	9.57	95	1248481	9.39	ug/L	99
31) 1,2-Dichloropropane	10.06	63	1066074	9.66	ug/L	99
32) Dibromomethane	10.33	93	486612	9.88	ug/L	99
33) 2-Chloroethyl vinyl ether	11.61	63	194906	10.68	ug/L	97
34) Bromodichloromethane	10.80	83	1498346	9.81	ug/L	99
35) cis-1,3-Dichloropropene	11.80	75	1150092	9.68	ug/L	99
37) Toluene	12.44	92	1993825	9.38	ug/L	98
38) trans-1,3-Dichloropropene	13.04	75	722704	9.86	ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	484223	9.84	ug/L	98
40) Tetrachloroethene	13.57	166	1449950	9.44	ug/L	100
41) 1,3-Dichloropropane	13.68	76	931059	9.90	ug/L	99
42) Dibromochloromethane	14.13	129	904336	10.08	ug/L	98
43) 1,2-Dibromoethane	14.27	107	598977	9.83	ug/L	99
44) 4-Methyl-2-pentanone	12.24	43	1387101	40.07	ug/L	100
45) 2-Hexanone	14.00	43	886389	42.49	ug/L	99
47) Chlorobenzene	15.36	112	2137390	9.50	ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.62	131	977395	9.82	ug/L	99
50) Ethylbenzene	15.70	106	1140328	9.39	ug/L	100
51) m,p-Xylene	16.02	106	2828879	19.35	ug/L	100
52) o-Xylene	17.08	106	1314910	9.67	ug/L	98
53) Styrene	17.15	104	2167866	10.05	ug/L	99
54) Bromoform	17.61	173	554722	10.58	ug/L	99
55) Isopropylbenzene	18.35	105	4211066	9.64	ug/L	99
58) Bromobenzene	19.19	156	1055103	9.35	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.57	83	756757	9.66	ug/L	99
60) 1,2,3-Trichloropropane	19.57	75	437850	10.18	ug/L	97
61) n-Propylbenzene	19.83	120	1043877	9.45	ug/L	100
62) 2-Chlorotoluene	19.96	126	944616	9.07	ug/L	100
63) 4-Chlorotoluene	20.36	91	3391576	9.33	ug/L	100
64) 1,3,5-Trimethylbenzene	20.51	105	3123239	9.23	ug/L	99
65) tert-Butylbenzene	21.53	91	2050829	9.24	ug/L	95
66) 1,2,4-Trimethylbenzene	21.70	105	2822185	9.50	ug/L	98
67) sec-Butylbenzene	22.26	105	4597773	9.42	ug/L	100
68) 1,3-Dichlorobenzene	22.42	146	1961280	9.44	ug/L	100
69) p-Isopropyltoluene	22.80	119	3560291	9.69	ug/L	100
70) 1,4-Dichlorobenzene	22.75	146	1858477	9.37	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

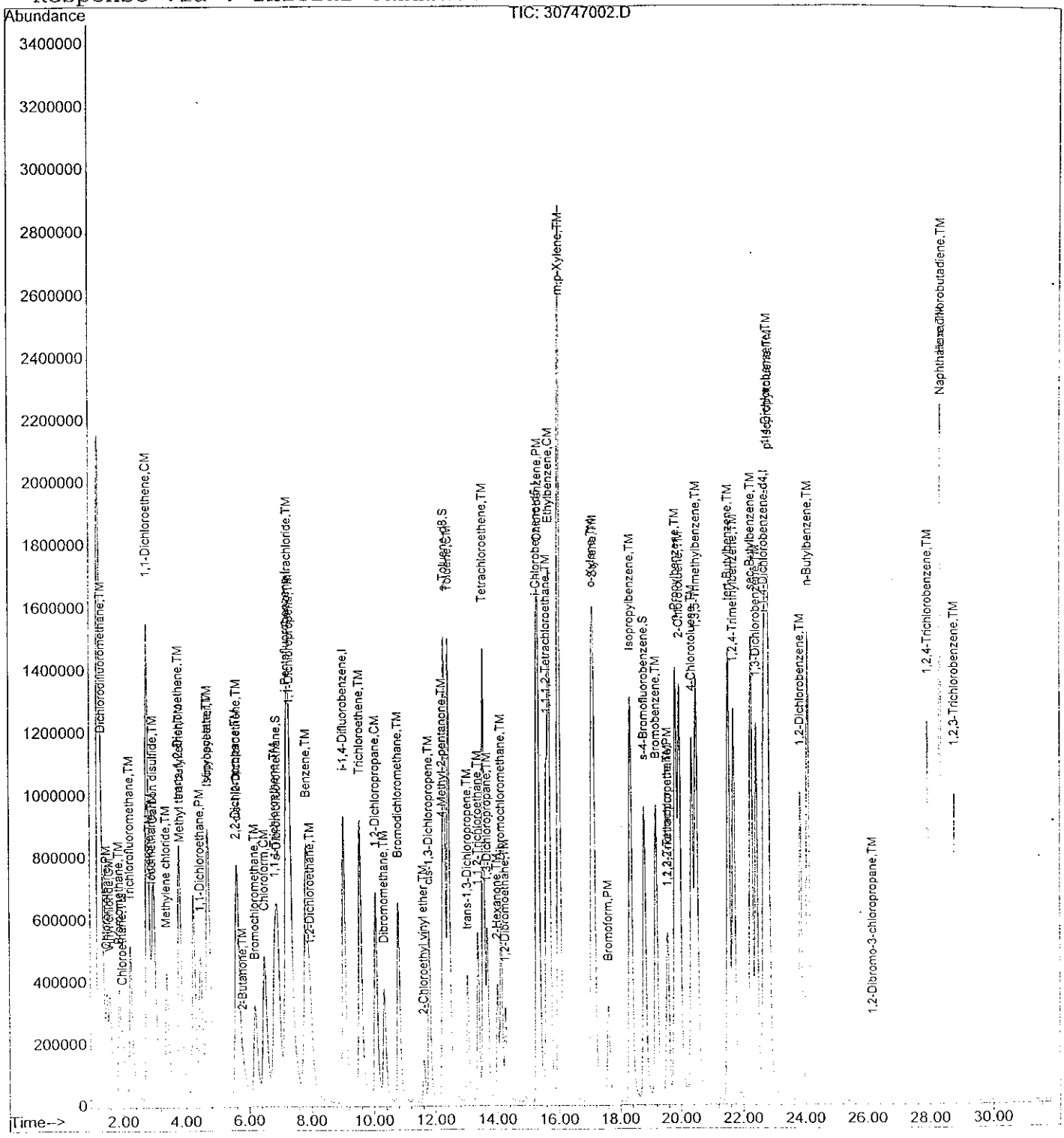
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.84	146	1582928	9.57	ug/L	99
72) n-Butylbenzene	24.08	91	3479174	10.23	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.15	75	103534	9.79	ug/L	97
74) 1,2,4-Trichlorobenzene	27.93	180	1002540	10.80	ug/L	99
75) Hexachlorobutadiene	28.32	225	995236	10.67	ug/L	96
76) Naphthalene	28.34	128	786121	11.11	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	761225	11.00	ug/L	100

(#) = qualifier out of range (m) = manual integration

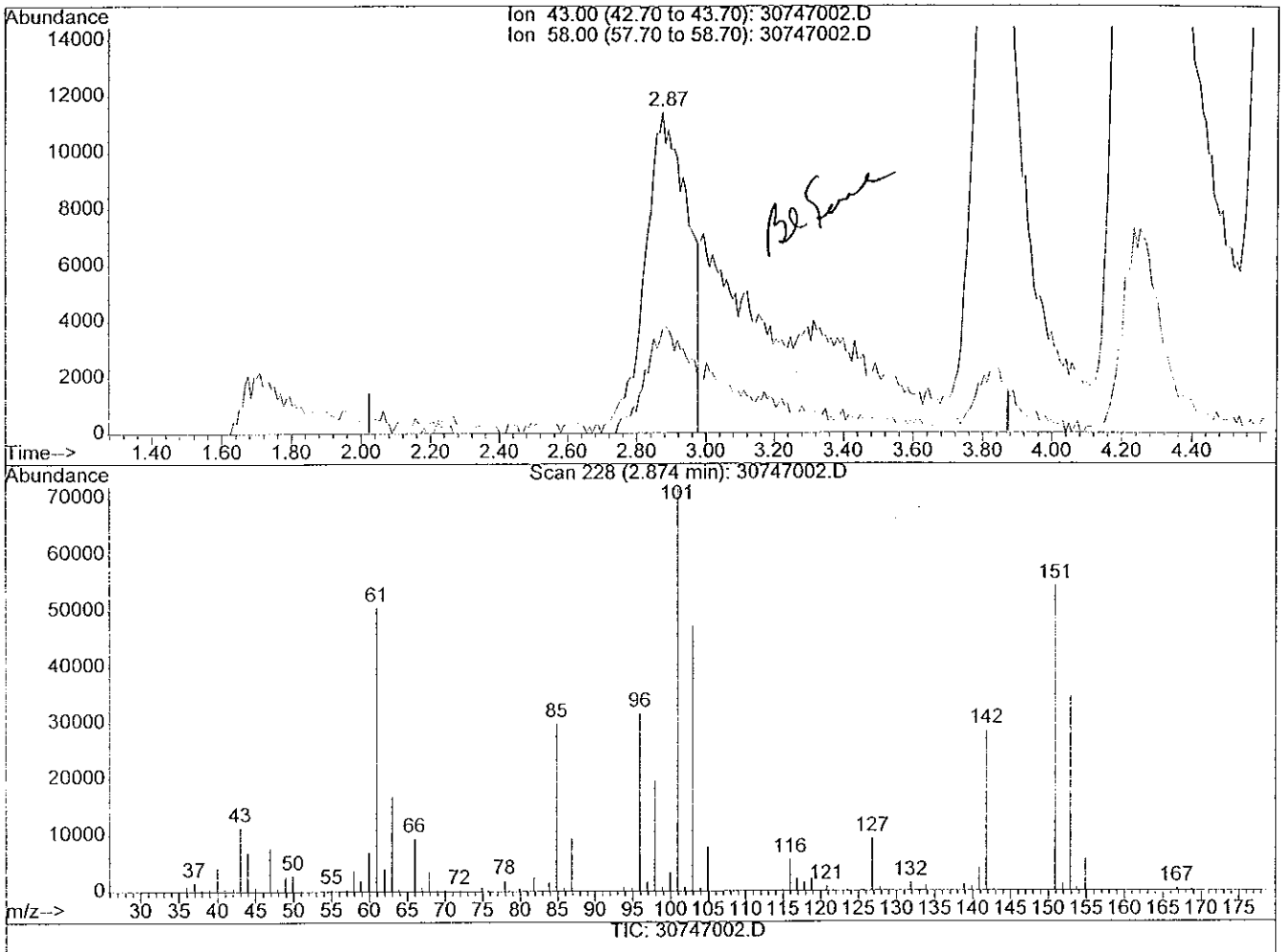
Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30747002.D

(9) Acetone (TM)

2.87min 16.75ug/L

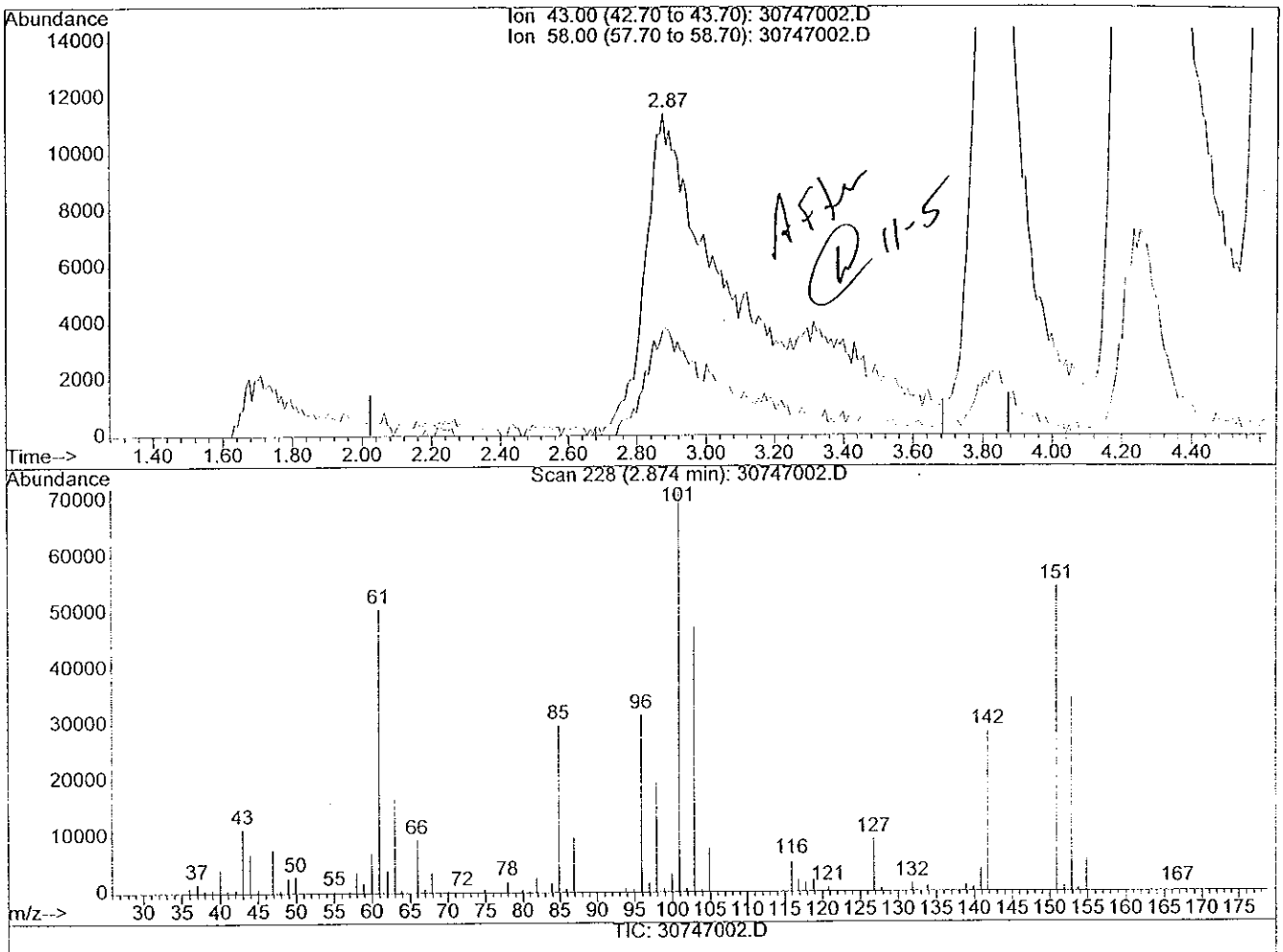
response 97796

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 40.76ug/L m

response 237147

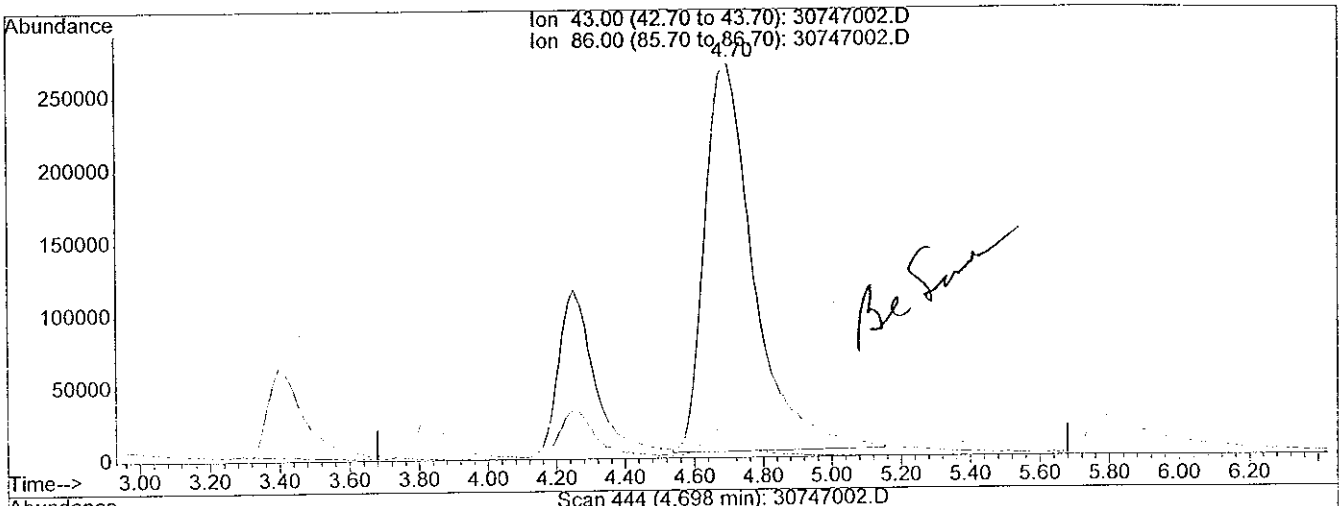
Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

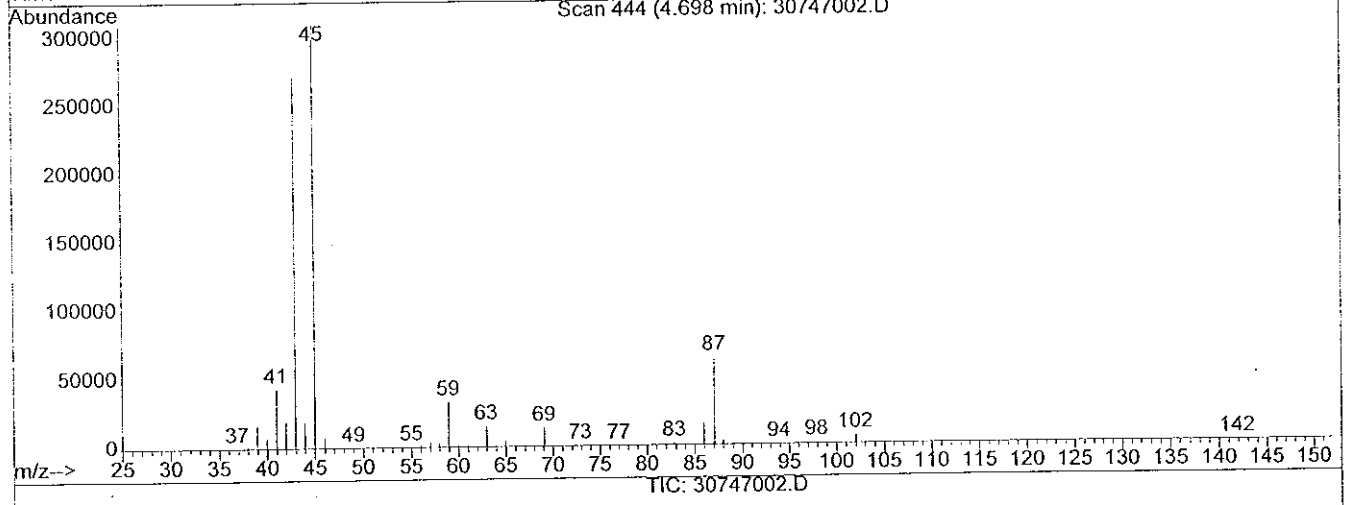
Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





(16) Vinyl acetate (TM)

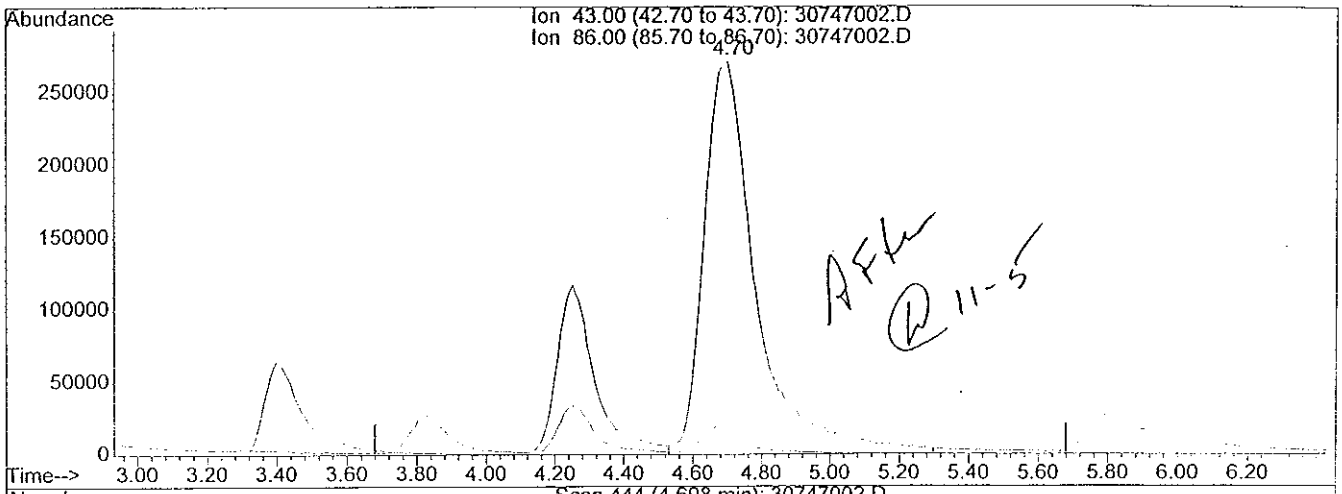
4.70min 18.11ug/L

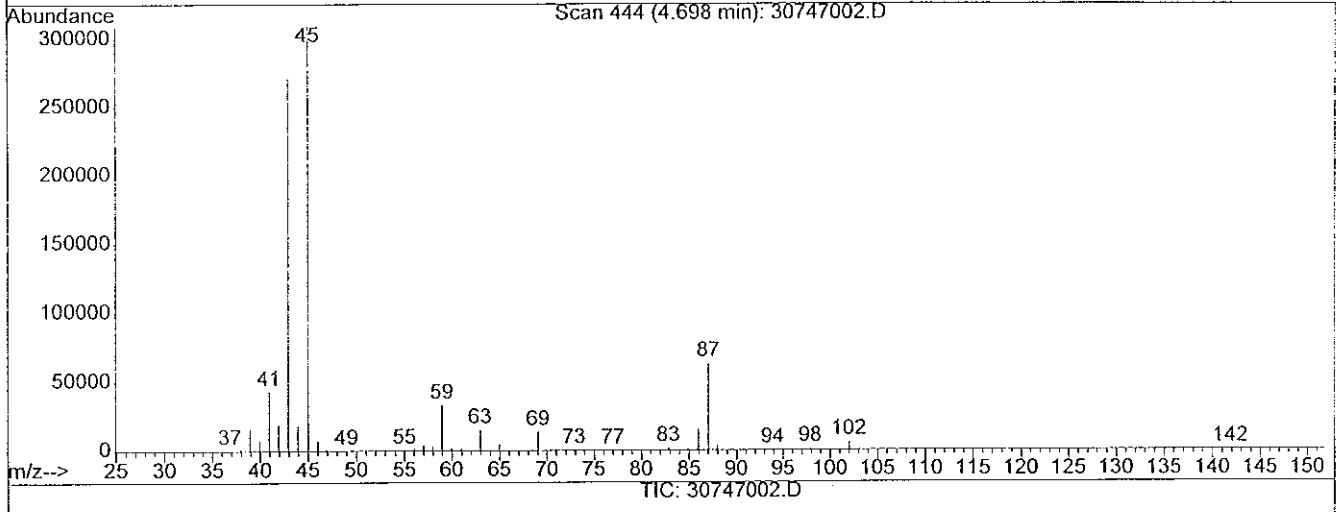
response 2648833

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.93
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





(16) Vinyl acetate (TM)

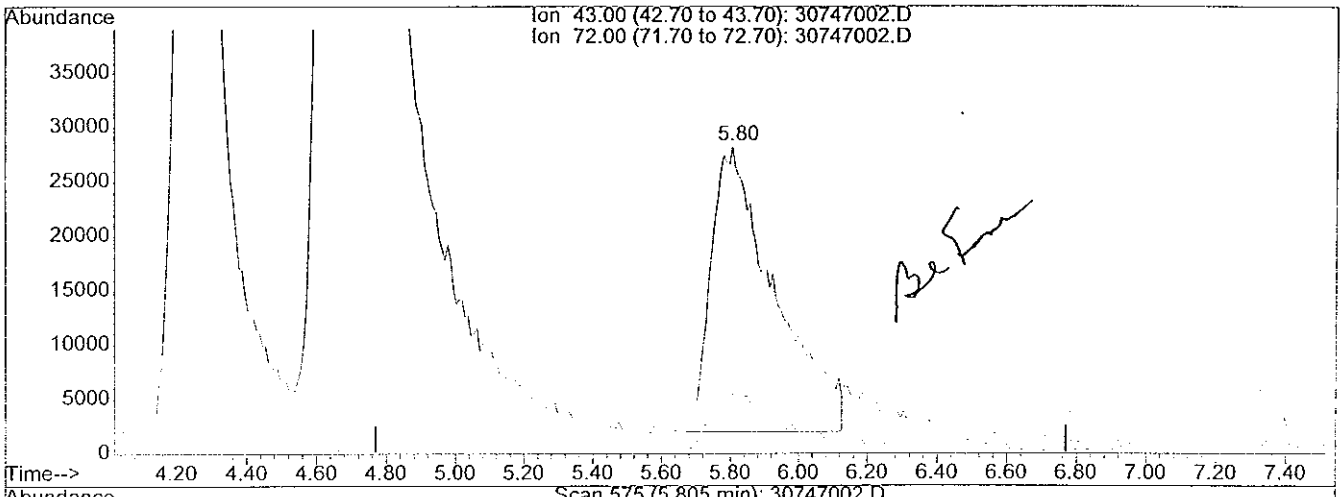
4.70min 19.65ug/L m

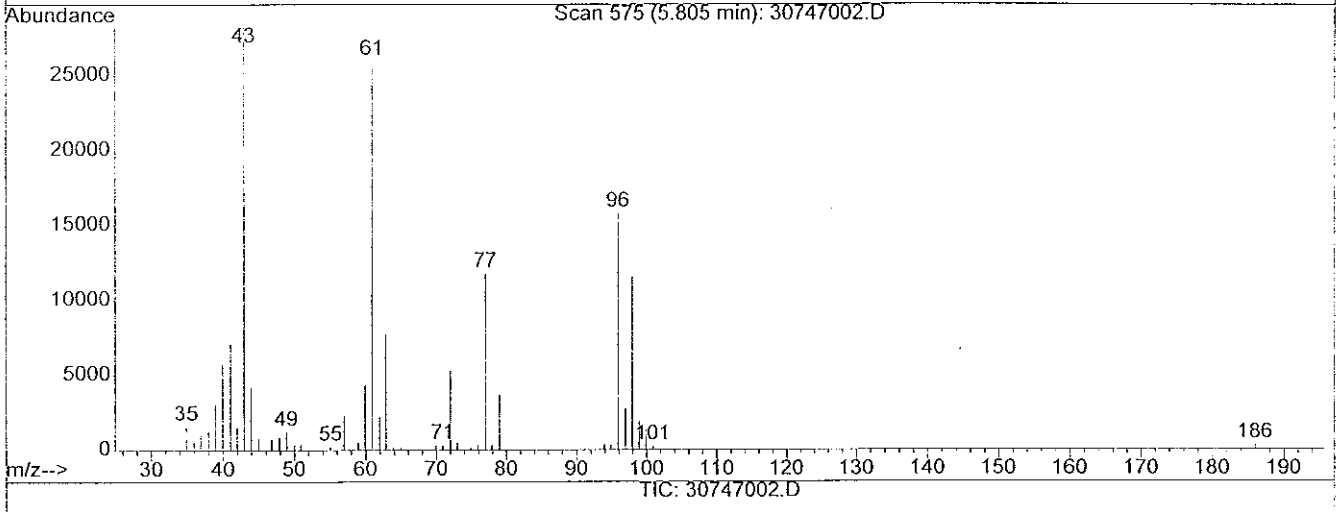
response 2875373

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.98
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30747002.D

(19) 2-Butanone (TM)

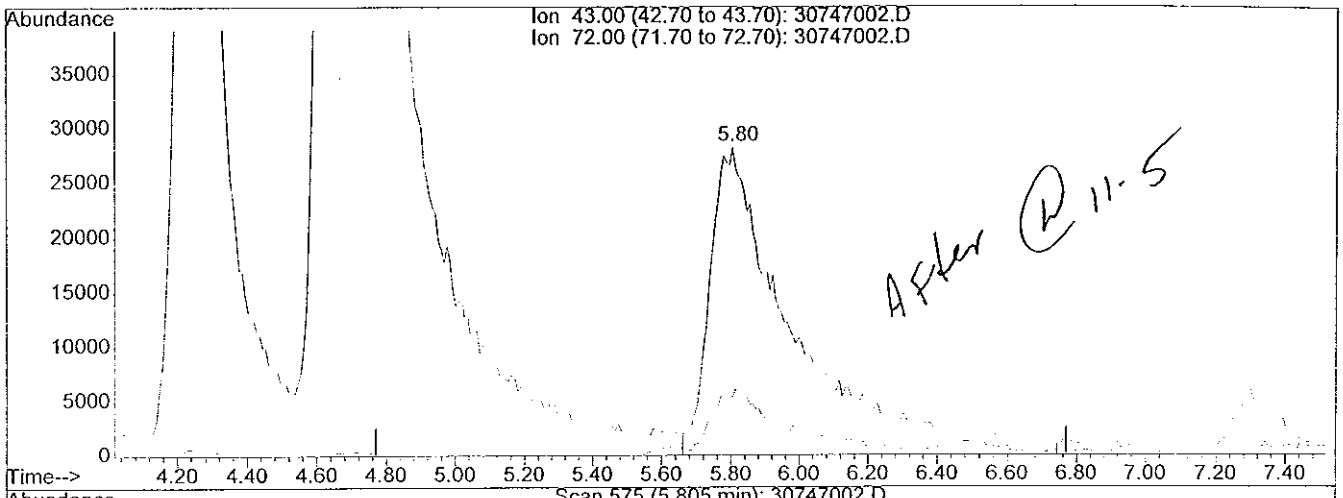
5.80min 27.61ug/L

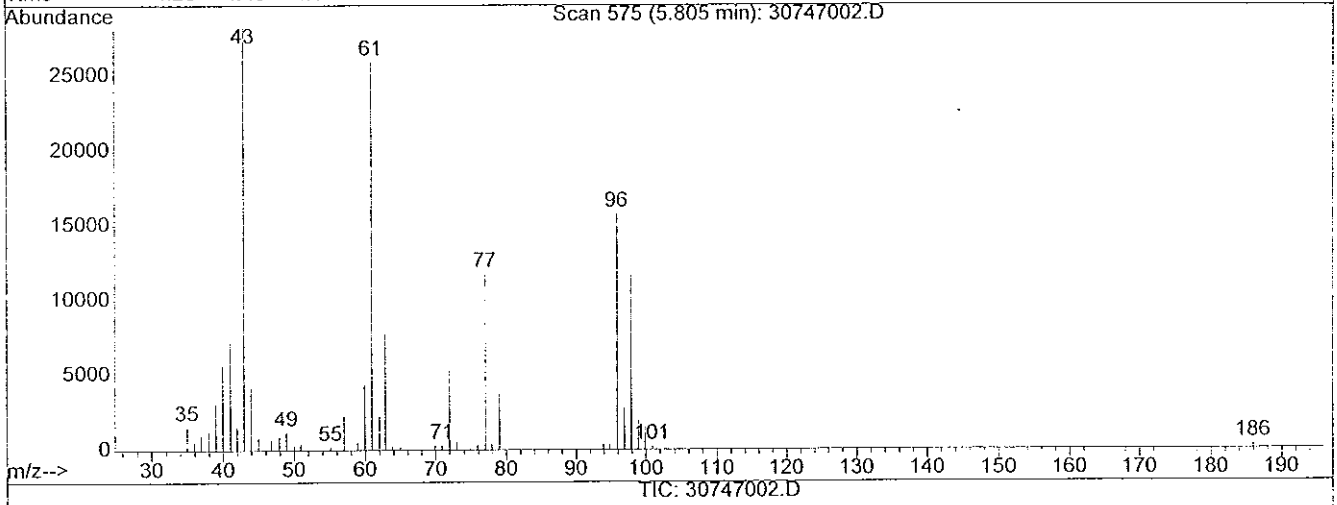
response 334117

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.11
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30747002.D

(19) 2-Butanone (TM)

5.80min 40.86ug/L m

response 494525

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	19.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747003.D Vial: 16
Acq On : 2 Nov 2001 10:35 Operator: GRH
Sample : BUW149ABK BLANK 11-02-01 Inst : Bubba
Misc : BUW149ABK BLANK 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3178649	10.00	ug/L	0.02 106.23%
25) i-1,4-Difluorobenzene	9.05	114	3115359	10.00	ug/L	0.00 102.47%
46) i-Chlorobenzene-d5	15.31	117	2224472	10.00	ug/L	0.02 103.89%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1077862	10.00	ug/L	0.00 88.63%

System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476371	10.03	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.30%			
36) s-Toluene-d8	12.32	98	2939245	9.96	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.60%			
56) s-4-Bromofluorobenzene	18.82	95	1635375	9.67	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.70%			

Target Compounds Qvalue

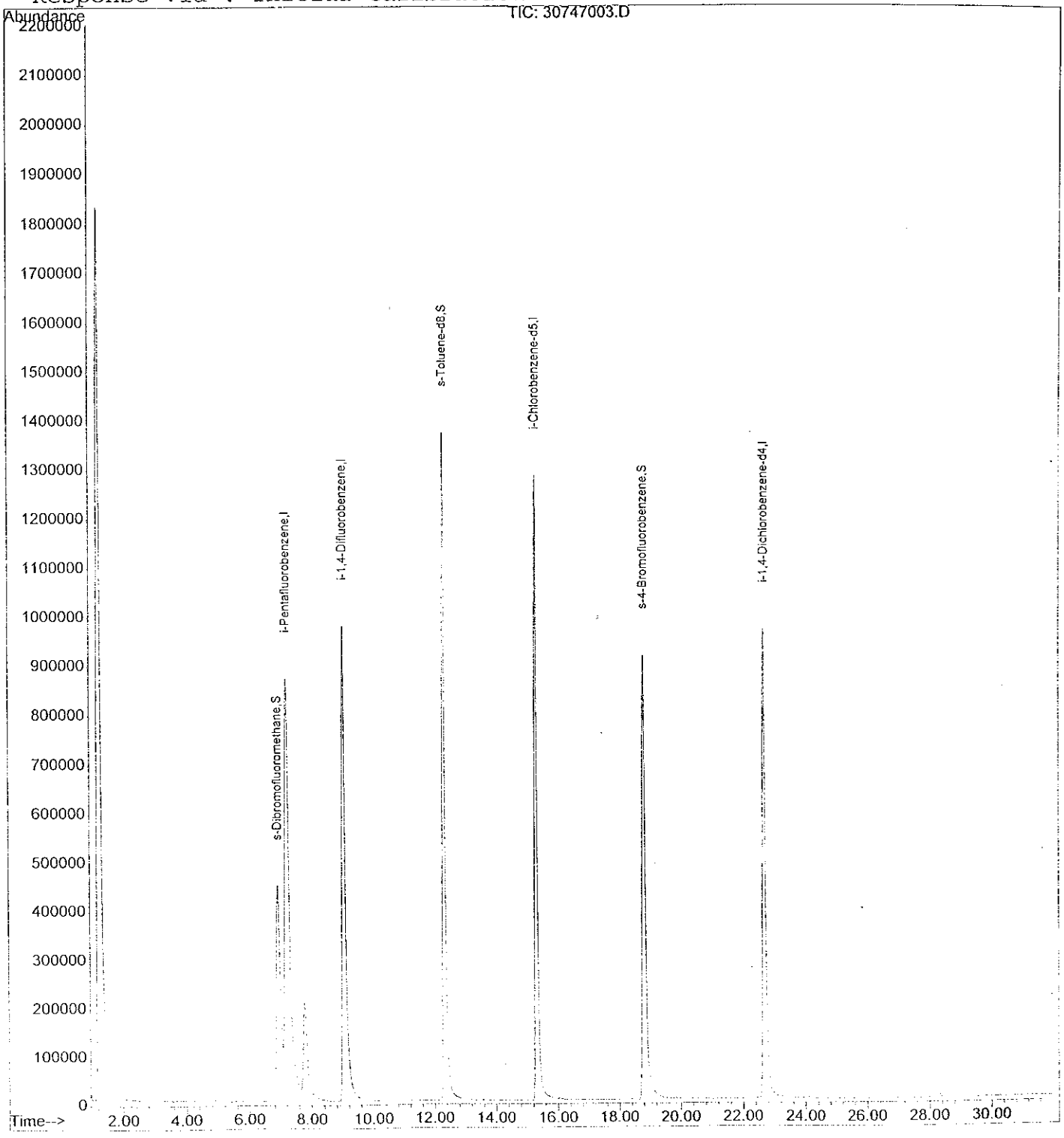
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747003.D
Acq On : 2 Nov 2001 10:35
Sample : BUW149ABK BLANK 11-02-01
Misc : BUW149ABK BLANK 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 10:35
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747003.D
Name: BUW149ABK BLANK 11-02-01
Misc: BUW149ABK BLANK 11-02-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747003.D V82625B1.M Mon Nov 05 15:17:07 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

* = out of control limits

Fri Nov 02 13:22:04 2001

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128%	[ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123%	[ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125%	[ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122%	[ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127%	[ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134%	[ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140%	[ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3030766	10.00	ug/L	0.00 101.28%
25) i-1,4-Difluorobenzene	9.06	114	3009380	10.00	ug/L	0.02 98.98%
46) i-Chlorobenzene-d5	15.31	117	2091671	10.00	ug/L	0.02 97.68%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1152357	10.00	ug/L	0.00 94.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1352471	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.32	98	2854139	10.01	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.81	95	1593244	10.02	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1282468	8.33	ug/L	99
3) Chloromethane	1.50	50	841618	8.57	ug/L	100
4) Vinyl chloride	1.59	62	988137	9.59	ug/L	100
5) Bromomethane	1.88	96	863225	9.27	ug/L	98
6) Chloroethane	1.98	64	591716	9.79	ug/L	98
7) Trichlorofluoromethane	2.22	101	1736743	10.30	ug/L	99
8) 1,1-Dichloroethene	2.77	96	983938	9.92	ug/L	99
9) Acetone	2.88	43	89233m	15.08	ug/L	93
10) Iodomethane	2.93	142	1176503	9.64	ug/L	100
11) Carbon disulfide	2.99	76	3331617	10.69	ug/L	100
12) Methylene chloride	3.41	84	783218	9.67	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1054555	9.59	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1124986	9.30	ug/L	98
15) 1,1-Dichloroethane	4.48	63	1810151	9.26	ug/L	98
16) Vinyl acetate	4.71	43	2191884m	14.79	ug/L	93
17) Isopropyl ether	4.72	45	3138972	10.21	ug/L	98
18) 2,2-Dichloropropane	5.60	77	1394782	9.62	ug/L	98
19) 2-Butanone	5.80	43	240087m	19.59	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	1032490	10.33	ug/L	98
21) Bromochloromethane	6.20	128	398181	10.13	ug/L	98
22) Chloroform	6.50	83	1905575	9.74	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1680725	10.28	ug/L	99
26)	Carbon tetrachloride	7.29	119	1464043	9.74	ug/L	98
27)	1,1-Dichloropropene	7.34	110	510645	10.46	ug/L	100
28)	Benzene	7.86	78	3218463	9.85	ug/L	100
29)	1,2-Dichloroethane	7.98	62	630118	9.65	ug/L	99
30)	Trichloroethene	9.58	95	1308563	9.94	ug/L	99
31)	1,2-Dichloropropane	10.08	63	1097792	10.05	ug/L	100
32)	Dibromomethane	10.35	93	473385	9.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.40	63	13641	0.76	ug/L	48
34)	Bromodichloromethane	10.81	83	1489475	9.86	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1149901	9.77	ug/L	99
37)	Toluene	12.46	92	2082205	9.90	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	711018	9.80	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	469944	9.65	ug/L	99
40)	Tetrachloroethene	13.57	166	1560711	10.27	ug/L	100
41)	1,3-Dichloropropane	13.70	76	934423	10.04	ug/L	99
42)	Dibromochloromethane	14.15	129	874543	9.85	ug/L	99
43)	1,2-Dibromoethane	14.27	107	594922	9.87	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	619957	18.09	ug/L	100
45)	2-Hexanone	14.02	43	387687	18.77	ug/L	96
47)	Chlorobenzene	15.37	112	2180885	9.93	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	992161	10.21	ug/L	100
50)	Ethylbenzene	15.72	106	1179030	9.94	ug/L	100
51)	m,p-Xylene	16.03	106	2938526	20.58	ug/L	98
52)	o-Xylene	17.09	106	1358012	10.22	ug/L	99
53)	Styrene	17.15	104	2105408	9.99	ug/L	98
54)	Bromoform	17.63	173	528781	10.32	ug/L	100
55)	Isopropylbenzene	18.35	105	4406503	10.33	ug/L	99
58)	Bromobenzene	19.20	156	1073392	10.03	ug/L	97
59)	1,1,2,2-Tetrachloroethane	19.57	83	714126	9.62	ug/L	100
60)	1,2,3-Trichloropropane	19.56	75	412855	10.13	ug/L	97
61)	n-Propylbenzene	19.83	120	1088289	10.39	ug/L	100
62)	2-Chlorotoluene	19.97	126	1011841	10.26	ug/L	100
63)	4-Chlorotoluene	20.36	91	3555470	10.32	ug/L	100
64)	1,3,5-Trimethylbenzene	20.51	105	3220819	10.04	ug/L	100
65)	tert-Butylbenzene	21.54	91	2091418	9.95	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2826904	10.04	ug/L	100
67)	sec-Butylbenzene	22.26	105	4818859	10.42	ug/L	100
68)	1,3-Dichlorobenzene	22.43	146	1959057	9.95	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3698577	10.63	ug/L	100
70)	1,4-Dichlorobenzene	22.74	146	1855007	9.88	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.84	146	1544198	9.86	ug/L	99
72)	n-Butylbenzene	24.08	91	3521895	10.93	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	103685	10.35	ug/L	95
74)	1,2,4-Trichlorobenzene	27.92	180	981039	11.16	ug/L	99
75)	Hexachlorobutadiene	28.32	225	1067761	12.13	ug/L	98
76)	Naphthalene	28.33	128	731684	10.91	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	715539	10.91	ug/L	100

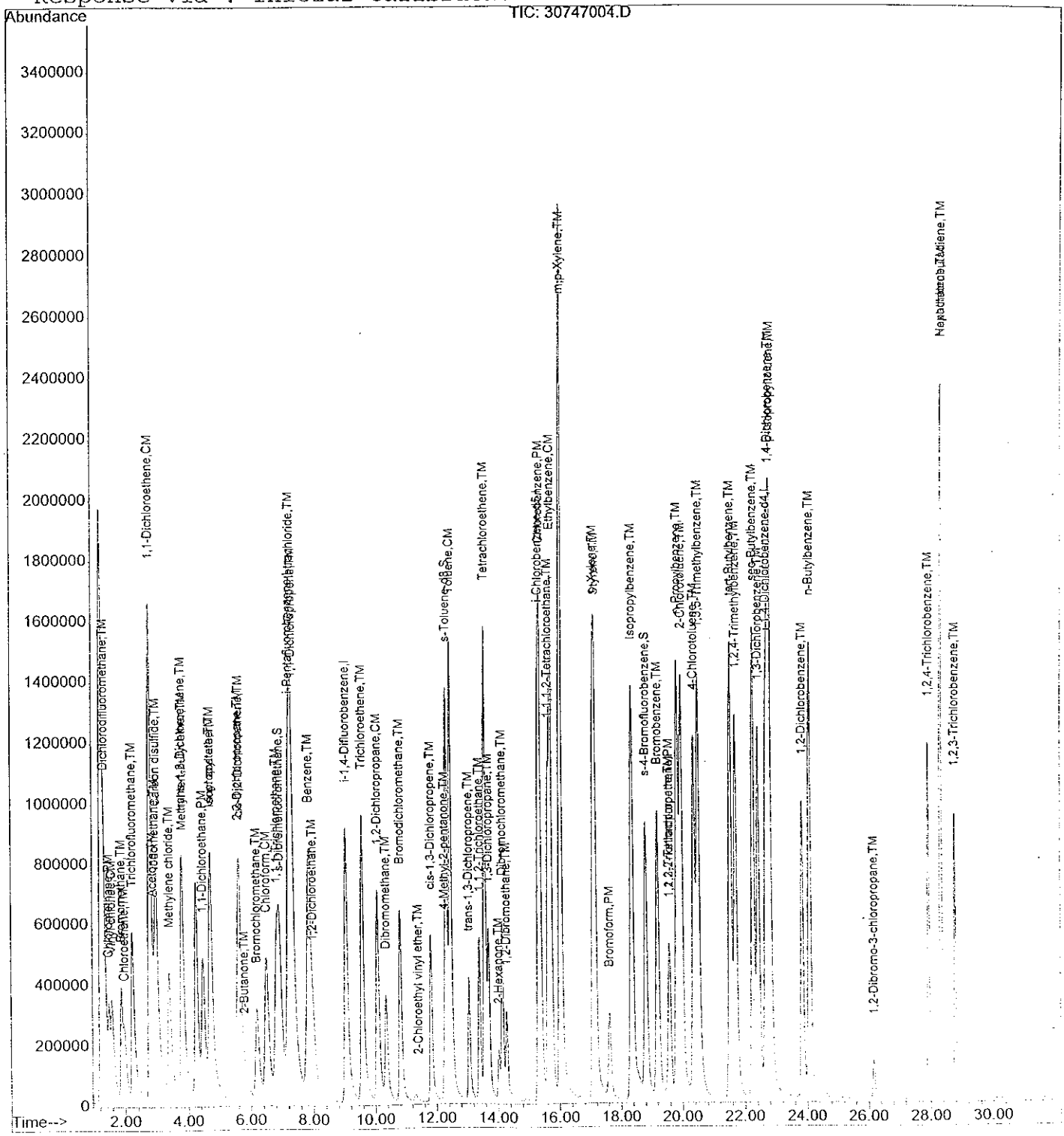
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

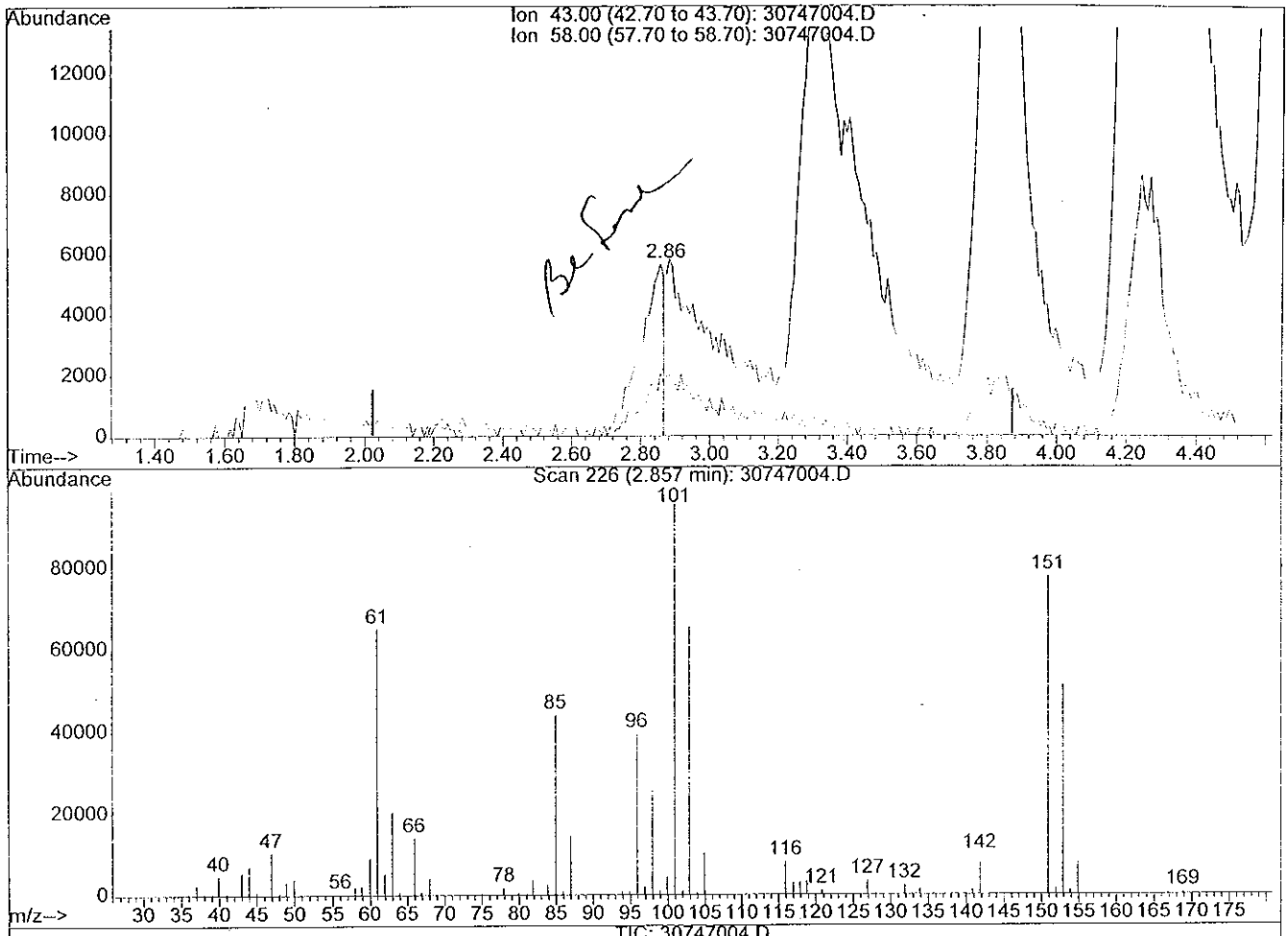


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747004.D

(9) Acetone (TM)

2.86min 4.41ug/L

response 26554

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.12
0.00	0.00	0.00
0.00	0.00	0.00

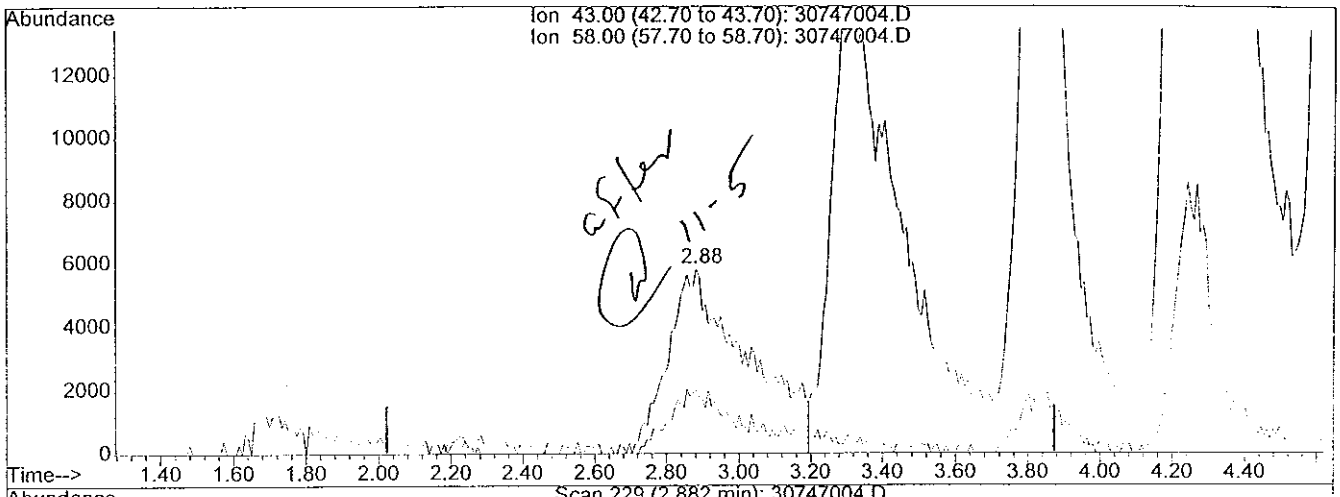
Quantitation Report (Qedit)

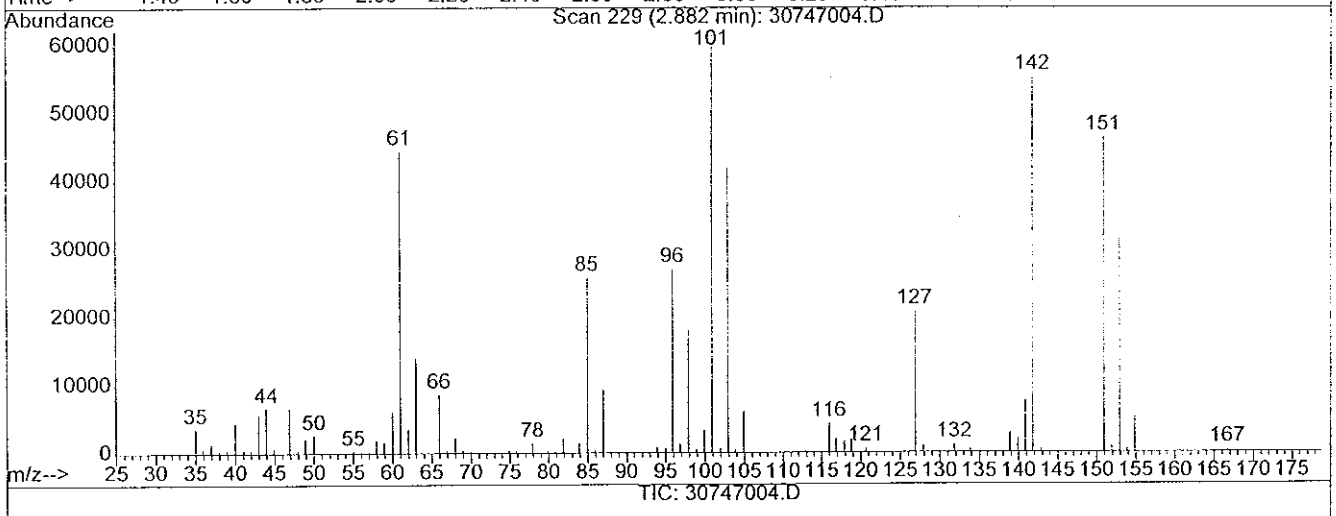
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(9) Acetone (TM)

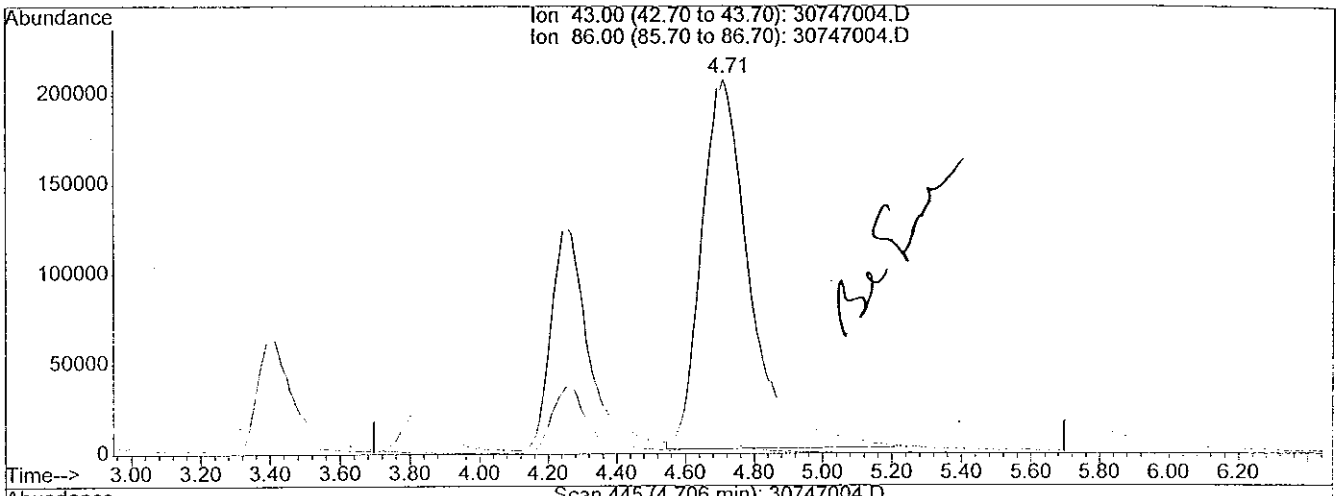
2.88min 15.08ug/L m

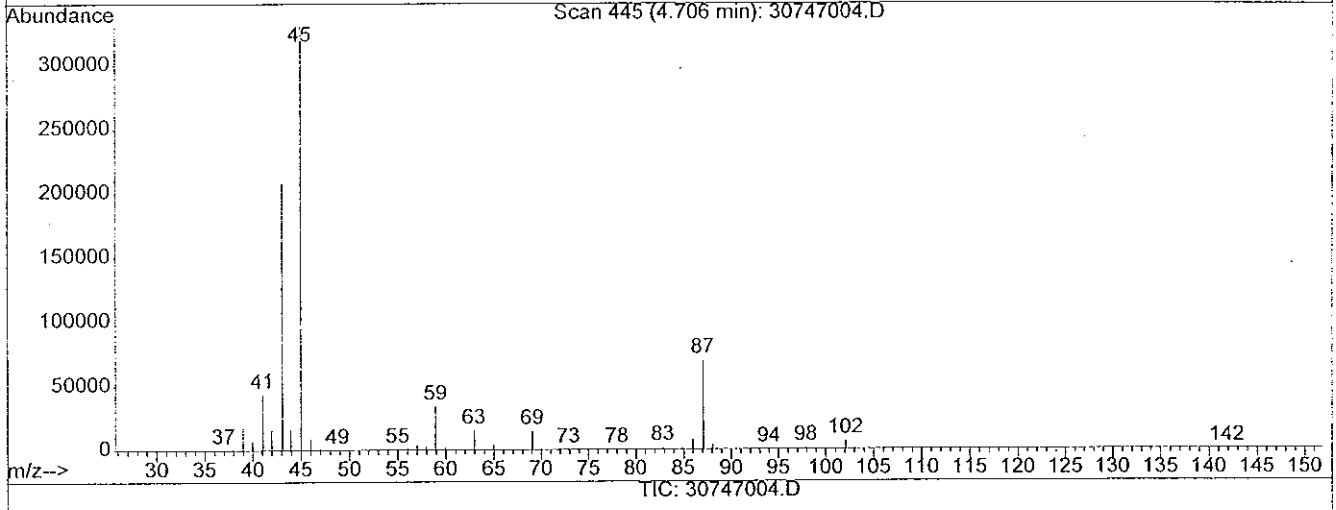
response 89233

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	34.38
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

4.71min 13.75ug/L

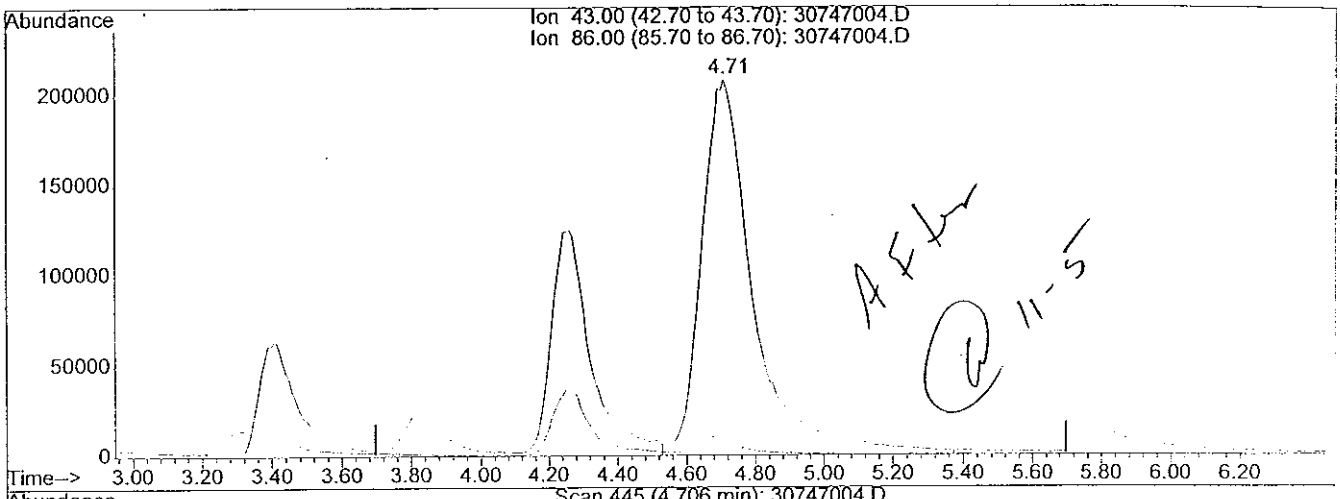
response 2037582

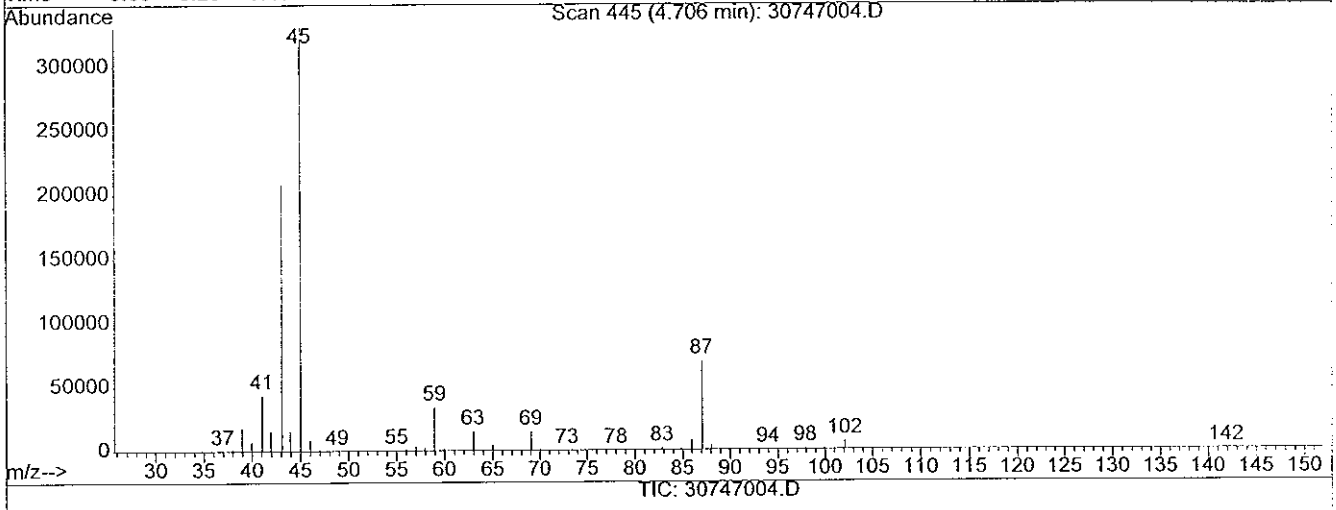
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.71
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

4.71min 14.79ug/L m

response 2191884

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.79
0.00	0.00	0.00
0.00	0.00	0.00

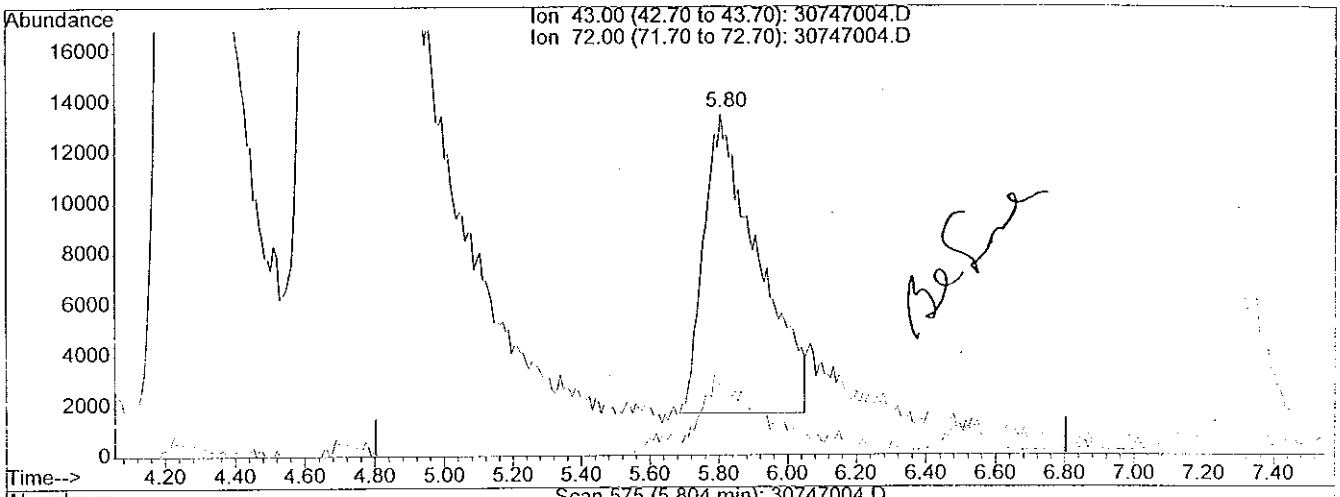
Quantitation Report (Qedit)

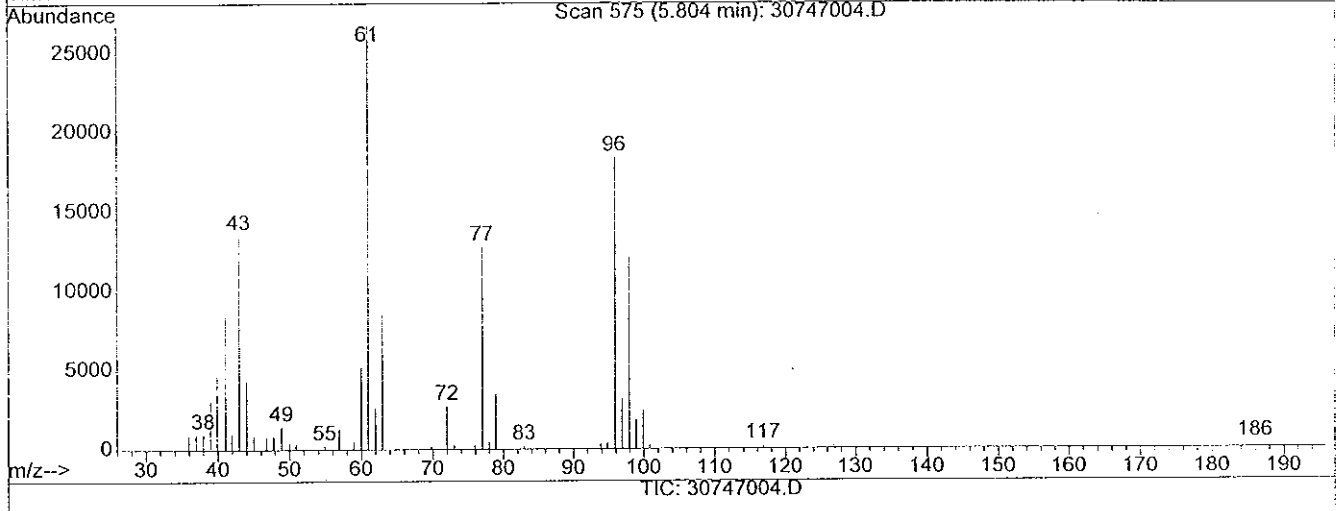
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

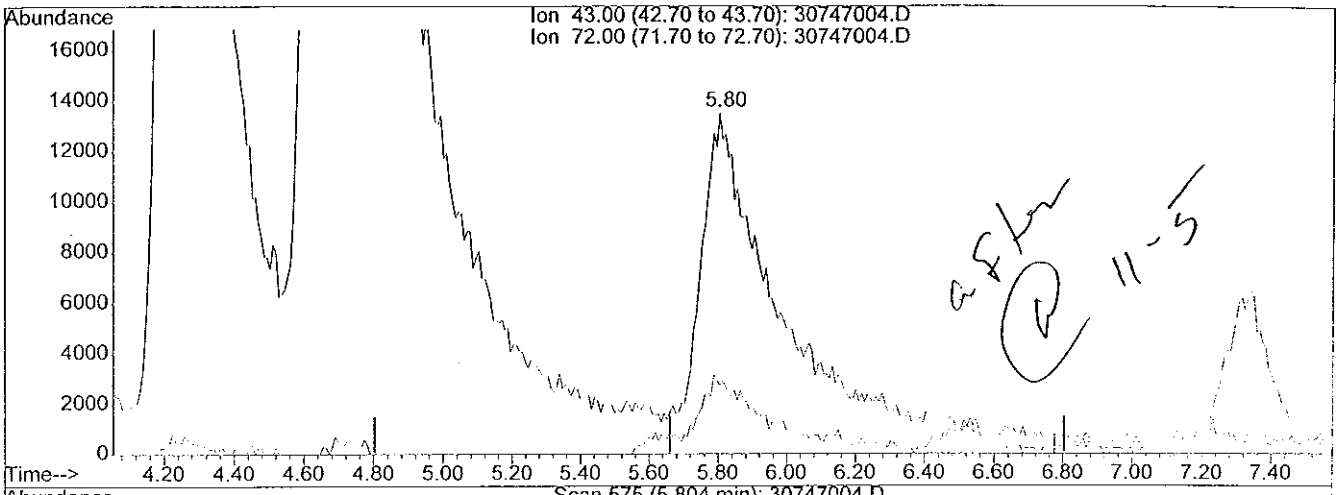
5.80min 10.44ug/L

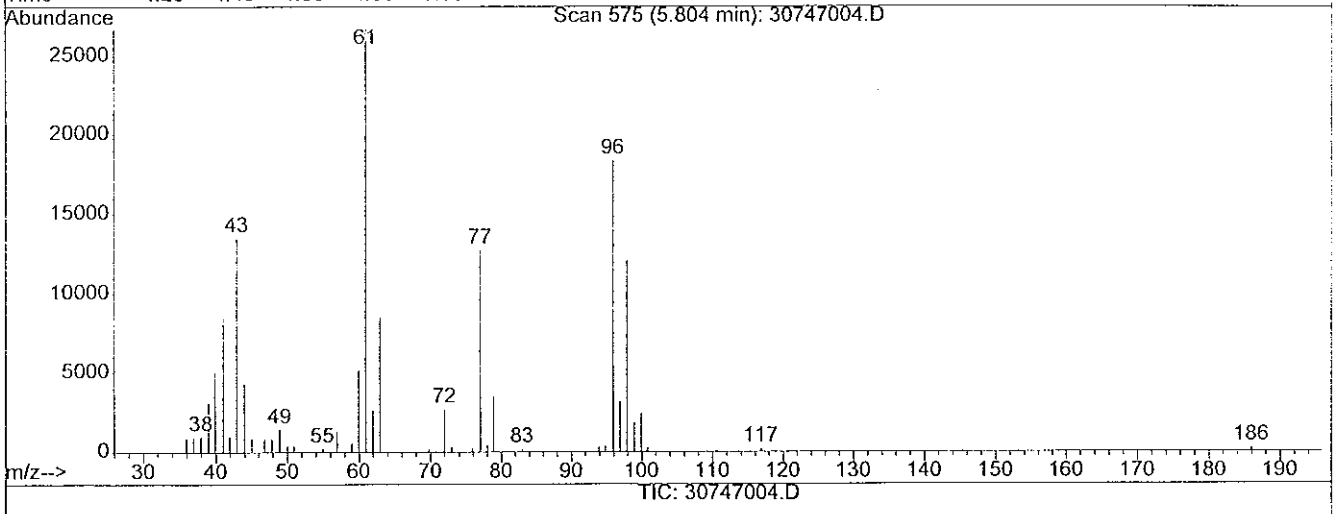
response 127926

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	17.55
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

5.80min 19.59ug/L m

response 240087

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.27
0.00	0.00	0.00
0.00	0.00	0.00

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	45.5	10	455#	46.0	460#	50.8	508#	77-119
s-Toluene-d8	49.3	10	493#	49.6	496#	49.9	499#	78-118
s-4-Bromofluorobenze	44.5	10	445#	49.6	496#	50.3	503#	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50 10	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	10	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	10	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	10	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	10	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	10	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	10	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100 20	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50 10	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	10	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	10	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	10	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	10	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	10	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100 20	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50 10	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	10	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100 20	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50 10	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	10	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	10	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	10	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	10	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	10	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	10	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	10	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	10	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	10	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	10	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	10	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	10	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	10	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	10	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	10	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	10	44.46	51.49	89	103	14.7	20	85-129

Tetrachloroet	0.0	50	10	48.51	47.23	97	94	2.7	13	87-13
1,3-Dichlorop	0.0		10	45.37	53.65	91	107	16.7	19	73-12
Dibromochloro	0.0		10	45.49	52.17	91	104	13.7	27	83-12
1,2-Dibromoet	0.0		10	44.37	51.97	89	104	15.8	26	36-15
4-Methyl-2-pe	0.0	100	20	76.76	103.04	77	103	29.2	35	64-13
2-Hexanone	0.0		20	81.06	105.10	81	105	25.8	36	49-14
Chlorobenzene	0.0	50	10	48.02	48.06	96	96	0.1	10	66-15
1,1,1,2-Tetra	0.0		10	48.01	49.75	96	100	3.6	12	84-12
1-Chlorohexan	0.0		10	0.00	0.00	0#	0#	99.0#	30	50-15
Ethylbenzene	0.0		10	47.87	45.93	96	92	4.1	14	78-13
m,p-Xylene	0.0	100	20	97.05	95.62	97	96	1.5	20	76-12
o-Xylene	0.0	50	10	48.73	48.61	97	97	0.2	13	76-12
Styrene	0.0		10	47.00	48.45	94	97	3.0	43	55-13
Bromoform	0.0		10	47.26	55.03	95	110	15.2	29	62-12
Isopropylbenz	0.0		10	49.89	47.34	100	95	5.2	20	65-14
Bromobenzene	0.0		10	47.88	48.05	96	96	0.4	14	73-14
1,1,2,2-Tetra	0.0		10	43.80	50.74	88	101	14.7	25	75-12
1,2,3-Trichlo	0.0		10	45.39	52.74	91	105	15.0	26	75-12
n-Propylbenze	0.0		10	51.13	46.79	102	94	8.9	16	76-12
2-Chlorotolue	0.0		10	49.64	46.31	99	93	6.9	15	85-12
4-Chlorotolue	0.0		10	50.37	48.23	101	96	4.3	13	87-12
1,3,5-Trimeth	0.0		10	48.51	45.41	97	91	6.6	25	72-14
tert-Butylben	0.0		10	48.30	44.28	97	89	8.7	16	73-11
1,2,4-Trimeth	0.0		10	50.52	47.25	101	94	6.7	30	50-15
sec-Butylbenz	0.0		10	50.66	46.32	101	93	8.9	18	62-14
1,3-Dichlorob	0.0		10	48.11	47.44	96	95	1.4	10	89-11
p-Isopropylto	0.0		10	51.94	48.33	104	97	7.2	22	35-19
1,4-Dichlorob	0.0		10	48.48	46.70	97	93	3.7	10	78-13
1,2-Dichlorob	0.0		10	47.18	49.06	94	98	3.9	12	86-12
n-Butylbenzen	0.0		10	53.21	50.54	106	101	5.2	40	0-27
1,2-Dibromo-3	0.0		10	45.16	54.85	90	110	19.4	33	71-11
1,2,4-Trichlo	0.0		10	53.27	56.92	107	114	6.6	32	30-23
Hexachlorobut	0.0		10	60.38	54.77	121	110	9.7	18	70-15
Naphthalene	0.0		10	50.56	59.78	101	120	16.7	42	17-26
1,2,3-Trichlo	0.0		10	51.73	57.72	103	115	11.0	33	49-21

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	9.1	10	91	9.2	92	10.2	102	77-119
s-Toluene-d8	9.9	10	99	9.9	99	10.0	100	78-118
s-4-Bromofluorobenze	8.9	10	89	9.9	99	10.1	101	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	10	7.24	7.06	72	71	2.6	12	35-160
Chloromethane	0.0	10	8.07	8.34	81	83	3.3	10	60-124
Vinyl chlorid	0.0	10	8.54	8.62	85	86	0.8	9	74-125
Bromomethane	0.0	10	8.90	8.69	89	87	2.4	17	59-152
Chloroethane	0.0	10	8.93	9.02	89	90	0.9	10	73-123
Trichlorofluo	0.0	10	9.09	8.93	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	10	9.27	9.24	93	92	0.3	13	84-119
Acetone	0.0	20	15.31	18.23	77	91	17.4	44	19-201
Iodomethane	0.0	10	8.85	9.07	89	91	2.4	15	53-154
Carbon disulf	0.0	10	9.84	9.88	98	99	0.3	12	79-123
Methylene chl	0.0	10	8.99	9.86	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	10	9.03	9.10	90	91	0.8	9	87-115
Methyl tert-b	0.0	10	8.25	10.59	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	10	8.72	8.81	87	88	1.0	10	85-121
Vinyl acetate	0.0	20	13.33	15.87	67#	79	17.4	20	69-122
Isopropyl eth	0.0	10	9.24	10.74	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	10	8.78	8.66	88	87	1.3	10	78-116
2-Butanone	4.2	20	20.99	26.88	84	114	29.8	47	65-133
cis-1,2-Dichl	6.6	10	16.03	16.95	95	104	9.2	14	88-122
Bromochlorome	0.0	10	9.28	10.23	93	102	9.7	18	85-130
Chloroform	0.0	10	9.14	9.65	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	10	9.57	9.60	96	96	0.3	10	90-120
Carbon tetrac	0.0	10	9.01	8.80	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	10	9.80	9.52	98	95	2.9	12	84-118
Benzene	0.0	10	9.39	9.45	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	10	8.62	9.71	86	97	11.9	17	85-129
Trichloroethe	1.5	10	10.74	10.70	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	10	9.54	10.06	95	101	5.3	12	88-114
Dibromomethan	0.0	10	8.74	10.34	87	103	16.8	20	81-130
2-Chloroethyl	0.0	10	0.69	0.39	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	10	9.06	9.97	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	10	9.01	9.98	90	100	10.3	19	65-133
Toluene	0.0	10	9.41	9.28	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	10	8.81	10.30	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	10	8.89	10.30	89	103	14.7	20	85-125

Tetrachloroet	0.0	10	9.70	9.45	97	94	2.7	13	87-13
1,3-Dichlorop	0.0	10	9.07	10.73	91	107	16.7	19	73-12
Dibromochloro	0.0	10	9.10	10.43	91	104	13.7	27	83-12
1,2-Dibromoet	0.0	10	8.87	10.39	89	104	15.8	26	36-15
4-Methyl-2-pe	0.0	20	15.35	20.61	77	103	29.2	35	64-13
2-Hexanone	0.0	20	16.21	21.02	81	105	25.8	36	49-14
Chlorobenzene	0.0	10	9.60	9.61	96	96	0.1	10	66-15
1,1,1,2-Tetra	0.0	10	9.60	9.95	96	100	3.6	12	84-12
1-Chlorohexan	0.0	10	0.00	0.00	0#	0#	99.0#	30	50-15
Ethylbenzene	0.0	10	9.57	9.19	96	92	4.1	14	78-13
m,p-Xylene	0.0	20	19.41	19.12	97	96	1.5	20	76-12
o-Xylene	0.0	10	9.75	9.72	97	97	0.2	13	76-12
Styrene	0.0	10	9.40	9.69	94	97	3.0	43	55-13
Bromoform	0.0	10	9.45	11.01	95	110	15.2	29	62-12
Isopropylbenz	0.0	10	9.98	9.47	100	95	5.2	20	65-14
Bromobenzene	0.0	10	9.58	9.61	96	96	0.4	14	73-14
1,1,2,2-Tetra	0.0	10	8.76	10.15	88	101	14.7	25	75-12
1,2,3-Trichlo	0.0	10	9.08	10.55	91	105	15.0	26	75-12
n-Propylbenze	0.0	10	10.23	9.36	102	94	8.9	16	76-12
2-Chlorotolue	0.0	10	9.93	9.26	99	93	6.9	15	85-12
4-Chlorotolue	0.0	10	10.07	9.65	101	96	4.3	13	87-12
1,3,5-Trimeth	0.0	10	9.70	9.08	97	91	6.6	25	72-14
tert-Butylben	0.0	10	9.66	8.86	97	89	8.7	16	73-11
1,2,4-Trimeth	0.0	10	10.10	9.45	101	94	6.7	30	50-15
sec-Butylbenz	0.0	10	10.13	9.26	101	93	8.9	18	62-14
1,3-Dichlorob	0.0	10	9.62	9.49	96	95	1.4	10	89-11
p-Isopropylto	0.0	10	10.39	9.67	104	97	7.2	22	35-19
1,4-Dichlorob	0.0	10	9.70	9.34	97	93	3.7	10	78-13
1,2-Dichlorob	0.0	10	9.44	9.81	94	98	3.9	12	86-12
n-Butylbenzen	0.0	10	10.64	10.11	106	101	5.2	40	0-27
1,2-Dibromo-3	0.0	10	9.03	10.97	90	110	19.4	33	71-11
1,2,4-Trichlo	0.0	10	10.65	11.38	107	114	6.6	32	30-23
Hexachlorobut	0.0	10	12.08	10.95	121	110	9.7	18	70-15
Naphthalene	0.0	10	10.11	11.96	101	120	16.7	42	17-26
1,2,3-Trichlo	0.0	10	10.35	11.54	103	115	11.0	33	49-21

- Fails Limit Check

V82625B1.M Fri Nov 02 13:58:50 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	36.20	ug/L	99
3) Chloromethane	1.50	50	808429	40.36	ug/L	100
4) Vinyl chloride	1.59	62	898505	42.72	ug/L	99
5) Bromomethane	1.88	96	845473	44.48	ug/L	99
6) Chloroethane	1.98	64	550544	44.66	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	45.46	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	46.34	ug/L	98
9) Acetone	2.86	43	92468m	76.57	ug/L	92
10) Iodomethane	2.93	142	1102043	44.26	ug/L	100
11) Carbon disulfide	2.99	76	3130247	49.22	ug/L	100
12) Methylene chloride	3.41	84	742882	44.96	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	45.13	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	41.26	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	43.61	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	66.64	ug/L	94
17) Isopropyl ether	4.72	45	2898382	46.18	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	43.89	ug/L	98
19) 2-Butanone	5.79	43	262444m	104.94	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	80.17	ug/L	93
21) Bromochloromethane	6.19	128	372269	46.41	ug/L	97
22) Chloroform	6.49	83	1824238	45.70	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1595711	47.86	ug/L	99
26)	Carbon tetrachloride	7.27	119	1369481	45.07	ug/L	98
27)	1,1-Dichloropropene	7.32	110	484547	48.98	ug/L	100
28)	Benzene	7.86	78	3099834	46.95	ug/L	100
29)	1,2-Dichloroethane	7.97	62	568894	43.11	ug/L	99
30)	Trichloroethene	9.56	95	1428605	53.69	ug/L	98
31)	1,2-Dichloropropane	10.06	63	1053193	47.71	ug/L	100
32)	Dibromomethane	10.33	93	430433	43.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.39	63	12666	3.47	ug/L	48
34)	Bromodichloromethane	10.80	83	1383436	45.29	ug/L	98
35)	cis-1,3-Dichloropropene	11.80	75	1070618	45.03	ug/L	98
37)	Toluene	12.44	92	1999709	47.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.03	75	645661	44.04	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	437882	44.46	ug/L	99
40)	Tetrachloroethene	13.57	166	1490678	48.51	ug/L	100
41)	1,3-Dichloropropane	13.68	76	853619	45.37	ug/L	99
42)	Dibromochloromethane	14.13	129	816167	45.49	ug/L	99
43)	1,2-Dibromoethane	14.27	107	540747	44.37	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	531665	76.76	ug/L	100
45)	2-Hexanone	14.00	43	338312	81.06	ug/L	97
47)	Chlorobenzene	15.36	112	2095861	48.02	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	927285	48.01	ug/L	99
50)	Ethylbenzene	15.70	106	1128271	47.87	ug/L	100
51)	m,p-Xylene	16.01	106	2753749	97.05	ug/L	98
52)	o-Xylene	17.08	106	1286050	48.73	ug/L	99
53)	Styrene	17.15	104	1967872	47.00	ug/L	99
54)	Bromoform	17.61	173	480947	47.26	ug/L	99
55)	Isopropylbenzene	18.35	105	4229958	49.89	ug/L	100
58)	Bromobenzene	19.19	156	1005303	47.88	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	638170	43.80	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	363503	45.39	ug/L	97
61)	n-Propylbenzene	19.83	120	1050715	51.13	ug/L	100
62)	2-Chlorotoluene	19.96	126	961010	49.64	ug/L	100
63)	4-Chlorotoluene	20.36	91	3406043	50.37	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3054092	48.51	ug/L	100
65)	tert-Butylbenzene	21.53	91	1993355	48.30	ug/L	99
66)	1,2,4-Trimethylbenzene	21.70	105	2790588	50.52	ug/L	99
67)	sec-Butylbenzene	22.26	105	4596634	50.66	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1859484	48.11	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3548456	51.94	ug/L	99
70)	1,4-Dichlorobenzene	22.74	146	1787390	48.48	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

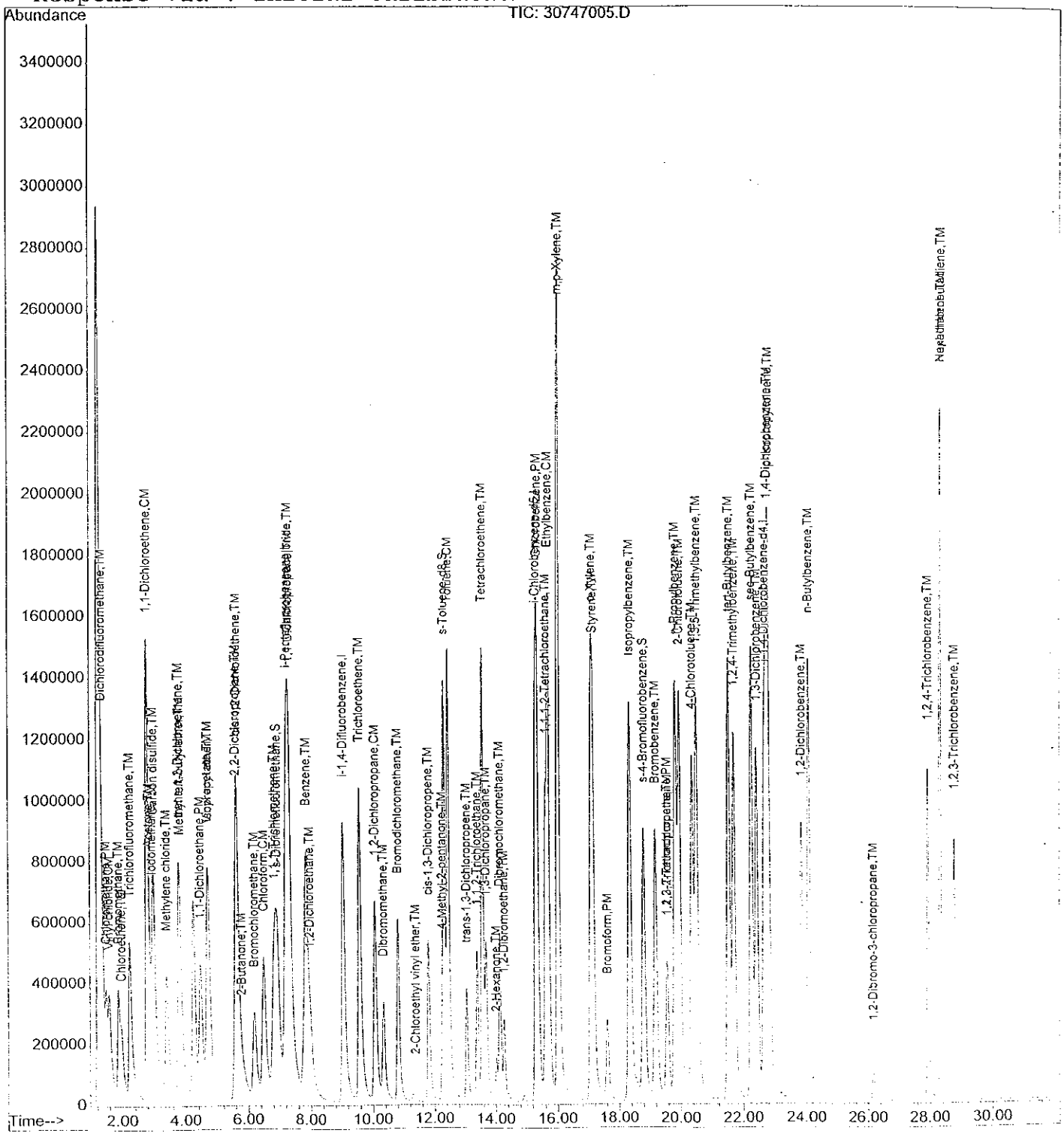
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1450779	47.18	ug/L	99
72)	n-Butylbenzene	24.08	91	3366620	53.21	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	88830	45.16	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	919629	53.27	ug/L	97
75)	Hexachlorobutadiene	28.33	225	1043138	60.38	ug/L	98
76)	Naphthalene	28.34	128	665728	50.56	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	665661	51.73	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	7.24	ug/L	99
3) Chloromethane	1.50	50	808429	8.07	ug/L	100
4) Vinyl chloride	1.59	62	898505	8.54	ug/L	99
5) Bromomethane	1.88	96	845473	8.90	ug/L	99
6) Chloroethane	1.98	64	550544	8.93	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	9.09	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	9.27	ug/L	98
9) Acetone	2.86	43	92468m	15.31	ug/L	92
10) Iodomethane	2.93	142	1102043	8.85	ug/L	100
11) Carbon disulfide	2.99	76	3130247	9.84	ug/L	100
12) Methylene chloride	3.41	84	742882	8.99	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	9.03	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	8.25	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	8.72	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	13.33	ug/L	94
17) Isopropyl ether	4.72	45	2898382	9.24	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	8.78	ug/L	98
19) 2-Butanone	5.79	43	262444m	20.99	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	16.03	ug/L	93
21) Bromochloromethane	6.19	128	372269	9.28	ug/L	97
22) Chloroform	6.49	83	1824238	9.14	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1595711	9.57	ug/L	99
26)	Carbon tetrachloride	7.27	119	1369481	9.01	ug/L	98
27)	1,1-Dichloropropene	7.32	110	484547	9.80	ug/L	100
28)	Benzene	7.86	78	3099834	9.39	ug/L	100
29)	1,2-Dichloroethane	7.97	62	568894	8.62	ug/L	99
30)	Trichloroethene	9.56	95	1428605	10.74	ug/L	98
31)	1,2-Dichloropropane	10.06	63	1053193	9.54	ug/L	100
32)	Dibromomethane	10.33	93	430433	8.74	ug/L	98
33)	2-Chloroethyl vinyl ether	11.39	63	12666	0.69	ug/L	48
34)	Bromodichloromethane	10.80	83	1383436	9.06	ug/L	98
35)	cis-1,3-Dichloropropene	11.80	75	1070618	9.01	ug/L	98
37)	Toluene	12.44	92	1999709	9.41	ug/L	100
38)	trans-1,3-Dichloropropene	13.03	75	645661	8.81	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	437882	8.89	ug/L	99
40)	Tetrachloroethene	13.57	166	1490678	9.70	ug/L	100
41)	1,3-Dichloropropane	13.68	76	853619	9.07	ug/L	99
42)	Dibromochloromethane	14.13	129	816167	9.10	ug/L	99
43)	1,2-Dibromoethane	14.27	107	540747	8.87	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	531665	15.35	ug/L	100
45)	2-Hexanone	14.00	43	338312	16.21	ug/L	97
47)	Chlorobenzene	15.36	112	2095861	9.60	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	927285	9.60	ug/L	99
50)	Ethylbenzene	15.70	106	1128271	9.57	ug/L	100
51)	m,p-Xylene	16.01	106	2753749	19.41	ug/L	98
52)	o-Xylene	17.08	106	1286050	9.75	ug/L	99
53)	Styrene	17.15	104	1967872	9.40	ug/L	99
54)	Bromoform	17.61	173	480947	9.45	ug/L	99
55)	Isopropylbenzene	18.35	105	4229958	9.98	ug/L	100
58)	Bromobenzene	19.19	156	1005303	9.58	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	638170	8.76	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	363503	9.08	ug/L	97
61)	n-Propylbenzene	19.83	120	1050715	10.23	ug/L	100
62)	2-Chlorotoluene	19.96	126	961010	9.93	ug/L	100
63)	4-Chlorotoluene	20.36	91	3406043	10.07	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3054092	9.70	ug/L	100
65)	tert-Butylbenzene	21.53	91	1993355	9.66	ug/L	99
66)	1,2,4-Trimethylbenzene	21.70	105	2790588	10.10	ug/L	99
67)	sec-Butylbenzene	22.26	105	4596634	10.13	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1859484	9.62	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3548456	10.39	ug/L	99
70)	1,4-Dichlorobenzene	22.74	146	1787390	9.70	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

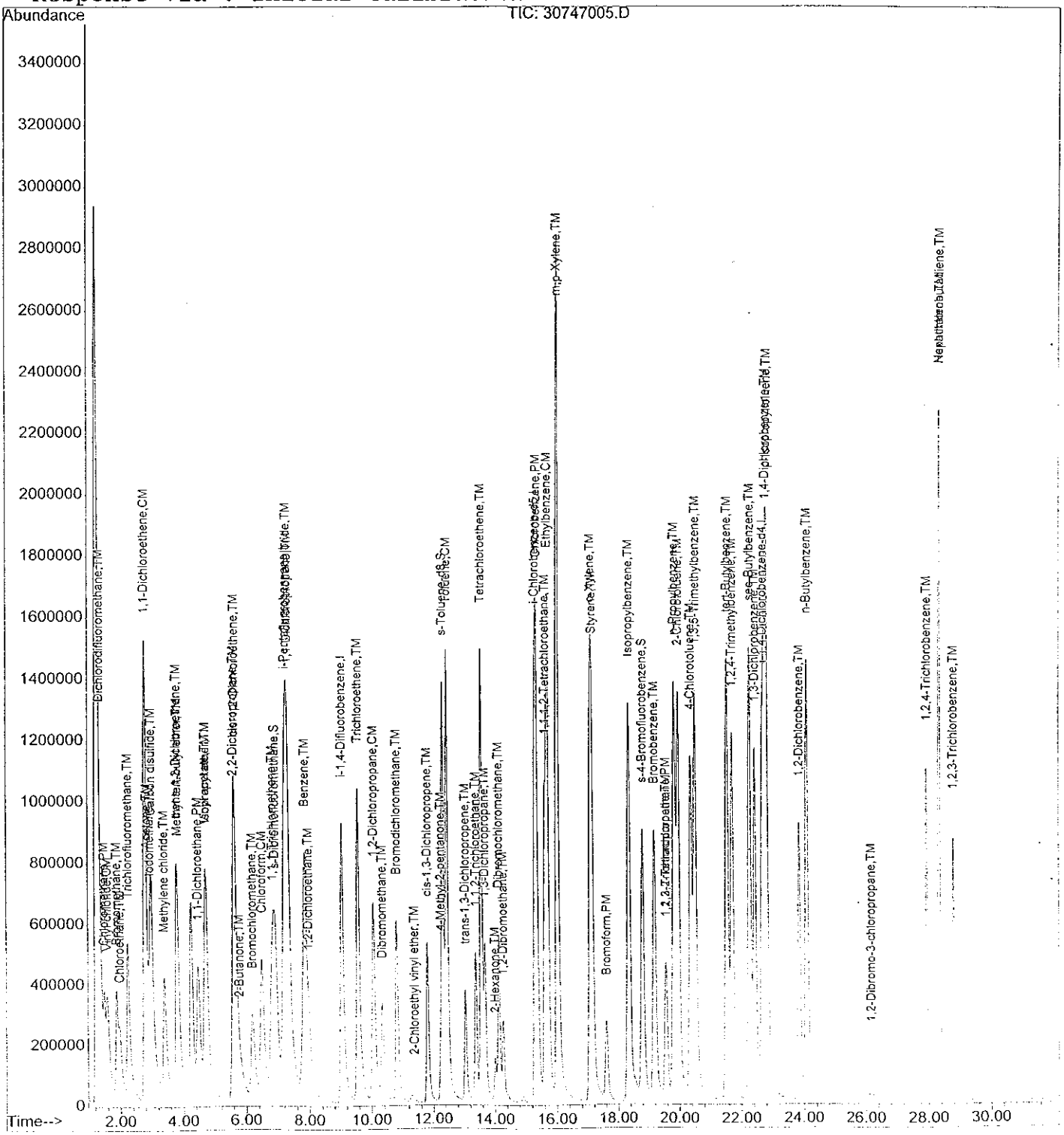
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1450779	9.44	ug/L	99
72)	n-Butylbenzene	24.08	91	3366620	10.64	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	88830	9.03	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	919629	10.65	ug/L	97
75)	Hexachlorobutadiene	28.33	225	1043138	12.08	ug/L	98
76)	Naphthalene	28.34	128	665728	10.11	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	665661	10.35	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

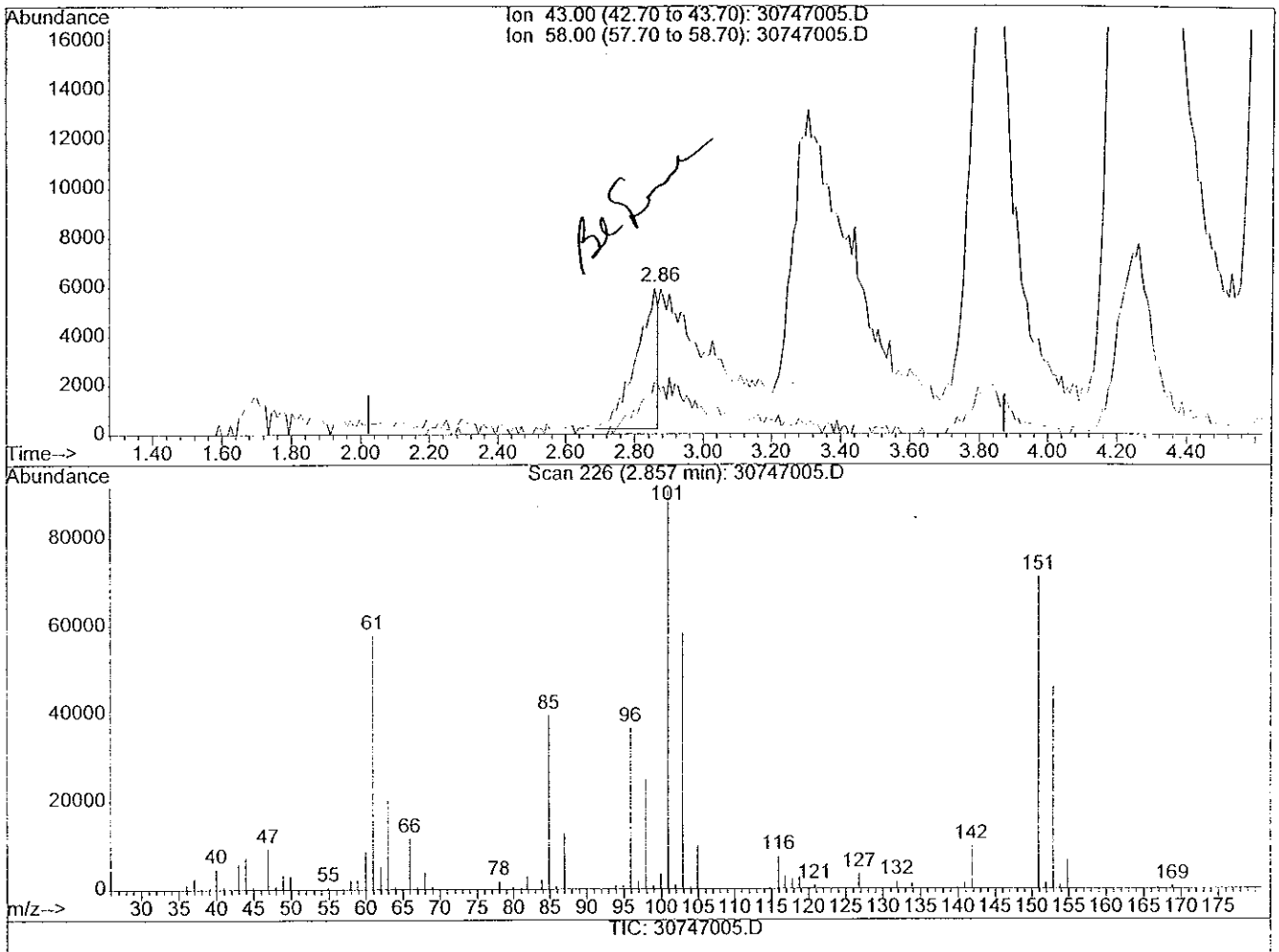
Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

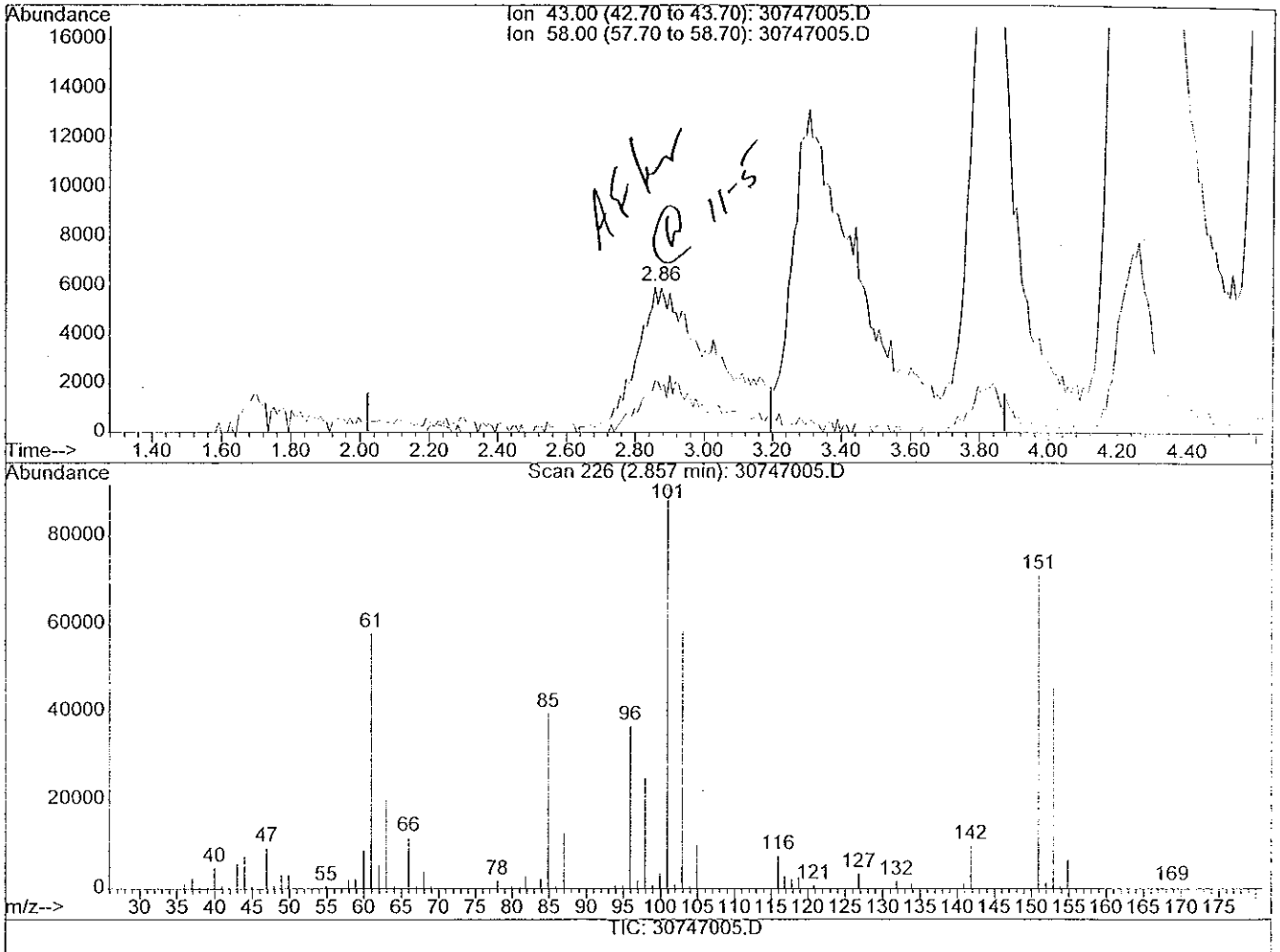
2.86min 4.01ug/L

response 24690

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.69
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747005.D

(9) Acetone (TM)

2.86min 15.31ug/L m

response 92468

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	35.40
0.00	0.00	0.00
0.00	0.00	0.00

30747005.D V82625B1.M Fri Nov 02 13:23:27 2001

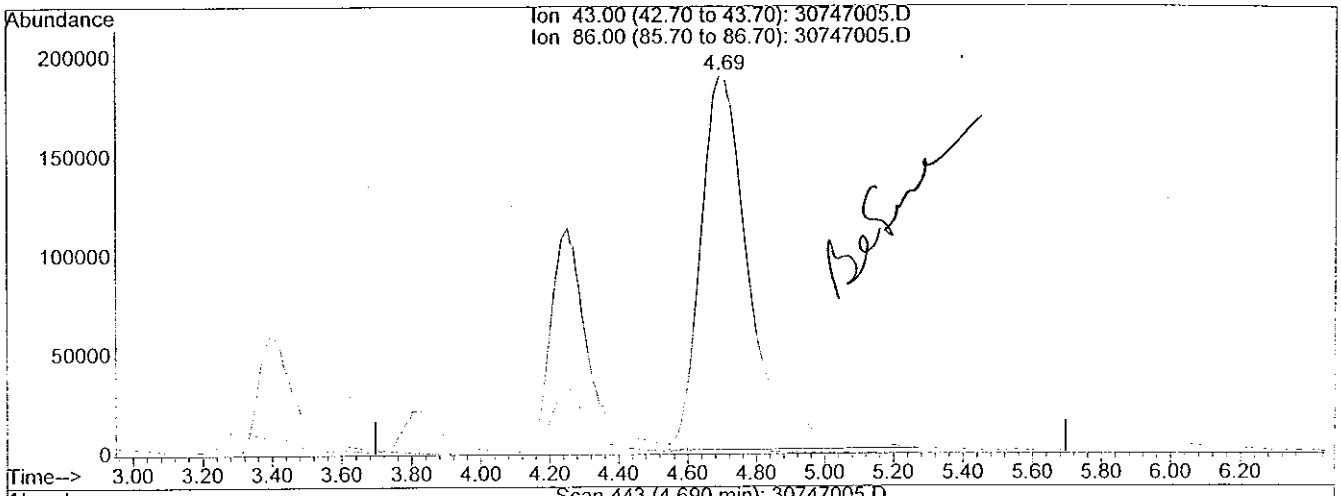
Quantitation Report (Qedit)

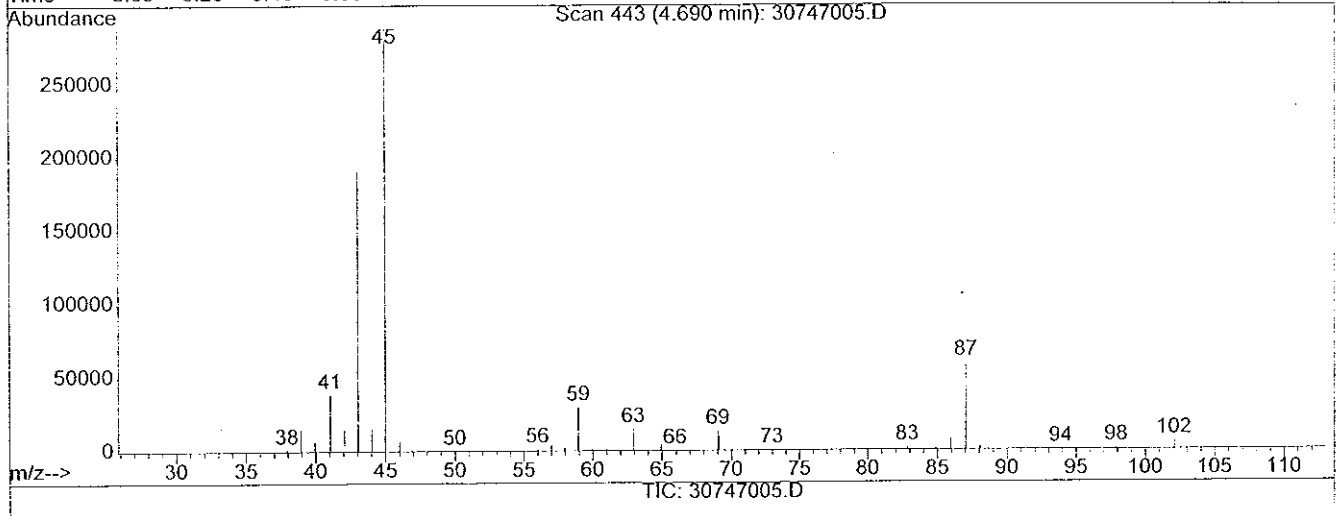
Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(16) Vinyl acetate (TM)

4.69min 12.50ug/L

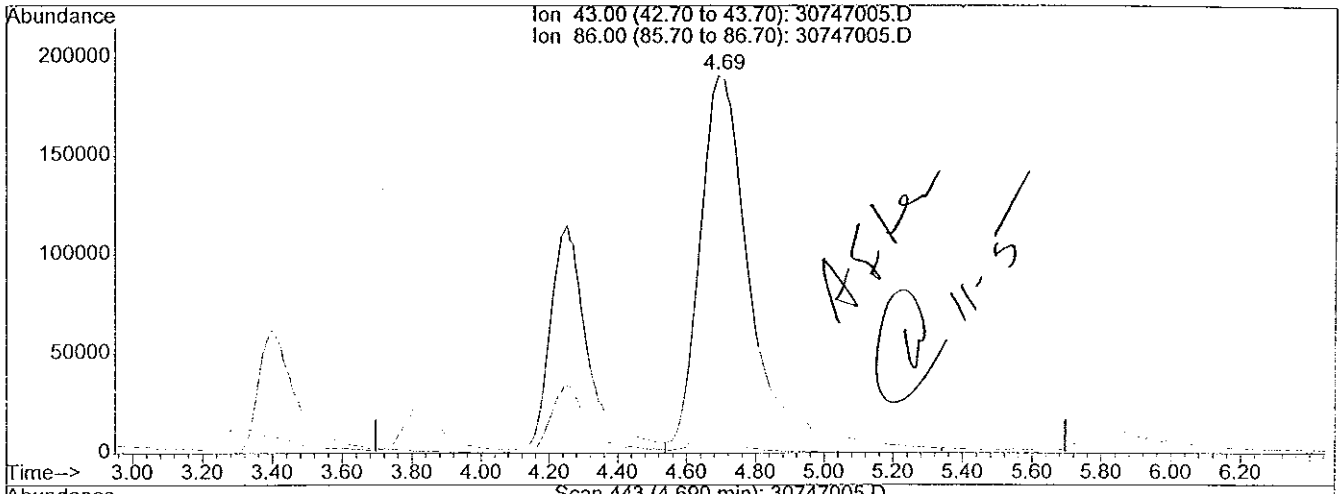
response 1889227

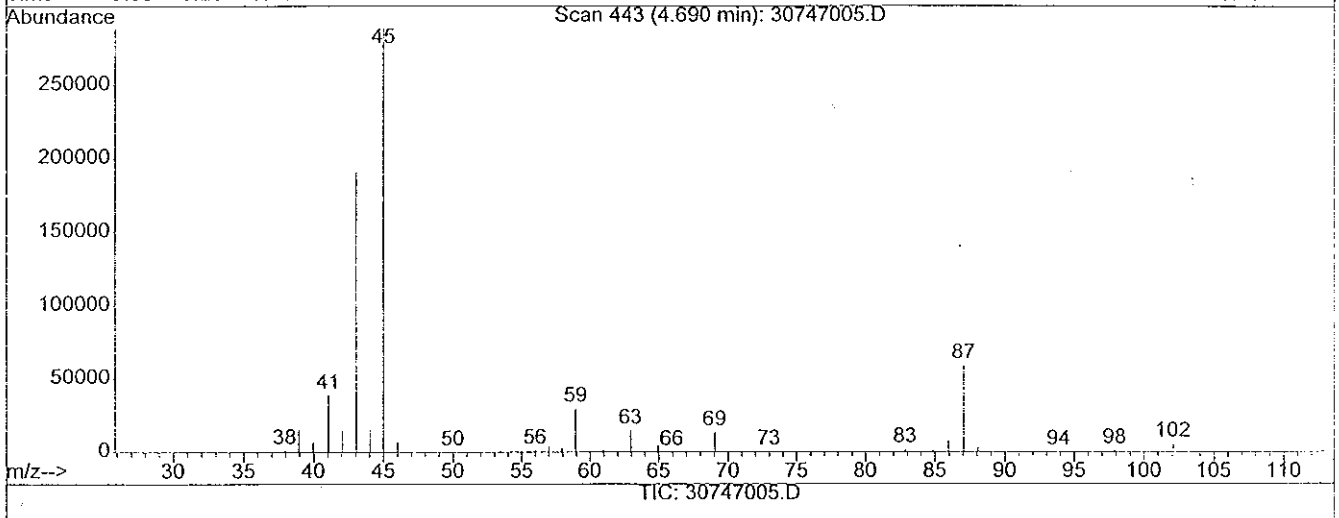
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.12
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(16) Vinyl acetate (TM)

4.69min 13.33ug/L m

response 2014827

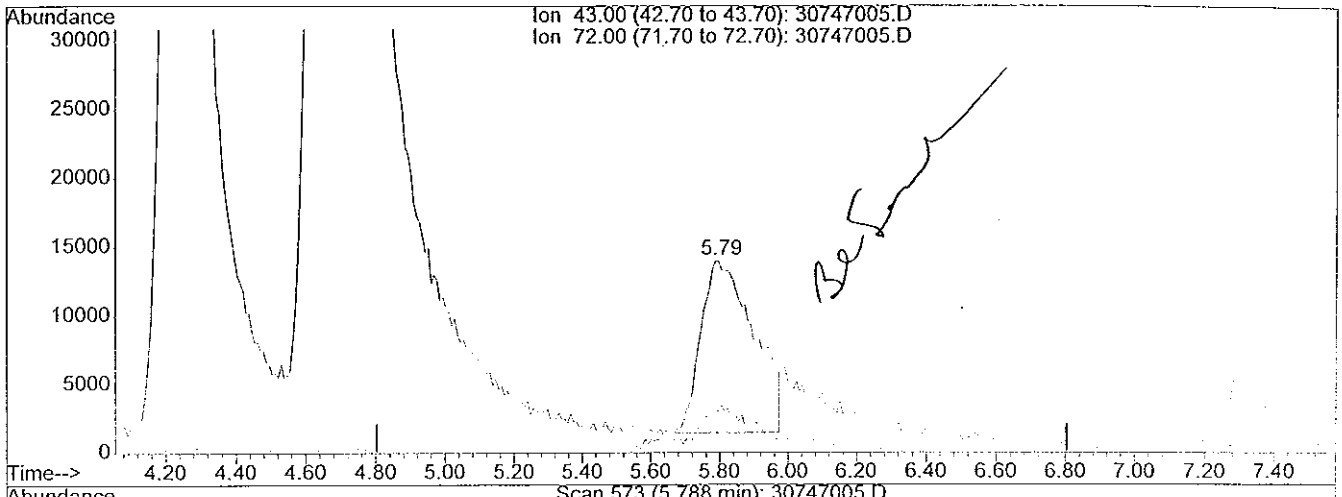
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.06
0.00	0.00	0.00
0.00	0.00	0.00

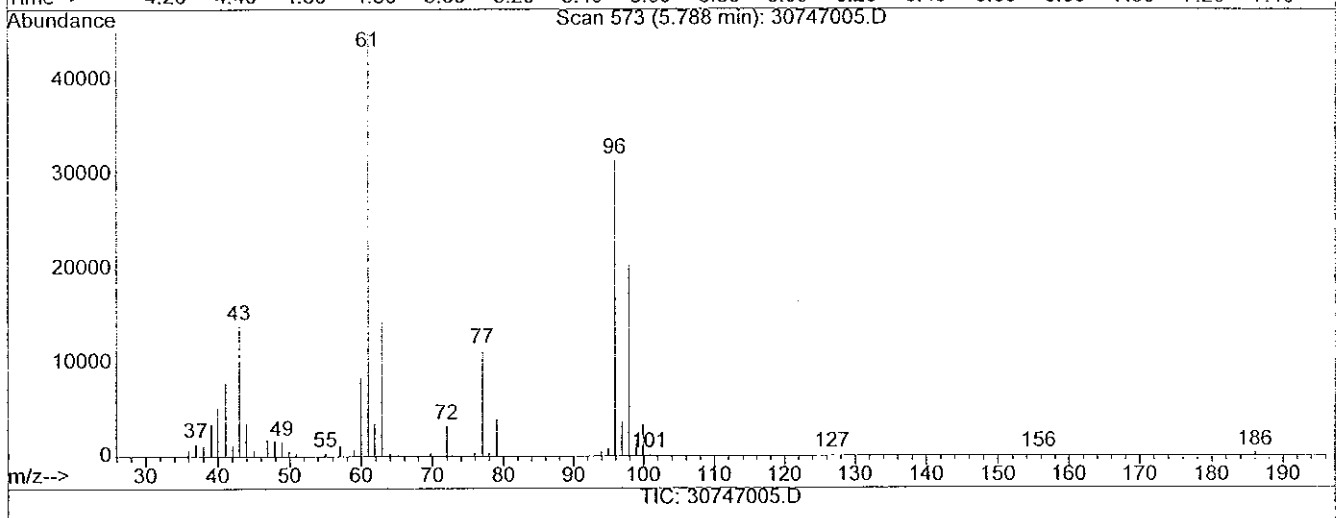
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(19) 2-Butanone (TM)

5.79min 10.80ug/L

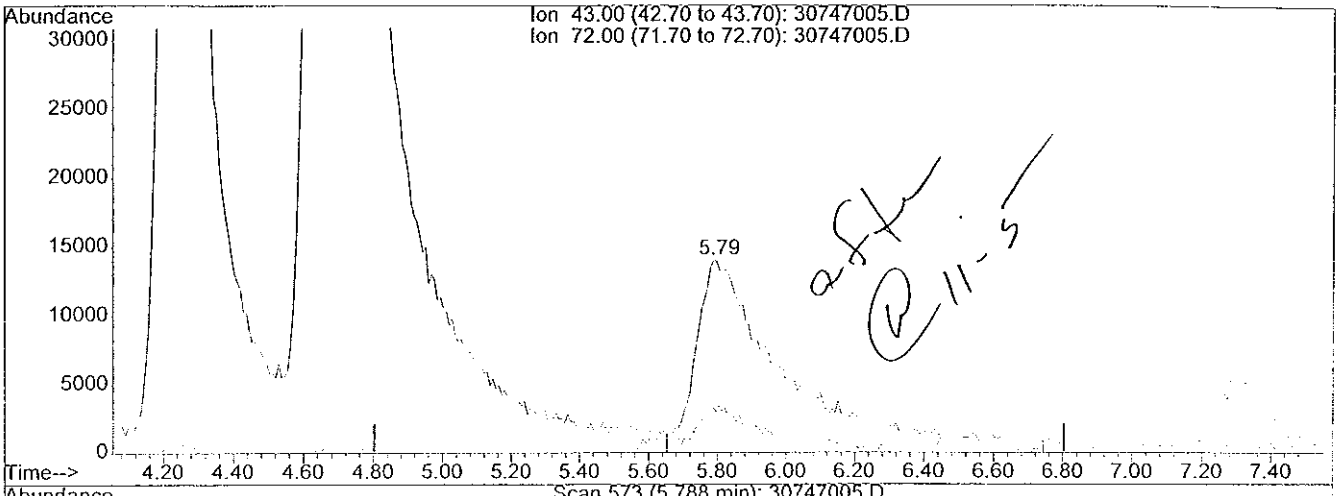
response 135036

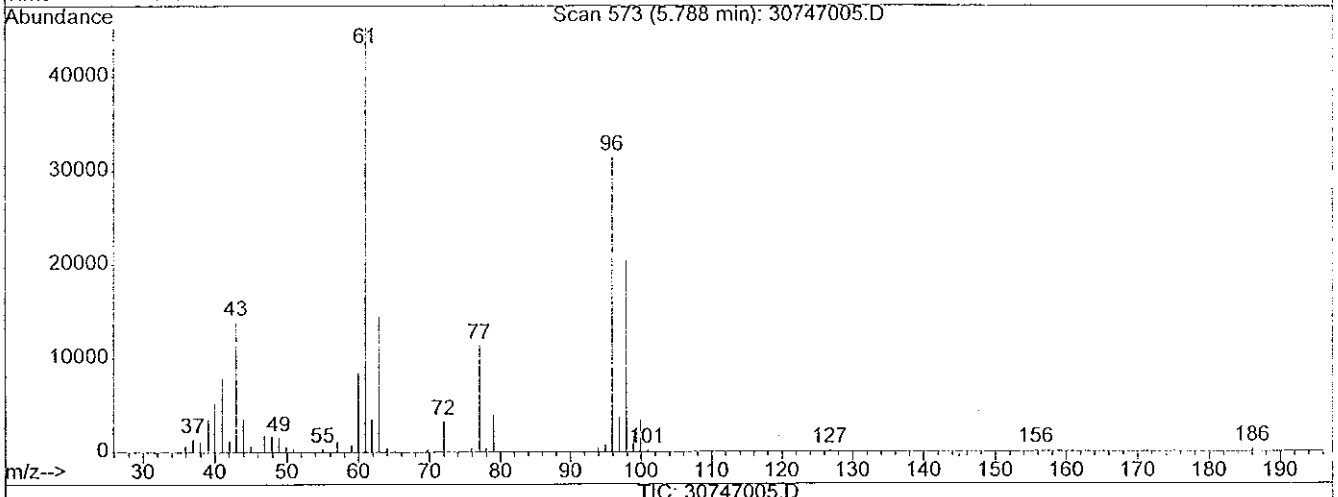
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(19) 2-Butanone (TM)

5.79min 20.99ug/L m

response 262444

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	35.28	ug/L	99
3) Chloromethane	1.50	50	847802	41.72	ug/L	98
4) Vinyl chloride	1.59	62	919226	43.08	ug/L	99
5) Bromomethane	1.88	96	837518	43.44	ug/L	98
6) Chloroethane	1.98	64	563679	45.08	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	44.65	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	46.21	ug/L	99
9) Acetone	2.88	43	111536m	91.15	ug/L	91
10) Iodomethane	2.93	142	1145433	45.34	ug/L	100
11) Carbon disulfide	2.99	76	3185450	49.38	ug/L	100
12) Methylene chloride	3.40	84	826647	49.32	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	45.48	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	52.95	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	44.03	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	79.33	ug/L	96
17) Isopropyl ether	4.72	45	3419126	53.71	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	43.31	ug/L	98
19) 2-Butanone	5.81	43	340951m	134.39	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	84.73	ug/L	96
21) Bromochloromethane	6.21	128	416179	51.15	ug/L	99
22) Chloroform	6.50	83	1954022	48.26	ug/L	98

(#) = qualifier out of range (m) = manual integration
30747006.D V82625B1.M Mon Nov 05 09:50:15 2001

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	48.01	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	43.98	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	47.60	ug/L	100
28)	Benzene	7.87	78	3237186	47.23	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	48.55	ug/L	99
30)	Trichloroethene	9.59	95	1477525	53.49	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	50.32	ug/L	99
32)	Dibromomethane	10.35	93	528751	51.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	1.96	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	49.83	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	49.90	ug/L	98
37)	Toluene	12.47	92	2048291	46.41	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	51.49	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	51.49	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	47.23	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	53.65	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	52.17	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	51.97	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	103.04	ug/L	98
45)	2-Hexanone	14.03	43	455354	105.10	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	48.06	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	49.75	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	45.93	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	95.62	ug/L	97
52)	o-Xylene	17.09	106	1386888	48.61	ug/L	99
53)	Styrene	17.16	104	2192457	48.45	ug/L	97
54)	Bromoform	17.62	173	605296	55.03	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	47.34	ug/L	100
58)	Bromobenzene	19.21	156	1135299	48.05	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	50.74	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	52.74	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	46.79	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	46.31	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	48.23	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	45.41	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	44.28	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	47.25	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	46.32	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	47.44	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	48.33	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	46.70	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

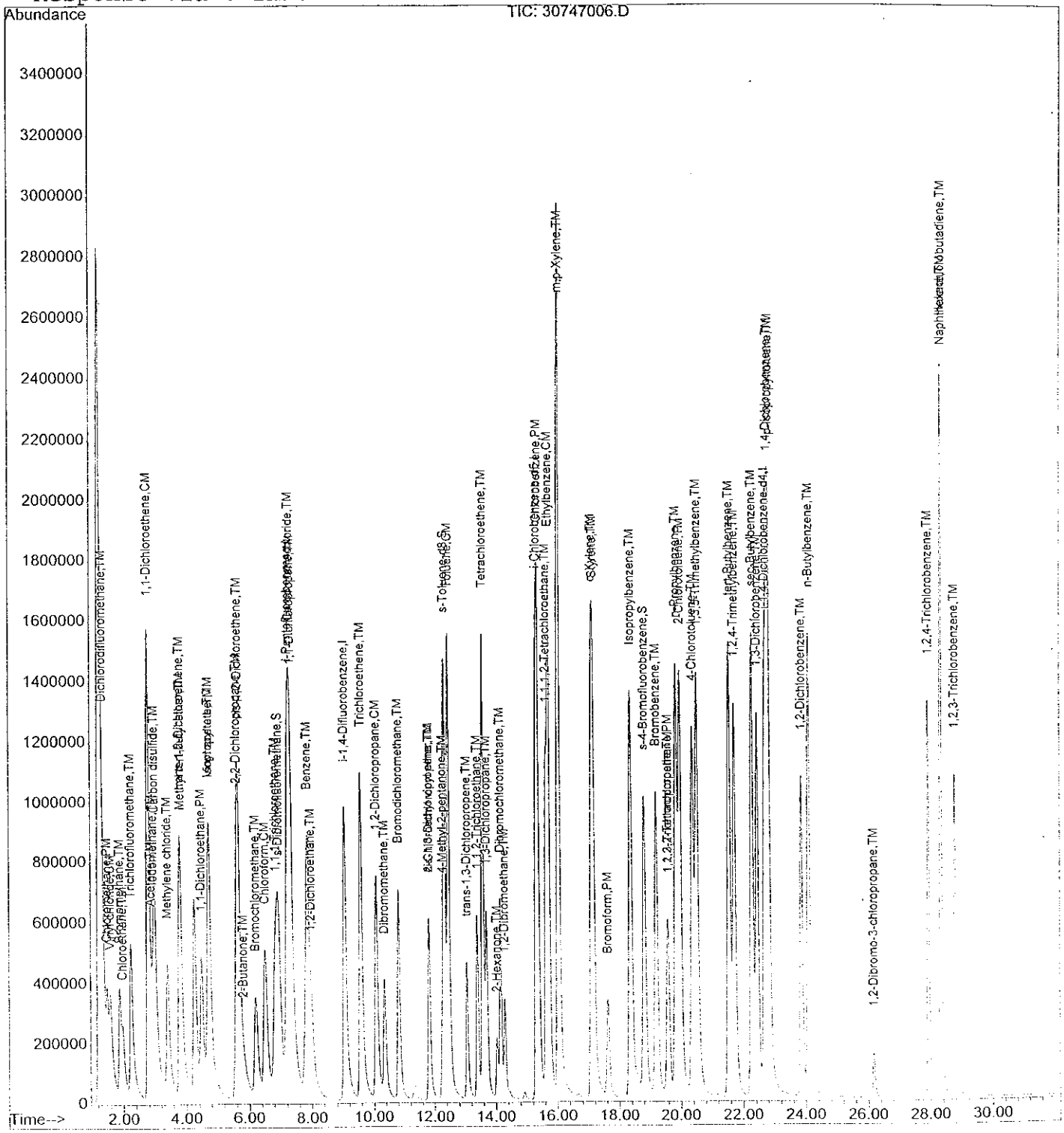
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1697184	49.06	ug/L	100
72)	n-Butylbenzene	24.10	91	3597663	50.54	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	121389	54.85	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1105521	56.92	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1067782	54.77	ug/L	99
76)	Naphthalene	28.34	128	885573	59.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	835794	57.72	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	7.06	ug/L	99
3) Chloromethane	1.50	50	847802	8.34	ug/L	98
4) Vinyl chloride	1.59	62	919226	8.62	ug/L	99
5) Bromomethane	1.88	96	837518	8.69	ug/L	98
6) Chloroethane	1.98	64	563679	9.02	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	8.93	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	9.24	ug/L	99
9) Acetone	2.88	43	111536m	18.23	ug/L	91
10) Iodomethane	2.93	142	1145433	9.07	ug/L	100
11) Carbon disulfide	2.99	76	3185450	9.88	ug/L	100
12) Methylene chloride	3.40	84	826647	9.86	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	9.10	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	10.59	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	8.81	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	15.87	ug/L	96
17) Isopropyl ether	4.72	45	3419126	10.74	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	8.66	ug/L	98
19) 2-Butanone	5.81	43	340951m	26.88	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	16.95	ug/L	96
21) Bromochloromethane	6.21	128	416179	10.23	ug/L	99
22) Chloroform	6.50	83	1954022	9.65	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	9.60	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	8.80	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	9.52	ug/L	100
28)	Benzene	7.87	78	3237186	9.45	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	9.71	ug/L	99
30)	Trichloroethene	9.59	95	1477525	10.70	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	10.06	ug/L	99
32)	Dibromomethane	10.35	93	528751	10.34	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	0.39	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	9.97	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	9.98	ug/L	98
37)	Toluene	12.47	92	2048291	9.28	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	10.30	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	10.30	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	9.45	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	10.73	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	10.43	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	10.39	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	20.61	ug/L	98
45)	2-Hexanone	14.03	43	455354	21.02	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	9.61	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	9.95	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	9.19	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	19.12	ug/L	97
52)	o-Xylene	17.09	106	1386888	9.72	ug/L	99
53)	Styrene	17.16	104	2192457	9.69	ug/L	97
54)	Bromoform	17.62	173	605296	11.01	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	9.47	ug/L	100
58)	Bromobenzene	19.21	156	1135299	9.61	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	10.15	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	10.55	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	9.36	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	9.26	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	9.65	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	9.08	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	8.86	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	9.45	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	9.49	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	9.67	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	9.34	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

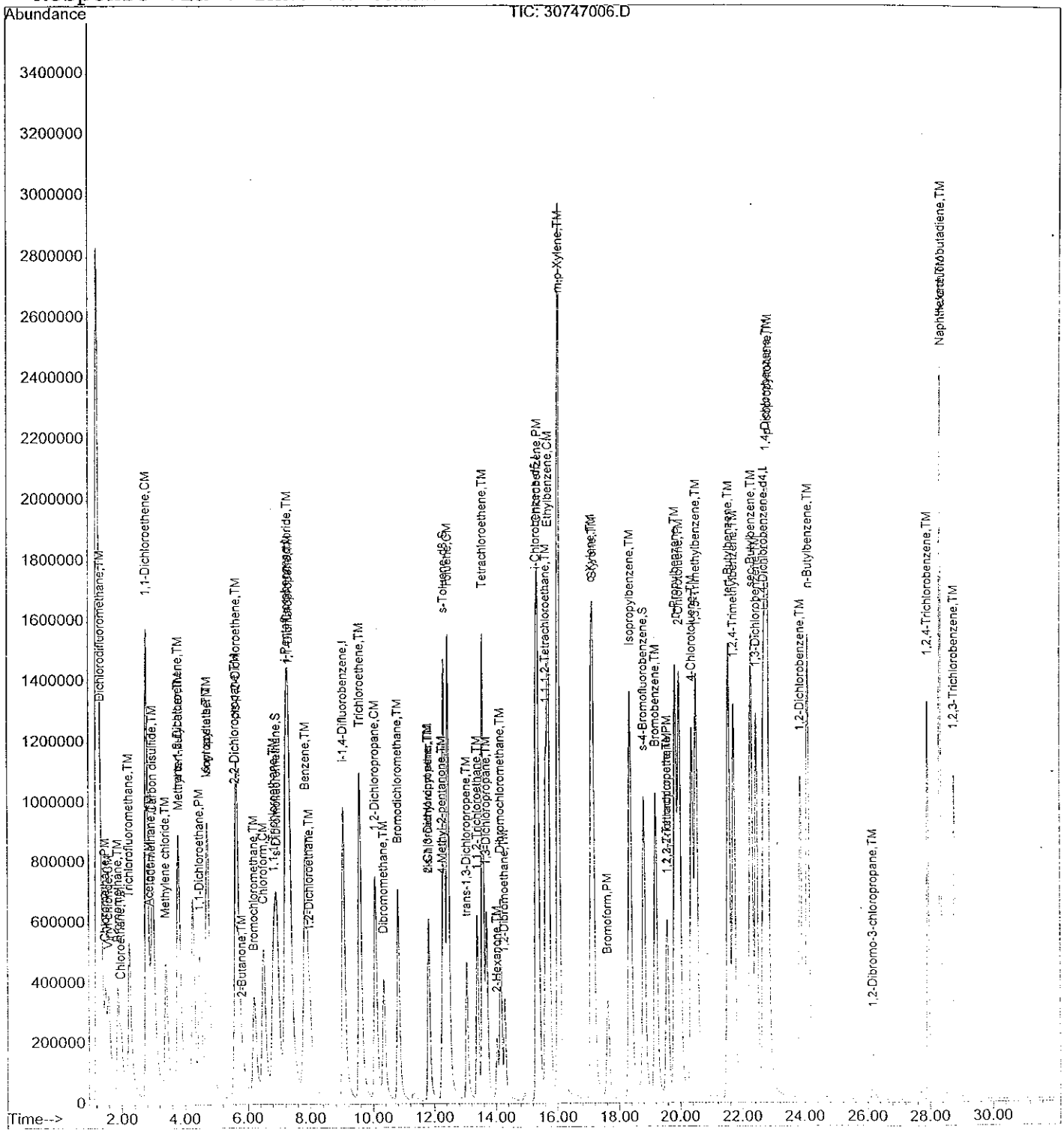
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1697184	9.81	ug/L	100
72)	n-Butylbenzene	24.10	91	3597663	10.11	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	121389	10.97	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1105521	11.38	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1067782	10.95	ug/L	99
76)	Naphthalene	28.34	128	885573	11.96	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	835794	11.54	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

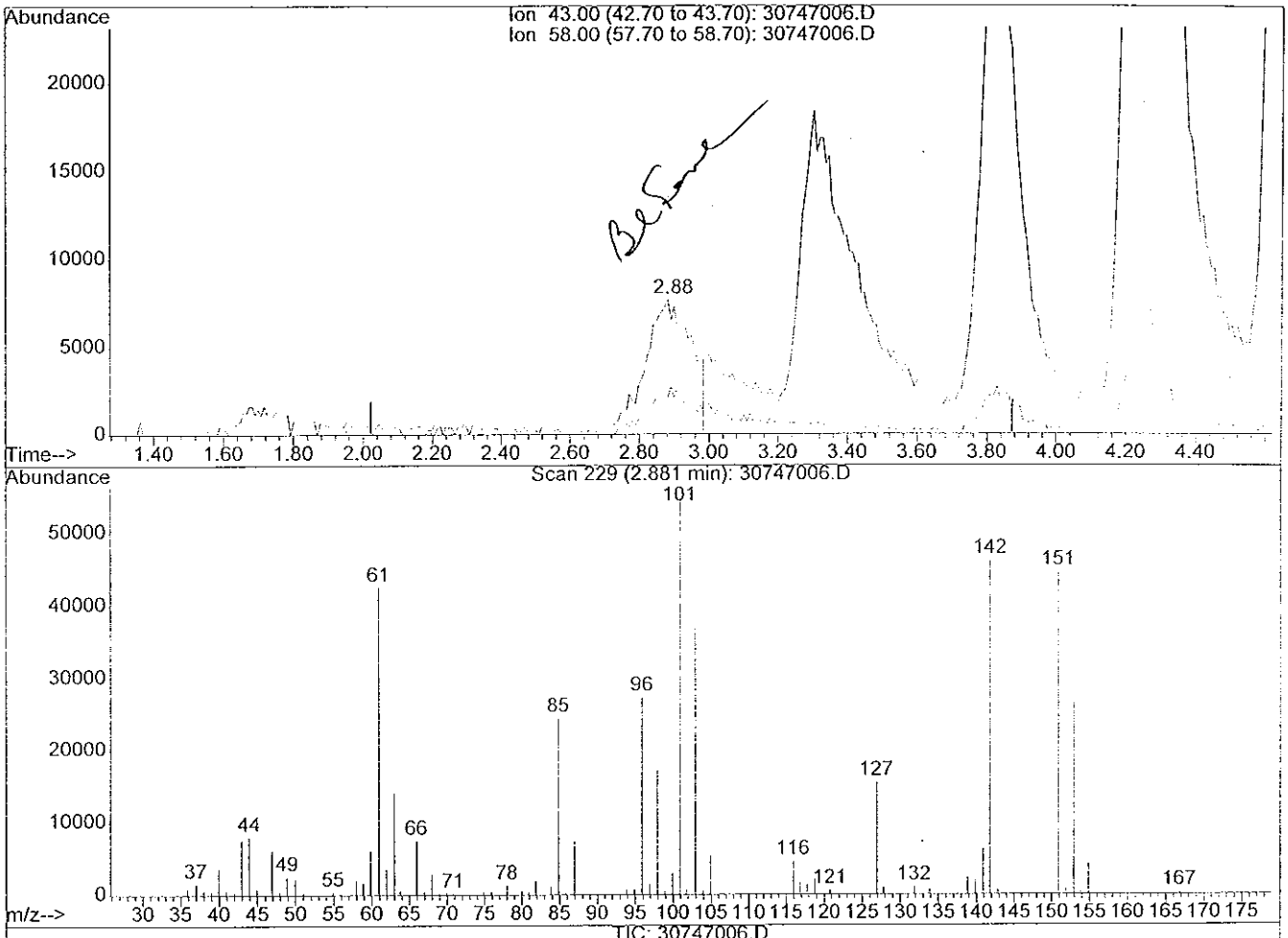


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.88min 11.58ug/L

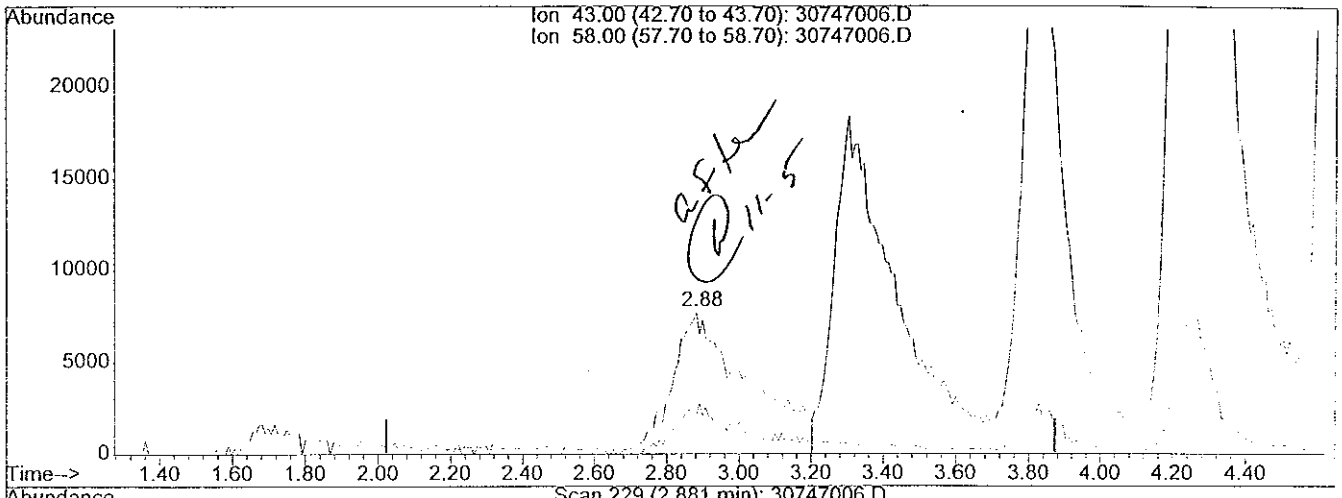
response 71106

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.88min 18.23ug/L m

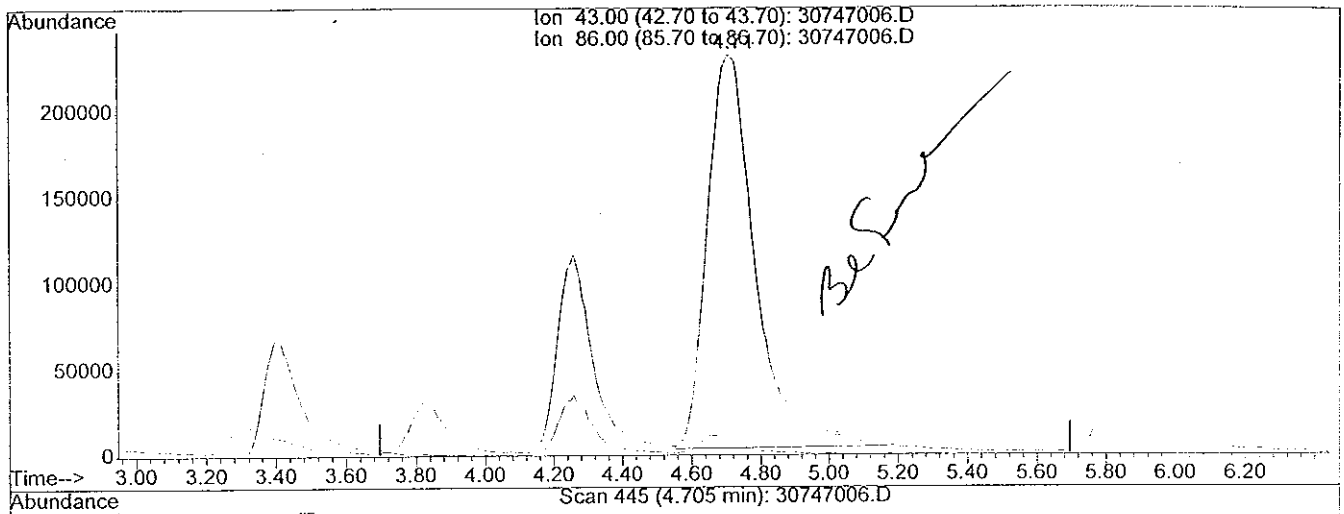
response 111536

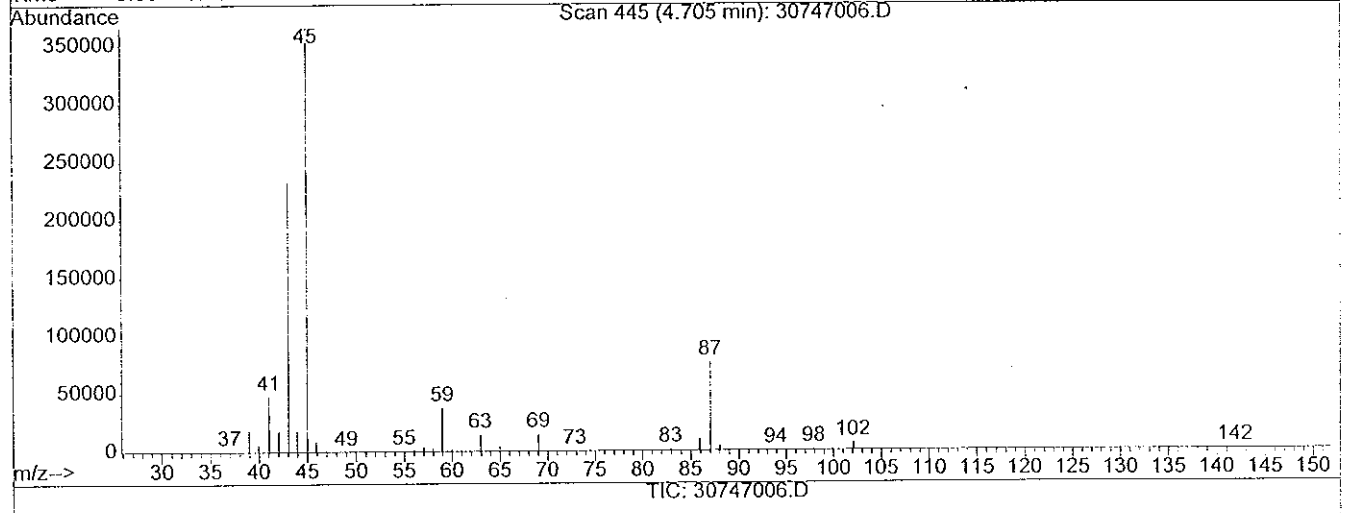
Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





(16) Vinyl acetate (TM)

4.71min 14.43ug/L

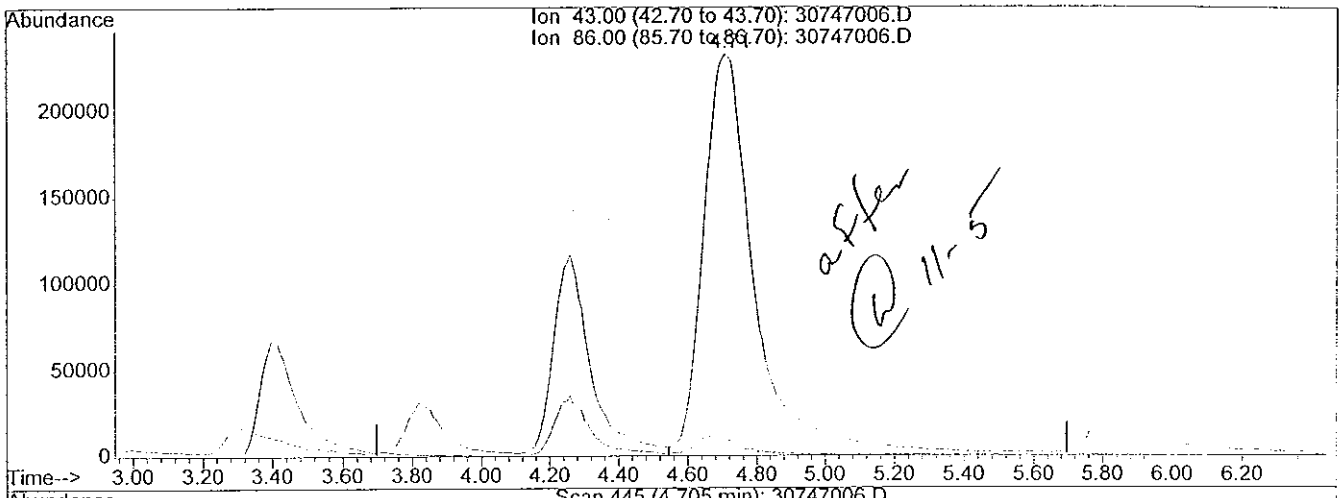
response 2212814

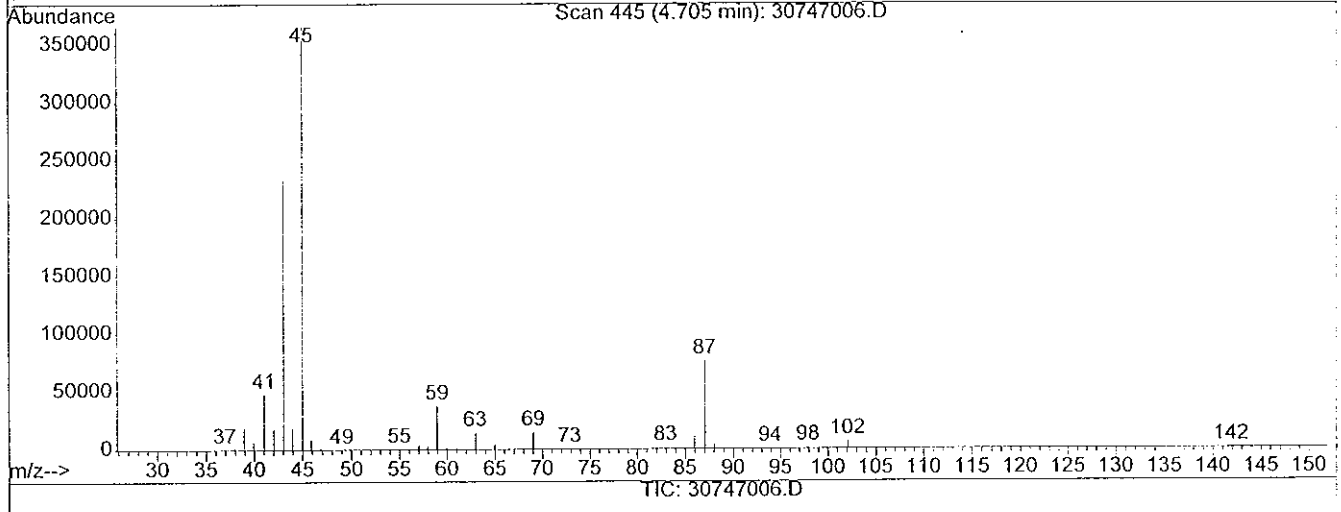
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





(16) Vinyl acetate (TM)

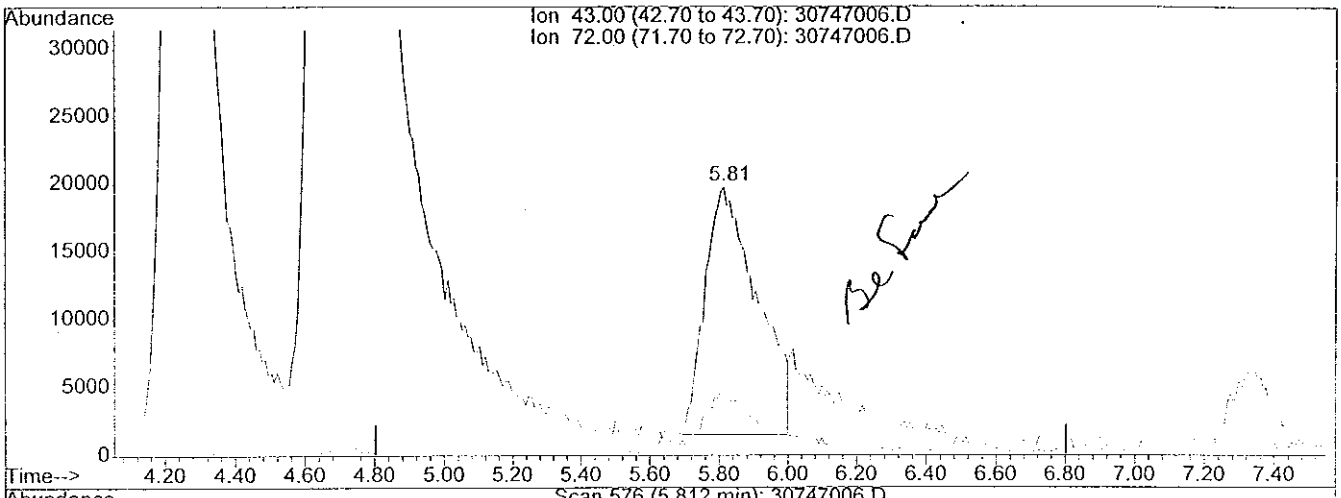
4.71min 15.87ug/L m

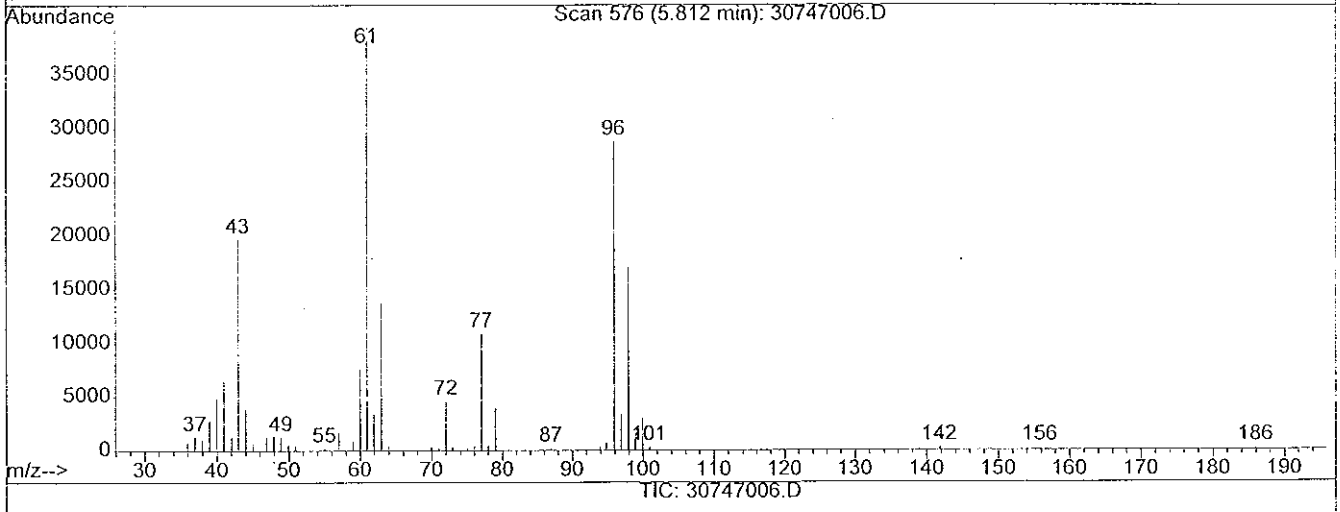
response 2433202

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.66
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(19) 2-Butanone (TM)

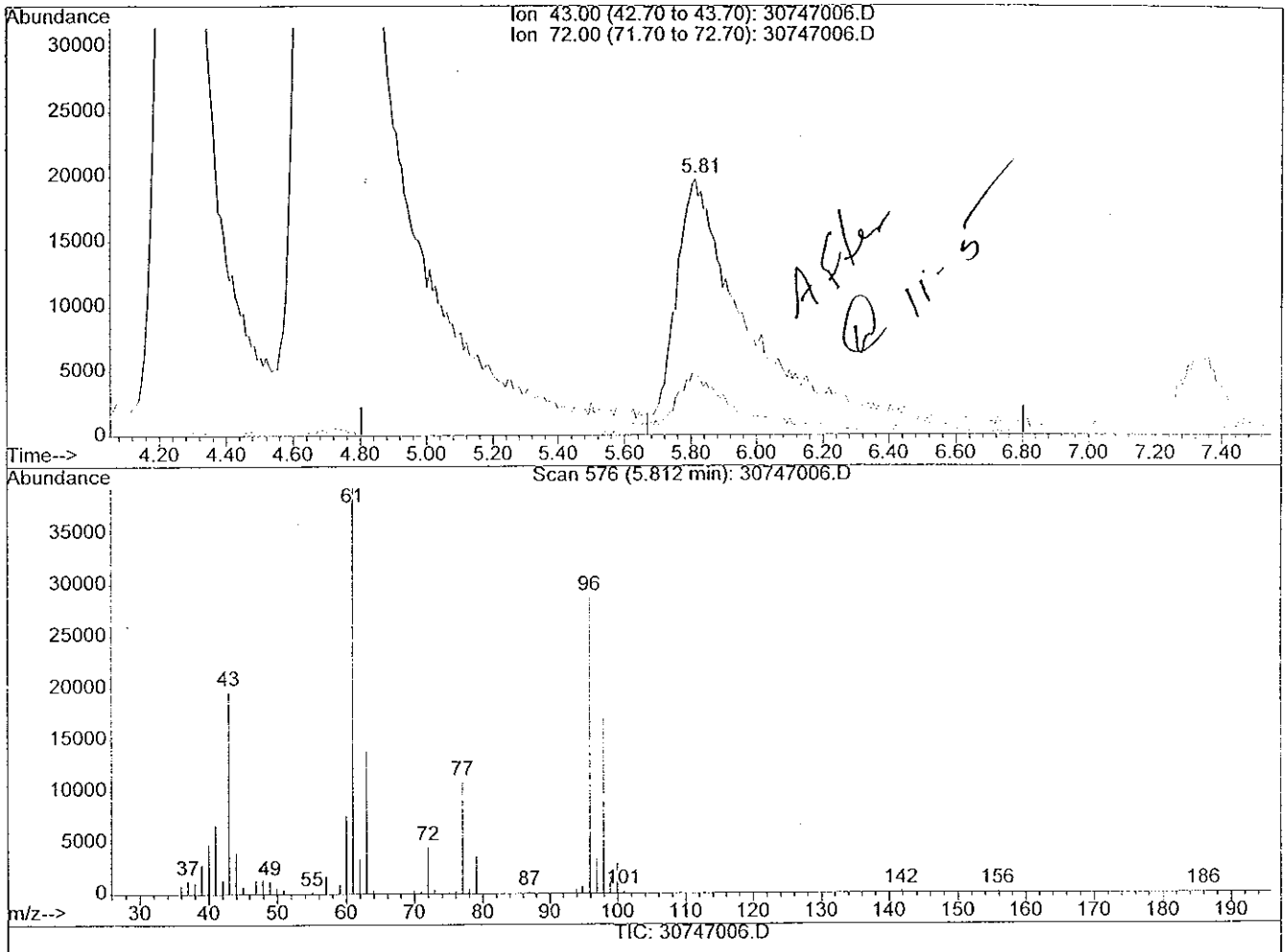
5.81min 15.01ug/L

response 190344

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	21.04
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747006.D

(19) 2-Butanone (TM)

5.81min 26.88ug/L m

response 340951

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D
Acq On : 2 Nov 2001 13:25
Sample : 110611-3 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 5.00

Quant Results File: V82625B1.RES

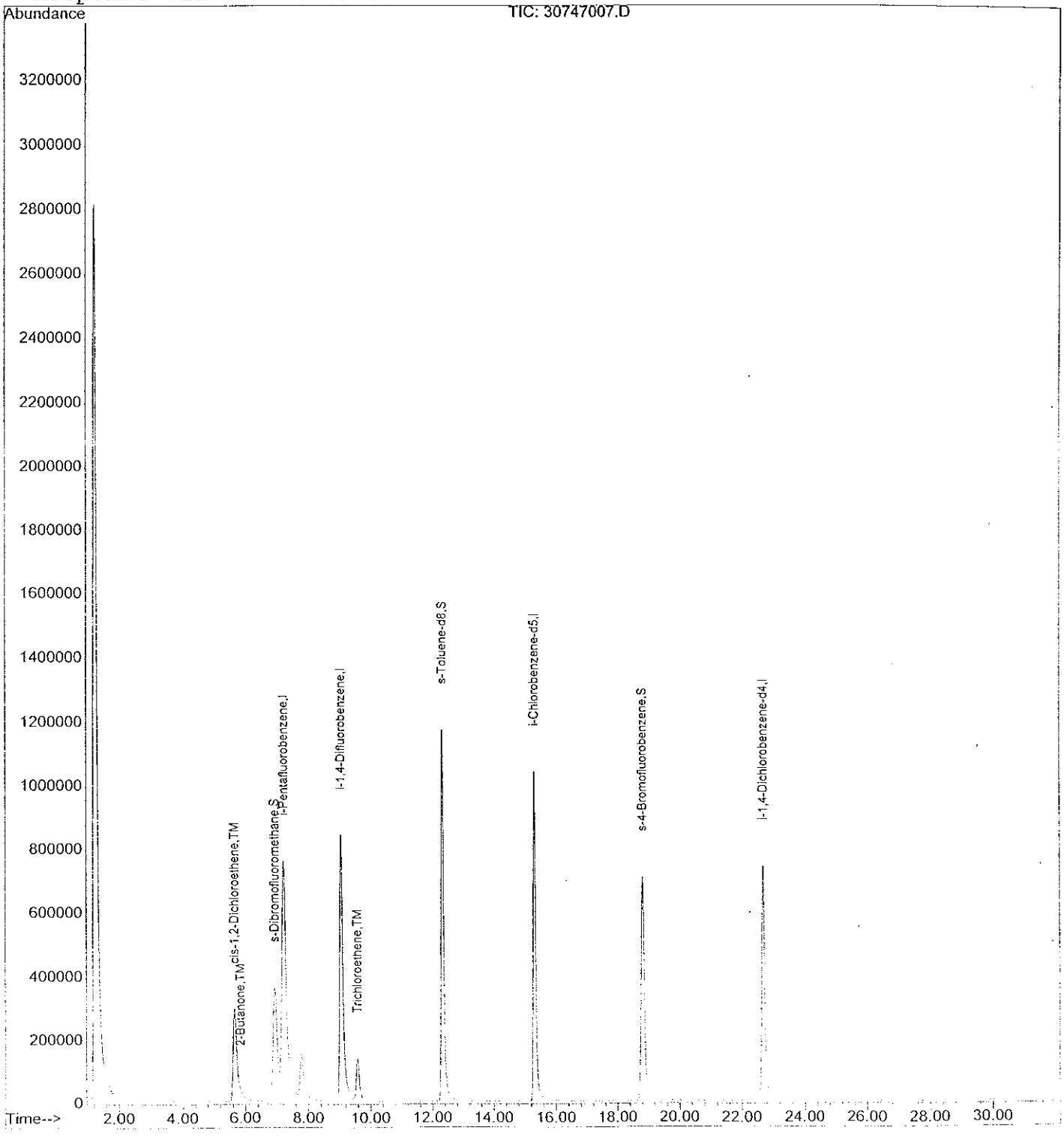
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

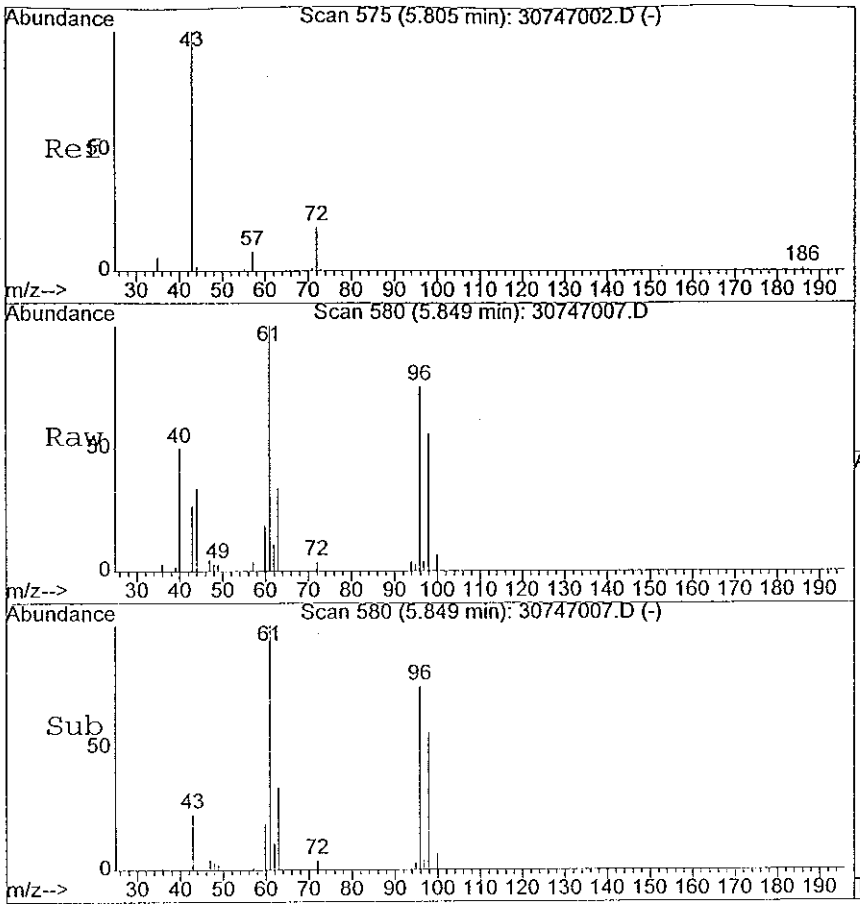
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	20.77	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	32.85	ug/L	95
30) Trichloroethene	9.58	95	177959	7.51	ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

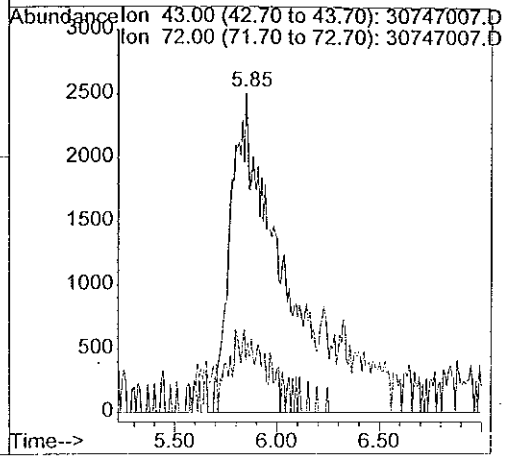


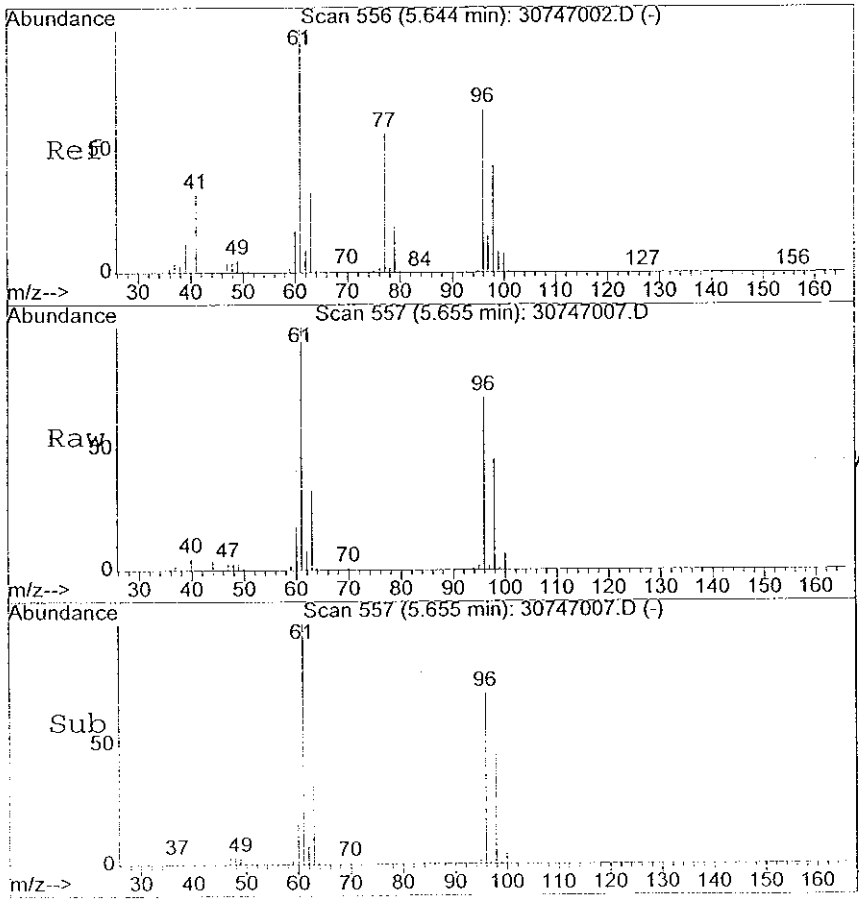


#19
2-Butanone
Concen: 20.77 ug/L m
RT: 5.85 min Scan# 580
Delta R.T. 0.04 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 43 Resp: 47831

Ion	Ratio	Lower	Upper
43	100		
72	16.1	0.0	119.0

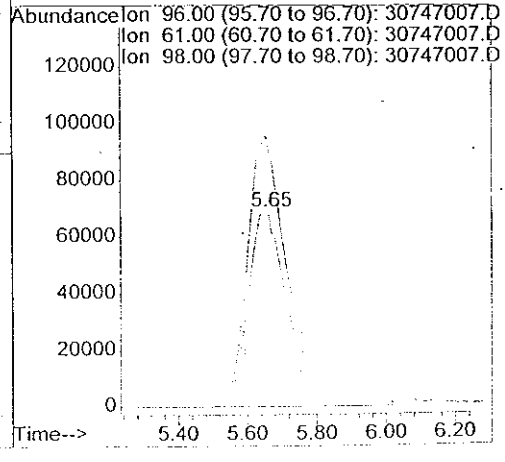


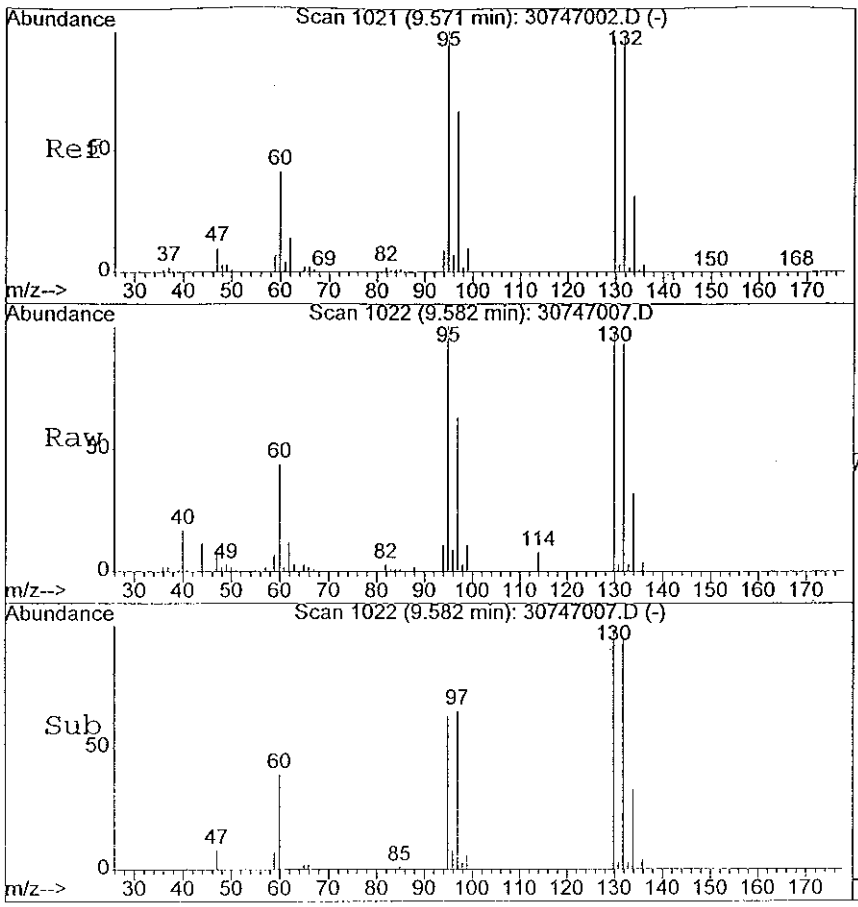


#20
cis-1,2-Dichloroethene
Concen: 32.85 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 96 Resp: 615329

Ion	Ratio	Lower	Upper
96	100		
61	139.9	128.7	168.7
98	64.6	45.8	85.8

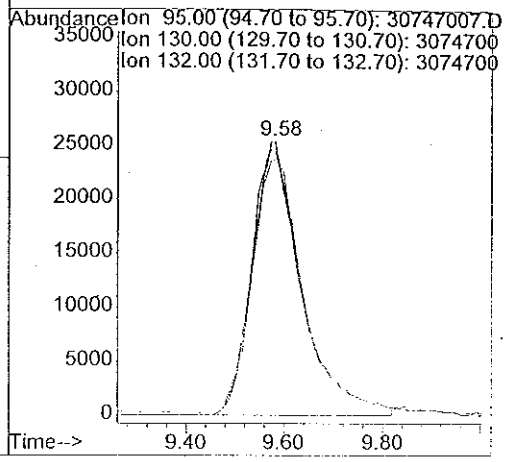




#30
Trichloroethene
Concen: 7.51 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 95 Resp: 177959

Ion	Ratio	Lower	Upper
95	100		
130	96.6	76.7	116.7
132	93.0	78.1	118.1



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

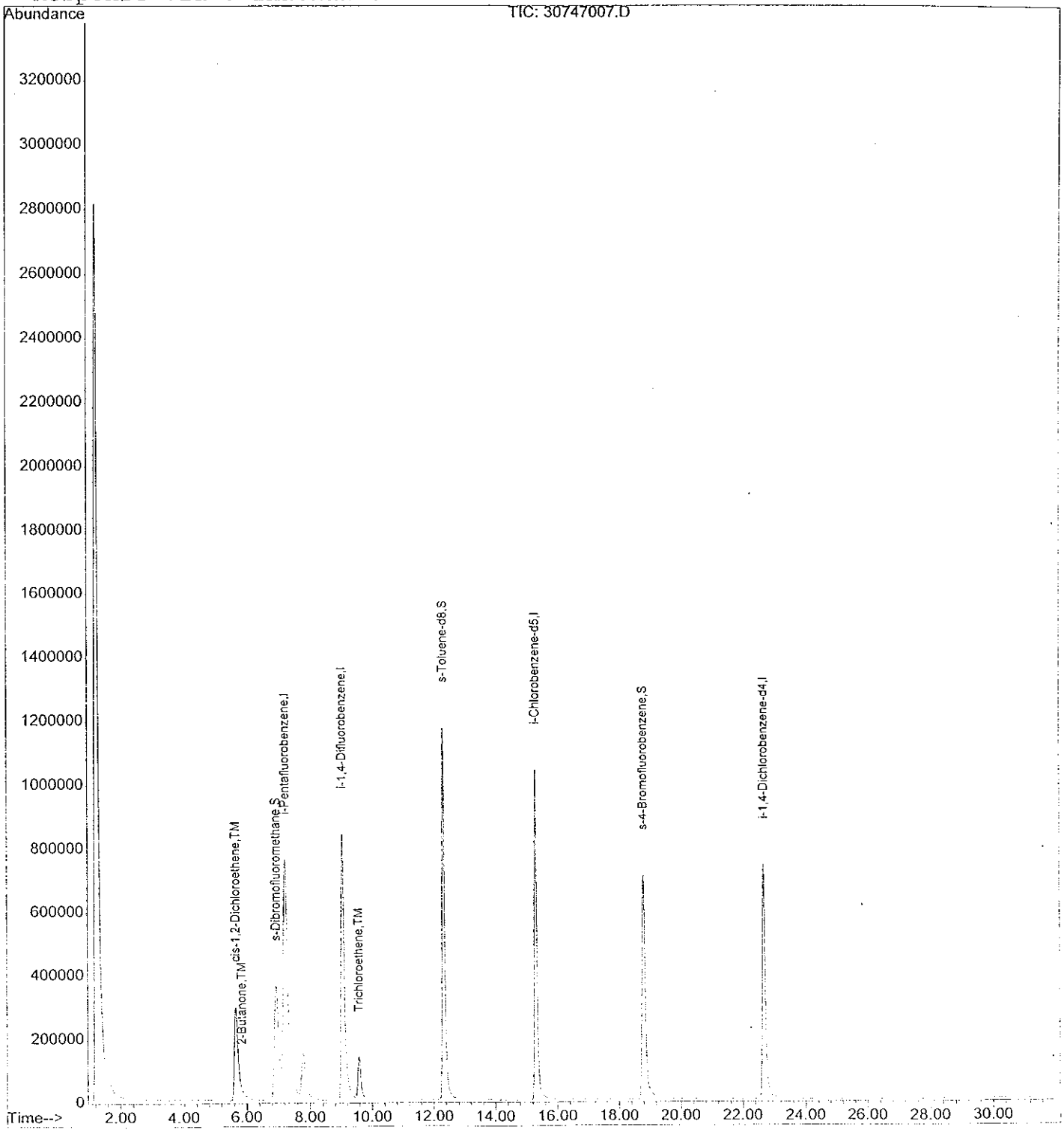
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	4.15	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	6.57	ug/L	95
30) Trichloroethene	9.58	95	177959	1.50	ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2848937	10.00	ug/L	0.00 / 94.10%
25) i-1,4-Difluorobenzene	9.06	114	2758973	10.00	ug/L	0.00 / 90.65%
46) i-Chlorobenzene-d5	15.32	117	1839341	10.00	ug/L	0.00 / 84.58%
57) i-1,4-Dichlorobenzene-d4	22.69	152	831719	10.00	ug/L	0.00 / 67.40%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1222480	9.27	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.70%			
36) s-Toluene-d8	12.32	98	2573367	9.85	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.50%			
56) s-4-Bromofluorobenzene	18.82	95	1294157	9.26	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.60%			
Target Compounds						Qvalue
4) Vinyl chloride	1.60	62	17891m	0.18	ug/L	82
8) 1,1-Dichloroethene	2.76	96	27256	0.29	ug/L	86
9) Acetone	2.89	43	212177m	38.30	ug/L	98
11) Carbon disulfide	3.00	76	64643m	0.22	ug/L	100
13) trans-1,2-Dichloroethene	3.79	96	98945	0.96	ug/L	97
19) 2-Butanone	5.80	43	1058868m	91.90	ug/L	92
20) cis-1,2-Dichloroethene	5.65	96	4086473	43.38	ug/L	91
30) Trichloroethene	9.59	95	13863884	114.87	ug/L	100

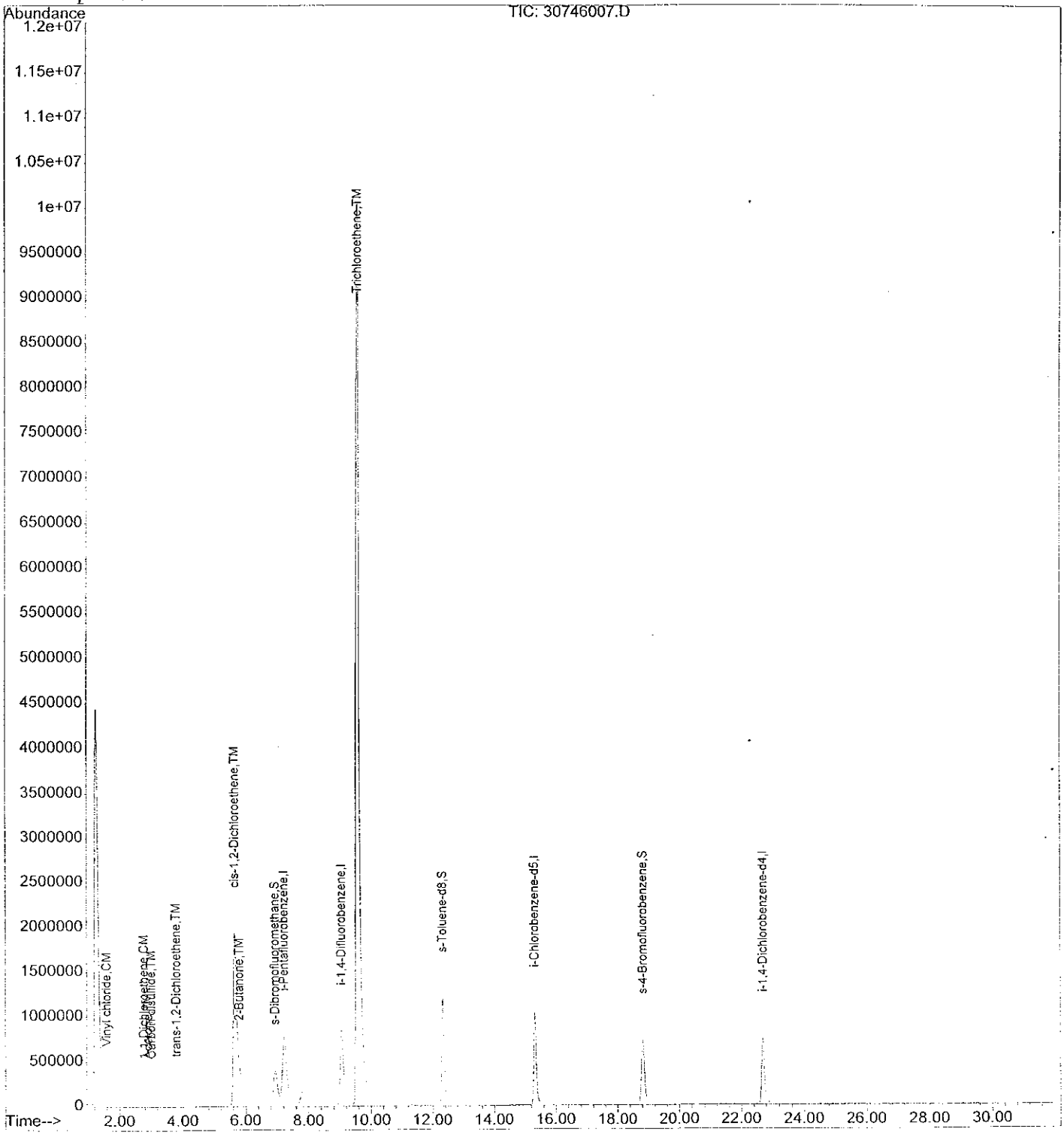
@ 11.2

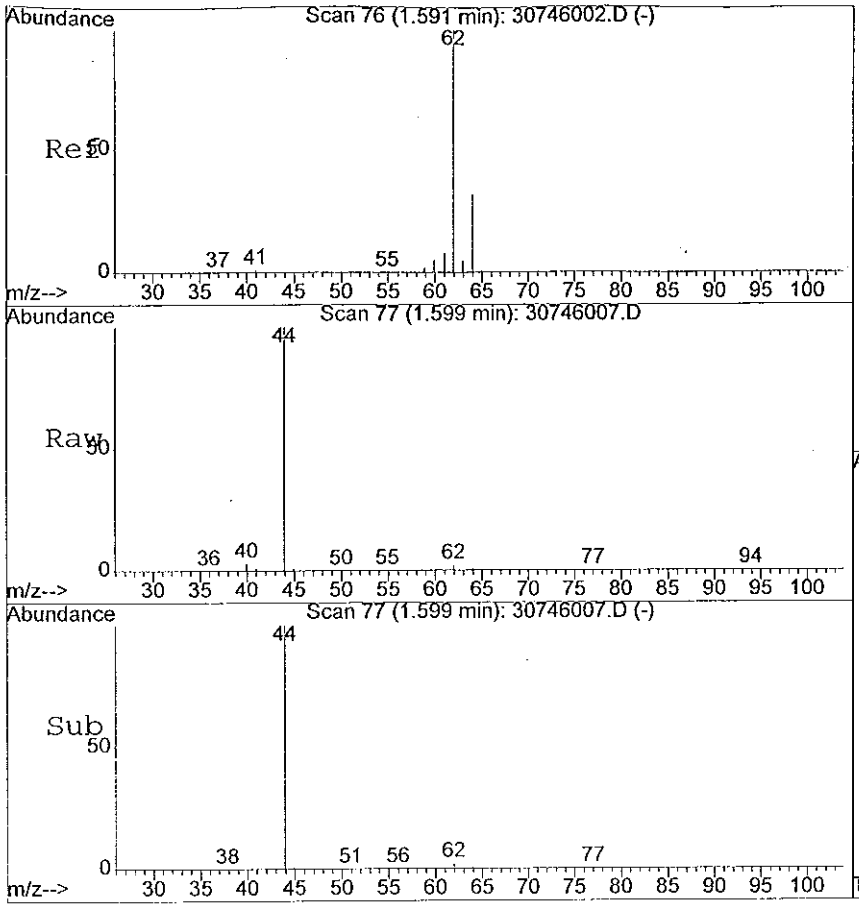
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:50 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

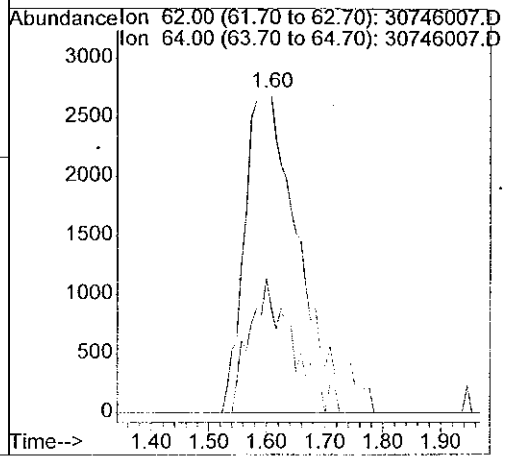


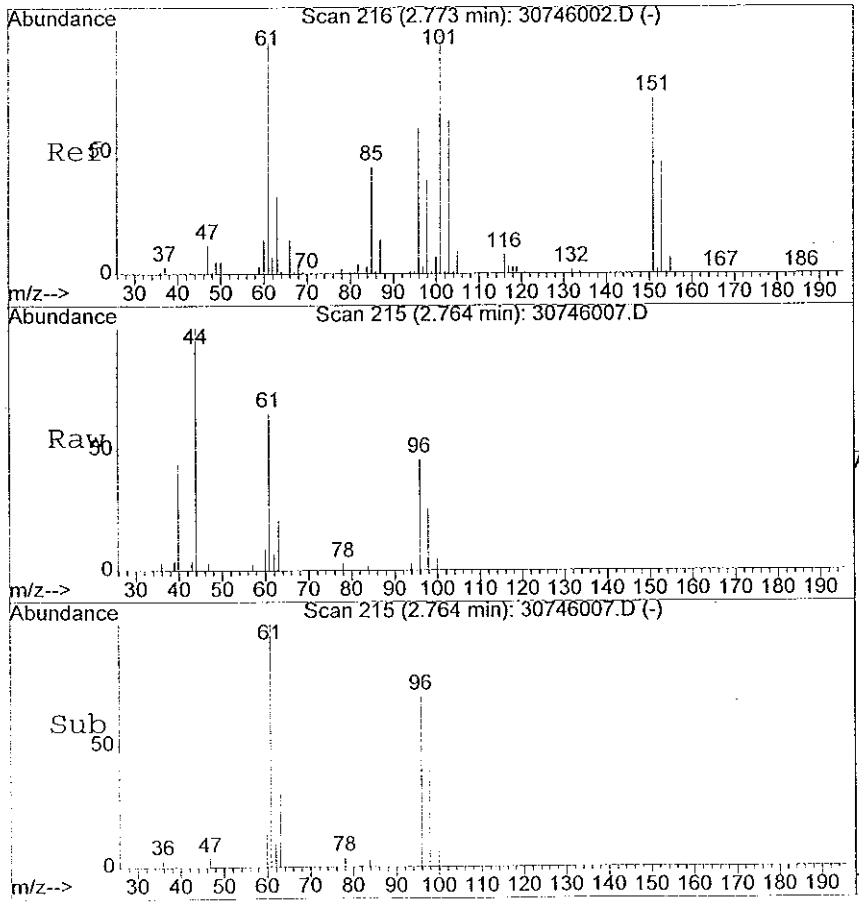


#4
Vinyl chloride
Concen: 0.18 ug/L m
RT: 1.60 min Scan# 77
Delta R.T. 0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 62 Resp: 17891

Ion	Ratio	Lower	Upper
62	100		
64	42.1	12.2	52.2

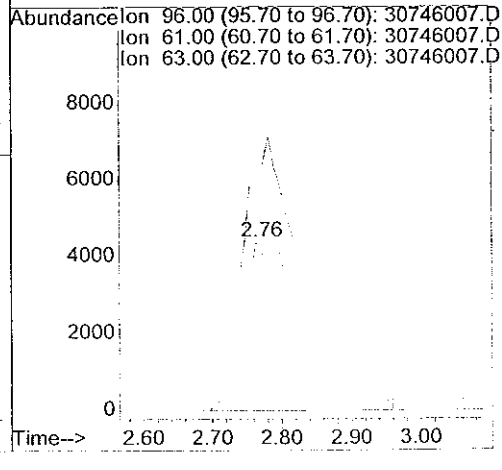


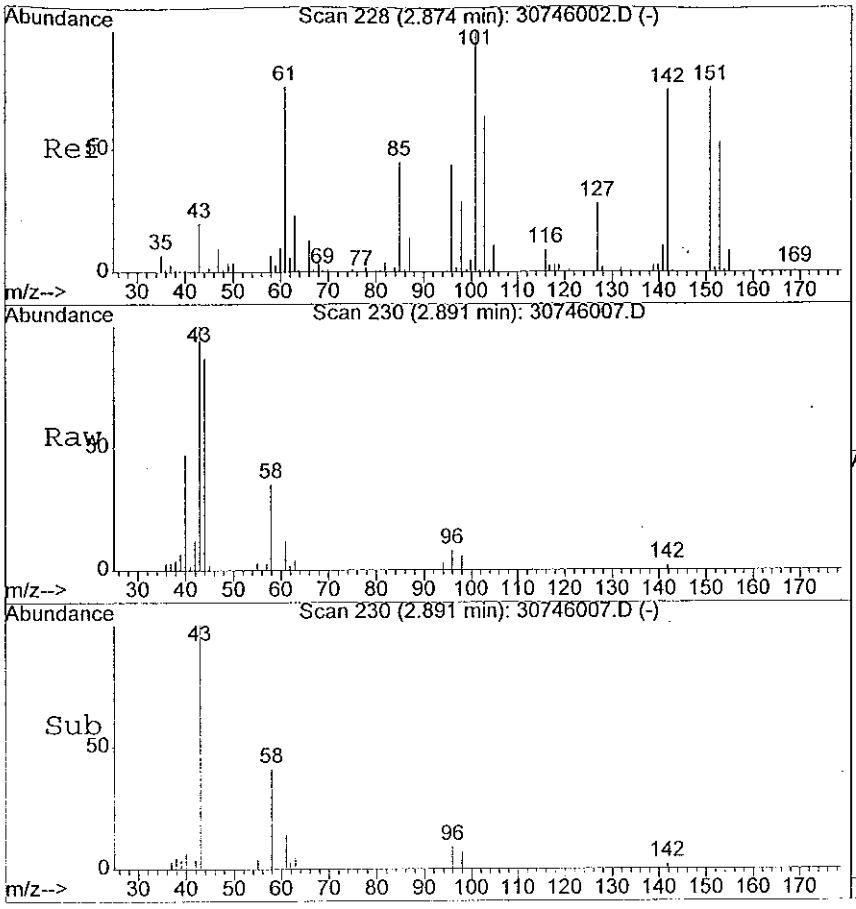


#8
1,1-Dichloroethene
Concen: 0.29 ug/L
RT: 2.76 min Scan# 215
Delta R.T. -0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 27256

Ion	Ratio	Lower	Upper
96	100		
61	142.3	141.0	181.0
63	45.2	33.7	73.7

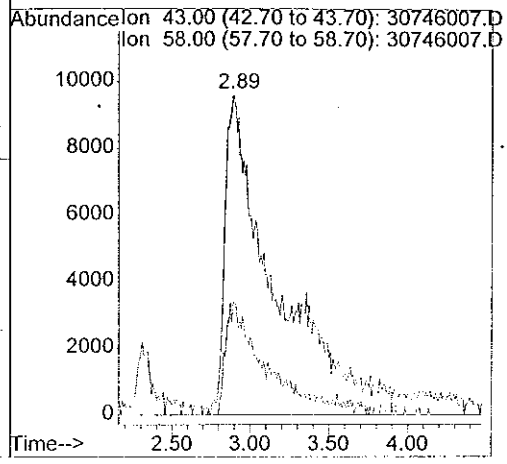


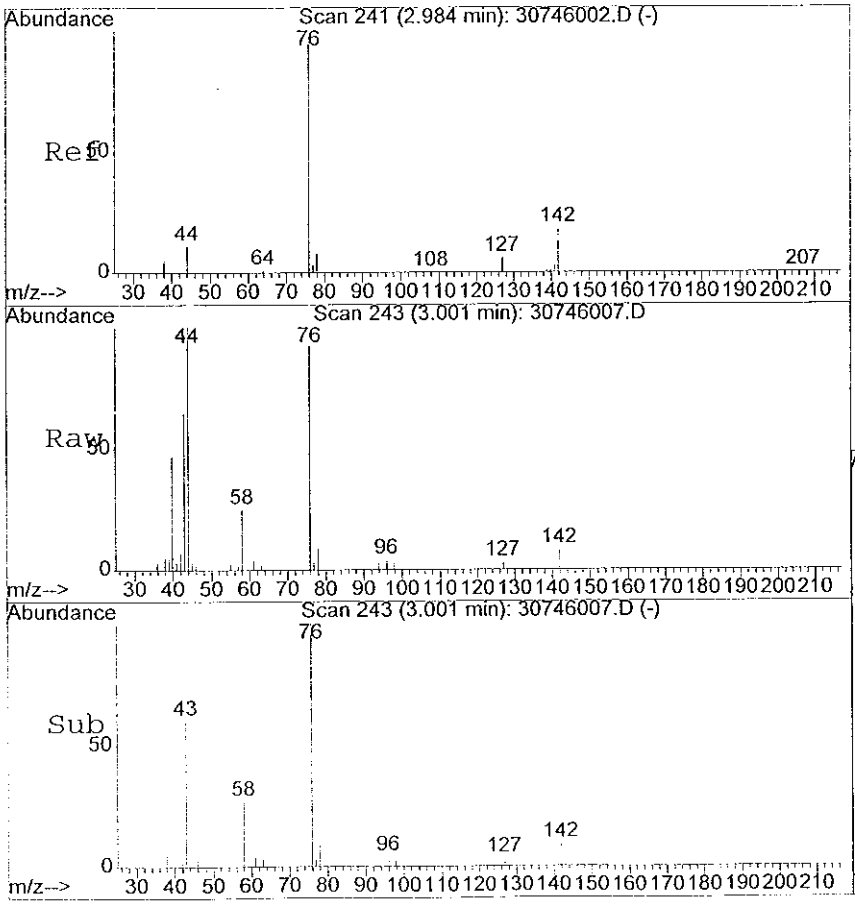


#9
Acetone
Concen: 38.30 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 43 Resp: 212177

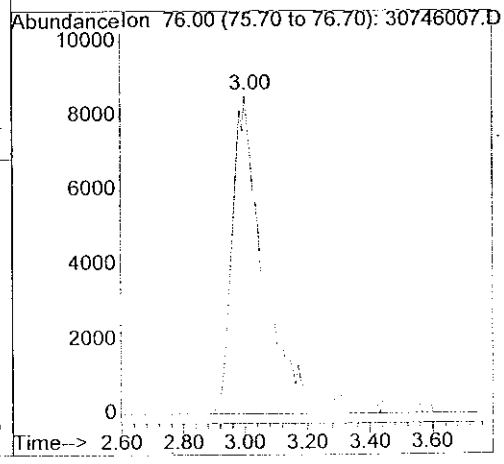
Ion	Ratio	Lower	Upper
43	100		
58	35.1	0.0	136.0

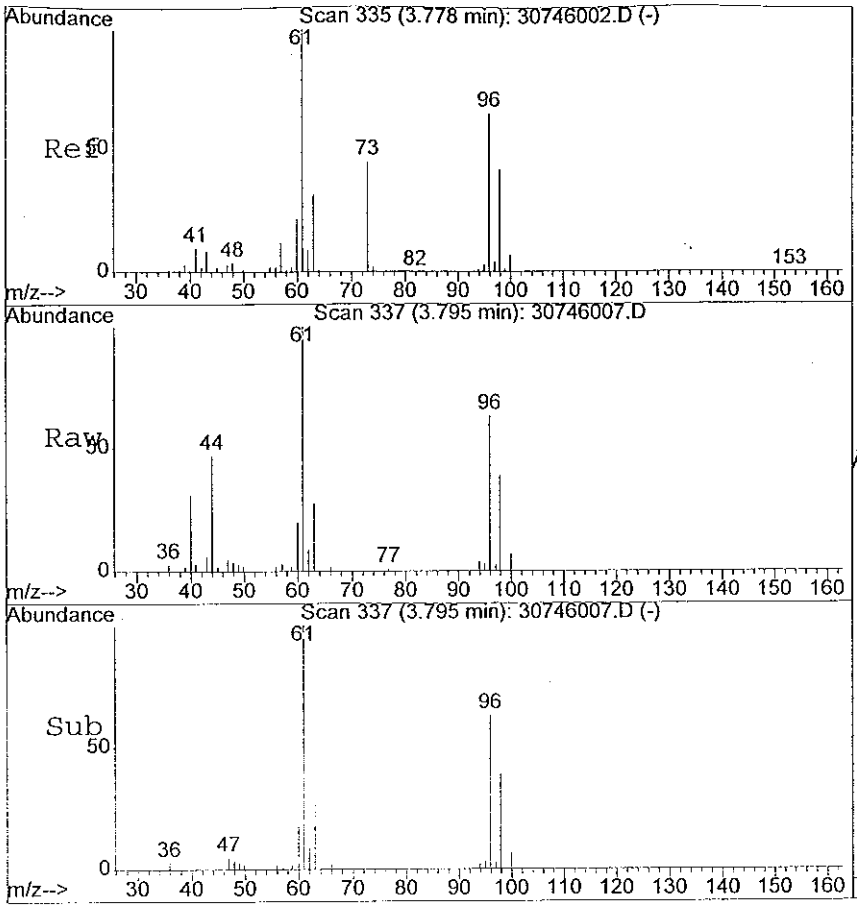




#11
Carbon disulfide
Concen: 0.22 ug/L m
RT: 3.00 min Scan# 243
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 76 Resp: 64643

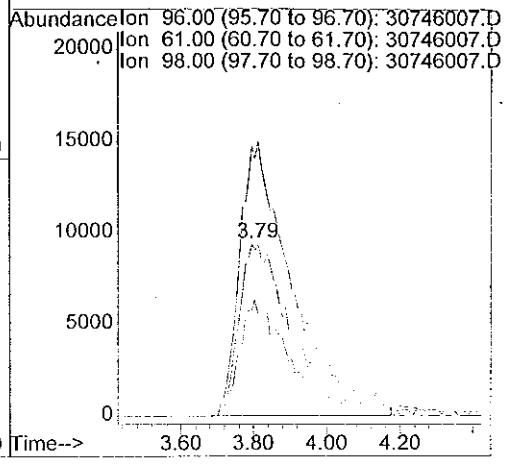


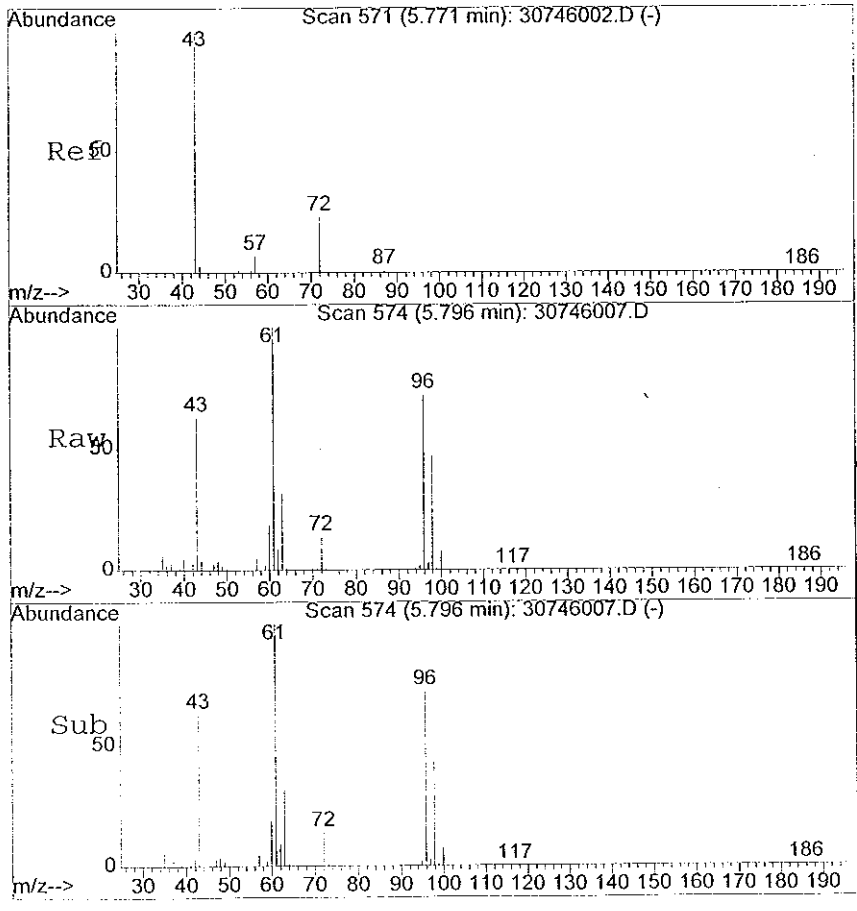


#13
trans-1,2-Dichloroethene
Concen: 0.96 ug/L
RT: 3.79 min Scan# 337
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 98945

Ion	Ratio	Lower	Upper
96	100		
61	157.6	133.8	173.8
98	61.4	45.0	85.0

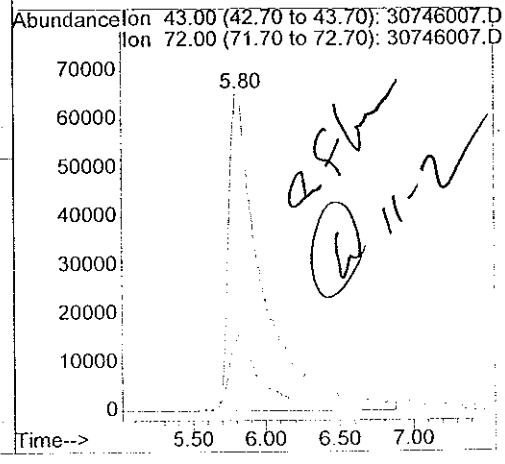


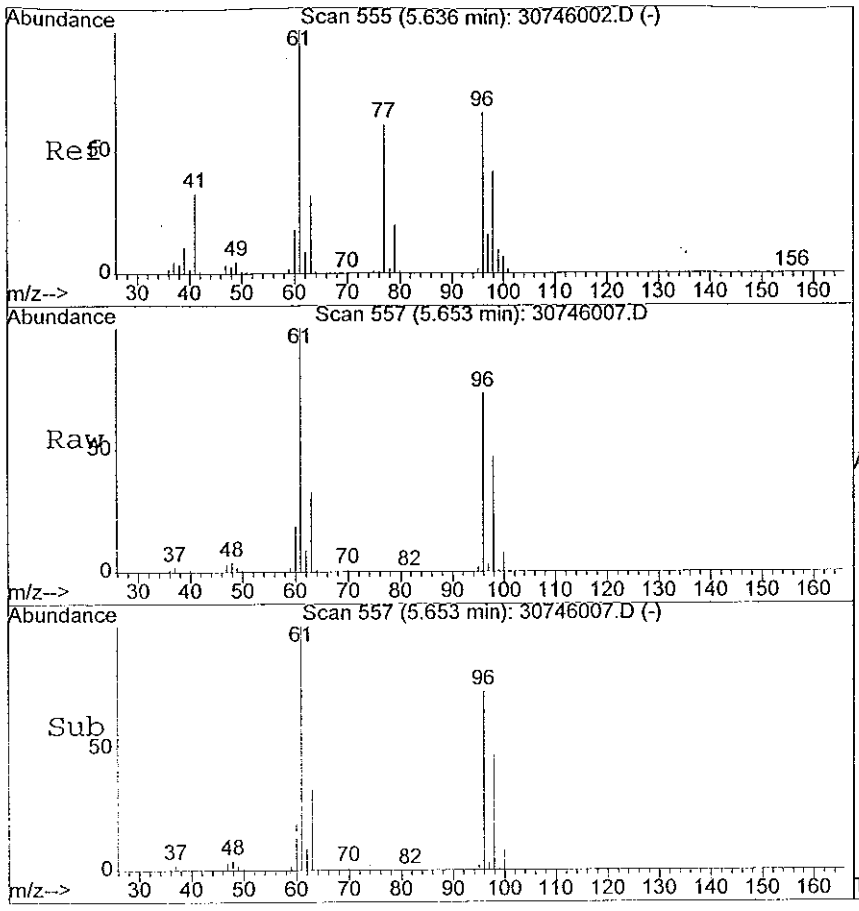


#19
2-Butanone
Concen: 91.90 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.03 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 43 Resp: 1058868

Ion	Ratio	Lower	Upper
43	100		
72	21.9	0.0	123.4

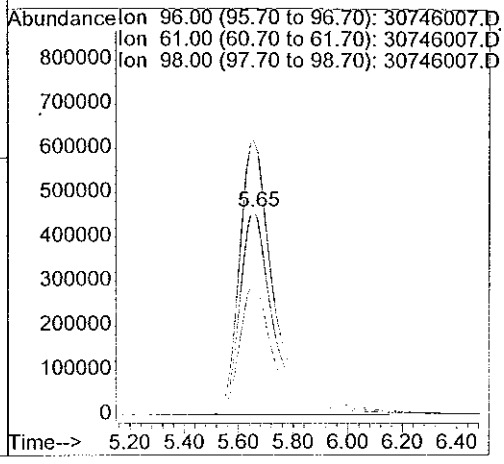


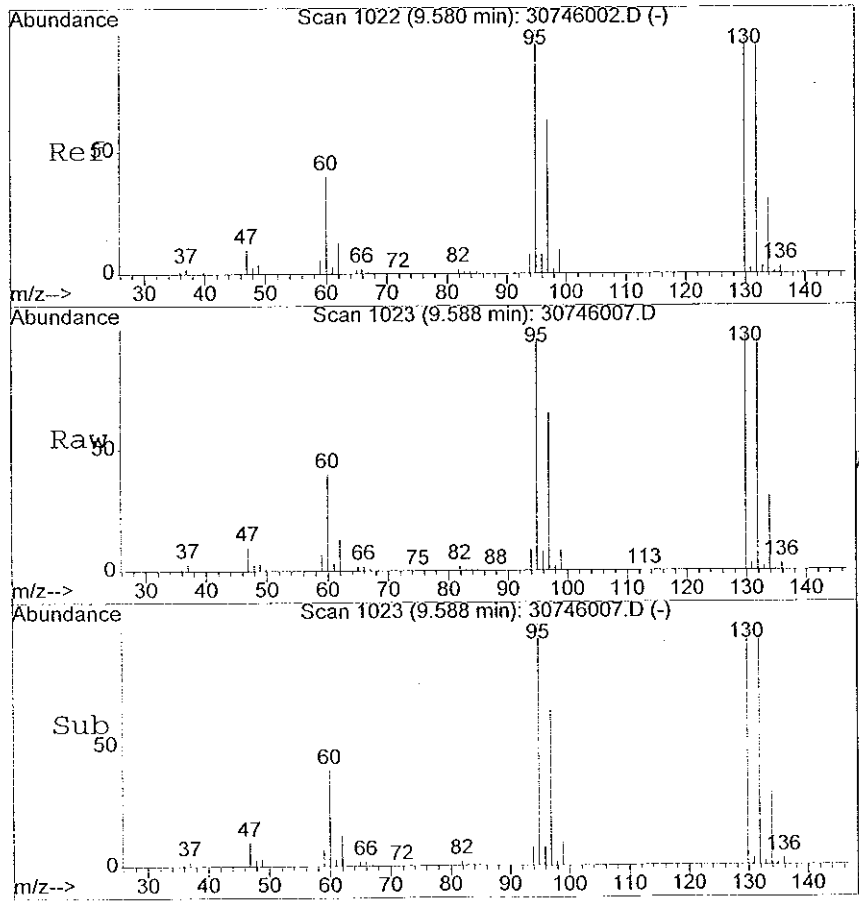


#20
cis-1,2-Dichloroethene
Concen: 43.38 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.02 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 96 Resp: 4086473

Ion	Ratio	Lower	Upper
96	100		
61	136.1	132.3	172.3
98	63.8	43.6	83.6

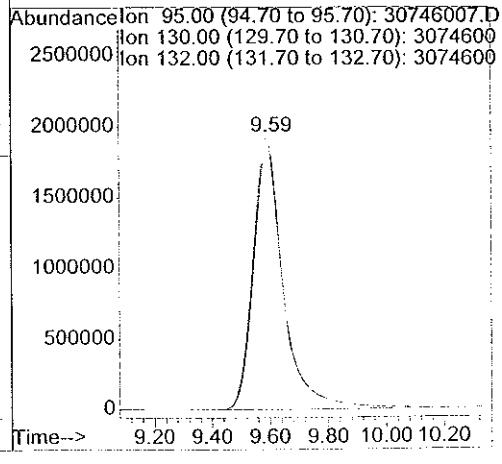




#30
Trichloroethene
Concen: 114.87 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.01 min
Lab File: 30746007.D
Acq: 1 Nov 2001 12:14

Tgt Ion: 95 Resp:13863884

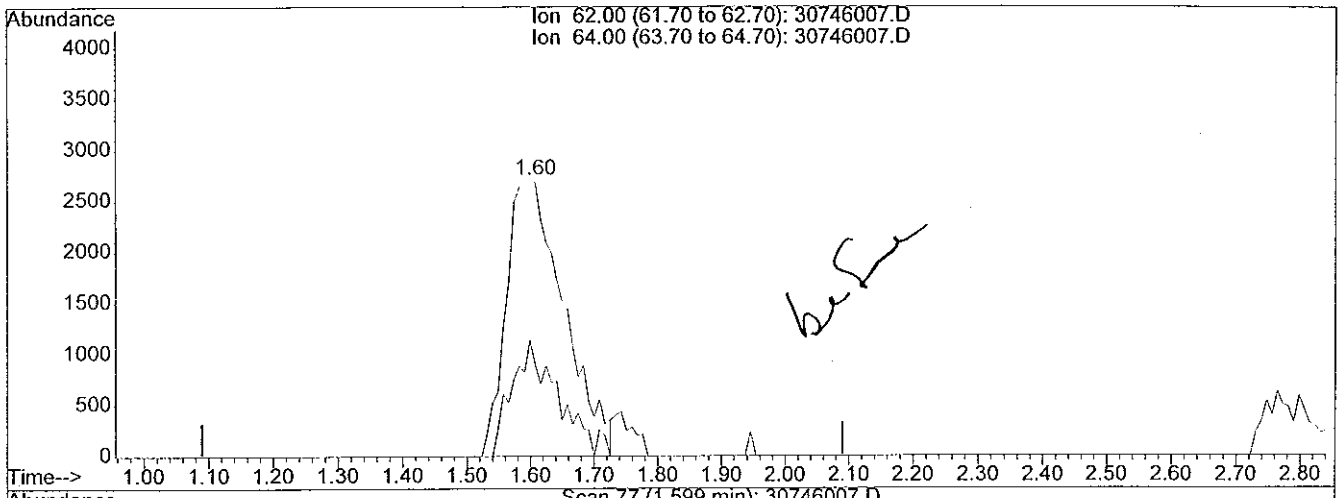
Ion	Ratio	Lower	Upper
95	100		
130	97.2	77.1	117.1
132	95.6	76.3	116.3

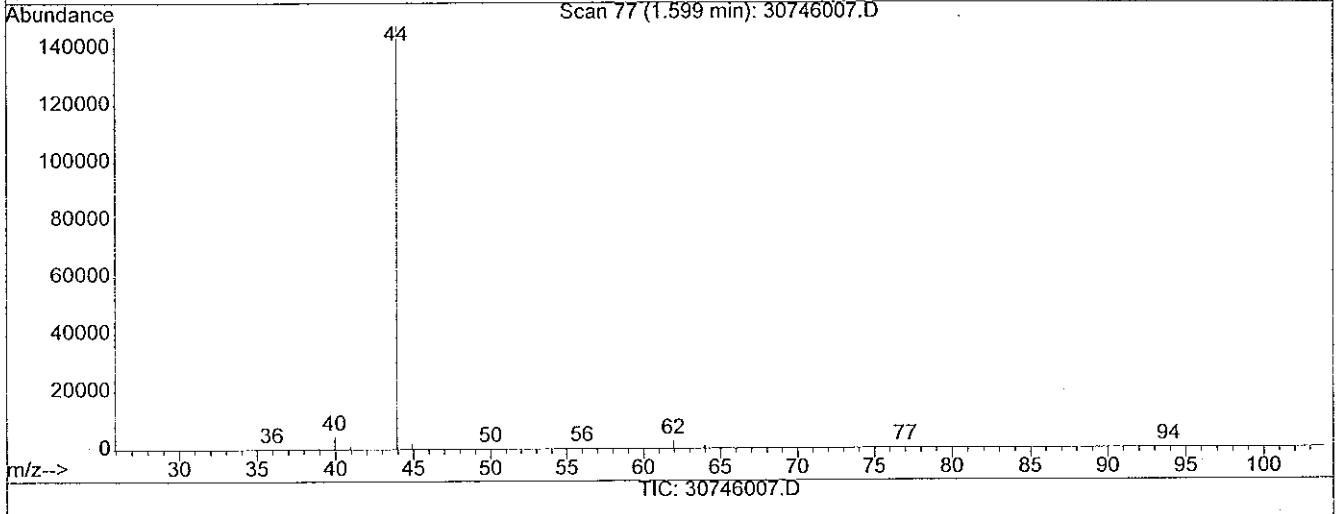


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:47 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(4) Vinyl chloride (CM)

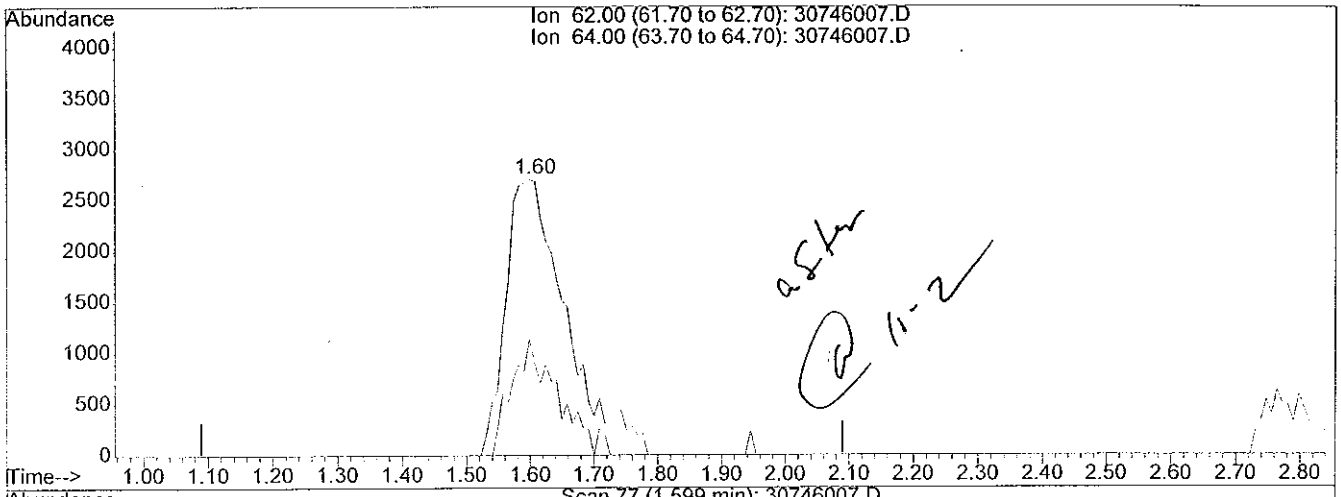
1.60min 0.18ug/L

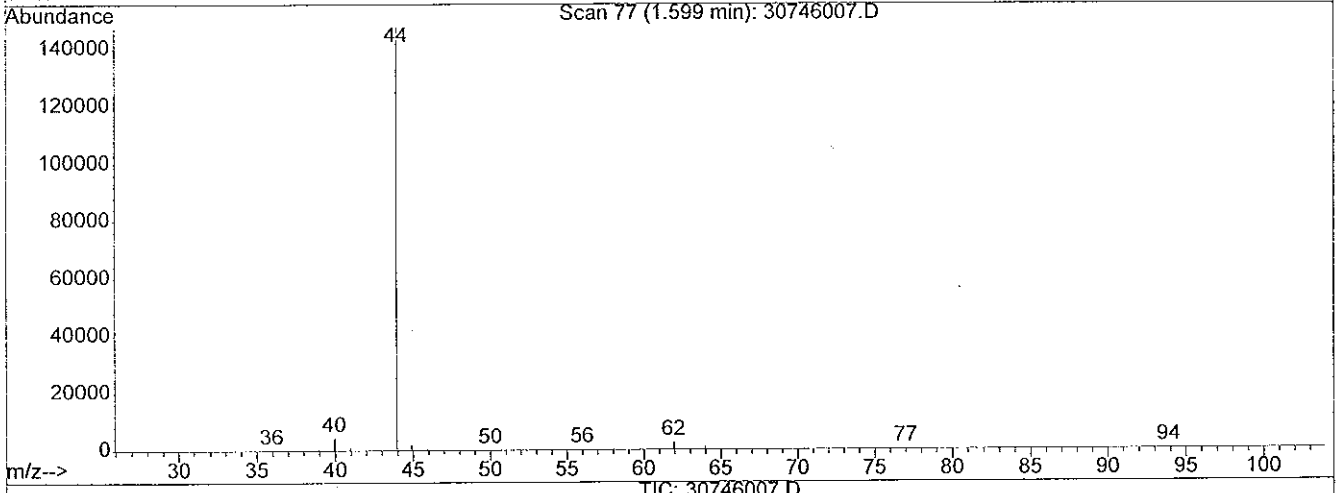
response 16992

Ion	Exp%	Act%
62.00	100	100
64.00	32.20	42.10
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:48 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(4) Vinyl chloride (CM)

1.60min 0.18ug/L m

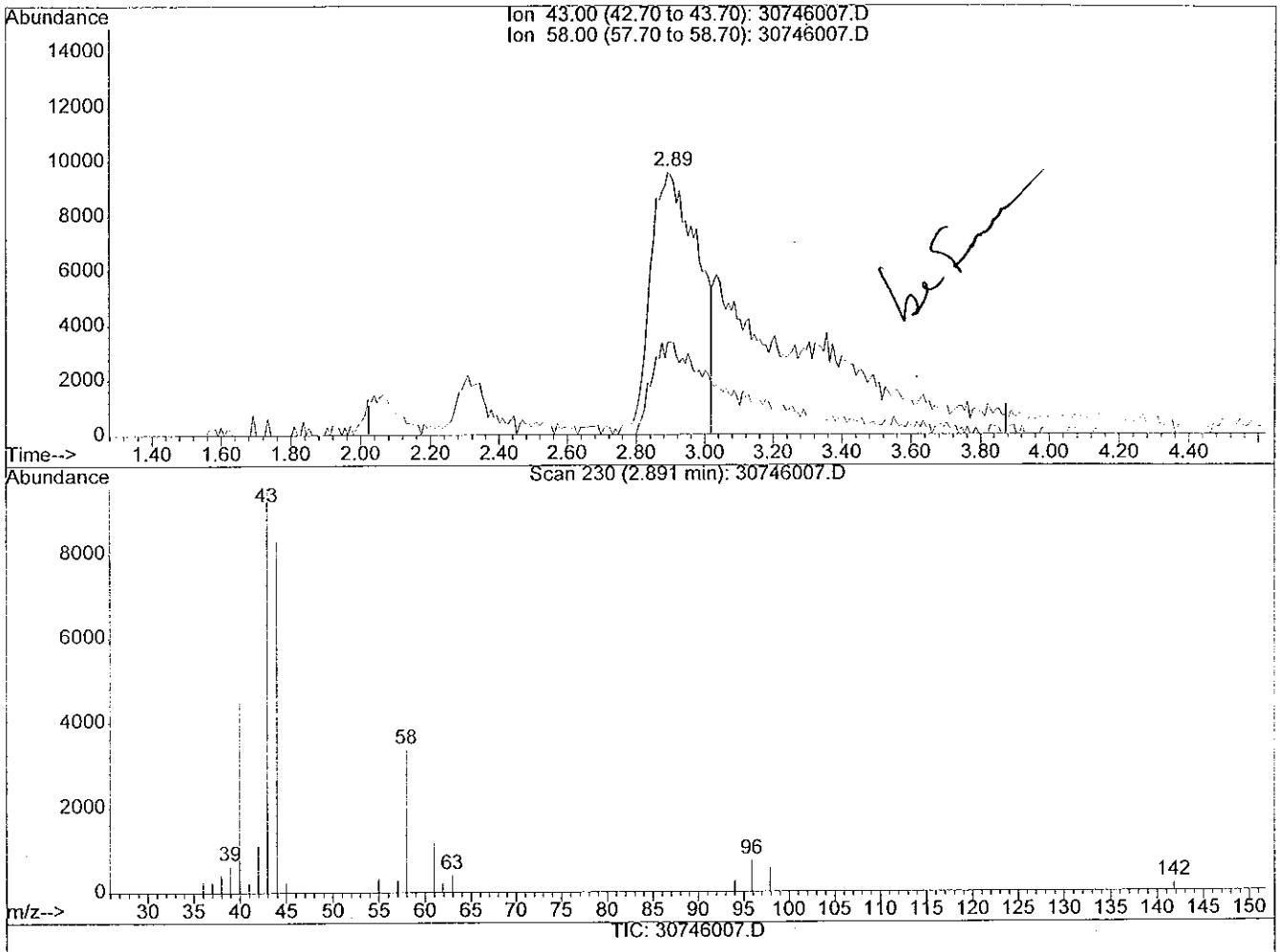
response 17891

Ion	Exp%	Act%
62.00	100	100
64.00	32.20	42.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746007.D Vial: 4
Acq On : 1 Nov 2001 12:14 Operator: GRH
Sample : 110611-1 Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 1 12:48 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30746007.D

(9) Acetone (TM)

2.89min 16.61ug/L

response 92332

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	35.07
0.00	0.00	0.00
0.00	0.00	0.00

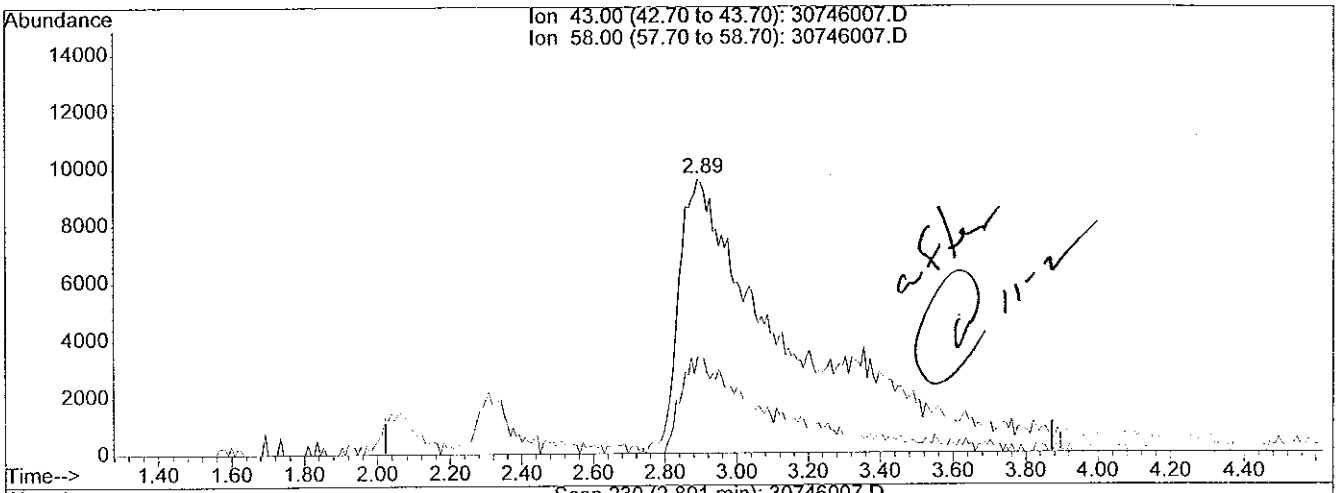
Quantitation Report (Qedit)

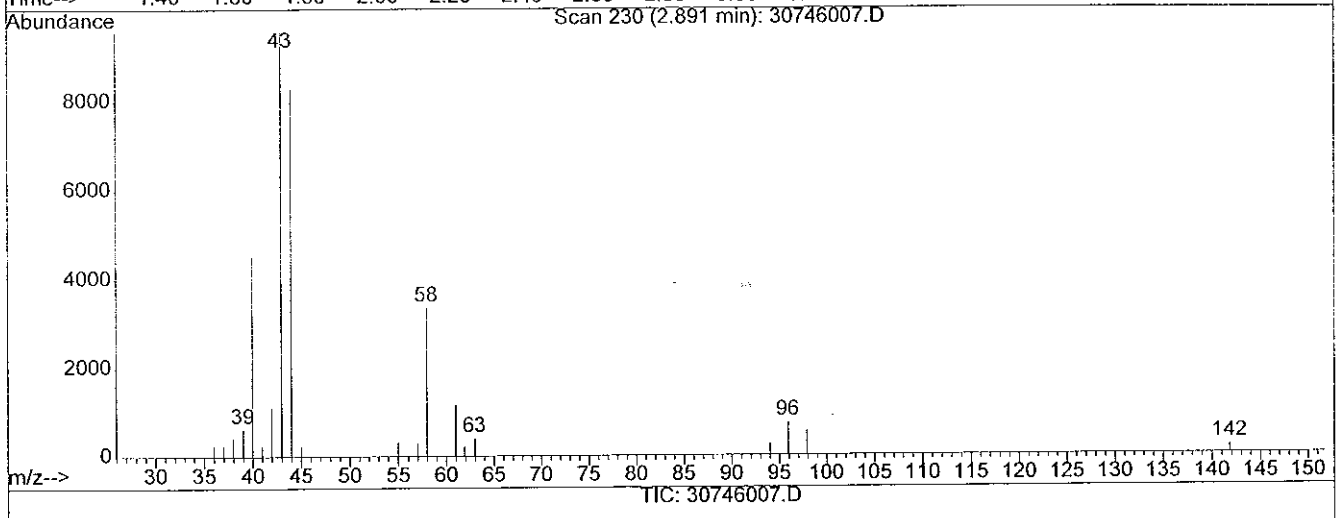
Data File : D:\HPCHEM\1\DATA\110101\30746007.D
Acq On : 1 Nov 2001 12:14
Sample : 110611-1
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 12:48 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(9) Acetone (TM)

2.89min 38.30ug/L m

response 212177

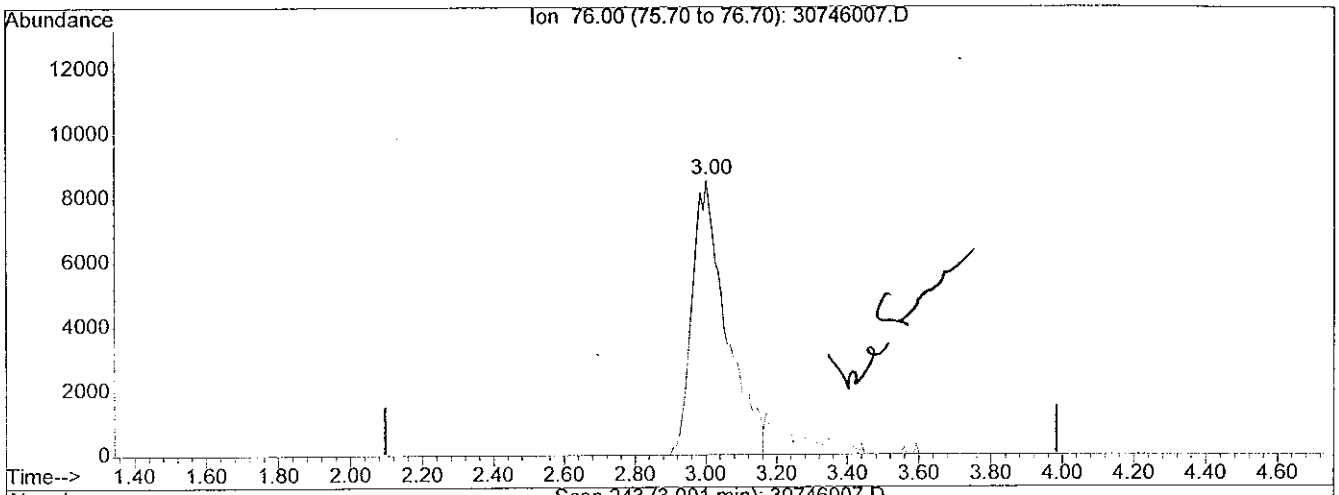
Ion	Exp%	Act%
43.00	100	100
58.00	36.00	35.07
0.00	0.00	0.00
0.00	0.00	0.00

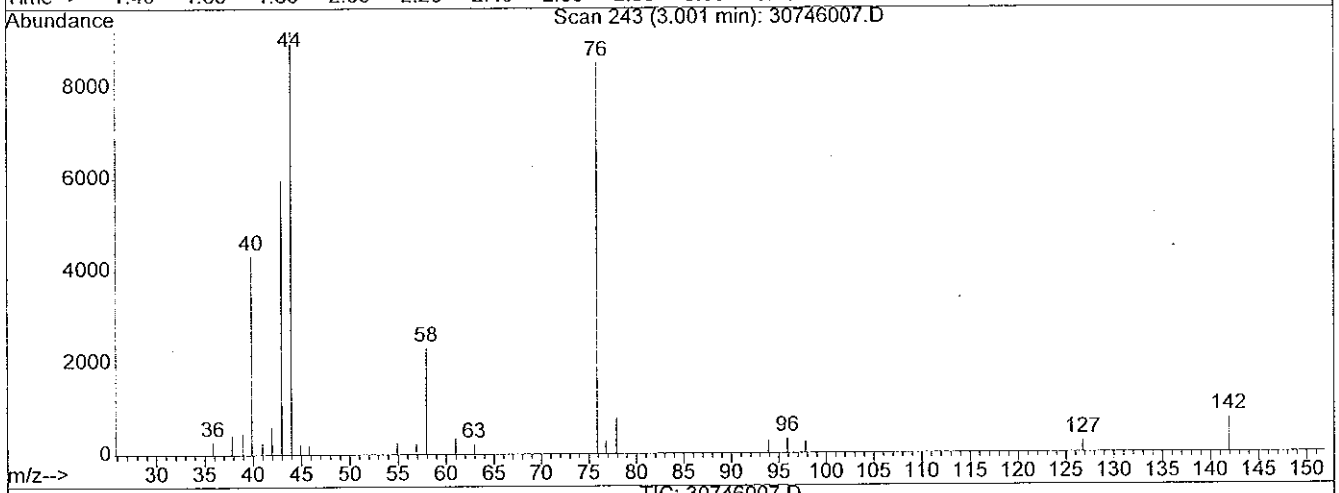
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110101\30746007.D
Acq On : 1 Nov 2001 12:14
Sample : 110611-1
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 12:48 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(11) Carbon disulfide (TM)

3.00min 0.19ug/L

response 56678

Ion	Exp%	Act%
76.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

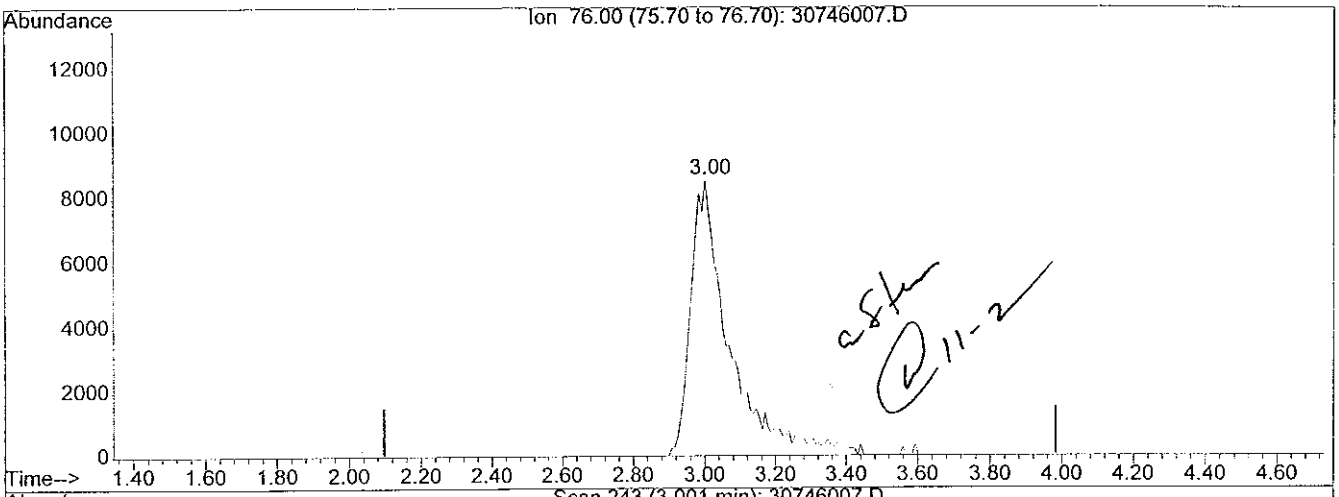
Quantitation Report (Qedit)

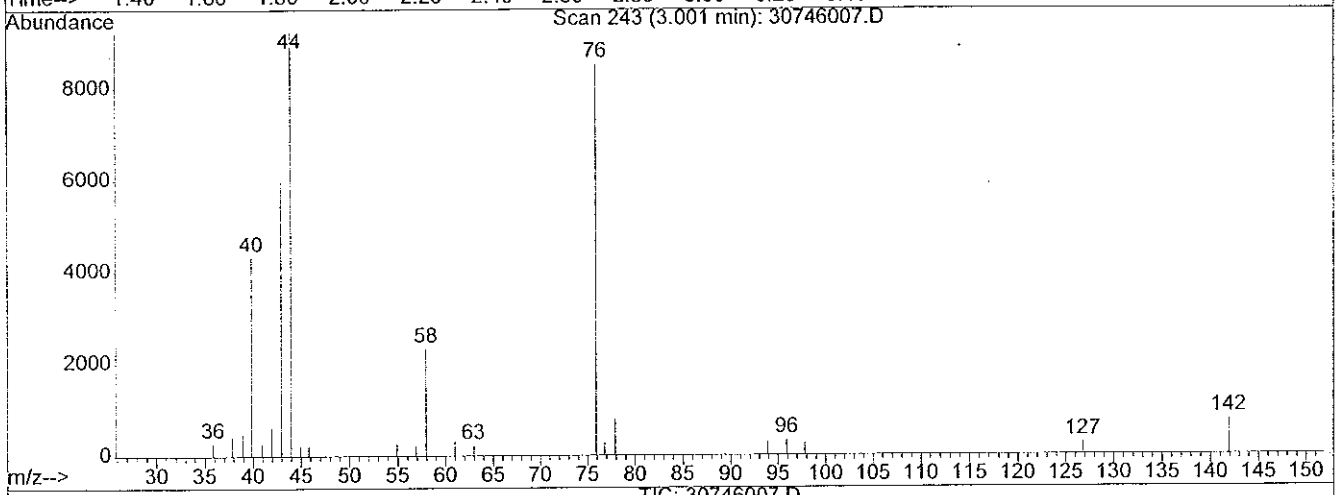
Data File : D:\HPCHEM\1\DATA\110101\30746007.D
Acq On : 1 Nov 2001 12:14
Sample : 110611-1
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 12:48 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(11) Carbon disulfide (TM)

3.00min 0.22ug/L m

response 64643

Ion	Exp%	Act%
76.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

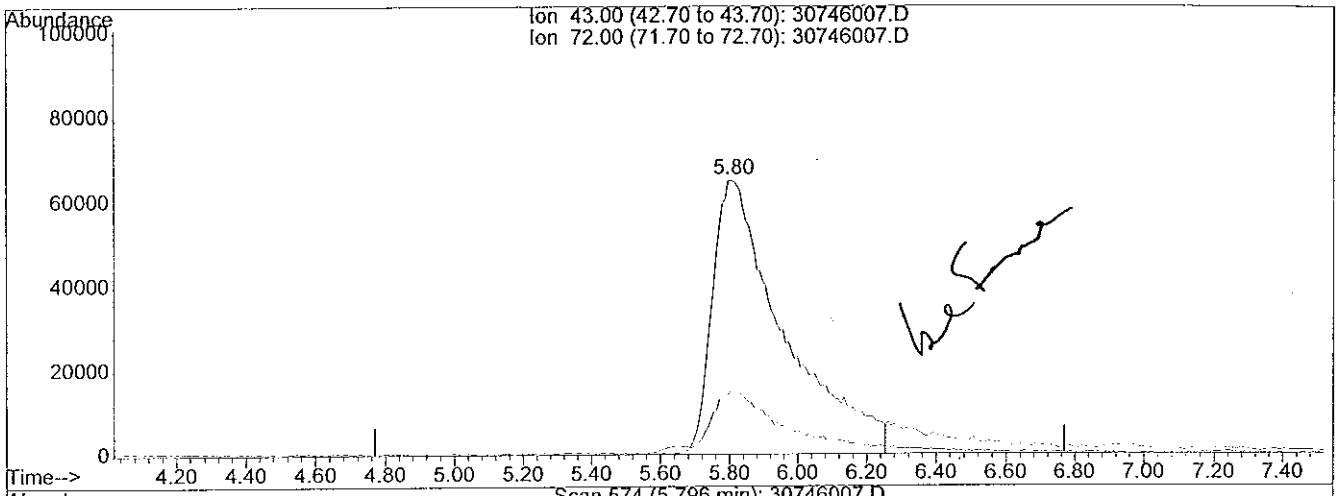
Quantitation Report (Qedit)

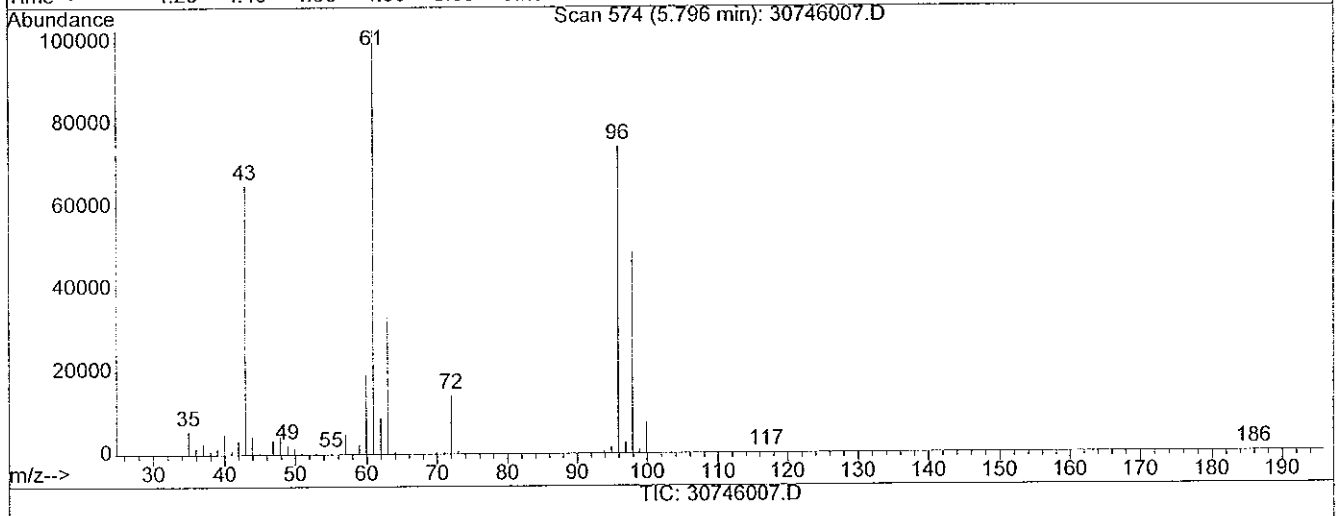
Data File : D:\HPCHEM\1\DATA\110101\30746007.D
Acq On : 1 Nov 2001 12:14
Sample : 110611-1
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 1 12:49 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746007.D

(19) 2-Butanone (TM)

5.80min 81.45ug/L

response 938439

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	19.34
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 12:14
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746007.D
Name: 110611-1
Misc: CH2MHILL 3609C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746007.D V82625B1.M Mon Nov 05 14:52:00 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746015.D Vial: 12
Acq On : 1 Nov 2001 17:51 Operator: GRH
Sample : 110611-1 2.5ml 10X Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 10.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:52 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2907775	10.00	ug/L	0.03 96.05%
25) i-1,4-Difluorobenzene	9.07	114	3034454	10.00	ug/L	0.02 99.70%
46) i-Chlorobenzene-d5	15.33	117	2197557	10.00	ug/L	0.02 101.06%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1092338	10.00	ug/L	0.02 88.52%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1480575	10.99	ug/L	0.04
Spiked Amount 10.000	Range 77 - 119		Recovery = 109.90%			
36) s-Toluene-d8	12.34	98	2878659	10.01	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.85	95	1651341	9.89	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.90%			
Target Compounds						Qvalue
19) 2-Butanone	5.84	43	194920m	165.76	ug/L #	92
20) cis-1,2-Dichloroethene	5.66	96	546874	57.23	ug/L	91
30) Trichloroethene	9.59	95	1925968	145.09	ug/L	98

11-2

(#) = qualifier out of range (m) = manual integration
30746015.D V82625B1.M Fri Nov 02 05:52:53 2001 Page 1

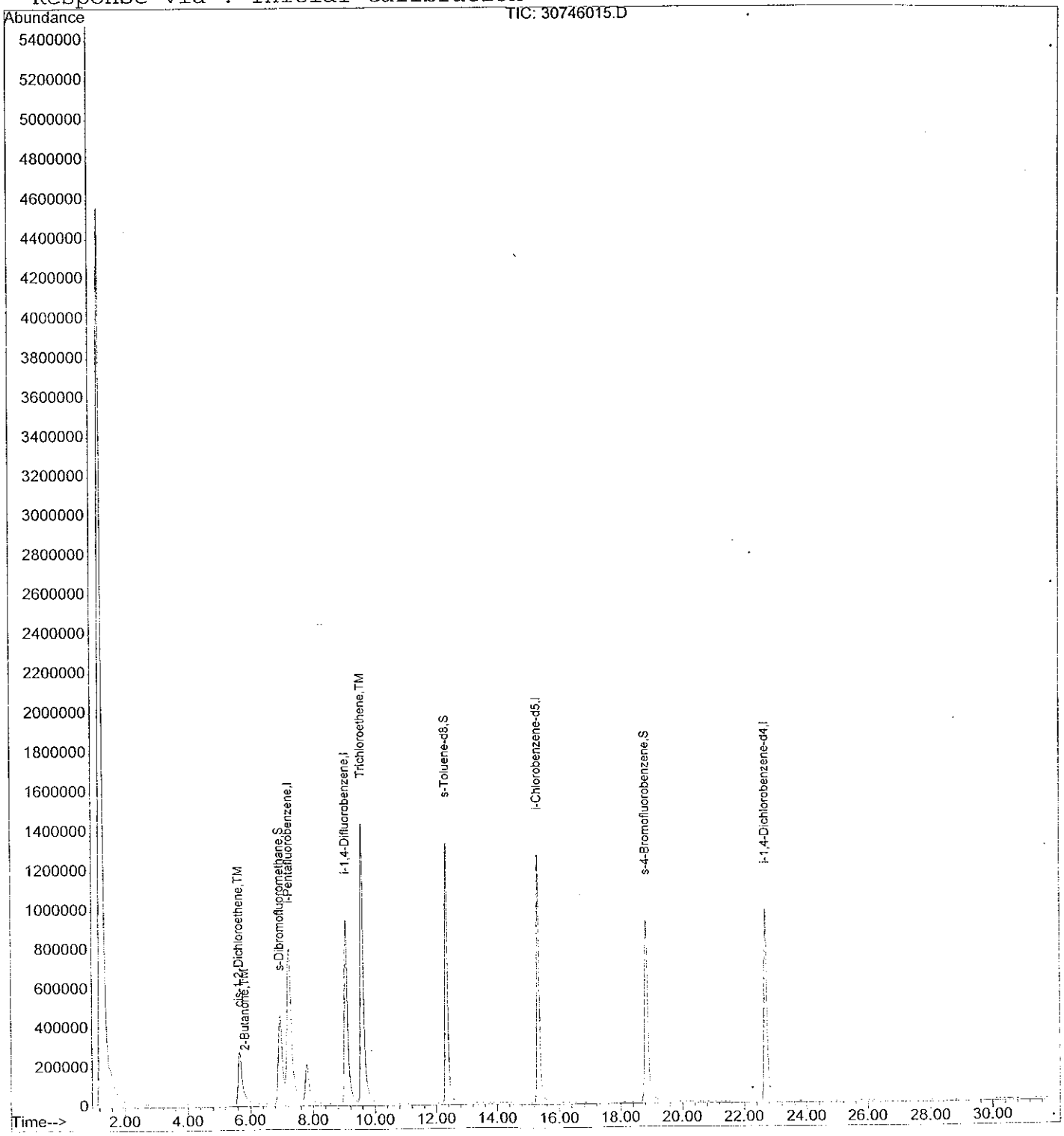
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746015.D
Acq On : 1 Nov 2001 17:51
Sample : 110611-1 2.5ml 10X
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:52 2001

Vial: 12
Operator: GRH
Inst : Bubba
Multiplr: 10.00

Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



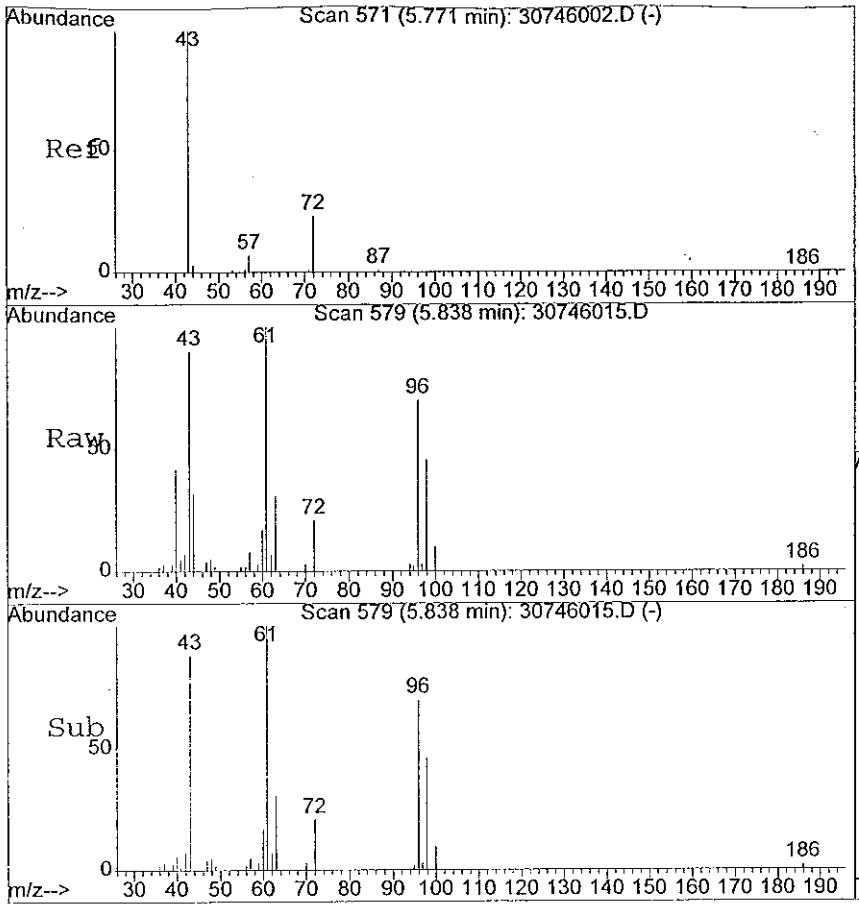
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746015.D Vial: 12
Acq On : 1 Nov 2001 17:51 Operator: GRH
Sample : 110611-1 2.5ml 10X Inst : Bubba
Misc : CH2MHILL 3609C-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:52 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2907775	10.00	ug/L	0.03 96.05%
25) i-1,4-Difluorobenzene	9.07	114	3034454	10.00	ug/L	0.02 99.70%
46) i-Chlorobenzene-d5	15.33	117	2197557	10.00	ug/L	0.02 101.06%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1092338	10.00	ug/L	0.02 88.52%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1480575	10.99	ug/L	0.04
Spiked Amount 10.000	Range 77 - 119		Recovery = 109.90%			
36) s-Toluene-d8	12.34	98	2878659	10.01	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.85	95	1651341	9.89	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.90%			
Target Compounds						Qvalue
19) 2-Butanone	5.84	43	194920m	16.58	ug/L #	92
20) cis-1,2-Dichloroethene	5.66	96	546874	5.72	ug/L	91
30) Trichloroethene	9.59	95	1925968	14.51	ug/L	98

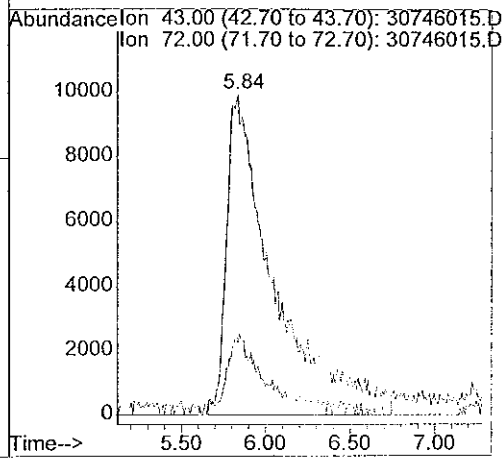
(#) = qualifier out of range (m) = manual integration
30746015.D V82625B1.M Fri Nov 02 05:52:22 2001 Page 1

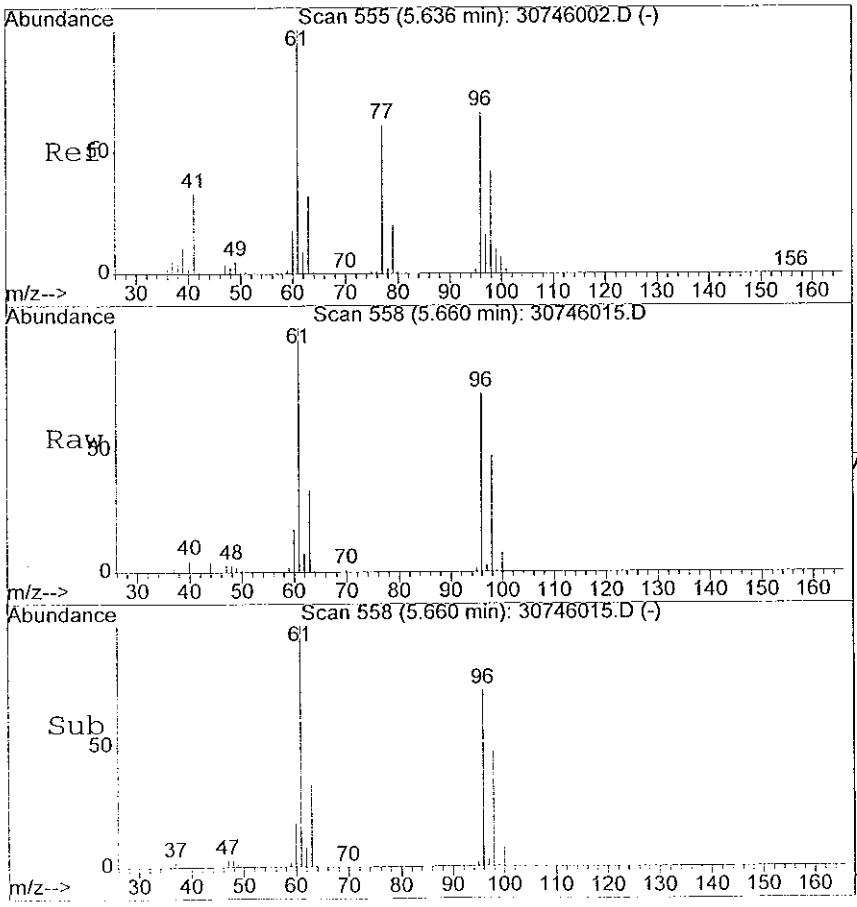


#19
2-Butanone
Concen: 16.58 ug/L m
RT: 5.84 min Scan# 579
Delta R.T. 0.07 min
Lab File: 30746015.D
Acq: 1 Nov 2001 17:51

Tgt Ion: 43 Resp: 194920

Ion	Ratio	Lower	Upper
43	100		
72	32400.0	0.0	123.4#

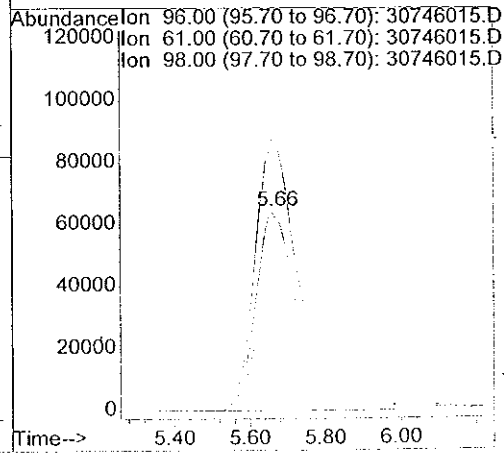


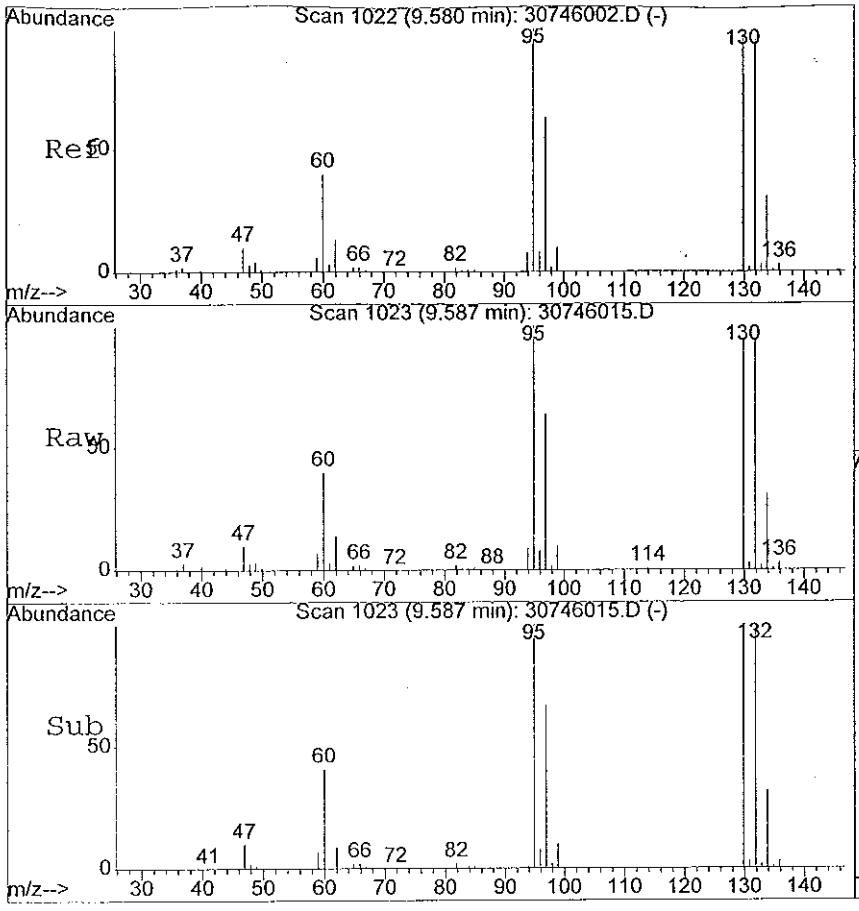


#20
cis-1,2-Dichloroethene
Concen: 5.72 ug/L
RT: 5.66 min Scan# 558
Delta R.T. 0.02 min
Lab File: 30746015.D
Acq: 1 Nov 2001 17:51

Tgt Ion: 96 Resp: 546874

Ion	Ratio	Lower	Upper
96	100		
61	137.1	132.3	172.3
98	65.8	43.6	83.6

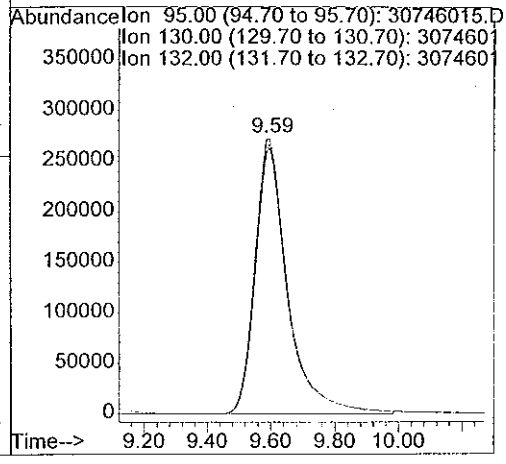




#30
Trichloroethene
Concen: 14.51 ug/L
RT: 9.59 min Scan# 1023
Delta R.T. 0.01 min
Lab File: 30746015.D
Acq: 1 Nov 2001 17:51

Tgt Ion: 95 Resp: 1925968

Ion	Ratio	Lower	Upper
95	100		
130	95.5	77.1	117.1
132	94.8	76.3	116.3



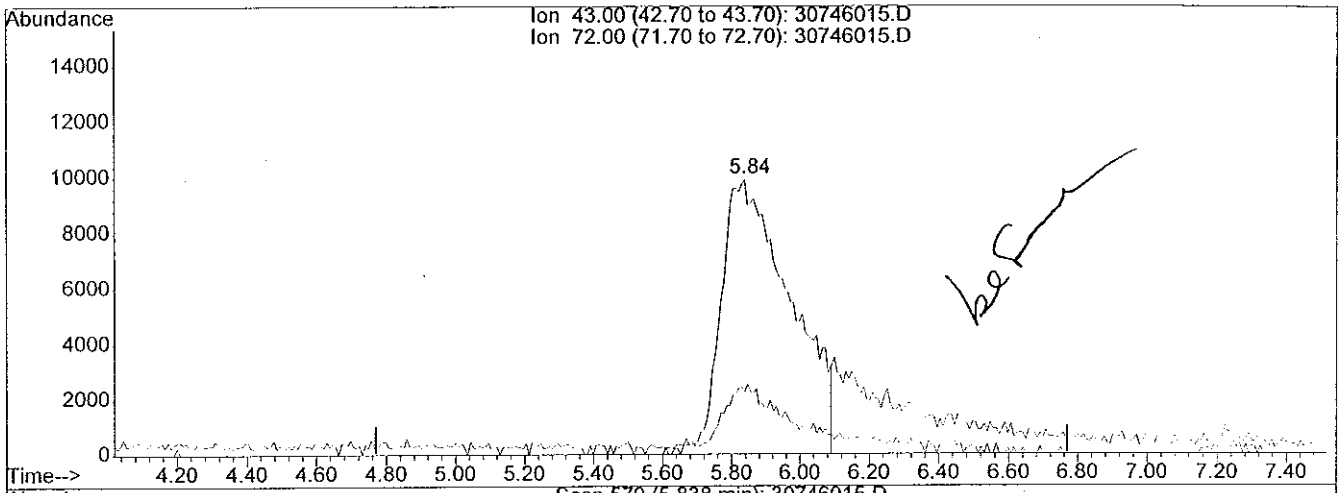
Quantitation Report (Qedit)

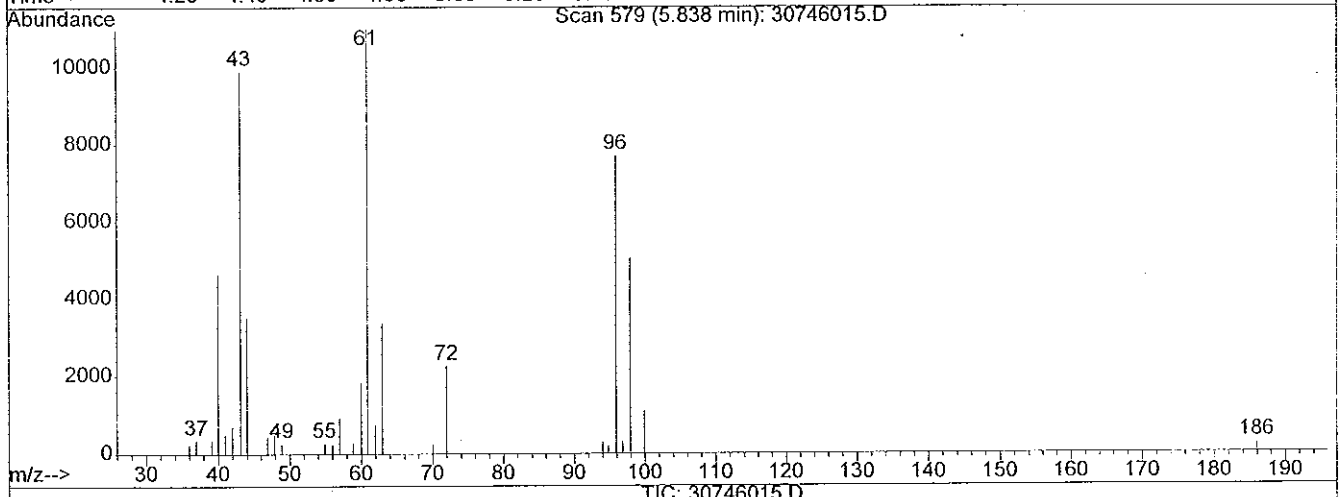
Data File : D:\HPCHEM\1\DATA\110101\30746015.D
Acq On : 1 Nov 2001 17:51
Sample : 110611-1 2.5ml 10X
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:51 2001

Vial: 12
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746015.D

(19) 2-Butanone (TM)

5.84min 11.83ug/L

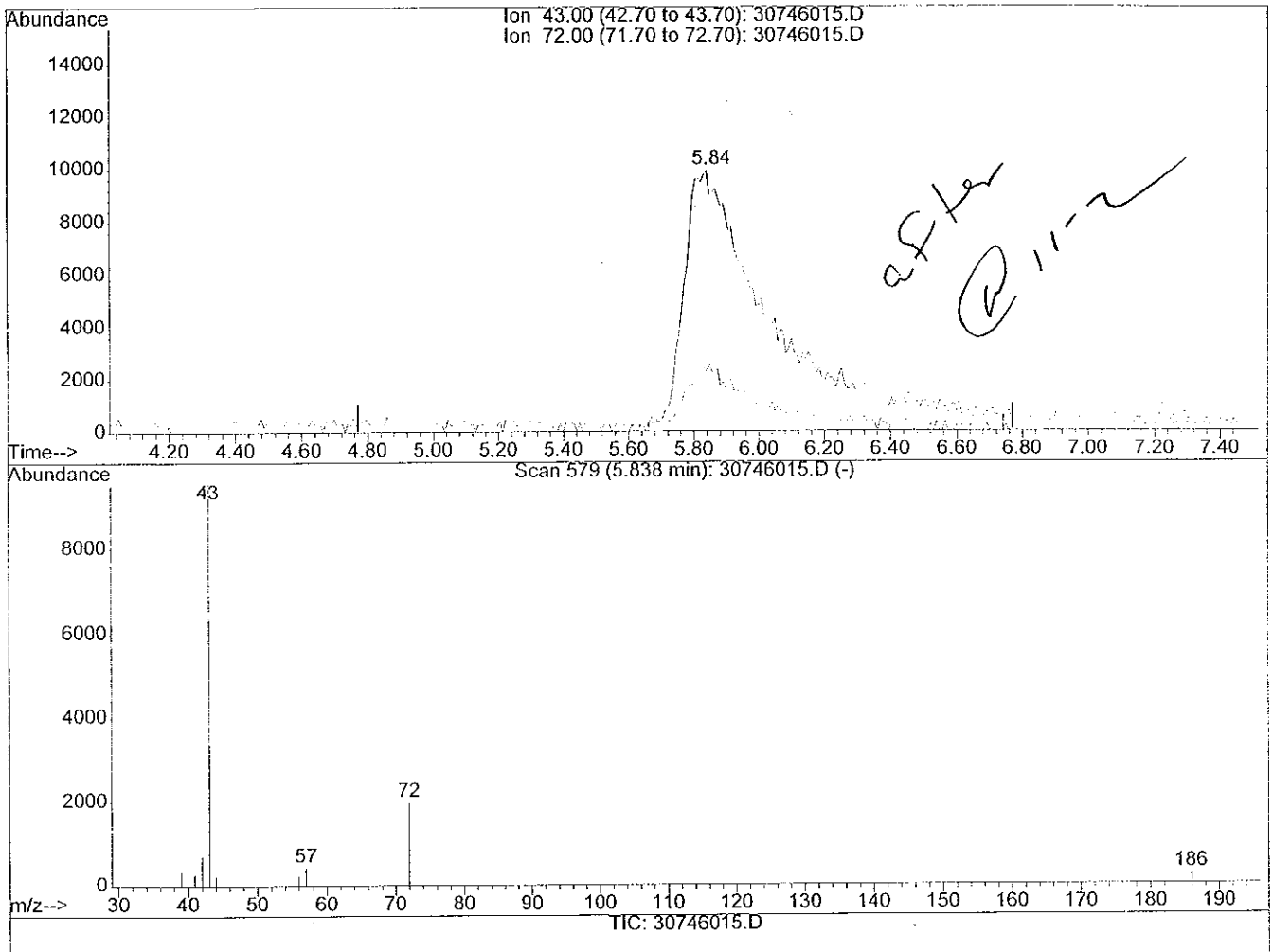
response 139128

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	19.57
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746015.D
Acq On : 1 Nov 2001 17:51
Sample : 110611-1 2.5ml 10X
Misc : CH2MHILL 3609C-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:51 2001

Vial: 12
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30746015.D

(19) 2-Butanone (TM)

5.84min 16.58ug/L m

response 194920

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	32400.00#
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 17:51
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746015.D
Name: 110611-1 2.5ml 10X
Misc: CH2MHILL 3609C-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746015.D V82625B1.M Mon Nov 05 15:04:30 2001

Data File : D:\HPCHEM\1\DATA\110101\30746012.D Vial: 9
Acq On : 1 Nov 2001 15:48 Operator: GRH
Sample : 110611-2 Inst : Bubba
Misc : CH2MHILL 3627A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:47 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

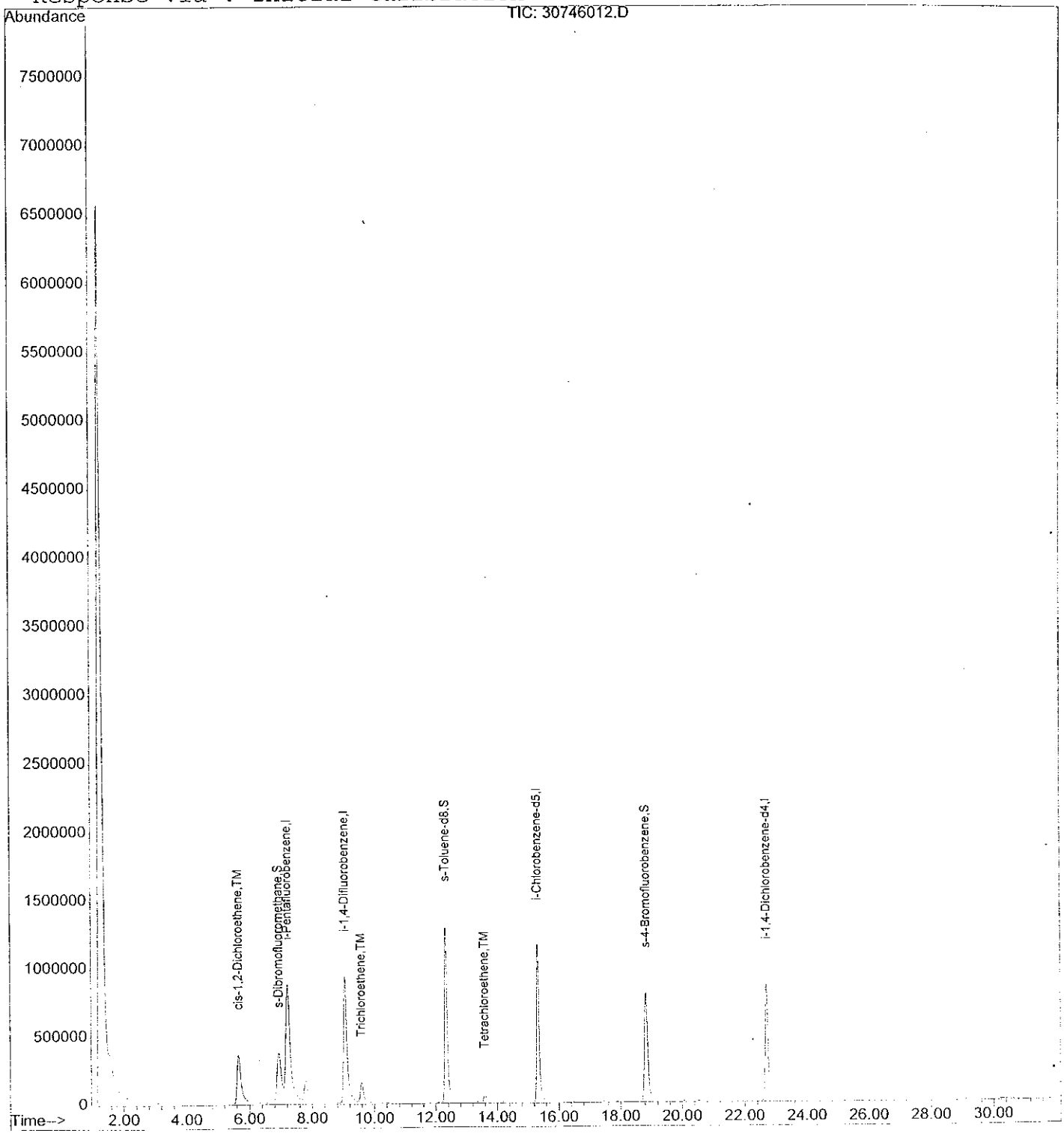
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3250463	10.00	ug/L	0.00 107.37%
25) i-1,4-Difluorobenzene	9.06	114	3030860	10.00	ug/L	0.00 99.58%
46) i-Chlorobenzene-d5	15.32	117	2049129	10.00	ug/L	0.00 94.23%
57) i-1,4-Dichlorobenzene-d4	22.70	152	958963	10.00	ug/L	0.03 77.71%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1298379	8.63	ug/L	0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 86.30%			
36) s-Toluene-d8	12.33	98	2831629	9.86	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.60%			
56) s-4-Bromofluorobenzene	18.84	95	1444898	9.28	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.80%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.65	96	762828	7.13	ug/L	92
30) Trichloroethene	9.58	95	196433	1.48	ug/L	98
40) Tetrachloroethene	13.59	166	61749	0.40	ug/L	94

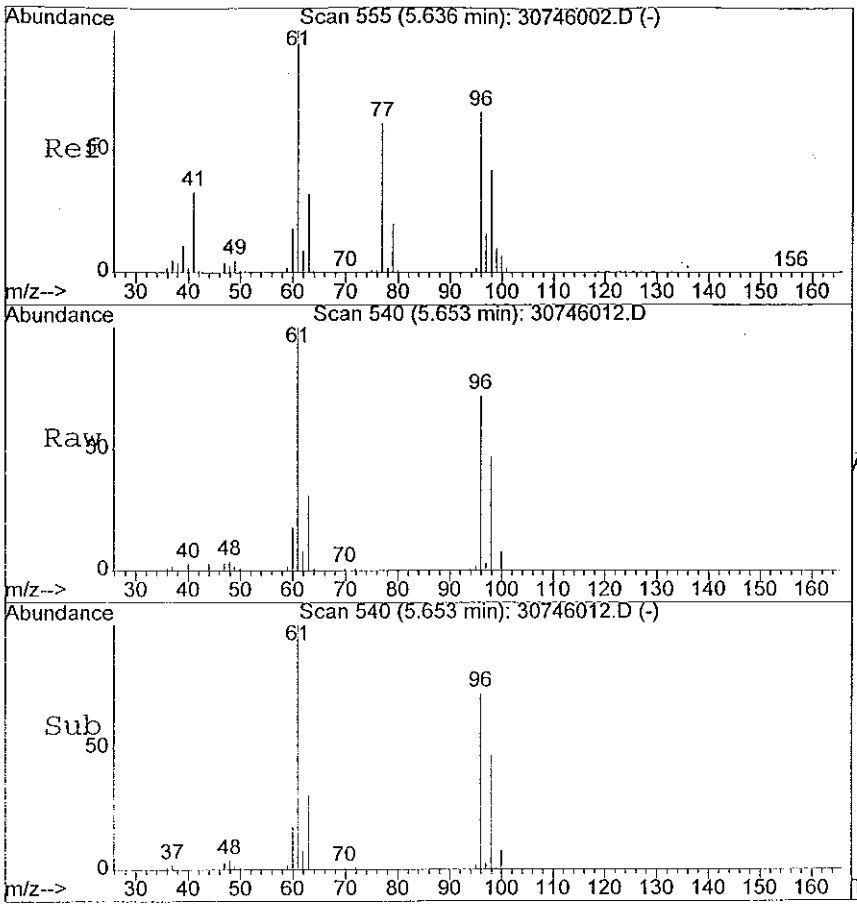
11-2

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746012.D Vial: 9
Acq On : 1 Nov 2001 15:48 Operator: GRH
Sample : 110611-2 Inst : Bubba
Misc : CH2MHILL 3627A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:47 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

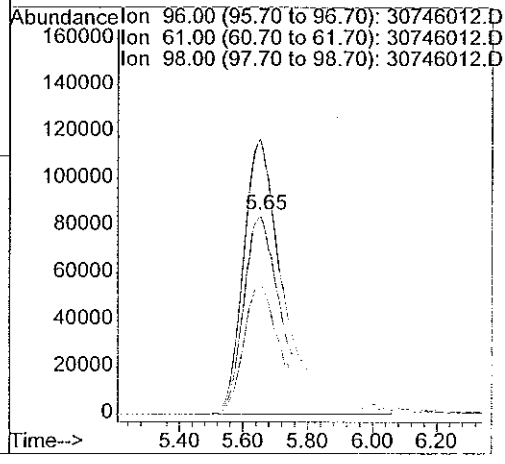


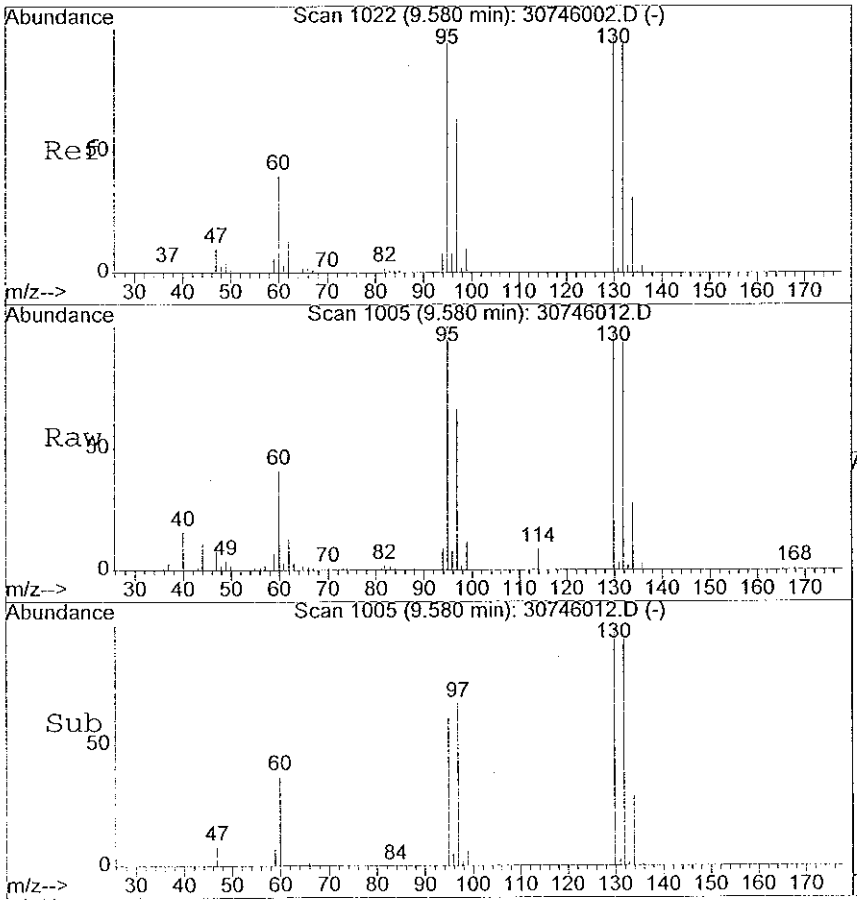


#20
cis-1,2-Dichloroethene
Concen: 7.13 ug/L
RT: 5.65 min Scan# 540
Delta R.T. 0.02 min
Lab File: 30746012.D
Acq: 1 Nov 2001 15:48

Tgt Ion: 96 Resp: 762828

Ion	Ratio	Lower	Upper
96	100		
61	139.1	132.3	172.3
98	65.2	43.6	83.6

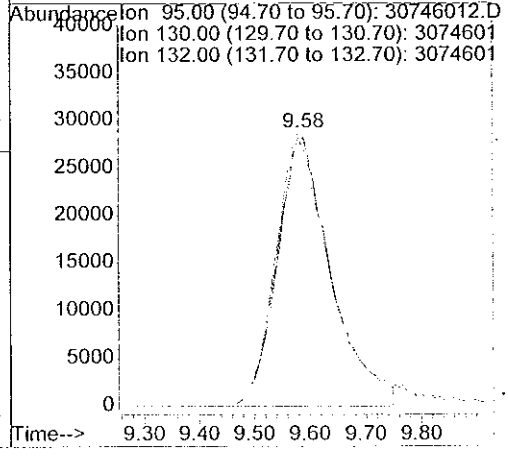


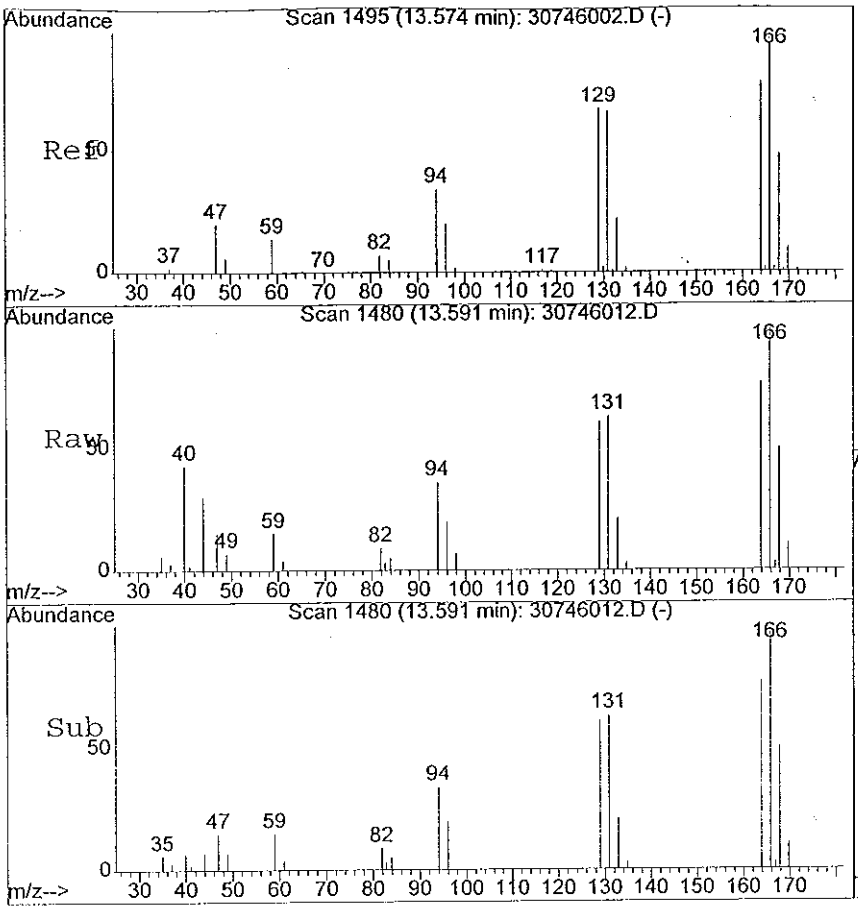


#30
Trichloroethene
Concen: 1.48 ug/L
RT: 9.58 min Scan# 1005
Delta R.T. 0.00 min
Lab File: 30746012.D
Acq: 1 Nov 2001 15:48

Tgt Ion: 95 Resp: 196433

Ion	Ratio	Lower	Upper
95	100		
130	98.5	77.1	117.1
132	94.5	76.3	116.3

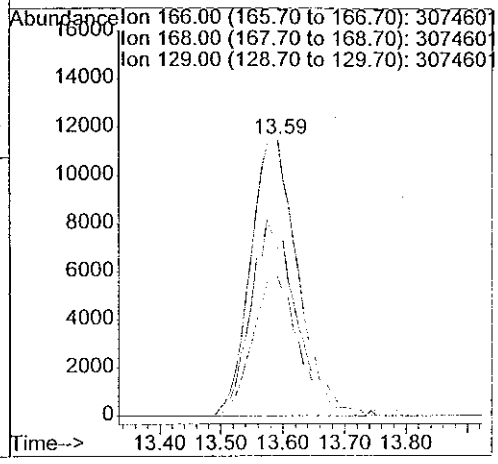




#40
Tetrachloroethene
Concen: 0.40 ug/L
RT: 13.59 min Scan# 1480
Delta R.T. 0.02 min
Lab File: 30746012.D
Acq: 1 Nov 2001 15:48

Tgt Ion:166 Resp: 61749

Ion	Ratio	Lower	Upper
166	100		
168	50.3	28.1	68.1
129	60.8	47.1	87.1



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 15:48
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746012.D
Name: 110611-2
Misc: CH2MHILL 3627A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746012.D V82625B1.M Mon Nov 05 14:52:17 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110101\30746013.D Vial: 10
Acq On : 1 Nov 2001 16:32 Operator: GRH
Sample : 110611-3 Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3196050	10.00	ug/L	0.00 105.57%
25) i-1,4-Difluorobenzene	9.05	114	3175920	10.00	ug/L	0.00 104.34%
46) i-Chlorobenzene-d5	15.31	117	2307612	10.00	ug/L	0.00 106.12%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1134134	10.00	ug/L	0.00 91.91%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1485105	10.03	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.30%			
36) s-Toluene-d8	12.32	98	2990012	9.94	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.81	95	1735127	9.89	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.90%			
Target Compounds						Qvalue
9) Acetone	2.92	43	95469m	15.30	ug/L #	99
13) trans-1,2-Dichloroethene	3.85	96	61693m	0.53	ug/L #	88
19) 2-Butanone	5.81	43	438643m	33.94	ug/L	90
20) cis-1,2-Dichloroethene	5.65	96	3499174	33.12	ug/L	92
30) Trichloroethene	9.57	95	943781	6.79	ug/L	98

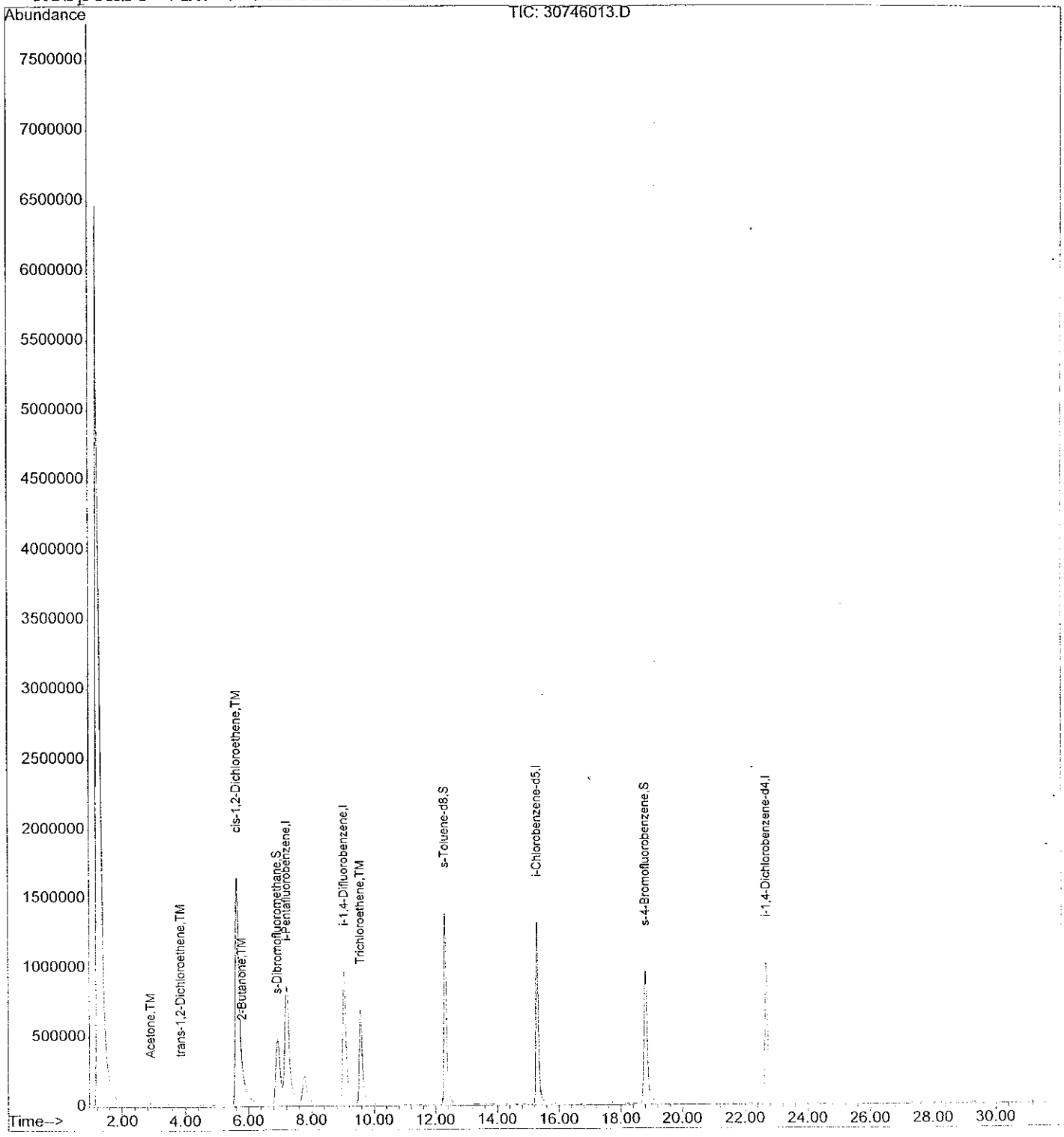
11-2

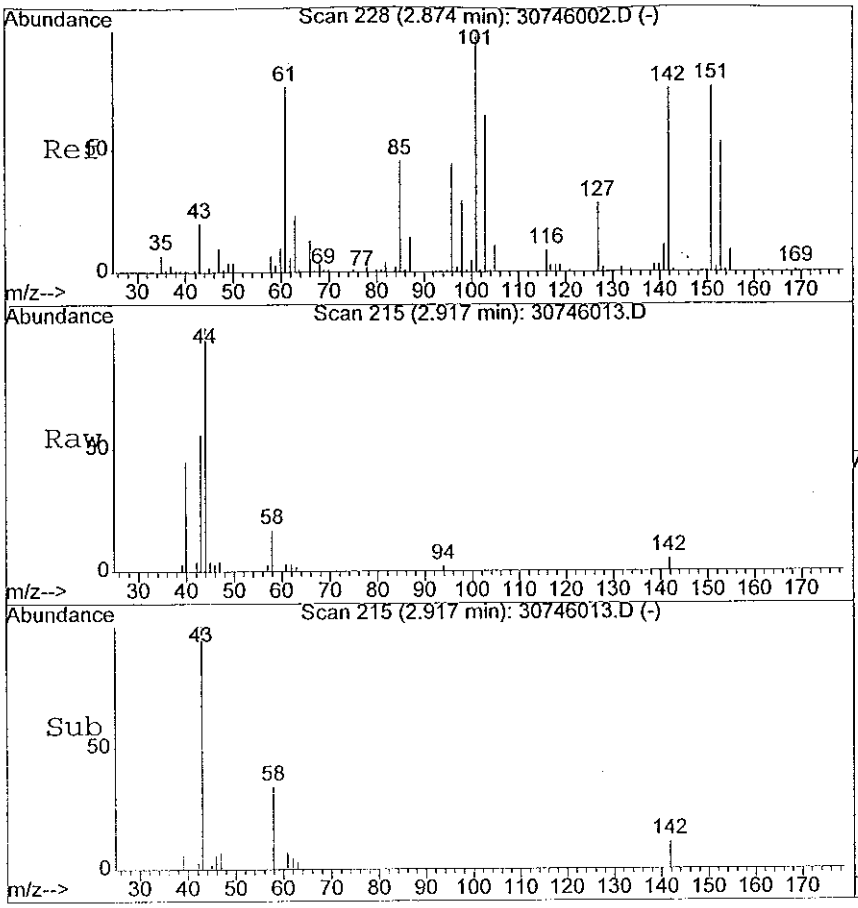
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110101\30746013.D
Acq On : 1 Nov 2001 16:32
Sample : 110611-3
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:50 2001

Vial: 10
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration

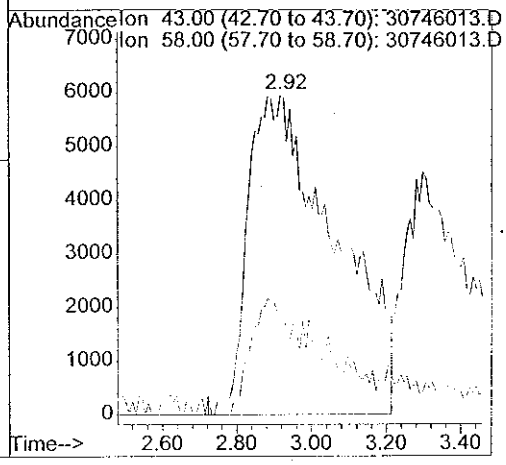


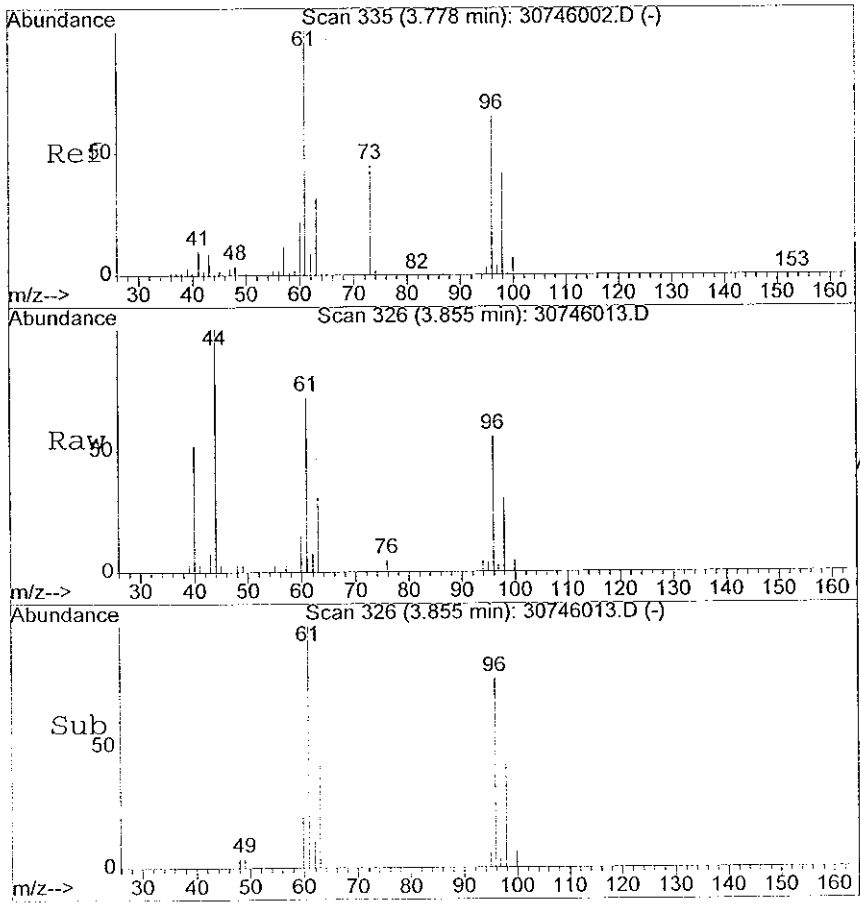


#9
Acetone
Concen: 15.30 ug/L m
RT: 2.92 min Scan# 215
Delta R.T. 0.04 min
Lab File: 30746013.D
Acq: 1 Nov 2001 16:32

Tgt Ion: 43 Resp: 95469

Ion	Ratio	Lower	Upper
43	100		
58	36500.0	0.0	136.0#

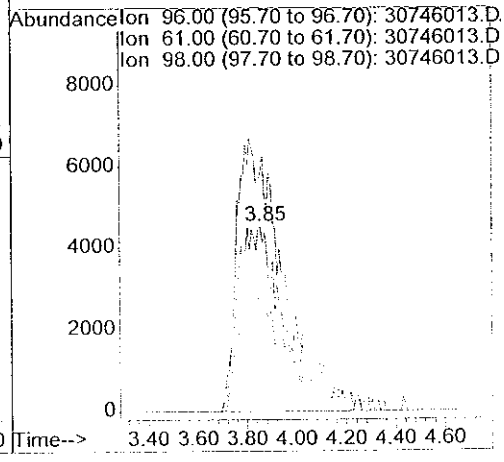


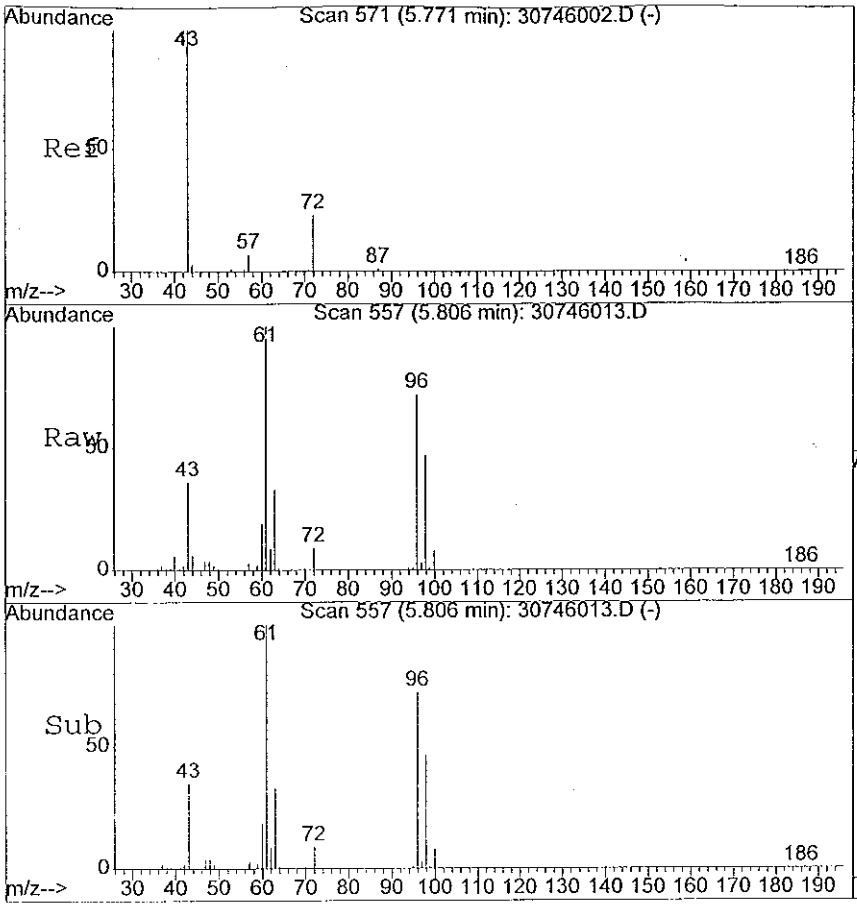


#13
trans-1,2-Dichloroethene
Concen: 0.53 ug/L m
RT: 3.85 min Scan# 326
Delta R.T. 0.08 min
Lab File: 30746013.D
Acq: 1 Nov 2001 16:32

Tgt Ion: 96 Resp: 61693

Ion	Ratio	Lower	Upper
96	100		
61	128.7	133.8	173.8#
98	55.4	45.0	85.0

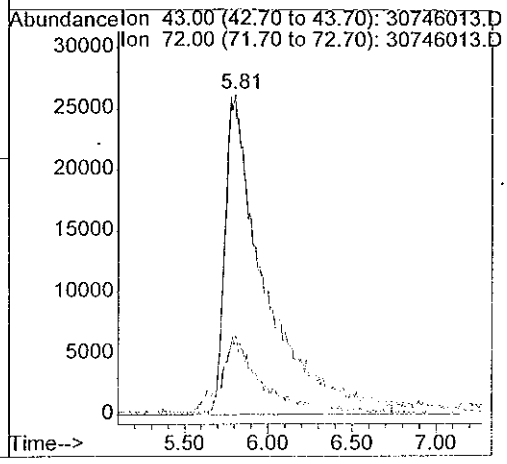


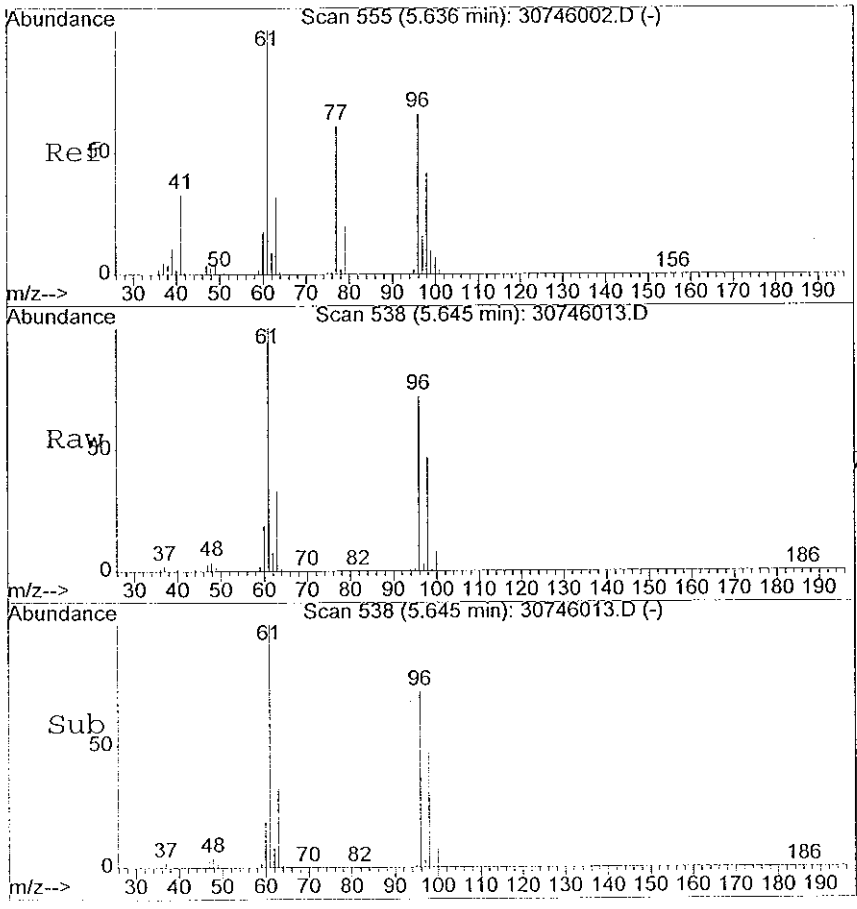


#19
2-Butanone
Concen: 33.94 ug/L m
RT: 5.81 min Scan# 557
Delta R.T. 0.03 min
Lab File: 30746013.D
Acq: 1 Nov 2001 16:32

Tgt Ion: 43 Resp: 438643

Ion	Ratio	Lower	Upper
43	100		
72	24.7	0.0	123.4

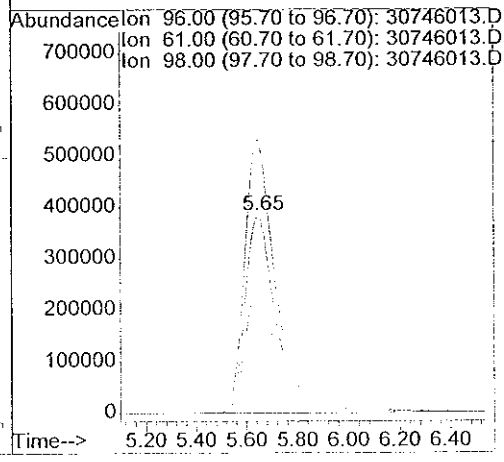


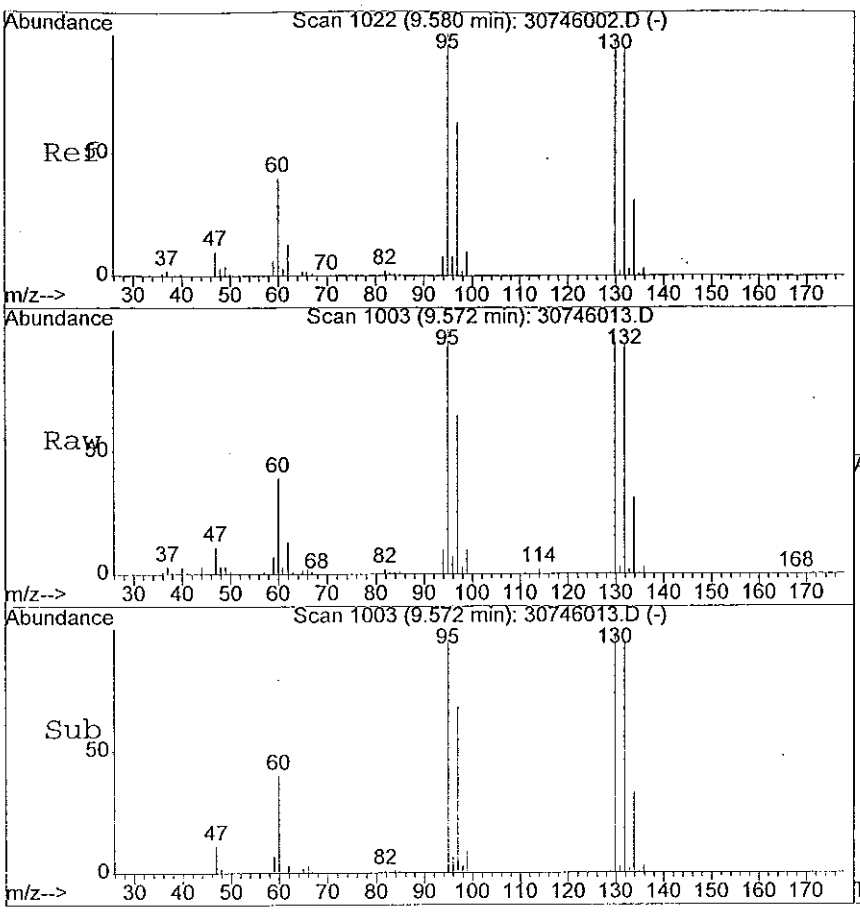


#20
cis-1,2-Dichloroethene
Concen: 33.12 ug/L
RT: 5.65 min Scan# 538
Delta R.T. 0.01 min
Lab File: 30746013.D
Acq: 1 Nov 2001 16:32

Tgt Ion: 96 Resp: 3499174

Ion	Ratio	Lower	Upper
96	100		
61	139.3	132.3	172.3
98	64.9	43.6	83.6

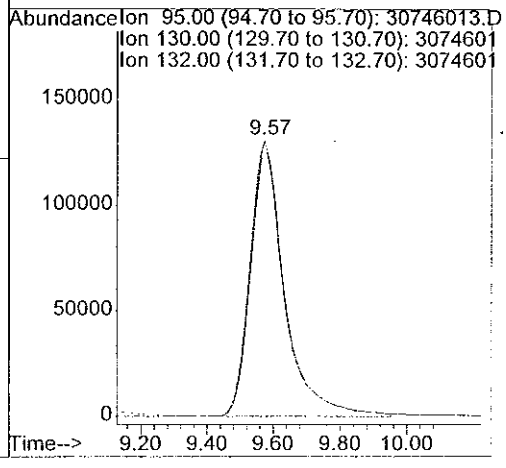




#30
Trichloroethene
Concen: 6.79 ug/L
RT: 9.57 min Scan# 1003
Delta R.T. -0.01 min
Lab File: 30746013.D
Acq: 1 Nov 2001 16:32

Tgt Ion: 95 Resp: 943781

Ion	Ratio	Lower	Upper
95	100		
130	95.2	77.1	117.1
132	94.5	76.3	116.3



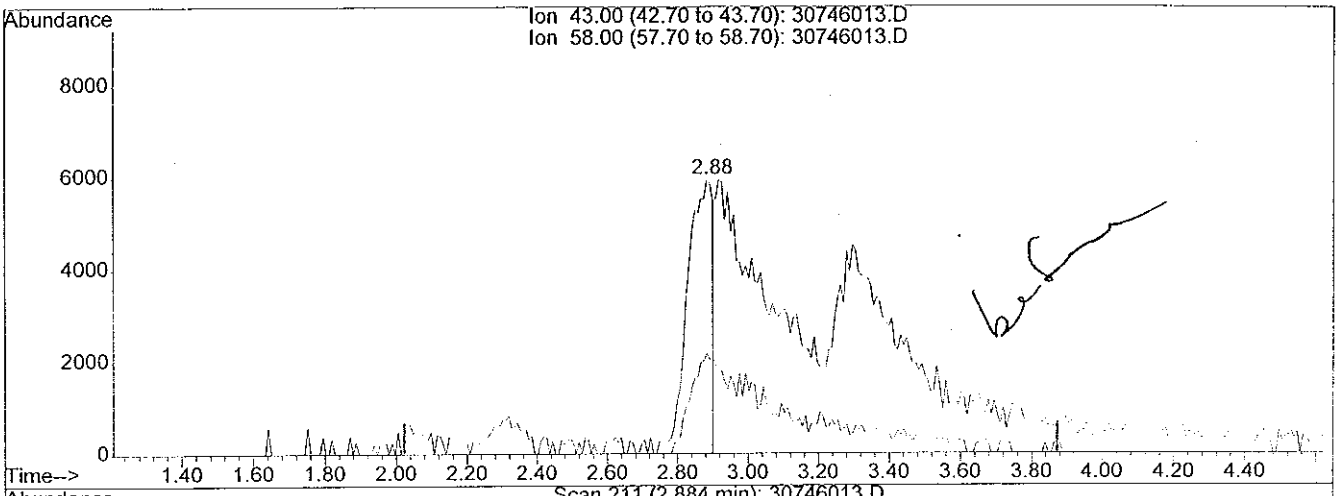
Quantitation Report (Qedit)

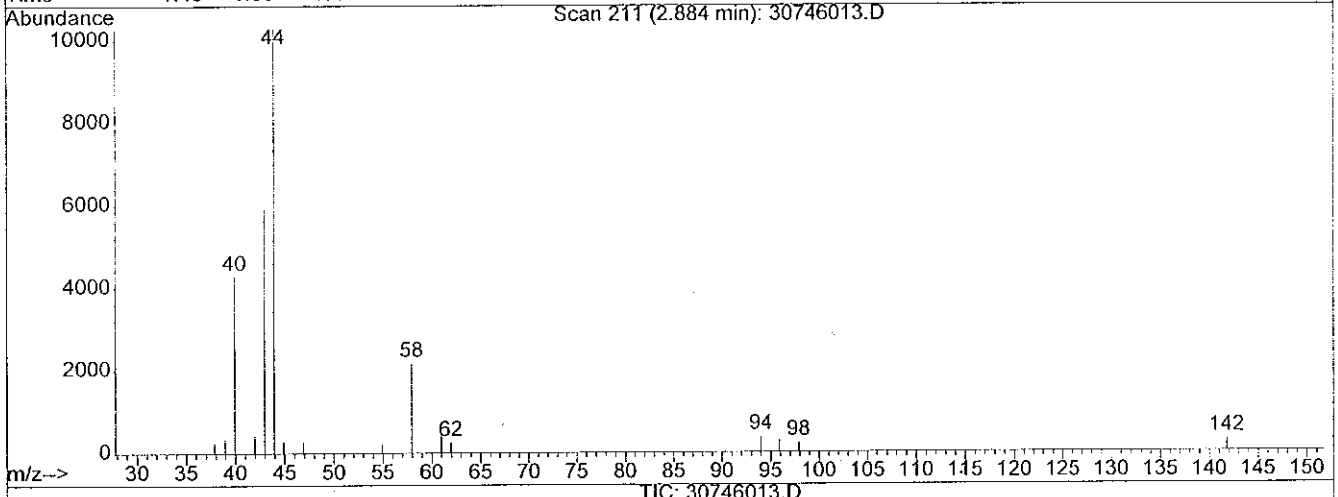
Data File : D:\HPCHEM\1\DATA\110101\30746013.D
Acq On : 1 Nov 2001 16:32
Sample : 110611-3
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:47 2001

Vial: 10
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746013.D

(9) Acetone (TM)

2.88min 4.64ug/L

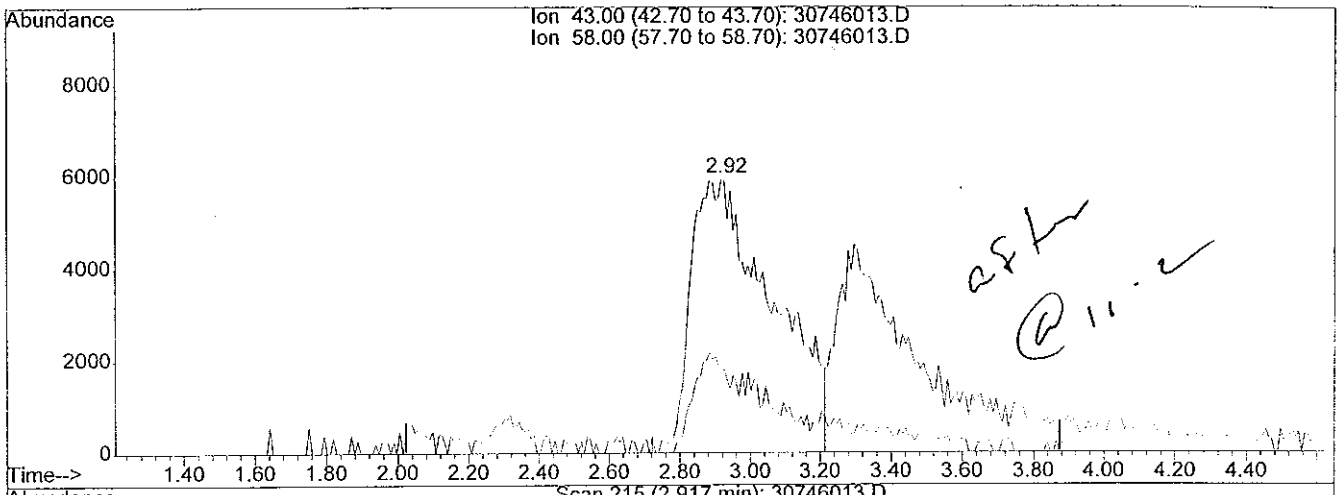
response 29418

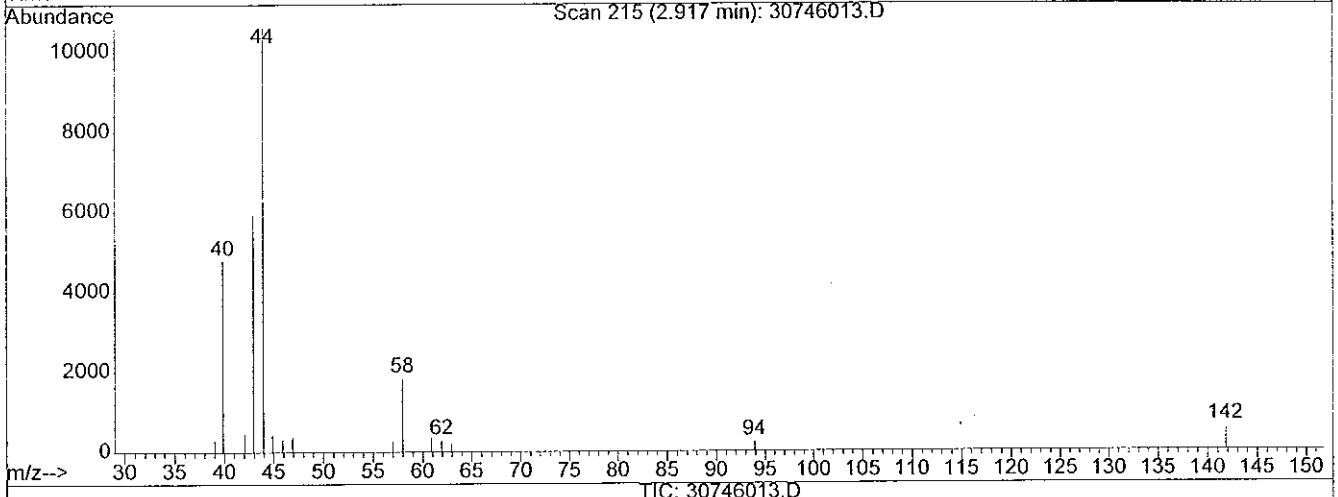
Ion	Exp%	Act%
43.00	100	100
58.00	36.00	36.70
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746013.D
Acq On : 1 Nov 2001 16:32
Sample : 110611-3
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:48 2001

Vial: 10
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746013.D

(9) Acetone (TM)

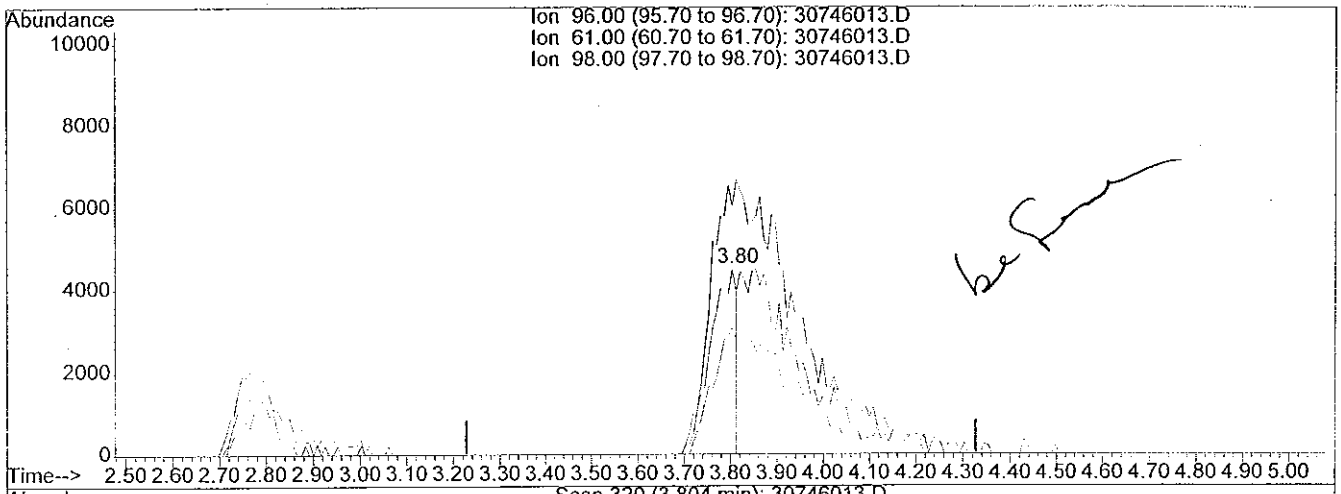
2.92min 15.30ug/L m

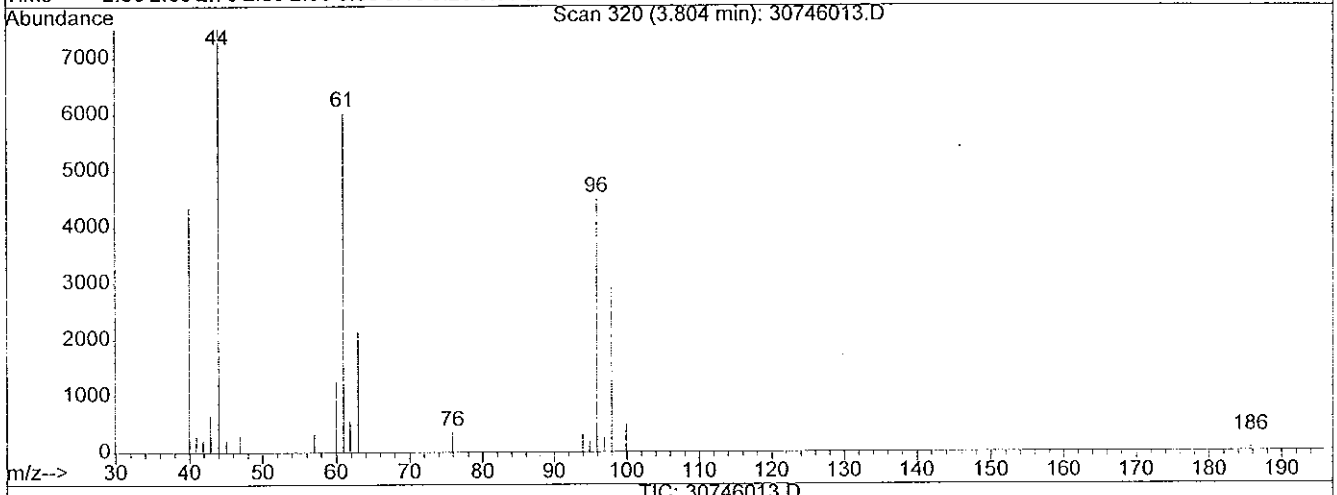
response 95469

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	36500.00#
0.00	0.00	21000.00#
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746013.D Vial: 10
Acq On : 1 Nov 2001 16:32 Operator: GRH
Sample : 110611-3 Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:48 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746013.D

(13) trans-1,2-Dichloroethene (TM)

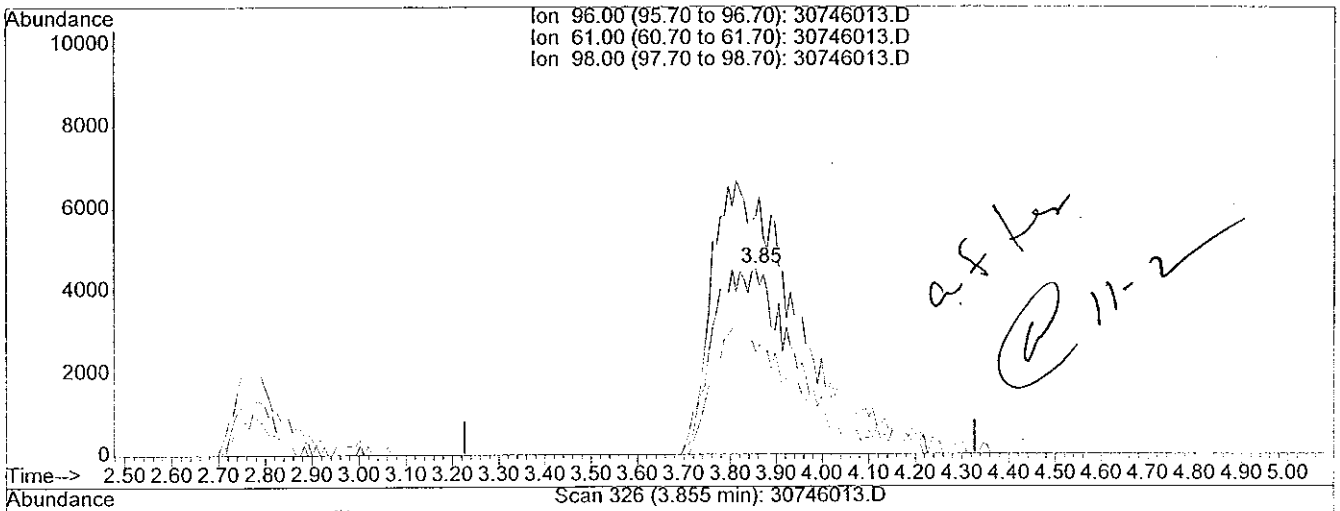
3.80min 0.15ug/L

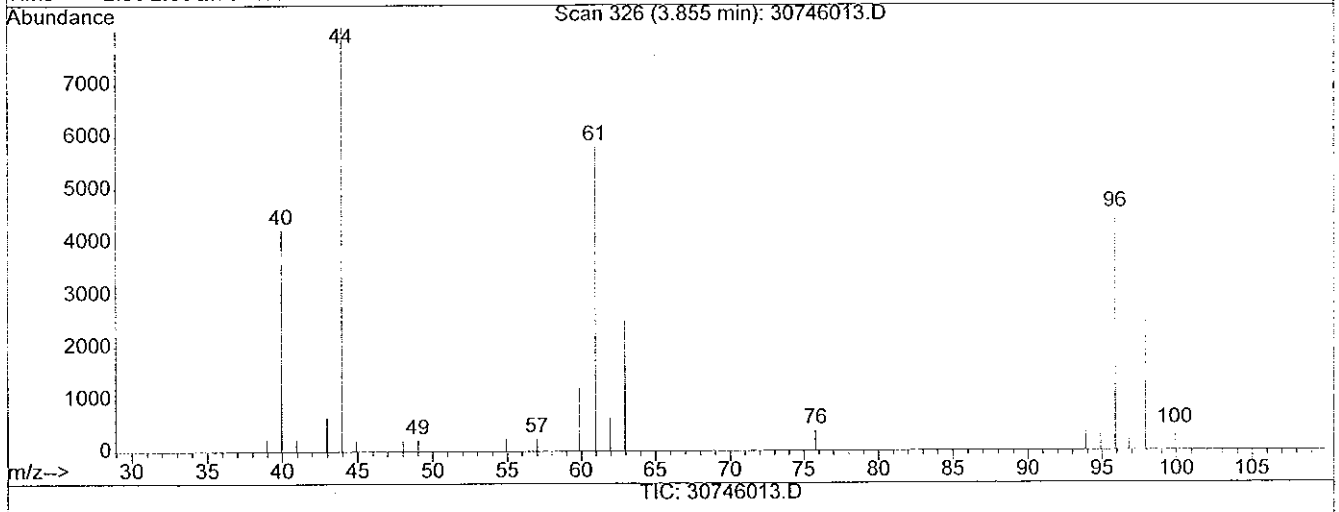
response 17547

Ion	Exp%	Act%
96.00	100	100
61.00	153.80	134.04
98.00	65.00	68.16
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746013.D Vial: 10
Acq On : 1 Nov 2001 16:32 Operator: GRH
Sample : 110611-3 Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:48 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746013.D

(13) trans-1,2-Dichloroethene (TM)

3.85min 0.53ug/L m

response 61693

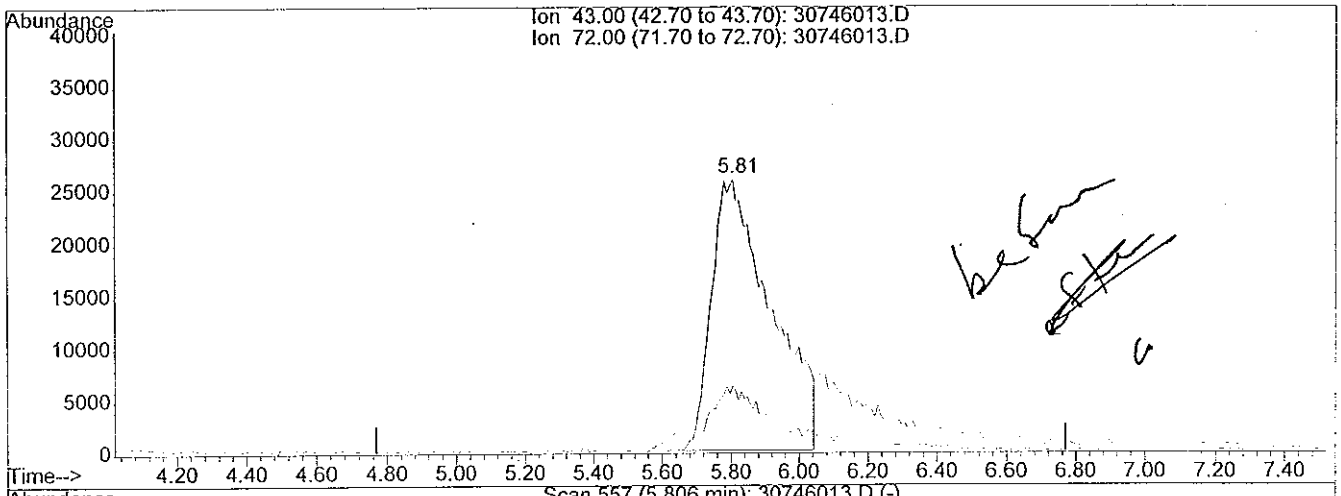
Ion	Exp%	Act%
96.00	100	100
61.00	153.80	128.73#
98.00	65.00	55.36
0.00	0.00	0.00

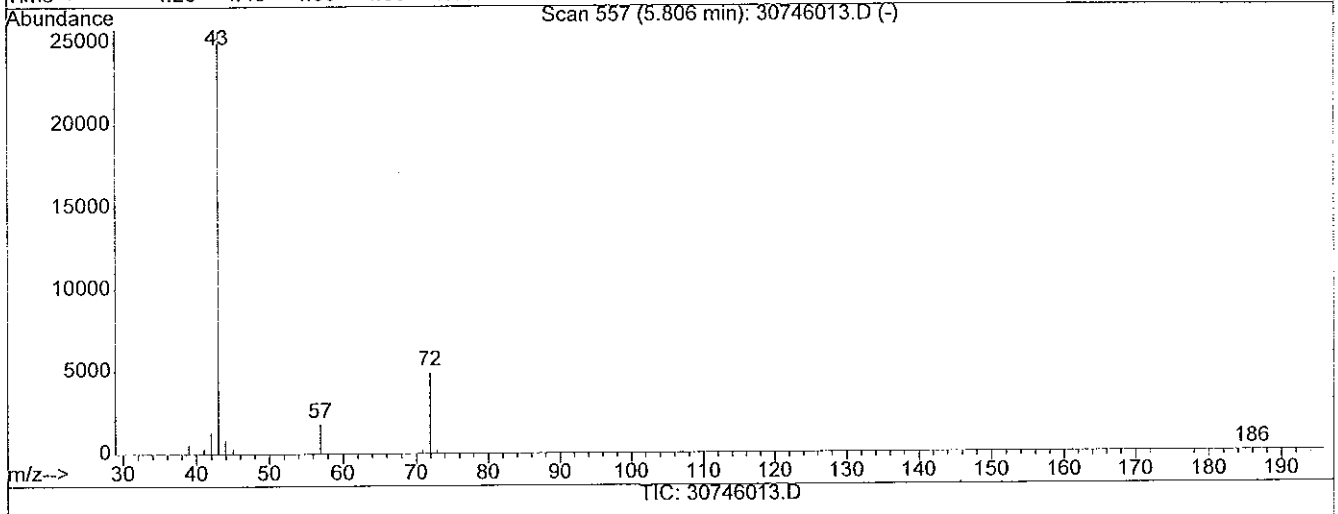
Data File : D:\HPCHEM\1\DATA\110101\30746013.D
Acq On : 1 Nov 2001 16:32
Sample : 110611-3
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:48 2001

Vial: 10
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30746013.D

(19) 2-Butanone (TM)

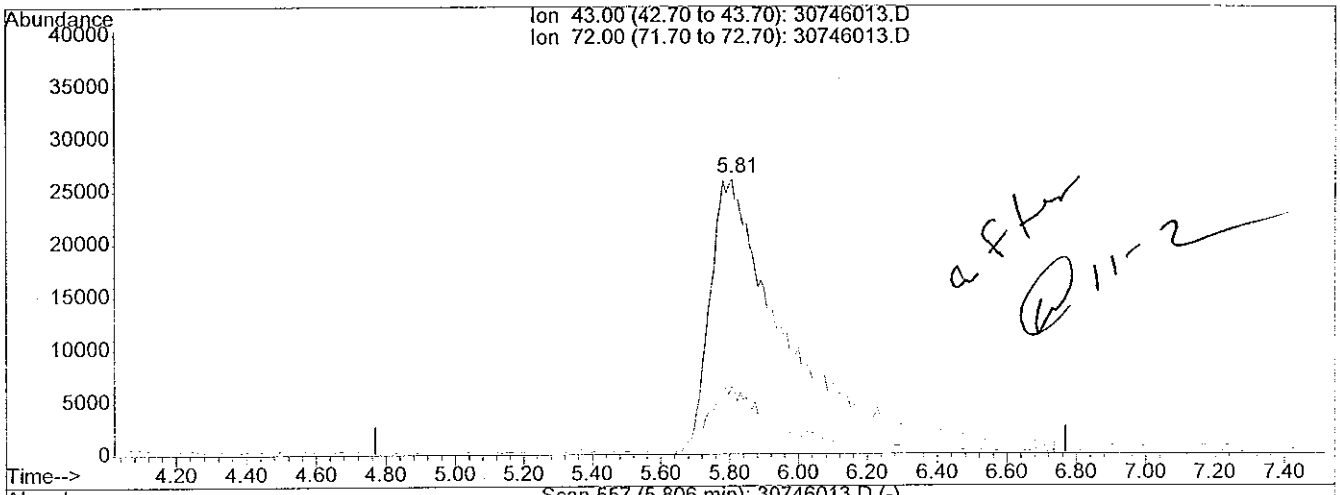
5.81min 24.16ug/L

response 312256

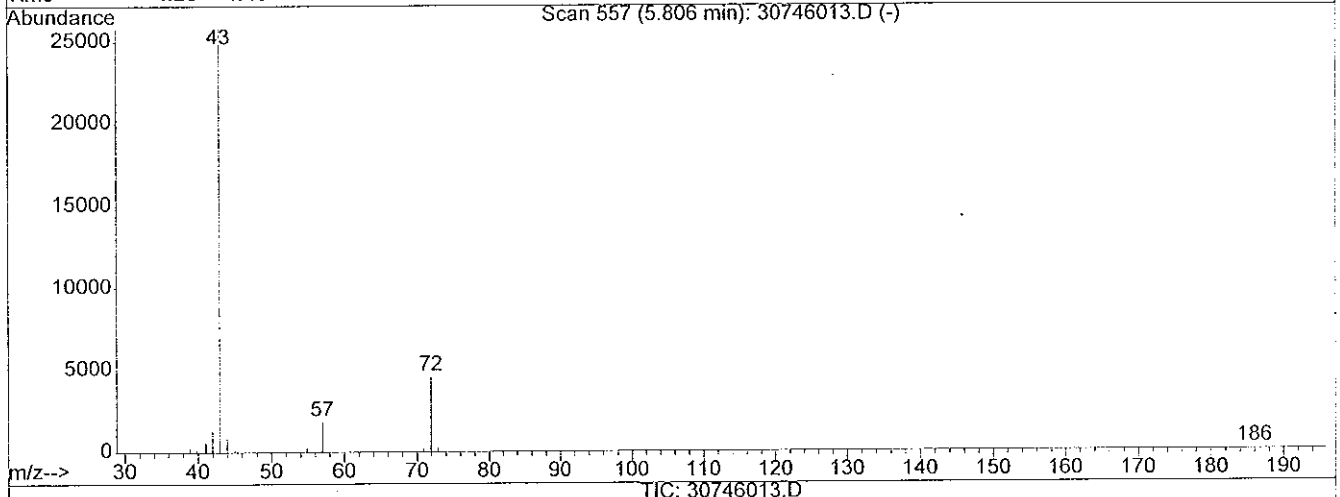
Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.34
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110101\30746013.D Vial: 10
Acq On : 1 Nov 2001 16:32 Operator: GRH
Sample : 110611-3 Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:49 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



after 11-2



TIC: 30746013.D

(19) 2-Butanone (TM)

5.81min 33.94ug/L m

response 438643

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	24.69
0.00	0.00	0.00
0.00	0.00	0.00

Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 16:32
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746013.D
Name: 110611-3
Misc: CH2MHILL 3628B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746013.D V82625B1.M Mon Nov 05 14:52:47 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D
Acq On : 2 Nov 2001 13:25
Sample : 110611-3 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001

Vial: 4
Operator: GRH
Inst : Bubba
Multiplr: 5.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

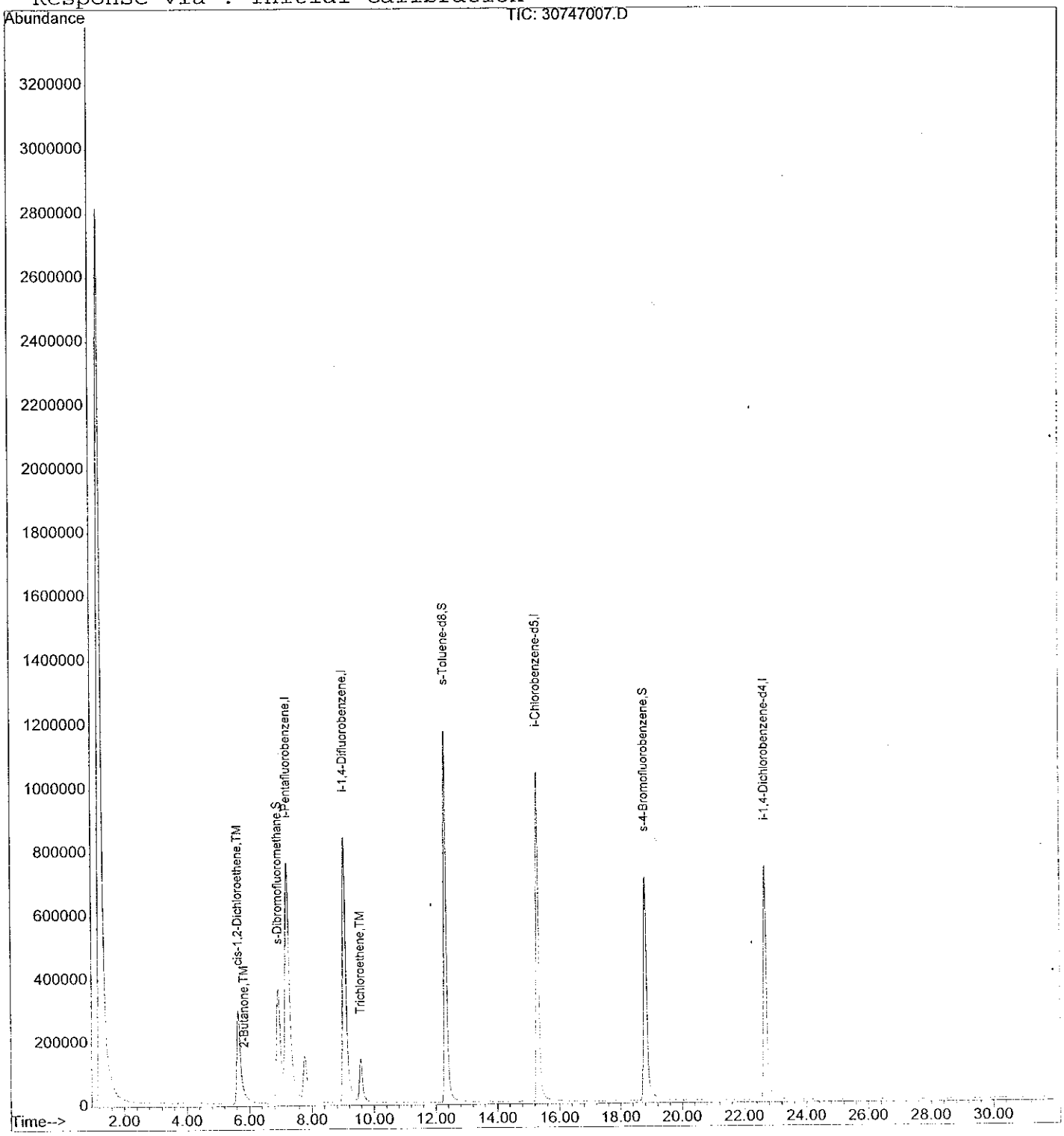
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	20.77	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	32.85	ug/L	95
30) Trichloroethene	9.58	95	177959	7.51	ug/L	97

11-5

(#) = qualifier out of range (m) = manual integration
30747007.D V82625B1.M Fri Nov 02 14:00:27 2001

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

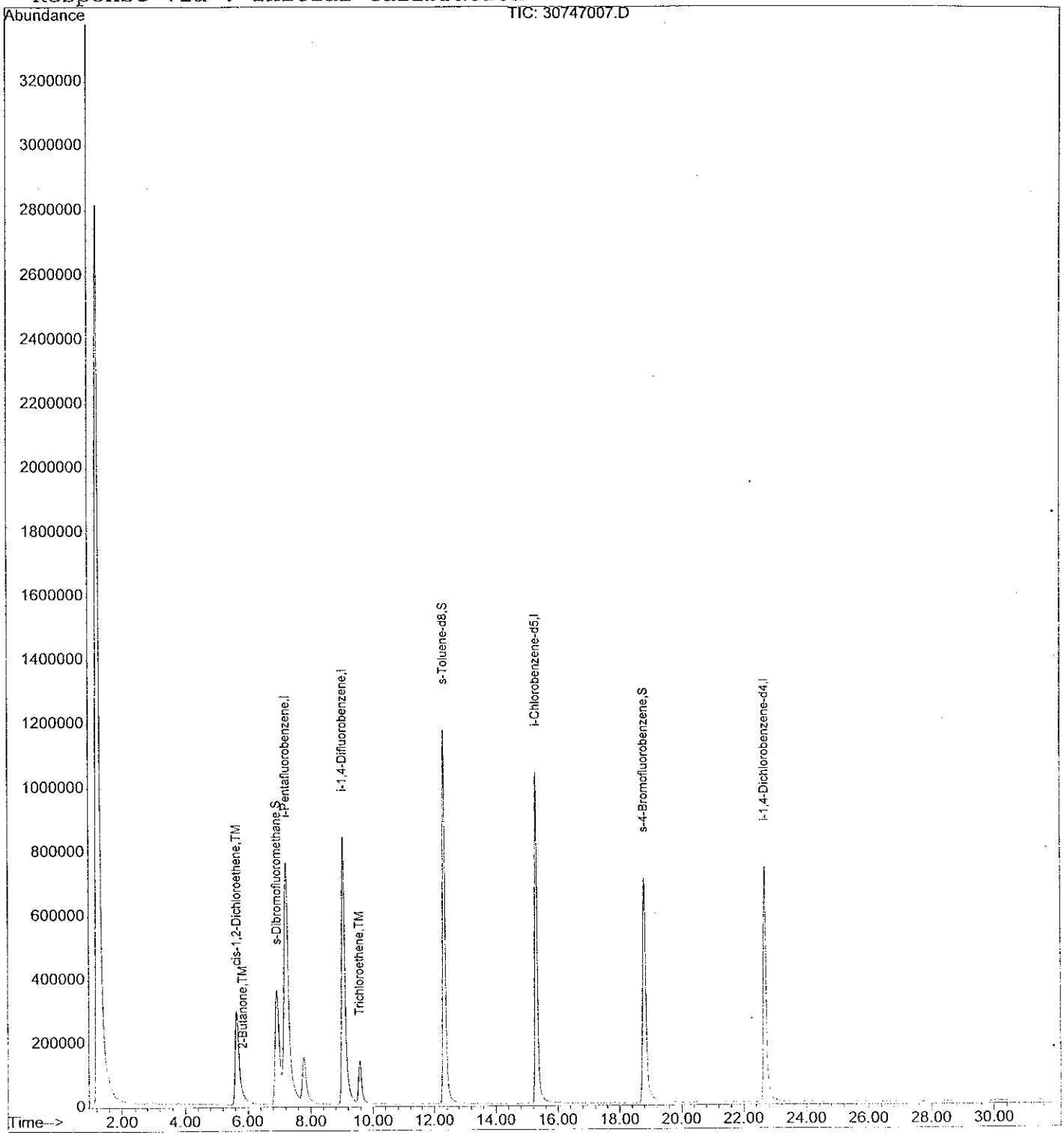
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	4.15	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	6.57	ug/L	95
30) Trichloroethene	9.58	95	177959	1.50	ug/L	97

(#) = qualifier out of range (m) = manual integration
30747007.D V82625B1.M Fri Nov 02 13:59:51 2001

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

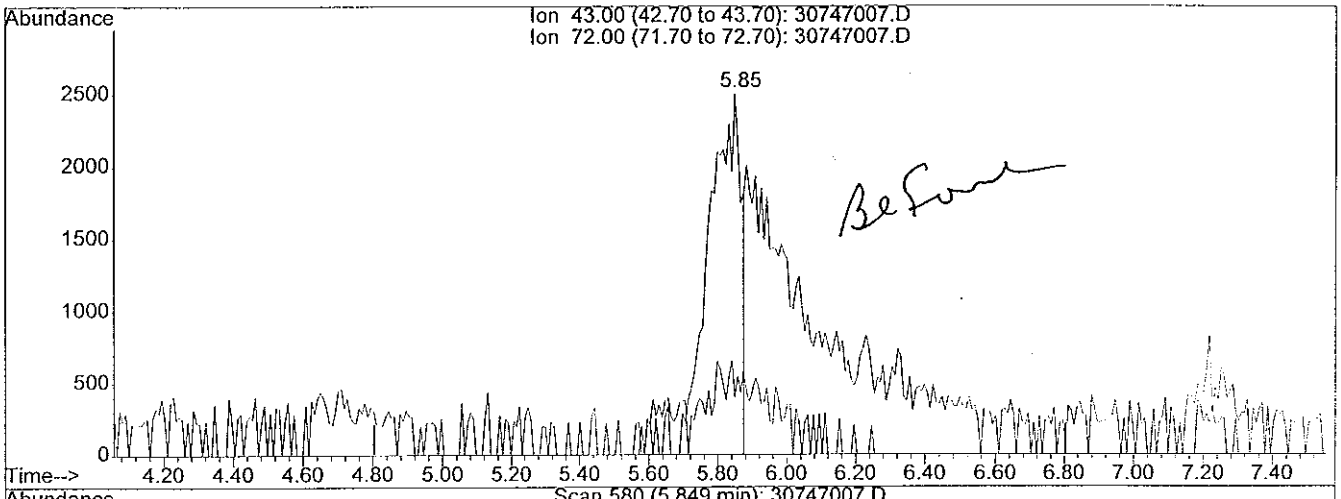
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

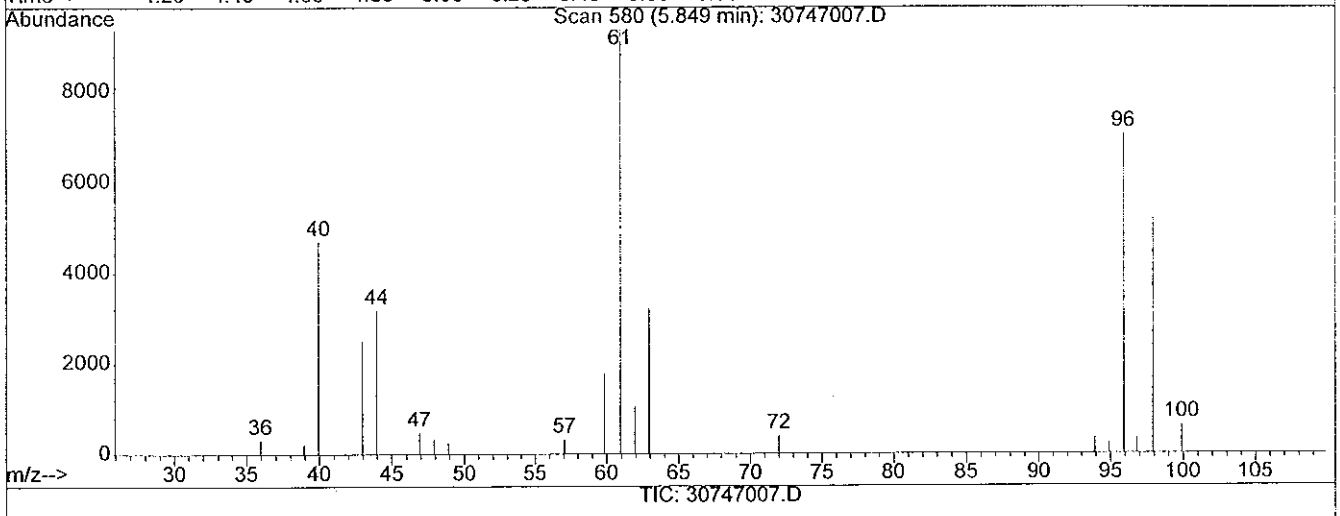


Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:57 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747007.D

(19) 2-Butanone (TM)

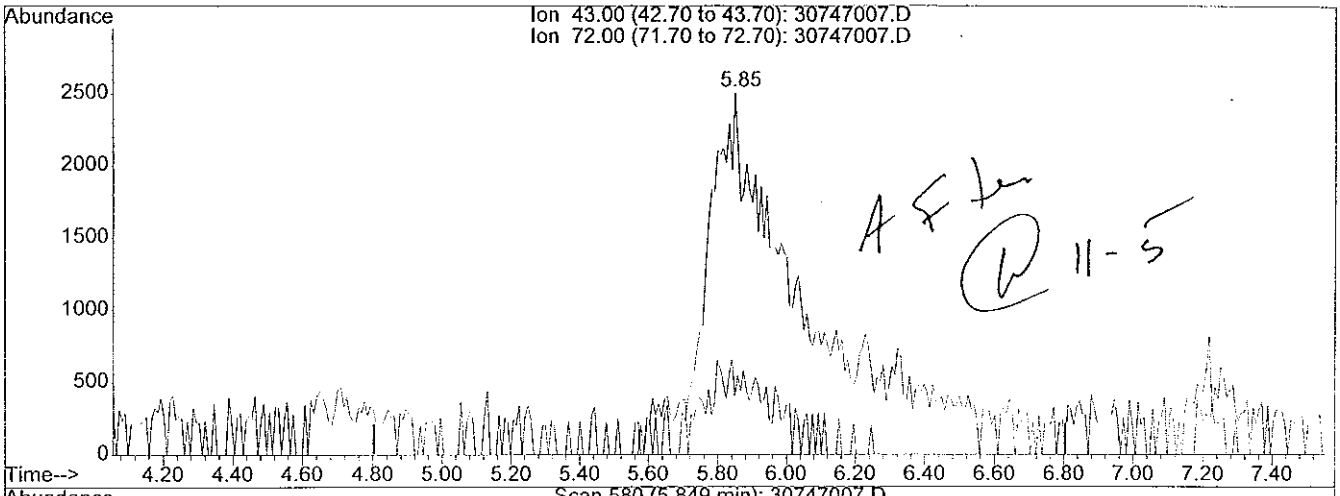
5.85min 1.40ug/L

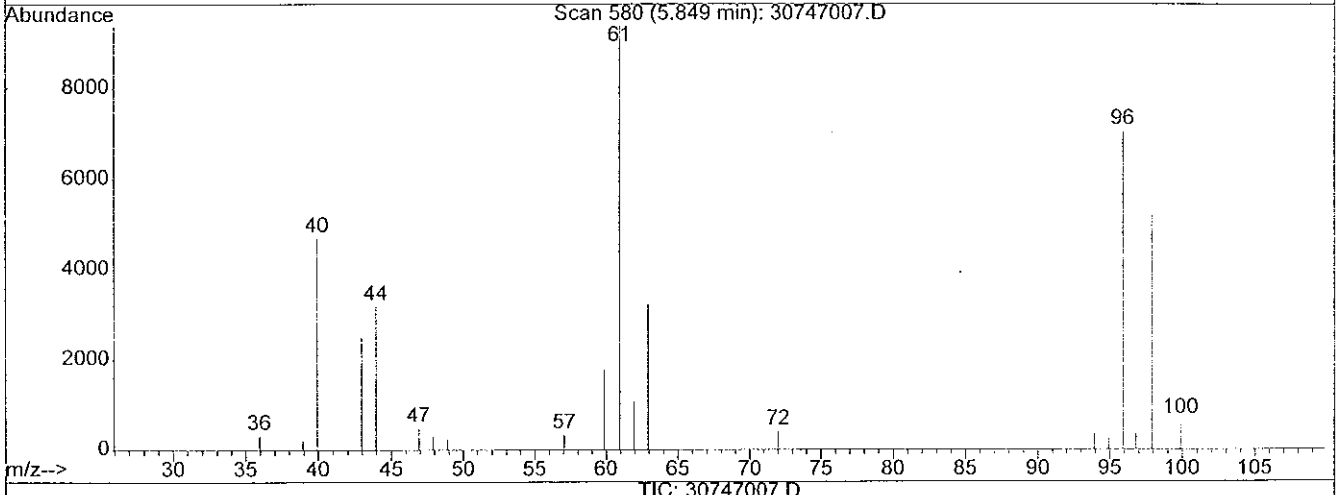
response 16106

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	5.31
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





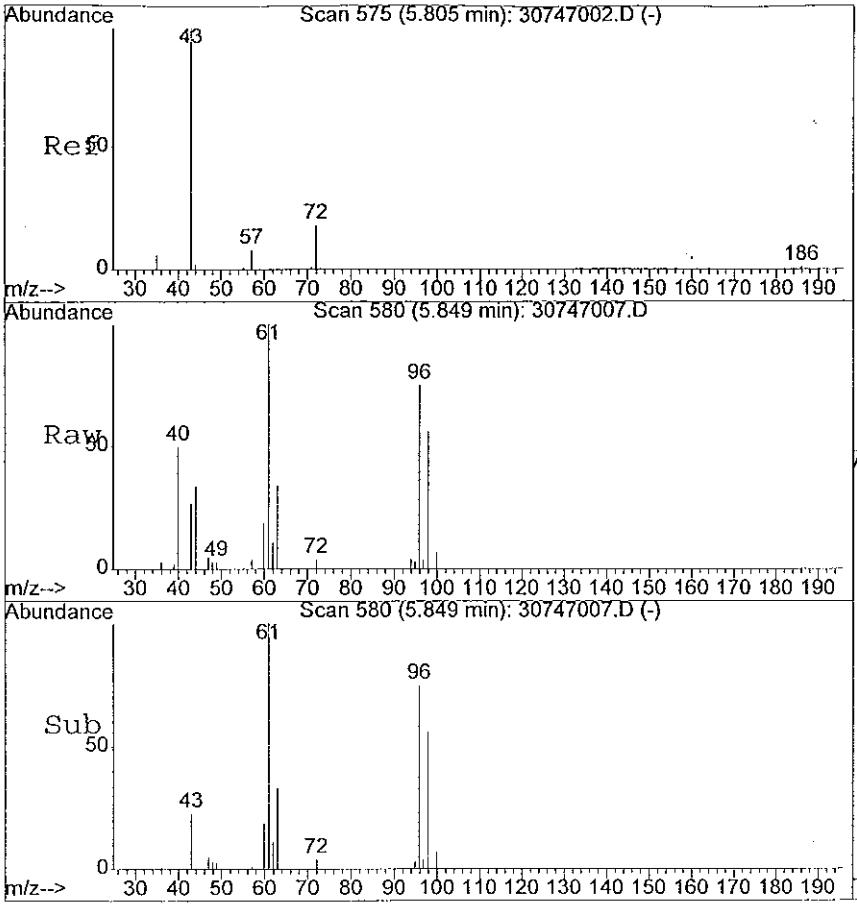
TIC: 30747007.D

(19) 2-Butanone (TM)

5.85min 4.15ug/L m

response 47831

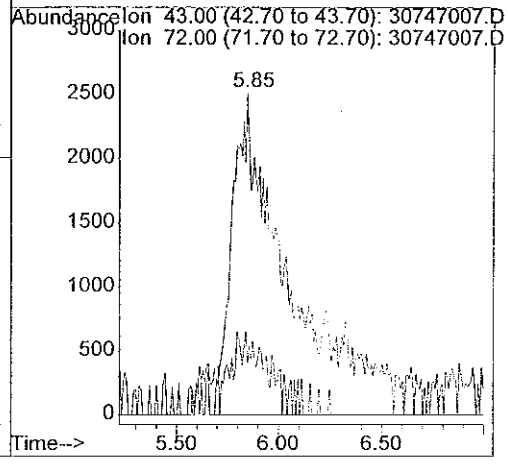
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	16.11
0.00	0.00	0.00
0.00	0.00	0.00

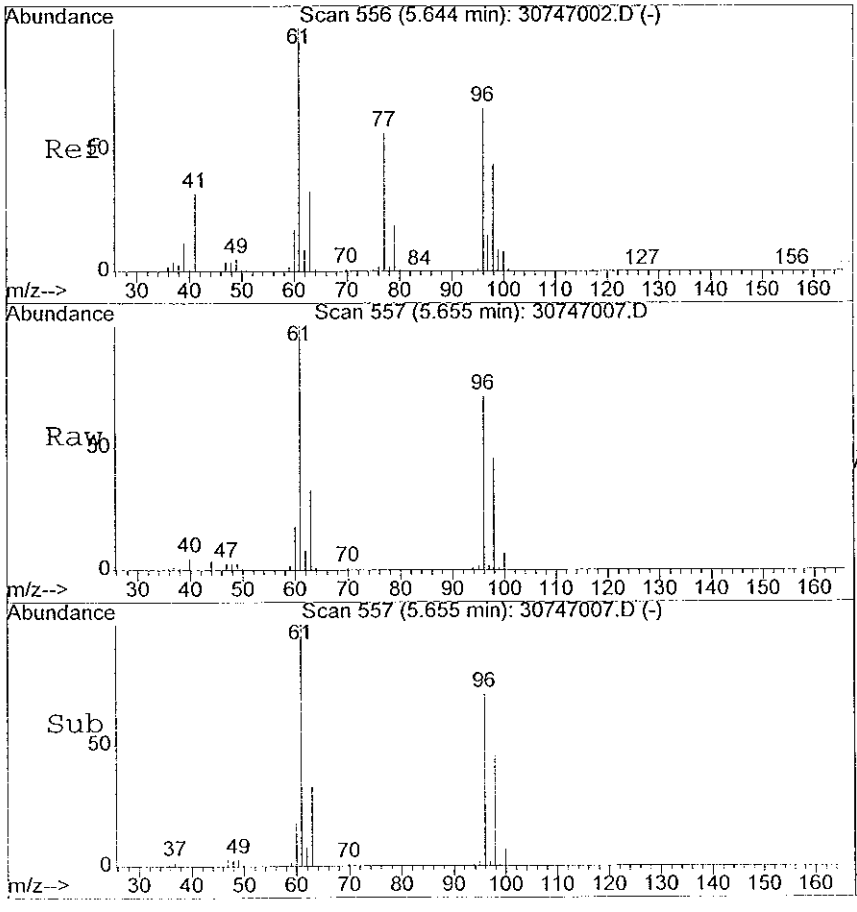


#19
2-Butanone
Concen: 4.15 ug/L m
RT: 5.85 min Scan# 580
Delta R.T. 0.04 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 43 Resp: 47831

Ion	Ratio	Lower	Upper
43	100		
72	16.1	0.0	119.0

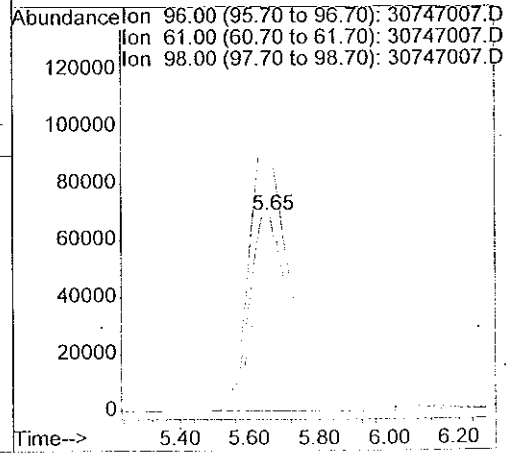


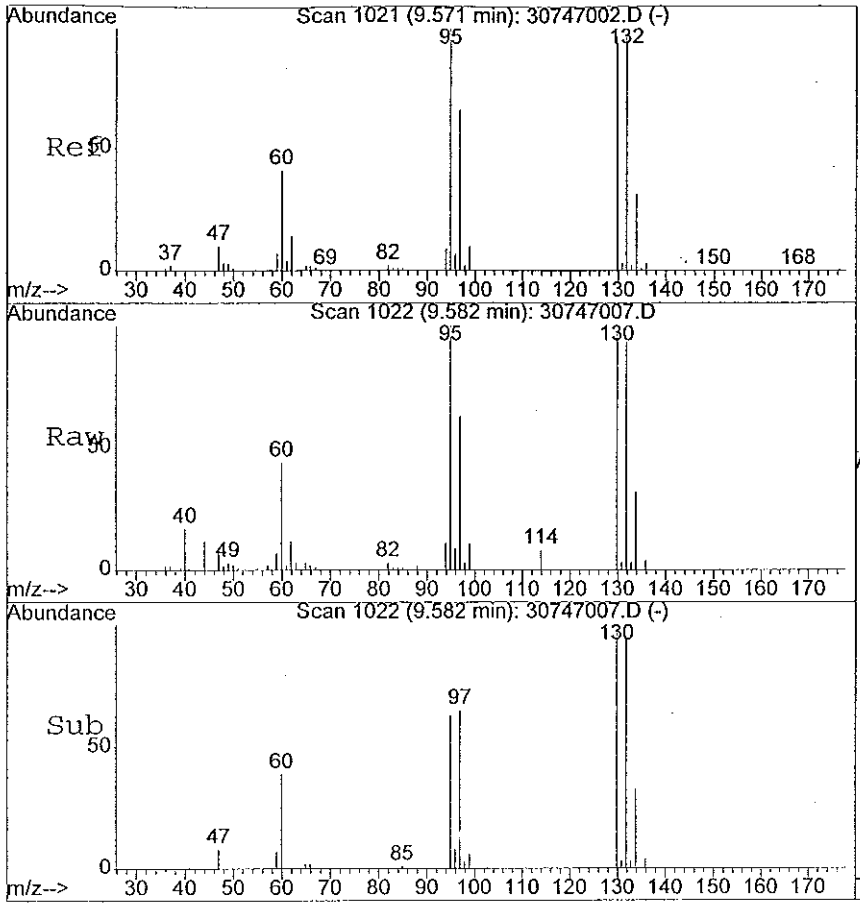


#20
cis-1,2-Dichloroethene
Concen: 6.57 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 96 Resp: 615329

Ion	Ratio	Lower	Upper
96	100		
61	139.9	128.7	168.7
98	64.6	45.8	85.8

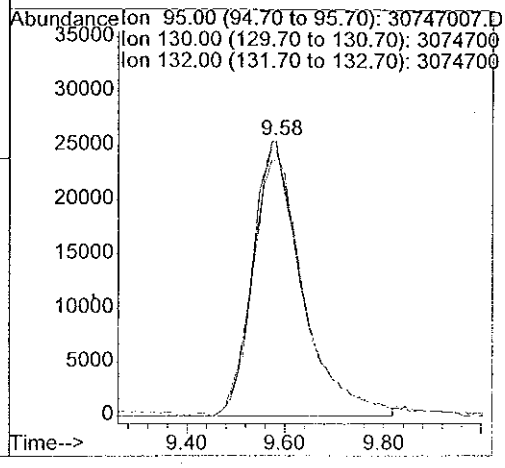




#30
Trichloroethene
Concen: 1.50 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 95 Resp: 177959

Ion	Ratio	Lower	Upper
95	100		
130	96.6	76.7	116.7
132	93.0	78.1	118.1



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 13:25
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747007.D
Name: 110611-3 5.00ml 5X
Misc: CH2MHILL 3628B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747007.D V82625B1.M Mon Nov 05 15:22:44 2001

Data File : D:\HPCHEM\1\DATA\110101\30746014.D Vial: 11
Acq On : 1 Nov 2001 17:12 Operator: GRH
Sample : 110611-4 Inst : Bubba
Misc : CH2MHILL 36TB3-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 5:50 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3036420	10.00	ug/L	0.02 100.30%
25) i-1,4-Difluorobenzene	9.06	114	2919137	10.00	ug/L	0.02 95.91%
46) i-Chlorobenzene-d5	15.33	117	1947661	10.00	ug/L	0.02 89.56%
57) i-1,4-Dichlorobenzene-d4	22.69	152	882664	10.00	ug/L	0.02 71.53%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1266325	9.01	ug/L	0.03
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.10%			
36) s-Toluene-d8	12.34	98	2672793	9.66	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 96.60%			
56) s-4-Bromofluorobenzene	18.84	95	1368833	9.25	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 92.50%			

Target Compounds Qvalue

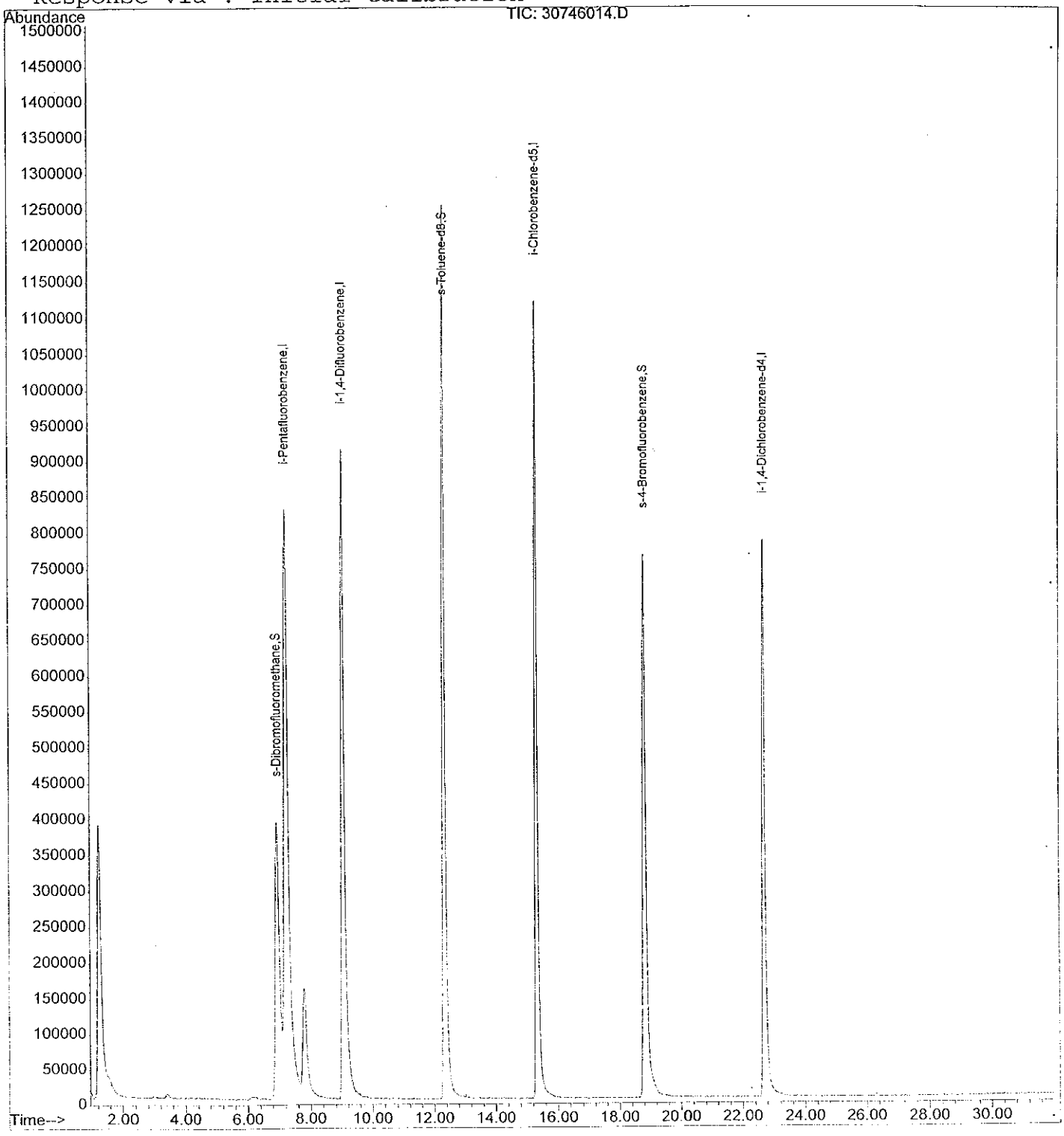
11-2

(#) = qualifier out of range (m) = manual integration
30746014.D V82625B1.M Fri Nov 02 05:51:07 2001

Data File : D:\HPCHEM\1\DATA\110101\30746014.D
Acq On : 1 Nov 2001 17:12
Sample : 110611-4
Misc : CH2MHILL 36TB3-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 5:50 2001

Vial: 11
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 1 Nov 2001 17:12
Data File: D:\HPCHEM\1\DATA\BUBBA\110101\30746014.D
Name: 110611-4
Misc: CH2MHILL 36TB3-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30746014.D V82625B1.M Mon Nov 05 14:53:16 2001

STL PENSACOLA

GC/MS Log Book for Bubba

Operator: D Date: 10/30/01 Client(s): Initial Calibration 8260B/25ml + 524.2

SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
			BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X ?	✓	Time 08:43
1	307744 001								
2	002	10 ppb std			10µl/5ml			✓	✓
3	003	5 ppb std			5µl/5ml			✓	✓
4	004	2 ppb std			2µl/5ml			✓	✓
5	005	1 ppb std			1µl/5ml			✓	✓
6	006	0.3 ppb std			0.3µl/5ml			✓	✓
7	007	0.5 ppb std			0.5µl/5ml			✓	✓
8	008	10 ppb std			10µl/5ml	not included in curve		✓	✓
9	009	20 ppb std			20µl/5ml			✓	✓
10	010	30 ppb std			30µl/5ml			✓	✓
11	011	Blank			5.0ml			✓	✓
12	012	2nd Source std			10µl/5ml	8-MSW-25-2		✓	✓
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed _____

* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

Operator: [illegible] Date: 11/1/101 Client(s): _____
SDG: _____ Client(s): _____

ISS: 8MSW* 26-1 Std 1: 8MSW* 28-1 Std 2: ____*____ Std 3: ____*____
Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
1	30746 001		BFB	14	5µL/5ppt BFB	Daily Tune Scan # Area =	X	✓	Time 08:05
2	002	10 ppb	std	15	10µl/25ml			✓	✓
3	003	BLW148ABK		16	25.0 ml			✓	✓
4	004	BLW148ALCS		1	10µl/25ml	8-MSW-25-2		✓	✓
5	005	3609C-Q401	110611-1	2	10µl/25ml	MS		✓	✓
6	006	3609C-Q401	110611-1	3	10µl/25ml	MSD		✓	✓
7	007	3609C-Q401	110611-1	4	25.0ml		✓	✓	✓
8	008	3631C-Q401	110599-1	5			✓	✓	✓
9	009	3626A-Q401	110599-2	6			✓	✓	✓
10	010	3630C-Q401	110599-3	7			✓	✓	✓
11	011	36TB2-Q401	110599-4	8			✓	✓	✓
12	012	3627A-Q401	110611-2	9			✓	✓	✓
13	013	3628B-Q401	110611-3	10		Rerun @ 10X	✓	✓	✓
14	014	36TB3-Q401	110611-4	11			✓	✓	✓
15	015	3609C-Q401	110611-1	12	2.5 ml	10X	✓	✓	✓
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed [illegible]

* The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

:or: C Date: 11/2/01 Client(s): _____
SDG: _____ Client(s): _____
ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____
Scan Range: 35 - 260 amu

FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
		BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X		Time
30747 001			14				✓	09:13
002	10 ppb std		15	10µl/25ml			✓	✓
003	BLW149	ABK	16	25.0ml			✓	✓
004	BLW149	ALCS	1	10µl/25ml	8-MSW-25-2		✓	✓
005	3628B-Q401	110611-3	2	5.00 ml	5X MS		✓	✓
006	3628B-Q401	110611-3	3	↓	MSD		✓	✓
007	3628B-Q401	110611-3	4	↓	↓	✓	✓	✓
008	3608B-Q401	110655-1	5	25.0 ml		✓	✓	✓
009	3607A-Q401	110655-2	6	↓	Rerun @ 5X	✓	✓	✓
010	3606A-Q401	110655-3	7	↓	↓	✓	✓	✓
011	36TB4-Q401	110655-4	8	↓	↓	✓	✓	✓
012	3619A-Q401	110681-1	9	↓	↓	✓	✓	✓
013	3624B-Q401	110681-2	10	↓	↓	✓	✓	✓
014	36FD2-Q401	110681-3	11	↓	↓	✓	✓	✓
015	36TB5-Q401	110681-4	12	↓	↓	✓	✓	✓

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alyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
Volatile Mix 6	LA89847	Supleco	2000µg/ml	6/22/00	7/2001	1	P-VN 2-1
Iodomethane	LA89888	Supleco	20000µg/ml	6/22/00	7/2001	1	P-VN 2-2
8260 Mix C	LA90476	Supleco	2000µg/ml	6/22/00	5/2002	1	P-VN 2-3
8260 IS	A016078	Restek	2500µg/ml	8/25/00	8/2003	10	P-VN 2-4
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810018	Acc STD	2000µg/ml	10/26/00	11/1/2001	2	P-VN 2-5
1,1,2-Trichloro-1,2,2-Trifluoroethane	A016543	Restek	1000µg/ml	10/17	10/17/2001	1	P-VN 2-6
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810027	Acc STD	2000µg/ml	10/31	11/1/2001	2	P-VN 2-7
8260 Vol Kit	Various	Restek	2000µg/ml	11/1/00	11	1	P-VN 2-8
MTBE/ Freon 113	A016494 A016542	Restek	2000	11/2004 ⟷ 11/1/2001	11/1/00	drench	P-VN 2-9
n-Hexane	80110735	Accustandard	2.0mg/ml	11/16/00	12/1/01	2	P-VN 2-10
Iso-octane	80110734	↓	↓	↓	↓	5	P-VN 2-11
BP Shortlist Std.	LA95178	Supelco	5000µg/ml	12/20/00	12/20/01	3	P-VN 2-12
8260 Surr	A017973	Restek	2500µg/ml	12/22/00	3/2004	10	P-VN 2-13
Nitrobenzene	LA91148	Supelco	5000µg/ml	1/4/01	6/2003	1	P-VN 2-14
Nitrobenzene	044-072	Accustandard	1000µg/ml	1/5/01	1/6/02	1	P-VN 2-15
Oxygenate Gasoline Add std	B1010025	Accustandard	Varied	2/20/01	1/4/03	1	P-VN 2-16
Keytave Mix	A019217	Restek	Various	4/16/01 4/16/2003	4/2003	5	P-VN 2-17
Vinyl Acetate	A019218	Restek	4000µg/ml	4/6/01	4/2003	5	P-VN 2-18
Isopropyl Ether	A019194	Restek	2000µg/ml	4/9/01	4/2004	3	P-VN 2-19
Int. STD. Mix-TO14	A018018	Restek	2500µg/ml	4/9/01	3/2005	5	P-VN 2-20
IS-8260	A018631	Restek	2500µg/ml	4/13/01	6/2004	10	P-VN 2-21
Custom Mix	LA97340	Supelco	2000/4000µg/ml	4/16/01	4/16/02	4	P-VN 2-22
Supleco Mix 6	LA95901	Supleco	2000µg/ml	4/17	5/02	2	P-VN 2-23
Equity Keytave Mix	LA90479	Supleco	4000µg/ml	4/17	11/01	4	P-VN 2-24
Freon 113	LA91143	Supleco	2000µg/ml	4/17	6/03	2	P-VN 2-25
Equity Toluene Mix	LA95926	Supleco	2000µg/ml	4/17	5/02	2	P-VN 2-26
502/524 Mix	LA96091	Supleco	2000µg/ml	4/17	4/03	2	P-VN 2-27

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
OXYGENATES MIX	A018874	RESTEK	2000 - 10,000	4/18/01	4/18/02	1	8-VN 3 - 1
Freon 113	A018831	Restek	2000	5/3/01	5/3/02	2	8-VN 3 - 2
MTBE	A017647	Restek	2000	5/3/01	6/04	2	8-VN 3 - 3
8260 Kit	Various	Restek	2000	5/3	Various	2	8-VN 3 - 4
Chloroprene	R1373	Ultra	100 µg/ml	5/4/01	12/2002	4	8-VN 3 - 5
Acrylonitrile	A015204	Restek	2000	5/4/01	1/02	1	8-VN 3 - 6
APPIX-Mix B	LA97780	Supelco	2000 µg/ml	5/7/01	5/7/02	4	8-VN 3 - 7
APPIX-Mix A	LA97779	Supelco	2000/6000 µg/ml	5/9/01	5/9/02	4	8-VN 3 - 8
Isopropyl Ether	A019529	Restek	2000 µg/ml	5/9	5/04	2	8-VN 3 - 9
Freon 113	A018830	Restek	2000 µg/ml	5/14	5/14/02	3	8-VN 3 - 10
8260 SURR	A019474	Restek	2500 µg/ml	9/14	8/04	10	8-VN 3 - 11
8260 IS	A020353	Restek	2500 µg/ml	9/14	11/04	10	8-VN 3 - 12
Freon 113	LA98546	Supleco	2000 µg/ml	9/19/01	6/04	2	8-VN 3 - 13
Vol Mix 6	LA99456	Supleco	2000 µg/ml	9/21	11/02	2	8-VN 3 - 14
502/524 Mix	LA98534	Supleco	2000 µg/ml	9/21	10/03	2	8-VN 3 - 15
Keytones	LA97488	Supleco	2000 µg/ml	9/21	9/03	4	8-VN 3 - 16
Iodomethane	LA95926	Supleco	2000 µg/ml	9/21	5/02	2	8-VN 3 - 17
Isopropyl ether	A020897	Restek	2000 µg/ml	9/29	9/04	3	8-VN 3 - 18
8260 STD kit	Various	Restek	Various	10/21	11/3	2	8-VN 3 - 19
MTBE	A019410	Restek	2000 µg/ml	10/22	12/4	2	8-VN 3 - 20
Freon 113	A019795	Restek	2000 µg/ml	10/22	10/22/03	2	8-VN 3 - 21
EPA OLM04	LB00099	Supleco	2000 µg/ml	10/22	10/03	1	8-VN 3 - 22
Vinyl Acetate	A021212	Restek	4000 µg/ml	10/23	10/03	5	8-VN 3 - 23
Keytones	A022011	Restek	2000/4000 µg/ml	10/23	10/03	5	8-VN 3 - 24
VOA Calibration Mix #1 Ketones	A020419	RESTEK	5000 ug/ml	10/27	11/04	5	8-VN 3 - 25
							-VN -
							-VN -

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb
Sol. Name: APP IX-A
Date: 8/15/01
Analyst:

Standard I.D.: 8-MSW25-1
Location: Freezer MS018
Solvent: MeOH-V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-8	LA97779	5/7/02	2000/6000µg/ml	500µl	10	100/300µg/ml
Acrylonitrile+Propionitrile	@2000µg/ml					
Acetonitrile, Acrolein, Isobutanol @6000µg/ml						

Comments: exp 4/15/02

Sol. Name: 2260 Matrix Spike
Date: 9/14/01
Analyst:

Standard I.D.: 9-MSW25-2
Location: MS018
Solvent: MeOH VO4E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
Custom Mix 8-VN-23	LA97340	4/02	2000	625	50ml	25µg/ml
Iodomethane	LA95926	5/02				
Mix 6	LA95901	5/02				
502/524	LA96091	4/03				
Dioxane	LA97143	6/03				
Acrylonitrile 8-VN-2-24	LA90479	11/01		1250		50µg/ml

Comments: expires 11/14/01

Sol. Name: IS/SURR - Precept
Date: 9/20/01
Analyst:

Standard I.D.: 9-MSW25 3
Location: KATANIWA ~Precept
Solvent: VO4E74 Methyl

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN-2-13 SM	A017973	3/04	2500	500	10	125µg/ml
8-VN-221 IS	A018631	6/04	"	"	"	"

Comments: exp-3/20/01

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: IS/SURR
Date: 9-26-01
Analyst: GFC

Standard I.D.: 8-MSW26-1
Location: Freezer MS018
Solvent: MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN2-21 IS	A018631	6/2004	2500	500	50	25 ug/ml
8-VN2-13 SURR	A017977	3/2004	2500	500	50	25 ug/ml

Comments: Expires 3-26-02

Sol. Name: 8260 STD
Date: 10
Analyst:

Standard I.D.: 8-MSW26-2
Location: MS018 Freezer
Solvent: MeOH VO4E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name: TO14 IS/Surr
Date: 10-12-01
Analyst: SAM

Standard I.D.: 8-MSW26-3
Location: Freezer MS018
Solvent: Methanol

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
7-VN-3-6(IS)	A012265	11/01	2500ug/ml	500uls	50mls	25ppm
7-VN-2-16	A017764	↓	↓	↓	↓	↓

Comments: 4-10-02 expires

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GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb
Sol. Name: 8260 STD
Date: 10/17/01
Analyst: WD

Standard I.D.: S -MSW28-1
Location: MSC18
Solvent: MeOH VOE40

Parent I.D.	Lot #	Exp. Date 4/08	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
502.2 Calib Mix #1	A020628	11/03	2000	625	50	25
Mix #2	A017541	11/04				
Mix #3	A018675	1/04				
8-VW3-19 Mix #4	A016454	6/03				
Mix #5	A019955	7/04				
Mix #6	A019741	1/05				
8-VW3-24 Ketones + 5 Surr. Mix	A021211	10/03	2000/4000			25/50 } 100 - Total ketones
8-VW3-25 Ketones	A020419	11/04	5000	500		50
8-VW3-21 Freon 113	A019795	10/02	2000	625		25
8-VW3-20 MTBE	A019410	12/04	2000			25
8-VW3-7 IPE	A019529	5/04	2000			25
8-VW3-23 Vinyl Acetate	A021212	10/03	4000			50

Comments:
Exp: 4/27/02

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW-
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW-
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

580

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110667 & C110704
Micro Seeps Number: P0110465
Project: CH2M Hill Constructors
CTO-017, NTC Orlando, FL

The samples logged into the above-referenced orders were received in good condition at STL Pensacola on October 26 & 27, 2001, and were then subcontracted to Microseeps for Metabolic Acids analyses. Micro Seeps received these samples on October 30, 2001.

Rick Hayes
Senior Project Manager

11/27/01

MICROSEEPS

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 1 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Sample Identification

Lab Sample #	Client Sample ID
P0110465-01	17-3619A-Q401
P0110465-02	17-36FD2-Q401
P0110465-03	17-3624B-Q401
P0110465-04	17-3609C-Q401
P0110465-05	17-3609C-Q401MS
P0110465-06	17-3609C-Q1401MSD
P0110465-07	17-3627A-Q401
P0110465-08	17-3628B-Q401
P0110465-09	17-3608B-Q401
P0110465-10	17-3607A-Q401
P0110465-11	17-3606A-Q401

Approved By:

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 2 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3619A-Q401	Water	26 Oct. 01 10:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	6.4	1.0	mg/L	AM21G
Butyric acid	2.2	1.0	mg/L	
Ethane	< 5.0	5.0	ng/L	AM18
Ethene	< 5.0	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	0.093	0.015	ug/L	AM20GAX
Propionic acid	2.6	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 3 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-02

Sample Description	Matrix	Sampled Date/Time	Received
17-36FD2-Q401	Water	26 Oct. 01 0:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	4.2	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	< 5.0	5.0	ng/L	AM18
Ethene	< 5.0	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	0.060	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
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Pensacole, FL 32514

Page: Page 4 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-03

Sample Description	Matrix	Sampled Date/Time	Received
17-3624B-Q401	Water	26 Oct. 01 13:30	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	2.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	7.2	5.0	ng/L	AM18
Ethene	37	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	0.32	0.015	ug/L	AM20GAX
Propionic acid	< 1.0	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-04

Sample Description	Matrix	Sampled Date/Time	Received
17-3609C-Q401	Water	24 Oct. 01 11:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	7.6	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	75	5.0	ng/L	AM18
Ethene	500	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	4000	0.015	ug/L	AM20GAX
Propionic acid	17	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-05

Sample Description	Matrix	Sampled Date/Time	Received
17-3609C-Q401MS	Water	24 Oct. 01 11:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	100	1.0	mg/L	AM21G
Butyric acid	92	1.0	mg/L	
Ethane	39000	5.0	ng/L	AM18
Ethene	38000	5.0	ng/L	
Lactic Acid	100	25	mg/L	AM21G
Methane	3900	0.015	ug/L	AM20GAX
Propionic acid	110	1.0	mg/L	AM21G
Pyruvic acid	81	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-06

Sample Description	Matrix	Sampled Date/Time	Received
17-3609C-Q1401MSD	Water	24 Oct. 01 11:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	110	1.0	mg/L	AM21G
Butyric acid	100	1.0	mg/L	
Ethane	36000	5.0	ng/L	AM18
Ethene	35000	5.0	ng/L	
Lactic Acid	100	25	mg/L	AM21G
Methane	3800	0.015	ug/L	AM20GAX
Propionic acid	120	1.0	mg/L	AM21G
Pyruvic acid	88	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-07

Sample Description	Matrix	Sampled Date/Time	Received
17-3627A-Q401	Water	24 Oct. 01 15:15	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	7.1	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	53	5.0	ng/L	AM18
Ethene	130	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2200	0.015	ug/L	AM20GAX
Propionic acid	3.8	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-08

Sample Description	Matrix	Sampled Date/Time	Received
17-3628B-Q401	Water	24 Oct. 01 16:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	11	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	36	5.0	ng/L	AM18
Ethene	230	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	4300	0.015	ug/L	AM20GAX
Propionic acid	12	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
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Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-09

Sample Description	Matrix	Sampled Date/Time	Received
17-3608B-Q401	Water	25 Oct. 01 11:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	15	1.0	mg/L	AM21G
Butyric acid	3.5	1.0	mg/L	
Ethane	820	5.0	ng/L	AM18
Ethene	3200	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	9300	0.015	ug/L	AM20GAX
Propionic acid	47	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
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Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-10

Sample Description	Matrix	Sampled Date/Time	Received
17-3607A-Q401	Water	25 Oct. 01 15:15	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	40	1.0	mg/L	AM21G
Butyric acid	6.2	1.0	mg/L	
Ethane	3100	5.0	ng/L	AM18
Ethene	2500	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	10000	0.015	ug/L	AM20GAX
Propionic acid	24	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
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Pensacole, FL 32514

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Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Lab Sample #: P0110465-11

Sample Description	Matrix	Sampled Date/Time	Received
17-3606A-Q401	Water	25 Oct. 01 15:45	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #
RiskAnalysis				
Acetic Acid	< 1.0	1.0	mg/L	AM21G
Butyric acid	< 1.0	1.0	mg/L	
Ethane	330	5.0	ng/L	AM18
Ethene	77	5.0	ng/L	
Lactic Acid	< 25	25	mg/L	AM21G
Methane	2000	0.015	ug/L	AM20GAX
Propionic acid	1.6	1.0	mg/L	AM21G
Pyruvic acid	< 10	10	mg/L	

Client Name: Severn Trent Laboratories
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Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 13 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: Analysis of Volatile Fatty Acids in Water
Analysis Method: Analysis of Volatile Fatty Acids in Water

M011105019-MB

	Result	RDL	%Recovery	Ctl Limits
Acetic Acid	< 1.0	1.0		- NA
Propionic acid	< 1.0	1.0		- NA
Butyric acid	< 1.0	1.0		- NA
Lactic Acid	< 25	25		- NA
Pyruvic acid	< 10	10		- NA

M011105019-LCS

	%Recovery	Ctl Limits
Acetic Acid	91	70 - 130
Propionic acid	88	70 - 130
Butyric acid	91	70 - 130
Lactic Acid	94	70 - 130
Pyruvic acid	74	70 - 130

P0110465-04A-MS

	%Recovery	Ctl Limits
Acetic Acid	92	70 - 130
Propionic acid	93	70 - 130
Butyric acid	92	70 - 130
Lactic Acid	100	70 - 130
Pyruvic acid	81	70 - 130

P0110465-04A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Acetic Acid	102	70 - 130	9.52	0 - 20
Propionic acid	103	70 - 130	8.70	0 - 20
Butyric acid	100	70 - 130	8.33	0 - 20
Lactic Acid	100	70 - 130	0.00	0 - 20
Pyruvic acid	88	70 - 130	8.28	0 - 20

[ ] Outlined Results indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 14 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of Dissolved Methane in Water

M011109005-MB

	Result	RDL	%Recovery	Ctl Limits
Methane	< 0.015	0.015		- NA

M011109005-LCS

	%Recovery	Ctl Limits
Methane	106	90 - 108

P0110465-04A-MS

	%Recovery	Ctl Limits
Methane	0	70 - 130

P0110465-04A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Methane	0	70 - 130	0.00	0 - 20

[ ] Outlined Results Indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 15 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Prep Method: In House Dissolved Gas Sample Preparation
Analysis Method: Analysis of C1-C4 Hydrocarbons in Water

M011109027-MB

	Result	RDL	%Recovery	Ctl Limits
Ethene	< 5.0	5.0		- NA
Ethane	< 5.0	5.0		- NA

M011109027-LCS

	%Recovery	Ctl Limits
Ethene	99	89 - 115
Ethane	100	89 - 113

P0110465-04A-MS

	%Recovery	Ctl Limits
Ethene	98	70 - 130
Ethane	95	70 - 130

P0110465-04A-MSD

	%Recovery	Ctl Limits	RPD	RPD Ctl Limits
Ethene	90	70 - 130	8.22	0 - 20
Ethane	88	70 - 130	8.00	0 - 20

Outlined Results indicate results outside of Control limits

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacole, FL 32514

Page: Page 16 of 16
Lab Project #: P0110465
Report Date: 11/13/01
Client Proj Name: CTO-017
Client project #: CTO-017

Case Narrative: Methane had zero percent recovery on the MS/MSD due to the high sample concentration.

Chain of Custody Record

P110465

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (1200) PEN (1100)

Client: STL-Pensacola	Project Manager: Rick Hayes	Date: 10-29-01	Chain of Custody Number: 063506
Address: 3355 McLeMore Dr.	Telephone Number (Area Code)/Fax Number: (850) 474-1001 Ext 155	Lab Number: C110704	Page 1 of 1
City: Pensacola / State: FL / Zip Code: 32514	Site Contact	Lab Contact	
Project Name and Location (State): C10-017 Orlando, FL	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: P.O.# 00168			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: MEE AM1GA	VFA AM2G	Special Instructions/ Conditions of Receipt
17-36194-0401	10-26-01	1000		✓									✓	✓	
17-36FD2-0401	10-26-01			✓									✓	✓	
17-3623B-0401	10-26-01	1330		✓									✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Linda K. Kitt STL/71	Date: 10-29-01	Time: 1600	1. Received By: [illegible]	Date: 10/29/01	Time:
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample. CANARY - Returned to Client with Report. PINK - Field Copy

Jan 23 02 04:14p STL/Pensacola 850 478-2671 p.19

Chain of Custody Record

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (1200) PEN (1100)

Client: STL-FL	Project Manager: Rick Hayes	Date: 29-OCT-01	Chain of Custody Number: 063507
Address: 3355 McLemore Dr	Telephone Number (Area Code)/Fax Number: (850) 474-1001 EXT 155	Lab Number: 110667	Page 1 of 1
City: Pensacola / State: FL / Zip Code:	Site Contact:	Lab Contact:	
Project Name and Location (State): CTO-017	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: KO #			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: MEE AM5&6	VEA AM21G
04 17-3609C-Q401	10-24-01	1100		✓									✓	✓
17-3629A-Q401	10-24-01	1515		✓									✓	✓
17-3628B-Q401	10-24-01	1600		✓									✓	✓
17-3608B-Q401	10-25-01	1102		✓									✓	✓
10 17-3607A-Q401	10-25-01	1515		✓									✓	✓
11 17-3606A-Q401	10-25-01	1545		✓									✓	✓

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☑ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☑ 14 Days ☐ 21 Days ☐ Other

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Linda S. Kitt	10-29-01	1600
2. Relinquished By		
3. Relinquished By		

	Date	Time
1. Received By		
2. Received By		
3. Received By		

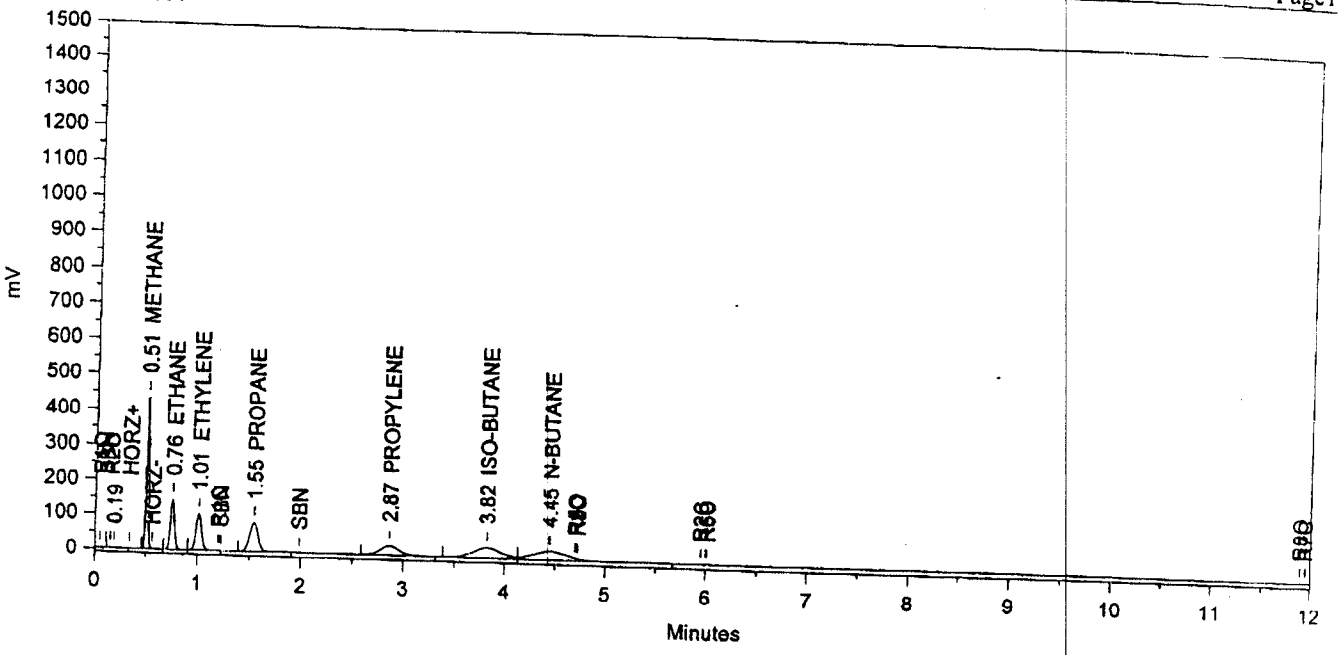
Comments: MS-MSD Submitted for Sample # 1

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Jan 23 02 04:14p STL/Pensacola 850 478-2671 p.20

Raw Data

STD P 10X 110901



Sample Name: **STD P 10X 110901**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 10:17:35am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.17R**
Date Stamp: 11/9/01 10:17:34am
Sequence File: T54A.SEQ #217
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

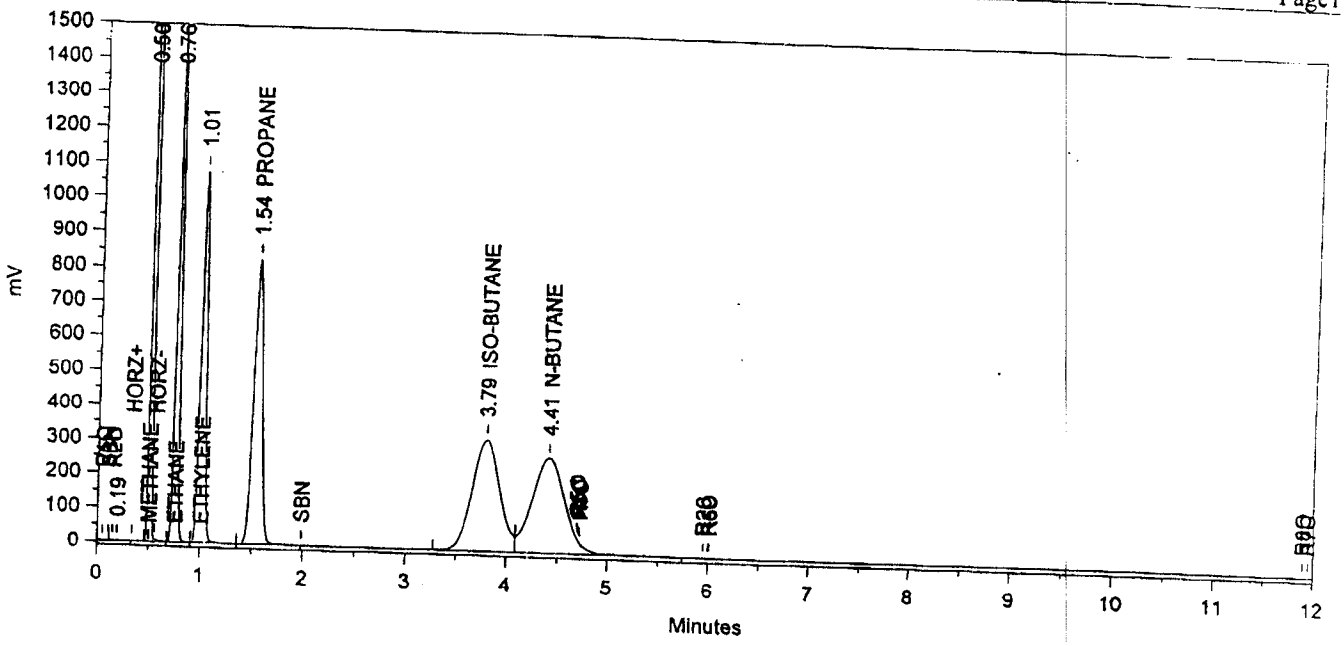
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.189		0.0076	0.000	3399.7	0.097	BB	0.119	474.28	0.055
2	0.508	METHANE	7.0909	0.019	655737.7	18.723	BB	0.025	444167.50	51.408
3	0.758	ETHANE	4689.3330	12.338	387306.4	11.058	BV	0.044	147050.70	17.020
4	1.013	ETHYLENE	5198.6750	13.678	389533.7	11.122	VB	0.063	103063.90	11.929
5	1.546	PROPANE	6048.3170	15.914	489339.6	13.972	BB	0.098	82848.48	9.589
6	2.865	PROPYLENE	6764.2480	17.798	377598.1	10.781	BV	0.219	28742.73	3.327
7	3.823	ISO-BUTANE	7665.8470	20.170	596501.9	17.031	VV	0.319	31121.21	3.602
8	4.447	N-BUTANE	7633.0370	20.083	602955.4	17.216	VB	0.379	26541.77	3.072

Total Area = 3502373.0, Total Amount = 38006.56, Total Height = 864010.6, Sample Units = ug/L&ng/L

STD O

STD O

Page1



Sample Name: **STD O**

Acquired from BIOREM 1--FID via port 1 on 11/9/01 10:56:59am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.19R**
Date Stamp: 11/9/01 10:56:58am

Sequence File: T54A.SEQ #219

Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am

Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

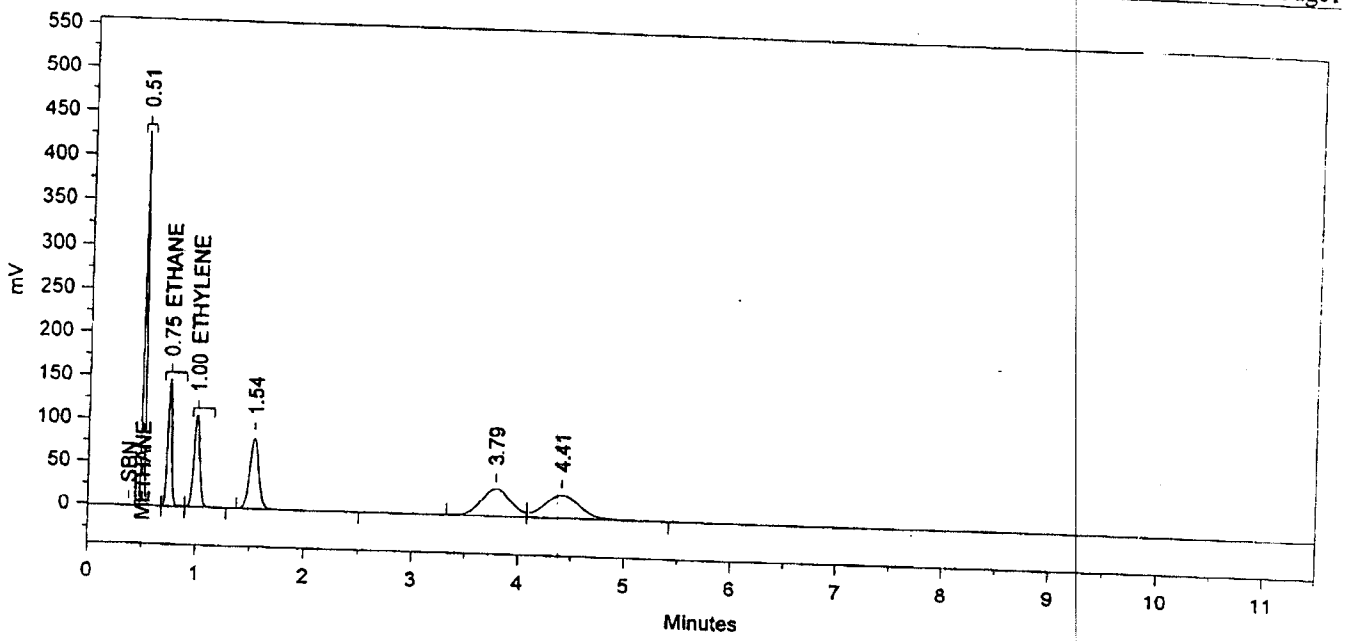
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.194		0.0071	0.000	3402.1	0.012	BB	0.128	443.21	0.007
2	0.503	METHANE	33.1794	0.010	4249093.0	14.489	BV	0.034	2078332.00	34.215
3	0.755	ETHANE	47239.5100	14.865	3901657.0	13.304	VV	0.044	1493518.00	24.588
4	1.005	ETHYLENE	53466.8800	16.825	4006242.0	13.661	VB	0.062	1075035.00	17.698
5	1.537	PROPANE	59701.5400	18.787	4830158.0	16.470	BB	0.097	827960.50	13.631
6	3.790	ISO-BUTANE	78845.6300	24.811	6135208.0	20.920	BV	0.316	323755.40	5.330
7	4.409	N-BUTANE	78502.4600	24.703	6201133.0	21.145	VB	0.376	275215.60	4.531

Total Area = 29326890.0, Total Amount = 317789.2, Total Height = 6074261.0, Sample Units = ug/L&ng/L

STD O



Sample Name: **STD O**
Acquired from BIOREM1--FID 10 via port 4 on 11/9/01 10:56:30am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T54\T54D2.19R**
Date Stamp: 11/9/01 10:56:30am
Sequence File: T54C.SEQ #219
Method File: C:\CPWIN\T54\T54DW1.MET
Version 3. Date Stamp: 11/8/01 10:51:00am
Calibration File: C:\CPWIN\T54\T54DW1.CAL
Version 3. Date Stamp: 11/8/01 10:48:26am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

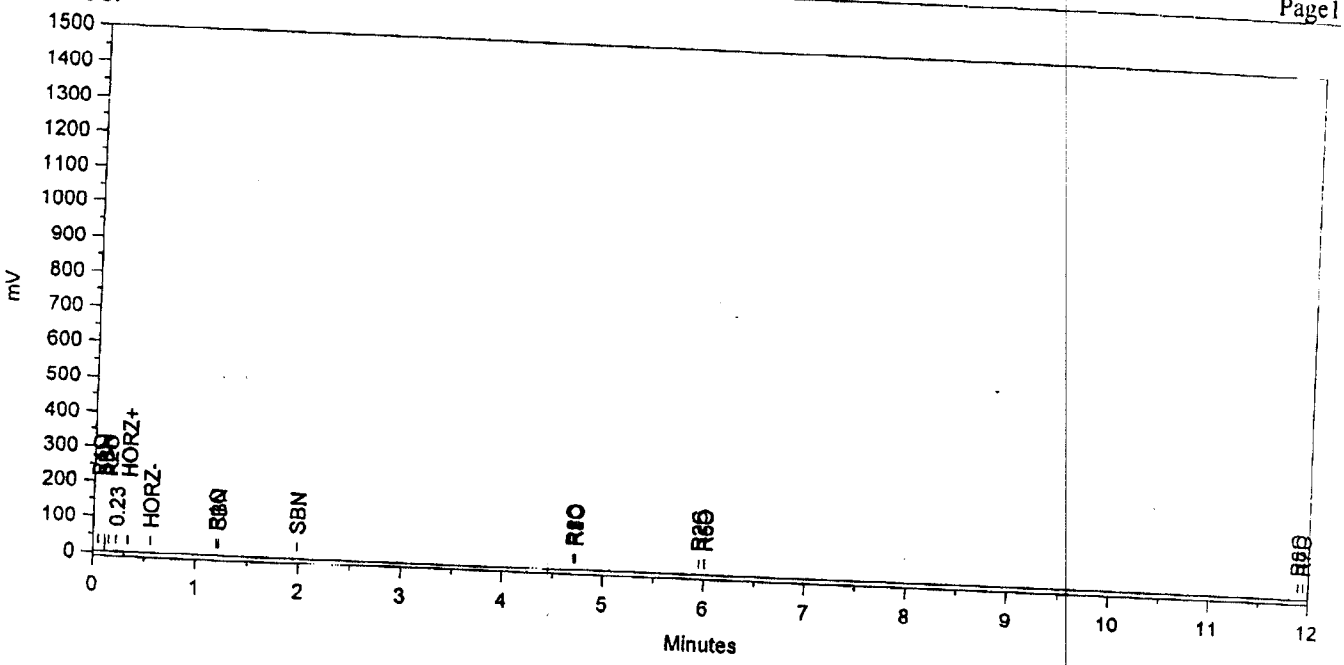
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.507	METHANE	77.7378	0.066	631115.8	20.141	BB	0.024	432365.70	52.091
2	0.754	ETHANE	55312.5600	46.699	387821.6	12.377	BV	0.043	148595.10	17.902
3	1.004	ETHYLENE	63028.7100	53.214	399077.5	12.736	VB	0.062	106987.00	12.890
4	1.536		14.8146	0.013	485387.2	15.491	BB	0.098	82396.28	9.927
5	3.786		5.7976	0.005	609414.9	19.449	BV	0.315	32245.21	3.885
6	4.407		4.9330	0.004	620624.8	19.806	VB	0.377	27436.70	3.306

Total Area = 3133442.0, Total Amount = 118444.5, Total Height = 830026.0, Sample Units = ug/L&ng/L

HE IN LOOP

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 11:24:57am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.20R**
Date Stamp: 11/9/01 11:24:56am
Sequence File: T54A.SEQ #220
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

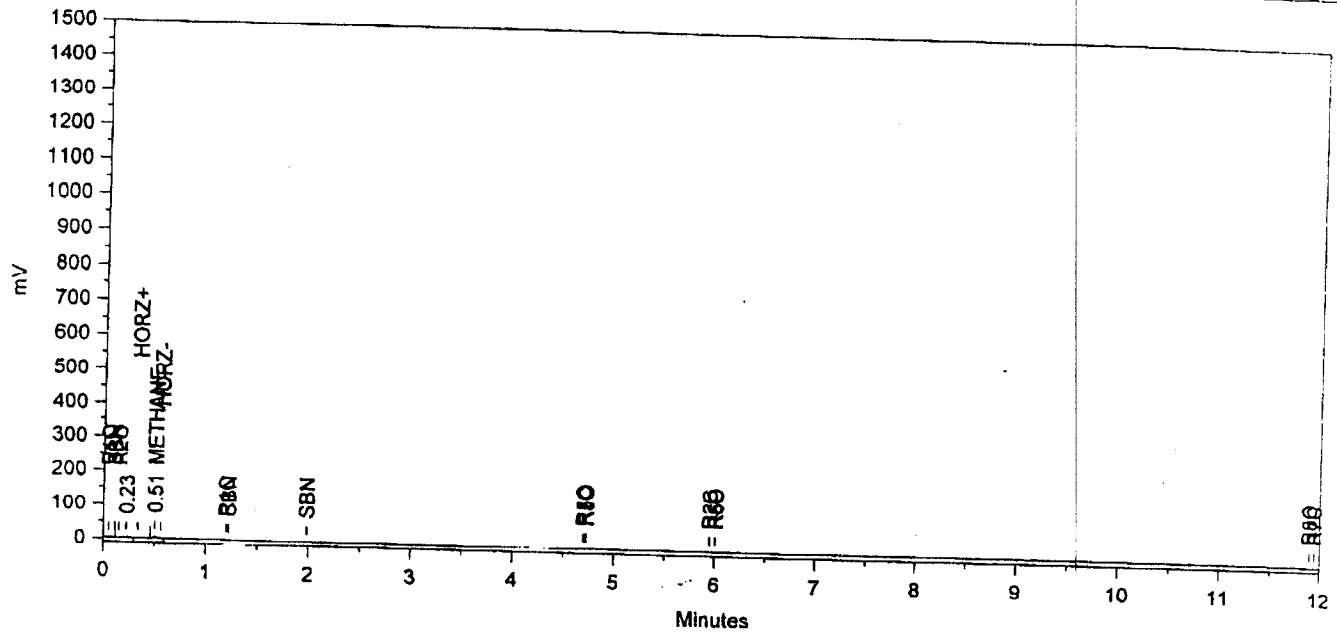
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.227		0.0074	100.000	2912.9	100.000	BB	0.104	464.88	100.000

Total Area = 2912.9, Total Amount = 0.007, Total Height = 464.88, Sample Units = ug/L&ng/L

P110465-01A

P110465-01A



Sample Name: **P110465-01A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 11:39:03am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.21R**
Date Stamp: 11/9/01 11:39:02am
Sequence File: T54A.SEQ #221
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

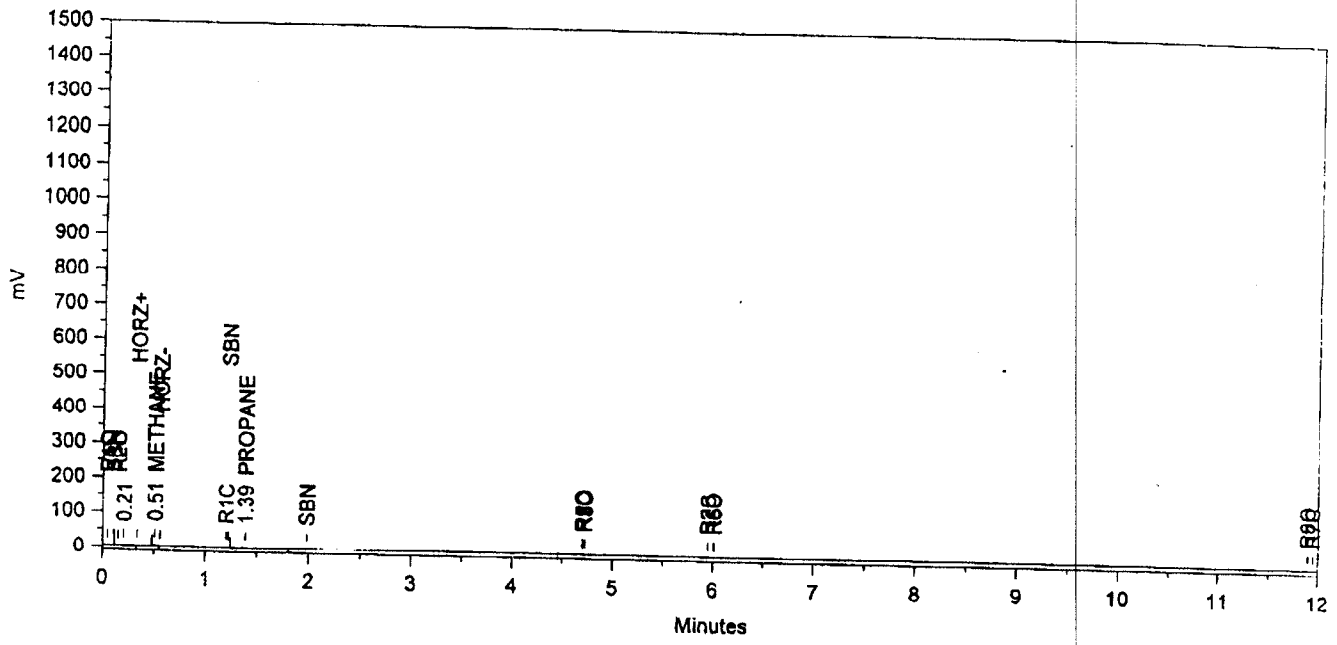
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.227		0.0056	5.682	2576.7	25.712	BB	0.123	350.28	5.682
2	0.505	METHANE	0.0928	94.318	7444.7	74.288	BB	0.021	5813.95	94.318

Total Area = 10021.3, Total Amount = 0.098, Total Height = 6164.22, Sample Units = ug/L&ng/L

P110465-02A



Sample Name: **P110465-02A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 11:53:09am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.22R**
Date Stamp: 11/9/01 11:53:08am
Sequence File: T54A.SEQ #222
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

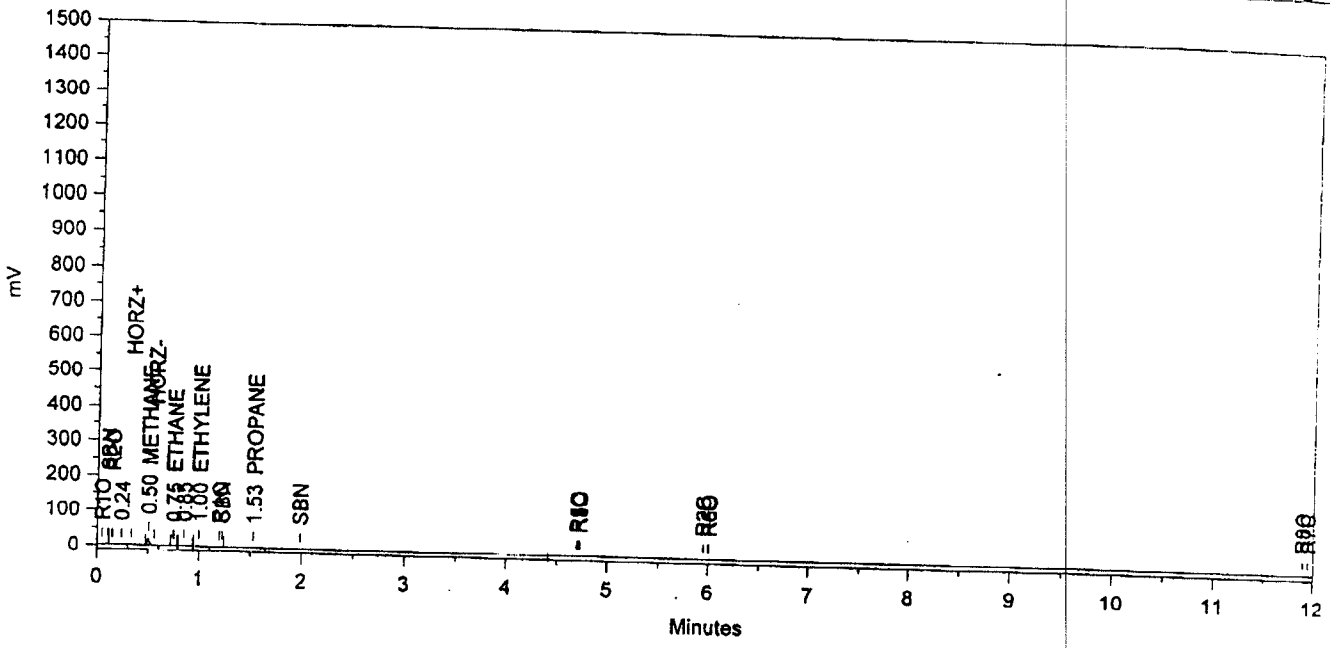
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.206		0.0068	0.009	3173.1	22.760	BB	0.125	424.20	9.301
2	0.511	METHANE	0.0605	0.082	4814.9	34.537	BB	0.021	3788.34	83.059
3	1.390	PROPANE	73.5840	99.909	5953.3	42.703	BB	0.285	348.48	7.640

Total Area = 13941.3, Total Amount = 73.651, Total Height = 4561.01, Sample Units = ug/L&ng/L

P110465-03A

P110465-03A



Sample Name: **P110465-03A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 12:06:24pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.23R**
Date Stamp: 11/9/01 12:06:24pm
Sequence File: T54A.SEQ #223
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

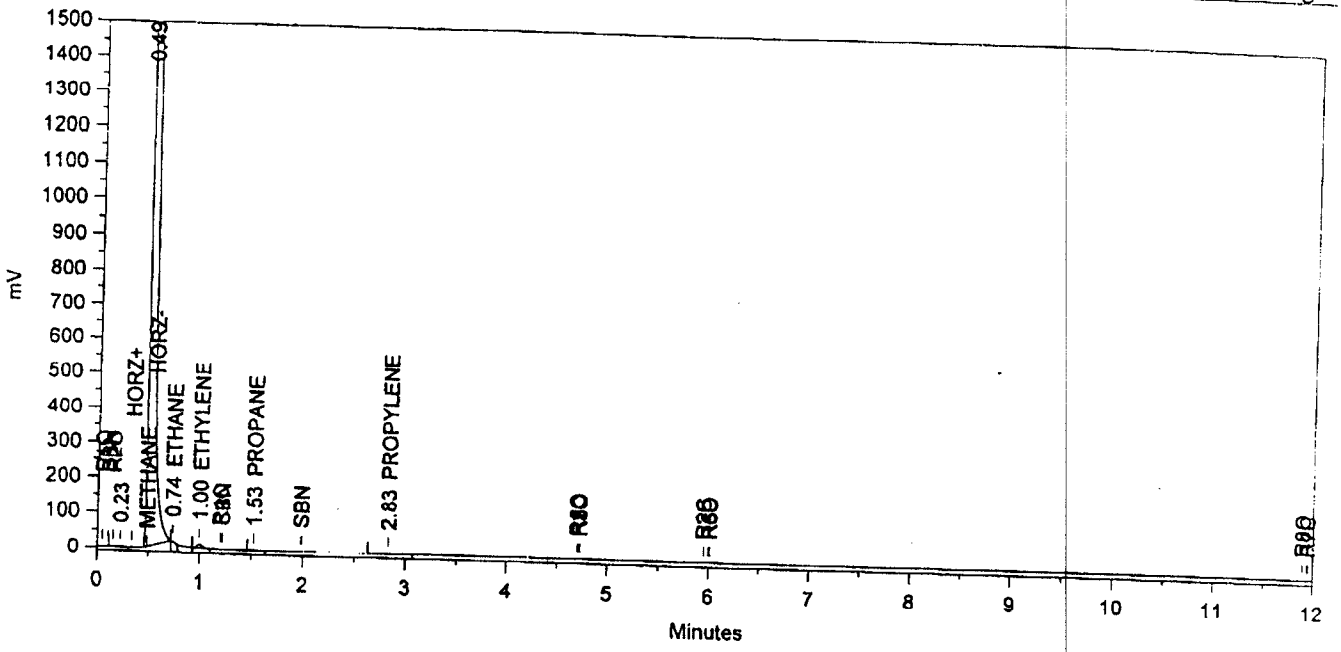
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.240		0.0048	0.005	1966.3	4.899	BB	0.108	302.21	1.329
2	0.505	METHANE	0.3202	0.306	25666.8	63.948	BB	0.021	20056.17	88.214
3	0.750	ETHANE	7.1867	6.863	593.6	1.479	BV	0.045	222.03	0.977
4	0.850		0.0194	0.019	4268.7	10.635	VB	0.059	1214.78	5.343
6	1.002	ETHYLENE	36.8948	35.235	2764.5	6.888	BB	0.067	683.20	3.005
7	1.529	PROPANE	60.2840	57.572	4877.3	12.152	BB	0.316	257.40	1.132

Total Area = 40137.2, Total Amount = 104.71, Total Height = 22735.79, Sample Units = ug/L&ng/L
* Some peaks have been manually integrated.

P110465-04A

P110465-04A



Sample Name: **P110465-04A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 12:19:55pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.24R**
Date Stamp: 11/9/01 12:19:54pm
Sequence File: T54A.SEQ #224
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

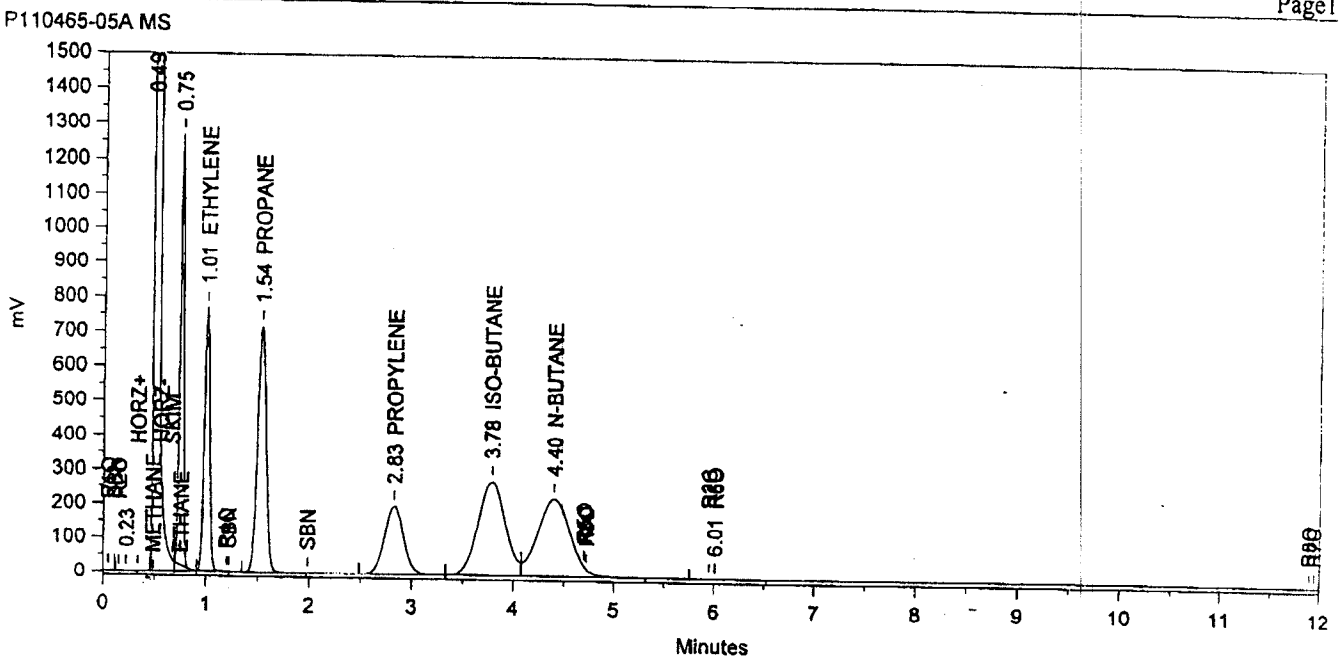
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.226		0.0051	0.001	2108.9	0.023	BB	0.109	321.66	0.015
2	0.486	METHANE	33.9801	4.157	8960138.0	99.351	BB	0.070	2128488.00	99.280
3	0.740	ETHANE	75.4437	9.230	6231.1	0.069	BB	0.034	3064.22	0.143
5	0.999	ETHYLENE	501.9253	61.404	37609.0	0.417	BB	0.060	10520.64	0.491
6	1.528	PROPANE	44.3073	5.420	3584.7	0.040	BB	0.075	791.52	0.037
7	2.833	PROPYLENE	161.7580	19.789	9029.8	0.100	BB	0.204	737.31	0.034

Total Area = 9018702.0, Total Amount = 817.42, Total Height = 2143923.0, Sample Units = ug/L&ng/L
* Some peaks have been manually integrated,

P110465-05A MS



Sample Name: **P110465-05A MS**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 12:32:49pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.25R**
Date Stamp: 11/9/01 12:32:48pm
Sequence File: T54A.SEQ #225
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

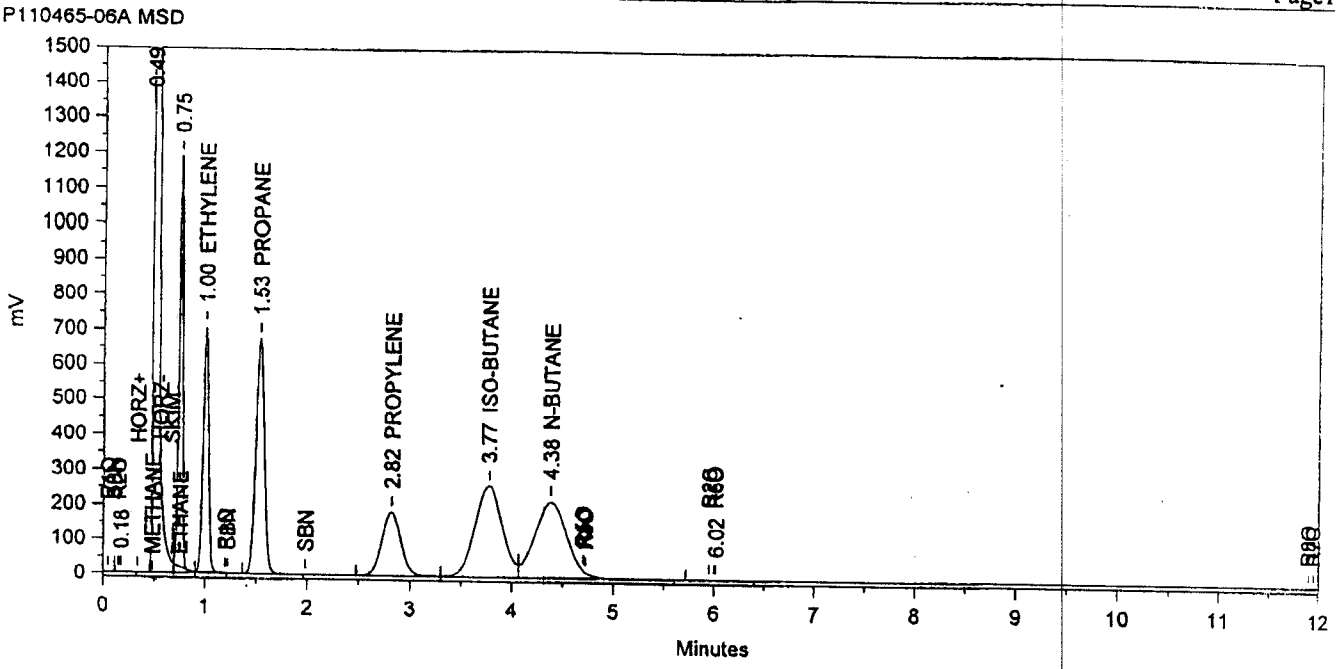
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.227		0.0051	0.000	2939.9	0.009	BB	0.154	318.80	0.006
2	0.486	METHANE	32.9937	0.011	9474293.0	29.024	SBB	0.076	2066699.00	37.540
3	0.755	ETHANE	39131.3500	12.767	3231979.0	9.901	TVB	0.043	1248335.00	22.675
4	1.006	ETHYLENE	37889.1400	12.362	2839012.0	8.697	TBB	0.062	765500.80	13.905
5	1.536	PROPANE	51381.3200	16.764	4157011.0	12.735	BB	0.097	717420.10	13.031
6	2.827	PROPYLENE	46170.5300	15.064	2577360.0	7.896	BV	0.214	200394.20	3.640
7	3.782	ISO-BUTANE	66722.1100	21.770	5191842.0	15.905	VV	0.313	276069.20	5.015
8	4.401	N-BUTANE	65164.9700	21.262	5147567.0	15.769	VV	0.374	229411.10	4.167
9	6.006		0.0181	0.000	21123.3	0.065	VB	0.310	1133.86	0.021

Total Area = 32643130.0, Total Amount = 306492.5, Total Height = 5505282.0, Sample Units = ug/L&ng/L

P110465-06A MSD



Sample Name: **P110465-06A MSD**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 12:47:34pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.26R**
Date Stamp: 11/9/01 12:47:34pm
Sequence File: T54A.SEQ #226
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

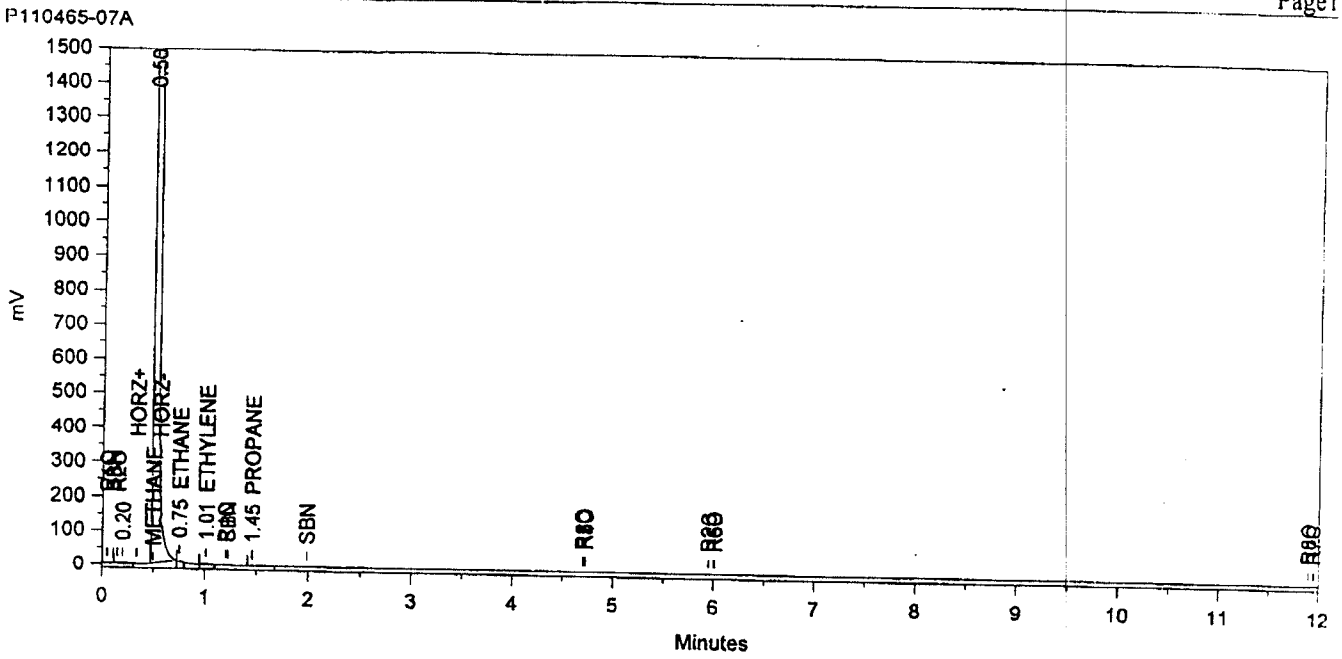
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.177		0.0067	0.000	2988.2	0.010	BB	0.118	422.43	0.008
2	0.486	METHANE	33.9116	0.012	9387451.0	30.210	SBB	0.074	2124196.00	39.807
3	0.755	ETHANE	36519.0900	12.744	3016225.0	9.707	TVB	0.043	1169010.00	21.907
4	1.004	ETHYLENE	34682.8700	12.103	2598767.0	8.363	TBB	0.062	703132.40	13.177
5	1.534	PROPANE	48227.8900	16.830	3901882.0	12.557	BB	0.097	673414.60	12.620
6	2.821	PROPYLENE	42270.6700	14.751	2359660.0	7.594	BV	0.213	184253.60	3.453
7	3.772	ISO-BUTANE	63206.7200	22.057	4918299.0	15.828	VV	0.313	262139.50	4.912
8	4.384	N-BUTANE	61618.9200	21.503	4867454.0	15.664	VV	0.371	218361.70	4.090
9	6.018		0.0168	0.000	21396.9	0.069	VB	0.339	1053.50	0.020

Total Area = 31074120.0, Total Amount = 286560.1, Total Height = 5336183.0, Sample Units = ug/L&ng/L

P110465-07A



Sample Name: **P110465-07A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 01:01:29pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.27R**
Date Stamp: 11/9/01 01:01:28pm
Sequence File: T54A.SEQ #227
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

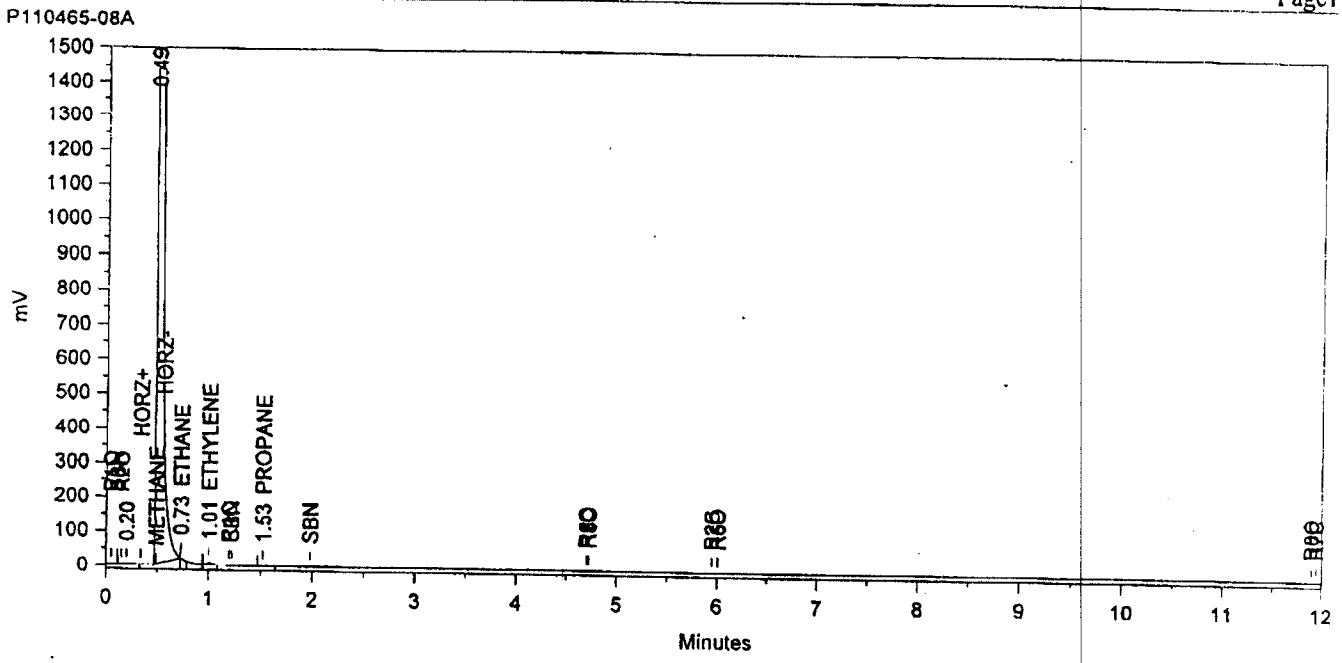
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.200		0.0069	0.003	2844.6	0.037	BB	0.110	429.10	0.020
2	0.497	METHANE	33.7907	12.622	7658333.0	99.725	BB	0.060	2116625.00	99.710
3	0.751	ETHANE	53.1016	19.836	4385.8	0.057	BB	0.031	2324.06	0.109
5	1.008	ETHYLENE	128.9514	48.169	9662.3	0.126	BB	0.058	2793.11	0.132
6	1.453	PROPANE	51.8575	19.371	4195.5	0.055	BB	0.114	613.53	0.029

Total Area = 7679422.0, Total Amount = 267.708, Total Height = 2122784.0, Sample Units = ug/L Sing. L
* Some peaks have been manually integrated,

P110465-08A



Sample Name: **P110465-08A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 01:14:53pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.28R**
Date Stamp: 11/9/01 01:14:52pm
Sequence File: T54A.SEQ #228
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

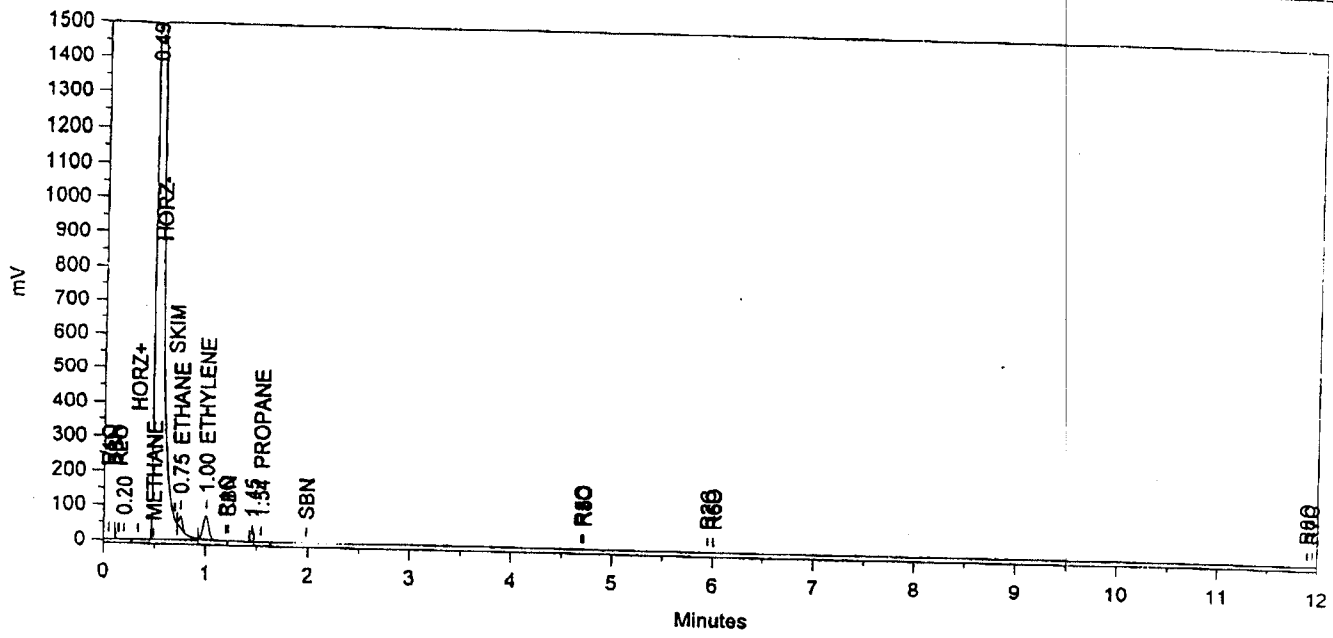
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.200		0.0067	0.002	2663.1	0.030	BB	0.105	421.21	0.020
2	0.492	METHANE	33.9112	9.970	8948036.0	99.709	BB	0.070	2124169.00	99.698
3	0.733	ETHANE	35.9850	10.580	2972.1	0.033	N	0.137	360.52	0.017
5	1.006	ETHYLENE	234.8760	69.055	17599.1	0.196	BB	0.058	5073.44	0.238
6	1.528	PROPANE	35.3502	10.393	2860.0	0.032	BB	0.083	575.62	0.027

Total Area = 8974130.0, Total Amount = 340.129, Total Height = 2130600.0, Sample Units = ug/L,ug/L.
* Some peaks have been manually integrated.

P110465-09A



Sample Name: **P110465-09A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 01:27:46pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.29R**
Date Stamp: 11/9/01 01:27:46pm
Sequence File: T54A.SEQ #229
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

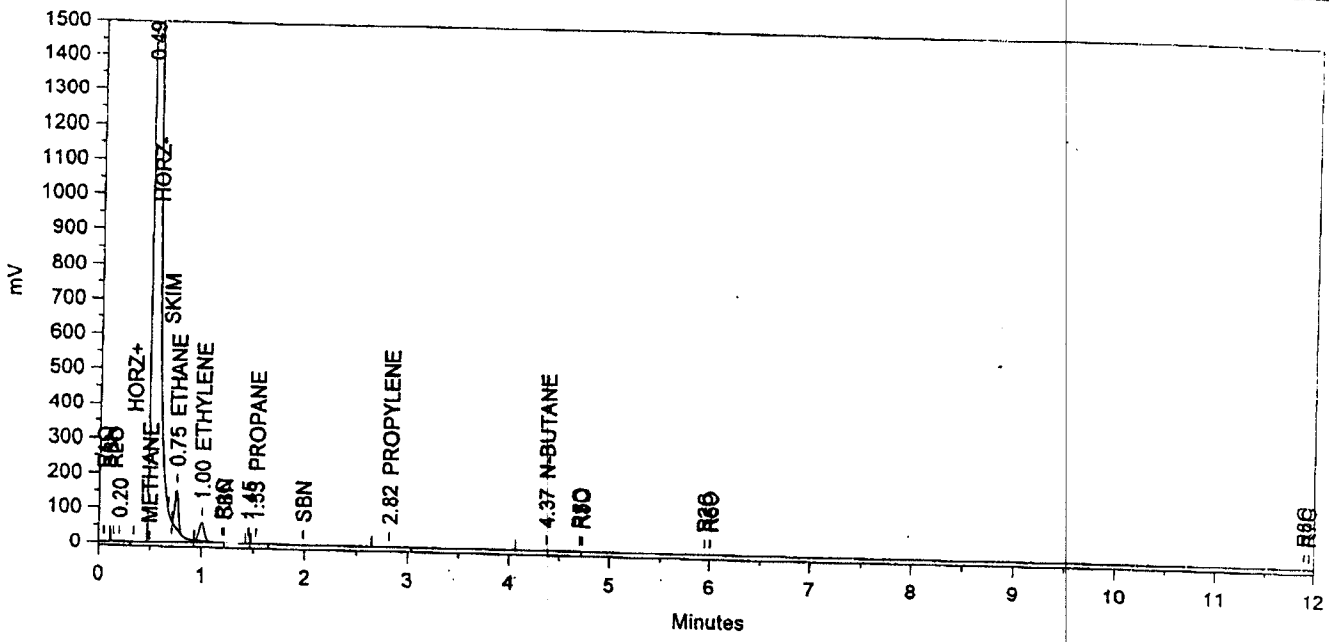
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.201		0.0062	0.000	2217.4	0.019	BB	0.094	391.29	0.018
2	0.492	METHANE	32.8194	0.814	11273450.0	97.321	SBB	0.091	2055778.00	95.266
3	0.753	ETHANE	817.1211	20.260	67488.5	0.583	TVB	0.034	33222.46	1.540
4	1.005	ETHYLENE	3155.8670	78.248	236467.3	2.041	TBB	0.060	65959.06	3.057
5	1.454		0.0337	0.001	1927.0	0.017	BB	0.015	2108.98	0.098
6	1.540	PROPANE	27.3301	0.678	2211.1	0.019	BB	0.076	484.78	0.022

Total Area = 11583760.0, Total Amount = 4033.178, Total Height = 2157945.0, Sample Units = ug/L,&mg/L

P110465-10A



Sample Name: **P110465-10A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 01:40:57pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.30R**
Date Stamp: 11/9/01 01:40:56pm
Sequence File: T54A.SEQ #230
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

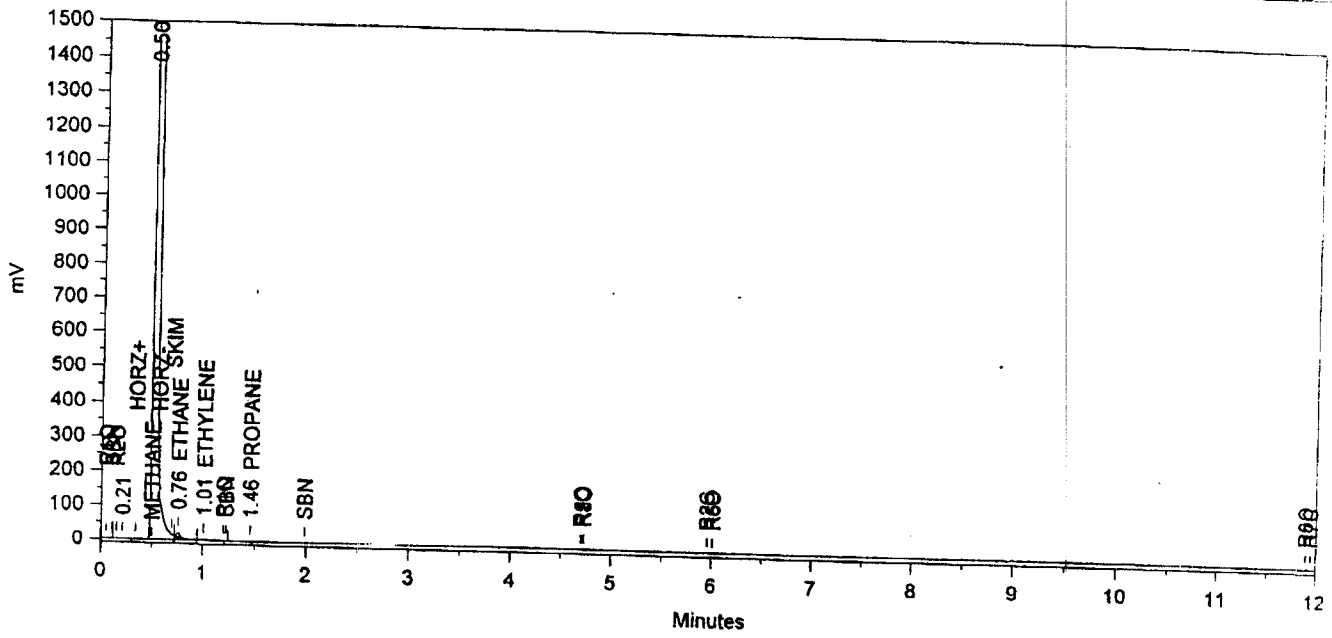
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.205		0.0062	0.000	2686.4	0.022	BB	0.115	387.79	0.017
2	0.492	METHANE	33.1198	0.525	11657030.0	95.896	SBB	0.094	2074599.00	92.361
3	0.754	ETHANE	3138.9310	49.789	259254.0	2.133	TVB	0.038	112583.60	5.012
4	1.003	ETHYLENE	2492.6660	39.538	186774.0	1.536	TBB	0.059	52565.48	2.340
5	1.453		0.0376	0.001	2250.4	0.019	BB	0.016	2355.82	0.105
6	1.528	PROPANE	96.7214	1.534	7825.3	0.064	BB	0.077	1696.26	0.076
7	2.823	PROPYLENE	120.5103	1.912	6727.2	0.055	BB	0.194	577.96	0.026
8	4.372	N-BUTANE	422.4883	6.701	33373.6	0.275	BB	0.393	1416.33	0.063

Total Area = 12155920.0, Total Amount = 6304.48, Total Height = 2246182.0, Sample Units = ug/L&ng/L

P110465-11A



Sample Name: **P110465-11A**
Acquired from BIOREM 1--FID via port 1 on 11/9/01 01:54:44pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.31R**
Date Stamp: 11/9/01 01:54:44pm
Sequence File: T54A.SEQ #231
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

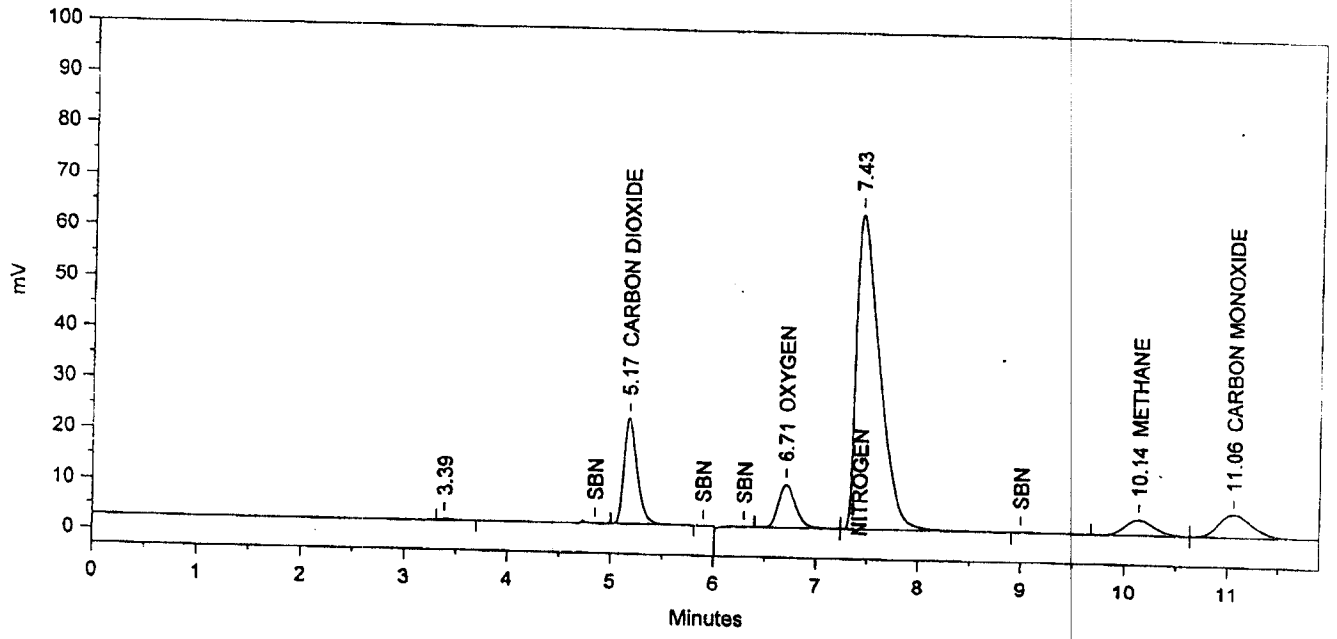
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.210		0.0082	0.002	3083.6	0.040	BB	0.100	512.70	0.024
2	0.497	METHANE	34.4920	7.025	7579332.0	99.473	SBB	0.058	2160548.00	99.298
3	0.759	ETHANE	332.4326	67.708	27456.6	0.360	TVB	0.037	12459.20	0.573
4	1.007	ETHYLENE	76.8856	15.660	5761.0	0.076	TBB	0.060	1608.78	0.074
5	1.457	PROPANE	47.1608	9.605	3815.6	0.050	BB	0.091	701.26	0.032

Total Area = 7619448.0, Total Amount = 490.979, Total Height = 2175830.0, Sample Units = ug/L&ng/L

STD 237 2X 110901



Sample Name: **STD 237 2X 110901**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 10:03:41am by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.16R**
Date Stamp: 11/9/01 10:03:40am
Sequence File: T54A.SEQ #216
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

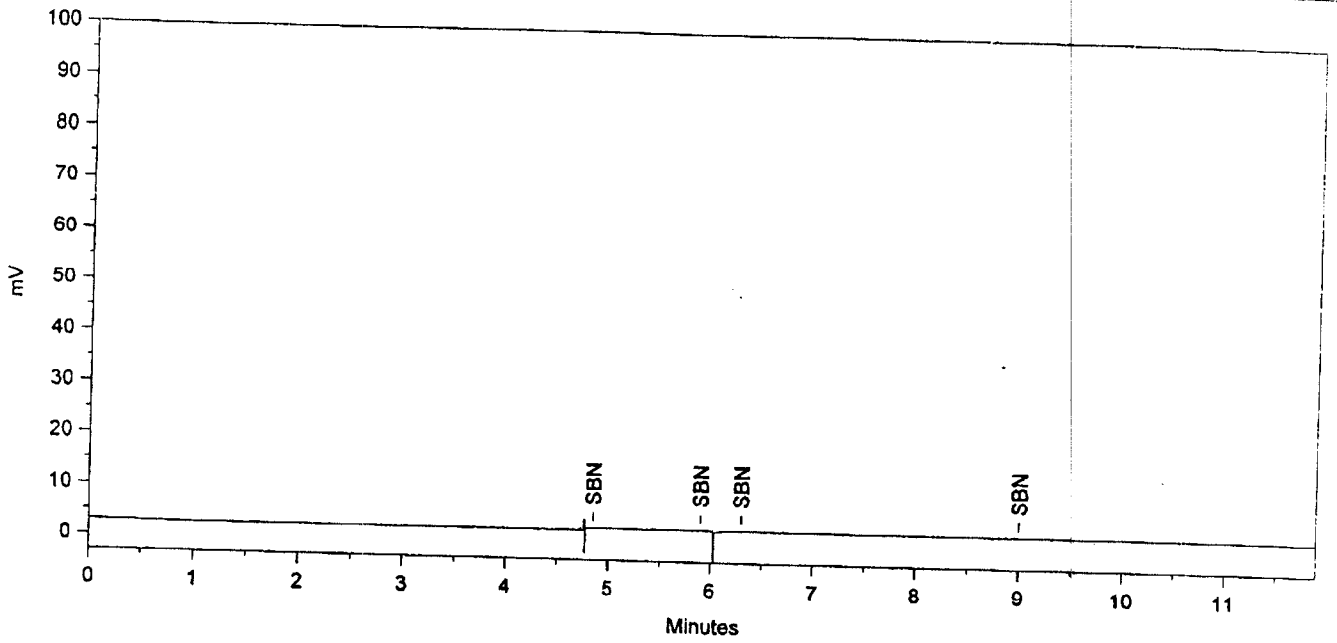
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.386		2.3110	0.760	3065.0	0.215	BB	0.134	381.67	0.384
2	5.169	CARBON DIOXIDE	139.4507	45.883	184946.6	12.980	BB	0.148	20887.41	21.028
3	6.707	OXYGEN	15.8366	5.211	98091.7	6.884	BV	0.191	8552.73	8.610
4	7.427	NITROGEN	127.2086	41.855	975307.4	68.450	VB	0.262	61926.72	62.345
5	10.135	METHANE	5.2474	1.727	59271.5	4.160	BV	0.327	3021.46	3.042
6	11.056	CARBON MONOXIDE	13.8697	4.564	104158.7	7.310	VB	0.381	4559.25	4.590

Total Area = 1424841.0, Total Amount = 303.924, Total Height = 99329.23, Sample Units = mg/L

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 11:24:57am by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.20R**
Date Stamp: 11/9/01 11:24:56am
Sequence File: T54A.SEQ #220
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

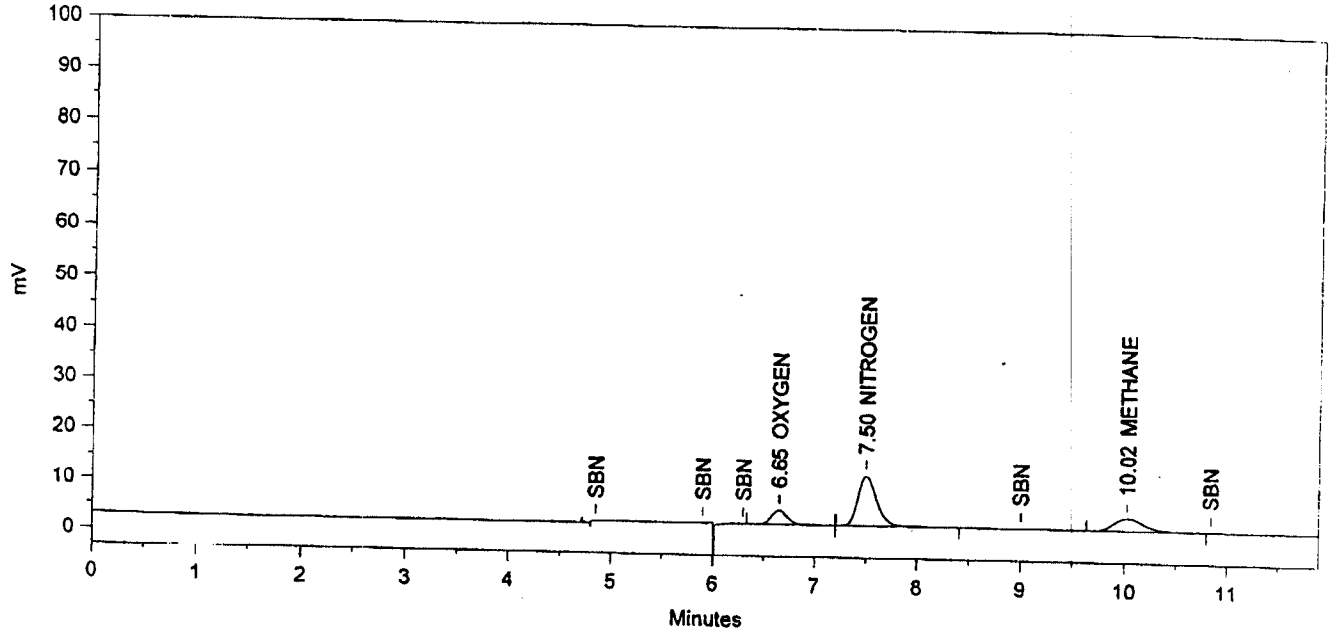
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = mg/L

P110465-04A



Sample Name: **P110465-04A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 12:19:55pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.24R**
Date Stamp: 11/9/01 12:19:54pm
Sequence File: T54A.SEQ #224
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

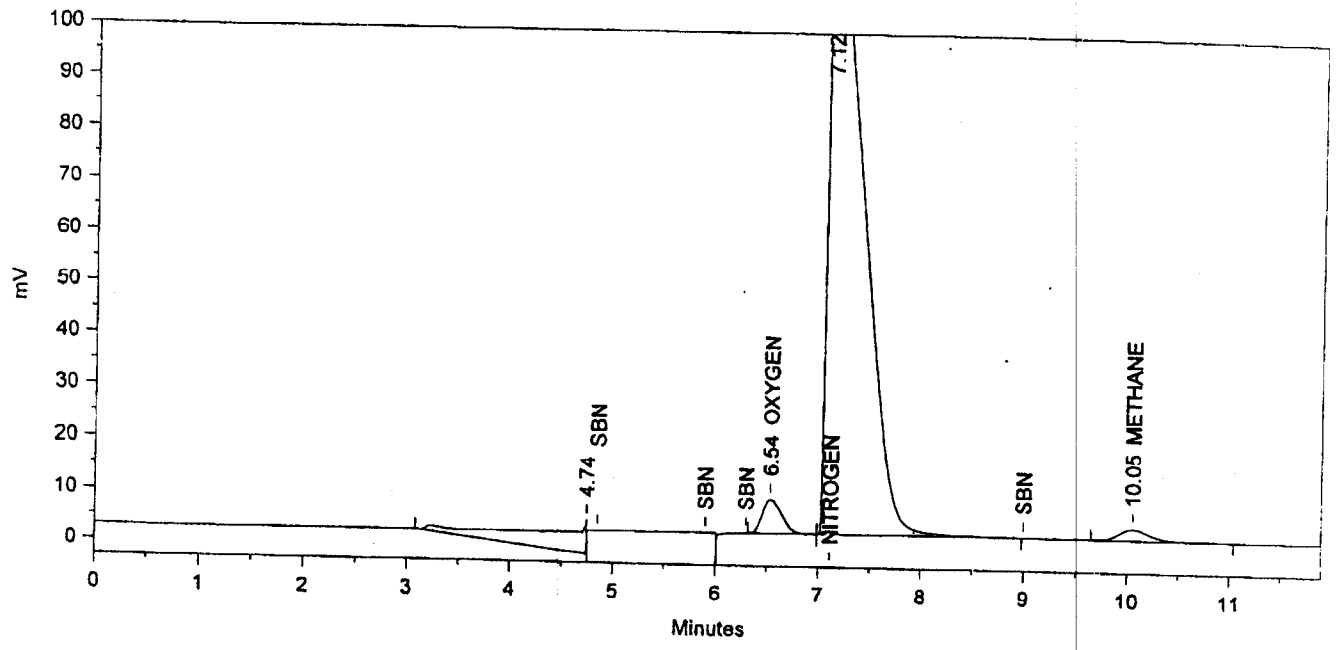
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	6.647	OXYGEN	4.7317	18.710	29308.0	14.473	BB	0.175	2792.35	18.458
2	7.498	NITROGEN	16.2643	64.313	124698.0	61.579	BB	0.211	9852.87	65.131
3	10.017	METHANE	4.2934	16.977	48496.0	23.948	BB	0.326	2482.60	16.411

Total Area = 202502.0, Total Amount = 25.289, Total Height = 15127.82, Sample Units = mg/L

P110465-05A MS



Sample Name: **P110465-05A MS**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 12:32:49pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.25R**
Date Stamp: 11/9/01 12:32:48pm
Sequence File: T54A.SEQ #225
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

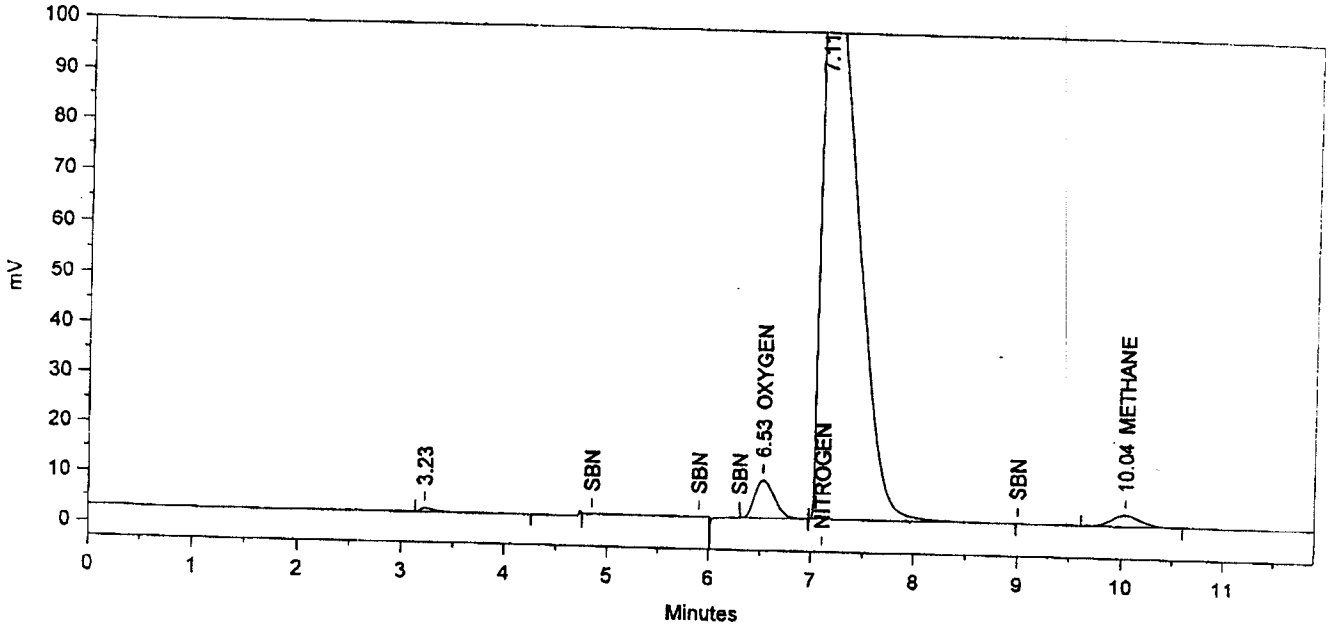
Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.743		172.3612	31.002	228594.2	7.228	BB	0.536	7102.13	5.047
2	6.537	OXYGEN	14.4214	2.594	89326.2	2.824	BV	0.221	6747.84	4.795
3	7.117	NITROGEN	365.2428	65.695	2800315.0	88.540	VB	0.374	124661.90	88.590
4	10.051	METHANE	3.9422	0.709	44528.5	1.408	BB	0.337	2205.17	1.567

Total Area = 3162764.0, Total Amount = 555.968, Total Height = 140717.0, Sample Units = mg/L

P110465-06A MSD

P110465-06A MSD



Sample Name: **P110465-06A MSD**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 12:47:35pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.26R**
Date Stamp: 11/9/01 12:47:34pm
Sequence File: T54A.SEQ #226
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

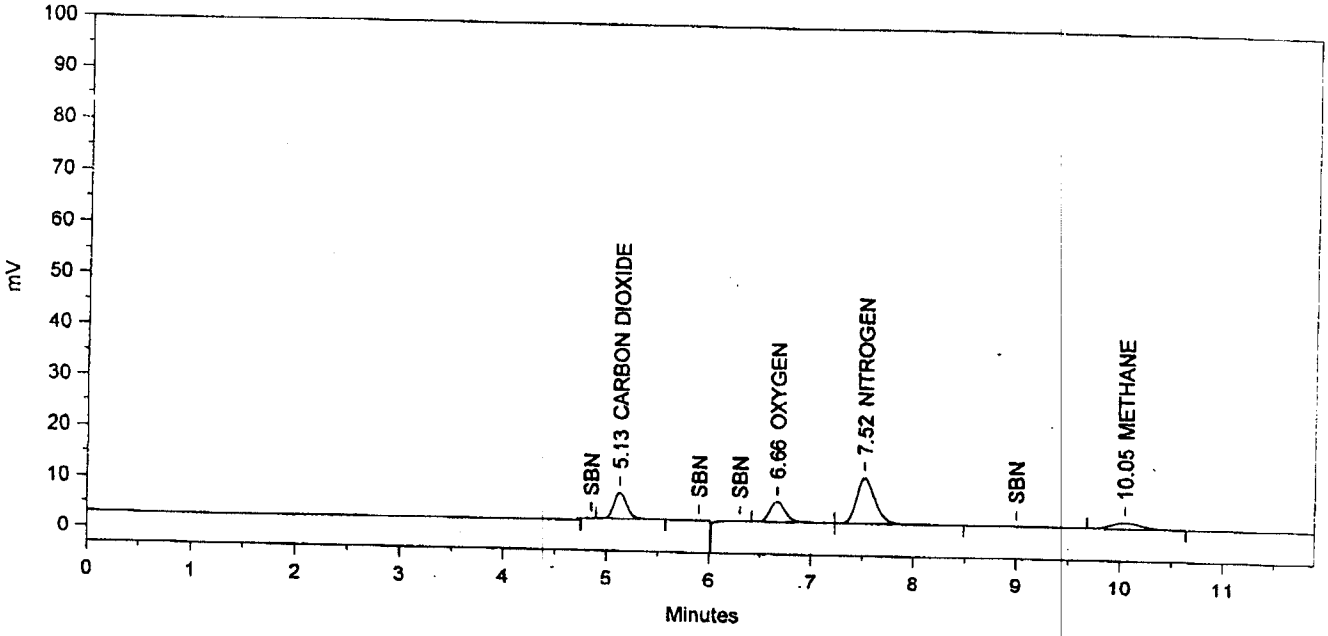
Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.225		5.7634	1.528	7643.7	0.269	BB	0.186	686.04	0.519
2	6.527	OXYGEN	16.1305	4.277	99912.1	3.511	BV	0.219	7601.18	5.748
3	7.111	NITROGEN	351.4805	93.185	2694799.0	94.707	VB	0.369	121755.00	92.067
4	10.038	METHANE	3.8126	1.011	43065.2	1.513	BB	0.326	2204.54	1.667

Total Area = 2845420.0, Total Amount = 377.187, Total Height = 132246.8, Sample Units = mg/L

P110465-07A

P110465-07A



Sample Name: **P110465-07A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 01:01:29pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.27R**
Date Stamp: 11/9/01 01:01:28pm
Sequence File: T54A.SEQ #227
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

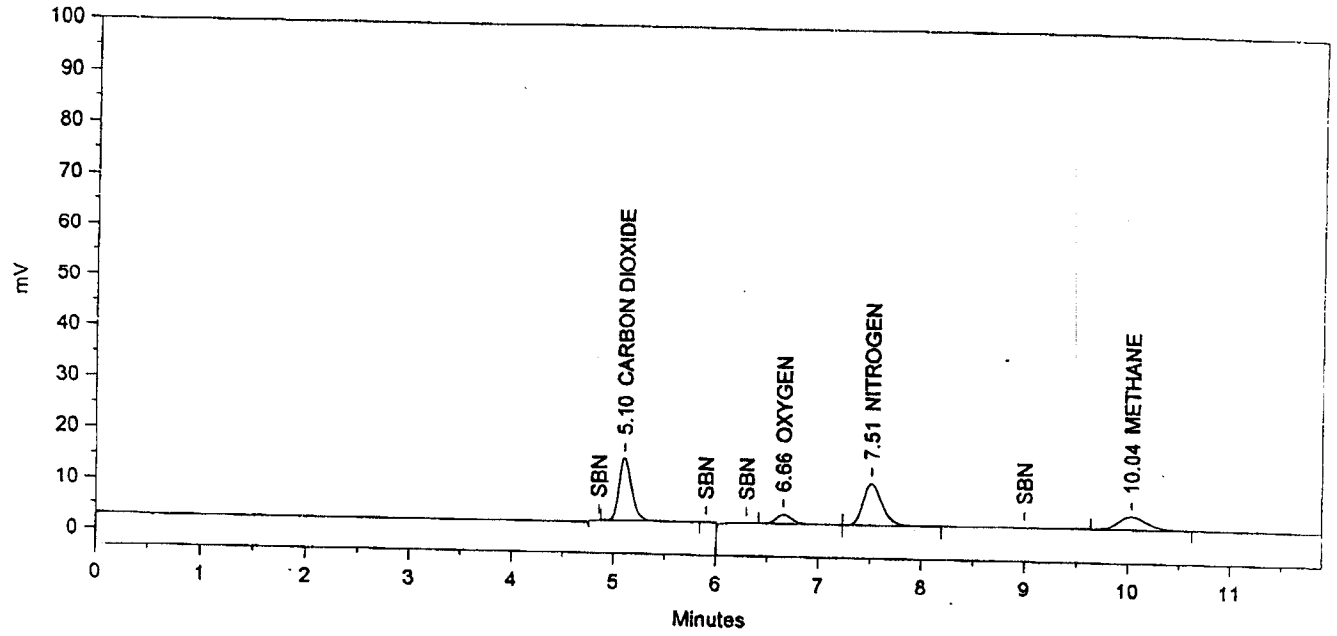
Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.125	CARBON DIOXIDE	33.4693	58.350	44388.7	19.697	BB	0.141	5263.61	26.877
2	6.665	OXYGEN	6.8188	11.888	42235.5	18.742	BV	0.175	4026.24	20.559
3	7.517	NITROGEN	14.9101	25.994	114345.8	50.727	VB	0.211	9034.98	46.134
4	10.045	METHANE	2.1614	3.768	24413.9	10.834	BB	0.323	1259.20	6.430

Total Area = 225353.9, Total Amount = 57.36, Total Height = 19584.04, Sample Units = mg/L

P110465-08A

P110465-08A



Sample Name: **P110465-08A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 01:14:53pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.28R**
Date Stamp: 11/9/01 01:14:52pm
Sequence File: T54A.SEQ #228
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

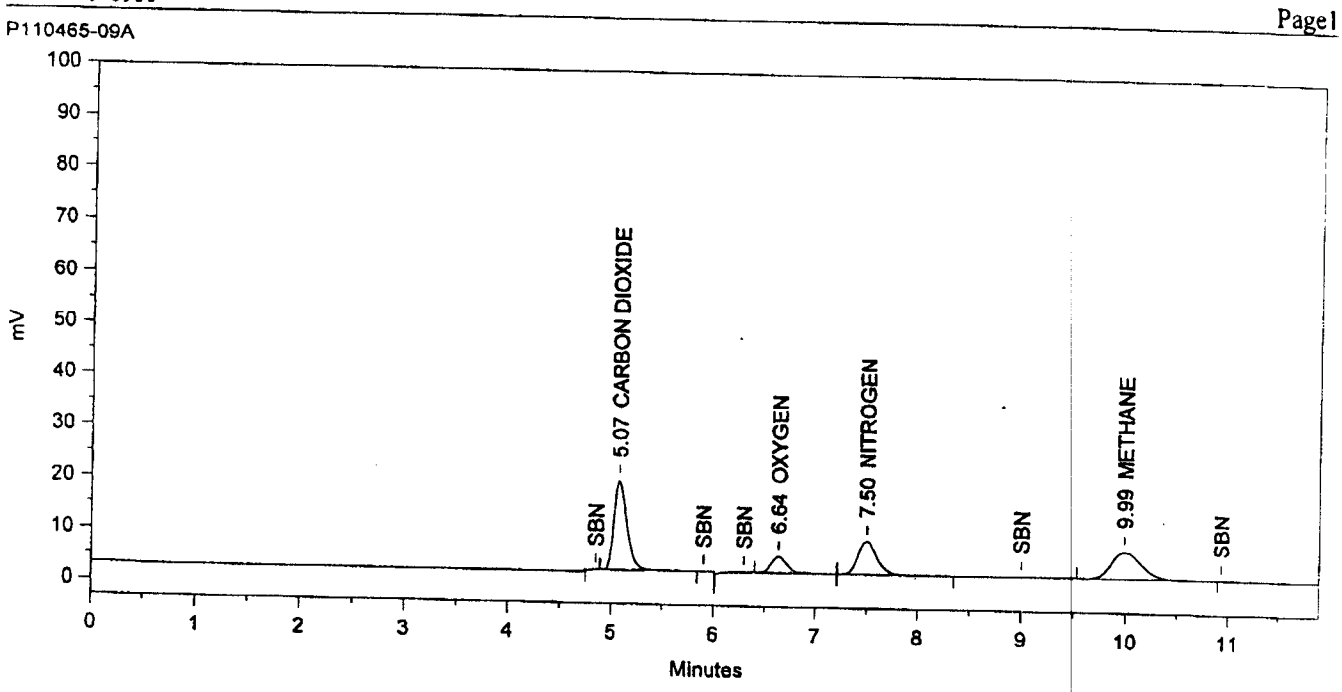
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.101	CARBON DIOXIDE	79.6832	79.193	105679.8	38.097	BB	0.143	12275.45	49.505
2	6.657	OXYGEN	3.0593	3.041	18949.6	6.831	BB	0.179	1759.75	7.097
3	7.512	NITROGEN	13.5469	13.464	103864.1	37.442	BB	0.210	8245.55	33.253
4	10.035	METHANE	4.3296	4.303	48904.7	17.630	BB	0.324	2515.68	10.145

Total Area = 277398.2, Total Amount = 100.619, Total Height = 24796.43, Sample Units = mg/L

P110465-09A



Sample Name: **P110465-09A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 01:27:46pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.29R**
Date Stamp: 11/9/01 01:27:46pm
Sequence File: T54A.SEQ #229
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

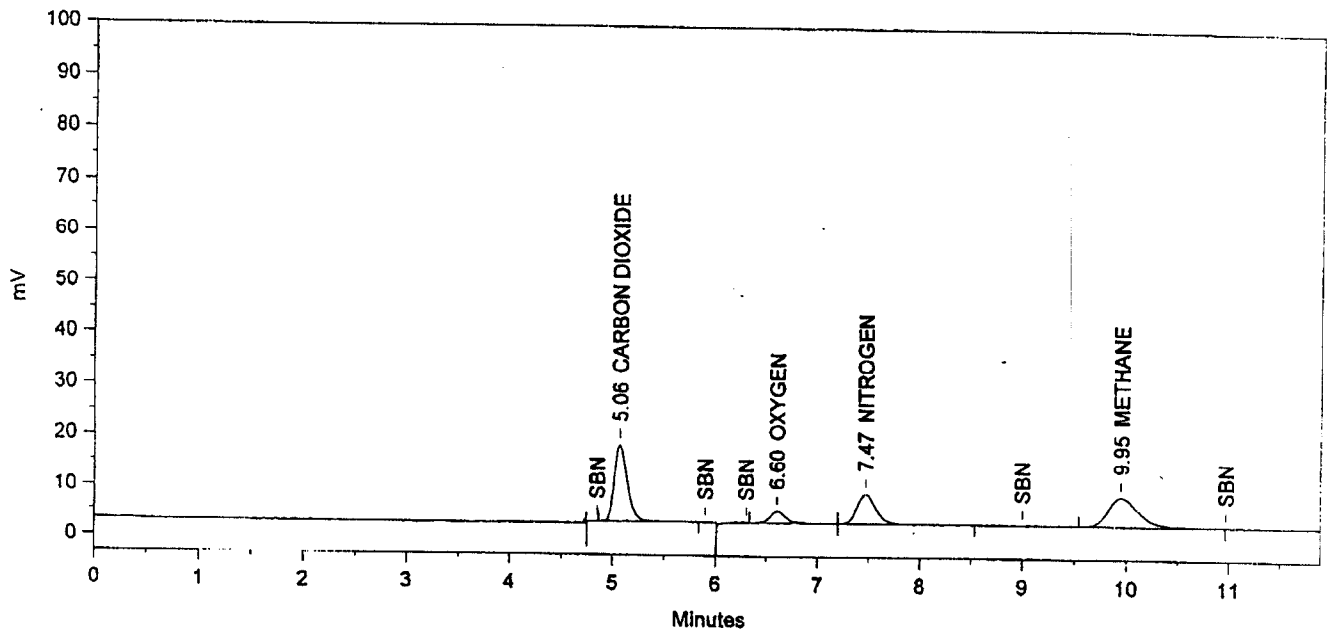
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.071	CARBON DIOXIDE	113.2012	81.748	150133.2	40.596	BB	0.145	17284.68	53.666
2	6.638	OXYGEN	5.2959	3.824	32802.8	8.870	BV	0.174	3144.30	9.763
3	7.499	NITROGEN	10.6863	7.717	81931.8	22.154	VB	0.211	6465.75	20.075
4	9.987	METHANE	9.2919	6.710	104955.2	28.380	BB	0.329	5313.02	16.496

Total Area = 369822.9, Total Amount = 138.475, Total Height = 32207.75, Sample Units = mg/L

P110465-10A



Sample Name: **P110465-10A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 01:40:57pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.30R**
Date Stamp: 11/9/01 01:40:56pm
Sequence File: T54A.SEQ #230
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

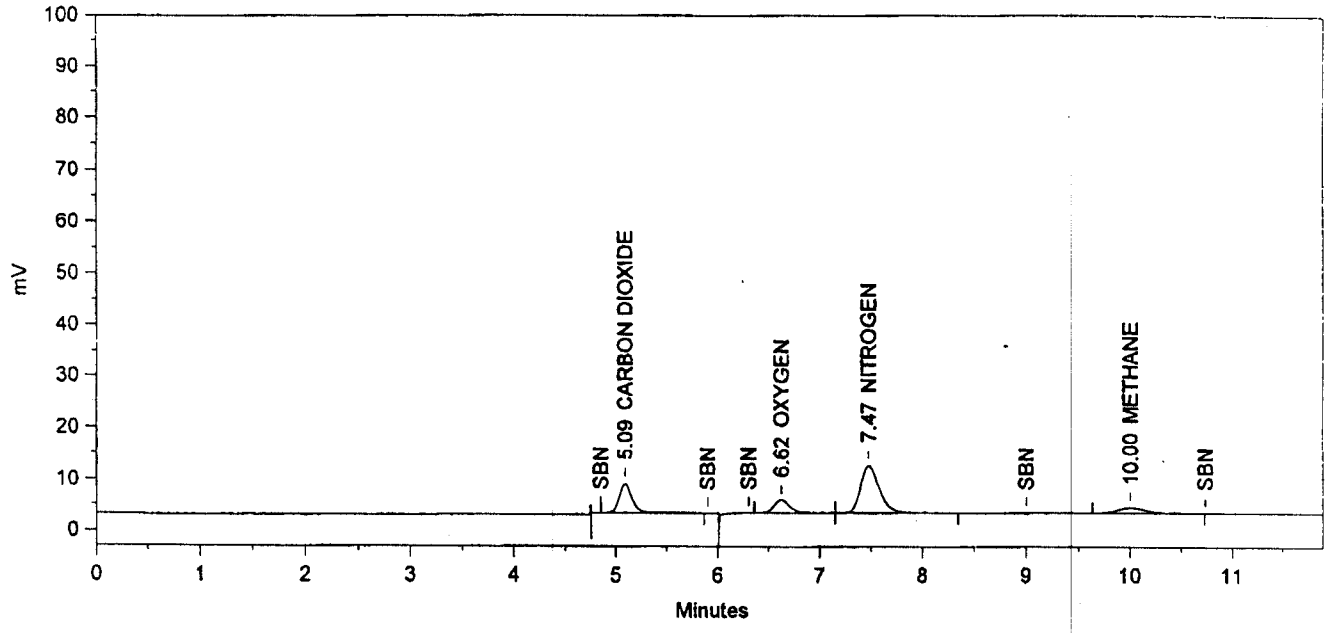
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.064	CARBON DIOXIDE	98.8191	80.355	131058.9	37.646	BB	0.144	15194.60	51.734
2	6.602	OXYGEN	3.8662	3.144	23947.5	6.879	BV	0.174	2290.74	7.799
3	7.468	NITROGEN	9.9479	8.089	76270.2	21.908	VB	0.211	6010.54	20.464
4	9.947	METHANE	10.3457	8.413	116858.7	33.567	BB	0.332	5874.90	20.003

Total Area = 348135.3, Total Amount = 122.979, Total Height = 29370.77, Sample Units = mg/L

P110465-11A



Sample Name: **P110465-11A**
Acquired from BIOREM 1--TCD via port 2 on 11/9/01 01:54:44pm by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T54\T54B2.31R**
Date Stamp: 11/9/01 01:54:44pm
Sequence File: T54A.SEQ #231
Method File: C:\CPWIN\T54\T54BW1.MET
Version 1. Date Stamp: 10/30/01 09:19:00am
Calibration File: C:\CPWIN\T54\T54BW1.CAL
Version 1. Date Stamp: 10/30/01 09:16:44am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 3 Area Reject = 0

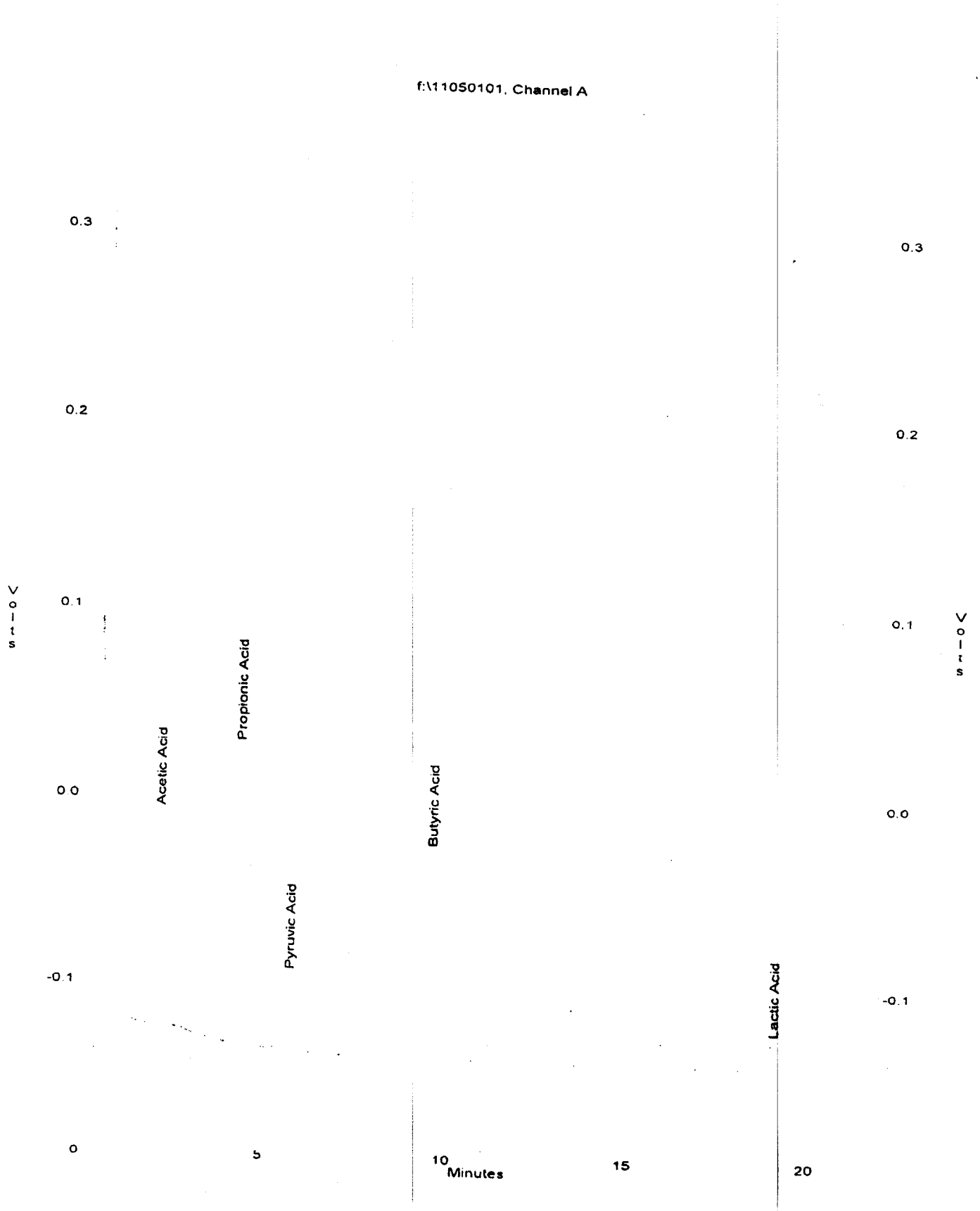
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.087	CARBON DIOXIDE	36.8227	62.953	48836.1	22.636	BB	0.143	5706.48	30.661
2	6.624	OXYGEN	4.3085	7.366	26686.7	12.369	BB	0.177	2515.04	13.513
3	7.473	NITROGEN	15.4001	26.328	118072.4	54.727	BB	0.213	9259.16	49.749
4	10.002	METHANE	1.9612	3.353	22152.9	10.268	BB	0.326	1131.03	6.077

Total Area = 215748.0, Total Amount = 58.492, Total Height = 18611.71, Sample Units = mg/L

Calibration Curves
For
Volatile Fatty Acids

External Standard Report -- Channel A
File : f:\11050101
Method : f:\vfa.met
Sample ID : 100 ppm 110501
Acquired : Nov 05, 2001 10:47:00
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.165	99.140 mg/l	1697640	113017
2	Propionic Acid	4.325	98.128 mg/l	2685468	157379
3	Pyruvic Acid	5.767	84.738 mg/l	868371	38785
4	Butyric Acid	9.615	97.825 mg/l	3235199	109501
5	Lactic Acid	19.115	101.976 mg/l	830819	13890
Totals			481.807	9317497	432572


f:\11050101, Channel A
0.3
0.2
0.1
0 0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

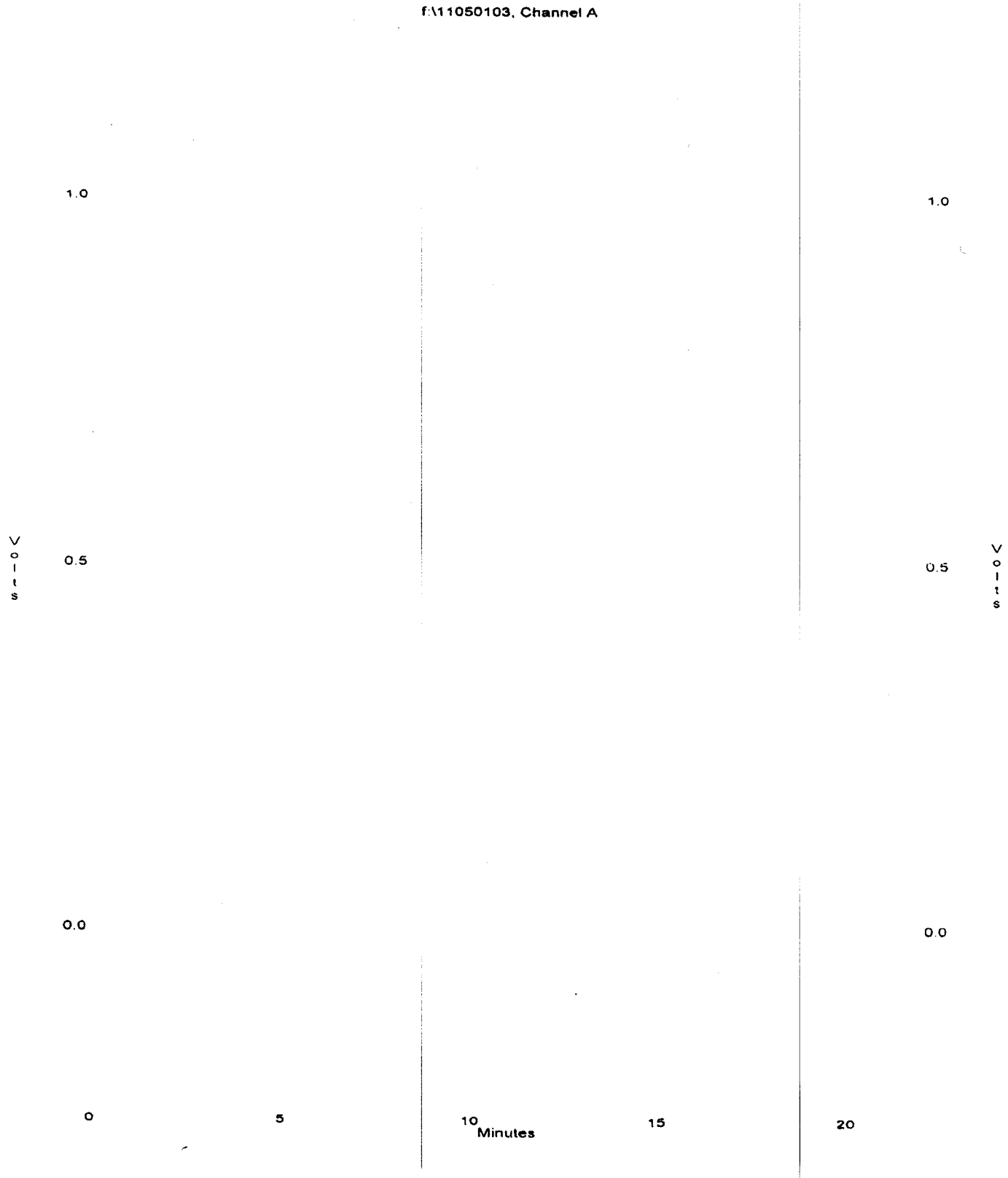
External Standard Report -- Channel A
File : f:\11050102
Method : f:\vfa.met
Sample ID : ib
Acquired : Nov 05, 2001 11:09:44
User : System

--- No Peaks Found.

f:\11050102, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

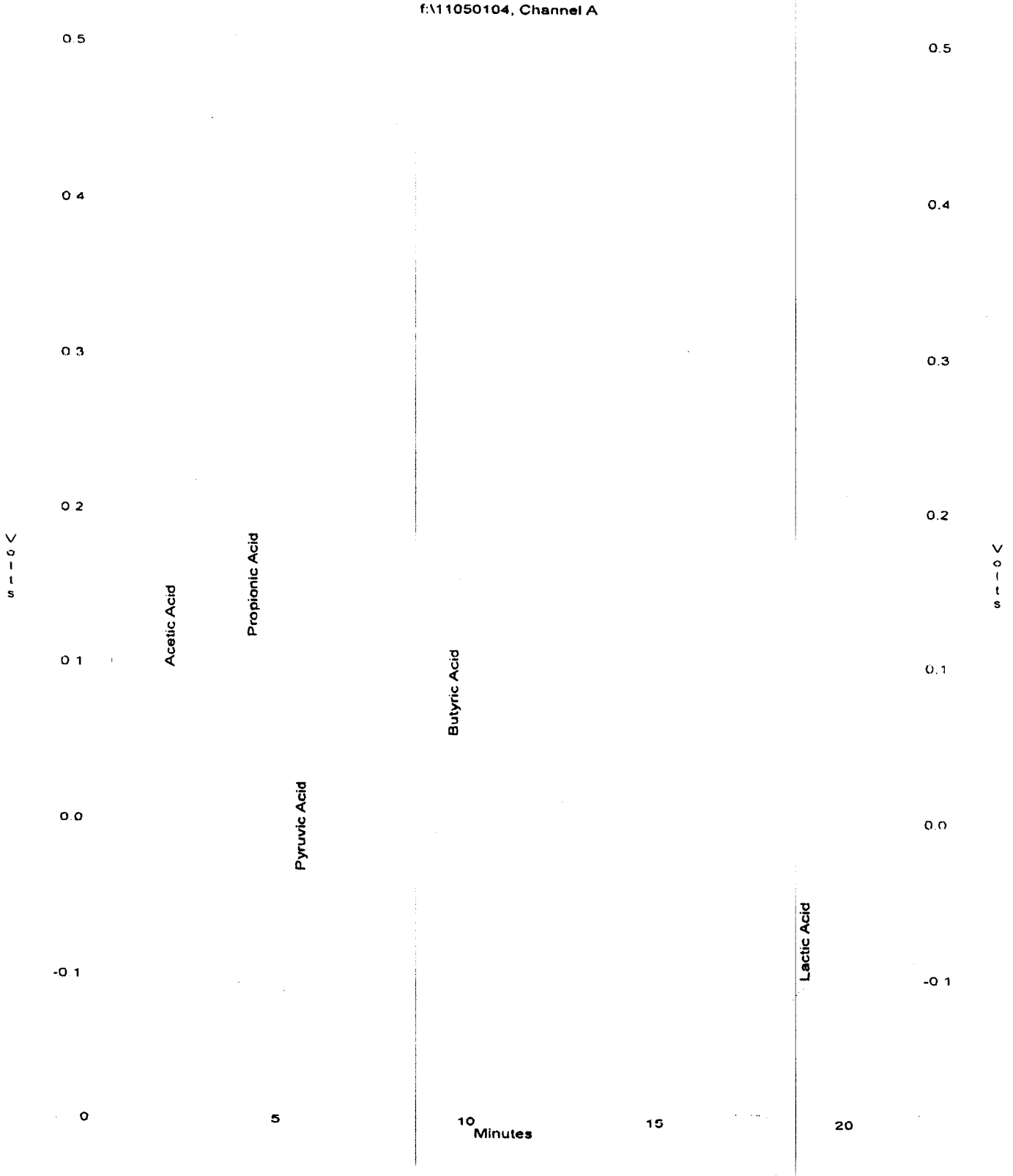
External Standard Report -- Channel A
File : f:\11050103
Method : f:\vfa.met
Sample ID : mb
Acquired : Nov 05, 2001 11:32:26
User : System

--- No Peaks Found.


f:\11050103, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

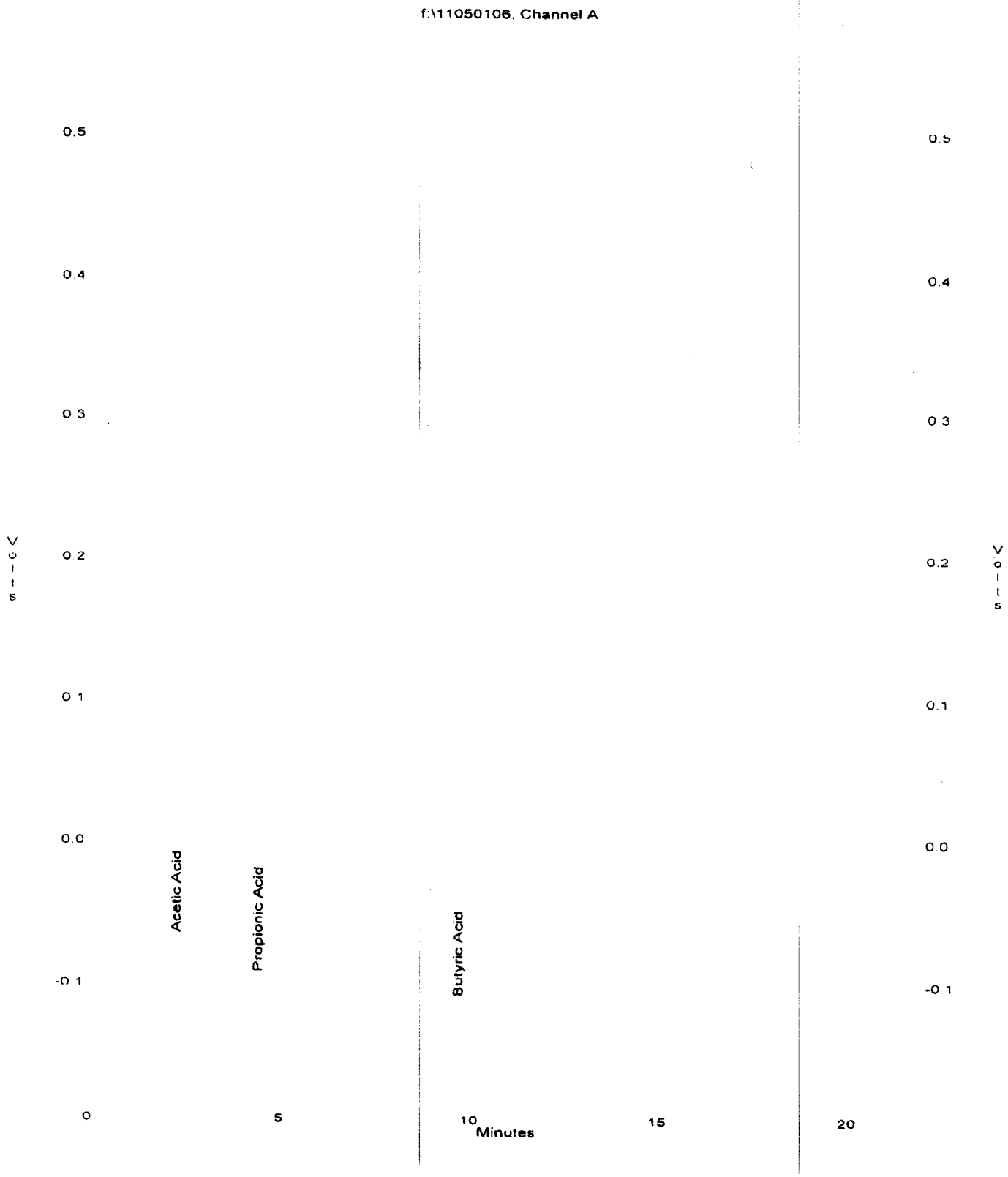
External Standard Report -- Channel A
File : f:\11050104
Method : f:\vfa.met
Sample ID : lcssupelco5x 110501
Acquired : Nov 05, 2001 11:55:11
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.167	109.920 mg/l	1881284	178973
2	Propionic Acid	4.325	129.481 mg/l	3540146	218427
3	Pyruvic Acid	5.613	133.356 mg/l	1359247	74422
4	Butyric Acid	9.623	156.706 mg/l	5169947	171101
5	Lactic Acid	18.948	167.205 mg/l	1425147	23301
Totals			696.668	13375771	666224


f:\11050104, Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
0
5
10
15
20
Minutes
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid

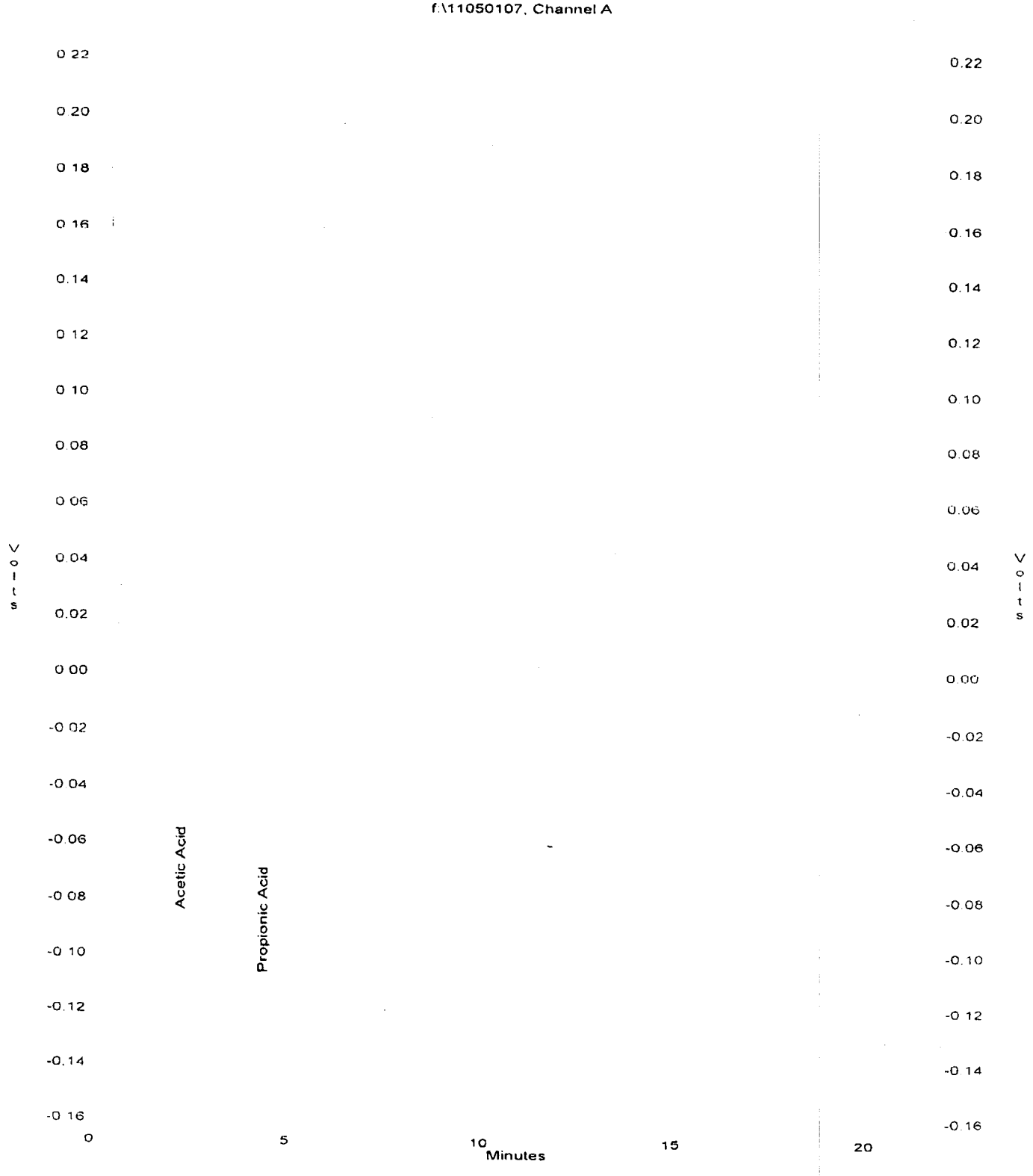
External Standard Report -- Channel A
File : f:\11050106
Method : f:\vfa.met
Sample ID : p110465-01a
Acquired : Nov 05, 2001 12:40:38
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.317	6.443 mg/l	118519	8891
2	Propionic Acid	4.447	2.577 mg/l	80810	4001
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	9.715	2.226 mg/l	93902	3134
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			11.246	293231	16026


f:\11050106. Channel A
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Butyric Acid
0
5
10
15
20
Minutes

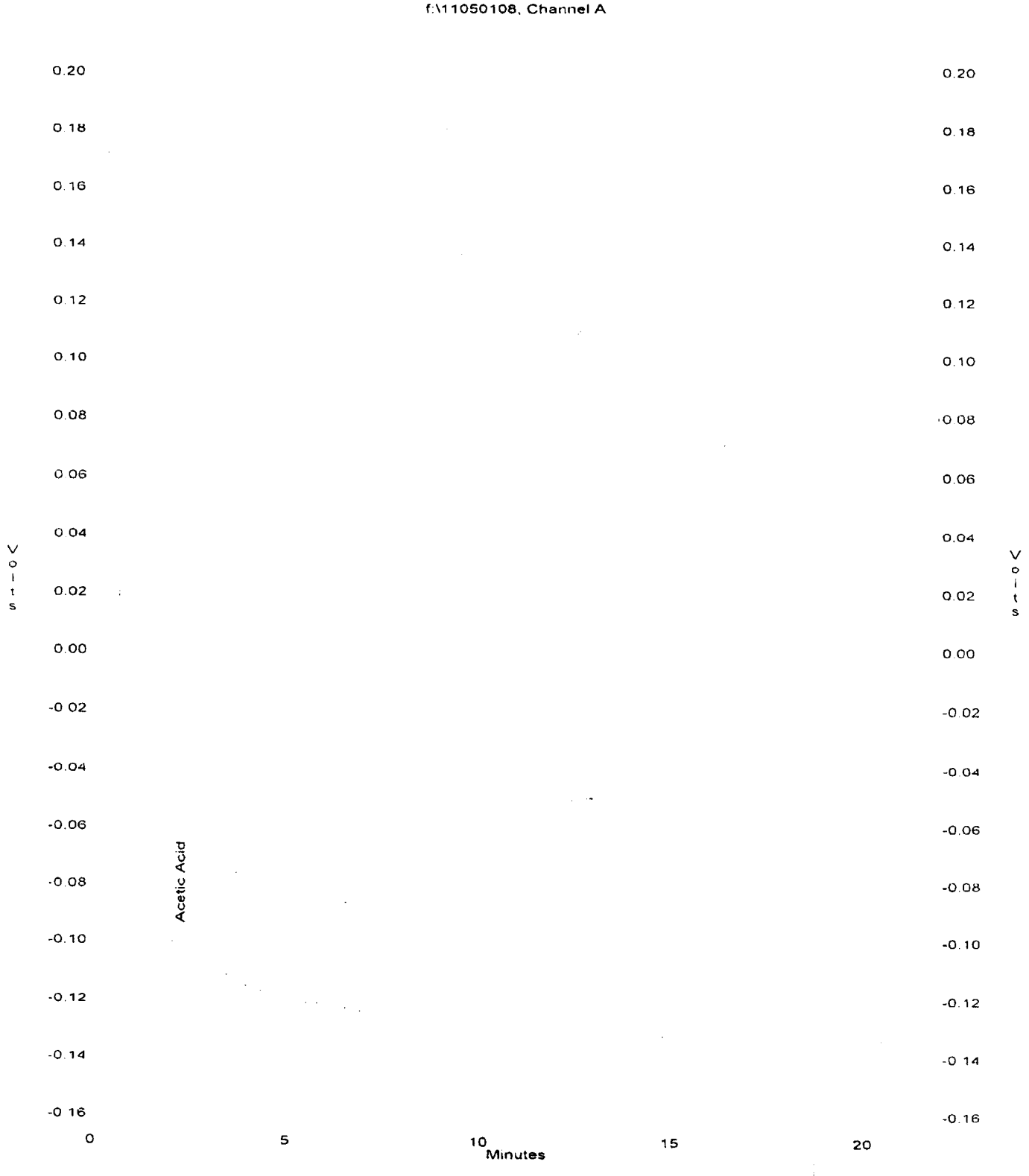
External Standard Report -- Channel A
File : f:\11050107
Method : f:\vfa.met
Sample ID : p110465-02a
Acquired : Nov 05, 2001 13:03:20
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.317	4.190 mg/l	80138	6076
2	Propionic Acid	4.428	0.633 mg/l	27841	1345
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			4.824	107979	7421


f:\11050107, Channel A
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

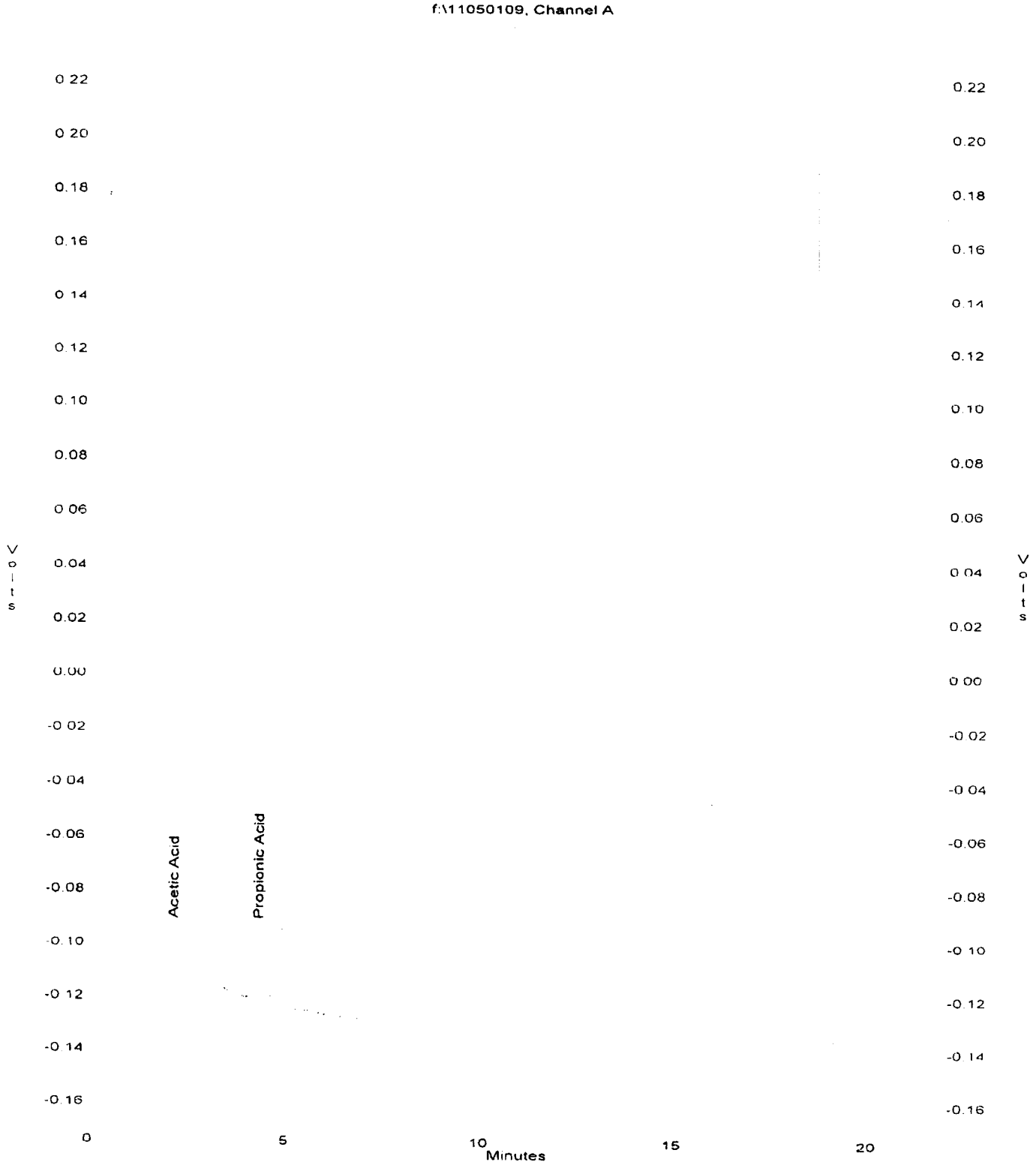
External Standard Report -- Channel A
File : f:\11050108
Method : f:\vfa.met
Sample ID : p110465-03a
Acquired : Nov 05, 2001 13:26:05
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.317	1.962 mg/l	42188	4723
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			1.962	42188	4723


f:\11050108, Channel A
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11050109
Method : f:\vfa.met
Sample ID : p110465-04a
Acquired : Nov 05, 2001 13:48:47
User : System

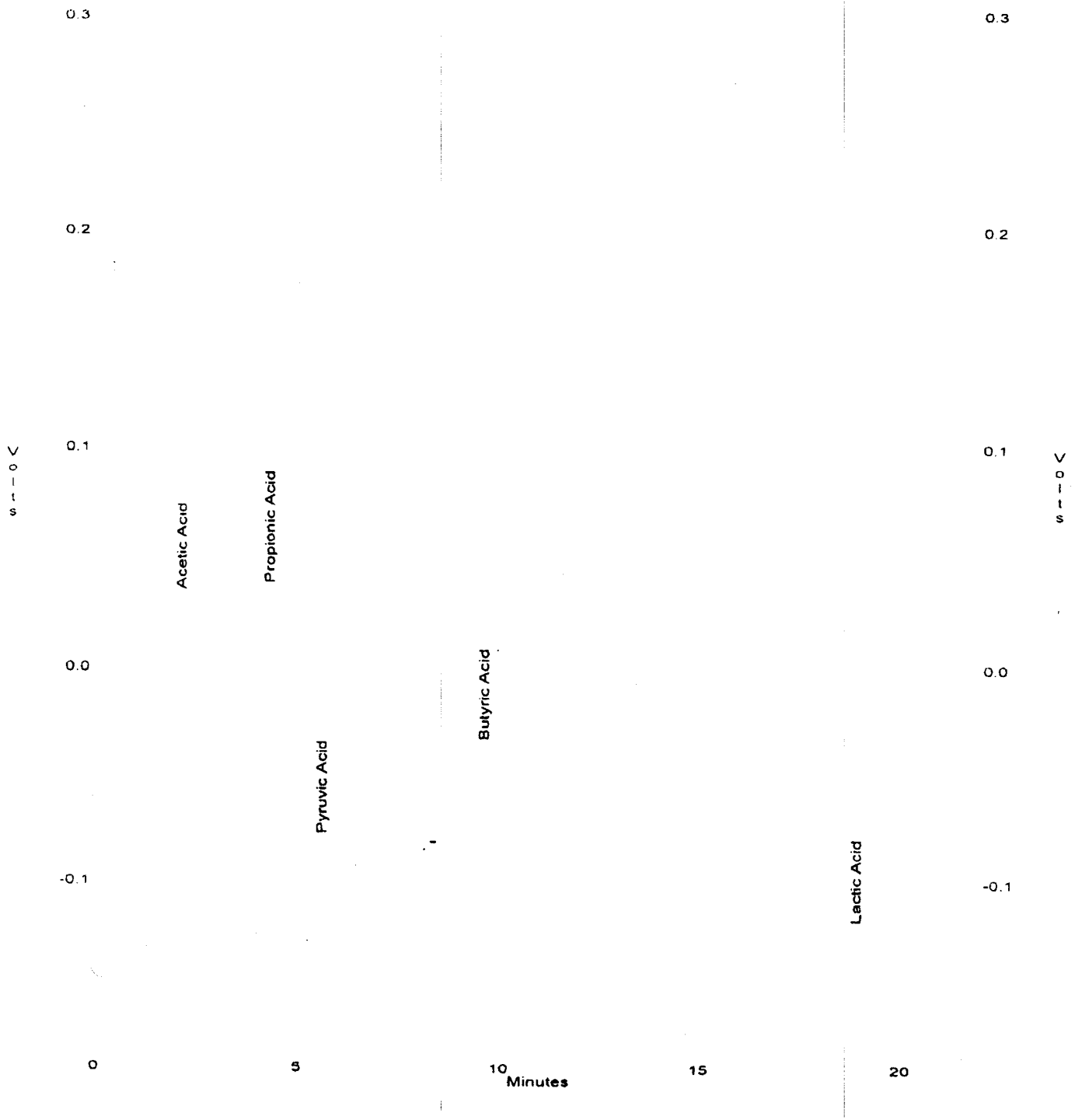
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.178	7.620 mg/l	138572	12466
2	Propionic Acid	4.338	16.998 mg/l	473916	27538
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			24.618	612488	40004


f:\11050109, Channel A
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11050110
Method : f:\vfa.met
Sample ID : p110465-05a ms
Acquired : Nov 05, 2001 14:11:31
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.167	105.921 mg/l	1813163	145640
2	Propionic Acid	4.337	108.445 mg/l	2966698	159815
3	Pyruvic Acid	5.625	80.763 mg/l	828234	46908
4	Butyric Acid	9.645	91.765 mg/l	3036056	96616
5	Lactic Acid	18.937	102.216 mg/l	833013	14809
Totals			489.110	9477164	463788

f:\11050110, Channel A



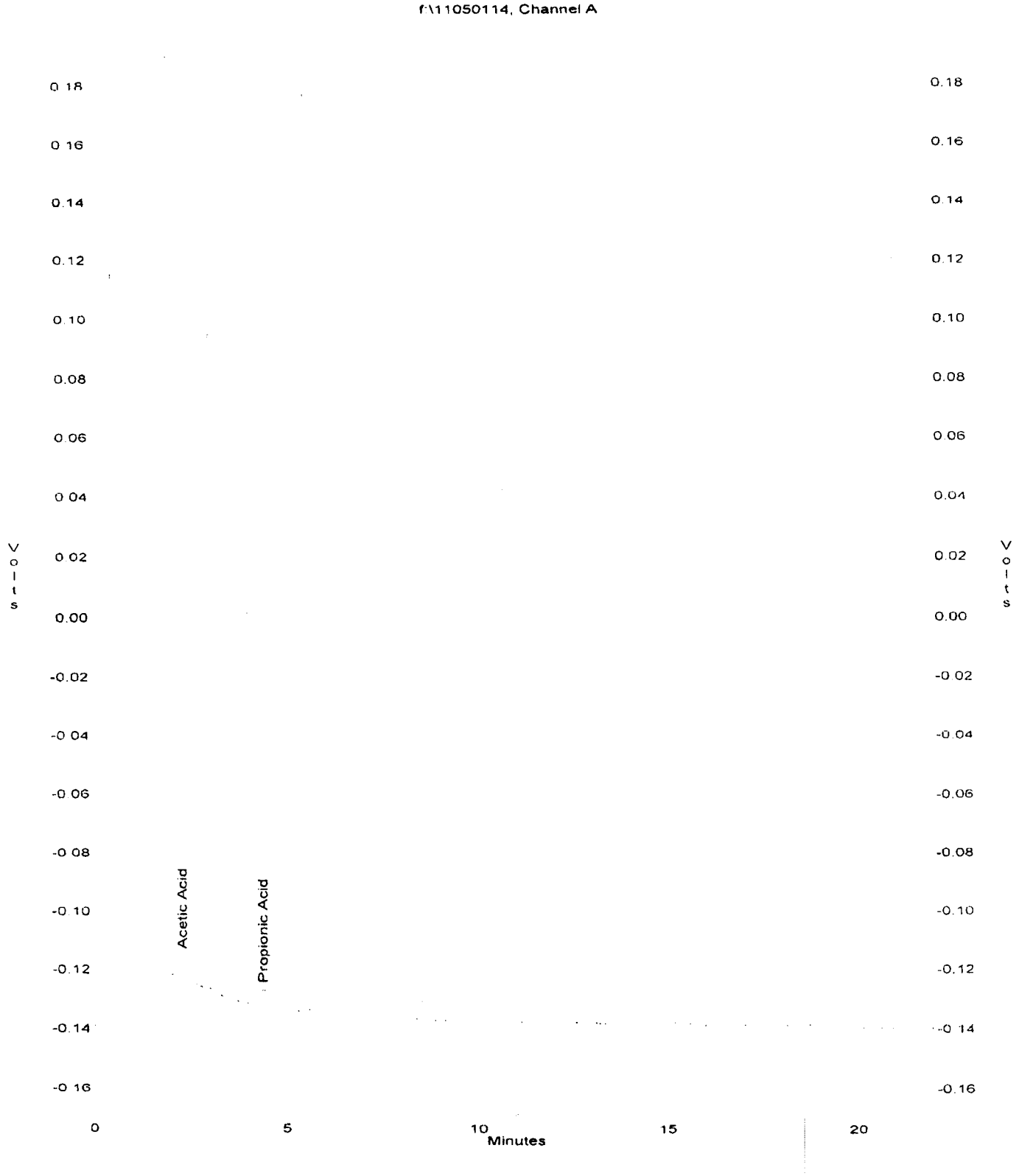
External Standard Report -- Channel A
File : f:\11050112
Method : f:\vfa.met
Sample ID : p110465-06a msd
Acquired : Nov 05, 2001 14:56:58
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.173	108.192 mg/l	1851847	136841
2	Propionic Acid	4.327	115.174 mg/l	3150139	196715
3	Pyruvic Acid	5.735	88.294 mg/l	904277	44584
4	Butyric Acid	9.610	99.698 mg/l	3296741	113051
5	Lactic Acid	19.067	100.401 mg/l	816475	13566
Totals			511.760	10019479	504757

f:\11050112, Channel A
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11050114
Method : f:\vfa.met
Sample ID : p110465-07a
Acquired : Nov 05, 2001 15:42:24
User : System

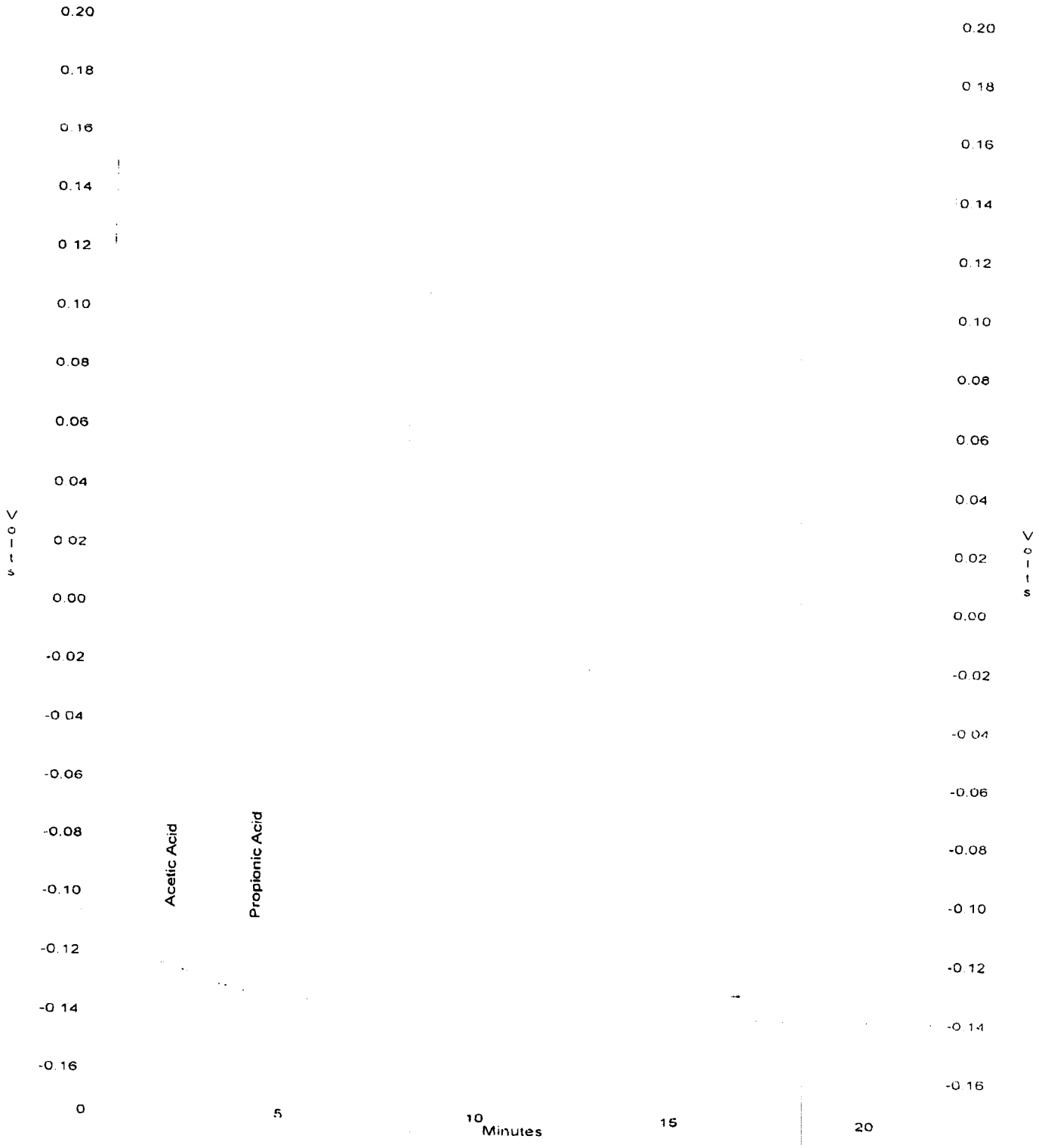
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.297	7.122 mg/l	130088	7798
2	Propionic Acid	4.387	3.833 mg/l	115063	5484
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			10.955	245151	13282


f:\11050114, Channel A
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Volts
Acetic Acid
Propionic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11050116
Method : f:\vfa.met
Sample ID : p110465-08a
Acquired : Nov 05, 2001 16:27:51
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.177	11.191 mg/l	199406	17174
2	Propionic Acid	4.327	11.843 mg/l	333406	22397
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			23.034	532812	39571

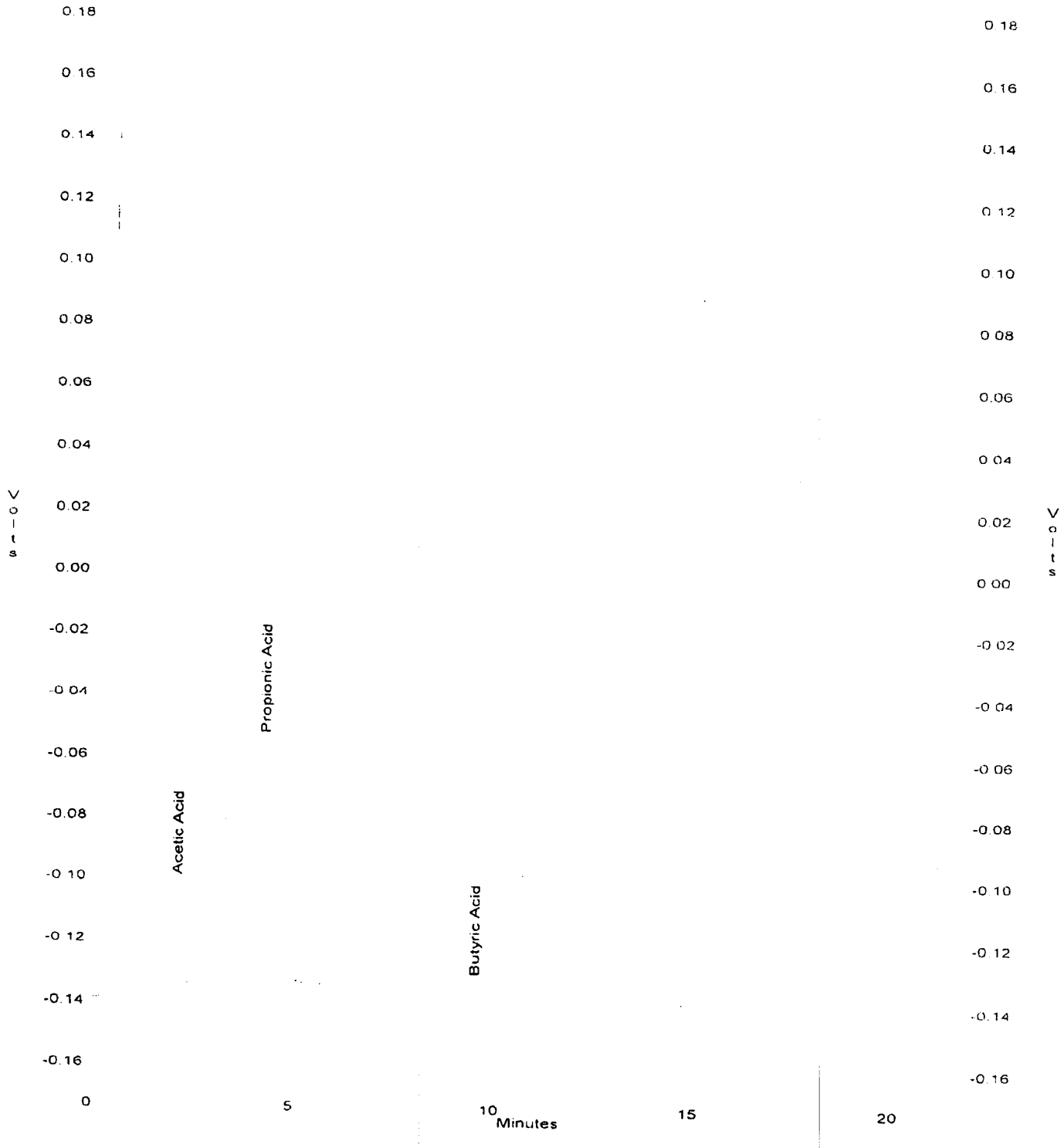
f:\11050116, Channel A



External Standard Report -- Channel A
File : f:\11050115
Method : f:\vfa.met
Sample ID : p110465-09a
Acquired : Nov 05, 2001 16:05:06
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	15.379 mg/l	270746	18335
2	Propionic Acid	4.335	47.279 mg/l	1299379	75863
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	9.623	3.489 mg/l	135395	4399
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			66.147	1705520	98597

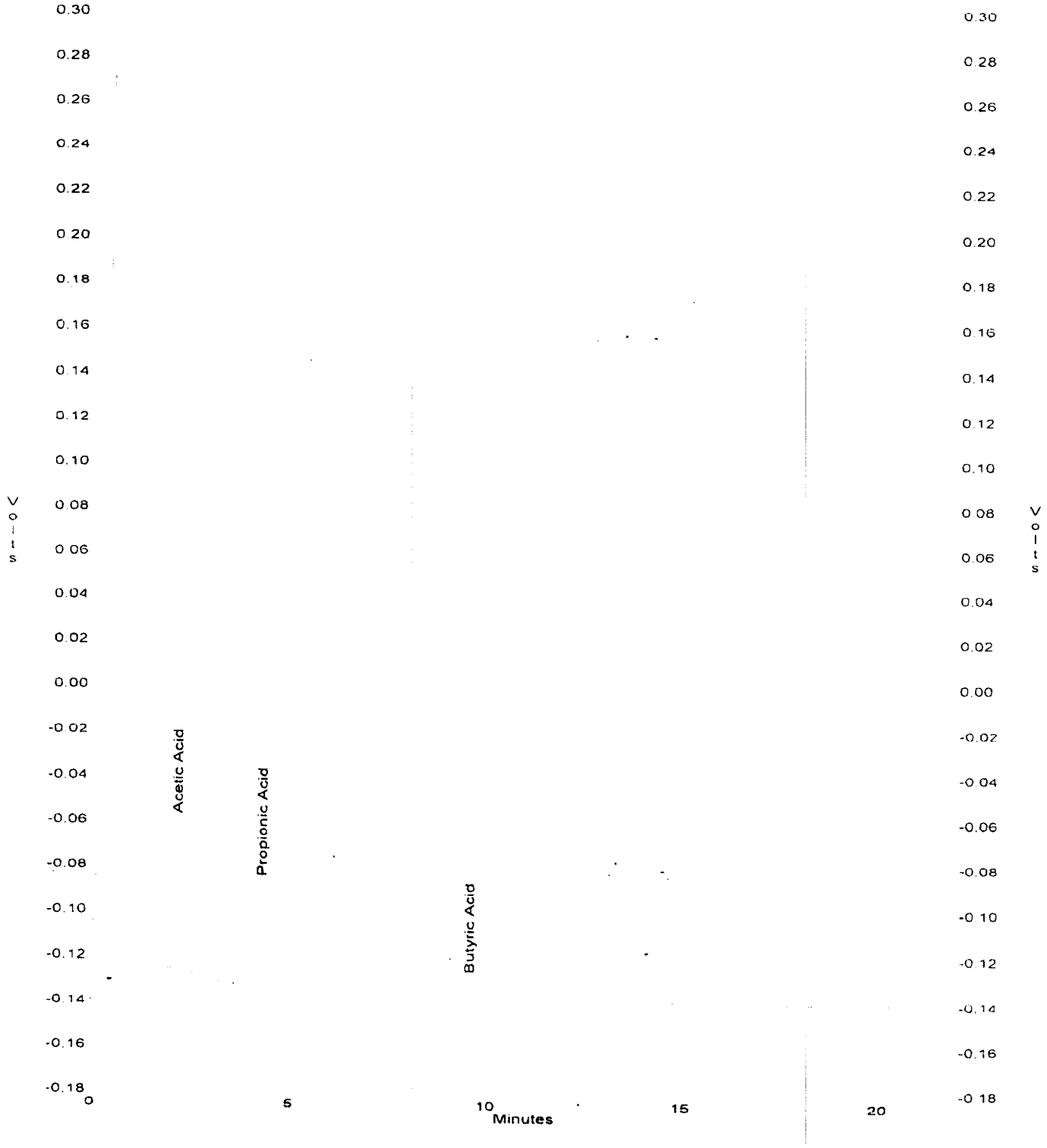
070


f:\11050115, Channel A
Volts
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
Acetic Acid
Propionic Acid
Butyric Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11050118
Method : f:\vfa.met
Sample ID : p110465-10a
Acquired : Nov 05, 2001 17:13:17
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.185	39.799 mg/l	686750	65820
2	Propionic Acid	4.325	24.174 mg/l	669533	45933
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	9.605	6.184 mg/l	223965	7958
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			70.157	1580248	119711

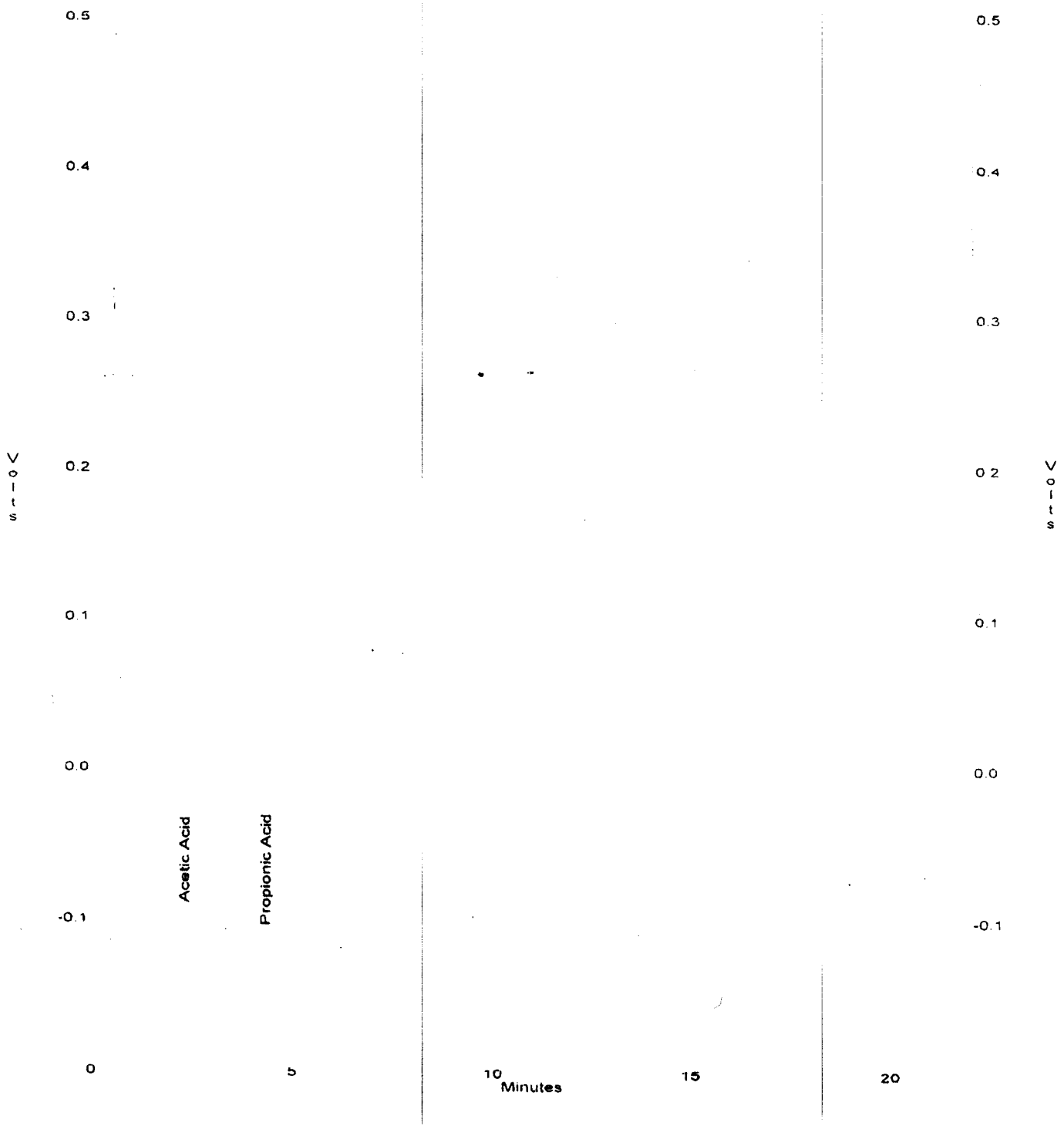
f:\11050118, Channel A



External Standard Report -- Channel A
File : f:\11050120
Method : f:\vfa.met
Sample ID : p110465-11a
Acquired : Nov 05, 2001 17:58:44
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.305	0.600 mg/l	18982	2417
2	Propionic Acid	4.318	1.613 mg/l	54534	3294
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			2.213	73516	5711

f:\11050120, Channel A



* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Acetic Acid

Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	107381	5	21476.20	107381							0
2	427451	25	17098.04	427451							0
3	841527	50	16830.54	841527							0
4	1718680	100	17186.80	1718680							0
5	4278821	250	17115.28	4278821							0
6	8521615	500	17043.23	8521615							

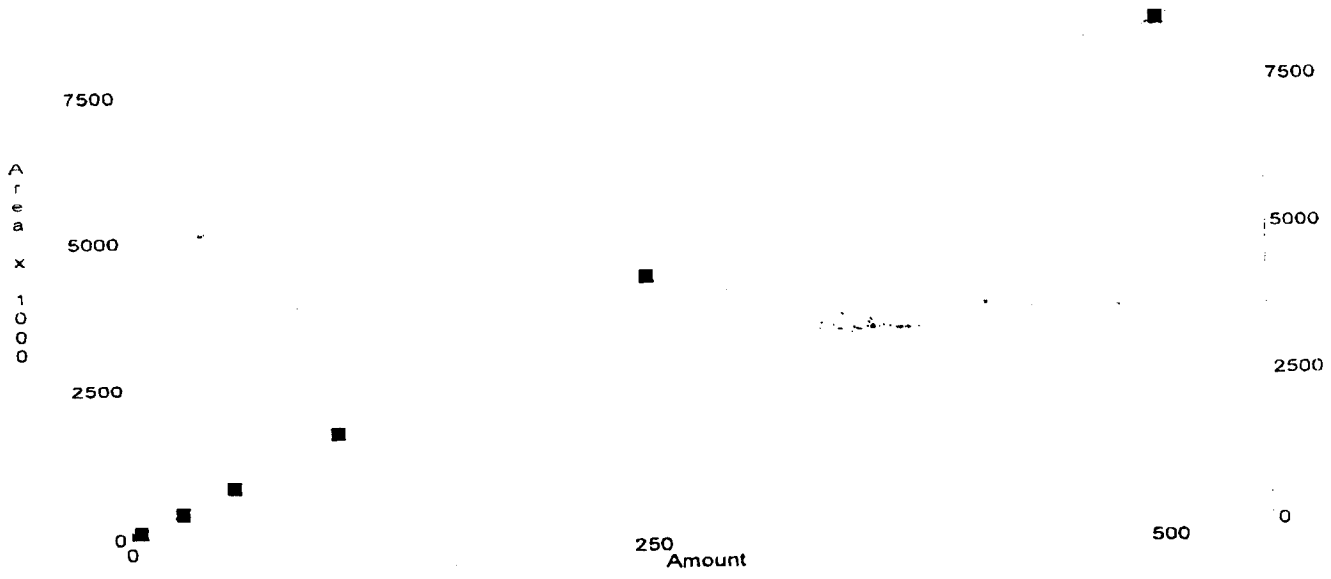
Calib Flag: Replace

Average RF: 17791.7
RF StdDev: 1809.1
RF %RSD: 10.168

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 5.87012e-005 x Area - 0.514027
R^2 = 0.999985

External Standard Curve - Scaling: None



* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Propionic Acid

Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
											0
1	134063	5	26812.60	134063							0
2	678625	25	27145.00	678625							0
3	1354374	50	27087.48	1354374							0
4	2762919	100	27629.19	2762919							0
5	6869082	250	27476.33	6869082							0
6	13615526	500	27231.05	13615526							

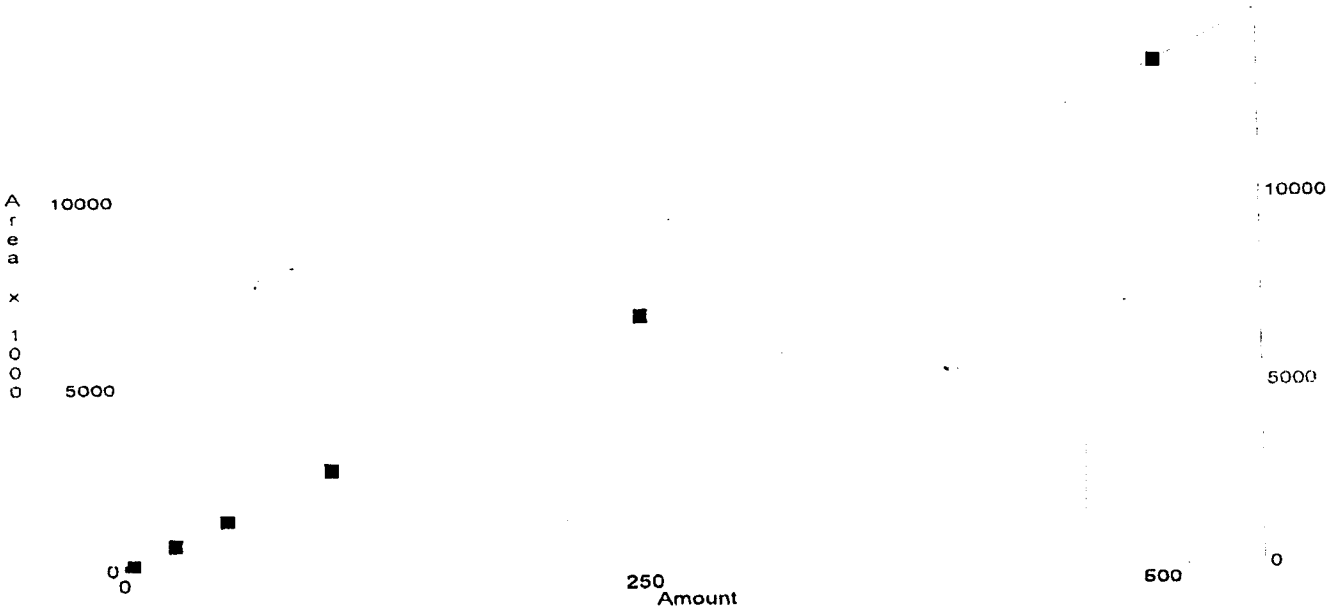
Calib Flag: Replace

Average RF: 27230.3
RF StdDev: 290.445
RF %RSD: 1.067

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.66847e-005 x Area - 0.387884
R^2 = 0.999971

External Standard Curve - Scaling: None



* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Pyruvic Acid

Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	72265	5	14453.00	72265							0
2	260157	25	10406.28	260157							0
3	509391	50	10187.82	509391							0
4	1037188	100	10371.88	1037188							0
5	2520360	250	10081.44	2520360							0
6	5067290	500	10134.58	5067290							0

Calib Flag: Replace

Average RF: 10939.2
RF StdDev: 1726.29
RF %RSD: 15.781

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 9.90435e-005 x Area - 1.26843
R^2 = 0.999962

External Standard Curve - Scaling: None

* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Butyric Acid

Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
											0
1	150913	5	30182.60	150913							0
2	827458	25	33098.32	827458							0
3	1630082	50	32601.64	1630082							0
4	3357055	100	33570.55	3357055							0
5	8312637	250	33250.55	8312637							0
6	16405186	500	32810.37	16405186							

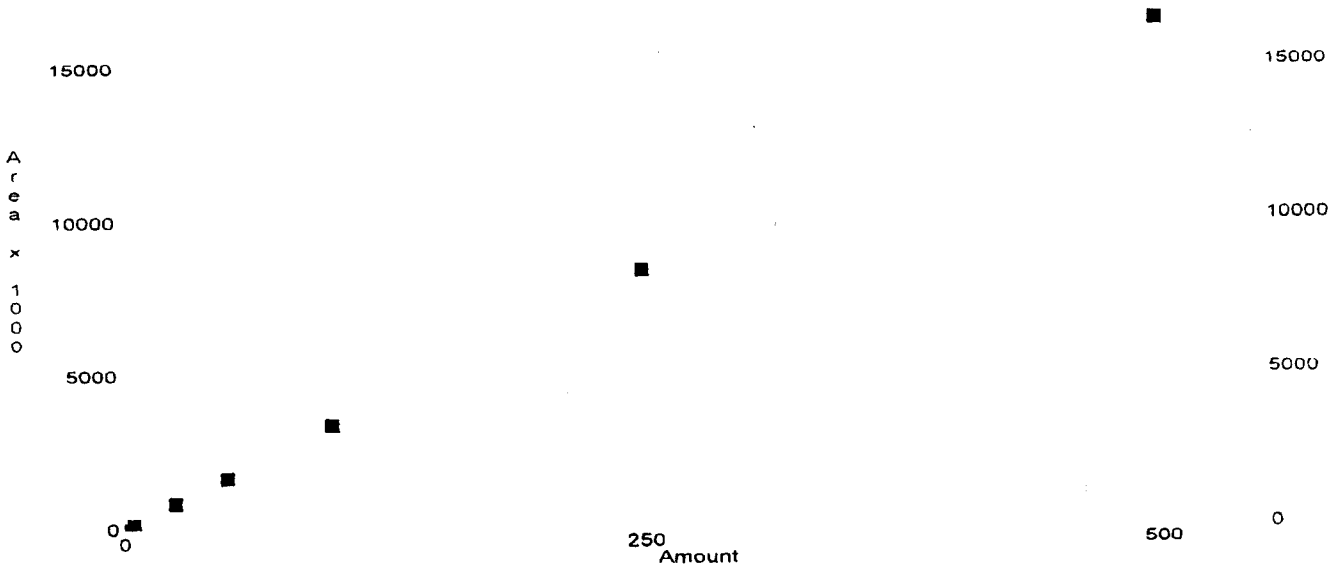
Calib Flag: Replace

Average RF: 32585.7
RF StdDev: 1224.77
RF %RSD: 3.759

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.04332e-005 x Area - 0.631947
R^2 = 0.999933

External Standard Curve - Scaling: None



* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Lactic Acid

Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
											0
2	174310	25	6972.40	174310							0
3	343942	50	6878.84	343942							0
4	723621	100	7236.21	723621							0
5	2269445	250	9077.78	2269445							0
6	4425103	500	8850.21	4425103							

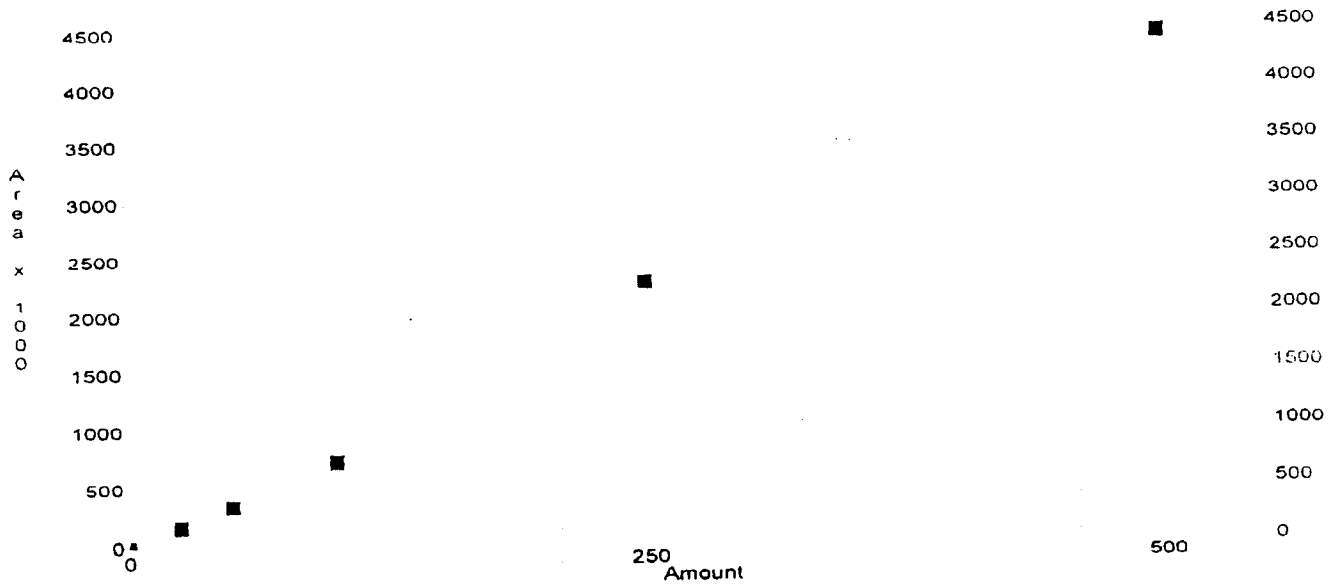
Calib Flag: Replace

Average RF: 7803.09
RF StdDev: 1070.86
RF %RSD: 13.723

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

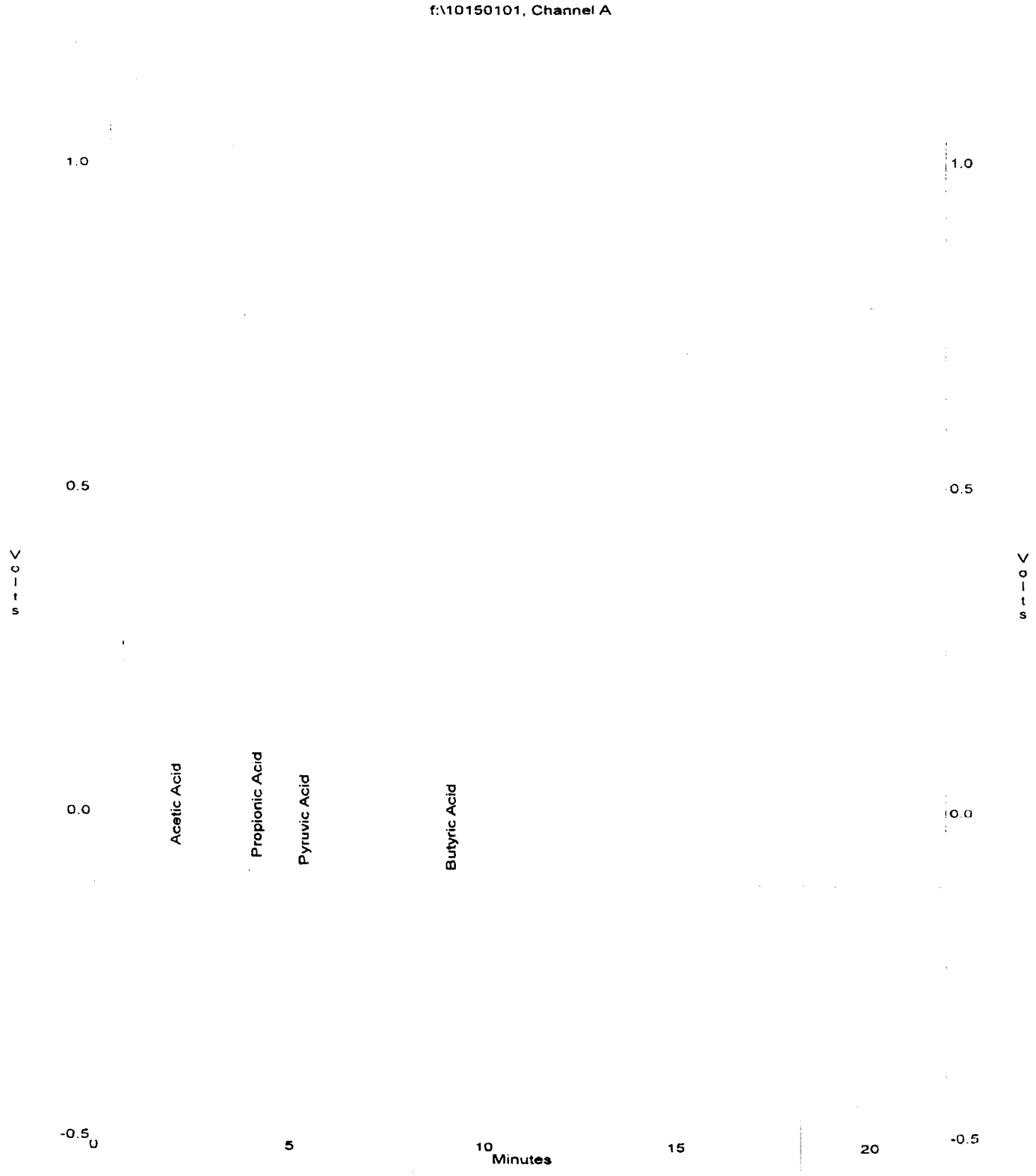
Linear Fit: Amount = 0.000109753 * Area + 10.7909
R^2 = 0.998498

External Standard Curve - Scaling: None



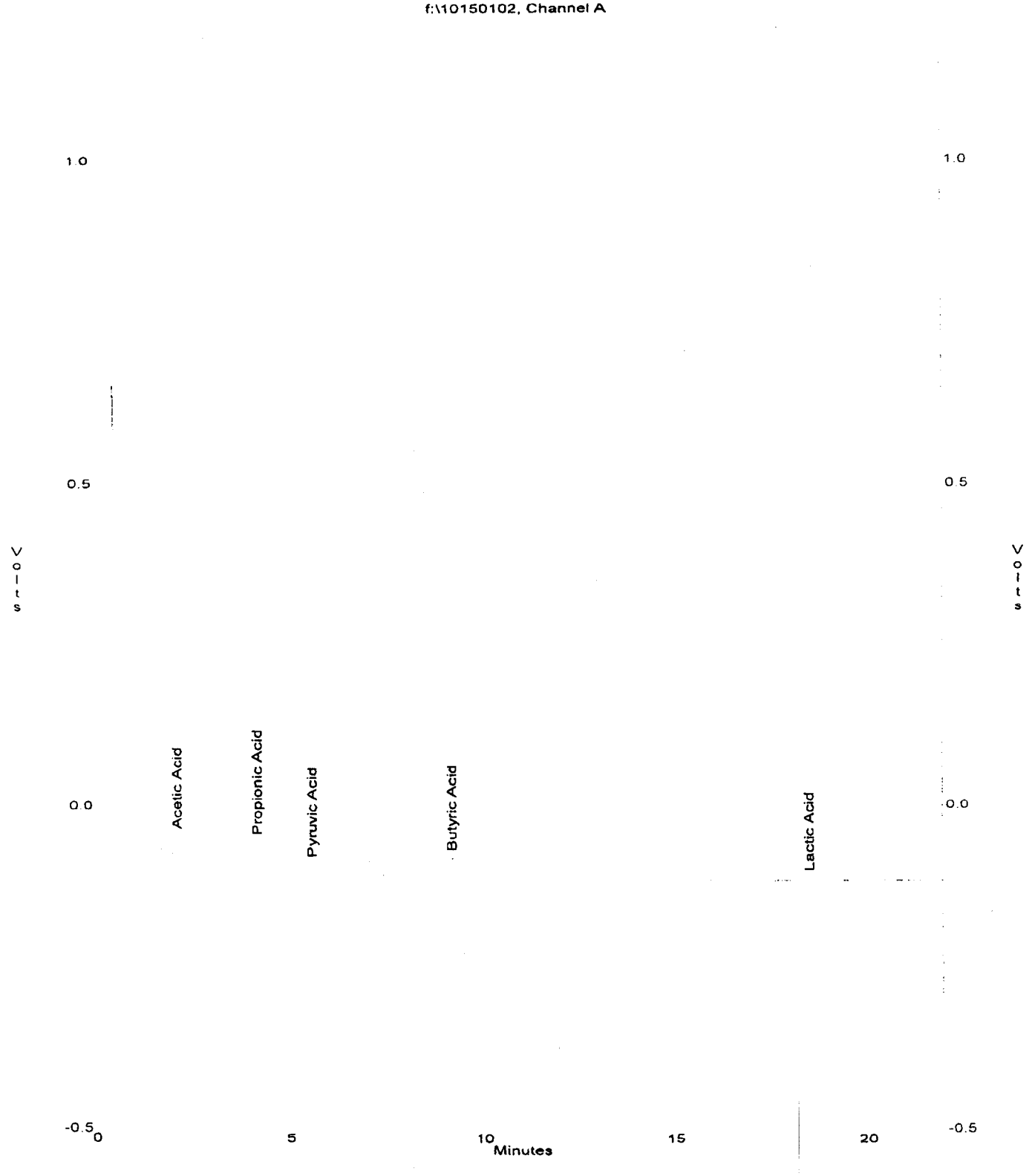
External Standard Report -- Channel A
File : f:\10150101
Method : f:\vfa.met
Sample ID : 5 ppm
Acquired : Oct 16, 2001 10:24:22
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.097	5.789 mg/l	107381	7829
2	Propionic Acid	4.165	4.530 mg/l	134063	9378
3	Pyruvic Acid	5.375	5.889 mg/l	72265	3520
4	Butyric Acid	9.165	3.961 mg/l	150913	5710
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			20.169	464622	26437


f:\10150101, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10150102
Method : f:\vfa.met
Sample ID : 25 ppm
Acquired : Oct 16, 2001 10:47:06
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	24.578 mg/l	427451	28597
2	Propionic Acid	4.155	24.507 mg/l	678625	39804
3	Pyruvic Acid	5.568	24.498 mg/l	260157	11333
4	Butyric Acid	9.197	24.550 mg/l	827458	29073
5	Lactic Acid	18.518	29.922 mg/l	174310	2721
Totals			128.056	2368001	111528


f:\10150102, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10150103
Method : f:\vfa.met
Sample ID : 50 ppm
Acquired : Oct 16, 2001 11:09:48
User : System

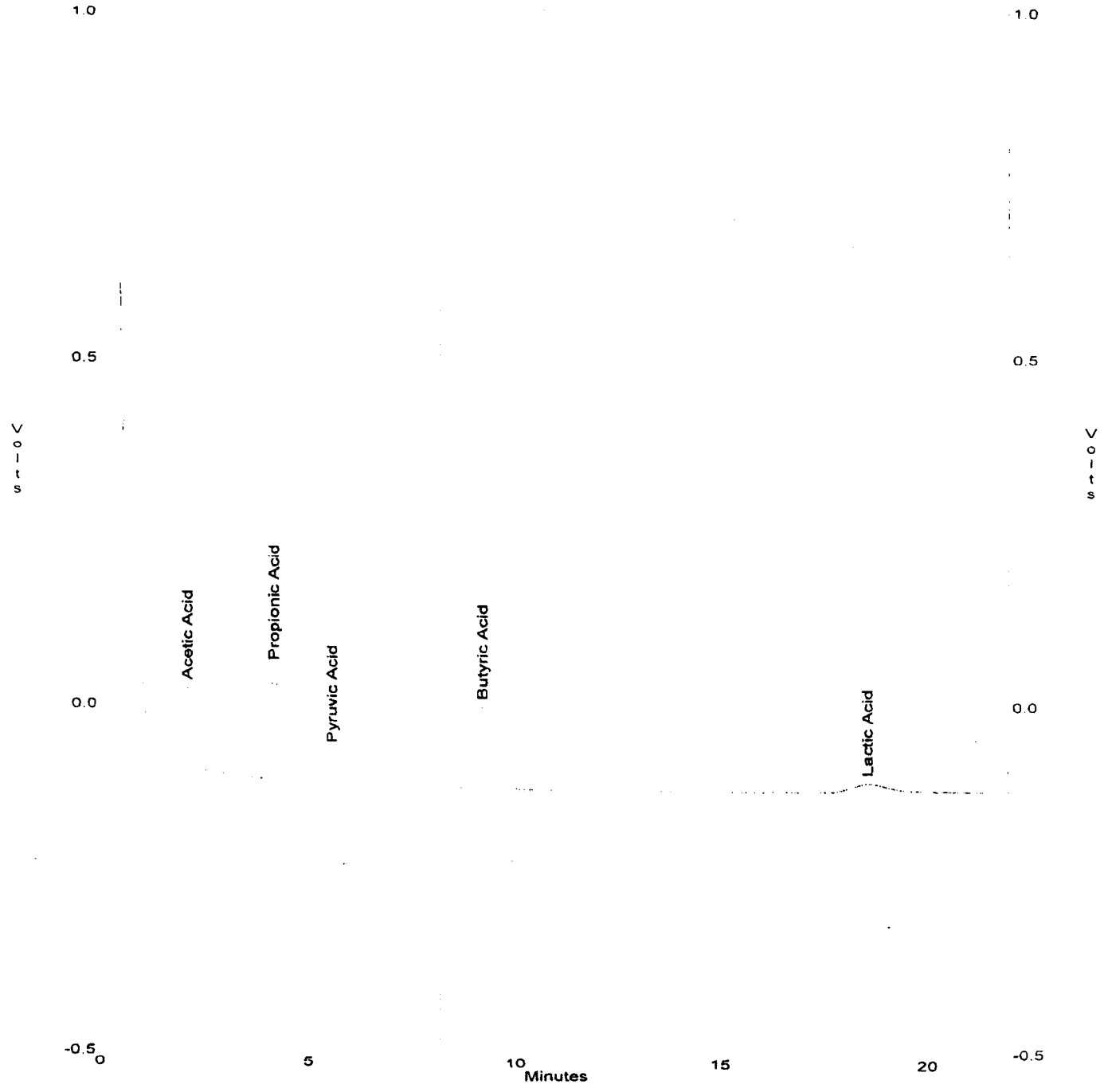
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	48.885 mg/l	841527	55208
2	Propionic Acid	4.157	49.297 mg/l	1354374	77921
3	Pyruvic Acid	5.567	49.183 mg/l	509391	22305
4	Butyric Acid	9.197	48.977 mg/l	1630082	56778
5	Lactic Acid	18.577	48.540 mg/l	343942	5632
Totals			244.881	4679316	217844

f:\10150103, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\10150104
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Oct 16, 2001 11:32:33
User : System

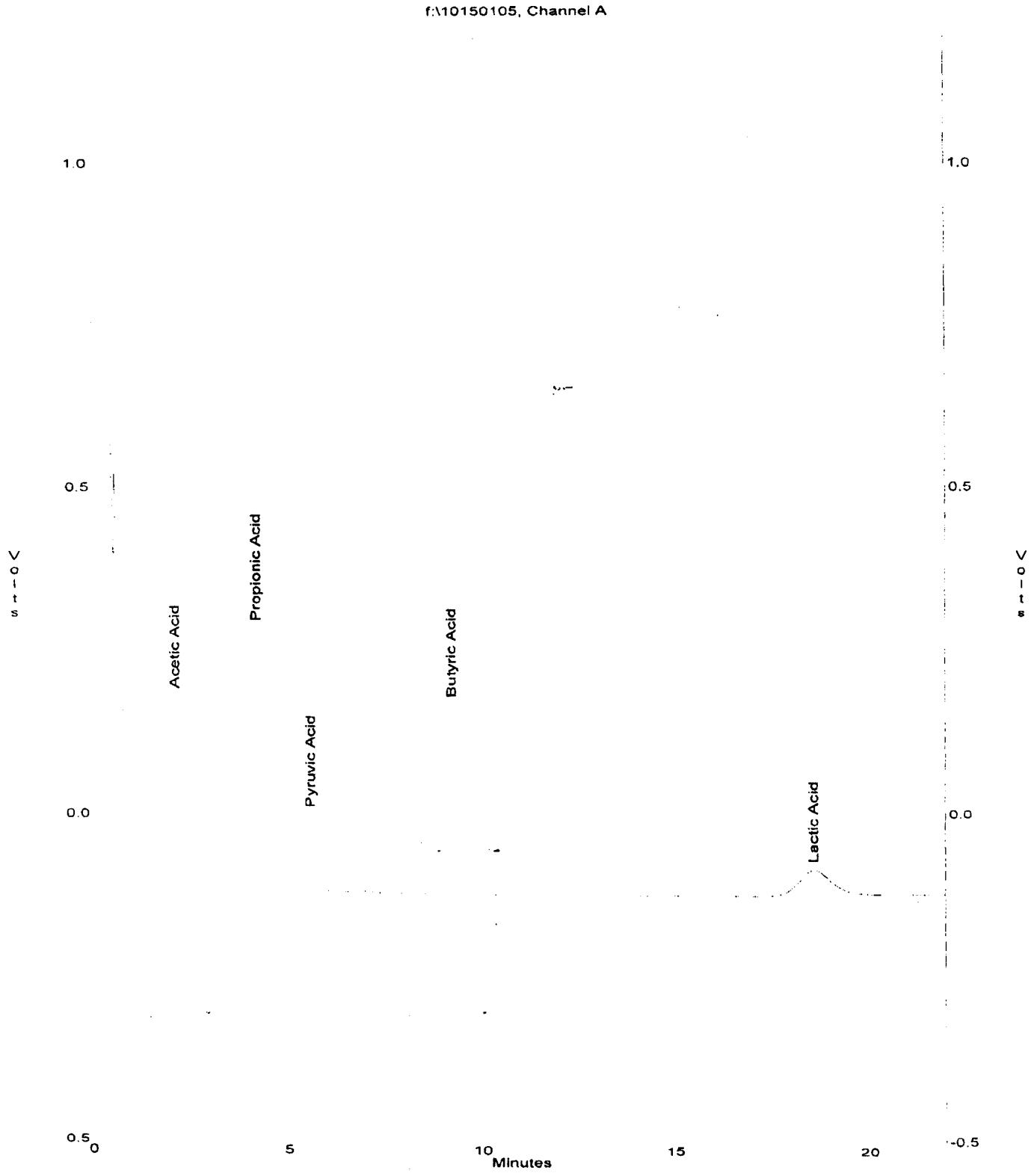
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	100.375 mg/l	1718680	113591
2	Propionic Acid	4.157	100.969 mg/l	2762919	159997
3	Pyruvic Acid	5.560	101.458 mg/l	1037188	46264
4	Butyric Acid	9.202	101.534 mg/l	3357055	116632
5	Lactic Acid	18.578	90.210 mg/l	723621	11805
Totals			494.546	9599463	448289

f:\10150104, Channel A



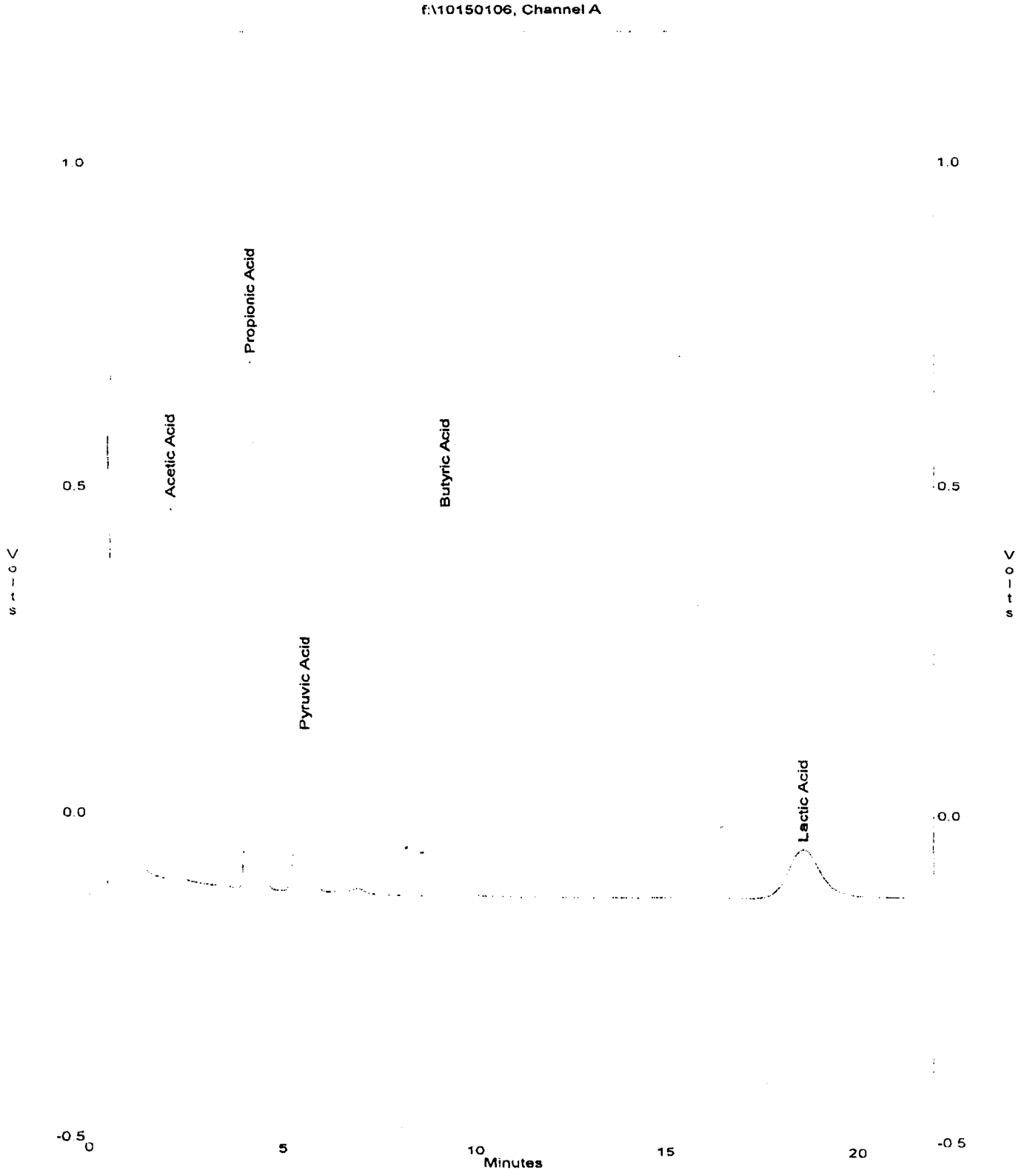
External Standard Report -- Channel A
File : f:\10150105
Method : f:\vfa.met
Sample ID : 250 ppm
Acquired : Oct 16, 2001 12:40:54
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	250.658 mg/l	4278821	280125
2	Propionic Acid	4.157	251.603 mg/l	6869082	397088
3	Pyruvic Acid	5.552	248.357 mg/l	2520360	116022
4	Butyric Acid	9.202	252.348 mg/l	8312637	289335
5	Lactic Acid	18.577	259.869 mg/l	2269445	38400
Totals			1262.835	24250344	1120970


f:\10150105, Channel A
1.0
0.5
0.0
0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes
1.0
0.5
0.0
-0.5
Volts

External Standard Report -- Channel A
File : f:\10150106
Method : f:\vfa.met
Sample ID : 500 ppm
Acquired : Oct 16, 2001 13:03:38
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.088	500.000 mg/l	8521615	571842
2	Propionic Acid	4.157	500.000 mg/l	13615526	806154
3	Pyruvic Acid	5.542	500.000 mg/l	5067290	234356
4	Butyric Acid	9.202	500.000 mg/l	16405186	578881
5	Lactic Acid	18.577	500.000 mg/l	4425103	72955
Totals			2500.000	48034720	2264188


f:\10150106, Channel A
1.0
0.5
0.0
-0.5
Volts
Propionic Acid
Acetic Acid
Butyric Acid
Pyruvic Acid
Lactic Acid
0
5
10
15
20
Minutes

Method Detection Limit Studies

METHOD DETECTION LIMITS - BIOREM 1

	Lab ID	Hydrogen	Date Analyzed
REP. #		(PPMV)	01/24/01
1	T42 62	0.1118	
2	T42 63	0.1122	
3	T42 64	0.1247	
4	T42 65	0.1244	
5	T42 66	0.1120	
6	T42 67	0.0943	
7	T42 68	0.1296	
AVERAGE		0.1156	
KNOWN		0.0999	
STD DEV		0.012	
MDL (VAPOR)		0.037	
MDL (BUBBLE)		0.03nM	

		Carbon	Oxygen	Nitrogen	Methane	Carbon	Date Analyzed
	Lab ID	Dioxide				Monoxide	01/18/01
REP. #		(%v)	(%v)	(%v)	(%v)	(%v)	
1	T42 458	0.1221	0.0670	0.5744	0.0410	0.0621	
2	T42 459	0.1267	0.0690	0.6020	0.0428	0.0537	
3	T42 460	0.1207	0.0657	0.5836	0.0446	0.0525	
4	T42 461	0.1193	0.0667	0.6036	0.0444	0.0672	
5	T42 462	0.1261	0.0703	0.5860	0.0439	0.0596	
6	T42 463	0.1193	0.0665	0.5861	0.0476	0.0643	
7	T42 464	0.1227	0.0732	0.5748	0.0353	0.0581	
AVERAGE		0.1224	0.0683	0.5872	0.0428	0.0596	
KNOWN		0.1500	0.0700	0.6649	0.0450	0.0701	
STD. DEV.		0.003	0.003	0.012	0.004	0.005	
MDL (VAPOR)		0.009	0.008	0.037	0.012	0.017	
MDL (BUBBLE)		0.14 mg/L	0.003 mg/L	0.007 mg/L	0.003 mg/L	0.005 mg/L	
MDL (H2O)		0.19 mg/L	0.04 mg/L	0.15 mg/L	0.03 mg/L	0.07 mg/L	

	Lab ID	Methane	Ethane	Ethylene	Propane	Propylene	Iso-Butane	N-Butane	Date Analyzed
REP. #		(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	01/30/01
1	T43 147	0.2512	0.0525	0.0453	0.0461	0.0581	0.0473	0.0358	
2	T43 148	0.2608	0.0518	0.0466	0.0521	0.0465	0.0439	0.0407	
3	T43 149	0.2612	0.0509	0.0485	0.0529	0.0588	0.0436	0.0405	
4	T43 150	0.2779	0.0549	0.0460	0.0461	0.0536	0.0549	0.0476	
5	T43 151	0.2694	0.0551	0.0497	0.0520	0.0549	0.0417	0.0460	
6	T43 152	0.2970	0.0515	0.0467	0.0458	0.0542	0.0435	0.0514	
7	T43 153	0.3053	0.0532	0.0473	0.0485	0.0584	0.0483	0.0535	
AVERAGE		0.2804	0.0528	0.0472	0.0491	0.0549	0.0462	0.0451	
KNOWN		0.1500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	
STD DEV		0.019	0.002	0.001	0.003	0.004	0.004	0.006	
MDL (VAPOR)		0.060	0.005	0.005	0.010	0.013	0.014	0.020	
MDL (BUBBLE)		0.001 ug/L	0.3 ng/L	0.7ng/L	0.6 ng/L	2.6 ng/L	0.7 ng/L	1.2 ng/L	
MDL (H2O)		0.015 ug/L	2.4 ng/L	2.6 ng/L	6.7 ng/L	10 ng/L	12 ng/L	17 ng/L	

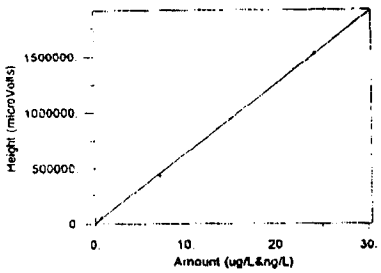
MDL= 3.143*STD DEV OF 7 REPLICATES

Calibration File Name: **C:\CPWIN\T54\T54AW1.CAL** Version = 3
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/L&ng/L
7 components with 3 levels each

1 METHANE

Retention time = 0.500 min., Search window = 0.070 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	0.729	49225.0	67524.01	Manual	8/6/2001 4:17:31
2	7.290	427464.0	58637.04	Manual	8/6/2001 12:28:1
3	24.300	1530778.0	62994.98	Manual	8/6/2001 4:17:31



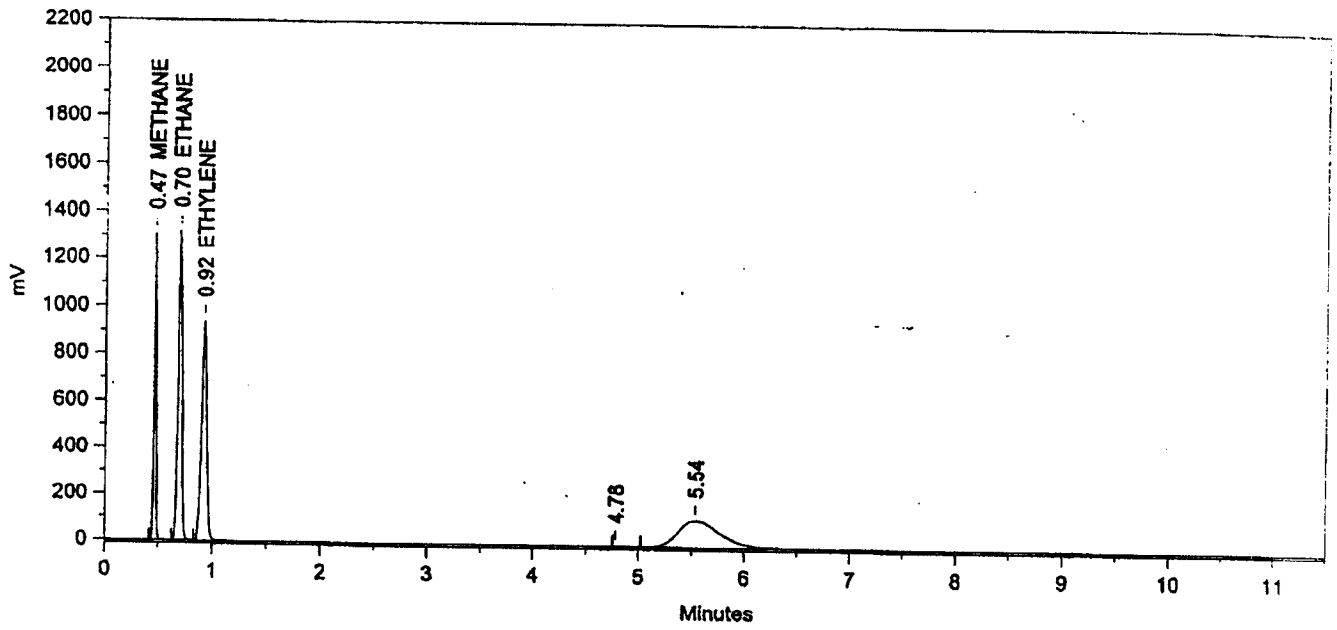
Calibration formula: Y = 62639.19 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9992, Average error = 4.92%
Average CF = 63052.0100 with RSD = 7.05%

2 ETHANE

Retention time = 0.780 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	472.000	38214.0	80.96186	Manual	8/6/2001 4:17:31
2	4720.000	351621.0	74.49597	Manual	8/6/2001 12:28:1
3	47200.000	3902223.0	82.67422	Manual	8/6/2001 4:17:31

STD 216 10X



Sample Name: **STD 216 10X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 12:08:44pm by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.14R**
Date Stamp: 9/18/01 12:08:44pm
Sequence File: T52C.SEQ #414
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

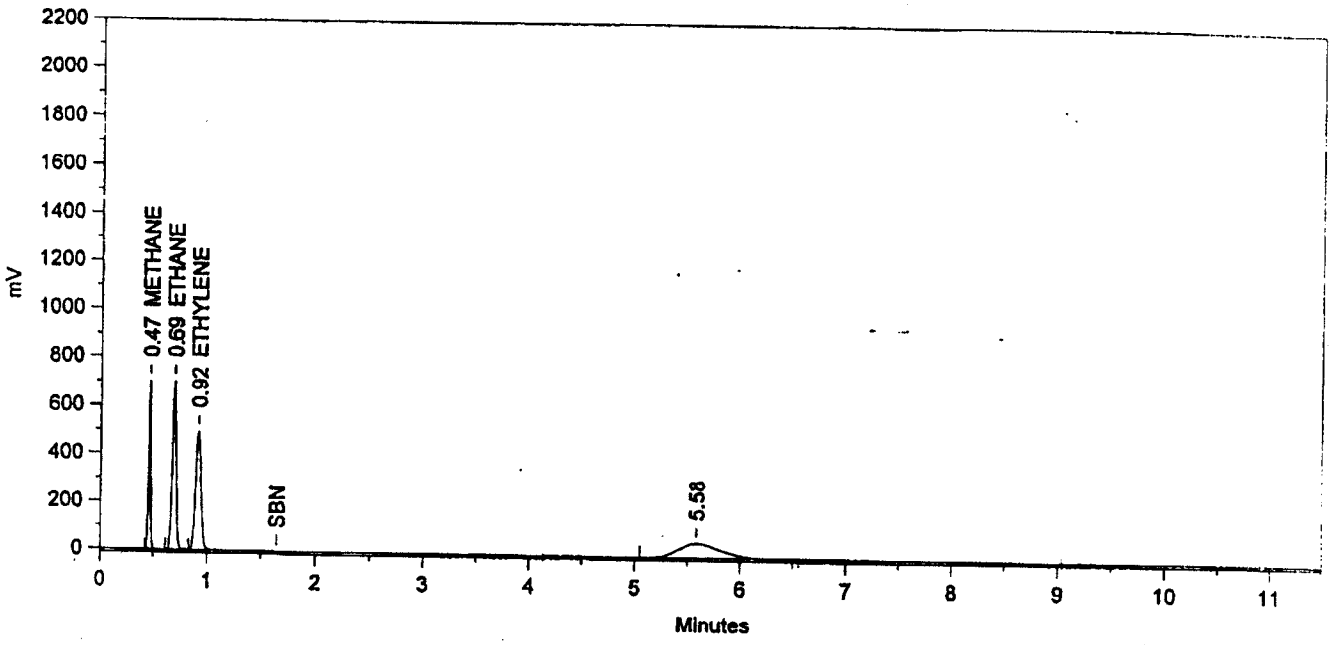
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.468	METHANE	829.6186	32.909	1832941.0	15.714	BV	0.023	1332961.00	35.897
2	0.696	ETHANE	808.5699	32.074	3269903.0	28.033	VV	0.041	1323596.00	35.645
3	0.922	ETHYLENE	810.5680	32.154	3286979.0	28.180	VB	0.058	940819.00	25.336
4	4.782		0.6058	0.024	1771.8	0.015	BV	0.030	973.28	0.026
5	5.537		71.5570	2.839	3272676.0	28.057	VB	0.474	114971.70	3.096

Total Area = 11664270.0, Total Amount = 2520.919, Total Height = 3713321.0, Sample Units = PPMV

STD 216 20X

STD 216 20X



Sample Name: **STD 216 20X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 11:55:11am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.13R**
Date Stamp: 9/18/01 11:55:10am
Sequence File: T52C.SEQ #413
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

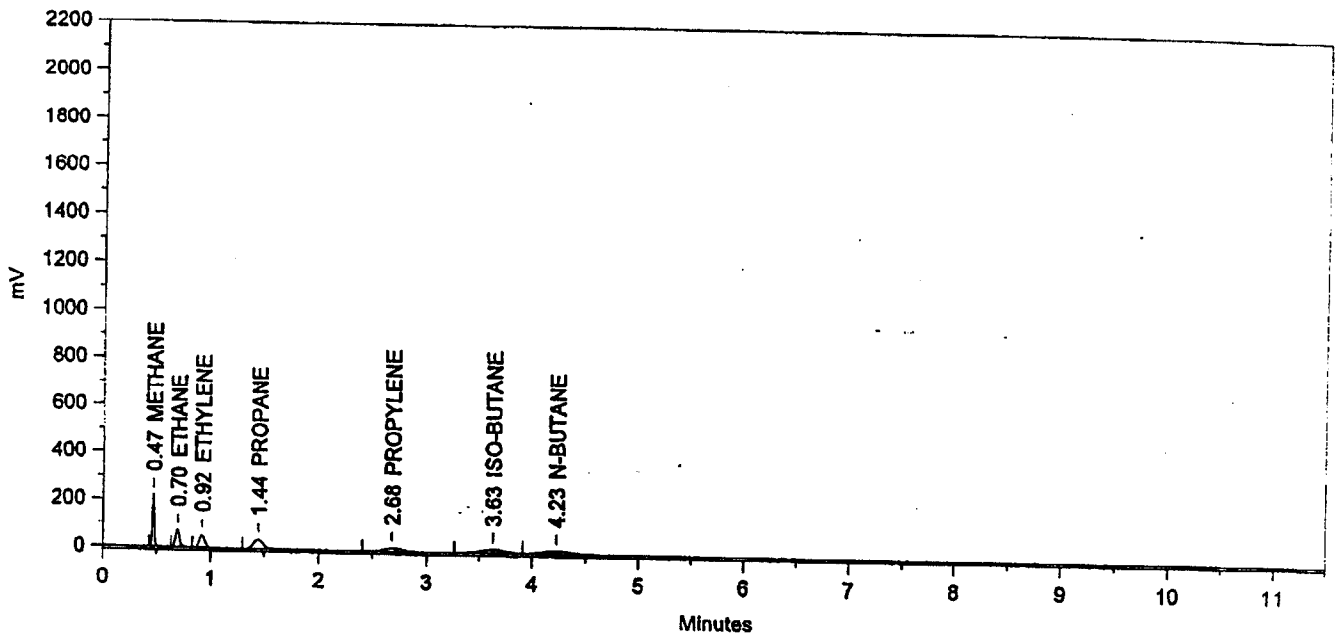
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.466	METHANE	437.5098	32.875	961442.1	15.645	BV	0.023	702953.60	35.776
2	0.693	ETHANE	428.1668	32.173	1731531.0	28.177	VV	0.041	703523.20	35.805
3	0.919	ETHYLENE	427.6451	32.134	1734167.0	28.220	VB	0.058	498147.00	25.353
4	5.584		37.4920	2.817	1718059.0	27.958	BB	0.475	60238.97	3.066

Total Area = 6145199.0, Total Amount = 1330.814, Total Height = 1964863.0, Sample Units = PPMV

STD P 2X



Sample Name: **STD P 2X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 01:32:18pm by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.17R**
Date Stamp: 9/18/01 01:32:18pm
Sequence File: T52C.SEQ #417
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/18/01 12:53:30pm

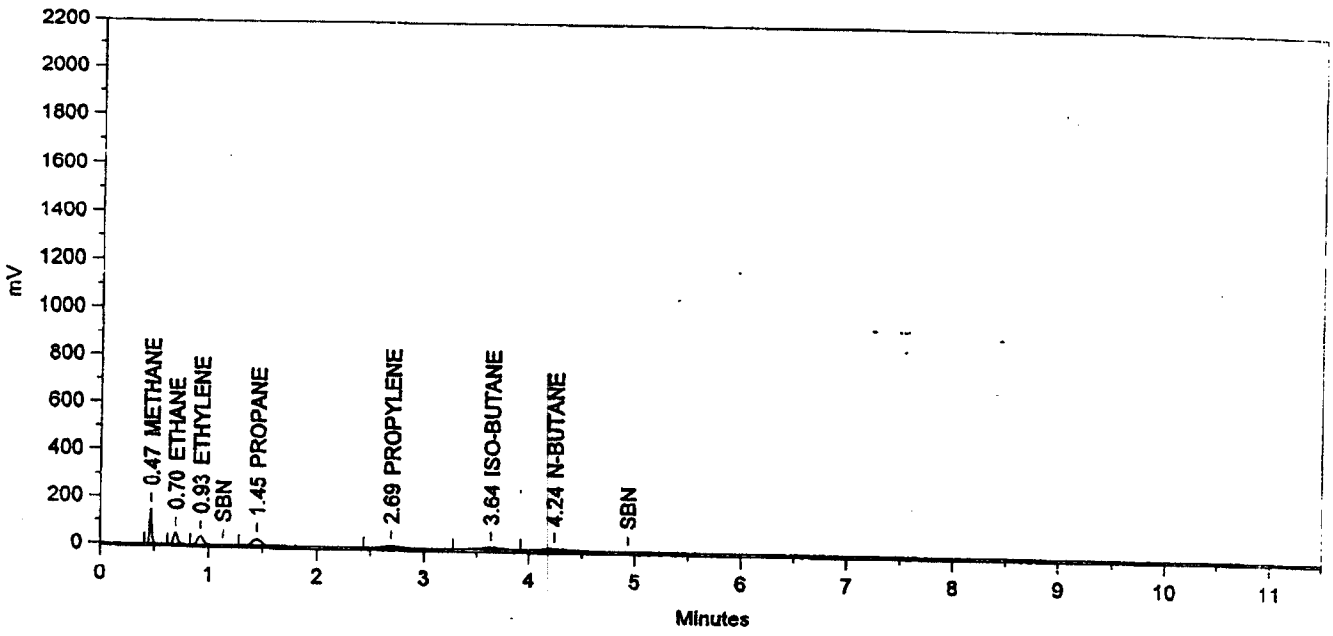
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.468	METHANE	165.4333	34.973	305567.8	18.328	BB	0.023	223185.20	51.909
2	0.696	ETHANE	53.8535	11.385	178195.9	10.688	BB	0.041	72582.58	16.881
3	0.923	ETHYLENE	53.8614	11.386	179014.8	10.737	BB	0.058	51534.22	11.986
4	1.444	PROPANE	48.9003	10.338	234802.3	14.083	BV	0.098	39876.52	9.275
5	2.680	PROPYLENE	50.4281	10.661	186947.8	11.213	VV	0.215	14505.00	3.374
6	3.627	ISO-BUTANE	48.7751	10.311	280900.8	16.848	VV	0.307	15262.37	3.550
7	4.228	N-BUTANE	51.7777	10.946	301823.4	18.103	VB	0.387	13011.64	3.026

Total Area = 1667253.0, Total Amount = 473.029, Total Height = 429957.5, Sample Units = PPMV

STD P 3X



Sample Name: **STD P 3X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 11:11:46am by BC
heading 1 for 2B
heading 2 for 2B

Data File: C:\CPWIN\T52\T52D4.10R
Date Stamp: 9/18/01 11:11:46am
Sequence File: T52C.SEQ #410
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

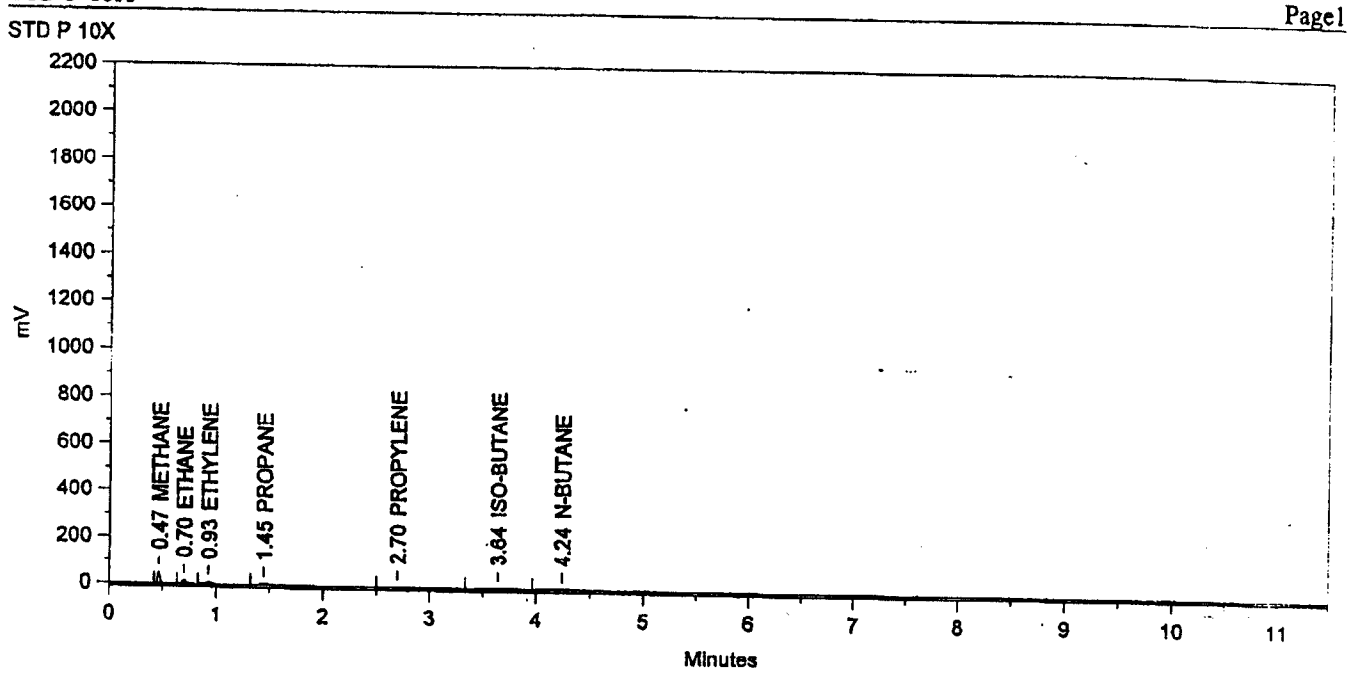
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.470	METHANE	94.7429	33.869	209696.7	18.712	BV	0.023	152224.80	51.917
2	0.698	ETHANE	30.2864	10.827	122480.1	10.929	VB	0.041	49634.13	16.928
3	0.926	ETHYLENE	30.2525	10.815	122678.6	10.947	BB	0.058	35156.66	11.990
4	1.447	PROPANE	31.5593	11.282	159393.8	14.223	BV	0.098	27208.85	9.280
5	2.692	PROPYLENE	31.1163	11.124	122904.4	10.967	VV	0.210	9749.75	3.325
6	3.636	ISO-BUTANE	30.8207	11.018	190548.2	17.003	VV	0.306	10385.87	3.542
7	4.240	N-BUTANE	30.9546	11.066	192972.4	17.219	VB	0.363	8849.36	3.018

Total Area = 1120674.0, Total Amount = 279.733, Total Height = 293208.4, Sample Units = PPMV

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 10:56:27am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.09R**
Date Stamp: 9/18/01 10:56:26am
Sequence File: T52C.SEQ #409
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

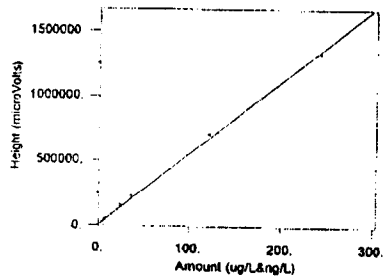
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.472	METHANE	29.3066	33.257	64887.5	18.279	BV	0.023	47087.30	51.941
2	0.700	ETHANE	9.4037	10.671	38029.0	10.713	VV	0.041	15300.05	16.877
3	0.928	ETHYLENE	9.7910	11.111	39703.9	11.185	VB	0.062	10751.49	11.860
4	1.447	PROPANE	9.8374	11.163	49685.1	13.997	BV	0.099	8340.96	9.201
5	2.696	PROPYLENE	9.8461	11.173	38890.6	10.956	VV	0.211	3072.07	3.389
6	3.638	ISO-BUTANE	9.9778	11.323	61687.4	17.378	VV	0.315	3267.29	3.604
7	4.240	N-BUTANE	9.9602	11.303	62092.5	17.492	VB	0.365	2836.74	3.128

Total Area = 354976.0, Total Amount = 88.123, Total Height = 90655.93, Sample Units = PPMV

Calibration File Name: **C:\CPWIN\T54\T54DW1.CAL** Version = 3
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/L&ng/L
3 components with 5 levels each

1 METHANE
Retention time = 0.510 min., Search window = 0.050 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by height

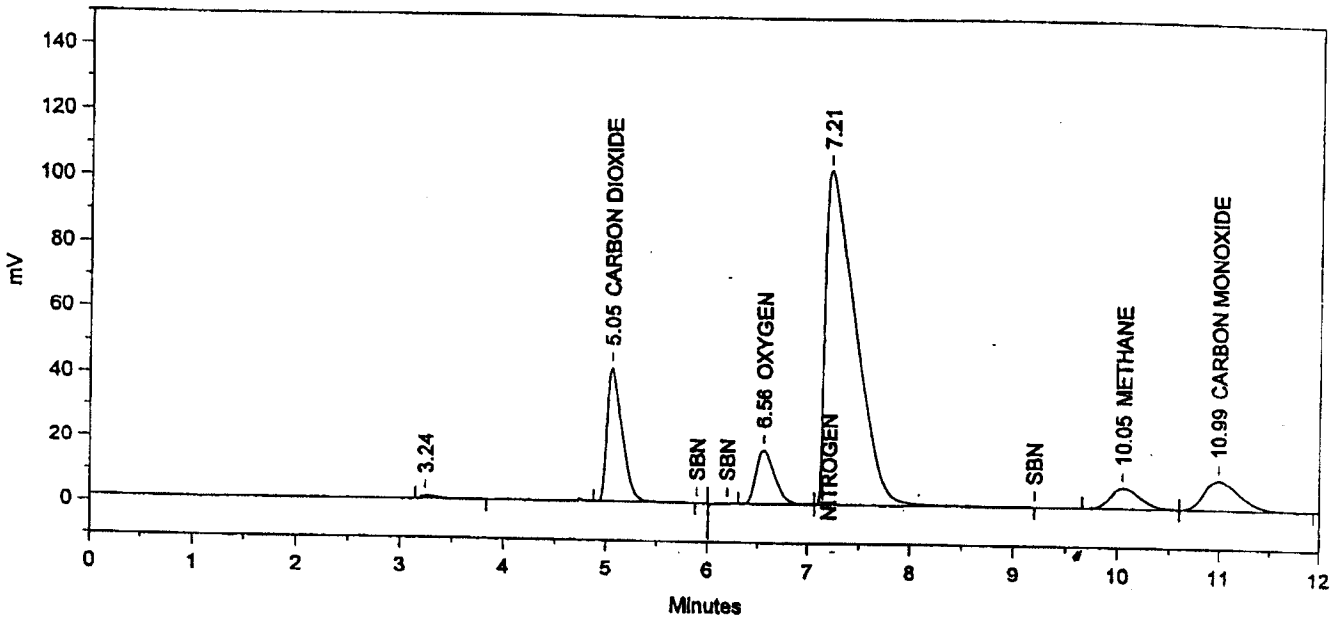
Level	Amount	Height	Height/Amt	Source	Date and time
1	7.290	47087.0	6459.122	Manual	10/18/2001 8:47:
2	24.300	152225.0	6264.403	Manual	10/18/2001 8:47:
3	36.450	223185.0	6123.045	Manual	10/18/2001 8:47:
4	121.500	702954.0	5785.629	Manual	10/18/2001 8:47:
5	243.000	1332961.0	5485.436	Manual	10/18/2001 8:47:



Calibration formula: Y = 5561.843 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9984, Average error = 8.85%
Average CF = 6023.5270 with RSD = 6.45%

STD 237

STD 237



Sample Name: **STD 237**
Acquired from BIOREM 1--TCD via port 2 on 7/2/01 10:29:22am by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T49\T49B1.51R**
Date Stamp: 7/2/01 10:29:22am
Sequence File: T49A.SEQ #151
Method File: C:\CPWIN\T49\T49BV1.MET
Version 1. Date Stamp: 6/26/01 08:37:10am
Calibration File: C:\CPWIN\T49\T49BV1.CAL
Version 1. Date Stamp: 6/26/01 08:35:18am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

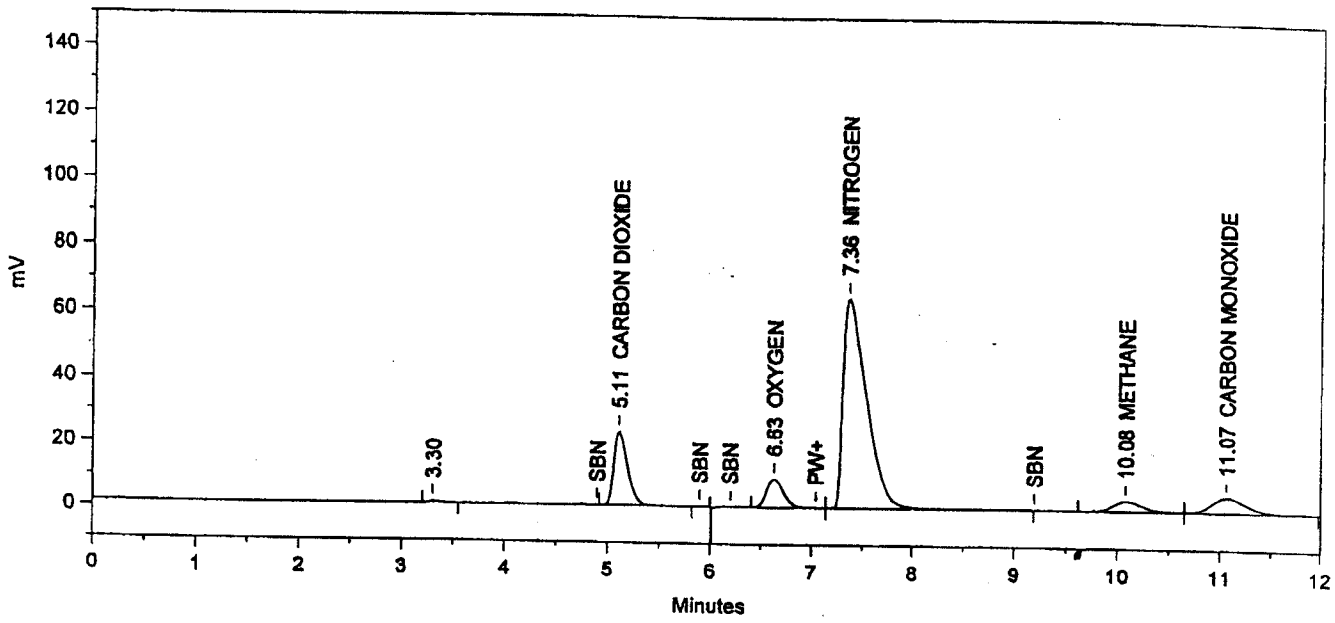
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.242		0.3290	0.315	8585.6	0.281	BB	0.162	885.82	0.501
2	5.051	CARBON DIOXIDE	16.2510	15.558	424109.6	13.879	BB	0.171	41250.52	23.354
3	6.559	OXYGEN	7.3039	6.992	211013.4	6.905	BV	0.211	16669.44	9.437
4	7.210	NITROGEN	68.7835	65.849	2071278.0	67.782	VB	0.337	102498.60	58.029
5	10.051	METHANE	4.5733	4.378	123510.6	4.042	BV	0.328	6280.25	3.555
6	10.994	CARBON MONOXIDE	7.2161	6.908	217308.0	7.111	VB	0.400	9050.05	5.124

Total Area = 3055805.0, Total Amount = 104.457, Total Height = 176634.7, Sample Units = %V

STD 237 2X

STD 237 2X



Sample Name: **STD 237 2X**
Acquired from BIOREM 1--TCD via port 2 on 7/2/01 10:16:09am by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T49\T49B1.50R**
Date Stamp: 7/2/01 10:16:08am
Sequence File: T49A.SEQ #150
Method File: C:\CPWIN\T49\T49BV1.MET
Version 1. Date Stamp: 6/26/01 08:37:10am
Calibration File: C:\CPWIN\T49\T49BV1.CAL
Version 1. Date Stamp: 6/26/01 08:35:18am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

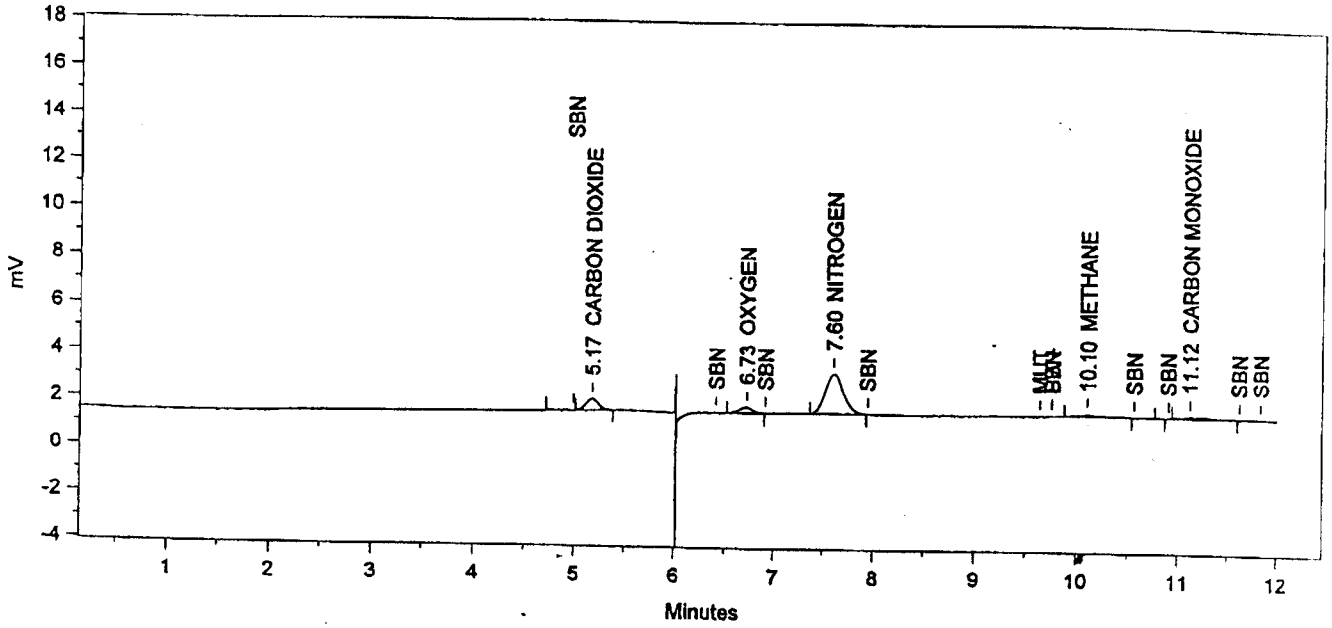
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	3.305		0.1536	0.295	4008.2	0.264	BB	0.126	531.82	0.509
2	5.111	CARBON DIOXIDE	8.0899	15.560	211126.5	13.881	BB	0.154	22871.89	21.902
3	6.632	OXYGEN	3.5889	6.903	103684.8	6.817	BV	0.193	8945.71	8.566
4	7.362	NITROGEN	34.2867	65.947	1032476.0	67.880	VB	0.268	64231.21	61.508
5	10.080	METHANE	2.2870	4.399	61765.9	4.061	BV	0.327	3147.40	3.014
6	11.066	CARBON MONOXIDE	3.5853	6.896	107967.5	7.098	VB	0.383	4699.87	4.501

Total Area = 1521029.0, Total Amount = 51.991, Total Height = 104427.9, Sample Units = %V

STD 237 100X

STD 237 100X



Sample Name: **STD 237 100X**
Acquired from BIOREM 1--TCD via port 2 on 7/2/01 10:02:05am by BC
header 1 for chan 1B
header 2 for chan 1B

Data File: **C:\CPWIN\T49\T49B1.49R**
Date Stamp: 7/2/01 10:02:04am
Sequence File: T49A.SEQ #149
Method File: C:\CPWIN\T49\T49BV1.MET
Version 1. Date Stamp: 6/26/01 08:37:10am
Calibration File: C:\CPWIN\T49\T49BV1.CAL
Version 1. Date Stamp: 6/26/01 08:35:18am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

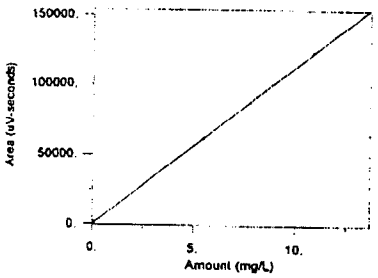
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	5.174	CARBON DIOXIDE	0.1561	14.955	4074.1	13.340	BB	0.141	480.94	18.685
2	6.726	OXYGEN	0.0803	7.694	2320.5	7.598	BB	0.159	242.91	9.438
3	7.600	NITROGEN	0.6829	65.423	20565.5	67.340	BB	0.205	1672.24	64.969
4	10.104	METHANE	0.0548	5.245	1478.6	4.842	BB	0.304	81.06	3.149
6	11.118	CARBON MONOXIDE	0.0698	6.683	2101.0	6.879	BB	0.362	96.74	3.759

Total Area = 30539.7, Total Amount = 1.044, Total Height = 2573.9, Sample Units = %V

Calibration File Name: **C:\CPWIN\T54\T54BW1.CAL** Version = 1
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 1000
Amount units = mg/L
5 components with 3 levels each

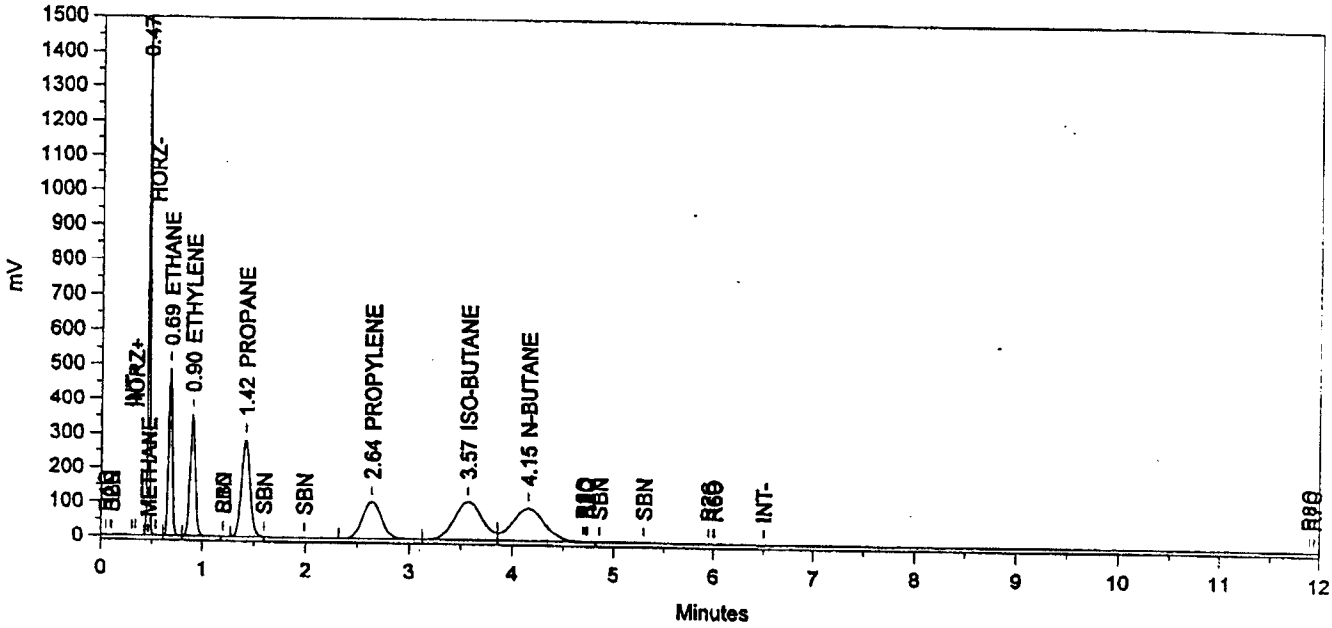
4 METHANE
Retention time = 10.080 min., Search window = 0.400 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.109	1479.0	13568.81	Manual	7/2/2001 10:41:5
2	5.468	61766.0	11295.9	Manual	7/2/2001 10:41:5
3	10.935	123511.0	11295.02	Manual	7/2/2001 10:41:5



Calibration formula: Y = 11295.37 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 1.0000, Average error = 6.71%
Average CF = 12053.2400 with RSD = 10.89%

STD P 3X



Sample Name: **STD P 3X**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 04:06:32pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.42R**
Date Stamp: 8/6/01 04:06:32pm
Sequence File: T51A.SEQ #242
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

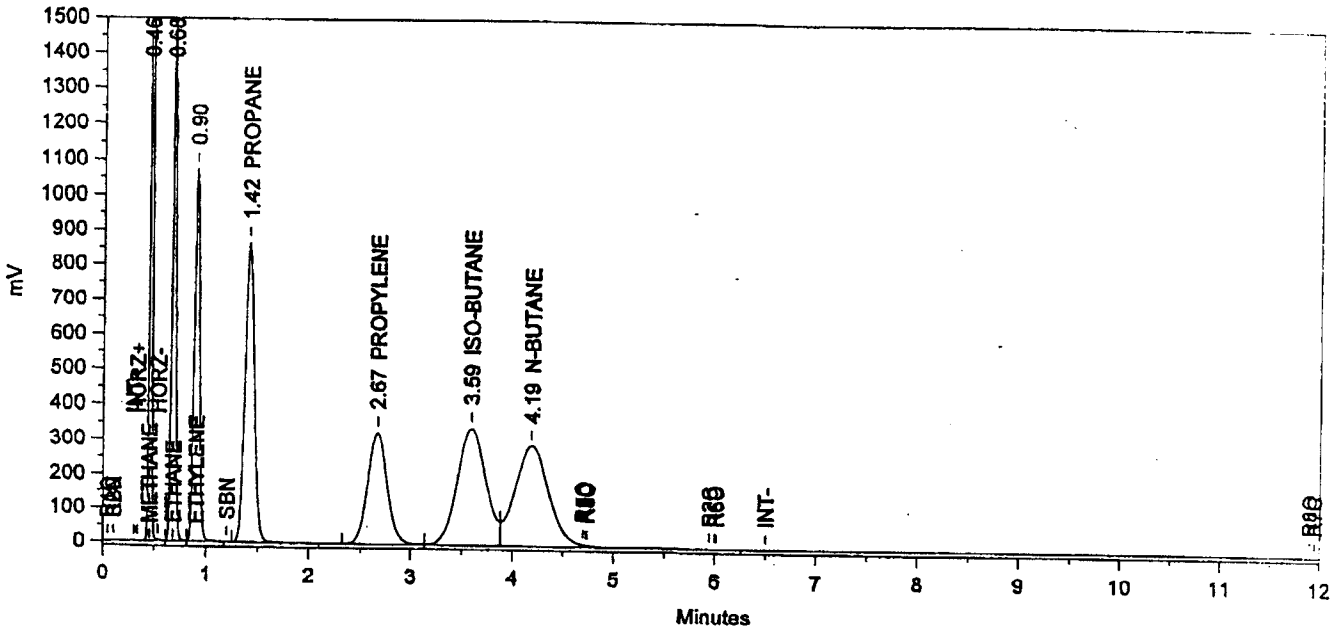
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.467	METHANE	109.9415	37.452	2154399.0	17.871	BB	0.023	1530778.00	51.451
2	0.686	ETHANE	31.4937	10.728	1262759.0	10.475	BV	0.043	491941.90	16.535
3	0.904	ETHYLENE	31.1435	10.609	1273527.0	10.564	VB	0.060	354436.40	11.913
4	1.418	PROPANE	30.4339	10.367	1729777.0	14.348	BB	0.101	284060.10	9.548
5	2.641	PROPYLENE	30.5233	10.398	1397716.0	11.594	BV	0.215	108285.70	3.640
6	3.569	ISO-BUTANE	31.4746	10.722	2116074.0	17.553	VV	0.317	111090.80	3.734
7	4.152	N-BUTANE	28.5460	9.724	2121282.0	17.596	VB	0.374	94615.69	3.180

Total Area = 12055530.0, Total Amount = 293.556, Total Height = 2975208.0, Sample Units = PPMV

STD P

STD P



Sample Name: **STD P**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 10:21:58am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.23R**
Date Stamp: 8/6/01 10:21:58am
Sequence File: T51A.SEQ #223
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

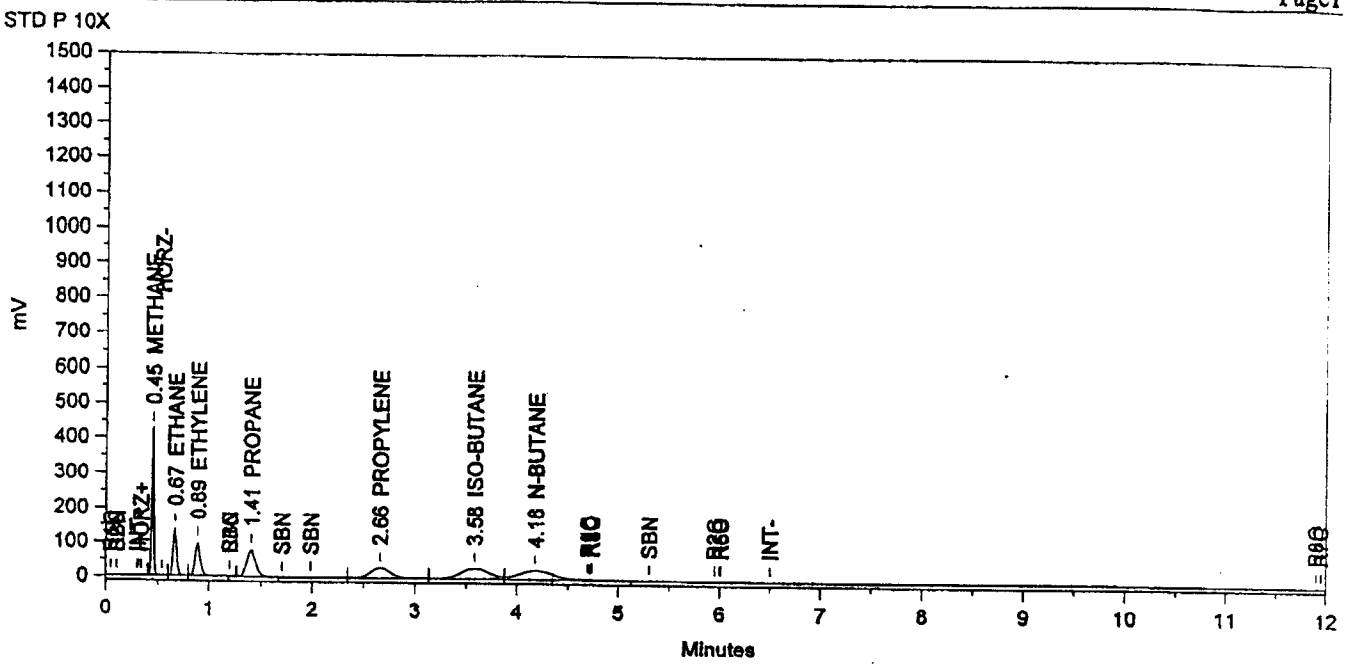
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.458	METHANE	149.4191	20.604	4200095.0	11.883	BB	0.034	2080446.00	32.095
2	0.683	ETHANE	97.3228	13.420	3902223.0	11.041	BV	0.043	1509842.00	23.292
3	0.904	ETHYLENE	96.2963	13.279	3937769.0	11.141	VB	0.061	1072747.00	16.549
4	1.417	PROPANE	95.7543	13.204	5442405.0	15.398	BB	0.105	865299.00	13.349
5	2.665	PROPYLENE	95.4247	13.158	4369668.0	12.363	BV	0.225	323498.70	4.991
6	3.591	ISO-BUTANE	98.9377	13.643	6651701.0	18.820	VV	0.327	339302.90	5.234
7	4.186	N-BUTANE	92.0466	12.693	6840077.0	19.353	VB	0.392	291104.00	4.491

Total Area = 35343940.0, Total Amount = 725.202, Total Height = 6482240.0, Sample Units = PPMV

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM 1–FID via port 1 on 8/6/01 10:09:05am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.22R**
Date Stamp: 8/6/01 10:09:04am
Sequence File: T51A.SEQ #222
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

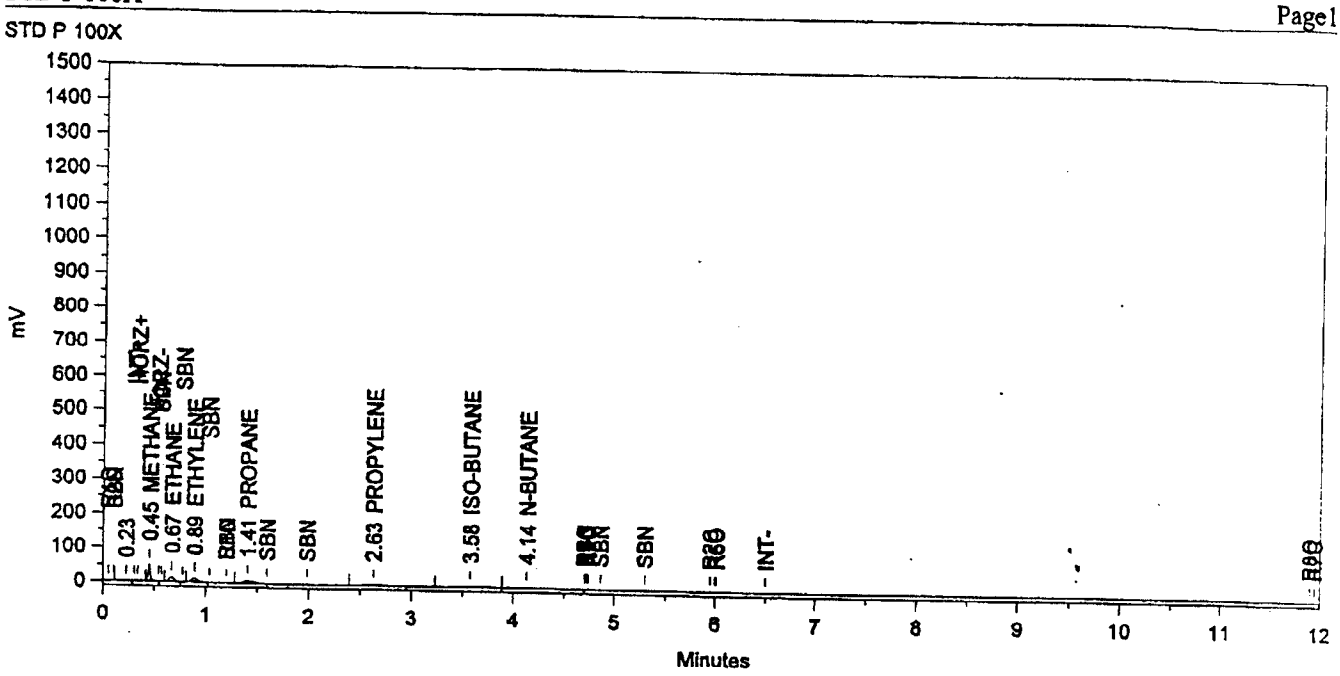
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.451	METHANE	30.7008	37.233	600342.3	17.663	BB	0.023	427463.90	51.993
2	0.671	ETHANE	8.7696	10.636	351620.9	10.345	BV	0.043	135682.90	16.503
3	0.894	ETHYLENE	8.6515	10.492	353777.0	10.409	VB	0.062	95522.24	11.619
4	1.407	PROPANE	8.5871	10.414	488064.4	14.359	BB	0.104	77989.40	9.486
7	2.658	PROPYLENE	8.5892	10.417	393314.8	11.572	BV	0.226	28980.48	3.525
8	3.584	ISO-BUTANE	8.9254	10.825	600063.2	17.655	VV	0.328	30476.71	3.707
9	4.183	N-BUTANE	8.2318	9.983	611713.1	17.997	VB	0.392	26033.44	3.167

Total Area = 3398896.0, Total Amount = 82.455, Total Height = 822149.0, Sample Units = PPMV
* Some peaks have been manually integrated.

STD P 100X



Sample Name: **STD P 100X**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 03:53:39pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.41R**
Date Stamp: 8/6/01 03:53:38pm
Sequence File: T51A.SEQ #241
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.226		0.0227	0.250	2363.8	0.639	BB	0.125	315.73	0.341
2	0.455	METHANE	3.5376	38.941	69319.5	18.749	BB	0.023	49255.38	53.136
3	0.674	ETHANE	0.9531	10.491	38214.3	10.336	BB	0.043	14721.26	15.881
4	0.893	ETHYLENE	0.9274	10.209	37924.1	10.257	BB	0.061	10348.74	11.164
5	1.408	PROPANE	0.9188	10.114	52222.3	14.125	BB	0.102	8498.07	9.168
6	2.630	PROPYLENE	0.9168	10.092	41982.0	11.355	BB	0.216	3239.80	3.495
7	3.580	ISO-BUTANE	0.9393	10.340	63149.6	17.080	BV	0.312	3373.04	3.639
8	4.139	N-BUTANE	0.8687	9.562	64551.5	17.459	VB	0.365	2944.19	3.176

Total Area = 369727.0, Total Amount = 9.084, Total Height = 92696.2, Sample Units = PPMV

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

C1102104

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 152044-10

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[15] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NTC ORLANDO	152044.32.12.0108	STL Pensacola Rick Hayes	Steve TSANGARIS CCI / CH2M Hill	4350 W. Cypress St. Ste. 600 TAMPA FL 33607
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[7] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[16] RECIPIENT 2 (Address, Tel No. , and Fax No.):
SA-36	CTO-017	2643	Christelle Newsome CCI / ATL	115 Perimeter Ctr. Dr. Ste 700 ATLANTA GA 30346
[8] PROJECT CONTACT:	[9] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[17] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Christelle Newsome	770-604-9182	850-474-1001	Jennifer Gibson CH2M Hill	205 INDIAN River DR. COCOA FL 32922

[22] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE AM19GA	VFA AM21G								[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	17-36-19A-Q401	OLD 36-19A	W	10-26-01	1000	III	14	3	2								N	PIS Forward Samples	
2	17-36FD2-Q401	Field Dupe	W	10-26-01	-	III	14	3	2								FD	TO microscope LAB.	
3	17-36248-Q401	OLD-36-24B	W	10-26-01	1330	III	14	3	2								N		
4																			
5																			
6																			
7																			
8																			
9																			
10																			

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
ISAAC LYNCH - CH2M HILL	FED EX 830709367076	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: ISAAC Lynch - Isaac Lynch	10-26-01	1600	Printed Name and Signature: Rodriguez / [illegible]	10-27-01	
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

Jan 23 02 04:49p STL/Pensacola 850 478-2671 p.18

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110704 Date Received: 10.27.01

1.	Was there a Chain of Custody?	(Yes)	No*		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	Yes	No*	(N/A)
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*		9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A *(Can)*
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No*	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*	
4.	Were all samples properly labeled and identified?	(Yes)	No*		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No	(N/A)
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes*	(No)						
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*		12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)
7.	Were all sample containers received intact?	(Yes)	No*		13.	Was Project Manager notified of problems? (initials:_____)	Yes	No*	(N/A)

Airbill Number(s): 8307 0936 7076

Shipped By: FedEx

Cooler Number(s): CLIENT

Shipping Charges: N/A

Cooler Weight(s): N/A

Cooler Temp(s) (°C): 3°C (IR 10.27.01) (CCRq)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: JC Date: 10.29.01 Logged By: LWK Date: 29-OCT-01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Caroline, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

C110667

COC NUMBER: 152044-6

[1] PROJECT NAME:	[2] PROJECT NUMBER:	[3] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No., and Fax No.)
NTC ORLANDO	152044.32.12.01.03	STL Pensacola Ricic Hayes	Steve Tsangaris CCI / CH2M Hill	4305 W. Cypress St Ste. 600 Tampa FL 33607
[4] PROJECT PHASE/SITE/TASK:	[5] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No., and Fax No.):
SA36	CTO-017	2643	Christelle Newsome Atlanta Ga CCI	115 Perimeter Ctr. Pl. Ste. 700 Atlanta Ga
[6] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No., and Fax No.):
Christelle Newsome	770-604-9182	850-474-1001	Jennifer Ottoson CH2M Hill	205 Indian River Dr Cocoa FL 32922

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	MEE AM19GA	VFA AM21G	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	17-3609CQ401	OLD-36-09C	W	10-24-01	1100	III	14	3	2	N		
2	173609CMSQ401	Matrix Spike	↓	10-24-01	1100	↓	↓	3	2	MS		
3	173609CMSDQ401	Matrix Dupe		10-24-01	1100			3	2	MD		
4	17-3627A-Q401	OLD-36-27A		10-24-01	1515			3	2	N		
5	17-3628B-Q401	OLD-36-28B		10-24-01	1600			3	2	N	PLS Forward These Samples	
6	17-3608B-Q401	OLD-36-08B		10-25-01	1100			3	2	N	TO Microbac LABS.	
7	17-3607A-Q401	OLD-36-07A		10-25-01	1515			3	2	N		
8	173606A-Q401	OLD-36-06A	↓	10-25-01	1545	↓	↓	3	2	N		
9												
10												

[29] SAMPLER(S) AND COMPANY: (please print)
Isaac Lynch

[30] COURIER AND SHIPPING NUMBER:
FED EX 830709 367087

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Isaac Lynch - Isaac Lynch	10-25-01	1800	Printed Name and Signature: Rebecca F. Goodrich	10-26-01	0915
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

Jan 23 02 04:48p STL/Pensacola 850 478-2671 p.16

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110667 Date Received: 10-26-01

1.	Was there a Chain of Custody?	(Yes)	No*		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	Yes	No* (N/A)
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*		9.	Is there sufficient volume for analysis requested?	(Yes)	No* N/A (Can)
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No*	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*
4.	Were all samples properly labeled and identified?	(Yes)	No*		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No (N/A)
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes*	(No)					
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*		12.	If sent, were matrix spike bottles returned?	Yes	No* (N/A)
7.	Were all sample containers received intact?	(Yes)	No*		13.	Was Project Manager notified of problems? (initials:_____)	Yes	No* (N/A)

Airbill Number(s): 8307 0936 7087

Shipped By: Fed Ex

Cooler Number(s): 695L

Shipping Charges: N/A

Cooler Weight(s): N/A

Cooler Temp(s) (°C): 2°C (4.1°C) (4.1°C)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DC Date: 10-29-01 Logged By: LMK Date: ~~26~~-OCT-01 LMK 10-29-01

* *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CASE NARRATIVE

SEVERN TRENT SERVICES

STL Pensacola

STL Order Number: C110681
Project: CH2M Hill Constructors
CTO-017, NTC Orlando

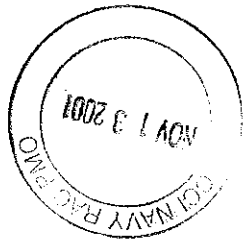
Client Sample ID	STL Sample ID
17-3619A-Q401	C110681-1
17-3624B-Q401	C110681-2
17-36FD2-Q401	C110681-3
17-36TB5-Q401	C110681-4

The above samples were received at in good condition at STL Pensacola on October 27, 2001.

Please refer to data qualifier sheets "Explanation of CLP Data Qualifiers Organics" and STL Pensacola "Data Qualifiers for Final Report" for explanations of flags used.

Rick Hayes
Senior Project Manager

11/12/01



SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	29	1.0U	29
Dilution Factor	1	1	1
Analysis Date	10.30.01	10.30.01	10.30.01
Analysis Time	14:20	14:20	14:20
Batch ID	AEW060	AEW060	AEW060
Analyst	BE	BE	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)			
Nitrate + Nitrite-N, mg/l	15	0.87	15
Nitrate-N, mg/l	15	0.87	15
Nitrite-N, mg/l	0.10U	0.10U	0.10U
Dilution Factor	2	1	5
Prep Date	10.27.01	10.27.01	10.27.01
Prep Time	11:40	11:40	11:40
Analysis Date	11.05.01	11.05.01	11.05.01
Analysis Time	08:00	08:00	08:00
Batch ID	N3W66B	N3W66B	N3W66B
Prep Method	4500-NO2B	4500-NO2B	4500-NO2B
Analyst	CR	CR	CR

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
Chloride (325.2/4500E/9251), mg/l	8.9	7.1	8.6
Dilution Factor	1	1	1
Prep Date	11.01.01	11.01.01	11.01.01
Prep Time	10:00	10:00	10:00
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	13:34	13:34	13:34
Batch ID	CKW60C	CKW60C	CKW60C
Prep Method	325.2	325.2	325.2
Analyst	AB	AB	AB
Total Dissolved Solids (160.1), mg/l	230	160	240
Dilution Factor	1	1	1
Prep Date	10.30.01	10.30.01	10.30.01
Prep Time	08:15	08:15	08:15
Analysis Date	11.01.01	11.01.01	11.01.01
Analysis Time	12:25	12:25	12:25
Batch ID	TDW095	TDW095	TDW095
Prep Method	160.1	160.1	160.1
Analyst	ST	ST	ST
Total Organic Carbon (9060), mg/l	4.1	4.0	3.9
Dilution Factor	1	1	1
Analysis Date	10.29.01	10.29.01	10.29.01
Analysis Time	16:00	16:10	16:20
Batch ID	TOW020	TOW020	TOW020
Prep Method			
Analyst	WG	WG	WG

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
Sulfide (376.1), mg/l	1.0U	1.0U	1.0U
Dilution Factor	1	1	1
Analysis Date	10.31.01	10.31.01	10.31.01
Analysis Time	01:02	10:20	10:20
Batch ID	FEW045	FEW045	FEW045
Analyst	BH	BH	BH
Iron, Dissolved (6010B), ug/l	100U	760	100U
Dilution Factor	1	1	1
Prep Date	11.02.01	11.02.01	11.02.01
Prep Time	15:09	15:09	15:09
Analysis Date	11.05.01	11.05.01	11.05.01
Analysis Time	10:25	10:47	10:53
Batch ID	PD136	PD136	PD136
Prep Method			
Analyst	GSP	GSP	GSP

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
Petroleum Hydrocarbons (FL-PRO)			
Petroleum Range Organics (FL-PRO), ug/l	100U	100U	100U
Surrogate - o-Terphenyl	97 %	105 %	120 %
Surrogate - Nonatriacontane (C39)	88 %	99 %	95 %
Dilution Factor	1	1	1
Prep Date	10.30.01	10.30.01	10.30.01
Prep Time	14:37	14:37	14:37
Analysis Date	11.02.01	11.02.01	11.02.01
Analysis Time	02:52	03:00	03:08
Batch ID	FLW291	FLW291	FLW291
Prep Method	3520C	3520C	3520C
Analyst	KA	KA	KA

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Samp

Code: 16271119
REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
Volatile Organic Compounds (8260B)			
Benzene, ug/l	5.0U	5.0U	5.0U
Bromobenzene, ug/l	5.0U	5.0U	5.0U
Bromochloromethane, ug/l	5.0U	5.0U	5.0U
Bromodichloromethane, ug/l	5.0U	5.0U	5.0U
Bromoform, ug/l	5.0U	5.0U	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U	5.0U	5.0U
Carbon tetrachloride, ug/l	5.0U	5.0U	5.0U
Chlorobenzene, ug/l	5.0U	5.0U	5.0U
Chloroethane, ug/l	5.0U	5.0U	5.0U
Chloroform, ug/l	5.0U	5.0U	5.0U
Chloromethane, ug/l	5.0U	5.0U	5.0U
2-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
4-Chlorotoluene, ug/l	5.0U	5.0U	5.0U
Dibromochloromethane, ug/l	5.0U	5.0U	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U	5.0U	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U	5.0U	5.0U
1,2-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,3-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,4-Dichlorobenzene, ug/l	5.0U	5.0U	5.0U
Dichlorodifluoromethane, ug/l	5.0U	5.0U	5.0U
1,1-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,2-Dichloroethane, ug/l	5.0U	5.0U	5.0U
1,1-Dichloroethene, ug/l	5.0U	5.0U	5.0U

005

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
cis-1,2-Dichloroethene, ug/l	5.0U	5.0U	5.0U
trans-1,2-Dichloroethene, ug/l	5.0U	5.0U	5.0U
1,2-Dichloropropane, ug/l	5.0U	5.0U	5.0U
1,3-Dichloropropane, ug/l	5.0U	5.0U	5.0U
2,2 Dichloropropane, ug/l	5.0U	5.0U	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U	5.0U	5.0U
Ethylbenzene, ug/l	5.0U	5.0U	5.0U
Hexachlorobutadiene, ug/l	5.0U	5.0U	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U	5.0U	5.0U
p-Isopropyltoluene, ug/l	5.0U	5.0U	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U
Naphthalene, ug/l	5.0U	5.0U	5.0U
n-Butylbenzene, ug/l	5.0U	5.0U	5.0U
n-Propylbenzene , ug/l	5.0U	5.0U	5.0U
sec-Butylbenzene, ug/l	5.0U	5.0U	5.0U
Styrene, ug/l	5.0U	5.0U	5.0U
t-Butylbenzene, ug/l	5.0U	5.0U	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U	5.0U	5.0U
Tetrachloroethene, ug/l	0.17J	5.0U	0.18J
Toluene, ug/l	5.0U	5.0U	5.0U
1,1,1-Trichloroethane, ug/l	5.0U	5.0U	5.0U
1,1,2-Trichloroethane, ug/l	5.0U	5.0U	5.0U

006

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-1	17-3619A-Q401	10-26-01/10:00
10681-2	17-3624B-Q401	10-26-01/13:30
10681-3	17-36FD2-Q401	10-26-01

PARAMETER	10681-1	10681-2	10681-3
1,2,3-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U	5.0U	5.0U
Trichloroethene, ug/l	0.21J	5.0U	0.23J
Trichlorofluoromethane, ug/l	5.0U	5.0U	5.0U
1,2,3-Trichloropropane, ug/l	5.0U	5.0U	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U	5.0U	5.0U
Vinyl chloride, ug/l	5.0U	5.0U	5.0U
o-Xylene, ug/l	5.0U	5.0U	5.0U
m&p-Xylene, ug/l	10U	10U	10U
Surrogate - Dibromofluoromethane	102 %	109 %	102 %
Surrogate - Toluene-d8	99 %	99 %	98 %
Surrogate - 4-Bromofluorobenzene	98 %	98 %	97 %
Dilution Factor	1	1	1
Analysis Date	11.02.01	11.02.01	11.02.01
Analysis Time	16:53	17:35	18:18
Batch ID	BUW149	BUW149	BUW149
Prep Method	5030B	5030B	5030B
Analyst	GH	GH	GH

007

SEVERN TRENT SERVICES
STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

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115 Perimeter Center Place, NE Suite 700
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Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-4	17-36TB5-Q401	10-26-01

PARAMETER	10681-4
Volatile Organic Compounds (8260B)	
Benzene, ug/l	5.0U
Bromobenzene, ug/l	5.0U
Bromochloromethane, ug/l	5.0U
Bromodichloromethane, ug/l	5.0U
Bromoform, ug/l	5.0U
Bromomethane (Methyl bromide), ug/l	5.0U
Carbon tetrachloride, ug/l	5.0U
Chlorobenzene, ug/l	5.0U
Chloroethane, ug/l	5.0U
Chloroform, ug/l	5.0U
Chloromethane, ug/l	5.0U
2-Chlorotoluene, ug/l	5.0U
4-Chlorotoluene, ug/l	5.0U
Dibromochloromethane, ug/l	5.0U
Dibromomethane (Methylene bromide), ug/l	5.0U
1,2-Dibromoethane (EDB), ug/l	5.0U
1,2-Dichlorobenzene, ug/l	5.0U
1,3-Dichlorobenzene, ug/l	5.0U
1,4-Dichlorobenzene, ug/l	5.0U
Dichlorodifluoromethane, ug/l	5.0U
1,1-Dichloroethane, ug/l	5.0U
1,2-Dichloroethane, ug/l	5.0U
1,1-Dichloroethene, ug/l	5.0U
cis-1,2-Dichloroethene, ug/l	5.0U
trans-1,2-Dichloroethene, ug/l	5.0U

008

SEVERN TRENT SERVICES

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-4	17-36TB5-Q401	10-26-01

PARAMETER	10681-4
1,2-Dichloropropane, ug/l	5.0U
1,3-Dichloropropane, ug/l	5.0U
2,2 Dichloropropane, ug/l	5.0U
cis-1,3-Dichloropropene, ug/l	5.0U
trans-1,3-Dichloropropene, ug/l	5.0U
Ethylbenzene, ug/l	5.0U
Hexachlorobutadiene, ug/l	5.0U
Isopropylbenzene (Cumene), ug/l	5.0U
p-Isopropyltoluene, ug/l	5.0U
Methylene chloride (Dichloromethane), ug/l	5.0U
Naphthalene, ug/l	5.0U
n-Butylbenzene, ug/l	5.0U
n-Propylbenzene , ug/l	5.0U
sec-Butylbenzene, ug/l	5.0U
Styrene, ug/l	5.0U
t-Butylbenzene, ug/l	5.0U
1,1,1,2-Tetrachloroethane, ug/l	5.0U
1,1,2,2-Tetrachloroethane, ug/l	5.0U
Tetrachloroethene, ug/l	5.0U
Toluene, ug/l	5.0U
1,1,1-Trichloroethane, ug/l	5.0U
1,1,2-Trichloroethane, ug/l	5.0U
1,2,3-Trichlorobenzene, ug/l	5.0U
1,2,4-Trichlorobenzene, ug/l	5.0U
Trichloroethene, ug/l	5.0U
Trichlorofluoromethane, ug/l	5.0U

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Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-4	17-36TB5-Q401	10-26-01

PARAMETER	10681-4
1,2,3-Trichloropropane, ug/l	5.0U
1,2,4-Trimethylbenzene, ug/l	5.0U
1,3,5-Trimethylbenzene, ug/l	5.0U
Vinyl chloride, ug/l	5.0U
o-Xylene, ug/l	5.0U
m&p-Xylene, ug/l	10U
Surrogate - Dibromofluoromethane	107 %
Surrogate - Toluene-d8	97 %
Surrogate - 4-Bromofluorobenzene	98 %
Dilution Factor	1
Analysis Date	11.02.01
Analysis Time	19:01
Batch ID	BUW149
Prep Method	5030B
Analyst	GH

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	255	102 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.30.01	---	10.30.01	---	---
Analysis Time	14:20	---	14:20	---	---
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	BE	---	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.10U	2.0	2.16	108 %	90-110
Nitrite-N, mg/l	0.10U	0.20	0.20	100 %	90-110
Nitrate-N, mg/l	---	---	2.0	---	---
Dilution Factor	1	---	1	---	---
Prep Date	10.27.01	---	10.27.01	---	---
Prep Time	11:40	---	11:40	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	08:00	---	08:00	---	---
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B	N3W66B
Prep Method	4500-NO2B	---	4500-NO2B	---	---
Analyst	CR	---	CR	---	---

011

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Project: CTO-017, NTC ORLANDO
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Chloride (325.2/4500E/9251), mg/l	2.0U	50.0	47.5	95 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	11.01.01	---	11.01.01	---	---
Prep Time	10:00	---	10:00	---	---
Analysis Date	11.01.01	---	11.01.01	---	---
Analysis Time	13:34	---	13:34	---	---
Batch ID	CKW60C	CKW60C	CKW60C	CKW60C	CKW60C
Prep Method	325.2	---	325.2	---	---
Analyst	AB	---	AB	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	316	108 %	68-120
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	
Analysis Date	---				
Prep Time	08:15	---	08:15	---	---
Analysis Time	12:25	---	12:25	---	---
Batch ID	TDW095	TDW095	TDW095	TDW095	TDW095
Prep Method	160.1	---	160.1	---	---
Analyst	ST	---	ST	---	---

012

SEVERN TRENT SERVICES

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Total Organic Carbon (9060), mg/l	1.0U	10	9.65	97 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.29.01	---	10.29.01	---	---
Analysis Time	09:45	---	10:13	---	---
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Prep Method					
Analyst	WG	---	WG	---	---
Sulfide (376.1), mg/l	1.0U	20	18.5	93 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	10:20	---	10:20	---	---
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	11.1B	10000.0	9936.0	99.4 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	11.02.01	---	11.02.01	---	---
Prep Time	15:09	---	15:09	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	10:14	---	10:19	---	---
Batch ID	PD136	PD136	PD136	PD136	PD136
Prep Method					
Analyst	GSP	---	GSP	---	---

013

SEVERN TRENT SERVICES

STL Pensacola

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3690	109 %	55-118
Surrogate - o-Terphenyl	121 %	125	137	110 %	82-142
Surrogate - Nonatriacontane (C39)	121 %	50	43	86 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	14:37	---	14:37	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	01:14	---	01:22	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

014

SEVERN TRENT SERVICES
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REPORT OF RESULTS

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10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Volatile Organic Compounds (8260B)					
Benzene, ug/l	5.0U	10	9.9	99 %	89-111
Bromobenzene, ug/l	5.0U	10	10.0	100 %	63-153
Bromochloromethane, ug/l	5.0U	10	10.1	101 %	91-129
Bromodichloromethane, ug/l	5.0U	10	9.9	99 %	87-119
Bromoform, ug/l	5.0U	10	10.3	103 %	52-127
Bromomethane (Methyl bromide), ug/l	5.0U	10	9.3	93 %	63-140
Carbon tetrachloride, ug/l	5.0U	10	9.7	97 %	73-116
Chlorobenzene, ug/l	5.0U	10	9.9	99 %	93-113
Chloroethane, ug/l	5.0U	10	9.8	98 %	76-116
Chloroform, ug/l	5.0U	10	9.7	97 %	90-115
Chloromethane, ug/l	5.0U	10	8.6	86 %	60-118
2-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	84-121
4-Chlorotoluene, ug/l	5.0U	10	10.3	103 %	90-113
Dibromochloromethane, ug/l	5.0U	10	9.9	99 %	73-125
Dibromomethane (Methylene bromide), ug/l	5.0U	10	9.7	97 %	83-125
1,2-Dibromoethane (EDB), ug/l	5.0U	10	9.9	99 %	31-152
1,2-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	87-115
1,3-Dichlorobenzene, ug/l	5.0U	10	10.0	100 %	90-113
1,4-Dichlorobenzene, ug/l	5.0U	10	9.9	99 %	92-113

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10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
Dichlorodifluoromethane, ug/l	5.0U	10	8.3	83 %	30-152
1,1-Dichloroethane, ug/l	5.0U	10	9.3	93 %	90-114
1,2-Dichloroethane, ug/l	5.0U	10	9.7	97 %	88-125
1,1-Dichloroethene, ug/l	5.0U	10	9.9	99 %	84-117
cis-1,2-Dichloroethene, ug/l	5.0U	10	10.3	103 %	90-117
trans-1,2-Dichloroethene, ug/l	5.0U	10	9.6	96 %	88-112
1,2-Dichloropropane, ug/l	5.0U	10	10.1	101 %	87-112
1,3-Dichloropropane, ug/l	5.0U	10	10.0	100 %	73-124
2,2 Dichloropropane, ug/l	5.0U	10	9.6	96 %	74-112
cis-1,3-Dichloropropene, ug/l	5.0U	10	9.8	98 %	61-133
trans-1,3-Dichloropropene, ug/l	5.0U	10	9.8	98 %	51-144
Ethylbenzene, ug/l	5.0U	10	9.9	99 %	69-123
Hexachlorobutadiene, ug/l	5.0U	10	12.1	121 %	74-140
Isopropylbenzene (Cumene), ug/l	5.0U	10	10.3	103 %	56-134
p-Isopropyltoluene, ug/l	5.0U	10	10.6	106 %	30-172
Methylene chloride (Dichloromethane), ug/l	5.0U	10	9.7	97 %	81-117
Naphthalene, ug/l	5.0U	10	10.9	109 %	18-229
n-Butylbenzene, ug/l	5.0U	10	10.9	109 %	1-237
n-Propylbenzene , ug/l	5.0U	10	10.4	104 %	73-116
sec-Butylbenzene, ug/l	5.0U	10	10.4	104 %	53-134
Styrene, ug/l	5.0U	10	10.0	100 %	76-127

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Project: CTO-017, NTC ORLANDO
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9
t-Butylbenzene, ug/l	5.0U	10	10.0	100 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	5.0U	10	10.2	102 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	5.0U	10	9.6	96 %	69-134
Tetrachloroethene, ug/l	5.0U	10	10.3	103 %	88-117
Toluene, ug/l	5.0U	10	9.9	99 %	85-117
1,1,1-Trichloroethane, ug/l	5.0U	10	10.3	103 %	88-117
1,1,2-Trichloroethane, ug/l	5.0U	10	9.7	97 %	86-121
1,2,3-Trichlorobenzene, ug/l	5.0U	10	10.9	109 %	43-204
1,2,4-Trichlorobenzene, ug/l	5.0U	10	11.2	112 %	31-211
Trichloroethene, ug/l	5.0U	10	9.9	99 %	85-108
Trichlorofluoromethane, ug/l	5.0U	10	10.3	103 %	84-118
1,2,3-Trichloropropane, ug/l	5.0U	10	10.1	101 %	38-159
1,2,4-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	63-142
1,3,5-Trimethylbenzene, ug/l	5.0U	10	10.0	100 %	84-125
Vinyl chloride, ug/l	5.0U	10	9.6	96 %	72-116
o-Xylene, ug/l	5.0U	10	10.2	102 %	73-122
m&p-Xylene, ug/l	10U	20	20.6	103 %	70-125
Surrogate - Dibromofluoromethane	100 %	10	9.64	96 %	77-119
Surrogate - Toluene-d8	100 %	10	10.01	100 %	78-118
Surrogate - 4-Bromofluorobenzene	97 %	10	10.02	100 %	79-116
1,2-Dibromo-3-chloropropane, ug/l	---	10	10.4	104 %	56-125
Dilution Factor	1	---	1	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	10:35	---	11:19	---	---
Batch ID	BUW149	BUW149	BUW149	BUW149	BUW149
Prep Method	5030B	---	5030B	---	---
Analyst	GH	---	GH	---	---

017

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-5	Method Blank	
10681-6	Lab Control Standard True Value	
10681-7	Lab Control Standard Result	
10681-8	Lab Control Standard % Recovery	
10681-9	LCS Accuracy Control Limit (%R)	

PARAMETER	10681-5	10681-6	10681-7	10681-8	10681-9

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	50	84 %	25	51
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.30.01	---	---	10.30.01
Analysis Time	---	14:20	---	---	14:20
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.21	103 %	1.0	1.22
Nitrite-N, mg/l	0.20	0.20	100 %	0.20	0.20
Nitrate-N, mg/l	---	1.0	---	---	1.0
Dilution Factor	---	1	---	---	1
Prep Date	---	10.27.01	---	---	10.27.01
Prep Time	---	11:40	---	---	11:40
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	08:00	---	---	08:00
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B	N3W66B
Prep Method	---	4500-NO2B	---	---	4500-NO2B
Analyst	---	CR	---	---	CR

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Chloride (325.2/4500E/9251), mg/l	25.0	35.9	108 %	25.0	35.8
Dilution Factor	---	1	---	---	1
Prep Date	---	11.01.01	---	---	11.01.01
Prep Time	---	10:00	---	---	10:00
Analysis Date	---	11.01.01	---	---	11.01.01
Analysis Time	---	13:34	---	---	13:34
Batch ID	CKW60C	CKW60C	CKW60C	CKW60C	CKW60C
Prep Method	---	325.2	---	---	325.2
Analyst	---	N/A	N/A	N/A	AB
Total Dissolved Solids (160.1), mg/l	N/A	N/A			
Total Organic Carbon (9060), mg/l	10	41.3	58 %	10	41.2
Dilution Factor	---	5	---	---	5
Analysis Date	---	10.30.01	---	---	10.30.01
Analysis Time	---	09:26	---	---	09:36
Batch ID	TOW020	TOW020	TOW020	TOW020	TOW020
Prep Method					
Analyst	---	WG	---	---	WG

020

SEVERN TRENT SERVICES

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Sulfide (376.1), mg/l	10	12.8	86 %	10	13.5
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.31.01	---	---	10.31.01
Analysis Time	---	10:20	---	---	10:20
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Analyst	---	BH	---	---	BH
Iron, Dissolved (6010B), ug/l	10000.0	10033.8	100.3 %	10000.0	10048.7
Dilution Factor	---	1	---	---	1
Prep Date	---	11.02.01	---	---	11.02.01
Prep Time	---	15:09	---	---	15:09
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	10:36	---	---	10:42
Batch ID	PD136	PD136	PD136	PD136	PD136
Prep Method					
Analyst	---	GSP	---	---	GSP

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Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	3400	4031	116 %	3400	3816
Surrogate - o-Terphenyl	125	129	103 %	125	128
Surrogate - Nonatriacontane (C39)	50	53	106 %	50	41
Dilution Factor	---	1	---	---	1
Prep Date	---	10.30.01	---	---	10.30.01
Prep Time	---	14:37	---	---	14:37
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	01:30	---	---	01:38
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	---	3520C	---	---	3520C
Analyst	---	KA	---	---	KA

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Volatile Organic Compounds (8260B)					
Benzene, ug/l	50	47	94 %	50	47
Bromobenzene, ug/l	50	48	96 %	50	48
Bromochloromethane, ug/l	50	46	92 %	50	51
Bromodichloromethane, ug/l	50	45	90 %	50	50
Bromoform, ug/l	50	47	94 %	50	55
Bromomethane (Methyl bromide), ug/l	50	44	88 %	50	43
Carbon tetrachloride, ug/l	50	45	90 %	50	44
Chlorobenzene, ug/l	50	48	96 %	50	48
Chloroethane, ug/l	50	45	90 %	50	45
Chloroform, ug/l	50	46	92 %	50	48
Chloromethane, ug/l	50	40	80 %	50	42
2-Chlorotoluene, ug/l	50	50	100 %	50	46
4-Chlorotoluene, ug/l	50	50	100 %	50	48
Dibromochloromethane, ug/l	50	45	90 %	50	52
Dibromomethane (Methylene bromide), ug/l	50	44	88 %	50	52
1,2-Dibromoethane (EDB), ug/l	50	44	88 %	50	52
1,2-Dibromo-3-chloropropane, ug/l	50	45	90 %	50	55
1,2-Dichlorobenzene, ug/l	50	47	94 %	50	49
1,3-Dichlorobenzene, ug/l	50	48	96 %	50	47
1,4-Dichlorobenzene, ug/l	50	48	96 %	50	47

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Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
Dichlorodifluoromethane, ug/l	50	36	72 %	50	35
1,1-Dichloroethane, ug/l	50	44	88 %	50	44
1,2-Dichloroethane, ug/l	50	43	86 %	50	49
1,1-Dichloroethene, ug/l	50	46	92 %	50	46
cis-1,2-Dichloroethene, ug/l	50	80	94 %	50	85
trans-1,2-Dichloroethene, ug/l	50	45	90 %	50	45
1,2-Dichloropropane, ug/l	50	48	96 %	50	50
1,3-Dichloropropane, ug/l	50	45	90 %	50	54
2,2 Dichloropropane, ug/l	50	44	88 %	50	43
cis-1,3-Dichloropropene, ug/l	50	45	90 %	50	50
trans-1,3-Dichloropropene, ug/l	50	44	88 %	50	51
Ethylbenzene, ug/l	50	48	96 %	50	46
Hexachlorobutadiene, ug/l	50	60	120 %	50	55
Isopropylbenzene (Cumene), ug/l	50	50	100 %	50	47
p-Isopropyltoluene, ug/l	50	52	104 %	50	48
Methylene chloride (Dichloromethane), ug/l	50	45	90 %	50	49
Naphthalene, ug/l	50	50	100 %	50	60
n-Butylbenzene, ug/l	50	53	106 %	50	51
n-Propylbenzene , ug/l	50	51	102 %	50	47
sec-Butylbenzene, ug/l	50	51	102 %	50	46
Styrene, ug/l	50	47	94 %	50	48

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Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-10	MS True Value	
10681-11	Matrix Spike Result	
10681-12	Matrix Spike % Recovery	
10681-13	MSD True Value	
10681-14	Matrix Spike Duplicate Result	

PARAMETER	10681-10	10681-11	10681-12	10681-13	10681-14
t-Butylbenzene, ug/l	50	48	96 %	50	44
1,1,1,2-Tetrachloroethane, ug/l	50	48	96 %	50	50
1,1,2,2-Tetrachloroethane, ug/l	50	44	88 %	50	51
Tetrachloroethene, ug/l	50	49	98 %	50	47
Toluene, ug/l	50	47	94 %	50	46
1,1,1-Trichloroethane, ug/l	50	48	96 %	50	48
1,1,2-Trichloroethane, ug/l	50	44	88 %	50	51
1,2,3-Trichlorobenzene, ug/l	50	52	104 %	50	58
1,2,4-Trichlorobenzene, ug/l	50	53	106 %	50	57
Trichloroethene, ug/l	50	54	93 %	50	53
Trichlorofluoromethane, ug/l	50	45	90 %	50	45
1,2,3-Trichloropropane, ug/l	50	45	90 %	50	53
1,2,4-Trimethylbenzene, ug/l	50	51	102 %	50	47
1,3,5-Trimethylbenzene, ug/l	50	49	98 %	50	45
Vinyl chloride, ug/l	50	43	86 %	50	43
o-Xylene, ug/l	50	49	98 %	50	49
m&p-Xylene, ug/l	100	97	97 %	100	96
Surrogate - Dibromofluoromethane	10	9.20	92 %	10	10.16
Surrogate - Toluene-d8	10	9.93	99 %	10	9.98
Surrogate - 4-Bromofluorobenzene	10	9.92	99 %	10	10.07
Dilution Factor	---	5	---	---	5
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	12:03	---	---	12:44
Batch ID	BUW149	BUW149	BUW149	BUW149	BUW149
Prep Method	---	5030B	---	---	5030B
Analyst	---	GH	---	---	GH

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-15	Matrix Spike Duplicate % Recovery	
10681-16	MS Accuracy Advisory Limit (%R)	
10681-17	Precision (%RPD) MS/MSD	
10681-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10681-15	10681-16	10681-17	10681-18
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	88 %	65-138	5	20
Batch ID	AEW060	AEW060	AEW060	AEW060
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	104 %	67-126	1	20
Nitrite-N, mg/l	100 %	72-128	0	20
Batch ID	N3W66B	N3W66B	N3W66B	N3W66B
Chloride (325.2/4500E/9251), mg/l	108 %	81-131	0	20
Batch ID	CKW60C	CKW60C	CKW60C	CKW60C
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	57 %	52-134	2	27
Batch ID	TOW020	TOW020	TOW020	TOW020
Prep Method				
Sulfide (376.1), mg/l	93 %	90-110	8	20
Batch ID	FEW045	FEW045	FEW045	FEW045
Iron, Dissolved (6010B), ug/l	100.5 %	75-125	0.1	20
Batch ID	PD136	PD136	PD136	PD136
Prep Method				

026

SEVERN TRENT SERVICES

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Sampled By: Client
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-15	Matrix Spike Duplicate % Recovery	
10681-16	MS Accuracy Advisory Limit (%R)	
10681-17	Precision (%RPD) MS/MSD	
10681-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10681-15	10681-16	10681-17	10681-18
Petroleum Hydrocarbons (FL-PRO)				
Petroleum Range Organics (FL-PRO), ug/l	110 %	41-101	20	6
Surrogate - o-Terphenyl	102 %	82-142	---	---
Surrogate - Nonatriacontane (C39)	82 %	42-193	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-15	Matrix Spike Duplicate % Recovery	
10681-16	MS Accuracy Advisory Limit (%R)	
10681-17	Precision (%RPD) MS/MSD	
10681-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10681-15	10681-16	10681-17	10681-18
Volatile Organic Compounds (8260B)				
Benzene, ug/l	94 %	67-148	0	8
Bromobenzene, ug/l	96 %	73-140	0	14
Bromochloromethane, ug/l	102 %	85-130	10	18
Bromodichloromethane, ug/l	100 %	65-133	10	19
Bromoform, ug/l	110 %	62-124	16	29
Bromomethane (Methyl bromide), ug/l	86 %	59-152	2	17
Carbon tetrachloride, ug/l	88 %	78-121	2	11
Chlorobenzene, ug/l	96 %	66-156	0	10
Chloroethane, ug/l	90 %	73-123	0	10
Chloroform, ug/l	96 %	87-117	4	13
Chloromethane, ug/l	84 %	60-124	5	10
2-Chlorotoluene, ug/l	92 %	85-122	8	15
4-Chlorotoluene, ug/l	96 %	87-122	4	13
Dibromochloromethane, ug/l	104 %	83-122	14	27
Dibromomethane (Methylene bromide), ug/l	104 %	81-130	17	20
1,2-Dibromoethane (EDB), ug/l	104 %	36-153	17	26
1,2-Dibromo-3-chloropropane, ug/l	110 %	71-118	20	33
1,2-Dichlorobenzene, ug/l	98 %	86-120	4	12
1,3-Dichlorobenzene, ug/l	94 %	89-118	2	10
1,4-Dichlorobenzene, ug/l	94 %	78-138	2	10
Dichlorodifluoromethane, ug/l	70 %	35-160	3	12
1,1-Dichloroethane, ug/l	88 %	85-121	0	10

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CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-15	Matrix Spike Duplicate % Recovery	
10681-16	MS Accuracy Advisory Limit (%R)	
10681-17	Precision (%RPD) MS/MSD	
10681-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10681-15	10681-16	10681-17	10681-18
1,2-Dichloroethane, ug/l	98 %	85-129	13	17
1,1-Dichloroethene, ug/l	92 %	84-119	0	13
cis-1,2-Dichloroethene, ug/l	104 %	65-133	10	19
trans-1,2-Dichloroethene, ug/l	90 %	87-115	0	9
1,2-Dichloropropane, ug/l	100 %	88-114	4	12
1,3-Dichloropropane, ug/l	108 %	73-126	18	19
2,2 Dichloropropane, ug/l	86 %	78-116	2	10
cis-1,3-Dichloropropene, ug/l	100 %	65-133	10	19
trans-1,3-Dichloropropene, ug/l	102 %	53-144	15	19
Ethylbenzene, ug/l	92 %	78-132	4	14
Hexachlorobutadiene, ug/l	110 %	70-156	9	18
Isopropylbenzene (Cumene), ug/l	94 %	65-149	6	20
p-Isopropyltoluene, ug/l	96 %	35-190	8	22
Methylene chloride (Dichloromethane), ug/l	98 %	81-121	9	18
Naphthalene, ug/l	120 %	17-260	18	42
n-Butylbenzene, ug/l	102 %	1-270	4	40
n-Propylbenzene , ug/l	94 %	76-123	8	16
sec-Butylbenzene, ug/l	92 %	62-144	10	18
Styrene, ug/l	96 %	55-138	2	43
t-Butylbenzene, ug/l	88 %	73-113	9	16
1,1,1,2-Tetrachloroethane, ug/l	100 %	84-124	4	12
1,1,2,2-Tetrachloroethane, ug/l	102 %	75-127	15	25
Tetrachloroethene, ug/l	94 %	87-131	4	13

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10681
Received: 27 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 16271119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10681-15	Matrix Spike Duplicate % Recovery	
10681-16	MS Accuracy Advisory Limit (%R)	
10681-17	Precision (%RPD) MS/MSD	
10681-18	MS Precision Advisory Limit (%RPD)	

PARAMETER	10681-15	10681-16	10681-17	10681-18
Toluene, ug/l	92 %	86-123	2	8
1,1,1-Trichloroethane, ug/l	96 %	90-120	0	10
1,1,2-Trichloroethane, ug/l	102 %	85-125	15	20
1,2,3-Trichlorobenzene, ug/l	116 %	49-214	11	33
1,2,4-Trichlorobenzene, ug/l	114 %	30-230	7	32
Trichloroethene, ug/l	91 %	86-115	2	11
Trichlorofluoromethane, ug/l	90 %	84-125	0	10
1,2,3-Trichloropropane, ug/l	106 %	75-127	16	26
1,2,4-Trimethylbenzene, ug/l	94 %	50-158	8	30
1,3,5-Trimethylbenzene, ug/l	90 %	72-140	9	25
Vinyl chloride, ug/l	86 %	74-125	0	9
o-Xylene, ug/l	98 %	76-127	0	13
m&p-Xylene, ug/l	96 %	76-129	1	20
Surrogate - Dibromofluoromethane	102 %	77-119	---	---
Surrogate - Toluene-d8	100 %	78-118	---	---
Surrogate - 4-Bromofluorobenzene	101 %	79-116	---	---
Batch ID	BUW149	BUW149	BUW149	BUW149

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received, that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

Final Page Of Report

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110681 Date Received: 10.27.01

1.	Was there a Chain of Custody?	(Yes)	No+		
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No+		
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No+	N/A	
4.	Were all samples properly labeled and identified?	(Yes)	No+		
5.	Did samples require splitting or compositing♦? Req By: PM Client Other♦	Yes+	(No)		
6.	Were samples received in proper containers for analysis requested?	(Yes)	No+		
7.	Were all sample containers received intact?	(Yes)	No+		
8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)+*	(Yes)	No+	N/A	
9.	Is there sufficient volume for analysis requested?	(Yes)	No+	N/A *(Can)*	
10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No+		
11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	(Yes*)	No	N/A	
12.	If sent, were matrix spike bottles returned?	Yes	No+	(N/A)	
13.	Was Project Manager notified of problems? (initials: PSIF bmh 10.27.01)	(Yes)	No+	N/A	

Airbill Number(s): 8307 0936 7076

Shipped By: Fed Ex

Cooler Number(s): Client

Shipping Charges: N/A

Cooler Weight(s): 74#

Cooler Temp(s) (°C): 2°

CCK10

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

11. Trip Blanks, 8260, have ¼" bubble. DMH 10.27.01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH Date: 10.27.01 Logged By: pbk Date: 10/27/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytic department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

C 110681

033

FedEx Express USA Airbill FedEx Tracking Number 830709367076

Form ID No. 0200

1 From
Date 11-26-01
Sender's Name ISAAC LYNCH Phone 352 3396820
Company CH2M HILL / CCI
Address 1060 Warehouse Rd
Dept/Floor/Suite/Room
City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To
Recipient's Name RICK HAYES Phone 850 474 1001
Company STL Pensacola
Address 3355 McLemore DR.
To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.
Dept/Floor/Suite/Room
City Pensacola State FL ZIP 32514

830709367076

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.
- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.
- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation: * Declared value limit $500

5 Packaging
- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.
- [x] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.
- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No
- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	14	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: [illegible]
Labeled by: DMH
Delivered by: DMH

CH2M-CONST-GA C110681
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
~~32 oz.~~ 60 Plastic		✓					HNO3	3	✓		
16 oz. Plastic	✓						ZN AC/NAOH	3	RA	10-27-01	1140
8 oz. Plastic	✓						B H2SO4	12 3	✓	10-27-01	✓
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCL	3	✓		
500 ml Amber											
250 ml Amber											
~~120~~ 40ml ml Amber	✓						H2SO4	6	RB	10-27-01	1140
40 ml Vial						✓	HCL Ø	7 1	DMH	10-27-01	1435
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

034

SEVERN TRENT SERVICES
STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

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Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7), Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

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Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagge with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension grant.

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/0

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/31/01 | Preparation[1] Time On: 0940 | Preparation[1] Time Off: 1015

Analysis Date: 10/31/01 | Analysis Time On: 1020 | Analysis Time Off: 1450

1#: FEN045

RPD: 20

Spike: 79-102%

LCS: 90-110%

Chemist[2]: BH | Data Reviewed By: AS 11/2/01

N of $Na_2S_2O_3$ = (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0244 LOT # $Na_2S_2O_3$ = 8180 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0248 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.74	0.025 N $Na_2S_2O_3$	0.02442	5	5.07	0.025 N I_2	0.02474
5.75	↓	0.02438	5	5.08	↓	0.02479

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.10	ND	1.0
SF-LCS-S[7] 12-28-01	N/A	0.2/100 ml	↓	10	5.42	18.5/20.0 =	1.0 93%
Prep Blank (distilled)	DI Water	100 ml	N/A				
1 110611-1	WA	200		5	2.93	4.2	1.0
MS[6] (10 ppm) -1B		.2/200		10	3.61	12.8-4.2/10.0 = 86%	
MSD[6] (10 ppm) -1A		.2/200		10	3.23	13.5-4.2/10.0 = 93%	
2 -2		200		5	3.98	2.2	1.0
3 -3		200		5	3.40	3.3	
4 110655-1		200		5	3.61	2.9	
5 -2		200		5	4.77	ND	
6 -3		200		5	5.12	ND	
7 110681-1		200		5	5.17	ND	
8 -2		200		5	5.14	ND	
9 -3		200		5	5.51	ND	
10 110649-1	↓	200		5	5.09	ND	
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls		10	5.40	18.6/20.0 =	1.0 93%
CCB (blank)	DI Water	100 mls		5	5.05	ND	1.0
DUP[5] 110649-1	WA	200		5	5.45	ND	
11 -2		200		5	5.10	ND	
12 -3		200		5	5.00	ND	
13 -4		200		5	4.92	ND	
14 110728-1	↓	200		5	5.11	ND	
15 110649-5	WA	200	WA	5	5.18	ND	
16 -6	↓	200	↓	5	5.61	ND	
17 -7	↓	200	↓	5	5.09	ND	
18 110728-1 MS	WA	200	WA	10	4.95	10.2/10.0 =	102%
~~19~~			~~BH~~ 10/31/01				
~~20~~							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	WA	10	5.46	18.4/20.0 =	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.04	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\text{µl } H_2S}{20 \text{ L gas}}$ = ppmv H_2S

[4] ⌐ ⌐ = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

' ' = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession #** or "arrow down", initial/date.

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

STL Pensacola

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW060 BE 11-01-01

Analysis Date: 10-30-01 Analysis Time On: 1420 Analysis Time Off: 1630 Data Reviewed By: AD 11/2/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0200

LOT # H_2SO_4 = T32665 Baker

LOT # 0.05N Na_2CO_3 = 7529 Fmall

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	24.60	H_2SO_4-N -12-10-01	0.01965
10 ml	Na_2CO_3-N- 12-11-01	23.22	H_2SO_4-N - 12-10-01	0.02051

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant HI (B)	ml Titrant LO (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.44	N/A	50 ml		12.79		255/250 =	1.0
1. 110681 -1	Y	6.73	6.25 WA	100		5.04	2.93	29.	
MS[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 -1		6.82	6.92			5.04		ND -29/25 =	84%
MSD[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 -1		6.82	6.92			5.09		5.1 -29/25 =	88% RPD = 5
2. -2		4.25				0.00		ND	
3. -3		6.37				2.91		29.1	
4. 110685993 -11		4.85				0.33	0.65	ND	
5. -2		4.98				0.91	1.52	3.0	
6. -3		5.45				1.77	1.86	9.0	
7. 110657 -1		5.88				2.88		28.8	
8. -2		5.37				0.98	1.18	7.8	
9. -3		5.36				1.09	1.33	8.50	
10. -4		5.39				1.17	1.44	9.0	
[7]Alk-CCV-I- 12-01-01	N/A	10.48	QC	10 ml / 100 ml		24.48		244/250 =	98%
CCB (blank)	N/A	5.62	DI Water			0.14	0.28	ND	
DUP[5] -5		5.23				0.97	1.23	7.1	
11. -5		5.23				1.01	1.29	8 7.4	RPD=4
12. -6		5.25				0.24	0.48	ND	
13. -7		4.28				0.00		ND	
14. 110656 -1		5.53		100		0.40	0.79	ND	
15. -2		5.26			0.36	0.40	0.90	ND	
16. 110720 -1		7.95				24.21		242.	
17. 110728 -1	N	4.77	WA	100		0.29	0.52	ND	N
18.									
19.				BE 11-01-01					
20.									
[7]Alk-CCV-I-	N/A	10.48	QC	10 ml / 100 ml		24.50		245/250 =	98%
CCB (blank)	N/A	5.64	DI Water	100		0.20	0.40	ND	

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or ↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

CL 325.2/SM4500CL E/SW9251 CKW60A, B, C

	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	763710	100.0	763710	763710	763710	763710	763710	0.0	0.0	0.7
2	525748	50.0	525748	525748	525748	525748	525748	0.0	0.0	-3.5
3	334290	25.0	334290	334290	334290	334290	334290	0.0	0.0	1.4
4	163072	10.0	163072	163072	163072	163072	163072	0.0	0.0	12.3
5	82474	5.0	82474	82474	82474	82474	82474	0.0	0.0	19.0
6	43492	2.5	43492	43492	43492	43492	43492	0.0	0.0	4.3
7	18512	1.0	18512	18512	18512	18512	18512	0.0	0.0	-54.8
8	0	0.0	0	0	0	0	0	0.0	0.0	

2nd Order Poly
Conc = 1.352e-010 Area^2 + 2.543e-005 Area + 1.031e+000
r = 0.9996

Scaling: None - Weighting: None

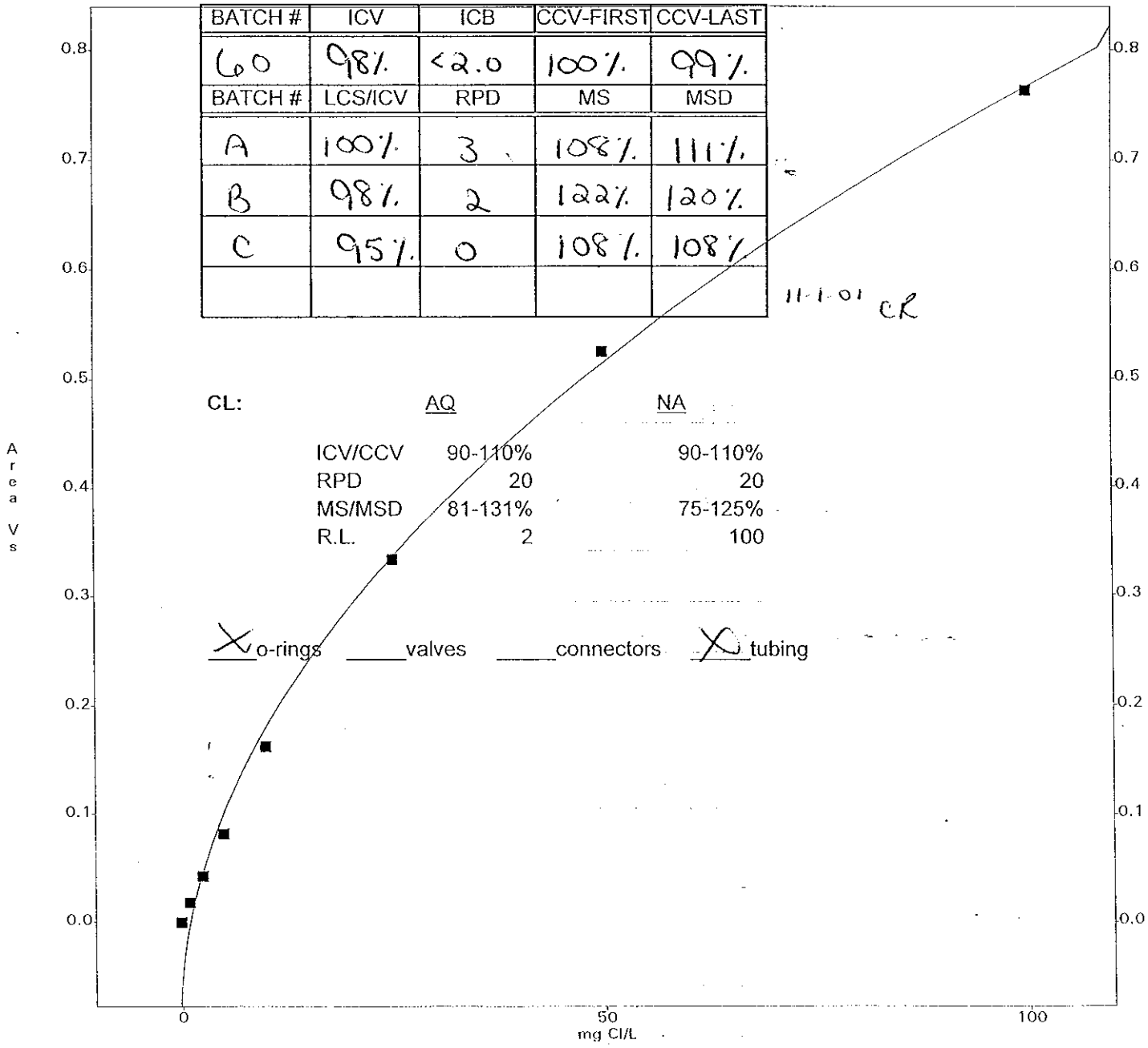
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
60	98%	<2.0	100%	99%
BATCH #	LCS/ICV	RPD	MS	MSD
A	100%	3	108%	111%
B	98%	2	122%	120%
C	95%	0	108%	108%

11-1-01 CR

CL: AQ NA

ICV/CCV	90-110%	90-110%
RPD	20	20
MS/MSD	81-131%	75-125%
R.L.	2	100

X o-rings ____valves ____connectors X tubing



Printed: Friday, November 02, 2001 - 08:31 AM

CKW60A; B; C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 9:58:06
DATA FILENAME: C:\OMNION\DATA\CKW60A.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60A.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)
1	100.0 PPM CHLOR	01 Nov 2001	09:58:08	1	763710.00
2	50.0 PPM CHLO	01 Nov 2001	09:58:45	1	525748.00
3	25.0 PPM CHLO	01 Nov 2001	09:59:23	1	334290.00
4	10.0 PPM CHLO	01 Nov 2001	10:00:01	1	163072.00
5	5.00 PPM CHLO	01 Nov 2001	10:00:39	1	82474.00
6	2.50 PPM CHLO	01 Nov 2001	10:01:18	1	43492.00
7	1.00 PPM CHLO	01 Nov 2001	10:01:57	1	18512.00
8	0.00 PPM CHLO	01 Nov 2001	10:02:37	1	0.00

CKW60A;B;C

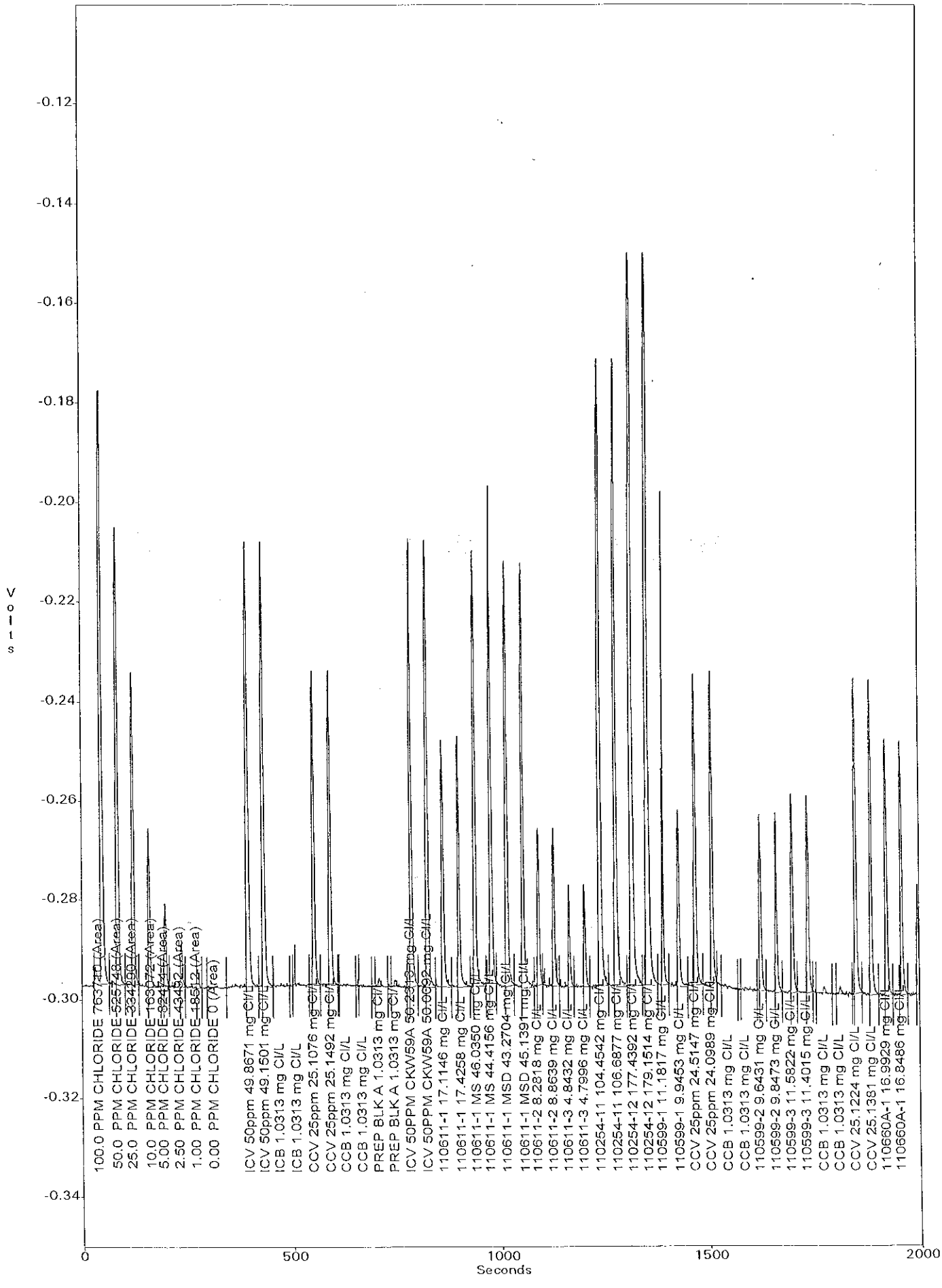
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

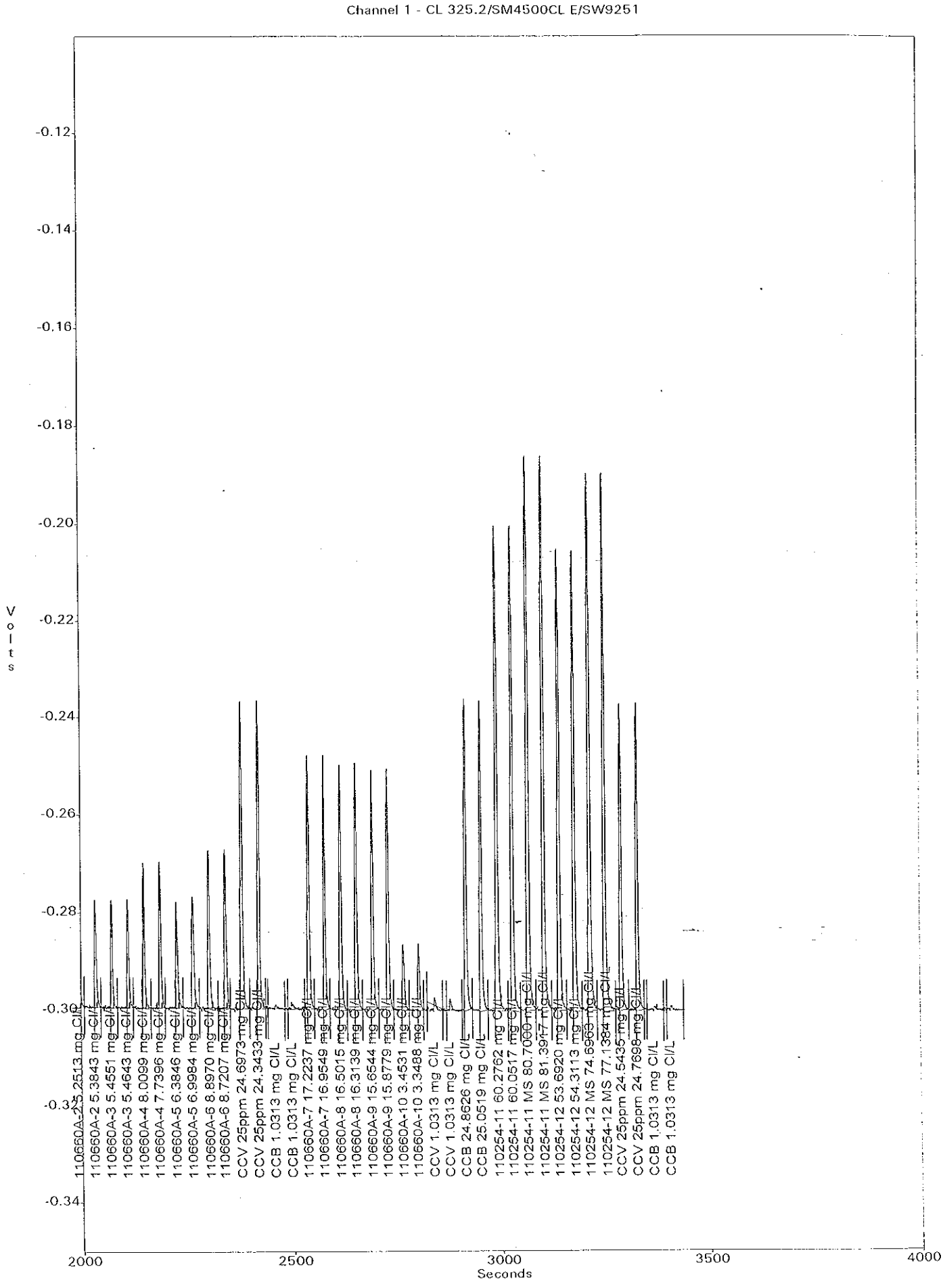
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	01 Nov 2001	10:09:10	1	ND 1.0313	1.0	1.00	1.00000	g
				10:09:48	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	10:10:27	1	50.2313	1.0	1.00	1.00000	g
				10:11:05	2	100% 50.0092				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110611-1	Dup1	01 Nov 2001	10:11:43	1	17.1146	1.0	1.00	1.00000	g
				10:12:22	2	17.4258				
4	110611-1 MS	Spiked	01 Nov 2001	10:13:00	1	46.0350	1.0	1.00	1.00000	g
				10:13:39	2	108% 44.4156				
				Spike Level:		0.0000				
				% Spike Recovery:		KPD=3 100.0000				
5	110611-1 MSD	Dup1	01 Nov 2001	10:14:17	1	111% 43.2704	1.0	1.00	1.00000	g
				10:14:56	2	45.1391				
9	ICV 50ppm	RelChkStd	01 Nov 2001	10:03:55	1	49.8671	1.0	1.00	1.00000	g
				10:04:33	2	98% 49.1501				
				Known Concentration:		50.0000				
				% Difference:		-0.9827				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:06:32	1	25.1076	1.0	1.00	1.00000	g
				10:07:11	2	100% 25.1492				
				Known Concentration:		25.0000				
				% Difference:		0.5137				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:21:50	1	24.5147	1.0	1.00	1.00000	g
				10:22:30	2	96% 24.0989				
				Known Concentration:		25.0000				
				% Difference:		-2.7729				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:37:03	1	24.6973	1.0	1.00	1.00000	g
				10:37:43	2	97% 24.3433				
				Known Concentration:		25.0000				
				% Difference:		-1.9187				
15	CCV 25ppm	RelChkStd	01 Nov 2001	10:52:13	1	24.5435	1.0	1.00	1.00000	g
				10:52:52	2	98% 24.7698				
				Known Concentration:		25.0000				
				% Difference:		-1.3734				
16	ICB	Blank	01 Nov 2001	10:05:13	1	ND 1.0313	1.0	1.00	1.00000	g
				10:05:53	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:07:51	1	ND 1.0313	1.0	1.00	1.00000	g
				10:08:31	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:23:10	1	ND 1.0313	1.0	1.00	1.00000	g
				10:23:49	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:38:23	1	ND 1.0313	1.0	1.00	1.00000	g
				10:39:02	2	1.0313				
16	CCB	Blank	01 Nov 2001	10:53:32	1	ND 1.0313	1.0	1.00	1.00000	g
				10:54:11	2	1.0313				

CKW60A, B, C

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110611-2	01 Nov 2001	10:15:34	1	8.2818	1.0	1.00	1.00000	g
			10:16:11	2	8.8639				
7	110611-3	01 Nov 2001	10:16:49	1	48.4321 1/10	10.0 @	1.00	1.00000	g
			10:17:26	2	47.9964				
8	110254-11	01 Nov 2001	10:18:03	1	104.4542	1.0	1.00	1.00000	g See Cup 27
			10:18:41	2	106.6877				
9	110254-12	01 Nov 2001	10:19:18	1	177.4392	1.0	1.00	1.00000	g 29
			10:19:56	2	179.1514				
10	110599-1	01 Nov 2001	10:20:33	1	11.1817	1.0	1.00	1.00000	g
			10:21:10	2	9.9453				
11	110599-2	01 Nov 2001	10:24:26	1	9.6431	1.0	1.00	1.00000	g
			10:25:03	2	9.8473				
12	110599-3	01 Nov 2001	10:25:41	1	11.5822	1.0	1.00	1.00000	g
			10:26:18	2	11.4015				
13	CCB	01 Nov 2001	10:26:55	1	~0 1.0313	1.0	1.00	1.00000	g
			10:27:33	2	1.0313				
14	CCV	01 Nov 2001	10:28:10	1	100% 25.1224	1.0	1.00	1.00000	g
			10:28:46	2	25.1381				
15	110660A-1	01 Nov 2001	10:29:23	1	16.9929	1.0	1.00	1.00000	g
			10:29:59	2	16.8486				
16	110660A-2	01 Nov 2001	10:30:38	1	5.2513	1.0	1.00	1.00000	g
			10:31:16	2	5.3843				
17	110660A-3	01 Nov 2001	10:31:55	1	5.4551	1.0	1.00	1.00000	g
			10:32:33	2	5.4643				
18	110660A-4	01 Nov 2001	10:33:11	1	8.0099	1.0	1.00	1.00000	g
			10:33:50	2	7.7396				
19	110660A-5	01 Nov 2001	10:34:28	1	6.3846	1.0	1.00	1.00000	g
			10:35:07	2	6.9984				
20	110660A-6	01 Nov 2001	10:35:45	1	8.8970	1.0	1.00	1.00000	g
			10:36:24	2	8.7207				
21	110660A-7	01 Nov 2001	10:39:40	1	17.2237	1.0	1.00	1.00000	g
			10:40:19	2	16.9549				
22	110660A-8	01 Nov 2001	10:40:57	1	16.5015	1.0	1.00	1.00000	g
			10:41:36	2	16.3139				
23	110660A-9	01 Nov 2001	10:42:14	1	15.6544	1.0	1.00	1.00000	g
			10:42:51	2	15.8779				
24	110660A-10	01 Nov 2001	10:43:29	1	3.4531	1.0	1.00	1.00000	g
			10:44:06	2	3.3488				
25	CCV B	01 Nov 2001	10:44:43	1	~0 1.0313	1.0	1.00	1.00000	g
			10:45:21	2	1.0313				
26	CCB K 11-9-01 CR	01 Nov 2001	10:45:58	1	100% 24.8626	1.0	1.00	1.00000	g
			10:46:35	2	25.0519				
27	110254-11	01 Nov 2001	10:47:13	1	120.5524 5/10	2.0	1.00	1.00000	g
			10:47:50	2	120.1033				
28	110254-11 MS	01 Nov 2001	10:48:28	1	84% 161.3999	↓ 2.0	1.00	1.00000	g
			10:49:05	2	162.7834				
29	110254-12	01 Nov 2001	10:49:42	1	268.4598 2/10	5.0	1.00	1.00000	g
			10:50:20	2	271.5565				
30	110254-12 MS	01 Nov 2001	10:50:57	1	91% 373.4813	↓ 5.0	1.00	1.00000	g
			10:51:33	2	385.6922				


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
100.0 PPM CHLORIDE 763710 (Area)
50.0 PPM CHLORIDE 525748 (Area)
25.0 PPM CHLORIDE 334290 (Area)
10.0 PPM CHLORIDE 163072 (Area)
5.00 PPM CHLORIDE 82474 (Area)
2.50 PPM CHLORIDE 43452 (Area)
1.00 PPM CHLORIDE 18512 (Area)
0.00 PPM CHLORIDE 0 (Area)
ICV 50ppm 49.8671 mg Cl/L
ICV 50ppm 49.1501 mg Cl/L
ICB 1.0313 mg Cl/L
ICB 1.0313 mg Cl/L
CCV 25ppm 25.1076 mg Cl/L
CCV 25ppm 25.1492 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A 50.2312 mg Cl/L
ICV 50PPM CKW59A 50.0692 mg Cl/L
110611-1 17.1146 mg Cl/L
110611-1 17.4258 mg Cl/L
110611-1 MS 46.0350 mg Cl/L
110611-1 MS 44.4156 mg Cl/L
110611-1 MSD 43.2704 mg Cl/L
110611-1 MSD 45.1391 mg Cl/L
110611-2 8.2818 mg Cl/L
110611-2 8.8639 mg Cl/L
110611-3 4.8432 mg Cl/L
110611-3 4.7996 mg Cl/L
110254-11 104.4542 mg Cl/L
110254-11 106.6877 mg Cl/L
110254-12 177.4392 mg Cl/L
110254-12 179.1514 mg Cl/L
110599-1 11.1817 mg Cl/L
110599-1 9.9453 mg Cl/L
CCV 25ppm 24.5147 mg Cl/L
CCV 25ppm 24.0989 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110599-2 9.6431 mg Cl/L
110599-2 9.8473 mg Cl/L
110599-3 11.5822 mg Cl/L
110599-3 11.4015 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
CCV 25.1224 mg Cl/L
CCV 25.1381 mg Cl/L
110660A-1 16.9929 mg Cl/L
110660A-1 16.8486 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
110660A-1 5.2513 mg Cl/L
110660A-2 5.3843 mg Cl/L
110660A-3 5.4551 mg Cl/L
110660A-3 5.4643 mg Cl/L
110660A-4 8.0099 mg Cl/L
110660A-4 7.7396 mg Cl/L
110660A-5 6.3846 mg Cl/L
110660A-5 6.9984 mg Cl/L
110660A-6 8.8970 mg Cl/L
110660A-6 8.7207 mg Cl/L
CCV 25ppm 24.6973 mg Cl/L
CCV 25ppm 24.3433 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110660A-7 17.2237 mg Cl/L
110660A-7 16.9549 mg Cl/L
110660A-8 16.5015 mg Cl/L
110660A-8 16.3139 mg Cl/L
110660A-9 15.6544 mg Cl/L
110660A-9 15.8779 mg Cl/L
110660A-10 3.4531 mg Cl/L
110660A-10 3.3488 mg Cl/L
CCV 1.0313 mg Cl/L
CCV 1.0313 mg Cl/L
CCB 24.8626 mg Cl/L
CCB 25.0519 mg Cl/L
110254-11 60.2762 mg Cl/L
110254-11 60.0517 mg Cl/L
110254-11 MS 80.7000 mg Cl/L
110254-11 MS 81.3917 mg Cl/L
110254-12 53.6920 mg Cl/L
110254-12 54.3113 mg Cl/L
110254-12 MS 74.6963 mg Cl/L
110254-12 MS 77.1384 mg Cl/L
CCV 25ppm 24.5435 mg Cl/L
CCV 25ppm 24.7698 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

CKW60B

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 11:21:42
DATA FILENAME: C:\OMNION\DATA\CKW60B.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

CKW600B

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A B	Blank	01 Nov 2001	11:24:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:25:02	2	1.0313				
2	ICV 50PPM CKW59 B AC 11/01	RelChkStd	01 Nov 2001	11:25:40	1	47.8887	1.0	1.00	1.00000	g
				11:26:19	2	96% 49.0122				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110655-1	Dup1	01 Nov 2001	11:26:57	1	22.9695	1.0	1.00	1.00000	g
				11:27:36	2	22.5327				
4	110655-1 MS	Spiked	01 Nov 2001	11:28:14	1	60.3614	1.0	1.00	1.00000	g
				11:28:53	2	58.7929				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
5	110655-1 MSD	Dup1	01 Nov 2001	11:29:31	1	58.9417	1.0	1.00	1.00000	g
				11:30:09	2	58.7593				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:21:46	1	24.3954	1.0	1.00	1.00000	g
				11:22:26	2	98% 24.6708				
				Known Concentration:		25.0000				
				% Difference:		-1.8676				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:37:04	1	24.4495	1.0	1.00	1.00000	g
				11:37:43	2	97% 24.3504				
				Known Concentration:		25.0000				
				% Difference:		-2.4003				
15	CCV 25ppm	RelChkStd	01 Nov 2001	11:52:18	1	24.4839	1.0	1.00	1.00000	g
				11:52:58	2	97% 24.3551				
				Known Concentration:		25.0000				
				% Difference:		-2.3221				
15	CCV 25ppm	RelChkStd	01 Nov 2001	12:01:17	1	24.6365	1.0	1.00	1.00000	g
				12:01:57	2	98% 24.5930				
				Known Concentration:		25.0000				
				% Difference:		-1.5411				
16	CCB	Blank	01 Nov 2001	11:23:06	1	ND 1.0313	1.0	1.00	1.00000	g
				11:23:45	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:38:23	1	ND 1.0313	1.0	1.00	1.00000	g
				11:39:03	2	1.0313				
16	CCB	Blank	01 Nov 2001	11:53:38	1	ND 1.0313	1.0	1.00	1.00000	g
				11:54:17	2	1.0313				
16	CCB	Blank	01 Nov 2001	12:02:37	1	ND 1.0313	1.0	1.00	1.00000	g
				12:03:17	2	1.0313				

See Cup # 24. Sample 7 spiked

CKW60B

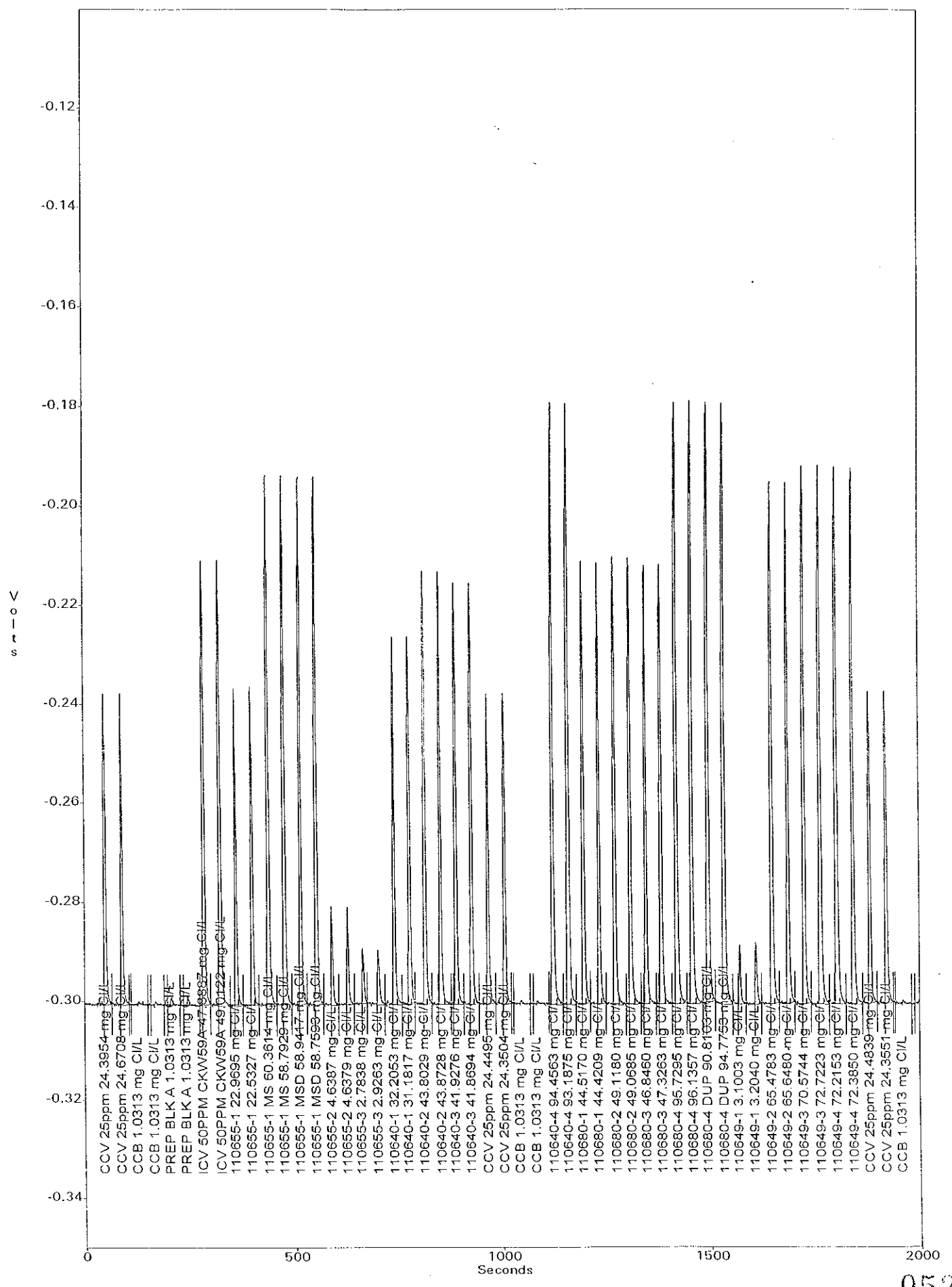
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

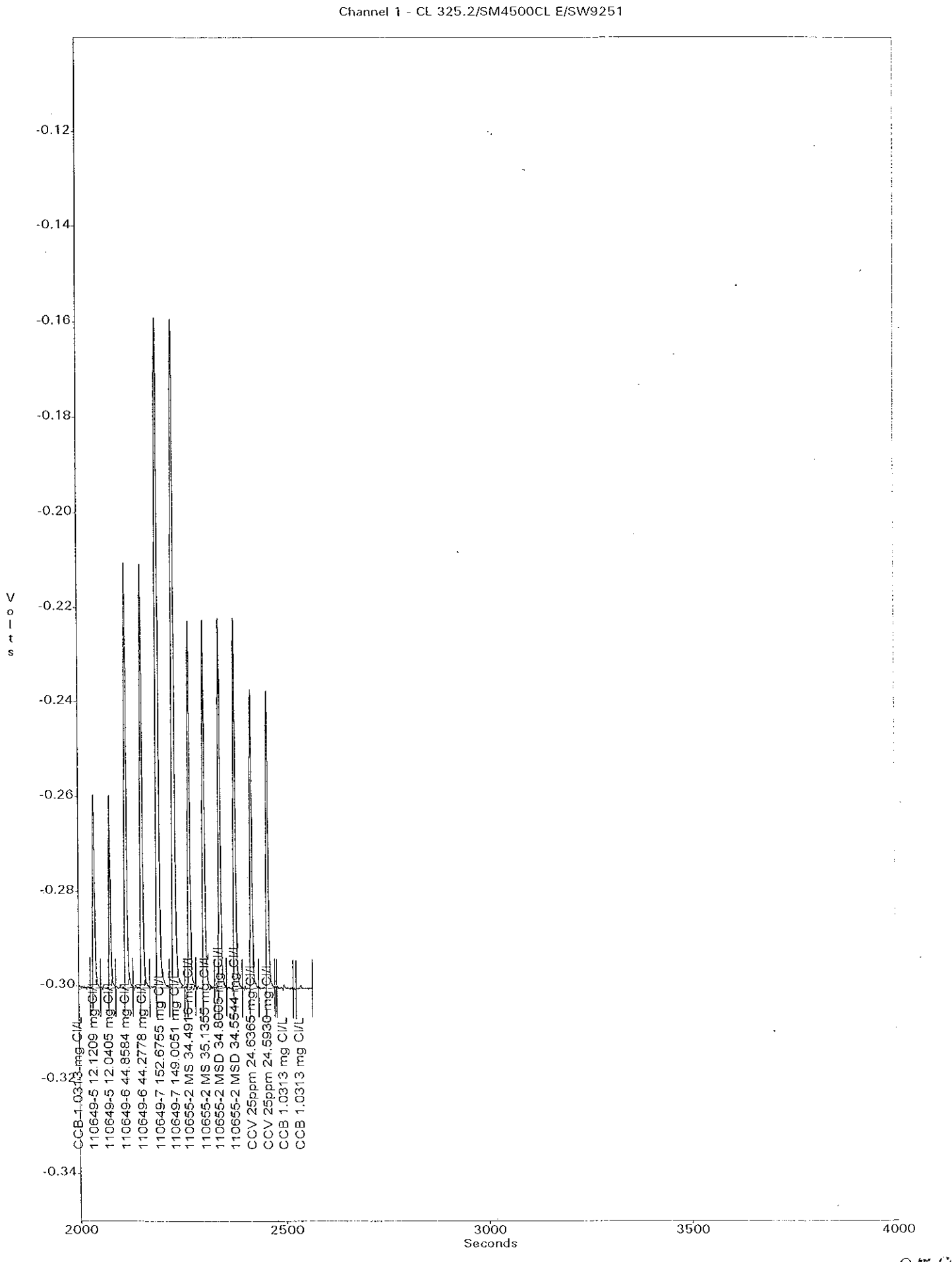
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110655-2	01 Nov 2001	11:30:47	1	115.9687	1/25 25.0	@ 1.00	1.00000	g
			11:31:25	2	115.9483				
7	110655-3	01 Nov 2001	11:32:02	1	69.5947	↓ 25.0	@ 1.00	1.00000	g
			11:32:40	2	73.1586				
8	110640-1	01 Nov 2001	11:33:17	1	644.1053	.5/10 20.0	1.00	1.00000	g
			11:33:54	2	623.6337				
9	110640-2	01 Nov 2001	11:34:32	1	438.0289	1/10 10.0	1.00	1.00000	g
			11:35:09	2	438.7276				
10	110640-3	01 Nov 2001	11:35:47	1	419.2757	↓ 10.0	1.00	1.00000	g
			11:36:24	2	418.6936				
11	110640-4	01 Nov 2001	11:39:40	1	94.4563	1.0	1.00	1.00000	g
			11:40:17	2	93.1875				
12	110680-1	01 Nov 2001	11:40:55	1	890.3407	.5/10 20.0	1.00	1.00000	g
			11:41:32	2	888.4174				
13	110680-2	01 Nov 2001	11:42:10	1	491.1796	1/10 10.0	1.00	1.00000	g
			11:42:47	2	490.6851				
14	110680-3	01 Nov 2001	11:43:24	1	468.4598	↓ 10.0	1.00	1.00000	g
			11:44:01	2	473.2631				
15	110680-4	01 Nov 2001	11:44:37	1	95.7295	1.0	1.00	1.00000	g
			11:45:14	2	96.1357				
16	110680-4 DUP	01 Nov 2001	11:45:52	1	90.8103	1.0	1.00	1.00000	g
			11:46:31	2	94.7753				
17	110649-1	01 Nov 2001	11:47:09	1	3.1003	1.0	1.00	1.00000	g
			11:47:48	2	3.2040				
18	110649-2	01 Nov 2001	11:48:26	1	65.4783	1.0	1.00	1.00000	g
			11:49:04	2	65.6480				
19	110649-3	01 Nov 2001	11:49:43	1	70.5744	1.0	1.00	1.00000	g
			11:50:21	2	72.7223				
20	110649-4	01 Nov 2001	11:51:00	1	72.2153	1.0	1.00	1.00000	g
			11:51:38	2	72.3850				
21	110649-5	01 Nov 2001	11:54:55	1	12.1209	1.0	1.00	1.00000	g
			11:55:33	2	12.0405				
22	110649-6	01 Nov 2001	11:56:12	1	44.8584	1.0	1.00	1.00000	g
			11:56:51	2	44.2778				
23	110649-7	01 Nov 2001	11:57:29	1	152.6755	1.0	1.00	1.00000	g
			11:58:08	2	149.0051				
24	110655-2 MS	01 Nov 2001	11:58:46	1	862.2911	1/25 25.0	1.00	1.00000	g
			11:59:23	2	878.3884				
25	110655-2 MSD	01 Nov 2001	12:00:00	1	870.0118	↓ 25.0	1.00	1.00000	g
			12:00:38	2	863.8592				

See Cup # 24 Same Batch

RPD = 2
12% 12%

051


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
CCV 25ppm 24.3954 mg Cl/L
CCV 25ppm 24.6708 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A47.9867 mg Cl/L
ICV 50PPM CKW59A 49.0122 mg Cl/L
110655-1 22.9695 mg Cl/L
110655-1 22.5327 mg Cl/L
110655-1 MS 60.3614 mg Cl/L
110655-1 MS 58.7929 mg Cl/L
110655-1 MSD 58.9447 mg Cl/L
110655-1 MSD 58.7599 mg Cl/L
110655-2 4.6387 mg Cl/L
110655-2 4.6379 mg Cl/L
110655-3 2.7838 mg Cl/L
110655-3 2.9263 mg Cl/L
110640-1 32.2053 mg Cl/L
110640-1 31.1817 mg Cl/L
110640-2 43.8029 mg Cl/L
110640-2 43.8728 mg Cl/L
110640-3 41.9276 mg Cl/L
110640-3 41.8694 mg Cl/L
CCV 25ppm 24.4495 mg Cl/L
CCV 25ppm 24.3504 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110640-4 94.4563 mg Cl/L
110640-4 93.1875 mg Cl/L
110680-1 44.5170 mg Cl/L
110680-1 44.4209 mg Cl/L
110680-2 49.1180 mg Cl/L
110680-2 49.0685 mg Cl/L
110680-3 46.8460 mg Cl/L
110680-3 47.3263 mg Cl/L
110680-4 95.7295 mg Cl/L
110680-4 96.1357 mg Cl/L
110680-4 DUP 90.8103 mg Cl/L
110680-4 DUP 94.7753 mg Cl/L
110649-1 3.1003 mg Cl/L
110649-1 3.2040 mg Cl/L
110649-2 65.4783 mg Cl/L
110649-2 65.6480 mg Cl/L
110649-3 70.5744 mg Cl/L
110649-3 72.7223 mg Cl/L
110649-4 72.2153 mg Cl/L
110649-4 72.3850 mg Cl/L
CCV 25ppm 24.4839 mg Cl/L
CCV 25ppm 24.3551 mg Cl/L
CCB 1.0313 mg Cl/L


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
CCB 1.0313 mg Cl/L
110649-5 12.1209 mg Cl/L
110649-5 12.0405 mg Cl/L
110649-6 44.8584 mg Cl/L
110649-6 44.2778 mg Cl/L
110649-7 152.6755 mg Cl/L
110649-7 149.0051 mg Cl/L
110655-2 MS 34.4916 mg Cl/L
110655-2 MS 35.1355 mg Cl/L
110655-2 MSD 34.8005 mg Cl/L
110655-2 MSD 34.5544 mg Cl/L
CCV 25ppm 24.6365 mg Cl/L
CCV 25ppm 24.5930 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
2000
2500
3000
3500
4000
Seconds

053

CKW60C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 1, 2001 13:34:36
DATA FILENAME: C:\OMNION\DATA\CKW60C.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW60C.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Oct 26, 2001 12:50:11
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

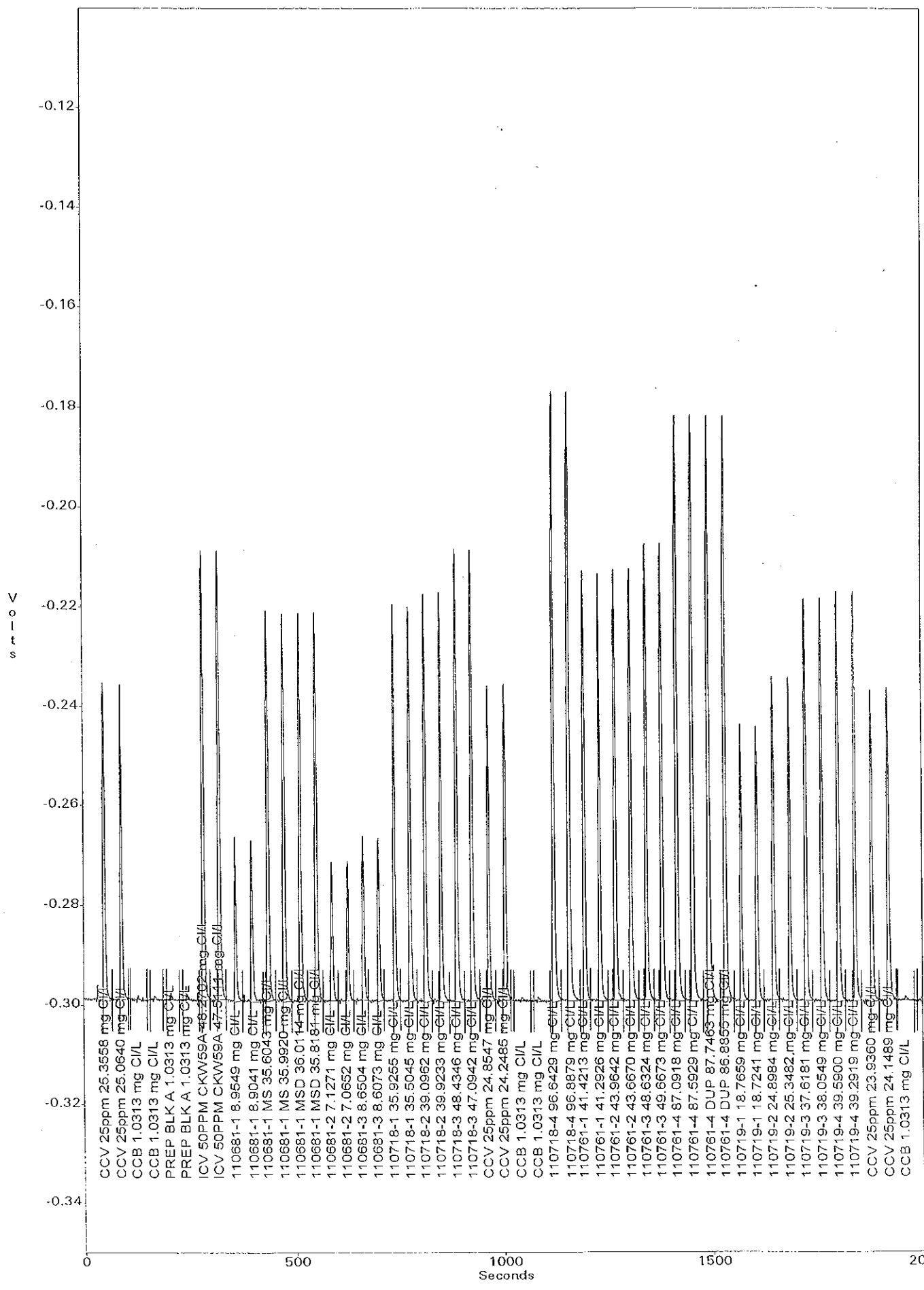
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK C	Blank	01 Nov 2001	13:37:17	1	ND 1.0313	1.0	1.00	1.00000	g
	C RB 11/1/01			13:37:56	2	1.0313				
2	ICV 50PPM CKW59A	RelChkStd	01 Nov 2001	13:38:34	1	48.2702	1.0	1.00	1.00000	g
				13:39:13	2	95% 47.5111				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110681-1	Dup1	01 Nov 2001	13:39:51	1	8.9549	1.0	1.00	1.00000	g
				13:40:30	2	8.9041				
4	110681-1 MS	Spiked	01 Nov 2001	13:41:08	1	108% 35.6043	1.0	1.00	1.00000	g
				13:41:47	2	35.9920				
				Spike Level:		RPD=0 0.0000				
				% Spike Recovery:		100.0000				
5	110681-1 MSD	Dup1	01 Nov 2001	13:42:25	1	108% 36.0114	1.0	1.00	1.00000	g
				13:43:03	2	35.8181				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:34:40	1	25.3558	1.0	1.00	1.00000	g
				13:35:20	2	100% 25.0640				
				Known Concentration:		25.0000				
				% Difference:		0.8396				
15	CCV 25ppm	RelChkStd	01 Nov 2001	13:49:57	1	24.8547	1.0	1.00	1.00000	g
				13:50:37	2	97% 24.2485				
				Known Concentration:		25.0000				
				% Difference:		-1.7937				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:05:11	1	23.9360	1.0	1.00	1.00000	g
				14:05:50	2	96% 24.1489				
				Known Concentration:		25.0000				
				% Difference:		-3.8301				
15	CCV 25ppm	RelChkStd	01 Nov 2001	14:12:55	1	23.5740	1.0	1.00	1.00000	g
				14:13:35	2	94% 23.4090				
				Known Concentration:		25.0000				
				% Difference:		-6.0339				
16	CCB	Blank	01 Nov 2001	13:36:00	1	ND 1.0313	1.0	1.00	1.00000	g
				13:36:39	2	1.0313				
16	CCB	Blank	01 Nov 2001	13:51:17	1	ND 1.0313	1.0	1.00	1.00000	g
				13:51:57	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:06:30	1	ND 1.0313	1.0	1.00	1.00000	g
				14:07:10	2	1.0313				
16	CCB	Blank	01 Nov 2001	14:14:15	1	ND 1.0313	1.0	1.00	1.00000	g
				14:14:54	2	1.0313				

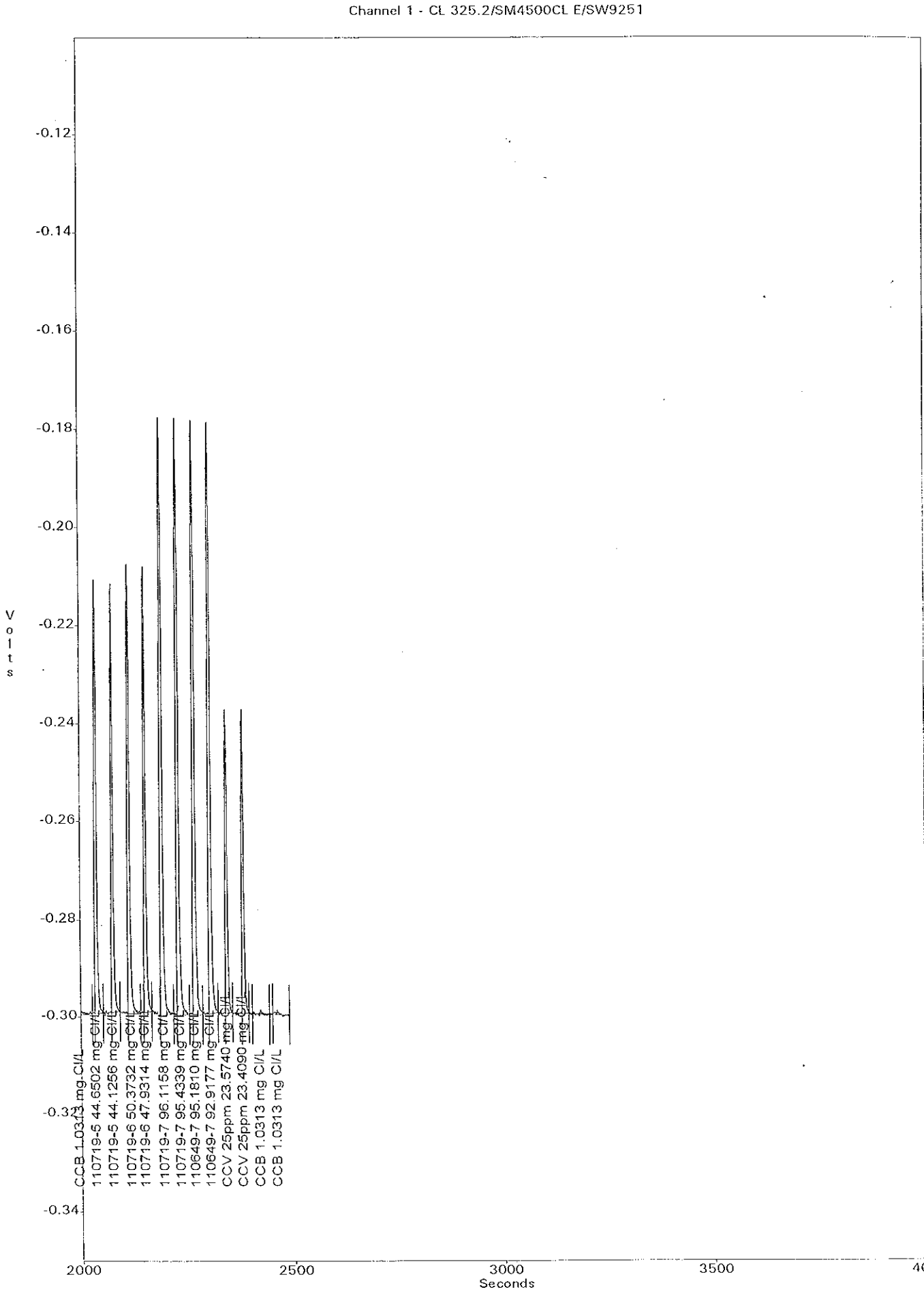
CKW600

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
6	110681-2	01 Nov 2001	13:43:41	1	7.1271	1.0	1.00	1.00000	g
			13:44:18	2	7.0652				
7	110681-3	01 Nov 2001	13:44:56	1	8.6504	1.0	1.00	1.00000	g
			13:45:33	2	8.6073				
8	110718-1	01 Nov 2001	13:46:11	1	718.5095	.5/10 20.0	1.00	1.00000	g
			13:46:48	2	710.0909				
9	110718-2	01 Nov 2001	13:47:25	1	390.9624	1/10 10.0	1.00	1.00000	g
			13:48:03	2	399.2334				
10	110718-3	01 Nov 2001	13:48:40	1	484.3456	1/10 10.0	1.00	1.00000	g
			13:49:18	2	470.9424				
11	110718-4	01 Nov 2001	13:52:33	1	96.6429	1.0	1.00	1.00000	g
			13:53:11	2	96.8879				
12	110761-1	01 Nov 2001	13:53:48	1	828.4258	.5/10 20.0	1.00	1.00000	g
			13:54:26	2	825.8515				
13	110761-2	01 Nov 2001	13:55:03	1	439.6416	1/10 10.0	1.00	1.00000	g
			13:55:40	2	436.6700				
14	110761-3	01 Nov 2001	13:56:17	1	486.3237	↓ 10.0	1.00	1.00000	g
			13:56:53	2	496.6732				
15	110761-4	01 Nov 2001	13:57:29	1	87.0918	1.0	1.00	1.00000	g
			13:58:06	2	87.5929				
16	110761-4 DUP	01 Nov 2001	13:58:45	1	87.7463	1.0	1.00	1.00000	g
			13:59:23	2	86.8855				
17	110719-1	01 Nov 2001	14:00:02	1	375.3183	.5/10 20.0	1.00	1.00000	g
			14:00:40	2	374.4811				
18	110719-2	01 Nov 2001	14:01:19	1	248.9843	1/10 10.0	1.00	1.00000	g
			14:01:57	2	253.4816				
19	110719-3	01 Nov 2001	14:02:36	1	376.1814	1/10 10.0	1.00	1.00000	g
			14:03:14	2	380.5491				
20	110719-4	01 Nov 2001	14:03:52	1	791.7993	.5/10 20.0	1.00	1.00000	g
			14:04:31	2	785.8374				
21	110719-5	01 Nov 2001	14:07:48	1	446.5019	1/10 10.0	1.00	1.00000	g
			14:08:26	2	441.2558				
22	110719-6	01 Nov 2001	14:09:05	1	503.7319	↓ 10.0	1.00	1.00000	g
			14:09:43	2	479.3140				
23	110719-7	01 Nov 2001	14:10:22	1	96.1158	1.0	1.00	1.00000	g
			14:11:00	2	95.4339				
24	110649-7	01 Nov 2001	14:11:38	1	190.3621	5/10 2.0	1.00	1.00000	g
			14:12:16	2	185.8354				


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
0
500
1000
1500
2000
Seconds
CCV 25ppm 25.3558 mg Cl/L
CCV 25ppm 25.0640 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
PREP BLK A 1.0313 mg Cl/L
ICV 50PPM CKW59A 48.2702 mg Cl/L
ICV 50PPM CKW59A 47.5111 mg Cl/L
110681-1 8.9549 mg Cl/L
110681-1 8.9041 mg Cl/L
110681-1 MS 35.6043 mg Cl/L
110681-1 MS 35.9920 mg Cl/L
110681-1 MSD 36.0114 mg Cl/L
110681-1 MSD 35.8184 mg Cl/L
110681-2 7.1271 mg Cl/L
110681-2 7.0652 mg Cl/L
110681-3 8.6504 mg Cl/L
110681-3 8.6073 mg Cl/L
110718-1 35.9255 mg Cl/L
110718-1 35.5045 mg Cl/L
110718-2 39.0962 mg Cl/L
110718-2 39.9233 mg Cl/L
110718-3 48.4346 mg Cl/L
110718-3 47.0942 mg Cl/L
CCV 25ppm 24.8547 mg Cl/L
CCV 25ppm 24.2485 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L
110718-4 96.6429 mg Cl/L
110718-4 96.8879 mg Cl/L
110761-1 41.4213 mg Cl/L
110761-1 41.2926 mg Cl/L
110761-2 43.9642 mg Cl/L
110761-2 43.6670 mg Cl/L
110761-3 48.6324 mg Cl/L
110761-3 49.6673 mg Cl/L
110761-4 87.0918 mg Cl/L
110761-4 87.5929 mg Cl/L
110761-4 DUP 87.7463 mg Cl/L
110761-4 DUP 86.8855 mg Cl/L
110719-1 18.7659 mg Cl/L
110719-1 18.7241 mg Cl/L
110719-2 24.8984 mg Cl/L
110719-2 25.3482 mg Cl/L
110719-3 37.6181 mg Cl/L
110719-3 38.0549 mg Cl/L
110719-4 39.5900 mg Cl/L
110719-4 39.2919 mg Cl/L
CCV 25ppm 23.9360 mg Cl/L
CCV 25ppm 24.1489 mg Cl/L
CCB 1.0313 mg Cl/L

057


Channel 1 - CL 325.2/SM4500CL E/SW9251
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
Volts
2000
2500
3000
3500
4000
Seconds
CCB 1.0313 mg Cl/L
110719-5 44.6502 mg Cl/L
110719-5 44.1256 mg Cl/L
110719-6 50.3732 mg Cl/L
110719-6 47.9314 mg Cl/L
110719-7 96.1158 mg Cl/L
110719-7 95.4339 mg Cl/L
110649-7 95.1810 mg Cl/L
110649-7 92.9177 mg Cl/L
CCV 25ppm 23.5740 mg Cl/L
CCV 25ppm 23.4090 mg Cl/L
CCB 1.0313 mg Cl/L
CCB 1.0313 mg Cl/L

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LB

Time 700

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-21-01	Prep Blk	Diwater	CKW160A
	ICV	↓	
	110611-1	WW	
	-2		
	-3		
	110254-11		
	-12		
	110599-1		
	-2		
	-3		
	110660A-1		
	2		
	3		
	4		
	-5		
	-6		
	-7		
	-8		
	-9		
	110660A-10		

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL-E / SW 9251

ANALYST RD

Tmc 830

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	Prep Blk	DI Wat	CKW60B
	ICV	↓	
	110655-1	ww	
	-2		
	-3		
	110640-1		
	-2		
	-3		
	-4		
	110680-1		
	2		
	3		
	4		
	110649-1		
	2		
	-3		
	-4		
	-5		
	-6		
↓	-7	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500.CL E / SW 9251

ANALYST RB Time 10:00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-1-01	PrepBlk	DI water	CKW60C
	ICV	↓	
	~~LCS~~ 110681-1	WW	
	-2		
	-3		
	110718 - 1		
	2		
	3		
	4		
	110761 - 1		
	2		
	3		
	4		
	110719-1		
	2		
	3		
	4		
	5		
	6		
	7		

061

N3516165

NO2NO3 353.2/SM4500NO3 F

N3W166A,B

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	50490048	5.0	50490048					0.0	0.0	1.7
2	32248636	3.0	32248636					0.0	0.0	-4.0
3	11044707	1.0	11044707					0.0	0.0	-3.5
4	5613984	0.5	5613984					0.0	0.0	-0.2
5	1315818	0.1	1315818					0.0	0.0	21.7
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.837e-008 Area - 5.114e-002
r = 0.9993

Scaling: None - Weighting: None

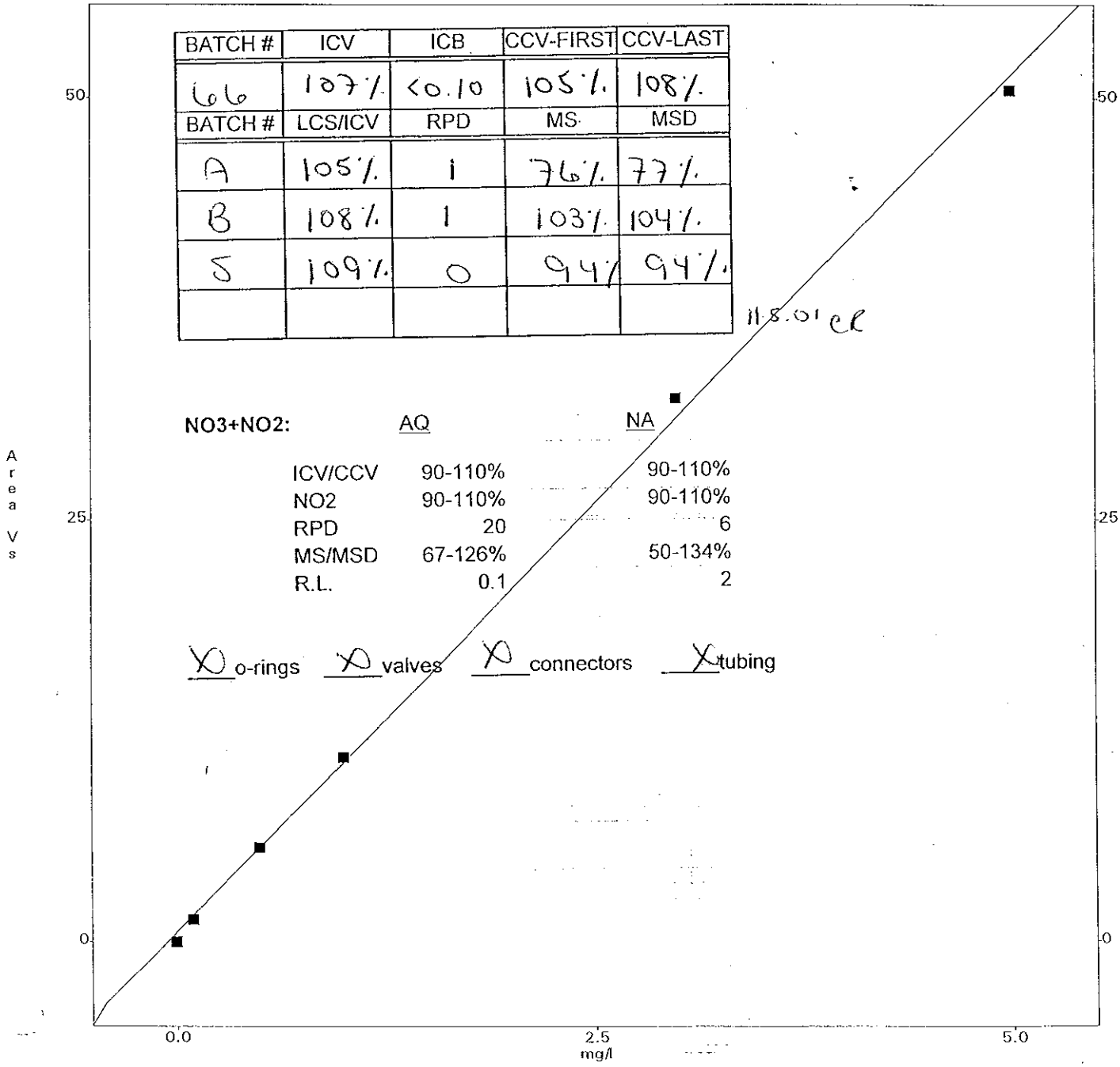
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
166	107%	<0.10	105%	108%
BATCH #	LCS/ICV	RPD	MS	MSD
A	105%	1	76%	77%
B	108%	1	103%	104%
5	109%	0	94%	94%

11.8.01 cl

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings X valves X connectors X tubing



Printed: Monday, November 05, 2001 - 08:37 AM

N38668

OPERATOR: C ROBERTS
ACQ. TIME: Nov 5, 2001 8:00:07
DATA FILENAME: C:\OMNION\DATA\NO3\N3W66A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W66A.TRA

TRAY DESCRIPTION:
Created: Nov 5, 2001 7:46:22
Modified: Nov 5, 2001 10:23:57
N3W66A
DATA DESCRIPTION:
Created: Nov 5, 2001 8:00:07
Modified: Nov 5, 2001 8:00:07

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Oct 29, 2001 14:23:06
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	05 Nov 2001	08:00:09	1	50490048.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	05 Nov 2001	08:01:01	1	32248636.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	05 Nov 2001	08:01:54	1	11044707.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	05 Nov 2001	08:02:47	1	5613984.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	05 Nov 2001	08:03:41	1	1315818.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	05 Nov 2001	08:04:34	1	0.00	1.0	1.00	1.00000	g

N3W66A
N35665

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 15

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	05 Nov 2001	08:14:17	1	ND -0.0511	1.0	1.00	1.00000	g
				08:15:12	2	-0.0511				
2	ICV 2.0PPM N3W66A	RelChkStd	05 Nov 2001	08:16:04	1	105% 2.1287	1.0	1.00	1.00000	g
				08:16:58	2	2.0996				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	110660A-3	Dup1	05 Nov 2001	08:17:50	1	3.8886	1.0	1.00	1.00000	g
				08:18:43	2	3.9171				
4	110660A-3 MS	Spiked	05 Nov 2001	08:19:36	1	76% 4.7417	1.0	1.00	1.00000	g
				08:20:29	2	4.6740				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD=1 80.4942				
5	110660A-3 MSD	Spiked	05 Nov 2001	08:21:22	1	4.7392	1.0	1.00	1.00000	g
				08:22:15	2	77% 4.6859				
				Spike Level:		1.0000				
				% Spike Recovery:		80.9660				
7	ICV 2.0PPM	RelChkStd	05 Nov 2001	08:09:26	1	107% 2.1327	1.0	1.00	1.00000	g
				Known Concentration:		0.0000				
				% Difference:		0.0000				
8	NO2	RelChkStd	05 Nov 2001	08:12:11	1	101% 5.0613	1.0	1.00	1.00000	g
				Known Concentration:		5.0000				
				% Difference:		1.2263				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:06:42	1	105% 3.1698	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.6585				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:31:56	1	106% 3.1981	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		6.6045				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	08:52:15	1	107% 3.2082	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		6.9389				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:12:30	1	106% 3.1988	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		6.6277				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:33:02	1	107% 3.2165	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		7.2181				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	09:55:13	1	107% 3.2153	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		7.1757				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	10:15:35	1	108% 3.2407	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		8.0225				
15	CCV 3.0ppm	RelChkStd	05 Nov 2001	10:29:05	1	108% 3.2420	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		8.0658				

N3S665

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 16 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
16	CCB Blank	Blank	05 Nov 2001	08:07:36	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:08:31	2	-0.0511					
16	ICB BLANK	Blank	05 Nov 2001	08:10:21	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:11:16	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	08:32:51	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:33:46	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	08:53:10	1	~ND -0.0511	1.0	1.00	1.00000	g	
				08:54:05	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:13:25	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:14:20	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:33:56	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:34:52	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	09:56:08	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:57:03	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	10:16:29	1	~ND -0.0511	1.0	1.00	1.00000	g	
				10:17:24	2	-0.0511					
16	CCB Blank	Blank	05 Nov 2001	10:30:00	1	~ND -0.0511	1.0	1.00	1.00000	g	
				10:30:55	2	-0.0511					
26	PREP BLK B	Blank	05 Nov 2001	09:03:48	1	~ND -0.0462	1.0	1.00	1.00000	g	
				09:04:40	2	-0.0455					
27	ICV 2.0PPM N3W66B	RelChkStd	05 Nov 2001	09:05:32	1	108% 2.1471	1.0	1.00	1.00000	g	
				09:06:24	2	2.1621					
				Known Concentration:		0.0000					
				% Difference:		0.0000					
28	110655-1	Dup1	05 Nov 2001	09:07:16	1	0.1816	1.0	1.00	1.00000	g	See QRef
				09:08:08	2	-0.0511					
29	110655-1 MS	Spiked	05 Nov 2001	09:09:00	1	103% 1.2140	1.0	1.00	1.00000	g	
				09:09:52	2	1.2102					
				Spike Level:		RPD=1 1.0000					
				% Spike Recovery:		114.6846					
30	110655-1 MSD	Spiked	05 Nov 2001	09:10:43	1	104% 1.2223	1.0	1.00	1.00000	g	
				09:11:36	2	1.2238					
				Spike Level:		1.0000					
				% Spike Recovery:		115.7786					
50	PREP BLK S	Blank	05 Nov 2001	09:51:39	1	~ND -0.0511	1.0	1.00	1.00000	g	
				09:52:32	2	-0.0511					
51	ICV 2.0PPM N3S66S	RelChkStd	05 Nov 2001	09:53:26	1	2.1709	1.0	1.00	1.00000	g	
				09:54:19	2	109% 2.1726					
				Known Concentration:		0.0000					
				% Difference:		0.0000					
52	110642-1	Dup1	05 Nov 2001	09:57:57	1	7.2059	20.0	1.00	1.00000	g	See Copy
				09:58:50	2	7.1796					
53	110642-1 MS	Spiked	05 Nov 2001	09:59:43	1	7.5603	20.0	1.00	1.00000	g	
				10:00:36	2	7.4756					
				Spike Level:		1.0000					
				% Spike Recovery:		32.5195					
54	110642-1 MSD	Spiked	05 Nov 2001	10:01:29	1	7.3976	20.0	1.00	1.00000	g	
				10:02:22	2	7.5464					
				Spike Level:		1.0000					
				% Spike Recovery:		27.9194					

N35665

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

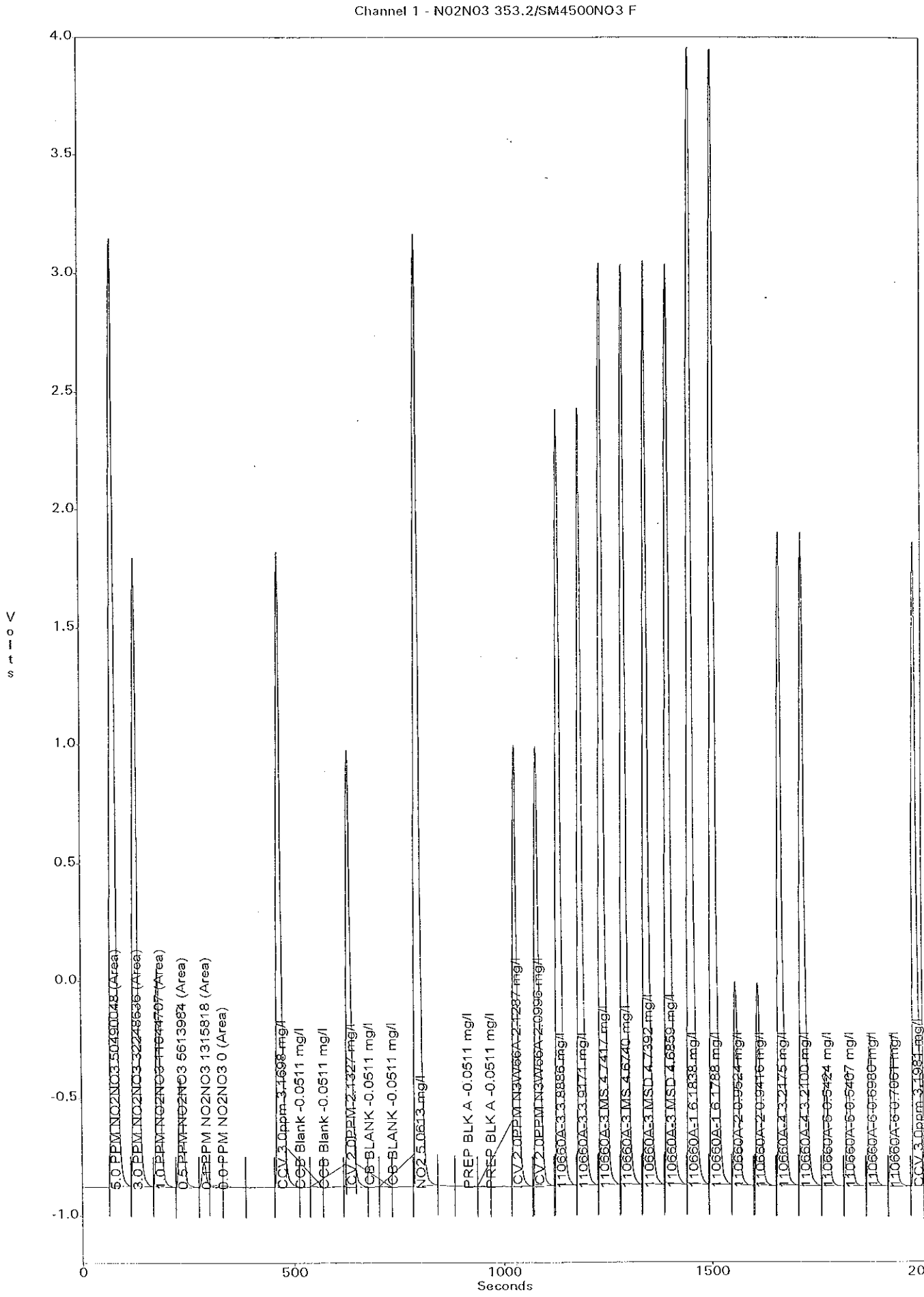
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	110660A-1	05 Nov 2001	08:23:08	1	6.1838	1.0	1.00	1.00000	g	See Cup # 55
			08:24:01	2	6.1788					
7	110660A-2	05 Nov 2001	08:24:54	1	0.9524	1.0	1.00	1.00000	g	
			08:25:47	2	0.9416					
8	110660A-4	05 Nov 2001	08:26:40	1	3.2175	1.0	1.00	1.00000	g	
			08:27:33	2	3.2100					
9	110660A-5	05 Nov 2001	08:28:26	1	0.5424	1.0	1.00	1.00000	g	
			08:29:18	2	0.5407					
10	110660A-6	05 Nov 2001	08:30:10	1	0.6980	1.0	1.00	1.00000	g	
			08:31:02	2	0.7061					
11	110660A-7	05 Nov 2001	08:34:38	1	~D 0.0175	1.0	1.00	1.00000	g	
			08:35:30	2	0.0181					
12	110660A-8	05 Nov 2001	08:36:22	1	0.0101	1.0	1.00	1.00000	g	
			08:37:14	2	~D 0.0090					
13	110660A-9	05 Nov 2001	08:38:06	1	0.0348	1.0	1.00	1.00000	g	
			08:38:58	2	~D 0.0338					
14	110660A-10	05 Nov 2001	08:39:50	1	0.1046	1.0	1.00	1.00000	g	See graph
			08:40:42	2	-0.0511					
15	110781-2	05 Nov 2001	08:41:34	1	2.3721	1.0	1.00	1.00000	g	
			08:42:26	2	2.3982					
16	110781-2 DUP	05 Nov 2001	08:43:20	1	2.3961	1.0	1.00	1.00000	g	
			08:44:14	2	2.3928					
17	110680-1	05 Nov 2001	08:45:08	1	66.4934	.5/10 20.0	1.00	1.00000	g	
			08:46:02	2	66.0599					
18	110680-2	05 Nov 2001	08:46:56	1	25.3890	1/10 10.0	1.00	1.00000	g	
			08:47:49	2	25.1494					
19	110680-3	05 Nov 2001	08:48:42	1	40.0656	↓ 10.0	1.00	1.00000	g	
			08:49:35	2	40.4700					
20	110680-4	05 Nov 2001	08:50:28	1	3.1656	1.0	1.00	1.00000	g	
			08:51:21	2	3.1780					
21	110652-1	05 Nov 2001	08:54:58	1	8.0638	1.0	1.00	1.00000	g	See Cup # 63
			08:55:51	2	8.0297					
22	110718-1	05 Nov 2001	08:56:44	1	94.2400	.5/10 20.0	1.00	1.00000	g	
			08:57:37	2	94.4563					
23	110718-2	05 Nov 2001	08:58:30	1	20.2937	1/10 10.0	1.00	1.00000	g	
			08:59:23	2	20.1275					
24	110718-3	05 Nov 2001	09:00:16	1	25.3215	↓ 10.0	1.00	1.00000	g	
			09:01:09	2	25.3433					
25	110718-4	05 Nov 2001	09:02:02	1	3.1656	1.0	1.00	1.00000	g	
			09:02:55	2	3.2139					
31	110655-2	05 Nov 2001	09:15:14	1	0.2101	1.0	1.00	1.00000	g	
			09:16:08	2	0.2087					
32	110655-3	05 Nov 2001	09:17:02	1	0.4976	1.0	1.00	1.00000	g	See graph
			09:17:56	2	-0.0511					
33	110681-1	05 Nov 2001	09:18:50	1	9.1099	1.0	1.00	1.00000	g	See Cup # 58 & 5.01 cc
			09:19:44	2	9.1786					
34	110681-2	05 Nov 2001	09:20:38	1	0.8723	1.0	1.00	1.00000	g	See graph
			09:21:31	2	-0.0511					
35	110681-3	05 Nov 2001	09:22:24	1	9.0002	1.0	1.00	1.00000	g	See Cup # 58
			09:23:17	2	9.0145					

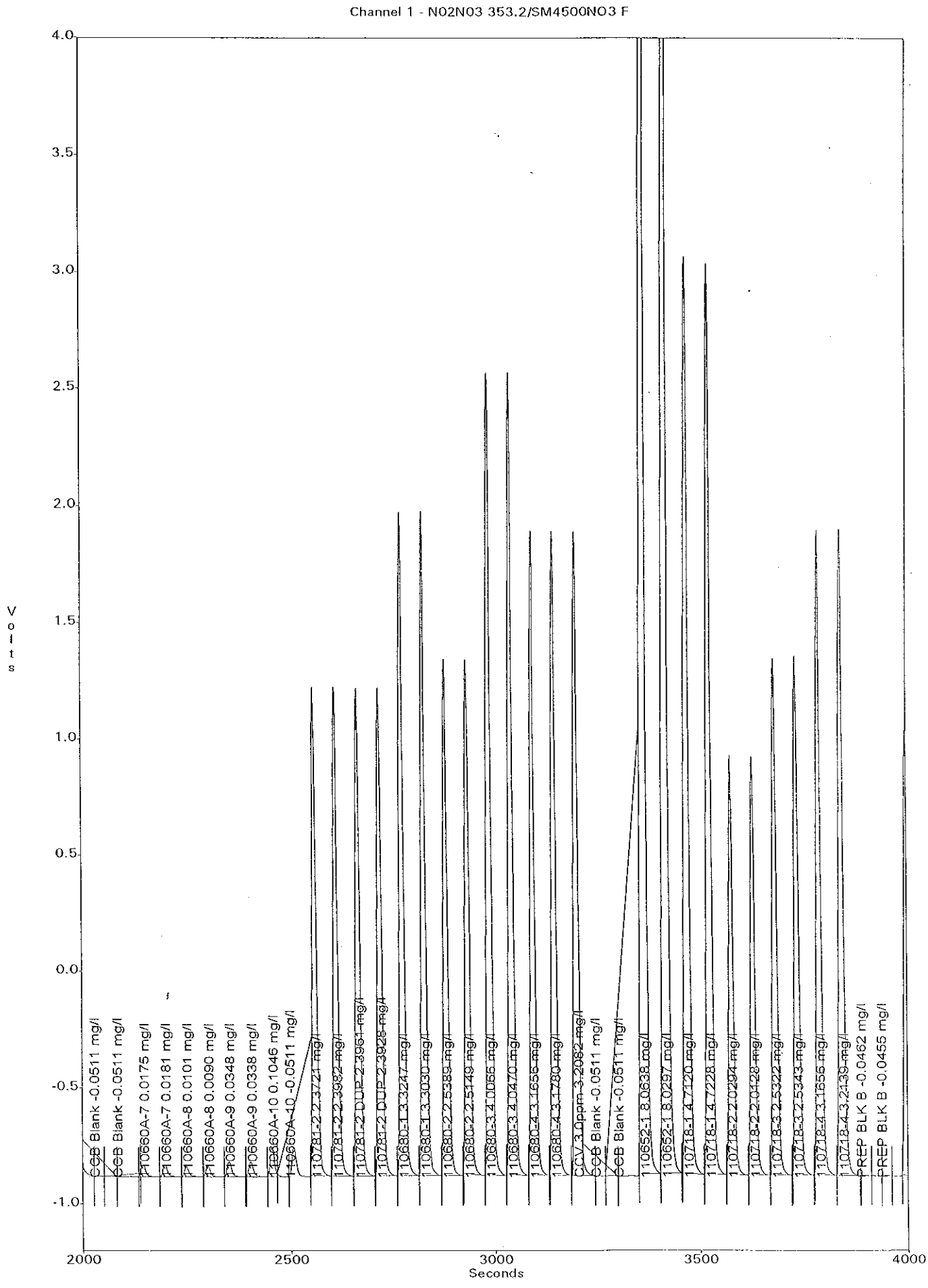
N3W660 A-1D
N3S6665

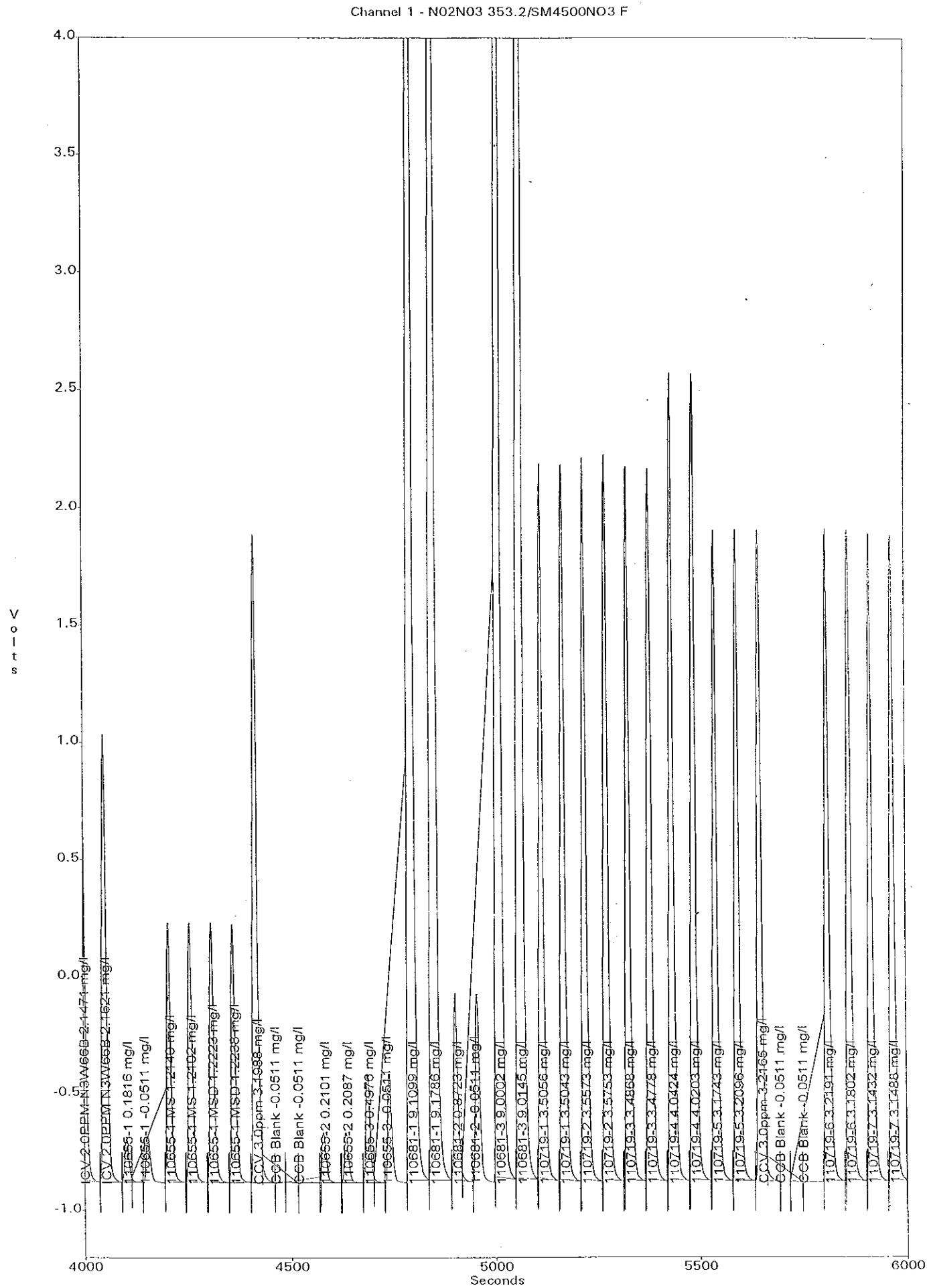
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 36 to 90

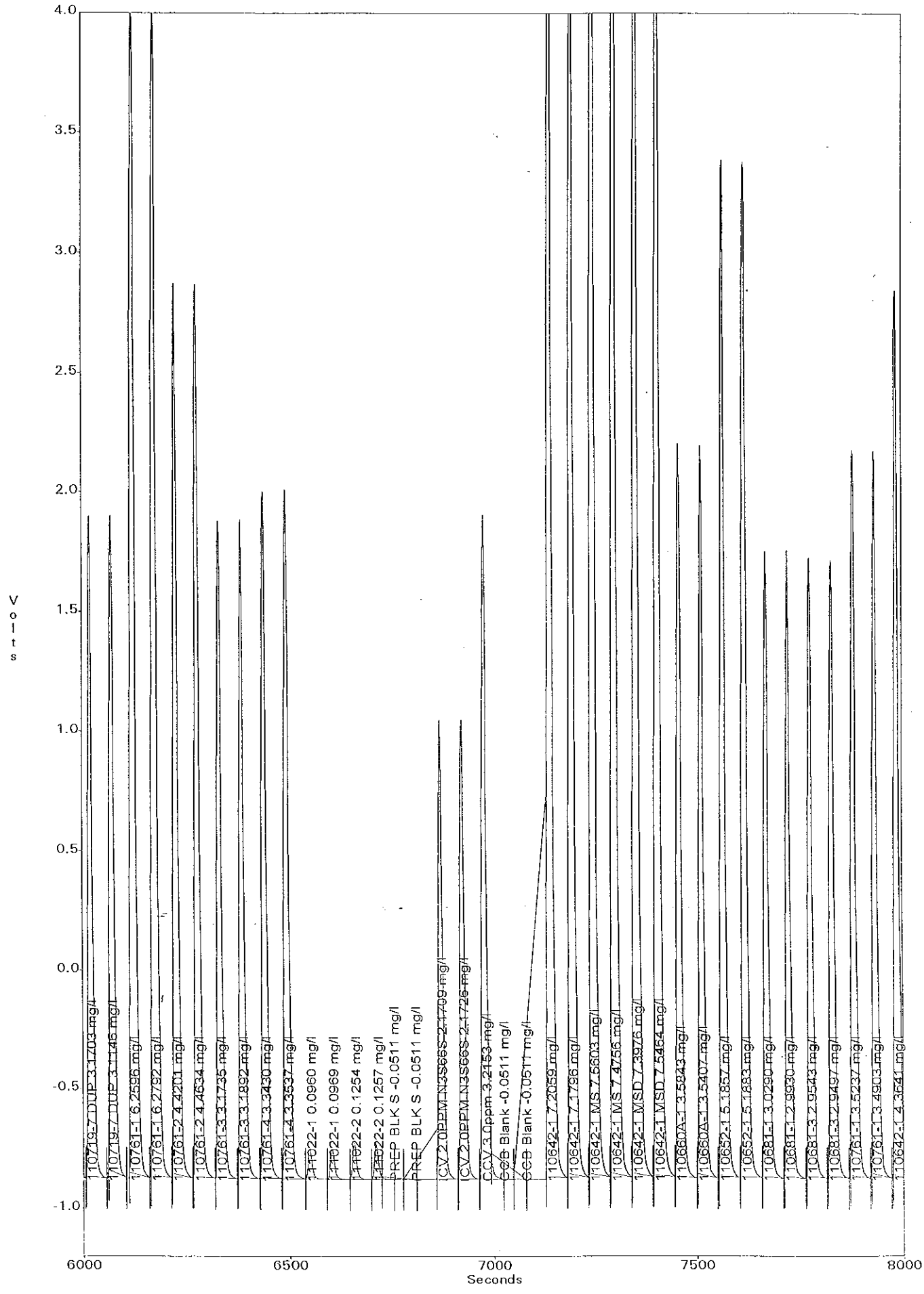
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
36	110719-1	05 Nov 2001	09:24:10	1	70.1110	5/10 20.0	1.00	1.00000	g	
			09:25:03	2	70.0867					
37	110719-2	05 Nov 2001	09:25:56	1	35.5729	1/10 10.0	1.00	1.00000	g	
			09:26:49	2	35.7527					
38	110719-3	05 Nov 2001	09:27:42	1	34.8676	↓ 10.0	1.00	1.00000	g	
			09:28:35	2	34.7783					
39	110719-4	05 Nov 2001	09:29:28	1	80.8472	5/10 20.0	1.00	1.00000	g	
			09:30:21	2	80.4068					
40	110719-5	05 Nov 2001	09:31:14	1	31.7433	1/10 10.0	1.00	1.00000	g	
			09:32:07	2	32.0962					
41	110719-6	05 Nov 2001	09:35:44	1	32.1914	1/10 10.0	1.00	1.00000	g	
			09:36:37	2	31.8018					
42	110719-7	05 Nov 2001	09:37:29	1	3.1432	1.0	1.00	1.00000	g	
			09:38:21	2	3.1488					
43	110719-7 DUP	05 Nov 2001	09:39:13	1	3.1703	1.0	1.00	1.00000	g	
			09:40:05	2	3.1146					
44	110761-1	05 Nov 2001	09:40:57	1	125.1916	20.0	1.00	1.00000	g	See Cup # 59
			09:41:49	2	125.5837					
45	110761-2	05 Nov 2001	09:42:41	1	44.2010	1/10 10.0	1.00	1.00000	g	
			09:43:33	2	44.6336					
46	110761-3	05 Nov 2001	09:44:27	1	31.7355	↓ 10.0	1.00	1.00000	g	
			09:45:21	2	31.8924					
47	110761-4	05 Nov 2001	09:46:15	1	3.3430	1.0	1.00	1.00000	g	
			09:47:09	2	3.3537					
48	111022-1	05 Nov 2001	09:48:03	1	ND 0.0960	1.0	1.00	1.00000	g	
			09:48:57	2	0.0969					
49	111022-2	05 Nov 2001	09:49:51	1	0.1254	1.0	1.00	1.00000	g	
			09:50:45	2	0.1257					
55	110660A-1	05 Nov 2001	10:03:15	1	7.1687	5/10 2.0	1.00	1.00000	g	
			10:04:08	2	7.0814					
56	110652-1	05 Nov 2001	10:05:01	1	10.3714	2.0	1.00	1.00000	g	
			10:05:54	2	10.3765					
57	110681-1	05 Nov 2001	10:06:46	1	15.1449	2/10 5.0	1.00	1.00000	g	
			10:07:39	2	14.9652					
58	110681-3	05 Nov 2001	10:08:32	1	14.7713	2/10 5.0	1.00	1.00000	g	
			10:09:24	2	14.7484					
59	110761-1	05 Nov 2001	10:10:16	1	~~7.0475~~	~~20~~ 40	~~1.00~~	1.00000	g	
			10:11:08	2	139.6 ~~6.9807~~					
60	110642-1	05 Nov 2001	10:12:00	1	174.5639	5/10 40.0	1.00	1.00000	g	
			10:12:52	2	170.7976					
61	110642-1 MS	05 Nov 2001	10:13:46	1	204.8394	40.0	1.00	1.00000	g	
			10:14:40	2	207.5764					
62	110642-1 MSD	05 Nov 2001	10:18:19	1	207.9074	40.0	1.00	1.00000	g	
			10:19:13	2	206.3452					
63	110652-1	05 Nov 2001	10:20:07	1	11.1435	5/10 5/10 4.0	1.00	1.00000	g	
			10:21:01	2	10.9279					
64	110469-28	05 Nov 2001	10:21:55	1	6.6334	1.0	1.00	1.00000	g	See Cup # 67
			10:22:49	2	6.5299					
65	110642-1 MS	05 Nov 2001	10:23:43	1	94% 286.9211	2/10 100.0	1.00	1.00000	g	
			10:24:37	2	RPD 0 287.9059					
66	110642-1 MSD	05 Nov 2001	10:25:31	1	94% 288.2902	↓ 100.0	1.00	1.00000	g	
			10:26:24	2	288.5767					
67	110469-28	05 Nov 2001	10:27:18	1	7.6026	2.0	1.00	1.00000	g	
			10:28:11	2	7.5968					

067

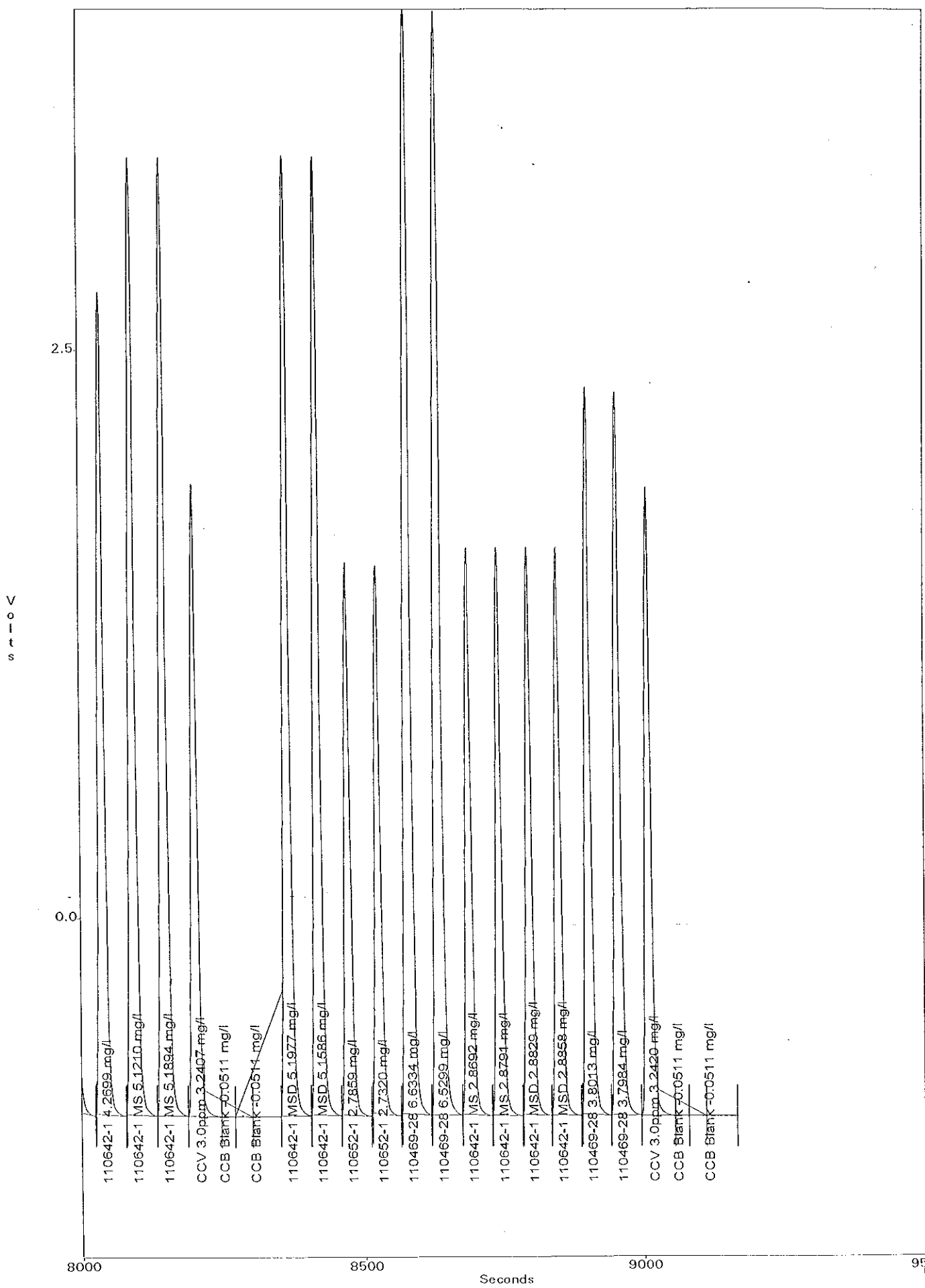

Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
0
500
1000
1500
2000
5.0 PPM NO2NO3 5.049 (Area)
3.0 PPM NO2NO3 3.022 (Area)
1.0 PPM NO2NO3 1.004 (Area)
0.5 PPM NO2NO3 0.5139 (Area)
0.25 PPM NO2NO3 0.1315 (Area)
0.0 PPM NO2NO3 0 (Area)
CCV 3.0ppm 3.1698 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
CV 2.0PPM 2.1327 mg/l
CB BLANK -0.0511 mg/l
CB BLANK -0.0511 mg/l
NO2 5.0613 mg/l
PREP BLK A -0.0511 mg/l
PREP BLK A -0.0511 mg/l
CV 2.0PPM N3W66A 2.1287 mg/l
CV 2.0PPM N3W66A 2.0996 mg/l
110660A-3 3.8886 mg/l
110660A-3 3.9171 mg/l
110660A-3 MS 4.7417 mg/l
110660A-3 MS 4.6740 mg/l
110660A-3 MSD 4.7392 mg/l
110660A-3 MSD 4.6859 mg/l
110660A-1 6 1.838 mg/l
110660A-1 6 1.788 mg/l
110660A-2 0 0.9524 mg/l
110660A-2 0 0.9416 mg/l
110660A-4 3 2.175 mg/l
110660A-4 3 2.100 mg/l
110660A-5 0 5.424 mg/l
110660A-5 0 5.407 mg/l
110660A-6 0 6.980 mg/l
110660A-6 0 7.061 mg/l
CCV 3.0ppm 3.1981 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
2000
2500
3000
3500
4000
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
P10660A-7 0.0175 mg/l
P10660A-7 0.0181 mg/l
P10660A-8 0.0101 mg/l
P10660A-8 0.0090 mg/l
P10660A-9 0.0348 mg/l
P10660A-9 0.0338 mg/l
P10660A-10 0.1046 mg/l
P10660A-10 -0.0511 mg/l
110781-2 2.3721 mg/l
110781-2 2.3982 mg/l
110781-2 DUP 2.3961 mg/l
110781-2 DUP 2.3928 mg/l
110680-1 3.3247 mg/l
110680-1 3.3030 mg/l
110680-2 2.5389 mg/l
110680-2 2.5149 mg/l
110680-3 4.0056 mg/l
110680-3 4.0470 mg/l
110680-4 3.1656 mg/l
110680-4 3.1780 mg/l
CCV 3.0ppm 3.2082 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110652-1 8.0638 mg/l
110652-1 8.0297 mg/l
110718-1 4.7120 mg/l
110718-1 4.7228 mg/l
110718-2 2.0294 mg/l
110718-2 2.0428 mg/l
110718-3 2.5322 mg/l
110718-3 2.5343 mg/l
110718-4 3.1656 mg/l
110718-4 3.2139 mg/l
PREP BLK B -0.0462 mg/l
PREP BLK B -0.0455 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
4000
4500
5000
5500
6000
ICV 2.0PPM-N3W668-2.1474 mg/l
CV 2.0PPM N3W668-2.1621 mg/l
10655-1 0.1816 mg/l
10655-1 -0.0511 mg/l
10655-1 MS-1 2.2140 mg/l
10655-1 MS-1 2.2102 mg/l
10655-1 MSD-1 2.2223 mg/l
10655-1 MSD-1 2.2238 mg/l
CCV 3.0ppm-3.1988 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
10655-2 0.2101 mg/l
10655-2 0.2087 mg/l
10655-3 0.4976 mg/l
10655-3 -0.0511 mg/l
10681-1 9.1099 mg/l
10681-1 9.1786 mg/l
10681-2 0.8723 mg/l
10681-2 -0.0511 mg/l
10681-3 9.0002 mg/l
10681-3 9.0145 mg/l
10719-1 3.5056 mg/l
10719-1 3.5043 mg/l
10719-2 3.5573 mg/l
10719-2 3.5753 mg/l
10719-3 3.4868 mg/l
10719-3 3.4778 mg/l
10719-4 4.0424 mg/l
10719-4 4.0203 mg/l
10719-5 3.1743 mg/l
10719-5 3.2096 mg/l
CCV 3.0ppm-3.2166 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
10719-6 3.2191 mg/l
10719-6 3.1802 mg/l
10719-7 3.1432 mg/l
10719-7 3.1488 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
6000
6500
7000
7500
8000
110719-7 DUP 3.1703 mg/l
110719-7 DUP 3.1146 mg/l
110761-1 6.2595 mg/l
110761-1 6.2792 mg/l
110761-2 4.4201 mg/l
110761-2 4.4634 mg/l
110761-3 3.1735 mg/l
110761-3 3.1892 mg/l
110761-4 3.3430 mg/l
110761-4 3.3537 mg/l
111022-1 0.0960 mg/l
111022-1 0.0969 mg/l
111022-2 0.1254 mg/l
111022-2 0.1257 mg/l
PREP BLK S -0.0511 mg/l
PREP BLK S -0.0511 mg/l
CV 2.0PPM NO3S66S-2.1709 mg/l
CV 2.0PPM NO3S66S-2.1726 mg/l
CCV 3.0ppm 3.2153 mg/l
CCB Blank -0.0511 mg/l
CCB Blank -0.0511 mg/l
110642-1 7.2059 mg/l
110642-1 7.1796 mg/l
110642-1 MS 7.5603 mg/l
110642-1 MS 7.4756 mg/l
110642-1 MSD 7.3976 mg/l
110642-1 MSD 7.5464 mg/l
110660A-1 3.5843 mg/l
110660A-1 3.5407 mg/l
110652-1 5.1857 mg/l
110652-1 5.1883 mg/l
110681-1 3.0290 mg/l
110681-1 2.9930 mg/l
110681-3 2.9543 mg/l
110681-3 2.9497 mg/l
110761-1 3.5237 mg/l
110761-1 3.4903 mg/l
110642-1 4.3641 mg/l

Channel 1 - N02N03 353.2/SM4500NO3 F



072

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CL

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-2-01	Prep Blk		0800 N3W66A
	ICV		
	1106660A-1	WQ	
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	-9		
	-10		
	110781-2		
	1106680-1		
	-2		
	-3		
	-4		
	1106652-1		
	110718-1		
	-2		
	-3		
	-4		
	Prep Blk		N33066S
	ICV		
	110642-1	S1 5/100	

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST CR

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-2-01	Prep Blk		0800 N3W66B
	ICV		
	110655-1	WA	
	-2		
	-3		
	110681-1		
	-2		
	-3		
	110719-1		
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	110761-1		
	-2		
	-3		
	-4		
	111022-1		
	-2		
11-5-01	110469-28		

074

REVIEWED AB 11/5/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

	Water	Soil
RPD	20	20
SPIKE	72-128%	70-127%
ICV/CCV	90-110%	90-110%

Chemist[1]: RB

Batch #: N2W 20[4/5] 10.99.01

Analysis Date: 10-22-01

Analysis Time On: 11:45

Analysis Time Off: 12:15

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A		0.10
ICV (0.2 ppm)	NO_2-ICV-I[4]	0.5/25 mL	N/A	0.530	0.202	N/A	.20/.20 = 100%	0.10
CCV LOW (0.2 ppm)	NO_2-CCV-I[5]	0.5/25 mL	N/A	0.512	0.195	N/A	.20/.20 = 100%	0.10
[1] 110680 -4	wa	25	—	0.000	0.000		ND	0.10
MS[6] (0.2 ppm) -4	NO_2-CCV-I[5]	0.5/25 mL	—	0.535	0.204		.20/.20 = 100%	0.10
MSD[6] (0.2 ppm) -4	NO_2-CCV-I[5]	0.5/25 mL	—	0.528	0.202		.20/.20 = 100%	0.10
2 -1	wa	25	0.153	1.163	0.385		0.39	0.10
3 -2		25	0.610	1.072	0.405		0.41	0.10
4 -3		25	—	0.069	0.027		ND	0.10
[5] 110681 - 1		25	—	0.000	0.000		ND	0.10
6 -2		25	—	0.004	0.002		ND	0.10
7 -3		25		0.002	0.001		ND	0.10
8								0.10
9		AB 11/5/01						0.10
10								0.10
NO_2-CCV-I (0.4 ppm)	CCV HIGH	1.0/25mL	N/A	1.029	0.392	N/A	.39/.40 = 98%	0.10
DUP[7]	Duplicate							0.10
11								0.10
12								0.10
13								0.10
14								0.10
15								0.10
16			AB 11/5/01					0.10
17								0.10
18								0.10
19								0.10
20								0.10
NO_2-CCV-I	CCV LOW	0.5/25mL	N/A			N/A		0.10
ICB (Blank)	DI Water	25mL	N/A			N/A		0.10

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the ermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ↕".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

NO2

0776

Calibration Curve Verification

Analysis: NO2 Method #: 354.1 / SM 4500 NO2 B

Instrument: SP830 nm = 540

Compound: NANO2 Lot# 987709 Fisher

Date Rec: 3-23-99 Date Open: 10-5-01

Analyst: CR Date Prep: 10-5-01

Correlation Coefficient: 0.999974189

Approved: AB Date: 10-5-01

Std Conc	Absorp	Std Conc	Absorp
0.0 ppm	0.000		
0.1	0.254		
0.2	0.525		
0.3	0.787		
0.4	1.050		
0.5	1.308		

Absorbance

0.2 0.4 0.6 0.8 1.0 1.2 1.4

0.0 0.1 0.2 0.3 0.4 0.5

Concentrations (ppm)

E-Autosampler or cover is off. 29Oct2001 08:36

E-Possible gas flow restriction. 29Oct2001 09:39

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume: 200 uL
Oxidant Volume: 1000 uL
Auto-Repeat Time: 00:00:00 (hr:min:sec)

Rinse Volume (mL): 10
Rinses Per Rep: 1
Rinses Per Sample: 1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020 Mon Oct 29 09:44:59 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110502-13 X5 DO	default	Sample	1	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
8	110469-24	default	Sample	2	5.000	0	No	
9	110254-13 X5 rem	default	Sample	2	5.000	0	No	
10	110254-14 X10	default	Sample	2	5.000	0	No	
11	110611-2	default	Sample	1	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
13	110557-1	default	Sample	1	5.000	0	No	
14	110557-2	default	Sample	1	5.000	0	No	
15	110557-3	default	Sample	1	5.000	0	No	

Tow020

16	110557-4	default	Chk. 3	3	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110557-5	default	Sample	1	5.000	0 No
20	110557-5 DUP	default	Sample	1	5.000	0 No
21	110557-6	default	Sample	1	5.000	0 No
22	110557-7	default	Sample	1	5.000	0 No
23	110599-1	default	Sample	1	5.000	0 No
24	110599-2	default	Sample	1	5.000	0 No
25	110599-3	default	Sample	1	5.000	0 No
26	110616-1XQ	default	Sample	1	5.000	0 No
27	110681-1	default	Sample	1	5.000	0 No
28	110681-2	default	Sample	1	5.000	0 No
29	110681-3	default	Sample	1	5.000	0 No
30	CCB	default	Chk. 3	3	5.000	0 No
31	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****
** RESULTS - TOW020 **
****

Pos/Vial: 1 Name: PREP BLK Analyzed: 29Oct2001 09:45
Run ID: 39 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027071	744	-0.345	-0.0689
2	1027072	1012	-0.038	-0.0076
3	1027073	771	-0.314	-0.0627
Avg		842	-0.232	-0.0464 ND
Std.Dev.		147.55		
RSD (%)		17.52		

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 29Oct2001 10:13
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027074	42473	47.355	9.4690
2	1027075	44117	49.234	9.8448

Tow020 10.31.01

Avg	43295	48.294	9.6569/10 = 97%
Std.Dev.	1162.48		
RSD (%)	2.68		

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 29Oct2001 10:33
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027076	67015	75.408	15.0785
2	1027077	65154	73.281	14.6532
Avg		66084	74.344	14.8659/15 = 99%
Std.Dev.		1315.93		
RSD (%)		1.99		

10.31.01

****

Pos/Vial: 4 Name: 110502-13 X5 DO Analyzed: 29Oct2001 10:52
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027078	6070	6.837	1.3671	24986	28.272	5.6532X5= 28.2

****

Pos/Vial: 5 Name: 110611-1 Analyzed: 29Oct2001 11:02
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027079	54741	62.471	12.4917	125637	143.323	28.6588 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 11:12

****

Tow020

Pos/Vial: 6 Name: 110611-1 MS Analyzed: 29Oct2001 11:13
Run ID: 5 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027080	37815	43.123	8.6230	152033	173.495	34.6921	Dilute

****

Pos/Vial: 7 Name: 110611-1 MSD Analyzed: 29Oct2001 11:23
Run ID: 6 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027081	37592	42.869	8.5720	150180	171.377	34.2686	Dilute

****

Pos/Vial: 8 Name: 110469-24 Analyzed: 29Oct2001 11:33
Run ID: 7 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027082	504	0.474	0.0949	12831	14.378	2.8749
2	1027083	389	0.343	0.0686	12420	13.908	2.7810
Avg		446	0.409	0.0817	12625	14.143	2.8280
Std.Dev.		81.32			290.62		
RSD (%)		18.21			2.30		

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 29Oct2001 11:52
Run ID: 8 Meth: default Vol (mL): 5.001

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027084	696	0.694	0.1387	33026	37.462	7.4909	Rerun
2	1027085	582	0.564	0.1127	15705	17.663	3.5318	

Avg	639	0.629	0.1257	24365	27.562	5.5114 Reron
Std.Dev.	80.61			12247.80		
RSD (%)	12.62			50.27		

****

Pos/Vial: 10 Name: 110254-14 X10 Analyzed: 29Oct2001 12:12
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027086	298	0.239	0.0478	41098	46.689	9.3359
2	1027087	282	0.221	0.0441	41978	47.695	9.5370
Avg		290	0.230	0.0459	41538	47.192	9.4364X10=94.3
Std.Dev.		11.31			622.25		
RSD (%)		3.90			1.50		

****

Pos/Vial: 11 Name: 110611-2 Analyzed: 29Oct2001 12:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027088	178505	203.942	40.7803	80640	91.888	18.3739

A-Linear range exceeded (130ugC). 29Oct2001 12:41

****

Pos/Vial: 12 Name: 110611-3 Analyzed: 29Oct2001 12:41
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027089	162178	185.279	37.0484	113014	128.894	25.7736 Dilute

A-Linear range exceeded (130ugC). 29Oct2001 12:51

****

Pos/Vial: 13 Name: 110557-1 Analyzed: 29Oct2001 12:51
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027090	78346	89.453	17.8871	50269	57.172	11.4321

****

Pos/Vial: 14 Name: 110557-2 Analyzed: 29Oct2001 13:02
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027091	101075	115.434	23.0822	42563	48.363	9.6707

****

Pos/Vial: 15 Name: 110557-3 Analyzed: 29Oct2001 13:12
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027092	95121	108.628	21.7213	39458	44.814	8.9610

****

Pos/Vial: 16 Name: 110557-4 Analyzed: 29Oct2001 13:22
Run ID: 15 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027093	28184	31.021	6.2030
2	1027094	29602	32.642	6.5271
3	1027095	29462	32.482	6.4951

Tow020

Avg	29082	32.048	6.4084
Std.Dev.	781.41		
RSD (%)	2.69		

****

Pos/Vial: 17 Name: CCB Analyzed: 29Oct2001 13:50
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027096	1107	0.070	0.0141
2	1027097	726	-0.365	-0.0730
3	1027098	661	-0.439	-0.0879
Avg		831	-0.245	-0.0489 ND
Std.Dev.		240.94		
RSD (%)		28.98		

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 29Oct2001 14:18
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027099	62697	70.472	14.0916
2	1027100	63841	71.780	14.3531
Avg		63269	71.126	14.2223
Std.Dev.		808.93		
RSD (%)		1.28		

Wash 10-31-01

14.2223/15 = 95%

****

Pos/Vial: 19 Name: 110557-5 Analyzed: 29Oct2001 14:37
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES

Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027101	106648	121.804	24.3560	41563	47.220	9.4422

****

Pos/Vial: 20 Name: 110557-5 DUP Analyzed: 29Oct2001 14:48
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027102	103004	117.639	23.5231	41953	47.666	9.5313

****

Pos/Vial: 21 Name: 110557-6 Analyzed: 29Oct2001 14:58
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027103	455	0.418	0.0837	1008	0.863	0.1726

****

Pos/Vial: 22 Name: 110557-7 Analyzed: 29Oct2001 15:08
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027104	536	0.511	0.1022	2036	2.038	0.4075

****

Pos/Vial: 23 Name: 110599-1 Analyzed: 29Oct2001 15:19
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027105	106619	121.771	24.3494	31416	35.622	7.1229

****

Pos/Vial: 24 Name: 110599-2 Analyzed: 29Oct2001 15:29
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027106	110596	126.317	25.2584	84445	96.237	19.2436

****

Pos/Vial: 25 Name: 110599-3 Analyzed: 29Oct2001 15:39
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027107	119337	136.309	27.2563	54525	62.037	12.4049

A-Linear range exceeded (130ugC). 29Oct2001 15:49

****

Pos/Vial: 26 Name: 110616-1 Analyzed: 29Oct2001 15:49
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027108	116667	133.257	26.6460	109093	124.412	24.8774

Dilute

****

Pos/Vial: 27 Name: 110681-1 Analyzed: 29Oct2001 16:00
Run ID: 26 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027109	55231	63.031	12.6037	18047	20.340	4.0671

****

Pos/Vial: 28 Name: 110681-2 Analyzed: 29Oct2001 16:10
Run ID: 27 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027110	76860	87.755	17.5474	17551	19.773	3.9538

****

Pos/Vial: 29 Name: 110681-3 Analyzed: 29Oct2001 16:20
Run ID: 28 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027111	55432	63.261	12.6497	17262	19.442	3.8877

****

Pos/Vial: 30 Name: CCB Analyzed: 29Oct2001 16:30
Run ID: 29 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027112	940	-0.121	-0.0241
2	1027113	796	-0.285	-0.0570
3	1027114	708	-0.386	-0.0771
Avg		814	-0.264	-0.0528 ND
Std.Dev.		117.12		
RSD (%)		14.38		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 29Oct2001 16:58
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027115	63811	71.745	14.3462
2	1027116	62880	70.681	14.1334
Avg		63345	71.213	14.2398

W61031-01
14.2398/15 = 95%

Std.Dev.	658.32
RSD (%)	1.04

E-Autosampler or cover is off. 30Oct2001 07:45

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020A Tue Oct 30 07:43:26 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
5	110611-1 X5	default	Sample	1	5.000	0	No	
6	110611-1 MS X5	default	Sample	1	5.000	0	No	
7	110611-1 MSD X5	default	Sample	1	5.000	0	No	
9	110254-13 X5	default	Sample	2	5.000	0	No	
12	110611-3 X2	default	Sample	1	5.000	0	No	
26	110616-1 X2	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

JG 10-30-01

****
** RESULTS - TOW020A **
****

Pos/Vial: 1 Name: CCB Analyzed: 30Oct2001 08:28
Run ID: 31 Meth: default Vol (mL): 5.001

CHK. 3 TOC TOC TOC

088

Rep	Datafile	Area (cts)	Mass (ugC)	Tow020a Conc (ppm)
1	1027A117	791	-0.291	-0.0582
2	1027A118	920	-0.143	-0.0287
3	1027A119	755	-0.332	-0.0664
Avg		822	-0.255	-0.0511 ND
Std.Dev.		86.76		
RSD (%)		10.55		

****

Pos/Vial: 2 Name: CCV 15PPM Analyzed: 30Oct2001 08:56
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A120	63619	71.526	14.3023
2	1027A121	64594	72.640	14.5252
Avg		64106	72.083	14.4138
Std.Dev.		689.43		
RSD (%)		1.08		

w/ 10-31-01

14.4138 / 15 = 96%

****

Pos/Vial: 5 Name: 110611-1 X5 Analyzed: 30Oct2001 09:16
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A122	4127	4.616	0.9230	31301	35.490	7.0966

7.0966 x 5 = 35.4

****

Pos/Vial: 6 Name: 110611-1 MS X5 Analyzed: 30Oct2001 09:26
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A123	2115	2.316	0.4631	36376	41.291	8.2566

8.2566 x 5

$\frac{41.28 - 35.48}{10} = 58\%$

089

****

Pos/Vial: 7 Name: 110611-1 MSD X5 Analyzed: 30Oct2001 09:36
Run ID: 6 Meth: default Vol (mL): 5.001

RPD=2

SAMPLES		TIC Area	TIC Mass	TIC Conc	TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)	(cts)	(ugC)	(ppm)
1	1027A124	2431	2.677	0.5353	36287	41.189	8.2362 x5=41.18

41.18-35.48/10= 5%

****

Pos/Vial: 9 Name: 110254-13 X5 Analyzed: 30Oct2001 09:47
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES		TIC Area	TIC Mass	TIC Conc	TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)	(cts)	(ugC)	(ppm)
1	1027A125	787	0.798	0.1595	32234	36.557	7.3098
2	1027A126	830	0.847	0.1694	31995	36.283	7.2552
Avg		808	0.822	0.1645	32114	36.420	7.2825 x5=36.4
Std.Dev.		30.41			169.00		
RSD (%)		3.76			0.53		

****

Pos/Vial: 12 Name: 110611~~-3 X2~~ 6-1 x2 Analyzed: 30Oct2001 10:06
Run ID: 9 Meth: default 1Oct10-30-01 Vol (mL): 5.001

SAMPLES		TIC Area	TIC Mass	TIC Conc	TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)	(cts)	(ugC)	(ppm)
1	1027A127	21679	24.679	4.9348	56263	64.023	12.8021 x2=25.6

****

Pos/Vial: 26 Name: 110616~~-1~~ 1-3 X2 Analyzed: 30Oct2001 10:16
Run ID: 12 Meth: default 1Oct10-30-01 Vol (mL): 5.001

SAMPLES		TIC Area	TIC Mass	TIC Conc	TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)	(cts)	(ugC)	(ppm)

Dilute

090

1	1027A128	29851	34.020	6.8027	133255	152.031	30.4001 Dilute

A-Linear range exceeded (130ugC). 30Oct2001 10:26

****

Pos/Vial: 30 Name: CCB Analyzed: 30Oct2001 10:26
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	
1	1027A129	1324	0.318	0.0637	
2	1027A130	982	-0.073	-0.0145	
3	1027A131	847	-0.227	-0.0454	
Avg		1051	0.006	0.0013	ND
Std.Dev.		245.87			
RSD (%)		23.39			

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 10:54
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027A132	63211	71.060	14.2091
2	1027A133	62599	70.360	14.0692
Avg		62905	70.710	14.1391
Std.Dev.		432.75		
RSD (%)		0.69		

Lab 10-31-01

141/15 = 94%

E-Autosampler or cover is off. 30Oct2001 12:42

E-Autosampler or cover is off. 30Oct2001 12:43

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020B Tue Oct 30 12:43:38 2001

Start Pos/Vial #: 26, Stop Pos/Vial #: 31

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
26	110611-3 X10	default	Sample	1	5.000	0	No	
30	CCB	default	Chk. 3	3	5.000	0	No	
31	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW020B **
****

Pos/Vial: 26 Name: 110611-3 X10 Analyzed: 30Oct2001 12:49
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)

1	1027B134	2782	3.078	0.6155	21079	23.806	4.7602 X10=47.6

****

Pos/Vial: 30 Name: "CCB" Analyzed: 30Oct2001 13:00
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B135	756	-0.331	-0.0662
2	1027B136	740	-0.349	-0.0698
3	1027B137	681	-0.417	-0.0833
Avg		725	-0.366	-0.0731 ND
Std.Dev.		39.50		
RSD (%)		5.44		

****

Pos/Vial: 31 Name: CCV 15PPM Analyzed: 30Oct2001 13:28
Run ID: 30 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027B138	63698	71.616	14.3204
2	1027B139	61970	69.641	13.9254
Avg		62834	70.629	14.1229 (15= 94%)
Std.Dev.		1221.88		
RSD (%)		1.94		

(us 10-31-01)

E-Autosampler or cover is off. 30Oct2001 14:06

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW020C Tue Oct 30 14:00:50 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110401-1	default	Sample	1	5.000	0	No	
2	110401-4	default	Sample	1	5.000	0	No	
3	110401-5 X10	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Sample	2	5.000	0	No	

To Confirm

****
** RESULTS - TOW020C **
****

Pos/Vial: 1 Name: 110401-1 Analyzed: 30Oct2001 14:08
Run ID: 31 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C140	223271	255.113	51.0123	14356	16.121	3.2235

A-Linear range exceeded (130ugC). 30Oct2001 14:18

****

Pos/Vial: 2 Name: 110401-4 Analyzed: 30Oct2001 14:19
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C141	183149	209.250	41.8417	5049	5.482	1.0962

****

Pos/Vial: 3 Name: 110401-5 X10 Analyzed: 30Oct2001 14:29
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C142	1084	1.137	0.2274	68686	78.224	15.6416

15.6416 x10= 156

****

Pos/Vial: 4 Name: CCB Analyzed: 30Oct2001 14:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C143	1651	0.692	0.1384
2	1027C144	1410	0.417	0.0833
3	1027C145	1312	0.305	0.0609
Avg		1457	0.471	0.0942
Std.Dev.		174.45		
RSD (%)		11.97		

ND

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 30Oct2001 15:07
Run ID: 4 Meth: default Vol (mL): 5.001

Tow020c

SAMPLES Rep	Datafile	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1027C146	281	0.219	0.0439	62447	71.092	14.2156
2	1027C147	282	0.221	0.0441	62251	70.868	14.1708
Avg		281	0.220	0.0440	62349	70.980	~~14.1932~~
Std.Dev.		0.71			138.59		
RSD (%)		0.25			0.22		

WG10331-01
15, 95%

PETROLEUM HYDROCARBONS
FL-PRO

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110681
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/26/01
Dry Weight	N/A	Date Extracted:	10/30/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	17-3619A-Q401	C110681-1	5601081.D	1	U	100
2	17-3624B-Q401	C110681-2	5701082.D	1	U	100
3	17-36FD2-Q401	C110681-3	5801083.D	1	U	100

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola
Contract: NTC ORLANDO SA-36-CTO-017
Lab Code: STL PN
SDG No.: C110681
Instrument ID: FLASH
FL PRO Detector: FID
Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 291	121%	121%		
02		LCS FLW 291	110%	86%		
03	17-3609C-Q401	C110611-1 MS	103%	106%		
04	17-3909C-Q401	C110611-1 MSD	102%	82%		
05	17-3619A-Q401	C110681-1	97%	88%		
06	17-3624B-Q401	C110681-2	105%	99%		
07	17-36FD2-Q401	C110681-3	120%	95%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

CLP Like Form 3

FL PRO Matrix Spike / Matrix Spike Duplicate Summary Sheet

Lab Name: STL Pensacola

Contract: NTC ORLANDO SA-36-CTO-017

Lab Code: STL PN

SDG No.: C110681

FL PRO Detector: FID

Lab Sample ID: C110611-1

Instrument ID: FLASH

Matrix: Water

NOTE: NO MS/MSD FOR THIS BATCH

Parameter	Sample Results	Spike Amount (ppb)	MS Results (ppb)	MS %Rec	MSD Results (ppb)	MSD %Rec	MS/MSD %Rec Limits	MS/MSD RPD	MS/MSD RPD Limits
FL PRO	79.800	3400.00	4031.00	116	3816.00	110	41-101	6	20

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK FLW 291

Lab File ID:	4501069.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110681
Matrix:	Water	Date Extracted:	10/30/01
Prep Method:	3520 C	Date Analyzed:	11/2/01
Instrument ID:	FLASH	Time Analyzed:	1:14
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 291	11/2/01
02		LCS FLW 291	11/2/01
03	17-3609C-Q401	C110611-1 MS	11/2/01
04	17-3909C-Q401	C110611-1 MSD	11/2/01
05	17-3619A-Q401	C110681-1	11/2/01
06	17-3624B-Q401	C110681-2	11/2/01
07	17-36FD2-Q401	C110681-3	11/2/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110681
Instrument ID:	FLASH	Date Analyzed	11/2/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

Sequence Name: I:\1101CAL.S
Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min.

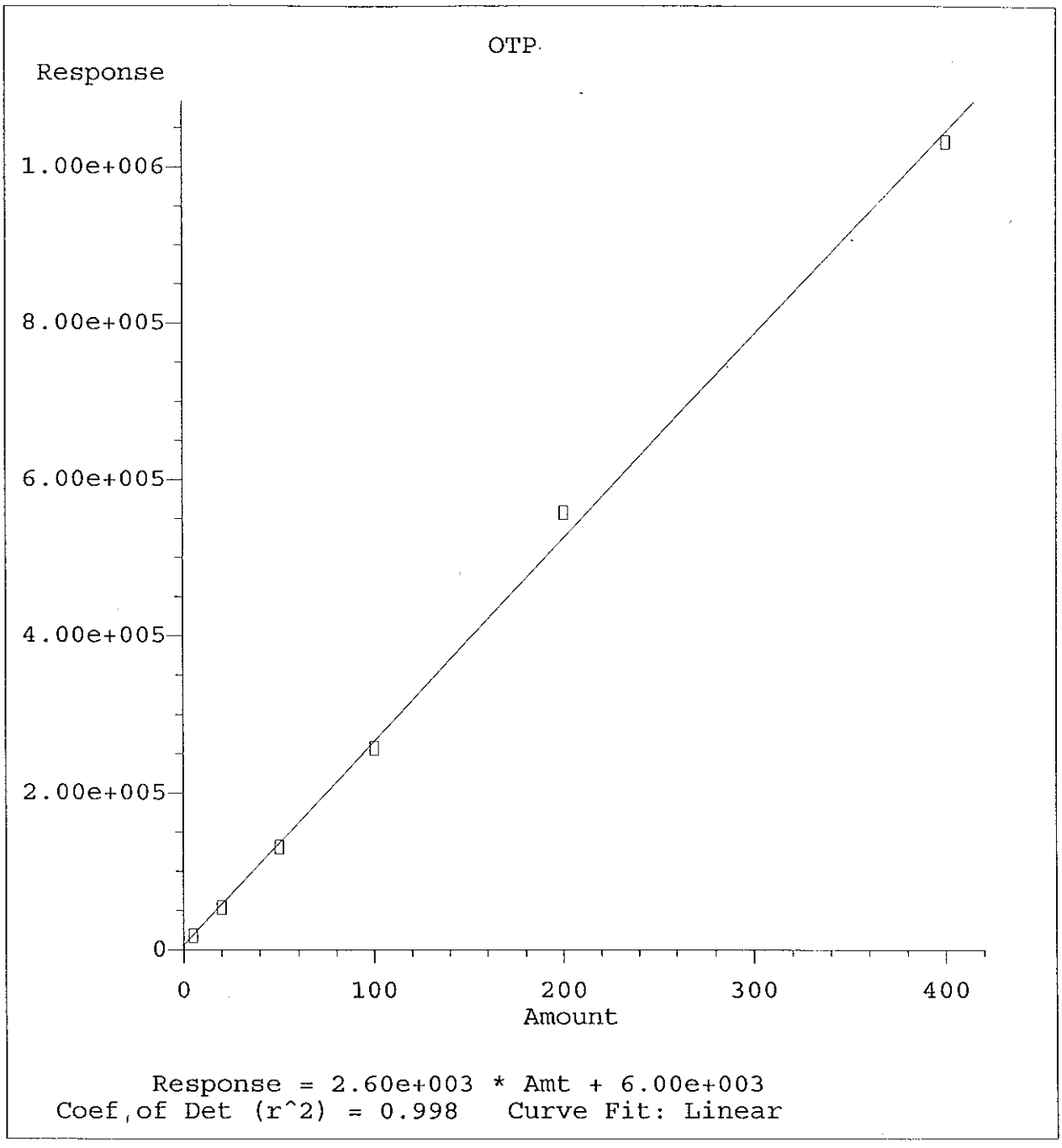
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

100	1900.000	3887819
20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

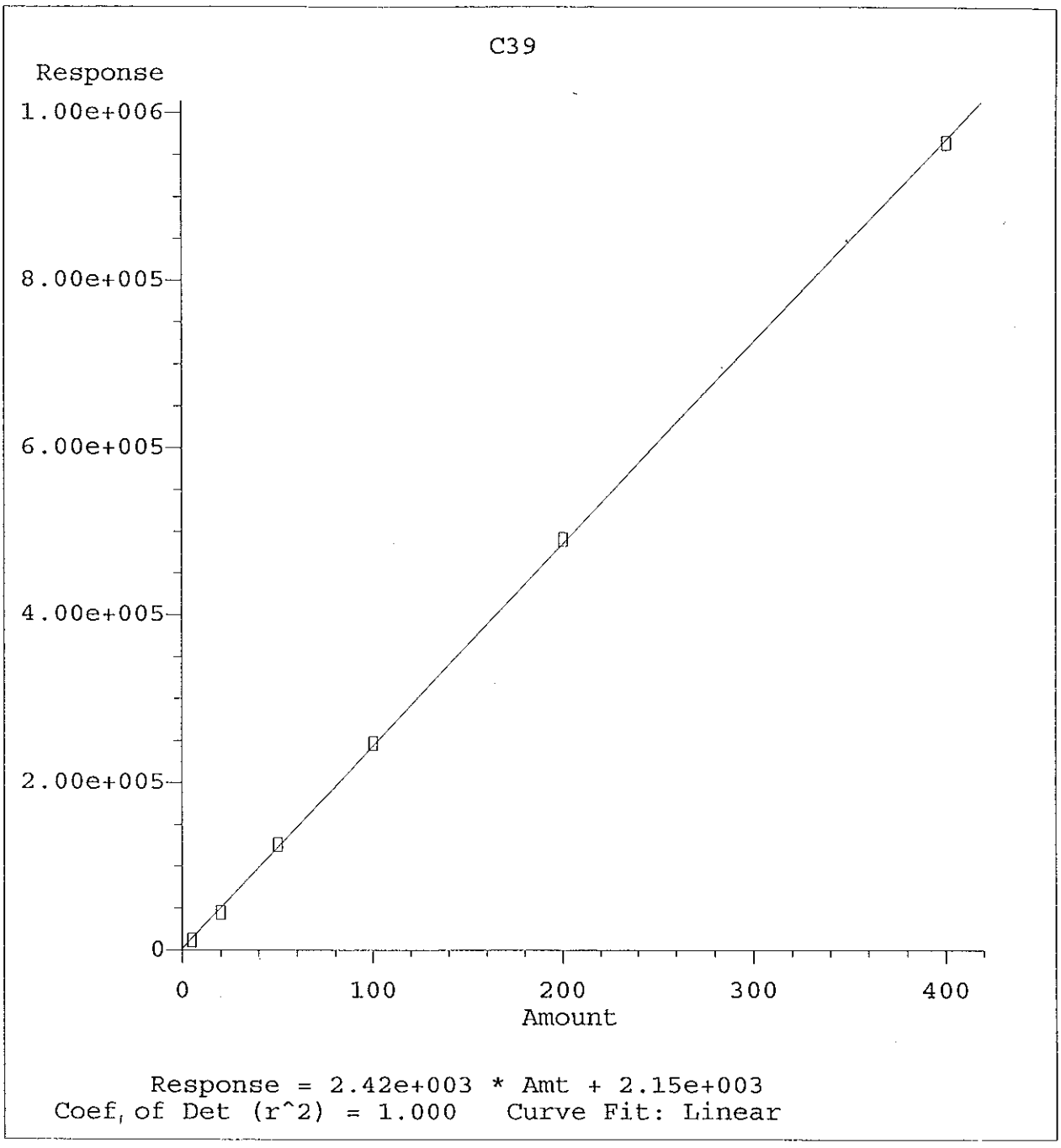
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

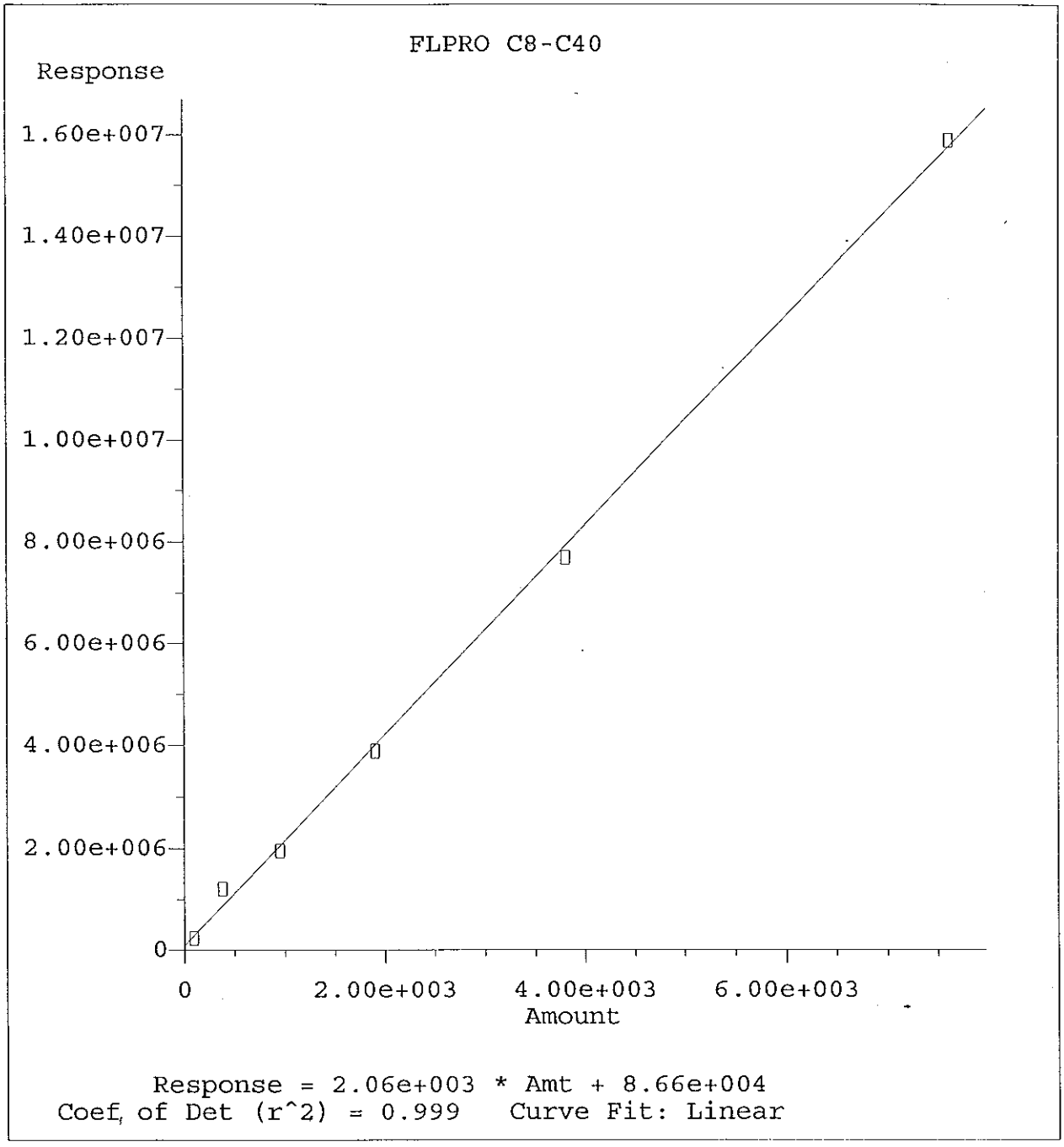
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\CCTPH005.D Vial: 44
Acq On : 2 Nov 2001 00:58 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1819.412	4.2	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:09 2001

Evaluate Continuing Calibration Report

Data File : F:\2\DATA\1101CAL\CCTPH006.D Vial: 55
Acq On : 2 Nov 2001 2:35 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1854.571	2.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:44 2001

Data File : F:\2\DATA\1101CAL\CCTPH007.D Vial: 60
Acq On : 2 Nov 2001 3:25 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM FLPRO C8-C40	1900.000	1816.700	4.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:51:19 2001

EXTRACTION LOG

114

Job No: 820
Batch No: 291
Date Extracted: 10.30.01
Start Time: 1437
Stop Time:
Analysis Required: FHRO.
Prep Method: 3520
Analyst/Activity Code*
Initial Project Check:
Final Project Check:
Date Concentrated:
Initials:
Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	d-o-o-w	0190-2	1ml	
Surr.				
Spike	d-o-o-w	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments

Solvent(s) Lot No:

Meth2 V37E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D.D	H.D	COMMENTS
1. C110611*1/17-3609C-Q401 A		LI	1L	1		2	11.05	10.31	Strong odor
2. C110611*2/17-3627A-Q401		LI	1L	1			11.05	10.31	
3. C110611*3/17-3628B-Q401		LI	1L	1			11.05	10.31	
4. C110655*1/17-3608B-Q401		LI	1L	1			11.05	11.01	
5. C110655*2/17-3607A-Q401		LI	1L	1			11.05	11.01	
6. C110655*3/17-3606A-Q401		LI	1L	1			11.05	11.01	
7. C110681*1/17-3619A-Q401		LI	1L	1			11.06	11.02	
8. C110681*2/17-3624B-Q401		LI	1L	1			11.06	11.02	
9. C110681*3/17-36FD2-Q401		LI	1L	1			11.06	11.02	
10. 110728-1			1L	1		2			
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		1			
Lab Spike #2 110611-1 BMS			1L	1		2			
-1L MSD						-	-		

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

GC/Organics Department Extracts Cleanup Logbook

Date: 10-31-01 **Analyst(s):** SB

Method: FLPRO Silica Gel, MAEPH Fractionation, Other (Specify) _____

Solvent 1: _____ **Lot #:** _____ **Solvent 2:** _____ **Lot #:** _____

Surrogate: _____ **Amount:** _____

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW290	1.7	SB
2	LCS		~~2.0~~ 1.9	10-18-01
3	634-5 MS		1.9	
4	634-5 MD		1.7	
5	634-1		1.7	
6	-2		1.9	
7	-3		2.0	
8	-4		1.7	
9	-5		1.9	
10	-6		1.8	
11	-7		1.8	
12	-8		1.5	
13	-9		1.7	
14	-10		1.7	
15	-11		1.8	
16	-12		1.9	
17	BLK	FLW291	1.7	
18	LCS		1.8	
19	611-1 MS		1.9	
20	611-1 MD		2.0	
21	611-1		1.6	
22	-2		1.9	
23	-3		1.9	
24	655-1		2.0	
25	-2		1.7	
26	-3		2.0	
27	681-1		2.0	
28	-2		1.9	
29	-3		1.8	
30	708-1		1.8	
31				
32			SB	
33			1031	

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL PRO Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dup's hood

Preparation Analyst: KA Solvent Lot #: 100% CS2 MI09648KI

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGW07-18	5000ppm	4000ul	100 mls	200 ppm ea
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dup's fridge

Preparation Analyst: KA Solvent Lot #: 100% Mecl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	04-ORGW04S-7	10,000	6500ul	250 mls	250 ppm each
B					
C&DC	04-ORGW04-1	5017	6295ul		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: expires ~~4-4~~ 4-3-02

KA 10/3/01

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Phil's fridge

Preparation Analyst: RA Solvent Lot #: 100% MeCl2

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	04-Org-0045-1	10,000 ppm	6500 ml	250mls	250 ppm each
B					
C					
COD D	04-Org-0044-1	9617 ppm	6245 ml		
E					
F					
G					
H					
I					
J					

COMMENTS: EXPIRES 4-17-02

Solution Name: TPH Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Phil's hood

Preparation Analyst: RA 1:1 CS2/MeCl2 Solvent Lot #: MI0948IK VJ4E3

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	4-Org-0045-1	10,000	6250 ml	250mls	250 ppm
B					
C					
C39 D	4-Org-0044-3	2500	10,000 ml		100 ppm
E					
F					
G					
H					
I					
J					

COMMENTS: EXPIRES ~~4-22-02~~ RA 10/22/01
4-22-02

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1. Book 4/Page 190

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER ~~290~~ >91 Multiplr: 2.00
IntFile : HC.E KA 11/2/01
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

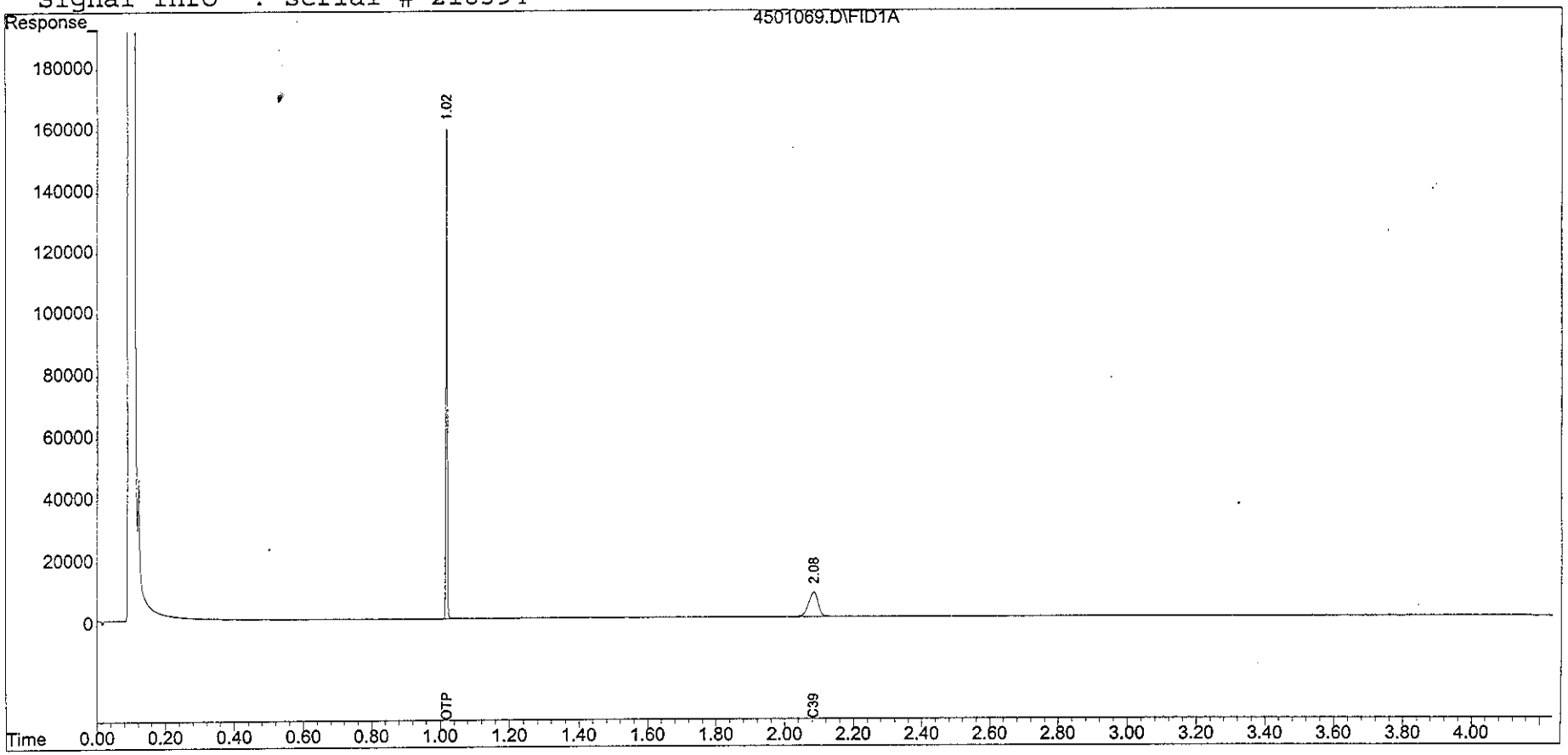
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	397913	150.760 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 120.61% ✓	
2) S C39	2.08	149017	60.744 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 121.49% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	40387	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	361962	136.931 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 109.54%		
2) S C39	2.09	106556	43.182 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 86.36%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	4313575	3689.666 ppb

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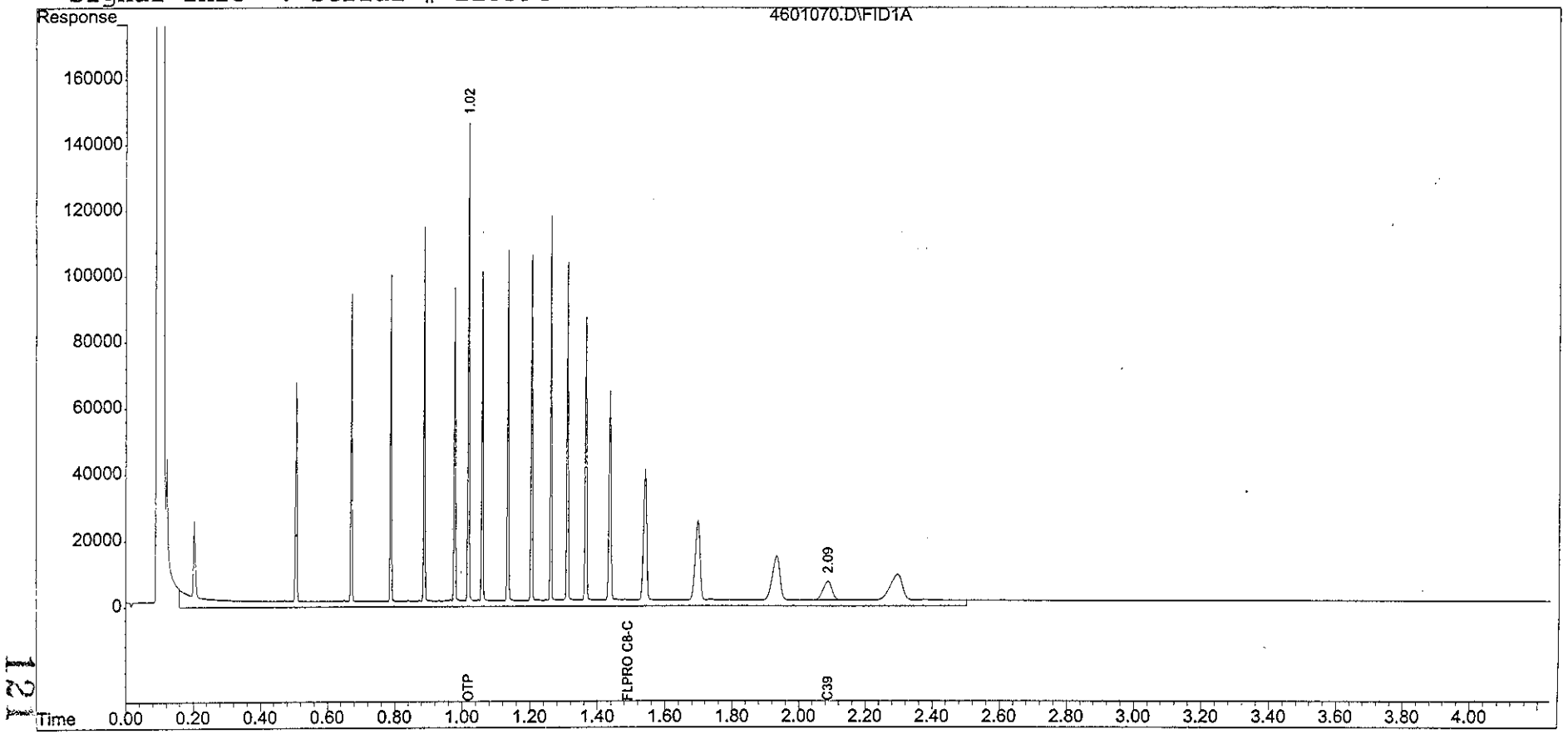
Quantitation Report

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Spike Recovery and RPD Summary Report - WATER

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration

Non-Spiked Sample: 4901073.D

	Spike Sample	Spike Duplicate Sample
File ID :	4701071.D	4801072.D
Sample :	C110611-1 MS	C110611-1 MSD
Acq Time:	2 Nov 2001 1:30	2 Nov 2001 1:38

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
FLPRO C8-C40	79.8	3400	4031	3816	116#	110#	6	20	41-101

- Fails Limit Check

FL-PRO12.M Fri Nov 02 09:23:24 2001

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

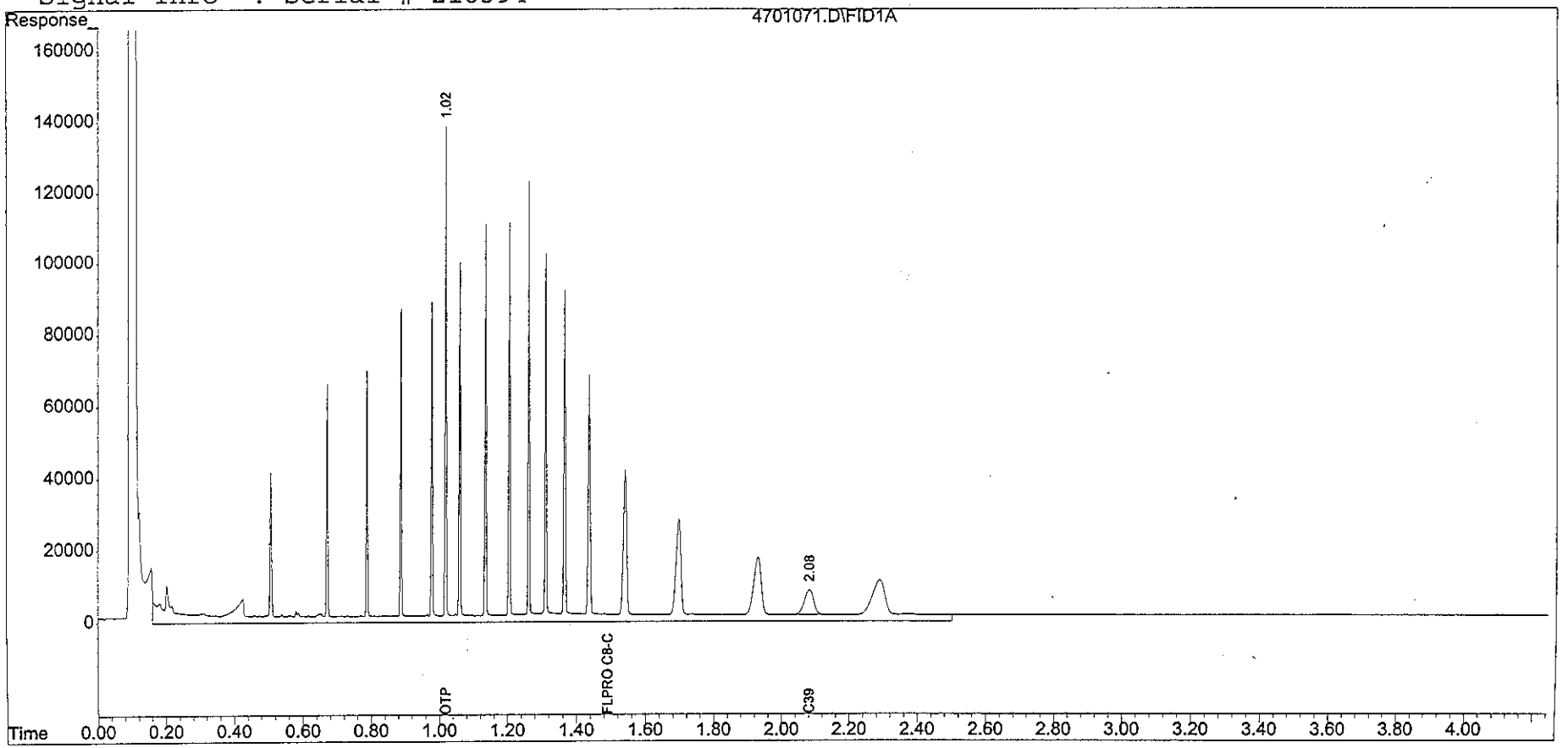
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	341260	128.967 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 103.17%	
2) S C39	2.08	130063	52.905 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 105.81%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4242425	4030.623 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

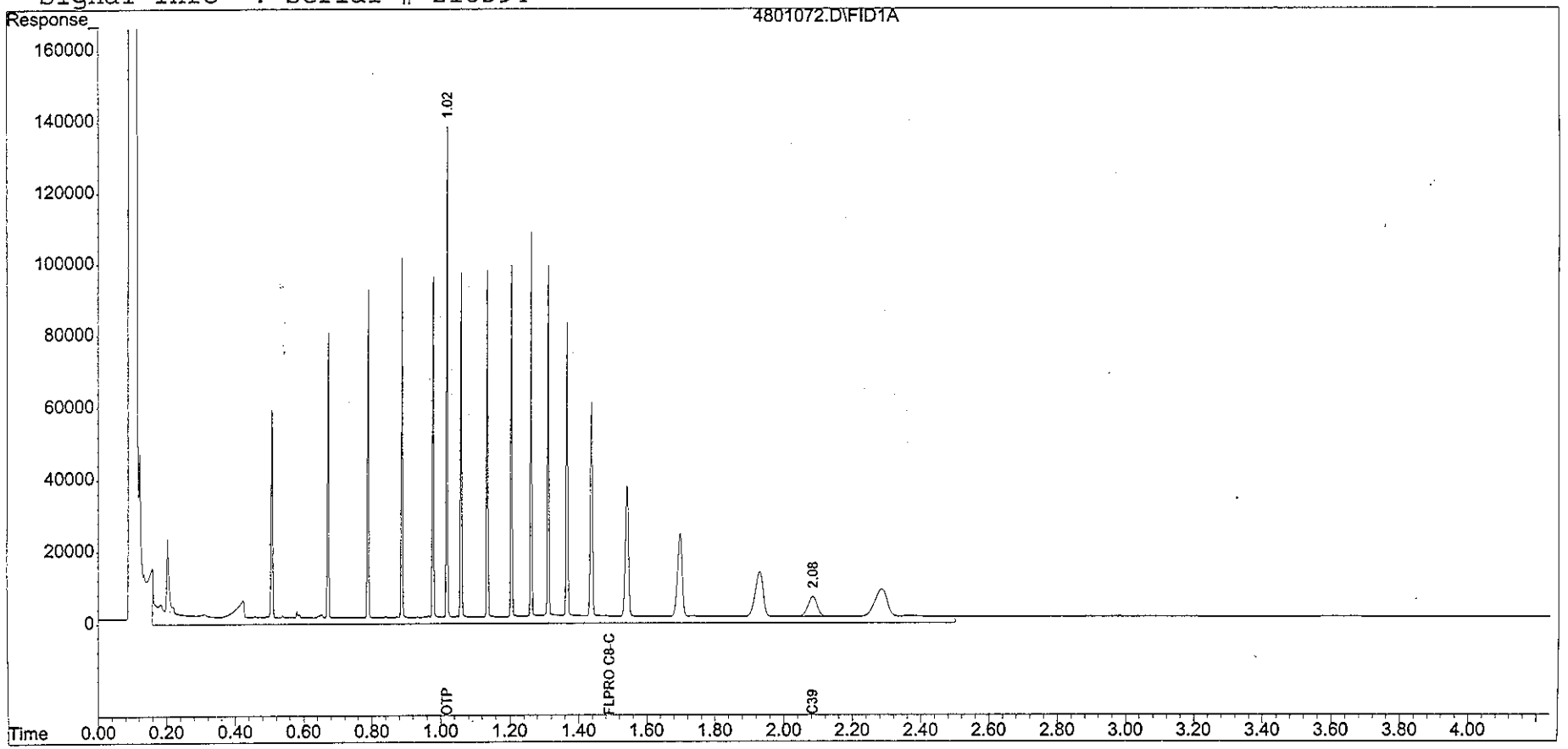
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	337874	127.665 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 102.13%	
2) S C39	2.08	100875	40.833 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 81.67%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4020991	3815.858 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : D:\HPCHEM\2\DATA\1101CAL\5601081.D Vial: 56
Acq On : 2 Nov 2001 2:52 am Operator: IE\KJA
Sample : C110681-1 Inst : FLASH
Misc : FL WATER ~~290~~ Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:09 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

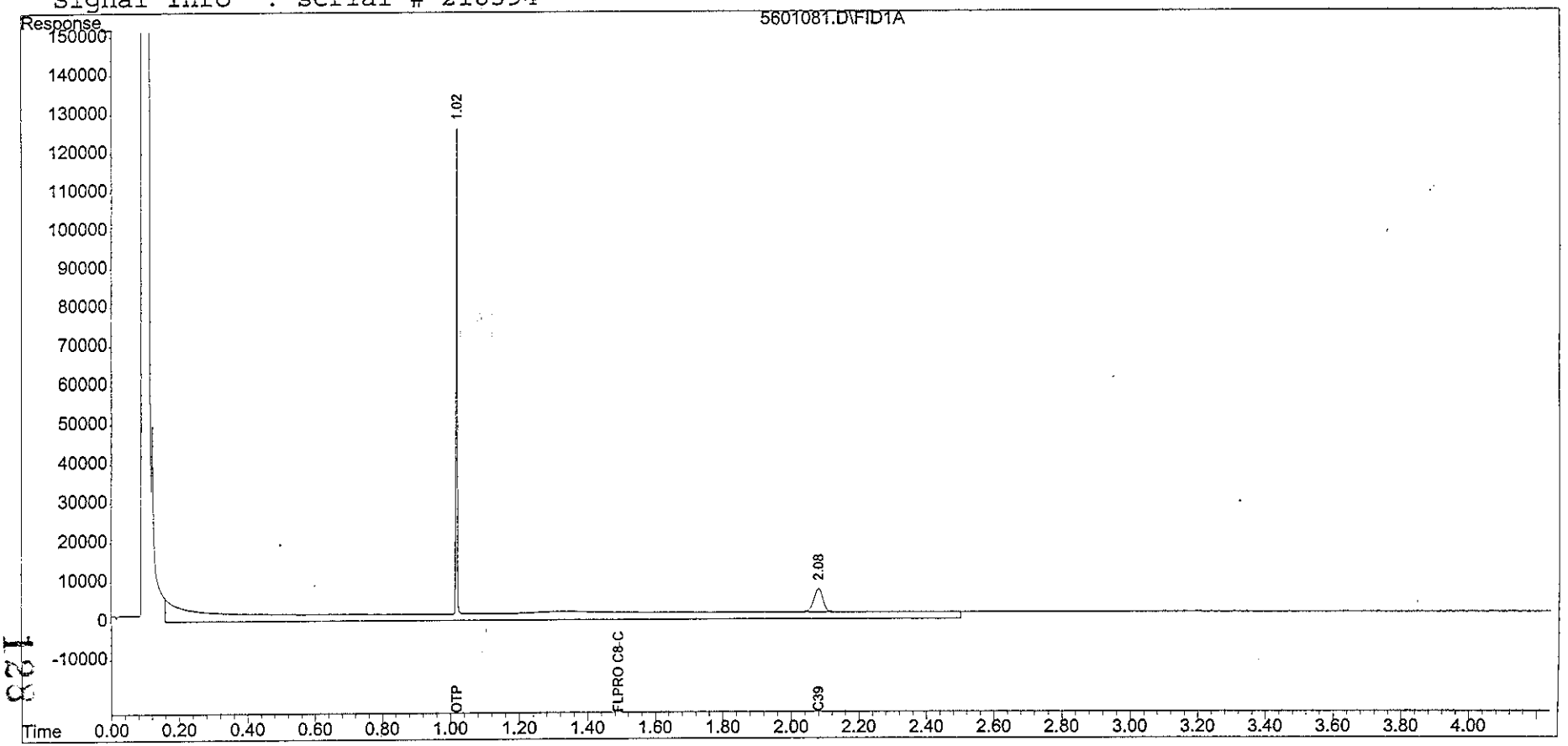
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	320238	120.880 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery =	96.70%
2) S C39	2.08	108607	44.031 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery =	88.06%
Target Compounds			
3) HM FLPRO C8-C40	1.50	100109	13.063 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5601081.D Vial: 56
Acq On : 2 Nov 2001 2:52 am Operator: IE\KJA
Sample : C110681-1 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:09 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Data File : D:\HPCHEM\2\DATA\1101CAL\5701082.D Vial: 57
Acq On : 2 Nov 2001 3:00 am Operator: IE\KJA
Sample : C110681-2 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:10 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

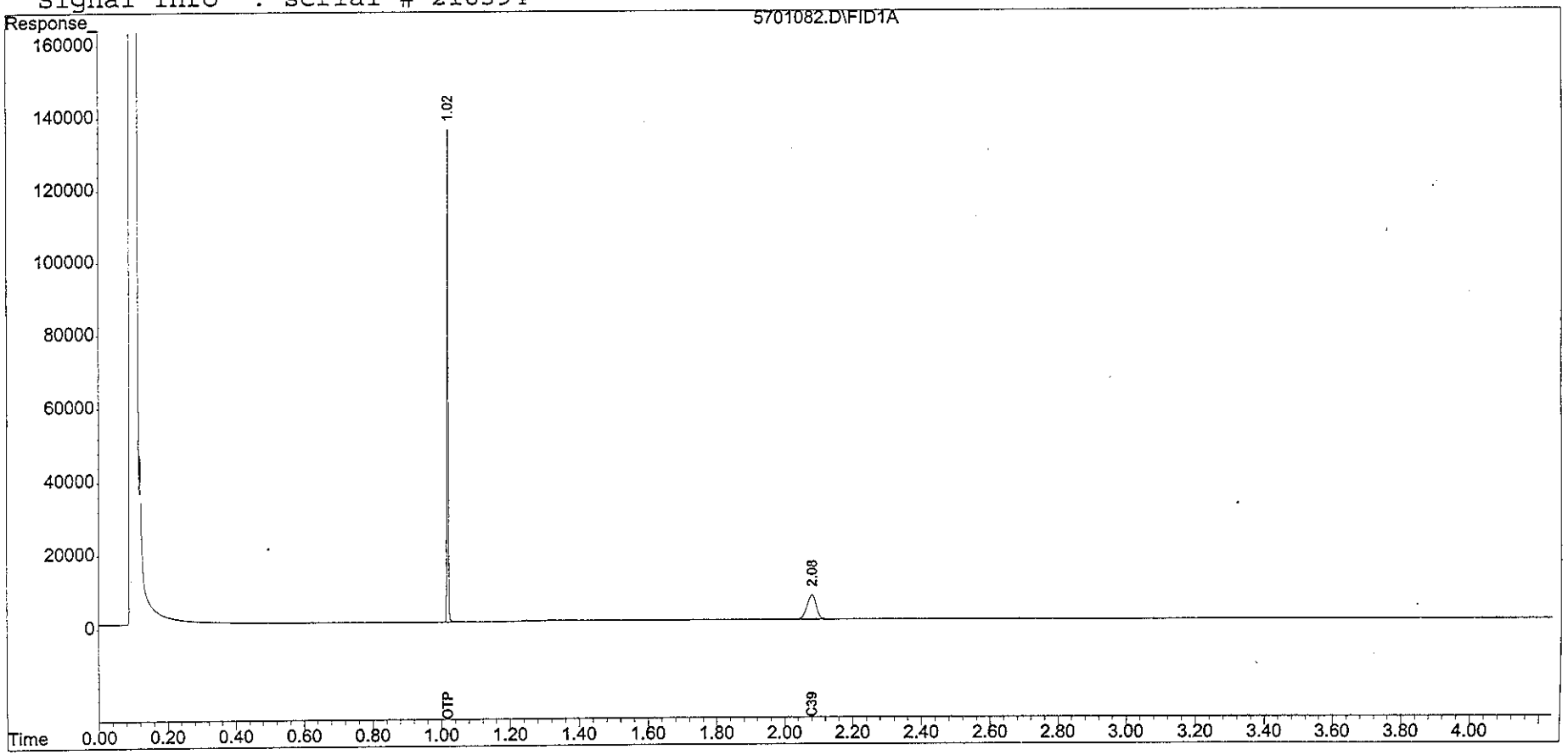
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	347161	131.237 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 104.99%	
2) S C39	2.08	122326	49.705 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 99.41%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	25144	N.D. ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5701082.D Vial: 57
Acq On : 2 Nov 2001 3:00 am Operator: IE\KJA
Sample : C110681-2 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:10 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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Data File : D:\HPCHEM\2\DATA\1101CAL\5801083.D Vial: 58
Acq On : 2 Nov 2001 3:08 am Operator: IE\KJA
Sample : C110681-3 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:11 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	395388	149.789 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 119.83%		
2) S C39	2.09	116884	47.454 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 94.91%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	96012	9.089 ppb

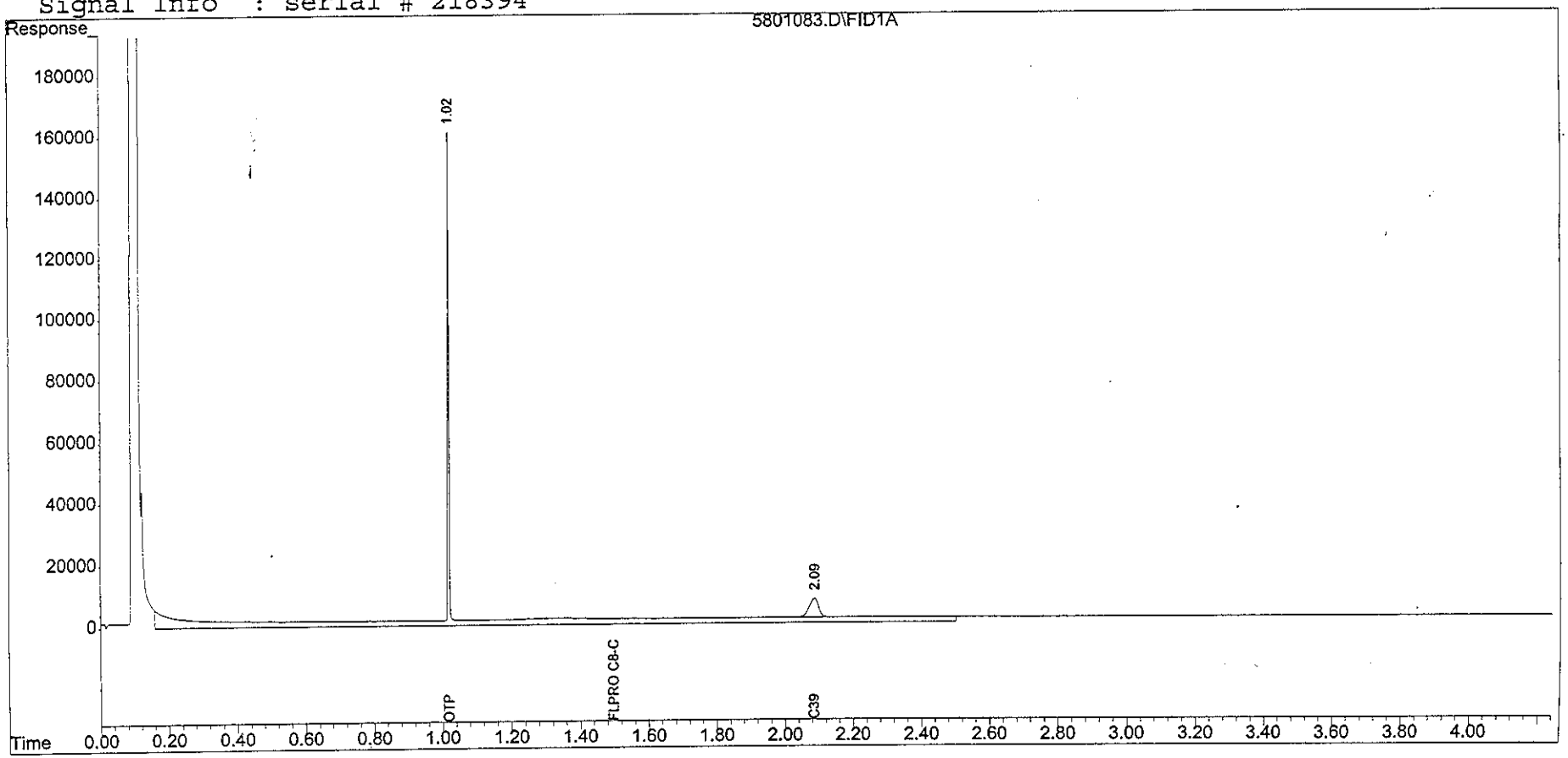
Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5801083.D
Acq On : 2 Nov 2001 3:08 am
Sample : C110681-3
Misc : FL WATER 290
IntFile : HC.E
Quant Time: Nov 2 9:11 2001 Quant Results File: FL-PRO12.RES

Vial: 58
Operator: IE\KJA
Inst : FLASH
Multiplr: 2.00

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



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DISSOLVED IRON

- Metals
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110681 Method Type: SW 846 SAS No.: N/A

Contract: NTC Orlando SA-36-CTO-017 Lab Code: STL PN Case No.: N/A

Lab Sample ID	Client Sample ID
C110681-1	17-3619A-Q401
C110681-2	17-3624B-Q401
C110681-3	17-36FD2-Q401
C110728-1	17-3625C-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that, this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards Name: Marty Edwards

Date: 11/08/01 Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-1 **Client ID:** 17-3619A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-2 **Client ID:** 17-3624B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	760	ug/L			P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-3 **Client ID:** 17-36FD2-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110728-1 **Client ID:** 17-3625C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/30/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	670	ug/L			P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	9960	10000	99.6	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Calcium	9988	10000	99.9	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Iron	10051	10000	100.5	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Iron	10051	10000	100.5	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Magnesium	9991	10000	99.9	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
CCV1									
	Aluminum	10370	10000	103.7	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Calcium	10227	10000	102.3	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Iron	10048	10000	100.5	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Iron	10127	10000	101.3	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Magnesium	10217	10000	102.2	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
CCV2									
	Aluminum	10223	10000	102.2	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Calcium	10216	10000	102.2	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Iron	10106	10000	101.1	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Iron	10184	10000	101.8	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Magnesium	10285	10000	102.8	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
CCV3									
	Aluminum	10278	10000	102.8	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Calcium	10266	10000	102.7	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Iron	10111	10000	101.1	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Iron	10176	10000	101.8	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Magnesium	10287	10000	102.9	90.0 - 110.0	P	11/5/01	12:06	TNOV05A

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	B	10.0	100.0	P	11/5/01	09:15	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	09:15	TNOV05A
	Iron	9.2	+/-100.0	B	7.0	100.0	P	11/5/01	09:15	TNOV05A
	Iron	34.4	+/-4000.0	B	20.0	4000.0	P	11/5/01	09:15	TNOV05A
	Magnesium	14.71	+/-500.00	B	6.00	500.00	P	11/5/01	09:15	TNOV05A
CCB1										
	Aluminum	17.8	+/-100.0	B	10.0	100.0	P	11/5/01	10:08	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	10:08	TNOV05A
	Iron	23.6	+/-100.0	B	7.0	100.0	P	11/5/01	10:08	TNOV05A
	Iron	63.4	+/-4000.0	B	20.0	4000.0	P	11/5/01	10:08	TNOV05A
	Magnesium	49.70	+/-500.00	B	6.00	500.00	P	11/5/01	10:08	TNOV05A
CCB2										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	11/5/01	11:10	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	11:10	TNOV05A
	Iron	15.9	+/-100.0	B	7.0	100.0	P	11/5/01	11:10	TNOV05A
	Iron	30.2	+/-4000.0	B	20.0	4000.0	P	11/5/01	11:10	TNOV05A
	Magnesium	26.91	+/-500.00	B	6.00	500.00	P	11/5/01	11:10	TNOV05A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	11/5/01	12:11	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	12:11	TNOV05A
	Iron	18.3	+/-100.0	B	7.0	100.0	P	11/5/01	12:11	TNOV05A
	Iron	27.3	+/-4000.0	B	20.0	4000.0	P	11/5/01	12:11	TNOV05A
	Magnesium	27.98	+/-500.00	B	6.00	500.00	P	11/5/01	12:11	TNOV05A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD136			**WATER**							
	Iron	11.1	+/-100.0	B	7.0	100.0	P	11/5/01	10:14	TNOV05A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	516707.9	500000.0	103.3	80 - 120	11/5/01	09:41	TNOV05A
	Calcium	472521.7	500000.0	94.5	80 - 120	11/5/01	09:41	TNOV05A
	Iron	185166.6	200000.0	92.6	80 - 120	11/5/01	09:41	TNOV05A
	Iron	201409.2	200000.0	100.7	80 - 120	11/5/01	09:41	TNOV05A
	Magnesium	544446.1	500000.0	108.9	80 - 120	11/5/01	09:41	TNOV05A
ICS-AB1								
	Aluminum	536569.7	510000.0	105.2	80 - 120	11/5/01	09:46	TNOV05A
	Calcium	485178.5	510000.0	95.1	80 - 120	11/5/01	09:46	TNOV05A
	Iron	194283.1	210000.0	92.5	80 - 120	11/5/01	09:46	TNOV05A
	Iron	208579.7	210000.0	99.3	80 - 120	11/5/01	09:46	TNOV05A
	Magnesium	541410.1	510000.0	106.2	80 - 120	11/5/01	09:46	TNOV05A
ICS-A2								
	Aluminum	514460.3	500000.0	102.9	80 - 120	11/5/01	11:32	TNOV05A
	Calcium	474355.2	500000.0	94.9	80 - 120	11/5/01	11:32	TNOV05A
	Iron	186170.8	200000.0	93.1	80 - 120	11/5/01	11:32	TNOV05A
	Iron	200974.2	200000.0	100.5	80 - 120	11/5/01	11:32	TNOV05A
	Magnesium	540895.9	500000.0	108.2	80 - 120	11/5/01	11:32	TNOV05A
ICS-AB2								
	Aluminum	530725.0	510000.0	104.1	80 - 120	11/5/01	11:38	TNOV05A
	Calcium	483846.3	510000.0	94.9	80 - 120	11/5/01	11:38	TNOV05A
	Iron	194759.0	210000.0	92.7	80 - 120	11/5/01	11:38	TNOV05A
	Iron	211935.1	210000.0	100.9	80 - 120	11/5/01	11:38	TNOV05A
	Magnesium	549898.6	510000.0	107.8	80 - 120	11/5/01	11:38	TNOV05A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1 **Client ID:** 17-3619A-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110681-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10033.8		100.0	U	10000.0	100.3		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1 **Client ID:** 17-3619A-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110681-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10048.7		100.0	U	10000.0	100.5		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STLPN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1S **Client ID:** 17-3619A-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110681-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10033.8		10048.7		0.1	.	P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD136								
	Iron	ug/L	10000.0	9936.0		99.4	80.0 - 120.0	P

SERIAL DILUTION SAMPLE SUMMARY

Client: _____ SDG No.: _____

Contract: _____ Lab Code: _____ Case No.: _____ SAS No.: _____

Matrix: WATER Level: _____ Client ID: 17-3619A-Q401L

Sample ID: C110681-1 Serial Dilution ID: C110681-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	5.8	B	35.0	U	100.0		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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LINEAR RANGES

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
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SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P
SA-36-CTO-017 **Case No.:** NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PD136							
PBWPD136	PBWPD136	MB	WATER	11/2/01	50.0	50.0	
LCSWPD136	LCSWPD136	LCS	WATER	11/2/01	50.0	50.0	
C110681-1	17-3619A-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110681-1S	17-3619A-Q401S	MS	WATER	11/2/01	50.0	50.0	
C110681-1SD	17-3619A-Q401SD	MSD	WATER	11/2/01	50.0	50.0	
C110681-2	17-3624B-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110681-3	17-36FD2-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110728-1	17-3625C-Q401	SAM	WATER	11/2/01	50.0	50.0	

Metals
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ANALYSIS RUN LOG

Client: CCI Contract: NTC Orlando

Lab Code: STL PN Case No.: NA SAS No.: NA SDG C110681

Instrument ID Number: TJA61E Trace Method: P Run Number: TNOV05A

Start Date: 11/5/01 End Date: 11/5/01

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLK	1.00	08:53		X						X				X		X												
STD 1	1.00	08:58		X						X				X		X												
STD 1	1.00	09:04		X						X				X		X												
ICV1	1.00	09:10		X						X				X		X												
ICB1	1.00	09:15		X						X				X		X												
CRDL1	1.00	09:21		X						X				X		X												
AL500	1.00	09:29		X						X				X		X												
FE500	1.00	09:35		X						X				X		X												
ICS-A1	1.00	09:41		X						X				X		X												
ICS-AB1	1.00	09:46		X						X				X		X												
CCV1	1.00	10:02		X						X				X		X												
CCB1	1.00	10:08		X						X				X		X												
PBWPD136	1.00	10:14												X														
LCSWPD136	1.00	10:19												X														
C110681-1	1.00	10:25												X														
C110681-1L	5.00	10:30												X														
C110681-1S	1.00	10:36												X														
C110681-1SD	1.00	10:42												X														
C110681-2	1.00	10:47												X														
C110681-3	1.00	10:53												X														
C110728-1	1.00	10:58												X														
CCV2	1.00	11:04		X						X				X		X												
CCB2	1.00	11:10		X						X				X		X												
ZZZZZZ	1.00	11:15																										
ZZZZZZ	1.00	11:21																										
CRDL2	1.00	11:27		X						X				X		X												
ICS-A2	1.00	11:32		X						X				X		X												
ICS-AB2	1.00	11:38		X						X				X		X												
CCV3	1.00	12:06		X						X				X		X												
CCB3	1.00	12:11		X						X				X		X												

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

DIGESTION LIQUIDS

Job No: 3651
Batch No: PD 136
Job Date: 11.01.01
ANALYSIS

ICP | AA | HG | FLAME | TCLP | MISC

Level B/C

Date/Time Started: 11/2/01 @ 2:55
Date/Time Completed: 11/2/01 @ 3:09
Analyst: W
Method/SOP: N/A
Final Volume: N/A
Acid Lot #(s): HNO3-662314041802
N/A
N/A
Hood: N/A
Bath Temp(Hg only): N/A
Final Project Check: CP 11.02.01

	ID	LOT#	AMT (mL)	INIT
Spike		N/A		
Spike		N/A		
Spike		N/A		
Spike		N/A		

SAMPLE ID/MTX/DESCRIPTION	D.D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1. C110681*1/LI/17-3619A-Q401	11.06		ICP				*XNE DISSOLVES
2. C110681*2/LI/17-36248-Q401	11.06		ICP				*XNE
3. C110681*3/LI/17-36FD2-Q401	11.06		ICP				*XNE
4. C110728*1/LI/17-3625C-Q401	11.09		ICP				*XNE
5. C110760*1/LI/063-ASI-I-GW-1030-01-42	11.09	R9	ICP				filtered/preserved *XN in lab 11/2/01
6. C110760*2/LI/063-ASI-E-GW-1030-01-42	11.09	R9	ICP				*XN
7. Lab filtered blk							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
Lab Blank							
Lab Spike #1							
Lab Spike #2							

11/2/01

Fe
Ca, Fe, M

Comments: Hold filtered sample 14 days from completed date & time.

IC 51

File Name: NOV02A Date: 11.02.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer
☐ Change / ☑ Rotate Peri-Pump Tubing ☐ Other: _____
☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: -0305167 Profile Intensity: 15886 Spectrum Shifter: 534
Nebulizer Pressure: 30 Purge Pressure: 6.0
Y Intensity (Std 1): 11514 Cu:Mn Ratio (Std 1): 9.3/11.3=.82

Standards Reference:

Std 1: M02739 ICV/CCV: M02756 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PW384	P.E.	PS254	
PW385	P.E.		
PW386			
PW383			
PS253			

Comments:

5X = 103
Bu = 124

File Name: NOV05A Date: 11.05.01 Analyst: QQP

Maintenance:

☑ Change Torch/Injector ☑ Change Spray Chamber ☐ Change Nebulizer
☑ Change / ☐ Rotate Peri-Pump Tubing ☑ Other: nebded - out neb
☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: .048513 Profile Intensity: 1741 Spectrum Shifter: 514
Nebulizer Pressure: 30 Purge Pressure: 6.0
Y Intensity (Std 1): 10609 Cu:Mn Ratio (Std 1): 9.5/11.0=0.86

Standards Reference:

Std 1: M02758 ICV/CCV: M02756 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PD136	Level B/C	PS256	
PW382	re-run K & Na		
PW387			
PT227			
PS255			

Comments:

9 samples

10.15.01 RLCHKS1 exp 10.16.01 MO2746
(QP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 MO2747
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA EXP 11.16.01 MO2748
(QP) To a Clean 500 ml Vol FLASK Add ~300ml of type I H_2O. Add 50 ml conc HCL & 10 ml of conc HNO_3.
Add STD Listed below & QS to Volume w/ type I H_2O.
50.0 mL CLP-INF-1 MO2734 EXP 11/02

10-16-01

Continued on Page

Read and Understood By

Gary Sobera 10.16.01
Signed Date Signed Date

10.19.01 ICV/CCV Exp 10.19.01 MO 2750
GH To a clean 1000 ml vol flask Add ~300 ml blk/Rin
Soln. Add STD Listed below + Bring to volume
5.0 STL #1 MO2661 Exp 1/03
5.0 STL #2 MO2665 Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO2751
GH Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO2752
GH Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO2753
GH To a clean 500 ml vol flask add ~300 mls of blank/diluent soln. Add Stds listed below & bring to volume with diluent.
50.0 mls CLP-INF-1 MO2734 exp 11.2002
2.5 mls CAL STD 1B-R1 MO2670 exp 08.2002
2.5 mls CAL STD #2-R2 MO2735 exp 11.2002

10.25.01 RLCHS1 EXP 10.26.01 MO2754
GH PLACE 19.95 mls OF blk/dil into A 25ml A/S Cup
Add 0.05 mls OF STD 1 & mix well.

10.25.01

Continued on Page

Read and Understood By

Signed Date Signed Date

10.30.01 ICV/CCV Exp 11.30.01 MO2756
G+ To A clean 1000 ml vol FLASK Add ~600ml blk/Rin Soln. Add STD Listed below & bring to volume.
5.0mL STL*1 MO2664 Exp 1/03
5.0mL STL*2 MO2665 Exp 1/03

10.31.01 RLCHKS1 Exp 11.01.01 MO2757
G+ PLACE 19.95 mls of blk/Rin soln into 25ml A/S Tube. PLACE 0.05ml of STD1 & mix well.

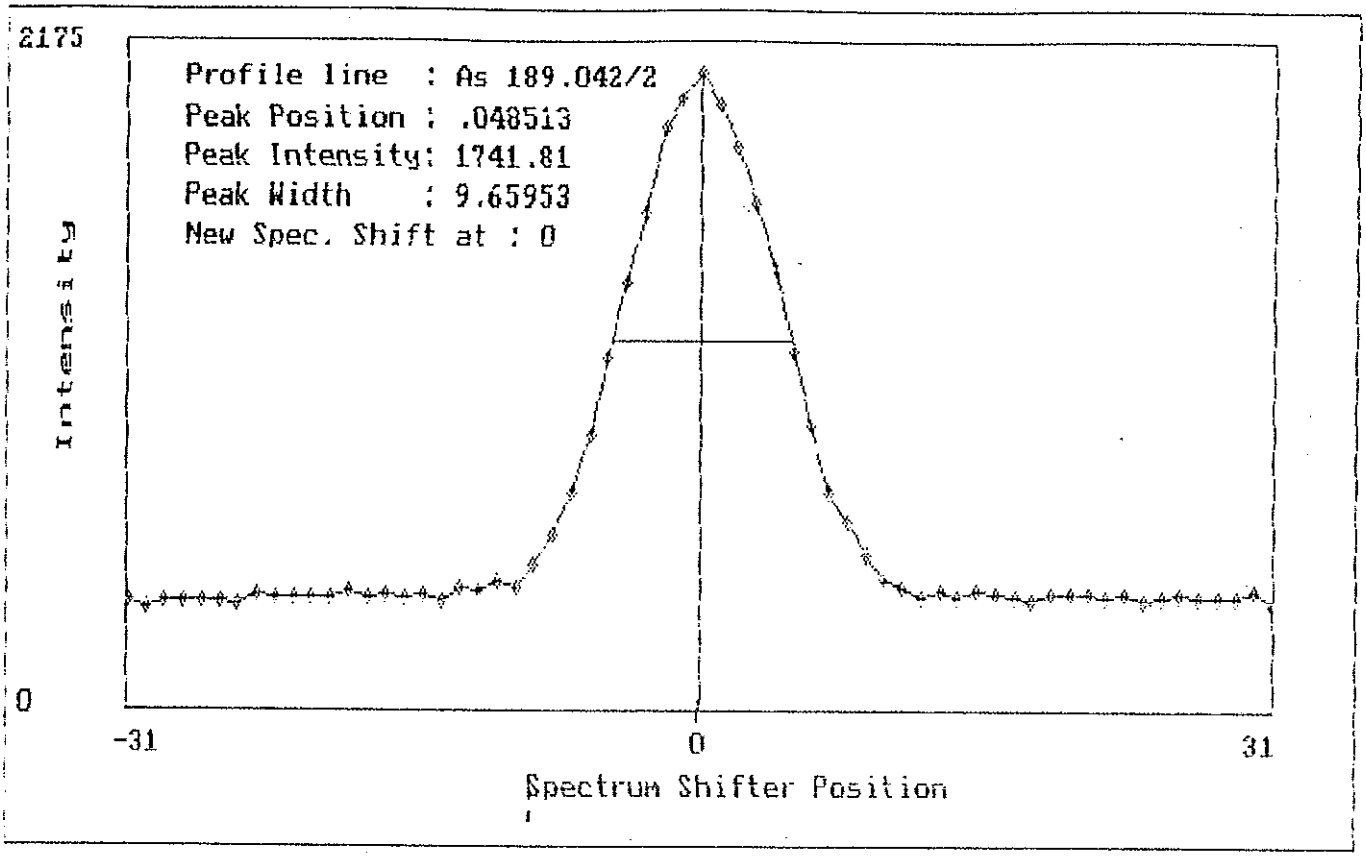
11.02.01 ~~Std~~ 1 exp 12.02.01 MO2758
(GP) Do a clean 500ml vol flask add ~200 mls blank/diluent, Add ~~std~~ listed below & bring to volume with blank/diluent.
5.0mls Cal ~~Std~~ 1B-R1 MO2670 exp 08/2002
5.0mls Cal ~~Std~~ #2-R2 MO2735 exp 11/2002

11.6.01 RLCHKS1 Exp 11.7.01 MO2759
G+ PLACE 19.95mls of blk/Rin soln. into 25ml A/S Tube. PLACE 0.05mls of STD 1 & mix well.

Continued on Page

Read and Understood By

Signed Date Signed Date



11.05.01
CP
NOV05A

Method: 60102007 Standard: CAL BLK
Run Time: 11/05/01 08:53:15

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00852	.05912	-.00533	-.00354	-.00077	.07839	.01538
SDev	.00644	.00100	.01455	.00565	.00176	.00148	.00123
%RSD	75.586	1.6954	272.99	159.42	228.85	1.8924	7.9907
#1	.00397	.05841	.00496	.00045	.00045	.07734	.01451
#2	.01307	.05983	-.01562	-.00754	-.00200	.07944	.01625

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00806	-.00507	.00920	.03082	-.00661	.00225	-.36059
SDev	.00529	.00246	.00689	.00777	.00413	.00485	.21785
%RSD	65.546	48.429	74.906	25.202	62.400	215.63	60.414
#1	.00433	-.00334	.00433	.02533	-.00370	.00568	-.51463
#2	.01180	-.00681	.01407	.03632	-.00953	-.00118	-.20655

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	-.00227	-.00027	-.00038	.02348	-.00543	-.00653	.00993
SDev	.00423	.00064	.00006	.01880	.00092	.00771	.01099
%RSD	186.30	234.81	17.8154	80.064	16.997	118.01	110.62
#1	.00072	.00018	-.00041	.01019	-.00478	-.00108	.00216
#2	-.00527	-.00073	-.00036	.03677	-.00608	-.01198	.01770

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	220371	220372
Avge	.00480	-.02379	-.00316	.00249	.00090	.38524	-.11155
SDev	.00310	.01566	.00190	.00187	.00115	.24727	.12869
%RSD	64.441	65.854	60.196	74.932	127.18	64.185	115.37
#1	.00261	-.01271	-.00451	.00117	.00171	.21039	-.02055
#2	.00699	-.03486	-.00182	.00381	.00009	.56008	-.20255

Elem	196071	196072	216707
Avge	.05592	-.03770	.00658
SDev	.05792	.02552	.00764
%RSD	103.58	67.701	116.23
#1	.01496	-.01965	.00117
#2	.09687	-.05574	.01198

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11054	--	--	--	--	--	--
SDev	55.84210	--	--	--	--	--	--
%RSD	.5051760	--	--	--	--	--	--
#1	11093	--	--	--	--	--	--
#2	11015	--	--	--	--	--	--

Method: 6010200/ Standard STD 1
Run Time: 11/05/01 08:58:54

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1990	8.2045	8.8600	7.2220	6.9758	18.561	12.018
SDev	.0149	.0064	.0725	.0628	.0440	.134	.040
%RSD	.46469	.07759	.81807	.86936	.63075	.72097	.33174
#1	3.2095	8.2090	8.9115	7.2664	7.0069	18.656	12.047
#2	3.1885	8.2000	8.8087	7.1776	6.9447	18.466	11.990

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.663	10.987	11.513	9.4736	4.5671	82.119	50.265
SDev	.136	.052	.060	.0695	.0239	.429	.138
%RSD	.51072	.47128	.52006	.73324	.52428	.52247	.27355
#1	26.759	11.024	11.556	9.5227	4.5840	82.422	50.168
#2	26.566	10.950	11.471	9.4245	4.5501	81.815	50.363

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.695	11.005	6.8088	.88161	11.978	5.1060	7.1481
SDev	.031	.057	.0319	.00999	.045	.0283	.0227
%RSD	.26299	.51942	.46901	1.1330	.37498	.55330	.31688
#1	11.716	11.046	6.8313	.87455	12.009	5.1260	7.1641
#2	11.673	10.965	6.7862	.88868	11.946	5.0860	7.1321

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	39.634	51.690	8.7765	3.1509	10.227	57.058	36.058
SDev	.213	.275	.0465	.0197	.034	.128	.180
%RSD	.53758	.53259	.52930	.62443	.33156	.22371	.49844
#1	39.785	51.885	8.8096	3.1648	10.251	57.148	35.931
#2	39.483	51.495	8.7434	3.1370	10.203	56.968	36.185

Elem	1960/1	1960/2	1.5707
Avge	10.971	10.031	76.845
SDev	.052	.014	.505
%RSD	.47323	.13712	.65515
#1	11.008	10.021	76.489
#2	10.934	10.041	77.201

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10609	--	--	--	--	--	--
SDev	46.40941	--	--	--	--	--	--
%RSD	.4374435	--	--	--	--	--	--
#1	10642	--	--	--	--	--	--
#2	10576	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 11/05/01 09:04:32
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99807	19.768	1.9995	2.0093	2.0046	.99982	19.735
SDev	.00402	.059	.0061	.0103	.0087	.00472	.079
%RSD	.40249	.29742	.30493	.51076	.43308	.47173	.39987
#1	1.0009	19.809	2.003[illegible]	2.0166	2.0108	1.0032	19.791
#2	.99523	19.726	1.9952	2.0021	1.9985	.99648	19.679
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98906	1.9818	1.9825	2.0064	19.814	19.845	19.758
SDev	.00451	.0086	.0073	.0116	.093	.083	.052
%RSD	.45620	.43142	.36947	.57646	.46875	.41606	.26327
#1	.99225	1.9878	1.9876	2.0146	19.880	19.903	19.722
#2	.98587	1.9757	1.9773	1.9982	19.749	19.786	19.795
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	19.649	1.9849	1.9906	19.501	1.9853	1.9703	2.0004
SDev	.062	.0081	.0069	.152	.0073	.0090	.0108
%RSD	.31729	.40857	.34445	.77709	.36848	.45578	.53797
#1	19.693	1.9907	1.9954	19.394	1.9905	1.9766	2.0080
#2	19.605	1.9792	1.9857	19.608	1.9801	1.9639	1.9928
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0027	1.9744	.9774	1.9902	1.9836	1.9914	1.9657
SDev	.0124	.0065	.0079	.0081	.0127	.0085	.0068
%RSD	.61966	.32844	.80866	.40850	.63977	.42778	.34517
#1	2.0114	1.9790	.9830	1.9960	1.9926	1.9974	1.9705
#2	1.9939	1.9698	1.9662	1.9845	1.9746	1.9853	1.9609
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	220371	206577	460174	196070	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.9691	1.9708	2.0045	1.9984	1.9118		
SDev	.0259	.0005	.0392	.0034	.0004		
%RSD	1.3145	.02745	1.9554	.17187	.02199		
#1	1.9874	1.9712	2.0323	1.9959	1.9115		
#2	1.9508	1.9704	1.9768	2.0008	1.9121		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					2.0000		
Range					5.0000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10843	--	--	--	--	--	--
SDev	26.45919	--	--	--	--	--	--
%RSD	.2440318	--	--	--	--	--	--
#1	10861	--	--	--	--	--	--
#2	10824	--	--	--	--	--	--

Analysis Report QC Standard 11/05/01 09:15:38 AM page 1

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 11/05/01 09:10:09
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50008	9.9598	.99815	.99527	.97640	.49639	9.9884
SDev	.00208	.1198	.00985	.00534	.00924	.00416	.1042
%RSD	.41675	1.2028	.98671	.53617	.94658	.83875	1.0431
#1	.49860	9.8751	.99118	.99150	.96986	.49345	9.9147
#2	.50155	10.045	1.0051	.99904	.98293	.49933	10.062
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50070	1.0096	.99517	.99294	10.051	10.051	9.6544
SDev	.00472	.0104	.00856	.00648	.114	.095	.0129
%RSD	.94191	1.0347	.86036	.65282	1.1306	.94289	.13332
#1	.49736	1.0022	.98912	.98836	9.9706	9.9844	9.6635
#2	.50403	1.0170	1.0012	.99753	10.131	10.118	9.6453
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9914	.99416	.99745	9.6048	1.0107	1.0016	.99795
SDev	.1065	.00941	.00951	.6132	.0077	.0044	.00068
%RSD	1.0654	.94663	.95358	6.3847	.76199	.44312	.06853
#1	9.9161	.98750	.99071	10.038	1.0053	.99843	.99843
#2	10.067	1.0008	1.0042	9.1712	1.0162	1.0047	.99747
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Si4115	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0101	1.0042	.98500	1.0037	1.0108	.99293	.99820
SDev	.0098	.0087	.00971	.0102	.0089	.00682	.00937
%RSD	.96714	.87024	.98594	1.0190	.88028	.68711	.93817
#1	1.0032	.99870	.97814	.99644	1.0045	.98811	.99158
#2	1.0170	1.0111	.99187	1.0109	1.0171	.99776	1.0048
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	220371	[illegible]	[illegible]	[illegible]	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0040	1.0004	1.0079	.99550	1.0298		
SDev	.0044	.0045	.0054	.00215	.0142		
%RSD	.43782	.44578	.53592	.21642	1.3817		
#1	1.0009	.99771	1.0015	.99702	1.0198		
#2	1.0071	1.0035	1.0045	.99397	1.0399		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11040	--	--	--	--	--	--
SDev	210.6350	--	--	--	--	--	--
%RSD	1.907997	--	--	--	--	--	--
#1	11189	--	--	--	--	--	--
#2	10891	--	--	--	--	--	--

Method: 60102007 Sample Name: 1C57CCR Operator: GSP
Run Time: 11/05/01 09:15:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00095	-.01458	.00225	.00534	.00117	.00064	.00796
SDev	.00718	.01418	.00197	.00055	.00044	.00007	.00673
%RSD	752.26	97.586	87.538	16.303	37.740	10.952	84.538
#1	.00412	-.02441	.00084	.00296	.00086	.00069	.01271
#2	L-.00603	-.00436	.00362	.00373	.00149	.00059	.00320

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00160	.00037	-.00155	.03446	.00917	-.08736
SDev	.00071	.00088	.00360	.00552	.01168	.00033	.08043
%RSD	512.74	55.159	974.98	356.15	33.911	3.6004	92.124
#1	.00064	.00097	.00215	.00241	.02619	.00940	-.03045
#2	-.00037	.00222	.00246	-.00511	.04272	.00893	-.14427

Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	NA5302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01472	.00082	.00137	-.31471	.00159	.00106	.00344
SDev	.00604	.00006	.00171	1.51924	.00019	.00044	.00219
%RSD	41.056	7.6660	83.508	482.74	11.774	41.548	63.626
#1	.01044	.00078	.00222	.75955	.00146	.00075	.00189
#2	.01899	.00087	.00051	L-1.3890	.00172	.00137	.00499

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00453	.00021	.00045	.00122	-.00004	-.00042	.00145
SDev	.00300	.00538	.00058	.00053	.00705	.00469	.00013
%RSD	66.188	2561.0	130.37	43.770	16357.	1109.4	9.1714
#1	.00241	.00402	.00086	.00084	.00494	.00289	.00136
#2	.00665	-.00359	.00003	.00159	-.00503	-.00374	.00155

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	136707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00876	.00596	-.00436	.00734	.00059		
SDev	.02284	.01206	.02289	.01471	.00026		
%RSD	260.86	202.42	524.74	200252	43.346		
#1	.00740	.00757	.01167	-.00507	.00077		
#2	-.02491	.01449	-.02055	.01774	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11154	--	--	--	--	--	--
SDev	81.92426	--	--	--	--	--	--
%RSD	.7345048	--	--	--	--	--	--
#1	11212	--	--	--	--	--	--
#2	11096	--	--	--	--	--	--

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Method: 60102007   Sample Name: CRJ   Operator: GSP
Run Time: 11/05/01 09:21:24
Comment:
Mode: CONC   Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00337	Q.07904	.00686	Q.09639	.01020	.00511	Q.46989
SDev	.00017	.00267	.00091	.00114	.00011	.00012	.00522
%RSD	5.0030	3.3753	13.216	1.1812	1.0964	2.4057	1.1114
#1	Q.00349	Q.07716	.00622	Q.09558	.01012	.00520	Q.47358
#2	Q.00325	Q.08093	.00750	Q.09719	.01028	.00502	Q.46619
Errors	QC Fail	QC Fail	QC Pass	QC Fail	QC Pass	QC Pass	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00497	.01132	Q.00403	Q.00781	.13781	.10224	Q.77896
SDev	.00006	.00018	.00055	.00106	.00345	.00091	.16214
%RSD	1.2242	1.5967	13.748	13.630	2.5013	.89246	20.815
#1	.00502	.01145	Q.00364	Q.00706	.14025	.10289	Q.89362
#2	Q.00493	.01119	Q.00442	Q.00856	.13537	.10159	Q.66430
Errors	QC Fail	QC Pass	QC Fail	QC Fail	NOCHECK	QC Pass	QC Fail
Value	.01000	.02000	[illegible]	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q.48455	.01018	.01011	Q.54092	.00609	.00523	.01239
SDev	.00889	.00006	.00089	.15 30	.00023	.00030	.00117
%RSD	1.8349	.56525	80.47	27.975	3.8645	5.8032	9.4578
#1	Q.49084	.01022	.01015	Q.43394	.00626	.00501	.01156
#2	Q.47827	.01014	.01010	Q.64792	.00593	.00544	.01322
Errors	QC Fail	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05484	Q.00365	Q.00468	.00590	Q.00954	Q.00864	.02068
SDev	.00103	.00079	.00005	.00006	.00089	.00027	.00032
%RSD	1.8746	21.740	1.0508	1.0714	9.2815	3.1566	1.5363
#1	.05412	Q.00309	Q.00465	.00595	Q.00892	Q.00844	.02090
#2	.05557	Q.00421	Q.00472	.00586	.01017	Q.00883	.02045
Errors	QC Pass	QC Fail	QC Fail	QC Pass	QC Fail	QC Fail	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	220371	20371	[illegible]	196071	116707

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Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00984	.01275	.00099	.01808	.05123		
SDev	.00276	.00092	.00815	.00231	.00277		
%RSD	28.043	7.2440	819.33	12.784	5.4024		
#1	-.01180	.01340	-.00477	.01972	.05318		
#2	-.00789	.01210	.00676	.01645	0.04927		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11263	--	--	--	--	--	--
SDev	126.2110	--	--	--	--	--	--
%RSD	1.120591	--	--	--	--	--	--
#1	11352	--	--	--	--	--	--
#2	11174	--	--	--	--	--	--

Method: 60102007 Sample Name: QC STD Operator: ESP
Run Time: 11/05/01 09:29:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00228	502.37	-.00146	.00258	.00111	.00046	.02557
SDev	.00056	.58	.00047	.00040	.00024	.00000	.00046
%RSD	24.429	.11462	32.390	15.589	21.439	.74389	1.7799
#1	-.00267	502.77	-.00180	.00229	.00128	.00046	.02525
#2	-.00188	501.96	-.00113	.00286	.00094	.00045	.02589
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00111	.00029	.02960	00045	.15370	.13816	-.07614
SDev	.00005	.00031	00044	00033	.00406	.00020	.02363
%RSD	4.8507	106.98	1.4875	73.192	2.6440	.14635	31.028
#1	-.00115	.00051	02929	.00021	.15658	13802	-.09285
#2	-.00107	.00007	02991	.00068	.15083	.13831	-.05944
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn257e	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00818	.00199	.01091	-.33894	.00825	.00160	.00529
SDev	.00044	.00007	.00041	.07883	.00080	.00007	.00104
%RSD	5.3796	3.6171	3.7315	23.257	9.7457	4.7137	19.604
#1	.00849	.00204	.01119	-.39468	.00881	.00154	.00602
#2	.00787	.00194	.01062	-.28320	.00768	.00165	.00456
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00590	-.00288	.00007	.00049	.00688	-.00079	.00486
SDev	.00037	.00274	.00060	.00004	.00504	.00036	.00013
%RSD	6.2351	94.956	90.725	8.9045	73.166	45.815	2.1811
#1	.00564	-.00481	-.00009	.00052	.01044	-.00104	.00494
#2	.00616	-.00095	.00024	.00046	.00332	-.00053	.00479
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	220371	220379	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	W-.03685	W .02079	.00475	W.01030	-.00006		
SDev	.00247	.00112	.00200	.00056	.00007		
%RSD	6.7026	-5.38893	42.0950	5.41880	266.90		
#1	W-.03860	W .02184	.00354	W.01070	.00007		
#2	W-.03511	W.02000	W .00616	W.00991	.00002		
Errors	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK		
Value	.00000	.00000	.00000	.00000			
Range	.00300	.00300	.00500	.00500			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11144	--	--	--	--	--	--
SDev	16.03558	--	--	--	--	--	--
%RSD	.1438895	--	--	--	--	--	--
#1	11133	--	--	--	--	--	--
#2	11156	--	--	--	--	--	--

Method: 60102007 Sample Name: FF500 Operator: GSP
Run Time: 11/05/01 09:35:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1937	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00298	.16957	.00099	.00153	.00122	.00059	-.01015
SDev	.00081	.07686	.00176	.00063	.00005	.00003	.00092
%RSD	27.257	45.328	176.72	41.068	4.0720	5.8207	9.0951
#1	-.00356	.22392	.00234	.00197	.00125	.00062	-.01080
#2	-.00241	.11522	-.00035	.00109	.00118	.00057	-.00950
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00500				.10000

Elem	Cd2265	Co228o	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00012	.00039	-.00573	-.00412	555.36	399.18	-.14094
SDev	.00036	.00004	.00011	.00076	2.46	2.39	.03961
%RSD	289.08	9.9628	1.9157	18.346	.44220	.59882	28.102
#1	.00013	.00036	-.00581	-.00465	557.10	400.87	-.16894
#2	-.00063	.00041	-.00565	-.00358	553.63	397.49	-.11296
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04374	-.00260	-.00161	.85257	-.00685	.00130	.00331
SDev	.00034	.00006	.00031	.23492	.00005	.00073	.00200
%RSD	.78152	2.3184	19.149	27.555	.68615	56.004	60.387
#1	-.04350	-.00264	-.00140	1.0187	-.00679	.00182	.00472
#2	-.04398	-.00256	-.00183	.68646	-.00686	.00079	.00190
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00169	-.00043	-.00063	.00018	Q-.00532	Q-.00327	-.00116
SDev	.00371	.00060	.00005	.00019	.00250	.00137	.00014
%RSD	219.60	137.54	7.3107	106.34	47.021	41.756	11.957
#1	.00093	-.00086	-.00067	.00031	Q-.00709	Q-.00424	-.00106
#2	-.00431	-.00001	-.00060	.00004	Q-.00355	-.00231	-.00126
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	220371	220372	196041	196042	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q-.01419	Q.00903	Q-.00967	Q:00979	-.00034		
SDev	.00107	.00163	.00259	.00419	.00010		
%RSD	7.5322	17.997	24.748	42.813	28.385		
#1	Q-.01494	Q.01018	Q-.01156	Q.01275	-.00041		
#2	Q-.01343	Q.00788	Q-.00798	Q.00682	-.00028		
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK		
Value	.00000	.00000	00000	.00000			
Range	.00200	.00200	00300	.00300			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10663	--	--	--	--	--	--
SDev	75.79232	--	--	--	--	--	--
%RSD	.7107688	--	--	--	--	--	--
#1	10610	--	--	--	--	--	--
#2	10717	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator: GSP
Run Time: 11/05/01 09:41:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00207	516.71	-.00132	.00241	.00172	.00122	472.52
SDev	.00186	.55	.00066	.00061	.00003	.00004	.23
%RSD	89.908	.10710	50.089	25.368	1.5594	3.1999	.04874
#1	-.00075	516.32	-.00085	.00284	.00174	.00125	472.36
#2	-.00339	517.10	-.00179	.00198	.00171	.00119	472.68
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00068	.00349	.00275	-.00127	201.41	185.17	-.09983
SDev	.00023	.00004	.00015	.00021	.14	.11	.01484
%RSD	34.430	1.2220	5.727	16.181	.06975	.06151	14.869
#1	-.00052	.00346	.00263	-.00112	201.31	185.09	-.08934
#2	-.00085	.00352	.00327	-.00141	201.51	185.25	-.11033
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	544.45	.00346	-.00153	-.57057	-.00061	-.00025	-.00115
SDev	.55	.00001	.00042	.33518	.00015	.00040	.00253
%RSD	.10097	.15849	31.621	90.499	24.386	160.76	219.89
#1	544.06	.00346	-.00183	-.13336	-.00051	-.00053	-.00294
#2	544.83	.00345	-.00123	-.80738	-.00072	.00003	.00064
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00021	.00050	.00136	.00612	-.00320	.00549
SDev	.00175	.00044	.00005	.00005	.00443	.00027	.00019
%RSD	831.87	87.852	3.8797	.83931	138.450	7.1528	3.4559
#1	-.00101	.00033	.00132	-.00311	.00506	-.00359	.00535
#2	.00143	.00097	.00140	.00314	.01133	.00397	.00562
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	220471	220472	196071	196072	116701

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00047	-.00014	.00679	-.00517	.00006		
SDev	.00391	.00255	.00062	.00364	.00004		
%RSD	835.99	1840.1	4.7285	71.129	69.517		
#1	.00230	-.00194	.00636	-.00769	.00008		
#2	-.00323	.00166	.00701	-.00254	.00003		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10002	--	--	--	--	--	--
SDev	29.42987	--	--	--	--	--	--
%RSD	.2942497	--	--	--	--	--	--
#1	9981	--	--	--	--	--	--
#2	10022	--	--	--	--	--	--

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Method: 60102007 Sample Name: USAN Operator: GSP
Run Time: 11/05/01 09:46:44
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca317
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.56899	556.57	1.0516	1.0369	1.1315	.51995	485.18
SDev	.00169	1.87	.0070	.0049	.0043	.00156	1.79
%RSD	.29694	.34930	.68120	.47378	.37762	.30059	.36921
#1	.56780	555.24	1.0266	1.0334	1.1285	.51884	483.91
#2	.57019	557.89	1.0365	1.0404	1.1346	.52105	486.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48252	.96742	1.0154	1.0940	208.58	194.28	14.289
SDev	.00254	.00327	.0058	.0045	.70	.69	.039
%RSD	.52685	.33800	.57778	.40690	.33422	.35548	.27527
#1	.48072	.96511	1.0127	1.0909	208.09	193.79	14.262
#2	.48431	.96973	1.0181	1.0972	209.07	194.77	14.317
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	541.41	1.0281	1.0428	12.097	.94710	.97904	1.0022
SDev	1.56	.0036	.0016	.019	.00145	.00522	.0070
%RSD	.28837	.34648	.15702	.15832	.15336	.53368	.70025
#1	540.31	1.0256	1.0416	12.110	.94607	.97534	.99720
#2	542.51	1.0306	1.0439	12.083	.94812	.98273	1.0071
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0582	1.0204	1.1051	1.0752	.99937	1.0428	.96366
SDev	.0033	.0034	.0048	.0057	.00322	.0039	.00238
%RSD	.31160	.33056	.43446	.54154	.32225	.37014	.24715
#1	1.0605	1.0180	1.1017	1.0716	.99710	1.0400	.96198
#2	1.0559	1.0228	1.1085	1.0788	1.0017	1.0455	.96535
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	220371	259672	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.96274	.98717	1.0158	.99533	1.1316		
SDev	.00970	.00299	.0043	.00840	.0061		
%RSD	1.0078	.302863	.41948	.843862	.27393		
#1	.95580	.98506	1.0128	.98959	1.1295		
#2	.96960	.98929	1.0188	1.0013	1.1368		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	8564	--	--	--	--	--	--
SDev	40.04199	--	--	--	--	--	--
%RSD	.467581	--	--	--	--	--	--
#1	8592	--	--	--	--	--	--
#2	8535	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 11/05/01 10:02:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	K_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49788	10.370	.98749	.97693	.97379	.48877	10.227
SDev	.00018	.008	.00061	.00196	.00169	.00101	.011
%RSD	.03654	.07266	.06144	.20084	.17350	.20702	.11211
#1	.49775	10.375	.98746	.97831	.97498	.48948	10.235
#2	.49801	10.365	.98831	.97554	.97259	.48805	10.219
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50029	1.0102	.99655	.97803	10.127	10.048	9.9455
SDev	.00135	.0029	.00176	.00200	.023	.017	.0146
%RSD	.26887	.28515	.17665	.20427	.22528	.16854	.14658
#1	.50124	1.0123	.99757	.97945	10.143	10.060	9.9557
#2	.49934	1.0082	.99509	.97662	10.111	10.036	9.9354
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.217	.99317	.99444	9.9724	1.0113	1.0122	.99203
SDev	.010	.00249	.00429	.2509	.0025	.0059	.00675
%RSD	.09728	.25113	.43099	2.5163	.24602	.58704	.67995
#1	10.224	.99456	.99747	9.7950	1.0130	1.0164	.99680
#2	10.210	.99140	.99141	10.150	1.0095	1.0080	.98726
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0001	1.0069	.99467	1.0042	1.0085	.99020	1.0058
SDev	.0009	.0052	.00280	.0027	.0046	.00235	.0041
%RSD	.09212	.51453	.28152	.27112	.45613	.23732	.41164
#1	1.0008	1.0105	.99665	1.0061	1.0118	.99186	1.0087
#2	.99948	1.0032	.99269	1.0023	1.0053	.98854	1.0028
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0075	1.0146	.98855	.99377	01.1153		
SDev	.0164	.0007	.02411	.00093	.0081		
%RSD	1.6300	.07000	2.43666	.09314	.72294		
#1	1.0191	1.0151	1.0041	.99317	01.1210		
#2	.99586	1.0141	.97291	.99443	01.1096		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10101	--	--	--	--	--	--
SDev	16.69642	--	--	--	--	--	--
%RSD	.1652983	--	--	--	--	--	--
#1	10089				--	--	--
#2	10113	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 11/05/01 10:08:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00156	.01784	.00425	.00423	.00182	.00148	.03845
SDev	.00333	.02064	.00001	.00093	.00005	.00009	.01366
%RSD	214.36	115.65	.27023	21.985	2.8649	6.2127	35.521
#1	.00080	.00325	.00424	.00357	.00178	.00141	.02879
#2	-.00391	.03243	.00426	.00489	.00186	.00154	.04811
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.00278	-.00058	-.00184	.06337	.02358	-.16113
SDev	.00040	.00026	.00168	.00313	.00031	.00788	.04102
%RSD	88.506	9.4822	290.25	170.06	.48952	33.394	25.460
#1	.00074	.00258	.00063	.00037	.06359	.01801	-.19014
#2	.00017	.00296	-.00177	-.00405	.06315	.02915	-.13213
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na5302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.04970	.00139	.00184	-.63727	.00201	.00195	.00441
SDev	.01722	.00006	.00068	.78977	.00010	.00013	.00466
%RSD	34.644	4.5233	37.094	123.93	5.0024	6.4968	105.78
#1	.03754	.00135	.00178	-.07882	.00194	.00186	.00111
#2	.06188	.00144	.00190	-1.1957	.00208	.00204	.00771
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01211	-.00043	-.00034	.00206	-.00072	-.00066	.00225
SDev	.00122	.00277	.00016	.00014	.00326	.00275	.00022
%RSD	10.063	637.44	48.695	6.9089	454.02	416.17	9.6325
#1	.01125	.00150	.00095	.00217	.00159	.00128	.00210
#2	.01298	-.00235	.00027	.00196	-.00302	-.00260	.00241
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	290327	196671	196072	190707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01714	.01148	.01786	.01551	.00111		
SDev	.01089	.00563	.00857	.01127	.00018		
%RSD	63.562	49.027	48.037	72.637	16.353		
#1	-.00944	.00750	.01176	.00754	.00098		
#2	-.02484	.01546	.02389	.02348	.00124		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10410	--	--	--	--	--	--
SDev	85.79125	--	--	--	--	--	--
%RSD	.8241418	--	--	--	--	--	--
#1	10470	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: PSWMPD136 Operator:
Run Time: 11/05/01 10:14:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00116	-.00267	.00120	.00189	.00098	.00062	.08075
SDev	.00005	.01821	.00297	.00059	.00022	.00012	.01436
%RSD	4.5431	681.64	247.96	31.061	22.234	19.130	17.779
#1	-.00119	.01020	-.00090	.00147	.00114	.00071	.09090
#2	-.00112	-.01555	.00329	.00230	.00083	.00054	.07060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.00140	-.00104	-.00189	.03885	.01110	-.07824
SDev	.00014	.00047	.00005	.00017	.01732	.00529	.02000
%RSD	143.93	33.511	4.5728	8.8037	44.585	47.667	25.564
#1	.00020	.00173	.00101	-.00178	.05110	.01484	-.09238
#2	-.00000	.00107	.00106	-.00201	.02660	.00736	-.06410
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn257e	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.03646	.00061	.00087	-.40404	.00162	.00106	.00302
SDev	.01762	.00031	.00028	.01822	.00002	.00015	.00054
%RSD	48.334	51.150	32.284	4.5086	1.1053	13.853	18.011
#1	.04892	.00082	.00067	-.41692	.00160	.00095	.00263
#2	.02400	.00039	.00107	-.39115	.00163	.00116	.00340
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00334	-.00105	.00045	.00103	.00169	-.00106	.00492
SDev	.00121	.00117	.00021	.00037	.00040	.00025	.00056
%RSD	36.392	106.78	48.002	35.524	23.906	23.093	11.399
#1	.00420	.00163	.00060	.00129	.00197	-.00089	.00532
#2	.00248	-.00026	.00030	.00077	.00140	-.00124	.00453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	1167/07

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01053	.00684	.00467	.00685	.00020		
SDev	.00178	.00067	.00095	.00035	.00021		
%RSD	16.894	9.7700	19.939	5.1052	107.24		
#1	-.01177	.00731	.00555	.00660	.00035		
#2	-.00929	.00637	.00401	.00710	.00005		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11274	--	--	--	--	--	--
SDev	48.29994	--	--	--	--	--	--
%RSD	.4284024	--	--	--	--	--	--
#1	11239	--	--	--	--	--	--
#2	11308	--	--	--	--	--	--

Method: 60102007 Sample Name: LCSWP0136 Operator:
Run Time: 11/05/01 10:19:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48688	10.049	1.0011	.98257	.97052	.49403	10.065
SDev	.00248	.051	.0136	.01602	.00806	.00571	.088
%RSD	.50847	.50552	1.3598	1.6301	.83030	1.1569	.87612
#1	.48863	10.085	1.0107	.99389	.97622	.49807	10.127
#2	.48513	10.013	.99146	.97124	.96482	.48998	10.002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr 267	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50983	1.0030	.97406	.97161	10.023	9.9360	10.201
SDev	.00590	.0100	.00960	.00805	.083	.1011	.013
%RSD	1.1566	.99425	.98545	.82879	.83129	1.0178	.13045
#1	.51400	1.0101	1.0068	.97750	10.082	10.008	10.211
#2	.50566	.99596	.99048	.96592	9.9638	9.8645	10.192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	NA5302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.143	.99355	.99811	9.9240	1.0121	1.0186	1.0057
SDev	.091	.01008	.00999	.4708	.0124	.0056	.0053
%RSD	.89775	1.0141	1.0006	4.7442	1.2300	.54960	.52648
#1	10.208	1.0007	1.0057	9.9911	1.0209	1.0226	1.0094
#2	10.079	.98642	.99174	10.257	1.0033	1.0147	1.0020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98527	1.0176	.98171	.98970	1.0041	.98908	1.0292
SDev	.00926	.00688	.00795	.00897	.0045	.00792	.0133
%RSD	.93942	.67711	.80979	.90638	.44734	.80059	1.2912
#1	.99181	1.0221	.99736	.99604	1.0073	.99468	1.0386
#2	.97872	1.0125	.97609	.98335	1.0009	.98348	1.0198
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0137	1.0211	1.0042	1.0064	1.1154
SDev	.0097	.0036	.0128	.0015	.0002
%RSD	.95504	.34868	1.2771	.15254	.01533
#1	1.0205	1.0237	1.0153	1.0075	1.1152
#2	1.0068	1.0186	.9931	1.0053	1.1155
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11027	--	--	--	--	--	--
SDev	35.23174	--	--	--	--	--	--
%RSD	.3195040	--	--	--	--	--	--
#1	11052	--	--	--	--	--	--
#2	11002	--	--	--	--	--	--

Method: 60102007   Sample Name: 110681-1   Operator:
Run Time: 11/05/01 10:25:16
Comment:
Mode: CONC   Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	-.00788	.00152	.03065	.00241	.00097	37.533
SDev	.00016	.00672	.00115	.00147	.00031	.00024	1.547
%RSD	21.772	85.234	86.729	4.7844	12.939	24.375	4.1228
#1	-.00064	-.00313	.00051	.03169	.00263	.00113	38.627
#2	-.00087	-.01263	.00214	.02961	.00219	.00080	36.438
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.00129	.00034	-.00122	L .02209	.00576	3.5943
SDev	.00015	.00011	.00019	.00034	.00693	.00248	.0808
%RSD	71.597	8.2073	56.234	27.887	31.371	43.120	2.2487
#1	.00033	.00136	.00047	-.00098	L .01719	.00752	3.6514
#2	.00011	.00121	-.00020	-.00147	L .02700	.00400	3.5371
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.7721	.00058	.00263	7.0408	.00136	.00090	.00569
SDev	.1931	.00023	.00057	.2455	.00072	.00082	.00104
%RSD	4.0472	39.218	18.1[illegible]	3.4872	52.977	91.016	18.360
#1	4.9087	.00074	.00244	7.2144	.00186	.00149	.00643
#2	4.6356	.00042	.00163	6.8671	.00085	.00032	.00495
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00159	.00066	1.5029	.00094	-.00001	.00574	.01530
SDev	.00142	.00076	.06717	.00013	.00062	.00000	.00097
%RSD	89.639	115.80	4.4715	13.457	5607.0	.06074	6.3573
#1	.00260	.00012	1.5504	.00103	.00042	.00574	.01599
#2	.00058	.00119	1.4554	.00085	-.00045	.00574	.01462
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	[illegible]	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	[illegible]	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196021	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00658	.00464	-.00070	.00863	.00200		
SDev	.00084	.00165	.00060	.00177	.00022		
%RSD	12.820	35.661	85.713	14.694	10.894		
#1	-.00717	.00581	-.00113	.00952	.00216		
#2	-.00598	.00347	-.00062	.00773	.00185		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11077	--	--	--	--	--	--
SDev	375.8977	--	--	--	--	--	--
%RSD	3.393558	--	--	--	--	--	--
#1	10811	--	--	--	--	--	--
#2	11343	--	--	--	--	--	--

Method: 60102007 Sample Name: [illegible] Operator:
Run Time: 11/05/01 10:30:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00198	-.02750	-.00030	.00722	.00060	.00065	7.5107
SDev	.00227	.00971	.00194	.00096	.00036	.00002	.0628
%RSD	114.93	35.313	639.97	13.318	59.625	2.4828	.83652
#1	.00037	-.03457	-.00163	.00654	.00035	.00066	7.4662
#2	-.00358	-.02064	-.00167	.00791	.00085	.00064	7.5551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00031	.00127	-.00256	L.00922	.00472	53961
SDev	.00032	.00106	.00163	.00179	.01644	.00047	.02380
%RSD	170.49	341.70	127.47	84.060	178.33	9.9005	4.4100
#1	.00004	-.00040	-.00008	-.00096	L-.00241	.00439	.55644
#2	-.00041	.00102	-.00246	-.00377	L.02084	.00505	.52279
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	P21703	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.95508	.00014	-.00002	.89693	.00035	-.00013	.00054
SDev	.01418	.00017	.00006	.58919	.00155	.00036	.00218
%RSD	1.4844	84.655	286.70	65.690	437.86	277.56	401.12
#1	.94505	.00005	.00002	1.3135	-.00074	.00012	-.00100
#2	.96510	.00023	.00007	.48031	.00145	-.00038	.00208
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00099	-.00068	.02947	.00021	.00068	-.00028	.00650
SDev	.00146	.00207	.00002	.00049	.00417	.00231	.00030
%RSD	147.47	306.95	.07076	232.22	614.96	828.64	4.6489
#1	-.00004	.00079	.02949	-.00013	.00363	.00135	.00629
#2	.00203	-.00214	.02946	.00055	-.00227	-.00191	.00672
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00828	.00394	-.00591	.00377	.00025		
SDev	.01266	.00579	.01230	.00941	.00010		
%RSD	152.90	146.79	208.07	249.83	38.027		
#1	.00067	[illegible]	[illegible]	[illegible]	.00032		
#2	-.01794	.00803	.01401	.01042	.00018		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntSta	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11401	--	--	--	--	--	--
SDev	63.1570%	--	--	--	--	--	--
%RSD	.5539270	--	--	--	--	--	--
#1	11445	--	--	--	--	--	--
#2	11356	--	--	--	--	--	--

Method: 6010200/ Sample Name: 110681-1S Operator:
Run Time: 11/05/01 10:36:30
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46831	9.9293	1.0262	1.0324	.98986	.50156	45.214
SDev	.00122	.0011	.0026	.0028	.00391	.00146	.115
%RSD	.26100	.01155	.25514	.27330	.39478	.29189	.25362
#1	.46918	9.9285	1.0245	1.0304	.98710	.50053	45.133
#2	.46745	9.9302	1.0280	1.0344	.99263	.50260	45.295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50421	1.0007	.97758	.98791	10.040	10.054	13.831
SDev	.00090	.0018	.00645	.00348	.030	.027	.053
%RSD	.17901	.17998	.66054	.35215	.30203	.27083	.38167
#1	.50358	.99945	.97304	.98545	10.019	10.015	13.796
#2	.50485	1.0019	.98212	.99037	10.061	10.053	13.869
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	14.314	1.0065	1.0203	16.373	1.0065	.99936	1.0519
SDev	.031	.0024	.0040	.015	.0028	.00152	.0019
%RSD	.21846	.24261	.38877	.09454	.27815	.15160	.18019
#1	14.292	1.0048	1.0175	16.384	1.0045	.99829	1.0505
#2	14.336	1.0083	1.0232	16.362	1.0084	1.0004	1.0532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0007	.97148	1.1411	.99977	1.0075	1.0104	1.0350
SDev	.0270	.00749	.0045	.00240	.0063	.0015	.0024
%RSD	2.6955	.77102	.39073	.23991	.62346	.14876	.23417
#1	.98162	.98619	1.1388	.99807	1.0031	1.0094	1.0333
#2	1.0198	.99677	1.1451	1.0015	1.0120	1.0115	1.0368
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.99502	1.0015	1.0536	1.0510	.93529
SDev	.00122	.0017	.0035	.0011	.00087
%RSD	.12313	.16573	.32803	.10620	.09310
#1	.99415	1.0004	1.0511	1.0502	.93467
#2	.99589	1.0027	1.0560	1.0518	.93590
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10294	--	--	--	--	--	--
SDev	77.53799	--	--	--	--	--	--
%RSD	.7532047	--	--	--	--	--	--
#1	10240	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: 110681-150 Operator:
Run Time: 11/05/01 10:42:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46536	9.9560	1.0287	1.0347	.98782	.50194	45.310
SDev	.00196	.0616	.0030	.0061	.00493	.00309	.317
%RSD	.42122	.61880	.29567	.59182	.49888	.61492	.70030
#1	.46675	9.9124	1.0266	1.0304	.98434	.49975	45.086
#2	.46398	9.9995	1.0309	1.0390	.99131	.50412	45.535
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50659	1.0022	.99975	.98552	10.048	10.049	14.070
SDev	.00424	.0069	.00821	.00598	.066	.065	.131
%RSD	.83677	.68414	.82094	.60653	.65694	.64257	.93343
#1	.50360	.99737	.99395	.98129	10.001	10.003	13.977
#2	.50959	1.0071	1.0056	.98974	10.095	10.094	14.163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn257e	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	14.392	1.0071	1.0213	16.377	1.0071	1.0035	1.0520
SDev	.116	.0063	.0063	.174	.0063	.0109	.0044
%RSD	.80726	.62055	.61745	1.0654	.62701	1.0913	.42144
#1	14.309	1.0027	1.0168	16.254	1.0027	.99571	1.0489
#2	14.474	1.0116	1.0257	16.500	1.0116	1.0112	1.0552
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	50.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99963	.99502	1.1405	.99995	1.0078	1.0113	1.0408
SDev	.02972	.01360	.0061	.00637	.0110	.0069	.0092
%RSD	2.9741	1.3661	.53471	.63726	1.0896	.68280	.88365
#1	.97831	.98601	1.1362	.99544	1.0001	1.0064	1.0343
#2	1.0203	1.0052	1.1448	1.0045	1.0156	1.0162	1.0474
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	.01000	.00500	-.00500	-.01000	-.01000	-.02000

Elem	220571	220572	220573	196072	110704

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0014	1.0045	1.0545	1.0508	.95428		
SDev	.0197	.0066	.0086	.0023	.00885		
%RSD	1.9646	.65659	.82026	.22163	.92700		
#1	.98746	.99985	1.0615	1.0497	.94803		
#2	1.0153	1.0092	1.0606	1.0525	.96054		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10554	--	--	--	--	--	--
SDev	52.87073	--	--	--	--	--	--
%RSD	.5009399	--	--	--	--	--	--
#1	10592	--	--	--	--	--	--
#2	10517	--	--	--	--	--	--

Method: c0102007 Sample Name: 110681-2 Operator:
Run Time: 11/05/01 10:47:44
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	1.5727	.00364	.06342	.02485	.00115	12.390
SDev	.00041	.0106	.00060	.00194	.00054	.00013	.025
%RSD	31.899	.77392	17.849	3.0540	2.1759	11.137	.19900
#1	-.00098	1.5803	.00376	.06479	.02523	.00124	12.373
#2	-.00156	1.5652	.00292	.06205	.02446	.00106	12.408
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00163	.00040	-.00148	1.76357	.75688	3.8780
SDev	.00036	.00137	.00040	.00031	.01530	.00227	.0087
%RSD	98.638	84.189	101.03	20.682	2.0037	.29934	.22553
#1	.00062	.00260	.00011	-.00126	1.77419	.75528	3.8842
#2	.00011	.00066	.00068	-.00169	1.75256	.75848	3.8719
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.1818	.00359	.00042	4.1590	.00207	-.00004	.00360
SDev	.0101	.00038	.00025	.1174	.00062	.00167	.00003
%RSD	.24155	10.771	59.940	2.8231	30.126	2430.0	.80892
#1	4.1746	.00386	.00059	4.2421	.00251	.00071	.00358
#2	4.1889	.00332	.00024	4.0760	.00163	-.00080	.00362
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00148	.06760	.00118	.00225	.00083	.01655
SDev	.00171	.00227	.00021	.00075	.00238	.00008	.00042
%RSD	207.60	152.98	.30641	63.766	106.03	9.5856	2.5851
#1	.00203	.00309	.06775	.00172	.00393	.00078	.01665
#2	-.00039	-.00012	.06746	.00065	.00056	.00089	.01605
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00755	.00370	.00095	.00492	.00341
SDev	.00078	.00199	.00241	.00116	.00033
%RSD	10.386	53.872	254.01	23.560	9.8064
#1	-.00810	.00511	.00076	.00574	.00365
#2	-.00699	.00229	-.00265	.00410	.00317
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10414	--	--	--	--	--	--
SDev	6.367413	--	--	--	--	--	--
%RSD	.0611457	--	--	--	--	--	--
#1	10409	--	--	--	--	--	--
#2	10418			--	--	--	--

Method: 60102007 Sample Name: 110681-3 Operator:
Run Time: 11/05/01 10:53:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00231	-.00205	.00223	.03133	.00207	.00031	35.909
SDev	.00006	.00583	.00064	.00153	.00038	.00003	.081
%RSD	2.5717	284.32	28.694	4.8990	18.464	10.438	.22544
#1	-.00235	.00207	.00268	.03242	.00234	.00034	35.852
#2	-.00227	-.00618	.00178	.03025	.00180	.00029	35.966
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00011	.00119	.00139	-.00179	1.02412	.00234	3.2179
SDev	.00006	.00070	.00070	.00008	.00851	.00065	.0796
%RSD	52.831	58.926	14.578	4.3902	35.288	27.657	2.4748
#1	-.00014	.00168	.00153	-.00174	1.03013	.00280	3.1616
#2	-.00007	.00069	.00125	-.00185	1.01810	.00189	3.2742
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.4969	.00020	.00171	6.0590	.00083	-.00094	.00376
SDev	.0065	.00017	.00045	.1029	.00041	.00014	.00289
%RSD	.14549	85.451	25.924	1.6990	49.708	14.562	76.912
#1	4.4923	.00029	.00139	5.9862	.00054	-.00084	.00171
#2	4.5016	.00012	.00226	6.1318	.00112	-.00103	.00580
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb206N	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00246	-.00006	.13757	.00035	-.00297	.00472	.01571
SDev	.00178	.00088	.00027	.00019	.00010	.00030	.00010
%RSD	72.012	1404.7	.14608	55.062	3.3560	6.2897	.06402
#1	.00337	-.00056	.13744	.00049	-.00290	.00451	.01578
#2	.00156	.00068	.13771	.00021	-.00304	.00493	.01563
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	.00500	-.00500	-.01000	-.01000	-.02000

Elem	220471	220472	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00994	.00356	-.00444	.00785	.00128
SDev	.00197	.00119	.00276	.00295	.00009
%RSD	19.843	33.446	62.188	37.621	7.3709
#1	-.01133	.00440	-.00640	.00576	.00122
#2	-.00854	.00271	-.00249	.00994	.00135
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10870	--	--	--	--	--	--
SDev	53.05994	--	--	--	--	--	--
%RSD	.4881410	--	--	--	--	--	--
#1	10832	--	--	--	--	--	--
#2	10907	--	--	--	--	--	--

Analysis Report 11/05/01 11:04:27 AM page

Method: 60102007 Sample Name 110728-1 Operator:
Run Time: 11/05/01 10:58:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00233	.46268	.00063	.03691	.01299	.00023	1.2394
SDev	.00028	.00162	.00041	.00080	.00002	.00001	.0069
%RSD	11.872	.35078	64.757	2.1797	.13859	4.2075	.55424
#1	-.00253	.46153	.00034	.03748	.01298	.00024	1.2442
#2	-.00214	.46383	.00092	.03634	.01300	.00023	1.2345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00016	.00089	-.00096	.00022	L.67362	.66802	1.3065
SDev	.00005	.00033	.00002	.00008	.00147	.00293	.0248
%RSD	33.569	37.377	2.1862	34.746	.21902	.43805	1.8967
#1	-.00020	.00113	-.00098	.00027	L.67466	.66595	1.3241
#2	-.00012	.00066	-.00095	.00017	L.67258	.67009	1.2890
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.4491	.00159	.00009	4.5631	.00114	.00020	.00321
SDev	.0016	.00006	.00018	.0176	.00035	.00053	.00106
%RSD	.11113	3.7502	189.03	.38501	30.550	265.79	33.140
#1	1.4480	.00164	.00022	4.5755	.00139	.00058	.00246
#2	1.4502	.00155	-.00003	4.5507	.00090	-.00018	.00397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00167	.00232	.02454	.00292	-.00168	.00097	.00863
SDev	.00127	.00196	.00002	.00032	.00087	.00004	.00003
%RSD	75.870	84.684	.07755	11.080	51.635	4.5069	.29067
#1	-.00077	.00093	.02452	.00315	-.00230	.00100	.00865
#2	-.00257	.00370	.02455	.00269	-.00107	.00094	.00861
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.01050	.00554	-.00615	.00639	.00127
SDev	.00076	.00042	.00106	.00107	.00006
%RSD	7.2668	7.5571	33.528	16.722	4.5535
#1	-.00972	.00584	-.00540	.00565	.00132
#2	-.01104	.00525	-.00740	.00715	.00123
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11178	--	--	--	--	--	--
SDev	15.98862	--	--	--	--	--	--
%RSD	.1430354	--	--	--	--	--	--
#1	11167	--	--	--	--	--	--
#2	11189	--	--	--	--	--	--

Method: 6010200/ Sample Name: ICV/CCV Operator:
Run Time: 11/05/01 11:04:55
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50323	10.223	1.0073	1.0015	.96970	.49545	10.216
SDev	.00058	.015	.0047	.0002	.00207	.00090	.008
%RSD	.11523	.14789	.46947	.01956	.21352	.18127	.08085
#1	.50364	10.212	1.0106	1.0014	.97117	.49609	10.211
#2	.50282	10.234	1.0039	1.0016	.96824	.49482	10.222
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50814	1.0172	.99969	.98057	10.184	10.106	9.9683
SDev	.00081	.0013	.00008	.00273	.000	.003	.0614
%RSD	.15863	.12584	.00764	.27822	.00228	.02920	.61577
#1	.50757	1.0181	.99974	.98250	10.185	10.108	9.9249
#2	.50871	1.0163	.99964	.97864	10.184	10.104	10.012
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na5502	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.285	.99894	1.0014	10.059	1.0214	1.0258	1.0213
SDev	.031	.00015	.0019	.196	.0003	.0045	.0060
%RSD	.30292	.01485	.18999	1.9435	.02725	.43599	.58611
#1	10.263	.99905	1.0027	9.9212	1.0212	1.0290	1.0255
#2	10.307	.99884	1.0000	10.198	1.0216	1.0226	1.0171
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0139	1.0196	.98248	1.0064	1.0200	.99363	1.0185
SDev	.0015	.0017	.00136	.0014	.0020	.00031	.0011
%RSD	.14473	.16401	.13836	.14095	.19941	.03107	.10472
#1	1.0149	1.0181	.98344	1.0044	1.0186	.99385	1.0177
#2	1.0128	1.0205	.98152	1.0024	1.0215	.99341	1.0192
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0161	1.0306	1.0109	1.0265	1.0953		
SDev	.0026	.0054	.0007	.0086	.0117		
%RSD	.25328	.52594	.07158	.83908	1.0725		
#1	1.0180	1.0344	1.0114	1.0326	1.0870		
#2	1.0143	1.0268	1.0104	1.0204	Q1.1036		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10687	--	--	--	--	--	--
SDev	97.67672	--	--	--	--	--	--
%RSD	.9139850	--	--	--	--	--	--
#1	10618	--	--	--	--	--	--
#2	10756	--	--	--	--	--	--

Method: 60102007 Sample Name: LCB/CCB Operator:
Run Time: 11/05/01 11:10:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00473	.00225	.00065	.00247	.00099	.00108	.02084
SDev	.00127	.00279	.00245	.00203	.00016	.00012	.00056
%RSD	26.863	123.64	377.83	82.165	15.848	10.592	2.6949
#1	L-.00563	.00028	-.00108	.00103	.00110	.00117	.02124
#2	-.00383	.00423	.00238	.00390	.00088	.00100	.02045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00005	.00132	-.00217	-.00387	.03016	.01588	-.17837
SDev	.00015	.00020	.00008	.00085	.00765	.00048	.03806
%RSD	316.71	14.825	3.6490	21.959	25.361	3.0364	21.337
#1	.00006	.00118	.00211	-.00447	.02475	.01622	-.20529
#2	-.00015	.00146	.00223	-.00327	.03557	.01554	-.15146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.02692	.00088	.00079	L-1.0675	.00214	.00026	.00200
SDev	.00052	.00010	.00059	.1443	.00052	.00002	.00194
%RSD	1.9305	11.564	201.58	13.514	24.556	8.9602	96.812
#1	.02655	.00095	-.00013	L-1.1696	.00177	.00028	.00337
#2	.02728	.00081	.00171	-.96552	.00251	.00025	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00321	-.00192	.00041	.00108	-.00304	-.00248	.00121
SDev	.00125	.00055	.00011	.00011	.00012	.00000	.00001
%RSD	38.903	-28.650	27.104	10.586	-3.8132	-.17976	.80405
#1	.00232	-.00154	.00048	.00100	-.00313	-.00248	.00120
#2	.00409	-.00231	.00033	.00116	-.00296	-.00247	.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01738	.00907	-.01616	.01107	.00067		
SDev	.00054	.00031	.00197	.00194	.00008		
%RSD	3.1257	3.3780	11.904	17.572	11.307		
#1	-.01776	.00929	-.01480	.01244	.00072		
#2	-.01699	.00885	-.01752	.00969	.00062		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10505	--	--	--	--	--	--
SDev	25.46827	--	--	--	--	--	--
%RSD	.2424322	--	--	--	--	--	--
#1	10487	--	--	--	--	--	--
#2	10523	--	--	--	--	--	--

Method: 6010200/ Sample Name: 110760-1 Operator:
Run Time: 11/05/01 11:15:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00235	.10234	.00710	.22047	.16489	.00079	116.22
SDev	.00052	.00231	.00270	.00054	.00023	.00002	.29
%RSD	22.342	2.2551	37.976	.24408	.14227	2.7309	.25279
#1	-.00270	.10397	.00519	.22009	.16472	.00080	116.01
#2	-.00196	.10071	.00901	.22085	.16505	.00077	116.43
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00311	.00802	-.00211	48.379	H48.238	19.212
SDev	.00004	.00063	.00029	.00058	.119	.110	.050
%RSD	49.824	20.151	3.6481	27.544	.24598	.22782	.25917
#1	-.00006	.00355	.00781	-.00252	48.295	H48.160	19.177
#2	-.00012	.00267	.00823	-.00170	48.463	H48.316	19.247
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	27.416	.37454	.00062	65.325	.00488	.00085	.01562
SDev	.088	.00065	.00034	.069	.00047	.00012	.00042
%RSD	.32026	.17308	53.739	.10598	9.5831	14.275	2.7139
#1	27.354	.37408	.00086	65.374	.00522	.00093	.01592
#2	27.478	.37500	.00039	65.276	.00455	.00076	.01532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00409	.00633	.95194	.00002	-.00670	.00095	.06686
SDev	.00135	.00120	.00167	.00012	.00060	.00016	.00023
%RSD	33.101	18.957	.14593	507.95	8.9794	16.806	.34776
#1	-.00505	.00568	.95098	.00011	-.00712	.00106	.06670
#2	-.00313	.00738	.95291	-.00006	-.00627	.00084	.06703
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00842	.00547	.01101	.01793	.00421
SDev	.00236	.00136	.00075	.00101	.00004
%RSD	28.091	24.883	6.7761	5.6231	1.0285
#1	-.01009	.00644	.01043	.01864	.00418
#2	-.00675	.00451	.01153	.01721	.00424
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntSta	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10218	--	--	--	--	--	--
SDev	17.02580	--	--	--	--	--	--
%RSD	.1666299	--	--	--	--	--	--
#1	10230	--	--	--	--	--	--
#2	10206	--	--	--	--	--	--

Method: 60102007 Sample Name: 110760-2 Operator:
Run Time: 11/05/01 11:21:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00179	.01395	-.00004	.17033	.10179	.00064	105.40
SDev	.00036	.00031	.00032	.00091	.00014	.00001	.02
%RSD	20.222	2.2357	820.34	.53647	.13557	1.4490	.01853
#1	-.00204	-.01337	.00019	.16968	.10189	.00063	105.41
#2	-.00153	-.01453	-.00026	.17098	.10169	.00064	105.39
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00120	.00152	.00004	1.2807	1.2759	15.550
SDev	.00005	.00005	.00003	.00027	.0009	.0076	.085
%RSD	27.486	4.0581	2.1737	758.52	.07387	.59569	.55025
#1	-.00023	.00125	.00147	-.00016	1.2801	1.2813	15.591
#2	-.00016	.00117	.00158	.00026	1.2814	1.2705	15.470
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	30.795	.38268	.00111	53.597	.01889	-.00026	.00225
SDev	.047	.00005	.00014	.281	.00035	.00106	.00247
%RSD	.15166	.01768	12.787	.52348	1.8580	412.69	109.65
#1	30.762	.38272	.00170	53.796	.01864	.00049	.00399
#2	30.828	.38265	.00101	53.399	.01914	-.00101	.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00102	.00044	2.4554	-.00017	-.00099	-.00084	.64209
SDev	.00182	.00043	.0001	.00008	.00165	.00000	.00179
%RSD	178.47	97.720	.00599	49.171	167.55	.16377	.27870
#1	-.00027	.00074	2.4555	-.00011	-.00216	-.00084	.64083
#2	.00231	.00013	2.4553	-.00023	.00018	-.00083	.64336
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00733	.00327	-.00565	.00619	.00463
SDev	.00209	.00264	.00179	.00434	.00003
%RSD	28.551	80.678	[illegible]	70.060	.67485
#1	-.00881	.00514	-.00656	.00926	.00465
#2	-.00585	.00141	-.00474	.00313	.00460
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10487	--	--	--	--	--	--
SDev	27.68558	--	--	--	--	--	--
%RSD	.2640072	--	--	--	--	--	--
#1	10506	--		--	--	--	--
#2	10467	--			--		--

Method: 60102007 Sample Name: CRI Operator:
Run Time: 11/05/01 11:27:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00680	.16946	.00991	.18650	.01853	.01032	1.0603
SDev	.00095	.00904	.00289	.00078	.00035	.00006	.0320
%RSD	13.991	5.3365	29.216	.41590	1.9014	.55528	3.0172
#1	.00748	.17585	.01195	.18705	.01878	.01036	1.0829
#2	.00613	.16306	.00786	.18595	.01828	.01028	1.0377
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00974	.01963	.00808	.01642	.21666	.20108	1.6241
SDev	.00012	.00045	.00072	.00141	.02442	.00134	.2033
%RSD	1.2143	2.2862	8.8474	8.6105	11.271	.66711	12.517
#1	.00982	.01995	.00859	.01742	.23392	.20203	1.7678
#2	.00966	.01931	.00758	.01542	.19939	.20013	1.4803
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99514	.01979	.02009	1.4484	.00963	.00971	.02026
SDev	.01866	.00071	.00008	.3616	.00093	.00025	.00023
%RSD	1.8753	3.5604	.38546	24.969	9.6129	2.5540	1.1345
#1	1.0084	.01994	.02013	1.7041	.01029	.00954	.02043
#2	.98194	.01964	.02002	1.1927	.00898	.00989	.02010
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09584	.00772	.01154	.00937	.01821	.01714	.04061
SDev	.00190	.00180	.00075	.00048	.00270	.00107	.00060
%RSD	1.9823	22.696	6.4572	5.0861	14.858	6.2417	1.4882
#1	.09718	.00919	.01186	.00970	.02012	.01789	.04103
#2	.09449	.00665	.01087	.00905	.01629	.01638	.04018
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	[illegible]	[illegible]	[illegible]	[illegible]

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00208	.01353	.01574	.02252	.10721		
SDev	.00016	.00045	.00162	.00116	.00357		
%RSD	7.7404	3.3449	10.278	5.1424	3.3289		
#1	.00220	.01371	.01459	.02364	.10974		
#2	.00197	.01385	.01688	.02170	.10469		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10386	--	--	--	--	--	--
SDev	32.54348	--	--	--	--	--	--
%RSD	.3133262	--	--	--	--	--	--
#1	10409	--	--	--	--	--	--
#2	10363	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSA Operator:
Run Time: 11/05/01 11:32:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00167	514.46	-.00104	.00327	.00191	.00156	474.36
SDev	.00058	1.63	.00019	.00126	.00004	.00002	1.42
%RSD	34.803	.31713	18.344	38.606	2.0631	.99313	.29845
#1	-.00208	515.61	.00090	.00416	.00188	.00157	475.36
#2	-.00126	513.31	-.00117	.00238	.00194	.00155	473.35
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00113	.00405	-.00324	-.00189	200.97	186.17	-.11994
SDev	.00009	.00033	.00022	.00046	.96	.75	.02280
%RSD	7.5453	8.1953	6.9248	24.225	.47768	.40037	19.006
#1	-.00107	.00429	-.00340	-.00156	201.65	186.70	-.10382
#2	-.00120	.00382	-.00308	-.00221	200.30	185.64	-.13606
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	540.90	.00360	-.00126	-.45775	-.00066	-.00023	-.00524
SDev	2.26	.00002	.00024	.06547	.00014	.00032	.00518
%RSD	.41837	.60111	19.331	14.302	20.461	136.37	98.943
#1	542.50	.00361	-.00143	-.41146	-.00076	-.00001	-.00157
#2	539.30	.00358	-.00109	-.50405	-.00056	-.00046	-.00890
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00283	-.00044	.00187	-.00290	.01104	-.00326	.00504
SDev	.00500	.00049	.00006	.00017	.00172	.00007	.00016
%RSD	176.55	110.37	3.5026	5.9065	15.623	2.2702	3.1457
#1	.00637	-.00010	.00185	-.00277	.01226	-.00318	.00516
#2	-.00070	-.00078	.00189	-.00302	.00982	-.00328	.00493
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	00000	00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	220371	220372	196071	196072	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00505	-.00287	.00566	-.01068	.00015		
SDev	.00277	.00090	.00264	.00894	.00009		
%RSD	54.853	31.411	41.439	83.744	57.409		
#1	.00701	-.00341	.00403	-.00453	.00022		
#2	.00309	-.00234	.00731	-.01700	.00009		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	9511	--	--	--	--	--	--
SDev	25.374356	--	--	--	--	--	--
%RSD	.2667816	--	--	--	--	--	--
#1	9496	--	--	--	--	--	--
#2	9525	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 11/05/01 11:38:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57579	560.72	1.0621	1.0607	1.1301	.52928	483.85
SDev	.00062	.24	.0037	.0007	.0015	.00021	.50
%RSD	.10727	.04570	.34546	.06621	.13282	.03975	.10263
#1	.57622	560.90	1.0647	1.0602	1.1312	.52943	484.20
#2	.57535	560.55	1.0595	1.0612	1.1291	.52913	483.50
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49359	.98051	1.0252	1.1057	211.94	194.76	14.656
SDev	.00027	.00075	.0012	.0012	.35	.23	.020
%RSD	.05458	.07662	.11795	.10954	.16372	.11761	.13600
#1	.49340	.98104	1.0241	1.1048	212.18	194.92	14.670
#2	.49378	.97998	1.0264	1.1046	211.69	194.60	14.642
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	549.90	1.0413	1.0549	11.802	.96706	1.0022	1.0508
SDev	.85	.0009	.0029	.105	.00119	.0043	.0054
%RSD	.15523	.08547	.27297	.86457	.12251	.42550	.51838
#1	550.50	1.0420	1.0570	11.730	.96790	1.0052	1.0547
#2	549.29	1.0407	1.0529	11.874	.96622	.99919	1.0470
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	T11908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0795	1.0413	1.1085	1.0800	1.0288	1.0496	.98552
SDev	.0010	.0055	.0005	.0010	.0035	.0008	.00112
%RSD	.09676	.53109	.04068	.09641	.33653	.07579	.11323
#1	1.0802	1.0452	1.1088	1.0808	1.0263	1.0501	.98631
#2	1.0788	1.0373	1.1081	1.0793	1.0312	1.0490	.98473
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	L16/07

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99096	1.0078	1.0601	1.0462	1.1270		
SDev	.00144	.0071	.0033	.0065	.0033		
%RSD	.14488	.70550	.31514	.62120	.29300		
#1	.98994	1.0128	1.0627	1.0508	1.1295		
#2	.99197	1.0028	1.0576	1.0416	1.1247		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	9484	--	--	--	--	--	--
SDev	4.433228	--	--	--	--	--	--
%RSD	.0467452	--	--	--	--	--	--
#1	9487						
#2	9481	--	--	--	--	--	--

Method: 6010200? Sample Name: [illegible] Operator:
Run Time: 11/05/01 12:06:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50358	10.278	1.0013	.98310	.96575	.49475	10.266
SDev	.00327	.109	.0086	.01124	.00621	.00402	.099
%RSD	.64917	1.0578	.86012	1.1436	.64298	.81143	.96402
#1	.50127	10.201	.99525	.97515	.96136	.49191	10.196
#2	.50589	10.355	1.0074	.99105	.97014	.49759	10.336
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51012	1.0183	1.0008	.97527	10.176	10.111	10.089
SDev	.00596	.0094	.0078	.00439	.122	.088	.067
%RSD	1.1682	.92569	.78197	.45054	1.1957	.87519	.66260
#1	.50590	1.0117	.99528	.97216	10.090	10.048	10.041
#2	.51433	1.0250	1.0063	.97838	10.262	10.173	10.136
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.287	.99795	1.0024	10.190	1.0228	1.0294	1.0202
SDev	.119	.00911	.0083	.271	.0110	.0082	.0019
%RSD	1.1589	.91271	.82830	2.6611	1.0714	.79610	.18506
#1	10.203	.99151	.99654	10.382	1.0151	1.0236	1.0189
#2	10.371	1.0044	1.0083	9.9983	1.0306	1.0352	1.0216
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0102	1.0150	.98761	1.0020	1.0253	.99298	1.0218
SDev	.0090	.011	.0063	.0078	.0074	.0107	.0121
%RSD	.88837	1.1018	.63678	.77752	.72100	1.1704	1.1832
#1	1.0038	1.0156	.97818	.99645	1.0201	.98798	1.0132
#2	1.0165	1.0517	.98703	1.0075	1.0306	.99798	1.0303
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	220371	220372	196071	196072	196707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0363	1.0259	1.0547	1.0129	Q1.1102		
SDev	.0039	.0142	.0067	.0062	.0158		
%RSD	.37213	1.3853	.64468	.60829	1.4188		
#1	1.0391	1.0159	1.0596	1.0086	1.0991		
#2	1.0336	1.0360	1.0501	1.0173	Q1.1213		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10548	--	--	--	--	--	--
SDev	112.7690	--	--	--	--	--	--
%RSD	1.069073	--	--	--	--	--	--
#1	10628	--	--	--	--	--	--
#2	10469	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 11/05/01 12:11:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00130	.00006	.00017	.00082	.00117	.00133	.02622
SDev	.00051	.00411	.00179	.00129	.00041	.00015	.00298
%RSD	39.510	6458.1	1067.0	157.00	35.196	10.918	11.345
#1	-.00166	.00297	-.00110	.00174	.00147	.00143	.02832
#2	-.00094	-.00284	.00143	-.00009	.00088	.00123	.02412
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00025	.00127	-.00020	-.00167	.02731	.01835	-.15406
SDev	.00003	.00052	.00026	.00050	.00170	.00235	.01607
%RSD	11.588	41.047	131.74	30.126	6.2351	12.792	10.429
#1	.00027	.00164	-.00038	-.00203	.02851	.02001	-.16542
#2	.00023	.00090	-.00001	-.00132	.02610	.01669	-.14270
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.02799	.00103	.00074	-.48387	.00115	.00038	.00244
SDev	.00267	.00078	.00108	.12537	.00004	.00069	.00125
%RSD	9.5310	77.113	145.72	25.909	3.2652	181.60	51.011
#1	.02987	.00123	.00150	-.57252	.00117	.00087	.00333
#2	.02610	.00084	-.00002	-.39522	.00112	-.00011	.00156
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00327	-.00055	.00072	.00118	.00040	-.00054	.00126
SDev	.00312	.00013	.00018	.00032	.00030	.00011	.00027
%RSD	95.374	23.291	25.282	27.386	73.145	19.963	21.412
#1	.00548	-.00064	.00085	.00141	.00061	-.00061	.00145
#2	.00107	-.00046	.00059	.00095	.00019	-.00046	.00107
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196074	196072	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00771	.00442	-.00242	.00487	.00089		
SDev	.00277	.00242	.00662	.00518	.00023		
%RSD	35.921	54.737	274.04	106.26	25.304		
#1	-.00966	.00611	.00710	.00854	.00105		
#2	-.00575	.00274	.00227	.00121	.00073		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	I.C Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10722	--	--	--	--	--	--
SDev	183.4210	--	--	--	--	--	--
%RSD	1.710657	--	--	--	--	--	--
#1	10593	--	--	--	--	--	--
#2	10852	--	--	--	--	--	--

VOLATILES

Average of 18.801 to 18.818 min.: 30747001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	1994	59.95	1778	78.90	1753	175.90	149312
36.95	11368	60.95	8163	80.90	2648	176.90	9274
37.95	9204	61.95	7850	86.95	10726		
38.95	3235	62.95	5398	87.90	10485		
44.95	2022	67.95	19555	91.95	4232		
46.90	4325	68.95	18515	92.95	6366		
48.95	7845	69.95	1595	93.95	19621		
50.00	37213	72.90	7660	95.00	217792		
51.00	10937	74.00	28077	96.00	13890		
56.00	2402	75.00	95144	173.90	150464		
57.00	4737	76.00	8397	174.90	10493		

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.02
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.02
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.02
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.02
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.02
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.03
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.03
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.02
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.02
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.02
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	-0.02
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	-0.02
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	-0.02
37	CM	Toluene	10.000	9.383	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	-0.02
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	-0.02
45	TM	2-Hexanone	40.000	42.488	-6.2	106	-0.02
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	-0.02
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	-0.02
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.02
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.02
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.02
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.02
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.02
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.03
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.03
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.02
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.02
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.02
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	-0.02
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	-0.02
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	-0.02
37	CM	Toluene	0.699	0.656	6.2#	97	-0.02
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	-0.02
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	-0.02
45	TM	2-Hexanone	0.069	0.073	-5.8	106	-0.02
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	-0.02
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	-0.02
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	-0.02
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	-0.02
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 6

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110101\30746002.D (1 Nov 2001 8:46)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2992359	10.00	ug/L	0.00 / 98.84%
25) i-1,4-Difluorobenzene	9.04	114	3040284	10.00	ug/L	0.00 / 99.89%
46) i-Chlorobenzene-d5	15.30	117	2141284	10.00	ug/L	-0.02 / 98.47%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1216124	10.00	ug/L	0.00 / 98.55%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1458722	10.53	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 105.30%			
36) s-Toluene-d8	12.31	98	2881280	10.00	ug/L	-0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.80	95	1650047	10.14	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 101.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1342962	8.83	ug/L	99
3) Chloromethane	1.50	50	853940	8.81	ug/L	99
4) Vinyl chloride	1.60	62	927620	9.11	ug/L	99
5) Bromomethane	1.89	96	832899	9.06	ug/L	99
6) Chloroethane	1.99	64	558628	9.37	ug/L	99
7) Trichlorofluoromethane	2.23	101	1542881	9.26	ug/L	99
8) 1,1-Dichloroethene	2.78	96	931879	9.52	ug/L	97
9) Acetone	2.87	43	237147m	40.76	ug/L	94
10) Iodomethane	2.93	142	1091440	9.06	ug/L	100
11) Carbon disulfide	2.99	76	2920954	9.49	ug/L	100
12) Methylene chloride	3.41	84	789248	9.87	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1024839	9.44	ug/L	100
14) Methyl tert-butyl ether	3.84	73	1190740	9.97	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1838790	9.53	ug/L	98
16) Vinyl acetate	4.70	43	2875373m	19.65	ug/L	100
17) Isopropyl ether	4.72	45	3056176	10.06	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1308328	9.14	ug/L	100
19) 2-Butanone	5.80	43	494525m	40.86	ug/L	89
20) cis-1,2-Dichloroethene	5.64	96	971540	9.85	ug/L	97
21) Bromochloromethane	6.19	128	393500	10.14	ug/L	98
22) Chloroform	6.50	83	1856938	9.61	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1536102	9.52	ug/L	97
26)	Carbon tetrachloride	7.27	119	1317204	8.67	ug/L	97
27)	1,1-Dichloropropene	7.34	110	496176	10.04	ug/L	100
28)	Benzene	7.86	78	3154851	9.56	ug/L	98
29)	1,2-Dichloroethane	7.98	62	641256	9.72	ug/L	99
30)	Trichloroethene	9.57	95	1248481	9.39	ug/L	99
31)	1,2-Dichloropropane	10.06	63	1066074	9.66	ug/L	99
32)	Dibromomethane	10.33	93	486612	9.88	ug/L	99
33)	2-Chloroethyl vinyl ether	11.61	63	194906	10.68	ug/L	97
34)	Bromodichloromethane	10.80	83	1498346	9.81	ug/L	99
35)	cis-1,3-Dichloropropene	11.80	75	1150092	9.68	ug/L	99
37)	Toluene	12.44	92	1993825	9.38	ug/L	98
38)	trans-1,3-Dichloropropene	13.04	75	722704	9.86	ug/L	100
39)	1,1,2-Trichloroethane	13.38	83	484223	9.84	ug/L	98
40)	Tetrachloroethene	13.57	166	1449950	9.44	ug/L	100
41)	1,3-Dichloropropane	13.68	76	931059	9.90	ug/L	99
42)	Dibromochloromethane	14.13	129	904336	10.08	ug/L	98
43)	1,2-Dibromoethane	14.27	107	598977	9.83	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	1387101	40.07	ug/L	100
45)	2-Hexanone	14.00	43	886389	42.49	ug/L	99
47)	Chlorobenzene	15.36	112	2137390	9.50	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	977395	9.82	ug/L	99
50)	Ethylbenzene	15.70	106	1140328	9.39	ug/L	100
51)	m,p-Xylene	16.02	106	2828879	19.35	ug/L	100
52)	o-Xylene	17.08	106	1314910	9.67	ug/L	98
53)	Styrene	17.15	104	2167866	10.05	ug/L	99
54)	Bromoform	17.61	173	554722	10.58	ug/L	99
55)	Isopropylbenzene	18.35	105	4211066	9.64	ug/L	99
58)	Bromobenzene	19.19	156	1055103	9.35	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.57	83	756757	9.66	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	437850	10.18	ug/L	97
61)	n-Propylbenzene	19.83	120	1043877	9.45	ug/L	100
62)	2-Chlorotoluene	19.96	126	944616	9.07	ug/L	100
63)	4-Chlorotoluene	20.36	91	3391576	9.33	ug/L	100
64)	1,3,5-Trimethylbenzene	20.51	105	3123239	9.23	ug/L	99
65)	tert-Butylbenzene	21.53	91	2050829	9.24	ug/L	95
66)	1,2,4-Trimethylbenzene	21.70	105	2822185	9.50	ug/L	98
67)	sec-Butylbenzene	22.26	105	4597773	9.42	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1961280	9.44	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3560291	9.69	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1858477	9.37	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.84	146	1582928	9.57	ug/L	99
72) n-Butylbenzene	24.08	91	3479174	10.23	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.15	75	103534	9.79	ug/L	97
74) 1,2,4-Trichlorobenzene	27.93	180	1002540	10.80	ug/L	99
75) Hexachlorobutadiene	28.32	225	995236	10.67	ug/L	96
76) Naphthalene	28.34	128	786121	11.11	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	761225	11.00	ug/L	100

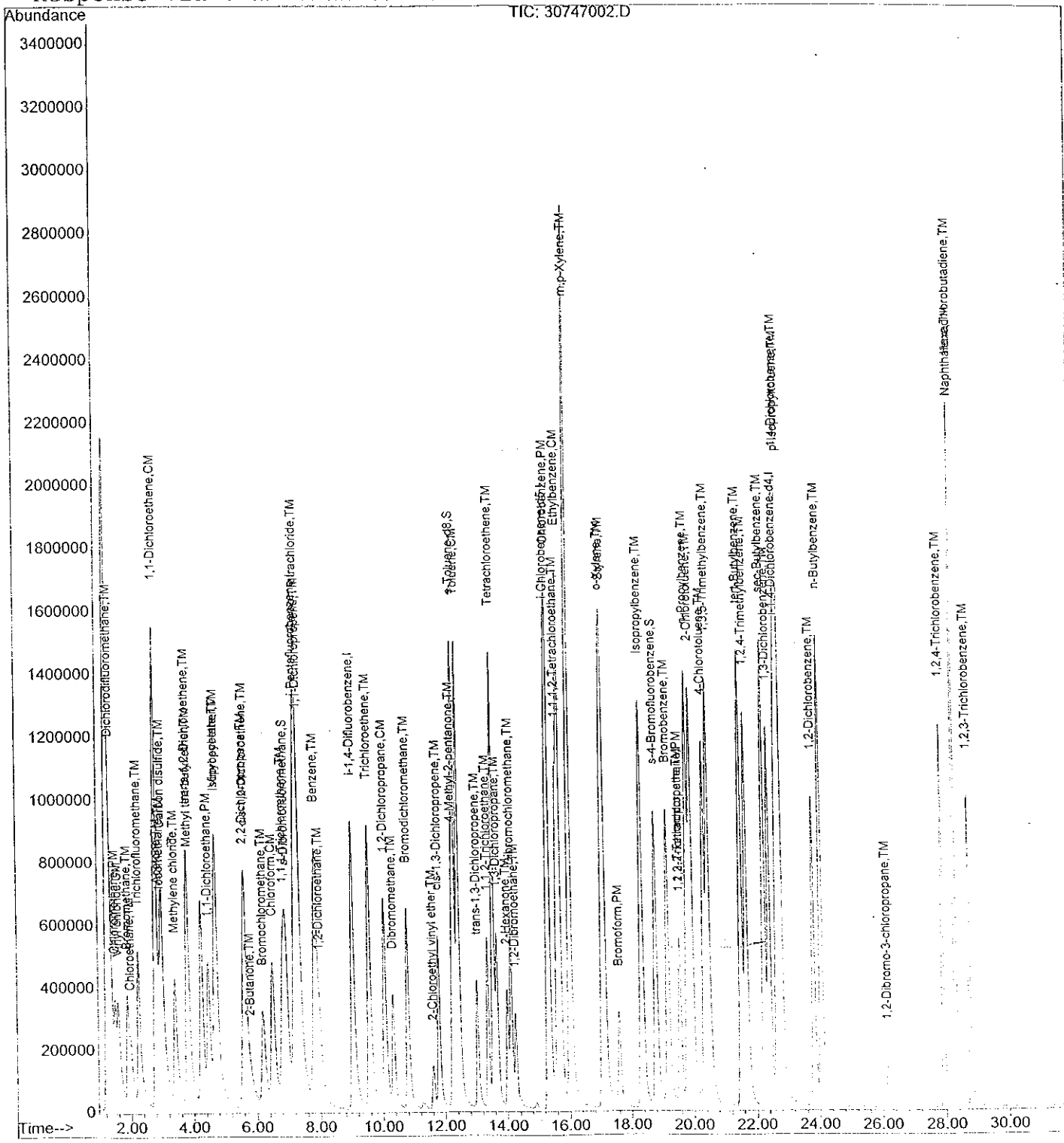
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

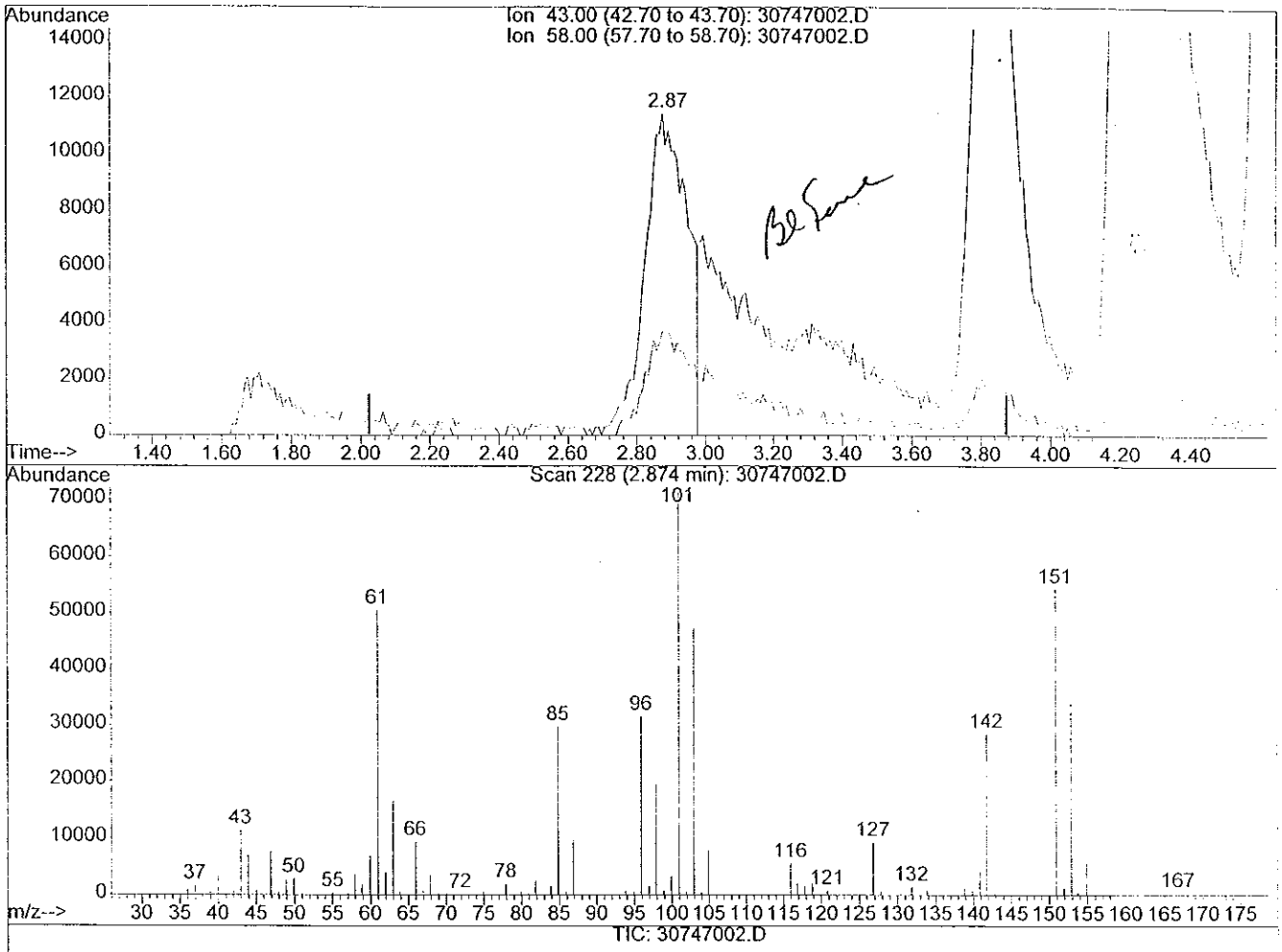
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 16.75ug/L
f
response 97796

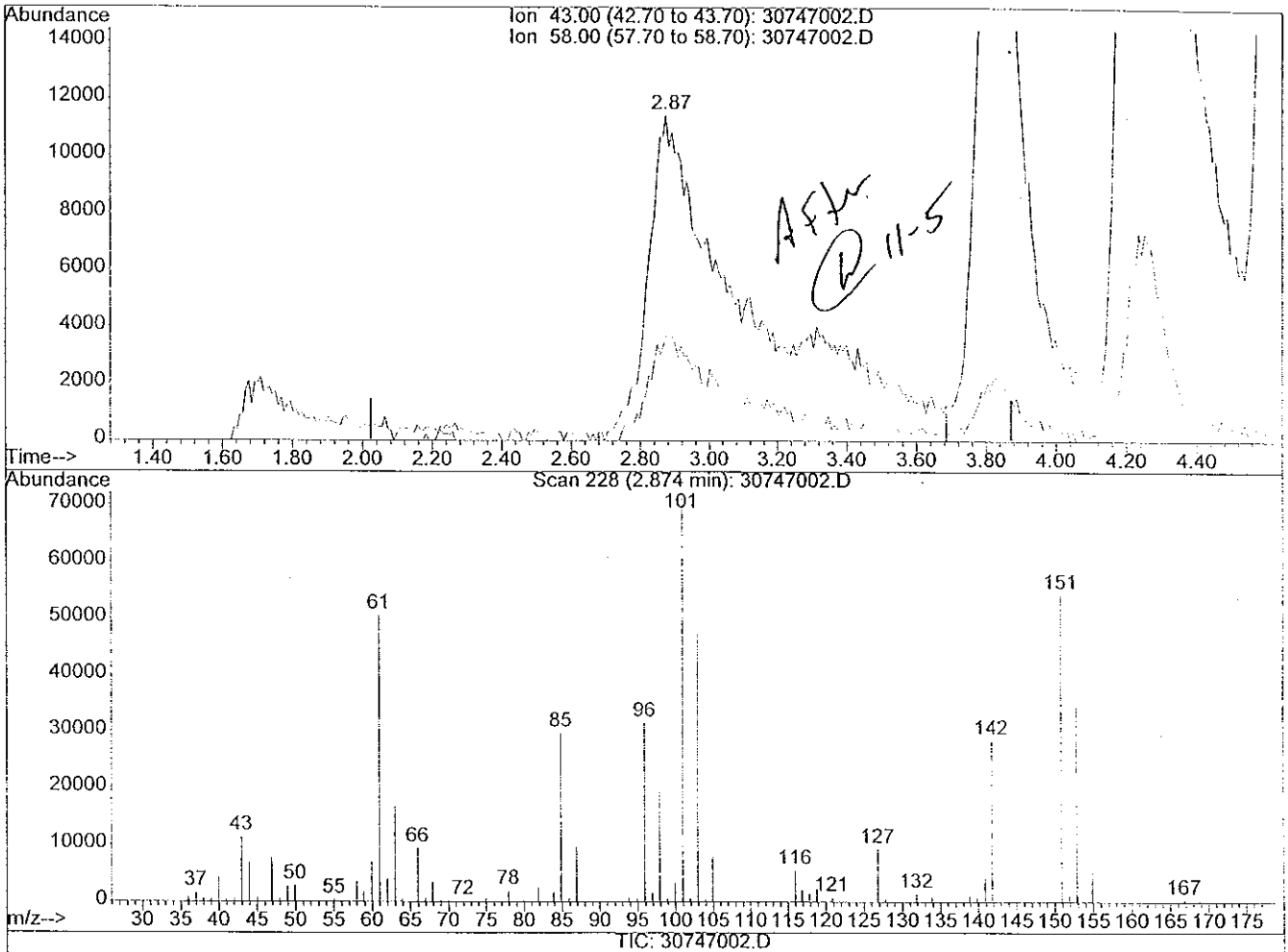
Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.87min 40.76ug/L m

response 237147

Ion	Exp%	Act%
43.00	100	100
58.00	36.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

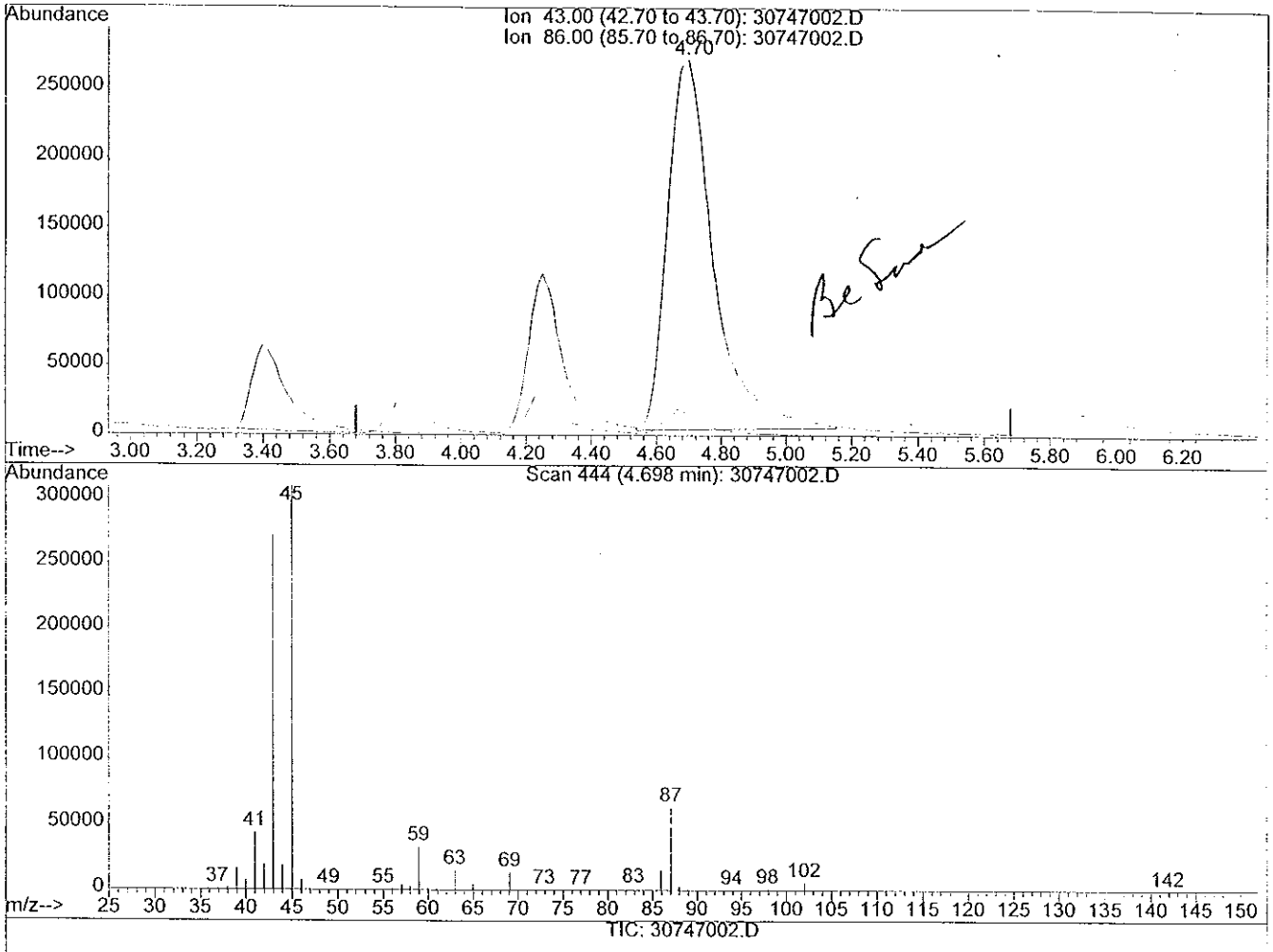
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:33 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

4.70min 18.11ug/L

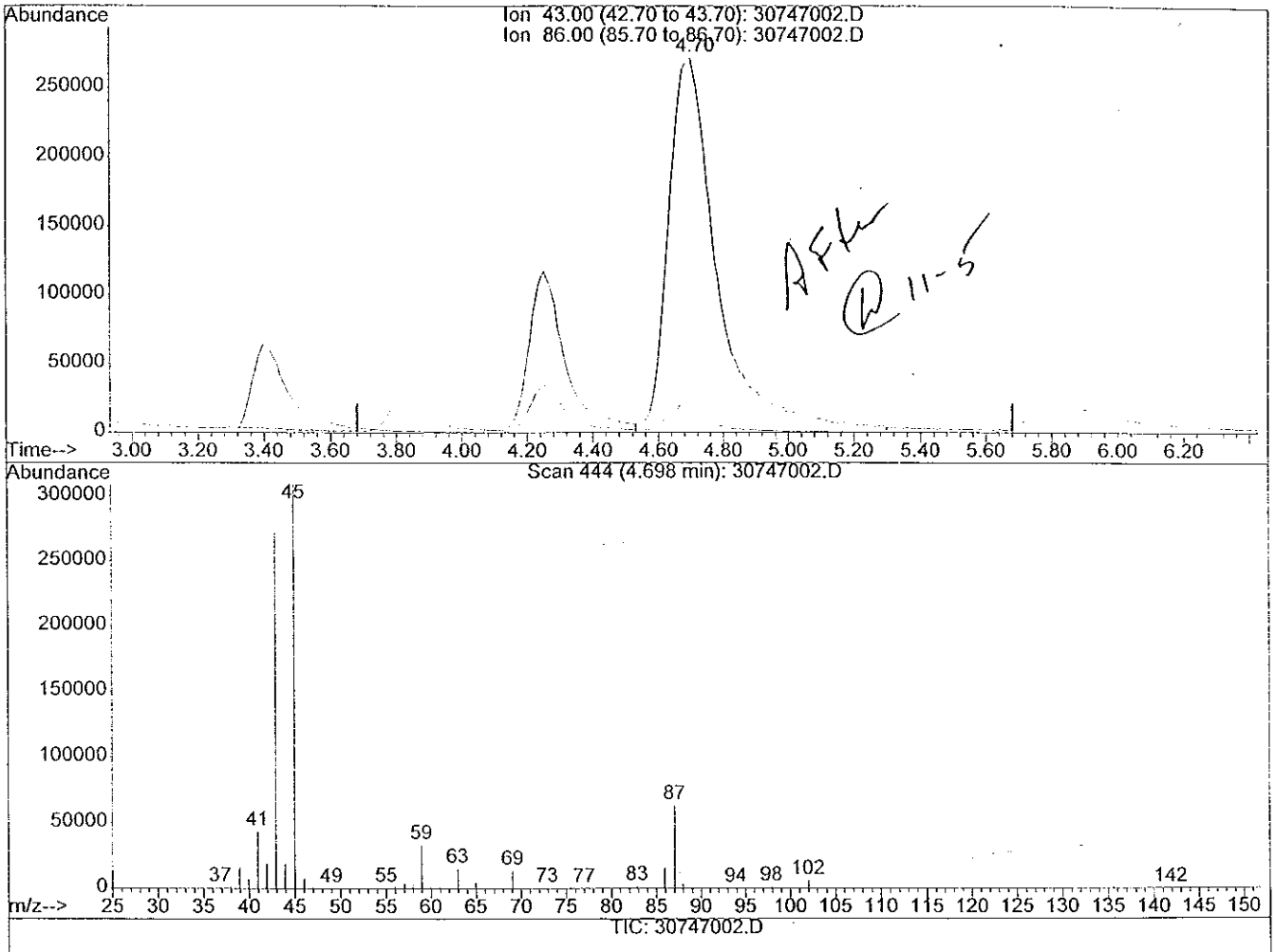
response 2648833

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.93
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

4.70min 19.65ug/L m

response 2875373

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	5.98
0.00	0.00	0.00
0.00	0.00	0.00

AFL 11-5

30747002.D V82625B1.M Fri Nov 02 10:34:14 2001

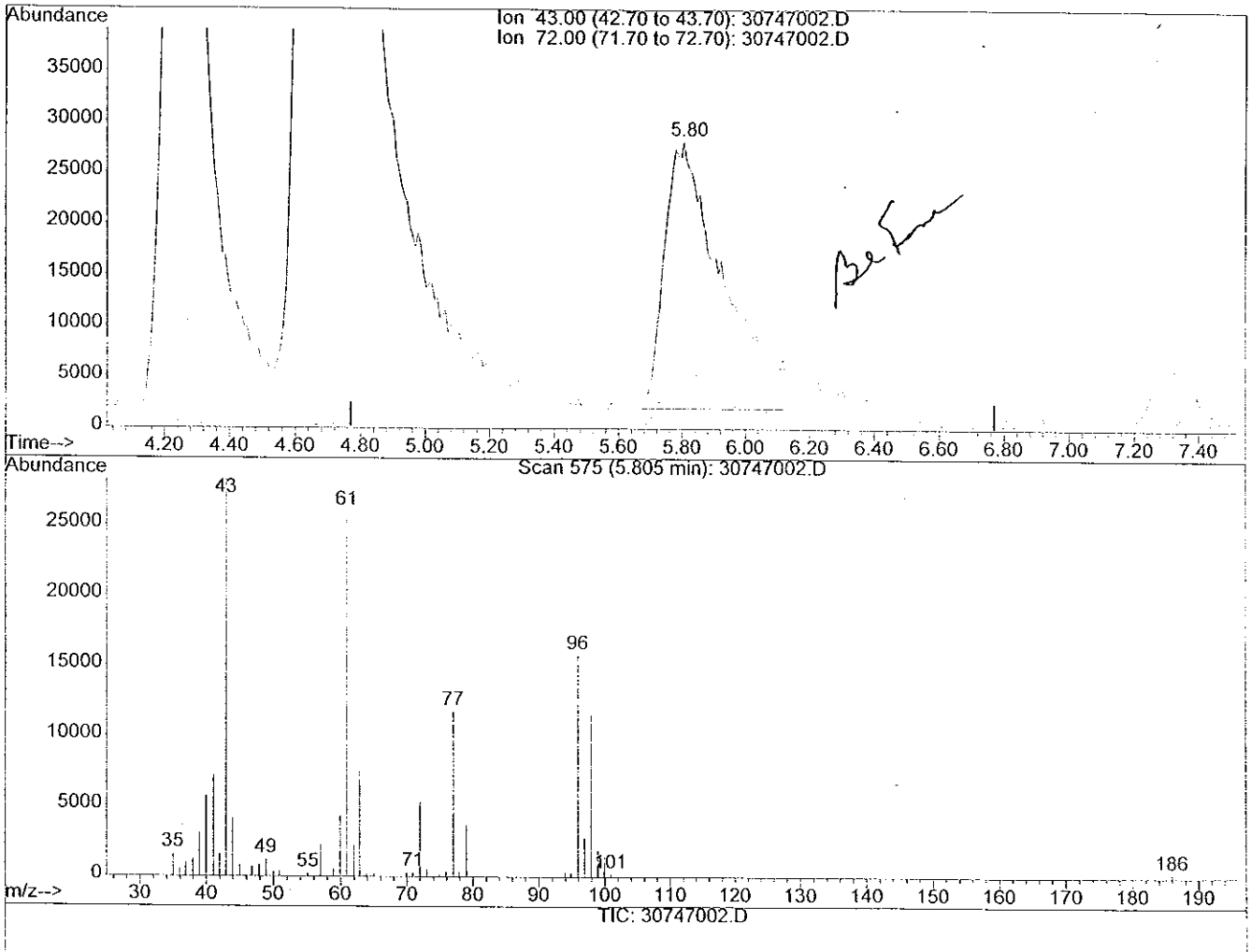
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration



TIC: 30747002.D

(19) 2-Butanone (TM)

5.80min 27.61ug/L

response 334117

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	18.11
0.00	0.00	0.00
0.00	0.00	0.00

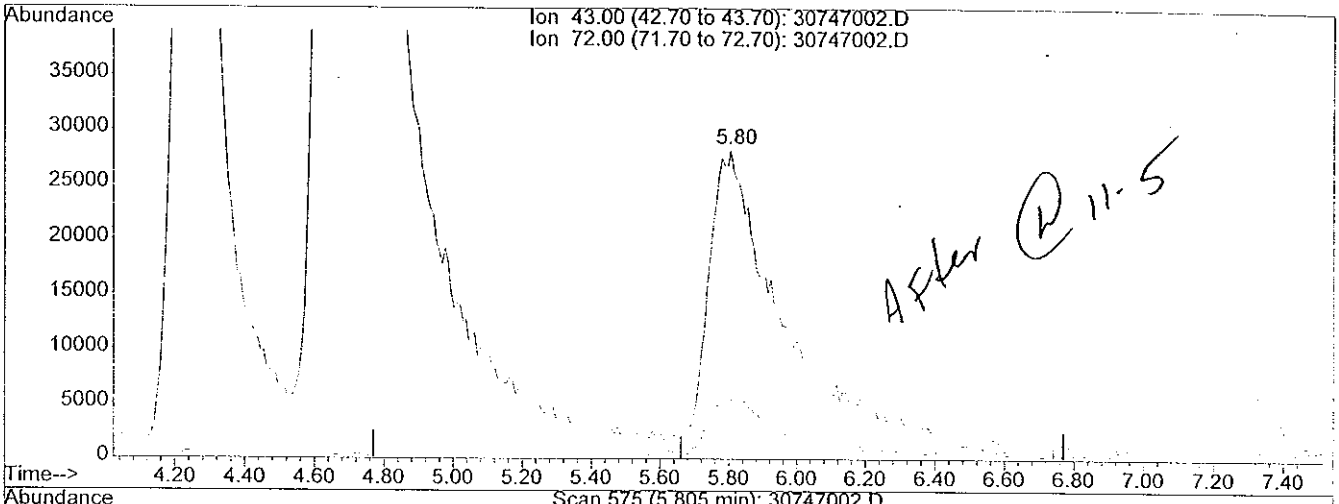
Quantitation Report (Qedit)

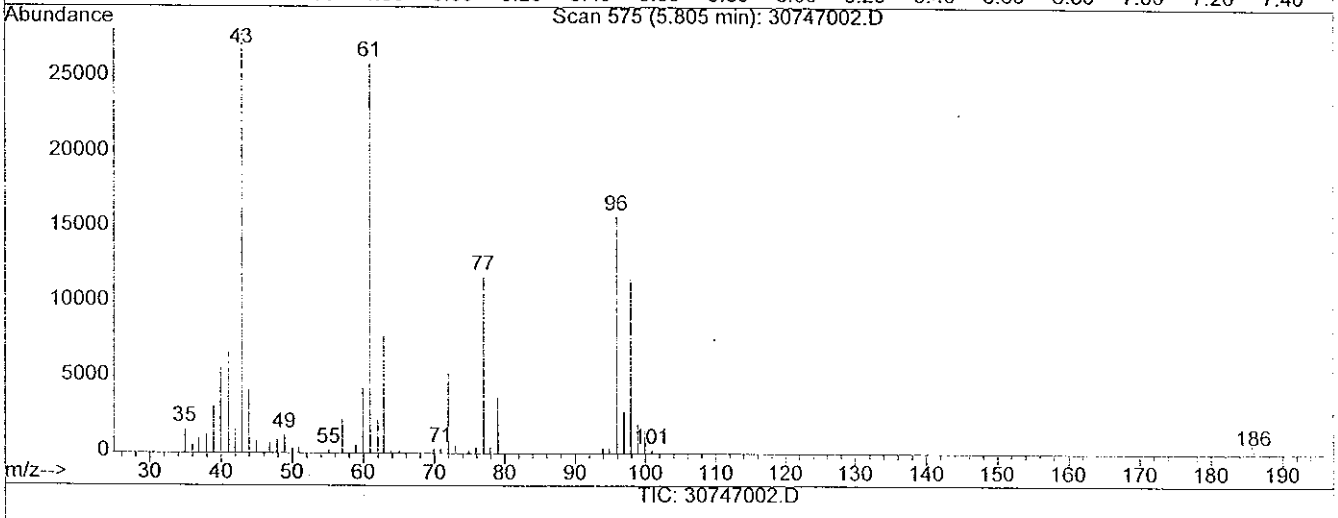
Data File : D:\HPCHEM\1\DATA\110201\30747002.D
Acq On : 2 Nov 2001 9:55
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Nov 2 10:34 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Thu Nov 01 09:20:07 2001
Response via : Multiple Level Calibration





TIC: 30747002.D

(19) 2-Butanone (TM)

5.80min 40.86ug/L m

response 494525

Ion	Exp%	Act%
43.00	100	100
72.00	23.40	19.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747003.D Vial: 16
Acq On : 2 Nov 2001 10:35 Operator: GRH
Sample : BUW149ABK BLANK 11-02-01 Inst : Bubba
Misc : BUW149ABK BLANK 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	3178649	10.00	ug/L	0.02 / 106.23%
25) i-1,4-Difluorobenzene	9.05	114	3115359	10.00	ug/L	0.00 / 102.47%
46) i-Chlorobenzene-d5	15.31	117	2224472	10.00	ug/L	0.02 / 103.89%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1077862	10.00	ug/L	0.00 / 88.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476371	10.03	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 100.30%			
36) s-Toluene-d8	12.32	98	2939245	9.96	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.60%			
56) s-4-Bromofluorobenzene	18.82	95	1635375	9.67	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.70%			

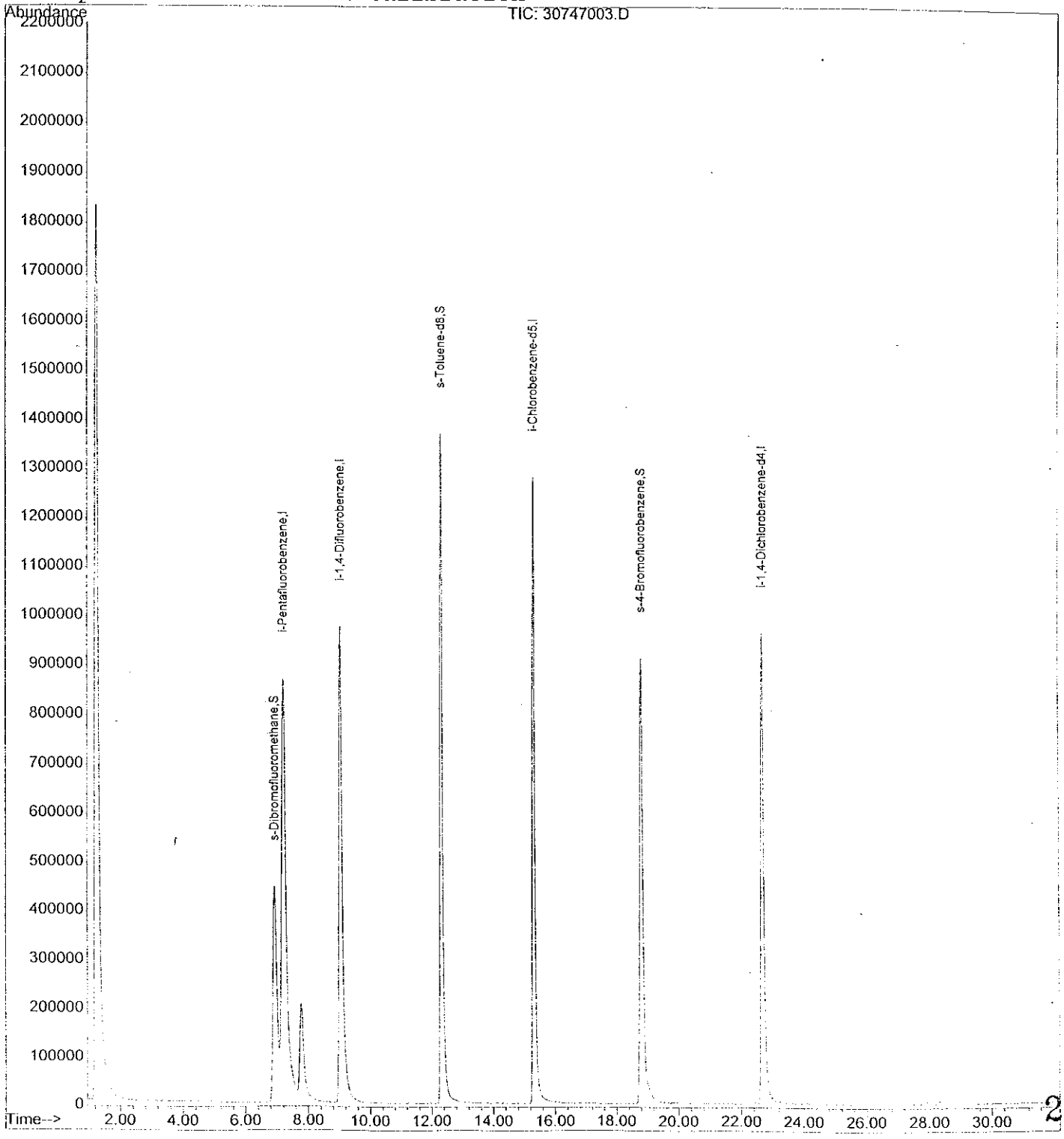
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747003.D Vial: 16
Acq On : 2 Nov 2001 10:35 Operator: GRH
Sample : BUW149ABK BLANK 11-02-01 Inst : Bubba
Misc : BUW149ABK BLANK 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 11:24 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



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Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 10:35
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747003.D
Name: BUW149ABK BLANK 11-02-01
Misc: BUW149ABK BLANK 11-02-01
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747003.D V82625B1.M Mon Nov 05 15:17:20 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

* = out of control limits

Fri Nov 02 13:22:04 2001

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128%	[ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123%	[ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125%	[ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122%	[ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127%	[ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134%	[ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140%	[ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204%	[ ]

* = out of control limits

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3030766	10.00	ug/L	0.00 101.28%
25) i-1,4-Difluorobenzene	9.06	114	3009380	10.00	ug/L	0.02 98.98%
46) i-Chlorobenzene-d5	15.31	117	2091671	10.00	ug/L	0.02 97.68%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1152357	10.00	ug/L	0.00 94.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1352471	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.32	98	2854139	10.01	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.10%			
56) s-4-Bromofluorobenzene	18.81	95	1593244	10.02	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1282468	8.33	ug/L	99
3) Chloromethane	1.50	50	841618	8.57	ug/L	100
4) Vinyl chloride	1.59	62	988137	9.59	ug/L	100
5) Bromomethane	1.88	96	863225	9.27	ug/L	98
6) Chloroethane	1.98	64	591716	9.79	ug/L	98
7) Trichlorofluoromethane	2.22	101	1736743	10.30	ug/L	99
8) 1,1-Dichloroethene	2.77	96	983938	9.92	ug/L	99
9) Acetone	2.88	43	89233m	15.08	ug/L	93
10) Iodomethane	2.93	142	1176503	9.64	ug/L	100
11) Carbon disulfide	2.99	76	3331617	10.69	ug/L	100
12) Methylene chloride	3.41	84	783218	9.67	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1054555	9.59	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1124986	9.30	ug/L	98
15) 1,1-Dichloroethane	4.48	63	1810151	9.26	ug/L	98
16) Vinyl acetate	4.71	43	2191884m	14.79	ug/L	93
17) Isopropyl ether	4.72	45	3138972	10.21	ug/L	98
18) 2,2-Dichloropropane	5.60	77	1394782	9.62	ug/L	98
19) 2-Butanone	5.80	43	240087m	19.59	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	1032490	10.33	ug/L	98
21) Bromochloromethane	6.20	128	398181	10.13	ug/L	98
22) Chloroform	6.50	83	1905575	9.74	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1680725	10.28	ug/L	99
26)	Carbon tetrachloride	7.29	119	1464043	9.74	ug/L	98
27)	1,1-Dichloropropene	7.34	110	510645	10.46	ug/L	100
28)	Benzene	7.86	78	3218463	9.85	ug/L	100
29)	1,2-Dichloroethane	7.98	62	630118	9.65	ug/L	99
30)	Trichloroethene	9.58	95	1308563	9.94	ug/L	99
31)	1,2-Dichloropropane	10.08	63	1097792	10.05	ug/L	100
32)	Dibromomethane	10.35	93	473385	9.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.40	63	13641	0.76	ug/L	48
34)	Bromodichloromethane	10.81	83	1489475	9.86	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1149901	9.77	ug/L	99
37)	Toluene	12.46	92	2082205	9.90	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	711018	9.80	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	469944	9.65	ug/L	99
40)	Tetrachloroethene	13.57	166	1560711	10.27	ug/L	100
41)	1,3-Dichloropropane	13.70	76	934423	10.04	ug/L	99
42)	Dibromochloromethane	14.15	129	874543	9.85	ug/L	99
43)	1,2-Dibromoethane	14.27	107	594922	9.87	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	619957	18.09	ug/L	100
45)	2-Hexanone	14.02	43	387687	18.77	ug/L	96
47)	Chlorobenzene	15.37	112	2180885	9.93	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	992161	10.21	ug/L	100
50)	Ethylbenzene	15.72	106	1179030	9.94	ug/L	100
51)	m,p-Xylene	16.03	106	2938526	20.58	ug/L	98
52)	o-Xylene	17.09	106	1358012	10.22	ug/L	99
53)	Styrene	17.15	104	2105408	9.99	ug/L	98
54)	Bromoform	17.63	173	528781	10.32	ug/L	100
55)	Isopropylbenzene	18.35	105	4406503	10.33	ug/L	99
58)	Bromobenzene	19.20	156	1073392	10.03	ug/L	97
59)	1,1,2,2-Tetrachloroethane	19.57	83	714126	9.62	ug/L	100
60)	1,2,3-Trichloropropane	19.56	75	412855	10.13	ug/L	97
61)	n-Propylbenzene	19.83	120	1088289	10.39	ug/L	100
62)	2-Chlorotoluene	19.97	126	1011841	10.26	ug/L	100
63)	4-Chlorotoluene	20.36	91	3555470	10.32	ug/L	100
64)	1,3,5-Trimethylbenzene	20.51	105	3220819	10.04	ug/L	100
65)	tert-Butylbenzene	21.54	91	2091418	9.95	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2826904	10.04	ug/L	100
67)	sec-Butylbenzene	22.26	105	4818859	10.42	ug/L	100
68)	1,3-Dichlorobenzene	22.43	146	1959057	9.95	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3698577	10.63	ug/L	100
70)	1,4-Dichlorobenzene	22.74	146	1855007	9.88	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

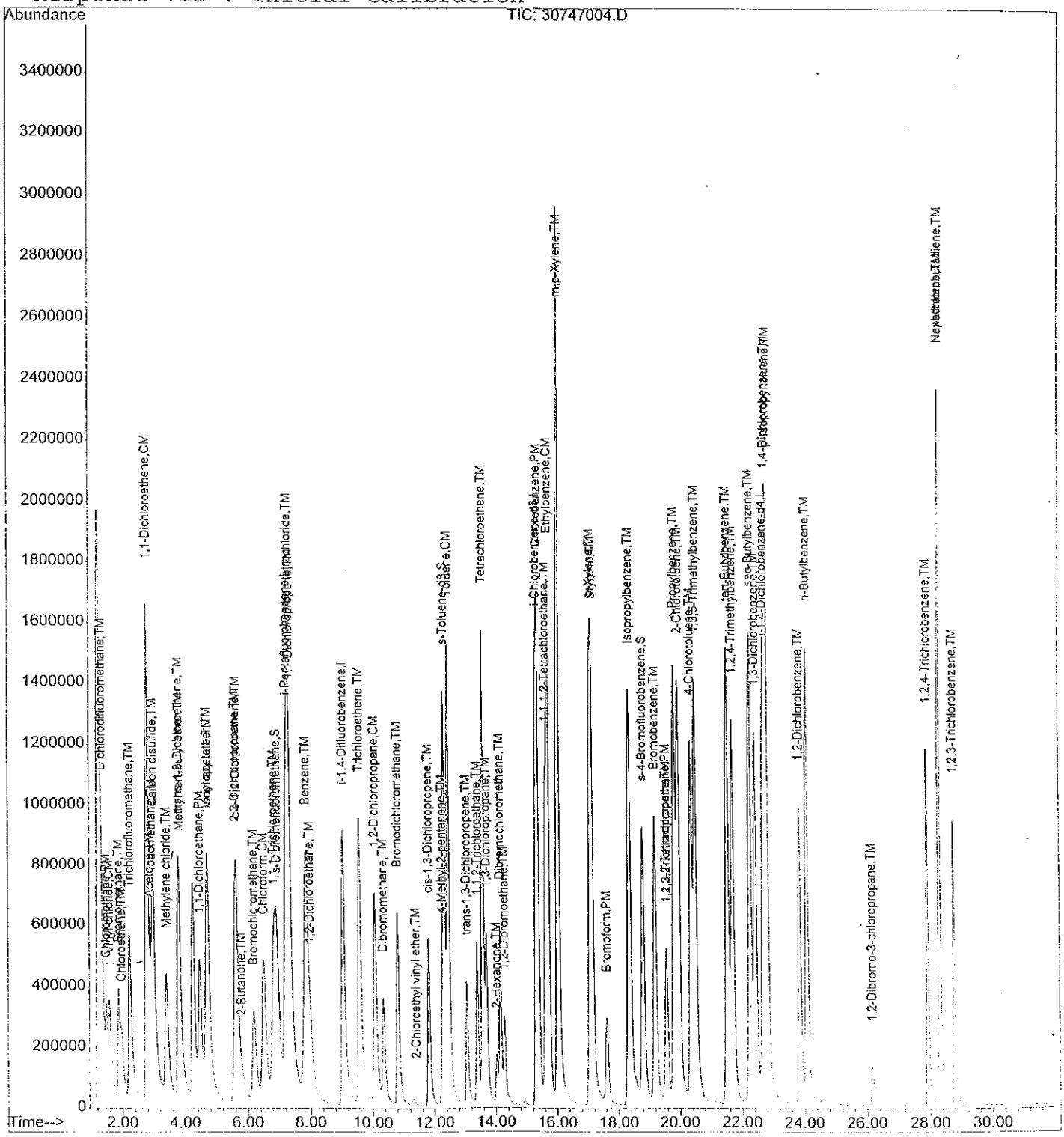
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.84	146	1544198	9.86	ug/L	99
72)	n-Butylbenzene	24.08	91	3521895	10.93	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	103685	10.35	ug/L	95
74)	1,2,4-Trichlorobenzene	27.92	180	981039	11.16	ug/L	99
75)	Hexachlorobutadiene	28.32	225	1067761	12.13	ug/L	98
76)	Naphthalene	28.33	128	731684	10.91	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	715539	10.91	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



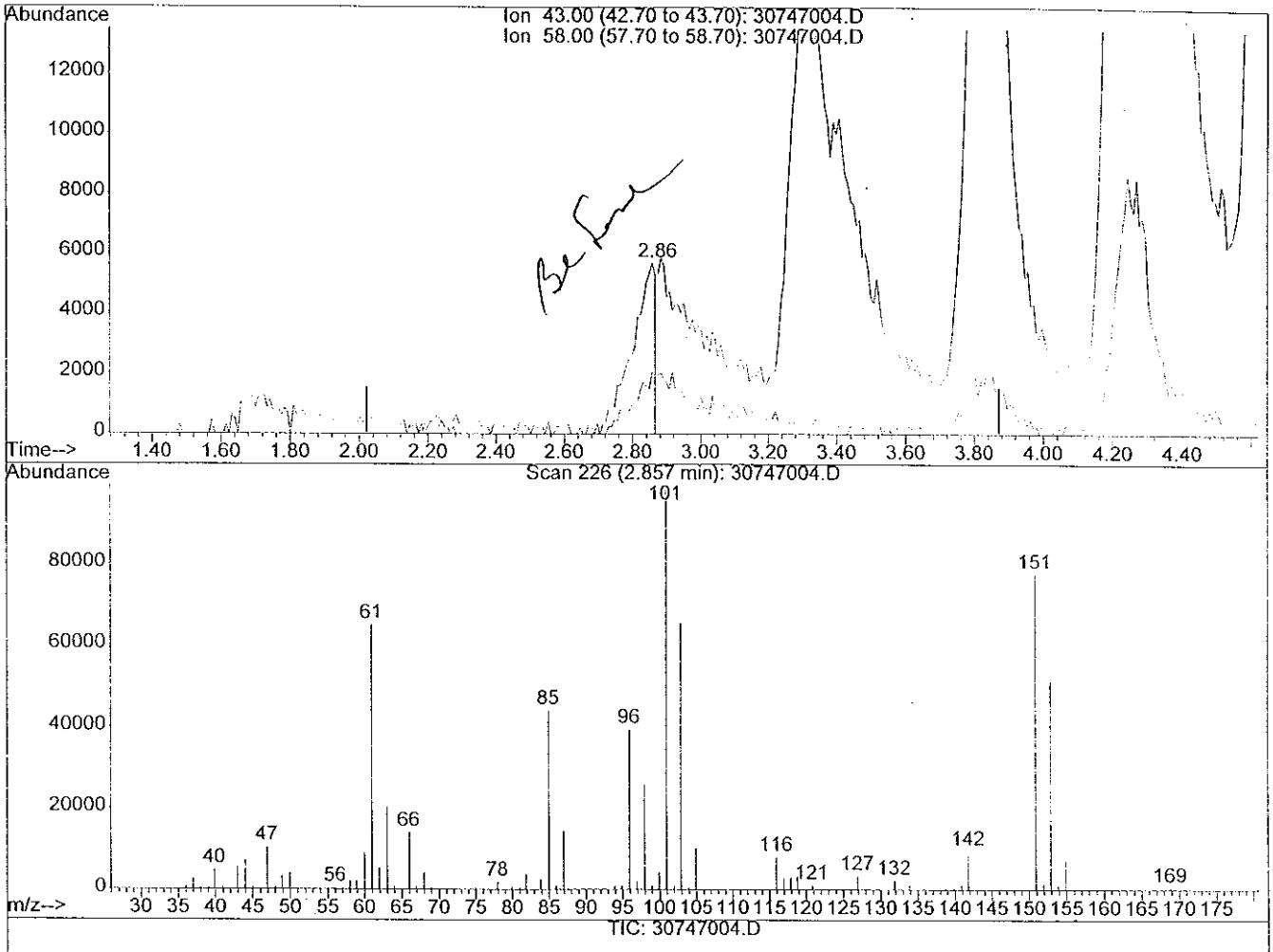
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.86min 4.41ug/L

response 26554

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.12
0.00	0.00	0.00
0.00	0.00	0.00

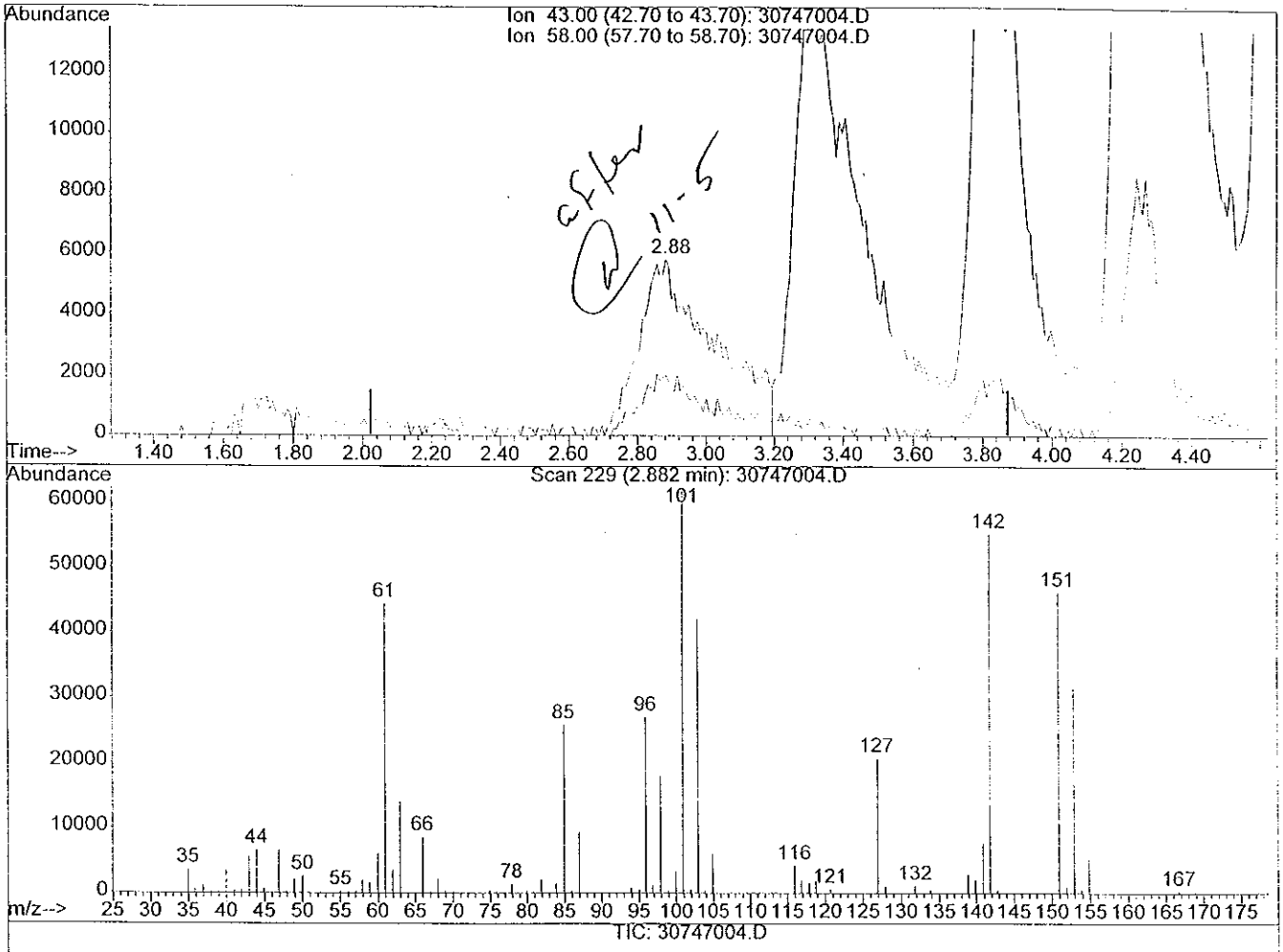
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.88min 15.08ug/L m

response 89233

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	34.38
0.00	0.00	0.00
0.00	0.00	0.00

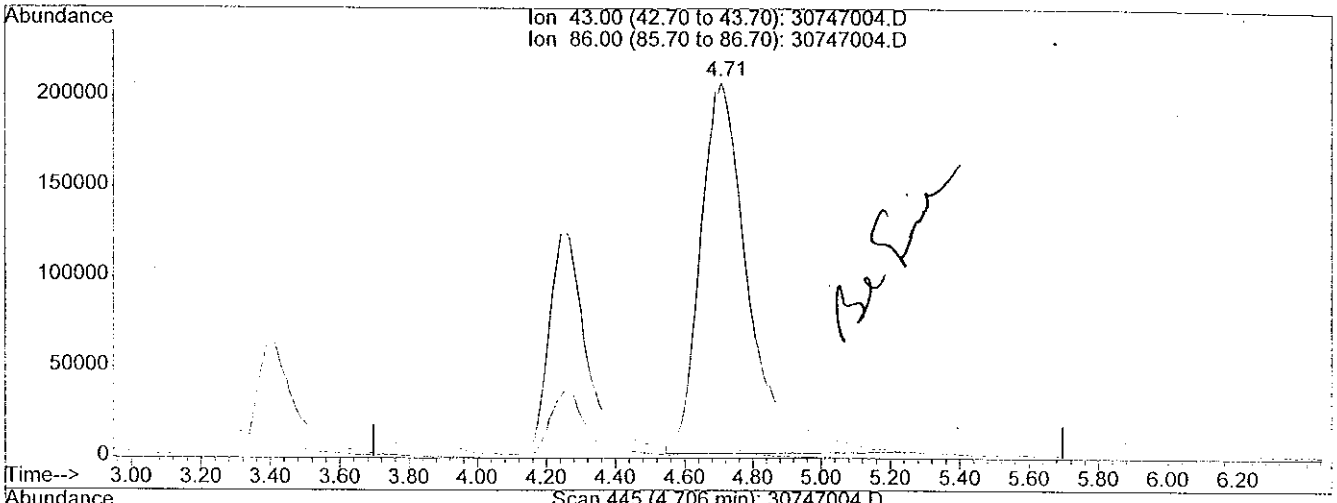
Quantitation Report (Qedit)

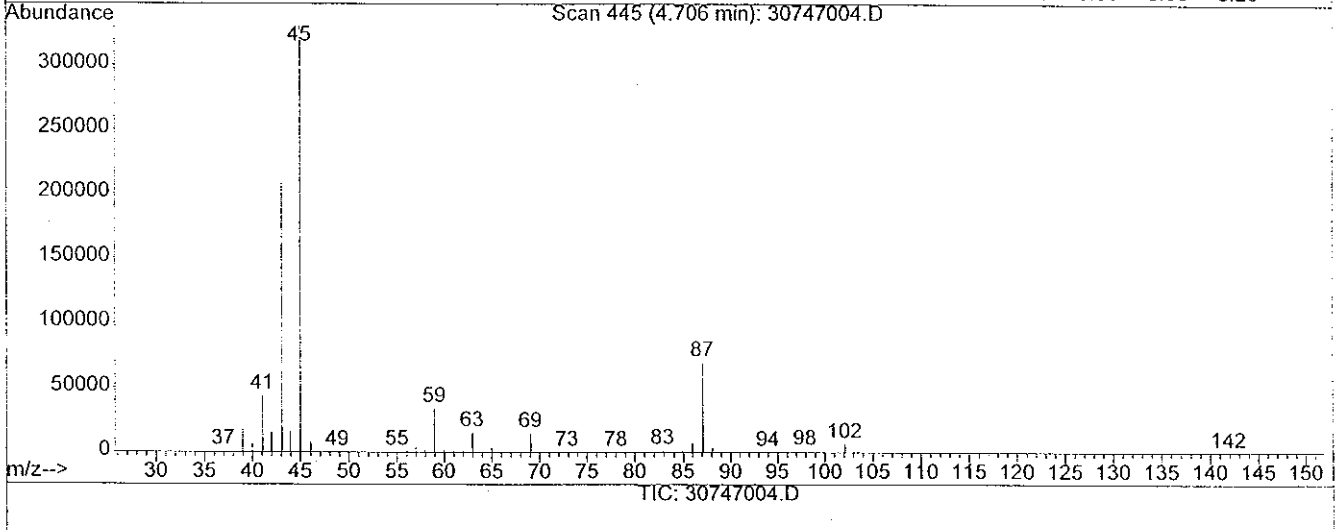
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

4.71min 13.75ug/L

response 2037582

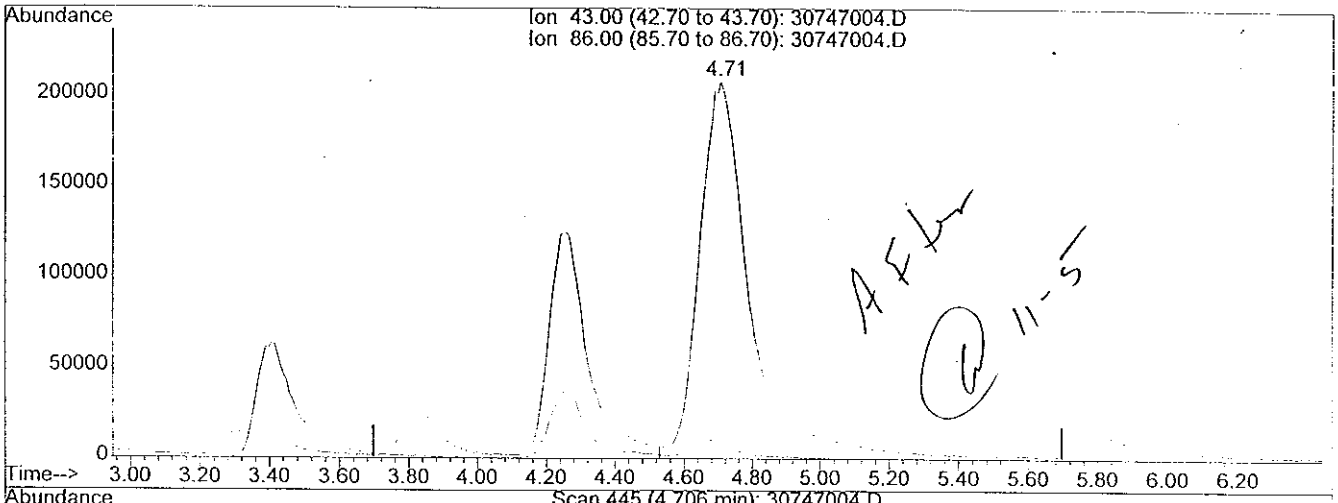
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.71
0.00	0.00	0.00
0.00	0.00	0.00

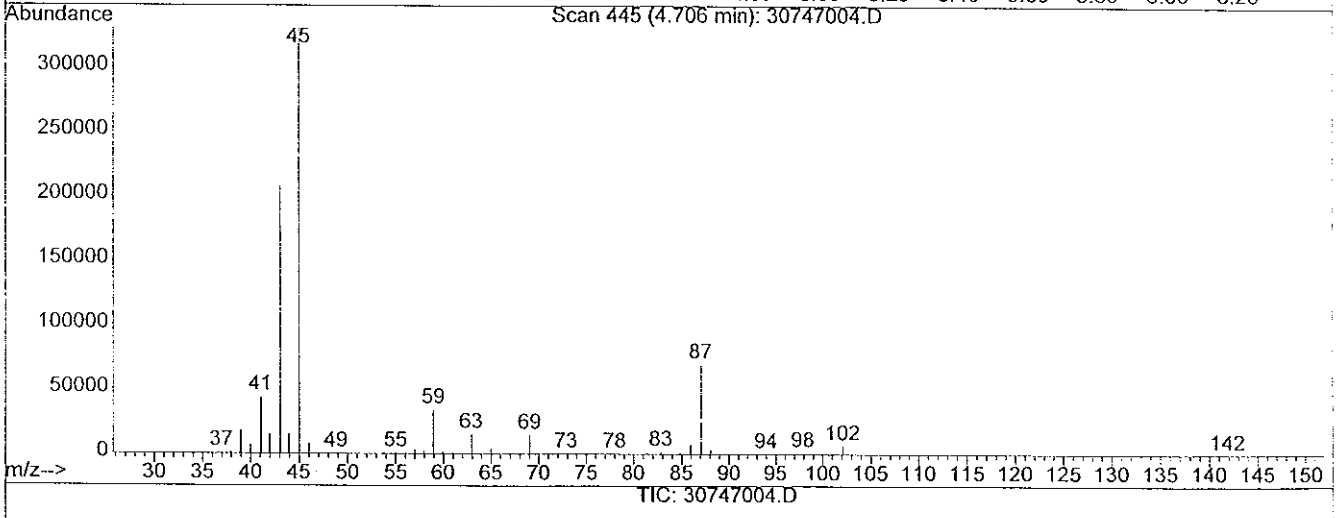
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(16) Vinyl acetate (TM)

4.71min 14.79ug/L m

response 2191884

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	3.79
0.00	0.00	0.00
0.00	0.00	0.00

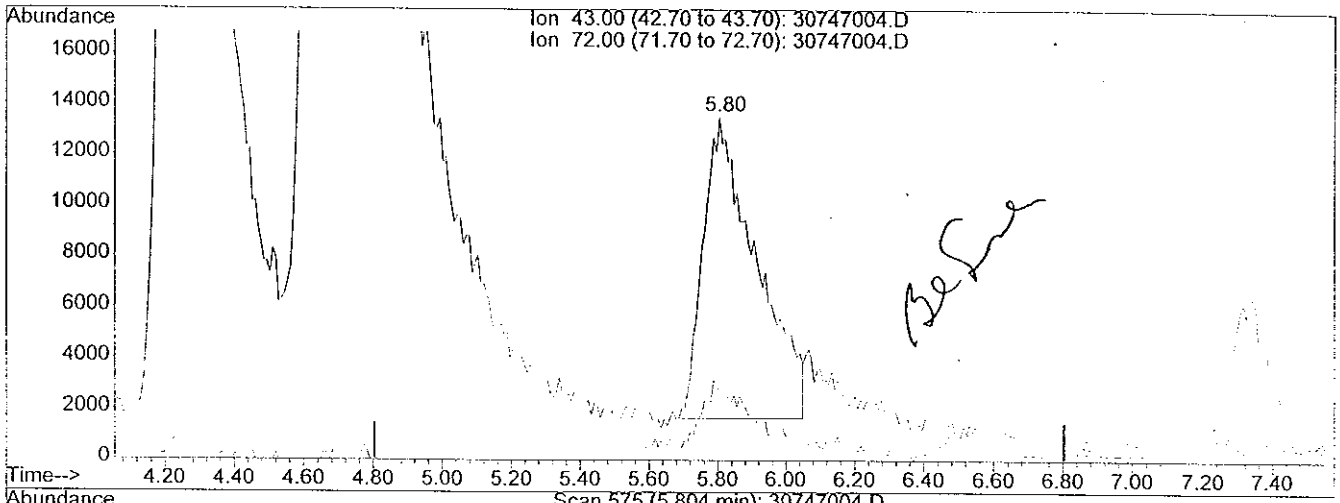
Quantitation Report (Qedit)

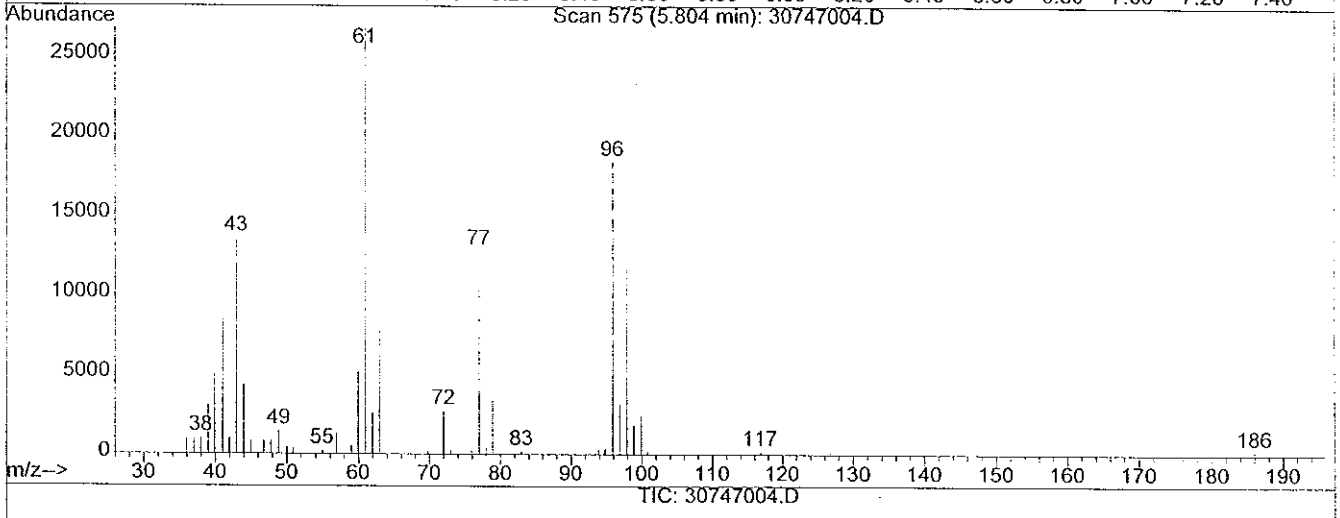
Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

5.80min 10.44ug/L

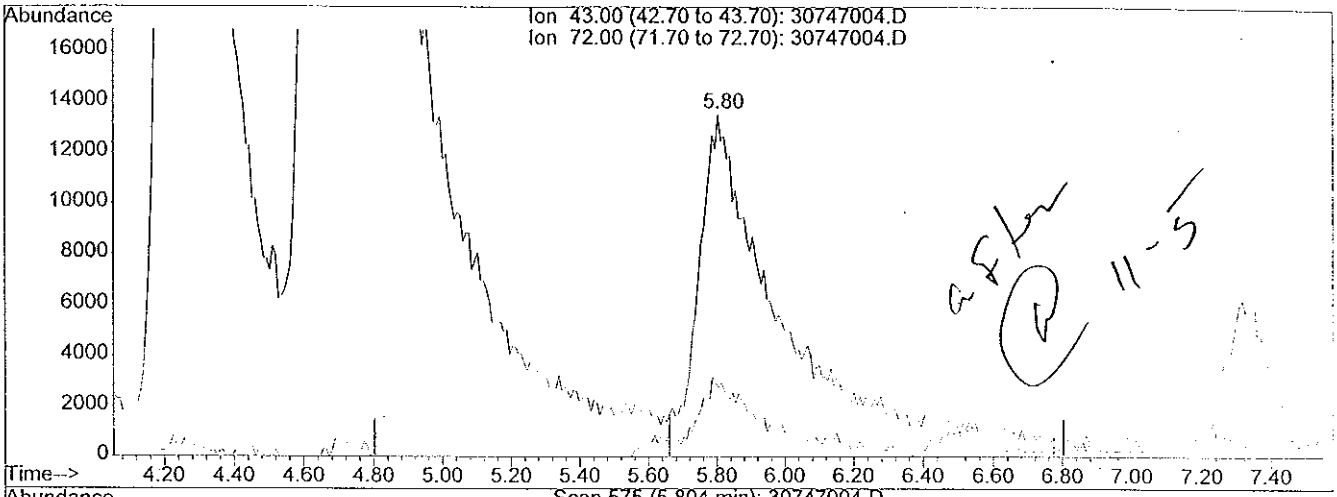
response 127926

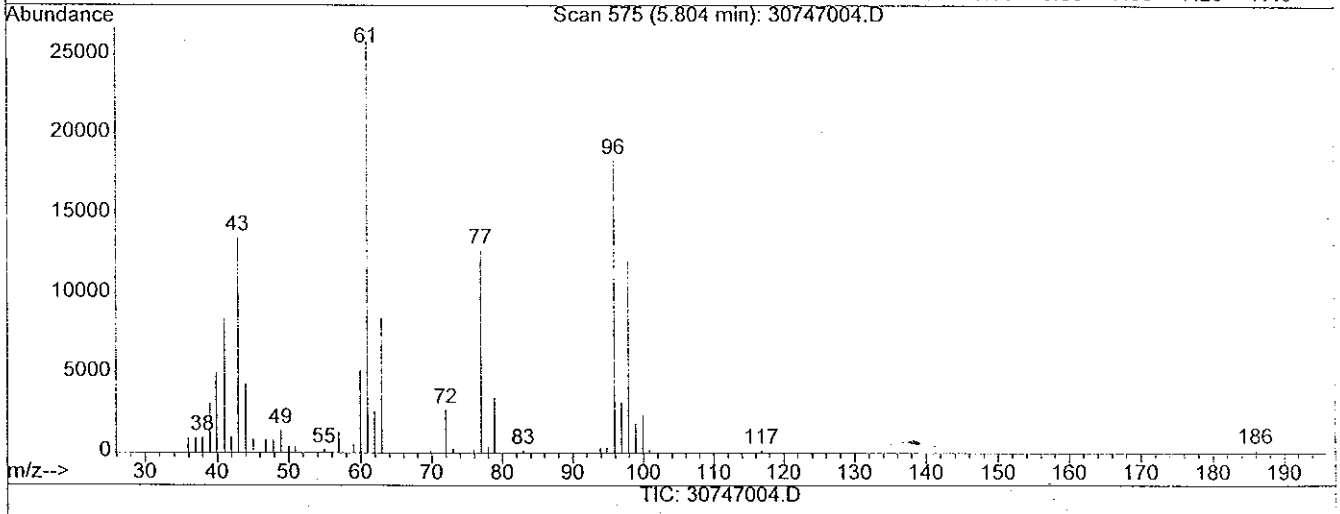
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	17.55
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747004.D
Acq On : 2 Nov 2001 11:19
Sample : BUW149ALCS LCS 11-02-01
Misc : BUW149ALCS LCS 11-02-01
MS Integration Params: rteint.p
Quant Time: Nov 2 13:21 2001

Vial: 1
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747004.D

(19) 2-Butanone (TM)

5.80min 19.59ug/L m

response 240087

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.27
0.00	0.00	0.00
0.00	0.00	0.00

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	50	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	50	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	50	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	50	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	50	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	50	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	50	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	50	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	50	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	50	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	50	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	50	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	50	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	50	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	50	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	50	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	50	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	50	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	50	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	50	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	50	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	50	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	50	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	50	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	50	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	50	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	50	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	50	44.46	51.49	89	103	14.7	20	85-125
Tetrachloroet	0.0	50	48.51	47.23	97	94	2.7	13	87-131
1,3-Dichlorop	0.0	50	45.37	53.65	91	107	16.7	19	73-126

Dibromochloro	0.0	50	45.49	52.17	91	104	13.7	27	83-122
1,2-Dibromoet	0.0	50	44.37	51.97	89	104	15.8	26	36-153
4-Methyl-2-pe	0.0	100	76.76	103.04	77	103	29.2	35	64-133
2-Hexanone	0.0	100	81.06	105.10	81	105	25.8	36	49-144
Chlorobenzene	0.0	50	48.02	48.06	96	96	0.1	10	66-156
1,1,1,2-Tetra	0.0	50	48.01	49.75	96	100	3.6	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.87	45.93	96	92	4.1	14	78-132
m,p-Xylene	0.0	100	97.05	95.62	97	96	1.5	20	76-129
o-Xylene	0.0	50	48.73	48.61	97	97	0.2	13	76-127
Styrene	0.0	50	47.00	48.45	94	97	3.0	43	55-138
Bromoform	0.0	50	47.26	55.03	95	110	15.2	29	62-124
Isopropylbenz	0.0	50	49.89	47.34	100	95	5.2	20	65-149
Bromobenzene	0.0	50	47.88	48.05	96	96	0.4	14	73-140
1,1,2,2-Tetra	0.0	50	43.80	50.74	88	101	14.7	25	75-127
1,2,3-Trichlo	0.0	50	45.39	52.74	91	105	15.0	26	75-127
n-Propylbenze	0.0	50	51.13	46.79	102	94	8.9	16	76-123
2-Chlorotolue	0.0	50	49.64	46.31	99	93	6.9	15	85-122
4-Chlorotolue	0.0	50	50.37	48.23	101	96	4.3	13	87-122
1,3,5-Trimeth	0.0	50	48.51	45.41	97	91	6.6	25	72-140
tert-Butylben	0.0	50	48.30	44.28	97	89	8.7	16	73-113
1,2,4-Trimeth	0.0	50	50.52	47.25	101	94	6.7	30	50-158
sec-Butylbenz	0.0	50	50.66	46.32	101	93	8.9	18	62-144
1,3-Dichlorob	0.0	50	48.11	47.44	96	95	1.4	10	89-118
p-Isopropylto	0.0	50	51.94	48.33	104	97	7.2	22	35-190
1,4-Dichlorob	0.0	50	48.48	46.70	97	93	3.7	10	78-138
1,2-Dichlorob	0.0	50	47.18	49.06	94	98	3.9	12	86-120
n-Butylbenzen	0.0	50	53.21	50.54	106	101	5.2	40	0-270
1,2-Dibromo-3	0.0	50	45.16	54.85	90	110	19.4	33	71-118
1,2,4-Trichlo	0.0	50	53.27	56.92	107	114	6.6	32	30-230
Hexachlorobut	0.0	50	60.38	54.77	121	110	9.7	18	70-156
Naphthalene	0.0	50	50.56	59.78	101	120	16.7	42	17-260
1,2,3-Trichlo	0.0	50	51.73	57.72	103	115	11.0	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	36.20	ug/L	99
3) Chloromethane	1.50	50	808429	40.36	ug/L	100
4) Vinyl chloride	1.59	62	898505	42.72	ug/L	99
5) Bromomethane	1.88	96	845473	44.48	ug/L	99
6) Chloroethane	1.98	64	550544	44.66	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	45.46	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	46.34	ug/L	98
9) Acetone	2.86	43	92468m	76.57	ug/L	92
10) Iodomethane	2.93	142	1102043	44.26	ug/L	100
11) Carbon disulfide	2.99	76	3130247	49.22	ug/L	100
12) Methylene chloride	3.41	84	742882	44.96	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	45.13	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	41.26	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	43.61	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	66.64	ug/L	94
17) Isopropyl ether	4.72	45	2898382	46.18	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	43.89	ug/L	98
19) 2-Butanone	5.79	43	262444m	104.94	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	80.17	ug/L	93
21) Bromochloromethane	6.19	128	372269	46.41	ug/L	97
22) Chloroform	6.49	83	1824238	45.70	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.83	97	1595711	47.86	ug/L	99
26)	Carbon tetrachloride	7.27	119	1369481	45.07	ug/L	98
27)	1,1-Dichloropropene	7.32	110	484547	48.98	ug/L	100
28)	Benzene	7.86	78	3099834	46.95	ug/L	100
29)	1,2-Dichloroethane	7.97	62	568894	43.11	ug/L	99
30)	Trichloroethene	9.56	95	1428605	53.69	ug/L	98
31)	1,2-Dichloropropane	10.06	63	1053193	47.71	ug/L	100
32)	Dibromomethane	10.33	93	430433	43.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.39	63	12666	3.47	ug/L	48
34)	Bromodichloromethane	10.80	83	1383436	45.29	ug/L	98
35)	cis-1,3-Dichloropropene	11.80	75	1070618	45.03	ug/L	98
37)	Toluene	12.44	92	1999709	47.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.03	75	645661	44.04	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	437882	44.46	ug/L	99
40)	Tetrachloroethene	13.57	166	1490678	48.51	ug/L	100
41)	1,3-Dichloropropane	13.68	76	853619	45.37	ug/L	99
42)	Dibromochloromethane	14.13	129	816167	45.49	ug/L	99
43)	1,2-Dibromoethane	14.27	107	540747	44.37	ug/L	99
44)	4-Methyl-2-pentanone	12.24	43	531665	76.76	ug/L	100
45)	2-Hexanone	14.00	43	338312	81.06	ug/L	97
47)	Chlorobenzene	15.36	112	2095861	48.02	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.62	131	927285	48.01	ug/L	99
50)	Ethylbenzene	15.70	106	1128271	47.87	ug/L	100
51)	m,p-Xylene	16.01	106	2753749	97.05	ug/L	98
52)	o-Xylene	17.08	106	1286050	48.73	ug/L	99
53)	Styrene	17.15	104	1967872	47.00	ug/L	99
54)	Bromoform	17.61	173	480947	47.26	ug/L	99
55)	Isopropylbenzene	18.35	105	4229958	49.89	ug/L	100
58)	Bromobenzene	19.19	156	1005303	47.88	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	638170	43.80	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	363503	45.39	ug/L	97
61)	n-Propylbenzene	19.83	120	1050715	51.13	ug/L	100
62)	2-Chlorotoluene	19.96	126	961010	49.64	ug/L	100
63)	4-Chlorotoluene	20.36	91	3406043	50.37	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3054092	48.51	ug/L	100
65)	tert-Butylbenzene	21.53	91	1993355	48.30	ug/L	99
66)	1,2,4-Trimethylbenzene	21.70	105	2790588	50.52	ug/L	99
67)	sec-Butylbenzene	22.26	105	4596634	50.66	ug/L	100
68)	1,3-Dichlorobenzene	22.42	146	1859484	48.11	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3548456	51.94	ug/L	99
70)	1,4-Dichlorobenzene	22.74	146	1787390	48.48	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

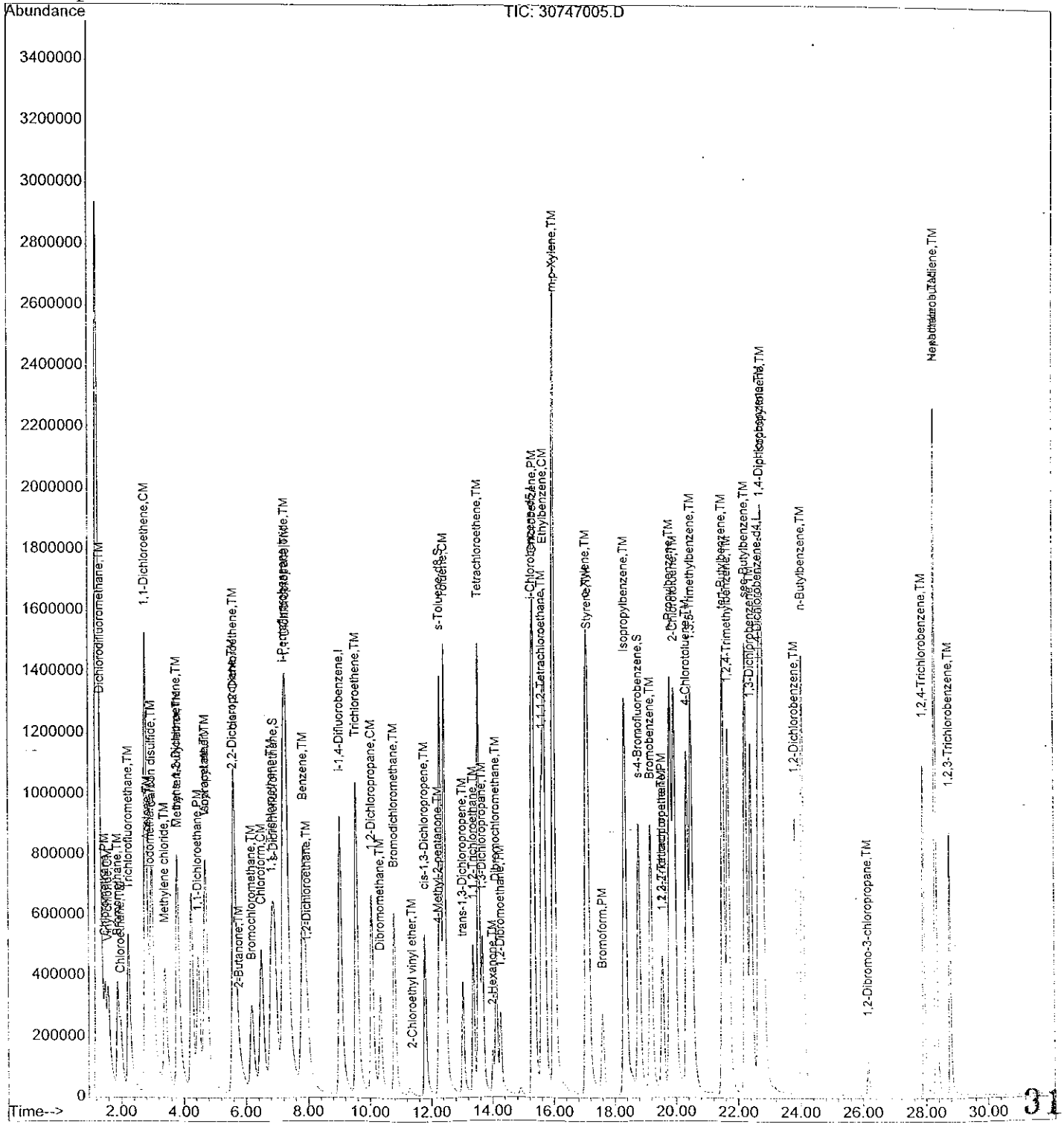
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1450779	47.18	ug/L	99
72)	n-Butylbenzene	24.08	91	3366620	53.21	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	88830	45.16	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	919629	53.27	ug/L	97
75)	Hexachlorobutadiene	28.33	225	1043138	60.38	ug/L	98
76)	Naphthalene	28.34	128	665728	50.56	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	665661	51.73	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3092066	10.00	ug/L	0.00 103.33%
25) i-1,4-Difluorobenzene	9.04	114	3041235	10.00	ug/L	0.00 100.03%
46) i-Chlorobenzene-d5	15.30	117	2078003	10.00	ug/L	0.00 97.04%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1130970	10.00	ug/L	0.00 93.00%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.92	113	1317937	9.20	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 92.00%			
36) s-Toluene-d8	12.31	98	2860964	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.80	95	1566757	9.92	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1137636	7.24	ug/L	99
3) Chloromethane	1.50	50	808429	8.07	ug/L	100
4) Vinyl chloride	1.59	62	898505	8.54	ug/L	99
5) Bromomethane	1.88	96	845473	8.90	ug/L	99
6) Chloroethane	1.98	64	550544	8.93	ug/L	100
7) Trichlorofluoromethane	2.22	101	1564859	9.09	ug/L	98
8) 1,1-Dichloroethene	2.76	96	937512	9.27	ug/L	98
9) Acetone	2.86	43	92468m	15.31	ug/L	92
10) Iodomethane	2.93	142	1102043	8.85	ug/L	100
11) Carbon disulfide	2.99	76	3130247	9.84	ug/L	100
12) Methylene chloride	3.41	84	742882	8.99	ug/L	95
13) trans-1,2-Dichloroethene	3.79	96	1012842	9.03	ug/L	96
14) Methyl tert-butyl ether	3.82	73	1018376	8.25	ug/L	100
15) 1,1-Dichloroethane	4.47	63	1739420	8.72	ug/L	98
16) Vinyl acetate	4.69	43	2014827m	13.33	ug/L	94
17) Isopropyl ether	4.72	45	2898382	9.24	ug/L	99
18) 2,2-Dichloropropane	5.59	77	1298189	8.78	ug/L	98
19) 2-Butanone	5.79	43	262444m	20.99	ug/L	96
20) cis-1,2-Dichloroethene	5.64	96	1636633	16.03	ug/L	93
21) Bromochloromethane	6.19	128	372269	9.28	ug/L	97
22) Chloroform	6.49	83	1824238	9.14	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	1595711	9.57 ug/L	99
26) Carbon tetrachloride	7.27	119	1369481	9.01 ug/L	98
27) 1,1-Dichloropropene	7.32	110	484547	9.80 ug/L	100
28) Benzene	7.86	78	3099834	9.39 ug/L	100
29) 1,2-Dichloroethane	7.97	62	568894	8.62 ug/L	99
30) Trichloroethene	9.56	95	1428605	10.74 ug/L	98
31) 1,2-Dichloropropane	10.06	63	1053193	9.54 ug/L	100
32) Dibromomethane	10.33	93	430433	8.74 ug/L	98
33) 2-Chloroethyl vinyl ether	11.39	63	12666	0.69 ug/L	48
34) Bromodichloromethane	10.80	83	1383436	9.06 ug/L	98
35) cis-1,3-Dichloropropene	11.80	75	1070618	9.01 ug/L	98
37) Toluene	12.44	92	1999709	9.41 ug/L	100
38) trans-1,3-Dichloropropene	13.03	75	645661	8.81 ug/L	98
39) 1,1,2-Trichloroethane	13.38	83	437882	8.89 ug/L	99
40) Tetrachloroethene	13.57	166	1490678	9.70 ug/L	100
41) 1,3-Dichloropropane	13.68	76	853619	9.07 ug/L	99
42) Dibromochloromethane	14.13	129	816167	9.10 ug/L	99
43) 1,2-Dibromoethane	14.27	107	540747	8.87 ug/L	99
44) 4-Methyl-2-pentanone	12.24	43	531665	15.35 ug/L	100
45) 2-Hexanone	14.00	43	338312	16.21 ug/L	97
47) Chlorobenzene	15.36	112	2095861	9.60 ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.62	131	927285	9.60 ug/L	99
50) Ethylbenzene	15.70	106	1128271	9.57 ug/L	100
51) m,p-Xylene	16.01	106	2753749	19.41 ug/L	98
52) o-Xylene	17.08	106	1286050	9.75 ug/L	99
53) Styrene	17.15	104	1967872	9.40 ug/L	99
54) Bromoform	17.61	173	480947	9.45 ug/L	99
55) Isopropylbenzene	18.35	105	4229958	9.98 ug/L	100
58) Bromobenzene	19.19	156	1005303	9.58 ug/L	99
59) 1,1,2,2-Tetrachloroethane	19.56	83	638170	8.76 ug/L	99
60) 1,2,3-Trichloropropane	19.56	75	363503	9.08 ug/L	97
61) n-Propylbenzene	19.83	120	1050715	10.23 ug/L	100
62) 2-Chlorotoluene	19.96	126	961010	9.93 ug/L	100
63) 4-Chlorotoluene	20.36	91	3406043	10.07 ug/L	100
64) 1,3,5-Trimethylbenzene	20.50	105	3054092	9.70 ug/L	100
65) tert-Butylbenzene	21.53	91	1993355	9.66 ug/L	99
66) 1,2,4-Trimethylbenzene	21.70	105	2790588	10.10 ug/L	99
67) sec-Butylbenzene	22.26	105	4596634	10.13 ug/L	100
68) 1,3-Dichlorobenzene	22.42	146	1859484	9.62 ug/L	100
69) p-Isopropyltoluene	22.80	119	3548456	10.39 ug/L	99
70) 1,4-Dichlorobenzene	22.74	146	1787390	9.70 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

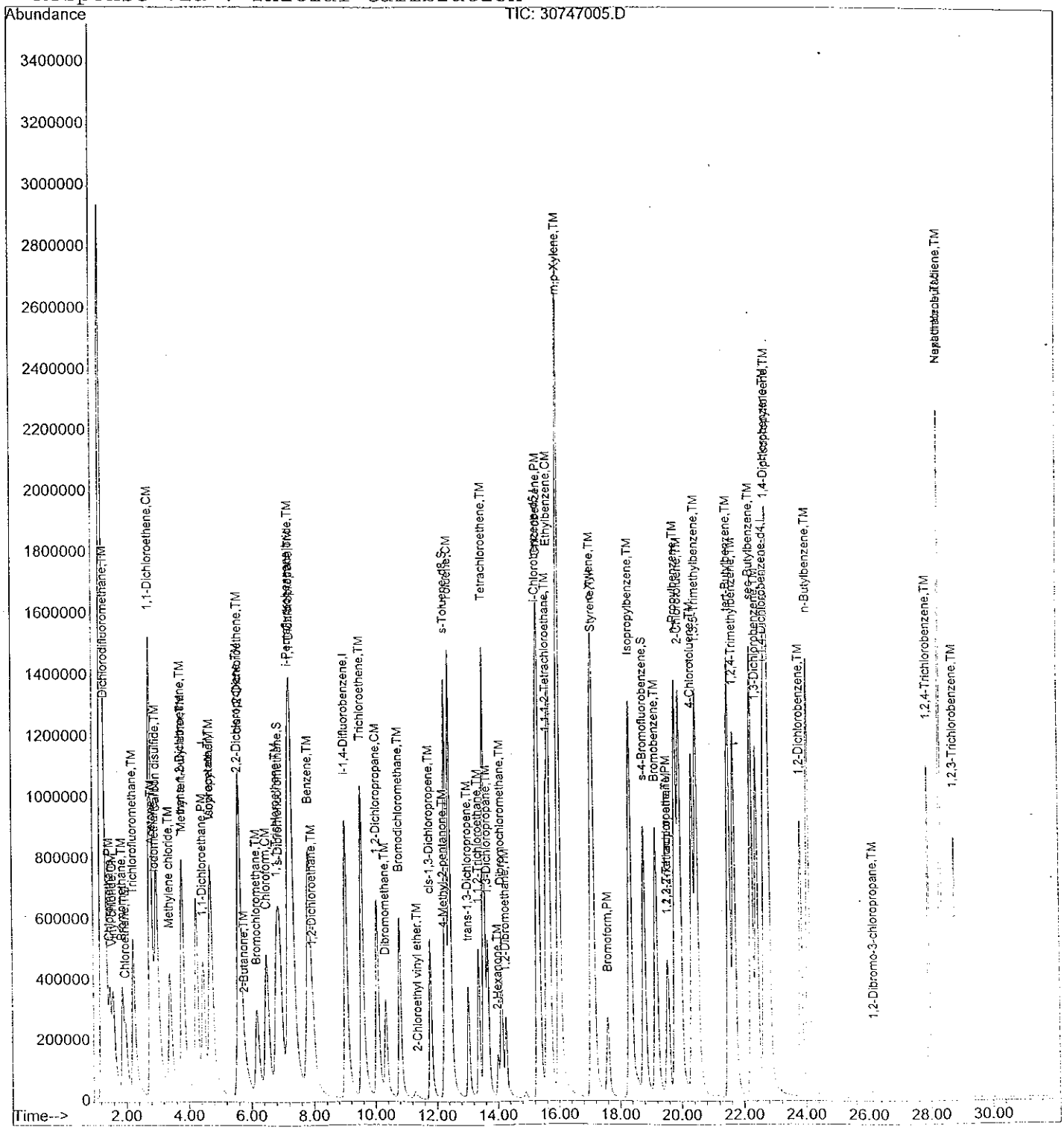
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1450779	9.44	ug/L	99
72)	n-Butylbenzene	24.08	91	3366620	10.64	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	88830	9.03	ug/L	97
74)	1,2,4-Trichlorobenzene	27.93	180	919629	10.65	ug/L	97
75)	Hexachlorobutadiene	28.33	225	1043138	12.08	ug/L	98
76)	Naphthalene	28.34	128	665728	10.11	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	665661	10.35	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

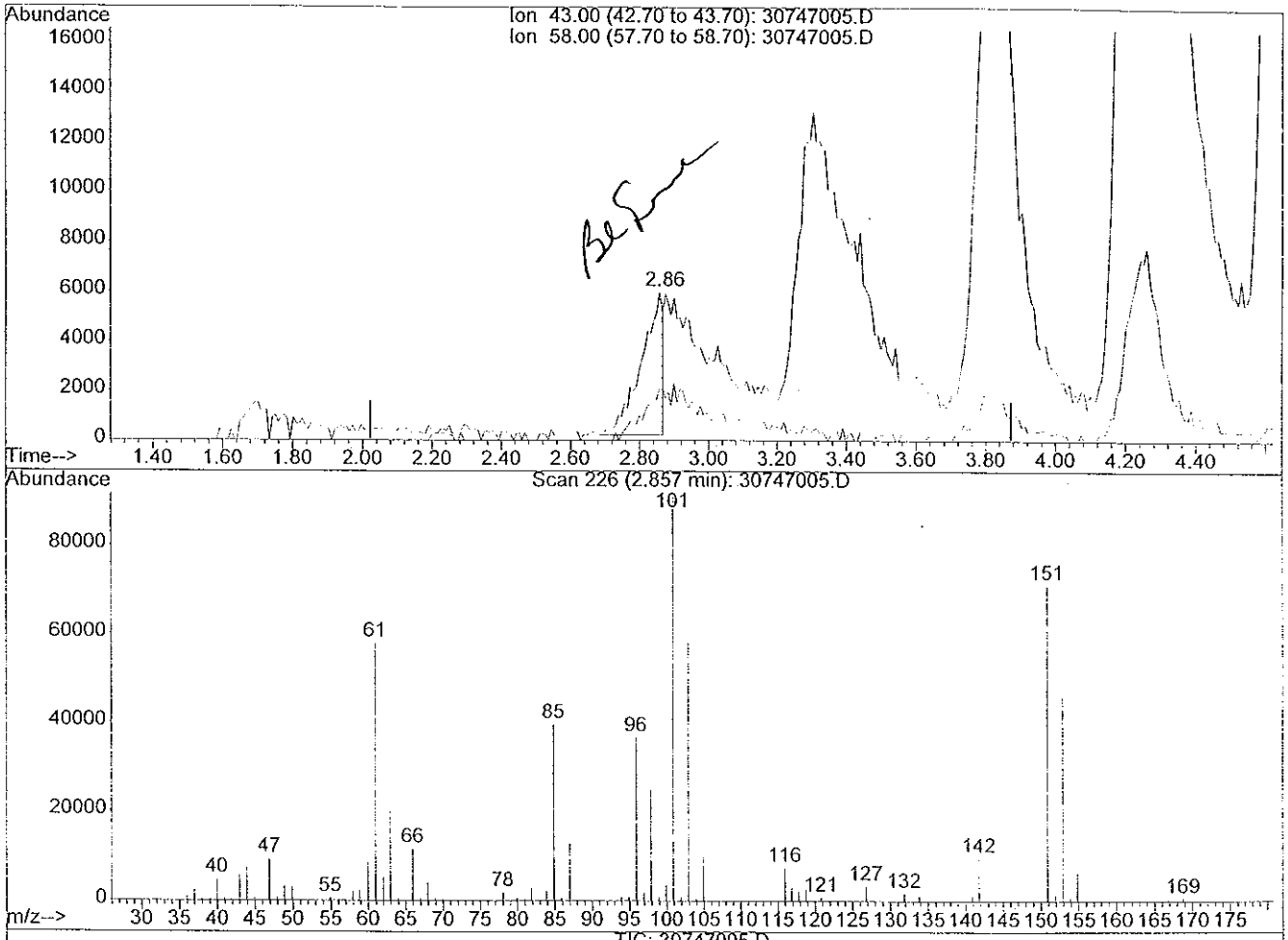
Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

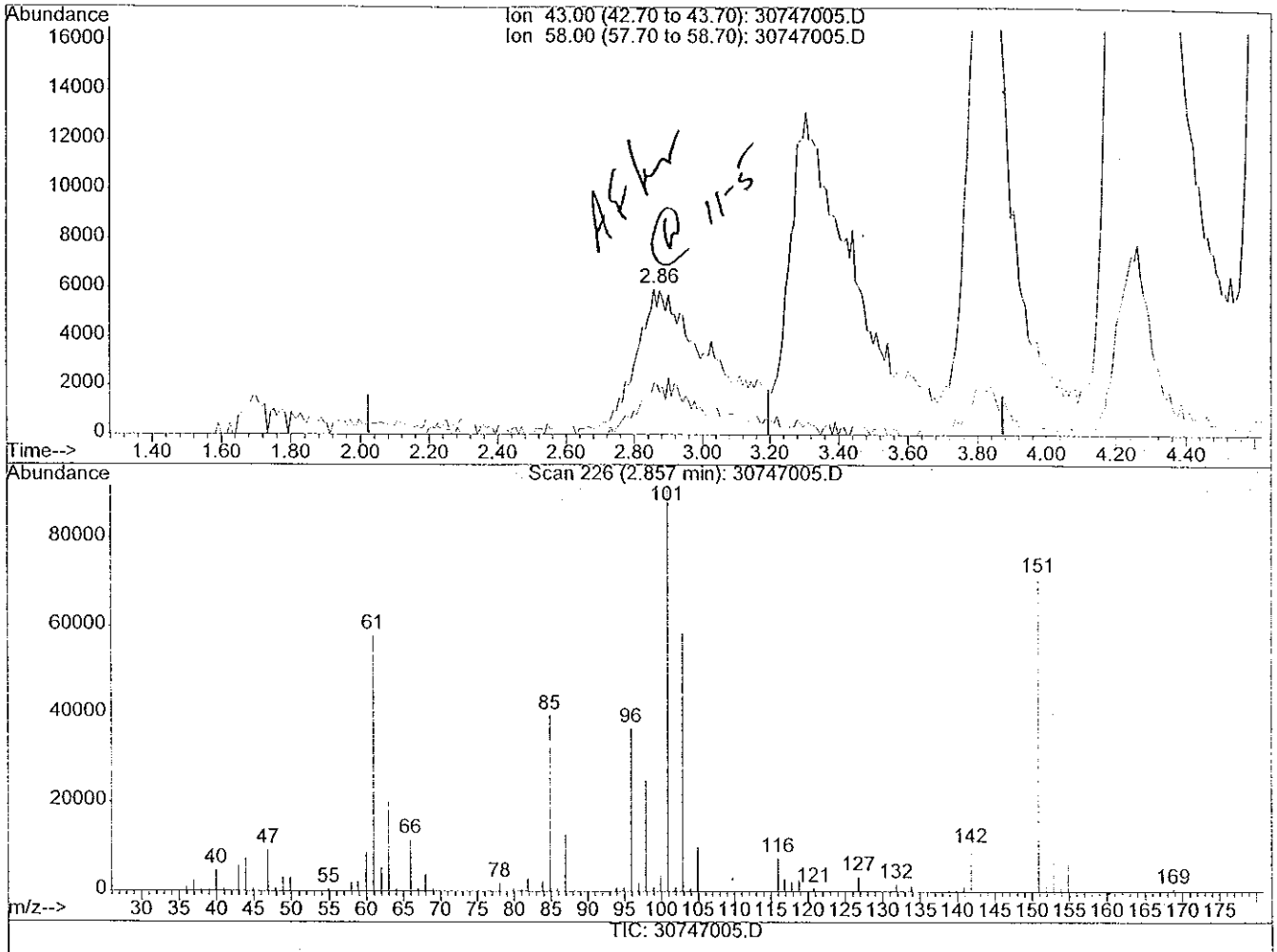
2.86min 4.01ug/L

response 24690

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	36.69
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.86min 15.31ug/L m

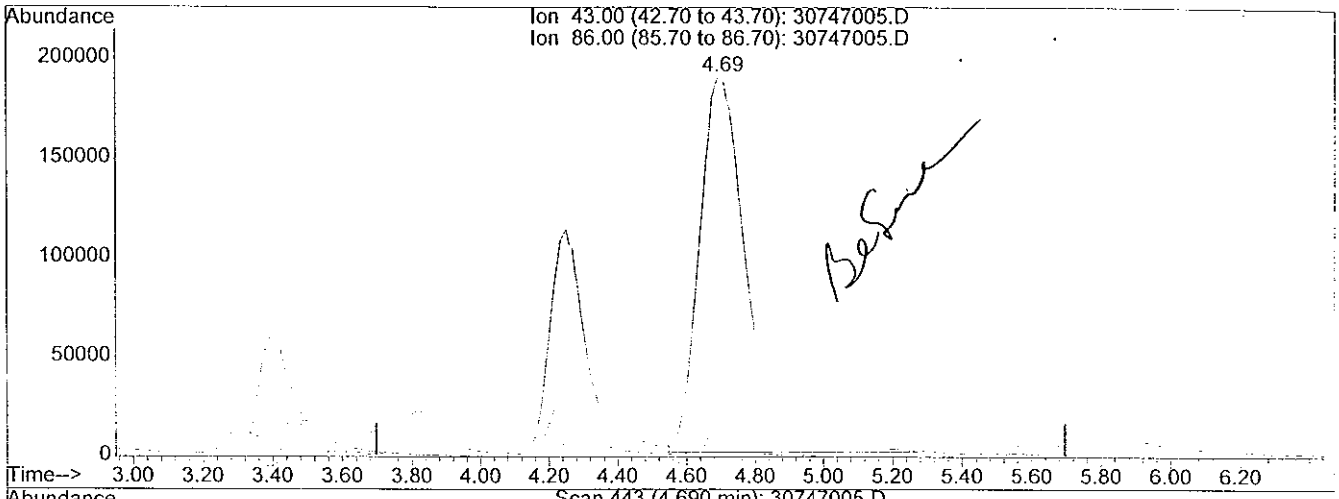
response 92468

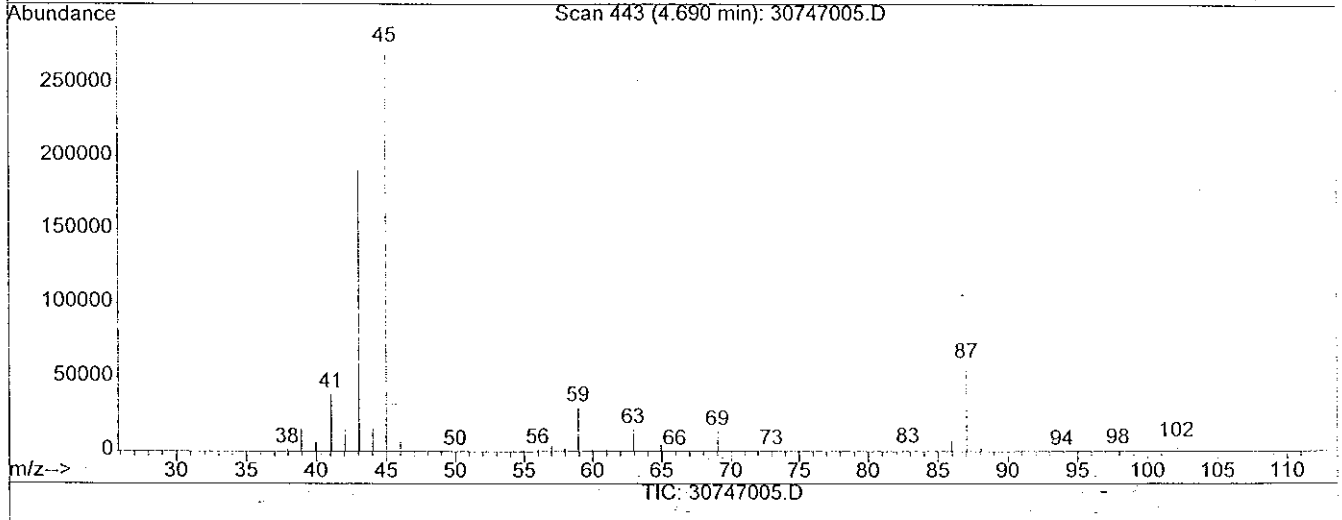
Ion	Exp%	Act%
43.00	100	100
58.00	32.40	35.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(16) Vinyl acetate (TM)

4.69min 12.50ug/L

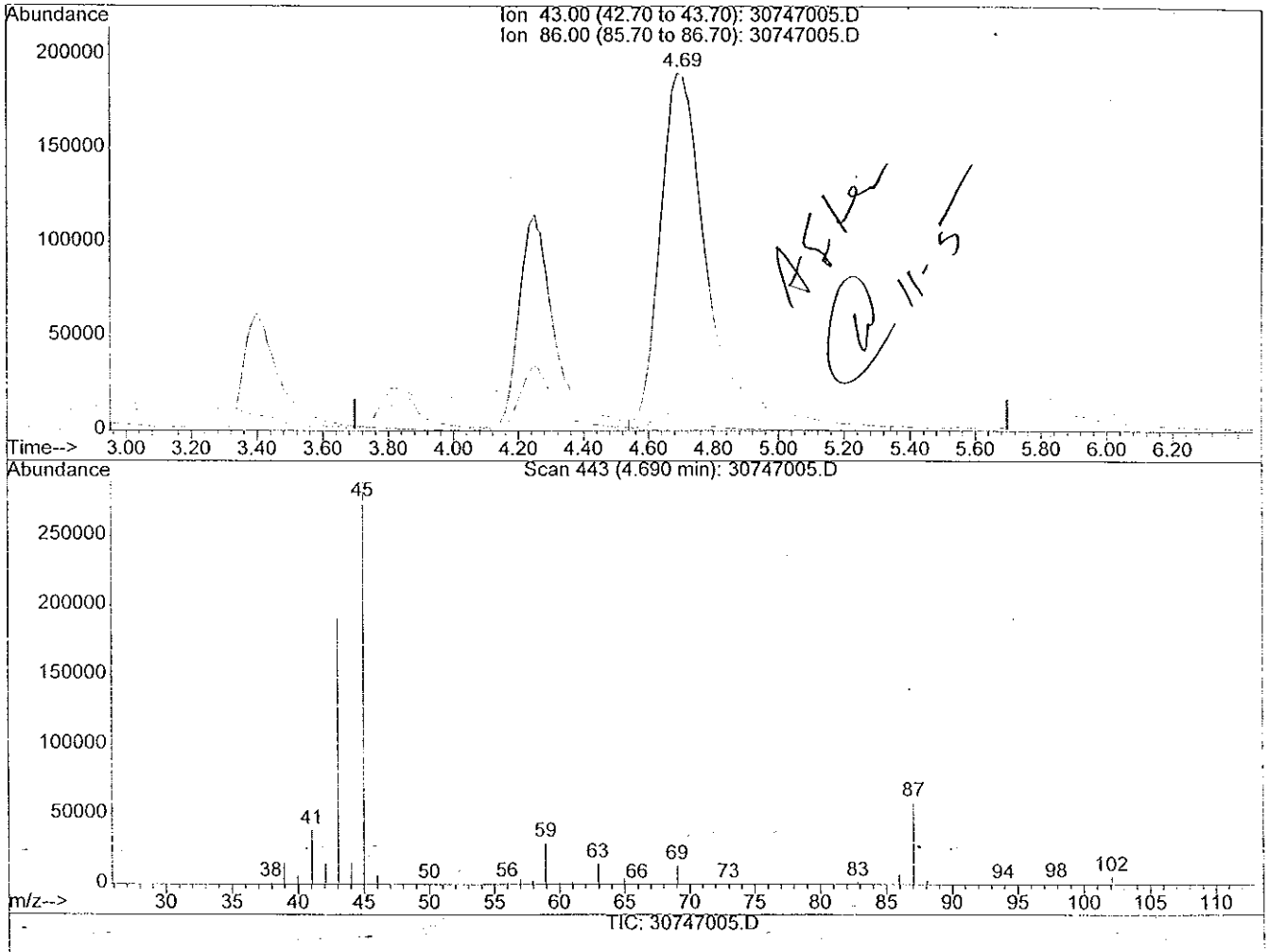
response 1889227

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.12
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

4.69min 13.33ug/L m

response 2014827

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.06
0.00	0.00	0.00
0.00	0.00	0.00

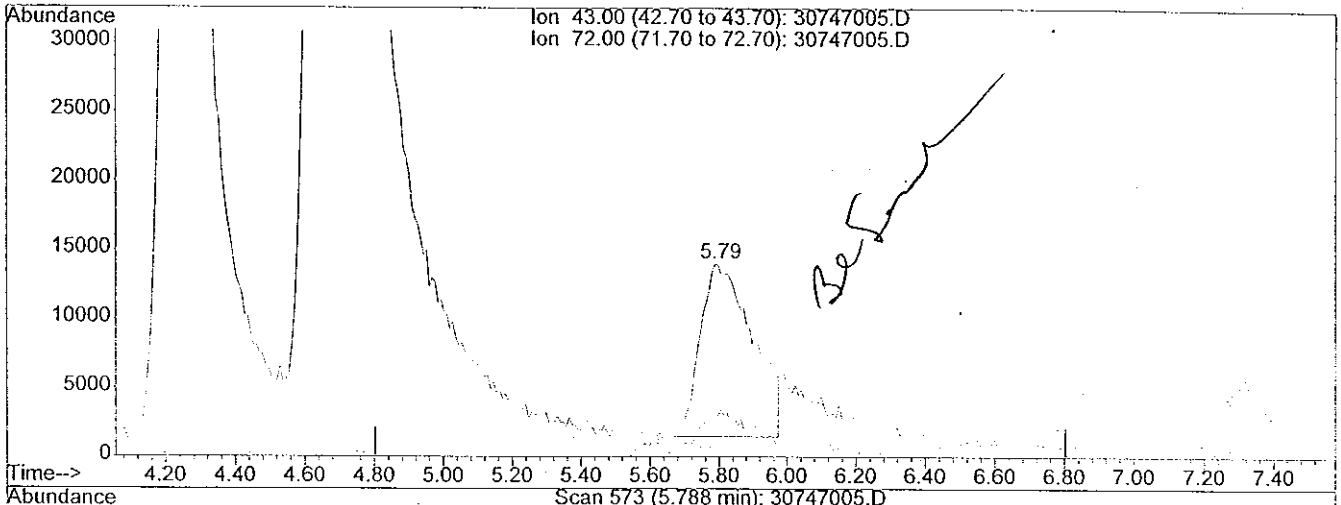
Quantitation Report (Qedit)

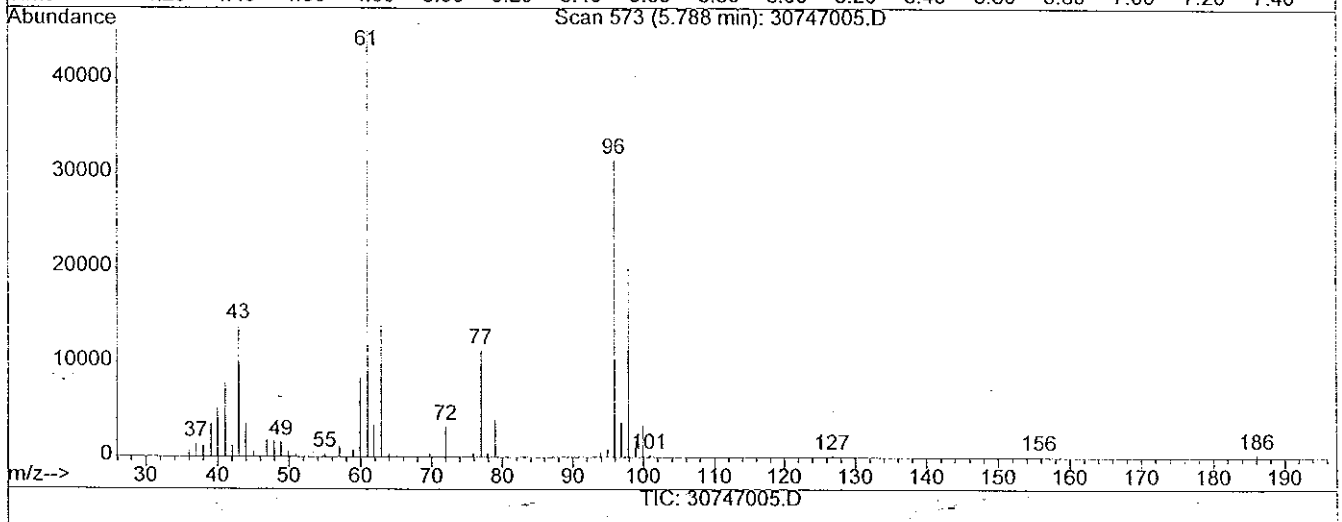
Data File : D:\HPCHEM\1\DATA\110201\30747005.D
Acq On : 2 Nov 2001 12:03
Sample : 110611-3 MS 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(19) 2-Butanone (TM)

5.79min 10.80ug/L

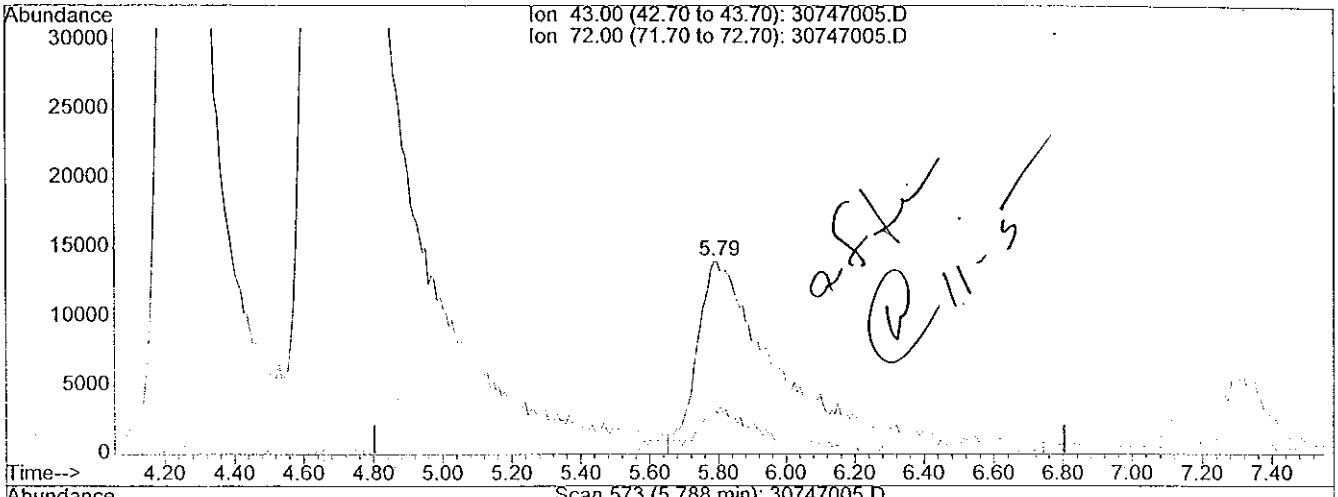
response 135036

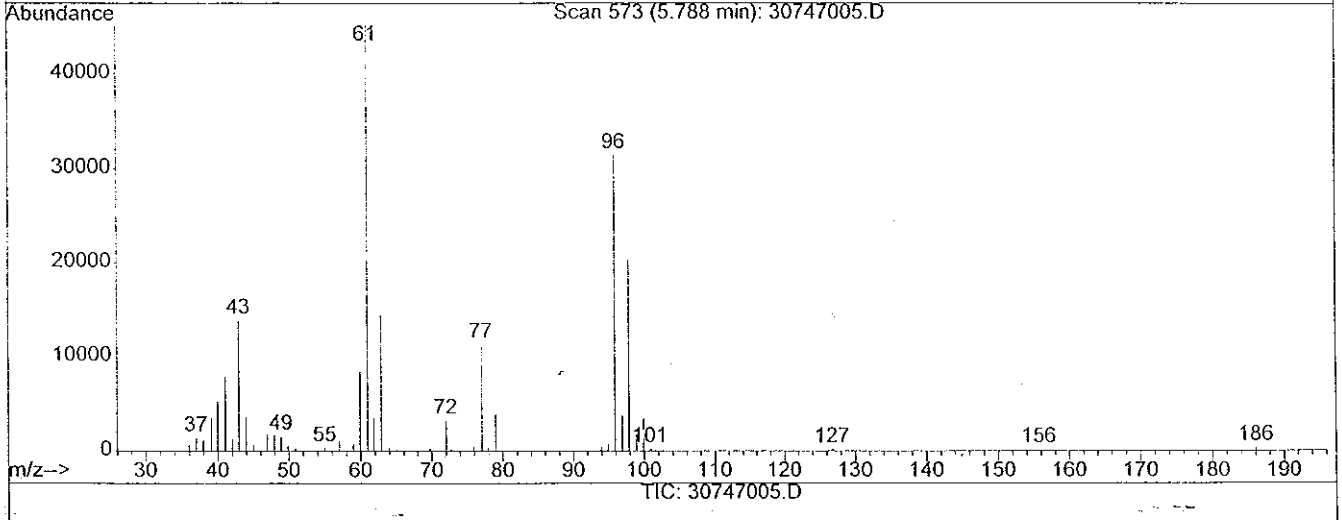
Ion	Exp%	Act%
43.00	100	100
72.00	19.00	20.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747005.D Vial: 2
Acq On : 2 Nov 2001 12:03 Operator: GRH
Sample : 110611-3 MS 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:23 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747005.D

(19) 2-Butanone (TM)

5.79mih 20.99ug/L m

response 262444

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	35.28	ug/L	99
3) Chloromethane	1.50	50	847802	41.72	ug/L	98
4) Vinyl chloride	1.59	62	919226	43.08	ug/L	99
5) Bromomethane	1.88	96	837518	43.44	ug/L	98
6) Chloroethane	1.98	64	563679	45.08	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	44.65	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	46.21	ug/L	99
9) Acetone	2.88	43	111536m	91.15	ug/L	91
10) Iodomethane	2.93	142	1145433	45.34	ug/L	100
11) Carbon disulfide	2.99	76	3185450	49.38	ug/L	100
12) Methylene chloride	3.40	84	826647	49.32	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	45.48	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	52.95	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	44.03	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	79.33	ug/L	96
17) Isopropyl ether	4.72	45	3419126	53.71	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	43.31	ug/L	98
19) 2-Butanone	5.81	43	340951m	134.39	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	84.73	ug/L	96
21) Bromochloromethane	6.21	128	416179	51.15	ug/L	99
22) Chloroform	6.50	83	1954022	48.26	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	48.01	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	43.98	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	47.60	ug/L	100
28)	Benzene	7.87	78	3237186	47.23	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	48.55	ug/L	99
30)	Trichloroethene	9.59	95	1477525	53.49	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	50.32	ug/L	99
32)	Dibromomethane	10.35	93	528751	51.71	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	1.96	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	49.83	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	49.90	ug/L	98
37)	Toluene	12.47	92	2048291	46.41	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	51.49	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	51.49	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	47.23	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	53.65	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	52.17	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	51.97	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	103.04	ug/L	98
45)	2-Hexanone	14.03	43	455354	105.10	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	48.06	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	49.75	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	45.93	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	95.62	ug/L	97
52)	o-Xylene	17.09	106	1386888	48.61	ug/L	99
53)	Styrene	17.16	104	2192457	48.45	ug/L	97
54)	Bromoform	17.62	173	605296	55.03	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	47.34	ug/L	100
58)	Bromobenzene	19.21	156	1135299	48.05	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	50.74	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	52.74	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	46.79	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	46.31	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	48.23	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	45.41	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	44.28	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	47.25	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	46.32	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	47.44	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	48.33	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	46.70	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

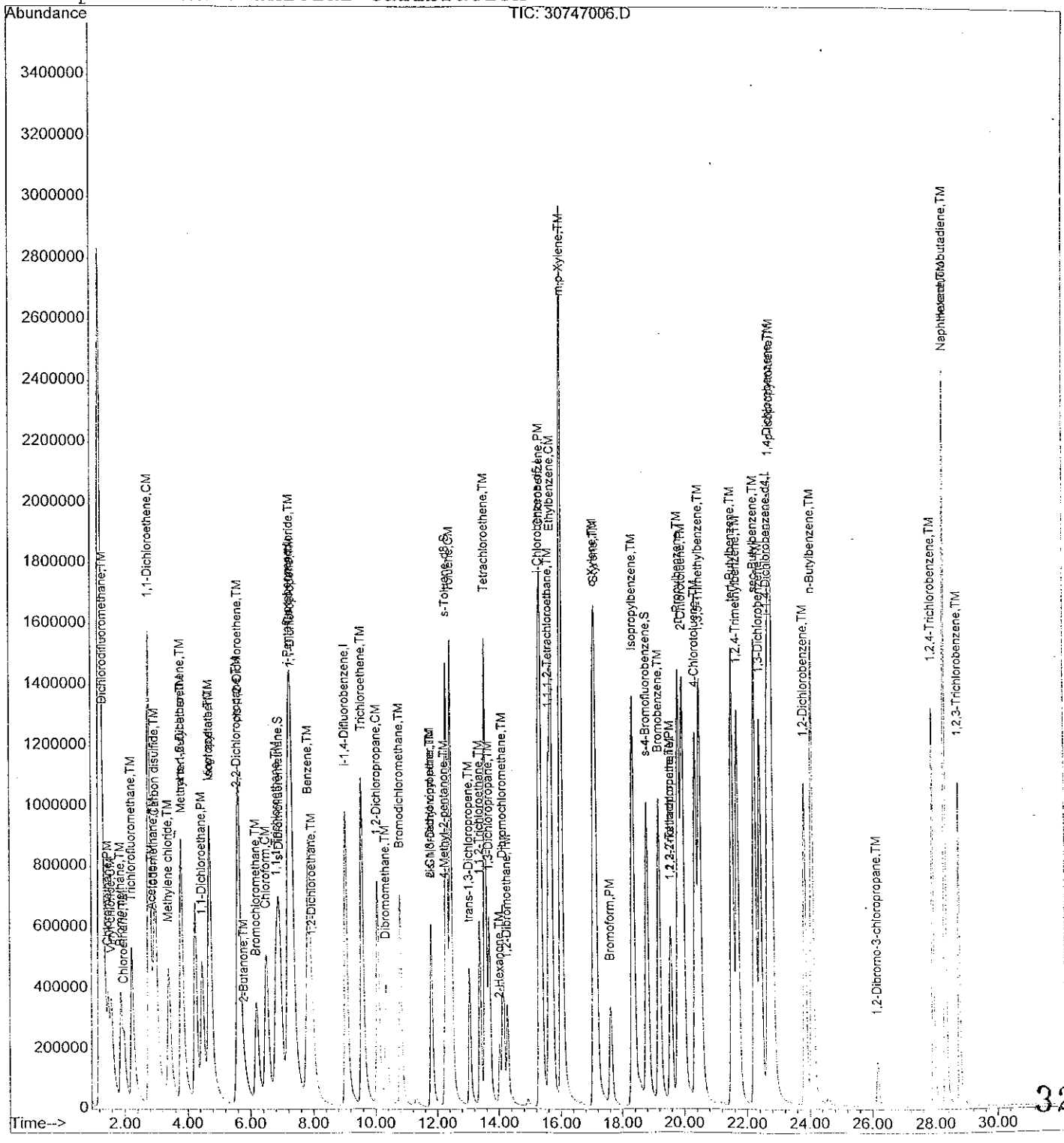
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1697184	49.06	ug/L	100
72)	n-Butylbenzene	24.10	91	3597663	50.54	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	121389	54.85	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1105521	56.92	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1067782	54.77	ug/L	99
76)	Naphthalene	28.34	128	885573	59.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	835794	57.72	ug/L	98

(#) = qualifier out of range (m) = manual integration
30747006.D V82625B1.M Mon Nov 05 09:50:16 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



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VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110681
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 27, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3619A-Q401	110681-1	3619A
17-3624B-Q401	110681-2	3624B
17-36FD2-Q401	110681-3	36FD2
17-36TB5-Q401	110681-4	36TB5

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 6, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3619A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747012.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	0.3	U	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	0.2	J	0.21 J
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.2	J	0.17 J
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3619A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747012.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.6 U

1.9 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3619A

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747012.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3624B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747013.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3624B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747013.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3624B

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747013.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747014.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.3	U	
74-87-3	Chloromethane	0.3	U	
75-01-4	Vinyl chloride	0.3	U	
74-83-9	Bromomethane	0.5	U	0.53 U
75-00-3	Chloroethane	0.3	U	
75-69-4	Trichlorofluoromethane	0.3	U	
75-35-4	1,1-Dichloroethene	0.3	U	
75-09-2	Methylene chloride	0.3	U	
540-59-0	trans-1,2-Dichloroethene	0.3	U	
75-34-4	1,1-Dichloroethane	0.3	U	
594-20-7	2,2-Dichloropropane	0.3	U	
156-59-2	cis-1,2-Dichloroethene	0.3	U	
74-97-5	Bromochloromethane	0.3	U	
67-66-3	Chloroform	0.3	U	
71-55-6	1,1,1-Trichloroethane	0.3	U	
56-23-5	Carbon tetrachloride	0.3	U	
71-43-2	Benzene	0.3	U	
107-06-2	1,2-Dichloroethane	0.3	U	
79-01-6	Trichloroethene	0.2	J	0.23 J
78-87-5	1,2-Dichloropropane	0.3	U	
74-95-3	Dibromomethane	0.3	U	
75-27-4	Bromodichloromethane	0.3	U	
10061-01-5	cis-1,3-Dichloropropene	0.3	U	
108-88-3	Toluene	0.3	U	
10061-02-6	trans-1,3-Dichloropropene	0.3	U	
79-00-5	1,1,2-Trichloroethane	0.3	U	
127-18-4	Tetrachloroethene	0.2	J	0.18 J
142-28-9	1,3-Dichloropropane	0.3	U	
124-48-1	Dibromochloromethane	0.3	U	
106-93-4	1,2-Dibromoethane	0.3	U	
108-90-7	Chlorobenzene	0.3	U	
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U	
100-41-4	Ethylbenzene	0.3	U	
	m,p-Xylene	0.6	U	
95-47-6	o-Xylene	0.3	U	
100-42-5	Styrene	0.3	U	
75-25-2	Bromoform	0.3	U	
98-82-8	Isopropylbenzene	0.3	U	
108-86-1	Bromobenzene	0.3	U	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36FD2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747014.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.64
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.94
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36FD2

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-3

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747014.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB5

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747015.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB5

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747015.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB5

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110681-4

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747015.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.53 U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: BUW149ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747003.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	8	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	10	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	10	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	21	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: BUW149ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747004.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	10	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	33	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	8	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

2.6U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	2	U
96-18-4	1,2,3-Trichloropropane	8	U
103-65-1	n-Propylbenzene	2	U
95-49-8	2-Chlorotoluene	2	U
106-43-4	4-Chlorotoluene	2	U
108-67-8	1,3,5-Trimethylbenzene	2	U
98-06-6	tert-Butylbenzene	2	U
95-63-6	1,2,4-Trimethylbenzene	2	U
135-98-8	sec-Butylbenzene	2	U
541-73-1	1,3-Dichlorobenzene	2	U
99-87-6	p-Isopropyltoluene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U
104-51-8	n-Butylbenzene	2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	2	U
87-68-3	Hexachlorobutadiene	2	U
91-20-3	Naphthalene	2	U
87-67-6	1,2,3-Trichlorobenzene	2	U

9.54

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3628BDL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747007.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. _____ Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	36	D
74-87-3	Chloromethane	40	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	44	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	45	D
540-59-0	trans-1,2-Dichloroethene	45	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	44	D
156-59-2	cis-1,2-Dichloroethene	80	D
74-97-5	Bromochloromethane	46	D
67-66-3	Chloroform	46	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	45	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	43	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	48	D
74-95-3	Dibromomethane	44	D
75-27-4	Bromodichloromethane	45	D
10061-01-5	cis-1,3-Dichloropropene	45	D
108-88-3	Toluene	47	D
10061-02-6	trans-1,3-Dichloropropene	44	D
79-00-5	1,1,2-Trichloroethane	44	D
127-18-4	Tetrachloroethene	48	D
142-28-9	1,3-Dichloropropane	45	D
124-48-1	Dibromochloromethane	46	D
106-93-4	1,2-Dibromoethane	44	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	48	D
100-41-4	Ethylbenzene	48	D
	m,p-Xylene	97	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	47	D
75-25-2	Bromoform	47	D
98-82-8	Isopropylbenzene	50	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747005.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	44	D
96-18-4	1,2,3-Trichloropropane	45	D
103-65-1	n-Propylbenzene	51	D
95-49-8	2-Chlorotoluene	50	D
106-43-4	4-Chlorotoluene	50	D
108-67-8	1,3,5-Trimethylbenzene	48	D
98-06-6	tert-Butylbenzene	48	D
95-63-6	1,2,4-Trimethylbenzene	50	D
135-98-8	sec-Butylbenzene	51	D
541-73-1	1,3-Dichlorobenzene	48	D
99-87-6	p-Isopropyltoluene	52	D
106-46-7	1,4-Dichlorobenzene	48	D
95-50-1	1,2-Dichlorobenzene	47	D
104-51-8	n-Butylbenzene	53	D
96-12-8	1,2-Dibromo-3-chloropropane	45	D
120-82-1	1,2,4-Trichlorobenzene	53	D
87-68-3	Hexachlorobutadiene	60	D
91-20-3	Naphthalene	51	D
87-67-6	1,2,3-Trichlorobenzene	52	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	35	D
74-87-3	Chloromethane	42	D
75-01-4	Vinyl chloride	43	D
74-83-9	Bromomethane	43	D
75-00-3	Chloroethane	45	D
75-69-4	Trichlorofluoromethane	45	D
75-35-4	1,1-Dichloroethene	46	D
75-09-2	Methylene chloride	49	D
540-59-0	trans-1,2-Dichloroethene	46	D
75-34-4	1,1-Dichloroethane	44	D
594-20-7	2,2-Dichloropropane	43	D
156-59-2	cis-1,2-Dichloroethene	85	D
74-97-5	Bromochloromethane	51	D
67-66-3	Chloroform	48	D
71-55-6	1,1,1-Trichloroethane	48	D
56-23-5	Carbon tetrachloride	44	D
71-43-2	Benzene	47	D
107-06-2	1,2-Dichloroethane	49	D
79-01-6	Trichloroethene	54	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	52	D
75-27-4	Bromodichloromethane	50	D
10061-01-5	cis-1,3-Dichloropropene	50	D
108-88-3	Toluene	46	D
10061-02-6	trans-1,3-Dichloropropene	52	D
79-00-5	1,1,2-Trichloroethane	52	D
127-18-4	Tetrachloroethene	47	D
142-28-9	1,3-Dichloropropane	54	D
124-48-1	Dibromochloromethane	52	D
106-93-4	1,2-Dibromoethane	52	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	50	D
100-41-4	Ethylbenzene	46	D
	m,p-Xylene	96	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	48	D
75-25-2	Bromoform	55	D
98-82-8	Isopropylbenzene	47	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3628BDLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Matrix: (soil/water) WATER Lab Sample ID: 110611-3 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30747006.D

Level: (low/med) LOW Date Received: 10/27/01

% Moisture: not dec. Date Analyzed: 11/2/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	51	D
96-18-4	1,2,3-Trichloropropane	53	D
103-65-1	n-Propylbenzene	47	D
95-49-8	2-Chlorotoluene	46	D
106-43-4	4-Chlorotoluene	48	D
108-67-8	1,3,5-Trimethylbenzene	45	D
98-06-6	tert-Butylbenzene	44	D
95-63-6	1,2,4-Trimethylbenzene	47	D
135-98-8	sec-Butylbenzene	46	D
541-73-1	1,3-Dichlorobenzene	47	D
99-87-6	p-Isopropyltoluene	48	D
106-46-7	1,4-Dichlorobenzene	47	D
95-50-1	1,2-Dichlorobenzene	49	D
104-51-8	n-Butylbenzene	51	D
96-12-8	1,2-Dibromo-3-chloropropane	55	D
120-82-1	1,2,4-Trichlorobenzene	57	D
87-68-3	Hexachlorobutadiene	55	D
91-20-3	Naphthalene	60	D
87-67-6	1,2,3-Trichlorobenzene	58	D

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	100	100	97	0
03	LCS 1	96	100	100	0
04	3628BDLMS	92	99	99	0
05	3628BDLMSD	102	100	101	0
06	3628BDL	91	99	89	0
07	3619A	102	99	98	0
08	3624B	109	99	98	0
09	36FD2	102	98	97	0
10	36TB5	107	97	98	0

			QC LIMITS
SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\110201\30747004.D Vial: 1
Acq On : 2 Nov 2001 11:19 Operator: GRH
Sample : BUW149ALCS LCS 11-02-01 Inst : Bubba
Misc : BUW149ALCS LCS 11-02-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.64	10.00	96.36	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.01	10.00	100.11	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.02	10.00	100.23	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.33	10.00	83.28	30 to 152%	[ ]
3)	PM	Chloromethane	8.57	10.00	85.73	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.59	10.00	95.86	72 to 116%	[ ]
5)	T	Bromomethane	9.27	10.00	92.67	63 to 140%	[ ]
6)	T	Chloroethane	9.79	10.00	97.95	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.30	10.00	102.96	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.92	10.00	99.23	84 to 117%	[ ]
9)	T	Acetone	15.08	20.00	75.38	24 to 158%	[ ]
10)	T	Iodomethane	9.64	10.00	96.40	60 to 135%	[ ]
11)	T	Carbon disulfide	10.69	10.00	106.90	79 to 118%	[ ]
12)	T	Methylene chloride	9.67	10.00	96.73	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.59	10.00	95.87	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	9.30	10.00	92.99	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.26	10.00	92.59	90 to 114%	[ ]
16)	T	Vinyl acetate	14.79	20.00	73.96	75 to 114%	[*]
17)	T	Isopropyl ether	10.21	10.00	102.06	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.62	10.00	96.21	74 to 112%	[ ]
19)	T	2-Butanone	19.59	20.00	97.94	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.33	10.00	103.34	90 to 117%	[ ]
21)	T	Bromochloromethane	10.13	10.00	101.29	91 to 129%	[ ]
22)	CM	Chloroform	9.74	10.00	97.41	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.28	10.00	102.85	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.74	10.00	97.37	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.46	10.00	104.58	84 to 112%	[ ]
28)	T	Benzene	9.85	10.00	98.52	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.65	10.00	96.50	88 to 125%	[ ]
30)	T	Trichloroethene	9.94	10.00	99.40	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.05	10.00	100.51	87 to 112%	[ ]
32)	T	Dibromomethane	9.71	10.00	97.12	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.76	10.00	7.55	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.86	10.00	98.55	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.77	10.00	97.74	61 to 133%	[ ]
37)	CM	Toluene	9.90	10.00	98.99	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.80	10.00	98.02	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.65	10.00	96.45	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.27	10.00	102.66	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.04	10.00	100.39	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.85	10.00	98.51	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.87	10.00	98.66	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	18.09	20.00	90.46	70 to 128%	[ ]
45)	T	2-Hexanone	18.77	20.00	93.87	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.93	10.00	99.28	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.21	10.00	102.07	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.94	10.00	99.39	69 to 123%	[ ]
51)	T	m,p-Xylene	20.58	20.00	102.89	70 to 125%	[ ]
52)	T	o-Xylene	10.22	10.00	102.23	73 to 122%	[ ]
53)	T	Styrene	9.99	10.00	99.92	76 to 127%	[ ]
54)	PM	Bromoform	10.32	10.00	103.25	52 to 127%	[ ]
55)	T	Isopropylbenzene	10.33	10.00	103.26	56 to 134%	[ ]
58)	T	Bromobenzene	10.03	10.00	100.34	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.62	10.00	96.20	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.13	10.00	101.26	38 to 159%	[ ]
61)	T	n-Propylbenzene	10.39	10.00	103.95	73 to 116%	[ ]
62)	T	2-Chlorotoluene	10.26	10.00	102.58	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.32	10.00	103.20	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	10.04	10.00	100.41	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.95	10.00	99.47	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.04	10.00	100.45	63 to 142%	[ ]
67)	T	sec-Butylbenzene	10.42	10.00	104.24	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.95	10.00	99.50	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.63	10.00	106.27	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.88	10.00	98.75	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.86	10.00	98.57	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.93	10.00	109.26	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.35	10.00	103.47	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	11.16	10.00	111.55	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	12.13	10.00	121.33	74 to 140%	[ ]
76)	T	Naphthalene	10.91	10.00	109.08	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.91	10.00	109.14	43 to 204%	[ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128% [ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169% [ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123% [ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125% [ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122% [ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127% [ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127% [ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134% [ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159% [ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142% [ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115% [ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140% [ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204% [ ]

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

Non-Spiked Sample: 30747007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30747005.D	30747006.D
Sample :	110611-3 MS 5.00ml 5X	110611-3 MSD 5.00ml 5X
Acq Time:	2 Nov 2001 12:03	2 Nov 2001 12:44

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	36.20	35.28	72	71	2.6	12	35-160
Chloromethane	0.0	50	40.36	41.72	81	83	3.3	10	60-124
Vinyl chlorid	0.0	50	42.72	43.08	85	86	0.8	9	74-125
Bromomethane	0.0	50	44.48	43.44	89	87	2.4	17	59-152
Chloroethane	0.0	50	44.66	45.08	89	90	0.9	10	73-123
Trichlorofluo	0.0	50	45.46	44.65	91	89	1.8	10	84-125
1,1-Dichloroe	0.0	50	46.34	46.21	93	92	0.3	13	84-119
Acetone	0.0	100	76.57	91.15	77	91	17.4	44	19-201
Iodomethane	0.0	50	44.26	45.34	89	91	2.4	15	53-154
Carbon disulf	0.0	50	49.22	49.38	98	99	0.3	12	79-123
Methylene chl	0.0	50	44.96	49.32	90	99	9.2	18	81-121
trans-1,2-Dic	0.0	50	45.13	45.48	90	91	0.8	9	87-115
Methyl tert-b	0.0	50	41.26	52.95	83	106	24.8	32	68-133
1,1-Dichloroe	0.0	50	43.61	44.03	87	88	1.0	10	85-121
Vinyl acetate	0.0	100	66.64	79.33	67#	79	17.4	20	69-122
Isopropyl eth	0.0	50	46.18	53.71	92	107	15.1	18	79-118
2,2-Dichlorop	0.0	50	43.89	43.31	88	87	1.3	10	78-116
2-Butanone	20.8	100	104.94	134.39	84	114	29.8	47	65-133
cis-1,2-Dichl	32.8	50	80.17	84.73	95	104	9.2	14	88-122
Bromochlorome	0.0	50	46.41	51.15	93	102	9.7	18	85-130
Chloroform	0.0	50	45.70	48.26	91	97	5.4	13	87-117
1,1,1-Trichlo	0.0	50	47.86	48.01	96	96	0.3	10	90-120
Carbon tetrac	0.0	50	45.07	43.98	90	88	2.4	11	78-121
1,1-Dichlorop	0.0	50	48.98	47.60	98	95	2.9	12	84-118
Benzene	0.0	50	46.95	47.23	94	94	0.6	8	67-148
1,2-Dichloroe	0.0	50	43.11	48.55	86	97	11.9	17	85-129
Trichloroethe	7.5	50	53.69	53.49	92	92	0.4	11	86-115
1,2-Dichlorop	0.0	50	47.71	50.32	95	101	5.3	12	88-114
Dibromomethan	0.0	50	43.69	51.71	87	103	16.8	20	81-130
2-Chloroethyl	0.0	50	3.47	1.96	7#	4#	55.4#	30	50-150
Bromodichloro	0.0	50	45.29	49.83	91	100	9.6	15	87-121
cis-1,3-Dichl	0.0	50	45.03	49.90	90	100	10.3	19	65-133
Toluene	0.0	50	47.04	46.41	94	93	1.3	8	86-123
trans-1,3-Dic	0.0	50	44.04	51.49	88	103	15.6	19	53-144
1,1,2-Trichlo	0.0	50	44.46	51.49	89	103	14.7	20	85-125
Tetrachloroet	0.0	50	48.51	47.23	97	94	2.7	13	87-131
1,3-Dichlorop	0.0	50	45.37	53.65	91	107	16.7	19	73-126

Dibromochloro	0.0	50	45.49	52.17	91	104	13.7	27	83-122
1,2-Dibromoet	0.0	50	44.37	51.97	89	104	15.8	26	36-153
4-Methyl-2-pe	0.0	100	76.76	103.04	77	103	29.2	35	64-133
2-Hexanone	0.0	100	81.06	105.10	81	105	25.8	36	49-144
Chlorobenzene	0.0	50	48.02	48.06	96	96	0.1	10	66-156
1,1,1,2-Tetra	0.0	50	48.01	49.75	96	100	3.6	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.87	45.93	96	92	4.1	14	78-132
m,p-Xylene	0.0	100	97.05	95.62	97	96	1.5	20	76-129
o-Xylene	0.0	50	48.73	48.61	97	97	0.2	13	76-127
Styrene	0.0	50	47.00	48.45	94	97	3.0	43	55-138
Bromoform	0.0	50	47.26	55.03	95	110	15.2	29	62-124
Isopropylbenz	0.0	50	49.89	47.34	100	95	5.2	20	65-149
Bromobenzene	0.0	50	47.88	48.05	96	96	0.4	14	73-140
1,1,2,2-Tetra	0.0	50	43.80	50.74	88	101	14.7	25	75-127
1,2,3-Trichlo	0.0	50	45.39	52.74	91	105	15.0	26	75-127
n-Propylbenze	0.0	50	51.13	46.79	102	94	8.9	16	76-123
2-Chlorotolue	0.0	50	49.64	46.31	99	93	6.9	15	85-122
4-Chlorotolue	0.0	50	50.37	48.23	101	96	4.3	13	87-122
1,3,5-Trimeth	0.0	50	48.51	45.41	97	91	6.6	25	72-140
tert-Butylben	0.0	50	48.30	44.28	97	89	8.7	16	73-113
1,2,4-Trimeth	0.0	50	50.52	47.25	101	94	6.7	30	50-158
sec-Butylbenz	0.0	50	50.66	46.32	101	93	8.9	18	62-144
1,3-Dichlorob	0.0	50	48.11	47.44	96	95	1.4	10	89-118
p-Isopropylto	0.0	50	51.94	48.33	104	97	7.2	22	35-190
1,4-Dichlorob	0.0	50	48.48	46.70	97	93	3.7	10	78-138
1,2-Dichlorob	0.0	50	47.18	49.06	94	98	3.9	12	86-120
n-Butylbenzen	0.0	50	53.21	50.54	106	101	5.2	40	0-270
1,2-Dibromo-3	0.0	50	45.16	54.85	90	110	19.4	33	71-118
1,2,4-Trichlo	0.0	50	53.27	56.92	107	114	6.6	32	30-230
Hexachlorobut	0.0	50	60.38	54.77	121	110	9.7	18	70-156
Naphthalene	0.0	50	50.56	59.78	101	120	16.7	42	17-260
1,2,3-Trichlo	0.0	50	51.73	57.72	103	115	11.0	33	49-214

- Fails Limit Check

V82625B1.M Mon Nov 05 09:25:58 2001

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Lab File ID: 30747003.D Lab Sample ID: BUW149ABK BLA

Date Analyzed: 11/2/01 Time Analyzed: 10:35

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 1	BUW149ALCS LCS 11-02	30747004.D	11:19
02	3628BDLMS	110611-3 MS 5.00ML 5X	30747005.D	12:03
03	3628BDLMSD	110611-3 MSD 5.00ML 5	30747006.D	12:44
04	3628BDL	110611-3 5.00ML 5X	30747007.D	13:25
05	3619A	110681-1	30747012.D	16:53
06	3624B	110681-2	30747013.D	17:35
07	36FD2	110681-3	30747014.D	18:18
08	36TB5	110681-4	30747015.D	19:01

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Lab File ID: 30747001.D BFB Injection Date: 11/2/01

Instrument ID: BUBBA BFB Injection Time: 9:13

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.1
75	30.0 - 66.0% of mass 95	43.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	69.1
175	4.0 - 9.0% of mass 174	4.8 (7.0)1
176	93.0 - 101.0% of mass 174	68.6 (99.2)1
177	5.0 - 9.0% of mass 176	4.3 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30747002.D	11/2/01	9:55
02	VBLKBA	BUW149ABK BLANK 11-	30747003.D	11/2/01	10:35
03	LCS 1	BUW149ALCS LCS 11-02	30747004.D	11/2/01	11:19
04	3628BDLMS	110611-3 MS 5.00ML 5X	30747005.D	11/2/01	12:03
05	3628BDLMSD	110611-3 MSD 5.00ML 5	30747006.D	11/2/01	12:44
06	3628BDL	110611-3 5.00ML 5X	30747007.D	11/2/01	13:25
07	3619A	110681-1	30747012.D	11/2/01	16:53
08	3624B	110681-2	30747013.D	11/2/01	17:35
09	36FD2	110681-3	30747014.D	11/2/01	18:18
10	36TB5	110681-4	30747015.D	11/2/01	19:01

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------	ISTD	----------					
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
								L	M= 0.019 R^2=0.996	
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331 R^2=1.000	
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------	ISTD	----------					
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157 R^2=0.999	
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integra
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------			ISTD	----------			
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------			ISTD	----------			
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

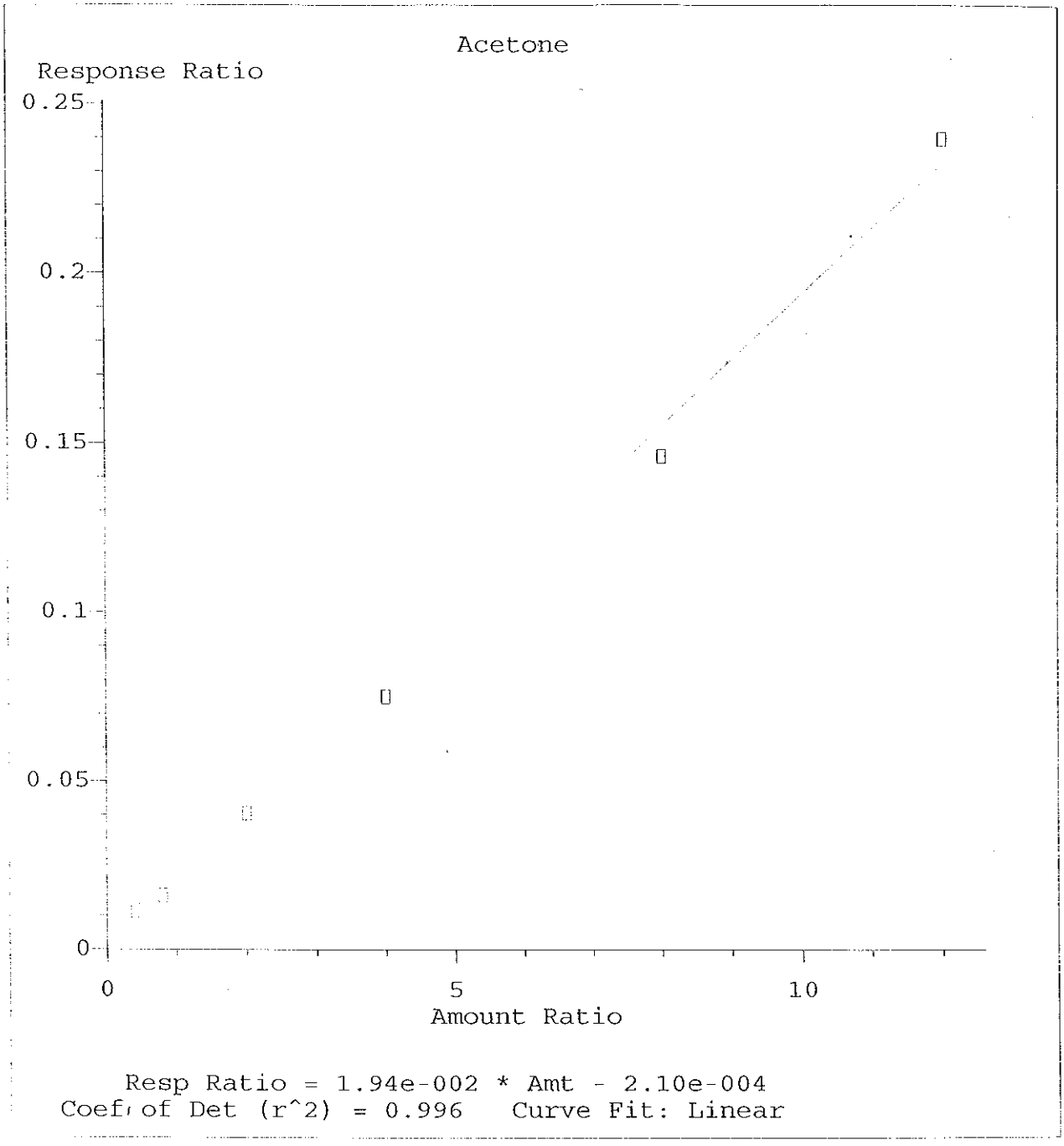
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

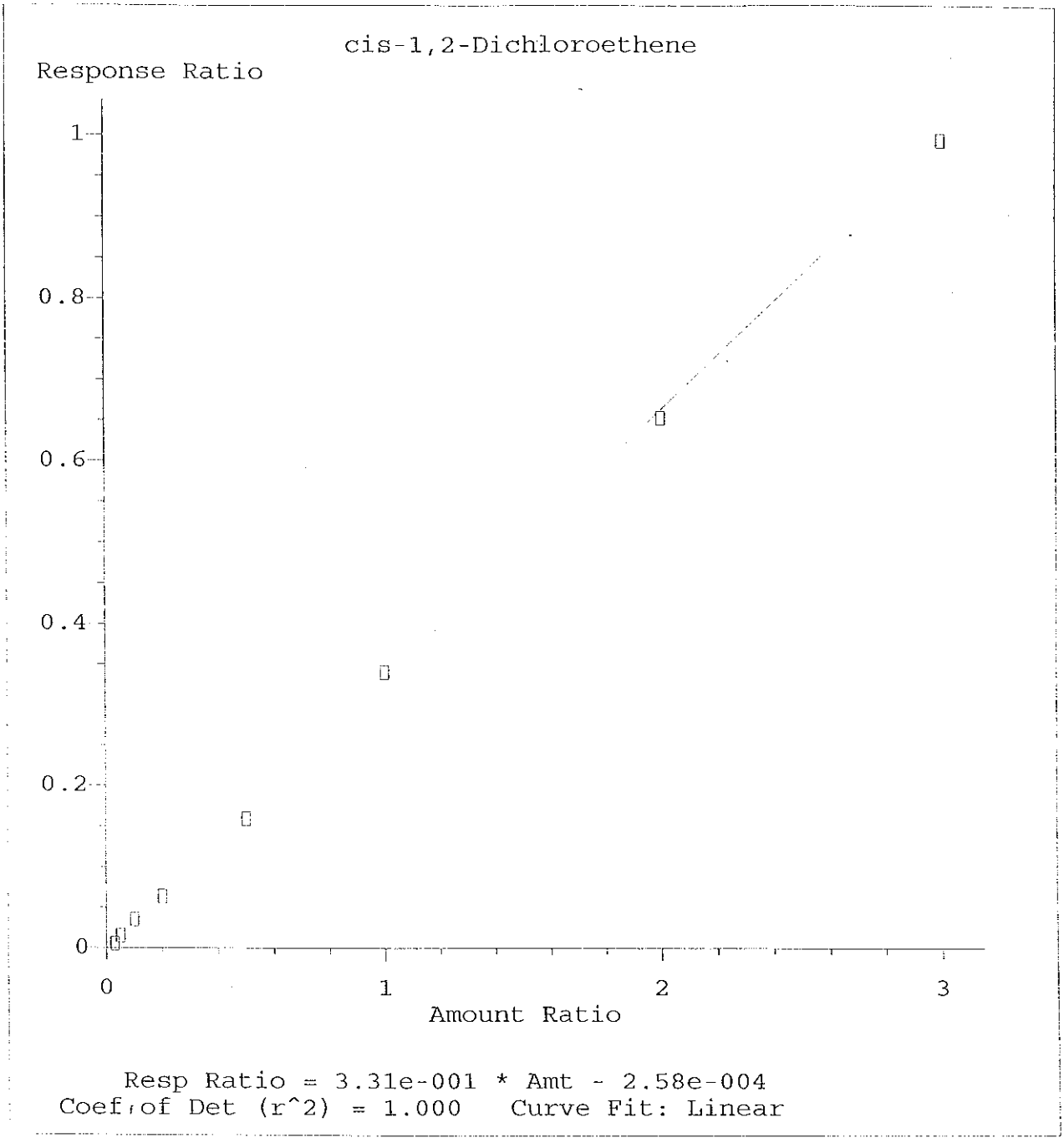
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

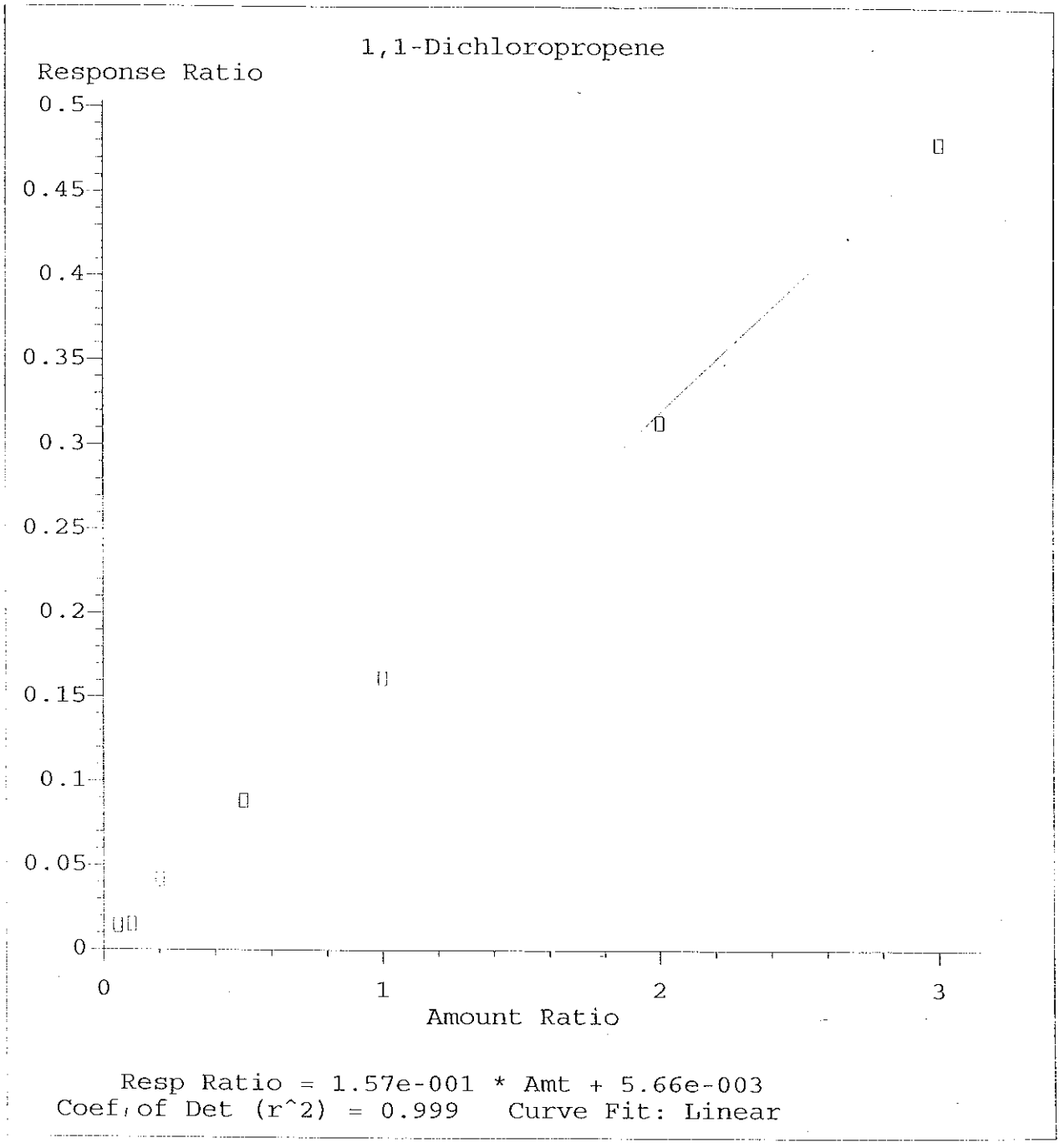
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



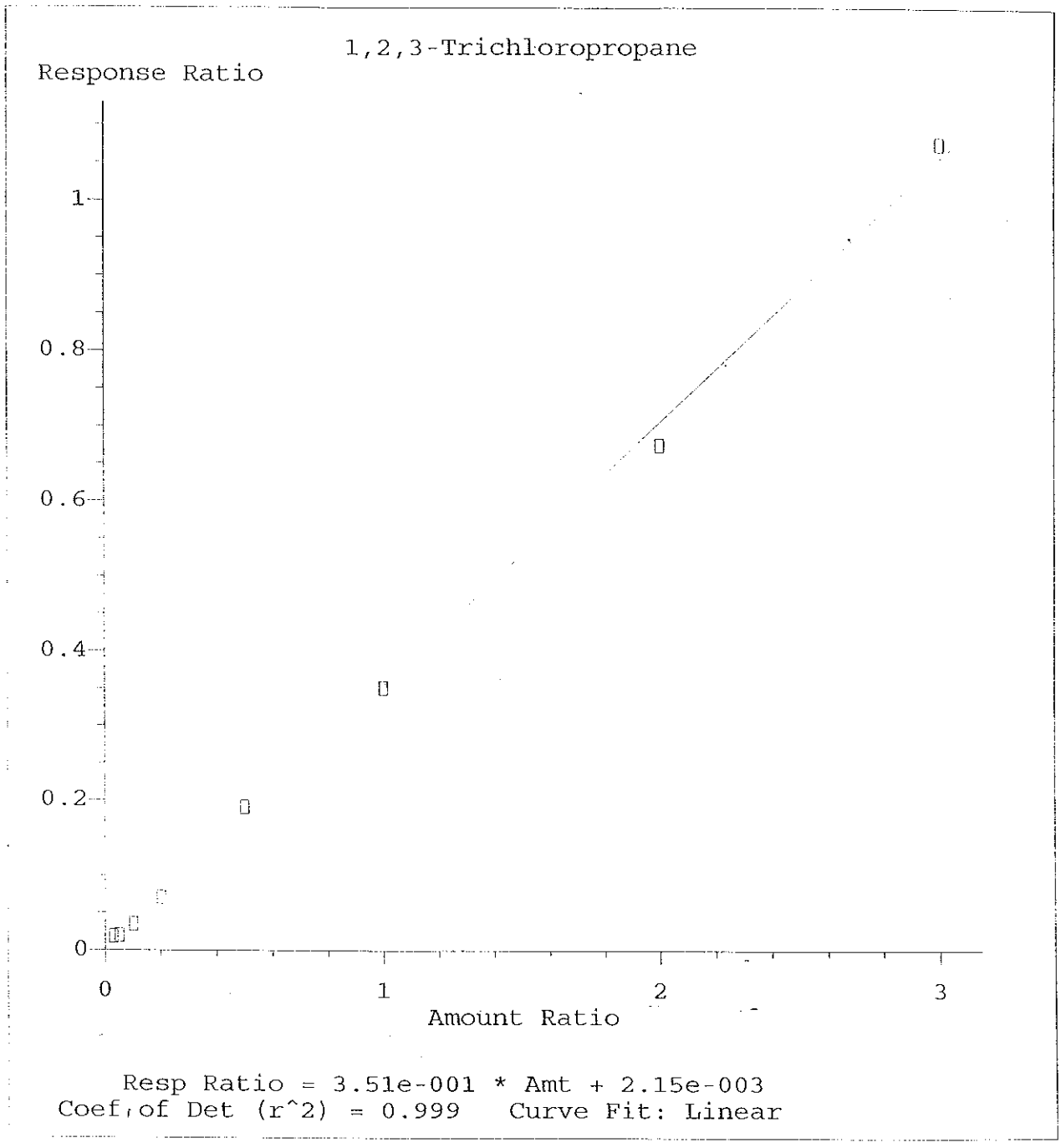
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



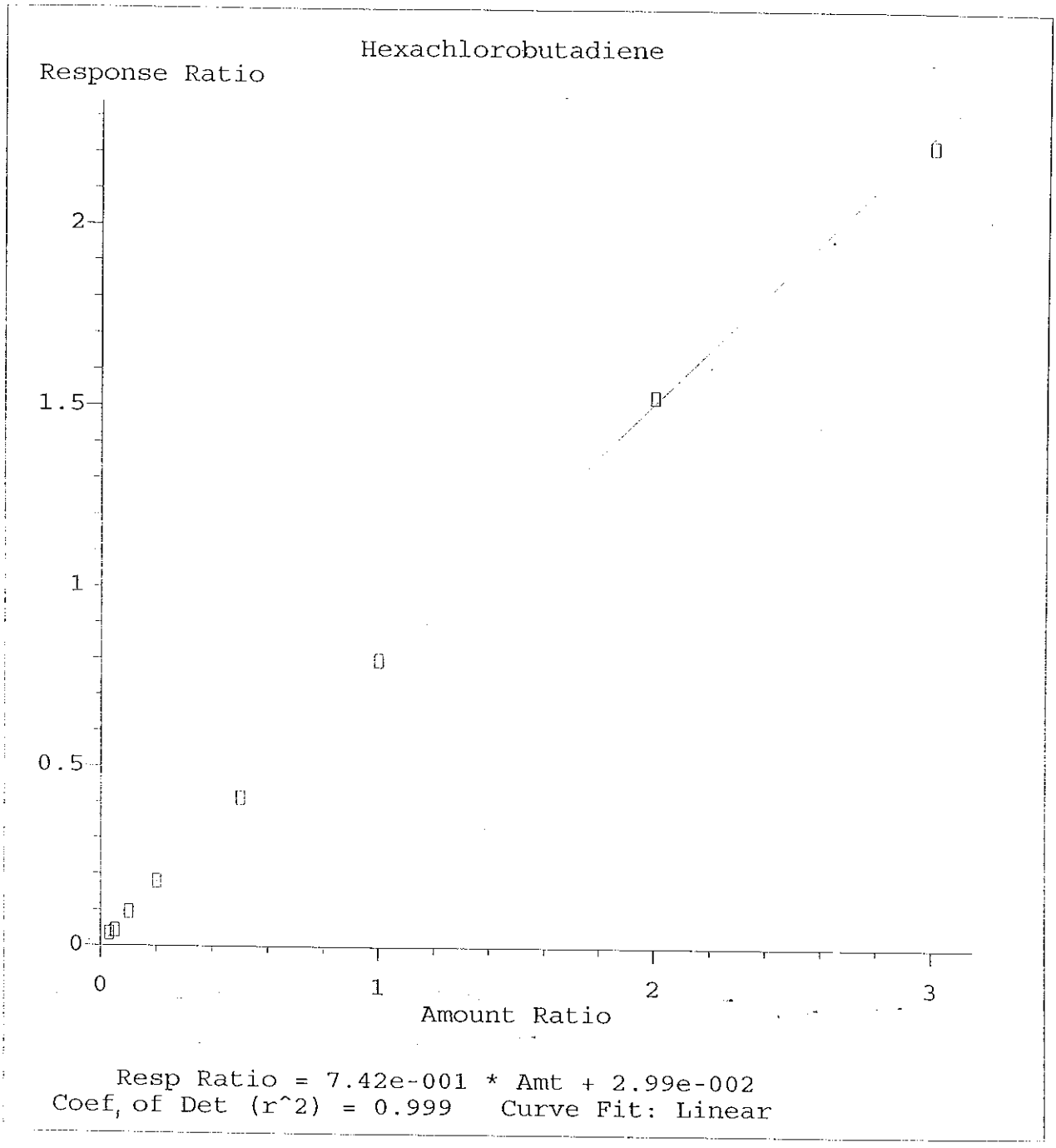
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	0.508	0.449	11.6	94	0.00
3	PM	Chloromethane	0.324	0.285#	12.0	91	0.00
4	CM	Vinyl chloride	0.340	0.310	8.8#	96	0.00
5	TM	Bromomethane	0.307	0.278	9.4	95	0.00
6	TM	Chloroethane	0.199	0.187	6.0	97	0.00
7	TM	Trichlorofluoromethane	0.557	0.516	7.4	95	0.00
8	CM	1,1-Dichloroethene	0.327	0.311	4.9#	99	0.00
9	TM	Acetone	0.021	0.020#	4.8	106	0.00
10	TM	Iodomethane	0.403	0.365	9.4	91	0.00
11	TM	Carbon disulfide	1.028	0.976	5.1	98	0.00
12	TM	Methylene chloride	0.267	0.264	1.1	99	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.342	5.8	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.398	0.3	101	0.00
15	PM	1,1-Dichloroethane	0.645	0.614	4.8	96	0.00
16	TM	Vinyl acetate	0.489	0.480	1.8	99	0.00
17	TM	Isopropyl ether	1.015	1.021	-0.6	99	0.00
18	TM	2,2-Dichloropropane	0.478	0.437	8.6	91	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	105	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.325	-4.5	96	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	102	0.00
22	CM	Chloroform	0.645	0.621	3.7#	98	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.513	4.8	95	0.00
24	S	s-Dibromofluoromethane	0.463	0.487	-5.2	105	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
26	TM	Carbon tetrachloride	0.500	0.433	13.4	95	0.00
27	TM	1,1-Dichloropropene	0.186	0.163	12.4	101	0.00
28	TM	Benzene	1.086	1.038	4.4	98	0.00
29	TM	1,2-Dichloroethane	0.217	0.211	2.8	100	0.00
30	TM	Trichloroethene	0.437	0.411	5.9	98	0.00
31	CM	1,2-Dichloropropane	0.363	0.351	3.3#	99	0.00
32	TM	Dibromomethane	0.162	0.160	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.064	-6.7	102	0.00
34	TM	Bromodichloromethane	0.502	0.493	1.8	100	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.378	3.3	97	0.00
36	S	s-Toluene-d8	0.947	0.948	-0.1	100	0.00
37	CM	Toluene	0.699	0.656	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.238	1.2	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.159	1.9	102	0.00
40	TM	Tetrachloroethene	0.505	0.477	5.5	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.306	1.0	101	0.00
42	TM	Dibromochloromethane	0.295	0.297	-0.7	101	0.00
43	TM	1,2-Dibromoethane	0.200	0.197	1.5	98	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.114	0.0	105	0.00
45	TM	2-Hexanone	0.069	0.073	-5.8	106	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
47	PM	Chlorobenzene	1.050	0.998	5.0	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.456	1.9	99	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	102	0.00
50	CM	Ethylbenzene	0.567	0.533	6.0#	98	0.00
51	TM	m,p-Xylene	0.683	0.661	3.2	98	0.00
52	TM	o-Xylene	0.635	0.614	3.3	98	0.00
53	TM	Styrene	1.007	1.012	-0.5	100	0.00
54	PM	Bromoform	0.245	0.259	-5.7	104	0.00
55	TM	Isopropylbenzene	2.040	1.967	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
58	TM	Bromobenzene	0.928	0.868	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.622	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.360	8.9	104	0.00
61	TM	n-Propylbenzene	0.909	0.858	5.6	97	0.00
62	TM	2-Chlorotoluene	0.856	0.777	9.2	98	0.00
63	TM	4-Chlorotoluene	2.990	2.789	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.568	7.8	98	0.00
65	TM	tert-Butylbenzene	1.825	1.686	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.321	5.0	96	0.00
67	TM	sec-Butylbenzene	4.012	3.781	5.8	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.613	5.6	100	0.00
69	TM	p-Isopropyltoluene	3.020	2.928	3.0	99	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.528	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	102	0.00
72	TM	n-Butylbenzene	2.797	2.861	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	103	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.824	-8.0	106	0.00
75	TM	Hexachlorobutadiene	0.873	0.818	6.3	104	0.00
76	TM	Naphthalene	0.582	0.646	-11.0	111	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.626	-10.0	108	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 6

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	101	0.00
2	TM	Dichlorodifluoromethane	10.000	8.832	11.7	94	0.00
3	PM	Chloromethane	10.000	8.810	11.9	91	0.00
4	CM	Vinyl chloride	10.000	9.114	8.9#	96	0.00
5	TM	Bromomethane	10.000	9.056	9.4	95	0.00
6	TM	Chloroethane	10.000	9.366	6.3	97	0.00
7	TM	Trichlorofluoromethane	10.000	9.264	7.4	95	0.00
8	CM	1,1-Dichloroethene	10.000	9.518	4.8#	99	0.00
9	TM	Acetone	40.000	40.761	-1.9	106	0.00
10	TM	Iodomethane	10.000	9.058	9.4	91	0.00
11	TM	Carbon disulfide	10.000	9.493	5.1	98	0.00
12	TM	Methylene chloride	10.000	9.872	1.3	99	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.437	5.6	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.969	0.3	101	0.00
15	PM	1,1-Dichloroethane	10.000	9.526	4.7	96	0.00
16	TM	Vinyl acetate	20.000	19.654	1.7	99	0.00
17	TM	Isopropyl ether	10.000	10.064	-0.6	99	0.00
18	TM	2,2-Dichloropropane	10.000	9.141	8.6	91	0.00
19	TM	2-Butanone	40.000	40.865	-2.2	105	0.00
20	TM	cis-1,2-Dichloroethene	10.000	9.851	1.5	96	0.00
21	TM	Bromochloromethane	10.000	10.138	-1.4	102	0.00
22	CM	Chloroform	10.000	9.614	3.9#	98	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.521	4.8	95	0.00
24	S	s-Dibromofluoromethane	10.000	10.526	-5.3	105	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	100	0.00
26	TM	Carbon tetrachloride	10.000	8.672	13.3	95	0.00
27	TM	1,1-Dichloropropene	10.000	10.044	-0.4	101	0.00
28	TM	Benzene	10.000	9.559	4.4	98	0.00
29	TM	1,2-Dichloroethane	10.000	9.721	2.8	100	0.00
30	TM	Trichloroethene	10.000	9.387	6.1	98	0.00
31	CM	1,2-Dichloropropane	10.000	9.661	3.4#	99	0.00
32	TM	Dibromomethane	10.000	9.882	1.2	101	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.681	-6.8	102	0.00
34	TM	Bromodichloromethane	10.000	9.813	1.9	100	0.00
35	TM	cis-1,3-Dichloropropene	10.000	9.677	3.2	97	0.00
36	S	s-Toluene-d8	10.000	10.003	-0.0	100	0.00
37	CM	Toluene	10.000	9.383	6.2#	97	0.00
38	TM	trans-1,3-Dichloropropene	10.000	9.861	1.4	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.837	1.6	102	0.00
40	TM	Tetrachloroethene	10.000	9.441	5.6	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110201\30747002.D Vial: 15
Acq On : 2 Nov 2001 9:55 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Mon Nov 05 15:16:17 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.901	1.0	101	0.00
42	TM	Dibromochloromethane	10.000	10.083	-0.8	101	0.00
43	TM	1,2-Dibromoethane	10.000	9.832	1.7	98	0.00
44	TM	4-Methyl-2-pentanone	40.000	40.067	-0.2	105	0.00
45	TM	2-Hexanone	40.000	42.488	-6.2	106	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	100	0.00
47	PM	Chlorobenzene	10.000	9.505	4.9	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	99	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	102	0.00
50	CM	Ethylbenzene	10.000	9.390	6.1#	98	0.00
51	TM	m,p-Xylene	20.000	19.350	3.2	98	0.00
52	TM	o-Xylene	10.000	9.669	3.3	98	0.00
53	TM	Styrene	10.000	10.050	-0.5	100	0.00
54	PM	Bromoform	10.000	10.580	-5.8	104	0.00
55	TM	Isopropylbenzene	10.000	9.640	3.6	98	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.140	-1.4	100	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
58	TM	Bromobenzene	10.000	9.346	6.5	101	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.660	3.4	103	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.177	-1.8	104	0.00
61	TM	n-Propylbenzene	10.000	9.448	5.5	97	0.00
62	TM	2-Chlorotoluene	10.000	9.074	9.3	98	0.00
63	TM	4-Chlorotoluene	10.000	9.328	6.7	98	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.226	7.7	98	0.00
65	TM	tert-Butylbenzene	10.000	9.242	7.6	99	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	9.502	5.0	96	0.00
67	TM	sec-Butylbenzene	10.000	9.425	5.7	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.439	5.6	100	0.00
69	TM	p-Isopropyltoluene	10.000	9.694	3.1	99	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.375	6.3	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.575	4.3	102	0.00
72	TM	n-Butylbenzene	10.000	10.227	-2.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.790	2.1	103	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.802	-8.0	106	0.00
75	TM	Hexachlorobutadiene	10.000	10.673	-6.7	104	0.00
76	TM	Naphthalene	10.000	11.105	-11.1	111	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	11.002	-10.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Lab File ID (Standard): 30747002.D Date Analyzed: 11/2/01

Instrument ID: BUBBA Time Analyzed: 9:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2992359	7.21	3040284	9.04	2141284	15.30
	UPPER LIMIT	5984718	7.71	6080568	9.54	4282568	15.80
	LOWER LIMIT	1496180	6.71	1520142	8.54	1070642	14.80
	EPA SAMPLE NO.						
01	VBLKBA	3178649	7.23	3115359	9.05	2224472	15.31
02	LCS 1	3030766	7.22	3009380	9.06	2091671	15.31
03	3628BDLMS	3092066	7.22	3041235	9.04	2078003	15.30
04	3628BDLMSD	3136655	7.24	3157024	9.05	2246131	15.32
05	3628BDL	2847498	7.23	2706882	9.05	1838266	15.31
06	3619A	2945492	7.24	2935106	9.06	2093397	15.32
07	3624B	2949276	7.23	2980277	9.06	2249344	15.31
08	36FD2	2775287	7.22	2812628	9.05	2000796	15.30
09	36TB5	2830547	7.21	2976088	9.05	2154939	15.29

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110681

Lab File ID (Standard): 30747002.D Date Analyzed: 11/02/01

Instrument ID: BUBBA Time Analyzed: 09:55

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1216124	22.67				
	UPPER LIMIT	2432248	22.17				
	LOWER LIMIT	608062	23.17				
	EPA SAMPLE NO.						
01	VBLKBA	1077862	22.68				
02	LCS 1	1152357	22.68				
03	3628BDLMS	1130970	22.66				
04	3628BDLMSD	1272483	22.69				
05	3628BDL	825003	22.68				
06	3619A	1008218	22.68				
07	3624B	1071416	22.68				
08	36FD2	941416	22.65				
09	36TB5	1024600	22.66				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sequence Name: d:\HPCHEM\1\SEQUENCE\110201.S
Comment: 11-02-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\110201\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30747001	V82625A	TUNE
3	Sample	15	30747002	V82625A	10ppb VOA STD
4	Sample	16	30747003	V82625A	BUW149ABK BLANK 11-02-01
5	Sample	1	30747004	V82625A	BUW149ALCS LCS 11-02-01
6	Sample	2	30747005	V82625A	110611-3 MS 5.00ml 5X
7	Sample	3	30747006	V82625A	110611-3 MSD 5.00ml 5X
8	Sample	4	30747007	V82625A	110611-3 5.00ml 5X
9	Sample	5	30747008	V82625A	110655-1
10	Sample	6	30747009	V82625A	110655-2
11	Sample	7	30747010	V82625A	110655-3
12	Sample	8	30747011	V82625A	110655-4
13	Sample	9	30747012	V82625A	110681-1
14	Sample	10	30747013	V82625A	110681-2
15	Sample	11	30747014	V82625A	110681-3
16	Sample	12	30747015	V82625A	110681-4
17	Sample	13	BLANK	V82625A	BLANK

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name :
Project : Site :
Lab File ID (Standard): 30747002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 2 Nov 2001
Time Analyzed : 9:55
Heated Purge (Y:N) : Y

File	Sample	SMC1 #	SMC2 #	SMC3 #	SMC4 #	SMC5 #	SMC6 #	TOTAL OUT
30747003	BUW149ABK BLANK	100	100	97	0	0	0	0
30747004	BUW149ALCS LCS	96	100	100	0	0	0	0
30747005	110611-3 MS 5.0	92	99	99	0	0	0	0
30747006	110611-3 MSD 5.	102	100	101	0	0	0	0
30747007	110611-3 5.00ml	91	99	89	0	0	0	0
30747008	110655-1	98	97	97	0	0	0	0
30747009	110655-2	98	97	96	0	0	0	0
30747010	110655-3	96	98	96	0	0	0	0
30747011	110655-4	90	97	91	0	0	0	0
30747012	110681-1	102	99	98	0	0	0	0
30747013	110681-2	109	99	98	0	0	0	0
30747014	110681-3	102	98	97	0	0	0	0
30747015	110681-4	107	97	98	0	0	0	0

		QC Limits
SMC1	= s-Dibromofluoromethane	(77 -119)
SMC2	= s-Toluene-d8	(78 -118)
SMC3	= s-4-Bromofluorobenzene	(79 -116)
SMC4	=	(0 -0)
SMC5	=	(0 -0)
SMC6	=	(0 -0)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Contract :
Project :
Site :
Location :
Group :
Lab File ID (Standard): 30747002.D
Date Analyzed : 2 Nov 2001
Instrument ID : Bubba
Time Analyzed : 9:55
GC Column :
ID : (mm)
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2992359		7.21		3040284		9.04		2141284		15.30	
UPPER LIMIT	5984718		7.71		6080568		9.54		4282568		15.80	
LOWER LIMIT	1496180		6.71		1520142		8.54		1070642		14.80	
File ID Sample												
30747003 BUW149ABK	3178649		7.23		3115359		9.05		2224472		15.31	
30747004 BUW149ALC	3030766		7.22		3009380		9.06		2091671		15.31	
30747005 110611-3	3092066		7.22		3041235		9.04		2078003		15.30	
30747006 110611-3	3136655		7.24		3157024		9.05		2246131		15.32	
30747007 110611-3	2847498		7.23		2706882		9.05		1838266		15.31	
30747008 110655-1	3095736		7.23		3044663		9.06		2166775		15.31	
30747009 110655-2	2792216		7.24		2749255		9.06		1952081		15.32	
30747010 110655-3	3117425		7.24		3060651		9.06		2116458		15.33	
30747011 110655-4	2983542		7.23		2870801		9.06		1941523		15.32	
30747012 110681-1	2945492		7.24		2935106		9.06		2093397		15.32	
30747013 110681-2	2949276		7.23		2980277		9.06		2249344		15.31	
30747014 110681-3	2775287		7.22		2812628		9.05		2000796		15.30	
30747015 110681-4	2830547		7.21		2976088		9.05		2154939		15.29	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30747002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 2 Nov 2001
Time Analyzed : 9:55
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1216124		22.67		0		0.00		0		0.00	
UPPER LIMIT	2432248		23.17		0		0.00		0		0.00	
LOWER LIMIT	608062		22.17		0		0.00		0		0.00	
File ID Sample												
30747003 BUW149ABK	1077862		22.68		0		0.00		0		0.00	
30747004 BUW149ALC	1152357		22.68		0		0.00		0		0.00	
30747005 110611-3	1130970		22.66		0		0.00		0		0.00	
30747006 110611-3	1272483		22.69		0		0.00		0		0.00	
30747007 110611-3	825003		22.68		0		0.00		0		0.00	
30747008 110655-1	1059555		22.68		0		0.00		0		0.00	
30747009 110655-2	970343		22.70		0		0.00		0		0.00	
30747010 110655-3	1003889		22.69		0		0.00		0		0.00	
30747011 110655-4	893778		22.69		0		0.00		0		0.00	
30747012 110681-1	1008218		22.68		0		0.00		0		0.00	
30747013 110681-2	1071416		22.68		0		0.00		0		0.00	
30747014 110681-3	941416		22.65		0		0.00		0		0.00	
30747015 110681-4	1024600		22.66		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

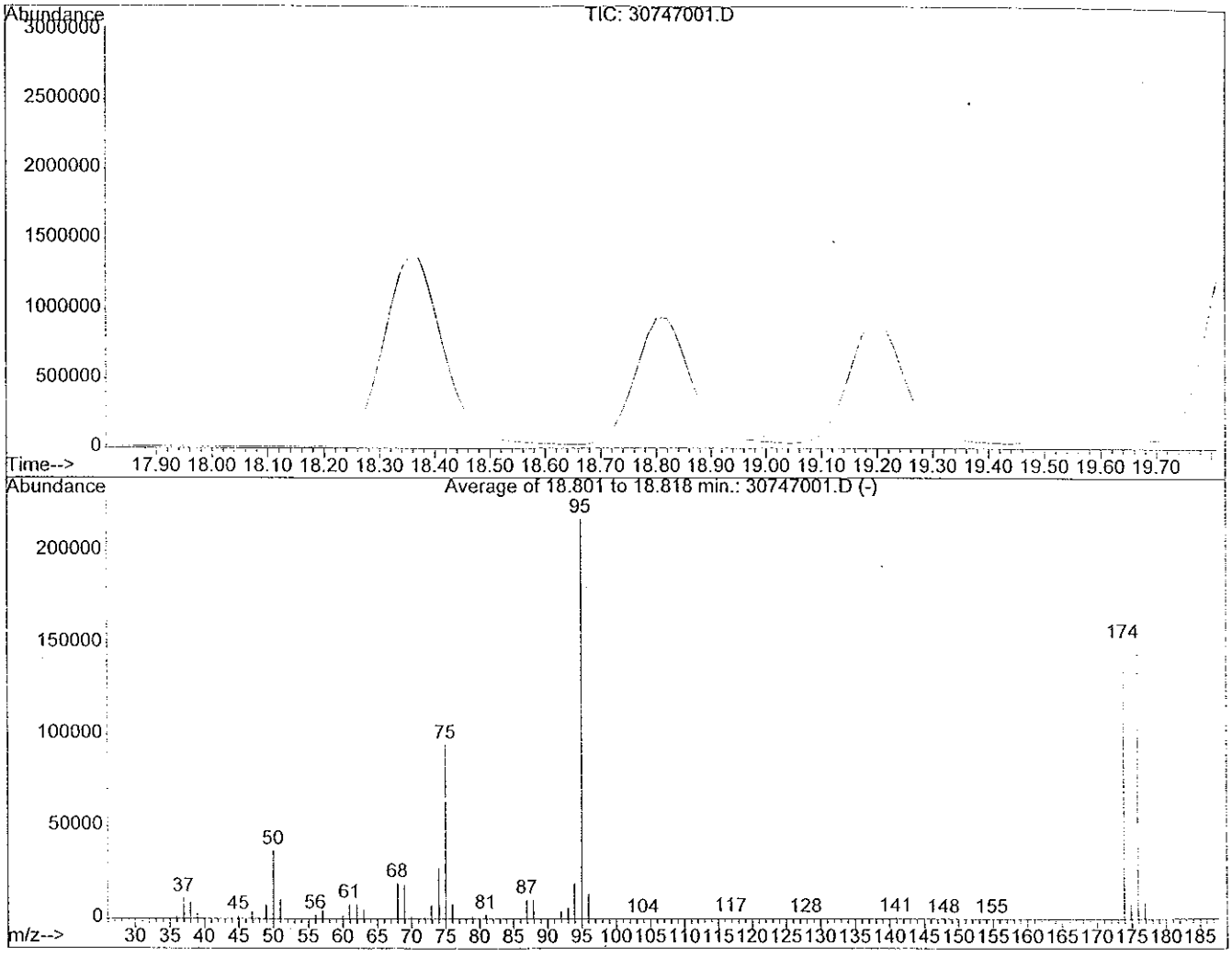
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : d:\HPCHEM\1\DATA\110201\30747001.D
Acq On : 2 Nov 2001 9:13
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	37213	PASS
75	95	30	60	43.7	95144	PASS
95	95	100	100	100.0	217792	PASS
96	95	5	9	6.4	13890	PASS
173	174	0	2	0.2	283	PASS
174	95	50	100	69.1	150464	PASS
175	174	5	9	7.0	10493	PASS
176	174	95	101	99.2	149312	PASS
177	176	5	9	6.2	9274	PASS

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3136655	10.00	ug/L	0.02 104.82%
25) i-1,4-Difluorobenzene	9.05	114	3157024	10.00	ug/L	0.02 103.84%
46) i-Chlorobenzene-d5	15.32	117	2246131	10.00	ug/L	0.02 104.90%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1272483	10.00	ug/L	0.02 104.63%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1476059	10.16	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.33	98	2984716	9.98	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.80%			
56) s-4-Bromofluorobenzene	18.82	95	1718902	10.07	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	1124707	7.06	ug/L	99
3) Chloromethane	1.50	50	847802	8.34	ug/L	98
4) Vinyl chloride	1.59	62	919226	8.62	ug/L	99
5) Bromomethane	1.88	96	837518	8.69	ug/L	98
6) Chloroethane	1.98	64	563679	9.02	ug/L	99
7) Trichlorofluoromethane	2.23	101	1559175	8.93	ug/L	99
8) 1,1-Dichloroethene	2.77	96	948419	9.24	ug/L	99
9) Acetone	2.88	43	111536m	18.23	ug/L	91
10) Iodomethane	2.93	142	1145433	9.07	ug/L	100
11) Carbon disulfide	2.99	76	3185450	9.88	ug/L	100
12) Methylene chloride	3.40	84	826647	9.86	ug/L	98
13) trans-1,2-Dichloroethene	3.79	96	1035544	9.10	ug/L	98
14) Methyl tert-butyl ether	3.83	73	1325820	10.59	ug/L	99
15) 1,1-Dichloroethane	4.48	63	1781556	8.81	ug/L	98
16) Vinyl acetate	4.71	43	2433202m	15.87	ug/L	96
17) Isopropyl ether	4.72	45	3419126	10.74	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1299576	8.66	ug/L	98
19) 2-Butanone	5.81	43	340951m	26.88	ug/L	95
20) cis-1,2-Dichloroethene	5.66	96	1754975	16.95	ug/L	96
21) Bromochloromethane	6.21	128	416179	10.23	ug/L	99
22) Chloroform	6.50	83	1954022	9.65	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1623920	9.60	ug/L	99
26)	Carbon tetrachloride	7.30	119	1387438	8.80	ug/L	100
27)	1,1-Dichloropropene	7.34	110	489336	9.52	ug/L	100
28)	Benzene	7.87	78	3237186	9.45	ug/L	99
29)	1,2-Dichloroethane	7.98	62	665202	9.71	ug/L	99
30)	Trichloroethene	9.59	95	1477525	10.70	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1153105	10.06	ug/L	99
32)	Dibromomethane	10.35	93	528751	10.34	ug/L	97
33)	2-Chloroethyl vinyl ether	11.82	63	7443	0.39	ug/L	48
34)	Bromodichloromethane	10.81	83	1580186	9.97	ug/L	99
35)	cis-1,3-Dichloropropene	11.82	75	1231719	9.98	ug/L	98
37)	Toluene	12.47	92	2048291	9.28	ug/L	99
38)	trans-1,3-Dichloropropene	13.06	75	783743	10.30	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	526421	10.30	ug/L	98
40)	Tetrachloroethene	13.58	166	1506452	9.45	ug/L	100
41)	1,3-Dichloropropane	13.71	76	1047731	10.73	ug/L	100
42)	Dibromochloromethane	14.15	129	971759	10.43	ug/L	98
43)	1,2-Dibromoethane	14.28	107	657551	10.39	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	740854	20.61	ug/L	98
45)	2-Hexanone	14.03	43	455354	21.02	ug/L	99
47)	Chlorobenzene	15.38	112	2267533	9.61	ug/L	98
48)	1,1,1,2-Tetrachloroethane	15.63	131	1038621	9.95	ug/L	100
50)	Ethylbenzene	15.73	106	1170171	9.19	ug/L	100
51)	m,p-Xylene	16.04	106	2932703	19.12	ug/L	97
52)	o-Xylene	17.09	106	1386888	9.72	ug/L	99
53)	Styrene	17.16	104	2192457	9.69	ug/L	97
54)	Bromoform	17.62	173	605296	11.01	ug/L	99
55)	Isopropylbenzene	18.37	105	4338655	9.47	ug/L	100
58)	Bromobenzene	19.21	156	1135299	9.61	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.58	83	831776	10.15	ug/L	99
60)	1,2,3-Trichloropropane	19.58	75	474772	10.55	ug/L	97
61)	n-Propylbenzene	19.85	120	1081840	9.36	ug/L	100
62)	2-Chlorotoluene	19.98	126	1008823	9.26	ug/L	100
63)	4-Chlorotoluene	20.38	91	3669653	9.65	ug/L	99
64)	1,3,5-Trimethylbenzene	20.52	105	3216700	9.08	ug/L	100
65)	tert-Butylbenzene	21.55	91	2056019	8.86	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	2936425	9.45	ug/L	100
67)	sec-Butylbenzene	22.28	105	4729386	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.45	146	2062885	9.49	ug/L	100
69)	p-Isopropyltoluene	22.82	119	3714498	9.67	ug/L	100
70)	1,4-Dichlorobenzene	22.75	146	1937248	9.34	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

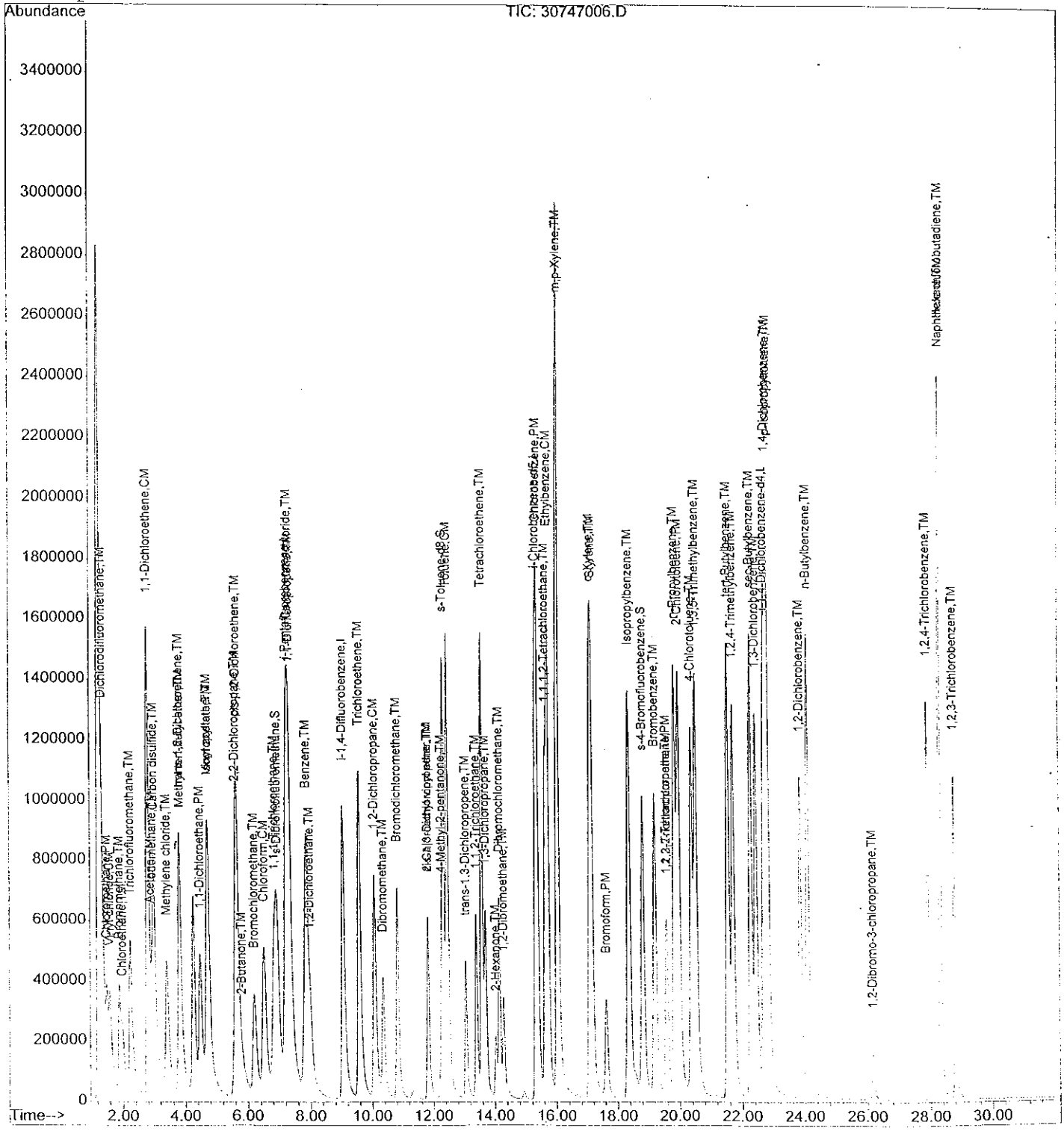
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.86	146	1697184	9.81	ug/L	100
72)	n-Butylbenzene	24.10	91	3597663	10.11	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	121389	10.97	ug/L	95
74)	1,2,4-Trichlorobenzene	27.94	180	1105521	11.38	ug/L	100
75)	Hexachlorobutadiene	28.33	225	1067782	10.95	ug/L	99
76)	Naphthalene	28.34	128	885573	11.96	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	835794	11.54	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



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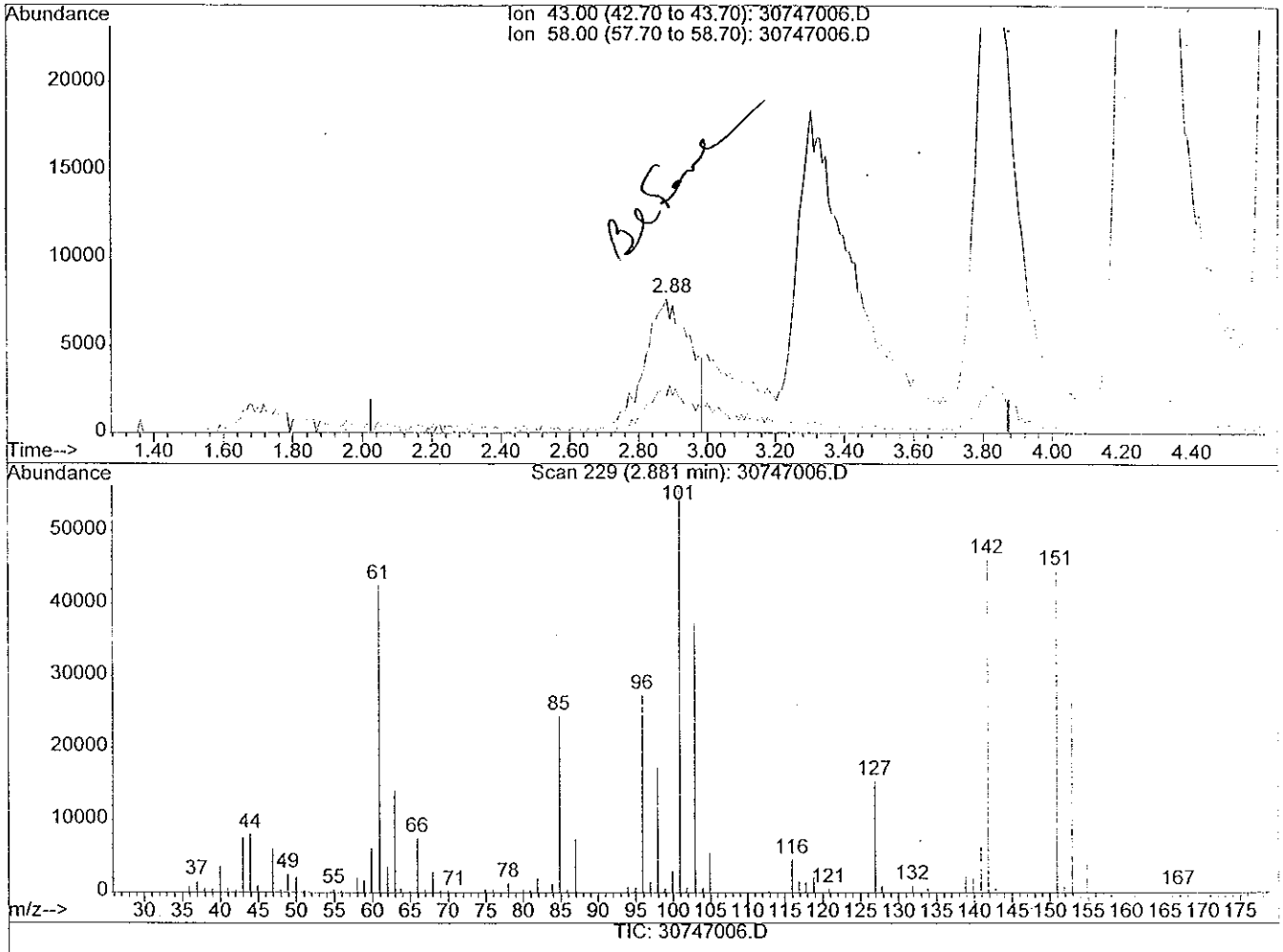
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.88min 11.58ug/L

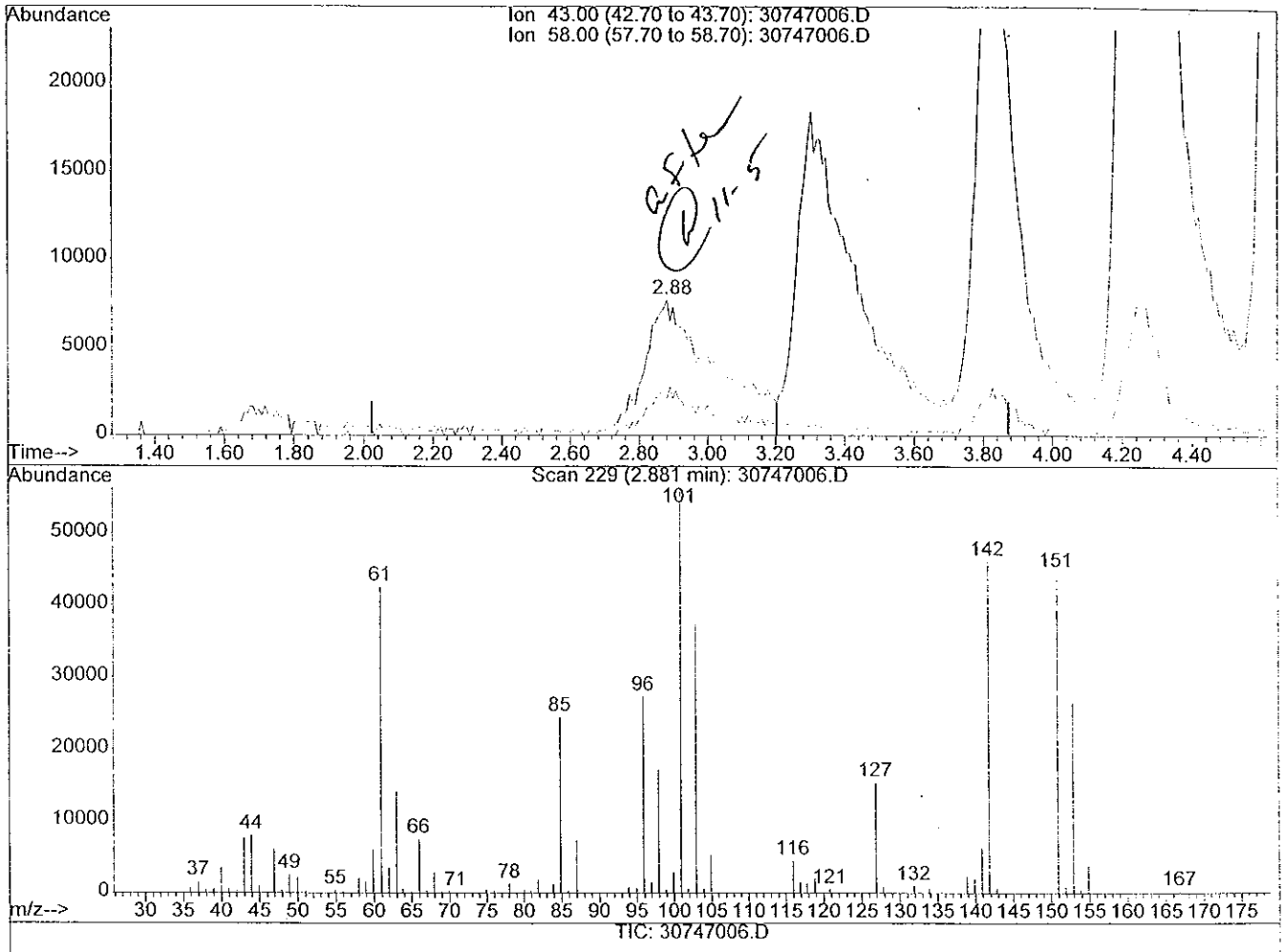
response 71106

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(9) Acetone (TM)

2.88mih 18.23ug/L m

response 111536

Ion	Exp%	Act%
43.00	100	100
58.00	32.40	27.43
0.00	0.00	0.00
0.00	0.00	0.00

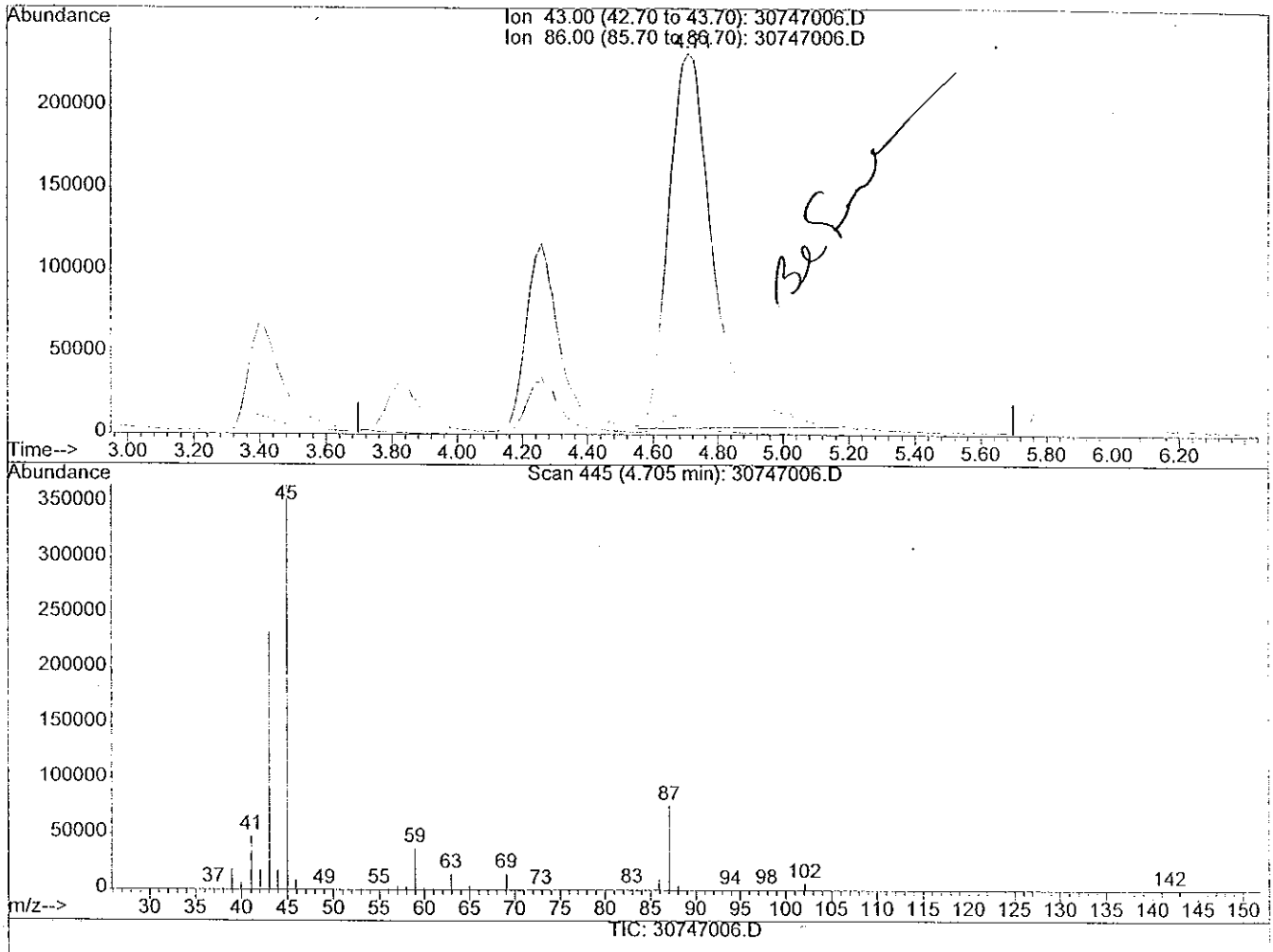
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D
Acq On : 2 Nov 2001 12:44
Sample : 110611-3 MSD 5.00ml 5X
Misc : CH2MHILL 3628B-Q401
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001

Vial: 3
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



(16) Vinyl acetate (TM)

4.71mjn 14.43ug/L

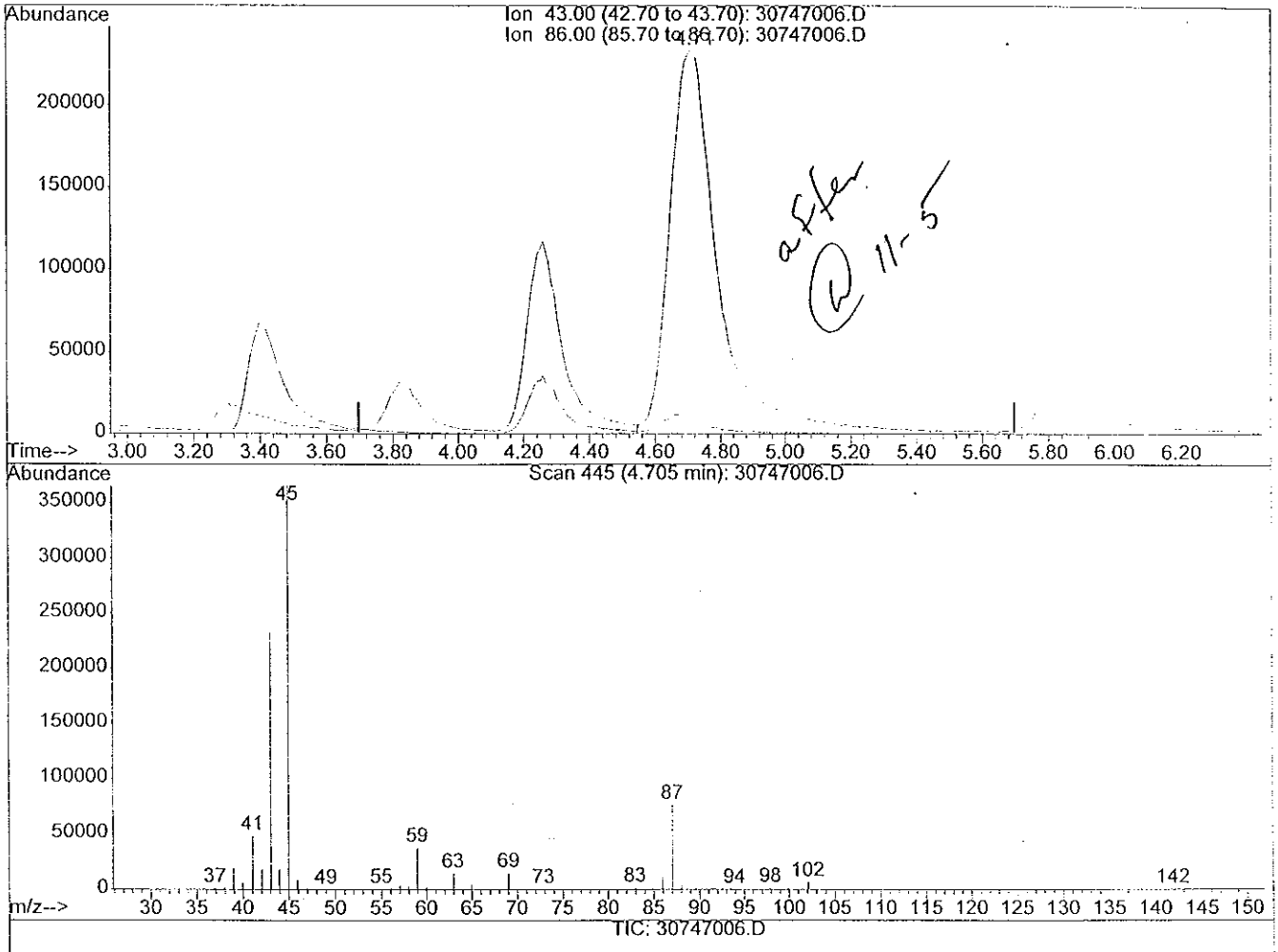
response 2212814

Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747006.D

(16) Vinyl acetate (TM)

4.71min 15.87ug/L m

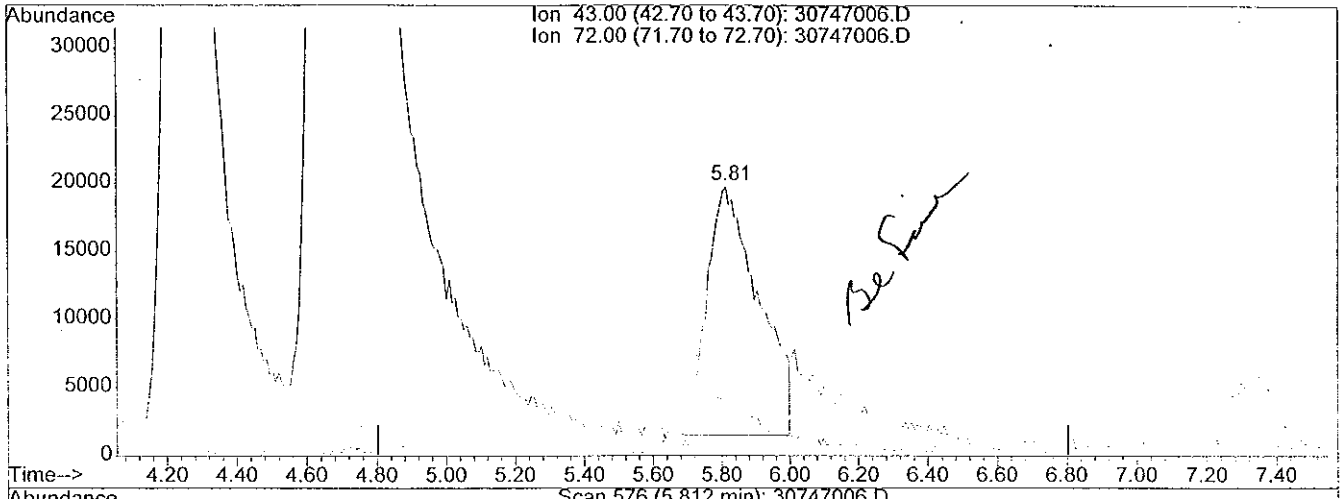
response 2433202

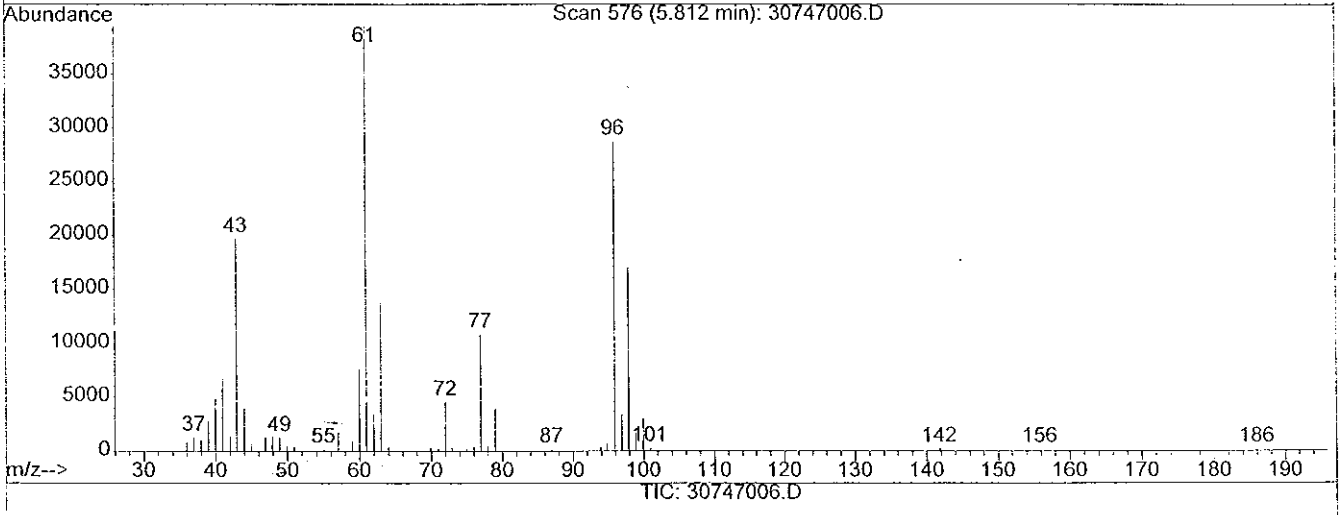
Ion	Exp%	Act%
43.00	100	100
86.00	6.00	4.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:24 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration





TIC: 30747006.D

(19) 2-Butanone (TM)

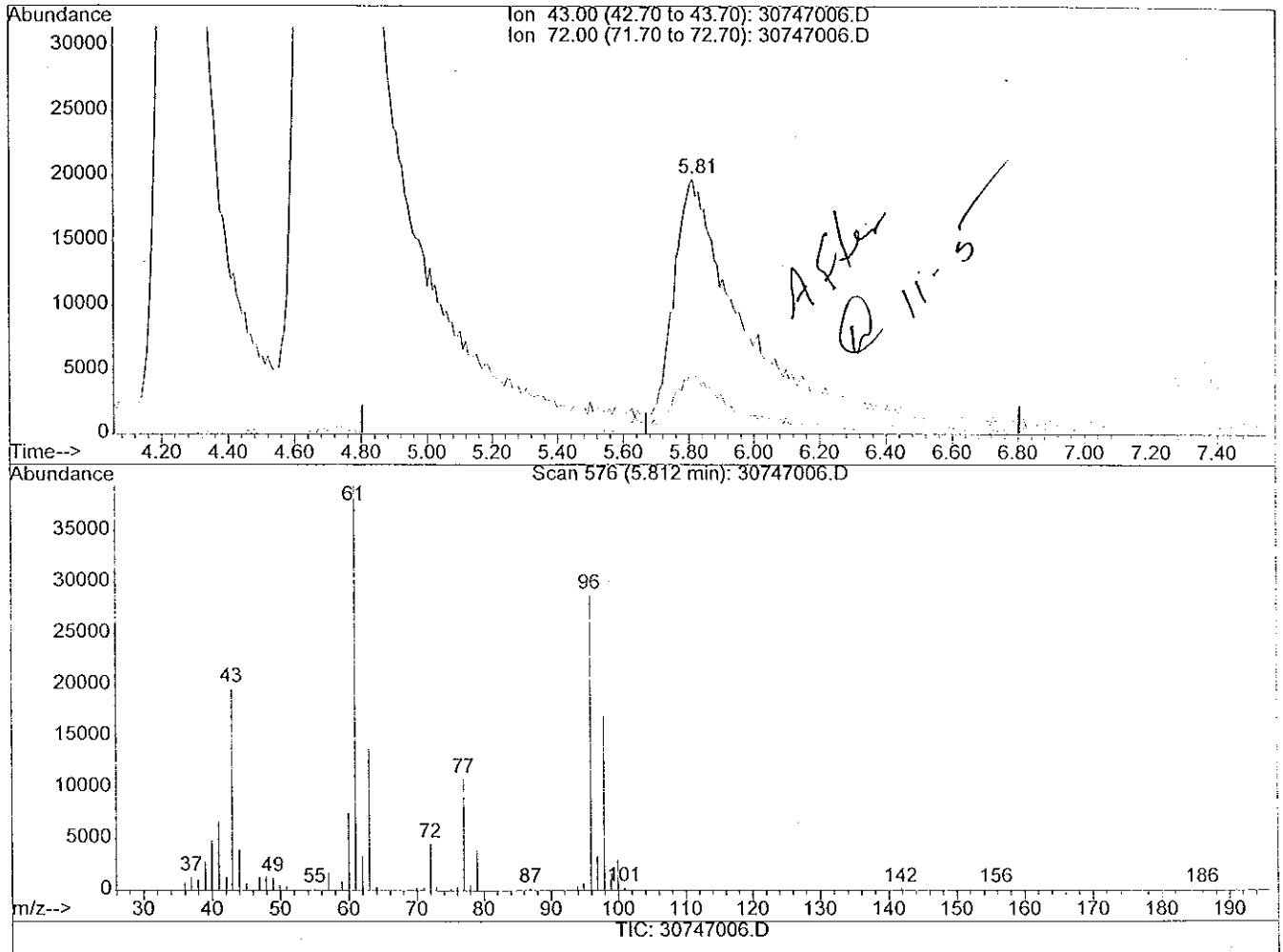
5.81min 15.01ug/L

response 190344

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	21.04
0.00	0.00	0.00
0.00	0.00	0.00

Data File : D:\HPCHEM\1\DATA\110201\30747006.D Vial: 3
Acq On : 2 Nov 2001 12:44 Operator: GRH
Sample : 110611-3 MSD 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:25 2001 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Multiple Level Calibration



TIC: 30747006.D

(19) 2-Butanone (TM)

5.81min 26.88ug/L m

response 340951

Ion	Exp%	Act%
43.00	100	100
72.00	19.00	23.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

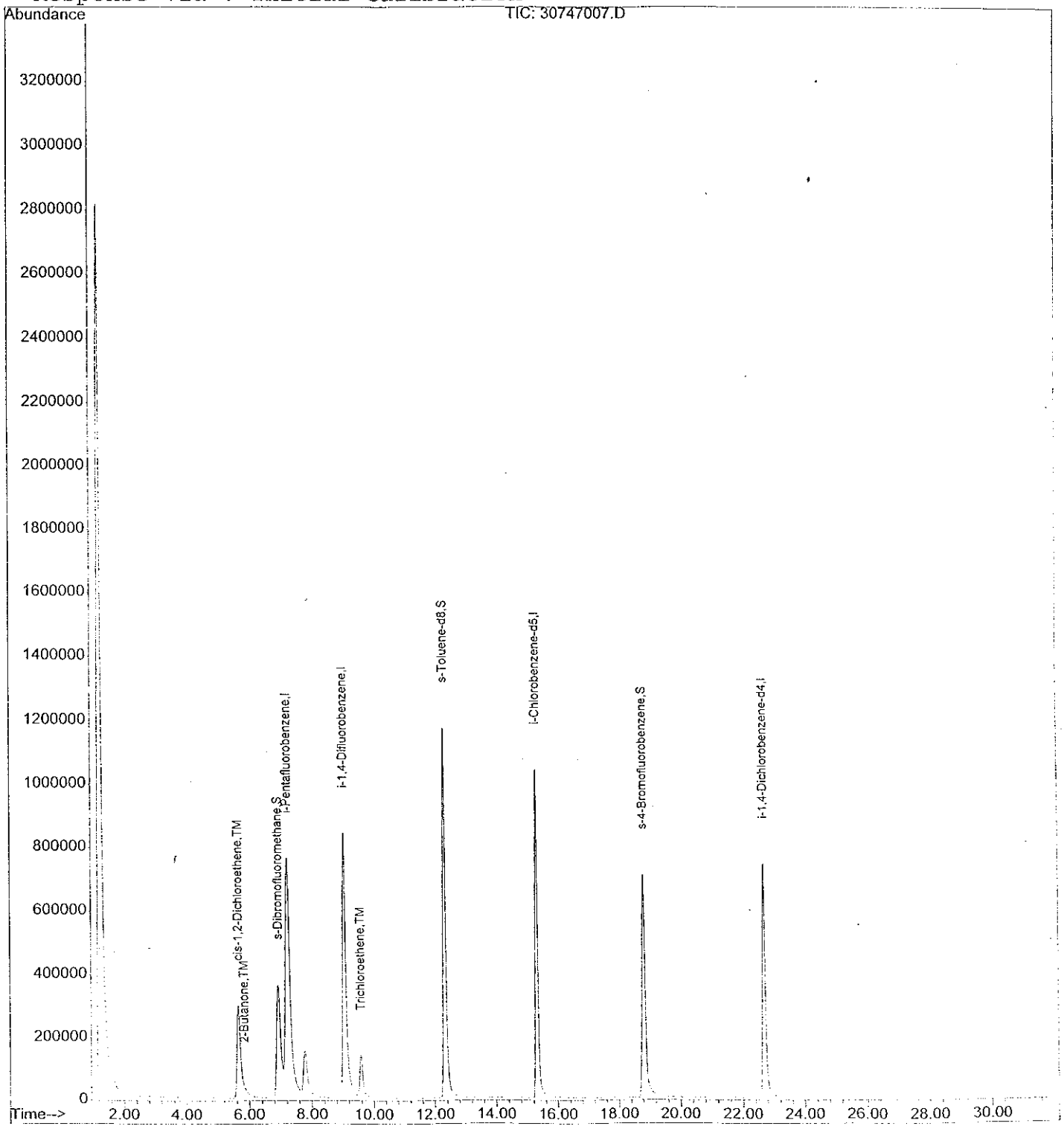
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

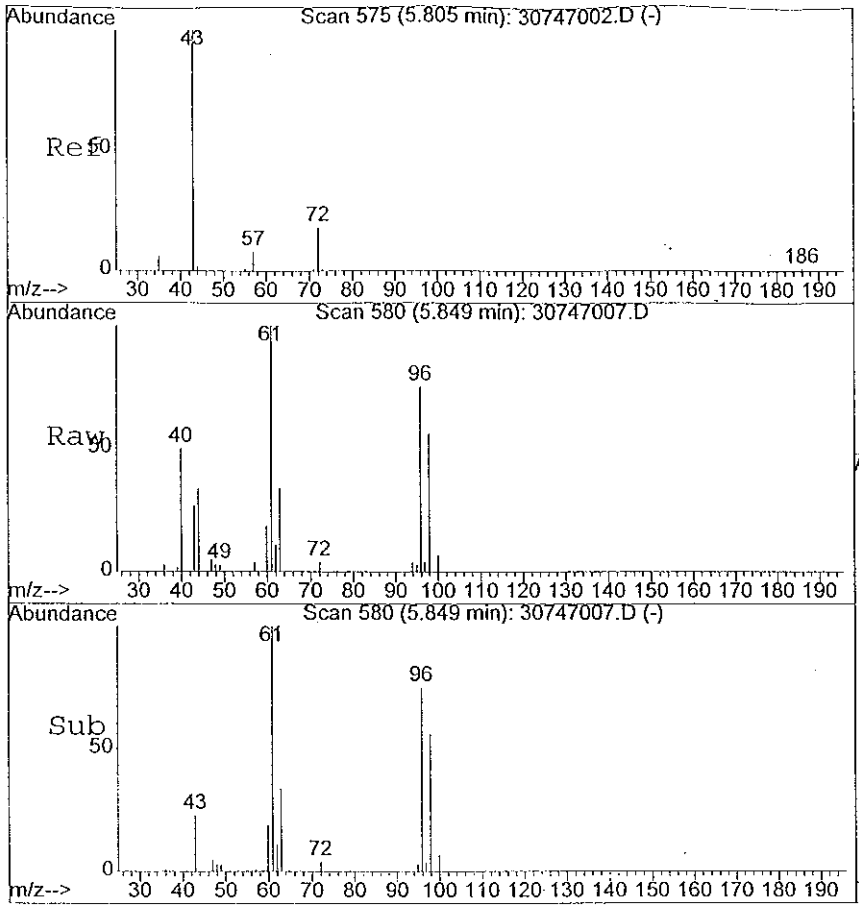
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	20.77	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	32.85	ug/L	95
30) Trichloroethene	9.58	95	177959	7.51	ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 5.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration

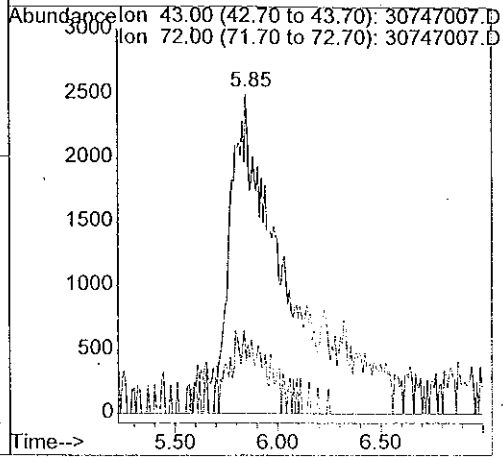


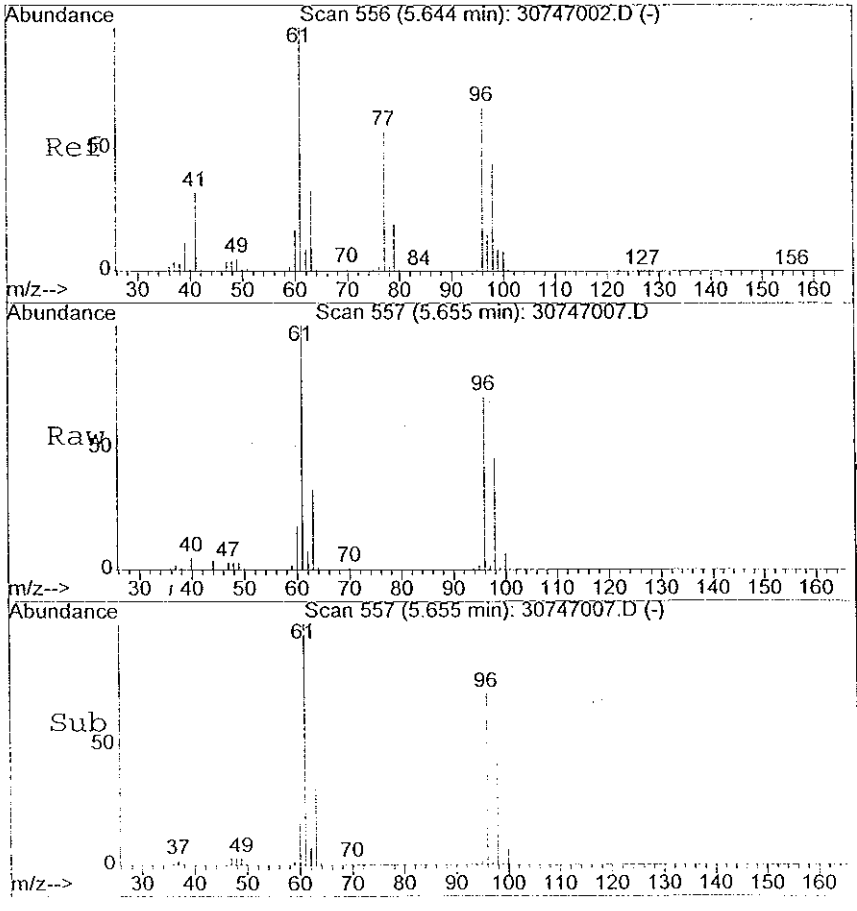


#19
2-Butanone
Concen: 20.77 ug/L m
RT: 5.85 min Scan# 580
Delta R.T. 0.04 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 43 Resp: 47831

Ion	Ratio	Lower	Upper
43	100		
72	16.1	0.0	119.0

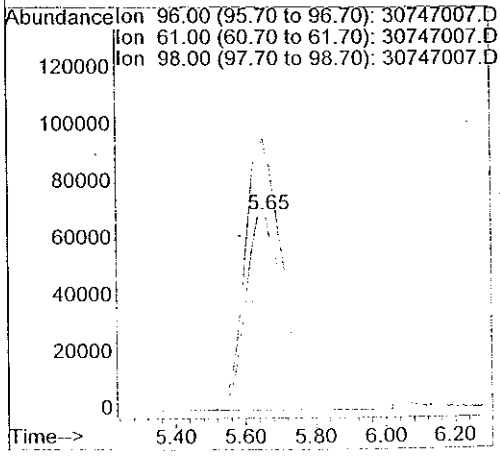


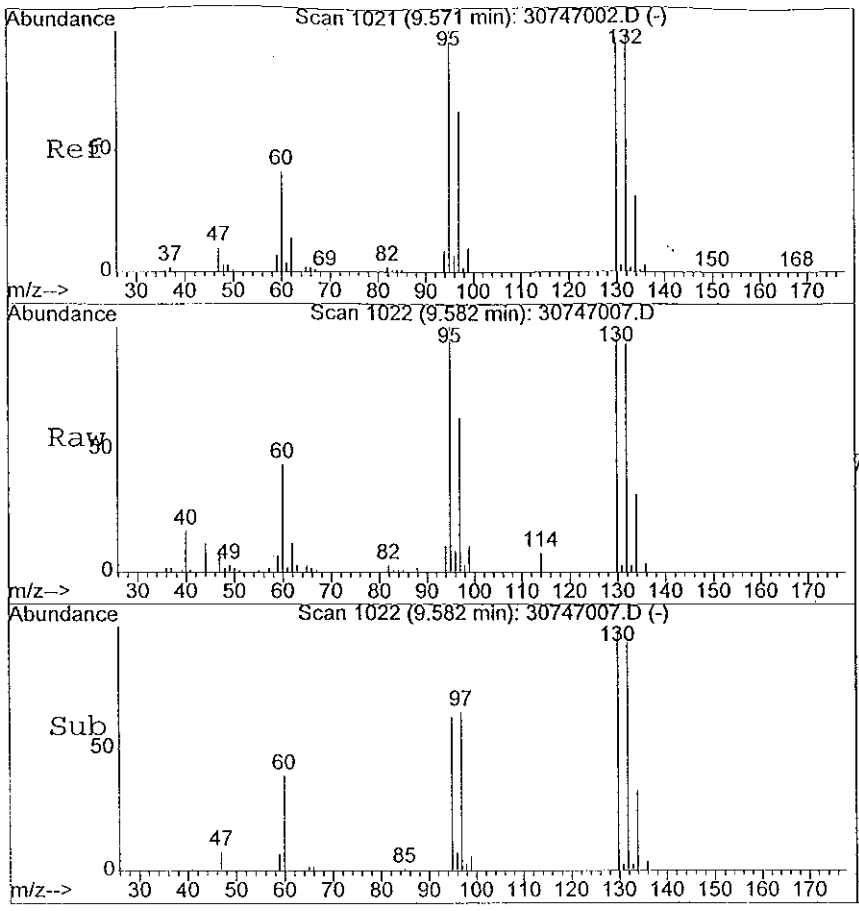


#20
cis-1,2-Dichloroethene
Concen: 32.85 ug/L
RT: 5.65 min Scan# 557
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 96 Resp: 615329

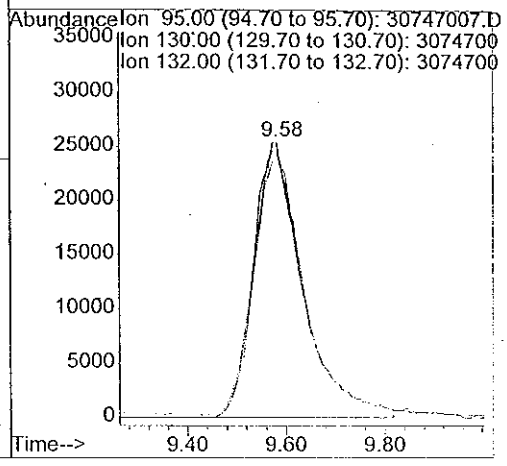
Ion	Ratio	Lower	Upper
96	100		
61	139.9	128.7	168.7
98	64.6	45.8	85.8





#30
Trichloroethene
Concen: 7.51 ug/L
RT: 9.58 min Scan# 1022
Delta R.T. 0.01 min
Lab File: 30747007.D
Acq: 2 Nov 2001 13:25

Tgt Ion: 95	Resp:	177959	
Ion	Ratio	Lower	Upper
95	100		
130	96.6	76.7	116.7
132	93.0	78.1	118.1



Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

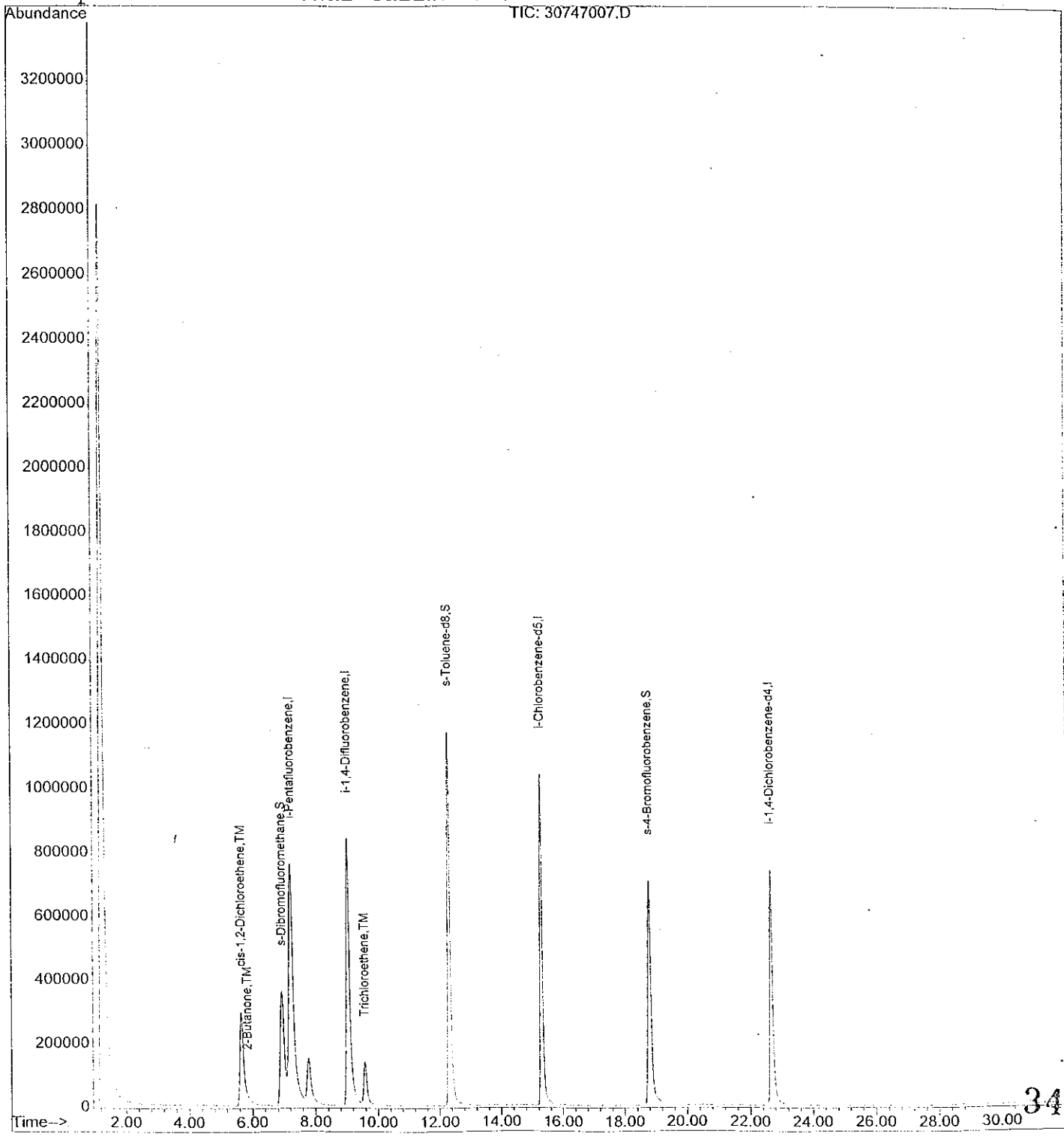
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2847498	10.00	ug/L	0.01 95.16%
25) i-1,4-Difluorobenzene	9.05	114	2706882	10.00	ug/L	0.01 89.03%
46) i-Chlorobenzene-d5	15.31	117	1838266	10.00	ug/L	0.01 85.85%
57) i-1,4-Dichlorobenzene-d4	22.68	152	825003	10.00	ug/L	0.01 67.84%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1198899	9.09	ug/L	0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 90.90%			
36) s-Toluene-d8	12.33	98	2530043	9.87	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.70%			
56) s-4-Bromofluorobenzene	18.80	95	1242721	8.90	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 89.00%			
Target Compounds						Qvalue
19) 2-Butanone	5.85	43	47831m	4.15	ug/L	70
20) cis-1,2-Dichloroethene	5.65	96	615329	6.57	ug/L	95
30) Trichloroethene	9.58	95	177959	1.50	ug/L	97

(#) = qualifier out of range (m) = manual integration
342

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747007.D Vial: 4
Acq On : 2 Nov 2001 13:25 Operator: GRH
Sample : 110611-3 5.00ml 5X Inst : Bubba
Misc : CH2MHILL 3628B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 13:58 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



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Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 13:25
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747007.D
Name: 110611-3 5.00ml 5X
Misc: CH2MHILL 3628B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747007.D V82625B1.M Mon Nov 05 15:22:59 2001

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30744002.D Date Analyzed : 30 Oct 2001
Instrument ID : Bubba Time Analyzed : 9:23
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 30744002.D Date Analyzed : 30 Oct 2001
Instrument ID : Bubba Time Analyzed : 9:23
GC Column : ID : (mm) Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT
12 HOUR STD	1203723		22.66		0		0.00		0		0.00
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00
LOWER LIMIT	601862		22.16		0		0.00		0		0.00
File ID Sample											
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00
30744011 BLANK	784520		22.66		0		0.00		0		0.00
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

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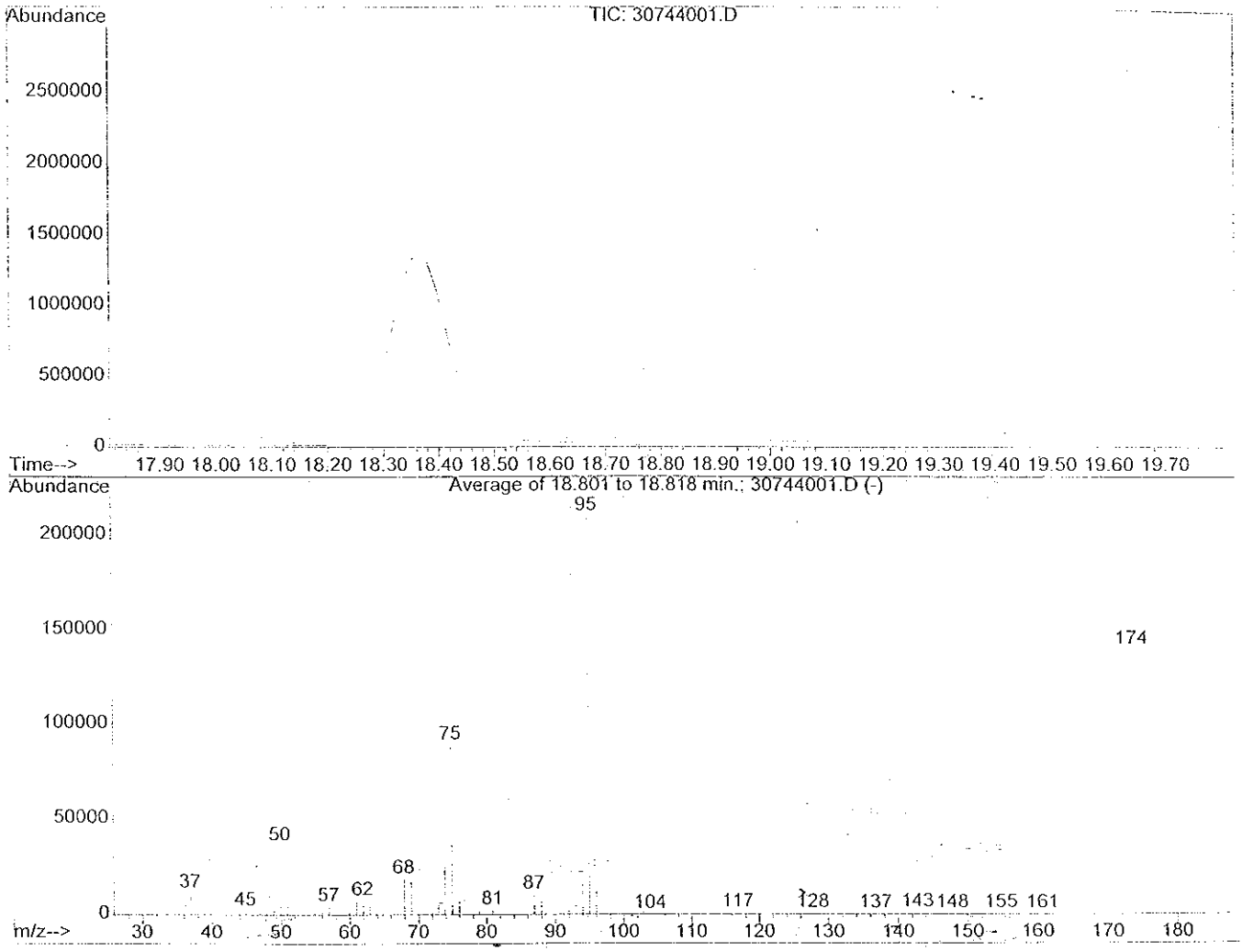
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

Average of 18.801 to 18.818 min.: 30744001.D
TUNE
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09	ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77	ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70	ug/L	100
28)	Benzene	7.87	78	3218196	10.14	ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84	ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96	ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47	ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22	ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59	ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30	ug/L	99
37)	Toluene	12.46	92	2053124	10.21	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12	ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95	ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81	ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93	ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11	ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30	ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08	ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68	ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15	ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80	ug/L	99
53)	Styrene	17.16	104	2162622	9.89	ug/L	100
54)	Bromoform	17.61	173	532882	10.82	ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52	ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84	ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36	ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57	ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56	ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

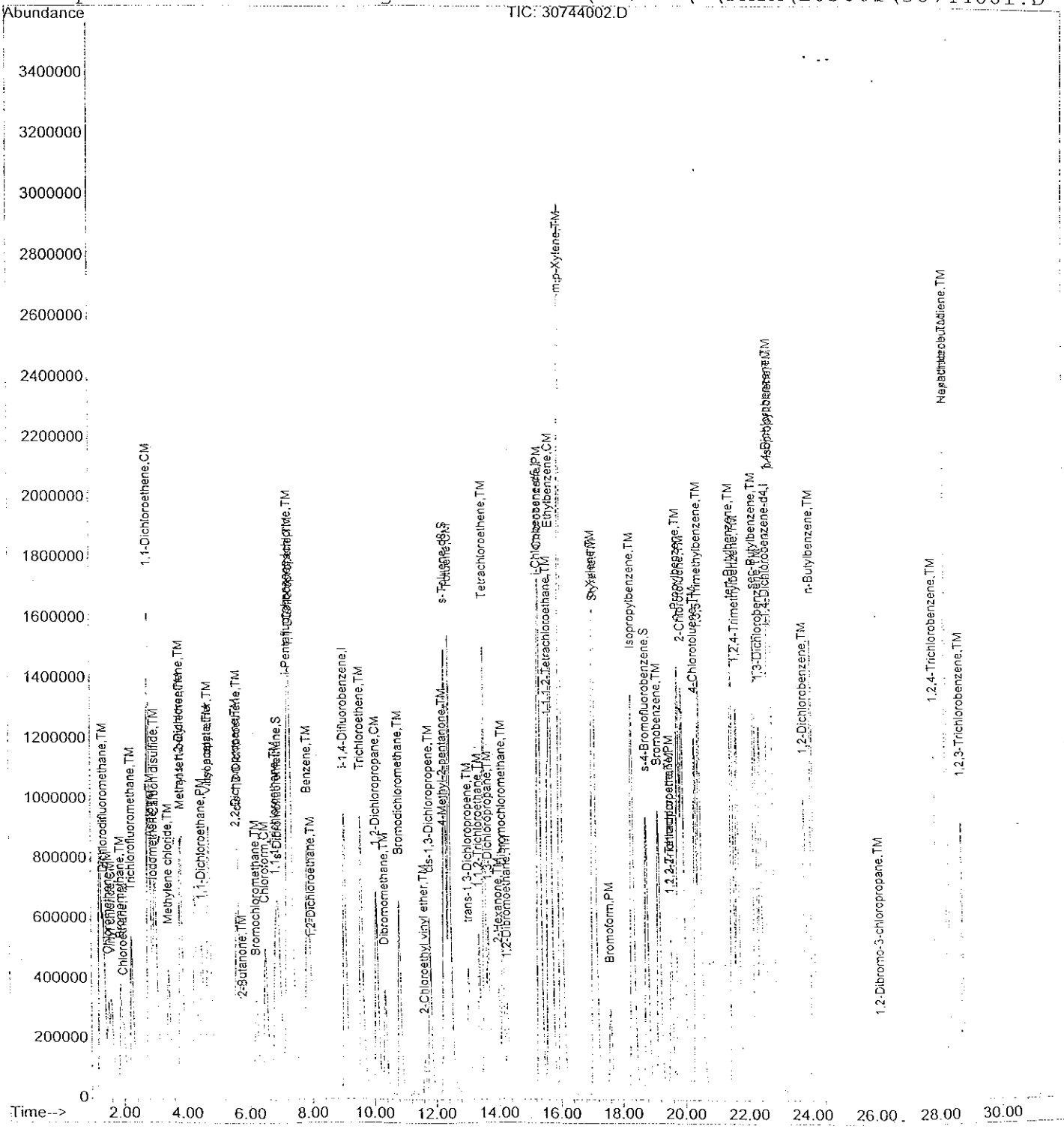
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

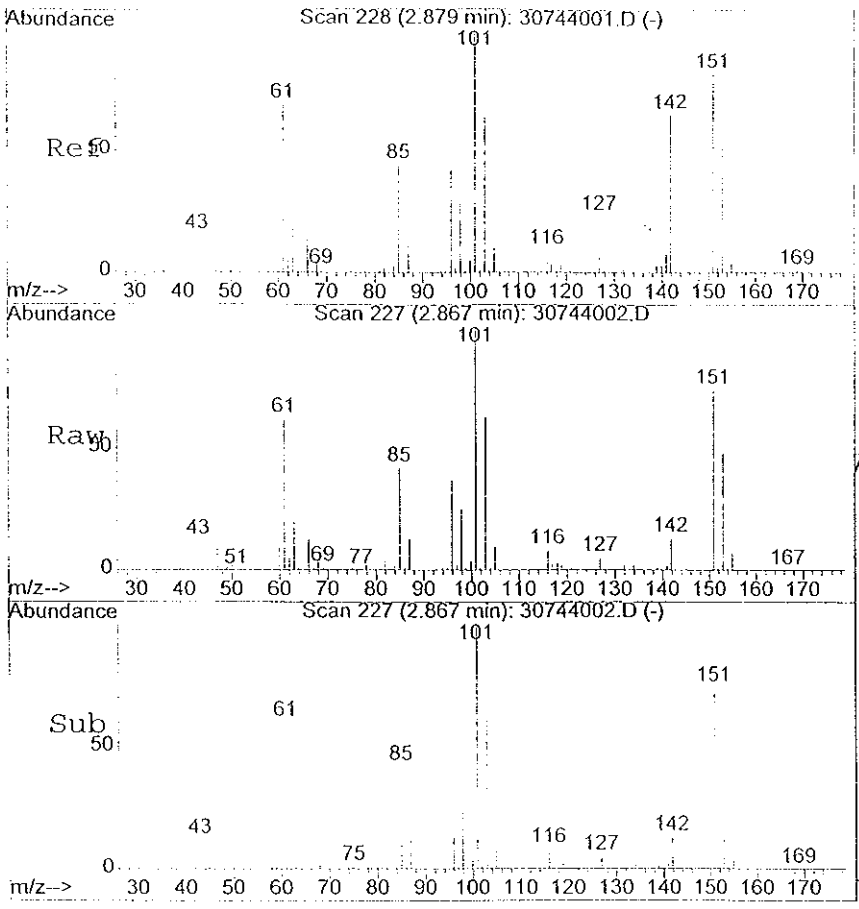
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72)	n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74)	1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75)	Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76)	Naphthalene	28.32	128	709233	10.75	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RI

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D

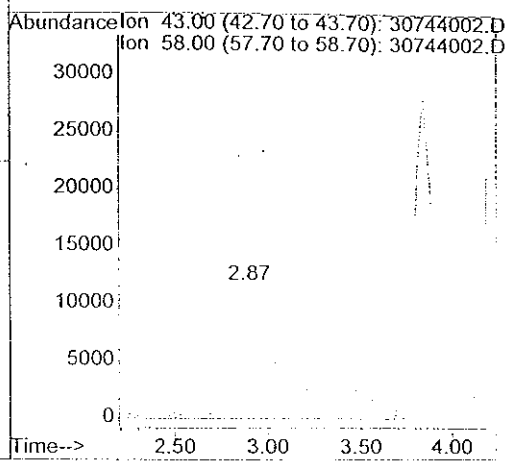




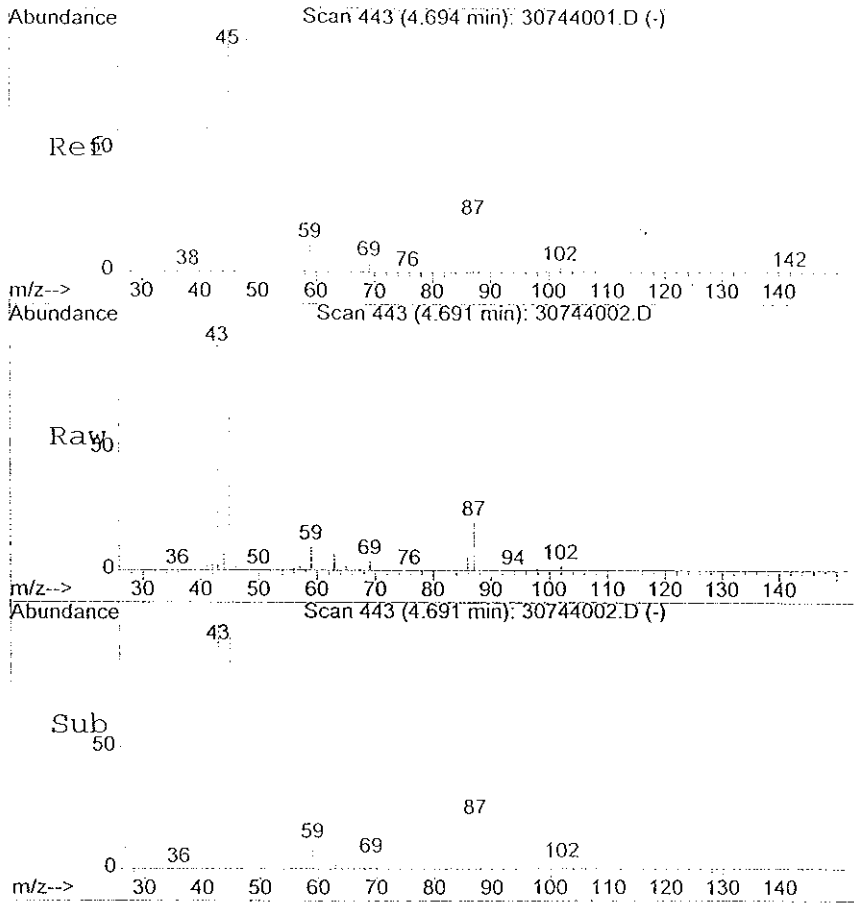
#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 222836

Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



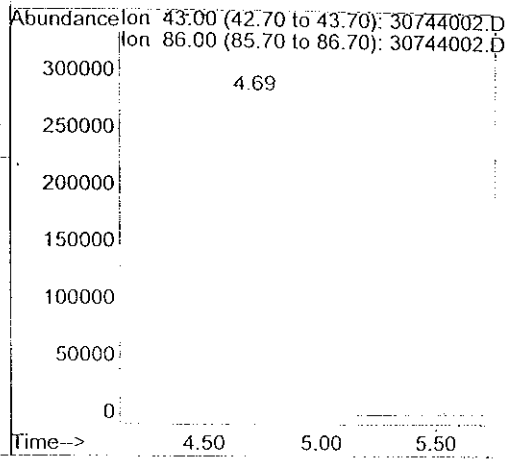
10-31



#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

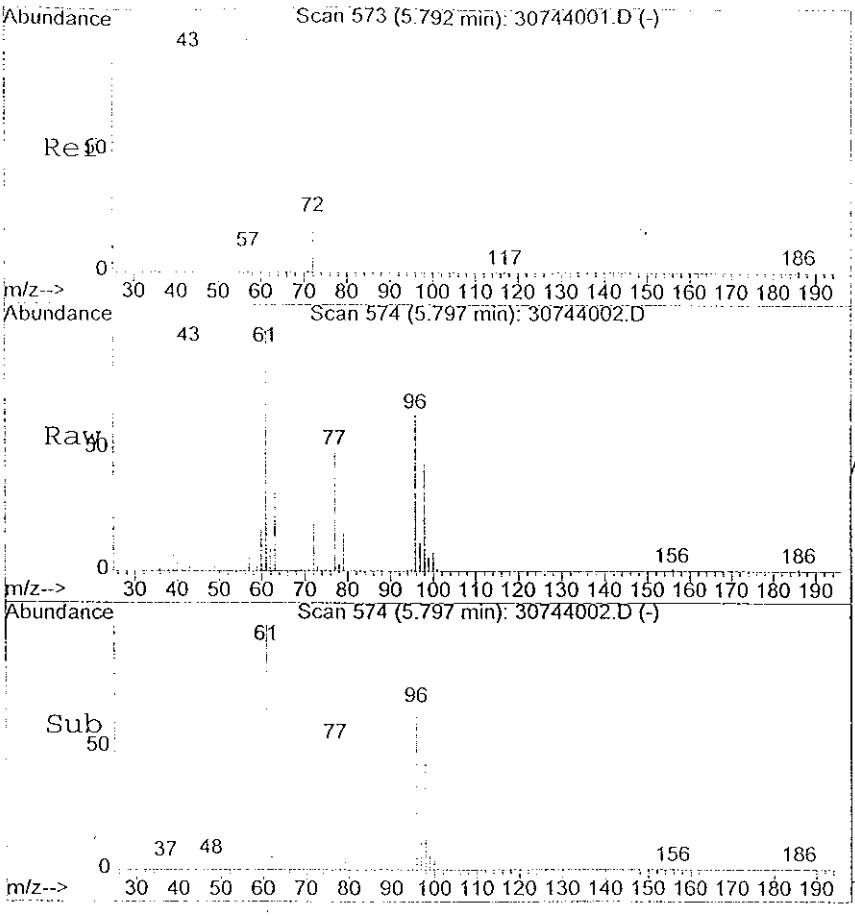
Tgt Ion: 43 Resp: 2908842

Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



10-31

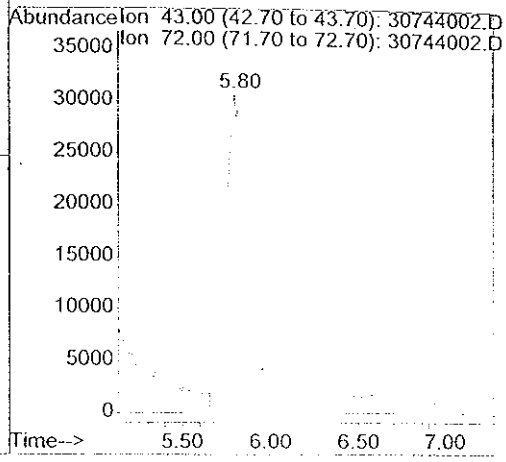
for 12-31-01



#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 472562

Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



10-31

Init 10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RE

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:2
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26)	Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27)	1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28)	Benzene	7.87	78	1633119	5.05	ug/L	98
29)	1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30)	Trichloroethene	9.59	95	648267	5.04	ug/L	98
31)	1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32)	Dibromomethane	10.36	93	249630	5.17	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34)	Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35)	cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37)	Toluene	12.45	92	1033568	5.01	ug/L	98
38)	trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40)	Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41)	1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42)	Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43)	1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45)	2-Hexanone	14.01	43	437726	20.75	ug/L	99
47)	Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50)	Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51)	m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52)	o-Xylene	17.06	106	679324	5.08	ug/L	98
53)	Styrene	17.13	104	1097998	5.11	ug/L	100
54)	Bromoform	17.59	173	270430	5.10	ug/L	97
55)	Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58)	Bromobenzene	19.17	156	530064	5.23	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60)	1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61)	n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62)	2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63)	4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64)	1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65)	tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66)	1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67)	sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68)	1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69)	p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70)	1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

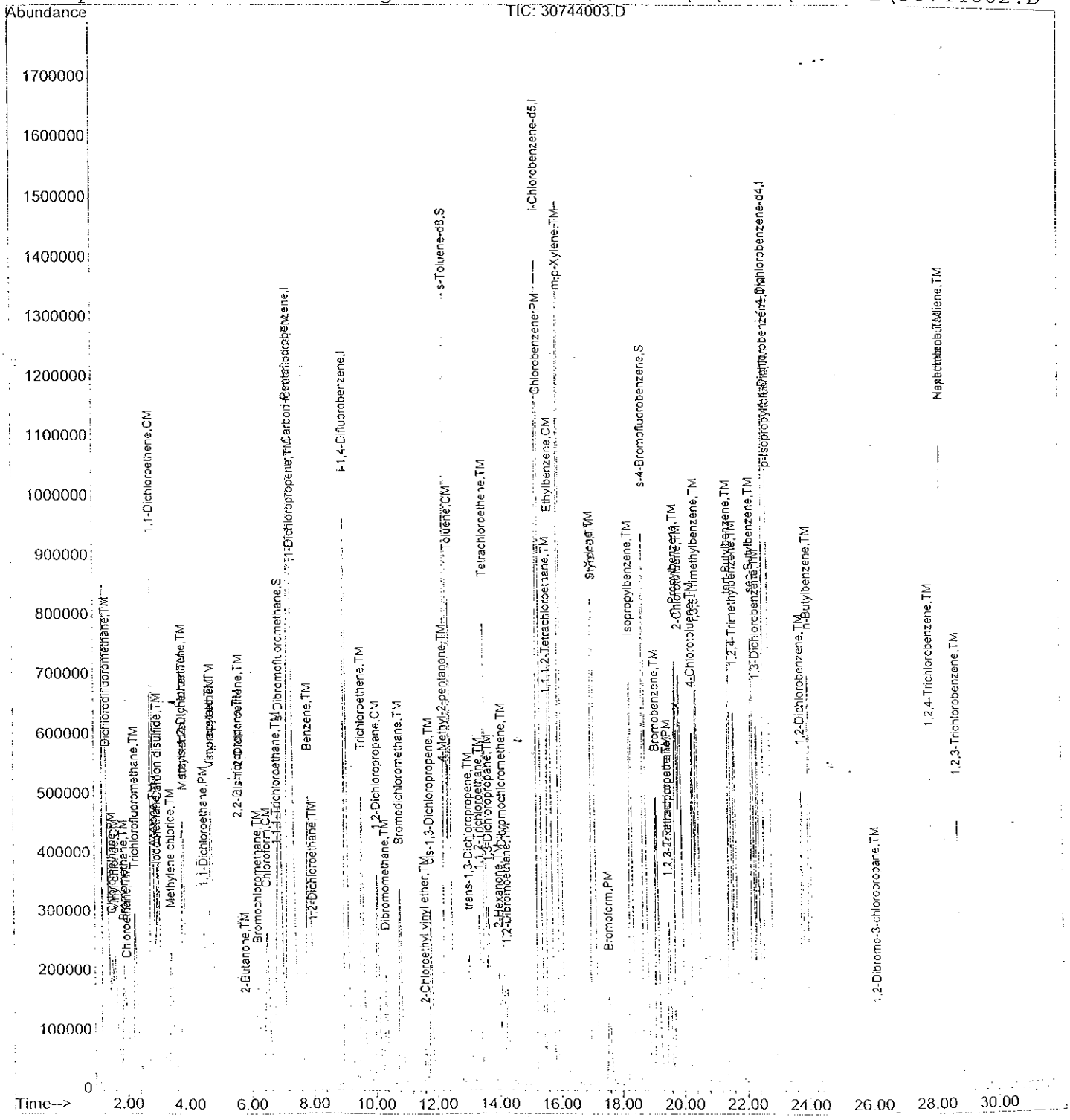
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72)	n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74)	1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75)	Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76)	Naphthalene	28.32	128	336450	4.89	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

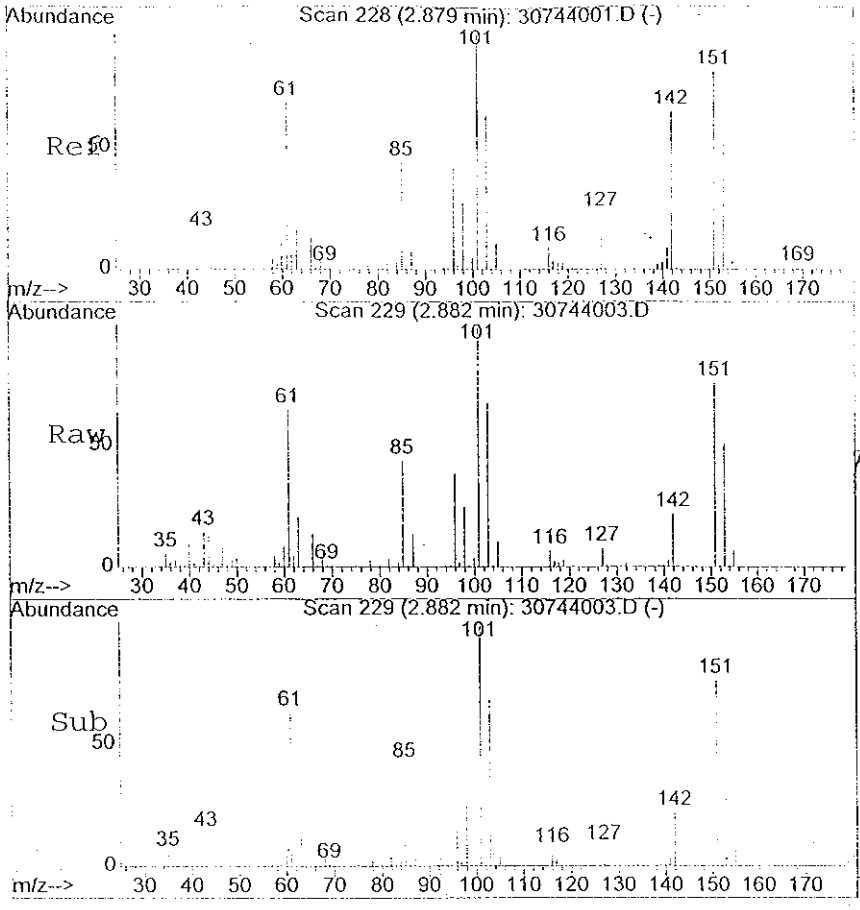
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.R

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

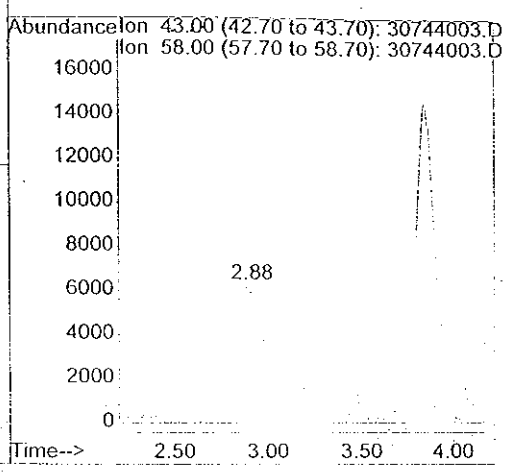




#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

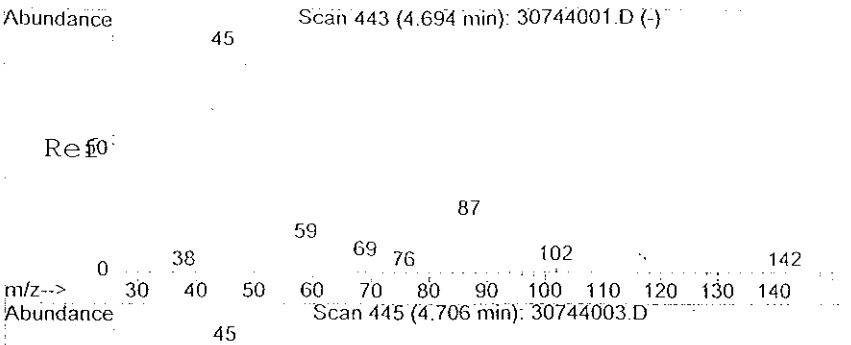
Tgt Ion: 43 Resp: 123507

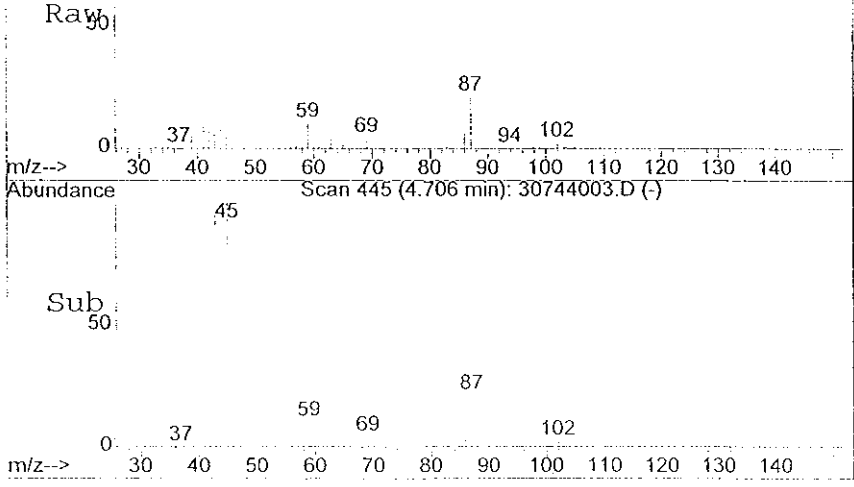
Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



10-31

10-31-01

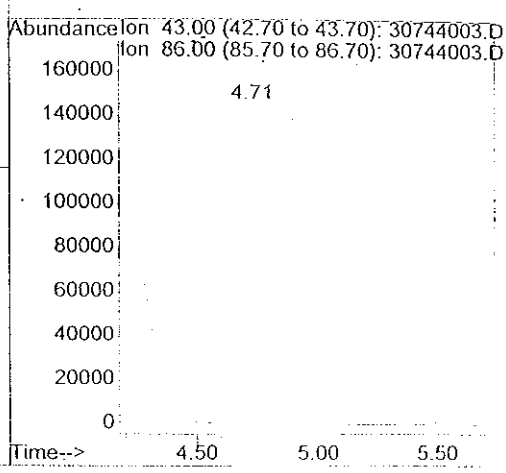




#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 1483176

Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



10-31

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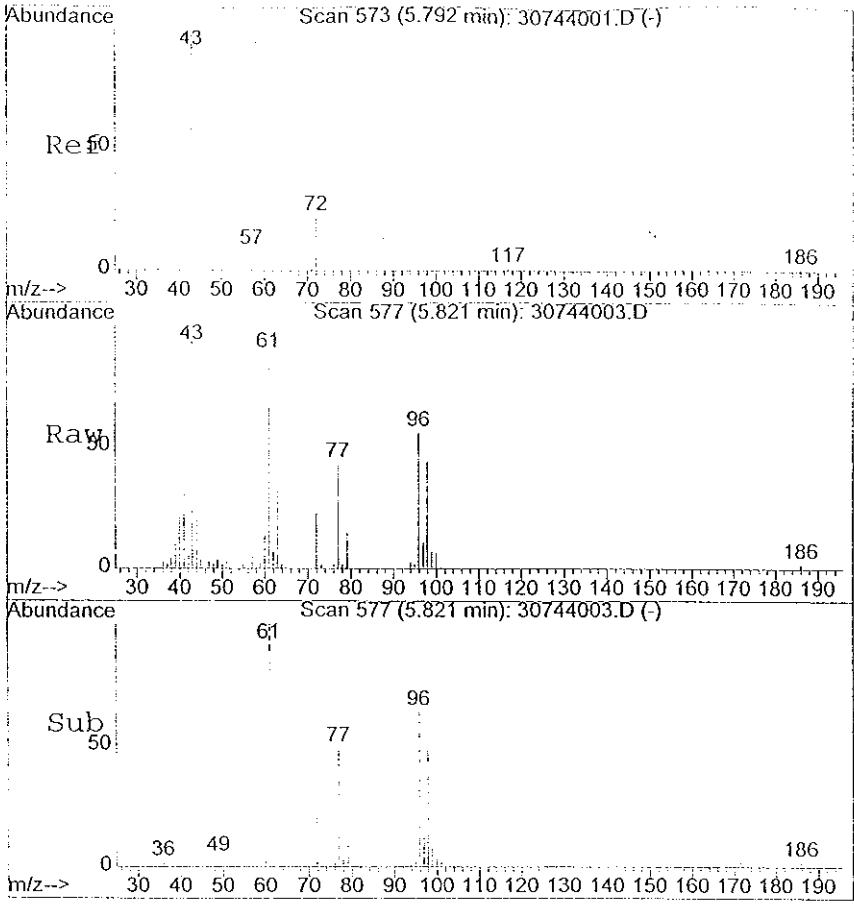
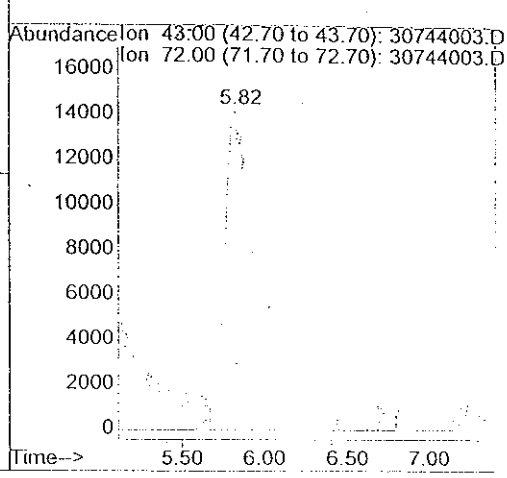


#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 252935

Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



10-31

10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26)	Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27)	1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28)	Benzene	7.87	78	675144	2.07	ug/L	99
29)	1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30)	Trichloroethene	9.58	95	265106	2.05	ug/L	97
31)	1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32)	Dibromomethane	10.35	93	93729	1.92	ug/L	100
33)	2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34)	Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35)	cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37)	Toluene	12.44	92	425380	2.04	ug/L	96
38)	trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39)	1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40)	Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41)	1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42)	Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43)	1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45)	2-Hexanone	14.01	43	141858	6.67	ug/L	99
47)	Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48)	1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50)	Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51)	m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52)	o-Xylene	17.07	106	269886	2.06	ug/L	97
53)	Styrene	17.13	104	412466	1.96	ug/L	99
54)	Bromoform	17.59	173	94103	1.81	ug/L	99
55)	Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58)	Bromobenzene	19.18	156	205095	2.16	ug/L	94
59)	1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60)	1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61)	n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62)	2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63)	4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64)	1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65)	tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66)	1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67)	sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68)	1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69)	p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70)	1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

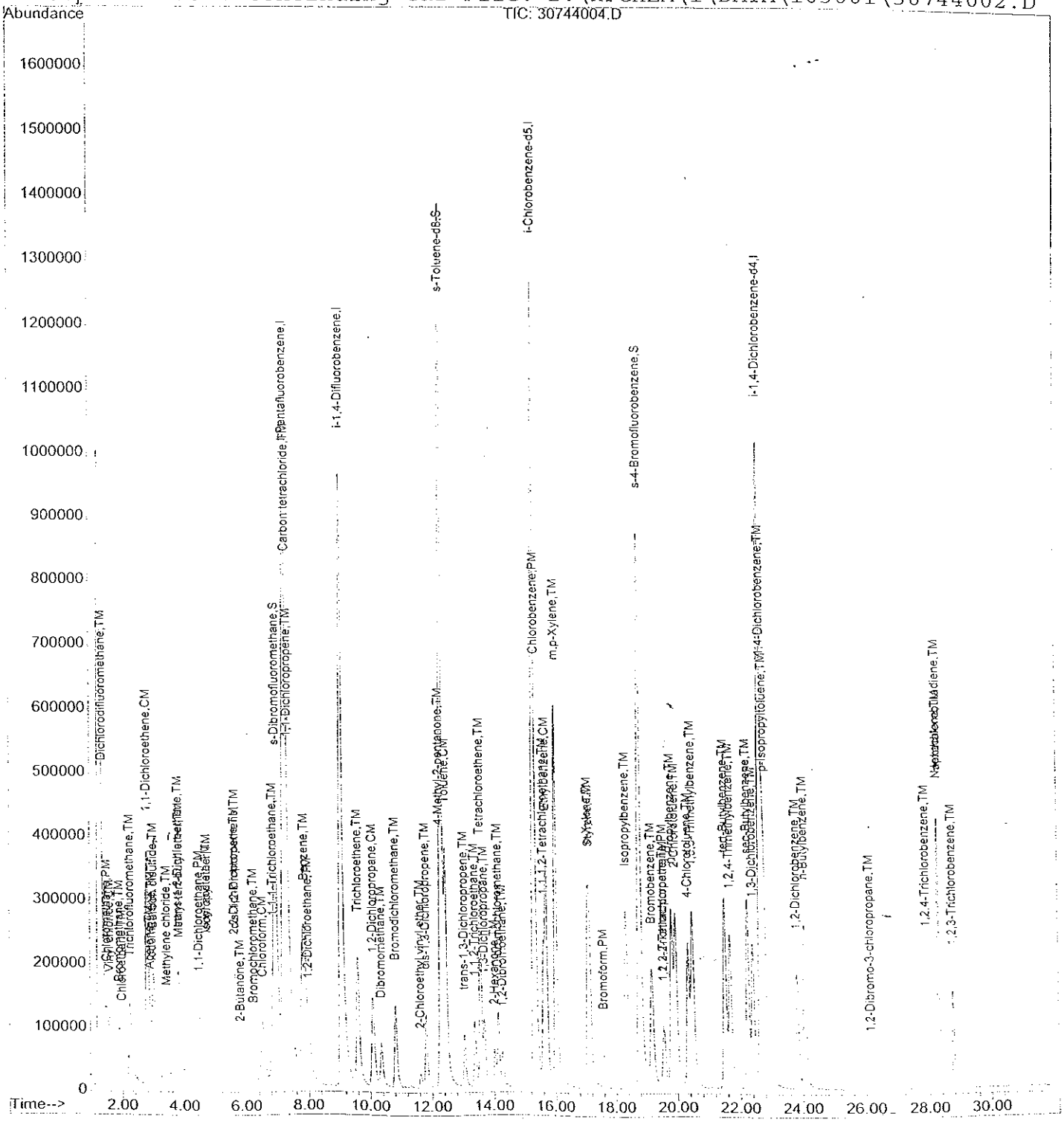
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72)	n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73)	1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74)	1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75)	Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76)	Naphthalene	28.32	128	112451	1.74	ug/L		100
77)	1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

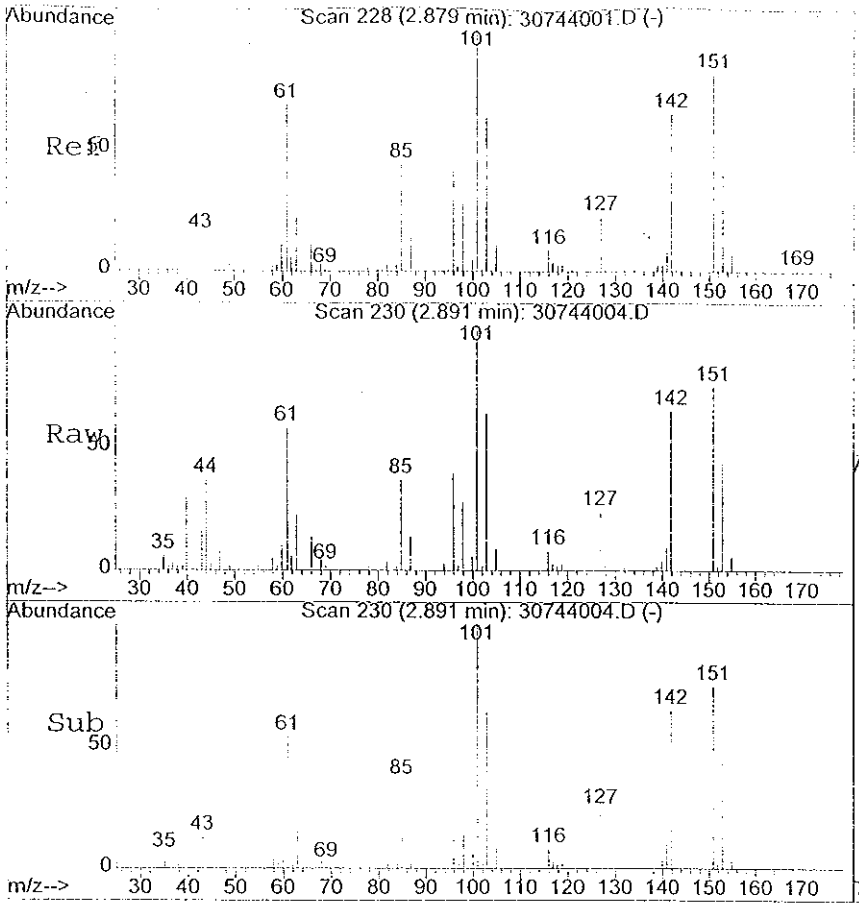
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.R

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

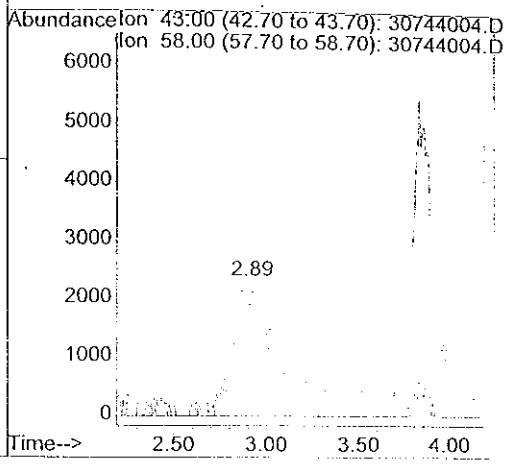




#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

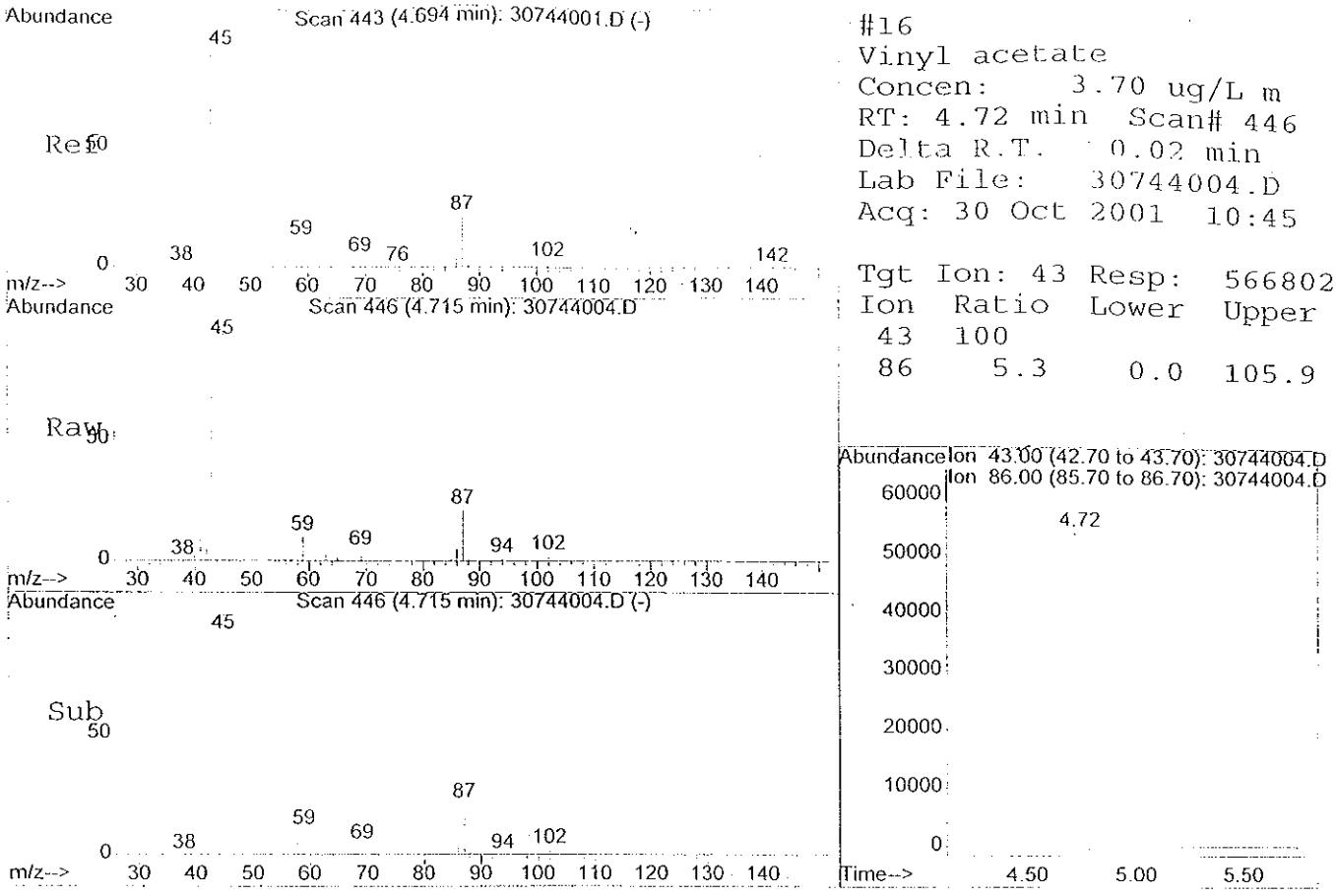
Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



10-31

10-31-01



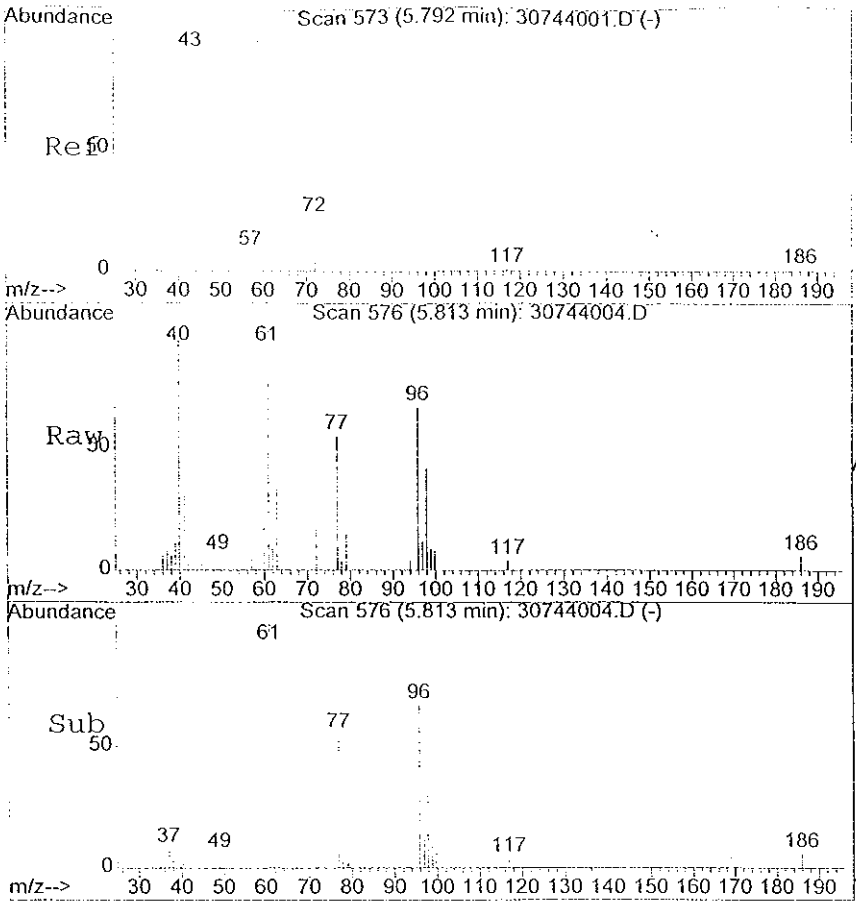
#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 566802

Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9

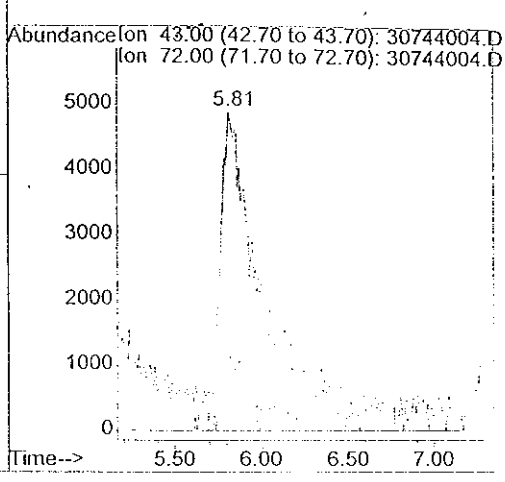
10-31

for 10-31-01



#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43	Resp:	90514	
Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



10-31

for 15.7 pt

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 / 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 / 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 / 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 / 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	9
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	9
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	9
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	9
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	9
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	9
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	9
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	
22) Chloroform	6.49	83	197755	1.03	ug/L	

(#) = qualifier out of range (m) = manual integration
30744005.D V82625B1.M Wed Oct 31 05:35:20 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	160704	0.98 ug/L	97
26) Carbon tetrachloride	7.27	119	156850	1.13 ug/L	28
27) 1,1-Dichloropropene	7.32	110	45627	0.93 ug/L	100
28) Benzene	7.86	78	328909	1.02 ug/L	98
29) 1,2-Dichloroethane	7.98	62	67098	1.05 ug/L	94
30) Trichloroethene	9.58	95	137400	1.07 ug/L	91
31) 1,2-Dichloropropane	10.08	63	113727	1.06 ug/L	98
32) Dibromomethane	10.34	93	49811	1.04 ug/L	98
33) 2-Chloroethyl vinyl ether	11.61	63	17709	0.93 ug/L	96
34) Bromodichloromethane	10.81	83	152578	1.01 ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	119952	1.02 ug/L	97
37) Toluene	12.45	92	217555	1.06 ug/L	95
38) trans-1,3-Dichloropropene	13.03	75	73674	0.99 ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	49836	1.04 ug/L	96
40) Tetrachloroethene	13.56	166	155924	1.06 ug/L	96
41) 1,3-Dichloropropane	13.68	76	95524	1.04 ug/L	98
42) Dibromochloromethane	14.12	129	89919	1.01 ug/L	98
43) 1,2-Dibromoethane	14.27	107	61862	1.02 ug/L	100
44) 4-Methyl-2-pentanone	12.26	43	149476	4.54 ug/L	93
45) 2-Hexanone	14.02	43	81218	3.87 ug/L	97
47) Chlorobenzene	15.35	112	226960	1.05 ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04 ug/L	96
50) Ethylbenzene	15.70	106	123576	1.07 ug/L	100
51) m,p-Xylene	16.01	106	298103	2.09 ug/L	99
52) o-Xylene	17.07	106	137776	1.04 ug/L	89
53) Styrene	17.13	104	207557	0.97 ug/L	100
54) Bromoform	17.58	173	51970	0.99 ug/L	95
55) Isopropylbenzene	18.34	105	434393	1.02 ug/L	100
58) Bromobenzene	19.16	156	106700	1.12 ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12 ug/L	87
60) 1,2,3-Trichloropropane	19.54	75	38655	1.01 ug/L	88
61) n-Propylbenzene	19.79	120	98095	1.00 ug/L	100
62) 2-Chlorotoluene	19.92	126	96679	1.10 ug/L	100
63) 4-Chlorotoluene	20.33	91	348446	1.11 ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	316067	1.09 ug/L	97
65) tert-Butylbenzene	21.50	91	211087	1.12 ug/L	96
66) 1,2,4-Trimethylbenzene	21.68	105	268480	1.00 ug/L	98
67) sec-Butylbenzene	22.24	105	435328	1.02 ug/L	98
68) 1,3-Dichlorobenzene	22.39	146	197666	1.11 ug/L	99
69) p-Isopropyltoluene	22.78	119	328183	1.00 ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	184452	1.12 ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

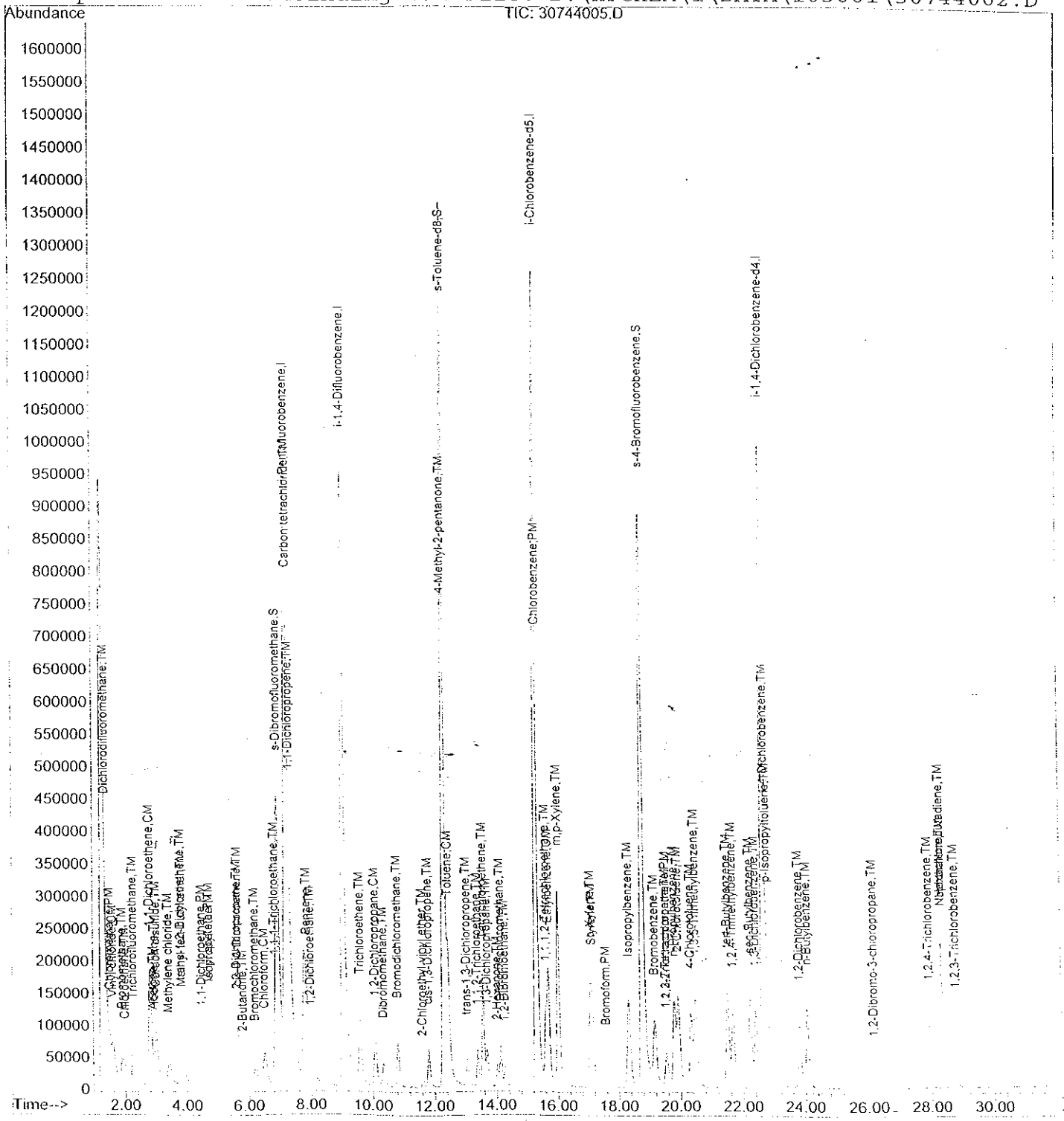
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

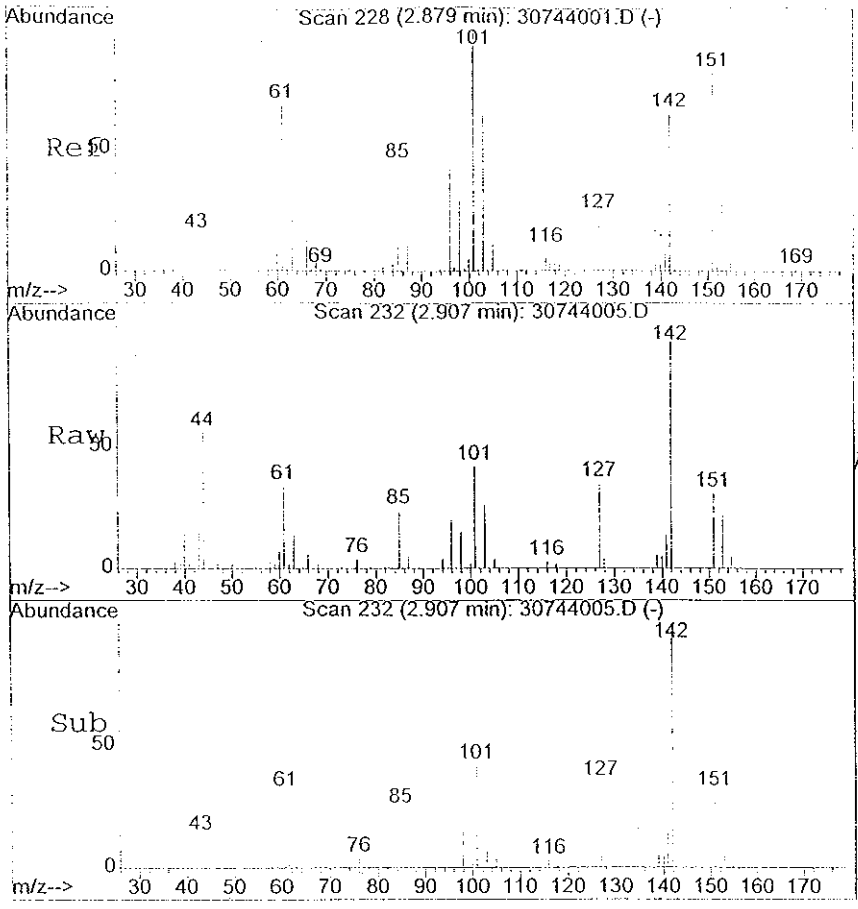
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72) n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73) 1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74) 1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75) Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76) Naphthalene	28.34	128	64010	0.99	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.R

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

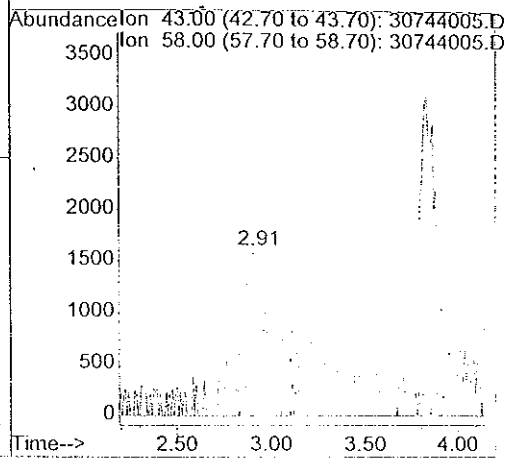




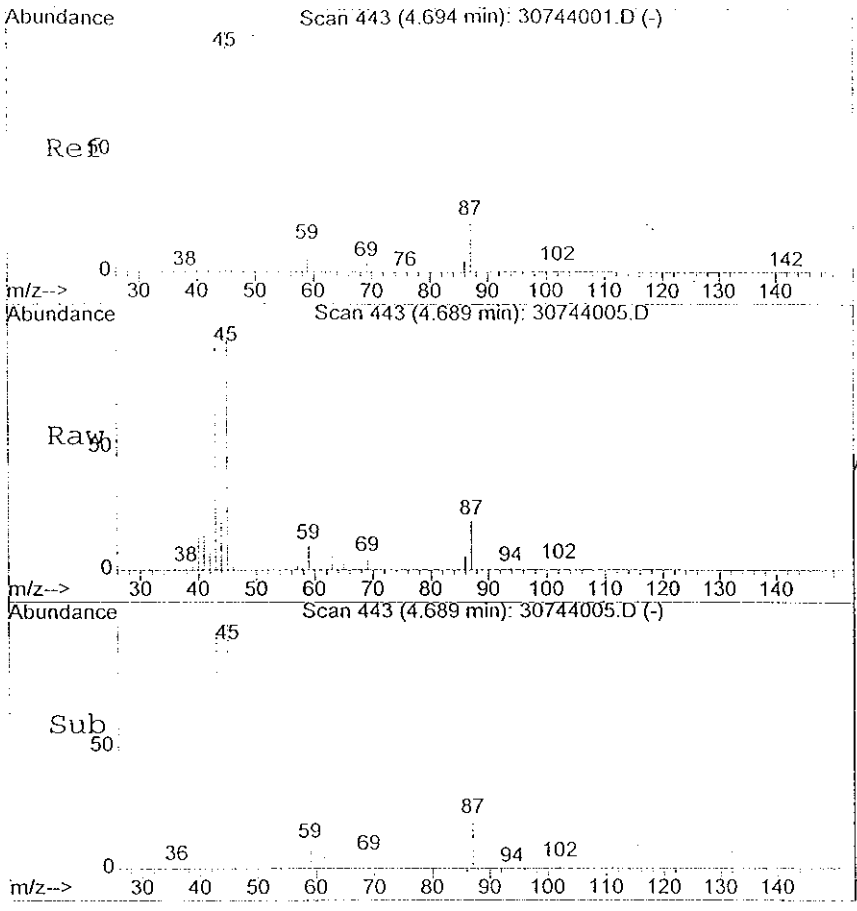
#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



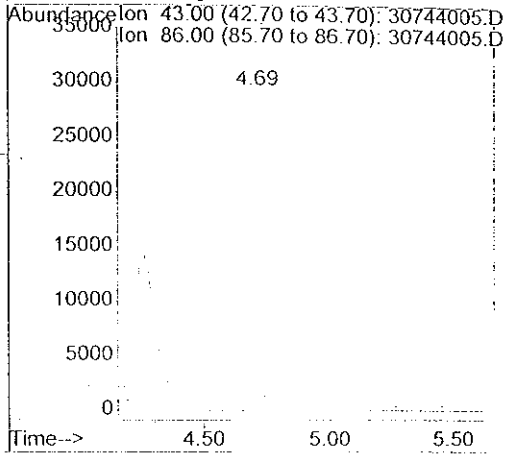
10-31



#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9



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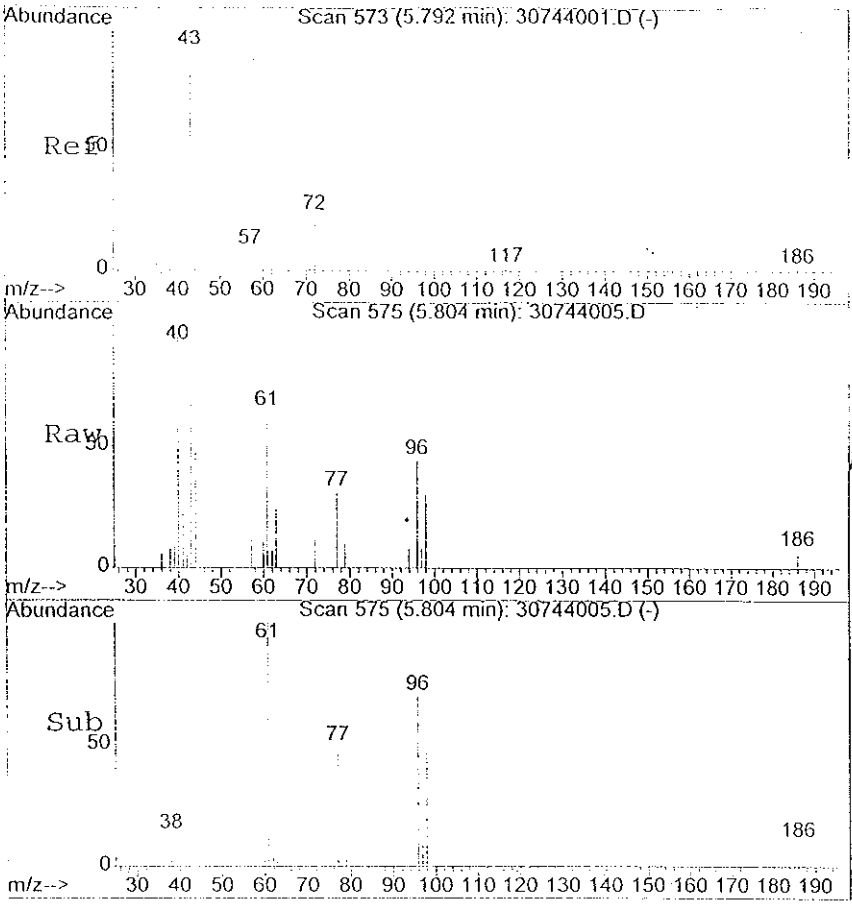
10-31-01

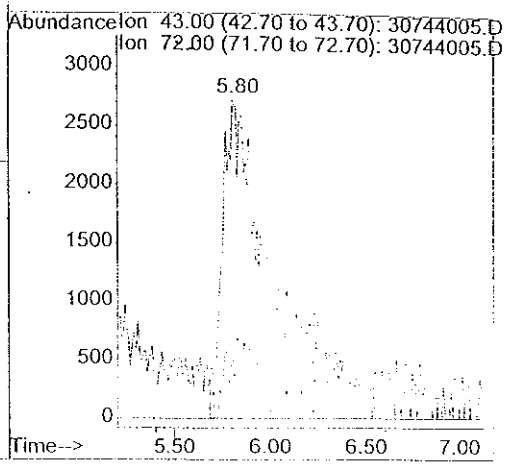
376



#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 53339

Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



10-31

10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L		0.00 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L		0.00 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L		0.00 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L		0.02 86.94%
System Monitoring Compounds							
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L		0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%				
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L		0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%				
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L		0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L		99
3) Chloromethane	1.50	50	36159m	0.[illegible]	ug/L		99
4) Vinyl chloride	1.60	62	36552	0.36	ug/L		92
5) Bromomethane	1.89	96	35015	0.38	ug/L		97
6) Chloroethane	2.00	64	20942	0.35	ug/L		84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L		93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L	#	85
10) Iodomethane	2.94	142	40544	0.32	ug/L		100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L		100
12) Methylene chloride	3.41	84	26091	0.31	ug/L		91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L		98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L		42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L		98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L		94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L		99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L		94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L	#	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L		92
22) Chloroform	6.51	83	64718	0.33	ug/L		93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L		94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L	#	1

(#) = qualifier out of range (m) = manual integration
30744006.D V82625B1.M Wed Oct 31 05:35:29 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
27)	1,1-Dichloropropene	7.33	110	35089m	0.70 ug/L		100
28)	Benzene	7.89	78	114261	0.35 ug/L		93
29)	1,2-Dichloroethane	8.00	62	23568	0.36 ug/L		92
30)	Trichloroethene	9.60	95	46357	0.36 ug/L		92
31)	1,2-Dichloropropane	10.10	63	39985	0.37 ug/L		98
32)	Dibromomethane	10.35	93	17027	0.35 ug/L		94
33)	2-Chloroethyl vinyl ether	11.62	63	5704	0.29 ug/L		94
34)	Bromodichloromethane	10.81	83	52711	0.34 ug/L		90
35)	cis-1,3-Dichloropropene	11.83	75	39813	0.33 ug/L		88
37)	Toluene	12.46	92	74994	0.36 ug/L		99
38)	trans-1,3-Dichloropropene	13.07	75	22608	0.30 ug/L		98
39)	1,1,2-Trichloroethane	13.39	83	17217	0.36 ug/L	#	78
40)	Tetrachloroethene	13.57	166	54802	0.37 ug/L		94
41)	1,3-Dichloropropane	13.70	76	31625	0.34 ug/L		99
42)	Dibromochloromethane	14.15	129	29043	0.32 ug/L		99
43)	1,2-Dibromoethane	14.29	107	20047	0.32 ug/L		95
47)	Chlorobenzene	15.37	112	76094	0.35 ug/L		95
48)	1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33 ug/L		96
50)	Ethylbenzene	15.72	106	41978	0.36 ug/L		100
51)	m,p-Xylene	16.03	106	96766	0.67 ug/L		96
52)	o-Xylene	17.09	106	44284	0.33 ug/L	#	85
53)	Styrene	17.16	104	69328	0.32 ug/L		92
54)	Bromoform	17.63	173	16043	0.30 ug/L		100
55)	Isopropylbenzene	18.36	105	143324	0.33 ug/L		96
58)	Bromobenzene	19.21	156	34447	0.38 ug/L		93
59)	1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38 ug/L		88
60)	1,2,3-Trichloropropane	19.59	75	19472	0.53 ug/L		98
61)	n-Propylbenzene	19.85	120	32615	0.35 ug/L		100
62)	2-Chlorotoluene	19.97	126	32953	0.39 ug/L		100
63)	4-Chlorotoluene	20.39	91	96642	0.32 ug/L		98
64)	1,3,5-Trimethylbenzene	20.51	105	101910	0.37 ug/L		98
65)	tert-Butylbenzene	21.55	91	67600	0.38 ug/L		93
66)	1,2,4-Trimethylbenzene	21.71	105	84737	0.33 ug/L		94
67)	sec-Butylbenzene	22.28	105	142616	0.35 ug/L		95
68)	1,3-Dichlorobenzene	22.45	146	64255	0.38 ug/L		99
69)	p-Isopropyltoluene	22.82	119	101423	0.32 ug/L		97
70)	1,4-Dichlorobenzene	22.76	146	63283	0.40 ug/L		98
71)	1,2-Dichlorobenzene	23.85	146	50172	0.37 ug/L		90
72)	n-Butylbenzene	24.10	91	87558	0.28 ug/L		98
73)	1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34 ug/L	#	88
74)	1,2,4-Trichlorobenzene	27.95	180	26621	0.32 ug/L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

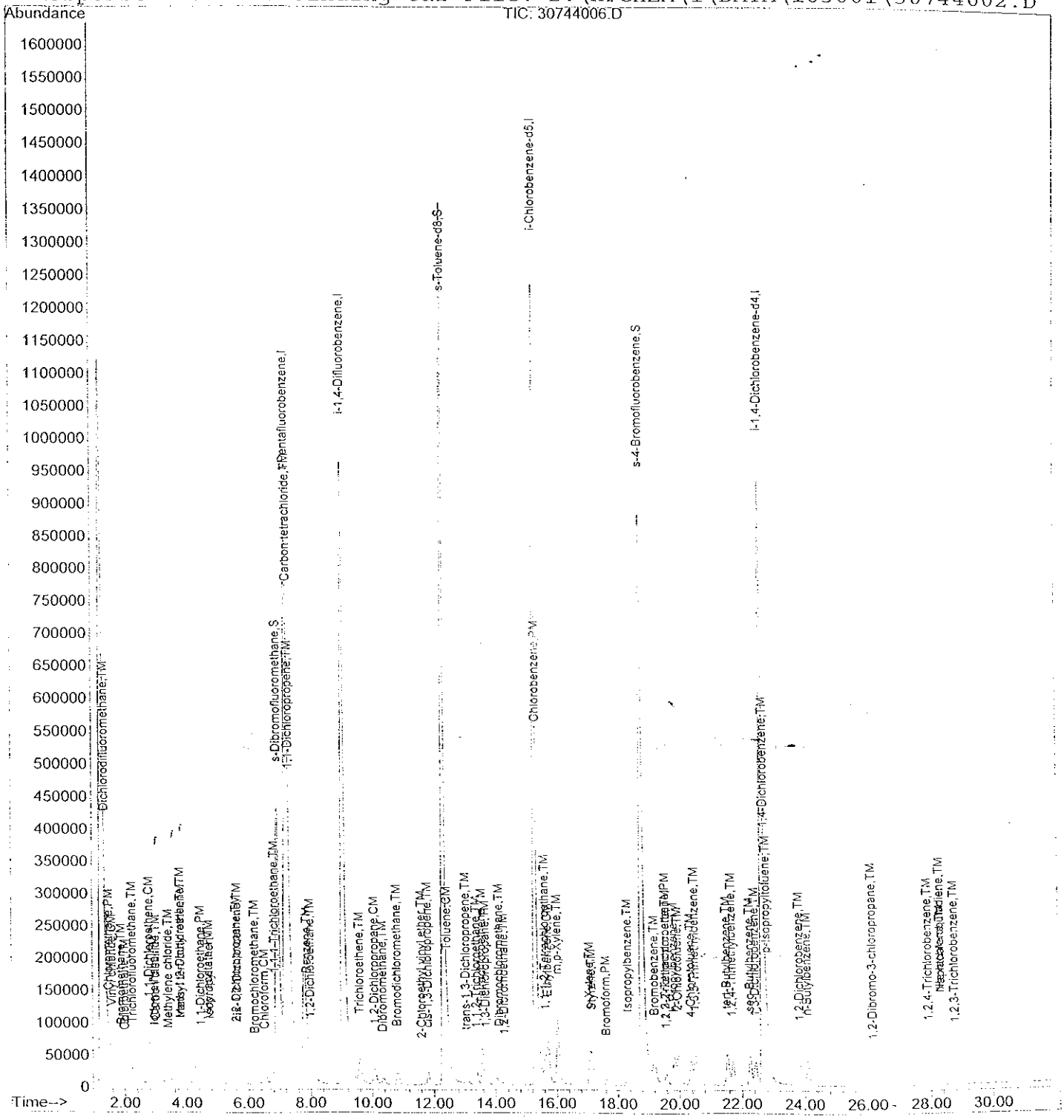
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76)	Naphthalene	28.35	128	20463	0.33	ug/L	100
77)	1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

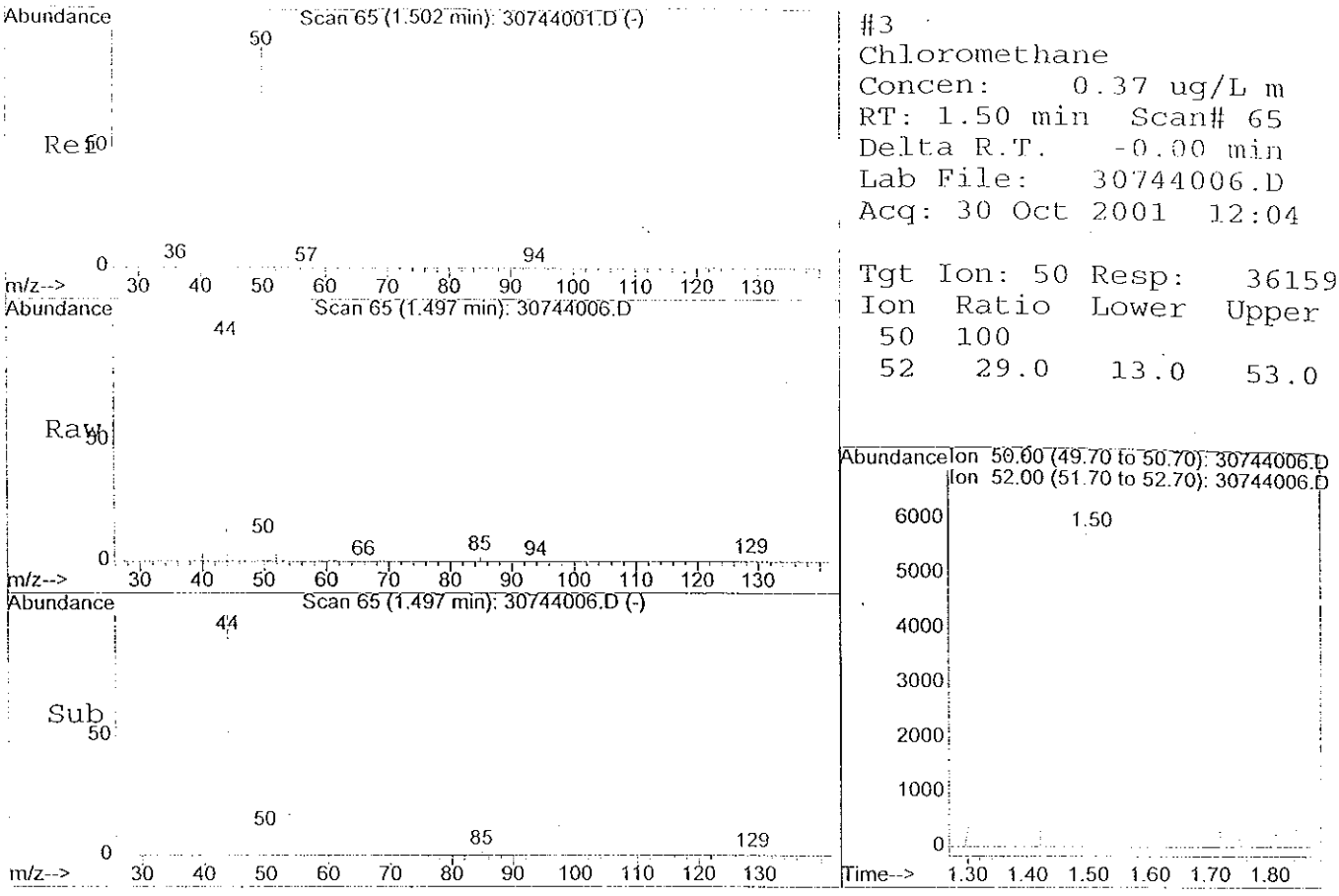
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.R

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D





#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0

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12-31-01

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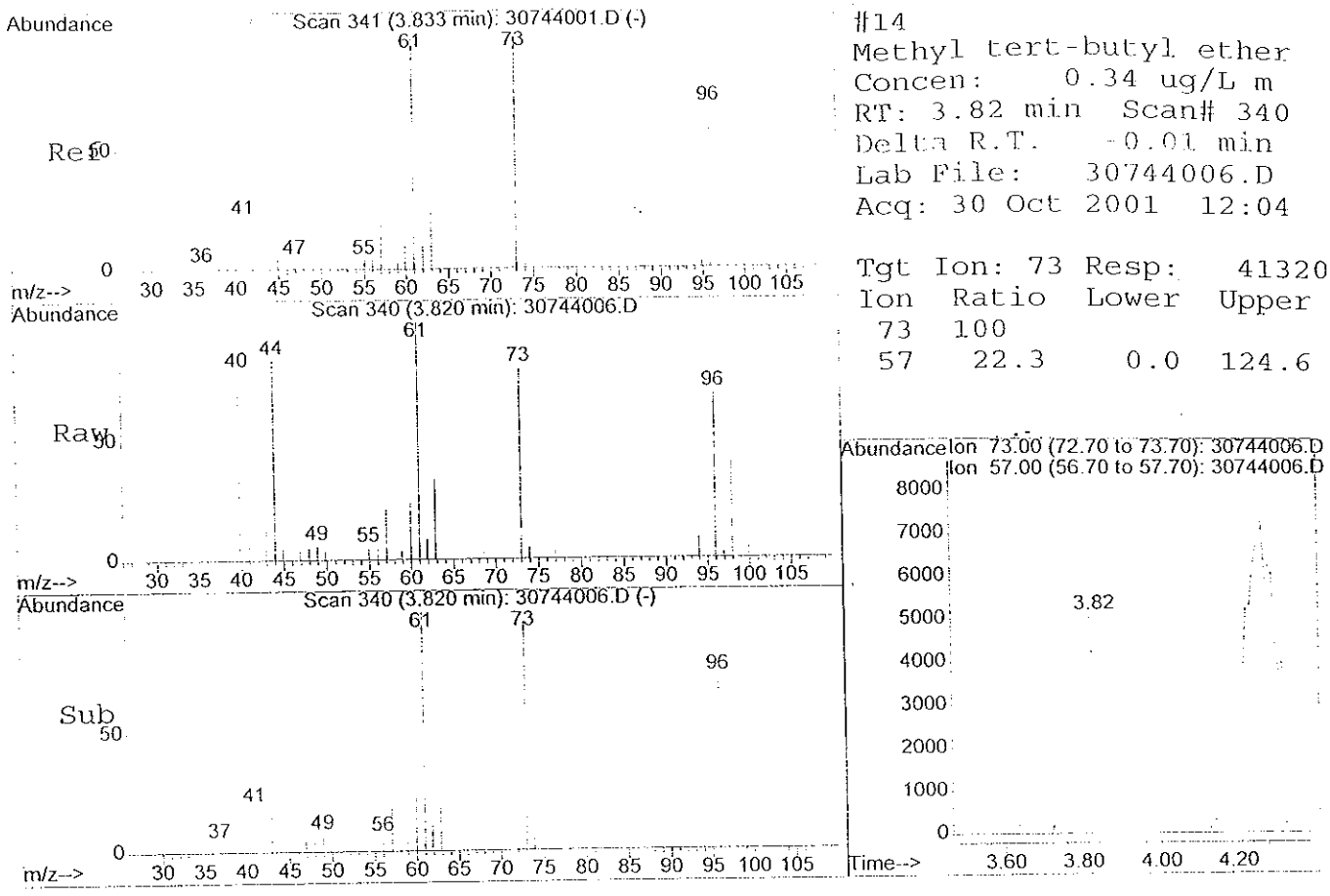

#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6

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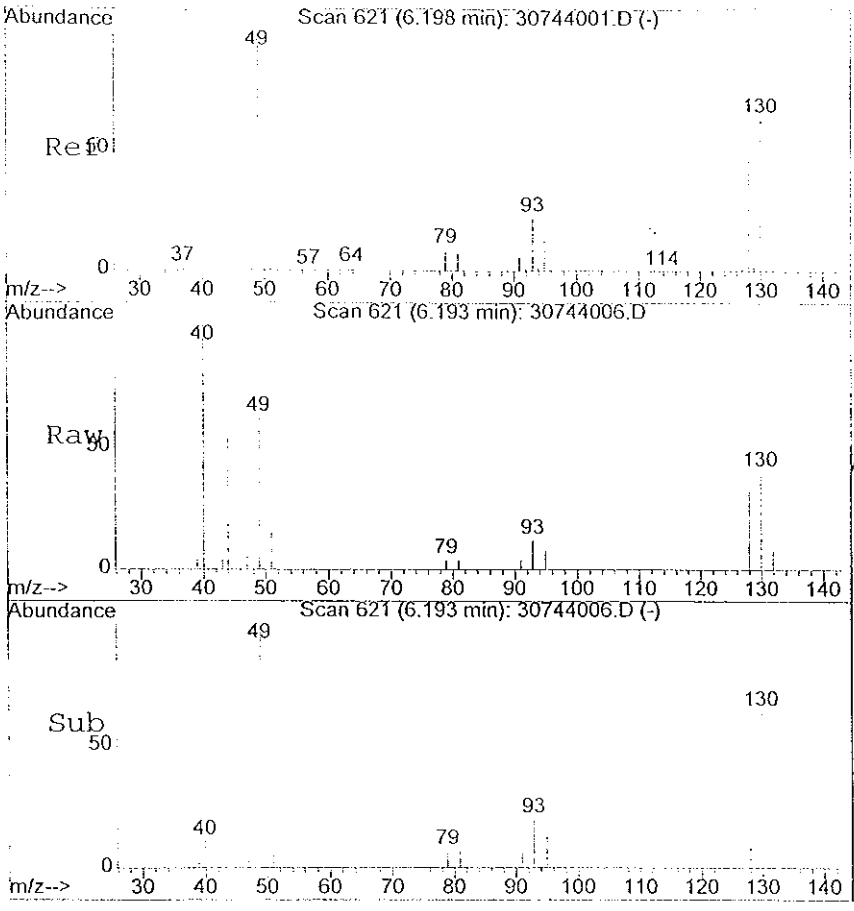
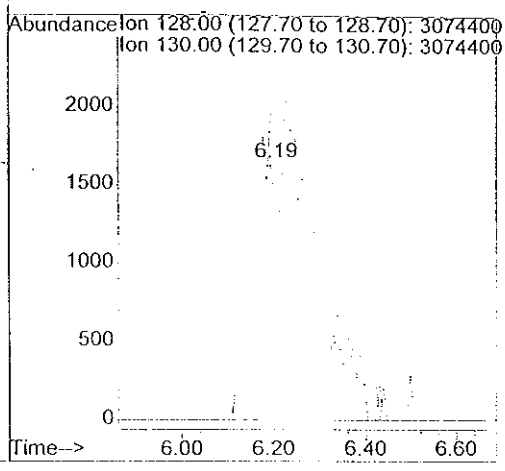


#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:128 Resp: 13540

Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0



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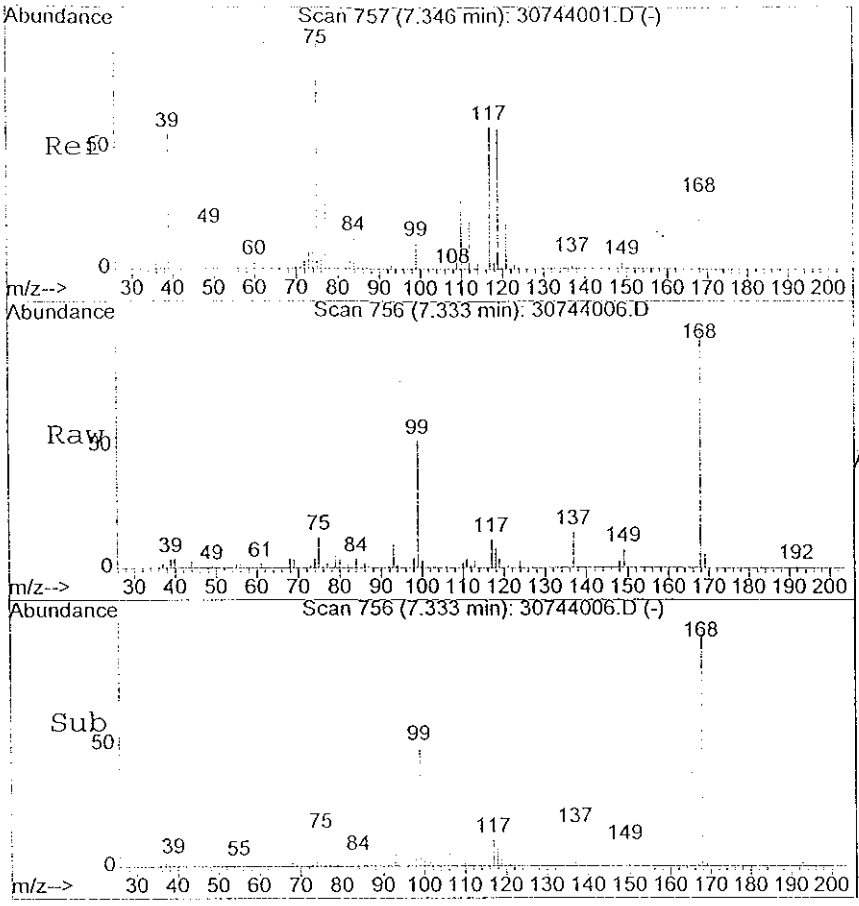
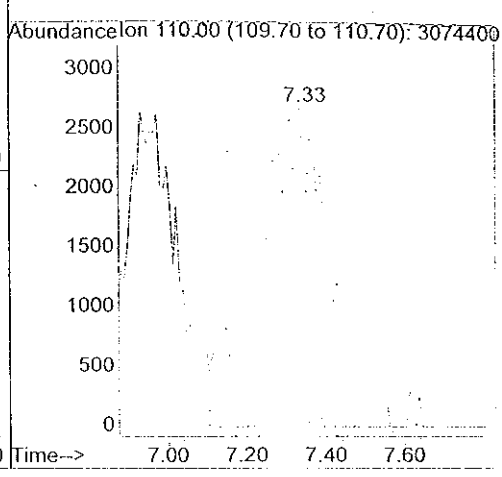
12-31-01



#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



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10-11-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00	ug/L	0.02 / 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00	ug/L	0.02 / 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00	ug/L	0.00 / 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00	ug/L	0.04 / 93.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1490634	9.78	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%			
36) s-Toluene-d8	12.34	98	3048951	9.94	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54	ug/L	95
3) Chloromethane	1.51	50	57047	0.55	ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56	ug/L	95
5) Bromomethane	1.89	96	50840	0.53	ug/L	93
6) Chloroethane	2.00	64	32710	0.51	ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52	ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51	ug/L	96
10) Iodomethane	2.95	142	61980	0.47	ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50	ug/L	100
12) Methylene chloride	3.42	84	42127	0.48	ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50	ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46	ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50	ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85	ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46	ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46	ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46	ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45	ug/L	99
22) Chloroform	6.55	83	108615m	0.52	ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47	ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58	ug/L #	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27)	1,1-Dichloropropene	7.37	110	45959m	0.88	ug/L	100
28)	Benzene	7.89	78	175270	0.51	ug/L	97
29)	1,2-Dichloroethane	8.01	62	36739	0.54	ug/L	94
30)	Trichloroethene	9.60	95	72610	0.53	ug/L	92
31)	1,2-Dichloropropane	10.09	63	54961	0.48	ug/L	100
32)	Dibromomethane	10.36	93	25641	0.50	ug/L	93
33)	2-Chloroethyl vinyl ether	11.65	63	9558	0.47	ug/L	90
34)	Bromodichloromethane	10.82	83	80038	0.50	ug/L	89
35)	cis-1,3-Dichloropropene	11.83	75	61200	0.49	ug/L	96
37)	Toluene	12.47	92	115598	0.53	ug/L	92
38)	trans-1,3-Dichloropropene	13.07	75	37014	0.47	ug/L	95
39)	1,1,2-Trichloroethane	13.40	83	27199	0.54	ug/L	92
40)	Tetrachloroethene	13.59	166	83043	0.53	ug/L	98
41)	1,3-Dichloropropane	13.71	76	49118	0.50	ug/L	92
42)	Dibromochloromethane	14.16	129	45286	0.48	ug/L	97
43)	1,2-Dibromoethane	14.29	107	30668	0.47	ug/L	89
44)	4-Methyl-2-pentanone	12.29	43	80377	2.29	ug/L	84
45)	2-Hexanone	14.05	43	42639	1.90	ug/L	91
47)	Chlorobenzene	15.39	112	116784	0.51	ug/L	95
48)	1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49	ug/L	96
50)	Ethylbenzene	15.73	106	63777	0.52	ug/L	100
51)	m,p-Xylene	16.04	106	150249	1.00	ug/L	96
52)	o-Xylene	17.11	106	69489	0.50	ug/L	96
53)	Styrene	17.17	104	108692	0.48	ug/L	98
54)	Bromoform	17.64	173	24986	0.45	ug/L	97
55)	Isopropylbenzene	18.39	105	225817	0.50	ug/L	99
58)	Bromobenzene	19.22	156	55086	0.56	ug/L	96
59)	1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54	ug/L	94
60)	1,2,3-Trichloropropane	19.59	75	22893	0.58	ug/L	99
61)	n-Propylbenzene	19.87	120	51067	0.51	ug/L	100
62)	2-Chlorotoluene	19.98	126	49909	0.55	ug/L	100
63)	4-Chlorotoluene	20.39	91	176547	0.54	ug/L	97
64)	1,3,5-Trimethylbenzene	20.53	105	157487	0.52	ug/L	100
65)	tert-Butylbenzene	21.55	91	105846	0.54	ug/L	90
66)	1,2,4-Trimethylbenzene	21.73	105	130302	0.47	ug/L	96
67)	sec-Butylbenzene	22.29	105	223693	0.51	ug/L	98
68)	1,3-Dichlorobenzene	22.45	146	95809	0.52	ug/L	98
69)	p-Isopropyltoluene	22.82	119	161812	0.48	ug/L	95
70)	1,4-Dichlorobenzene	22.76	146	94624	0.56	ug/L	96
71)	1,2-Dichlorobenzene	23.87	146	78043	0.53	ug/L	99
72)	n-Butylbenzene	24.10	91	134579	0.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

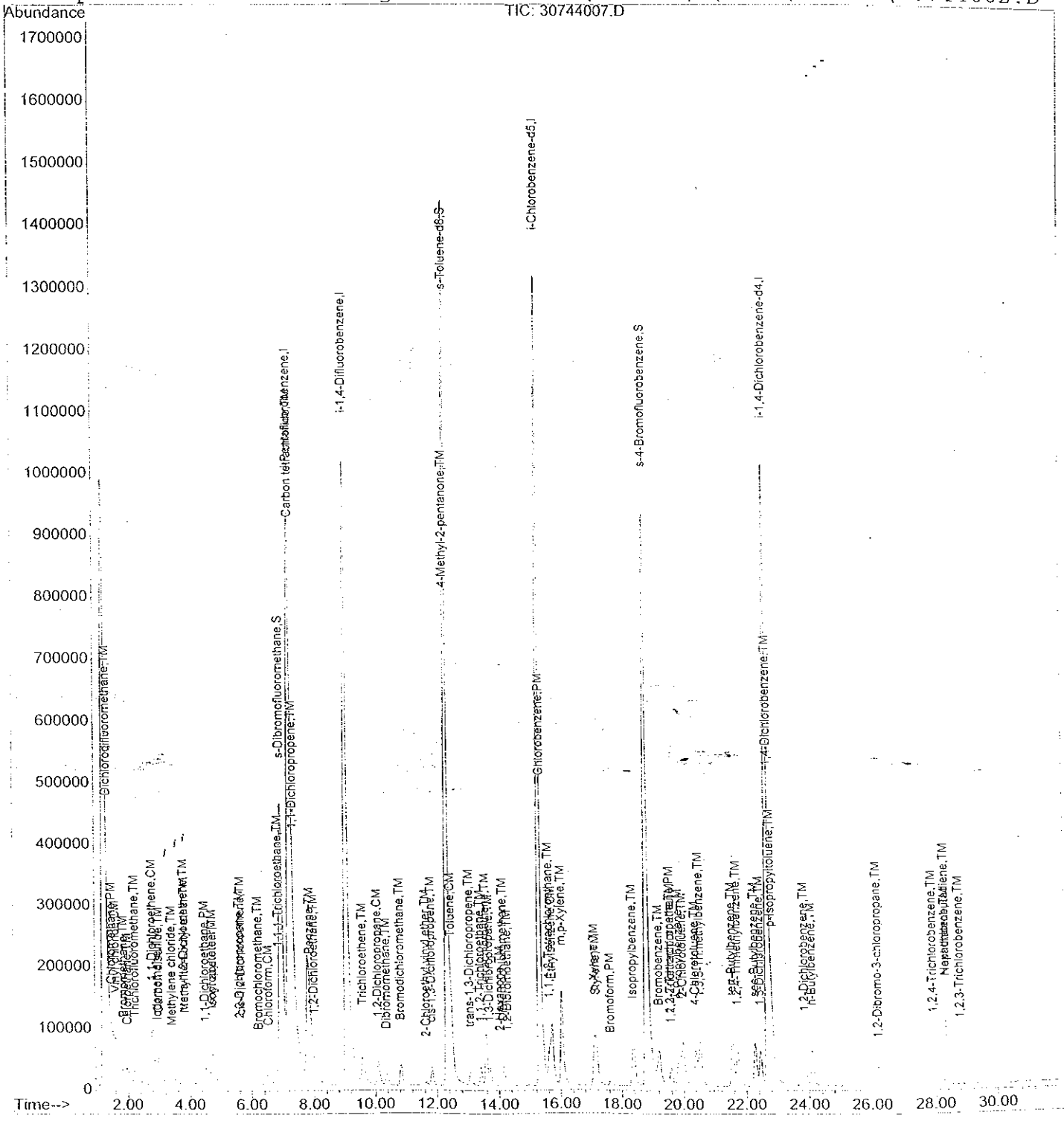
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

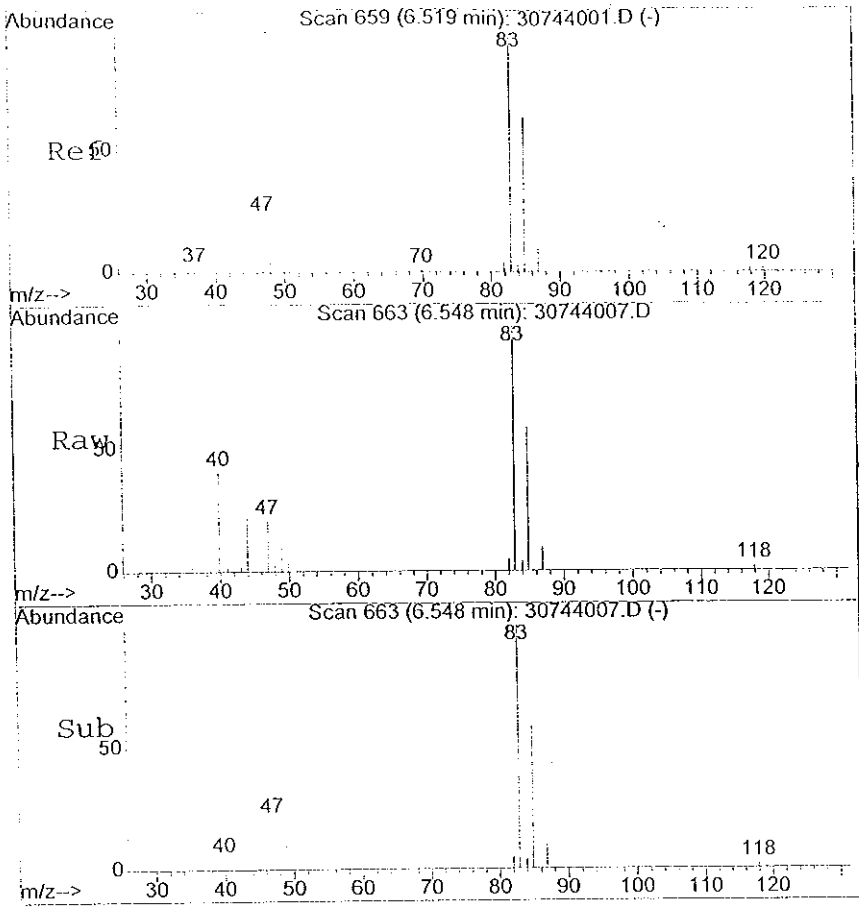
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73) 1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52	ug/L	#	86
74) 1,2,4-Trichlorobenzene	27.94	180	36654	0.41	ug/L		100
75) Hexachlorobutadiene	28.33	225	48563	0.54	ug/L		98
76) Naphthalene	28.34	128	27310	0.41	ug/L		100
77) 1,2,3-Trichlorobenzene	28.79	180	26742	0.40	ug/L		92

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

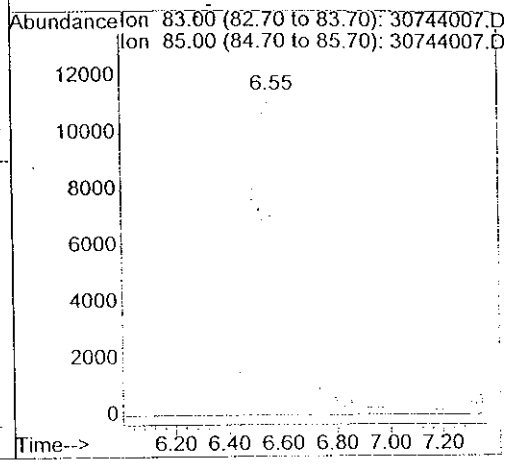




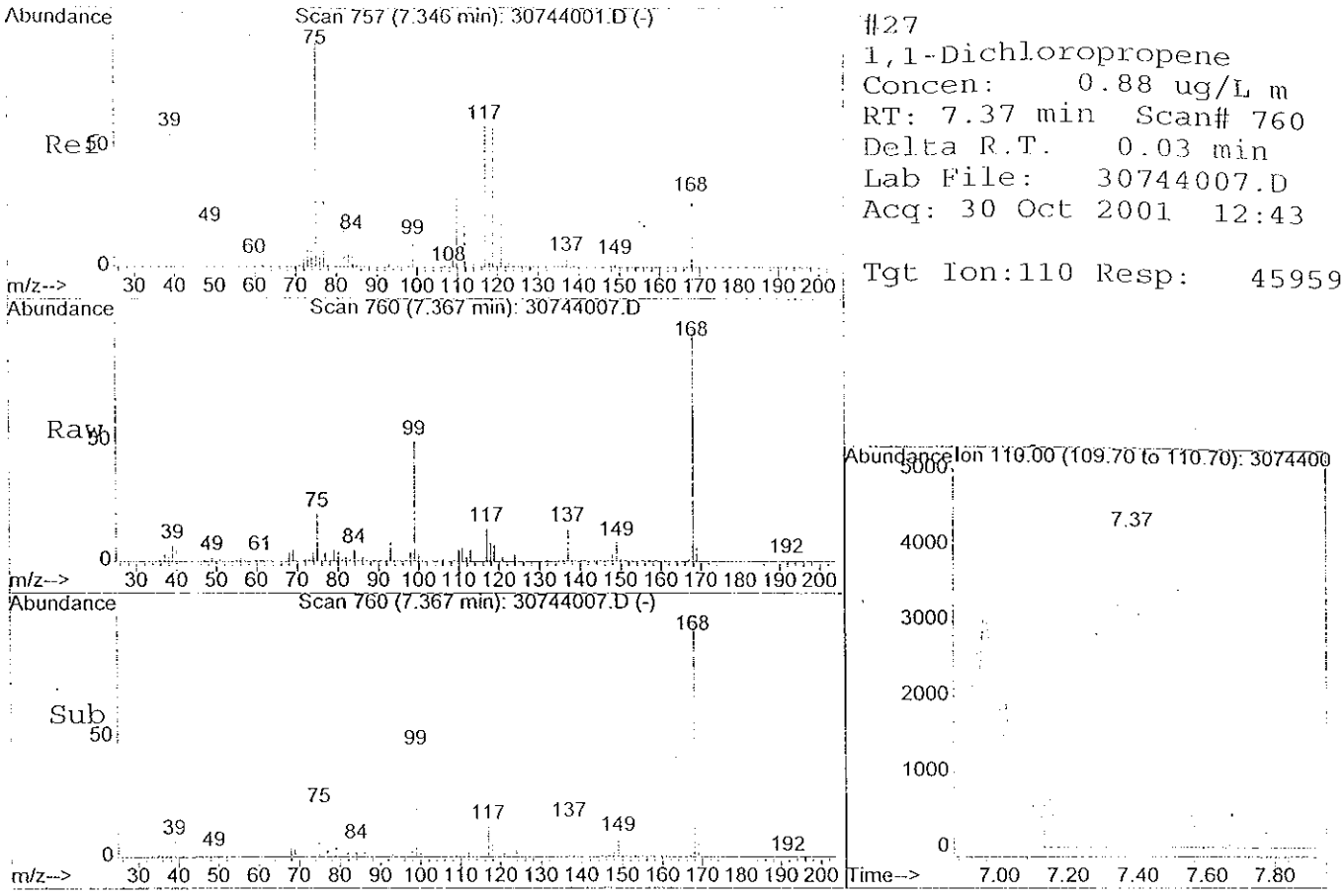
#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion: 83 Resp: 108615

Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6



10-31
for 10-31-01



#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959

10-31
10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration
30744009.D V82625B1.M Wed Oct 31 05:35:50 2001

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26)	Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27)	1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28)	Benzene	7.87	78	6215127	19.11	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30)	Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31)	1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32)	Dibromomethane	10.35	93	939957	19.35	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34)	Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35)	cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37)	Toluene	12.47	92	3949672	19.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40)	Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42)	Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43)	1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45)	2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47)	Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50)	Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51)	m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52)	o-Xylene	17.10	106	2595783	19.18	ug/L	98
53)	Styrene	17.16	104	4271963	19.62	ug/L	100
54)	Bromoform	17.63	173	1061009	19.77	ug/L	99
55)	Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58)	Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61)	n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62)	2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63)	4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64)	1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65)	tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67)	sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68)	1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69)	p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

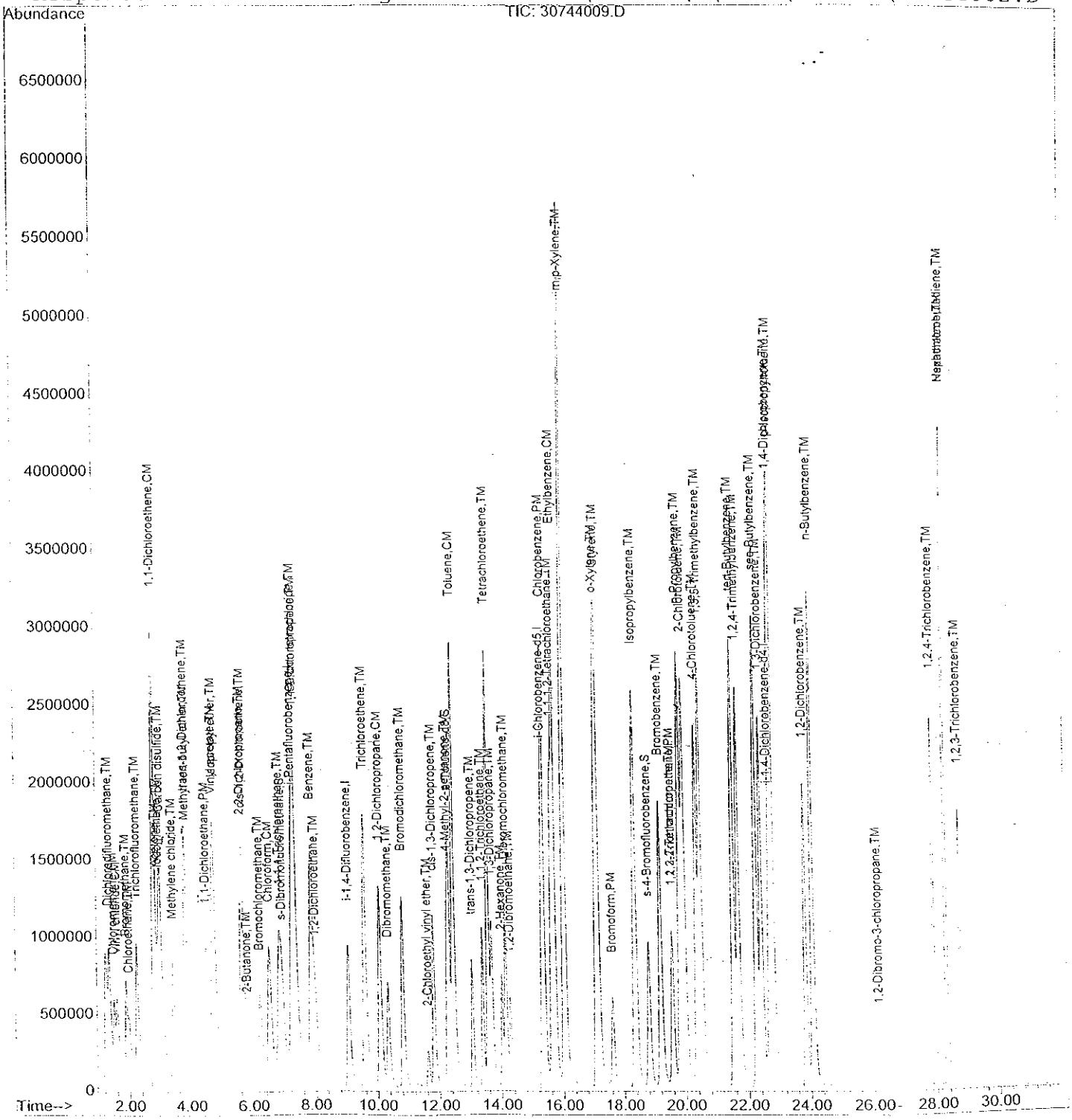
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

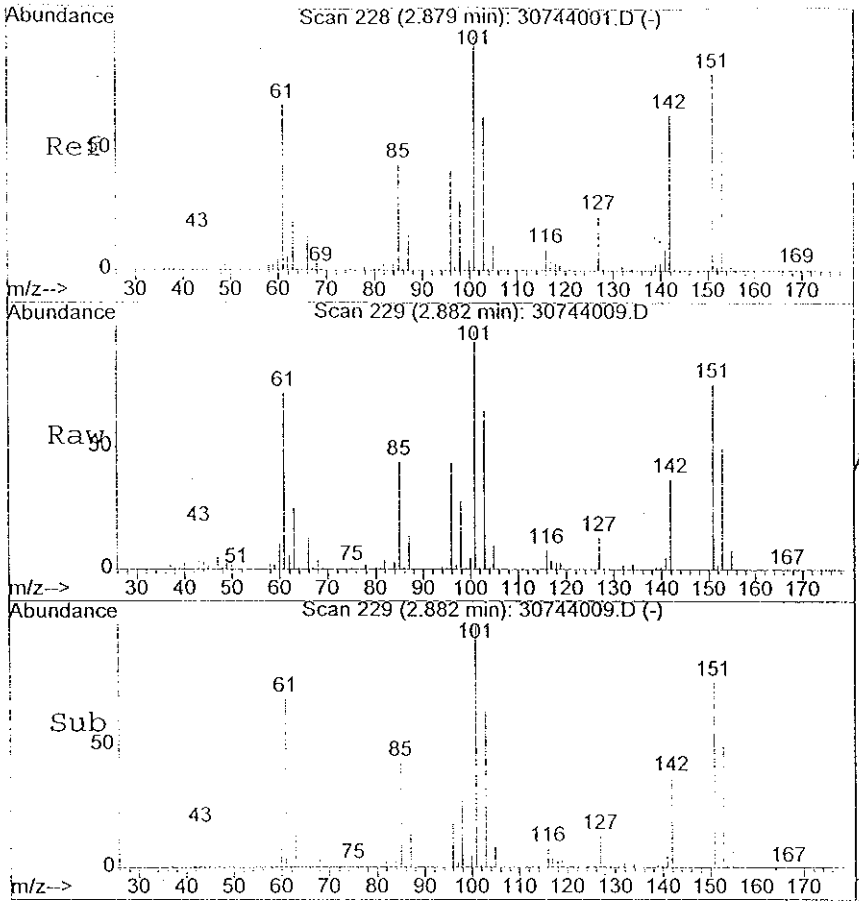
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72)	n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74)	1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75)	Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76)	Naphthalene	28.33	128	1514801	20.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RF

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

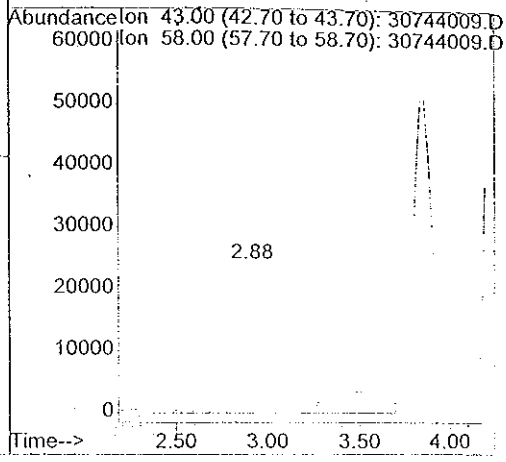




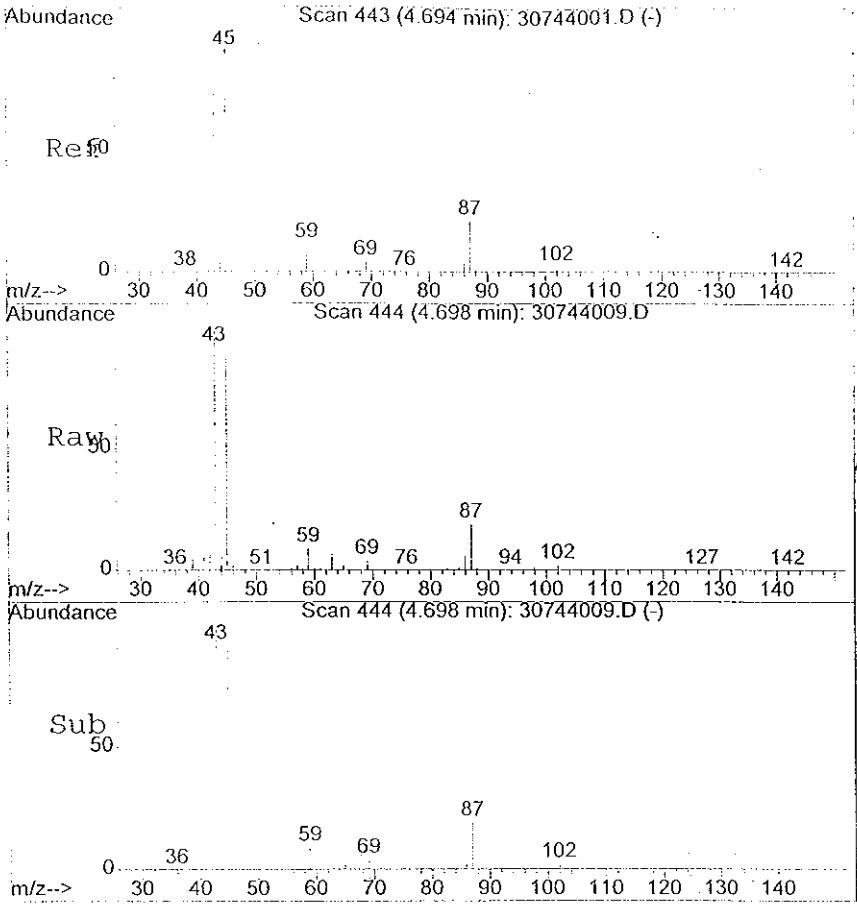
#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



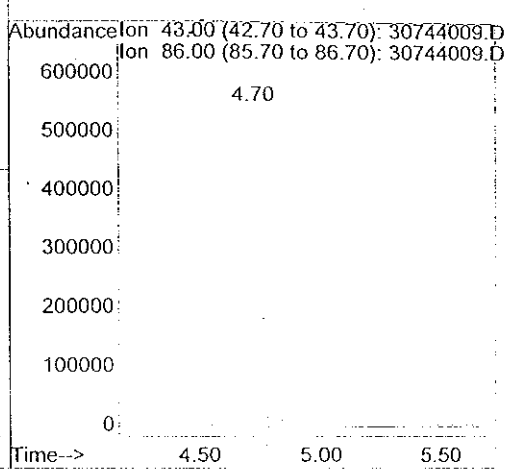
10-31
11-31-01



#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

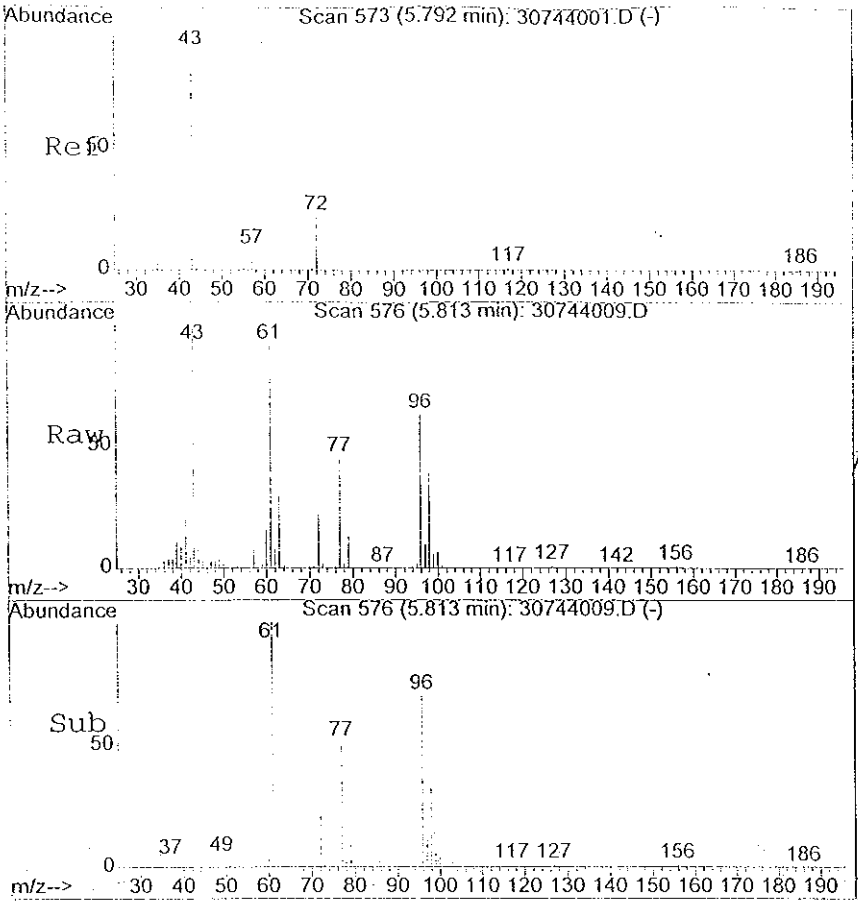
Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



10-31

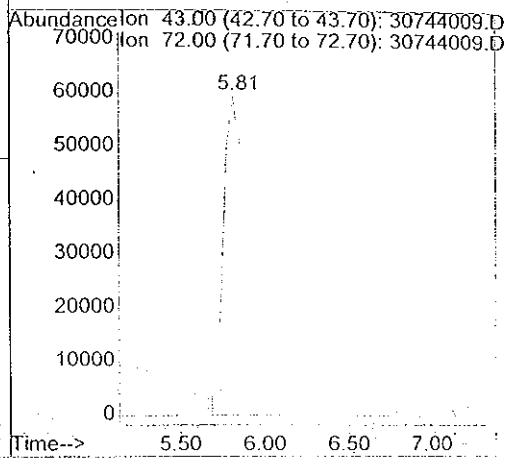
11-1-01



#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



10-31
lw 10-31-01

30744009.D V82625B1.M Acq :30 Oct 2001 14:05
Sample = 20ppb VOA STD Misc = 20ppb VOA STD

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26)	Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27)	1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28)	Benzene	7.88	78	9780889	29.34	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30)	Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31)	1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32)	Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33)	2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34)	Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35)	cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37)	Toluene	12.48	92	6204841	29.18	ug/L	100
38)	trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39)	1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40)	Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41)	1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42)	Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43)	1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44)	4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45)	2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47)	Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50)	Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51)	m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52)	o-Xylene	17.12	106	4111508	29.27	ug/L	98
53)	Styrene	17.19	104	6844185	30.28	ug/L	100
54)	Bromoform	17.64	173	1805093	32.41	ug/L	100
55)	Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58)	Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60)	1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61)	n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62)	2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63)	4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64)	1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65)	tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66)	1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67)	sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69)	p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

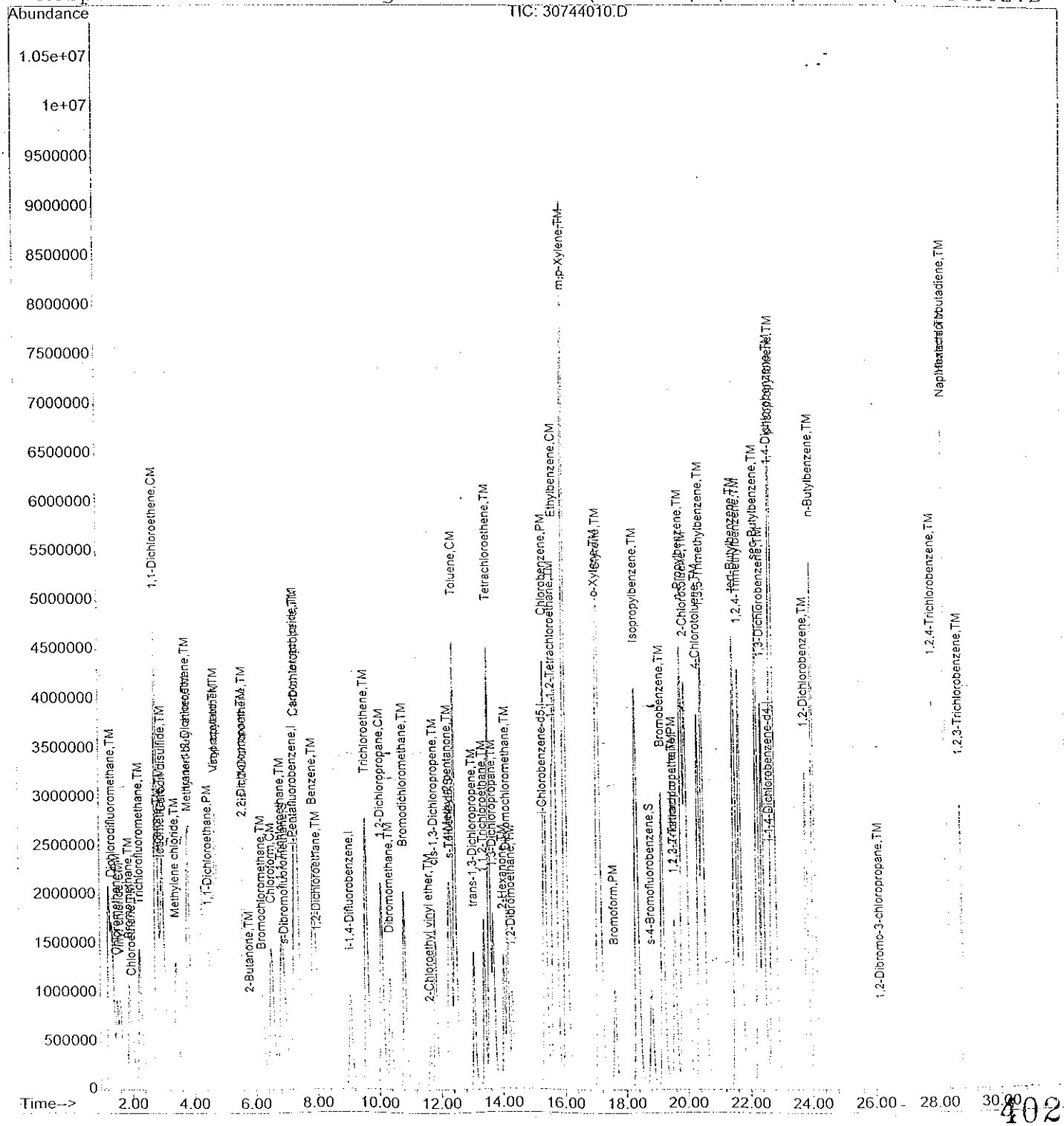
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

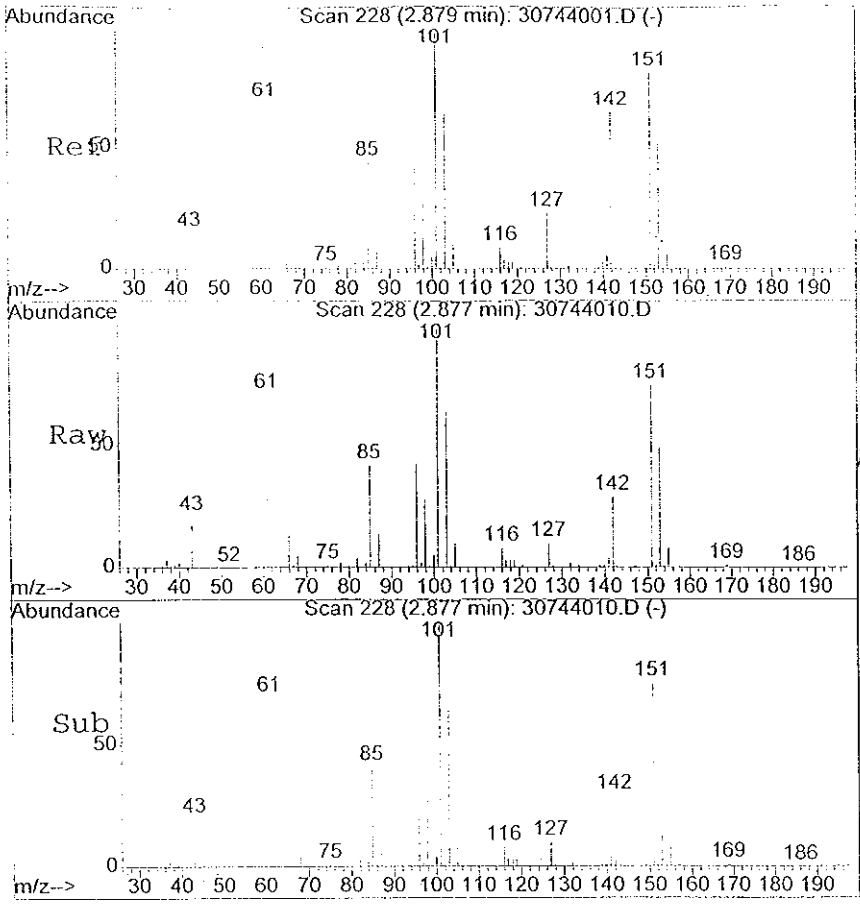
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72)	n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74)	1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75)	Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76)	Naphthalene	28.35	128	2562909	32.91	ug/L	100
77)	1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RI

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

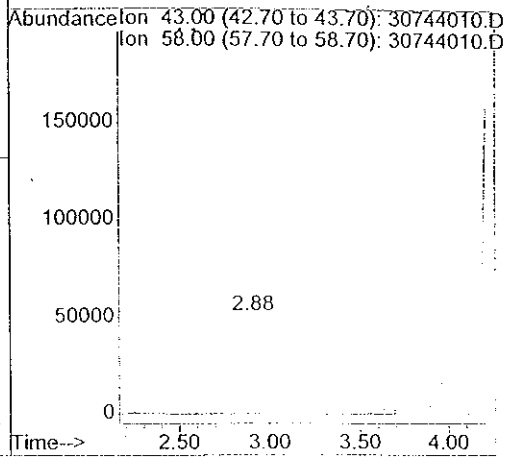




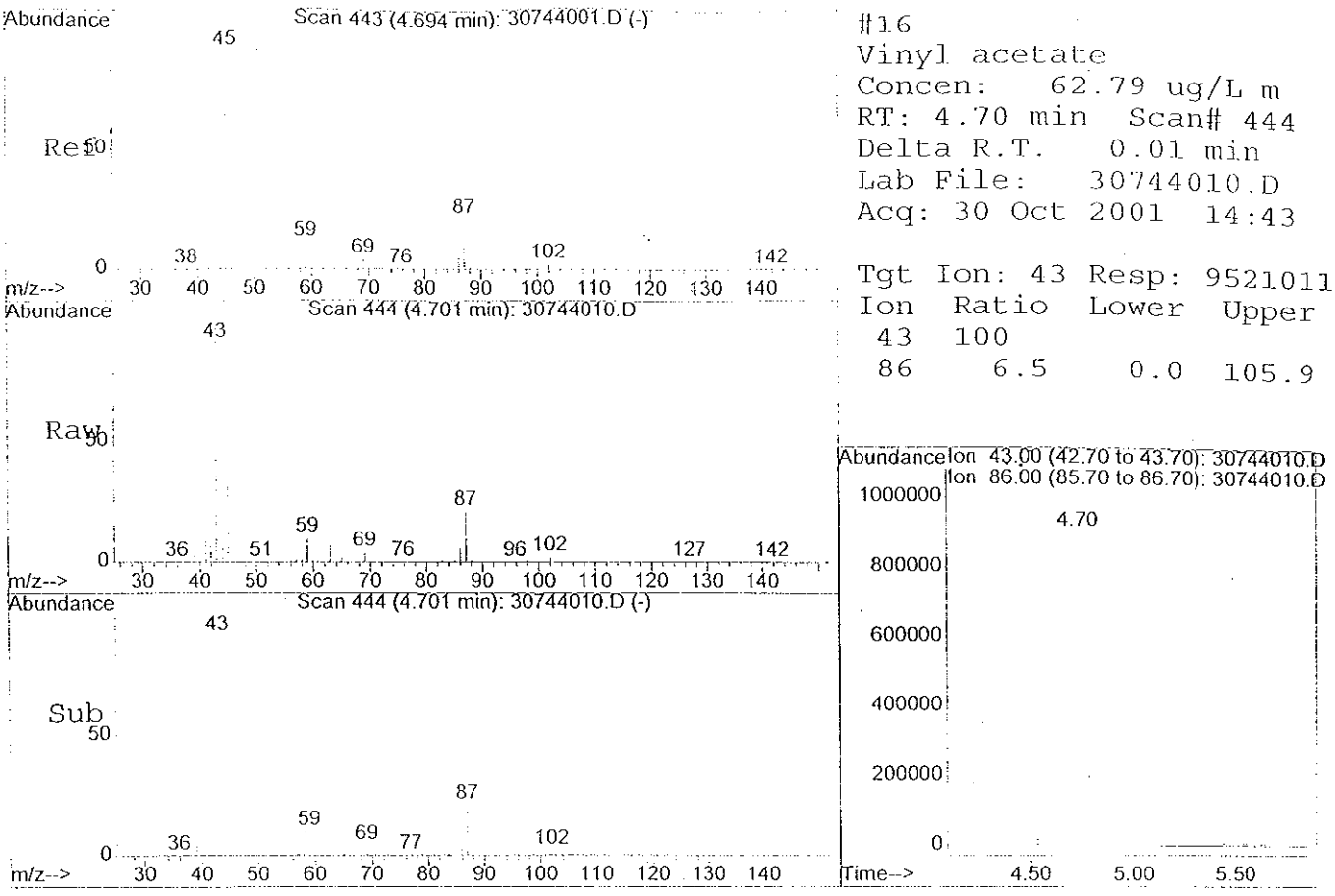
#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



10-31
for 10-31-01

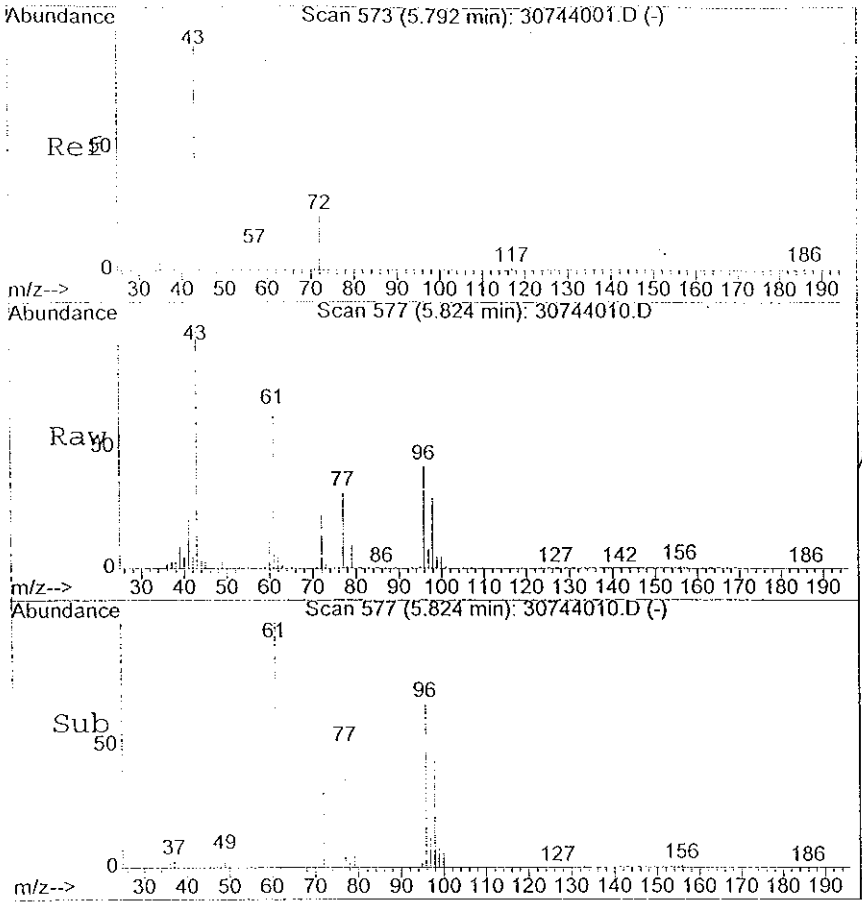


#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9

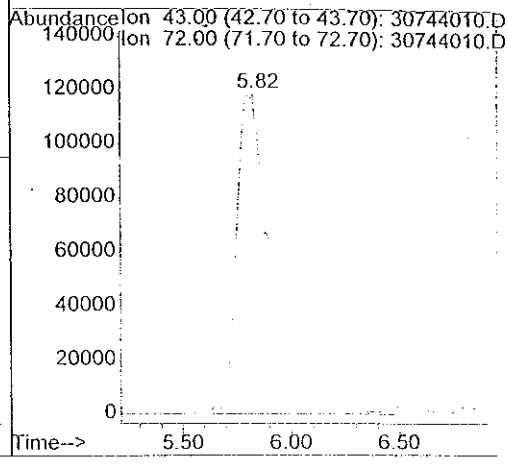
10-31
M 14.31.01



#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



10-31
AM 10-31-01

30744010.D V82625B1.M Acq :30 Oct 2001 14:43
Sample = 30ppb VOA STD Misc = 30ppb VOA STD

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

* = out of control limits

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration
30744012.D V82625B1.M Wed Oct 31 05:36:39 2001 Page 1

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26)	Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27)	1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28)	Benzene	7.87	78	3192959	9.73	ug/L	99
29)	1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30)	Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31)	1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32)	Dibromomethane	10.35	93	503678	10.29	ug/L	99
33)	2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34)	Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35)	cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37)	Toluene	12.46	92	2053379	9.72	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40)	Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41)	1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42)	Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43)	1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44)	4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45)	2-Hexanone	14.01	43	421508	20.32	ug/L	99
47)	Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50)	Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51)	m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52)	o-Xylene	17.08	106	1353170	10.02	ug/L	98
53)	Styrene	17.15	104	2130325	9.94	ug/L	99
54)	Bromoform	17.61	173	551199	10.58	ug/L	100
55)	Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58)	Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60)	1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61)	n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62)	2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63)	4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67)	sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69)	p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

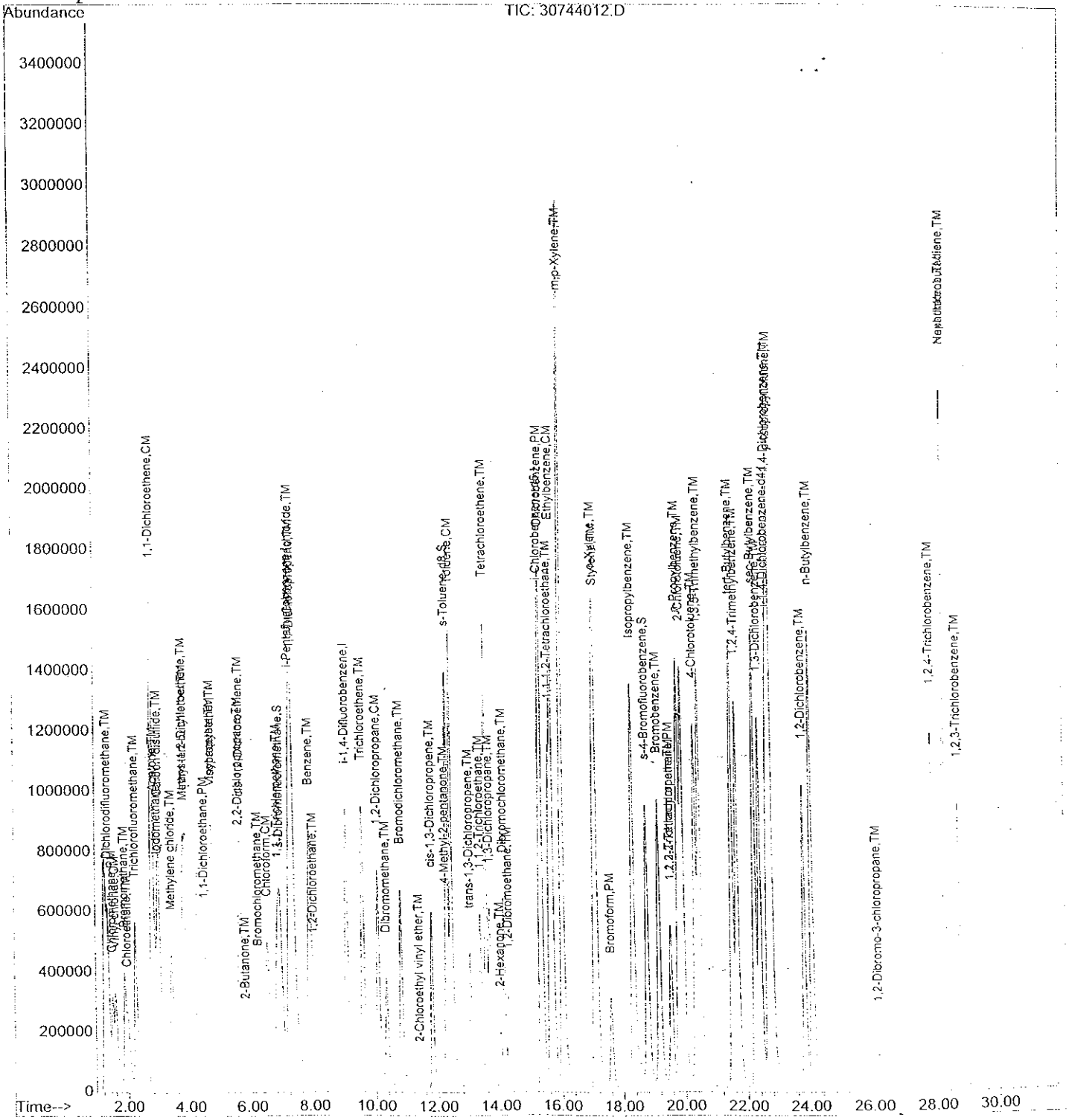
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

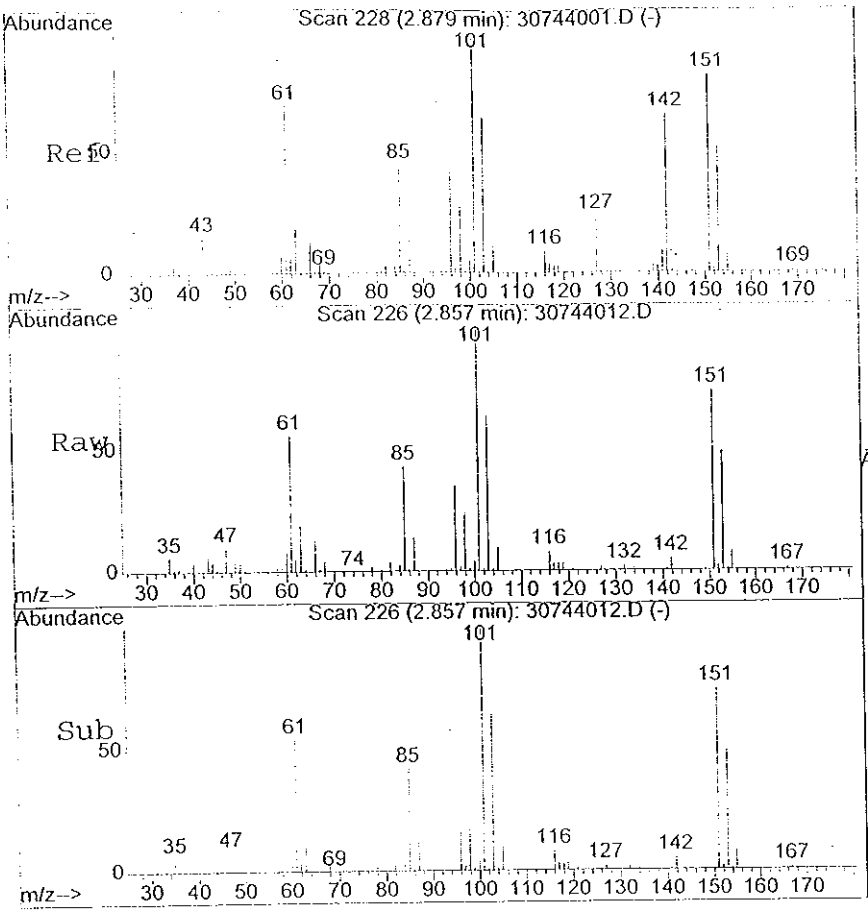
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72)	n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74)	1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75)	Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76)	Naphthalene	28.32	128	757496	10.96	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RI

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration

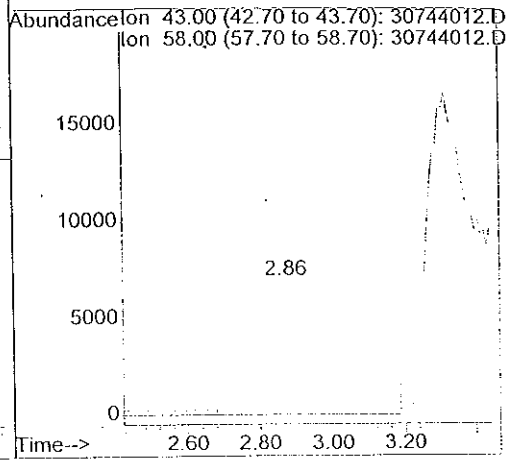




#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 93381

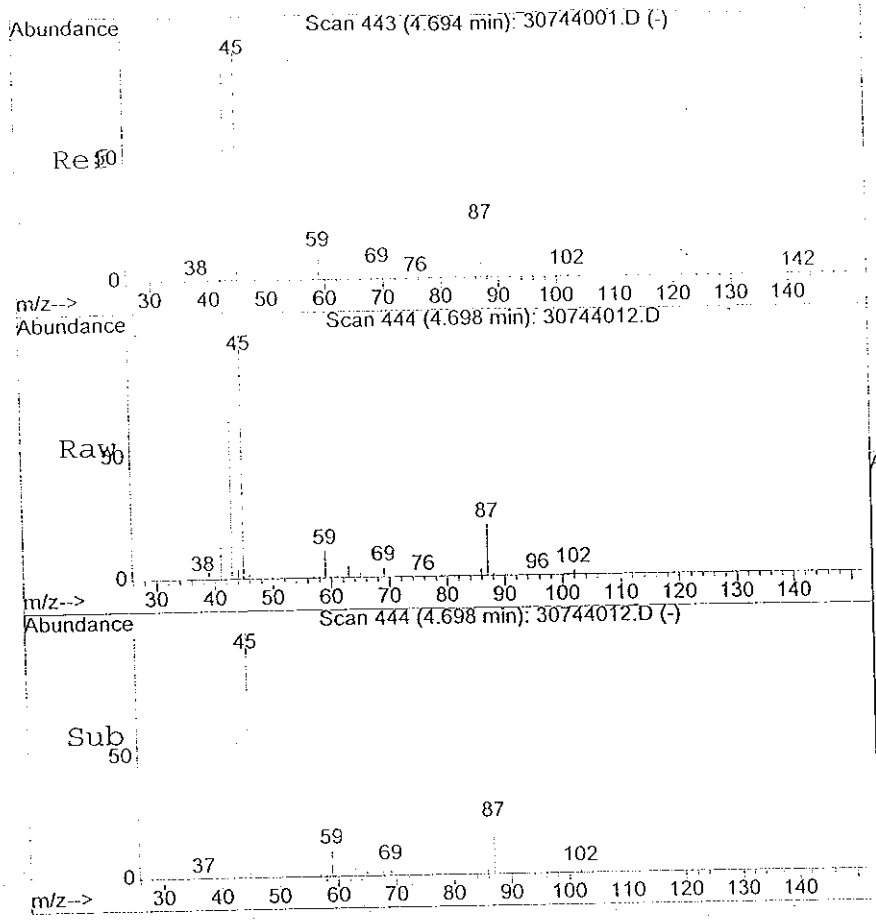
Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



10-31
10-31-01

412

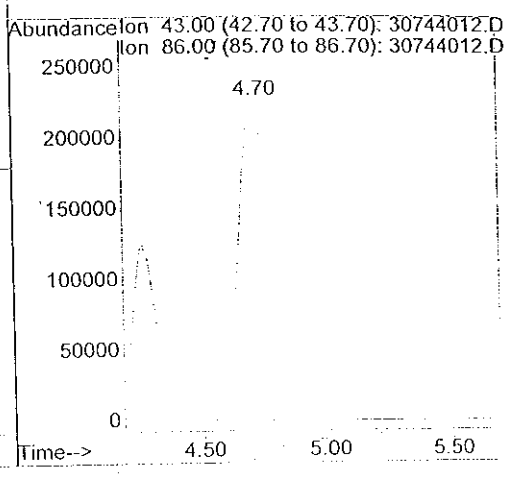
30744012.D V82625B1.M Acq :30 Oct 2001 16:03
Sample = 2nd SOURCE STD 8-MSW Misc = IND CHK STD 8-MSW-25-2



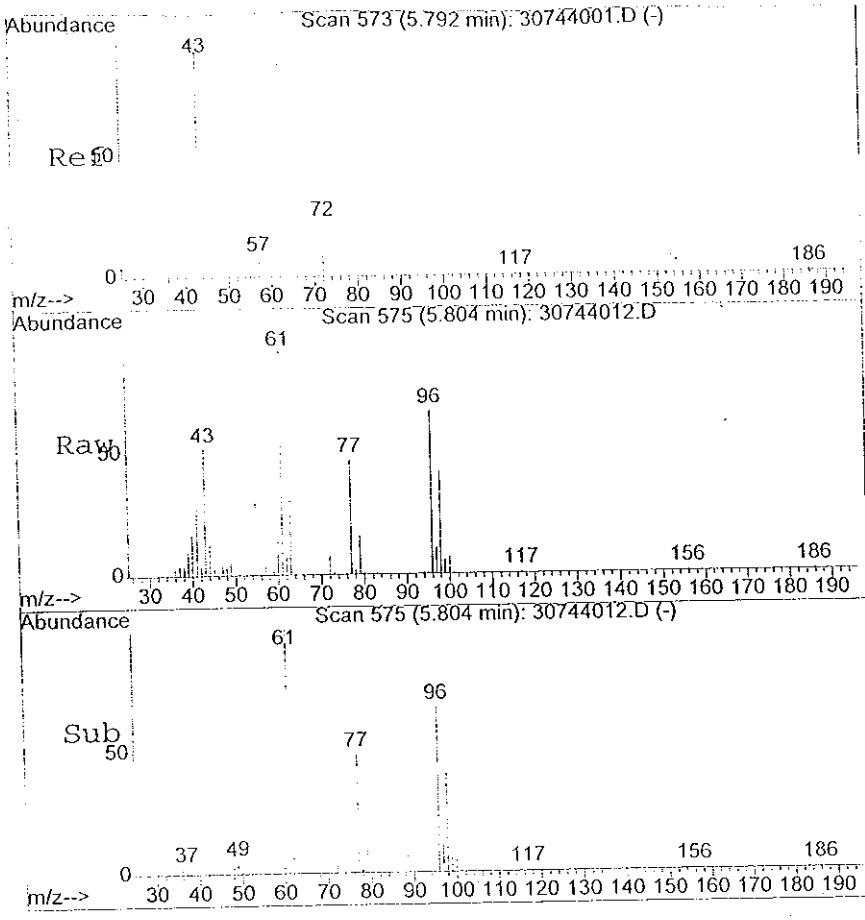
#16
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 2328403

Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9

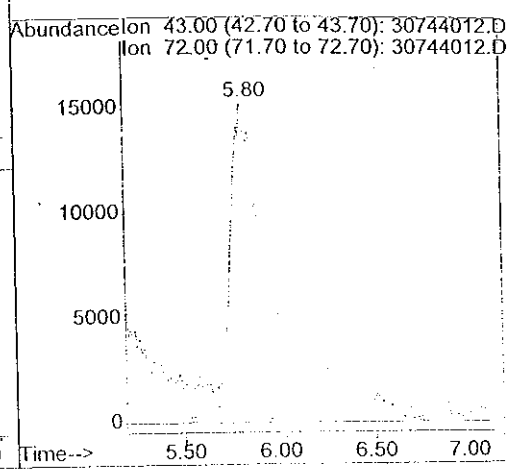


10-31
10-31-01



#19
2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab [illegible]
Acq: 30 Oct 2001 16:03

Tgt Ion: 43	Resp:	250575	
Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
10-31-01

414

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. VC 10-31-01

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RS
1)	I	i-Pentafluorobenzene	----------			ISTD	----------			
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	-----	#
							L	M=	0.019	R^2=0.99(
								B=	-0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
							L	M=	0.331	R^2=1.00(
								B=	-0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------			ISTD	----------			
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
							L	M=	0.157	R^2=0.99(
								B=	0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

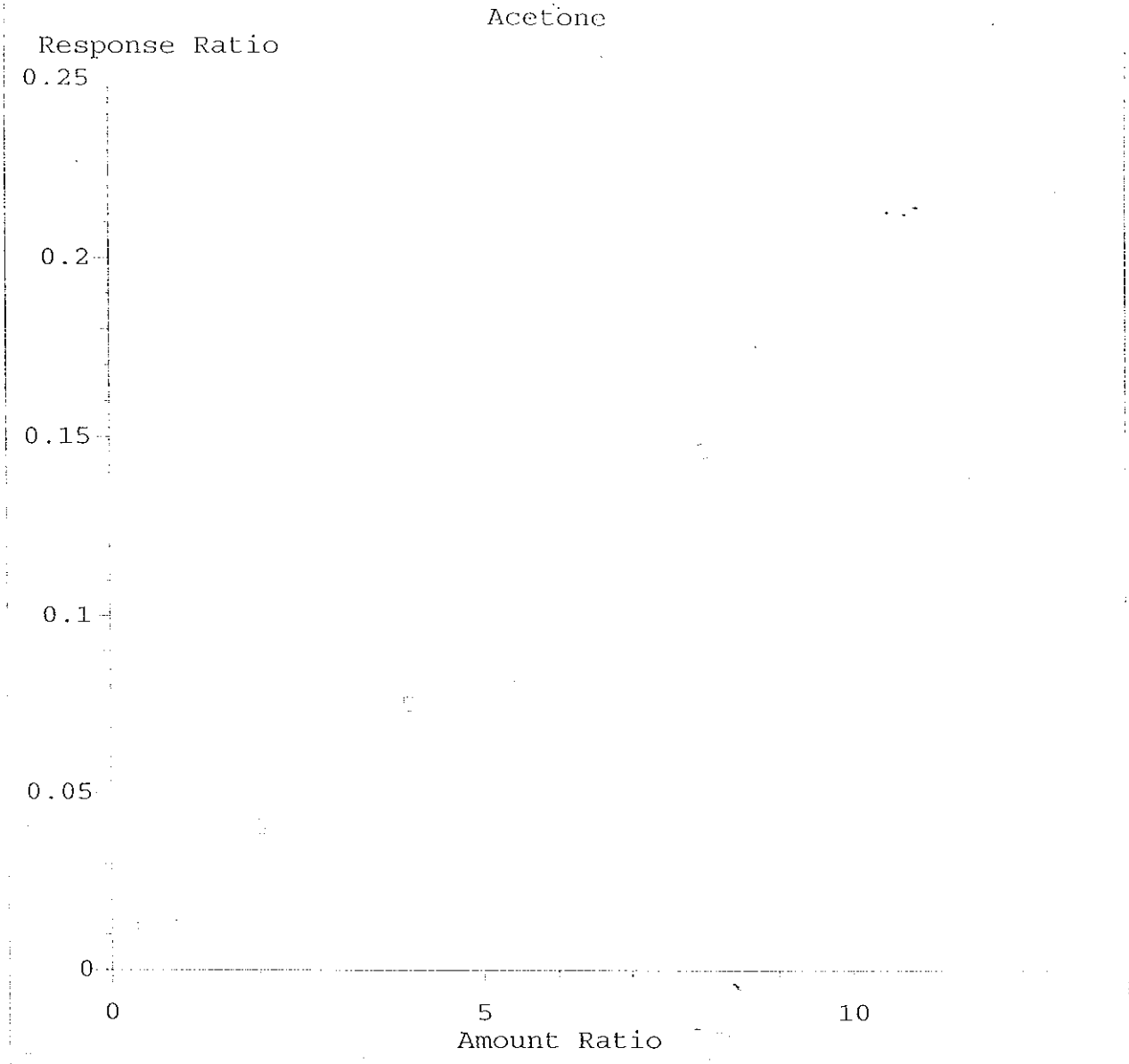
Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

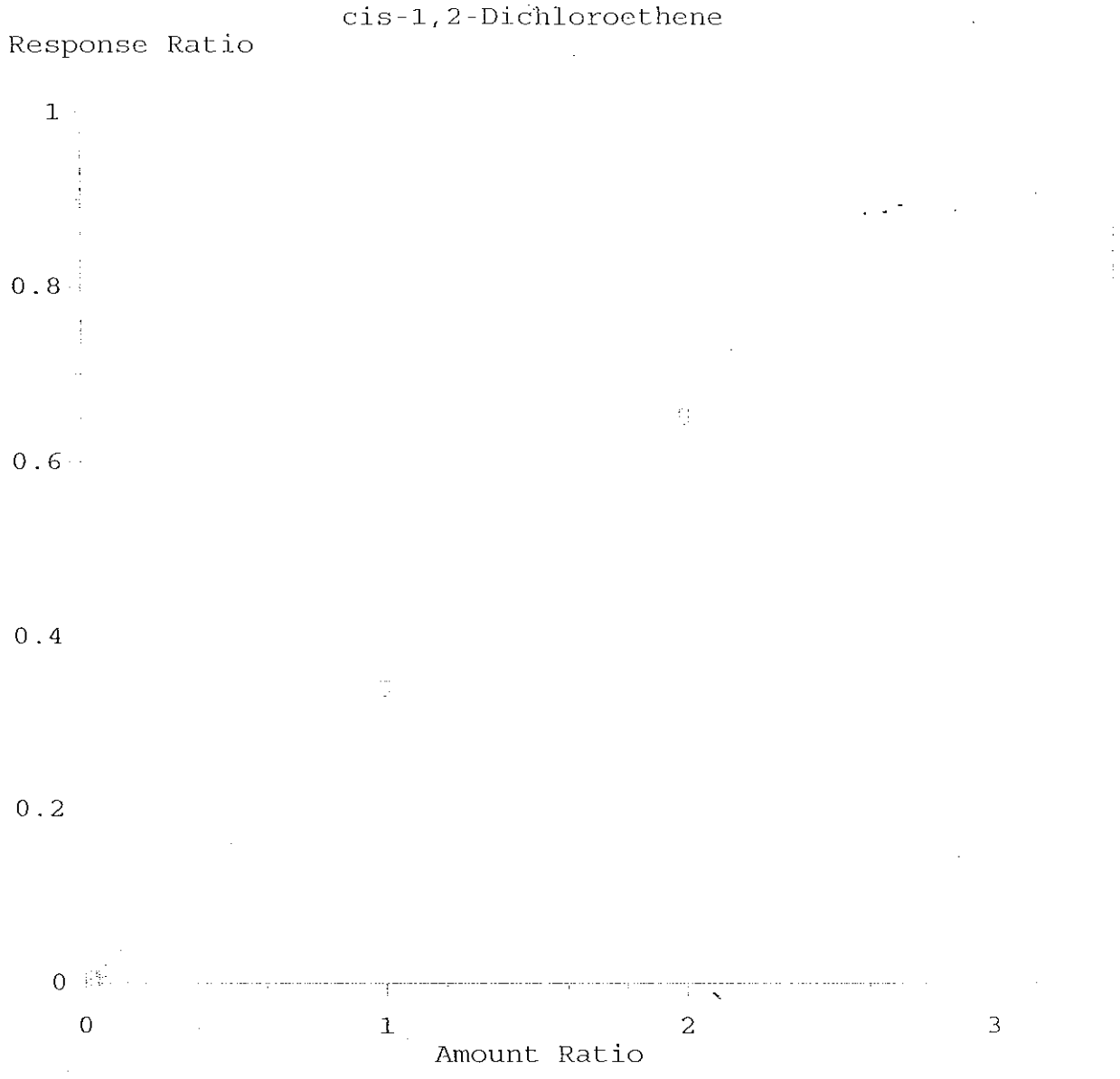
	Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD	%RS
CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43	0.17
TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62	9.43
TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67	
TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13	
TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26	
TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77	
TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52	
TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64	
TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17	
I	i-Chlorobenzene-d5	----------			ISTD	----------				
PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90	
TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08	
TM	1-Chlorohexane							0.000#	-1.00	
CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57	
TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85	
TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37	
TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54	
PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96	
TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85	
S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27	
I	i-1,4-Dichlorobenzene	----------			ISTD	----------				
TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50	
PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88	
TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----		
							L	M= 0.351	R^2=0.999	
								B= 0.002		
TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86	
TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19	
TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26	
TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62	
TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44	
TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74	
TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11	
TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45	
TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88	
TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53	
TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53	
TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52	
TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74	
TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03	
TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----		
							L	M= 0.742	R^2=0.999	
								B= 0.030		

Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
= Out of Range ### Number of calibration levels exceeded format ###



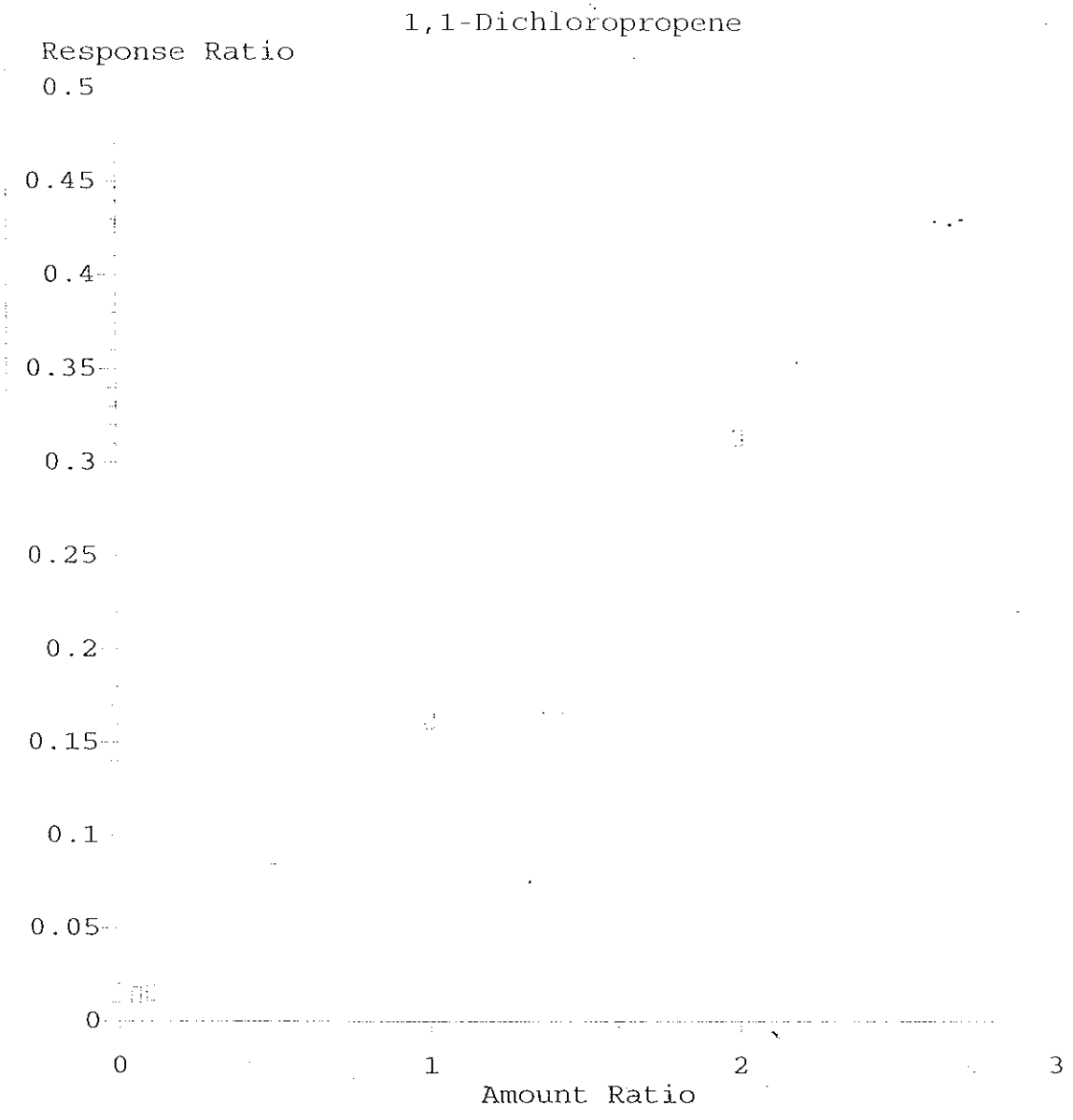
Resp Ratio = 1.94e-002 * Amt - 2.10e-004
Coef. of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



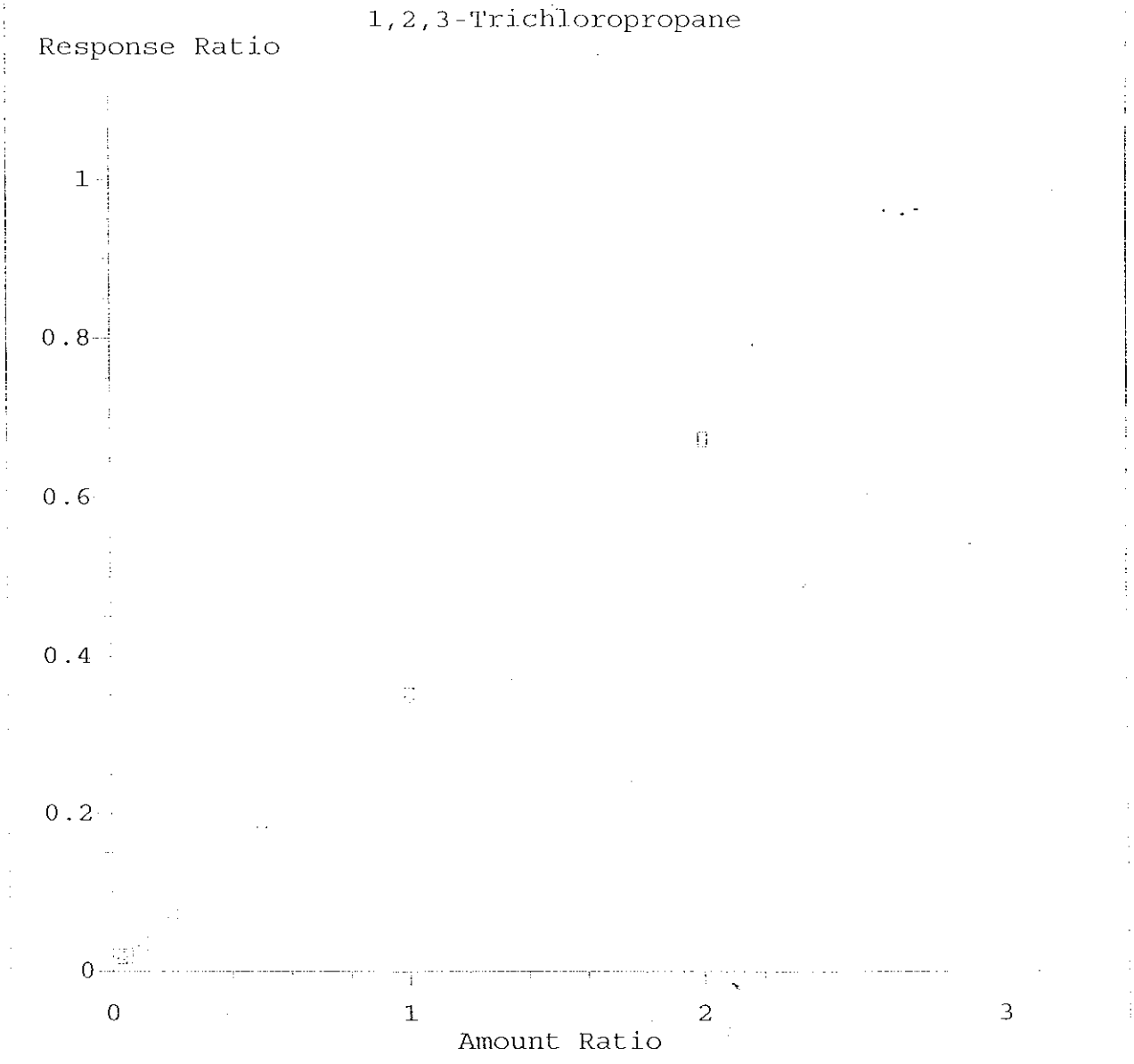
Resp Ratio = 3.31e-001 * Amt - 2.58e-004
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



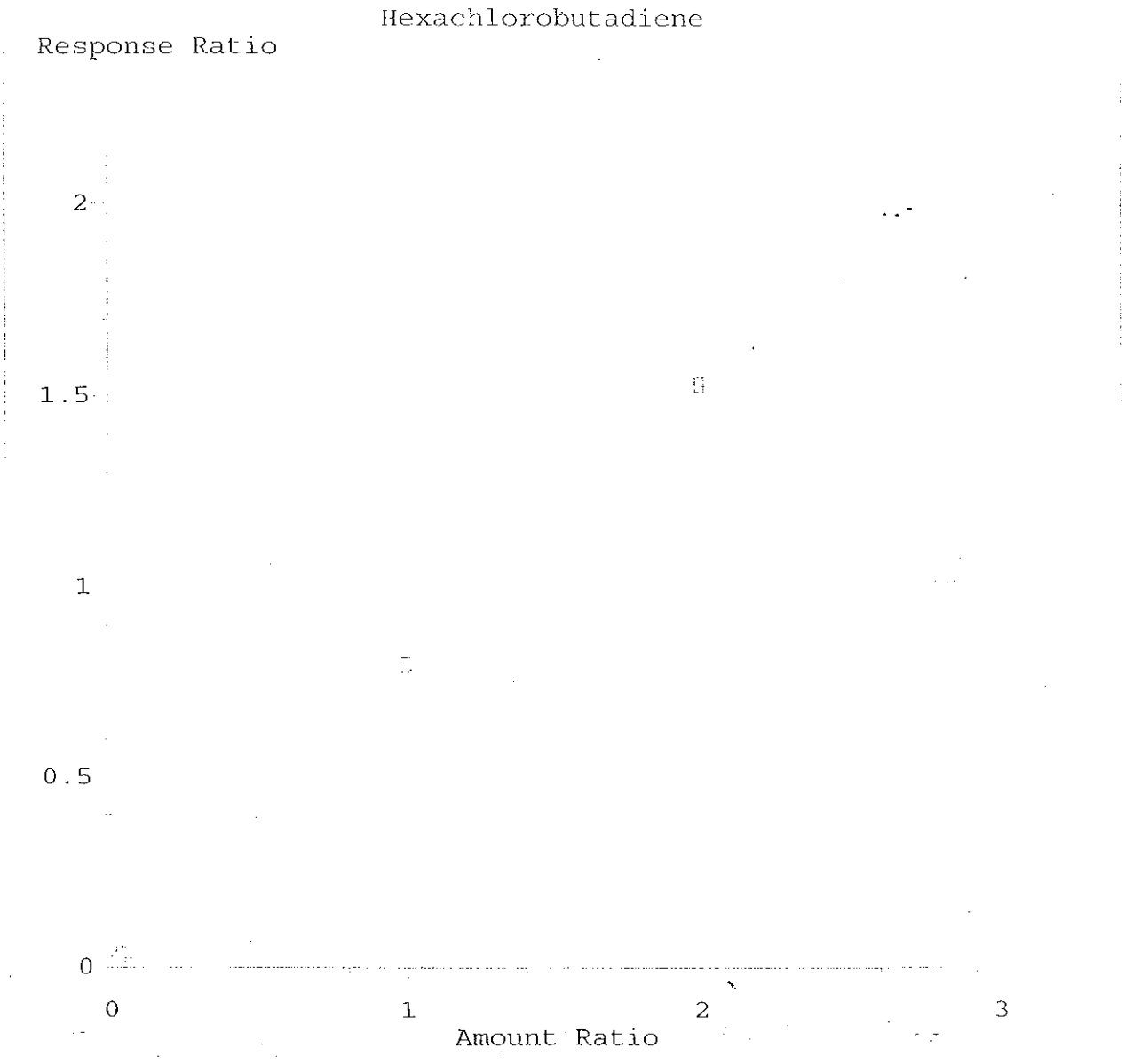
Resp Ratio = 1.57e-001 * Amt + 5.66e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 3.51e-001 * Amt + 2.15e-003
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001



Resp Ratio = 7.42e-001 * Amt + 2.99e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: D:\HPCHEM\1\METHODS\V82625B1.M
Calibration Table Last Updated: Wed Oct 31 05:33:08 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747012.D Vial: 9
Acq On : 2 Nov 2001 16:53 Operator: GRH
Sample : 110681-1 Inst : Bubba
Misc : CH2MHILL 3619A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:17 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2945492	10.00	ug/L	0.02 98.43%
25) i-1,4-Difluorobenzene	9.06	114	2935106	10.00	ug/L	0.02 96.54%
46) i-Chlorobenzene-d5	15.32	117	2093397	10.00	ug/L	0.02 97.76%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1008218	10.00	ug/L	0.01 82.90%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1395598	10.23	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 102.30%			
36) s-Toluene-d8	12.33	98	2756955	9.91	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.10%			
56) s-4-Bromofluorobenzene	18.81	95	1558132	9.79	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.90%			
Target Compounds						Qvalue
30) Trichloroethene	9.58	95	27147	0.21	ug/L	92
40) Tetrachloroethene	13.58	166	25891	0.17	ug/L	88

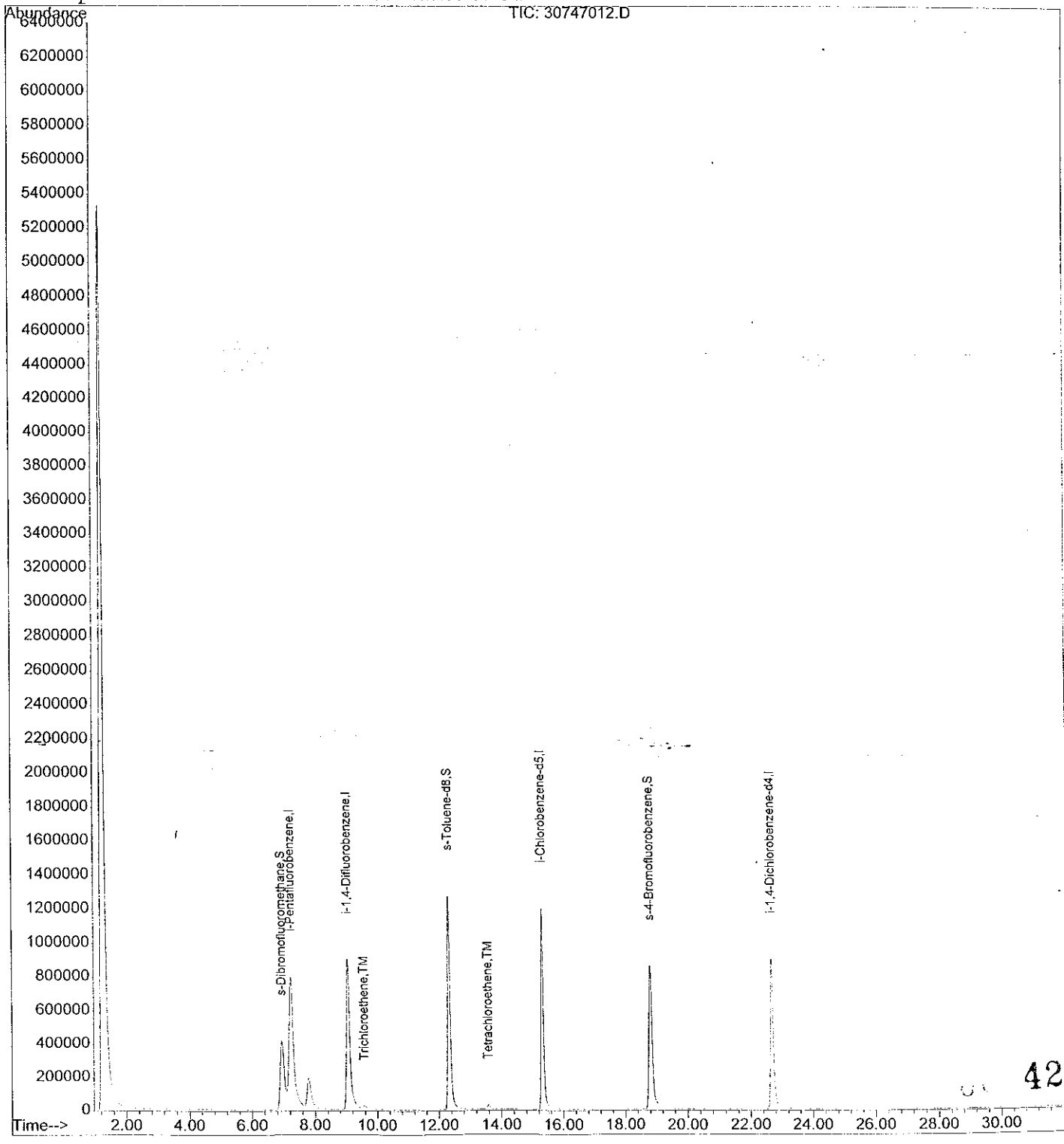
@ 11-5

(#) = qualifier out of range (m) = manual integration

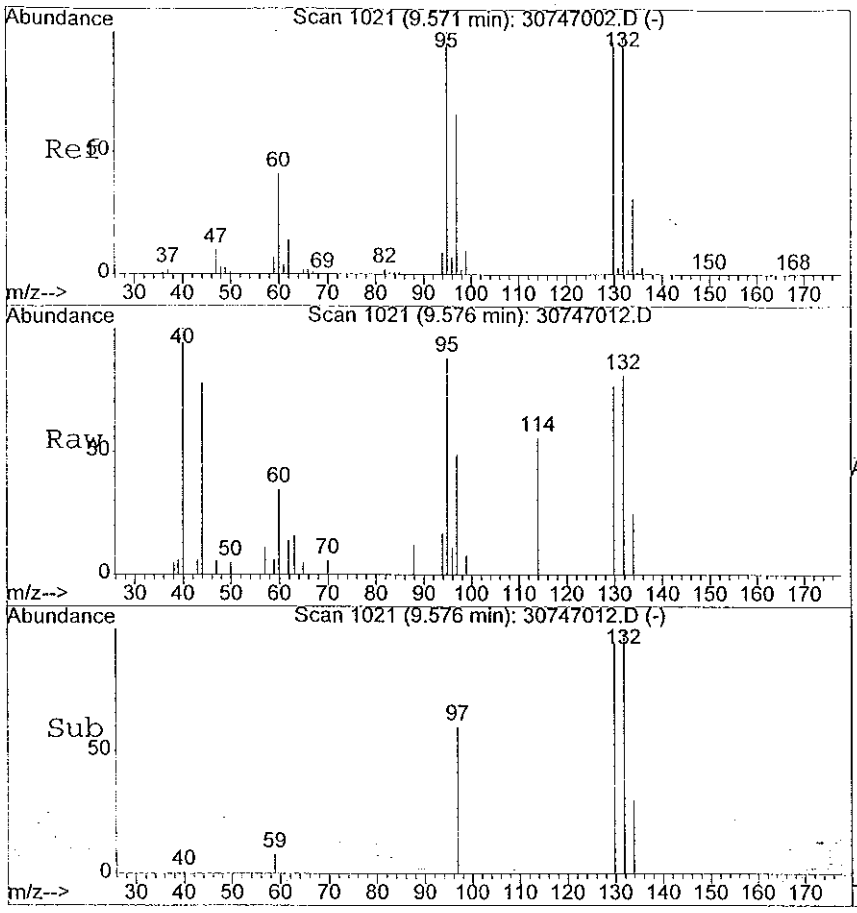
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747012.D Vial: 9
Acq On : 2 Nov 2001 16:53 Operator: GRH
Sample : 110681-1 Inst : Bubba
Misc : CH2MHILL 3619A-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:17 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



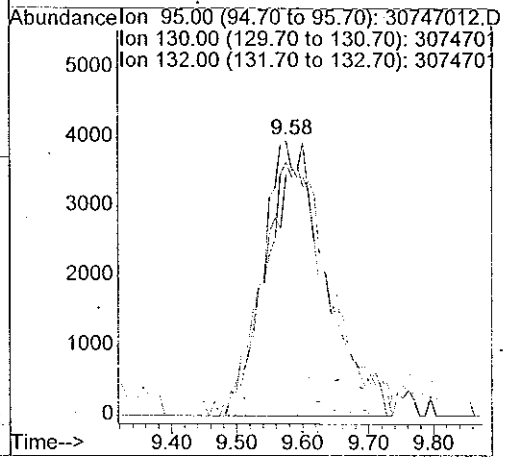
423

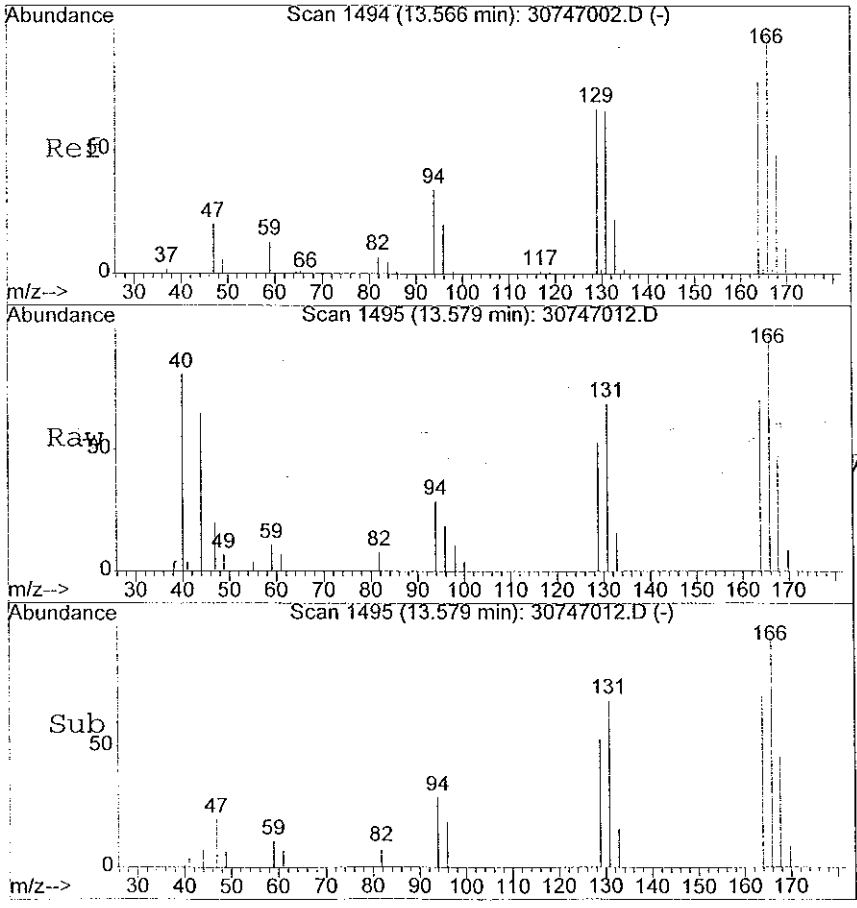


#30
Trichloroethene
Concen: 0.21 ug/L
RT: 9.58 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 30747012.D
Acq: 2 Nov 2001 16:53

Tgt Ion: 95 Resp: 27147

Ion	Ratio	Lower	Upper
95	100		
130	87.4	76.7	116.7
132	92.1	78.1	118.1

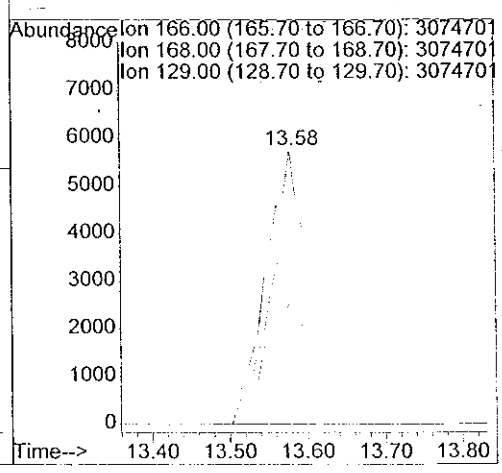




#40
Tetrachloroethene
Concen: 0.17 ug/L
RT: 13.58 min Scan# 1495
Delta R.T. 0.01 min
Lab File: 30747012.D
Acq: 2 Nov 2001 16:53

Tgt Ion:166 Resp: 25891

Ion	Ratio	Lower	Upper
166	100		
168	45.7	28.3	68.3
129	52.7	47.4	87.4



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 16:53
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747012.D
Name: 110681-1
Misc: CH2MHILL 3619A-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747012.D V82625B1.M Tue Nov 06 15:54:13 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747013.D Vial: 10
Acq On : 2 Nov 2001 17:35 Operator: GRH
Sample : 110681-2 Inst : Bubba
Misc : CH2MHILL 3624B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:18 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.23	168	2949276	10.00	ug/L	0.02 98.56%
25) i-1,4-Difluorobenzene	9.06	114	2980277	10.00	ug/L	0.02 98.03%
46) i-Chlorobenzene-d5	15.31	117	2249344	10.00	ug/L	0.02 105.05%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1071416	10.00	ug/L	0.00 88.10%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1494255	10.94	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 109.40%			
36) s-Toluene-d8	12.32	98	2795729	9.90	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.00%			
56) s-4-Bromofluorobenzene	18.83	95	1680013	9.83	ug/L	0.03
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.30%			

Target Compounds Qvalue

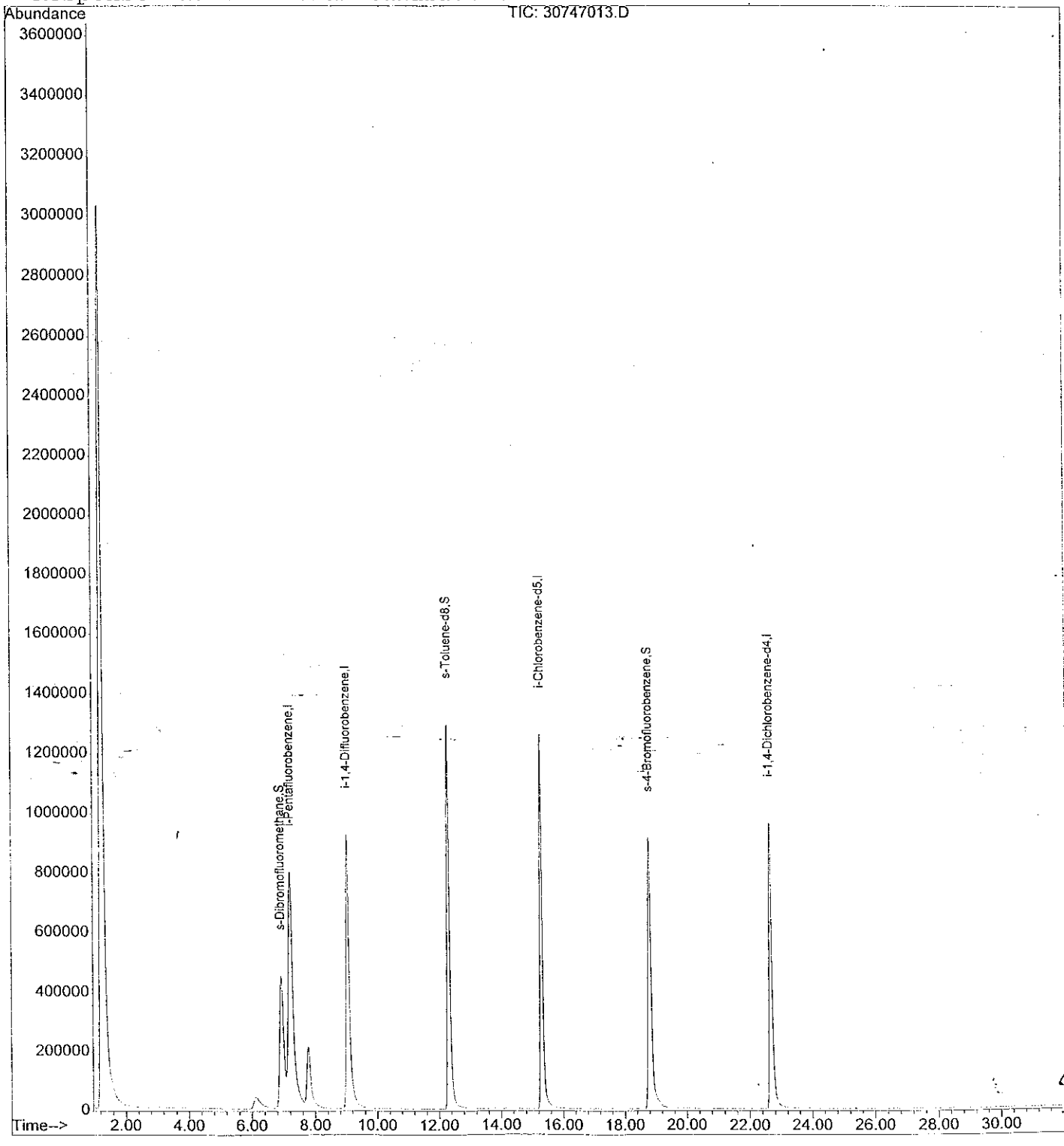
11-5

(#) = qualifier out of range (m) = manual integration
30747013.D V82625B1.M Mon Nov 05 06:18:25 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747013.D Vial: 10
Acq On : 2 Nov 2001 17:35 Operator: GRH
Sample : 110681-2 Inst : Bubba
Misc : CH2MHILL 3624B-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:18 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



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Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 17:35
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747013.D
Name: 110681-2
Misc: CH2MHILL 3624B-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747013.D V82625B1.M Tue Nov 06 15:54:34 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747014.D Vial: 11
Acq On : 2 Nov 2001 18:18 Operator: GRH
Sample : 110681-3 Inst : Bubba
Misc : CH2MHILL 36FD2-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:19 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	2775287	10.00	ug/L	0.00 92.75%
25) i-1,4-Difluorobenzene	9.05	114	2812628	10.00	ug/L	0.00 92.51%
46) i-Chlorobenzene-d5	15.30	117	2000796	10.00	ug/L	0.00 93.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	941416	10.00	ug/L	-0.02 77.41%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1314229	10.23	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 102.30%			
36) s-Toluene-d8	12.31	98	2610557	9.80	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 98.00%			
56) s-4-Bromofluorobenzene	18.79	95	1472533	9.68	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.80%			
Target Compounds						Qvalue
30) Trichloroethene	9.56	95	28195	0.23	ug/L	92
40) Tetrachloroethene	13.57	166	24936	0.18	ug/L	97

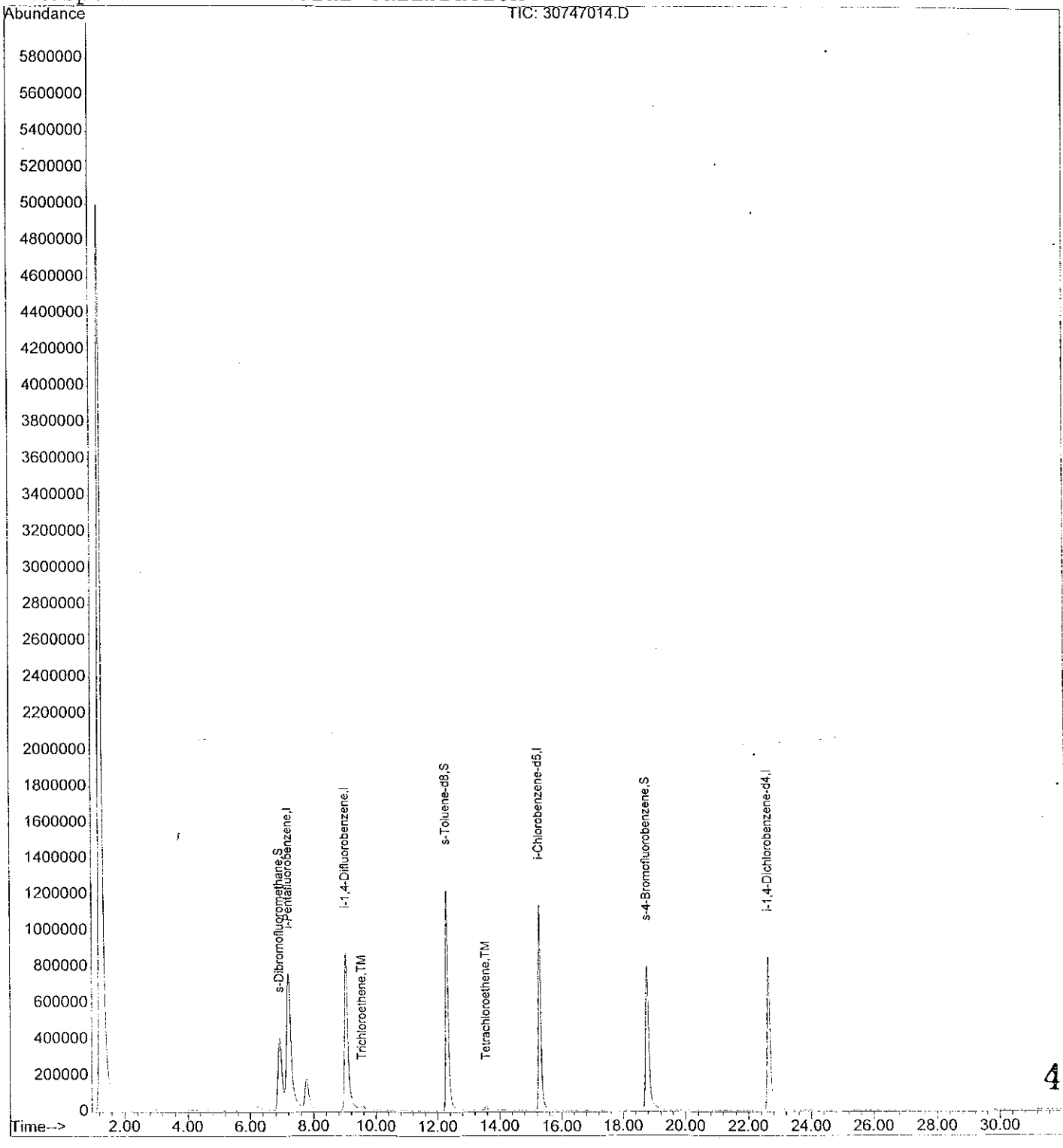
11-5

(#) = qualifier out of range (m) = manual integration

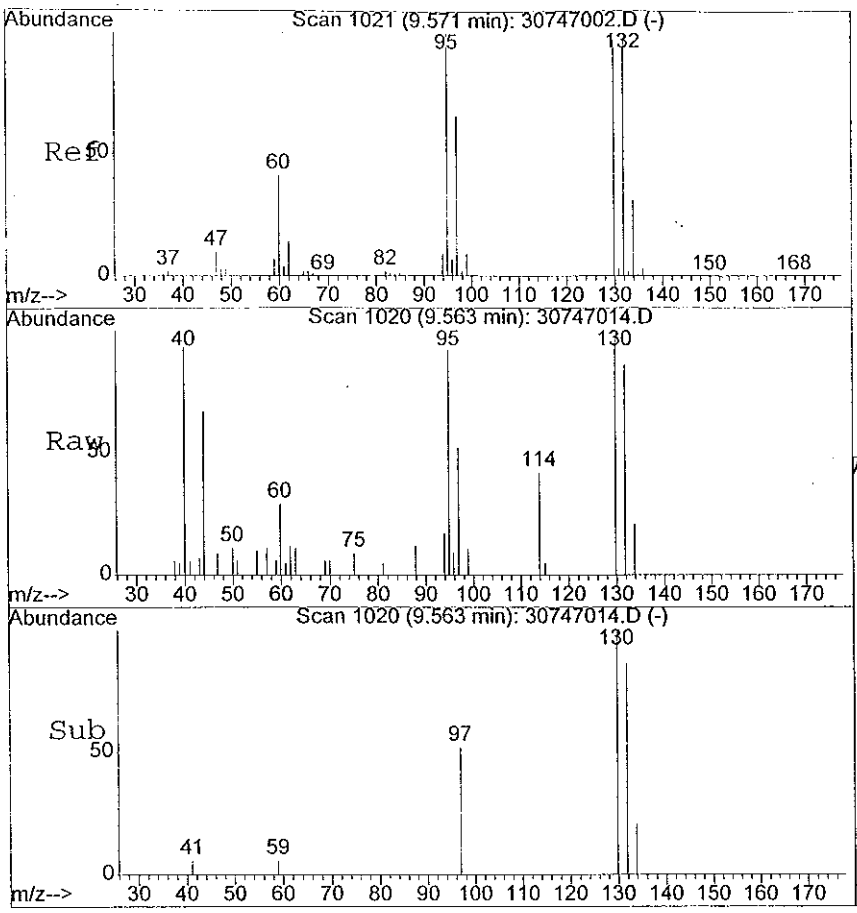
Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747014.D Vial: 11
Acq On : 2 Nov 2001 18:18 Operator: GRH
Sample : 110681-3 Inst : Bubba
Misc : CH2MHILL 36FD2-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:19 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



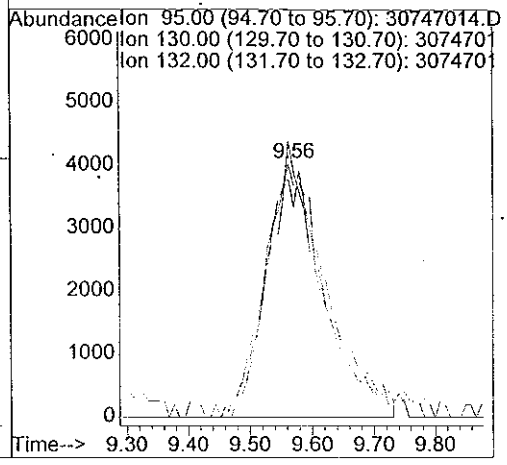
430

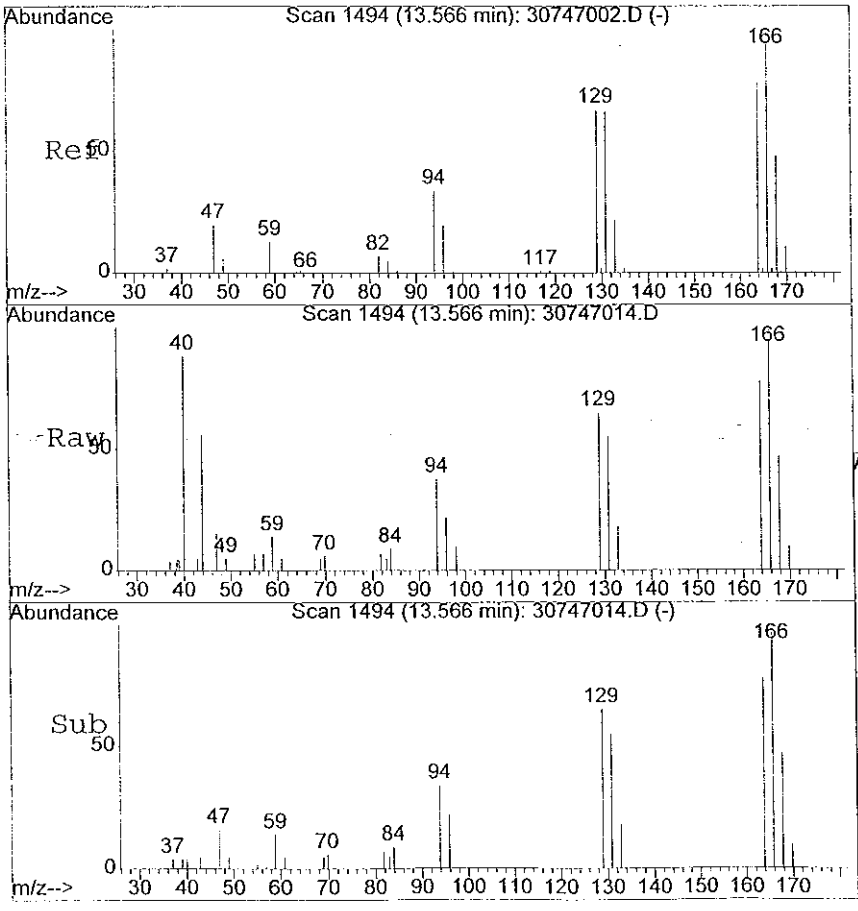


#30
Trichloroethene
Concen: 0.23 ug/L
RT: 9.56 min Scan# 1020
Delta R.T. -0.01 min
Lab File: 30747014.D
Acq: 2 Nov 2001 18:18

Tgt Ion: 95 Resp: 28195

Ion	Ratio	Lower	Upper
95	100		
130	109.2	76.7	116.7
132	94.1	78.1	118.1

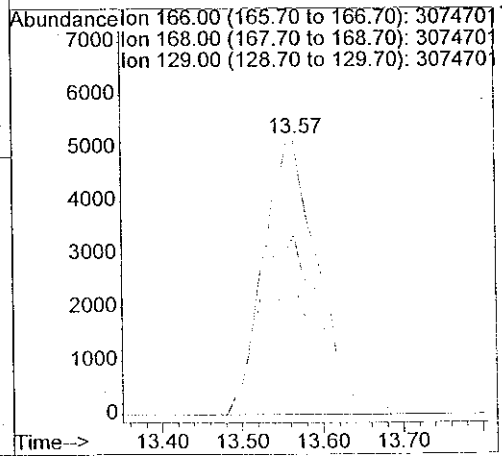




#40
Tetrachloroethene
Concen: 0.18 ug/L
RT: 13.57 min Scan# 1494
Delta R.T. 0.00 min
Lab File: 30747014.D
Acq: 2 Nov 2001 18:18

Tgt Ion:166 Resp: 24936

Ion	Ratio	Lower	Upper
166	100		
168	46.6	28.3	68.3
129	64.9	47.4	87.4



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 18:18
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747014.D
Name: 110681-3
Misc: CH2MHILL 36FD2-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747014.D V82625B1.M Tue Nov 06 15:54:53 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747015.D Vial: 12
Acq On : 2 Nov 2001 19:01 Operator: GRH
Sample : 110681-4 Inst : Bubba
Misc : CH2MHILL 36TB5-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:20 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\110201\30747002.D (2 Nov 2001 9:55)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.21	168	2830547	10.00	ug/L	0.00 94.59%
25) i-1,4-Difluorobenzene	9.05	114	2976088	10.00	ug/L	0.00 97.89%
46) i-Chlorobenzene-d5	15.29	117	2154939	10.00	ug/L	0.00 100.64%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1024600	10.00	ug/L	0.00 84.25%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1402123	10.70	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.00%			
36) s-Toluene-d8	12.31	98	2734994	9.70	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 97.00%			
56) s-4-Bromofluorobenzene	18.78	95	1601251	9.78	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.80%			

Target Compounds Qvalue

11-5

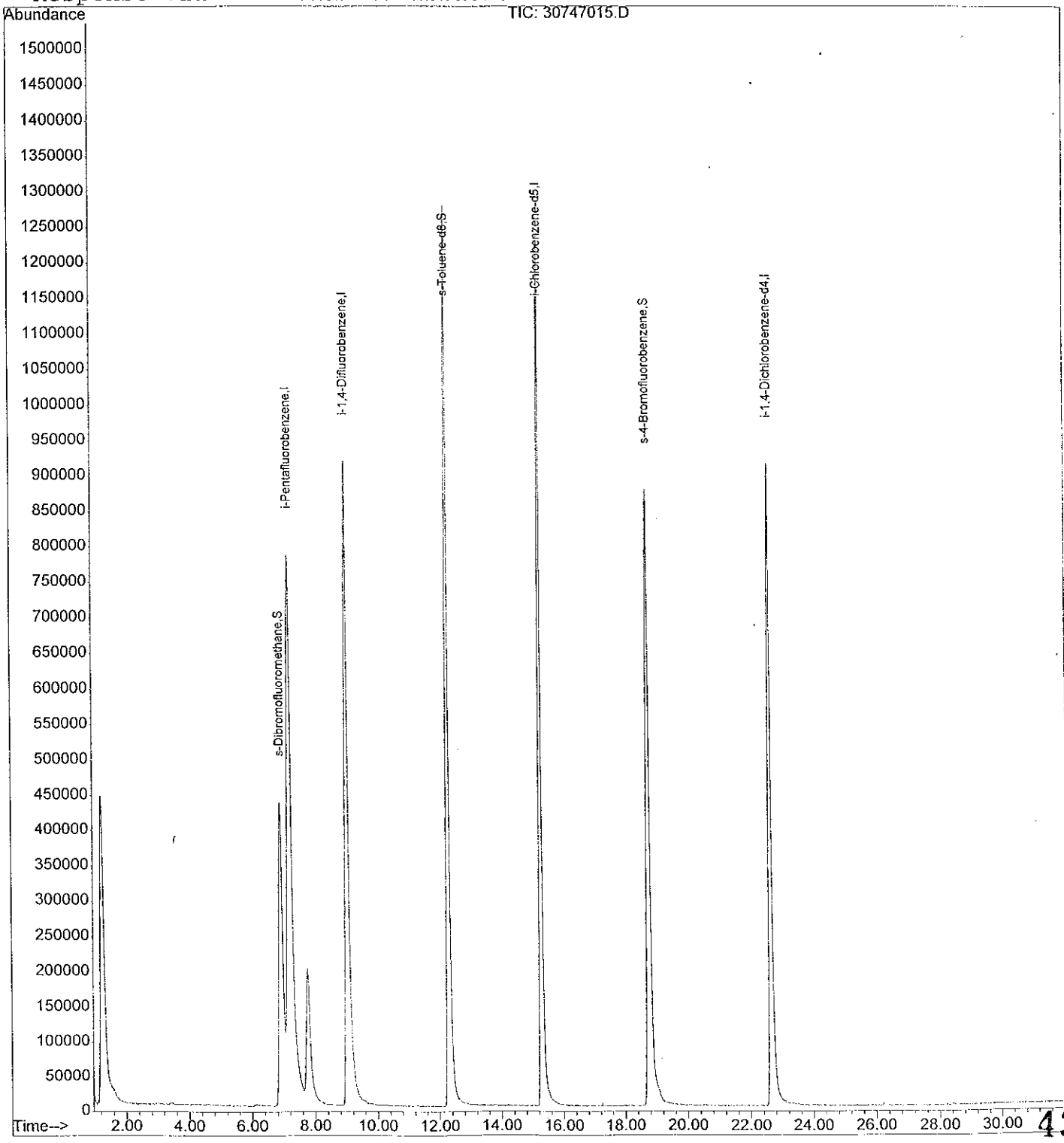
433

(#) = qualifier out of range (m) = manual integration
30747015.D V82625B1.M Mon Nov 05 06:20:15 2001 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\110201\30747015.D Vial: 12
Acq On : 2 Nov 2001 19:01 Operator: GRH
Sample : 110681-4 Inst : Bubba
Misc : CH2MHILL 36TB5-Q401 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 5 6:20 2001 Quant Results File: V82625B1.RES

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 11:24:12 2001
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: GRH Date Acquired: 2 Nov 2001 19:01
Data File: D:\HPCHEM\1\DATA\BUBBA\110201\30747015.D
Name: 110681-4
Misc: CH2MHILL 36TB5-Q401
Method: D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title: SW-846 Method 8260A
Library Searched: D:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

30747015.D V82625B1.M Tue Nov 06 15:55:11 2001

STL PENSACOLA

GC/MS Log Book for Bubba

Operator: [illegible] Date: 10/30/01 Client(s): Initial Calibration 8260B/25ml

SDG: _____ Client(s): + 524.2

ISS: 8MSW* 26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

Seq	FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
1	30744 001		BFB		5µL/5ppt BFB	Daily Tune Scan # Area =	X	✓	Time 08:43
2	002	10 ppb std			10µl/5ml			✓	✓
3	003	5 ppb std			5µl/5ml			✓	✓
4	004	2 ppb std			2µl/5ml			✓	✓
5	005	1 ppb std			1µl/5ml			✓	✓
6	006	0.3 ppb std			0.3µl/5ml			✓	✓
7	007	0.5 ppb std			0.5µl/5ml			✓	✓
8	008	10 ppb std			10µl/5ml	not included in curve		✓	✓
9	009	20 ppb std			20µl/5ml			✓	✓
10	010	30 ppb std			30µl/5ml			✓	✓
11	011	Blank			5.0ml			✓	✓
12	012	2nd Source std			10µl/5ml	8-MSW-25-2		✓	✓
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

Signed [illegible]

• The analyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished sample(s) back to the sample storage refrigerator.

STL PENSACOLA
GC/MS Log Book for Bubba

:or: C Date: 11/2/01 Client(s): _____
SDG: _____ Client(s): _____

ISS: 8MSW*26-1 Std 1: 8MSW*28-1 Std 2: ____*____ Std 3: ____*____

Scan Range: 35 - 260 amu

FRN	Sample #	Lab #	POS	Volume	Comments	pH <2?	QC OK?	Qarea Qdel
		BFB		5µL/5ppt BFB	Daily Tune / Scan # Area =	X		Time
30747 001			14				✓	09:13
002	10 ppb Std		15	10µl/25ml			✓	✓
003	BLW149	ABK	16	25.0ml			✓	✓
004	BLW149	ALCS	1	10µl/25ml	8-MSW-25-2		✓	✓
005	3628B-Q401	110611-3	2	5.00 ml	5X MS		✓	✓
006	3628B-Q401	110611-3	3	↓	MSD		✓	✓
007	3628B-Q401	110611-3	4	↓	↓	✓	✓	✓
008	3608B-Q401	110655-1	5	25.0 ml		✓	✓	✓
009	3607A-Q401	110655-2	6	↓	Rerun @ 5X	✓	✓	✓
010	3606A-Q401	110655-3	7	↓	↓	✓	✓	✓
011	36TB4-Q401	110655-4	8	↓	↓	✓	✓	✓
012	3619A-Q401	110681-1	9	↓	↓	✓	✓	✓
013	3624B-Q401	110681-2	10	↓	↓	✓	✓	✓
014	36FD2-Q401	110681-3	11	↓	↓	✓	✓	✓
015	36TB5-Q401	110681-4	12	↓	↓	✓	✓	✓

alyst whose name appears above is the analyst who removed the sample(s) from the sample storage refrigerator, maintained custody during analysis and relinquished

STL – PENSACOLA, FL / GCMS

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
Volatile Mix 6	LA89947	Supleco	2000 µg/ml	6/22/00	7/2001	1	P-VN 2-1
Iodomethane	LA89788	Supleco	20000 µg/ml	6/22/00	7/2001	1	P-VN 2-2
8260 Mix C	LA90476	Supleco	2000 µg/ml	6/22/00	5/2002	1	P-VN 2-3
8260 IS	A016078	Restek	2500 µg/ml	8/25/00	8/2003	10	P-VN 2-4
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810018	Acc STD	2000 µg/ml	10/2/00	11/1/2001	2	P-VN 2-5
1,1,2-Trichloro-1,2,2-Trifluoroethane	A016543 A810018	Restek	2000 µg/ml	10/17	10/17/2001	1	P-VN 2-6
1,1,2-Trichloro-1,2,2-Trifluoroethane	A810018	Acc STD	2000 µg/ml	10/31	11/1/2001	2	P-VN 2-7
8260 Vol Kit	Various	Restek	2000 µg/ml	11/1/00	11	1	P-VN 2-8
MTBE / Freon 113	A016494 A016542	Restek	2000	1/2004 ← 11/1/2001	11/1/00	drench	P-VN 2-9
n-Hexane	80110235	Accustandard	2.0 mg/ml	11/16/00	12/1/01	2	8-VN 2-10
Iso-octane	80110234	↓	↓	↓	↓	5	8-VN 2-11
BP Shortlist Std.	LA95178	Supelco	5000 µg/ml	12/20/00	12/20/01	3	8-VN 2-12
8260 Surr	A017973	Restek	2500 µg/ml	12/22/00	3/2004	10	P-VN 2-13
Nitrobenzene	LA91148	Supelco	5000 µg/ml	1/4/01	6/2003	1	8-VN 2-14
Nitrobenzene	044-072	Accustandard	1000 µg/ml	1/5/01	1/6/02	1	8-VN 2-15
Oxygenate Gasoline Add's	B 10100025	Accustandard	Varied	2/20/01	1/4/03	1	8-VN 2-16
Keytone Mix	A019217	Restek	Various	4/16/01 4/16/2003	4/2003	5	P-VN 2-17
Vinyl Acetate	A019218	Restek	4000 µg/ml	4/6/01	4/2003	5	P-VN 2-18
Isopropyl Ether	A019194	Restek	2000 µg/ml	4/9/01	4/2004	3	P-VN 2-19
Int. STD. Mix-Tol4	A018018	Restek	2500 µg/ml	4/9/01	3/2005	5	8-VN 2-20
IS-8260	A018631	Restek	2500 µg/ml	4/13/01	6/2004	10	P-VN 2-21
Custom Mix	LA97340	Supelco	2000/4000 µg/ml	4/16/01	4/16/02	4	P-VN 2-22
Supleco Mix 6	LA95901	Supleco	2000 µg/ml	4/17	5/02	2	P-VN 2-23
Equity Keytone Mix	LA90479	Supleco	4000 µg/ml	4/17	11/01	4	P-VN 2-24
Freon 113	LA91143	Supleco	2000 µg/ml	4/17	6/03	2	P-VN 2-25
Equity Iodomethane	LA95986	Supleco	2000 µg/ml	4/17	5/02	2	P-VN 2-26
502/524 Mix	LA96091	Supleco	2000 µg/ml	4/17	4/03	2	P-VN 2-27

NEAT AND PURCHASED STOCK SOLUTIONS LOG BOOK

COMPOUND I.D. (SOL. NAME)	LOT #	SUPPLIER	PURITY (CONC.)	RC'D DATE	EXP. DATE	# of AMPULES	LOG I.D.
OXYGENATES MIX	A018874	RESTEK	2000 - 10,000	4/18/01	4/18/02	1	8-VN 3 - 1
Freon 113	A018831	Restek	2000	5/3/01	5/3/02	2	8-VN 3 - 2
MTBE	A017647	Restek	2000	5/3/01	6/04	2	8-VN 3 - 3
8260 Kit	Various	Restek	2000	5/3	Various	2	8-VN 3 - 4
Chloroprene	R1373	Ultra	100 µg/ml	5/4/01	12/2002	4	8-VN 3 - 5
Acrylonitrile	A015202	Restek	2000	5/4/01	1/02	1	8-VN 3 - 6
APPIX - Mix B	LA97780	Supelco	2000 µg/ml	5/7/01	5/7/02	4	8-VN 3 - 7
APPIX - Mix A	LA97779	Supelco	2000/6000 µg/ml	5/9/01	5/9/02	4	8-VN 3 - 8
Isopropyl Ether	A019529	Restek	2000 µg/ml	5/9	5/04	2	8-VN 3 - 9
Freon 113	A018830	Restek	2000 µg/ml	5/14	5/14/02	3	8-VN 3 - 10
8260 SURR	A019424	Restek	2500 µg/ml	9/14	8/04	10	8-VN 3 - 11
8260 IS	A020253	Restek	2500 µg/ml	9/14	11/04	10	8-VN 3 - 12
Freon 113	LA98546	Supleco	2000 µg/ml	~~9/21~~	6/04	2	8-VN 3 - 13
Vol Mix 6	LA99456	Supleco	2000 µg/ml	9/21	11/02	2	8-VN 3 - 14
502/504 Mix	LA98534	Supleco	2000 µg/ml	9/21	10/03	2	8-VN 3 - 15
Keytones	LA97438	Supleco	2000 µg/ml	9/21	9/03	4	8-VN 3 - 16
Iodomethane	LA95926	Supleco	2000 µg/ml	9/21	5/02	2	8-VN 3 - 17
Isopropyl ether	A020897	Restek	2000 µg/ml	9/29	9/04	3	8-VN 3 - 18
8260 STA kit	Various	Restek	Various	10/21	11/3	2	8-VN 3 - 19
MTBE	A019410	Restek	2000 µg/ml	10/22	12/4	2	8-VN 3 - 20
Freon 113	A019795	Restek	2000 µg/ml	10/22	10/22/03	2	8-VN 3 - 21
EPA OLM04	LB00099	Supleco	2000 µg/ml	10/22	~~10~~/03	1	8-VN 3 - 22
Vinyl Acetate	A021812	Restek	4000 µg/ml	10/23	10/03	5	8-VN 3 - 23
Keytones	A022011	Restek	2000/4000 µg/ml	10/23	10/03	5	8-VN 3 - 24
VOA Calibration Mix #1 Ketones	A020419	RESTEK	5000 ug/ml	10/27	11/04	5	8-VN 3 - 25
							-VN -
							-VN -

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb
Sol. Name: APP IX-A
Date: 8/15/01
Analyst: (initials)

Standard I.D.: 8-MSW25-1
Location: Freezer MS018
Solvent: MeOH-V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN3-8	LA97779	5/7/02	2000/6000 µg/ml	500 µl	10	100/300 µg/ml
Acrylonitrile+Propionitrile	@2000µg/ml					
Acetonitrile, Acrolein, Isobutanol @6000µg/ml						

Comments: exp 4/15/02

Sol. Name: 2260 Matrix Spike
Date: 9/14/01
Analyst: MG

Standard I.D.: 8-MSW25-2
Location: MS018
Solvent: MeOH-1 V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
Custom Mix 8-VW-03-R	LA97340	4/02	2000	625	50ml	25µg/ml
Iodomethane	LA95926	5/02				
Mix 6	LA95901	5/02				
SQ/524	LA96091	4/02				
Freon 113	LA91143	6/03				
Key Towes 8-VW-2-24	LA90471	11/01		1250		50µg/ml

Comments: explains 11/14/01

Sol. Name: IS/SURR - Prep
Date: 9/20/01
Analyst: MG

Standard I.D.: 8-MSW25-3
Location: KATANIWA refrigerator
Solvent: V04E74 MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN-2-13 Surr	A012973	3/04	2500	500	10	125µg/ml
8-VN-221 IS	A01863.1	6/04	"	"	"	"

Comments: exp-3/20/01

STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: IS/SURR
Date: 9-26-01
Analyst: MFC

Standard I.D.: 8-MSW26-1
Location: Freezer MS018
Solvent: MeOH

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
8-VN2-21 IS	A018631	6/2004	2500	500	50	25 ug/ml
8-VN2-13 SURR	A017977	3/2004	2500	500	50	25 ug/ml

Comments: Expires 3-26-02

Sol. Name: 8260 STD
Date: 10
Analyst:

Standard I.D.: 8-MSW26-2
Location: MS018 Freezer
Solvent: MeOH V04E74

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name: TO14 IS/SURT
Date: 10-12-01
Analyst: BAM

Standard I.D.: 8-MSW26-3
Location: Freezer MS018
Solvent: Methanol

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
7-VN-3-6 (IS)	A017265	11/01	2500ug/ml	500uls	50mls	25ppm
7-VN-2-16	A017264	↓	↓	↓	↓	↓

Comments: 4-10-02 expires

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STL - PENSACOLA, FL / GCMS

GC/MS WORKING STANDARDS LOG

ug/ml = ppm
ug/l = ppb

Sol. Name: 8260 STD
Date: 10/17/01
Analyst: VD

Standard I.D.: S -MSW28-1
Location: MSIS
Solvent: MeOH VBS40

Parent I.D.	Lot #	Exp. Date 4/08	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.
502.2 Calib Mix #1	A020628	11/03	2000	625	50	25
Mix #2	A017541	11/03				
Mix #3	A018675	1/04				
8-VM3-19 Mix #4	A016454	6/03				
Mix #5	A019955	2/04				
Mix #6	A019741	1/05				
8-VM3-24 Ketones + CS2	A021211	10/03	2000/4000			25/50 } 100 - Total Ketones
8-VM3-25 Ketones	A020419	11/04	5000	500		50
8-VM3-21 Freon 113	A019795	12/02	2000	625		25
8-VM3-20 MTBE	A019410	12/04	2000			25
8-VM3-9 IPE	A019529	5/04	2000			25
8-VM3-22 Vinyl Acetate	A021212	10/03	4000			50

Comments:
Exp: 4/27/02

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW-
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

Sol. Name:
Date:
Analyst:

Standard I.D.: -MSW-
Location:
Solvent:

Parent I.D.	Lot #	Exp. Date	Parent Conc. (ppm) ug/ml	Aliquot (ul)	Final Volume (ml)	Final Conc.

Comments:

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SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110728
Project: CH2M Hill Constructors
CTO-017, NTC Orlando

Client Sample ID	STL Sample ID
17-3625C-Q401	C110728-1
17-36TB6-Q401	C110728-2

The above samples were received at in good condition at STL Pensacola on October 30, 2001. The trip blanks had air bubbles in vials. See "Project Sample Inspection Form" (PSIF).

Please refer to data qualifier sheets "Explanation of CLP Data Qualifiers Organics" and STL Pensacola "Data Qualifiers for Final Report" for explanations of flags used.

Rick Hayes
Senior Project Manager

11/12/01

NAVY RAC PMO NOV 13 2001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U
Dilution Factor	1
Analysis Date	10.30.01
Analysis Time	14:20
Batch ID	AEW060
Analyst	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)	
Nitrate + Nitrite-N, mg/l	0.08I
Nitrate-N, mg/l	0.08I
Nitrite-N, mg/l	0.012U
Dilution Factor	1
Prep Date	10.30.01
Prep Time	16:30
Analysis Date	11.05.01
Analysis Time	09:43
Batch ID	N3W67B
Prep Method	4500N02B
Analyst	CR
Chloride (325.2/4500E/9251), mg/l	5.7
Dilution Factor	1
Prep Date	11.07.01
Prep Time	08:00
Analysis Date	11.07.01
Analysis Time	11:54
Batch ID	CKW61A
Prep Method	325.2
Analyst	CR

001

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
Total Dissolved Solids (160.1), mg/l	64
Dilution Factor	1
Prep Date	11.01.01
Prep Time	11:30
Analysis Date	11.02.01
Analysis Time	12:15
Batch ID	TDW096
Prep Method	160.1
Analyst	ST
Total Organic Carbon (9060), mg/l	3.5
Dilution Factor	1
Analysis Date	10.31.01
Analysis Time	17:18
Batch ID	TOW021
Prep Method	METHOD
Analyst	WG
Sulfide (376.1), mg/l	1.0U
Dilution Factor	1
Analysis Date	10.31.01
Analysis Time	10:20
Batch ID	FEW045
Analyst	BH

002

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643

Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
Iron, Dissolved (6010B), ug/l	670
Dilution Factor	1
Prep Date	11.02.01
Prep Time	15:09
Analysis Date	11.05.01
Analysis Time	10:58
Batch ID	PD136
Prep Method	
Analyst	GSP
Petroleum Hydrocarbons (FL-PRO)	
Petroleum Range Organics (FL-PRO), ug/l	100U
Surrogate - o-Terphenyl	99 %
Surrogate - Nonatriacontane (C39)	86 %
Dilution Factor	1
Prep Date	10.30.01
Prep Time	14:37
Analysis Date	11.02.01
Analysis Time	03:17
Batch ID	FLW291
Prep Method	3520C
Analyst	KA

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STL Pensacola is a part of Severn Trent Laboratories, Inc.

SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
Volatile Organic Compounds (8260B)	
Benzene, ug/l	0.30U
Bromobenzen,e ug/l	0.30U
Bromochloromethane, ug/l	0.30U
Bromodichloromethane, ug/l	0.30U
Bromoform, ug/l	0.30U
Bromomethane (Methyl bromide), ug/l	0.53U
Carbon tetrachloride, ug/l	0.30U
Chlorobenzene, ug/l	0.30U
Chloroethane, ug/l	0.30U
Chloroform, ug/l	0.30U
Chloromethane, ug/l	0.30U
2-Chlorotoluene, ug/l	0.30U
4-Chlorotoluene, ug/l	0.30U
Dibromochloromethane, ug/l	0.30U
Dibromomethane (Methylene bromide), ug/l	0.30U
1,2-Dibromoethane (EDB), ug/l	0.30U
1,2-Dibromo-3-chloropropane, ug/l	1.9U
1,2-Dichlorobenzene, ug/l	0.30U
1,3-Dichlorobenzene, ug/l	0.30U
1,4-Dichlorobenzene, ug/l	0.30U
Dichlorodifluoromethane, ug/l	0.30U
1,1-Dichloroethane, ug/l	0.30U
1,2-Dichloroethane, ug/l	0.30U
1,1-Dichloroethene, ug/l	0.30U
cis-1,2-Dichloroethene, ug/l	0.30U

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SEVERN TRENT SERVICES

STL Pensacola

LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
trans-1,2-Dichloroethene, ug/l	0.30U
1,2-Dichloropropane, ug/l	0.30U
1,3-Dichloropropane, ug/l	0.30U
2,2 Dichloropropane, ug/l	0.30U
cis-1,3-Dichloropropene, ug/l	0.30U
trans-1,3-Dichloropropene, ug/l	0.30U
Ethylbenzene, ug/l	0.30U
Hexachlorobutadiene, ug/l	0.30U
Isopropylbenzene (Cumene), ug/l	0.30U
p-Isopropyltoluene, ug/l	0.30U
Methylene chloride (Dichloromethane), ug/l	0.30U
Naphthalene, ug/l	0.30U
n-Butylbenzene, ug/l	0.30U
n-Propylbenzene , ug/l	0.30U
sec-Butylbenzene, ug/l	0.30U
Styrene, ug/l	0.30U
t-Butylbenzene, ug/l	0.30U
1,1,1,2-Tetrachloroethane, ug/l	0.30U
1,1,2,2-Tetrachloroethane, ug/l	0.30U
Tetrachloroethene, ug/l	0.30U
Toluene, ug/l	0.30U
1,1,1-Trichloroethane, ug/l	0.30U
1,1,2-Trichloroethane, ug/l	0.30U
1,2,3-Trichlorobenzene, ug/l	0.30U
1,2,4-Trichlorobenzene, ug/l	0.30U
Trichloroethene, ug/l	11

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SEVERN TRENT SERVICES

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LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-1	17-3625C-Q401	10-29-01/13:00

PARAMETER	10728-1
Trichlorofluoromethane, ug/l	0.30U
1,2,3-Trichloropropane, ug/l	1.6U
1,2,4-Trimethylbenzene, ug/l	0.30U
1,3,5-Trimethylbenzene, ug/l	0.30U
Vinyl chloride, ug/l	0.30U
o-Xylene, ug/l	0.30U
m&p-Xylene, ug/l	0.60U
Surrogate - Dibromofluoromethane	105 %
Surrogate - Toluene-d8	96 %
Surrogate - 4-Bromofluorobenzene	99 %
Dilution Factor	1
Analysis Date	11.05.01
Analysis Time	13:09
Batch ID	BUW150
Prep Method	5030B
Analyst	GH

006

SEVERN TRENT SERVICES

STL Pensacola

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-2	17-36TB6-Q401	10-29-01

PARAMETER	10728-2
Volatile Organic Compounds (8260B)	
Benzene, ug/l	0.30U
Bromobenzene, ug/l	0.30U
Bromochloromethane, ug/l	0.30U
Bromodichloromethane, ug/l	0.30U
Bromoform, ug/l	0.30U
Bromomethane (Methyl bromide), ug/l	0.53U
Carbon tetrachloride, ug/l	0.30U
Chlorobenzene, ug/l	0.30U
Chloroethane, ug/l	0.30U
Chloroform, ug/l	0.30U
Chloromethane, ug/l	0.30U
2-Chlorotoluene, ug/l	0.30U
4-Chlorotoluene, ug/l	0.30U
Dibromochloromethane, ug/l	0.30U
Dibromomethane (Methylene bromide), ug/l	0.30U
1,2-Dibromoethane (EDB), ug/l	0.30U
1,2-Dibromo-3-chloropropane, ug/l	1.9U
1,2-Dichlorobenzene, ug/l	0.30U
1,3-Dichlorobenzene, ug/l	0.30U
1,4-Dichlorobenzene, ug/l	0.30U
Dichlorodifluoromethane, ug/l	0.30U
1,1-Dichloroethane, ug/l	0.30U
1,2-Dichloroethane, ug/l	0.30U
1,1-Dichloroethene, ug/l	0.30U
cis-1,2-Dichloroethene, ug/l	0.30U

007

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Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-2	17-36TB6-Q401	10-29-01

PARAMETER	10728-2
trans-1,2-Dichloroethene, ug/l	0.30U
1,2-Dichloropropane, ug/l	0.30U
1,3-Dichloropropane, ug/l	0.30U
2,2 Dichloropropane, ug/l	0.30U
cis-1,3-Dichloropropene, ug/l	0.30U
trans-1,3-Dichloropropene, ug/l	0.30U
Ethylbenzene, ug/l	0.30U
Hexachlorobutadiene, ug/l	0.30U
Isopropylbenzene (Cumene), ug/l	0.30U
p-Isopropyltoluene, ug/l	0.30U
Methylene chloride (Dichloromethane), ug/l	0.30U
Naphthalene, ug/l	0.30U
n-Butylbenzene, ug/l	0.30U
n-Propylbenzene , ug/l	0.30U
sec-Butylbenzene, ug/l	0.30U
Styrene, ug/l	0.30U
t-Butylbenzene, ug/l	0.30U
1,1,1,2-Tetrachloroethane, ug/l	0.30U
1,1,2,2-Tetrachloroethane, ug/l	0.30U
Tetrachloroethene, ug/l	0.30U
Toluene, ug/l	0.30U
1,1,1-Trichloroethane, ug/l	0.30U
1,1,2-Trichloroethane, ug/l	0.30U
1,2,3-Trichlorobenzene, ug/l	0.30U
1,2,4-Trichlorobenzene, ug/l	0.30U
Trichloroethene, ug/l	0.30U

008

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115 Perimeter Center Place, NE Suite 700
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Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-2	17-36TB6-Q401	10-29-01

PARAMETER	10728-2
Trichlorofluoromethane, ug/l	0.30U
1,2,3-Trichloropropane, ug/l	1.6U
1,2,4-Trimethylbenzene, ug/l	0.30U
1,3,5-Trimethylbenzene, ug/l	0.30U
Vinyl chloride, ug/l	0.30U
o-Xylene, ug/l	0.30U
m&p-Xylene, ug/l	0.60U
Surrogate - Dibromofluoromethane	98 %
Surrogate - Toluene-d8	97 %
Surrogate - 4-Bromofluorobenzene	95 %
Dilution Factor	1
Analysis Date	11.05.01
Analysis Time	13:48
Batch ID	BUW150
Prep Method	5030B
Analyst	GH

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	1.0U	250	255	102 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.30.01	---	10.30.01	---	---
Analysis Time	14:20	---	14:20	---	---
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	BE	---	BE	---	---
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	0.011U	2.0	2.11	106 %	90-110
Nitrate-N, mg/l	0.01U	---	1.9	---	---
Nitrite-N, mg/l	0.012U	0.20	0.21	105 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	16:30	---	16:30	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	09:43	---	09:43	---	---
Batch ID	N3W67B	N3W67B	N3W67B	N3W67B	N3W67B
Prep Method	4500N02B		4500N02B		
Analyst	CR	---	CR	---	---

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Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Chloride (325.2/4500E/9251), mg/l	2.04	50.0	47.7	95 %	90-110
Dilution Factor	1	---	1	---	---
Prep Date	11.07.01	---	11.07.01	---	---
Prep Time	08:00	---	08:00	---	---
Analysis Date	11.07.01	---	11.07.01	---	---
Analysis Time	11:54	---	11:54	---	---
Batch ID	CKW61A	CKW61A	CKW61A	CKW61A	CKW61A
Prep Method	325.2	---	325.2	---	---
Analyst	CR	---	CR	---	---
Total Dissolved Solids (160.1), mg/l	5.0U	293	316	108 %	68-120
Dilution Factor	1	---	1	---	---
Prep Date	11.01.01	---	11.01.01	---	---
Prep Time	11:30	---	11:30	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	12:15	---	12:15	---	---
Batch ID	TDW096	TDW096	TDW096	TDW096	TDW096
Prep Method	160.1	---	160.1	---	---
Analyst	ST	---	ST	---	---

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Total Organic Carbon (9060), mg/l	1.0U	10	9.50	95 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	17:18	---	17:18	---	---
Batch ID	TOW021	TOW021	TOW021	TOW021	TOW021
Prep Method	METHOD		METHOD		
Analyst	WG	---	WG	---	---
Sulfide (376.1), mg/l	1.0U	20	18.5	93 %	90-110
Dilution Factor	1	---	1	---	---
Analysis Date	10.31.01	---	10.31.01	---	---
Analysis Time	10:20	---	10:20	---	---
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Prep Method	---		---		
Analyst	BH	---	BH	---	---
Iron, Dissolved (6010B), ug/l	11.1B	10000.0	9936.0	99 %	80-120
Dilution Factor	1	---	1	---	---
Prep Date	11.02.01	---	11.02.01	---	---
Prep Time	15:09	---	15:09	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	10:14	---	10:19	---	---
Batch ID	PD136	PD136	PD136	PD136	PD136
Prep Method					
Analyst	GSP	---	GSP	---	---

012

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STL Pensacola

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Sampled By: Client
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	100U	3400	3690	109 %	55-118
Surrogate - o-Terphenyl	121 %	125	137	110 %	82-142
Surrogate - Nonatriacontane (C39)	121 %	50	43	86 %	42-193
Dilution Factor	1	---	1	---	---
Prep Date	10.30.01	---	10.30.01	---	---
Prep Time	14:37	---	14:37	---	---
Analysis Date	11.02.01	---	11.02.01	---	---
Analysis Time	01:14	---	01:22	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	3520C	---	3520C	---	---
Analyst	KA	---	KA	---	---

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Volatile Organic Compounds (8260B)					
Benzene, ug/l	0.30U	10	9.7	97 %	89-111
Bromobenzene, ug/l	0.30U	10	9.6	96 %	63-153
Bromochloromethane, ug/l	0.30U	10	9.7	97 %	91-129
Bromodichloromethane, ug/l	0.30U	10	9.3	93 %	87-119
Bromoform, ug/l	0.30U	10	9.7	97 %	52-127
Bromomethane (Methyl bromide), ug/l	0.53U	10	9.4	94 %	63-140
Carbon tetrachloride, ug/l	0.30U	10	9.5	95 %	73-116
Chlorobenzene, ug/l	0.30U	10	9.8	98 %	93-113
Chloroethane, ug/l	0.30U	10	9.8	98 %	76-116
Chloroform, ug/l	0.30U	10	9.4	94 %	90-115
Chloromethane, ug/l	0.30U	10	8.8	88 %	60-118
2-Chlorotoluene, ug/l	0.30U	10	9.9	99 %	84-121
4-Chlorotoluene, ug/l	0.30U	10	10.2	102 %	90-113
Dibromochloromethane, ug/l	0.30U	10	9.3	93 %	73-125
Dibromomethane (Methylene bromide), ug/l	0.30U	10	9.1	91 %	83-125
1,2-Dibromoethane (EDB), ug/l	0.30U	10	9.1	91 %	31-152
1,2-Dibromo-3-chloropropane, ug/l	1.9U	10	9.1	91 %	56-125
1,2-Dichlorobenzene, ug/l	0.30U	10	9.4	94 %	87-115
1,3-Dichlorobenzene, ug/l	0.30U	10	9.6	96 %	90-113

014

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Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
1,4-Dichlorobenzene, ug/l	0.30U	10	9.6	96 %	92-113
Dichlorodifluoromethane, ug/l	0.30U	10	9.0	90 %	30-152
1,1-Dichloroethane, ug/l	0.30U	10	9.1	91 %	90-114
1,2-Dichloroethane, ug/l	0.30U	10	9.1	91 %	88-125
1,1-Dichloroethene, ug/l	0.30U	10	10.0	100 %	84-117
cis-1,2-Dichloroethene, ug/l	0.30U	10	10.1	101 %	90-117
trans-1,2-Dichloroethene, ug/l	0.30U	10	9.3	93 %	88-112
1,2-Dichloropropane, ug/l	0.30U	10	9.8	98 %	87-112
1,3-Dichloropropane, ug/l	0.30U	10	9.5	95 %	73-124
2,2 Dichloropropane, ug/l	0.30U	10	9.3	93 %	74-112
cis-1,3-Dichloropropene, ug/l	0.30U	10	9.5	95 %	61-133
trans-1,3-Dichloropropene, ug/l	0.30U	10	9.3	93 %	51-144
Ethylbenzene, ug/l	0.30U	10	9.9	99 %	69-123
Hexachlorobutadiene, ug/l	0.30U	10	11.9	119 %	74-140
Isopropylbenzene (Cumene), ug/l	0.30U	10	10.3	103 %	56-134
p-Isopropyltoluene, ug/l	0.30U	10	10.5	105 %	30-172
Methylene chloride (Dichloromethane), ug/l	0.30U	10	9.2	92 %	81-117
Naphthalene, ug/l	0.30U	10	9.9	99 %	18-229
n-Butylbenzene, ug/l	0.30U	10	10.9	109 %	1-237
n-Propylbenzene , ug/l	0.30U	10	10.3	103 %	73-116
sec-Butylbenzene, ug/l	0.30U	10	10.3	103 %	53-134

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7
Styrene, ug/l	0.30U	10	9.8	98 %	76-127
t-Butylbenzene, ug/l	0.30U	10	9.9	99 %	66-115
1,1,1,2-Tetrachloroethane, ug/l	0.30U	10	9.8	98 %	75-125
1,1,2,2-Tetrachloroethane, ug/l	0.30U	10	8.8	88 %	69-134
Tetrachloroethene, ug/l	0.30U	10	10.0	100 %	88-117
Toluene, ug/l	0.30U	10	9.7	97 %	85-117
1,1,1-Trichloroethane, ug/l	0.30U	10	9.9	99 %	88-117
1,1,2-Trichloroethane, ug/l	0.30U	10	9.2	92 %	86-121
1,2,3-Trichlorobenzene, ug/l	0.30U	10	10.0	100 %	43-204
1,2,4-Trichlorobenzene, ug/l	0.30U	10	10.5	105 %	31-211
Trichloroethene, ug/l	0.30U	10	9.9	99 %	85-108
Trichlorofluoromethane, ug/l	0.30U	10	10.1	101 %	84-118
1,2,3-Trichloropropane, ug/l	1.6U	10	9.3	93 %	38-159
1,2,4-Trimethylbenzene, ug/l	0.30U	10	10.1	101 %	63-142
1,3,5-Trimethylbenzene, ug/l	0.30U	10	9.8	98 %	84-125
Vinyl chloride, ug/l	0.30U	10	9.6	96 %	72-116
o-Xylene, ug/l	0.30U	10	10.1	101 %	73-122
m&p-Xylene, ug/l	0.60U	20	20.1	101 %	70-125
Surrogate - Dibromofluoromethane	101 %	10	9.31	93 %	77-119
Surrogate - Toluene-d8	101 %	10	10.00	100 %	78-118
Surrogate - 4-Bromofluorobenzene	98 %	10	10.01	100 %	79-116
Dilution Factor	1	---	1	---	---
Analysis Date	11.05.01	---	11.05.01	---	---
Analysis Time	09:05	---	09:46	---	---
Batch ID	BUW150	BUW150	BUW150	BUW150	BUW150
Prep Method	5030B	---	5030B	---	---
Analyst	GH	---	GH	---	---

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Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-3	Method Blank	
10728-4	Lab Control Standard True Value	
10728-5	Lab Control Standard Result	
10728-6	Lab Control Standard % Recovery	
10728-7	LCS Accuracy Control Limit (%R)	

PARAMETER	10728-3	10728-4	10728-5	10728-6	10728-7

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LOG NO: C1-10728
Received: 30 OCT 01
Reported: 09 NOV 01

Ms. Tatiana Romanova
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346

Client PO. No.: 2643
Requisition: 152044.32.12.05.02.01.08

Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	25	50	84 %	25	51
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.30.01	---	---	10.30.01
Analysis Time	---	14:20	---	---	14:20
Batch ID	AEW060	AEW060	AEW060	AEW060	AEW060
Analyst	---	BE	---	---	BE
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	1.0	1.08	108 %	1.0	1.09
Nitrite-N, mg/l	0.20	0.22	110 %	0.20	0.21
Nitrate-N, mg/l	---	0.86	---	---	0.88
Dilution Factor	---	1	---	---	1
Prep Date	---	10.30.01	---	---	10.30.01
Prep Time	---	16:30	---	---	16:30
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	09:43	---	---	09:43
Batch ID	N3W67B	N3W67B	N3W67B	N3W67B	N3W67B
Prep Method		4500N02B			4500N02B
Analyst	---	CR	---	---	CR

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Project: CTO-017, NTC ORLANDO
Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Chloride (325.2/4500E/9251), mg/l	25.0	33.7	104 %	25.0	35.5
Dilution Factor	---	1	---	---	1
Prep Date	---	11.07.01	---	---	11.07.01
Prep Time	---	08:00	---	---	08:00
Analysis Date	---	11.07.01	---	---	11.07.01
Analysis Time	---	11:54	---	---	11:54
Batch ID	CKW61A	CKW61A	CKW61A	CKW61A	CKW61A
Prep Method	---	325.2	---	---	325.2
Analyst	---	CR	---	---	CR
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	50	133	100 %	50	120
Dilution Factor	---	5	---	---	5
Analysis Date	---	10.31.01	---	---	10.31.01
Analysis Time	---	17:18	---	---	17:18
Batch ID	TOW021	TOW021	TOW021	TOW021	TOW021
Prep Method		METHOD			METHOD
Analyst	---	WG	---	---	WG

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Sulfide (376.1), mg/l	10	12.8	86 %	10	13.5
Dilution Factor	---	1	---	---	1
Analysis Date	---	10.31.01	---	---	10.31.01
Analysis Time	---	10:20	---	---	10:20
Batch ID	FEW045	FEW045	FEW045	FEW045	FEW045
Prep Method		---			---
Analyst	---	BH	---	---	BH
Iron, Dissolved (6010B), ug/l	10000.0	10033.8	100 %	10000.0	10048.7
Dilution Factor	---	1	---	---	1
Prep Date	---	11.02.01	---	---	11.02.01
Prep Time	---	15:09	---	---	15:09
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	10:36	---	---	10:42
Batch ID	PD136	PD136	PD136	PD136	PD136
Prep Method					
Analyst	---	GSP	---	---	GSP

020

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Petroleum Hydrocarbons (FL-PRO)					
Petroleum Range Organics (FL-PRO), ug/l	3400	4031	116 %	3400	3816
Surrogate - o-Terphenyl	125	129	103 %	125	128
Surrogate - Nonatriacontane (C39)	50	53	106 %	50	41
Dilution Factor	---	1	---	---	1
Prep Date	---	10.30.01	---	---	10.30.01
Prep Time	---	14:37	---	---	14:37
Analysis Date	---	11.02.01	---	---	11.02.01
Analysis Time	---	01:30	---	---	01:38
Batch ID	FLW291	FLW291	FLW291	FLW291	FLW291
Prep Method	---	3520C	---	---	3520C
Analyst	---	KA	---	---	KA

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Volatile Organic Compounds (8260B)					
Benzene, ug/l	50	49	96 %	50	51
Bromobenzene, ug/l	50	48	96 %	50	50
Bromochloromethane, ug/l	50	50	100 %	50	48
Bromodichloromethane, ug/l	50	50	100 %	50	48
Bromoform, ug/l	50	55	110 %	50	48
Bromomethane (Methyl bromide), ug/l	50	47	94 %	50	48
Carbon tetrachloride, ug/l	50	46	92 %	50	49
Chlorobenzene, ug/l	50	48	96 %	50	51
Chloroethane, ug/l	50	50	100 %	50	51
Chloroform, ug/l	50	49	98 %	50	49
Chloromethane, ug/l	50	45	90 %	50	48
2-Chlorotoluene, ug/l	50	47	94 %	50	53
4-Chlorotoluene, ug/l	50	49	98 %	50	53
Dibromochloromethane, ug/l	50	52	104 %	50	47
Dibromomethane (Methylene bromide), ug/l	50	52	104 %	50	46
1,2-Dibromoethane (EDB), ug/l	50	53	106 %	50	45
1,2-Dibromo-3-chloropropane, ug/l	50	56	112 %	50	49
1,2-Dichlorobenzene, ug/l	50	48	96 %	50	50
1,3-Dichlorobenzene, ug/l	50	47	94 %	50	51
1,4-Dichlorobenzene, ug/l	50	47	94 %	50	51

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
Dichlorodifluoromethane, ug/l	50	44	88 %	50	31
1,1-Dichloroethane, ug/l	50	47	94 %	50	47
1,2-Dichloroethane, ug/l	50	50	100 %	50	44
1,1-Dichloroethene, ug/l	50	50	100 %	50	52
cis-1,2-Dichloroethene, ug/l	50	92	110 %	50	86
trans-1,2-Dichloroethene, ug/l	50	47	94 %	50	49
1,2-Dichloropropane, ug/l	50	50	100 %	50	50
1,3-Dichloropropane, ug/l	50	54	108 %	50	47
2,2 Dichloropropane, ug/l	50	47	94 %	50	47
cis-1,3-Dichloropropene, ug/l	50	51	102 %	50	48
trans-1,3-Dichloropropene, ug/l	50	52	104 %	50	48
Ethylbenzene, ug/l	50	47	94 %	50	51
Hexachlorobutadiene, ug/l	50	55	110 %	50	65
Isopropylbenzene (Cumene), ug/l	50	49	98 %	50	53
p-Isopropyltoluene, ug/l	50	49	98 %	50	56
Methylene chloride (Dichloromethane), ug/l	50	50	100 %	50	49
Naphthalene, ug/l	50	58	116 %	50	53
n-Butylbenzene, ug/l	50	52	104 %	50	58
n-Propylbenzene , ug/l	50	49	98 %	50	54
sec-Butylbenzene, ug/l	50	48	96 %	50	55
Styrene, ug/l	50	47	94 %	50	48

023

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-8	MS True Value	
10728-9	Matrix Spike Result	
10728-10	Matrix Spike % Recovery	
10728-11	MSD True Value	
10728-12	Matrix Spike Duplicate Result	

PARAMETER	10728-8	10728-9	10728-10	10728-11	10728-12
t-Butylbenzene, ug/l	50	46	92 %	50	52
1,1,1,2-Tetrachloroethane, ug/l	50	50	100 %	50	51
1,1,2,2-Tetrachloroethane, ug/l	50	51	102 %	50	47
Tetrachloroethene, ug/l	50	49	98 %	50	52
Toluene, ug/l	50	48	96 %	50	50
1,1,1-Trichloroethane, ug/l	50	50	100 %	50	52
1,1,2-Trichloroethane, ug/l	50	52	104 %	50	46
1,2,3-Trichlorobenzene, ug/l	50	56	112 %	50	56
1,2,4-Trichlorobenzene, ug/l	50	55	110 %	50	56
Trichloroethene, ug/l	50	61	94 %	50	63
Trichlorofluoromethane, ug/l	50	50	100 %	50	52
1,2,3-Trichloropropane, ug/l	50	54	108 %	50	48
1,2,4-Trimethylbenzene, ug/l	50	48	96 %	50	53
1,3,5-Trimethylbenzene, ug/l	50	46	92 %	50	51
Vinyl chloride, ug/l	50	48	96 %	50	50
o-Xylene, ug/l	50	49	98 %	50	52
m&p-Xylene, ug/l	100	97	97 %	100	105
Surrogate - Dibromofluoromethane	10	9.98	100 %	10	9.24
Surrogate - Toluene-d8	10	9.95	100 %	10	9.82
Surrogate - 4-Bromofluorobenzene	10	10.13	101 %	10	9.91
Dilution Factor	---	5	---	---	5
Analysis Date	---	11.05.01	---	---	11.05.01
Analysis Time	---	10:25	---	---	11:06
Batch ID	BUW150	BUW150	BUW150	BUW150	BUW150
Prep Method	---	5030B	---	---	5030B
Analyst	---	GH	---	---	GH

024

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-13	Matrix Spike Duplicate % Recovery	
10728-14	MS Accuracy Advisory Limit (%R)	
10728-15	Precision (%RPD) MS/MSD	
10728-16	MS Precision Advisory Limit (%RPD)	

PARAMETER	10728-13	10728-14	10728-15	10728-16
Alkalinity (to pH 4.5) as CaCO3 (310.1), mg/l	88 %	65-138	5	20
Batch ID	AEW060	AEW060	AEW060	AEW060
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate + Nitrite-N, mg/l	109 %	67-126	1	20
Nitrite-N, mg/l	105 %	72-128	5	20
Batch ID	N3W67B	N3W67B	N3W67B	N3W67B
Prep Method				
Chloride (325.2/4500E/9251), mg/l	111 %	81-131	7	20
Batch ID	CKW61A	CKW61A	CKW61A	CKW61A
Total Dissolved Solids (160.1), mg/l	N/A	N/A	N/A	N/A
Total Organic Carbon (9060), mg/l	74 %	52-139	29H2	27
Batch ID	TOW021	TOW021	TOW021	TOW021
Prep Method				
Sulfide (376.1), mg/l	93 %	90-110	8	20
Batch ID	FEW045	FEW045	FEW045	FEW045
Prep Method				
Iron, Dissolved (6010B), ug/l	100 %	75-125	0.1	20
Batch ID	PD136	PD136	PD136	PD136
Prep Method				

025

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-13	Matrix Spike Duplicate % Recovery	
10728-14	MS Accuracy Advisory Limit (%R)	
10728-15	Precision (%RPD) MS/MSD	
10728-16	MS Precision Advisory Limit (%RPD)	

PARAMETER	10728-13	10728-14	10728-15	10728-16
Petroleum Hydrocarbons (FL-PRO)				
Petroleum Range Organics (FL-PRO), ug/l	110 %	41-101	6	20
Surrogate - o-Terphenyl	102 %	82-142	---	---
Surrogate - Nonatriacontane (C39)	82 %	42-193	---	---
Batch ID	FLW291	FLW291	FLW291	FLW291

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10728-13	Matrix Spike Duplicate % Recovery	
10728-14	MS Accuracy Advisory Limit (%R)	
10728-15	Precision (%RPD) MS/MSD	
10728-16	MS Precision Advisory Limit (%RPD)	

PARAMETER	10728-13	10728-14	10728-15	10728-16
Volatile Organic Compounds (8260B)				
Benzene, ug/l	100 %	67-148	4	8
Bromobenzene, ug/l	100 %	73-140	4	14
Bromochloromethane, ug/l	96 %	85-130	4	18
Bromodichloromethane, ug/l	96 %	65-133	4	19
Bromoform, ug/l	96 %	62-124	14	29
Bromomethane (Methyl bromide), ug/l	96 %	59-152	2	17
Carbon tetrachloride, ug/l	98 %	78-121	6	11
Chlorobenzene, ug/l	102 %	66-156	6	10
Chloroethane, ug/l	102 %	73-123	2	10
Chloroform, ug/l	98 %	87-117	0	13
Chloromethane, ug/l	96 %	60-124	6	10
2-Chlorotoluene, ug/l	106 %	85-122	12	15
4-Chlorotoluene, ug/l	106 %	87-122	8	13
Dibromochloromethane, ug/l	94 %	83-122	10	27
Dibromomethane (Methylene bromide), ug/l	92 %	81-130	12	20
1,2-Dibromoethane (EDB), ug/l	90 %	36-153	16	26
1,2-Dibromo-3-chloropropane, ug/l	98 %	71-118	14	33
1,2-Dichlorobenzene, ug/l	100 %	86-120	4	12
1,3-Dichlorobenzene, ug/l	102 %	89-118	8	10
1,4-Dichlorobenzene, ug/l	102 %	78-138	8	10
Dichlorodifluoromethane, ug/l	62 %	35-160	35M2	12
1,1-Dichloroethane, ug/l	94 %	85-121	0	10

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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-13	Matrix Spike Duplicate % Recovery	
10728-14	MS Accuracy Advisory Limit (%R)	
10728-15	Precision (%RPD) MS/MSD	
10728-16	MS Precision Advisory Limit (%RPD)	

PARAMETER	10728-13	10728-14	10728-15	10728-16
1,2-Dichloroethane, ug/l	88 %	85-129	12	17
1,1-Dichloroethene, ug/l	104 %	84-119	4	13
cis-1,2-Dichloroethene, ug/l	98 %	65-133	12	19
trans-1,2-Dichloroethene, ug/l	98 %	87-115	4	9
1,2-Dichloropropane, ug/l	100 %	88-114	0	12
1,3-Dichloropropane, ug/l	94 %	73-126	14	19
2,2 Dichloropropane, ug/l	94 %	78-116	0	10
cis-1,3-Dichloropropene, ug/l	96 %	65-133	6	19
trans-1,3-Dichloropropene, ug/l	96 %	53-144	8	19
Ethylbenzene, ug/l	102 %	78-132	8	14
Hexachlorobutadiene, ug/l	130 %	70-156	17	18
Isopropylbenzene (Cumene), ug/l	106 %	65-149	8	20
p-Isopropyltoluene, ug/l	112 %	35-190	14	22
Methylene chloride (Dichloromethane), ug/l	98 %	81-121	2	18
Naphthalene, ug/l	106 %	17-260	9	42
n-Butylbenzene, ug/l	116 %	1-270	11	40
n-Propylbenzene , ug/l	108 %	76-123	10	16
sec-Butylbenzene, ug/l	110 %	62-144	14	18
Styrene, ug/l	96 %	55-138	2	43
t-Butylbenzene, ug/l	104 %	73-113	12	16
1,1,1,2-Tetrachloroethane, ug/l	102 %	84-124	2	12
1,1,2,2-Tetrachloroethane, ug/l	94 %	75-127	8	25
Tetrachloroethene, ug/l	104 %	87-131	6	13

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Sampled By: Client
Code: 19331119

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
10728-13	Matrix Spike Duplicate % Recovery	
10728-14	MS Accuracy Advisory Limit (%R)	
10728-15	Precision (%RPD) MS/MSD	
10728-16	MS Precision Advisory Limit (%RPD)	

PARAMETER	10728-13	10728-14	10728-15	10728-16
Toluene, ug/l	100 %	86-123	4	8
1,1,1-Trichloroethane, ug/l	104 %	90-120	4	10
1,1,2-Trichloroethane, ug/l	92 %	85-125	12	20
1,2,3-Trichlorobenzene, ug/l	112 %	49-214	0	33
1,2,4-Trichlorobenzene, ug/l	112 %	30-230	2	32
Trichloroethene, ug/l	98 %	86-115	4	11
Trichlorofluoromethane, ug/l	104 %	84-125	4	10
1,2,3-Trichloropropane, ug/l	96 %	75-127	12	26
1,2,4-Trimethylbenzene, ug/l	106 %	50-158	10	30
1,3,5-Trimethylbenzene, ug/l	102 %	72-140	10	25
Vinyl chloride, ug/l	100 %	74-125	4	9
o-Xylene, ug/l	104 %	76-127	6	13
m&p-Xylene, ug/l	105 %	76-129	8	20
Surrogate - Dibromofluoromethane	92 %	77-119	---	---
Surrogate - Toluene-d8	98 %	78-118	---	---
Surrogate - 4-Bromofluorobenzene	99 %	79-116	---	---
Batch ID	BUW150	BUW150	BUW150	BUW150

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
See the Project Sample Inspection Form (PSIF) to determine if a sample was received,that did not meet EPA requirements for sample collection, preservation, or holding time.

Rick Hayes, Project Manager

Final Page Of Report

023

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110728 Date Received: 10.30.01

1. Was there a Chain of Custody? (Yes) No*
2. Was Chain of Custody properly filled out and relinquished? (Yes) No*
3. Were samples received cold? (Yes) No* N/A
   (Criteria: 2° - 6°C: STL-SOP
4. Were all samples properly labeled and identified? (Yes) No*
5. Did samples require splitting or compositing♦? Yes* (No)
   Req By: PM Client Other♦
6. Were samples received in proper containers for analysis requested? (Yes) No*
7. Were all sample containers received intact? (Yes) No*
8. Were samples checked for preservative? *(Check pH of all H2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)+* (Yes) No* N/A
9. Is there sufficient volume for analysis requested? (Yes) No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) (Yes) No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* (No) 10.30.01 N/A
12. If sent, were matrix spike bottles returned? Yes No* (N/A)
13. Was Project Manager notified of problems? (initials: PSIV) (Yes) No* N/A
    DMH 10.30.01

Airbill Number(s): 8307 0936 7043

Shipped By: Fed Ex

Cooler Number(s): client, 1654L

Shipping Charges: N/A

Cooler Weight(s): 88#

Cooler Temp(s) (°C): 2°, 2°

(CCK3)

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

multiple cooler, multiple project

11. Trip Blanks for 8260 have "1/4" bubble. DMH 10.30.01

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: DMH Date: 10.30.01 Logged By: PEA Date: 10/30/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

030

FedEx Express USA Airbill

FedEx Tracking Number 830709367043

0200 Recipient's Copy

1 From

Date 10-29-01

Sender's Name ISAAC LYNCH Phone 352 339 6820

Company CH2M HILL /CCI

Address 1060 WAREHOUSE RD

Dept/Floor/Suite/Room

City ORLANDO State FL ZIP 32803

2 Your Internal Billing Reference 152044.32.12.01.08

3 To

Recipient's Name RICK HAYES Phone ~~812-217-2845~~ 850-474-1001

Company STL PENSACOLA

Address 3355 MCLEMORE DR.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City PENSACOLA State FL ZIP 32514

8307 0936 7043

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop-off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

*Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [x] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
2	60	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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404

C 110728

032

Attach one file Label here

SAMPLE CHECK LIST
STL Pensacola

Paperwork by: JSC
Labeled by: DMN
Delivered by: DMN

CH2M-CONST-GA C110728
CH2M Hill Constructors, Inc. (CCI)

Type of Container	Wet Chem	Metals	Extractions	Organics/ Special Projects	VOA	GCMS	Preservative	Number of Containers	Initials	Date	Time
1/2 Gal Plastic											
~~32~~ 80 oz. Plastic		✓					HNO3	1	~		
16 oz. Plastic	✓						~~ZnAc/NaOH~~	1	BE	10.30.01	1:22
8 oz. Plastic	✓						Ø H2SO4	4 1	↓	10.30.01	↓
5g Encore											
25g Encore											
Whirlpak Bag											
Sterile Cup											
1L Amber			✓				HCL	1	~		
500 ml Amber											
250 ml Amber											
~~120~~ 40 ml Amber	✓						H2SO4	2	BE	10.30.01	1:22
40 ml Vial						✓	Ø HCL	1 3	MF	10.30.01	17:30
2 oz. W/M											
4 oz. W/M											
8 oz. W/M											
16 oz. W/M											
32 oz. W/M											
Air Canister											
Air Bag											
Tube/Cartridge											
Plastic Bag											
Acknowledgment											
COMMENTS											

033

SEVERN TRENT SERVICES

STL Pensacola

Explanation of CLP Data Qualifiers
Organics

U: This flag indicates the compound was analyzed for but not detected. The CRQL shall be adjusted according to the equation listed in Exhibit D. CRQLs are listed in Exhibit C.

J: This flag indicates an estimated value. This flag is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J.
NOTE: The J flag is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the CRQL if the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.).

N: This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). **The lower of the two values is reported on Form I and flagged with a P.**

C: This flag applies to pesticide results where the **identification** has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do **not** apply this flag; use a laboratory-defined flag instead (see the X qualifier).

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag shall be used for a tentatively identified compound as well as for a positively identified target compound. The combination of flags BU or UB is expressly prohibited. Blank contaminants are flagged B only when they are detected in the sample.

E: This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract shall be diluted and reanalyzed according to the specifications in Exhibit D; exceptions are also noted in Exhibit D. All such compounds with a response greater than the upper level of the calibration range shall have the concentration flagged with an E on Form I for the original analysis.
NOTE: For total xylene, where three isomers are quantified as two peaks, the calibration range of **each peak** shall be considered separately. For example, a diluted analysis is **not** required for total xylene unless the concentration of the peak representing the single isomer exceeds 200 µg/L or the peak representing the two co-eluting isomers on that GC column exceeds 400 µg/L.

D: If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract. NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis (i.e., compounds reported with the CRQL and the U flag). NOTE 2: Separate Form Is are required for reporting the original analysis (EPA Sample No. XXXXX) and the more diluted sample analysis (EPA Sample No. XXXXXDL) (i.e., the results from both analyses cannot be combined on a single Form I).

A: This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.

X: Other specific flags may be required to properly define the results. If used, the flags shall be fully described, with the description attached to the sample data summary package and the SDG Narrative. Begin by using X. If more than one flag is required, use Y and Z as needed. If more than five qualifiers are required for a sample result, use the X flag to represent a combination of several flags. For instance,
the X flag might combine the A, B, and D flags for some samples. The laboratory-defined flags are limited to X, Y, and Z.

Explanation of CLP Data Qualifiers
Inorganic

C - Concentration Qualifier

U - The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value).

B - The reported value is less than the STL Pensacola Reporting Limit (RL) or client-requested reporting limit (RL) but greater than or equal to the STL Pensacola Method Detection Limit (MDL).

Q - QC Qualifier

E - The reported value is estimated because of the presence of interference. An explanatory note shall be included in the case narrative.

N - The spiked sample recovery is not within control limits.

* - Duplicate analysis not within control limits

M - The duplicate injection precision was not met.

S - The reported value was determined by the Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance and post spike recovery is greater than or equal to 40%, the sample is flagged with a "W" and no further action is required.

+ - The Standard Additions Correlation Coefficient is <0.995.

NOTE: Entering "S," "W," or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M - Method Qualifier

P - ICP
F - Furnace AA
CV - Cold Vapor AA (mercury)
AV - Automated Cold Vapor AA (mercury)

Revised 5/10/01

SEVERN TRENT SERVICES

STL Pensacola

Data Qualifiers for Final Report

B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL Pensacola RL and ≥ the STL Pensacola MDL; therefore, the quantitation is estimation.
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (≤2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The quantitation may be an estimation.
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The analyte was analyzed for but not detected (at or above the RL or the MDL, whichever is entered next to the "U" value. Value for result will never be below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

Revised 06/19/01

Any time a sample arrives at the laboratory improperly preserved (at improper pH, temperature or with chlorine present) or after holding time has expired, the laboratory is required to reject the samples. The client must be notified in writing (i.e. OOCE/CA form or PSIF). The project manager is responsible for ensuring the client or laboratory takes corrective action. If the client requests that samples be prepared and/or analyzed when improperly preserved and/or outside holding time, the final report must be flagged and corrective action must be taken with the client to ensure this does not happen on a regular basis.

Abbreviations

ND	Not Detected at or above the STL Pensacola reporting limit (RL)
&	Automated
NS	Not Submitted
NA	Not Applicable
DISS	Dissolved
T&D	Total & Dissolved
R	Reactive
TOT	Total
IDL	STL Pensacola Instrument Detection Limit
MDL	STL Pensacola Method Detection Limit
RL	STL Pensacola Reporting Limit

Florida Projects Inorganic/Organic

Refer to FL DEP 62-160.700(7); Table 7 Data Qualifier Codes. FL DEP Rule 62-160.670(1)(h) states that laboratories shall include the analytical result for each analysis with applicable data qualifiers. FL DEP Rule 62-160.700(7), Table 7 lists the FL DEP data qualifiers. FL DEP Rule 62-160.700(3), Table 3 lists the Florida sites which require data qualifiers.

AFCEE QAPP Projects

Refer to AFCEE QAPP for appropriate data qualifiers (AFCEE QAPP Version will be specified by client for the project).

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers. CLP SOW to be followed must be specified to client.

3355 McLemore Drive • Pensacola, FL 32514 • Tel: 850 474 1001 • Fax: 850 478 2671 • www.stl-inc.com
STL Pensacola is a part of Severn Trent Laboratories, Inc.

STL PENSACOLA
State Certifications

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL), expires 06/30/02

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater), expires 01/12/02

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental), expires 02/07/02

State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater), expires 03/31/02

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (D W, H W and Wastewater), expires 09/30/01

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Extension grant

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater), expires 06/30/02

Florida DEP/DOH CompQAP # 980156

Florida, Radioactive Materials License No. G0733-1, no expiration date assigned

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste), expires 10/31/01

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water), expires 12/31/

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water), expires 12/31/01

Louisiana Department of Environmental Quality, ELAP, Agency Interest ID 30748 (Interim Accreditation Granted)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida), expires 09/30/02

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Wastewater), expires 06/30/02

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida), expires 06/30/02

New Hampshire DES ELAP, Laboratory ID No. 250501 (Wastewater), expires 08/16/02

State of New Jersey, Department of Env. Protection & Energy, Laboratory ID No. 49006 (Wastewater and Hazardous Waster), expires 06/30/01

New York State, Department of Health, Laboratory ID No. 11503 (WW and Solids/Hazardous Waste), expires 03/31/02

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater), expires 12/31/01

North Dakota DH&Consol Labs, Laboratory ID No. R-108 Wastewater and Hazardous Waste by Reciprocity with Florida), expires 06/30/02

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater), expires 08/31/0

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water), expires 12/01/01

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater & Solids/Hazardous Waste by Reciprocity with FL), expires 06/30/01

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water), expires 08/03/04

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL), expires 06/30/02

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater), expires 09/14/01

West Virginia Division of Env., Office of Water Resources, Laboratory ID No. 136 (Haz Waste and Wastewater Reciprocity FL), expires 12/31/01

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704, expires 04/01/04

WET CHEMISTRY

STL Pensacola

Total Dissolved Solids Worksheet

Method # 160.1, SM2540C

Batch #	TDW096
Prep Date	11/01/01 1130
Run Date	11/02/01 1215

Analyst	ST

	batch sample id's	Conductivity	tare number	sample volume (mls)	dish weight before (g)	dish weight final (g) @ 180c	TDS final result (mg/l)	
Prep Blank	PREP BLANK		129	50	53.7804	53.7805	2.0	ND
LCS-1	LCS 293 mg/l		111	50	57.8517	57.8675	316.0	108%
original 1	110728-1		4	50	56.7525	56.7557	64.0	RPD= 3%
duplicate 1	110728-1		403	50	53.7649	53.7682	66.0	
2	110254-11		6	50	56.7272	56.7426	308.0	
3	-11		417	50	53.4855	53.5011	312.0	
4	-12		315	50	53.0883	53.1261	756.0	
5	-12		408	50	52.7710	52.8086	752.0	
6	110720-1		320	50	48.6192	48.6797	1210.0	
7	111022-1		416	50	53.2788	54.1432	17288.0	
1445 *8*	-2		1	50	55.6234	56.4463	16458.0	
9								
10								
LCS-2	LCS 293 mg/l		423	50	51.0628	51.0780	304.0	104%
11								
duplicate 11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

11-2-01

11-2-01

Custody for the above referenced samples was maintained by the analyst listed at the top of this page. ST

Q/C Limits		
	Reporting limit is	5 mg/L
	LCS Recovery range limit is	68-120%
	RPD limit is	19.

PROOFED BY AB

DATED 11-2-01

Printed : 11/2/01 12:18

STL Pensacola

Alkalinity by EPA Method 310.1 / SM 2320B

CCV/ICV 90-110%
SPIKE %R 65-138
RPD LIMIT 5

Chemist[2]: BE Batch #: AEW060 RB 11-01-01

Analysis Date: 10-30-01 Analysis Time On: 1420 Analysis Time Off: 1530 Data Reviewed By: AD 11/2/01

N of H_2SO_4 = ml Na_2CO_3 X 2.5 / 53 X ml H_2SO_4 ; Average of two N below = 0.0200 LOT # H_2SO_4 = T32685 Baker
LOT # 0.05N Na_2CO_3 = 7528 Fmall

ml of Na_2CO_3	unique ID Na_2CO_3	ml of H_2SO_4	unique ID[9] H_2SO_4	Normality (N) of H_2SO_4
10 ml	Na_2CO_3-N- 12-11-01	24.00	H_2SO_4-N - 12-10-01	0.01965
10 ml	Na_2CO_3-N- 12-11-01	23.22	H_2SO_4-N - 12-10-01	0.02051

Sample ID (STL-PN Laboratory Sample Accession Number)	Head Space? Y or N	Start pH	Sample Type	Sample Size (ml / 100 ml)	A[8]	ml Titrant III (B)	ml Titrant IV (C)	Results[3] (mg/l)	RL[4]
ICB (blank)	N/A	5.62	DI Water	100 ml		0.20	0.40	ND	1.0
(250 ppm) Alk-ICV-W- 12-1-01	N/A	10.44	N/A	50 ml		12.79		255/250 =	1.0 (102%)
1. 110681 -1	X	6.73 6.25 WA		100		5.01	2.93	29.	
MS[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 -1		5.82 6.92				5.04		10 - 29/25 = 84%	
MSD[6] (25 ppm) 1 ml Alk-CCV-I-12-01-01 -1		6.82 6.92				5.09		5-1 - 29/25 = -88%	RPD = 5
2. -2		4.25				0.00		ND	
3. -3		6.37				2.91		29.1	
4. 110699B -1i		4.85				0.33	0.65	ND	
5. -2		4.98				0.91	1.52	3.0	
6. -3		5.45				1.36	1.86	5.0	
7. 110657 -1		5.88				2.88		28.8	
8. -2		5.37				0.98	1.18	7.8	
9. -3		5.36				1.09	1.33	8.50	
10. -4		5.39				1.17	1.44	9.0	
[7]Alk-CCV-I- 12-01-01	N/A	10.48	QC	10 ml / 100 ml		24.48		244/250 = 98%	
CCB (blank)	N/A	5.62	DI Water			0.14	0.28	ND	
DUP[5] -5		5.23				0.97	1.23	7.1	
11. -5		5.23				1.01	1.28	8 7.4	RPD=4
12. -6		5.25				0.24	0.48	ND	
13. -7		4.28				0.00		ND	
14. 110556 -1		5.53		100		0.40	0.79	ND	
15. -2		5.26			0.36	0.40	0.70	ND	
16. 110720 -1		7.95				24.21		242.	
17. 110728 -1	N	4.77	WA	100		0.29	0.52	ND	N
18.									
19.				BE 11-01-01					
20.									
[7]Alk-CCV-I-	N/A	10.48	QC	10 ml / 100 ml		24.50		245/250 = 98%	90
CCB (blank)	N/A	5.64	DI Water	100		0.20	0.40	ND	

[1] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back.

[3] Total alkalinity as mg/l $CaCO_3$ = B X N X 50000 / ml sample ; If samples are < 20 mg/l $CaCO_3$, total alkalinity = (2B-C) X N X 50000 / ml sample

If samples are > 1000, N = 0.1 N H_2SO_4; if samples are < 1000 mg/l $CaCO_3$, N = 0.02 N H_2SO_4

[4] RL = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 1 ppm (mg/kg) for nonaqueous samples.

[5] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

[6] MS = Matrix spike sample; 1 ml of 2500 ppm Na_2CO_3 is spiked into 100 ml sample and titrated. True value = 25 ppm; Please specify sample ID (accession #) or ↓".

[7] CCV = Continuing calibration verification is prepared from a different source than the ICV. 10 ml of 2500 ppm Na_2CO_3 is diluted to 100 ml & titrated. True value = 250 ppm. The intermediate is referenced here because the working standard (250 ppm) is made up daily from intermediate and expires that very same day analyzed.

[8] Amount of H_2SO_4 added to reach a pH of 8.3.

word\forms\alkalin\al-bench.doc (ab 07/03/01)

[9] Unique id # will change depending on the normality of titrant used (0.1N for > 1000 mg/l samples; 0.02 N for < 1000 mg/l samples)

STL Pensacola

TOTAL SULFIDE Method 376.1/SM4500 S^{-2} E/SW9030/SW9031

Preparation[1] Date: 10/31/01 | Preparation[1] Time On: 0940 | Preparation[1] Time Off: 1015

Analysis Date: 10/31/01 | Analysis Time On: 1020 | Analysis Time Off: 1450

Run #: FEN045

Chemist[2]: BH | Data Reviewed By: AB 11/2/01

RPD: 20
Spike: 79-102%
LCS: 90-110%

N of $Na_2S_2O_3$ = (28.04)(0.005) / ml titrants ; Average of two N below = N of $Na_2S_2O_3$ 0.0244 LOT # $Na_2S_2O_3$ = 8100 KMRC

N of Iodine = (mls titrant)(N titrant) / 5 ml; Average of two N below = N of I_2 0.0248 LOT # I_2 = 1158-04 Lab Chem

ml of $Na_2S_2O_3$	unique ID $Na_2S_2O_3$	Normality (N) of $Na_2S_2O_3$	ml I_2	ml $Na_2S_2O_3$	unique ID I_2	Normality (N) of I_2
5.74	0.025 N $Na_2S_2O_3$	0.02442	5	5.07	0.025 N I_2	0.02474
5.75	↓	0.02438	5	5.08	↓	0.02479

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	ml Sample Size	Dist. Vol.	Iodine (ml)	Titrant (ml)	Results[3] (ppm / ppmv)	RL[4]
ICB (blank)	DI Water	100 ml	N/A	5	5.10	ND	1.0
SF-LCS-S[7] 12-28-01	N/A	0.2/100 ml	↓	10	5.42	18.5/20.0=	1.0 93%
Prep Blank (distilled)	DI Water	100 ml	N/A				
1 110611-1	Wa	200		5	2.93	4.2	1.0
MS[6] (10 ppm) -1B		.2/200		10	3.61	12.8-4.2/10.0=86%	
MSD[6] (10 ppm) -1A		.2/200		10	3.23	13.5-4.2/10.0=93%	
2 -2		200		5	3.98	2.2	1.0
3 -3		200		5	3.40	3.3	
4 110655-1		200		5	3.61	2.9	
5 -2		200		5	4.77	ND	
6 -3		200		5	5.12	ND	
7 110681-1		200		5	5.17	ND	
8 -2		200		5	5.14	ND	
9 -3		200		5	5.51	ND	
10 110649-1	↓	200		5	5.09	ND	
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls		10	5.40	18.6/20.0=	1.0 93%
CCB (blank)	DI Water	100 mls		5	5.05	ND	1.0
DUP[5] 110649-1	Wa	200		5	5.45	ND	
11 -2		200		5	5.10	ND	
12 -3		200		5	5.00	ND	
13 -4		200		5	4.92	ND	
14 110728-1	↓	200		5	5.11	ND	
15 110649-5	Wa	200	Wa	5	5.18	ND	
16 -6	↓	200	↓	5	5.61	ND	
17 -7	↓	200	↓	5	5.09	ND	
18 110728-1 MS	Wa	200	Wa	10	4.95	10.2/10.0=	102%
~~19~~			~~10/31/01~~				
~~20~~							
SF-LCS-S[7] 12-28-01	N/A	0.2/100 mls	Wa	10	5.46	18.4/20.0=	1.0 92%
CCB (blank)	DI Water	100 mls	↓	5	5.04	ND	1.0

[1] Preparation date and time applies to solid samples only (10 g diluted to 200 ml with reagent water)

[2] The chemist whose initials appear above removed the samples from the sample storage refrigerator, maintained custody during analysis and relinquished samples back to the sample storage refrigerator

[3] Sulfide = $\frac{[(\text{ml iodine} \times \text{N iodine}) - (\text{ml } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16000}{\text{ml of sample or g of sample}}$ = mg/l sulfide

[3] SMACKO Air = (1) [(ml iodine x N (0.25 N) iodine)-(ml $Na_2S_2O_3$ x N $Na_2S_2O_3$)] x 16 = mg sulfide

(2) $\frac{\text{mg sulfide} \times 24.4 \times 1000}{32}$ = µl H_2S (3) $\frac{\mu l\ H_2S}{20\ L\ gas}$ = ppmv H_2S

[4] = STL-PN Reporting Limit; RL = 1.0 ppm (mg/l) for aqueous and 5.0 ppm (mg/kg) for nonaueous samples.

[5] = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry, initial and date an "arrowing".

[6] MS = Matrix spike sample; 0.2 ml of 10,000 ppm is diluted to 200 ml & titrated. True value = 10 ppm. **Please specify sample accession # or "arrow down", initial/date.**

[7] LCS = 0.2 ml of 10,000 ppm is diluted to 100 ml & titrated. True value = 20 ppm. The stock is referenced here rather than the working standard since the working standard is made up daily from stock and expires that very same day (analysis date).

****

** SEQUENCE **

****

TOW021 Wed Oct 31 13:00:11 2001

Pos/ Vial	Sample Name	Method Type	Run Rep	# Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	DEFAULT	Chk. 3	3 5.000	0	No	
2	ICV 10PPM	DEFAULT	Chk. 1	2 5.000	0	No	
3	CCV 15PPM	DEFAULT	Chk. 2	2 5.000	0	No	
✓4	110655-1	DEFAULT	Sample	1 5.000	0	No	
5	110655-1 MS	DEFAULT	Sample	1 5.000	0	No	
6	110655-1 MSD	DEFAULT	Sample	1 5.000	0	No	
✓7	110648-1	DEFAULT	Sample	1 5.000	0	No	
✓8	110641-1	DEFAULT	Sample	1 5.000	0	No	
✓9	110638-1	DEFAULT	Sample	1 5.000	0	No	
✓10	110658-1	DEFAULT	Sample	1 5.000	0	No	
✓11	110649-1	DEFAULT	Sample	1 5.000	0	No	
12	110649-2	DEFAULT	Sample	1 5.000	0	No	
13	110649-3	DEFAULT	Sample	1 5.000	0	No	
14	110649-4	DEFAULT	Sample	1 5.000	0	No	
15	110655-2	DEFAULT	Sample	1 5.000	0	No	
16	110655-3	DEFAULT	Sample	1 5.000	0	No	
17	CCB	DEFAULT	Chk. 3	3 5.000	0	No	
18	CCV 15PPM	DEFAULT	Chk. 2	2 5.000	0	No	
✓19	110728-1	DEFAULT	Sample	1 5.000	0	No	
20	110728-1 DUP	DEFAULT	Sample	1 5.000	0	No	
✓21	110743-1	DEFAULT	Sample	1 5.000	0	No	
22	110743-2	DEFAULT	Sample	1 5.000	0	No	
23	110743-3 X2	DEFAULT	Sample	1 5.000	0	No	
✓24	110735-1	DEFAULT	Sample	1 5.000	0	No	
25	110729-1	DEFAULT	Sample	1 5.000	0	No	
✓26	110717-1	DEFAULT	Sample	1 5.000	0	No	
27	CCB	DEFAULT	Chk. 3	3 5.000	0	No	
28	CCV 15PPM	DEFAULT	Chk. 2	2 5.000	0	No	

E-Autosampler or cover is off. 31Oct2001 12:43

E-Autosampler or cover is off. 31Oct2001 13:04

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021 Wed Oct 31 13:09:24 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 28

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	PREP BLK	default	Chk. 3	3	5.000	0	No	
2	ICV 10PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110655-1	default	Sample	1	5.000	0	No	
5	110655-1 MS	default	Sample	1	5.000	0	No	
6	110655-1 MSD	default	Sample	1	5.000	0	No	
7	110648-1	default	Sample	1	5.000	0	No	
8	110641-1	default	Sample	1	5.000	0	No	
9	110638-1	default	Sample	1	5.000	0	No	
10	110658-1	default	Sample	1	5.000	0	No	
11	110649-1	default	Sample	1	5.000	0	No	
12	110649-2	default	Sample	1	5.000	0	No	
13	110649-3	default	Sample	1	5.000	0	No	
14	110649-4	default	Sample	1	5.000	0	No	
15	110655-2	default	Sample	1	5.000	0	No	

Tow021

16	110655-3	default	Sample	1	5.000	0 No
17	CCB	default	Chk. 3	3	5.000	0 No
18	CCV 15PPM	default	Chk. 2	2	5.000	0 No
19	110728-1	default	Sample	1	5.000	0 No
20	110728-1 DUP	default	Sample	1	5.000	0 No
21	110743-1	default	Sample	1	5.000	0 No
22	110743-2	default	Sample	1	5.000	0 No
23	110743-3 X2	default	Sample	1	5.000	0 No
24	110735-1	default	Sample	1	5.000	0 No
25	110729-1	default	Sample	1	5.000	0 No
26	110717-1	default	Sample	1	5.000	0 No
27	CCB	default	Chk. 3	3	5.000	0 No
28	CCV 15PPM	default	Chk. 2	2	5.000	0 No

****
** RESULTS - TOW021 **
****

Pos/Vial: 1 Name: PREP BLK Analyzed: 31Oct2001 13:09
Run ID: 5 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031148	921	-0.142	-0.0284
2	1031149	815	-0.263	-0.0527
3	1031150	688	-0.409	-0.0817
Avg		808	-0.271	-0.0543
Std.Dev.		116.66		
RSD (%)		14.44		

ND

****

Pos/Vial: 2 Name: ICV 10PPM Analyzed: 31Oct2001 13:38
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031151	42027	46.845	9.3671
2	1031152	43273	48.269	9.6519
Avg		42650	47.557	9.5095
Std.Dev.		881.05		
RSD (%)		2.07		

95%

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 31Oct2001 13:57
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031153	64666	72.723	14.5416
2	1031154	61970	69.641	13.9254
Avg		63318	71.182	14.2335
Std.Dev.		1906.36		
RSD (%)		3.01		

95%

****

Pos/Vial: 4 Name: 110655-1 Analyzed: 31Oct2001 14:17
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031155	182051	207.808	41.5533

Dilute

A-Linear range exceeded (130ugC). 31Oct2001 14:27

****

Pos/Vial: 5 Name: 110655-1 MS Analyzed: 31Oct2001 14:27
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031156	203868	232.746	46.5400

Dilute

A-Linear range exceeded (130ugC). 31Oct2001 14:37

****

Pos/Vial: 6 Name: 110655-1 MSD Analyzed: 31Oct2001 14:37
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031157	200941	229.401	45.8709

Dilute

****

Pos/Vial: 7 Name: 110648-1 Analyzed: 31Oct2001 14:48
Run ID: 6 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031158	86042	98.063	19.6087

****

Pos/Vial: 8 Name: 110641-1 Analyzed: 31Oct2001 14:58
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031159	67669	77.061	15.4092

****

Pos/Vial: 9 Name: 110638-1 Analyzed: 31Oct2001 15:08
Run ID: 8 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031160	138688	158.241	31.6419

Dilute

****

Pos/Vial: 10 Name: 110658-1 Analyzed: 31Oct2001 15:18
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	Tow021 TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031161	9734	10.837	2.1671

****

Pos/Vial: 11 Name: 110649-1 Analyzed: 31Oct2001 15:29
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031162	1946	1.935	0.3870

****

Pos/Vial: 12 Name: 110649-2 Analyzed: 31Oct2001 15:39
Run ID: 11 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031163	34659	39.328	7.8641

****

Pos/Vial: 13 Name: 110649-3 Analyzed: 31Oct2001 15:49
Run ID: 12 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031164	22844	25.823	5.1636

****

Pos/Vial: 14 Name: 110649-4 Analyzed: 31Oct2001 16:00
Run ID: 13 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)

1	1031165	22686	25.643	5.1275

****

Pos/Vial: 15 Name: 110655-2 Analyzed: 31Oct2001 16:10
Run ID: 14 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031166	207357	236.734	47.3374

Dilute

****

Pos/Vial: 16 Name: 110655-3 Analyzed: 31Oct2001 16:20
Run ID: 15 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031167	97381	111.024	22.2004

Dilute

****

Pos/Vial: 17 Name: CCB Analyzed: 31Oct2001 16:30
Run ID: 16 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031168	1594	0.627	0.1254
2	1031169	969	-0.087	-0.0175
3	1031170	637	-0.467	-0.0934
Avg		1066	0.024	0.0048
Std.Dev.		485.92		
RSD (%)		45.55		

ND

****

Pos/Vial: 18 Name: CCV 15PPM Analyzed: 31Oct2001 16:58
Run ID: 17 Meth: default Vol (mL): 5.001

CHK. 2	TOC Area	TOC Mass	TOC Conc

Rep	Datafile	(cts)	(ugC)	Tow021 (ppm)
1	1031171	63164	71.006	14.1983
2	1031172	61485	69.087	13.8146
Avg		62324	70.046	14.0064
Std.Dev.		1187.23		
RSD (%)		1.90		

93%

****

Pos/Vial: 19 Name: 110728-1 Analyzed: 31Oct2001 17:18
Run ID: 18 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031173	15362	17.271	3.4534

****

Pos/Vial: 20 Name: 110728-1 DUP Analyzed: 31Oct2001 17:28
Run ID: 19 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031174	15523	17.455	3.4902

0.046

****

Pos/Vial: 21 Name: 110743-1 Analyzed: 31Oct2001 17:38
Run ID: 20 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031175	49469	56.257	11.2492

****

Pos/Vial: 22 Name: 110743-2 Analyzed: 31Oct2001 17:48
Run ID: 21 Meth: default Vol (mL): 5.001

SAMPLES TOC TOC TOC

Rep	Datafile	Area (cts)	Mass (ugC)	Tow021 Conc (ppm)
1	1031176	73477	83.700	16.7367

****

Pos/Vial: 23 Name: 110743-3 X2 Analyzed: 31Oct2001 17:59
Run ID: 22 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031177	49230	55.984	11.1946

x 2 = 22.38

****

Pos/Vial: 24 Name: 110735-1 Analyzed: 31Oct2001 18:09
Run ID: 23 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031178	27468	31.109	6.2205

****

Pos/Vial: 25 Name: 110729-1 Analyzed: 31Oct2001 18:19
Run ID: 24 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031179	161310	184.100	36.8125

Dilute

****

Pos/Vial: 26 Name: 110717-1 Analyzed: 31Oct2001 18:30
Run ID: 25 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031180	8925	9.913	1.9821

****

Pos/Vial: 27 Name: CCB Analyzed: 31Oct2001 18:40
Run ID: 26 Meth: default Vol (mL): 5.001

CHK. 3 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031181	2421	1.572	0.3144
2	1031182	1296	0.286	0.0573
3	1031183	988	-0.066	-0.0131
Avg		1568	0.598	0.1195
Std.Dev.		754.32		
RSD (%)		48.10		

ND

****

Pos/Vial: 28 Name: CCV 15PPM Analyzed: 31Oct2001 19:08
Run ID: 27 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031184	61444	69.040	13.8052
2	1031185	62415	70.150	14.0271
Avg		61929	69.595	13.9162
Std.Dev.		686.60		
RSD (%)		1.11		

93%

****

** SEQUENCE **

****

TOW021A Thu Nov 01 08:46:43 2001

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
2	ICV 10 PPM	DEFAULT	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	DEFAULT	Chk. 2	2	5.000	0	No	
4	110655-1 X5	DEFAULT	Sample	1	5.000	0	No	
5	110655-1 MS X5	DEFAULT	Sample	1	5.000	0	No	
6	110655-1 MSD X5	DEFAULT	Sample	1	5.000	0	No	
7	110638-1 X5	DEFAULT	Sample	1	5.000	0	No	
8	110655-2 X5	DEFAULT	Sample	1	5.000	0	No	
9	110655-3 X5	DEFAULT	Sample	1	5.000	0	No	
10	110729-1 X5	DEFAULT	Sample	1	5.000	0	No	
11	110614-1	DEFAULT	Sample	1	5.000	0	No	
12	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
13	CCV 15 PPM	DEFAULT	Chk. 2	2	5.000	0	No	

E-Autosampler or cover is off. 01Nov2001 08:48

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021A Thu Nov 01 08:46:43 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 13

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	CCB	default	Chk. 3	3	5.000	0	No	
2	ICV 10 PPM	default	Chk. 1	2	5.000	0	No	
3	CCV 15PPM	default	Chk. 2	2	5.000	0	No	
4	110655-1 X5	default	Sample	1	5.000	0	No	
5	110655-1 MS X5	default	Sample	1	5.000	0	No	
6	110655-1 MSD X5	default	Sample	1	5.000	0	No	
7	110638-1 X5	default	Sample	1	5.000	0	No	
8	110655-2 X5	default	Sample	1	5.000	0	No	
9	110655-3 X5	default	Sample	1	5.000	0	No	
10	110729-1 X5	default	Sample	1	5.000	0	No	
11	110614-1	default	Sample	1	5.000	0	No	
12	CCB	default	Chk. 3	3	5.000	0	No	
13	CCV 15 PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW021A **
****

Pos/Vial: 1 Name: CCB Analyzed: 01Nov2001 09:12

Run ID: 28 Meth: default Vol (mL): 5.001

CHK. 3

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A186	968	-0.089	-0.0177
2	1031A187	1025	-0.023	-0.0047
3	1031A188	791	-0.291	-0.0582
Avg		928	-0.134	-0.0268
Std.Dev.		122.02		
RSD (%)		13.15		

ND

****

Pos/Vial: 2 Name: ICV 10 PPM Analyzed: 01Nov2001 09:41
Run ID: 1 Meth: default Vol (mL): 5.001

CHK. 1

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A189	41789	46.573	9.3127
2	1031A190	43032	47.994	9.5968
Avg		42410	47.283	9.4547
Std.Dev.		878.93		
RSD (%)		2.07		

95%

****

Pos/Vial: 3 Name: CCV 15PPM Analyzed: 01Nov2001 10:00
Run ID: 2 Meth: default Vol (mL): 5.001

CHK. 2

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A191	63158	70.999	14.1970
2	1031A192	62423	70.159	14.0290
Avg		62790	70.579	14.1130
Std.Dev.		519.72		
RSD (%)		0.83		

94%

****

Pos/Vial: 4 Name: 110655-1 X5 Analyzed: 01Nov2001 10:19
Run ID: 3 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A193	73213	83.398	16.6763

16.6763 × 5 = 83

****

Pos/Vial: 5 Name: 110655-1 MS X5 Analyzed: 01Nov2001 10:29
Run ID: 4 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A194	108353	123.566	24.7082

Dilute

****

Pos/Vial: 6 Name: 110655-1 MSD X5 Analyzed: 01Nov2001 10:40
Run ID: 5 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A195	109594	124.984	24.9919

Dilute

****

Pos/Vial: 7 Name: 110638-1 X5 Analyzed: 01Nov2001 10:50
Run ID: 6 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A196	25964	29.389	5.8767

5.8767 × 5 = 29

****

Pos/Vial: 8 Name: 110655-2 X5 Analyzed: 01Nov2001 11:00
Run ID: 7 Meth: default Vol (mL): 5.001

SAMPLES TOC TOC TOC

Rep	Datafile	Area (cts)	Mass (ugC)	Tow021a Conc (ppm)
1	1031A197	68470	77.977	15.5922

x 5 = 77.9

****

Pos/Vial: 9 Name: 110655-3 X5 Analyzed: 01Nov2001 11:11
Run ID: 8 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A198	18976	21.402	4.2795

x 5 = 21.3

****

Pos/Vial: 10 Name: 110729-1 X5 Analyzed: 01Nov2001 11:21
Run ID: 9 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A199	33488	37.990	7.5965

x 5 = 37.9

****

Pos/Vial: 11 Name: 110614-1 Analyzed: 01Nov2001 11:31
Run ID: 10 Meth: default Vol (mL): 5.001

SAMPLES Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A200	158789	181.218	36.2363

Dilute

A-Linear range exceeded (130ugC). 01Nov2001 11:41

****

Pos/Vial: 12 Name: CCB Analyzed: 01Nov2001 11:41
Run ID: 11 Meth: default Vol (mL): 5.001

CHK. 3 TOC TOC TOC

Rep	Datafile	Area (cts)	Mass (ugC)	Tow021a Conc (ppm)
1	1031A201	4366	3.796	0.7590
2	1031A202	1999	1.090	0.2179
3	1031A203	1639	0.678	0.1357
Avg		2668	1.855	0.3709
Std.Dev.		1481.49		
RSD (%)		55.53		

ND

****

Pos/Vial: 13 Name: CCV 15 PPM Analyzed: 01Nov2001 12:09
Run ID: 12 Meth: default Vol (mL): 5.001

CHK. 2 Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031A204	60778	68.279	13.6530
2	1031A205	63029	70.852	14.1675
Avg		61903	69.565	13.9102
Std.Dev.		1591.70		
RSD (%)		2.57		

93%

****

** SEQUENCE **

****

TOW021C Thu Nov 01 12:56:56 2001

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110655-1 MS X10	DEFAULT	Sample	1	5.000	0	No	
2	110655-1 MSDX10	DEFAULT	Sample	1	5.000	0	No	
3	110614-1 X5	DEFAULT	Sample	1	5.000	0	No	
4	CCB	DEFAULT	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	DEFAULT	Sample	2	5.000	0	No	

E-Autosampler or cover is off. 01Nov2001 12:57

****
** METHODS **
****

DEFAULT Tue Aug 07 16:15:51 2001

Acid Volume:	200 uL	Rinse Volume (mL):	10
Oxidant Volume:	1000 uL	Rinses Per Rep:	1
Auto-Repeat Time:	00:00:00 (hr:min:sec)	Rinses Per Sample:	1

	TIC	TOC	TC
React: (min:sec):	02:00	02:30	02:30
Detect: (min:sec):	01:00	01:30	01:30

****
** SEQUENCE **
****

TOW021C Thu Nov 01 13:06:55 2001

Start Pos/Vial #: 1, Stop Pos/Vial #: 5

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Ovr Rng	Remarks
1	110655-1 MS X10	default	Sample	1	5.000	0	No	
2	110655-1 MSDX10	default	Sample	1	5.000	0	No	
3	110614-1 X5	default	Sample	1	5.000	0	No	
4	CCB	default	Chk. 3	3	5.000	0	No	
5	CCV 15PPM	default	Chk. 2	2	5.000	0	No	

****
** RESULTS - TOW021C **
****

Pos/Vial: 1 Name: 110655-1 MS X10 Analyzed: 01Nov2001 13:07
Run ID: 13 Meth: default Vol (mL): 5.001

Rep	Datafile	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)
1	1031B206	58743	66.858	13.3690

13.3690 x 10 = 133

$\frac{133 - 83}{50} = 100\%$

060

****

Pos/Vial: 2 Name: 110655-1 MSDX10 Analyzed: 01Nov2001 13:18
Run ID: 1 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B207	52837	60.107	12.0190×10=120

120-83/50 = 74%

****

Pos/Vial: 3 Name: 110614-1 X5 Analyzed: 01Nov2001 13:28
Run ID: 2 Meth: default Vol (mL): 5.001

SAMPLES		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B208	31791	36.050	7.2086

×5 = 36

****

Pos/Vial: 4 Name: CCB Analyzed: 01Nov2001 13:39
Run ID: 3 Meth: default Vol (mL): 5.001

CHK. 3		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)
1	1031B209	1663	0.706	0.1411
2	1031B210	1137	0.105	0.0209
3	1031B211	1012	-0.038	-0.0076
Avg		1270	0.257	0.0515
Std.Dev.		345.47		
RSD (%)		27.19		

****

Pos/Vial: 5 Name: CCV 15PPM Analyzed: 01Nov2001 14:07
Run ID: 4 Meth: default Vol (mL): 5.001

CHK. 2		TOC Area	TOC Mass	TOC Conc
Rep	Datafile	(cts)	(ugC)	(ppm)

				Tow021b
1	1031B212	62331	70.054	14.0079
2	1031B213	62755	70.538	14.1048
Avg		62543	70.296	14.0564
Std.Dev.		299.81		
RSD (%)		0.48		

CL 325.2/SM4500CL E/SW9251 CKW61A, B, C

	Area	mg Cl/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 2nd Poly
1	649819	100.0	649819					0.0	0.0	1.5
2	464701	50.0	464701					0.0	0.0	-7.3
3	288861	25.0	288861					0.0	0.0	4.9
4	136591	10.0	136591					0.0	0.0	21.0
5	71369	5.0	71369					0.0	0.0	21.3
6	32047	2.5	32047					0.0	0.0	5.2
7	13135	1.0	13135					0.0	0.0	-83.6
8	0	0.0	0					0.0	0.0	

2nd Order Poly
Conc = 2.001e-010 Area² + 1.915e-005 Area + 1.550e+000
r = 0.9985

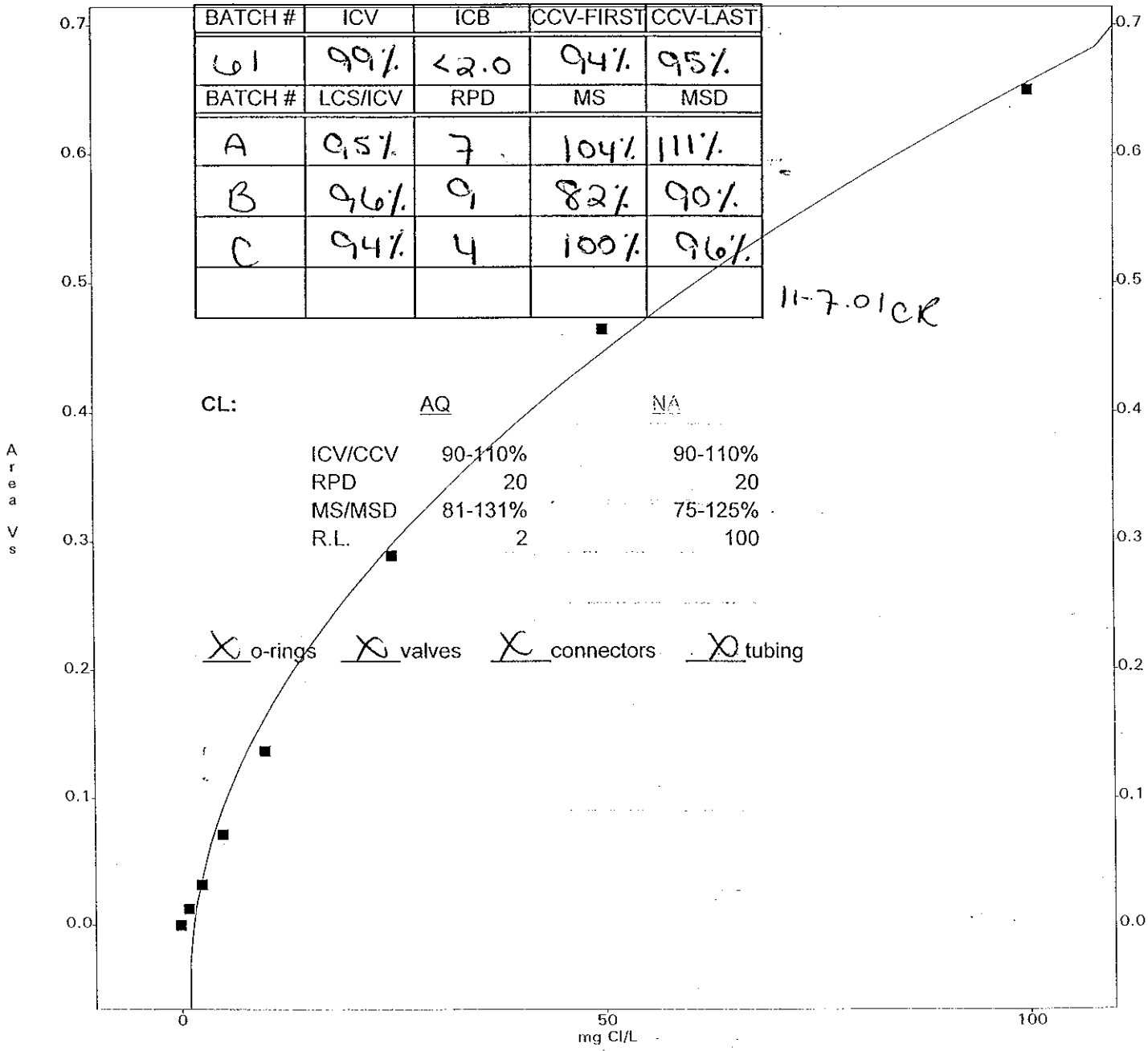
Scaling: None - Weighting: None

BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
61	99%	<2.0	94%	95%
BATCH #	LCS/ICV	RPD	MS	MSD
A	95%	7	104%	111%
B	96%	9	82%	90%
C	94%	4	100%	96%

11-7-01 CK

CL:	AQ	NA
ICV/CCV	90-110%	90-110%
RPD	20	20
MS/MSD	81-131%	75-125%
R.L.	2	100

X o-rings X valves X connectors X tubing



Printed: Wednesday, November 07, 2001 - 12:33 PM

CKW61A, B, C

OPERATOR: C ROBERTS
ACQ. TIME: Nov 7, 2001 11:54:00
DATA FILENAME: C:\OMNION\DATA\CKW61A.FDT
METHOD FILENAME: C:\OMNION\METHODS\CHL.MET
TRAY FILENAME: C:\OMNION\TRAYS\CKW61A.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:
Created: Oct 12, 1998 8:59:20
Modified: Nov 2, 2001 10:06:01
chloride: CHL.MET

ANALYTE DATA:
Analyte Name: CL 325.2/SM4500CL E/SW9251
Concentration Units: mg Cl/L
Chemistry: Bipolar
Inject to Peak Start (s): 5.0
Peak Base Width (s): 18.000
% Width Tolerance: 80.000
Threshold: 8370.000
Autodilution Trigger: Off
QuikChem Method:

CALIBRATION DATA:
Levels:
1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling: Replace
Calibration Fit Type: 2nd Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 40.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 40.0
Sample Reaches 1st Valve: 21.0
Valve: On
Load Time: 0.0
Load Period: 15.0
Inject Period: 25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251-(uv-s)
1	100.0 PPM CHLOR	07 Nov 2001	11:54:01	1	649819.00
2	50.0 PPM CHLO	07 Nov 2001	11:54:38	1	464701.00
3	25.0 PPM CHLO	07 Nov 2001	11:55:16	1	288861.00
4	10.0 PPM CHLO	07 Nov 2001	11:55:54	1	136591.00
5	5.00 PPM CHLO	07 Nov 2001	11:56:32	1	71369.00
6	2.50 PPM CHLO	07 Nov 2001	11:57:11	1	32047.00
7	1.00 PPM CHLO	07 Nov 2001	11:57:50	1	13135.00
8	0.00 PPM CHLO	07 Nov 2001	11:58:29	1	0.00

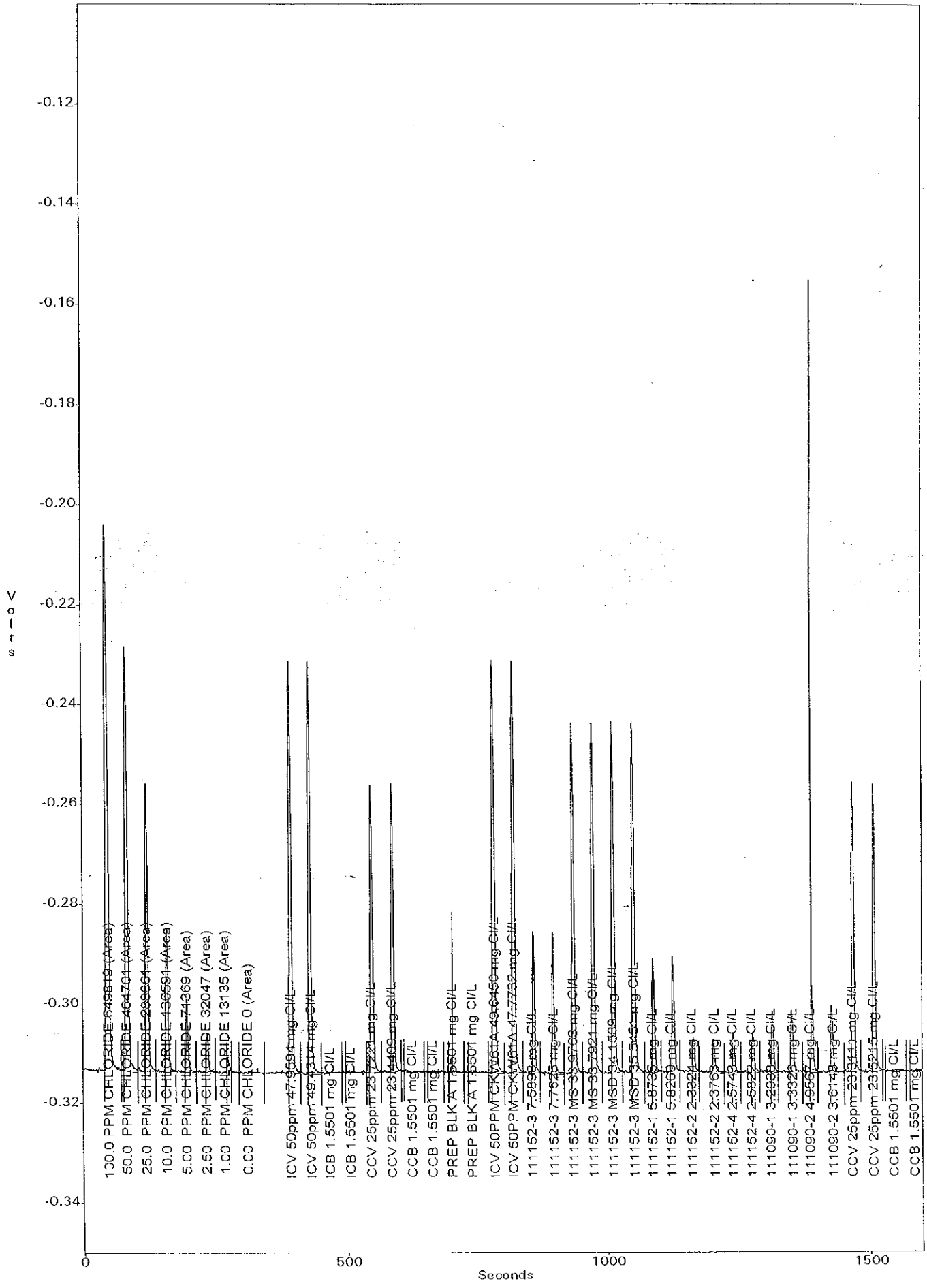
Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	07 Nov 2001	12:05:01	1	ND 1.5501	1.0	1.00	1.00000	g
				12:05:39	2	1.5501				
2	ICV 50PPM CKW61A	RelChkStd	07 Nov 2001	12:06:18	1	95% 49.6450	1.0	1.00	1.00000	g
				12:06:56	2	47.7732				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	111152-3	Dup1	07 Nov 2001	12:07:35	1	7.5898	1.0	1.00	1.00000	g
				12:08:13	2	7.7625				
4	111152-3 MS	Spiked	07 Nov 2001	12:08:52	1	104% 33.9763	1.0	1.00	1.00000	g
				12:09:30	2	33.7921				
				Spike Level:		RPD=7 0.0000				
				% Spike Recovery:		100.0000				
5	111152-3 MSD	Dup1	07 Nov 2001	12:10:09	1	111% 34.1589	1.0	1.00	1.00000	g
				12:10:47	2	35.5451				
9	ICV 50ppm	RelChkStd	07 Nov 2001	11:59:48	1	99% 47.9594	1.0	1.00	1.00000	g
				12:00:24	2	49.4314				
				Known Concentration:		50.0000				
				% Difference:		-2.6092				
15	CCV 25ppm	RelChkStd	07 Nov 2001	12:02:23	1	94% 23.7221	1.0	1.00	1.00000	g
				12:03:03	2	23.4409				
				Known Concentration:		25.0000				
				% Difference:		-5.6739				
15	CCV 25ppm	RelChkStd	07 Nov 2001	12:17:44	1	94% 23.3111	1.0	1.00	1.00000	g
				12:18:24	2	23.5215				
				Known Concentration:		25.0000				
				% Difference:		-6.3347				
15	CCV 25ppm	RelChkStd	07 Nov 2001	12:32:57	1	95% 23.5029	1.0	1.00	1.00000	g
				12:33:37	2	23.7507				
				Known Concentration:		25.0000				
				% Difference:		-5.4929				
15	CCV 25ppm	RelChkStd	07 Nov 2001	12:43:09	1	95% 23.5188	1.0	1.00	1.00000	g
				12:43:48	2	23.8555				
				Known Concentration:		25.0000				
				% Difference:		-5.2513				
16	ICB	Blank	07 Nov 2001	12:01:05	1	ND 1.5501	1.0	1.00	1.00000	g
				12:01:44	2	1.5501				
16	CCB	Blank	07 Nov 2001	12:03:43	1	ND 1.5501	1.0	1.00	1.00000	g
				12:04:23	2	1.5501				
16	CCB	Blank	07 Nov 2001	12:19:04	1	ND 1.5501	1.0	1.00	1.00000	g
				12:19:43	2	1.5501				
16	CCB	Blank	07 Nov 2001	12:34:17	1	ND 1.5501	1.0	1.00	1.00000	g
				12:34:56	2	1.5501				
16	CCB	Blank	07 Nov 2001	12:44:28	1	ND 1.5501	1.0	1.00	1.00000	g
				12:45:07	2	1.5501				

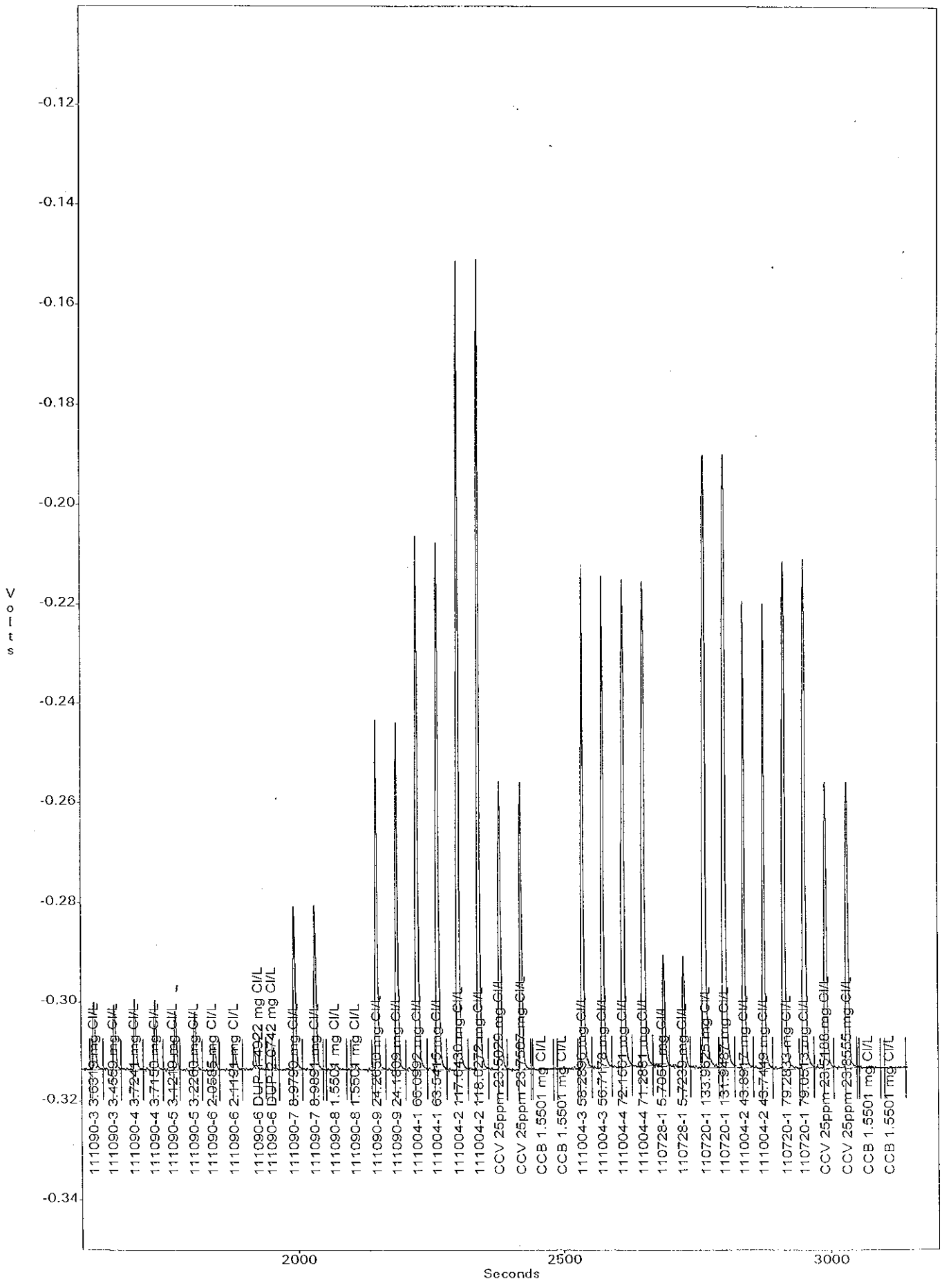
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	111152-1	07 Nov 2001	12:11:25	1	5.8735	1.0	1.00	1.00000	g	
			12:12:03	2	5.8260					
7	111152-2	07 Nov 2001	12:12:41	1	2.3324	1.0	1.00	1.00000	g	
			12:13:20	2	2.3763					
8	111152-4	07 Nov 2001	12:13:57	1	2.5743	1.0	1.00	1.00000	g	
			12:14:35	2	2.5822					
9	111090-1	07 Nov 2001	12:15:12	1	3.2938	1.0	1.00	1.00000	g	
			12:15:49	2	3.3326					
10	111090-2	07 Nov 2001	12:16:27	1	4.9567	1.0	1.00	1.00000	g	
			12:17:04	2	3.6148					
11	111090-3	07 Nov 2001	12:20:20	1	3.6319	1.0	1.00	1.00000	g	
			12:20:57	2	3.4559					
12	111090-4	07 Nov 2001	12:21:35	1	3.7241	1.0	1.00	1.00000	g	
			12:22:12	2	3.7150					
13	111090-5	07 Nov 2001	12:22:50	1	3.1219	1.0	1.00	1.00000	g	
			12:23:26	2	3.2260					
14	111090-6	07 Nov 2001	12:24:03	1	2.0585	1.0	1.00	1.00000	g	
			12:24:40	2	2.1191					
15	111090-6 DUP	07 Nov 2001	12:25:16	1	1.4922	1.0	1.00	1.00000	g	
			12:25:53	2	2.0742					
16	111090-7	07 Nov 2001	12:26:31	1	8.9790	1.0	1.00	1.00000	g	
			12:27:10	2	8.9891					
17	111090-8	07 Nov 2001	12:27:48	1	1.5501	1.0	1.00	1.00000	g	
			12:28:27	2	1.5501					
18	111090-9	07 Nov 2001	12:29:05	1	121.3249	5.0	1.00	1.00000	g	
			12:29:44	2	120.9045					
19	111004-1	07 Nov 2001	12:30:22	1	660.9915	10.0	1.00	1.00000	g	
			12:31:00	2	635.4148					
20	111004-2	07 Nov 2001	12:31:39	1	2352.8596	20.0	1.00	1.00000	g	See Cup # 25
			12:32:17	2	2360.5439					
21	111004-3	07 Nov 2001	12:35:34	1	582.8965	10.0	1.00	1.00000	g	
			12:36:13	2	567.1780					
22	111004-4	07 Nov 2001	12:36:51	1	72.1561	1.0	1.00	1.00000	g	
			12:37:29	2	71.2881					
23	110728-1	07 Nov 2001	12:38:07	1	5.7051	1.0	1.00	1.00000	g	
			12:38:45	2	5.7239					
24	110720-1	07 Nov 2001	12:39:22	1	133.9625	1.0	1.00	1.00000	g	See Cup # 26
			12:39:59	2	131.9487					
25	111004-2	07 Nov 2001	12:40:37	1	1755.6672	40.0	1.00	1.00000	g	
			12:41:14	2	1749.7944					
26	110720-1	07 Nov 2001	12:41:52	1	158.5665	2.0	1.00	1.00000	g	
			12:42:29	2	158.1026					

Channel 1 - CL 325.2/SM4500CL E/SW9251



Channel 1 - CL 325.2/SM4500CL E/SW9251



068

CKW61B

OPERATOR:	C ROBERTS
ACQ. TIME:	Nov 7, 2001 12:53:28
DATA FILENAME:	C:\OMNION\DATA\CKW61B.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW61B.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Nov 2, 2001 10:06:01

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

CKW61B

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV 25ppm	RelChkStd	07 Nov 2001	12:53:32	1	94% 23.1421	1.0	1.00	1.00000	g
				12:54:12	2	23.6791				
				Known Concentration:		25.0000				
				% Difference:		-6.3577				
15	CCV 25ppm	RelChkStd	07 Nov 2001	13:08:51	1	94% 23.2786	1.0	1.00	1.00000	g
				13:09:30	2	23.6171				
				Known Concentration:		25.0000				
				% Difference:		-6.2085				
15	CCV 25ppm	RelChkStd	07 Nov 2001	13:24:06	1	94% 23.8758	1.0	1.00	1.00000	g
				13:24:45	2	23.4326				
				Known Concentration:		25.0000				
				% Difference:		-5.3831				
15	CCV 25ppm	RelChkStd	07 Nov 2001	13:33:10	1	93% 23.8890	1.0	1.00	1.00000	g
				13:33:50	2	23.3201				
				Known Concentration:		25.0000				
				% Difference:		-5.5818				
16	CCB	Blank	07 Nov 2001	12:54:52	1	ND 1.5501	1.0	1.00	1.00000	g
				12:55:31	2	1.5501				
16	CCB	Blank	07 Nov 2001	13:10:10	1	ND 1.5501	1.0	1.00	1.00000	g
				13:10:50	2	1.5501				
16	CCB	Blank	07 Nov 2001	13:25:25	1	ND 1.5501	1.0	1.00	1.00000	g
				13:26:05	2	1.5501				
16	CCB	Blank	07 Nov 2001	13:34:30	1	ND 1.5501	1.0	1.00	1.00000	g
				13:35:10	2	1.5501				
27	PREP BLK B	Blank	07 Nov 2001	12:56:08	1	ND 1.5501	1.0	1.00	1.00000	g
				12:56:46	2	1.5501				
28	ICV 50PPM CKW61B	RelChkStd	07 Nov 2001	12:57:23	1	96% 48.4818	1.0	1.00	1.00000	g
				12:58:00	2	48.1864				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
29	110469-28	Dup1	07 Nov 2001	12:58:38	1	115.9793	1.0	1.00	1.00000	g
				12:59:15	2	116.2794				
30	110469-28 MS	Spiked	07 Nov 2001	12:59:52	1	129.6769	1.0	1.00	1.00000	g
				13:00:29	2	129.0019				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
31	110469-28 MSD	Dup1	07 Nov 2001	13:01:07	1	130.7438	1.0	1.00	1.00000	g
				13:01:46	2	126.1120				

See Cup

070

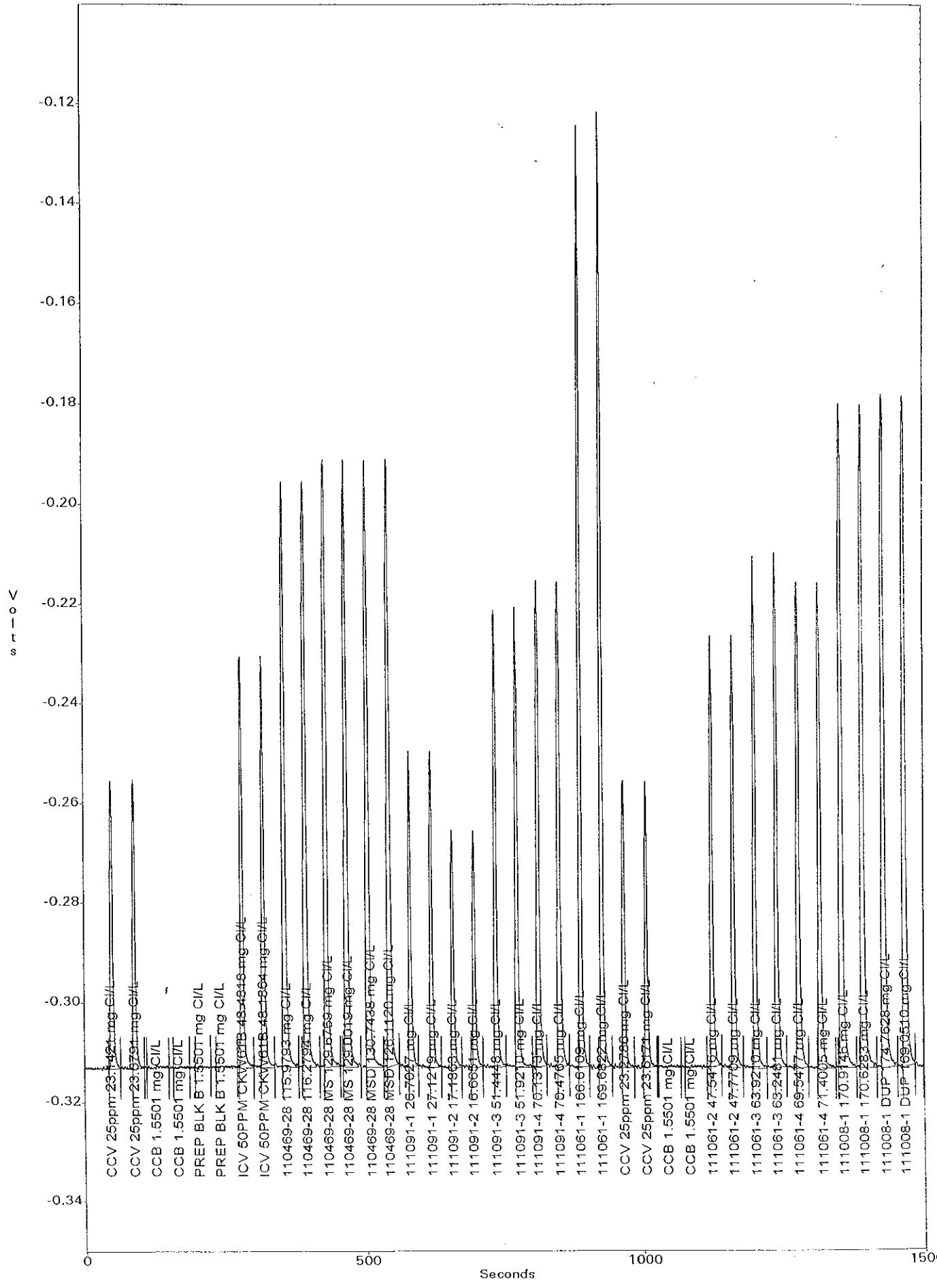
UKWUID

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 90

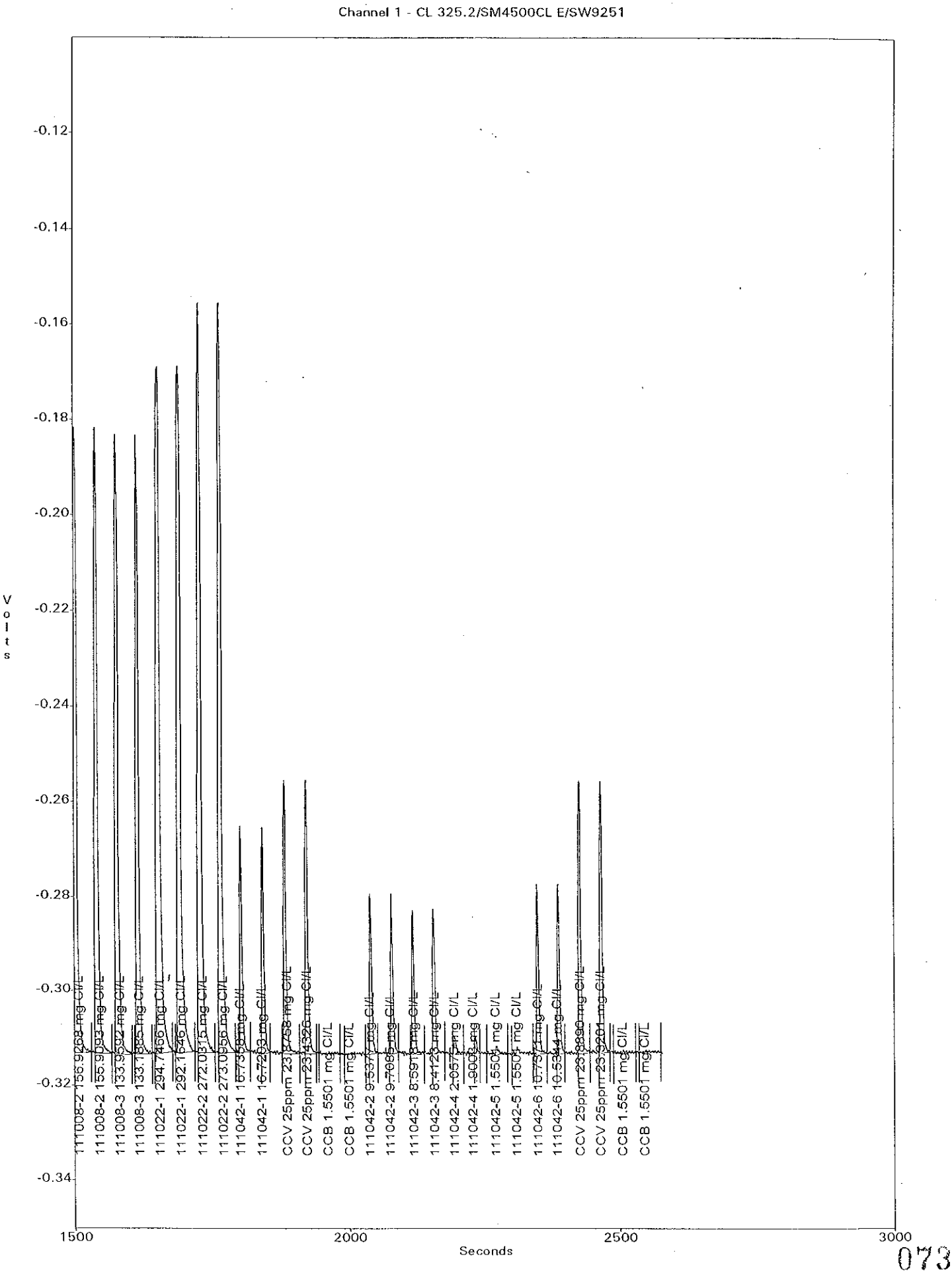
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
32	111091-1	07 Nov 2001	13:02:24	1	534.0538	5/10 20.0	1.00	1.00000	g	
			13:03:03	2	542.4372					
33	111091-2	07 Nov 2001	13:03:41	1	171.8629	1/10 10.0	1.00	1.00000	g	
			13:04:20	2	166.6512					
34	111091-3	07 Nov 2001	13:04:58	1	514.4476	↓ 10.0	1.00	1.00000	g	
			13:05:37	2	519.2103					
35	111091-4	07 Nov 2001	13:06:15	1	70.1313	1.0	1.00	1.00000	g	
			13:06:54	2	70.4765					
36	111061-1	07 Nov 2001	13:07:32	1	3332.2173	20.0	1.00	1.00000	g	See Cup # 82
			13:08:11	2	3393.6440					
37	111061-2	07 Nov 2001	13:11:27	1	475.4160	1/10 10.0	1.00	1.00000	g	
			13:12:06	2	477.7093					
38	111061-3	07 Nov 2001	13:12:44	1	639.2098	↓ 10.0	1.00	1.00000	g	
			13:13:23	2	632.4807					
39	111061-4	07 Nov 2001	13:14:01	1	69.5477	1.0	1.00	1.00000	g	
			13:14:39	2	71.4005					
40	111008-1	07 Nov 2001	13:15:16	1	170.9146	1.0	1.00	1.00000	g	See Cup # 83
			13:15:53	2	170.6283					
41	111008-1 DUP	07 Nov 2001	13:16:31	1	174.7628	1.0	1.00	1.00000	g	84
			13:17:08	2	169.0510					
42	111008-2	07 Nov 2001	13:17:46	1	156.9268	1.0	1.00	1.00000	g	57
			13:18:23	2	155.9093					
43	111008-3	07 Nov 2001	13:19:01	1	133.9592	1.0	1.00	1.00000	g	58
			13:19:38	2	133.1885					
44	111022-1	07 Nov 2001	13:20:15	1	294.7466	1.0	1.00	1.00000	g	59
			13:20:53	2	292.1646					
45	111022-2	07 Nov 2001	13:21:30	1	272.0315	1.0	1.00	1.00000	g	60
			13:22:08	2	273.0956					
46	111042-1	07 Nov 2001	13:22:46	1	16.7358	1.0	1.00	1.00000	g	
			13:23:26	2	16.7203					
47	111042-2	07 Nov 2001	13:26:43	1	9.5377	1.0	1.00	1.00000	g	
			13:27:22	2	9.7085					
48	111042-3	07 Nov 2001	13:28:01	1	8.5918	1.0	1.00	1.00000	g	
			13:28:40	2	8.4123					
49	111042-4	07 Nov 2001	13:29:18	1	2057.4666	1/100 1000.0	@1.00	1.00000	g	
			13:29:57	2	1900.3118					
50	111042-5	07 Nov 2001	13:30:35	1	1550.1117	↓ 1000.0	@1.00	1.00000	g	
			13:31:14	2	1550.1117					
51	111042-6	07 Nov 2001	13:31:52	1	10.7371	1.0	1.00	1.00000	g	
			13:32:31	2	10.5344					

071

Channel 1 - CL 325.2/SM4500CL E/SW9251



072


Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
1500
2000
2500
3000
Seconds
111008-2 156.9268 mg Cl/L
111008-2 155.9093 mg Cl/L
111008-3 133.9592 mg Cl/L
111008-3 133.1885 mg Cl/L
111022-1 294.7466 mg Cl/L
111022-1 292.1646 mg Cl/L
111022-2 272.0315 mg Cl/L
111022-2 273.0956 mg Cl/L
111042-1 16.7358 mg Cl/L
111042-1 16.7269 mg Cl/L
CCV 25ppm 23.7758 mg Cl/L
CCV 25ppm 23.4326 mg Cl/L
CCB 1.5501 mg Cl/L
CCB 1.5501 mg Cl/L
111042-2 9.5377 mg Cl/L
111042-2 9.7085 mg Cl/L
111042-3 8.5918 mg Cl/L
111042-3 8.4123 mg Cl/L
111042-4 2.0577 mg Cl/L
111042-4 1.9003 mg Cl/L
111042-5 1.5504 mg Cl/L
111042-5 1.5501 mg Cl/L
111042-6 16.7321 mg Cl/L
111042-6 16.5344 mg Cl/L
CCV 25ppm 23.9890 mg Cl/L
CCV 25ppm 23.9201 mg Cl/L
CCB 1.5501 mg Cl/L
CCB 1.5501 mg Cl/L

CKW61C

OPERATOR:	C ROBERTS
ACQ. TIME:	Nov 7, 2001 13:58:12
DATA FILENAME:	C:\OMNION\DATA\CKW61C.FDT
METHOD FILENAME:	C:\OMNION\METHODS\CHL.MET
TRAY FILENAME:	C:\OMNION\TRAYS\CKW61C.TRA

Method - Ch. 1 (CL 325.2/SM4500CL E/SW9251)

METHOD DESCRIPTION:

Created:	Oct 12, 1998 8:59:20
Modified:	Nov 2, 2001 10:06:01

chloride: CHL.MET

ANALYTE DATA:

Analyte Name:	CL 325.2/SM4500CL E/SW9251
Concentration Units:	mg Cl/L
Chemistry:	Bipolar
Inject to Peak Start (s):	5.0
Peak Base Width (s):	18.000
% Width Tolerance:	80.000
Threshold:	8370.000
Autodilution Trigger:	Off
QuikChem Method:	

CALIBRATION DATA:

Levels:

1 : 100.000 2 : 50.000 3 : 25.000 4 : 10.000
5 : 5.000 6 : 2.500 7 : 1.000 8 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	2nd Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	40.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	14.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

Method Cycle Period:	40.0
Sample Reaches 1st Valve:	21.0
Valve:	On
Load Time:	0.0
Load Period:	15.0
Inject Period:	25.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (uv-s)

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

CKW61C

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 90

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV 25ppm	RelChkStd	07 Nov 2001	13:58:16	1	23.7104	1.0	1.00	1.00000	g
				13:58:55	2	23.2902				
				Known Concentration:		25.0000				
				% Difference:		-5.9988				
15	CCV 25ppm	RelChkStd	07 Nov 2001	14:14:50	1	23.8924	1.0	1.00	1.00000	g
				14:15:30	2	23.7124				
				Known Concentration:		25.0000				
				% Difference:		-4.7903				
15	CCV 25ppm	RelChkStd	07 Nov 2001	14:30:17	1	23.6663	1.0	1.00	1.00000	g
				14:30:57	2	23.3596				
				Known Concentration:		25.0000				
				% Difference:		-5.9483				
15	CCV 25ppm	RelChkStd	07 Nov 2001	14:45:47	1	24.4410	1.0	1.00	1.00000	g
				14:46:27	2	23.3037				
				Known Concentration:		25.0000				
				% Difference:		-4.5107				
15	CCV 25ppm	RelChkStd	07 Nov 2001	14:54:50	1	23.5578	1.0	1.00	1.00000	g
				14:55:29	2	23.7750				
				Known Concentration:		25.0000				
				% Difference:		-5.3343				
16	CCB	Blank	07 Nov 2001	13:59:35	1	1.5501	1.0	1.00	1.00000	g
				14:00:15	2	1.5501				
16	CCB	Blank	07 Nov 2001	14:16:10	1	1.5501	1.0	1.00	1.00000	g
				14:16:50	2	1.5501				
16	CCB	Blank	07 Nov 2001	14:31:37	1	1.5501	1.0	1.00	1.00000	g
				14:32:16	2	1.5501				
16	CCB	Blank	07 Nov 2001	14:47:07	1	1.5501	1.0	1.00	1.00000	g
				14:47:47	2	1.5501				
16	CCB	Blank	07 Nov 2001	14:56:09	1	1.5501	1.0	1.00	1.00000	g
				14:56:49	2	1.5501				
61	PREP BLK C	Blank	07 Nov 2001	14:12:13	1	1.5501	1.0	1.00	1.00000	g
				14:12:52	2	1.5501				
62	ICV 50PPM CKW61C	RelChkStd	07 Nov 2001	14:13:32	1	47.1996	1.0	1.00	1.00000	g
				14:14:11	2	47.0436				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
63	111138-4	Dup1	07 Nov 2001	14:17:28	1	93.3914	1.0	1.00	1.00000	g
				14:18:07	2	96.0871				
64	111138-4 MS	Spiked	07 Nov 2001	14:18:45	1	110.8696	1.0	1.00	1.00000	g
				14:19:24	2	109.4989				
				Spike Level:		0.0000				
				% Spike Recovery:		100.0000				
65	111138-4 MSD	Dup1	07 Nov 2001	14:20:02	1	107.8496	1.0	1.00	1.00000	g
				14:20:41	2	108.4092				

See Cup

CKW 6/1C

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 70

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
52	110469-28	07 Nov 2001	14:00:53	1	128.2383	5/10 2.0	1.00	1.00000	g
			14:01:31	2	126.3365				
53	110469-28 MS	07 Nov 2001	14:02:10	1	82% 165.4922	↓ 2.0	1.00	1.00000	g
			14:02:48	2	RPD=9 167.3415				
54	110469-28 MSD	07 Nov 2001	14:03:27	1	90% 171.5542	↓ 2.0	1.00	1.00000	g
			14:04:04	2	163.6375				
55	111008-1	07 Nov 2001	14:04:42	1	207.8773	2.0	1.00	1.00000	g See Cup# ↓
			14:05:19	2	217.1996				
56	111008-1 DUP	07 Nov 2001	14:05:56	1	215.6098	2.0	1.00	1.00000	g
			14:06:34	2	214.0084				
57	111008-2	07 Nov 2001	14:07:11	1	192.2337	5/10 2.0	1.00	1.00000	g
			14:07:49	2	188.9444	↓			
58	111008-3	07 Nov 2001	14:08:26	1	144.6387	↓ 2.0	1.00	1.00000	g
			14:09:04	2	140.8744				
59	111022-1	07 Nov 2001	14:09:41	1	774.1295	1/10 10.0	1.00	1.00000	g
			14:10:18	2	776.2267				
60	111022-2	07 Nov 2001	14:10:56	1	554.5405	↓ 10.0	1.00	1.00000	g
			14:11:33	2	527.8752				
66	111138-1	07 Nov 2001	14:21:19	1	1932.7972	5/10 20.0	1.00	1.00000	g
			14:21:58	2	1892.6433				
67	111138-2	07 Nov 2001	14:22:36	1	472.7937	10.0	1.00	1.00000	g
			14:23:15	2	484.9814				
68	111138-3	07 Nov 2001	14:23:53	1	854.8710	10.0	1.00	1.00000	g
			14:24:31	2	855.5651				
69	111126-9	07 Nov 2001	14:25:10	1	~0 1.5501	1.0	1.00	1.00000	g
			14:25:48	2	1.5501				
70	111126-10	07 Nov 2001	14:26:27	1	~0 1.5501	1.0	1.00	1.00000	g
			14:27:05	2	1.5501				

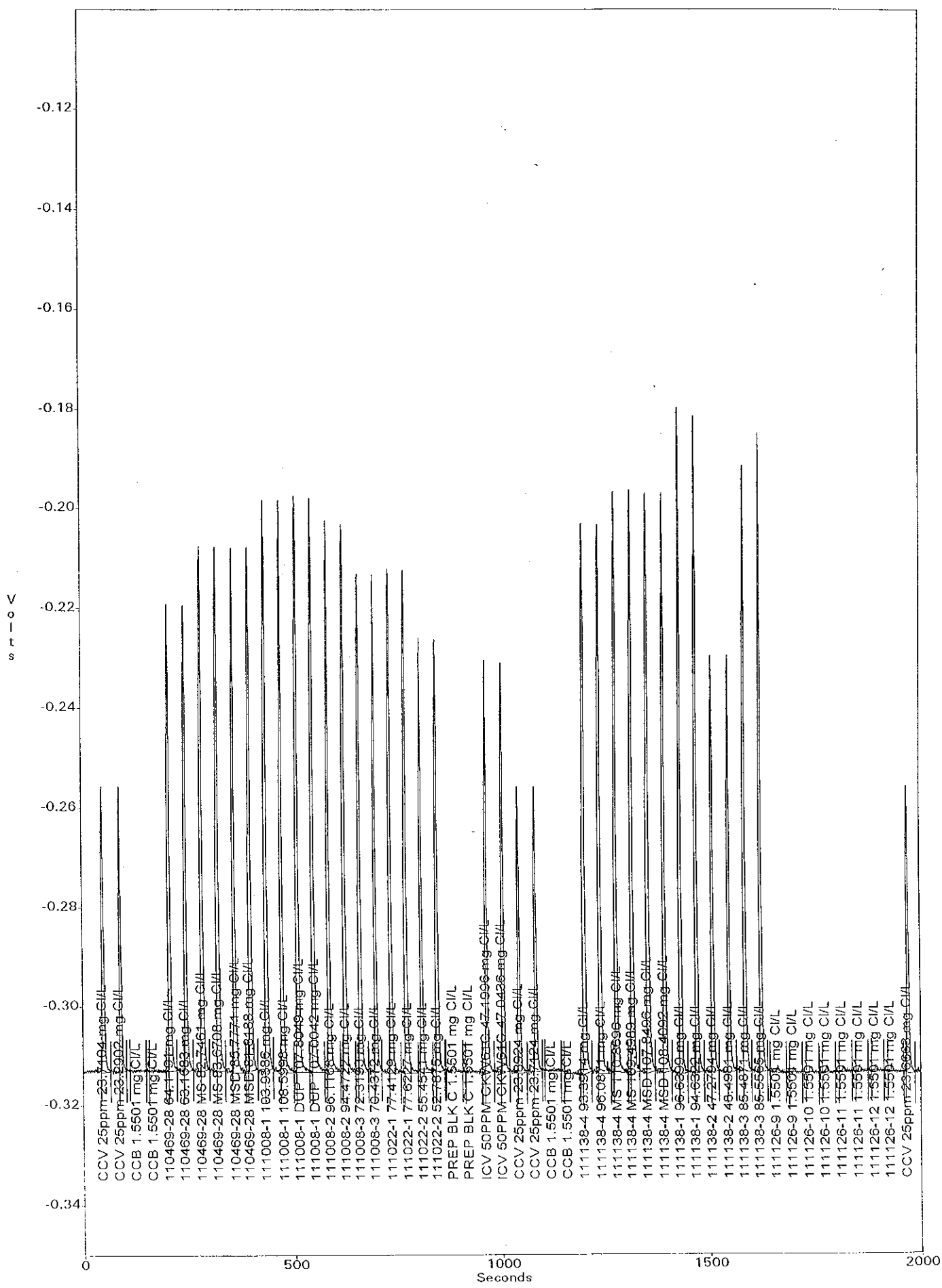
CKW101C

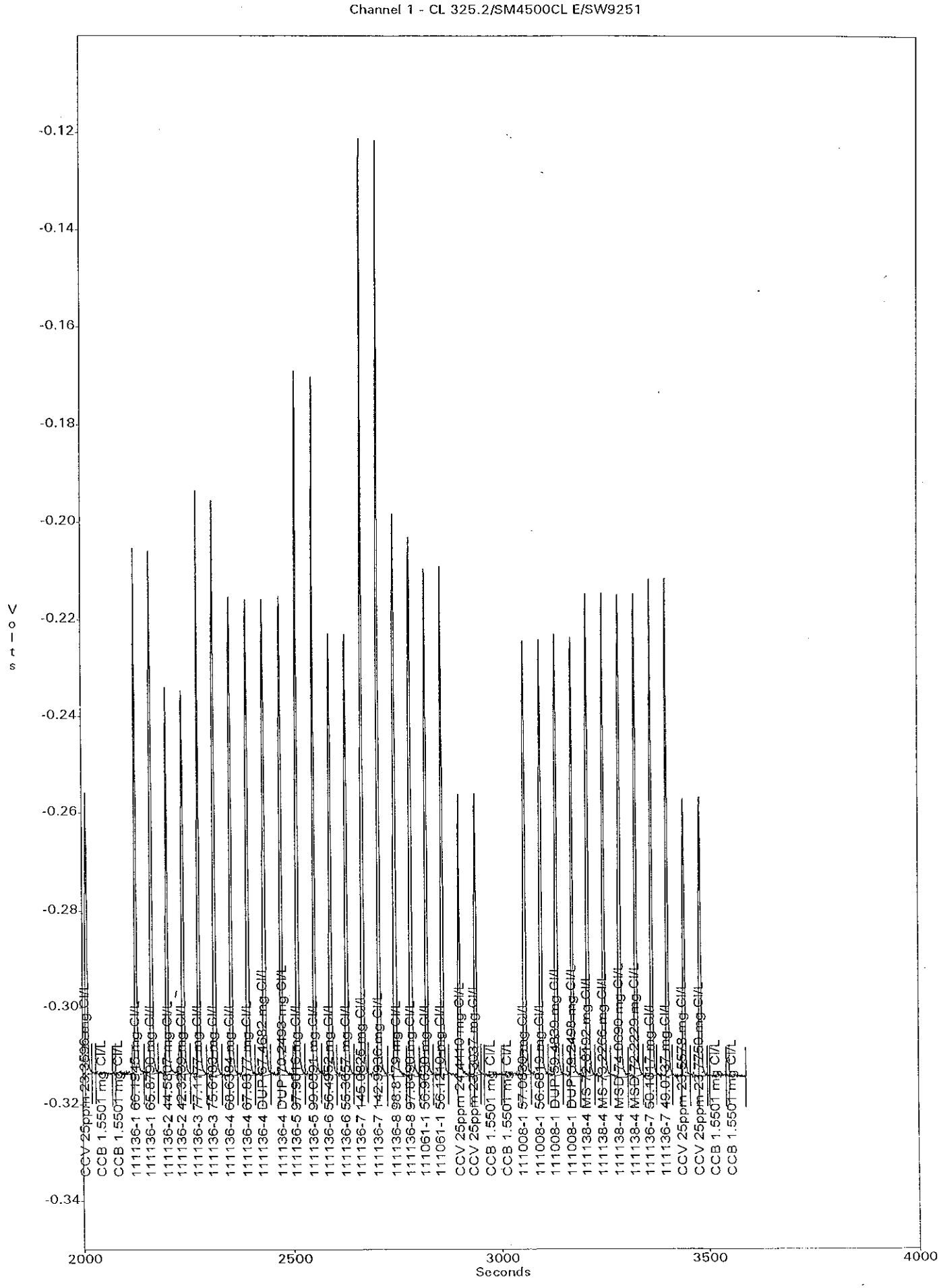
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 71 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	CL 325.2/SM4500CL E/SW9251 (mg Cl/L)	Man Dil Factor	Auto Dil Factor	Weight	Unit
71	111126-11	07 Nov 2001	14:27:44	1	~D 1.5501	1.0	1.00	1.00000	g
			14:28:22	2	1.5501				
72	111126-12	07 Nov 2001	14:29:01	1	~D 1.5501	1.0	1.00	1.00000	g
			14:29:38	2	1.5501				
73	111136-1	07 Nov 2001	14:32:54	1	1323.8905	5/10 20.0	1.00	1.00000	g
			14:33:31	2	1317.5801				
74	111136-2	07 Nov 2001	14:34:08	1	445.8069	1/10 10.0	1.00	1.00000	g
			14:34:46	2	423.2393				
75	111136-3	07 Nov 2001	14:35:23	1	771.1766	↓ 10.0	1.00	1.00000	g
			14:36:01	2	756.1826				
76	111136-4	07 Nov 2001	14:36:40	1	68.6384	1.0	1.00	1.00000	g
			14:37:20	2	67.8377				
77	111136-4 DUP	07 Nov 2001	14:37:59	1	67.4682	1.0	1.00	1.00000	g
			14:38:39	2	70.2493				
78	111136-5	07 Nov 2001	14:39:18	1	1958.0325	5/10 20.0	1.00	1.00000	g
			14:39:58	2	1981.1818				
79	111136-6	07 Nov 2001	14:40:37	1	564.9521	1/10 10.0	1.00	1.00000	g
			14:41:16	2	553.6566				
80	111136-7	07 Nov 2001	14:41:55	1	1450.8251	10.0	1.00	1.00000	g
			14:42:34	2	1429.9363				
81	111136-8	07 Nov 2001	14:43:12	1	98.8179	1.0	1.00	1.00000	g
			14:43:51	2	97.8490				
82	111061-1	07 Nov 2001	14:44:29	1	2278.5210	5/10→5/10 40.0	1.00	1.00000	g
			14:45:08	2	2244.8416				
83	111008-1	07 Nov 2001	14:48:25	1	228.3319	5/10→5/10 4.0	1.00	1.00000	g
			14:49:04	2	226.7277				
84	111008-1 DUP	07 Nov 2001	14:49:42	1	237.9355	↓ 4.0	1.00	1.00000	g
			14:50:21	2	236.9992				
85	111138-4 MS	07 Nov 2001	14:50:59	1	100% 145.6384	5/10 2.0	1.00	1.00000	g
			14:51:38	2	RPD=1 146.4532				
86	111138-4 MSD	07 Nov 2001	14:52:16	1	148.1380	↓ 2.0	1.00	1.00000	g
			14:52:55	2	96% 144.4458				
87	111136-7	07 Nov 2001	14:53:33	1	1002.0331	1/10→5/10 20.0	1.00	1.00000	g
			14:54:10	2	981.4740				

See Cup # 87

Channel 1 - CL 325.2/SM4500CL E/SW9251




Channel 1 - CL 325.2/SM4500CL E/SW9251
Volts
-0.12
-0.14
-0.16
-0.18
-0.20
-0.22
-0.24
-0.26
-0.28
-0.30
-0.32
-0.34
2000
2500
3000
3500
4000
Seconds
CCV 25ppm 23:35:06 mg Cl/L
CCB 1.550T mg Cl/L
CCB 1.550T mg Cl/L
111136-1 66:19:46 mg Cl/L
111136-1 65:87:50 mg Cl/L
111136-2 44:58:07 mg Cl/L
111136-2 42:32:59 mg Cl/L
111136-3 77:41:27 mg Cl/L
111136-3 75:61:00 mg Cl/L
111136-4 68:63:84 mg Cl/L
111136-4 67:65:77 mg Cl/L
111136-4 DUP 67:46:82 mg Cl/L
111136-4 DUP 70:24:98 mg Cl/L
111136-5 97:90:16 mg Cl/L
111136-5 99:05:91 mg Cl/L
111136-6 56:49:52 mg Cl/L
111136-6 55:36:57 mg Cl/L
111136-7 145:06:26 mg Cl/L
111136-7 142:93:36 mg Cl/L
111136-8 98:81:79 mg Cl/L
111136-8 97:84:90 mg Cl/L
111061-1 56:96:36 mg Cl/L
111061-1 56:12:40 mg Cl/L
CCV 25ppm 24:44:10 mg Cl/L
CCV 25ppm 23:30:37 mg Cl/L
CCB 1.550T mg Cl/L
CCB 1.550T mg Cl/L
111008-1 57:06:30 mg Cl/L
111008-1 56:68:19 mg Cl/L
111008-1 DUP 59:48:39 mg Cl/L
111008-1 DUP 59:24:98 mg Cl/L
111138-4 MS 72:85:92 mg Cl/L
111138-4 MS 73:22:66 mg Cl/L
111138-4 MSD 74:06:90 mg Cl/L
111138-4 MSD 72:22:29 mg Cl/L
111136-7 50:10:47 mg Cl/L
111136-7 49:07:37 mg Cl/L
CCV 25ppm 24:15:78 mg Cl/L
CCV 25ppm 23:17:50 mg Cl/L
CCB 1.550T mg Cl/L
CCB 1.550T mg Cl/L

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST LB

Time 800

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	PrepBlk	DI Water	
	ICV		
	110469-28	WW	
	1109-1		
	2		
	3		
	4		
	111061-1		
	2		
	3		
	4		
	111008-1		
	2		
	3		
	111022-1		
	2		
	111042-1		
	2		
	3		
	4		
	5		
	6		
	110469-RB	11-7-01	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

Times 8:00

ANALYST RB

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	Prep Blk	DI water	
	ICV	↓	
	111152-1	WW	
	-2		
	-3		
	-4		
	111190-1		
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	-9		
	111004-1		
	-2		
	-3		
	-4		
	110728-1		
↓	110720-1	↓	

STL PENSACOLA
CHLORIDE FILTER LOG for LACHAT
325.2 / SM 4500 CL E / SW 9251

ANALYST RB

Time 800

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	Prep BTK	DI Water	
	ICV	↓	
	111138-1	WW	
	2		
	3		
	4		
	111126-9		
	-10		
	-11		
	-12		
	111136-1		
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
↓	111136-8	↓	

N02N03 353.2/SM4500NO3 F N3W67A,B,C

	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	52316956	5.0	52316956					0.0	0.0	2.1
2	33860668	3.0	33860668					0.0	0.0	-4.9
3	11556023	1.0	11556023					0.0	0.0	-3.6
4	5977351	0.5	5977351					0.0	0.0	-1.4
5	1380595	0.1	1380595					0.0	0.0	28.2
6	0	0.0	0					0.0	0.0	

1st Order Poly
Conc = 9.471e-008 Area - 5.893e-002
r = 0.9990

Scaling: None - Weighting: None

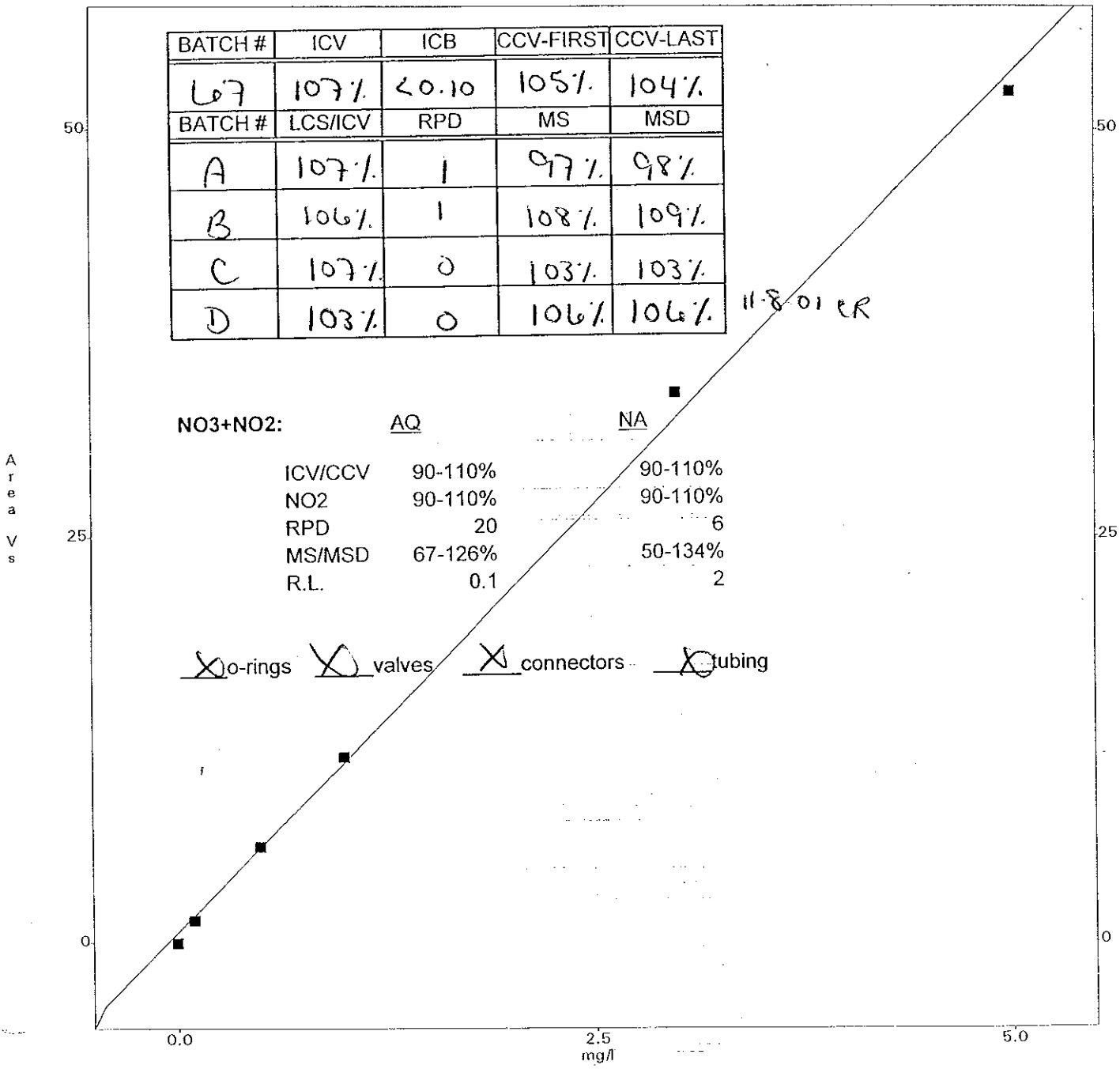
BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
L67	107%	<0.10	105%	104%
BATCH #	LCS/ICV	RPD	MS	MSD
A	107%	1	97%	98%
B	106%	1	108%	109%
C	107%	0	103%	103%
D	103%	0	106%	106%

11-8-01 ER

NO3+NO2: AQ NA

ICV/CCV	90-110%	90-110%
NO2	90-110%	90-110%
RPD	20	6
MS/MSD	67-126%	50-134%
R.L.	0.1	2

X o-rings X valves X connectors X tubing



Printed: Thursday, November 08, 2001 - 10:44 AM

BATCH #	ICV	ICB	CCV-FIRST	CCV-LAST
67				
BATCH #	LCS/ICV	RPD	MS	MSD
E	99%	0	69%	69%

11-8-01 CR

N3W67 A;B;C;D;E

OPERATOR: C ROBERTS
ACQ. TIME: Nov 8, 2001 9:43:43
DATA FILENAME: C:\OMNION\DATA\NO3\N3W67A.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W67A.TRA

TRAY DESCRIPTION:
Created: Nov 8, 2001 9:22:33
Modified: Nov 8, 2001 12:19:58
N3W67A
DATA DESCRIPTION:
Created: Nov 8, 2001 9:43:43
Modified: Nov 8, 2001 9:43:43

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Nov 5, 2001 12:34:24
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	5.0 PPM NO2NO3	08 Nov 2001	09:43:44	1	52316956.00	1.0	1.00	1.00000	g
2	3.0 PPM NO2NO3	08 Nov 2001	09:44:37	1	33860668.00	1.0	1.00	1.00000	g
3	1.0 PPM NO2NO3	08 Nov 2001	09:45:29	1	11556023.00	1.0	1.00	1.00000	g
4	0.5 PPM NO2NO3	08 Nov 2001	09:46:22	1	5977351.00	1.0	1.00	1.00000	g
5	0.1 PPM NO2NO3	08 Nov 2001	09:47:15	1	1380595.00	1.0	1.00	1.00000	g
6	0.0 PPM NO2NO3	08 Nov 2001	09:48:09	1	0.00	1.0	1.00	1.00000	g

N3W67A;B;C;D;E

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 15

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK A	Blank	08 Nov 2001	09:57:50	1	ND -0.0589	1.0	1.00	1.00000	g
				09:58:43	2	-0.0589				
2	ICV 2.0PPM N3W67A	RelChkStd	08 Nov 2001	09:59:36	1	107% 2.1428	1.0	1.00	1.00000	g
				10:00:30	2	2.1415				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
3	111093-1	Dup1	08 Nov 2001	10:01:22	1	0.4934	1.0	1.00	1.00000	g
				10:02:16	2	0.4899				
4	111093-1 MS	Spiked	08 Nov 2001	10:03:09	1	97% 1.4715	1.0	1.00	1.00000	g
				10:04:02	2	1.4685				
				Spike Level:		1.0000				
				% Spike Recovery:		RPA=1 97.8365				
5	111093-1 MSD	Spiked	08 Nov 2001	10:04:55	1	98% 1.4694	1.0	1.00	1.00000	g
				10:05:48	2	1.4759				
				Spike Level:		1.0000				
				% Spike Recovery:		98.1010				
7	ICV 2.0PPM	RelChkStd	08 Nov 2001	09:52:59	1	107% 2.1334	1.0	1.00	1.00000	g
				Known Concentration:		0.0000				
				% Difference:		0.0000				
8	NO2	RelChkStd	08 Nov 2001	09:55:44	1	103% 5.1511	1.0	1.00	1.00000	g
				Known Concentration:		5.0000				
				% Difference:		3.0212				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	09:50:15	1	105% 3.1600	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.3321				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	10:15:29	1	105% 3.1419	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		4.7301				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	10:35:48	1	104% 3.1280	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		4.2669				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	10:56:03	1	105% 3.1549	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.1647				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	11:16:34	1	105% 3.1526	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.0877				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	11:36:58	1	105% 3.1671	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.5695				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	11:57:18	1	105% 3.1631	1.0	1.00	1.00000	g
				Known Concentration:		3.0000				
				% Difference:		5.4361				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	12:17:56	1	3.1282	1.0	1.00	1.00000	g
				Known Concentration:		104% 3.0000				
				% Difference:		4.2721				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	12:25:59	1	3.1135	1.0	1.00	1.00000	g
				Known Concentration:		104% 3.0000				
				% Difference:		3.7844				

N3W67A;B;C;D;E

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 16 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
16	CCB Blank	Blank	08 Nov 2001	09:51:10	1	ND -0.0589	1.0	1.00	1.00000	g
				09:52:05	2	-0.0589				
16	ICB BLANK	Blank	08 Nov 2001	09:53:54	1	ND -0.0589	1.0	1.00	1.00000	g
				09:54:49	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	10:16:24	1	ND -0.0589	1.0	1.00	1.00000	g
				10:17:19	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	10:36:43	1	ND -0.0589	1.0	1.00	1.00000	g
				10:37:38	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	10:56:57	1	ND -0.0589	1.0	1.00	1.00000	g
				10:57:53	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	11:17:28	1	ND -0.0589	1.0	1.00	1.00000	g
				11:18:24	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	11:37:53	1	ND -0.0589	1.0	1.00	1.00000	g
				11:38:48	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	11:58:12	1	ND -0.0589	1.0	1.00	1.00000	g
				11:59:07	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	12:18:50	1	ND -0.0589	1.0	1.00	1.00000	g
				12:19:45	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	12:26:53	1	ND -0.0589	1.0	1.00	1.00000	g
				12:27:49	2	-0.0589				
26	PREP BLK B	Blank	08 Nov 2001	10:47:20	1	ND -0.0589	1.0	1.00	1.00000	g
				10:48:12	2	-0.0589				
27	ICV 2.0PPM N3W67B	RelChkStd	08 Nov 2001	10:49:04	1	2.0918	1.0	1.00	1.00000	g
				10:49:56	2	106% 2.1141				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
28	110728-1	Dup1	08 Nov 2001	10:50:48	1	ND 0.0805	1.0	1.00	1.00000	g
				10:51:40	2	-0.0589				
29	110728-1 MS	Spiked	08 Nov 2001	10:52:32	1	1.0892	1.0	1.00	1.00000	g
				10:53:24	2	108% 1.0859				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD=1 107.6769				
30	110728-1 MSD	Spiked	08 Nov 2001	10:54:16	1	1.0872	1.0	1.00	1.00000	g
				10:55:08	2	109% 1.0925				
				Spike Level:		1.0000				
				% Spike Recovery:		107.9100				
49	PREP BLK C	Blank	08 Nov 2001	11:33:23	1	ND -0.0589	1.0	1.00	1.00000	g
				11:34:17	2	-0.0589				
50	ICV 2.0PPM N3W67C	RelChkStd	08 Nov 2001	11:35:11	1	2.1044	1.0	1.00	1.00000	g
				11:36:04	2	107% 2.1309				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
51	111090-1	Dup1	08 Nov 2001	11:39:41	1	ND 0.0684	1.0	1.00	1.00000	g
				11:40:35	2	-0.0589				
52	111090-1 MS	Spiked	08 Nov 2001	11:41:28	1	1.0357	1.0	1.00	1.00000	g
				11:42:21	2	103% 1.0301				
				Spike Level:		1.0000				
				% Spike Recovery:		RPD=0 102.8130				
53	111090-1 MSD	Spiked	08 Nov 2001	11:43:14	1	1.0367	1.0	1.00	1.00000	g
				11:44:07	2	103% 1.0333				
				Spike Level:		1.0000				
				% Spike Recovery:		103.0275				

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

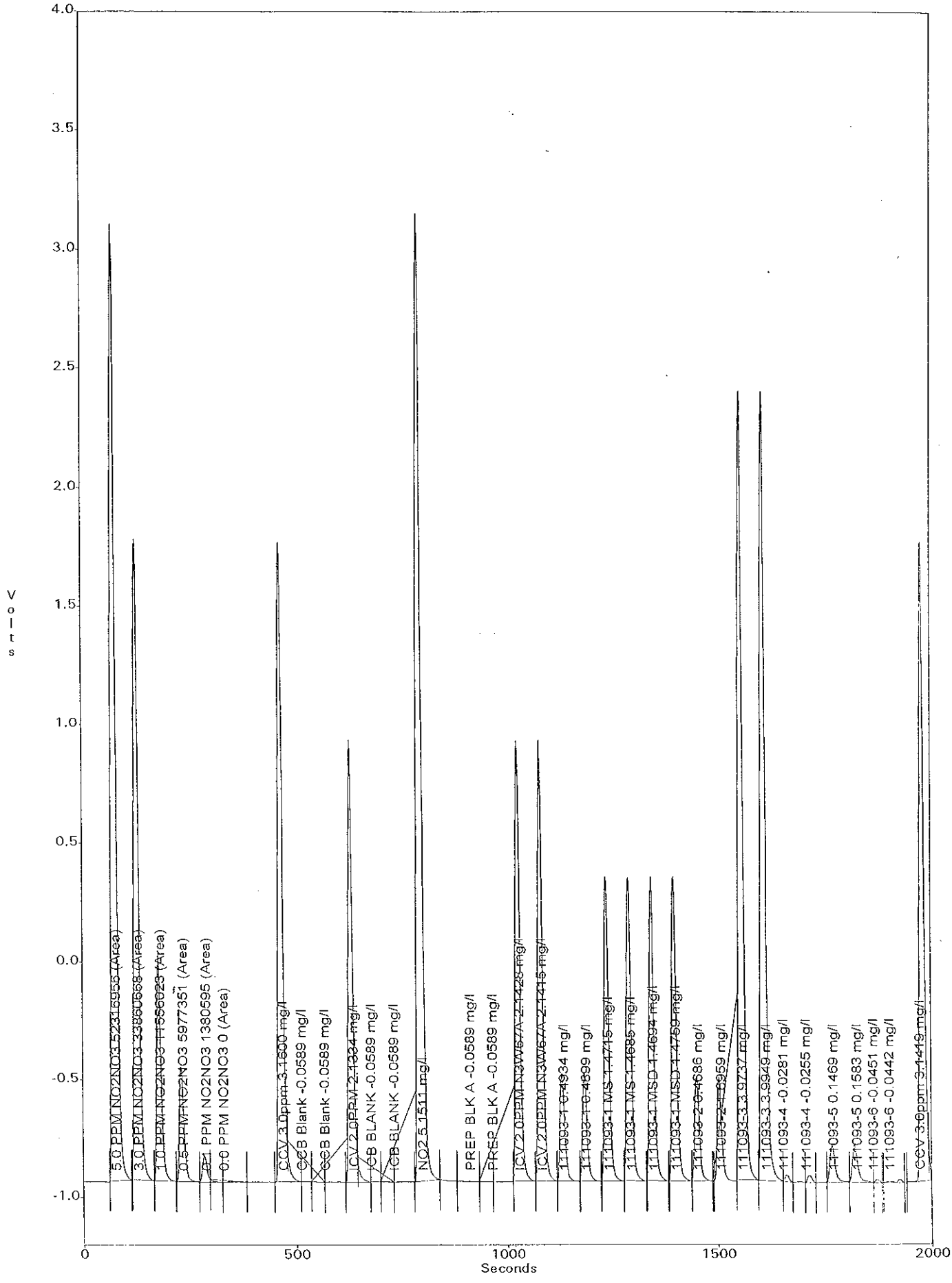
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	111093-2	08 Nov 2001	10:06:41	1	0.4686	1.0	1.00	1.00000	g	See graph
			10:07:34	2	1.6959					
7	111093-3	08 Nov 2001	10:08:27	1	3.9737	1.0	1.00	1.00000	g	
			10:09:20	2	3.9949					
8	111093-4	08 Nov 2001	10:10:13	1	-0.0281	1.0	1.00	1.00000	g	
			10:11:06	2	-0.0255					
9	111093-5	08 Nov 2001	10:11:59	1	0.1469	1.0	1.00	1.00000	g	
			10:12:51	2	0.1583					
10	111093-6	08 Nov 2001	10:13:43	1	-0.0451	1.0	1.00	1.00000	g	
			10:14:35	2	-0.0442					
11	111093-7	08 Nov 2001	10:18:11	1	0.2036	1.0	1.00	1.00000	g	
			10:19:03	2	0.2185					
12	111093-8	08 Nov 2001	10:19:55	1	-0.0292	1.0	1.00	1.00000	g	
			10:20:47	2	-0.0205					
13	111190-2	08 Nov 2001	10:21:39	1	1.2271	1.0	1.00	1.00000	g	
			10:22:31	2	1.3013					
14	111057-1	08 Nov 2001	10:23:23	1	0.0398	1.0	1.00	1.00000	g	
			10:24:15	2	0.0418					
15	111057-2	08 Nov 2001	10:25:07	1	0.0247	1.0	1.00	1.00000	g	
			10:25:59	2	0.0261					
16	111057-2 DUP	08 Nov 2001	10:26:53	1	0.0256	1.0	1.00	1.00000	g	
			10:27:47	2	0.0257					
17	111057-3	08 Nov 2001	10:28:41	1	0.0547	1.0	1.00	1.00000	g	
			10:29:36	2	0.0538					
18	111057-4	08 Nov 2001	10:30:29	1	0.0139	1.0	1.00	1.00000	g	
			10:31:22	2	-0.0589					
19	111004-1	08 Nov 2001	10:32:15	1	39.7536	1/10	10.0	1.00	1.00000	g
			10:33:08	2	39.7438					
20	111004-2	08 Nov 2001	10:34:01	1	63.3099	.5/10	20.0	1.00	1.00000	g
			10:34:54	2	63.4550					
21	111004-3	08 Nov 2001	10:38:32	1	21.1630	1/10	10.0	1.00	1.00000	g
			10:39:25	2	20.9681					
22	111004-4	08 Nov 2001	10:40:18	1	3.2726	1.0	1.00	1.00000	g	
			10:41:11	2	3.2820					
23	110721-1	08 Nov 2001	10:42:04	1	1.5531	1.0	1.00	1.00000	g	
			10:42:57	2	1.5276					
24	110723-1	08 Nov 2001	10:43:50	1	4.2027	1.0	1.00	1.00000	g	
			10:44:43	2	4.1872					
25	110723-2	08 Nov 2001	10:45:35	1	0.5503	1.0	1.00	1.00000	g	
			10:46:27	2	0.5620					
31	111061-1	08 Nov 2001	10:58:47	1	109.1796	20.0	1.00	1.00000	g	See Cup# 68
			10:59:41	2	109.1652					
32	111061-2	08 Nov 2001	11:00:35	1	25.4960	1/10	10.0	1.00	1.00000	g
			11:01:28	2	25.3448					
33	111061-3	08 Nov 2001	11:02:22	1	53.0553	10.0	1.00	1.00000	g	See Cup # 69
			11:03:16	2	53.0764					
34	111061-4	08 Nov 2001	11:04:09	1	3.2223	1.0	1.00	1.00000	g	
			11:05:02	2	3.1947					
35	111091-1	08 Nov 2001	11:05:55	1	98.4248	.5/10	20.0	1.00	1.00000	g
			11:06:49	2	98.5641					

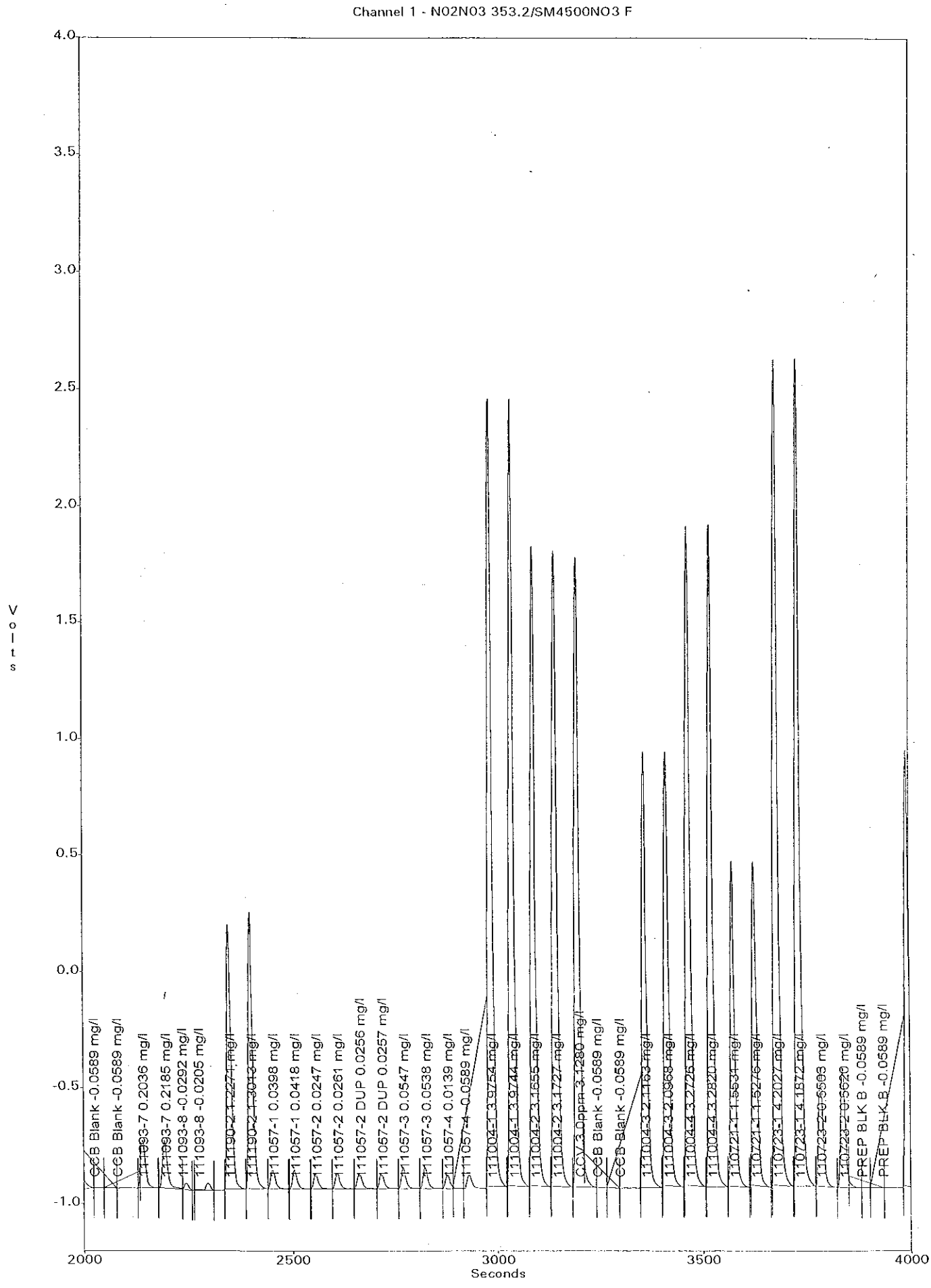
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 36 to 66

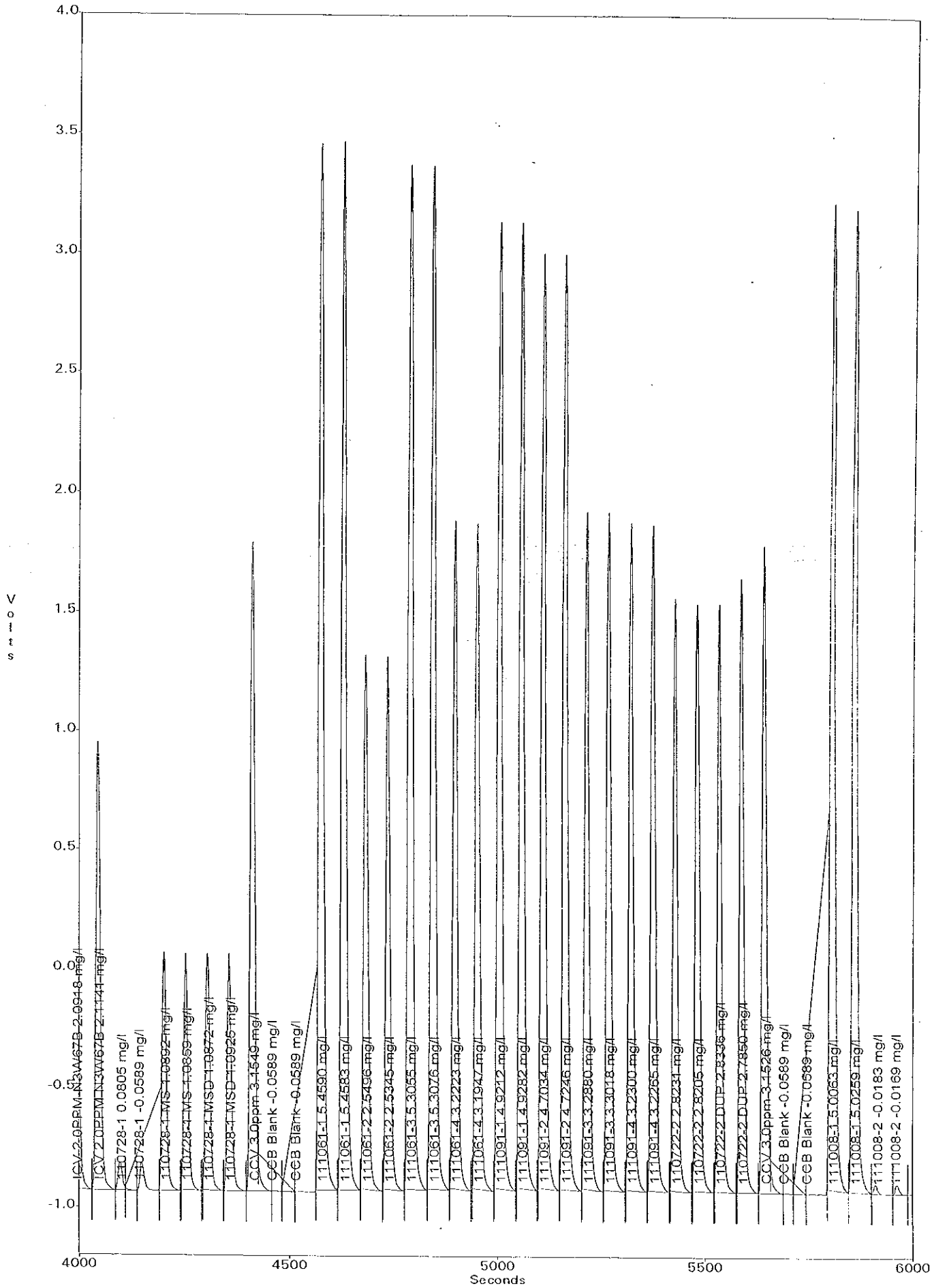
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
36	111091-2	08 Nov 2001	11:07:42	1	47.0341	1/10 10.0	1.00	1.00000	g	
			11:08:35	2	47.2457					
37	111091-3	08 Nov 2001	11:09:28	1	32.8799	↓ 10.0	1.00	1.00000	g	
			11:10:21	2	33.0182					
38	111091-4	08 Nov 2001	11:11:14	1	3.2300	1.0	1.00	1.00000	g	
			11:12:07	2	3.2265					
39	110722-2	08 Nov 2001	11:13:00	1	14.1155	2/10 5.0	1.00	1.00000	g	
			11:13:53	2	14.1026					
40	110722-2 DUP	08 Nov 2001	11:14:46	1	14.1678	↓ 5.0	1.00	1.00000	g	
			11:15:39	2	13.9252					
41	111008-1	08 Nov 2001	11:19:16	1	5.0063	1.0	1.00	1.00000	g	See Cup # 73
			11:20:08	2	5.0259					
42	111008-2	08 Nov 2001	11:21:00	1	~ND -0.0366	2.0	1.00	1.00000	g	↓ 71
			11:21:52	2	-0.0337					
43	111008-3	08 Nov 2001	11:22:44	1	~ND * 0.0263	1.0	1.00	1.00000	g	See graph
			11:23:36	2	0.1965					
44	111073-1	08 Nov 2001	11:24:28	1	0.1394	1.0	1.00	1.00000	g	
			11:25:20	2	0.1437					
45	111126-5	08 Nov 2001	11:26:12	1	~ND -0.0589	1.0	1.00	1.00000	g	
			11:27:04	2	-0.0589					
46	111126-6	08 Nov 2001	11:27:58	1	~ND -0.0589	1.0	1.00	1.00000	g	
			11:28:53	2	-0.0589					
47	111126-7	08 Nov 2001	11:29:47	1	~ND -0.0589	1.0	1.00	1.00000	g	
			11:30:41	2	-0.0589					
48	111126-8	08 Nov 2001	11:31:35	1	~ND -0.0507	1.0	1.00	1.00000	g	
			11:32:29	2	-0.0504					
54	111090-2	08 Nov 2001	11:45:00	1	~ND 0.0971	1.0	1.00	1.00000	g	
			11:45:53	2	0.0992					
55	111090-3	08 Nov 2001	11:46:46	1	0.1603	1.0	1.00	1.00000	g	
			11:47:39	2	0.1602					
56	111090-4	08 Nov 2001	11:48:32	1	0.1156	1.0	1.00	1.00000	g	
			11:49:25	2	0.1130					
57	111090-5	08 Nov 2001	11:50:18	1	0.5193	1.0	1.00	1.00000	g	
			11:51:10	2	0.5227					
58	111090-6	08 Nov 2001	11:52:03	1	* 0.1074	1.0	1.00	1.00000	g	See graph
			11:52:55	2	0.4283					
59	111090-7	08 Nov 2001	11:53:47	1	0.5768	1.0	1.00	1.00000	g	
			11:54:39	2	0.5815					
60	111090-8	08 Nov 2001	11:55:31	1	~ND * 0.0502	1.0	1.00	1.00000	g	
			11:56:23	2	-0.0589					
61	111090-9	08 Nov 2001	12:00:02	1	~ND * 0.0625	1.0	1.00	1.00000	g	See graph
			12:00:56	2	0.2488					
62	111141-2	08 Nov 2001	12:01:50	1	0.7724	1.0	1.00	1.00000	g	
			12:02:44	2	0.7726					
63	111141-2 DUP	08 Nov 2001	12:03:38	1	* 0.7667	1.0	1.00	1.00000	g	See graph
			12:04:32	2	1.6572					
64	111138-1	08 Nov 2001	12:05:26	1	119.1507	20.0	1.00	1.00000	g	See cup # 72
			12:06:21	2	118.0546					
65	111138-2	08 Nov 2001	12:07:15	1	27.2266	1/10 10.0	1.00	1.00000	g	
			12:08:09	2	27.1253					
66	111138-3	08 Nov 2001	12:09:03	1	34.7123	↓ 10.0	1.00	1.00000	g	
			12:09:56	2	34.4268					

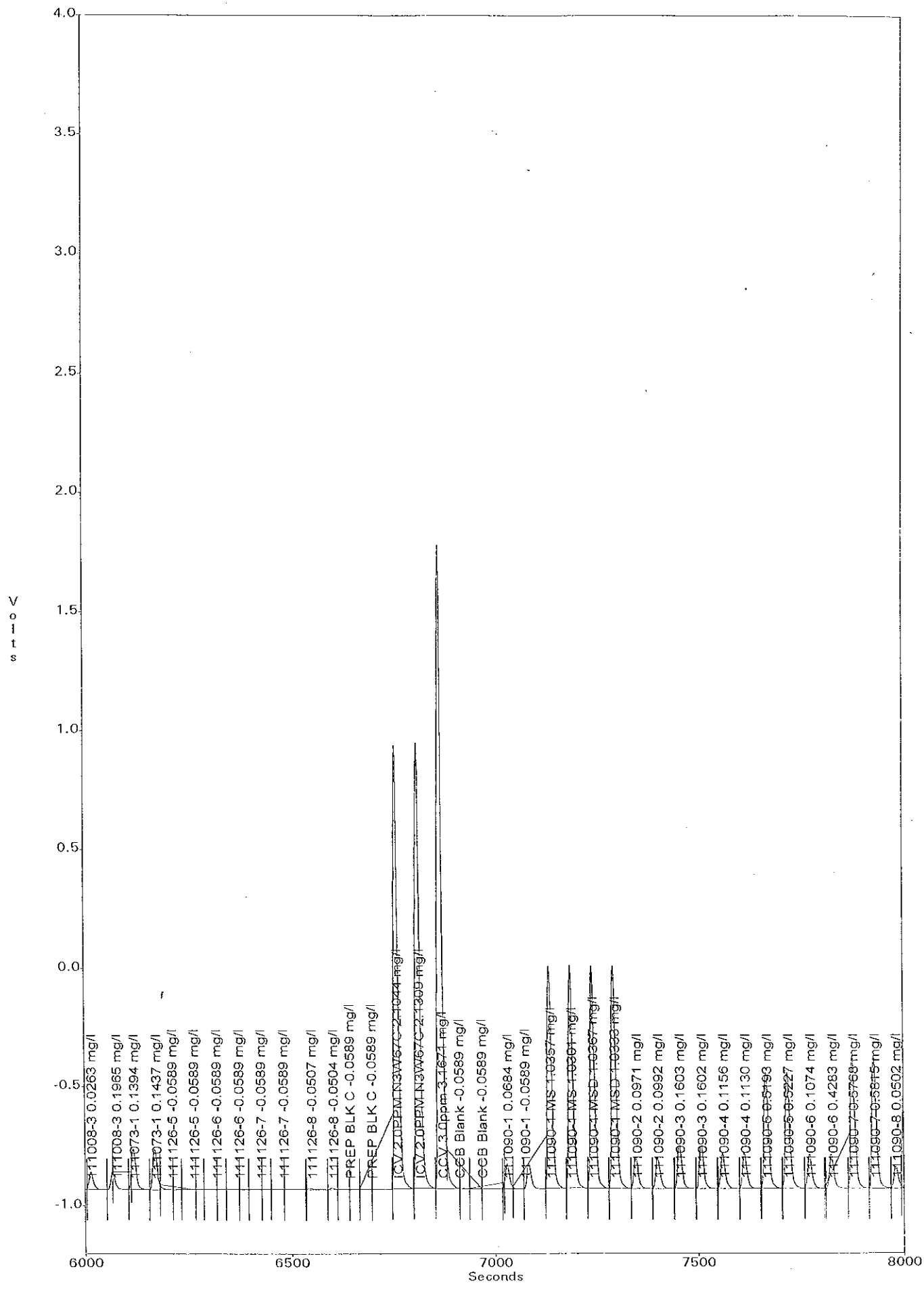
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 67 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
67	111138-4	08 Nov 2001	12:10:50	1	3.5080	1.0	1.00	1.00000	g
			12:11:43	2	3.5157				
68	111061-1	08 Nov 2001	12:12:36	1	117.3887	40.0	1.00	1.00000	g
			12:13:29	2	117.3163				
69	111061-3	08 Nov 2001	12:14:22	1	57.4109	20.0	1.00	1.00000	g
			12:15:15	2	55.9853				
70	111008-1	08 Nov 2001	12:16:08	1	10.2352	2.0	1.00	1.00000	g
			12:17:01	2	10.0339				
71	111008-2	08 Nov 2001	12:20:39	1	-0.0151	1.0	1.00	1.00000	g
			12:21:32	2	-0.0589				
72	111138-1	08 Nov 2001	12:22:25	1	128.9622	40.0	1.00	1.00000	g
			12:23:18	2	128.1141				
73	111008-1	08 Nov 2001	12:24:11	1	10.5015	4.0	1.00	1.00000	g
			12:25:04	2	10.5006				

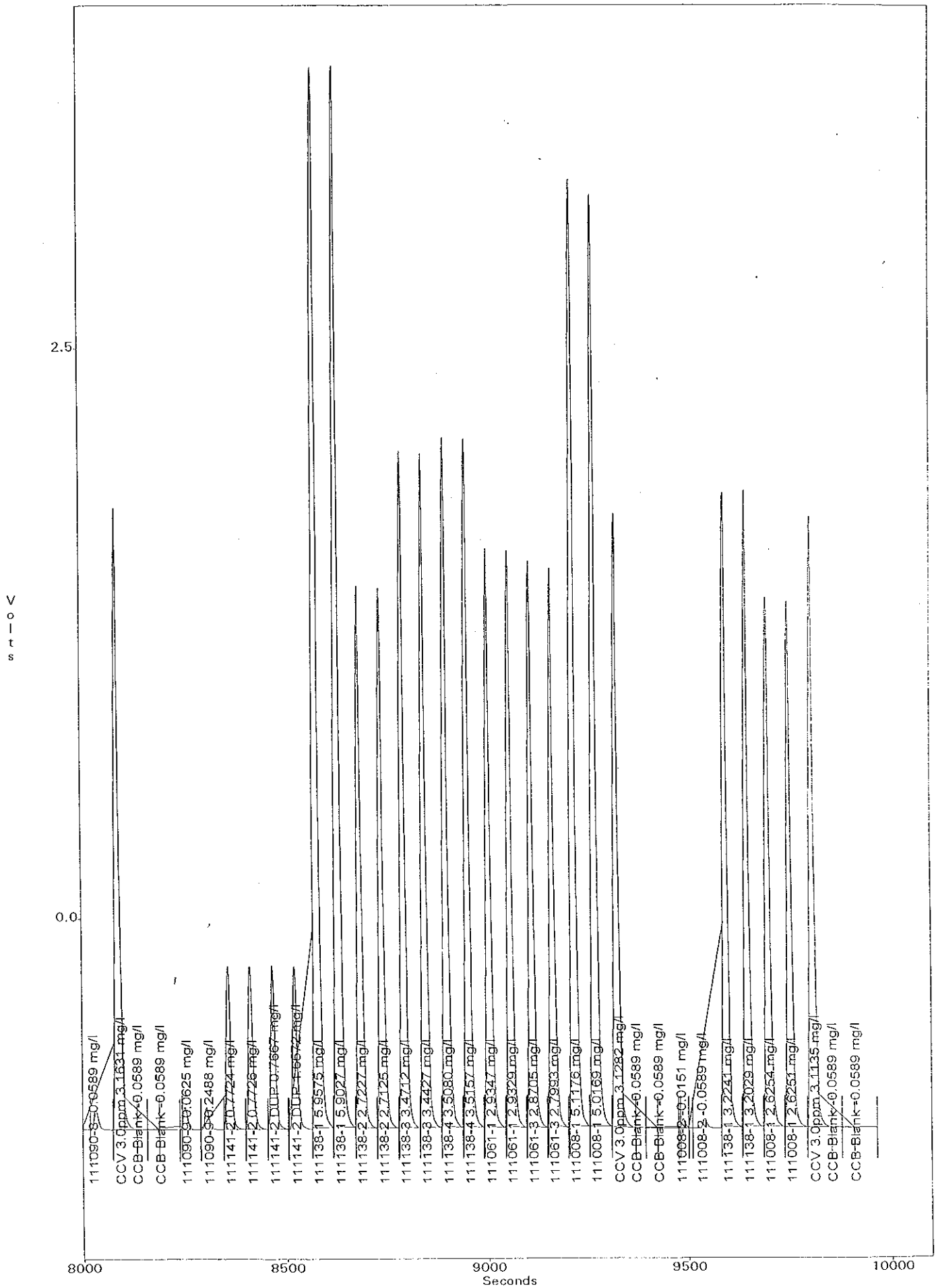

Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
0
500
1000
1500
2000
5.0 PPM NO2NO3 5231.5955 (Area)
3.0 PPM NO2NO3 3380.0668 (Area)
1.0 PPM NO2NO3 1556.023 (Area)
0.5 PPM NO2NO3 597.7351 (Area)
0.1 PPM NO2NO3 1380595 (Area)
0.0 PPM NO2NO3 0 (Area)
CCV 3.0ppm 3.1600 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
ICV 2.0PPM 2.1334 mg/l
ICB BLANK -0.0589 mg/l
ICB BLANK -0.0589 mg/l
NO2 5.1511 mg/l
PREP BLK A -0.0589 mg/l
PREP BLK A -0.0589 mg/l
ICV 2.0PPM N3W67A 2.1425 mg/l
ICV 2.0PPM N3W67A 2.1415 mg/l
111093-1 0.4934 mg/l
111093-1 0.4899 mg/l
111093-1 MS 1.4715 mg/l
111093-1 MS 1.4686 mg/l
111093-1 MSD 1.4694 mg/l
111093-1 MSD 1.4759 mg/l
111093-2 0.4686 mg/l
111093-2 0.0959 mg/l
111093-3 3.9737 mg/l
111093-3 3.9949 mg/l
111093-4 -0.0281 mg/l
111093-4 -0.0255 mg/l
111093-5 0.1469 mg/l
111093-5 0.1583 mg/l
111093-6 -0.0451 mg/l
111093-6 -0.0442 mg/l
CCV 3.0ppm 3.1449 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
2000
2500
3000
3500
4000
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111093-7 0.2036 mg/l
111093-7 0.2185 mg/l
111093-8 -0.0292 mg/l
111093-8 -0.0205 mg/l
111190-2 1.2274 mg/l
111190-2 1.3013 mg/l
111057-1 0.0398 mg/l
111057-1 0.0418 mg/l
111057-2 0.0247 mg/l
111057-2 0.0261 mg/l
111057-2 DUP 0.0256 mg/l
111057-2 DUP 0.0257 mg/l
111057-3 0.0547 mg/l
111057-3 0.0538 mg/l
111057-4 0.0139 mg/l
111057-4 -0.0589 mg/l
111004-1 3.9754 mg/l
111004-1 3.9744 mg/l
111004-2 3.1655 mg/l
111004-2 3.1727 mg/l
CCV 3.0ppm 3.1280 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111004-3 2.1163 mg/l
111004-3 2.0968 mg/l
111004-4 3.2725 mg/l
111004-4 3.2820 mg/l
110721-1 1.5534 mg/l
110721-1 1.5276 mg/l
110723-1 4.2027 mg/l
110723-1 4.1872 mg/l
110723-2 0.6593 mg/l
110723-2 0.6620 mg/l
PREP BLK B -0.0589 mg/l
PREP BLK B -0.0589 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
4000
4500
5000
5500
6000
ICV 2.0PPM N3A467B 2.0918 mg/l
ICV 2.0PPM N3W678 2.1141 mg/l
110728-1 0.0805 mg/l
110728-1 -0.0589 mg/l
110728-1 MS 1.0892 mg/l
110728-1 MS 1.0859 mg/l
110728-1 MSD 1.0872 mg/l
110728-1 MSD 1.0925 mg/l
CCV 3.0ppm 3.1549 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111061-1 5.4590 mg/l
111061-1 5.4583 mg/l
111061-2 2.5496 mg/l
111061-2 2.5345 mg/l
111061-3 5.3055 mg/l
111061-3 5.3076 mg/l
111061-4 3.2223 mg/l
111061-4 3.1947 mg/l
111091-1 4.9212 mg/l
111091-1 4.9282 mg/l
111091-2 4.7034 mg/l
111091-2 4.7246 mg/l
111091-3 3.2880 mg/l
111091-3 3.3018 mg/l
111091-4 3.2300 mg/l
111091-4 3.2265 mg/l
110722-2 2.8231 mg/l
110722-2 2.8205 mg/l
110722-2 DUP 2.8336 mg/l
110722-2 DUP 2.7850 mg/l
CCV 3.0ppm 3.1526 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111008-1 5.0063 mg/l
111008-1 5.0259 mg/l
111008-2 -0.0183 mg/l
111008-2 -0.0169 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
6000
6500
7000
7500
8000
111008-3 0.0263 mg/l
111008-3 0.1965 mg/l
111073-1 0.1394 mg/l
111073-1 0.1437 mg/l
111126-5 -0.0589 mg/l
111126-5 -0.0589 mg/l
111126-6 -0.0589 mg/l
111126-6 -0.0589 mg/l
111126-7 -0.0589 mg/l
111126-7 -0.0589 mg/l
111126-8 -0.0507 mg/l
111126-8 -0.0504 mg/l
PREP BLK C -0.0589 mg/l
PREP BLK C -0.0589 mg/l
ICV 2.0PPM N3W67C 2.1044 mg/l
ICV 2.0PPM N3W67C 2.1309 mg/l
CCV 3.0ppm 3.1824 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111090-1 0.0684 mg/l
111090-1 -0.0589 mg/l
111090-1 MS 1.0357 mg/l
111090-1 MS 1.0301 mg/l
111090-1 MSD 1.0357 mg/l
111090-1 MSD 1.0333 mg/l
111090-2 0.0971 mg/l
111090-2 0.0992 mg/l
111090-3 0.1603 mg/l
111090-3 0.1602 mg/l
111090-4 0.1156 mg/l
111090-4 0.1130 mg/l
111090-5 0.5193 mg/l
111090-5 0.5227 mg/l
111090-6 0.1074 mg/l
111090-6 0.4283 mg/l
111090-7 0.5768 mg/l
111090-7 0.5815 mg/l
111090-8 0.0502 mg/l

Channel 1 - N02N03 353.2/SM4500NO3 F



095

OPERATOR: C ROBERTS
ACQ. TIME: Nov 8, 2001 12:51:55
DATA FILENAME: C:\OMNION\DATA\NO3\N3W67D.FDT
METHOD FILENAME:
TRAY FILENAME: C:\OMNION\TRAYS\NO3\N3W67D.TRA

TRAY DESCRIPTION:
Created: Nov 8, 2001 12:45:51
Modified: Nov 8, 2001 14:42:15
N3W67D
DATA DESCRIPTION:
Created: Nov 8, 2001 12:51:55
Modified: Nov 8, 2001 12:51:55

Method - Ch. 1 (N02N03 353.2/SM4500NO3 F)

METHOD DESCRIPTION:
Created: Sep 29, 1997 13:50:33
Modified: Nov 5, 2001 12:34:24
NO2NO3 CH2

ANALYTE DATA:
Analyte Name: N02N03 353.2/SM4500NO3 F
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 33.000
% Width Tolerance: 80.000
Threshold: 8000.000
Autodilution Trigger: Off
QuikChem Method: 10-107-04-1-C

CALIBRATION DATA:
Levels:
1 : 5.000 2 : 3.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 55.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 29.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:
Method Cycle Period: 55.0
Sample Reaches 1st Valve: 18.0
Valve: On
Load Time: 0.0
Load Period: 20.0
Inject Period: 35.0

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit

NO SAMPLE INFO FOR THE SELECTED CUP RANGE

N3W67 D)E

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 1 to 15

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	PREP BLK D	Blank	08 Nov 2001	12:54:43	1	ND -0.0589	1.0	1.00	1.00000	g
				12:55:36	2	-0.0589				
2	ICV 2.0PPM N3W67D	RelChkStd	08 Nov 2001	12:56:29	1	2.0513	1.0	1.00	1.00000	g
				12:57:22	2	103% 2.0645				
					Known Concentration:	0.0000				
					% Difference:	0.0000				
3	111152-3	Dup1	08 Nov 2001	12:58:15	1	° 0.1092	1.0	1.00	1.00000	g
				12:59:08	2	-0.0589				
4	111152-3 MS	Spiked	08 Nov 2001	13:00:01	1	106% 1.1845	1.0	1.00	1.00000	g
				13:00:54	2	1.1741				
					Spike Level:	RPD=0 1.0000				
					% Spike Recovery:	115.4178				
5	111152-3 MSD	Spiked	08 Nov 2001	13:01:47	1	106% 1.1692	1.0	1.00	1.00000	g
				13:02:40	2	1.1723				
					Spike Level:	1.0000				
					% Spike Recovery:	114.5625				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	12:51:59	1	103% 3.0860	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	2.8660				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	13:12:20	1	101% 3.0377	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	1.2557				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	13:32:41	1	98% 2.9418	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	-1.9395				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	13:52:56	1	98% 2.9590	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	-1.3664				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	14:13:29	1	99% 2.9857	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	-0.4765				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	14:33:54	1	101% 3.0399	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	1.3316				
15	CCV 3.0ppm	RelChkStd	08 Nov 2001	14:50:47	1	98% 2.9434	1.0	1.00	1.00000	g
					Known Concentration:	3.0000				
					% Difference:	-1.8879				

See QR9

Multi-Channel Table
Type: DQM
Channel Range: 1 to 1 -- Cup Range: 16 to 90

Cup	QC SAMPLES	Sample Type	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
16	CCB Blank	Blank	08 Nov 2001	12:52:54	1	~ND -0.0589	1.0	1.00	1.00000	g
				12:53:49	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	13:13:15	1	~ND -0.0589	1.0	1.00	1.00000	g
				13:14:10	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	13:33:35	1	~ND -0.0589	1.0	1.00	1.00000	g
				13:34:30	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	13:53:51	1	~ND -0.0589	1.0	1.00	1.00000	g
				13:54:46	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	14:14:23	1	~ND -0.0589	1.0	1.00	1.00000	g
				14:15:19	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	14:34:49	1	~ND -0.0589	1.0	1.00	1.00000	g
				14:35:44	2	-0.0589				
16	CCB Blank	Blank	08 Nov 2001	14:51:41	1	-0.0589	1.0	1.00	1.00000	g
				14:52:37	2	~ND -0.0589				
26	PREP BLK E	Blank	08 Nov 2001	13:44:13	1	~ND -0.0589	1.0	1.00	1.00000	g
				13:45:05	2	-0.0589				
27	ICV 2.0PPM N3W67E	RelChkStd	08 Nov 2001	13:45:57	1	99% 1.9911	1.0	1.00	1.00000	g
				13:46:49	2	1.9868				
				Known Concentration:		0.0000				
				% Difference:		0.0000				
28	111129-1	Dup1	08 Nov 2001	13:47:41	1	~ND -0.0347	1.0	1.00	1.00000	g
				13:48:33	2	-0.0589				
29	111129-1 MS	Spiked	08 Nov 2001	13:49:25	1	0.3105	1.0	1.00	1.00000	g
				13:50:17	2	0.3115				
				Spike Level:		1.0000				
				% Spike Recovery:		35.7763				
30	111129-1 MSD	Spiked	08 Nov 2001	13:51:09	1	0.3120	1.0	1.00	1.00000	g
				13:52:01	2	0.5075				
				Spike Level:		1.0000				
				% Spike Recovery:		45.6541				

See Cup# 5

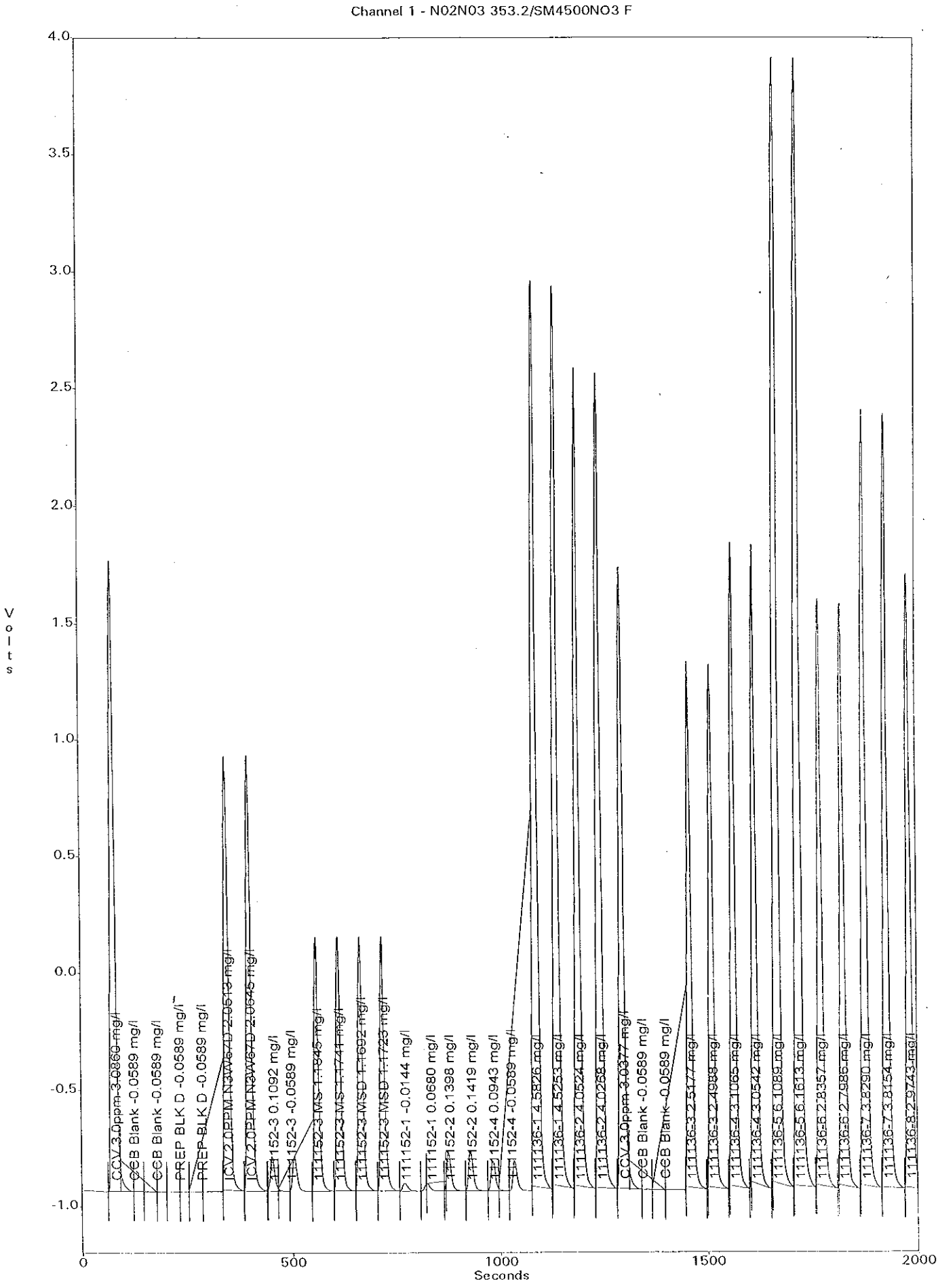
5

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 35

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
6	111152-1	08 Nov 2001	13:03:33	1	~ND -0.0144	1.0	1.00	1.00000	g	
			13:04:26	2	0.0680					
7	111152-2	08 Nov 2001	13:05:19	1	0.1398	1.0	1.00	1.00000	g	
			13:06:12	2	0.1419					
8	111152-4	08 Nov 2001	13:07:05	1	~ND 0.0943	1.0	1.00	1.00000	g	
			13:07:58	2	-0.0589					
9	111136-1	08 Nov 2001	13:08:50	1	91.6524	1/10 20.0	1.00	1.00000	g	
			13:09:42	2	90.5053					
10	111136-2	08 Nov 2001	13:10:34	1	40.5236	1/10 10.0	1.00	1.00000	g	
			13:11:26	2	40.2677					
11	111136-3	08 Nov 2001	13:15:03	1	25.1766	↓ 10.0	1.00	1.00000	g	
			13:15:55	2	24.9877					
12	111136-4	08 Nov 2001	13:16:47	1	3.1065	1.0	1.00	1.00000	g	
			13:17:39	2	3.0542					
13	111136-5	08 Nov 2001	13:18:30	1	122.1784	20.0	1.00	1.00000	g	See Cup # 51
			13:19:23	2	123.2258					
14	111136-6	08 Nov 2001	13:20:14	1	28.3567	1/10 10.0	1.00	1.00000	g	
			13:21:06	2	27.9860					
15	111136-7	08 Nov 2001	13:21:58	1	38.2898	↓ 10.0	1.00	1.00000	g	
			13:22:50	2	38.1539					
16	111136-8	08 Nov 2001	13:23:45	1	2.9743	1.0	1.00	1.00000	g	
			13:24:39	2	2.9718					
17	111136-8 DUP	08 Nov 2001	13:25:33	1	* 2.9833	1.0	1.00	1.00000	g	See graph
			13:26:27	2	8.2333					
18	111162-1	08 Nov 2001	13:27:21	1	11.4858	1.0	1.00	1.00000	g	See Cup # 57
			13:28:14	2	11.3554					
19	111162-2	08 Nov 2001	13:29:07	1	11.2665	1.0	1.00	1.00000	g	↓ 58
			13:30:00	2	11.4015					
20	111162-3	08 Nov 2001	13:30:53	1	2.4300	1.0	1.00	1.00000	g	
			13:31:46	2	2.4790					
21	111159-1	08 Nov 2001	13:35:24	1	~ND 0.0459	1.0	1.00	1.00000	g	
			13:36:17	2	0.0465					
22	111159-2	08 Nov 2001	13:37:10	1	~ND 0.0680	1.0	1.00	1.00000	g	
			13:38:03	2	0.0690					
23	111159-3	08 Nov 2001	13:38:56	1	~ND -0.0297	1.0	1.00	1.00000	g	
			13:39:49	2	-0.0589					
24	111159-4	08 Nov 2001	13:40:42	1	0.3849	1.0	1.00	1.00000	g	
			13:41:35	2	0.3935					
25	111159-5	08 Nov 2001	13:42:28	1	~ND -0.0504	1.0	1.00	1.00000	g	
			13:43:20	2	-0.0497					
31	111129-2	08 Nov 2001	13:55:40	1	1.4765	1.0	1.00	1.00000	g	
			13:56:34	2	1.4810					
32	111129-3	08 Nov 2001	13:57:28	1	~ND -0.0458	1.0	1.00	1.00000	g	
			13:58:22	2	-0.0439					
33	111153-1	08 Nov 2001	13:59:16	1	* 0.1971	1.0	1.00	1.00000	g	See graph
			14:00:10	2	0.5540					
34	111153-2	08 Nov 2001	14:01:04	1	2.0500	1.0	1.00	1.00000	g	
			14:01:57	2	2.0738					
35	111153-3	08 Nov 2001	14:02:50	1	* 0.2174	1.0	1.00	1.00000	g	See graph
			14:03:44	2	-0.0589					

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 36 to 90

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	N02N03 353.2/SM4500NO3 F (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit	
36	111153-4	08 Nov 2001	14:04:36	1	6.5525	1.0	1.00	1.00000	g	See Cup # 56
			14:05:30	2	6.2885					
37	111153-5	08 Nov 2001	14:06:23	1	2.3122	1.0	1.00	1.00000	g	
			14:07:16	2	2.3354					
38	111153-6	08 Nov 2001	14:08:09	1	~ND 0.0247	1.0	1.00	1.00000	g	
			14:09:02	2	-0.0589					
39	111153-7	08 Nov 2001	14:09:55	1	4.0984	1.0	1.00	1.00000	g	
			14:10:48	2	4.1139					
40	111153-7 DUP	08 Nov 2001	14:11:41	1	4.1354	1.0	1.00	1.00000	g	
			14:12:34	2	4.1365					
41	111153-8	08 Nov 2001	14:16:11	1	~ND 0.0361	1.0	1.00	1.00000	g	
			14:17:03	2	-0.0589					
42	111153-9	08 Nov 2001	14:17:55	1	0.7589	1.0	1.00	1.00000	g	
			14:18:47	2	0.7510					
43	111159-6	08 Nov 2001	14:19:39	1	~ND -0.0214	1.0	1.00	1.00000	g	
			14:20:31	2	-0.0589					
44	111159-7	08 Nov 2001	14:21:23	1	0.1373	1.0	1.00	1.00000	g	
			14:22:15	2	0.1382					
45	111159-9	08 Nov 2001	14:23:07	1	0.1737	1.0	1.00	1.00000	g	
			14:23:59	2	0.1792					
46	111159-10	08 Nov 2001	14:24:53	1	0.1273	1.0	1.00	1.00000	g	
			14:25:48	2	0.1260					
47	111159-11	08 Nov 2001	14:26:42	1	0.1890	1.0	1.00	1.00000	g	
			14:27:36	2	0.1849					
48	111159-12	08 Nov 2001	14:28:30	1	0.6721	1.0	1.00	1.00000	g	
			14:29:24	2	0.6728					
49	111022-1	08 Nov 2001	14:30:18	1	~ND 0.0701	1.0	1.00	1.00000	g	
			14:31:12	2	0.0671					
50	111022-2	08 Nov 2001	14:32:06	1	~ND 0.0865	1.0	1.00	1.00000	g	
			14:33:00	2	-0.0589					
51	111136-5	08 Nov 2001	14:36:38	1	137.7111	.5/10 → 5/10 40.0	1.00	1.00000	g	
			14:37:31	2	134.3398					
52	111162-1	08 Nov 2001	14:38:24	1	30.7421	5.0	1.00	1.00000	g	
			14:39:17	2	30.6067					
53	111162-2	08 Nov 2001	14:40:10	1	30.6001	5.0	1.00	1.00000	g	
			14:41:03	2	30.9299					
54	111129-1 MS	08 Nov 2001	14:41:56	1	69% 3.4730	2/10 5.0	1.00	1.00000	g	
			14:42:49	2	RPD=0 3.4733					
55	111129-1 MSD	08 Nov 2001	14:43:42	1	69% 3.4764	↓ 5.0	1.00	1.00000	g	See graph
			14:44:35	2	13.2310					
56	111153-4	08 Nov 2001	14:45:28	1	7.5779	5/10 2.0	1.00	1.00000	g	
			14:46:21	2	7.5514					
57	111162-1	08 Nov 2001	14:47:14	1	33.5531	2/10 → 5/10 10.0	1.00	1.00000	g	
			14:48:07	2	33.7573					
58	111162-2	08 Nov 2001	14:49:00	1	34.1622	↓ 10.0	1.00	1.00000	g	
			14:49:53	2	33.6603					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Volts
Seconds
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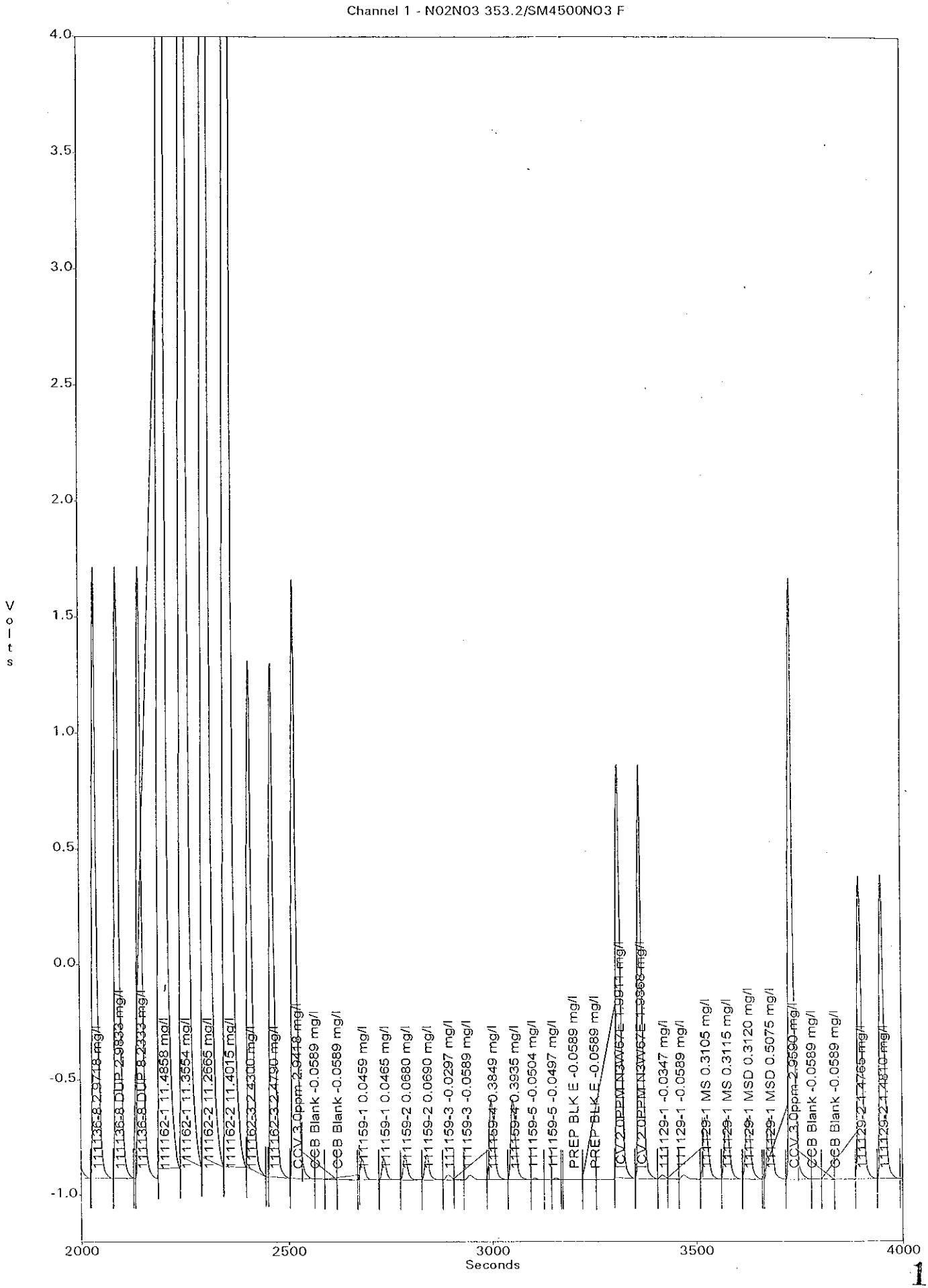
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
0
500
1000
1500
2000
CCV 3.0ppm 3.0860 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
PREP BLK D -0.0589 mg/l
PREP BLK D -0.0589 mg/l
ICV 2.0PPM N3W67D 2.0513 mg/l
ICV 2.0PPM N3W67D 2.0645 mg/l
111152-3 0.1092 mg/l
111152-3 -0.0589 mg/l
111152-3 MS 1.1845 mg/l
111152-3 MS 1.1741 mg/l
111152-3 MSD 1.1692 mg/l
111152-3 MSD 1.1723 mg/l
111152-1 -0.0144 mg/l
111152-1 0.0680 mg/l
111152-2 0.1398 mg/l
111152-2 0.1419 mg/l
111152-4 0.0943 mg/l
111152-4 -0.0589 mg/l
111136-1 4.5826 mg/l
111136-1 4.5253 mg/l
111136-2 4.0524 mg/l
111136-2 4.0268 mg/l
CCV 3.0ppm 3.0377 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111136-3 2.5177 mg/l
111136-3 2.4988 mg/l
111136-4 3.1065 mg/l
111136-4 3.0542 mg/l
111136-5 6.1089 mg/l
111136-5 6.1613 mg/l
111136-6 2.8357 mg/l
111136-6 2.7986 mg/l
111136-7 3.8290 mg/l
111136-7 3.8154 mg/l
111136-8 2.9743 mg/l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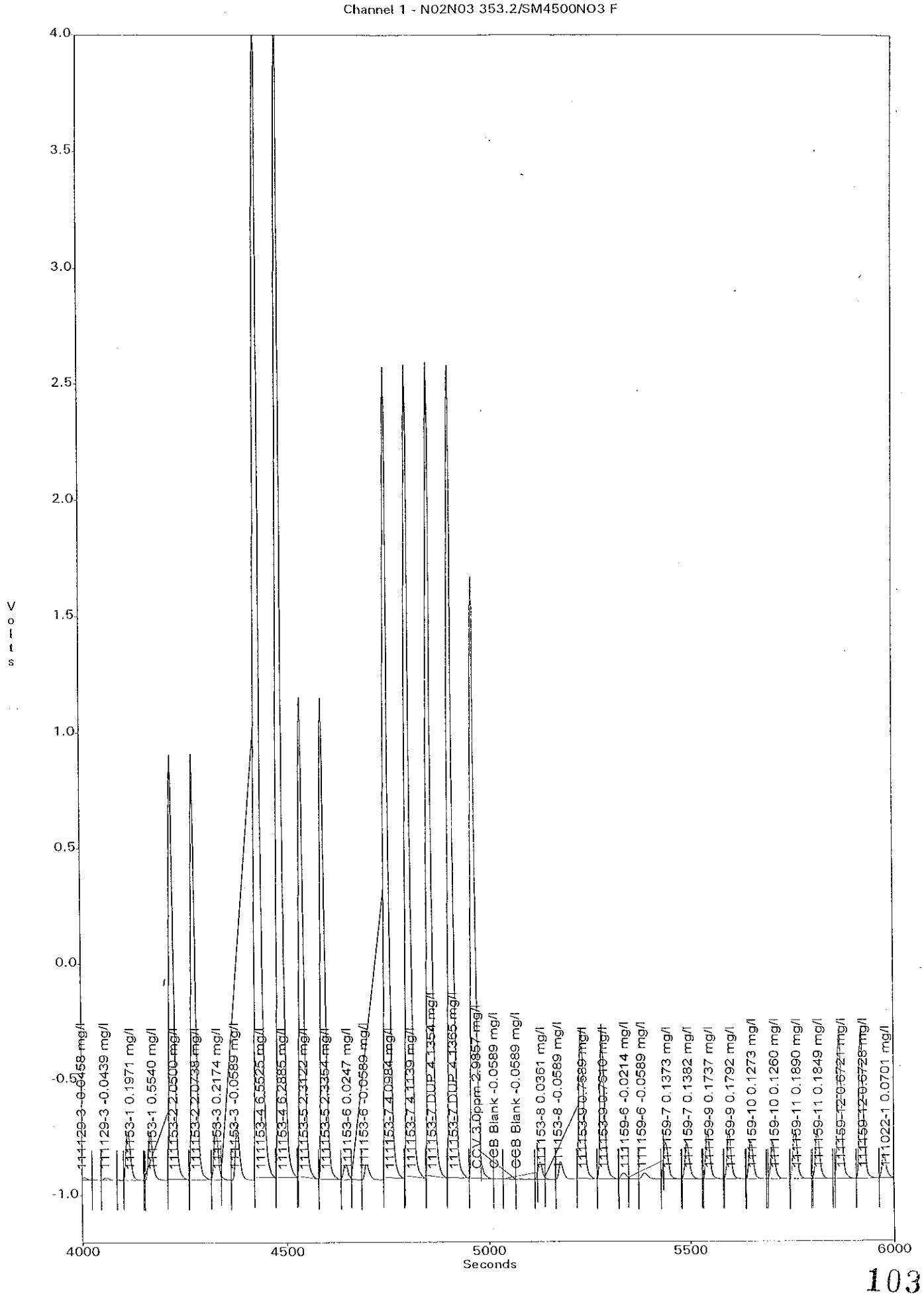
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
2000
2500
3000
3500
4000
111136-8 2.9718 mg/l
111136-8 DUP 2.9833 mg/l
111136-8 DUP 8.2333 mg/l
111162-1 11.4858 mg/l
111162-1 11.3554 mg/l
111162-2 11.2665 mg/l
111162-2 11.4015 mg/l
111162-3 2.4300 mg/l
111162-3 2.4790 mg/l
CCV 3.0ppm 2.9418 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111159-1 0.0459 mg/l
111159-1 0.0465 mg/l
111159-2 0.0680 mg/l
111159-2 0.0690 mg/l
111159-3 -0.0297 mg/l
111159-3 -0.0589 mg/l
111159-4 0.3849 mg/l
111159-4 0.3935 mg/l
111159-5 -0.0504 mg/l
111159-5 -0.0497 mg/l
PREP BLK E -0.0589 mg/l
PREP BLK E -0.0589 mg/l
ICV 2.0PPM N3W674E 1.9911 mg/l
ICV 2.0PPM N3W674E 1.9368 mg/l
111129-1 -0.0347 mg/l
111129-1 -0.0589 mg/l
111129-1 MS 0.3105 mg/l
111129-1 MS 0.3115 mg/l
111129-1 MSD 0.3120 mg/l
111129-1 MSD 0.5075 mg/l
CCV 3.0ppm 2.9590 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111129-2 4.4765 mg/l
111129-2 4.4810 mg/l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Volts
Seconds
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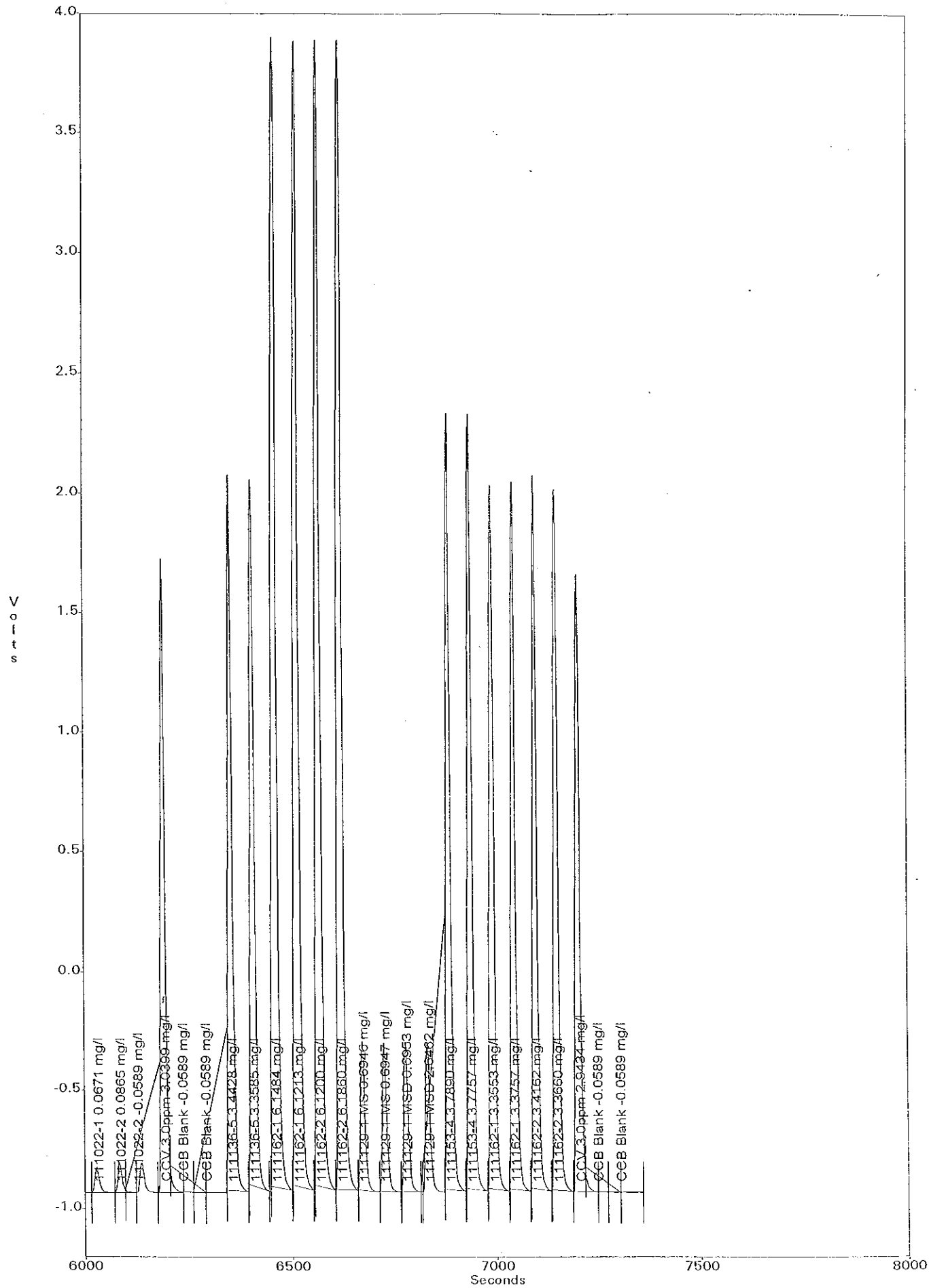
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
4000
4500
5000
5500
6000
111129-3 -0.0458 mg/l
111129-3 -0.0439 mg/l
111153-1 0.1971 mg/l
111153-1 0.5540 mg/l
111153-2 2.0500 mg/l
111153-2 2.0738 mg/l
111153-3 0.2174 mg/l
111153-3 -0.0589 mg/l
111153-4 6.5525 mg/l
111153-4 6.2885 mg/l
111153-5 2.3122 mg/l
111153-5 2.3354 mg/l
111153-6 0.0247 mg/l
111153-6 -0.0589 mg/l
111153-7 4.0984 mg/l
111153-7 4.1139 mg/l
111153-7 DUP 4.1354 mg/l
111153-7 DUP 4.1365 mg/l
CCV 3.0ppm 2.9857 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111153-8 0.0361 mg/l
111153-8 -0.0589 mg/l
111153-9 0.7589 mg/l
111153-9 0.7610 mg/l
111159-6 -0.0214 mg/l
111159-6 -0.0589 mg/l
111159-7 0.1373 mg/l
111159-7 0.1382 mg/l
111159-9 0.1737 mg/l
111159-9 0.1792 mg/l
111159-10 0.1273 mg/l
111159-10 0.1260 mg/l
111159-11 0.1890 mg/l
111159-11 0.1849 mg/l
111159-12 0.6721 mg/l
111159-12 0.6728 mg/l
111022-1 0.0701 mg/l


Channel 1 - N02N03 353.2/SM4500NO3 F
Volts
Seconds
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
6000
6500
7000
7500
8000
111022-1 0.0671 mg/l
111022-2 0.0865 mg/l
111022-2 -0.0589 mg/l
CCV 3.0ppm 3.0389 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l
111136-5 3.4428 mg/l
111136-5 3.3585 mg/l
111162-1 6.1484 mg/l
111162-1 6.1213 mg/l
111162-2 6.1200 mg/l
111162-2 6.1860 mg/l
111129-1 MS 0.6946 mg/l
111129-1 MS 0.6947 mg/l
111129-1 MSD 0.6953 mg/l
111129-1 MSD 2.5482 mg/l
111153-4 3.7890 mg/l
111153-4 3.7757 mg/l
111162-1 3.3553 mg/l
111162-1 3.3757 mg/l
111162-2 3.4152 mg/l
111162-2 3.3660 mg/l
CCV 3.0ppm 2.9434 mg/l
CCB Blank -0.0589 mg/l
CCB Blank -0.0589 mg/l

STL PENSACOLA

NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

Tme 8:00

ANALYST RB

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	prep BLK	DIwats	N3W67A
	ICV	↓	
	111093-1	WW	
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	111190-2		
	111057-1		
	2		
	3		
	4		
	111004-1		
	2		
	3		
	4		
	110721-1		
	110723-1		
	110723-2		↓
	110728-1		N3W67B
	111061-1		↓
	-2		
	-3		
	-4		
↓	prep BLK	DIwats	N3W67B

STL PENSACOLA

NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

The 900

ANALYST RD

DATE 11-7-01	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	ICV	DI water	N3W167B Cont
	111091-1	WW	
	2		
	3		
	111091-4		
	110722-2		
	111008-1		
	-2		
	-3		
	111073-1		
	111126-5		
	-6		
	-7		
	-8		
11-7-01	prep Blk	DI water	N3W167C
	ICV	↓	
	111090-1	WW	
	-2		
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	-9		
	111141-2		
	111138-1		
	-2		
	-3		
	-4		

RD 11-8-01

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST LB

8.00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	Prep Blk	DI water	N3W67D
	ICV	↓	
	111152-1	WW	
	-2		
	-3		
	-4		
	111136-1		
	2		
	3		
	4		
	5		
	-6		
	-7		
	111136-8		
	111162-1		
	2		
	3		
	111159-1		
	2		
	3		
	4		
	5		
	Prep BK	DI water	N3W67E
	ICV		
	111129-1	WW	
	2		
	3		
↓	111163-1	↓	↓

STL PENSACOLA
NO_2NO_3 FILTER LOG 353.2 / SM 4500 NO_3F

ANALYST RB

8.00

DATE	SAMPLE ID #	SAMPLE TYPE	COMMENT
11-7-01	111153-2	WW	N3W67E
	-3		
	-4		
	-5		
	-6		
	-7		
	-8		
	-9		
	111159 ~~-10~~ 7		
	-9		
	-10		
	-11		
	-12		
	111022-1		
	-2		

REVIEWED AS 11/5/01

STL Pensacola

NO_2 Colorimetric #354.1/SM 4500-NO_2-B

Corr Co: SP-830 0.999974189 / Spec 21D 0.99989 (10/05/01)

	Water	Soil
RPD	20	20
SPIKE	72-128%	70-127%
ICV/CCV	90-110%	90-110%

Chemist[1]: WG Batch #: N2W208

Analysis Date: 10-30-01 Analysis Time On: 1630 Analysis Time Off: 1700

[1]The chemist removed the samples from the storage refrigerator, maintained custody during analysis and relinquished samples back to storage refrigerator.

Sample ID (STL-PN Laboratory Sample Accession Number)	Sample Type	Sample Size	Color BLK	Absorb 540 nm	Reading Graph mg/L	Dilute Factor	Results [2] mg/L	RL[3]	
ICB (Blank)	DI Water	25 mL	N/A	ZEROED	0.000	N/A	ND	0.10	
ICV (0.2 ppm)	NO_2-ICV-I[4] 10-30-01	0.5/25 mL	N/A	0.546	0208	N/A	0.21/0.2	0.10	105%
CCV LOW (0.2 ppm)	NO_2-CCV-I[5] 10-30-01	0.5/25 mL	N/A	0.566	0.216	N/A	0.22/0.2	0.10	110%
[1] 110728-1	25	25	N/A	0.000	0.000	N/A	ND	0.10	
MS[6] (0.2 ppm) -1	NO_2-CCV-I[5] 10-30-01	0.5/25 mL		0.583	0.222		0.22/0.2	0.10	110%
MSD[6] (0.2 ppm) -1	NO_2-CCV-I[5] 10-30-01	0.5/25 mL		0.558	0.213		0.21/0.2	0.10	105%
[2] 110722-2	25	25		0.019	0.008		ND	0.10	RPD
[3] 110723-1				0.000	0.000		ND	0.10	
[4] -2				0.001	0.001		ND	0.10	
[5] 110718-1		0.5/25	0.670	0.738	0.026	X5	ND	~~0.10~~ 0.50	@
[6] -2		2.5/25	0.100	0.743	0.245	X2	0.490	~~0.10~~ 0.20	@
[7] -3		25	0.450	1.226	0.296	N/A	0.30	0.10	
[8] -4		25	N/A	0.000	0.000		ND	0.10	
[9] 110719-1		2.5/25	0.446	0.948	0.192	X2	0.38	~~0.10~~ 0.20	@
-2		5/25	0.041	0.939	0.342	X5	1.71	~~0.10~~ 0.50	
NO_2-CCV-I (0.4 ppm)	CCV HIGH 10-30-01	1.0/25mL	N/A	1.129	0.430	N/A	0.43/0.4	0.10	108%
DUP[7] -2	Duplicate	5/25	0.041	0.938	0.342	X5	1.71	~~0.10~~ 0.50	
11 -3	25	25	0.030	0.032	0.001	N/A	ND	0.10	
12 -4		5/25	0.736	0.883	0.056	X5	ND	~~0.10~~ 0.50	@
13 -5		25	N/A	1.274	0.486	N/A	0.49	0.10	
14 -6			0.096	0.092	0.000		ND	0.10	
15 -7			N/A	0.000	0.000		ND	0.10	
~~16~~								~~0.10~~	
17								0.10	
18		AS 11/5/01						0.10	
19								0.10	
~~20~~								~~0.10~~	
NO_2-CCV-I	CCV LOW 10-30-01	0.5/25mL	N/A	0.571	0.218	N/A	0.22/0.2	0.10	110%
ICB (Blank)	DI Water	25mL	N/A			N/A		0.10	

[2] Final result of NO_2 in mg/L or mg/kg x dilution factor (DF).

[3] RL = STL-PN Reporting Limit.

[4] ICV = The intermediate standard is referenced here because 0.5 mL of the 10 ppm intermediate is diluted to 25 mL to produce a true value of 0.20 ppm working ICV. The working standard is prepared and expires daily.

[5] CCV = Continuing calibration verification: Low CCV: 0.5 mL of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.20 ppm. : High CCV: 1.0 of the intermediate CCV (10 ppm) is diluted to 25 mL to produce a true value at 0.40 ppm. The working CCV is prepared and expires on analysis day.; therefore the ..ermediate is referenced here.

[6] MS = Matrix spike sample. 0.5 mL of the intermediate 10 ppm CCV is spiked into 25 mL sample TV=0.20 ppm. Please specify sample ID (accession #) or ".

[7] DUP = Duplicate sample; please specify the laboratory sample accession number (sample ID) or "arrow down" from previous sample ID entry.

NO2

Calibration Curve Verification

Analysis: NO2 Method #: 354.1/SM4500NO2B

Instrument: Sp830 nm= 540

Compound: NANO2 Lot# 987709 Fisher

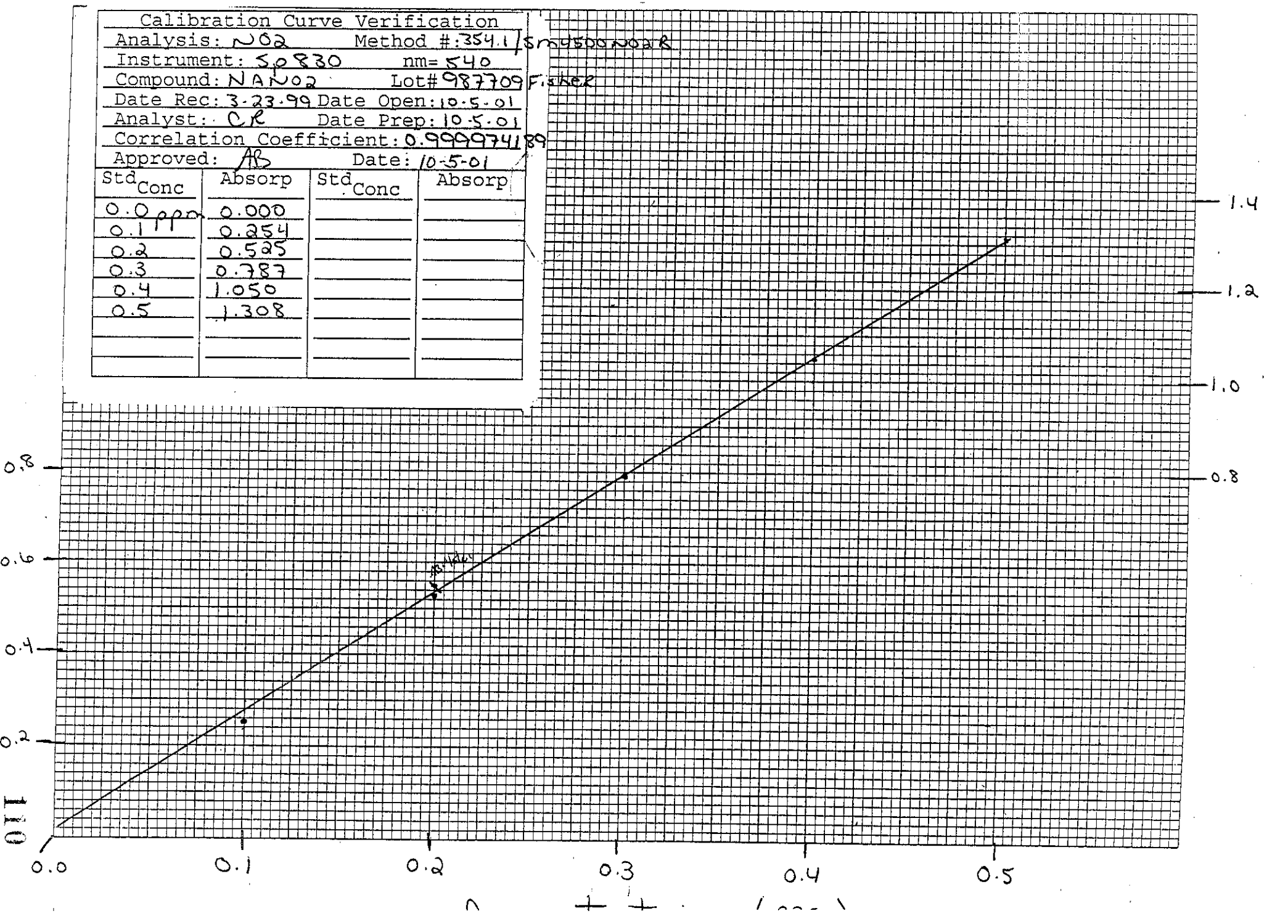
Date Rec: 3-23-99 Date Open: 10-5-01

Analyst: CR Date Prep: 10-5-01

Correlation Coefficient: 0.999974189

Approved: AB Date: 10-5-01

Std Conc	Absorp	Std Conc	Absorp
0.0 ppm	0.000		
0.1	0.254		
0.2	0.525		
0.3	0.787		
0.4	1.050		
0.5	1.308		



DISSOLVED IRON

- Metals
- COVER PAGE -
INORGANIC ANALYSIS DATA PACKAGE

Client: CCI

SDG No.: C110681 **Method Type:** SW 846 **SAS No.:** N/A

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** N/A

Lab Sample ID	Client Sample ID
C110681-1	17-3619A-Q401
C110681-2	17-3624B-Q401
C110681-3	17-36FD2-Q401
C110728-1	17-3625C-Q401

Were ICP interelement corrections applied ?	Yes/No	Yes
Were ICP background corrections applied ?	Yes/No	Yes
If yes - were raw data generated before application of background corrections?	Yes/No	No

Comments:

Analysis of these dissolved samples is done in accordance with EPA SW846 method for ICP (6010B). Results were reported on inorganic reporting forms using STL-PN reporting limits. STL-PN reporting limits are listed under the RDL column on Form 10.

The matrix spike and matrix spike duplicate (MS/MSD) results are the duplicate results reported on form 6. The acceptance limit for the duplicate is ±20%.

ICP:

Standards used to calibrate the ICP are custom blends purchased from High Purity.

The ICP has two wavelengths for iron. The first line, 259.9 nm, has a MDL of 7.0 µg/L and a linear range of 40 mg/L. The second line, 271.4 nm, is used to report concentrations above 40 mg/L to a linear range of 500 mg/L

No other problems were encountered with the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and (if applicable) in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Marty Edwards Name: Marty Edwards

Date: 11/08/01 Title: Metals Supervisor

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-1 **Client ID:** 17-3619A-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-2 **Client ID:** 17-3624B-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	760	ug/L			P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110681-3 **Client ID:** 17-36FD2-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/27/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	100	ug/L	U		P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: CCI **SDG No.:** C110681 **Method Type:** SW846

Sample ID: C110728-1 **Client ID:** 17-3625C-Q401

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Date Received:** 10/30/01 **Level:** LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7439-89-6	Iron	670	ug/L			P	7.0	TJA61E Trace	TNOV05A

Color Before: **Clarity Before:** **Texture:**

Color After: **Clarity After:** **Artifacts:**

Comments:

Metals
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1									
	Aluminum	9960	10000	99.6	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Calcium	9988	10000	99.9	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Iron	10051	10000	100.5	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Iron	10051	10000	100.5	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
	Magnesium	9991	10000	99.9	90.0 - 110.0	P	11/5/01	09:10	TNOV05A
CCV1									
	Aluminum	10370	10000	103.7	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Calcium	10227	10000	102.3	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Iron	10048	10000	100.5	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Iron	10127	10000	101.3	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
	Magnesium	10217	10000	102.2	90.0 - 110.0	P	11/5/01	10:02	TNOV05A
CCV2									
	Aluminum	10223	10000	102.2	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Calcium	10216	10000	102.2	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Iron	10106	10000	101.1	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Iron	10184	10000	101.8	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
	Magnesium	10285	10000	102.8	90.0 - 110.0	P	11/5/01	11:04	TNOV05A
CCV3									
	Aluminum	10278	10000	102.8	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Calcium	10266	10000	102.7	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Iron	10111	10000	101.1	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Iron	10176	10000	101.8	90.0 - 110.0	P	11/5/01	12:06	TNOV05A
	Magnesium	10287	10000	102.9	90.0 - 110.0	P	11/5/01	12:06	TNOV05A

Metals
- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
ICB1										
	Aluminum	100.0	+/-100.0	B	10.0	100.0	P	11/5/01	09:15	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	09:15	TNOV05A
	Iron	9.2	+/-100.0	B	7.0	100.0	P	11/5/01	09:15	TNOV05A
	Iron	34.4	+/-4000.0	B	20.0	4000.0	P	11/5/01	09:15	TNOV05A
	Magnesium	14.71	+/-500.00	B	6.00	500.00	P	11/5/01	09:15	TNOV05A
CCB1										
	Aluminum	17.8	+/-100.0	B	10.0	100.0	P	11/5/01	10:08	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	10:08	TNOV05A
	Iron	23.6	+/-100.0	B	7.0	100.0	P	11/5/01	10:08	TNOV05A
	Iron	63.4	+/-4000.0	B	20.0	4000.0	P	11/5/01	10:08	TNOV05A
	Magnesium	49.70	+/-500.00	B	6.00	500.00	P	11/5/01	10:08	TNOV05A
CCB2										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	11/5/01	11:10	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	11:10	TNOV05A
	Iron	15.9	+/-100.0	B	7.0	100.0	P	11/5/01	11:10	TNOV05A
	Iron	30.2	+/-4000.0	B	20.0	4000.0	P	11/5/01	11:10	TNOV05A
	Magnesium	26.91	+/-500.00	B	6.00	500.00	P	11/5/01	11:10	TNOV05A
CCB3										
	Aluminum	100.0	+/-100.0	U	10.0	100.0	P	11/5/01	12:11	TNOV05A
	Calcium	500.0	+/-500.0	U	70.0	500.0	P	11/5/01	12:11	TNOV05A
	Iron	18.3	+/-100.0	B	7.0	100.0	P	11/5/01	12:11	TNOV05A
	Iron	27.3	+/-4000.0	B	20.0	4000.0	P	11/5/01	12:11	TNOV05A
	Magnesium	27.98	+/-500.00	B	6.00	500.00	P	11/5/01	12:11	TNOV05A

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL	RDL	M	Analysis Date	Analysis Time	Run
PBWPD136			**WATER**							
	Iron	11.1	+/-100.0	B	7.0	100.0	P	11/5/01	10:14	TNOV05A

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

ICS Source: HIGH PURITY **Instrument ID:** TJA61E Trace

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window %Rec	Analysis Date	Analysis Time	Run Number
ICS-A1								
	Aluminum	516707.9	500000.0	103.3	80 - 120	11/5/01	09:41	TNOV05A
	Calcium	472521.7	500000.0	94.5	80 - 120	11/5/01	09:41	TNOV05A
	Iron	185166.6	200000.0	92.6	80 - 120	11/5/01	09:41	TNOV05A
	Iron	201409.2	200000.0	100.7	80 - 120	11/5/01	09:41	TNOV05A
	Magnesium	544446.1	500000.0	108.9	80 - 120	11/5/01	09:41	TNOV05A
ICS-AB1								
	Aluminum	536569.7	510000.0	105.2	80 - 120	11/5/01	09:46	TNOV05A
	Calcium	485178.5	510000.0	95.1	80 - 120	11/5/01	09:46	TNOV05A
	Iron	194283.1	210000.0	92.5	80 - 120	11/5/01	09:46	TNOV05A
	Iron	208579.7	210000.0	99.3	80 - 120	11/5/01	09:46	TNOV05A
	Magnesium	541410.1	510000.0	106.2	80 - 120	11/5/01	09:46	TNOV05A
ICS-A2								
	Aluminum	514460.3	500000.0	102.9	80 - 120	11/5/01	11:32	TNOV05A
	Calcium	474355.2	500000.0	94.9	80 - 120	11/5/01	11:32	TNOV05A
	Iron	186170.8	200000.0	93.1	80 - 120	11/5/01	11:32	TNOV05A
	Iron	200974.2	200000.0	100.5	80 - 120	11/5/01	11:32	TNOV05A
	Magnesium	540895.9	500000.0	108.2	80 - 120	11/5/01	11:32	TNOV05A
ICS-AB2								
	Aluminum	530725.0	510000.0	104.1	80 - 120	11/5/01	11:38	TNOV05A
	Calcium	483846.3	510000.0	94.9	80 - 120	11/5/01	11:38	TNOV05A
	Iron	194759.0	210000.0	92.7	80 - 120	11/5/01	11:38	TNOV05A
	Iron	211935.1	210000.0	100.9	80 - 120	11/5/01	11:38	TNOV05A
	Magnesium	549898.6	510000.0	107.8	80 - 120	11/5/01	11:38	TNOV05A

Metals
- 5a -
MATRIX SPIKE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1 **Client ID:** 17-3619A-Q401S

Percent Solids for Sample: 0.00 **Spiked ID:** C110681-1S **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10033.8		100.0	U	10000.0	100.3		P

Metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1 **Client ID:** 17-3619A-Q401SD

Percent Solids for Sample: 0.00 **Spiked ID:** C110681-1SD **Percent Solids for Spike Sample:** 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	75 - 125	10048.7		100.0	U	10000.0	100.5		P

Metals
- 6 -
DUPLICATE SAMPLE SUMMARY

Client: CCI **Level:** LOW **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STLPN **Case No.:** NA **SAS No.:** NA

Matrix: WATER **Sample ID:** C110681-1S **Client ID:** 17-3619A-Q401SD

Percent Solids for Sample: 0.00 **Duplicate ID:** C110681-1SD **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L		10033.8		10048.7		0.1		P

Metals
- 7 -
LABORATORY CONTROL SAMPLE SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Aqueous LCS Source: HIGH PURITY **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LCSWPD136								
	Iron	ug/L	10000.0	9936.0		99.4	80.0 - 120.0	P

SERIAL DILUTION SAMPLE SUMMARY

Client: _____ **SDG No.:** _____

Contract: _____ **Lab Code:** _____ **Case No.:** _____ **SAS No.:** _____

Matrix: WATER **Level:** _____ **Client ID:** 17-3619A-Q401L

Sample ID: C110681-1 **Serial Dilution ID:** C110681-1L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Iron	5.8	B	35.0	U	100.0		10.00 %	P

Metals
- 10 -
METHOD DETECTION LIMITS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA
SA-36-CTO-017

Analyte	Wave- length (nm)	MDL ug/L	RDL ug/L
TJA61E Trace			**Date:** 1/27/00
Aluminum	308.2	10.0	100.0
Antimony	206.8	2.00	50.00
Arsenic	189.0	3.00	5.00
Barium	493.4	1.00	10.00
Beryllium	313.0	1.00	3.00
Boron	249.6	7.00	100.0
Cadmium	226.5	1.00	5.00
Calcium	317.9	70.0	500.0
Chromium	267.7	1.00	5.00
Cobalt	228.6	1.00	10.00
Copper	324.7	3.00	10.00
Iron	271.4	20.0	4000.0
Lead	220.3	2.00	5.00
Magnesium	279.0	6.00	500.0
Manganese	257.6	1.00	10.00
Molybdenum	202.0	2.00	10.00
Nickel	231.6	2.00	5.00
Potassium	766.4	60.0	1000.0
Selenium	196.0	5.00	10.00
Silver	328.0	1.00	5.00
Sodium	330.2	200	1000.0
Strontium	421.5	1.00	5.00
Thallium	190.8	4.00	10.00
Tin	189.9	2.00	10.00
Titanium	334.9	1.00	5.00
Vanadium	292.4	1.00	10.00
Zinc	206.2	6.00	20.00
Lithium	670.7	1.00	50.00

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Cd
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000430	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000650	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000140	0.0000000	0.0004470
Copper	324.75	0.0000000	0.0000000	-0.0000300	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	-0.0002350	0.0000180	0.0000670	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000080	0.0000140	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000170	0.0000000	-0.0001890	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000340	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000190	0.0000000	0.0002900	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	-0.0002840	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000440	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Co	Cr	Mn	Mo	Ni
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0033650	0.0000000
Antimony	206.84	0.0000000	-0.0075390	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	-0.0064820	0.0000000	-0.0033180	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.60	0.0000000	0.0002160	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0000600	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0002780	-0.0003610	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	-0.0013130	0.0001110
Copper	324.75	0.0000000	-0.0001140	0.0000000	0.0002060	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0000000	0.0000000	0.0000000	-0.0008980	0.0003060
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000410	0.0000000	0.0000000	0.0000000
Nickel	231.60	-0.0008980	0.0000000	0.0001170	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0005340	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.0126670	0.0000000	0.0000000	0.0000000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0014260	0.0002080	-0.0004580	0.0000000	0.0000000
Tin	189.98	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0002140	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0012560	0.0000000	-0.0001180	0.0000000
Zinc	213.85	0.0000000	-0.0007680	0.0000000	0.0002030	0.0000000

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/19/00

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sb	Ti	Tl	V	Zn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0218830	0.0000000
Antimony	206.84	0.0000000	-0.0025860	0.0000000	0.0000000	0.0000000
Arsenic	193.60	0.0000000	0.0000000	0.0000000	-0.0000360	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0001820	0.0000000
Boron	249.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	-0.0000740	0.0000000
Cobalt	228.61	0.0000000	0.0021650	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.351/2	0.0003950	-0.0004050	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0002210	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	193.021/2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.99	0.0000000	-0.1341330	0.0000000	0.0000000	0.0540000
Strontium	421.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0014490	0.0000000	0.0000000	0.0000000
Tin	189.98	0.0000000	0.0004580	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0005900	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 12 -

LINEAR RANGES

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando SA-36-CTO-017 **Lab Code:** STL PN **Case No.:** NA **SAS No.:** NA

Instrument ID: TJA61E Trace **Date:** 6/6/00

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	15.00	500000
Antimony	15.00	50000
Arsenic	15.00	50000
Barium	15.00	25000
Beryllium	15.00	10000
Boron	15.00	50000
Cadmium	15.00	20000
Calcium	15.00	500000
Chromium	15.00	100000
Cobalt	15.00	20000
Copper	15.00	100000
Iron	15.00	500000
Lead	15.00	100000
Magnesium	15.00	500000
Manganese	15.00	25000
Molybdenum	15.00	50000
Nickel	15.00	100000
Potassium	15.00	50000
Selenium	15.00	50000
Silver	15.00	10000
Sodium	15.00	100000
Strontium	15.00	10000
Thallium	15.00	20000
Tin	15.00	50000
Titanium	15.00	20000
Vanadium	15.00	100000
Zinc	15.00	50000
Lithium	15.00	10000

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: CCI **SDG No.:** C110681

Contract: NTC Orlando **Lab Code:** STL PN **Method:** P
SA-36-CTO-017 **Case No.:** NA **SAS No.:** NA

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	PD136						
PBWPD136	PBWPD136	MB	WATER	11/2/01	50.0	50.0	
LCSWPD136	LCSWPD136	LCS	WATER	11/2/01	50.0	50.0	
C110681-1	17-3619A-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110681-1S	17-3619A-Q401S	MS	WATER	11/2/01	50.0	50.0	
C110681-1SD	17-3619A-Q401SD	MSD	WATER	11/2/01	50.0	50.0	
C110681-2	17-3624B-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110681-3	17-36FD2-Q401	SAM	WATER	11/2/01	50.0	50.0	
C110728-1	17-3625C-Q401	SAM	WATER	11/2/01	50.0	50.0	

Metals
- 14 -
ANALYSIS RUN LOG

Client: CCI Contract: NTC Orlando

Lab Code: STL PN Case No.: NA SAS No.: NA SDG C110681

Instrument ID Number: TJA61E Trace Method: P Run Number: TNOV05A

Start Date: 11/5/01 End Date: 11/5/01

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
CAL BLK	1.00	08:53		X						X				X		X														
STD 1	1.00	08:58		X						X				X		X														
STD 1	1.00	09:04		X						X				X		X														
ICV1	1.00	09:10		X						X				X		X														
ICB1	1.00	09:15		X						X				X		X														
CRDL1	1.00	09:21		X						X				X		X														
AL500	1.00	09:29		X						X				X		X														
FE500	1.00	09:35		X						X				X		X														
ICS-A1	1.00	09:41		X						X				X		X														
ICS-AB1	1.00	09:46		X						X				X		X														
CCV1	1.00	10:02		X						X				X		X														
CCB1	1.00	10:08		X						X				X		X														
PBWPD136	1.00	10:14												X																
LCSWPD136	1.00	10:19												X																
C110681-1	1.00	10:25												X																
C110681-1L	5.00	10:30												X																
C110681-1S	1.00	10:36												X																
C110681-1SD	1.00	10:42												X																
C110681-2	1.00	10:47												X																
C110681-3	1.00	10:53												X																
C110728-1	1.00	10:58												X																
CCV2	1.00	11:04		X						X				X		X														
CCB2	1.00	11:10		X						X				X		X														
ZZZZZZ	1.00	11:15																												
ZZZZZZ	1.00	11:21																												
CRDL2	1.00	11:27		X						X				X		X														
ICS-A2	1.00	11:32		X						X				X		X														
ICS-AB2	1.00	11:38		X						X				X		X														
CCV3	1.00	12:06		X						X				X		X														
CCB3	1.00	12:11		X						X				X		X														

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

DIGESTION LIQUIDS

Job No: 3651
Batch No: PD 136
Job Date: 11.01.01

ANALYSIS

ICP | AA | HG | FLAME | TCLP | MISC

Level B/C

Date/Time Started: 11/2/01 @ 2:55
Date/Time Completed: 11/2/01 @ 309
Analyst: W
Method/SOP: NA
Final Volume: NA
Acid Lot #(s): HNO3 - 662314042
NA
NA
Hood: NA
Bath Temp(Hg only): NA
Final Project Check: CDO 11.02.01

	ID	LOT#	AMT (mL)	INIT
Spike		NA		
Spike		NA		
Spike		NA		
Spike		NA		

	SAMPLE ID/MTX/DESCRIPTION	D.D	SDG	BENCH	VIAL#	VOLUME DIGESTED(mL)	DF	COMMENTS
1.	C110681*1/LI/17-3619A-Q401	11.06		ICP				*XNE| DISSOLVES
2.	C110681*2/LI/17-3624B-Q401	11.06		ICP				*XNE|
3.	C110681*3/LI/17-36FD2-Q401	11.06		ICP				*XNE|
4.	C110728*1/LI/17-3625C-Q401	11.09		ICP				*XNE|
5.	C110760*1/LI/063-ASI-I-GW-1030-01-42	11.09	R9	ICP				filtered/preserved *XN| in lab 11/2/01
6.	C110760*2/LI/063-ASI-E-GW-1030-01-42	11.09	R9	ICP				*XN|
7.	Lab filtered blk							
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
	Lab Blank							
	Lab Spike #1							
	Lab Spike #2							

11/2/01 W

11/2/01 W

Fe

Ca, Fe, M

Comments: Held filtered sample 1 extra from completed date & time.

TJA Trace ICP (499890) Calibration/Maintenance/Run Log

File Name: Nov02A Date: 11.02.01 Analyst: C

Maintenance:

☐ Change Torch/Injector ☐ Change Spray Chamber ☐ Change Nebulizer

☐ Change / ☑ Rotate Peri-Pump Tubing ☐ Other: _____

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: 0305167 Profile Intensity: 15886 Spectrum Shifter: 534

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 11514 Cu:Mn Ratio (Std 1): 93/113=.82

Standards Reference:

Std 1: M02739 ICV/CCV: M02756 ICSA: M02748 ICSAB: M02753

Batch ID's:

Batch #	Comments	Batch #	Comments
PW384	P.E.	PS254	
PW385	P.E.		
PW386			
PW383			
PS253			

Comments:

5X = 103

Bi = 124

File Name: NOV05A Date: 11.05.01 Analyst: QQP

Maintenance:

☑ Change Torch/Injector ☑ Change Spray Chamber ☐ Change Nebulizer

☑ Change / ☐ Rotate Peri-Pump Tubing ☑ Other: nodded - out neb

☐ Change Argon Dewer ☐ Empty Waste

Performance Checks: (Performed as needed)

Sensitivity: As: _____ Pb/2: _____ Se/2: _____ Tl: _____ Y: _____ Uptake Rate: _____ mL/min

Instrument Setup:

Profile Position: .048513 Profile Intensity: 1741 Spectrum Shifter: 514

Nebulizer Pressure: 30 Purge Pressure: 6.0

Y Intensity (Std 1): 10609 Cu:Mn Ratio (Std 1): 9.5/11.0=0.86

Standards Reference:

Std 1: M02758 ICV/CCV: M02756 ICSA: M02748 ICSAB: M02753

Batch ID's;

Batch #	Comments	Batch #	Comments
PD136	Level B/C	PS256	
PW382	ne. run K & Na		
PW387			
PT227			
PS255			

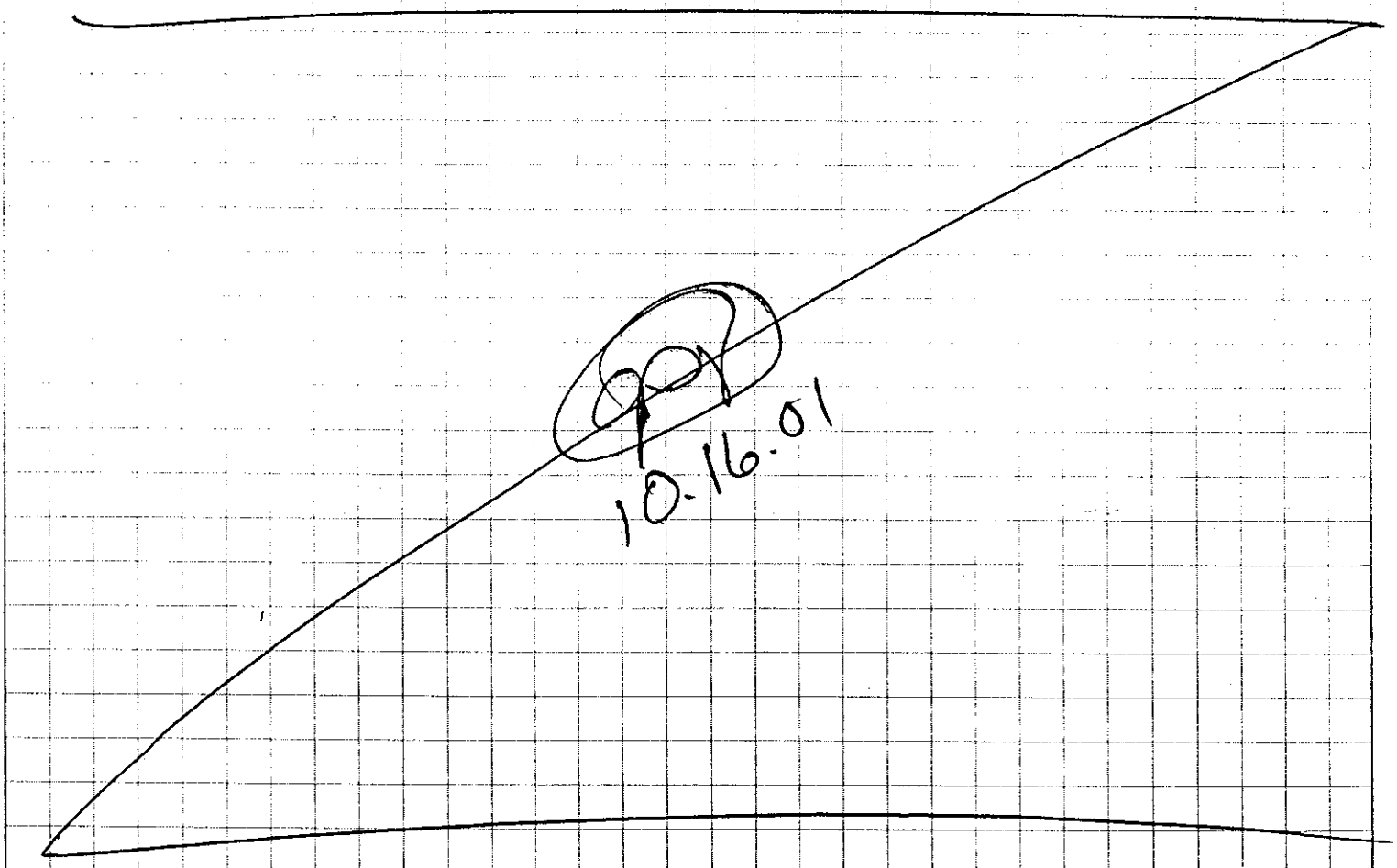
Comments:

9 lost

10.15.01 RLCHKS1 exp 10.16.01 MO2746
(QP) Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

RLCHKS2 exp 10.16.01 MO2747
Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.10 mls of Std 1 & mix well.

10.16.01 ICSA EXP 11.16.01 MO2748
G To A Clean 500 ml Vol FLASK Add ~300ml of type I H_2O. Add 50 ml conc HCL & 10 ml of conc HNO_3.
Add STD Listed below & QS to Volume w/ type I H_2O.
50.0 mL CLP-INF-1 MO2734 EXP 11/02



Continued on Page

Read and Understood By

Gary LaPore Signed 10.16.01 Date _____ Signed _____ Date

10.19.01 ICV/CCV Exp 10.19.01 MO 2750
GH To a clean 1000 ml vol flask Add ~300 ml blk/Rin
Soln. Add STD Listed below & Bring to volume
5.0 STL #1 MO2664 Exp 1/03
5.0 STL #2 MO2665 Exp 1/03

10.22.01 RLCHKS2 exp 10.23.01 MO2751
PP Place 19.90 mls of blank/diluent into a 25 ml A/S cup.
Add 0.1 mls of Std 1 & mix well.

10.24.01 RLCHKS1 exp 10.24.01 MO2752
PP Place 19.95 mls of blank/diluent into a 25 ml A/S cup.
Add 0.05 mls of Std 1 & mix well.

10.24.01 ICSAB exp 11.24.01 MO2753
PP To a clean 500 ml vol flask add ~300 mls of blank/diluent soln. Add Stds listed below & bring to volume with diluent.
50.0 mls CLP-INF-1 MO2734 exp 11.2002
2.5 mls CAL STD 1B-R1 MO2670 exp 08.2002
2.5 mls CAL STD #2-R2 MO2735 exp 11.2002

10.25.01 RLCHS1 EXP 10.26.01 MO2754
GH PLACE 19.95 mls OF blk/dil into A 25 ml A/S Cup
Add 0.05 mls OF STD 1 & mix well.

10.25.01
GH

Continued on Page

Read and Understood By

Signed Date Signed Date

10.30.01 ICV/CCV Exp 11.30.01 MO2756
GF To a clean 1000 ml vol flask Add ~600 ml blk/Rin Soln. Add STD Listed below & bring to volume.
5.0 mL STL*1 MO2664 Exp 1/03
5.0 mL STL*2 MO2665 Exp 1/03

10.31.01 RLCHKS1 Exp 11.01.01 MO2757
GF PLACE 19.95 mls of blk/Rin soln into 25 ml A/S Tube. PLACE 0.05 ml of STD1 & mix well.

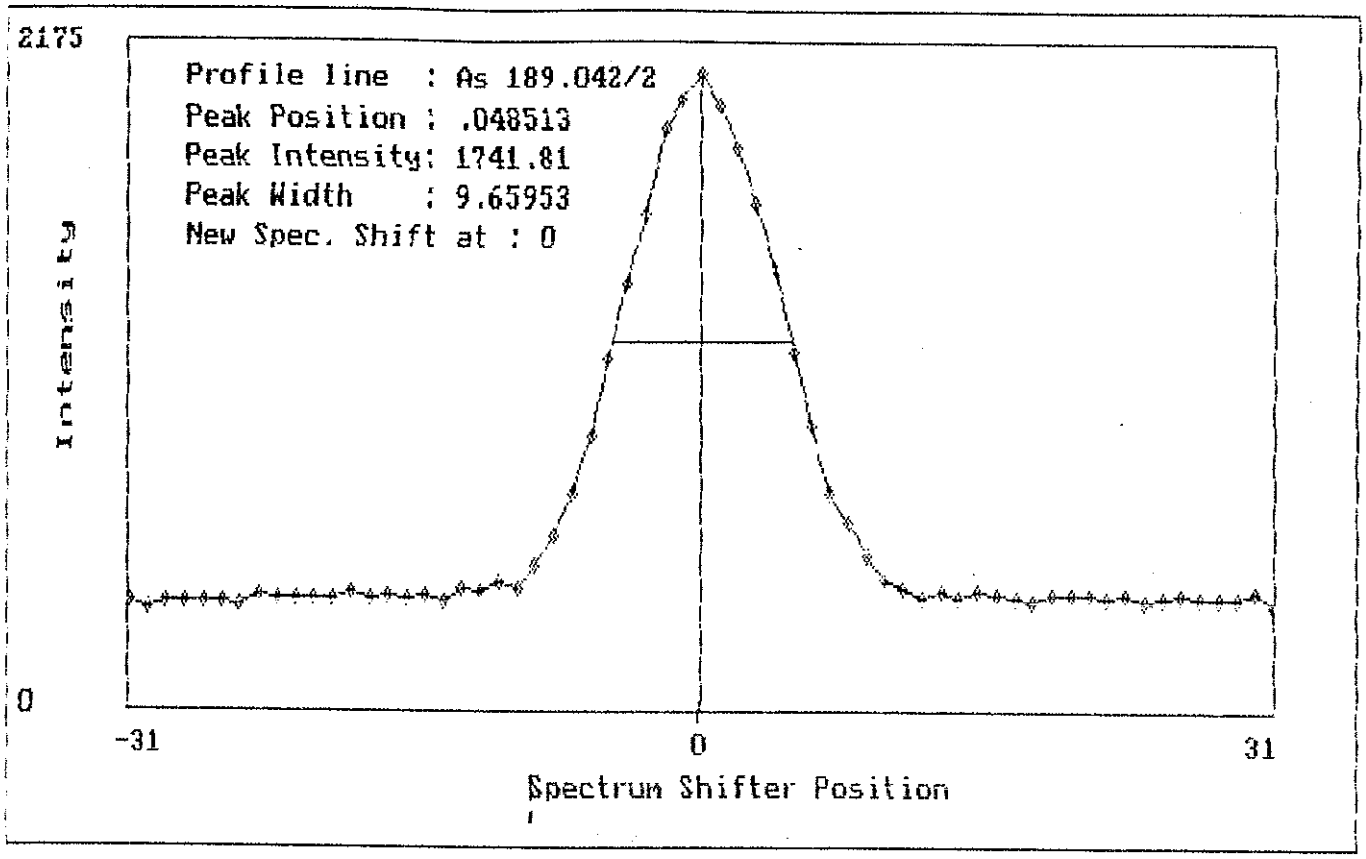
11.02.01 ~~Std~~ 1 exp 12.02.01 MO2758
(GF) To a clean 500 mL vol flask add ~200 mls blank/diluent, Add ~~std~~ listed below & bring to volume with blank/diluent.
5.0 mls Cal ~~Std~~ 1B-R1 MO2670 exp 08/2002
5.0 mls Cal ~~Std~~ #2-R2 MO2735 exp 11/2002

11.6.01 RLCHKS1 Exp 11.7.01 MO2759
GF PLACE 19.95 mls of blk/Rin soln into 25 ml A/S Tube. PLACE 0.05 mls of STD 1 & mix well.

Continued on Page

Read and Understood By

Signed Date Signed Date



11.05.01
cgp
NOVØ5A

Standardization RD1 11.05.01 11/05/01 08:58:45 AM Page 1

Method: 60102007 Standard: CAL BLK
Run Time: 11/05/01 08:53:15

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00852	.05912	-.00533	-.00354	-.00077	.07839	.01538
SDev	.00644	.00100	.01455	.00565	.00176	.00148	.00123
%RSD	75.586	1.6954	272.99	159.42	223.85	1.8924	7.9907
#1	.00397	.05841	.00496	.00045	.00045	.07734	.01451
#2	.01307	.05983	-.01562	-.00754	-.00200	.07944	.01625

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	.00806	-.00507	.00920	.03082	-.00661	.00225	-.36059
SDev	.00529	.00246	.00689	.00777	.00413	.00485	.21785
%RSD	65.546	48.429	74.906	25.202	62.400	215.63	60.414
#1	.00433	-.00334	.00433	.02533	-.00370	.00568	-.51463
#2	.01180	-.00681	.01407	.03632	-.00953	-.00118	-.20655

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	-.00227	-.00027	-.00038	.02348	-.00543	-.00653	.00993
SDev	.00423	.00064	.00005	.01880	.00092	.00771	.01099
%RSD	186.30	234.81	13.154	80.064	16.997	118.01	110.62
#1	.00072	.00018	-.00041	.01019	-.00478	-.00108	.00216
#2	-.00527	-.00073	-.00036	.03677	-.00608	-.01198	.01770

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	220371	220372
Avge	.00480	-.02379	-.00316	.00249	.00090	.38524	-.11155
SDev	.00310	.01566	.00190	.00187	.00115	.24727	.12869
%RSD	64.441	65.854	60.196	74.932	127.18	64.185	115.37
#1	.00261	-.01271	-.00451	.00117	.00171	.21039	-.02055
#2	.00699	-.03486	-.00182	.00381	.00009	.56008	-.20255

Elem	196071	196072	U16707
Avge	.05592	-.03770	.00658
SDev	.05792	.02552	.00764
%RSD	103.58	67.701	116.23
#1	.01496	-.01965	.00117
#2	.09687	-.05574	.01198

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11054	--	--	--	--	--	--
SDev	55.84210	--	--	--	--	--	--
%RSD	.5051760	--	--	--	--	--	--
#1	11093	--	--	--	--	--	--
#2	11015	--	--	--	--	--	--

Method: 6010200/ Standard STD 1
Run Time: 11/05/01 08:58:54

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	3.1990	8.2045	8.8600	7.2220	6.9758	18.561	12.018
SDev	.0149	.0064	.0725	.0628	.0440	.134	.040
%RSD	.46469	.07759	.81807	.86936	.63075	.72097	.33174
#1	3.2095	8.2090	8.9116	7.2664	7.0069	18.656	12.047
#2	3.1885	8.2000	8.8087	7.1776	6.9447	18.466	11.990

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Avge	26.663	10.987	11.513	9.4736	4.5671	82.119	50.265
SDev	.136	.052	.060	.0695	.0239	.429	.138
%RSD	.51072	.47128	.52006	.73324	.52428	.52247	.27355
#1	26.759	11.024	11.556	9.5227	4.5840	82.422	50.168
#2	26.566	10.950	11.471	9.4245	4.5501	81.815	50.363

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Sb2068	Sn1899
Avge	11.695	11.005	6.8088	.88161	11.978	5.1060	7.1481
SDev	.031	.057	.0319	.00999	.045	.0283	.0227
%RSD	.26299	.51942	.46901	1.1330	.37498	.55330	.31688
#1	11.716	11.046	6.8313	.87455	12.009	5.1260	7.1641
#2	11.673	10.965	6.7862	.88868	11.946	5.0860	7.1321

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062	2203/1	2203/2
Avge	39.634	51.690	8.7765	3.1509	10.227	57.058	36.058
SDev	.213	.275	.0465	.0197	.034	.128	.180
%RSD	.53758	.53259	.52930	.62443	.33156	.22371	.49844
#1	39.785	51.885	8.8096	3.1648	10.251	57.148	35.931
#2	39.483	51.495	8.7436	3.1370	10.203	56.968	36.185

Elem	1960/1	1960/2	Li6707
Avge	10.971	10.031	76.845
SDev	.052	.014	.503
%RSD	.47323	.13712	.65515
#1	11.008	10.021	76.489
#2	10.934	10.041	77.201

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10609	--	--	--	--	--	--
SDev	46.40941	--	--	--	--	--	--
%RSD	.4374435	--	--	--	--	--	--
#1	10642	--	--	--	--	--	--
#2	10576	--	--	--	--	--	--

Method: 60102007 Sample Name: STD 1 Operator:
Run Time: 11/05/01 09:04:32
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99807	19.768	1.9995	2.0093	2.0046	.99982	19.735
SDev	.00402	.059	.0061	.0103	.0087	.00472	.079
%RSD	.40249	.29742	.30493	.51076	.43308	.47173	.39987
#1	1.0009	19.809	2.0038	2.0166	2.0108	1.0032	19.791
#2	.99523	19.726	1.9952	2.0021	1.9985	.99648	19.679
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	20.000	2.0000	2.0000	2.0000	1.0000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98906	1.9818	1.9825	2.0064	19.814	19.845	19.758
SDev	.00451	.0086	.0073	.0116	.093	.083	.052
%RSD	.45620	.43142	.36942	.57646	.46875	.41606	.26327
#1	.99225	1.9878	1.9876	2.0146	19.880	19.903	19.722
#2	.98587	1.9757	1.9773	1.9982	19.749	19.786	19.795
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	2.0000	2.0000	2.0000	20.000	20.000	20.000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	19.649	1.9849	1.9906	19.501	1.9853	1.9703	2.0004
SDev	.062	.0081	.0069	.152	.0073	.0090	.0108
%RSD	.31729	.40857	.34443	.77709	.36848	.45578	.53797
#1	19.693	1.9907	1.9954	19.394	1.9905	1.9766	2.0080
#2	19.605	1.9792	1.9857	19.608	1.9801	1.9639	1.9928
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.000	2.0000	2.0000	20.000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0027	1.9744	1.9974	1.9902	1.9836	1.9913	1.9657
SDev	.0124	.0065	.0079	.0081	.0127	.0085	.0068
%RSD	.61966	.32844	.39666	.40850	.63977	.42778	.34517
#1	2.0114	1.9790	2.0030	1.9960	1.9926	1.9974	1.9705
#2	1.9939	1.9698	1.9968	1.9845	1.9746	1.9853	1.9609
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Elem	2203/1	2203/2	1960/1	1960/2	U_6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.9691	1.9708	2.0045	1.9984	1.9118		
SDev	.0259	.0005	.0392	.0034	.0004		
%RSD	1.3145	.02745	1.9554	.17187	.02199		
#1	1.9874	1.9712	2.0373	1.9959	1.9115		
#2	1.9508	1.9704	1.9768	2.0008	1.9121		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					2.0000		
Range					5.0000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10843	--	--	--	--	--	--
SDev	26.45919	--	--	--	--	--	--
%RSD	.2440318	--	--	--	--	--	--
#1	10861	--	--	--	--	--	--
#2	10824	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator: GSP
Run Time: 11/05/01 09:10:09
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50008	9.9598	.99815	.99527	.97640	.49639	9.9884
SDev	.00208	.1198	.00985	.00534	.00924	.00416	.1042
%RSD	.41675	1.2028	.98671	.53617	.94658	.83875	1.0431
#1	.49860	9.8751	.99118	.99150	.96986	.49345	9.9147
#2	.50155	10.045	1.0051	.99904	.98293	.49933	10.062
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50070	1.0096	.99517	.99294	10.051	10.051	9.6544
SDev	.00472	.0104	.00856	.00648	.114	.095	.0129
%RSD	.94191	1.0347	.86056	.65282	1.1306	.94289	.13332
#1	.49736	1.0022	.98912	.98836	9.9706	9.9844	9.6635
#2	.50403	1.0170	1.0012	.99753	10.131	10.118	9.6453
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.9914	.99416	.99743	9.6048	1.0107	1.0016	.99795
SDev	.1065	.00941	.00951	.6132	.0077	.0044	.00068
%RSD	1.0654	.94663	.95338	6.3847	.76199	.44312	.06853
#1	9.9161	.98750	.99071	10.038	1.0053	.99843	.99843
#2	10.067	1.0008	1.0042	9.1712	1.0162	1.0047	.99747
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0101	1.0049	.98500	1.0037	1.0108	.99293	.99820
SDev	.0098	.0087	.00971	.0102	.0089	.00682	.00937
%RSD	.96714	.87024	.98594	1.0190	.88028	.68711	.93817
#1	1.0032	.99870	.97814	.99644	1.0045	.98811	.99158
#2	1.0170	1.0111	.99187	1.0109	1.0171	.99776	1.0048
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0040	1.0004	1.0079	.99550	1.0298		
SDev	.0044	.0045	.0026	.00215	.0142		
%RSD	.43782	.44578	.25952	.21642	1.3817		
#1	1.0009	.99771	1.0013	.99702	1.0198		
#2	1.0071	1.0035	1.0045	.99397	1.0399		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11040	--	--	--	--	--	--
SDev	210.6350	--	--	--	--	--	--
%RSD	1.907997	--	--	--	--	--	--
#1	11189	--	--	--	--	--	--
#2	10891	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator: GSP
Run Time: 11/05/01 09:15:42
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	K_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00095	-.01438	.00225	.00334	.00117	.00064	.00796
SDev	.00718	.01418	.00197	.00055	.00044	.00007	.00673
%RSD	752.26	98.586	87.538	16.303	37.740	10.952	84.538
#1	.00412	-.02441	.00064	.00296	.00086	.00069	.01271
#2	L-.00603	-.00436	.00362	.00373	.00149	.00059	.00320
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00160	-.00039	-.00135	.03446	.00917	-.08736
SDev	.00071	.00088	.00360	.00532	.01168	.00033	.08048
%RSD	512.74	55.159	924.98	393.15	33.911	3.6004	92.124
#1	.00064	.00097	.00215	.00241	.02619	.00940	-.03045
#2	-.00037	.00222	-.00295	-.00511	.04272	.00893	-.14427
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01472	.00082	.00157	-.31471	.00159	.00106	.00344
SDev	.00604	.00006	.00121	1.51924	.00019	.00044	.00219
%RSD	41.056	7.6660	88.608	482.74	11.774	41.348	63.626
#1	.01044	.00078	.00222	.75955	.00146	.00075	.00189
#2	.01899	.00087	.00051	L-1.3890	.00172	.00137	.00499
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00453	.00021	.00045	.00122	-.00004	-.00042	.00145
SDev	.00300	.00538	.00058	.00053	.00705	.00469	.00013
%RSD	66.188	2551.0	130.37	43.770	16357.	1109.4	9.1714
#1	.00241	.00402	.00086	.00084	.00494	.00289	.00136
#2	.00665	-.00359	.00003	.00159	-.00503	-.00374	.00155
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00876	.00596	-.00436	.00734	.00059		
SDev	.02284	.01206	.02289	.01471	.00026		
%RSD	260.88	202.42	524.74	200.52	43.346		
#1	.00740	.00757	.01167	-.00507	.00077		
#2	-.02491	.01449	-.02055	.01774	.00041		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11154	--	--	--	--	--	--
SDev	81.92426	--	--	--	--	--	--
%RSD	.7345048	--	--	--	--	--	--
#1	11212	--	--	--	--	--	--
#2	11096	--	--	--	--	--	--

Method: 60102007 Sample Name: CRI Operator: GSP
Run Time: 11/05/01 09:21:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	BA4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00337	Q.07904	.00686	Q.09639	.01020	.00511	Q.46989
SDev	.00017	.00267	.00091	.00114	.00011	.00012	.00522
%RSD	5.0030	3.3753	13.216	1.1812	1.0964	2.4057	1.1114
#1	Q.00349	Q.07716	.00622	Q.09558	.01012	.00520	Q.47358
#2	Q.00325	Q.08093	.00750	Q.09719	.01028	.00502	Q.46619
Errors	QC Fail	QC Fail	QC Pass	QC Fail	QC Pass	QC Pass	QC Fail
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.00497	.01132	Q.00403	Q.00781	.13781	.10224	Q.77896
SDev	.00006	.00018	.00055	.00106	.00345	.00091	.16214
%RSD	1.2242	1.5967	13.748	13.630	2.5013	.89246	20.815
#1	.00502	.01145	Q.00364	Q.00706	.14025	.10289	Q.89362
#2	Q.00493	.01119	Q.00442	Q.00856	.13537	.10159	Q.66430
Errors	QC Fail	QC Pass	QC Fail	QC Fail	NOCHECK	QC Pass	QC Fail
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q.48455	.01018	.01017	Q.54092	.00609	.00523	.01239
SDev	.00889	.00006	.00009	.15132	.00023	.00030	.00117
%RSD	1.8349	.56525	.88147	27.975	3.8645	5.8032	9.4578
#1	Q.49084	.01022	.01023	Q.43392	.00626	.00501	.01156
#2	Q.47827	.01014	.01010	Q.64792	.00593	.00544	.01322
Errors	QC Fail	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb206M	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05484	Q.00365	Q.00468	.00590	Q.00954	Q.00864	.02068
SDev	.00103	.00079	.00005	.00006	.00089	.00027	.00032
%RSD	1.8746	21.740	1.0508	1.0714	9.2815	3.1566	1.5363
#1	.05412	Q.00309	Q.00465	.00595	Q.00892	Q.00844	.02090
#2	.05557	Q.00421	Q.00472	.00586	.01017	Q.00883	.02045
Errors	QC Pass	QC Fail	QC Fail	QC Pass	QC Fail	QC Fail	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	220371	220372	196071	196072	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00984	.01275	.00099	.01808	.05123
SDev	.00276	.00092	.00815	.00231	.00277
%RSD	28.043	7.2440	819.33	12.784	5.4024
#1	-.01180	.01340	.00477	.01972	.05318
#2	-.00789	.01210	.00670	.01645	Q.04927
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					.10000
Range					50.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11263	--	--	--	--	--	--
SDev	126.2110	--	--	--	--	--	--
%RSD	1.120591	--	--	--	--	--	--
#1	11352	--	--	--	--	--	--
#2	11174	--	--	--	--	--	--

Method: 6010200? Sample Name? [illegible] Operator: [illegible]
Run Time: 11/05/01 07:29:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00228	502.37	-.00146	.00258	.00111	.00046	.02557
SDev	.00056	.58	.00047	.00040	.00024	.00000	.00046
%RSD	24.429	.11462	32.390	15.589	21.439	.74389	1.7799
#1	-.00267	502.77	-.00180	.00229	.00128	.00046	.02525
#2	-.00188	501.96	-.00113	.00286	.00094	.00045	.02589
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.00					
Range		250.00					

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00111	.00029	.02960	.00045	.15370	.13816	-.07614
SDev	.00005	.00031	.00044	.00033	.00406	.00020	.02363
%RSD	4.8507	106.98	1.4875	73.192	2.6440	.14635	31.028
#1	-.00115	.00051	.02929	.00021	.15658	.13802	-.09285
#2	-.00107	.00007	.02991	.00068	.15083	.13831	-.05944
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00818	.00199	.01091	-.33894	.00825	.00160	.00529
SDev	.00044	.00007	.00041	.07883	.00080	.00007	.00104
%RSD	5.3796	3.6171	3.7315	23.257	9.7457	4.7137	19.604
#1	.00849	.00204	.01119	-.39468	.00881	.00154	.00602
#2	.00787	.00194	.01062	-.28320	.00768	.00165	.00456
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00590	-.00284	-.00007	.00049	.00688	-.00079	.00486
SDev	.00037	.00274	.00003	.00004	.00504	.00036	.00011
%RSD	6.2351	94.956	50.725	8.9045	73.166	45.815	2.1811
#1	.00564	-.00482	-.00009	.00052	.01044	-.00104	.00494
#2	.00616	-.00095	-.00004	.00046	.00332	-.00053	.00479
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.03685	.02027	.0045	.01030	-.00006
SDev	.00247	.00115	.00100	.00056	.00007
%RSD	6.702	5.6893	41.050	5.4180	266.90
#1	-.03860	.01958	.00534	.01070	.00007
#2	-.03511	.02096	.00476	.00991	.00002

Errors	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK
Value	.00000	.00000	.00000	.00000	
Range	.00300	.00300	.00500	.00500	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11144	--	--	--	--	--	--
SDev	16.03558	--	--	--	--	--	--
%RSD	.1438895	--	--	--	--	--	--
#1	11133	--	--	--	--	--	--
#2	11156	--	--	--	--	--	--

Method: 60102007 Sample Name: FE500 Operator: GSP
Run Time: 11/05/01 09:35:29
Comment:
Mode: CONC Corr. Factor = 1

Elem	Ag3280	Al3082	As1890	K_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00298	.16957	.00099	.00153	.00122	.00059	-.01015
SDev	.00081	.07686	.00176	.00063	.00005	.00003	.00092
%RSD	27.257	45.328	176.72	41.068	4.0720	5.8207	9.0951
#1	-.00356	.22392	.00294	.00197	.00125	.00062	-.01080
#2	-.00241	.11522	-.00075	.00109	.00118	.00057	-.00950
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			.00000				.00000
Range			.00300				.10000

Elem	Cd2265	Co228o	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00012	.00039	-.00573	-.00412	555.36	399.18	-.14094
SDev	.00036	.00004	.00011	.00076	2.46	2.39	.03961
%RSD	289.08	9.9628	1.9197	18.346	.44220	.59882	28.102
#1	.00013	.00036	-.00581	-.00465	557.10	400.87	-.16894
#2	-.00038	.00041	-.00565	-.00358	553.63	397.49	-.11293
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value	.00000	.00000		.00000	500.00		
Range	.00050	.00500		.00500	250.00		

Elem	Mg2790	Mn2576	Mo2070	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.04374	-.00260	-.00161	-.85257	-.00683	.00130	.00331
SDev	.00034	.00006	.00031	.23492	.00005	.00073	.00200
%RSD	.78152	2.1184	19.149	27.555	.68615	56.004	60.387
#1	-.04350	-.00264	-.00140	-1.0187	-.00679	.00182	.00472
#2	-.04398	-.00256	-.00183	-.68646	-.00686	.00079	.00190
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00169	-.00043	-.00063	.00018	Q-.00532	Q-.00327	-.00116
SDev	.00371	.00060	.00005	.00019	.00250	.00137	.00014
%RSD	219.60	137.34	7.3107	106.34	47.021	41.756	11.957
#1	.00093	-.00086	-.00067	.00031	Q-.00709	Q-.00424	-.00106
#2	-.00431	-.00001	-.00060	.00004	Q-.00355	-.00231	-.00126
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	QC Pass
Value	.00000				.00000	.00000	.00000
Range	.00500				.00300	.00300	.01000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	Q-.01419	Q.00903	Q-.00967	Q.00979	-.00034		
SDev	.00107	.00163	.00239	.00419	.00010		
%RSD	7.5322	17.997	24.748	42.813	28.385		
#1	Q-.01494	Q.01018	Q-.01156	Q.01275	-.00041		
#2	Q-.01343	Q.00788	Q-.00798	Q.00682	-.00028		
Errors	QC Fail	QC Fail	QC Fail	QC Fail	NOCHECK		
Value	.00000	.00000	.00000	.00000			
Range	.00200	.00200	.00300	.00300			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10663	--	--	--	--	--	--
SDev	75.79232	--	--	--	--	--	--
%RSD	.7107688	--	--	--	--	--	--
#1	10610	--	--	--	--	--	--
#2	10717	--	--	--	--	--	--

Method: 60102007 Sample Name: 1034 Operator: GSP
Run Time: 11/05/01 09:41:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00207	516.71	-.00132	.00241	.00172	.00122	472.52
SDev	.00186	.55	.00066	.00061	.00003	.00004	.23
%RSD	89.908	.10710	50.089	25.368	1.5594	3.1999	.04874
#1	-.00075	516.32	-.00085	.00284	.00174	.00125	472.36
#2	-.00339	517.10	-.00179	.00198	.00171	.00119	472.68
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00068	.00349	-.00275	-.00127	201.41	185.17	-.09983
SDev	.00023	.00004	.00073	.00021	.14	.11	.01484
%RSD	34.430	1.2240	26.727	16.181	.06973	.06131	14.869
#1	-.00052	.00346	-.00225	-.00112	201.31	185.09	-.08934
#2	-.00085	.00352	-.00327	-.00141	201.51	185.25	-.11033
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	544.45	.00346	-.00153	-.37037	-.00061	-.00025	-.00115
SDev	.55	.00001	.00042	.33518	.00015	.00040	.00253
%RSD	.10097	.21589	31.621	90.499	24.386	160.76	219.89
#1	544.06	.00346	-.00103	-.13336	-.00051	-.00053	-.00294
#2	544.83	.00345	-.00163	-.60738	-.00072	.00003	.00064
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00021	-.00050	-.00196	-.00312	.00820	-.00378	.00549
SDev	.00175	.00066	.00006	.00003	.00443	.00027	.00019
%RSD	831.87	132.63	3.0997	.83931	54.050	7.1528	3.4559
#1	-.00101	-.00003	.00192	-.00311	.00506	-.00359	.00535
#2	.00143	-.00097	-.00200	-.00314	.01133	-.00397	.00562
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00047	-.00014	.00679	-.00512	.00006
SDev	.00391	.00255	.00062	.00364	.00004
%RSD	835.99	1840.1	4.7285	71.129	69.517
#1	.00230	-.00194	.00656	-.00769	.00008
#2	-.00323	.00166	.00701	-.00254	.00003
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value					.00000
Range					.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10002	--	--	--	--	--	--
SDev	29.42987	--	--	--	--	--	--
%RSD	.2942497	--	--	--	--	--	--
#1	9981	--	--	--	--	--	--
#2	10022	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator: GSP
Run Time: 11/05/01 09:46:44
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.56899	536.57	1.0516	1.0369	1.1615	.51995	485.18
SDev	.00169	1.87	.0070	.0049	.0043	.00156	1.79
%RSD	.29694	.34930	.68120	.47378	.37762	.30039	.36921
#1	.56780	535.24	1.0266	1.0334	1.1285	.51884	483.91
#2	.57019	537.89	1.0365	1.0404	1.1346	.52105	486.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48252	.96742	1.0154	1.0940	208.58	194.28	14.289
SDev	.00254	.00327	.0038	.0045	.70	.69	.039
%RSD	.52685	.33800	.37778	.40690	.33422	.35548	.27527
#1	.48072	.96511	1.0127	1.0909	208.09	193.79	14.262
#2	.48431	.96973	1.0181	1.0972	209.07	194.77	14.317
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	541.41	1.0281	1.0428	12.097	.94710	.97904	1.0022
SDev	1.56	.0036	.0016	.019	.00145	.00522	.0070
%RSD	.28837	.34648	.15702	.15832	.15336	.53368	.70025
#1	540.31	1.0256	1.0416	12.110	.94607	.97534	.99720
#2	542.51	1.0306	1.0439	12.083	.94812	.98273	1.0071
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0582	1.0204	1.1051	1.0752	.99937	1.0428	.96366
SDev	.0033	.0034	.0048	.0037	.00322	.0039	.00238
%RSD	.31160	.33056	.43446	.34154	.32225	.37014	.24715
#1	1.0605	1.0180	1.1017	1.0726	.99710	1.0400	.96198
#2	1.0559	1.0228	1.1085	1.0778	1.0017	1.0455	.96535
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.96274	.98717	1.0158	.99533	1.1316		
SDev	.00970	.00299	.0045	.00840	.0031		
%RSD	1.0078	.302863	.44348	.843862	.27393		
#1	.95588	.98506	1.0123	.989259	1.1295		
#2	.96960	.98929	1.0193	1.0013	1.1338		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	8564	--	--	--	--	--	--
SDev	40.04199	--	--	--	--	--	--
%RSD	.4675811	--	--	--	--	--	--
#1	8592	--	--	--	--	--	--
#2	8535	--	--	--	--	--	--

Method: 60102007 Sample Name: ICV/CCV Operator:
Run Time: 11/05/01 10:02:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49788	10.370	.98789	.97693	.97379	.48877	10.227
SDev	.00018	.008	.00061	.00196	.00169	.00101	.011
%RSD	.03654	.07266	.06144	.20084	.17350	.20702	.11211
#1	.49775	10.375	.98746	.97831	.97498	.48948	10.235
#2	.49801	10.365	.98831	.97554	.97259	.48805	10.219
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50029	1.0102	.99033	.97803	10.127	10.048	9.9455
SDev	.00135	.0029	.00176	.00200	.023	.017	.0144
%RSD	.26887	.28515	.17763	.20427	.22528	.16883	.14458
#1	.50124	1.0123	.99757	.97945	10.143	10.060	9.9557
#2	.49934	1.0082	.99309	.97662	10.111	10.036	9.9354
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.217	.99317	.99444	9.9724	1.0113	1.0122	.99203
SDev	.010	.00249	.00429	.2509	.0025	.0059	.00675
%RSD	.09728	.25113	.43099	2.5163	.24602	.58704	.67995
#1	10.224	.99493	.99747	9.7950	1.0130	1.0164	.99680
#2	10.210	.99140	.99141	10.150	1.0095	1.0080	.98726
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0001	1.0069	.98467	1.0042	1.0085	.99020	1.0058
SDev	.0009	.0052	.00280	.0027	.0046	.00235	.0041
%RSD	.09212	.51453	.28452	.27112	.45613	.23732	.41164
#1	1.0008	1.0105	.98665	1.0061	1.0118	.99186	1.0087
#2	.99948	1.0032	.98269	1.0023	1.0053	.98854	1.0028
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0075	1.0146	.98455	.99377	Q1.1153		
SDev	.0164	.0007	.02711	.00093	.0081		
%RSD	1.6300	.07000	2.2366	.09314	.72294		
#1	1.0191	1.0151	1.0047	.99312	Q1.1210		
#2	.99586	1.0141	.97291	.99443	Q1.1096		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10101	--	--	--	--	--	--
SDev	16.69642	--	--	--	--	--	--
%RSD	.1652983	--	--	--	--	--	--
#1	10089	--	--	--	--	--	--
#2	10113	--	--	--	--	--	--

Method: 60102007 Sample Name: [illegible] Operator:
Run Time: 11/05/01 10:08:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00156	.01784	.00425	.00423	.00182	.00148	.03845
SDev	.00333	.02064	.00001	.00093	.00005	.00009	.01366
%RSD	214.36	115.65	.27023	21.985	2.8649	6.2127	35.521
#1	.00080	.00325	.00424	.00357	.00178	.00141	.02879
#2	-.00391	.03243	.00426	.00489	.00186	.00154	.04811
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.00278	-.00058	-.00184	.06337	.02358	-.16113
SDev	.00040	.00026	.00168	.00313	.00031	.00788	.04102
%RSD	88.506	9.4822	290.26	170.06	.48952	33.394	25.460
#1	.00074	.00259	.00061	.00037	.06359	.01801	-.19014
#2	.00017	.00296	-.00177	-.00405	.06315	.02915	-.13213
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.04970	.00139	.00184	-.63727	.00201	.00195	.00441
SDev	.01722	.00006	.00008	.78977	.00010	.00013	.00466
%RSD	34.644	4.3233	4.5694	123.93	5.0024	6.4968	105.78
#1	.03753	.00135	.00178	-.07882	.00194	.00186	.00111
#2	.06188	.00144	.00190	-1.1957	.00208	.00204	.00771
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01211	-.00043	.00054	.00206	-.00072	-.00066	.00225
SDev	.00122	.00272	.00016	.00014	.00326	.00275	.00022
%RSD	10.063	637.44	18.655	6.9089	454.02	416.17	9.6325
#1	.01125	.00150	.00095	.00217	.00159	.00128	.00210
#2	.01298	-.00235	.00073	.00196	-.00302	-.00260	.00241
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01714	.01148	-.01733	.01551	.00111		
SDev	.01089	.00563	.00857	.01127	.00018		
%RSD	63.562	49.027	48.037	72.637	16.353		
#1	-.00944	.00750	-.01178	.00755	.00098		
#2	-.02484	.01546	-.02289	.02348	.00124		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10410	--	--	--	--	--	--
SDev	85.79125	--	--	--	--	--	--
%RSD	.8241418	--	--	--	--	--	--
#1	10470	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Method: 60102007 Sample Name: PBWPD136 Operator:
Run Time: 11/05/01 10:14:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00116	-.00267	.00120	.00189	.00098	.00062	.08075
SDev	.00005	.01821	.00297	.00059	.00022	.00012	.01436
%RSD	4.5431	681.64	247.96	31.061	22.234	19.130	17.779
#1	-.00119	.01020	-.00090	.00147	.00114	.00071	.09090
#2	-.00112	-.01555	.00329	.00230	.00083	.00054	.07060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.00140	-.00104	-.00189	.03885	.01110	-.07824
SDev	.00014	.00047	.00003	.00017	.01732	.00529	.02000
%RSD	143.93	33.511	3.3728	8.8037	44.585	47.667	25.564
#1	.00020	.00173	-.00101	-.00178	.05110	.01484	-.09238
#2	-.00000	.00107	-.00106	-.00201	.02660	.00736	-.06410
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.03646	.00061	.00087	-.40404	.00162	.00106	.00302
SDev	.01762	.00031	.00028	.01822	.00002	.00015	.00054
%RSD	48.334	51.150	32.284	4.5086	1.1053	13.853	18.011
#1	.04892	.00082	.00067	-.41692	.00160	.00095	.00263
#2	.02400	.00039	.00107	-.39115	.00163	.00116	.00340
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00354	-.00105	.00045	.00103	.00169	-.00106	.00492
SDev	.00122	.00112	.00021	.00037	.00040	.00025	.00056
%RSD	36.392	106.78	48.002	35.524	23.906	23.093	11.399
#1	.00420	-.00184	.00060	.00129	.00197	-.00089	.00532
#2	.00248	-.00026	.00030	.00077	.00140	-.00124	.00453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01053	.00684	-.00467	.00685	.00026		
SDev	.00178	.00067	.00093	.00035	.00021		
%RSD	16.894	9.7700	19.939	5.1032	107.24		
#1	-.01177	.00731	-.00533	.00660	.00035		
#2	-.00927	.00637	-.00401	.00710	.00005		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11274	--	--	--	--	--	--
SDev	48.29594	--	--	--	--	--	--
%RSD	.4284024	--	--	--	--	--	--
#1	11239	--	--	--	--	--	--
#2	11308	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSWPD136 Operator:
Run Time: 11/05/01 10:19:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	K_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48688	10.049	1.0011	.98257	.97052	.49403	10.065
SDev	.00248	.051	.0136	.01602	.00806	.00571	.088
%RSD	.50847	.50552	1.3598	1.6301	.83030	1.1569	.87612
#1	.48863	10.085	1.0107	.99389	.97622	.49807	10.127
#2	.48513	10.013	.99146	.97124	.96482	.48998	10.002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50963	1.0030	.99706	.97161	10.023	9.9360	10.201
SDev	.00590	.0100	.00960	.00805	.083	.1011	.013
%RSD	1.1566	.99425	.96245	.82879	.83129	1.0178	.13045
#1	.51400	1.0101	1.0038	.97730	10.082	10.008	10.211
#2	.50566	.99596	.99028	.96592	9.9638	9.8645	10.192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.143	.98355	.99811	9.9240	1.0121	1.0186	1.0057
SDev	.091	.01008	.00999	.4708	.0124	.0056	.0053
%RSD	.89775	1.0141	1.0006	4.7442	1.2300	.54960	.52648
#1	10.208	1.0007	1.0059	9.5911	1.0209	1.0226	1.0094
#2	10.079	.98642	.99174	10.257	1.0033	1.0147	1.0020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98527	1.0173	.98171	.98970	1.0041	.98908	1.0292
SDev	.00926	.00688	.00795	.00897	.0045	.00792	.0133
%RSD	.93942	.67211	.80979	.90638	.44734	.80059	1.2912
#1	.99181	1.0221	.98733	.99604	1.0073	.99468	1.0386
#2	.97872	1.0125	.97609	.98335	1.0009	.98348	1.0198
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0137	1.0211	1.0042	1.0064	1.1154		
SDev	.0097	.0036	.0128	.0015	.0002		
%RSD	.95504	.34868	1.2771	.15254	.01533		
#1	1.0205	1.0237	1.0153	1.0075	1.1152		
#2	1.0068	1.0186	.99518	1.0053	1.1155		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	---	---	---	---	---	---
Wavlen	371.030	---	---	---	---	---	---
Avge	11027	---	---	---	---	---	---
SDev	35.23174	---	---	---	---	---	---
%RSD	.3195040	---	---	---	---	---	---
#1	11052	---	---	---	---	---	---
#2	11002	---	---	---	---	---	---

Method: 6010200/ Sample Name: 110681-1 Operator:
Run Time: 11/05/01 10:25:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	-.00788	.00132	.03065	.00241	.00097	37.533
SDev	.00016	.00672	.00115	.00147	.00031	.00024	1.547
%RSD	21.772	85.234	86.729	4.7844	12.939	24.375	4.1228
#1	-.00064	-.00313	.00051	.03169	.00263	.00113	38.627
#2	-.00087	-.01263	.00214	.02961	.00219	.00080	36.438
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.00129	-.00034	-.00122	1.02209	.00576	3.5943
SDev	.00015	.00011	.00019	.00034	.00693	.00248	.0808
%RSD	71.597	8.2073	56.264	27.887	31.371	43.120	2.2487
#1	.00033	.00136	-.00047	-.00098	1.01719	.00752	3.6514
#2	.00011	.00121	-.00020	-.00147	1.02700	.00400	3.5371
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.7721	.00058	.00203	7.0408	.00136	.00090	.00569
SDev	.1931	.00023	.00057	.2455	.00072	.00082	.00104
%RSD	4.0472	39.218	28.122	3.4872	52.977	91.016	18.360
#1	4.9087	.00074	.00244	7.2144	.00186	.00149	.00643
#2	4.6356	.00042	.00163	6.8671	.00085	.00032	.00495
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00159	.00066	.15029	.00094	-.00001	.00574	.01530
SDev	.00142	.00076	.00672	.00013	.00062	.00000	.00097
%RSD	89.639	115.80	4.4715	13.457	5607.0	.06074	6.3573
#1	.00260	.00117	.15504	.00103	.00042	.00574	.01599
#2	.00058	.00119	.14554	.00085	-.00045	.00574	.01462
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00658	.00464	-.00020	.00863	.00200
SDev	.00084	.00165	.00060	.00127	.00022
%RSD	12.820	35.661	-301.355	14.684	10.894
#1	-.00717	.00581	-.00063	.00952	.00216
#2	-.00598	.00347	-.00062	.00773	.00185
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11077	--	--	--	--	--	--
SDev	375.8977	--	--	--	--	--	--
%RSD	3.393558	--	--	--	--	--	--
#1	10811	--	--	--	--	--	--
#2	11343	--	--	--	--	--	--

Method: 60102007 Sample Name: 010681-LL Operator:
Run Time: 11/05/01 10:30:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00198	-.00750	.00030	.00722	.00060	.00065	7.5107
SDev	.00227	.00971	.00194	.00096	.00036	.00002	.0628
%RSD	114.93	35.313	639.97	13.318	59.625	2.4828	.83652
#1	-.00037	-.00437	.00168	.00654	.00035	.00066	7.4662
#2	-.00358	-.01064	-.00107	.00791	.00085	.00064	7.5551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00031	.00127	-.00236	L-.00922	.00472	.53961
SDev	.00032	.00100	.00168	.00199	.01644	.00047	.02380
%RSD	170.49	321.70	132.47	84.060	178.33	9.9005	4.4100
#1	.00004	-.00040	-.00008	-.00096	L-.00241	.00439	.55644
#2	-.00041	.00102	-.00246	-.00377	L-.02084	.00505	.52279
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.95508	.00014	-.00002	.89693	.00035	-.00013	.00054
SDev	.01418	.00012	.00006	.58919	.00155	.00036	.00218
%RSD	1.4844	88.655	286.70	65.690	437.86	277.36	401.12
#1	.94505	.00005	.00002	1.3135	-.00074	.00012	-.00100
#2	.96510	.00023	-.00007	.48031	.00145	-.00038	.00208
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00099	-.00068	.02947	.00021	.00068	-.00028	.00650
SDev	.00146	.00207	.00002	.00049	.00417	.00231	.00030
%RSD	147.47	306.95	.07076	232.22	614.96	828.64	4.6489
#1	-.00004	.00079	.02949	-.00013	.00363	.00135	.00629
#2	.00203	-.00214	.02946	.00055	-.00227	-.00191	.00672
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00828	.00594	-.00591	.00677	.00025
SDev	.01266	.00579	.01230	.00941	.00010
%RSD	152.90	146.79	208.07	249.83	68.027
#1	.00067	[illegible]	[illegible]	.00389	.00037
#2	-.01774	.00804	-.01461	.01042	.00018
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntSta	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11401	--	--	--	--	--	--
SDev	63.1520	--	--	--	--	--	--
%RSD	.553927	--	--	--	--	--	--
#1	11445	--	--	--	--	--	--
#2	11356	--	--	--	--	--	--

Method: 6010200/ Sample Name: 110681-1S Operator:
Run Time: 11/05/01 10:36:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46831	9.9296	1.0262	1.0324	.98986	.50156	45.214
SDev	.00122	.0011	.0026	.0028	.00391	.00146	.115
%RSD	.26100	.01155	.25514	.27330	.39478	.29189	.25362
#1	.46918	9.9285	1.0243	1.0304	.98710	.50053	45.133
#2	.46745	9.9302	1.0280	1.0344	.99263	.50260	45.295
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50421	1.0007	.99758	.98791	10.040	10.034	13.831
SDev	.00090	.0018	.00265	.00348	.030	.027	.053
%RSD	.17901	.17558	.26554	.35215	.30203	.27083	.38167
#1	.50358	.99945	.99570	.98545	10.019	10.015	13.794
#2	.50485	1.0019	.99945	.99037	10.061	10.053	13.869
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	14.314	1.0065	1.0203	16.373	1.0065	.99936	1.0519
SDev	.031	.0024	.0040	.015	.0028	.00152	.0019
%RSD	.21846	.24261	.38877	.09454	.27815	.15160	.18019
#1	14.292	1.0048	1.0175	16.384	1.0045	.99829	1.0505
#2	14.336	1.0083	1.0232	16.362	1.0084	1.0004	1.0532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0007	.99148	1.1419	.99977	1.0075	1.0104	1.0350
SDev	.0270	.00749	.0045	.00240	.0063	.0015	.0024
%RSD	2.6955	.75502	.39073	.23991	.62546	.14876	.23417
#1	.98162	.98619	1.1388	.99807	1.0031	1.0094	1.0333
#2	1.0198	.99677	1.1451	1.0015	1.0120	1.0115	1.0368
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	.99502	1.0015	1.0556	1.0510	.93529
SDev	.00122	.0017	.0035	.0011	.00087
%RSD	.12313	.16573	.32803	.10620	.09310
#1	.99415	1.0004	1.0511	1.0502	.93467
#2	.99589	1.0027	1.0560	1.0518	.93590
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10294	--	--	--	--	--	--
SDev	77.53799	--	--	--	--	--	--
%RSD	.7532047	--	--	--	--	--	--
#1	10240	--	--	--	--	--	--
#2	10349	--	--	--	--	--	--

Analysis Report 11/05/01 10:47:36 AM page

Method: 60102007 Sample Name: 110681-LSD Operator:
Run Time: 11/05/01 10:42:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46536	9.9560	1.0287	1.0347	.98782	.50194	45.310
SDev	.00196	.0616	.0030	.0061	.00493	.00309	.317
%RSD	.42122	.61880	.29567	.59182	.49888	.61492	.70030
#1	.46675	9.9124	1.0266	1.0304	.98434	.49975	45.086
#2	.46398	9.9995	1.0309	1.0390	.99131	.50412	45.535
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50659	1.0022	.99975	.98552	10.048	10.049	14.070
SDev	.00424	.0069	.00821	.00598	.066	.065	.131
%RSD	.83677	.68414	.82094	.60653	.65694	.64257	.93343
#1	.50360	.99737	.99395	.98129	10.001	10.003	13.977
#2	.50959	1.0071	1.0056	.98974	10.095	10.094	14.163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	14.392	1.0071	1.0213	16.377	1.0071	1.0035	1.0520
SDev	.116	.0063	.0063	.174	.0063	.0109	.0044
%RSD	.80726	.62055	.61745	1.0654	.62701	1.0913	.42144
#1	14.309	1.0027	1.0168	16.254	1.0027	.99571	1.0489
#2	14.474	1.0116	1.0257	16.500	1.0116	1.0112	1.0552
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	75.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99933	.99562	1.1405	.99995	1.0078	1.0113	1.0408
SDev	.02972	.01360	.0061	.00637	.0110	.0069	.0092
%RSD	2.9741	1.3661	.53191	.63726	1.0896	.68280	.88365
#1	.97831	.98601	1.1362	.99544	1.0001	1.0064	1.0343
#2	1.0203	1.0052	1.1448	1.0045	1.0156	1.0162	1.0474
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	.00500	-.00500	-.01000	-.01000	-.02000

Elem	220371	220372	196071	196072	116707

Units	ppm	ppm	ppm	ppm	ppm
Avge	1.0014	1.0045	1.0545	1.0508	.95428
SDev	.0197	.0066	.0086	.0023	.00885
%RSD	1.9646	.65659	.82026	.22163	.92700
#1	.98746	.99985	1.0481	1.0497	.94803
#2	1.0153	1.0092	1.0608	1.0525	.96054
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10554	--	--	--	--	--	--
SDev	52.87073	--	--	--	--	--	--
%RSD	.5009399	--	--	--	--	--	--
#1	10592	--	--	--	--	--	--
#2	10517	--	--	--	--	--	--

Method: 6010200/ Sample Name: [10681-7] Operator:
Run Time: 11/05/01 10:47:44
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	1.5727	.00364	.06342	.02485	.00115	12.390
SDev	.00041	.0106	.00060	.00194	.00054	.00013	.025
%RSD	31.890	.77392	17.849	3.0540	2.1759	11.137	.19900
#1	-.00098	1.5803	.00376	.06479	.02523	.00124	12.373
#2	-.00156	1.5652	.00292	.06205	.02446	.00106	12.408

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr267	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	.00163	.00040	-.00148	1.76337	.75688	3.8780
SDev	.00036	.00137	.00040	.00031	.01530	.00227	.0087
%RSD	98.638	84.189	101.03	20.682	2.0037	.29934	.22353
#1	.00063	.00260	.00011	-.00126	1.77419	.75528	3.8842
#2	.00011	.00066	-.00068	-.00169	1.75256	.75848	3.8719

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.1818	.00359	.00042	4.1590	.00207	-.00004	.00360
SDev	.0101	.00038	.00025	.1174	.00062	.00107	.00003
%RSD	.24155	10.721	59.940	2.8231	30.126	2430.0	.80892
#1	4.1746	.00386	.00059	4.2421	.00251	.00071	.00358
#2	4.1889	.00332	.00024	4.0760	.00163	-.00080	.00362

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00148	.06760	.00118	.00225	.00083	.01635
SDev	.00171	.00227	.00021	.00075	.00238	.00008	.00042
%RSD	207.60	152.98	.30641	63.766	106.03	9.5856	2.5851
#1	.00203	.00309	.06775	.00172	.00393	.00078	.01665
#2	-.00039	-.00012	.06746	.00065	.00056	.00089	.01605

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00755	.00370	.00075	.00492	.00341
SDev	.00078	.00199	.00241	.00116	.00033
%RSD	10.386	53.872	324.01	23.560	9.8064
#1	-.00810	.00511	.00075	.00574	.00365
#2	-.00699	.00229	.00265	.00410	.00317
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10414	--	--	--	--	--	--
SDev	6.367413	--	--	--	--	--	--
%RSD	.0611457	--	--	--	--	--	--
#1	10409	--	--	--	--	--	--
#2	10418	--	--	--	--	--	--

Method: 60102007 Sample Name: 110681-3 Operator:
Run Time: 11/05/01 10:53:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00231	-.00205	.00223	.03133	.00207	.00031	35.909
SDev	.00006	.00583	.00064	.00153	.00038	.00003	.081
%RSD	2.5717	284.32	28.694	4.8990	18.464	10.438	.22544
#1	-.00235	.00207	.00268	.03242	.00234	.00034	35.852
#2	-.00227	-.00618	.00178	.03025	.00180	.00029	35.966
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00011	.00119	.00139	-.00179	L.02412	.00234	3.2179
SDev	.00006	.00070	.00020	.00008	.00851	.00065	.0796
%RSD	52.831	58.923	14.578	4.3902	35.288	27.637	2.4748
#1	-.00014	.00168	.00154	-.00174	L.03013	.00280	3.1616
#2	-.00007	.00069	.00125	-.00185	L.01810	.00189	3.2742
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Sel960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.4969	.00020	.00191	6.0590	.00083	-.00094	.00476
SDev	.0065	.00012	.00045	.1029	.00041	.00014	.00289
%RSD	.14549	58.451	23.564	1.6990	49.708	14.562	76.912
#1	4.4923	.00029	.00159	5.9862	.00054	-.00084	.00171
#2	4.5016	.00012	.00223	6.1318	.00112	-.00103	.00580
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00246	.00006	.14757	.00035	-.00297	.00472	.01571
SDev	.00128	.00068	.00021	.00019	.00010	.00030	.00010
%RSD	52.012	1104.7	.14608	55.062	3.3560	6.2897	.66402
#1	.00337	-.00056	.14742	.00049	-.00290	.00451	.01578
#2	.00156	.00068	.14773	.00021	-.00304	.00493	.01563
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00994	.00356	-.00444	.00785	.00128
SDev	.00197	.00119	.00276	.00295	.00009
%RSD	19.843	33.446	62.188	37.621	7.3709
#1	-.01133	.00440	-.00640	.00576	.00122
#2	-.00854	.00271	-.00249	.00994	.00135
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10870	--	--	--	--	--	--
SDev	53.05994	--	--	--	--	--	--
%RSD	.4881410	--	--	--	--	--	--
#1	10832	--	--	--	--	--	--
#2	10907	--	--	--	--	--	--

Method: 60102007 Sample Name: 110728-1 Operator:
Run Time: 11/05/01 10:58:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00233	.46268	.00063	.03691	.01299	.00023	1.2394
SDev	.00028	.00162	.00041	.00080	.00002	.00001	.0069
%RSD	11.872	.35078	64.757	2.1797	.13859	4.2075	.55424
#1	-.00253	.46153	.00034	.03748	.01298	.00024	1.2442
#2	-.00214	.46383	.00092	.03634	.01300	.00023	1.2345
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00016	.00089	-.00096	.00022	1.67362	.66802	1.3065
SDev	.00005	.00033	.00002	.00008	.00147	.00293	.0248
%RSD	33.569	37.377	2.1862	34.746	.21902	.43805	1.8967
#1	-.00020	.00113	-.00098	.00027	1.67466	.66595	1.3241
#2	-.00012	.00066	-.00095	.00017	1.67258	.67009	1.2890
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.4491	.00159	.00009	4.5631	.00114	.00020	.00321
SDev	.0016	.00006	.00018	.0176	.00035	.00053	.00106
%RSD	.11113	3.7502	189.03	.38501	30.550	265.79	33.140
#1	1.4480	.00164	.00022	4.5755	.00139	.00058	.00246
#2	1.4502	.00155	-.00003	4.5507	.00090	-.00018	.00397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00167	.00242	.02454	.00292	-.00168	.00097	.00863
SDev	.00127	.00196	.00002	.00032	.00087	.00004	.00003
%RSD	75.870	84.684	.07753	11.080	51.635	4.5069	.29067
#1	-.00077	.00093	.02452	.00315	-.00230	.00100	.00865
#2	-.00257	.00370	.02455	.00269	-.00107	.00094	.00861
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.01050	.00554	.006615	.006639	.00127
SDev	.00076	.00042	.001066	.00107	.00006
%RSD	7.2668	7.5571	16.1128	16.1722	4.5535
#1	-.00976	.005341	.005720	.005663	.00167
#2	-.01104	.005525	.006740	.007615	.00123
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11178	--	--	--	--	--	--
SDev	15.98862	--	--	--	--	--	--
%RSD	.1430354	--	--	--	--	--	--
#1	11167	--	--	--	--	--	--
#2	11189	--	--	--	--	--	--

Method: 6010200? Sample Name: ICV/CCV Operator:
Run Time: 11/05/01 11:04:55
Comment:
Mode: CONC Corr Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50323	10.225	1.0073	1.0015	.96970	.49545	10.216
SDev	.00058	.015	.0047	.0002	.00207	.00090	.008
%RSD	.11523	.14789	.46947	.01956	.21352	.18127	.08085
#1	.50364	10.212	1.0106	1.0014	.97117	.49609	10.211
#2	.50282	10.234	1.0039	1.0016	.96824	.49482	10.222
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50814	1.0172	.99969	.98057	10.184	10.106	9.9683
SDev	.00081	.0013	.00008	.00273	.000	.003	.0614
%RSD	.15883	.12584	.00764	.27822	.00228	.02920	.61577
#1	.50757	1.0181	.99974	.98250	10.185	10.108	9.9249
#2	.50871	1.0163	.99964	.97864	10.184	10.104	10.012
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	NA3302	Ni2316	Pb2203	Sa1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.285	.99894	1.0014	10.059	1.0214	1.0258	1.0213
SDev	.031	.00015	.0019	.196	.0003	.0045	.0060
%RSD	.30292	.01485	.18999	1.9435	.02725	.43599	.58611
#1	10.263	.99905	1.0027	9.9212	1.0212	1.0290	1.0255
#2	10.307	.99884	1.0000	10.198	1.0216	1.0226	1.0171
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	T13349	T11908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0139	1.0196	.98248	1.0034	1.0200	.99363	1.0185
SDev	.0015	.0017	.00136	.0014	.0020	.00031	.0011
%RSD	.14473	.16401	.13836	.14095	.19941	.03107	.10472
#1	1.0149	1.0181	.98344	1.0044	1.0186	.99385	1.0177
#2	1.0128	1.0205	.98152	1.0024	1.0215	.99341	1.0192
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0161	1.0306	1.0109	1.0265	1.0953		
SDev	.0076	.0054	.0067	.0086	.0117		
%RSD	.25328	.52594	.67158	.83908	1.0725		
#1	1.0180	1.0344	1.0113	1.0336	1.0870		
#2	1.0143	1.0268	1.0104	1.0204	Q1.1036		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10687	--	--	--	--	--	--
SDev	97.67672	--	--	--	--	--	--
%RSD	.9139850	--	--	--	--	--	--
#1	10618	--	--	--	--	--	--
#2	10756	--	--	--	--	--	--

Method: 60102007 Sample Name: ICB/CCB Operator:
Run Time: 11/05/01 11:10:12
Comment:
Mode: CONC Corr. factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00473	.00225	.00065	.00247	.00099	.00108	.02084
SDev	.00127	.00279	.00245	.00203	.00016	.00012	.00056
%RSD	26.863	123.64	377.83	82.165	15.848	10.592	2.6949
#1	L-.00563	.00028	-.00108	.00103	.00110	.00117	.02124
#2	-.00383	.00423	.00238	.00390	.00088	.00100	.02045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00005	.00132	-.00217	-.00387	.03016	.01588	-.17837
SDev	.00015	.00020	.00008	.00085	.00765	.00048	.03806
%RSD	316.71	14.825	3.6990	21.959	25.361	3.0384	21.337
#1	.00006	.00118	-.00211	-.00447	.02475	.01622	-.20528
#2	-.00015	.00146	-.00223	-.00327	.03557	.01554	-.15146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.02692	.00088	.00029	L-1.0675	.00214	.00026	.00200
SDev	.00052	.00010	.00059	.1443	.00052	.00002	.00194
%RSD	1.9305	11.364	201.58	13.514	24.556	8.9602	96.812
#1	.02655	.00095	.00013	L-1.1696	.00177	.00028	.00337
#2	.02728	.00081	.00071	-.96552	.00251	.00025	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00321	-.00192	.00041	.00108	-.00304	-.00248	.00121
SDev	.00125	.00055	.00011	.00011	.00012	.00000	.00001
%RSD	38.903	28.650	27.184	10.586	3.8132	.17576	.80405
#1	.00232	-.00153	.00048	.00100	-.00313	-.00248	.00120
#2	.00409	-.00231	.00033	.00116	-.00296	-.00247	.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01738	.00907	-.01616	.01107	.00067		
SDev	.00054	.00031	.00195	.00194	.00008		
%RSD	3.1257	3.3780	11.904	17.572	11.307		
#1	-.01776	.00929	-.01480	.01244	.00072		
#2	-.01699	.00885	-.01752	.00969	.00062		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10505	--	--	--	--	--	--
SDev	25.46827	--	--	--	--	--	--
%RSD	.2424322	--	--	--	--	--	--
#1	10487	--	--	--	--	--	--
#2	10523	--	--	--	--	--	--

Method: 60102007 Sample Name: 110760-1 Operator:
Run Time: 11/05/01 11:15:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00255	.10234	.00710	.22047	.16489	.00079	116.22
SDev	.00052	.00231	.00270	.00054	.00023	.00002	.29
%RSD	22.342	2.2551	37.976	.24408	.14227	2.7309	.25279
#1	-.00270	.10397	.00519	.22009	.16472	.00080	116.01
#2	-.00196	.10071	.00901	.22085	.16505	.00077	116.43
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00009	.00311	.00802	-.00211	48.379	H48.238	19.212
SDev	.00004	.00063	.00029	.00058	.119	.110	.050
%RSD	49.824	20.151	3.6481	27.544	.24598	.22782	.25917
#1	-.00006	.00355	.00781	-.00252	48.295	H48.160	19.177
#2	-.00012	.00267	.00823	-.00170	48.463	H48.316	19.247
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	27.416	.37454	.00062	65.325	.00488	.00085	.01562
SDev	.088	.00065	.00034	.069	.00047	.00012	.00042
%RSD	.32026	.17308	53.739	.10598	9.5831	14.275	2.7139
#1	27.354	.37408	.00086	65.374	.00522	.00093	.01592
#2	27.478	.37500	.00039	65.276	.00455	.00076	.01532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00409	.00653	.95194	.00002	-.00670	.00095	.06686
SDev	.00135	.00120	.00137	.00012	.00060	.00016	.00023
%RSD	33.101	18.357	.14393	507.95	8.9794	16.806	.34775
#1	-.00505	.00568	.95098	.00011	-.00712	.00106	.06670
#2	-.00313	.00738	.95291	-.00006	-.00627	.00084	.06703
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00842	.00547	.01101	.01793	.00421
SDev	.00236	.00136	.00075	.00101	.00004
%RSD	28.091	24.883	6.7761	5.6231	1.0285
#1	-.01009	.00644	.01043	.01864	.00418
#2	-.00675	.00451	.01153	.01721	.00424
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High					
Low					

IntSta	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10218	--	--	--	--	--	--
SDev	17.02580	--	--	--	--	--	--
%RSD	.1666299	--	--	--	--	--	--
#1	10230	--	--	--	--	--	--
#2	10206	--	--	--	--	--	--

Method: 60102007 Sample Name: 110760-2 Operator:
Run Time: 11/05/01 11:21:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00179	-.01395	.00004	.17033	.10179	.00064	105.40
SDev	.00036	.00081	.00032	.00091	.00014	.00001	.02
%RSD	20.222	5.8357	820.34	.53647	.13537	1.4490	.01853
#1	-.00204	-.01337	.00019	.16968	.10189	.00063	105.41
#2	-.00153	-.01453	-.00026	.17098	.10169	.00064	105.39
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	500.00	50.000	50.000	25.000	10.000	500.00
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00120	.00152	.00004	1.2807	1.2759	15.530
SDev	.00005	.00005	.00008	.00027	.0009	.0076	.085
%RSD	27.486	4.0581	5.1737	758.52	.07387	.59569	.55023
#1	-.00023	.00123	.00147	-.00016	1.2801	1.2813	15.591
#2	-.00016	.00117	.00158	.00023	1.2814	1.2705	15.470
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	20.000	20.000	100.00	100.00	500.00	40.000	50.000
Low	-.00500	-.01000	-.00500	-.01000	40.000	-.10000	-1.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	30.795	.28268	.00111	53.597	.01889	-.00026	.00225
SDev	.047	.00005	.00014	.281	.00035	.00106	.00247
%RSD	.15166	.01768	12.787	.52348	1.8580	412.69	109.63
#1	30.762	.28272	.00120	53.796	.01864	.00049	.00399
#2	30.828	.28265	.00101	53.399	.01914	-.00101	.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.00	25.000	50.000	100.00	100.00	150.00	50.000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00102	.00044	2.4554	-.00017	-.00099	-.00084	.64209
SDev	.00182	.00043	.0001	.00008	.00165	.00000	.00179
%RSD	178.47	97.720	.00599	49.171	167.55	.16377	.27870
#1	-.00027	.00074	2.4555	-.00011	-.00216	-.00084	.64083
#2	.00231	.00013	2.4553	-.00023	.00018	-.00083	.64336
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.000	20.000	10.000	20.000	20.000	100.00	50.000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00733	.00327	-.00565	.00619	.00463		
SDev	.00209	.00264	.00139	.00454	.00003		
%RSD	28.551	80.678	24.752	73.360	.67485		
#1	-.00881	.00514	-.00650	.00926	.00465		
#2	-.00585	.00141	-.00474	.00313	.00460		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK		
High							
Low							
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10487	--	--	--	--	--	--
SDev	27.68558	--	--	--	--	--	--
%RSD	.2640072	--	--	--	--	--	--
#1	10506	--	--	--	--	--	--
#2	10467	--	--	--	--	--	--

Method: e0102007 Sample Name: LRI Operator:
Run Time: 11/05/01 11:27:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00680	.16946	.00991	.18650	.01853	.01032	1.0603
SDev	.00095	.00904	.00289	.00078	.00035	.00006	.0320
%RSD	13.991	5.3365	29.216	.41590	1.9014	.55528	3.0172
#1	.00748	.17585	.01195	.18705	.01878	.01036	1.0829
#2	.00613	.16306	.00786	.18595	.01828	.01028	1.0377
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.01000	.20000	.01000	.20000	.02000	.01000	1.0000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00974	.01963	.00808	.01642	.21666	.20108	1.6241
SDev	.00012	.00045	.00072	.00141	.02442	.00134	.2033
%RSD	1.2143	2.2862	8.8474	8.6105	11.271	.66711	12.517
#1	.00982	.01995	.00859	.01742	.23392	.20203	1.7678
#2	.00966	.01931	.00758	.01542	.19939	.20013	1.4803
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.01000	.02000	.01000	.02000		.20000	2.0000
Range	50.000	50.000	50.000	50.000		50.000	50.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99514	.01979	.02008	1.4484	.00963	.00971	.02026
SDev	.01866	.00021	.00008	.3616	.00093	.00025	.00023
%RSD	1.8753	1.0604	.38346	24.969	9.6129	2.5540	1.1543
#1	1.0083	.01994	.02013	1.7041	.01029	.00954	.02043
#2	.98194	.01964	.02002	1.1927	.00898	.00989	.02010
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.02000	.02000	2.0000	.01000	.01000	.02000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09584	.00792	.01154	.00937	.01821	.01714	.04061
SDev	.00190	.00180	.00073	.00048	.00270	.00107	.00060
%RSD	1.9823	22.696	6.4572	5.0861	14.858	6.2417	1.4882
#1	.09718	.00919	.01186	.00970	.02012	.01789	.04103
#2	.09449	.00665	.01082	.00903	.01629	.01638	.04018
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.10000	.01000	.01000	.01000	.02000	.02000	.04000
Range	50.000	50.000	50.000	50.000	50.000	50.000	50.000

Elem	2203/1	2203/2	1960/1	1960/2	L16707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00208	.01353	.01574	.02252	.10721		
SDev	.00016	.00045	.00162	.00116	.00357		
%RSD	7.7404	3.3449	10.278	5.1424	3.3289		
#1	.00220	.01321	.01459	.02334	.10974		
#2	.00197	.01385	.01688	.02170	.10469		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.10000		
Range					50.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10386	--	--	--	--	--	--
SDev	32.54348	--	--	--	--	--	--
%RSD	.3133262	--	--	--	--	--	--
#1	10409	--	--	--	--	--	--
#2	10363	--	--	--	--	--	--

Method: 60102007 Sample Name: QC4 Operator:
Run Time: 11/05/01 11:32:47
Comment:
Mode: CONC Corr Factor 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00167	514.46	.00104	.00327	.00191	.00156	474.36
SDev	.00058	1.63	.00019	.00126	.00004	.00002	1.42
%RSD	34.805	.31713	18.344	38.606	2.0631	.99513	.29845
#1	-.00208	515.61	-.00090	.00416	.00188	.00157	475.36
#2	-.00126	513.31	-.00117	.00238	.00194	.00155	473.35
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	500.00	.00000	.00000	.00000	.00000	500.00
Range	.01000	100.00	.01000	.20000	.02000	.00600	100.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00113	.00405	-.00324	-.00189	200.97	186.17	-.11994
SDev	.00009	.00033	.00027	.00046	.96	.75	.02280
%RSD	7.5453	8.1933	8.9248	24.225	.47768	.40037	19.006
#1	-.00107	.00429	-.00340	-.00156	201.65	186.70	-.10382
#2	-.00120	.00382	-.00308	-.00221	200.30	185.64	-.13606
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.00000	.00000	.00000	.00000	200.00		.00000
Range	.01000	.02000	.01000	.02000	40.000		2.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	540.90	.00360	-.00126	-.45775	-.00066	-.00023	-.00524
SDev	2.26	.00002	.00024	.06547	.00014	.00032	.00518
%RSD	.41837	.60111	19.331	14.302	20.461	136.37	98.943
#1	542.50	.00361	-.00143	-.41146	-.00076	-.00001	-.00157
#2	539.30	.00358	-.00109	-.50405	-.00056	-.00046	-.00890
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.00000	.00000	.00000	.00000	.00000	.00000
Range	100.00	.02000	.02000	2.0000	.01000	.01000	.02000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00283	-.00044	-.00187	-.00290	.01104	-.00323	.00504
SDev	.00500	.00049	.00003	.00017	.00172	.00007	.00016
%RSD	176.55	110.37	1.5026	5.9065	15.623	2.2702	3.1457
#1	.00637	-.00010	-.00185	-.00277	.01226	-.00318	.00516
#2	-.00070	-.00078	-.00189	-.00302	.00982	-.00328	.00493
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	.10000	.02000	.01000	.01000	.02000	.02000	.04000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00505	.00257	.00566	.01003	.00015		
SDev	.00277	.00090	.00254	.00394	.00009		
%RSD	54.855	34.911	44.857	39.334	57.409		
#1	.00701	.00341	.00601	.00427	.00021		
#2	.00309	.00174	.00521	.01700	.00009		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					.00000		
Range					.10000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	9511	--	--	--	--	--	--
SDev	25.374360	--	--	--	--	--	--
%RSD	.266816	--	--	--	--	--	--
#1	9493	--	--	--	--	--	--
#2	9529	--	--	--	--	--	--

Method: 60102007 Sample Name: ICSAB Operator:
Run Time: 11/05/01 11:58:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57579	550.72	1.0621	1.0607	1.1301	.52928	483.85
SDev	.00062	.24	.0037	.0007	.0015	.00021	.50
%RSD	.10727	.04570	.34546	.06621	.13282	.03975	.10263
#1	.57622	550.90	1.0647	1.0602	1.1312	.52943	484.20
#2	.57535	550.55	1.0595	1.0612	1.1291	.52913	483.50
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	510.00	1.0000	1.0000	1.0000	.50000	510.00
Range	.10000	102.00	.20000	.20000	.20000	.10000	102.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49359	.98051	1.0232	1.1037	211.94	194.76	14.656
SDev	.00027	.00075	.0012	.0012	.35	.23	.020
%RSD	.05458	.07662	.11795	.11095	.16372	.11761	.13600
#1	.49340	.98104	1.0243	1.1028	212.18	194.92	14.670
#2	.49378	.97998	1.0224	1.1046	211.69	194.60	14.643
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	.50000	1.0000	1.0000	1.0000	210.00		10.000
Range	.10000	.20000	.20000	.20000	42.000		5.0000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	549.90	1.0413	1.0549	11.802	.96706	1.0022	1.0508
SDev	.85	.0009	.0029	.102	.00119	.0043	.0054
%RSD	.15523	.08547	.27297	.86457	.12251	.42550	.51438
#1	550.50	1.0420	1.0570	11.730	.96790	1.0052	1.0547
#2	549.29	1.0407	1.0529	11.874	.96622	.99919	1.0470
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	102.00	.20000	.20000	5.0000	.20000	.20000	.20000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0795	1.0413	1.1085	1.0800	1.0288	1.0496	.98552
SDev	.0010	.0055	.0005	.0010	.0035	.0008	.00112
%RSD	.09676	.53109	.04068	.09641	.33653	.07379	.11323
#1	1.0802	1.0452	1.1088	1.0808	1.0263	1.0501	.98631
#2	1.0788	1.0373	1.1081	1.0793	1.0312	1.0490	.98473
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	.20000	.20000	.20000	.20000	.20000	.20000	.20000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	.99096	1.0078	1.0601	1.0462	1.1270		
SDev	.00144	.0071	.0033	.0065	.0033		
%RSD	.14488	.70550	.31514	.62120	.29300		
#1	.98994	1.0128	1.0627	1.0508	1.1295		
#2	.99197	1.0028	1.0576	1.0416	1.1247		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass		
Value					1.0000		
Range					.50000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	---	---	---	---	---	---
Wavlen	371.030	---	---	---	---	---	---
Avge	9484	---	---	---	---	---	---
SDev	4.433228	---	---	---	---	---	---
%RSD	.0467452	---	---	---	---	---	---
#1	9487	---	---	---	---	---	---
#2	9481	---	---	---	---	---	---

Analysis Report QC Standard 11/05/01 12:11:45 PM Page 1

Method: 60102007 Sample Name: [illegible] Operator:
Run Time: 11/05/01 12:06:17
Comment:
Mode: CONC Corr. Factor 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50358	10.278	1.0013	.98310	.96575	.49475	10.266
SDev	.00327	.109	.0086	.01124	.00621	.00402	.099
%RSD	.64917	1.0578	.86012	1.1436	.64298	.81143	.96402
#1	.50127	10.201	.99525	.97515	.96136	.49191	10.196
#2	.50589	10.355	1.0074	.99105	.97014	.49759	10.336
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	10.000	1.0000	1.0000	1.0000	.50000	10.000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51012	1.0183	1.0008	.97527	10.176	10.111	10.089
SDev	.00596	.0094	.0078	.00439	.122	.086	.067
%RSD	1.1682	.92569	.78197	.45054	1.1957	.87519	.66260
#1	.50590	1.0117	.99528	.97216	10.090	10.048	10.041
#2	.51433	1.0250	1.0063	.97838	10.262	10.173	10.136
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.50000	1.0000	1.0000	1.0000		10.000	10.000
Range	10.000	10.000	10.000	10.000		10.000	10.000

Elem	Mg2790	Mn2576	Mo2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	10.287	.99795	1.0024	10.190	1.0228	1.0294	1.0202
SDev	.119	.00911	.0083	.271	.0110	.0082	.0019
%RSD	1.1589	.91271	.82830	2.6611	1.0714	.79610	.18506
#1	10.203	.99151	.99654	10.382	1.0151	1.0236	1.0189
#2	10.371	1.0044	1.0083	9.9983	1.0306	1.0352	1.0216
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	1.0000	1.0000	10.000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0107	1.0156	.98761	1.0020	1.0253	.99298	1.0218
SDev	.0090	.0111	.00674	.0078	.0074	.00707	.0121
%RSD	.88837	1.1088	.68278	.77752	.72100	.71204	1.1832
#1	1.0038	1.0156	.97818	.99645	1.0201	.98798	1.0132
#2	1.0165	1.0516	.98703	1.0075	1.0306	.99798	1.0303
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	2203/1	2203/2	1960/1	1960/2	116707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	1.0363	1.0259	1.0349	1.0129	Q1.1102		
SDev	.0039	.0142	.0067	.0062	.0158		
%RSD	.37213	1.3853	.64468	.60829	1.4188		
#1	1.0391	1.0159	1.0396	1.0086	1.0991		
#2	1.0336	1.0360	1.0301	1.0173	Q1.1213		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Fail		
Value					1.0000		
Range					10.000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10548	--	--	--	--	--	--
SDev	112.7690	--	--	--	--	--	--
%RSD	1.069073	--	--	--	--	--	--
#1	10628	--	--	--	--	--	--
#2	10469	--	--	--	--	--	--

Method: 60102007 Sample Name: [illegible] Operator:
Run Time: 11/05/01 12:11:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00130	.00006	.00017	.00082	.00117	.00133	.02622
SDev	.00053	.00411	.00179	.00129	.00041	.00015	.00298
%RSD	39.510	6454.1	1067.6	157.00	35.196	10.918	11.345
#1	-.00166	.00297	-.00110	.00174	.00147	.00143	.02832
#2	-.00094	-.00284	.00143	-.00009	.00088	.00123	.02412
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.10000	.00500	.10000	.01000	.00300	.50000
Low	-.00500	-.10000	-.00500	-.10000	-.01000	-.00300	-.50000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00025	.00127	-.00020	-.00167	.02731	.01835	-.15406
SDev	.00003	.00052	.00026	.00050	.00170	.00235	.01607
%RSD	11.588	41.047	131.74	30.126	6.2351	12.792	10.429
#1	.00027	.00164	-.00038	-.00203	.02851	.02001	-.16542
#2	.00023	.00090	-.00001	-.00132	.02610	.01669	-.14270
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	.00500	.01000	.00500	.01000		.10000	1.0000
Low	-.00500	-.01000	-.00500	-.01000		-.10000	-1.0000

Elem	Mg2790	Mn2576	Mn2020	Na3302	Ni2316	Pb2203	Se1960
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.02799	.00103	.00074	-.48387	.00115	.00038	.00244
SDev	.00267	.00028	.00108	.12537	.00004	.00069	.00125
%RSD	9.5310	27.113	145.72	25.909	3.2652	181.60	51.011
#1	.02987	.00123	.00150	-.57252	.00117	.00087	.00333
#2	.02610	.00084	-.00002	-.39522	.00112	-.00011	.00156
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.50000	.01000	.01000	1.0000	.00500	.00500	.01000
Low	-.50000	-.01000	-.01000	-1.0000	-.00500	-.00500	-.01000

Elem	Sb2068	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.90327	-.00055	.00072	.00118	.00040	-.00054	.00126
SDev	.00312	.00013	.00018	.00032	.00030	.00011	.00027
%RSD	95.374	25.291	25.282	27.386	73.145	19.963	21.412
#1	.00548	-.00064	.00085	.00141	.00061	-.00061	.00145
#2	.00107	-.00046	.00059	.00095	.00019	-.00046	.00107
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.00500	.00500	.01000	.01000	.02000
Low	-.05000	-.01000	-.00500	-.00500	-.01000	-.01000	-.02000

Elem	2203/1	2203/2	1960/1	1960/2	Li6707

Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00771	.00442	-.00242	.00487	.00089		
SDev	.00277	.00242	.00667	.00518	.00023		
%RSD	35.921	54.737	274.04	106.76	25.304		
#1	-.00960	.00611	.00171	.00975	.00107		
#2	-.00575	.00271	.00277	.00121	.00073		
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	I.C. Pass		
High					.05000		
Low					-.05000		
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10722	--	--	--	--	--	--
SDev	185.4210	--	--	--	--	--	--
%RSD	1.710657	--	--	--	--	--	--
#1	10593	--	--	--	--	--	--
#2	10852	--	--	--	--	--	--

FL-PRO

CLP-Like 1E
FL PRO ANALYSIS DATA SHEET

Case Number:	N/A	Compound:	FL PRO
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110728
Matrix:	Water	Instrument ID:	FLASH
Sample wt/vol:	1 L	Date Sampled:	10/29/01
Dry Weight	N/A	Date Extracted:	10/30/01
Extraction: (Type)	3520 CONT.	Injection Volume:	1.0 (uL)

Concentrated Extract Volume: 2.0 (mL)

	CLIENT SAMPLE ID.	LAB SAMPLE ID	LAB FILE ID	DILUTION FACTOR	Q	CONCENTRATION UNITS: ug/L
1	17-3625C-Q401	C110728	5901084.D	1	U	100

CLP-Like 2C
FL PRO SURROGATE RECOVERY SUMMARY

Lab Name: STL Pensacola
Contract: NTC ORLANDO SA-36-CTO-017
Lab Code: STL PN
SDG No.: C110728
Instrument ID: FLASH
FL PRO Detector: FID
Column ID: DB5-HT 5 M x 0.25 mm; df = 0.1uM

	CLIENT SAMPLE ID.	LAB SAMPLE ID	OTP % REC	C 39 % REC	#	TOTAL OUT
01		BLK FLW 291	121%	121%		
02		LCS FLW 291	110%	86%		
03	17-3609C-Q401	C110611-1 MS	103%	106%		
04	17-3909C-Q401	C110611-1 MSD	102%	82%		
05	17-3625C-Q401	C110728-1	99%	86%		

Column to be used to flag recovery values
D Surrogate diluted out

QC limits
OTP (82 - 142)
C 39 (42 - 193)

CLP Like Form 3

FL PRO Matrix Spike / Matrix Spike Duplicate Summary Sheet

Lab Name: STL Pensacola Contract: NTC ORLANDO SA-36-CTO-017

Lab Code: STL PN SDG No.: C110728

FL PRO Detector: FID Lab Sample ID: C110611-1

Instrument ID: FLASH Matrix: Water

NOTE: NO MS/MSD FOR THIS BATCH

Parameter	Sample Results	Spike Amount (ppb)	MS Results (ppb)	MS %Rec	MSD Results (ppb)	MSD %Rec	MS/MSD %Rec Limits	MS/MSD RPD	MS/MSD RPD Limits
FL PRO	79.800	3400.00	4031.00	116	3816.00	110	41-101	6	20

CLP-Like 4C
FL PRO METHOD BLANK SUMMARY

			CLIENT SAMPLE NO.
			BLK FLW 291
Lab File ID:	4501069.D		
Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110728
Matrix:	Water	Date Extracted:	10/30/01
Prep Method:	3520 C	Date Analyzed:	11/2/01
Instrument ID:	FLASH	Time Analyzed:	1:14
Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM	FL PRO Detector:	FID

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE ID.	LAB SAMPLE ID	DATE ANALYZED (1)
01		BLK FLW 291	11/2/01
02		LCS FLW 291	11/2/01
03	17-3609C-Q401	C110611-1 MS	11/2/01
04	17-3909C-Q401	C110611-1 MSD	11/2/01
05	17-3625C-Q401	C110728-1	11/2/01

CLP-Like 6F
FL PRO INITIAL CALIBRATION ANALYTES

Lab Name:	STL Pensacola	Contract:	NTC ORLANDO SA-36-CTO-017
Lab Code:	STL PN	SDG No.:	C110728
Instrument ID:	FLASH	Date Analyzed	11/2/01
FL PRO Detector:	FID	Column ID:	DB5-HT 5 M x 0.25 mm; df = 0.1uM

Compound	Amount	CF	Average CF	COD
FL PRO	5	2.3836E+05		
	20	1.2102E+06		
	50	1.9557E+06		
	100	3.8878E+06		
	200	7.6965E+06		
	400	1.5896E+07	5.1474E+06	0.998

Sequence Name: I:\1101CAL.S
Comment:
Operator: IE\KJA
Data Path: G:\1101CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	96	XBLK001	8015	MECL2
2	Sample	97	XBLK002	8015	MECL2
3	Sample	98	XBLK003	8015	MECL2
4	Sample	99	XBLK004	8015	MECL2
5	Sample	100	XBLK005	8015	MECL2
6	Sample	82	CCTPH	8015	TPH STD CC 100 PPM EA
7	Sample	83	STD005	8015	TPH STD 1 @ 5 PPM EACH
8	Sample	83	STD005A	8015	TPH STD 1 @ 5 PPM EACH
9	Sample	84	STD020	8015	TPH STD 2 @ 20 PPM EACH
10	Sample	85	STD050	8015	TPH STD 3 @ 50 PPM EACH
11	Sample	86	STD100	8015	TPH STD 4 @ 100 PPM EACH
12	Sample	87	STD200	8015	TPH STD 5 @ 200 PPM EACH
13	Sample	88	STD400	8015	TPH STD 6 @ 400 PPM EACH
14	Sample	89	SURR005	8015	SURR STD 1 @ 5 PPM EACH
15	Sample	90	SURR020	8015	SURR STD 2 @ 20 PPM EACH
16	Sample	91	SURR050	8015	SURR STD 3 @ 50 PPM EACH
17	Sample	92	SURR100	8015	SURR STD 4 @ 100 PPM EACH
18	Sample	93	SURR200	8015	SURR STD 5 @ 200 PPM EACH
19	Sample	94	SURR400	8015	SURR STD 6 @ 400 PPM EACH
20	Sample	95	2NDSRCE	8015	TPH 2ND SOURCE STD 100 PPM
21	Sample	1	CCTPH001	8015	TPH STD CC 100 PPM EA
22	Sample	2	--------	8015	FLW BLK 287
23	Sample	3	--------	8015	FLW LCS 287
24	Sample	4	--------	8015	C110557-1
25	Sample	5	--------	8015	C110557-2
26	Sample	6	--------	8015	C110557-3
27	Sample	7	--------	8015	C110557-4
28	Sample	8	--------	8015	C110557-5
29	Sample	9	--------	8015	C110557-6
30	Sample	10	--------	8015	C110557-7
31	Sample	11	CCTPH002	8015	TPH STD CC 100 PPM EA
32	Sample	98	XBLK006	8015	MECL2
33	Sample	12	--------	8015	C110599-1
34	Sample	13	--------	8015	C110599-2
35	Sample	14	--------	8015	C110599-3
36	Sample	15	--------	8015	FLW BLK 289
37	Sample	16	--------	8015	FLW LCS 289
38	Sample	17	--------	8015	C110643-1
39	Sample	18	--------	8015	C110643-2
40	Sample	19	--------	8015	C110643-3
41	Sample	20	--------	8015	C110643-4
42	Sample	21	--------	8015	C110643-5
43	Sample	22	CCTPH003	8015	TPH STD CC 100 PPM EA

Sequence Name: I:\1101CAL.S

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	98	XBLK007	8015	MECL2
45	Sample	23	--------	8015	C110643-6
46	Sample	24	--------	8015	C110643-7
47	Sample	25	--------	8015	C110643-8
48	Sample	26	--------	8015	C110677-13
49	Sample	27	--------	8015	FLW BLK 290
50	Sample	28	--------	8015	FLW LCS 290
51	Sample	29	--------	8015	C110634-5 MS
52	Sample	30	--------	8015	C110634-5 MSD
53	Sample	31	--------	8015	C110634-1
54	Sample	32	--------	8015	C110634-2
55	Sample	33	CCTPH004	8015	TPH STD CC 100 PPM EA
56	Sample	98	XBLK008	8015	MECL2
57	Sample	34	--------	8015	C110634-3
58	Sample	35	--------	8015	C110634-4
59	Sample	36	--------	8015	C110634-5
60	Sample	37	--------	8015	C110634-6
61	Sample	38	--------	8015	C110634-7
62	Sample	39	--------	8015	C110634-8
63	Sample	40	--------	8015	C110634-9
64	Sample	41	--------	8015	C110634-10
65	Sample	42	--------	8015	C110634-11
66	Sample	43	--------	8015	C110634-12
67	Sample	44	CCTPH005	8015	TPH STD CC 100 PPM EA
68	Sample	99	XBLK009	8015	MECL2
69	Sample	45	--------	8015	FLW BLK 291
70	Sample	46	--------	8015	FLW LCS 291
71	Sample	47	--------	8015	C110611-1 MS
72	Sample	48	--------	8015	C110611-1 MSD
73	Sample	49	--------	8015	C110611-1
74	Sample	50	--------	8015	C110611-2
75	Sample	51	--------	8015	C110611-3
76	Sample	52	--------	8015	C110655-1
77	Sample	53	--------	8015	C110655-2
78	Sample	54	--------	8015	C110655-3
79	Sample	55	CCTPH006	8015	TPH STD CC 100 PPM EA
80	Sample	99	XBLK010	8015	MECL2
81	Sample	56	--------	8015	C110681-1
82	Sample	57	--------	8015	C110681-2
83	Sample	58	--------	8015	C110681-3
84	Sample	59	--------	8015	C110728-1
85	Sample	60	CCTPH007	8015	TPH STD CC 100 PPM EA
86	Sample	99	XBLK011	8015	MECL2

DATA ANALYSIS PARAMETERS

Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M

TPH std's
Calibration Last Updated: Fri Nov 02 06:35:58 2001

Reference Window: 0.20 Minutes
Non-Reference Window: 0.20 Minutes
Correlation Window: 0.10 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) OTP ( )
Ret. Time 1.02 min., Extract & Integrate from 0.92 to 1.07 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	18064
400		400.000	1032818
100		100.000	257325
20		20.000	53561
50		50.000	130934
200		200.000	557972
CC		not used for this compound	

Curve Fit: Linear

2) C39 ( )
Ret. Time 2.09 min., Extract & Integrate from 1.99 to 2.24 min.

Lvl	ID	Conc (ug/ml)	Response
5		5.000	11974
400		400.000	965740
100		100.000	246936
20		20.000	44741
50		50.000	126203
200		200.000	491082
CC		not used for this compound	

Curve Fit: Linear

3) FLPRO C8-C40 ( )
Ret. Time 1.50 min., Extract & Integrate from 0.16 to 2.50 min.

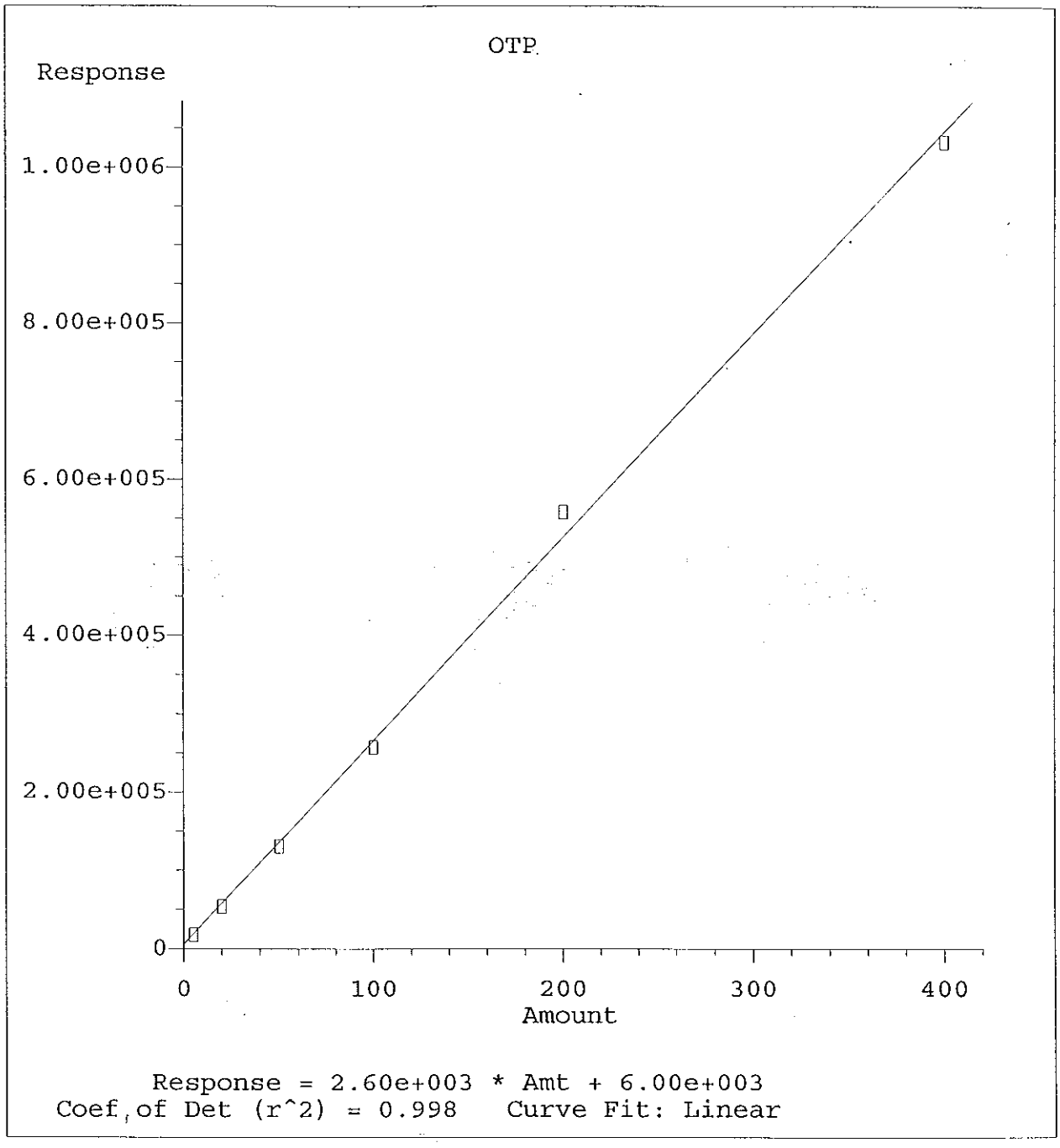
Lvl	ID	Conc (ppb)	Response
5		95.000	238362
400		7600.000	15895723

20	380.000	1210226
50	950.000	1955749
200	3800.000	7696467
CC	1900.000	-1

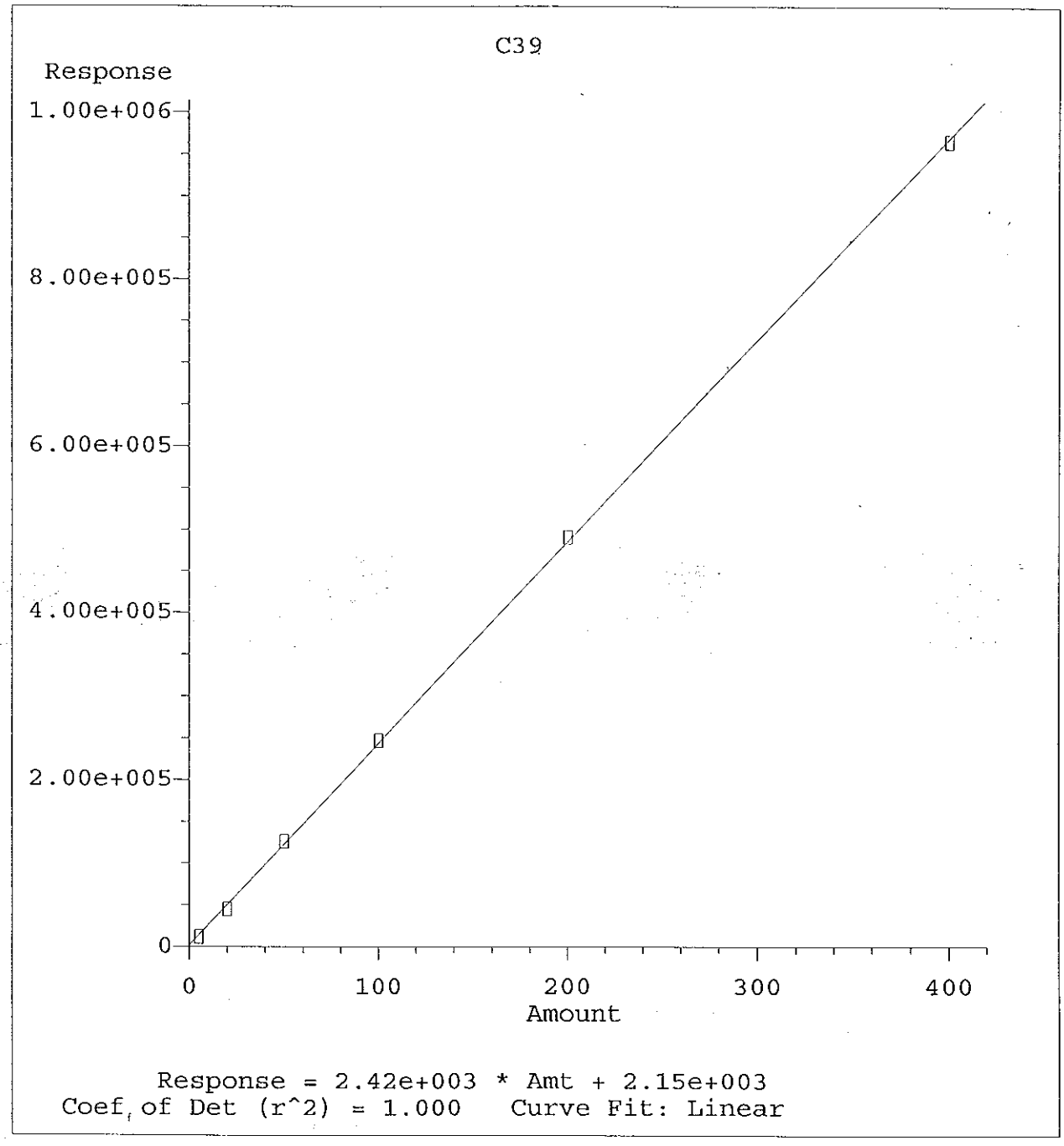
Curve Fit: Linear

END OF DATA ANALYSIS PARAMETERS

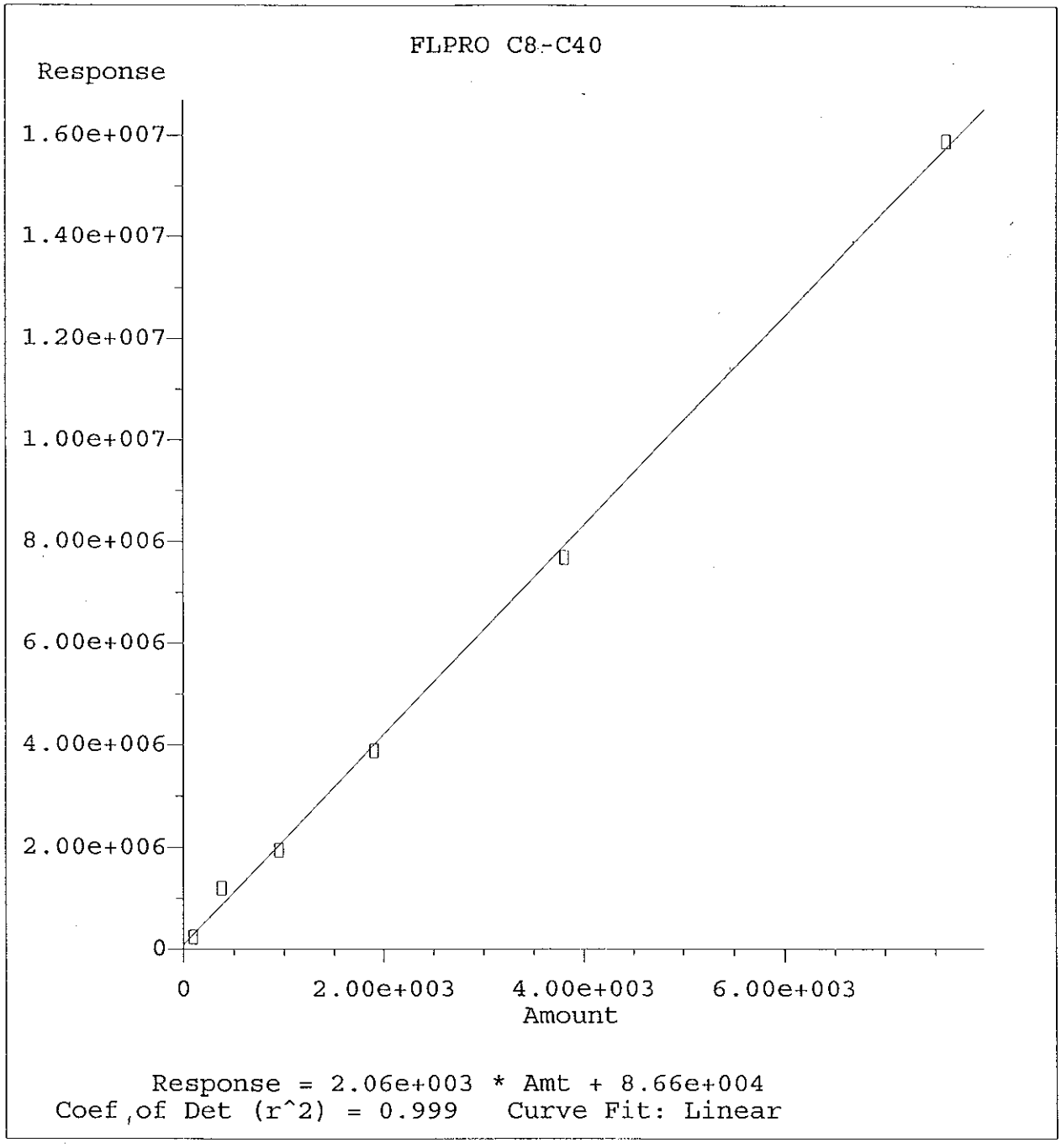
Fri Nov 02 06:42:59 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001



Method Name: F:\2\FLASH_DPMETHODS\FL-PRO12.M
Calibration Table Last Updated: Fri Nov 02 06:35:58 2001

Data File : F:\2\DATA\1101CAL\2NDSRCE.D Vial: 95
Acq On : 1 Nov 2001 18:35 Operator: IE\KJA
Sample : TPH 2ND SOURCE STD 100 PPM Inst : FLASH
Misc : 4-ORGW180-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	2053.288	-8.1	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:39:22 2001

Data File : F:\2\DATA\1101CAL\CCTPH005.D Vial: 44
Acq On : 2 Nov 2001 00:58 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area% Dev	(Min)
3 HM	FLPRO C8-C40	1900.000	1819.412	4.2	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:09 2001

Data File : F:\2\DATA\1101CAL\CCTPH006.D Vial: 55
Acq On : 2 Nov 2001 2:35 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1854.571	2.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:50:44 2001

Data File : F:\2\DATA\1101CAL\CCTPH007.D Vial: 60
Acq On : 2 Nov 2001 3:25 Operator: IE\KJA
Sample : TPH STD CC 100 PPM EA Inst : FLASH
Misc : 5-ORGW3-1 Multiplr: 1.00
IntFile : HC.E

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 HM	FLPRO C8-C40	1900.000	1816.700	4.4	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CCTPH015.D FL-PRO12.M Fri Nov 02 06:51:19 2001

EXTRACTION LOG

Job No: 820
Batch No: 291
Date Extracted: 10.30.01
Start Time: 1437
Stop Time:
Analysis Required: FRLO
Prep Method: 3520
Analyst/Activity Code*
Initial Project Check:
Final Project Check:
Date Concentrated:
Initials:
Extract Box ID:

	ID	Lot #	Amt (ml)	Init
Surr.	d-oscw	0190-2	1ml	
Surr.				
Spike	d-oscw	0189-1	1ml	
Spike				

Clean Up: Yes No

Comments
Solvent(s) Lot No:
Meth V31E12

* See inside front cover of logbook for definition codes

SAMPLE ID/DESCRIPTION	SDG	MT	Amt Exc'd	PH I	PH F	FV (ml)	D-D	H-D	COMMENTS
1. C110611*1/17-3609C-Q401 A		LI	1L	1		2	11.05	10.31	Strong odor
2. C110611*2/17-3627A-Q401		LI	1L	1		1	11.05	10.31	
3. C110611*3/17-3628B-Q401		LI	1L	1		1	11.05	10.31	
4. C110655*1/17-3608B-Q401		LI	1L	1		1	11.05	11.01	
5. C110655*2/17-3607A-Q401		LI	1L	1		1	11.05	11.01	
6. C110655*3/17-3606A-Q401		LI	1L	1		1	11.05	11.01	
7. C110681*1/17-3619A-Q401		LI	1L	1		1	11.06	11.02	
8. C110681*2/17-3624B-Q401		LI	1L	1		1	11.06	11.02	
9. C110681*3/17-36FD2-Q401		LI	1L	1		1	11.06	11.02	
10. 110128-1			1L	1		2			
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
Lab Blank			1L	7		2			
Lab Spike #1 LCS			1L	7		1			
Lab Spike #2 110611-1 ms			1L	1		1			
-1c msd			1L	1		2			
						-	-		

Dets: Petroleum Hydrocarbons <FL-PRO>

+ Additional Dets:

Severn Trent Laboratories, Inc.
Pensacola, FL 32514
(850) 474-1001

GC/Organics Department Extracts Cleanup Logbook

Date: 10-31-01 **Analyst(s):** SB

Method: ELPRO Silica Gel, MAEPH Fractionation, Other (Specify) _____

Solvent 1: _____ **Lot #:** _____ **Solvent 2:** _____ **Lot #:** _____

Surrogate: _____ **Amount:** _____

#	ORDER #	BATCH #	MLS EXTRACT	COMMENTS
1	BLK	FLW290	1.7	
2	LCS		~~2.0~~ 1.9 SB 10-13-01	
3	634-5 MS		1.9	
4	634-5 MD		1.7	
5	634-1		1.7	
6	-2		1.9	
7	-3		2.0	
8	-4		1.7	
9	-5		1.9	
10	-6		1.8	
11	-7		1.8	
12	-8		1.5	
13	-9		1.7	
14	-10		1.7	
15	-11		1.8	
16	-12		1.9	
17	BLK	FLW291	1.7	
18	LCS		1.8	
19	611-1 MS		1.9	
20	611-1 MD		2.0	
21	611-1		1.6	
22	-2		1.9	
23	-3		1.9	
24	655-1		2.0	
25	-2		1.7	
26	-3		2.0	
27	681-1		2.0	
28	-2		1.9	
29	-3		1.8	
30	708-1		1.8	
31				
32			SB 10/31	
33				

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: FL FLO Spike Standard ID: 4-ORGW0189- 1

Preparation Date: 10-2-01 Standard Storage Location: Dry Shelf

Preparation Analyst: KA Solvent Lot #: 100% C52 MI0964886

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
A	4-ORGN07-18	5000ppm	400ml	100 mls	200 ppm
B					
C					
D					
E					
F					
G					
H					
I					
J					

COMMENTS: Expires 4-2-02

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0189- 2

Preparation Date: ~~10~~ 10-3-01 Standard Storage Location: Dry Shelf

Preparation Analyst: KA Solvent Lot #: 100% MeCl2 V32E35

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	04-ORGN045-1	10,000	6500ml	250 mls	250 ppm
B					
C PC	04-ORGN044-1	5017	6295ml		
D					
E					
F					
G					
H					
I					
J					

COMMENTS: Expires ~~4-3-02~~ 4-3-02

KA 10/3/01

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

SEVERN TRENT LABORATORIES, INC. -- PENSACOLA, FL
WORKING STANDARDS SOLUTIONS

Solution Name: 8015/8100/TN Surrogate Standard ID: 4-ORGW0190- 1

Preparation Date: 10-17-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: 100% meCl2

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	04-Org-045-1	10,000 ppm	6500 ml	250mls	250 ppm each
B					
C					
C10 D	04-Org-044-1	9617 ppm	6245 ml		
E					
F					
G					
H					
I					
J					

COMMENTS: LXDMS 4-17-02

Solution Name: FUPW Surrogate Standard ID: 4-ORGW0190- 2

Preparation Date: 10-22-01 Standard Storage Location: Org's hood

Preparation Analyst: KA Solvent Lot #: MI0948 1:1 C52/meCl2 V34E3

	Parent ID	Parent Conc. (PPM)	Aliquot ( )	Final Volume (ml)	Final Conc.(ppm)
OTP A	4-Org-045-1	10,000	6250 ml	250mls	25 ppm
B					
C					
C39 D	4-Org-044-3	2500	10,000 ml		100 ppm
E					
F					
G					
H					
I					
J					

COMMENTS: LXDMS ~~4-22-02~~ KA 10/22/01
4-22-02

ORGW = GC/Organics Department Working Standards code for unique identifier.
Example: 04-ORGW06-01 means Book 4, Page 6, Standard #1.

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	397913	150.760 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 120.61% ✓	
2) S C39	2.08	149017	60.744 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 121.49% ✓	
Target Compounds			
3) HM FLPRO C8-C40	1.50	40387	N.D. ppb

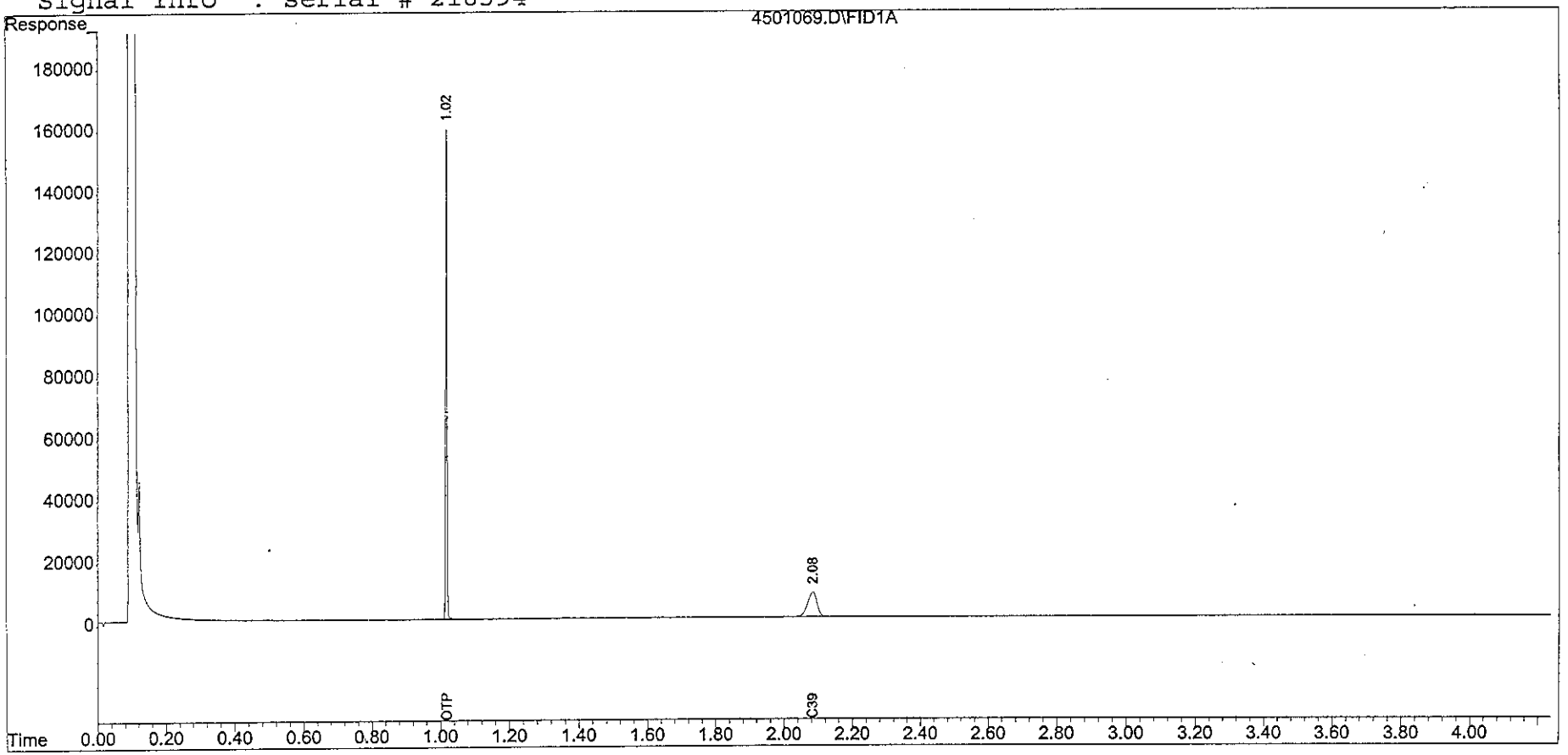
220

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4501069.D Vial: 45
Acq On : 2 Nov 2001 1:14 am Operator: IE\KJA
Sample : FLW BLK 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:55 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



22

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	361962	136.931 ug/mlm
Spiked Amount 125.000 Range 82 - 142		Recovery = 109.54%	
2) S C39	2.09	106556	43.182 ug/mlm
Spiked Amount 50.000 Range 42 - 193		Recovery = 86.36%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4313575	3689.666 ppb

1091.

222

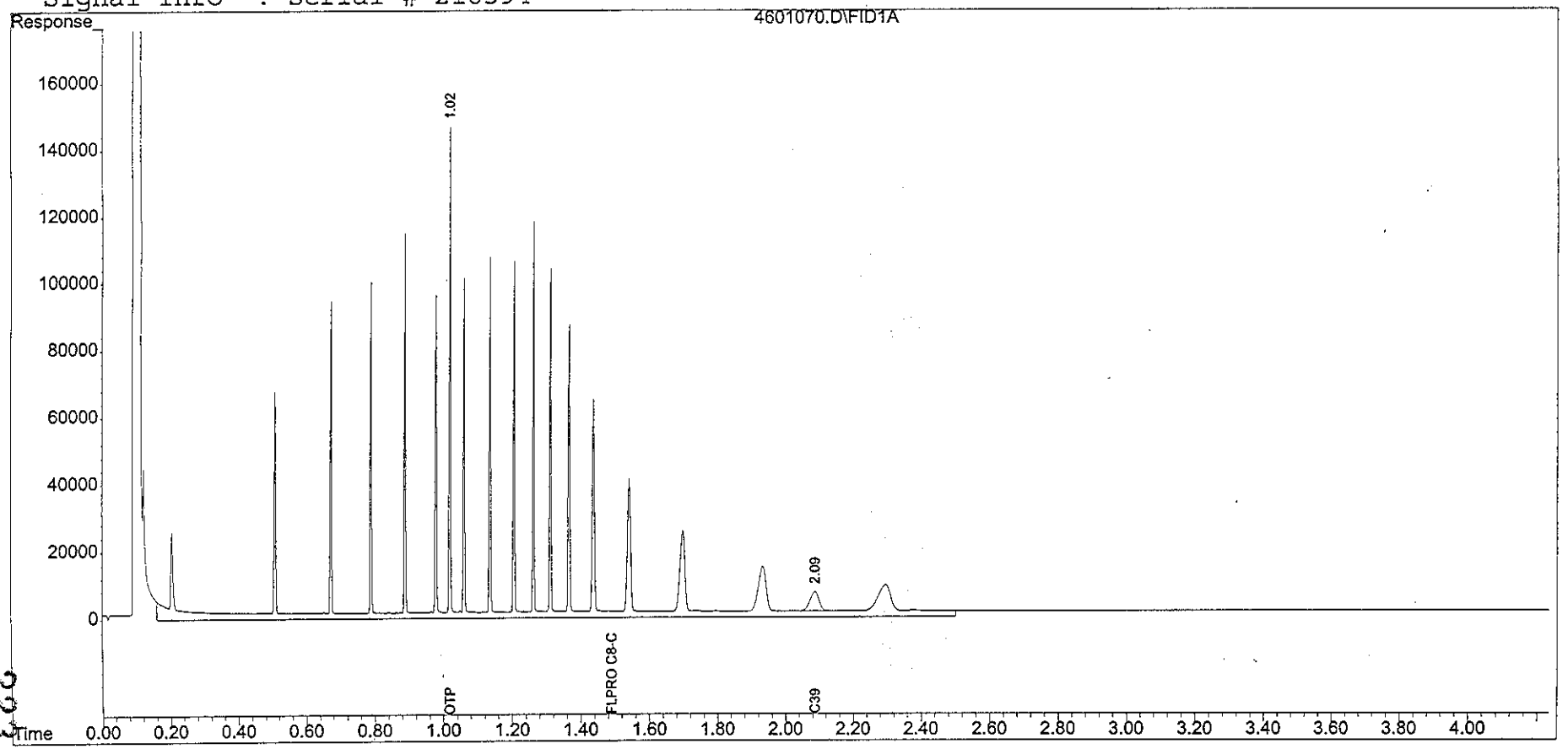
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : F:\2\DATA\1101CAL\4601070.D Vial: 46
Acq On : 2 Nov 2001 1:22 Operator: IE\KJA
Sample : FLW LCS 291 Inst : FLASH
Misc : FL WATER 290 Multiplr: 1.80
IntFile : HC.E
Quant Time: Nov 2 8:56 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



322

Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration

Non-Spiked Sample: 4901073.D

	Spike Sample	Spike Duplicate Sample
File ID :	4701071.D	4801072.D
Sample :	C110611-1 MS	C110611-1 MSD
Acq Time:	2 Nov 2001 1:30	2 Nov 2001 1:38

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
FLPRO C8-C40	79.8	3400	4031	3816	116#	110#	6	20	41-101

- Fails Limit Check

FL-PRO12.M Fri Nov 02 09:23:24 2001

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER ~~290~~ 291 KA 11/2/01 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

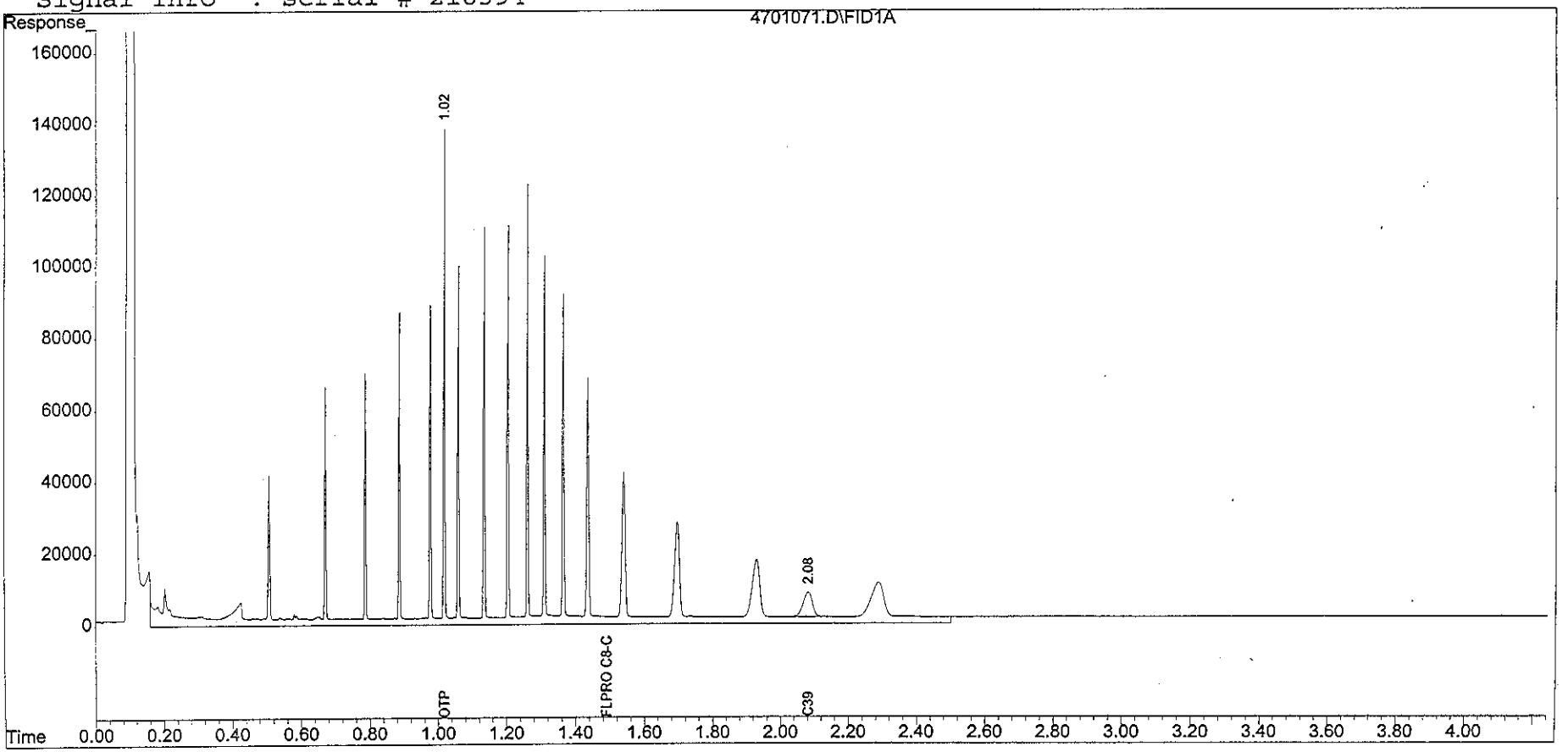
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	341260	128.967 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 103.17%	
2) S C39	2.08	130063	52.905 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 105.81%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4242425	4030.623 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4701071.D Vial: 47
Acq On : 2 Nov 2001 1:30 am Operator: IE\KJA
Sample : C110611-1 MS Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:58 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



226

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

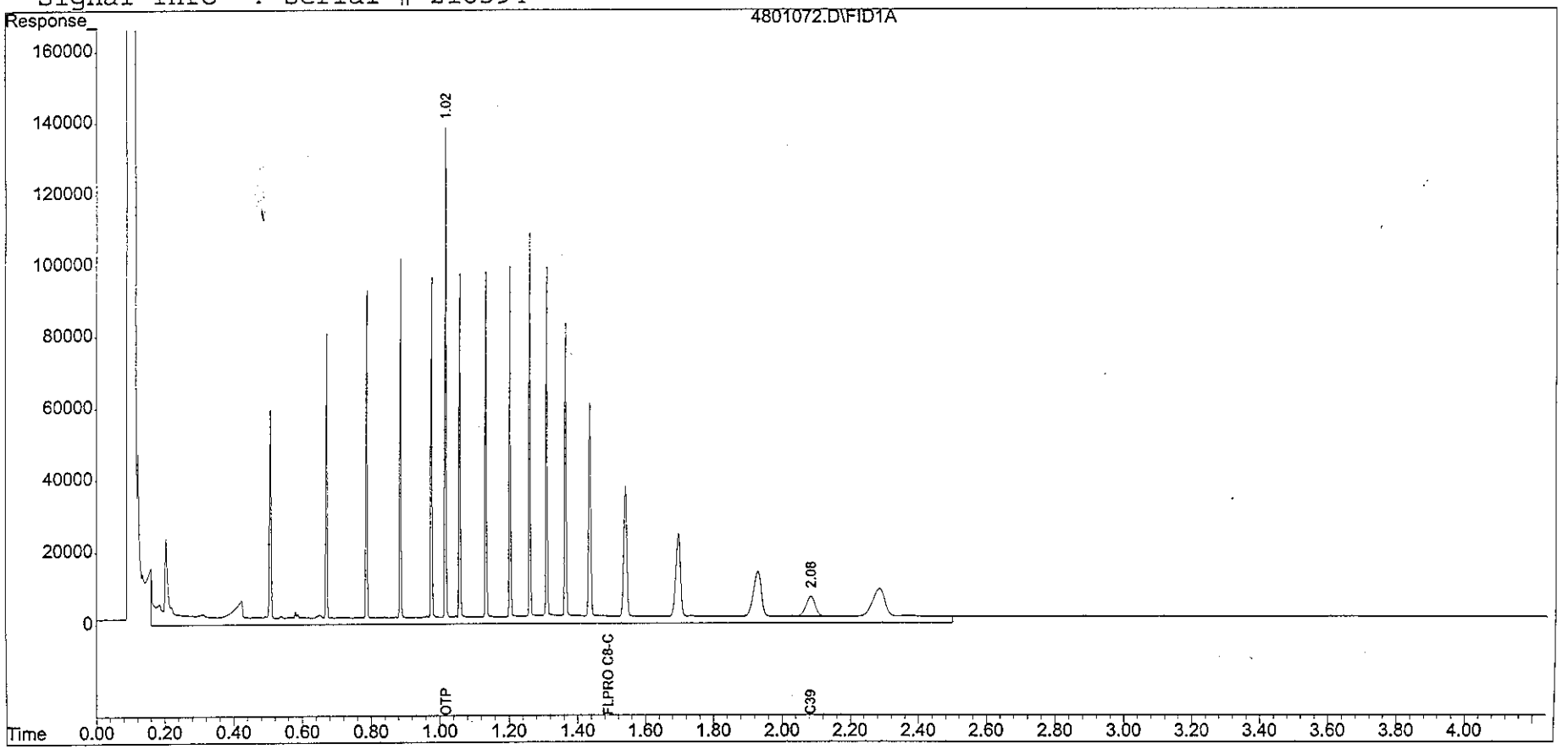
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	337874	127.665 ug/mlm
Spiked Amount 125.000	Range 82 - 142	Recovery = 102.13%	
2) S C39	2.08	100875	40.833 ug/mlm
Spiked Amount 50.000	Range 42 - 193	Recovery = 81.67%	
Target Compounds			
3) HM FLPRO C8-C40	1.50	4020991	3815.858 ppb

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\4801072.D Vial: 48
Acq On : 2 Nov 2001 1:38 am Operator: IE\KJA
Sample : C110611-1 MSD Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 8:59 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\2\DATA\1101CAL\5901084.D Vial: 59
Acq On : 2 Nov 2001 3:17 am Operator: IE\KJA
Sample : C110728-1 Inst : FLASH
Misc : FL WATER ~~290~~ 291 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:12 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Initial Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S OTP	1.02	328624	124.106 ug/mlm
Spiked Amount 125.000 Range 82 - 142	Recovery = 99.28%		
2) S C39	2.08	106601	43.201 ug/mlm
Spiked Amount 50.000 Range 42 - 193	Recovery = 86.40%		
Target Compounds			
3) HM FLPRO C8-C40	1.50	108534	21.234 ppb

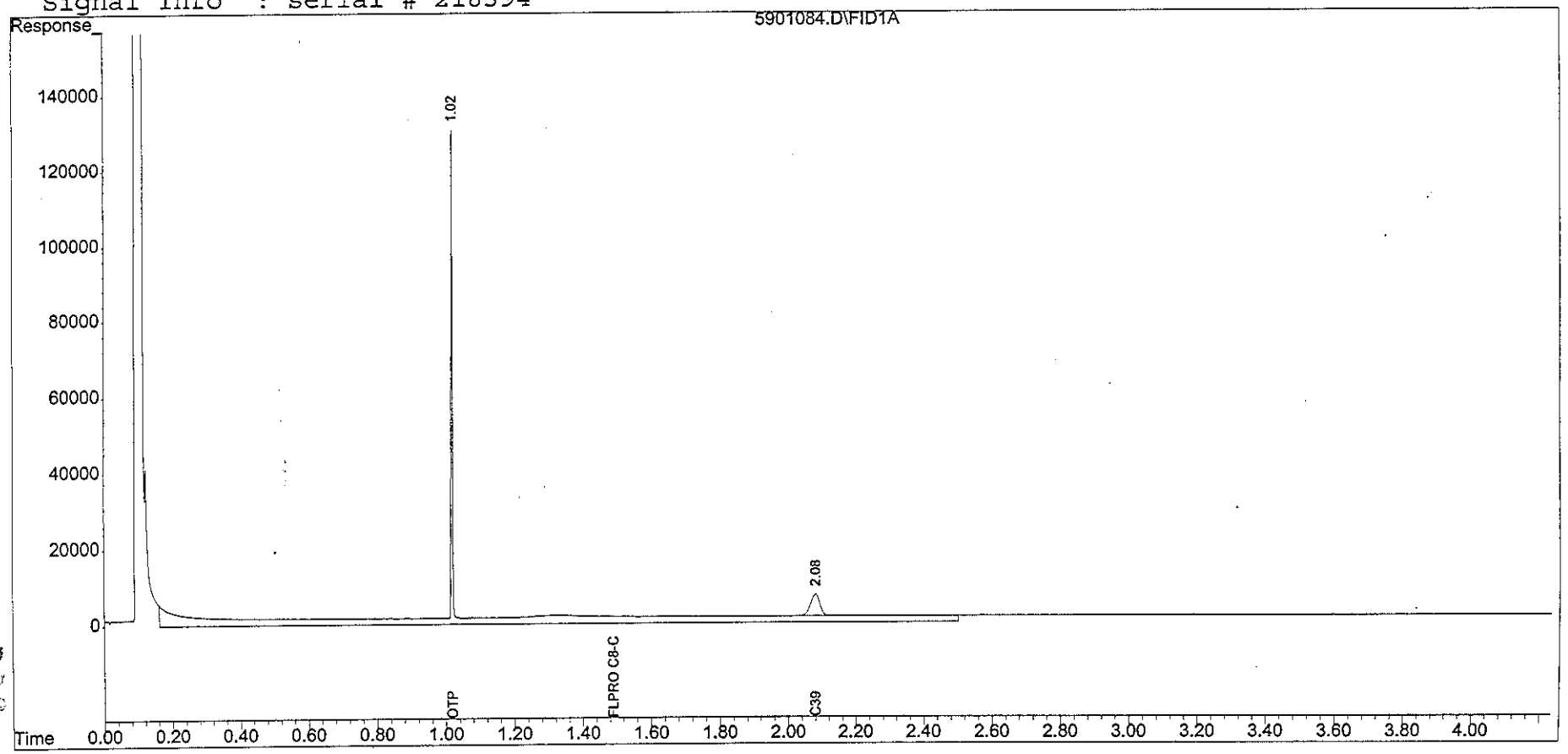
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : D:\HPCHEM\2\DATA\1101CAL\5901084.D Vial: 59
Acq On : 2 Nov 2001 3:17 am Operator: IE\KJA
Sample : C110728-1 Inst : FLASH
Misc : FL WATER 290 Multiplr: 2.00
IntFile : HC.E
Quant Time: Nov 2 9:12 2001 Quant Results File: FL-PRO12.RES

Quant Method : F:\2\FLASH_DPMETHODS\FL-PRO12.M (Chemstation Integrator)
Title : TPH std's
Last Update : Fri Nov 02 06:35:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8015.M

Volume Inj. : 1 ul
Signal Phase : RTX-5 EZ Flash (5m L; 0.25mm ID; 0.25um df)
Signal Info : serial # 218394



VOLATILES

VOLATILE CASE NARRATIVE

LABORATORY NAME: STL PENSACOLA
CASE NUMBER: NA
SDG#: 110728
PROJECT NAME: N.T.C. ORLANDO

RECEIVED: Oct. 30, 2001

CLIENT ID#	STL ID #	STL SAMPLE NAME IN PACKAGE
17-3625C-Q401	110728-1	3625C
17-36TB6-Q401	110728-2	36TB6

The samples were received in good condition. The Form I's only have one significant figure for values less than 10ppb. Where needed, the two significant figures value has been hand written on the form I.

Larry Dilmore
GC/MS SUPERVISOR
Nov 6, 2001

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3625C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748009.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	11	
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.534

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3625C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748009.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.64

1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3625C

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-1

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748009.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB6

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748010.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.534

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

36TB6

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748010.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U	
96-18-4	1,2,3-Trichloropropane	2	U	1.6 U
103-65-1	n-Propylbenzene	0.3	U	
95-49-8	2-Chlorotoluene	0.3	U	
106-43-4	4-Chlorotoluene	0.3	U	
108-67-8	1,3,5-Trimethylbenzene	0.3	U	
98-06-6	tert-Butylbenzene	0.3	U	
95-63-6	1,2,4-Trimethylbenzene	0.3	U	
135-98-8	sec-Butylbenzene	0.3	U	
541-73-1	1,3-Dichlorobenzene	0.3	U	
99-87-6	p-Isopropyltoluene	0.3	U	
106-46-7	1,4-Dichlorobenzene	0.3	U	
95-50-1	1,2-Dichlorobenzene	0.3	U	
104-51-8	n-Butylbenzene	0.3	U	
96-12-8	1,2-Dibromo-3-chloropropane	2	U	1.9 U
120-82-1	1,2,4-Trichlorobenzene	0.3	U	
87-68-3	Hexachlorobutadiene	0.3	U	
91-20-3	Naphthalene	0.3	U	
87-67-6	1,2,3-Trichlorobenzene	0.3	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

36TB6

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110728-2

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748010.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.3	U
74-87-3	Chloromethane	0.3	U
75-01-4	Vinyl chloride	0.3	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.3	U
75-69-4	Trichlorofluoromethane	0.3	U
75-35-4	1,1-Dichloroethene	0.3	U
75-09-2	Methylene chloride	0.3	U
540-59-0	trans-1,2-Dichloroethene	0.3	U
75-34-4	1,1-Dichloroethane	0.3	U
594-20-7	2,2-Dichloropropane	0.3	U
156-59-2	cis-1,2-Dichloroethene	0.3	U
74-97-5	Bromochloromethane	0.3	U
67-66-3	Chloroform	0.3	U
71-55-6	1,1,1-Trichloroethane	0.3	U
56-23-5	Carbon tetrachloride	0.3	U
71-43-2	Benzene	0.3	U
107-06-2	1,2-Dichloroethane	0.3	U
79-01-6	Trichloroethene	0.3	U
78-87-5	1,2-Dichloropropane	0.3	U
74-95-3	Dibromomethane	0.3	U
75-27-4	Bromodichloromethane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
108-88-3	Toluene	0.3	U
10061-02-6	trans-1,3-Dichloropropene	0.3	U
79-00-5	1,1,2-Trichloroethane	0.3	U
127-18-4	Tetrachloroethene	0.3	U
142-28-9	1,3-Dichloropropane	0.3	U
124-48-1	Dibromochloromethane	0.3	U
106-93-4	1,2-Dibromoethane	0.3	U
108-90-7	Chlorobenzene	0.3	U
630-20-6	1,1,1,2-Tetrachloroethane	0.3	U
100-41-4	Ethylbenzene	0.3	U
	m,p-Xylene	0.6	U
95-47-6	o-Xylene	0.3	U
100-42-5	Styrene	0.3	U
75-25-2	Bromoform	0.3	U
98-82-8	Isopropylbenzene	0.3	U
108-86-1	Bromobenzene	0.3	U

0.534

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.3	U
96-18-4	1,2,3-Trichloropropane	2	U
103-65-1	n-Propylbenzene	0.3	U
95-49-8	2-Chlorotoluene	0.3	U
106-43-4	4-Chlorotoluene	0.3	U
108-67-8	1,3,5-Trimethylbenzene	0.3	U
98-06-6	tert-Butylbenzene	0.3	U
95-63-6	1,2,4-Trimethylbenzene	0.3	U
135-98-8	sec-Butylbenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
99-87-6	p-Isopropyltoluene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
104-51-8	n-Butylbenzene	0.3	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	0.3	U
87-68-3	Hexachlorobutadiene	0.3	U
91-20-3	Naphthalene	0.3	U
87-67-6	1,2,3-Trichlorobenzene	0.3	U

1.6 4

1.9 4

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: BUW150ABK BLA

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748003.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: BUW150ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748004.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	9	
75-01-4	Vinyl chloride	10	
74-83-9	Bromomethane	9	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	9	
540-59-0	trans-1,2-Dichloroethene	9	
75-34-4	1,1-Dichloroethane	9	
594-20-7	2,2-Dichloropropane	9	
156-59-2	cis-1,2-Dichloroethene	10	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	9	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	10	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	9	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	9	
75-27-4	Bromodichloromethane	9	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	9	
79-00-5	1,1,2-Trichloroethane	9	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	9	
124-48-1	Dibromochloromethane	9	
106-93-4	1,2-Dibromoethane	9	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	10	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCS 1

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: BUW150ALCS LC

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748004.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	9	
96-18-4	1,2,3-Trichloropropane	9	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	11	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	9	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	9	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	12	
91-20-3	Naphthalene	10	
87-67-6	1,2,3-Trichlorobenzene	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	9	
74-87-3	Chloromethane	10	
75-01-4	Vinyl chloride	9	
74-83-9	Bromomethane	10	
75-00-3	Chloroethane	10	
75-69-4	Trichlorofluoromethane	10	
75-35-4	1,1-Dichloroethene	10	
75-09-2	Methylene chloride	10	
540-59-0	trans-1,2-Dichloroethene	10	
75-34-4	1,1-Dichloroethane	10	
594-20-7	2,2-Dichloropropane	10	
156-59-2	cis-1,2-Dichloroethene	11	
74-97-5	Bromochloromethane	10	
67-66-3	Chloroform	10	
71-55-6	1,1,1-Trichloroethane	10	
56-23-5	Carbon tetrachloride	9	
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	10	
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	10	
74-95-3	Dibromomethane	10	
75-27-4	Bromodichloromethane	10	
10061-01-5	cis-1,3-Dichloropropene	10	
108-88-3	Toluene	10	
10061-02-6	trans-1,3-Dichloropropene	11	
79-00-5	1,1,2-Trichloroethane	10	
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	11	
124-48-1	Dibromochloromethane	10	
106-93-4	1,2-Dibromoethane	10	
108-90-7	Chlorobenzene	10	
630-20-6	1,1,1,2-Tetrachloroethane	10	
100-41-4	Ethylbenzene	10	
	m,p-Xylene	20	
95-47-6	o-Xylene	10	
100-42-5	Styrene	10	
75-25-2	Bromoform	11	
98-82-8	Isopropylbenzene	10	
108-86-1	Bromobenzene	10	

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

2ND SOURCE

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 2nd SOURCE STD

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30744012.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 10/30/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	
96-18-4	1,2,3-Trichloropropane	10	
103-65-1	n-Propylbenzene	10	
95-49-8	2-Chlorotoluene	10	
106-43-4	4-Chlorotoluene	10	
108-67-8	1,3,5-Trimethylbenzene	10	
98-06-6	tert-Butylbenzene	10	
95-63-6	1,2,4-Trimethylbenzene	10	
135-98-8	sec-Butylbenzene	10	
541-73-1	1,3-Dichlorobenzene	10	
99-87-6	p-Isopropyltoluene	10	
106-46-7	1,4-Dichlorobenzene	10	
95-50-1	1,2-Dichlorobenzene	10	
104-51-8	n-Butylbenzene	11	
96-12-8	1,2-Dibromo-3-chloropropane	11	
120-82-1	1,2,4-Trichlorobenzene	11	
87-68-3	Hexachlorobutadiene	11	
91-20-3	Naphthalene	11	
87-67-6	1,2,3-Trichlorobenzene	11	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
540-59-0	trans-1,2-Dichloroethene	2	U
75-34-4	1,1-Dichloroethane	2	U
594-20-7	2,2-Dichloropropane	2	U
156-59-2	cis-1,2-Dichloroethene	37	D
74-97-5	Bromochloromethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	0.9	JD
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	14	D
78-87-5	1,2-Dichloropropane	2	U
74-95-3	Dibromomethane	2	U
75-27-4	Bromodichloromethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
108-88-3	Toluene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
142-28-9	1,3-Dichloropropane	2	U
124-48-1	Dibromochloromethane	2	U
106-93-4	1,2-Dibromoethane	2	U
108-90-7	Chlorobenzene	2	U
630-20-6	1,1,1,2-Tetrachloroethane	2	U
100-41-4	Ethylbenzene	2	U
	m,p-Xylene	3	U
95-47-6	o-Xylene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
98-82-8	Isopropylbenzene	2	U
108-86-1	Bromobenzene	2	U

2.64

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	2	U
96-18-4	1,2,3-Trichloropropane	8	U
103-65-1	n-Propylbenzene	2	U
95-49-8	2-Chlorotoluene	2	U
106-43-4	4-Chlorotoluene	2	U
108-67-8	1,3,5-Trimethylbenzene	2	U
98-06-6	tert-Butylbenzene	2	U
95-63-6	1,2,4-Trimethylbenzene	2	U
135-98-8	sec-Butylbenzene	2	U
541-73-1	1,3-Dichlorobenzene	2	U
99-87-6	p-Isopropyltoluene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U
104-51-8	n-Butylbenzene	2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	2	U
87-68-3	Hexachlorobutadiene	2	U
91-20-3	Naphthalene	2	U
87-67-6	1,2,3-Trichlorobenzene	2	U

8.0 U

9.5 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

3607ADL

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 5.00ml 5

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748007.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-43-0	2-Heptanone	17.75	36	JND

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748005.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	44	D
74-87-3	Chloromethane	45	D
75-01-4	Vinyl chloride	48	D
74-83-9	Bromomethane	47	D
75-00-3	Chloroethane	50	D
75-69-4	Trichlorofluoromethane	50	D
75-35-4	1,1-Dichloroethene	50	D
75-09-2	Methylene chloride	50	D
540-59-0	trans-1,2-Dichloroethene	47	D
75-34-4	1,1-Dichloroethane	47	D
594-20-7	2,2-Dichloropropane	47	D
156-59-2	cis-1,2-Dichloroethene	92	D
74-97-5	Bromochloromethane	50	D
67-66-3	Chloroform	49	D
71-55-6	1,1,1-Trichloroethane	50	D
56-23-5	Carbon tetrachloride	46	D
71-43-2	Benzene	49	D
107-06-2	1,2-Dichloroethane	50	D
79-01-6	Trichloroethene	61	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	52	D
75-27-4	Bromodichloromethane	50	D
10061-01-5	cis-1,3-Dichloropropene	51	D
108-88-3	Toluene	48	D
10061-02-6	trans-1,3-Dichloropropene	52	D
79-00-5	1,1,2-Trichloroethane	52	D
127-18-4	Tetrachloroethene	49	D
142-28-9	1,3-Dichloropropane	54	D
124-48-1	Dibromochloromethane	52	D
106-93-4	1,2-Dibromoethane	53	D
108-90-7	Chlorobenzene	48	D
630-20-6	1,1,1,2-Tetrachloroethane	50	D
100-41-4	Ethylbenzene	47	D
	m,p-Xylene	97	D
95-47-6	o-Xylene	49	D
100-42-5	Styrene	47	D
75-25-2	Bromoform	55	D
98-82-8	Isopropylbenzene	49	D
108-86-1	Bromobenzene	48	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMS

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MS 5.00

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748005.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	51	D
96-18-4	1,2,3-Trichloropropane	54	D
103-65-1	n-Propylbenzene	49	D
95-49-8	2-Chlorotoluene	47	D
106-43-4	4-Chlorotoluene	49	D
108-67-8	1,3,5-Trimethylbenzene	46	D
98-06-6	tert-Butylbenzene	46	D
95-63-6	1,2,4-Trimethylbenzene	48	D
135-98-8	sec-Butylbenzene	48	D
541-73-1	1,3-Dichlorobenzene	47	D
99-87-6	p-Isopropyltoluene	49	D
106-46-7	1,4-Dichlorobenzene	47	D
95-50-1	1,2-Dichlorobenzene	48	D
104-51-8	n-Butylbenzene	52	D
96-12-8	1,2-Dibromo-3-chloropropane	56	D
120-82-1	1,2,4-Trichlorobenzene	55	D
87-68-3	Hexachlorobutadiene	55	D
91-20-3	Naphthalene	58	D
87-67-6	1,2,3-Trichlorobenzene	56	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748006.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	31	D
74-87-3	Chloromethane	48	D
75-01-4	Vinyl chloride	50	D
74-83-9	Bromomethane	48	D
75-00-3	Chloroethane	51	D
75-69-4	Trichlorofluoromethane	52	D
75-35-4	1,1-Dichloroethene	52	D
75-09-2	Methylene chloride	49	D
540-59-0	trans-1,2-Dichloroethene	49	D
75-34-4	1,1-Dichloroethane	48	D
594-20-7	2,2-Dichloropropane	47	D
156-59-2	cis-1,2-Dichloroethene	86	D
74-97-5	Bromochloromethane	48	D
67-66-3	Chloroform	49	D
71-55-6	1,1,1-Trichloroethane	52	D
56-23-5	Carbon tetrachloride	49	D
71-43-2	Benzene	51	D
107-06-2	1,2-Dichloroethane	44	D
79-01-6	Trichloroethene	63	D
78-87-5	1,2-Dichloropropane	50	D
74-95-3	Dibromomethane	46	D
75-27-4	Bromodichloromethane	48	D
10061-01-5	cis-1,3-Dichloropropene	48	D
108-88-3	Toluene	50	D
10061-02-6	trans-1,3-Dichloropropene	48	D
79-00-5	1,1,2-Trichloroethane	46	D
127-18-4	Tetrachloroethene	52	D
142-28-9	1,3-Dichloropropane	47	D
124-48-1	Dibromochloromethane	47	D
106-93-4	1,2-Dibromoethane	45	D
108-90-7	Chlorobenzene	51	D
630-20-6	1,1,1,2-Tetrachloroethane	51	D
100-41-4	Ethylbenzene	51	D
	m,p-Xylene	110	D
95-47-6	o-Xylene	52	D
100-42-5	Styrene	48	D
75-25-2	Bromoform	48	D
98-82-8	Isopropylbenzene	53	D
108-86-1	Bromobenzene	50	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

3607ADLMSD

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Matrix: (soil/water) WATER Lab Sample ID: 110655-2 MSD 5.0

Sample wt/vol: 25.0 (g/ml) ML Lab File ID: 30748006.D

Level: (low/med) LOW Date Received: 10/30/01

% Moisture: not dec. Date Analyzed: 11/5/01

GC Column: CAP ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	46	D
96-18-4	1,2,3-Trichloropropane	48	D
103-65-1	n-Propylbenzene	54	D
95-49-8	2-Chlorotoluene	53	D
106-43-4	4-Chlorotoluene	53	D
108-67-8	1,3,5-Trimethylbenzene	51	D
98-06-6	tert-Butylbenzene	52	D
95-63-6	1,2,4-Trimethylbenzene	53	D
135-98-8	sec-Butylbenzene	55	D
541-73-1	1,3-Dichlorobenzene	51	D
99-87-6	p-Isopropyltoluene	56	D
106-46-7	1,4-Dichlorobenzene	51	D
95-50-1	1,2-Dichlorobenzene	50	D
104-51-8	n-Butylbenzene	58	D
96-12-8	1,2-Dibromo-3-chloropropane	49	D
120-82-1	1,2,4-Trichlorobenzene	56	D
87-68-3	Hexachlorobutadiene	65	D
91-20-3	Naphthalene	53	D
87-67-6	1,2,3-Trichlorobenzene	56	D

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	2ND SOURCE	102	100	100	0
02	VBLKBA	100	101	98	0
03	LCS 1	93	100	100	0
04	3607ADLMS	100	100	101	0
05	3607ADLMSD	92	98	99	0
06	3607ADL	87	98	92	0
07	3625C	105	96	99	0
08	36TB6	98	97	95	0

QC LIMITS

SMC1	=	s-Dibromofluoromethane	(77-119)
SMC2	=	s-Toluene-d8	(78-118)
SMC3	=	s-4-Bromofluorobenzene	(79-116)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748004.D Vial: 1
Acq On : 5 Nov 2001 9:46 Operator: GRH
Sample : BUW150ALCS LCS 11-05-01 Inst : Bubba
Misc : BUW150ALCS LCS 11-05-01 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	9.31	10.00	93.08	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.00	10.00	100.00	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.09	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.99	10.00	89.85	30 to 152%	[ ]
3)	PM	Chloromethane	8.78	10.00	87.76	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.60	10.00	96.03	72 to 116%	[ ]
5)	T	Bromomethane	9.37	10.00	93.73	63 to 140%	[ ]
6)	T	Chloroethane	9.80	10.00	98.02	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.13	10.00	101.26	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.96	10.00	99.55	84 to 117%	[ ]
9)	T	Acetone	14.72	20.00	73.59	24 to 158%	[ ]
10)	T	Iodomethane	9.81	10.00	98.15	60 to 135%	[ ]
11)	T	Carbon disulfide	10.58	10.00	105.77	79 to 118%	[ ]
12)	T	Methylene chloride	9.18	10.00	91.82	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.32	10.00	93.20	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	8.64	10.00	86.37	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.14	10.00	91.43	90 to 114%	[ ]
16)	T	Vinyl acetate	13.65	20.00	68.27	75 to 114%	[*]
17)	T	Isopropyl ether	9.61	10.00	96.07	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.32	10.00	93.16	74 to 112%	[ ]
19)	T	2-Butanone	17.66	20.00	88.31	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.06	10.00	100.61	90 to 117%	[ ]
21)	T	Bromochloromethane	9.72	10.00	97.17	91 to 129%	[ ]
22)	CM	Chloroform	9.38	10.00	93.76	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	9.94	10.00	99.40	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.51	10.00	95.15	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.68	10.00	106.85	84 to 112%	[ ]
28)	T	Benzene	9.72	10.00	97.16	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.11	10.00	91.13	88 to 125%	[ ]
30)	T	Trichloroethene	9.89	10.00	98.92	85 to 108%	[ ]
31)	CM[f]	1,2-Dichloropropane	9.78	10.00	97.81	87 to 112%	[ ]
32)	T	Dibromomethane	9.13	10.00	91.27	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.72	10.00	7.16	0 to 137%	[ ]
34)	T	Bromodichloromethane	9.32	10.00	93.25	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	9.49	10.00	94.92	61 to 133%	[ ]
37)	CM	Toluene	9.66	10.00	96.60	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	9.34	10.00	93.43	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	9.19	10.00	91.94	86 to 121%	[ ]
40)	T	Tetrachloroethene	10.00	10.00	99.96	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	9.45	10.00	94.50	73 to 124%	[ ]
42)	T	Dibromochloromethane	9.27	10.00	92.69	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	9.10	10.00	91.00	31 to 152% [ ]
44)	T	4-Methyl-2-pentanone	16.63	20.00	83.15	70 to 128% [ ]
45)	T	2-Hexanone	16.24	20.00	81.21	28 to 169% [ ]
47)	PM	Chlorobenzene	9.80	10.00	98.02	93 to 113% [ ]
48)	T	1,1,1,2-Tetrachloroe	9.80	10.00	97.99	75 to 125% [ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150% [*]
50)	CM	Ethylbenzene	9.87	10.00	98.73	69 to 123% [ ]
51)	T	m,p-Xylene	20.13	20.00	100.66	70 to 125% [ ]
52)	T	o-Xylene	10.12	10.00	101.22	73 to 122% [ ]
53)	T	Styrene	9.81	10.00	98.14	76 to 127% [ ]
54)	PM	Bromoform	9.70	10.00	96.97	52 to 127% [ ]
55)	T	Isopropylbenzene	10.25	10.00	102.52	56 to 134% [ ]
58)	T	Bromobenzene	9.63	10.00	96.28	63 to 153% [ ]
59)	PM	1,1,2,2-Tetrachloroe	8.84	10.00	88.44	69 to 134% [ ]
60)	T	1,2,3-Trichloropropa	9.32	10.00	93.23	38 to 159% [ ]
61)	T	n-Propylbenzene	10.28	10.00	102.78	73 to 116% [ ]
62)	T	2-Chlorotoluene	9.92	10.00	99.22	84 to 121% [ ]
63)	T	4-Chlorotoluene	10.22	10.00	102.17	90 to 113% [ ]
64)	T	1,3,5-Trimethylbenze	9.83	10.00	98.33	84 to 125% [ ]
65)	T	tert-Butylbenzene	9.90	10.00	99.02	66 to 115% [ ]
66)	T	1,2,4-Trimethylbenze	10.06	10.00	100.63	63 to 142% [ ]
67)	T	sec-Butylbenzene	10.30	10.00	102.98	53 to 134% [ ]
68)	T	1,3-Dichlorobenzene	9.62	10.00	96.15	90 to 113% [ ]
69)	T	p-Isopropyltoluene	10.53	10.00	105.30	30 to 172% [ ]
70)	T	1,4-Dichlorobenzene	9.63	10.00	96.32	92 to 113% [ ]
71)	T	1,2-Dichlorobenzene	9.42	10.00	94.18	87 to 115% [ ]
72)	T	n-Butylbenzene	10.92	10.00	109.17	0 to 237% [ ]
73)	T	1,2-Dibromo-3-chloro	9.11	10.00	91.08	56 to 125% [ ]
74)	T	1,2,4-Trichlorobenze	10.53	10.00	105.28	31 to 211% [ ]
75)	T	Hexachlorobutadiene	11.86	10.00	118.56	74 to 140% [ ]
76)	T	Naphthalene	9.86	10.00	98.59	18 to 229% [ ]
77)	T	1,2,3-Trichlorobenze	10.04	10.00	100.37	43 to 204% [ ]

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\BUBBA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Matrix : WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

Spike Recovery and RPD Summary Report - WATER

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Non-Spiked Sample: 30748007.D

	Spike Sample	Spike Duplicate Sample
File ID :	30748005.D	30748006.D
Sample :	110655-2 MS 5.00ml 5X	110655-2 MSD 5.00ml 5X
Acq Time:	5 Nov 2001 10:25	5 Nov 2001 11:06

Surrogate	Sample Conc	Amnt Added	Sampl %Rec	Spike Conc	Spike %Rec	Dup Conc	Dup %Rec	QC Limits % Rec
s-Dibromofluorometha	8.7	10	87	10.0	100	9.2	92	77-119
s-Toluene-d8	9.8	10	98	9.9	99	9.8	98	78-118
s-4-Bromofluorobenze	9.1	10	91	10.1	101	9.9	99	79-116

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodiflu	0.0	50	44.10	30.85	88	62	35.4#	12	35-160
Chloromethane	0.0	50	45.17	48.13	90	96	6.3	10	60-124
Vinyl chlorid	0.0	50	48.01	50.25	96	101	4.6	9	74-125
Bromomethane	0.0	50	46.95	47.98	94	96	2.2	17	59-152
Chloroethane	0.0	50	50.44	50.95	101	102	1.0	10	73-123
Trichlorofluo	0.0	50	50.49	51.85	101	104	2.6	10	84-125
1,1-Dichloroe	0.0	50	49.91	52.31	100	105	4.7	13	84-119
Acetone	0.0	100	95.25	74.60	95	75	24.3	44	19-201
Iodomethane	0.0	50	47.16	49.49	94	99	4.8	15	53-154
Carbon disulf	0.0	50	53.36	56.07	107	112	5.0	12	79-123
Methylene chl	0.0	50	49.80	48.74	100	97	2.1	18	81-121
trans-1,2-Dic	0.0	50	47.34	48.89	95	98	3.2	9	87-115
Methyl tert-b	0.0	50	52.64	43.96	105	88	18.0	32	68-133
1,1-Dichloroe	0.0	50	46.71	47.48	93	95	1.6	10	85-121
Vinyl acetate	0.0	100	80.58	71.31	81	71	12.2	20	69-122
Isopropyl eth	0.0	50	53.62	49.13	107	98	8.7	18	79-118
2,2-Dichlorop	0.0	50	46.71	47.19	93	94	1.0	10	78-116
2-Butanone	0.0	100	128.57	99.21	129	99	25.8	47	65-133
cis-1,2-Dichl	37.2	50	92.04	85.52	110	97	12.7	14	88-122
Bromochlorome	0.0	50	49.76	48.10	100	96	3.4	18	85-130
Chloroform	0.0	50	48.66	48.64	97	97	0.0	13	87-117
1,1,1-Trichlo	0.0	50	50.30	52.25	101	104	3.8	10	90-120
Carbon tetrac	0.0	50	45.92	48.97	92	98	6.4	11	78-121
1,1-Dichlorop	0.0	50	49.21	56.99	98	114	14.7#	12	84-118
Benzene	0.9	50	48.98	50.67	96	99	3.5	8	67-148
1,2-Dichloroe	0.0	50	49.89	44.30	100	89	11.9	17	85-129
Trichloroethe	14.4	50	60.98	63.15	93	98	4.6	11	86-115
1,2-Dichlorop	0.0	50	50.47	49.96	101	100	1.0	12	88-114
Dibromomethan	0.0	50	51.95	46.40	104	93	11.3	20	81-130

2-Chloroethyl	0.0	50	4.19	0.00	8#	0#	200.0#	30	50-150
Bromodichloro	0.0	50	50.01	47.92	100	96	4.3	15	87-121
cis-1,3-Dichl	0.0	50	50.91	48.35	102	97	5.2	19	65-133
Toluene	0.0	50	47.71	49.85	95	100	4.4	8	86-123
trans-1,3-Dic	0.0	50	52.49	47.84	105	96	9.3	19	53-144
1,1,2-Trichlo	0.0	50	52.07	46.48	104	93	11.3	20	85-125
Tetrachloroet	0.0	50	48.94	52.10	98	104	6.3	13	87-131
1,3-Dichlorop	0.0	50	53.52	47.08	107	94	12.8	19	73-126
Dibromochloro	0.0	50	52.21	46.98	104	94	10.5	27	83-122
1,2-Dibromoet	0.0	50	52.72	45.36	105	91	15.0	26	36-153
4-Methyl-2-pe	0.0	100	105.85	82.87	106	83	24.4	35	64-133
2-Hexanone	0.0	100	117.33	88.83	117	89	27.7	36	49-144
Chlorobenzene	0.0	50	48.01	50.71	96	101	5.5	10	66-156
1,1,1,2-Tetra	0.0	50	49.54	50.62	99	101	2.2	12	84-124
1-Chlorohexan	0.0	50	0.00	0.00	0#	0#	99.0#	30	50-150
Ethylbenzene	0.0	50	47.30	51.29	95	103	8.1	14	78-132
m,p-Xylene	0.0	100	96.58	105.46	97	105	8.8	20	76-129
o-Xylene	0.0	50	48.80	51.93	98	104	6.2	13	76-127
Styrene	0.0	50	46.99	48.27	94	97	2.7	43	55-138
Bromoform	0.0	50	55.04	48.06	110	96	13.5	29	62-124
Isopropylbenz	0.0	50	48.64	53.33	97	107	9.2	20	65-149
Bromobenzene	0.0	50	48.38	50.21	97	100	3.7	14	73-140
1,1,2,2-Tetra	0.0	50	51.20	46.51	102	93	9.6	25	75-127
1,2,3-Trichlo	0.0	50	53.51	47.95	107	96	11.0	26	75-127
n-Propylbenze	0.0	50	48.62	54.30	97	109	11.0	16	76-123
2-Chlorotolue	0.0	50	47.34	52.85	95	106	11.0	15	85-122
4-Chlorotolue	0.0	50	48.69	53.43	97	107	9.3	13	87-122
1,3,5-Trimeth	0.0	50	45.69	51.09	91	102	11.2	25	72-140
tert-Butylben	0.0	50	46.21	51.99	92	104	11.8	16	73-113
1,2,4-Trimeth	0.0	50	48.03	53.03	96	106	9.9	30	50-158
sec-Butylbenz	0.0	50	47.81	54.88	96	110	13.8	18	62-144
1,3-Dichlorob	0.0	50	47.37	50.70	95	101	6.8	10	89-118
p-Isopropylto	0.0	50	48.78	55.56	98	111	13.0	22	35-190
1,4-Dichlorob	0.0	50	47.29	50.77	95	102	7.1	10	78-138
1,2-Dichlorob	0.0	50	48.27	49.60	97	99	2.7	12	86-120
n-Butylbenzen	0.0	50	51.56	58.15	103	116	12.0	40	0-270
1,2-Dibromo-3	0.0	50	55.95	48.64	112	97	14.0	33	71-118
1,2,4-Trichlo	0.0	50	55.44	56.23	111	112	1.4	32	30-230
Hexachlorobut	0.0	50	55.39	64.74	111	129	15.6	18	70-156
Naphthalene	0.0	50	58.26	52.97	117	106	9.5	42	17-260
1,2,3-Trichlo	0.0	50	55.62	56.37	111	113	1.3	33	49-214

- Fails Limit Check

V82625B1.M Tue Nov 06 14:00:39 2001

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKBA

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Lab File ID: 30748003.D Lab Sample ID: BUW150ABK BLA

Date Analyzed: 11/5/01 Time Analyzed: 9:05

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: BUBBA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS 1	BUW150ALCS LCS 11-05	30748004.D	9:46
02	3607ADLMS	110655-2 MS 5.00ML 5X	30748005.D	10:25
03	3607ADLMSD	110655-2 MSD 5.00ML 5	30748006.D	11:06
04	3607ADL	110655-2 5.00ML 5X	30748007.D	11:48
05	3625C	110728-1	30748009.D	13:09
06	36TB6	110728-2	30748010.D	13:48

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Lab File ID: 30744001.D BFB Injection Date: 10/30/01

Instrument ID: BUBBA BFB Injection Time: 8:43

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	66.5
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10PPB VOA STD	30744002.D	10/30/01	9:23
02	VSTD005	5.0PPB VOA STD	30744003.D	10/30/01	10:04
03	VSTD002	2.0PPB VOA STD	30744004.D	10/30/01	10:45
04	VSTD001	1.0PPB VOA STD	30744005.D	10/30/01	11:26
05	VSTD0003	0.3PPB VOA STD	30744006.D	10/30/01	12:04
06	VSTD0005	0.5PPB VOA STD	30744007.D	10/30/01	12:43
07	VSTD020	20PPB VOA STD	30744009.D	10/30/01	14:05
08	VSTD030	30PPB VOA STD	30744010.D	10/30/01	14:43
09	2ND SOURCE	2ND SOURCE STD 8-MS	30744012.D	10/30/01	16:03

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Lab File ID: 30748001.D BFB Injection Date: 11/5/01

Instrument ID: BUBBA BFB Injection Time: 7:45

GC Column: CAP ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.2
75	30.0 - 66.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	67.7
175	4.0 - 9.0% of mass 174	4.9 (7.2)1
176	93.0 - 101.0% of mass 174	66.2 (97.8)1
177	5.0 - 9.0% of mass 176	4.1 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010BA	10PPB VOA STD	30748002.D	11/5/01	8:24
02	VBLKBA	BUW150ABK BLANK 11-	30748003.D	11/5/01	9:05
03	LCS 1	BUW150ALCS LCS 11-05	30748004.D	11/5/01	9:46
04	3607ADLMS	110655-2 MS 5.00ML 5X	30748005.D	11/5/01	10:25
05	3607ADLMSD	110655-2 MSD 5.00ML 5	30748006.D	11/5/01	11:06
06	3607ADL	110655-2 5.00ML 5X	30748007.D	11/5/01	11:48
07	3625C	110728-1	30748009.D	11/5/01	13:09
08	36TB6	110728-2	30748010.D	11/5/01	13:48

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integra
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------		ISTD	----------				
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
							L	M= 0.019 R^2=0.996		
								B= -0.000		
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
							L	M= 0.331 R^2=1.000		
								B= -0.000		
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------		ISTD	----------				
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
							L	M= 0.157 R^2=0.999		
								B= 0.006		
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integr
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RS
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L M= 0.351 R^2=0.999		
								B= 0.002		
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L M= 0.742 R^2=0.999		
								B= 0.030		

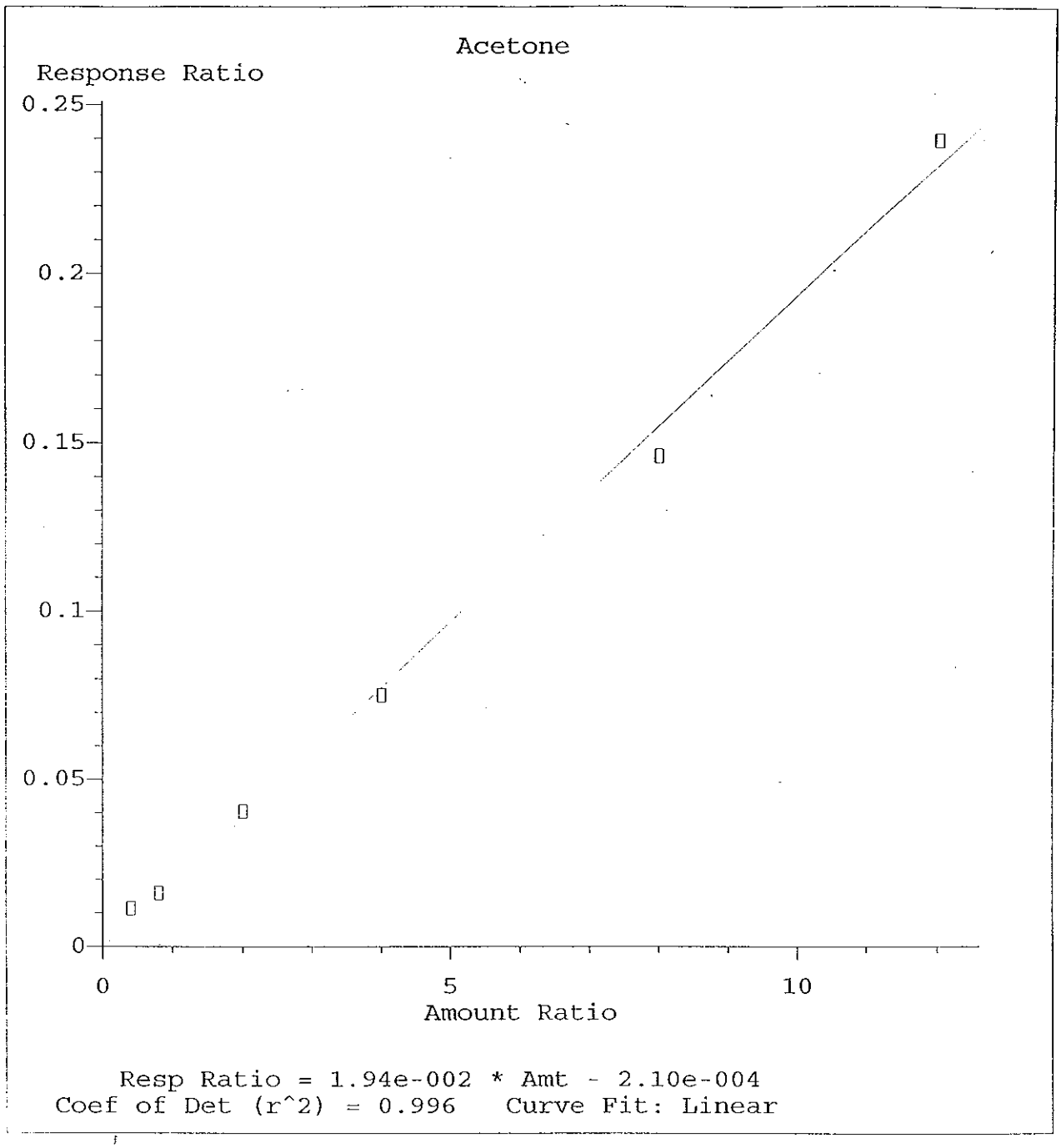
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integra
Title : SW-846 Method 8260A
Last Update : Fri Nov 02 15:11:24 2001
Response via : Initial Calibration

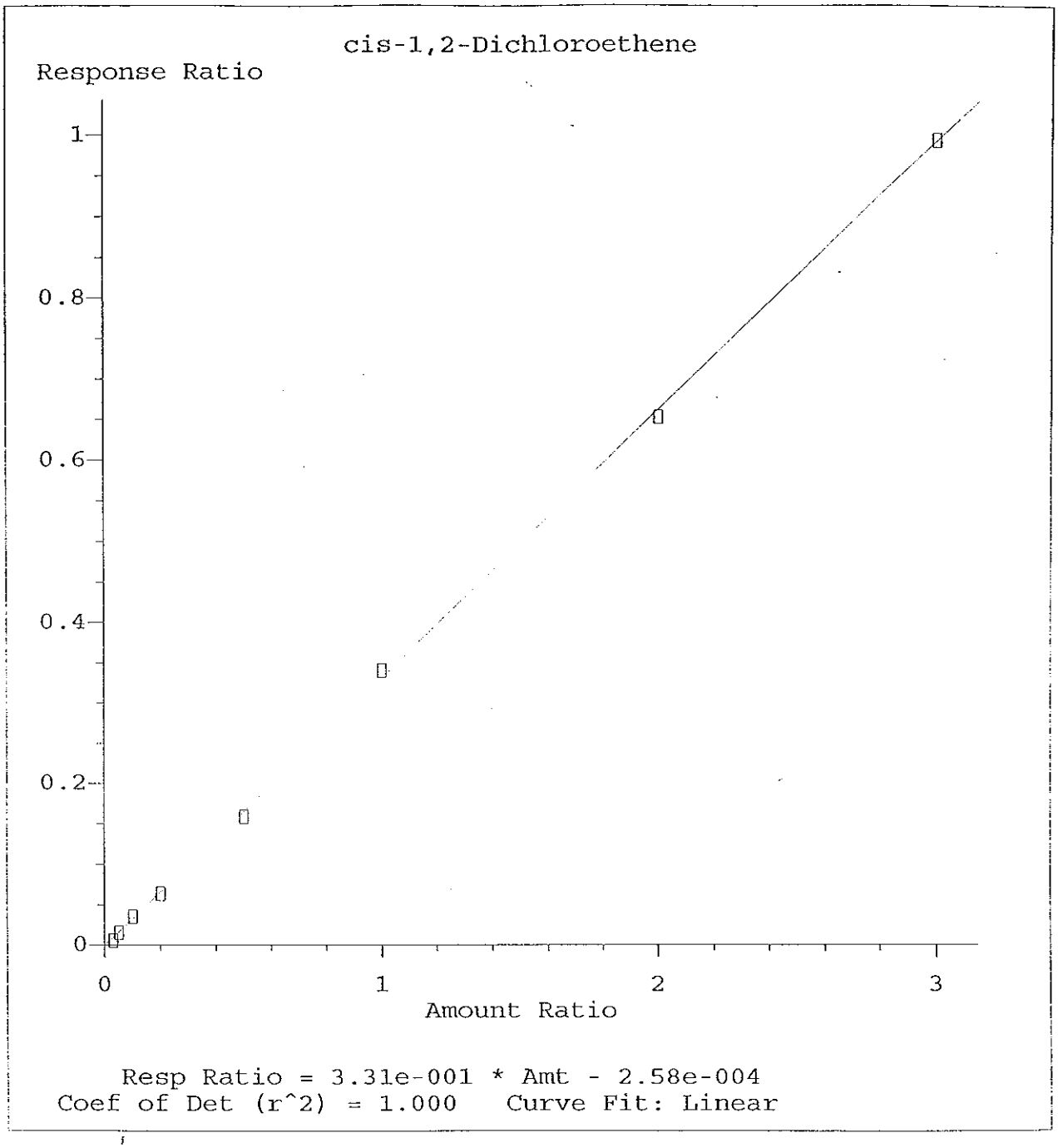
Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSI
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

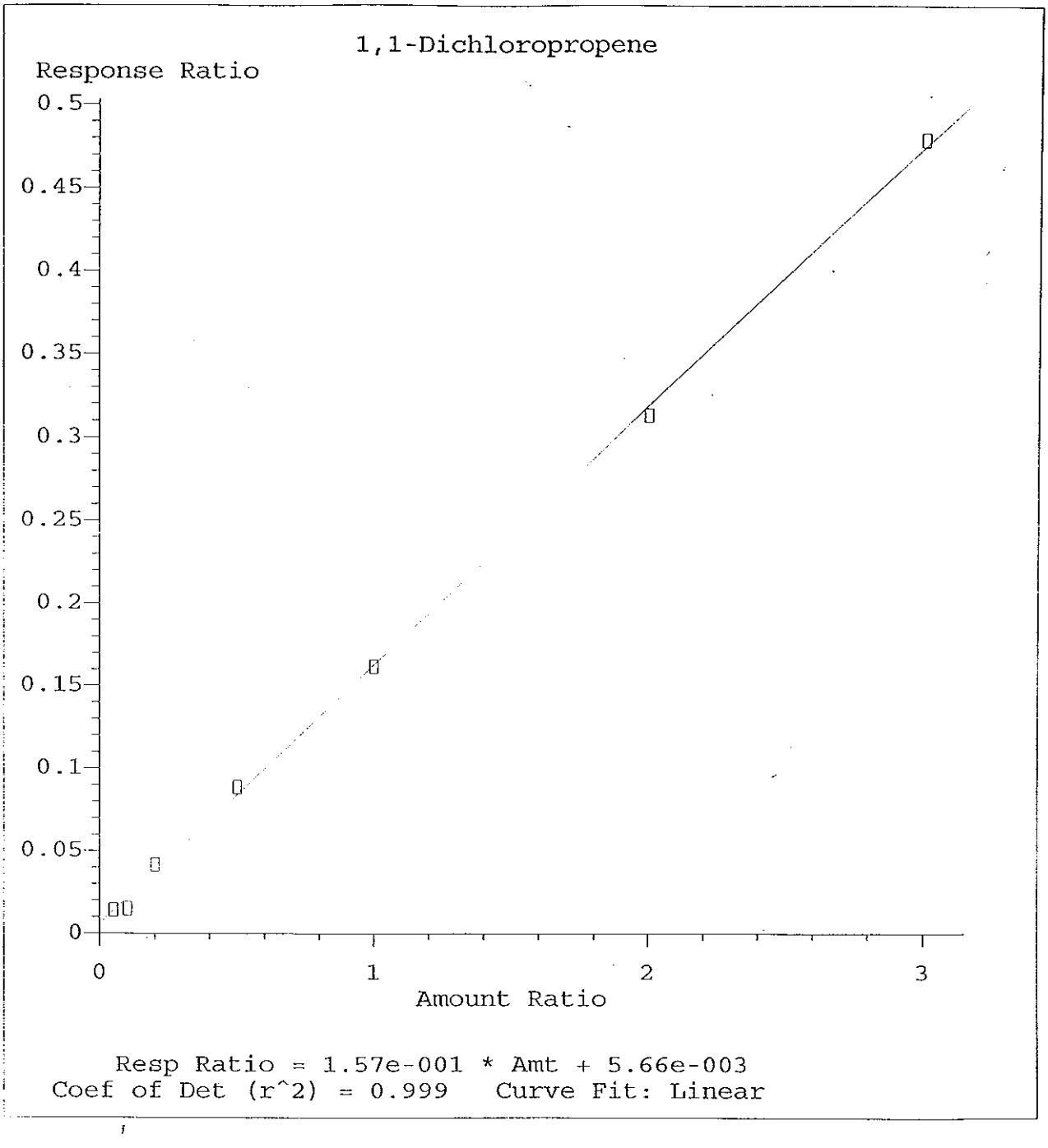
L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###



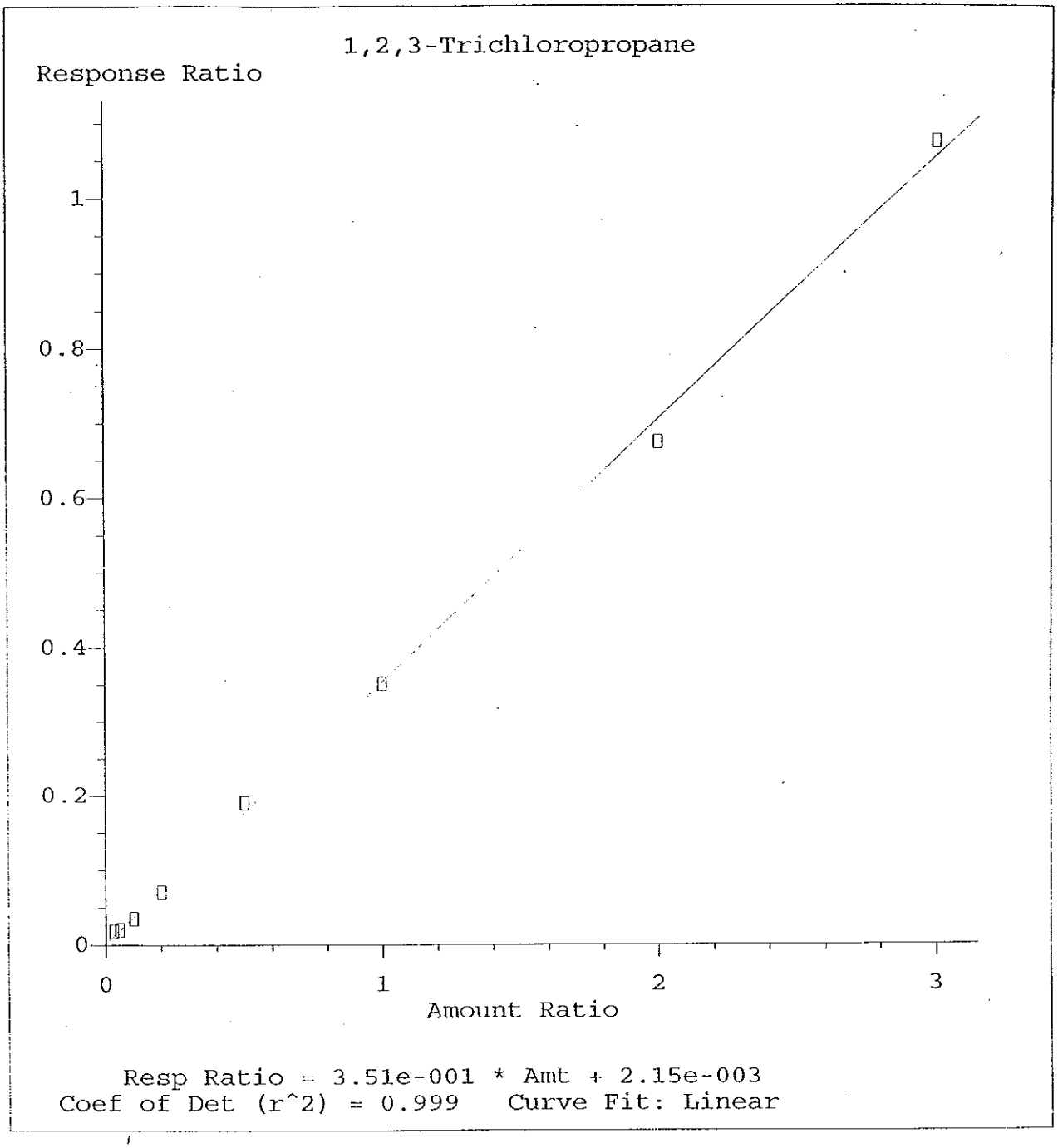
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



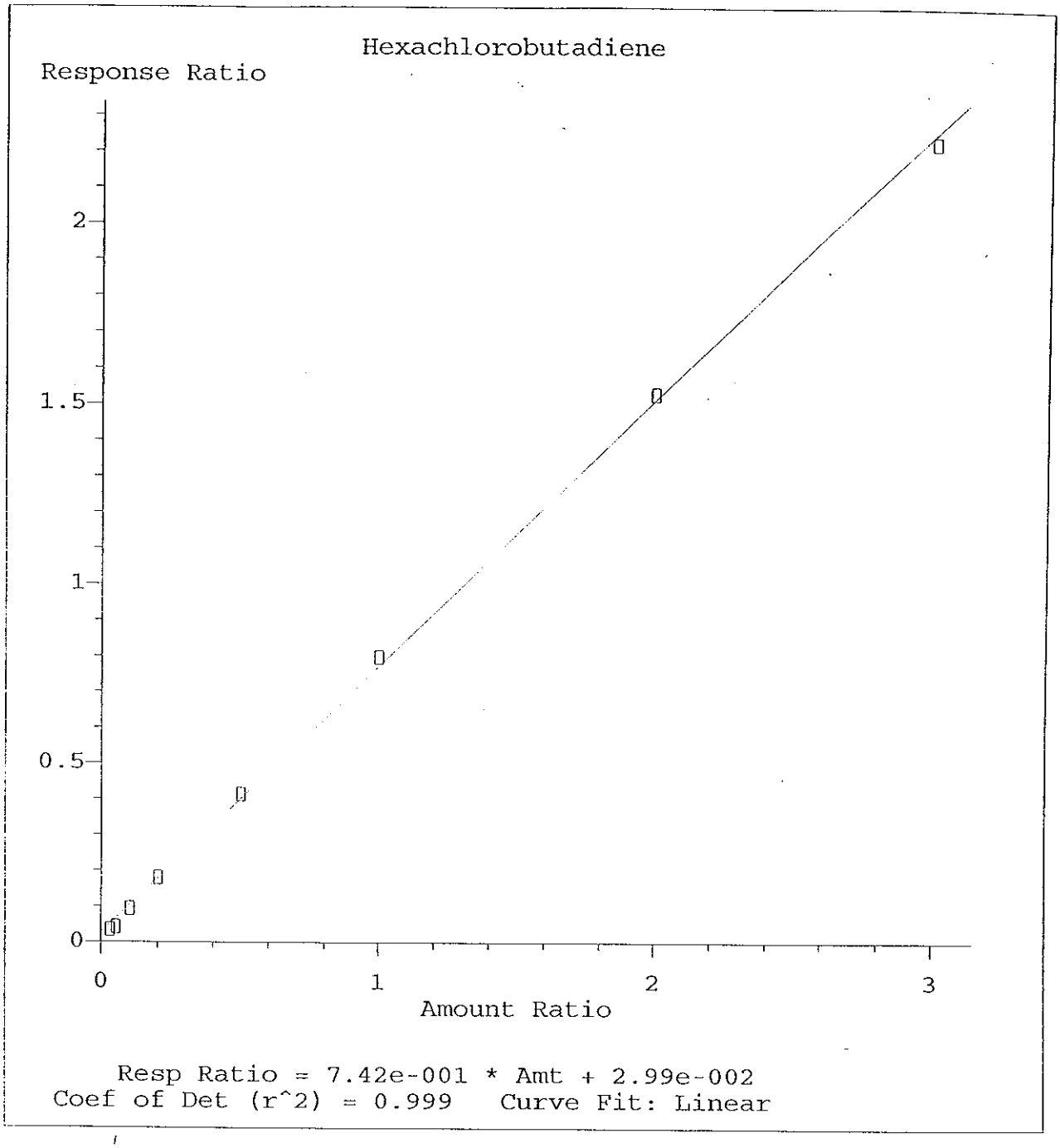
Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001



Method Name: D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M
Calibration Table Last Updated: Fri Nov 02 15:11:24 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrat
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	TM	Dichlorodifluoromethane	0.508	0.440	13.4	89	0.00
3	PM	Chloromethane	0.324	0.301	7.1	92	0.00
4	CM	Vinyl chloride	0.340	0.320	5.9#	96	0.00
5	TM	Bromomethane	0.307	0.279	9.1	92	0.00
6	TM	Chloroethane	0.199	0.190	4.5	95	0.00
7	TM	Trichlorofluoromethane	0.557	0.529	5.0	94	0.00
8	CM	1,1-Dichloroethene	0.327	0.315	3.7#	97	0.00
9	TM	Acetone	0.021	0.019#	9.5	101	0.00
10	TM	Iodomethane	0.403	0.391	3.0	94	0.00
11	TM	Carbon disulfide	1.028	0.997	3.0	96	0.00
12	TM	Methylene chloride	0.267	0.271	-1.5	98	0.00
13	TM	trans-1,2-Dichloroethene	0.363	0.354	2.5	95	0.00
14	TM	Methyl tert-butyl ether	0.399	0.394	1.3	97	0.00
15	PM	1,1-Dichloroethane	0.645	0.629	2.5	95	0.00
16	TM	Vinyl acetate	0.489	0.490	-0.2	97	0.00
17	TM	Isopropyl ether	1.015	1.040	-2.5	98	0.00
18	TM	2,2-Dichloropropane	0.478	0.457	4.4	92	0.00
19	TM	2-Butanone	0.040	0.041#	-2.5	100	0.00
20	TM	cis-1,2-Dichloroethene	0.311	0.339	-9.0	97	0.00
21	TM	Bromochloromethane	0.130	0.132	-1.5	99	0.00
22	CM	Chloroform	0.645	0.636	1.4#	97	0.00
23	TM	1,1,1-Trichloroethane	0.539	0.532	1.3	95	0.00
24	S	s-Dibromofluoromethane	0.463	0.461	0.4	96	0.00
25	I	i-1,4-Difluorobenzene	1.000	1.000	0.0	97	0.00
26	TM	Carbon tetrachloride	0.500	0.453	9.4	96	0.00
27	TM	1,1-Dichloropropene	0.186	0.167	10.2	100	0.00
28	TM	Benzene	1.086	1.068	1.7	97	0.00
29	TM	1,2-Dichloroethane	0.217	0.213	1.8	97	0.00
30	TM	Trichloroethene	0.437	0.425	2.7	97	0.00
31	CM	1,2-Dichloropropane	0.363	0.361	0.6#	98	0.00
32	TM	Dibromomethane	0.162	0.162	0.0	99	0.00
33	TM	2-Chloroethyl vinyl ether	0.060	0.065	-8.3	100	0.00
34	TM	Bromodichloromethane	0.502	0.497	1.0	97	0.00
35	TM	cis-1,3-Dichloropropene	0.391	0.388	0.8	96	0.00
36	S	s-Toluene-d8	0.947	0.958	-1.2	98	0.00
37	CM	Toluene	0.699	0.681	2.6#	97	0.00
38	TM	trans-1,3-Dichloropropene	0.241	0.246	-2.1	97	0.00
39	TM	1,1,2-Trichloroethane	0.162	0.161	0.6	99	0.00
40	TM	Tetrachloroethene	0.505	0.489	3.2	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:33 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	0.309	0.308	0.3	98	0.00
42	TM	Dibromochloromethane	0.295	0.298	-1.0	98	0.00
43	TM	1,2-Dibromoethane	0.200	0.204	-2.0	98	0.00
44	TM	4-Methyl-2-pentanone	0.114	0.112	1.8	100	0.00
45	TM	2-Hexanone	0.069	0.071	-2.9	100	0.00
46	I	i-Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
47	PM	Chlorobenzene	1.050	1.026	2.3	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	0.465	0.460	1.1	97	0.00
49	TM	1-Chlorohexane	0.000	0.000#	0.0	103	0.00
50	CM	Ethylbenzene	0.567	0.544	4.1#	97	0.00
51	TM	m,p-Xylene	0.683	0.677	0.9	97	0.00
52	TM	o-Xylene	0.635	0.621	2.2	96	0.00
53	TM	Styrene	1.007	1.024	-1.7	98	0.00
54	PM	Bromoform	0.245	0.260	-6.1	101	0.00
55	TM	Isopropylbenzene	2.040	2.014	1.3	97	0.00
56	S	s-4-Bromofluorobenzene	0.760	0.771	-1.4	97	0.00
57	I	i-1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
58	TM	Bromobenzene	0.928	0.886	4.5	99	0.00
59	PM	1,1,2,2-Tetrachloroethane	0.644	0.614	4.7	98	0.00
60	TM	1,2,3-Trichloropropane	0.395	0.357	9.6	99	0.00
61	TM	n-Propylbenzene	0.909	0.867	4.6	94	0.00
62	TM	2-Chlorotoluene	0.856	0.809	5.5	98	0.00
63	TM	4-Chlorotoluene	2.990	2.941	1.6	100	0.00
64	TM	1,3,5-Trimethylbenzene	2.784	2.668	4.2	98	0.00
65	TM	tert-Butylbenzene	1.825	1.724	5.5	98	0.00
66	TM	1,2,4-Trimethylbenzene	2.442	2.464	-0.9	98	0.00
67	TM	sec-Butylbenzene	4.012	3.919	2.3	98	0.00
68	TM	1,3-Dichlorobenzene	1.709	1.638	4.2	98	0.00
69	TM	p-Isopropyltoluene	3.020	3.034	-0.5	98	0.00
70	TM	1,4-Dichlorobenzene	1.630	1.585	2.8	103	0.00
71	TM	1,2-Dichlorobenzene	1.359	1.302	4.2	98	0.00
72	TM	n-Butylbenzene	2.797	2.946	-5.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	0.087	0.087	0.0	100	0.00
74	TM	1,2,4-Trichlorobenzene	0.763	0.823	-7.9	101	0.00
75	TM	Hexachlorobutadiene	0.873	0.834	4.5	102	0.00
76	TM	Naphthalene	0.582	0.636	-9.3	105	0.00
77	TM	1,2,3-Trichlorobenzene	0.569	0.613	-7.7	102	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integrato
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	i-Pentafluorobenzene	10.000	10.000	0.0	97	0.00
2	TM	Dichlorodifluoromethane	10.000	8.658	13.4	89	0.00
3	PM	Chloromethane	10.000	9.277	7.2	92	0.00
4	CM	Vinyl chloride	10.000	9.420	5.8#	96	0.00
5	TM	Bromomethane	10.000	9.076	9.2	92	0.00
6	TM	Chloroethane	10.000	9.528	4.7	95	0.00
7	TM	Trichlorofluoromethane	10.000	9.502	5.0	94	0.00
8	CM	1,1-Dichloroethene	10.000	9.633	3.7#	97	0.00
9	TM	Acetone	40.000	39.900	0.3	101	0.00
10	TM	Iodomethane	10.000	9.714	2.9	94	0.00
11	TM	Carbon disulfide	10.000	9.691	3.1	96	0.00
12	TM	Methylene chloride	10.000	10.136	-1.4	98	0.00
13	TM	trans-1,2-Dichloroethene	10.000	9.752	2.5	95	0.00
14	TM	Methyl tert-butyl ether	10.000	9.871	1.3	97	0.00
15	PM	1,1-Dichloroethane	10.000	9.750	2.5	95	0.00
16	TM	Vinyl acetate	20.000	20.061	-0.3	97	0.00
17	TM	Isopropyl ether	10.000	10.251	-2.5	98	0.00
18	TM	2,2-Dichloropropane	10.000	9.551	4.5	92	0.00
19	TM	2-Butanone	40.000	40.267	-0.7	100	0.00
20	TM	cis-1,2-Dichloroethene	10.000	10.292	-2.9	97	0.00
21	TM	Bromochloromethane	10.000	10.169	-1.7	99	0.00
22	CM	Chloroform	10.000	9.860	1.4#	97	0.00
23	TM	1,1,1-Trichloroethane	10.000	9.857	1.4	95	0.00
24	S	s-Dibromofluoromethane	10.000	9.957	0.4	96	0.00
25	I	i-1,4-Difluorobenzene	10.000	10.000	0.0	97	0.00
26	TM	Carbon tetrachloride	10.000	9.072	9.3	96	0.00
27	TM	1,1-Dichloropropene	10.000	10.283	-2.8	100	0.00
28	TM	Benzene	10.000	9.842	1.6	97	0.00
29	TM	1,2-Dichloroethane	10.000	9.801	2.0	97	0.00
30	TM	Trichloroethene	10.000	9.713	2.9	97	0.00
31	CM	1,2-Dichloropropane	10.000	9.959	0.4#	98	0.00
32	TM	Dibromomethane	10.000	9.991	0.1	99	0.00
33	TM	2-Chloroethyl vinyl ether	10.000	10.848	-8.5	100	0.00
34	TM	Bromodichloromethane	10.000	9.894	1.1	97	0.00
35	TM	cis-1,3-Dichloropropene	10.000	9.934	0.7	96	0.00
36	S	s-Toluene-d8	10.000	10.107	-1.1	98	0.00
37	CM	Toluene	10.000	9.739	2.6#	97	0.00
38	TM	trans-1,3-Dichloropropene	10.000	10.223	-2.2	97	0.00
39	TM	1,1,2-Trichloroethane	10.000	9.936	0.6	99	0.00
40	TM	Tetrachloroethene	10.000	9.682	3.2	97	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\BUBBA\110501\30748002.D Vial: 15
Acq On : 5 Nov 2001 8:24 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\HPCHEM\1\METHODS\BUBBA\CRV103001\V82625B1.M (RTE Integratc
Title : SW-846 Method 8260A
Last Update : Tue Nov 06 13:38:11 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	TM	1,3-Dichloropropane	10.000	9.966	0.3	98	0.00
42	TM	Dibromochloromethane	10.000	10.118	-1.2	98	0.00
43	TM	1,2-Dibromoethane	10.000	10.180	-1.8	98	0.00
44	TM	4-Methyl-2-pentanone	40.000	39.331	1.7	100	0.00
45	TM	2-Hexanone	40.000	41.605	-4.0	100	0.00
46	I	i-Chlorobenzene-d5	10.000	10.000	0.0	97	0.00
47	PM	Chlorobenzene	10.000	9.770	2.3	97	0.00
48	TM	1,1,1,2-Tetrachloroethane	10.000	9.889	1.1	97	0.00
49	TM	1-Chlorohexane	-1.000	0.000	0.0	103	0.00
50	CM	Ethylbenzene	10.000	9.588	4.1#	97	0.00
51	TM	m,p-Xylene	20.000	19.823	0.9	97	0.00
52	TM	o-Xylene	10.000	9.779	2.2	96	0.00
53	TM	Styrene	10.000	10.167	-1.7	98	0.00
54	PM	Bromoform	10.000	10.632	-6.3	101	0.00
55	TM	Isopropylbenzene	10.000	9.872	1.3	97	0.00
56	S	s-4-Bromofluorobenzene	10.000	10.143	-1.4	97	0.00
57	I	i-1,4-Dichlorobenzene-d4	10.000	10.000	0.0	97	0.00
58	TM	Bromobenzene	10.000	9.545	4.6	99	0.00
59	PM	1,1,2,2-Tetrachloroethane	10.000	9.530	4.7	98	0.00
60	TM	1,2,3-Trichloropropane	10.000	10.082	-0.8	99	0.00
61	TM	n-Propylbenzene	10.000	9.545	4.6	94	0.00
62	TM	2-Chlorotoluene	10.000	9.452	5.5	98	0.00
63	TM	4-Chlorotoluene	10.000	9.836	1.6	100	0.00
64	TM	1,3,5-Trimethylbenzene	10.000	9.586	4.1	98	0.00
65	TM	tert-Butylbenzene	10.000	9.447	5.5	98	0.00
66	TM	1,2,4-Trimethylbenzene	10.000	10.090	-0.9	98	0.00
67	TM	sec-Butylbenzene	10.000	9.770	2.3	98	0.00
68	TM	1,3-Dichlorobenzene	10.000	9.586	4.1	98	0.00
69	TM	p-Isopropyltoluene	10.000	10.046	-0.5	98	0.00
70	TM	1,4-Dichlorobenzene	10.000	9.721	2.8	103	0.00
71	TM	1,2-Dichlorobenzene	10.000	9.578	4.2	98	0.00
72	TM	n-Butylbenzene	10.000	10.533	-5.3	97	0.00
73	TM	1,2-Dibromo-3-chloropropane	10.000	9.957	0.4	100	0.00
74	TM	1,2,4-Trichlorobenzene	10.000	10.784	-7.8	101	0.00
75	TM	Hexachlorobutadiene	10.000	10.887	-8.9	102	0.00
76	TM	Naphthalene	10.000	10.919	-9.2	105	0.00
77	TM	1,2,3-Trichlorobenzene	10.000	10.781	-7.8	102	0.00

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Lab File ID (Standard): 30748002.D Date Analyzed: 11/5/01

Instrument ID: BUBBA Time Analyzed: 8:24

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2887930	7.24	2928016	9.06	2076225	15.34
	UPPER LIMIT	5775860	7.74	5856032	9.56	4152450	15.84
	LOWER LIMIT	1443965	6.74	1464008	8.56	1038113	14.84
	EPA SAMPLE NO.						
01	VBLKBA	3036543	7.24	2981059	9.06	2142947	15.31
02	LCS 1	3015599	7.23	2960551	9.05	2033147	15.31
03	3607ADLMS	2825056	7.25	2850829	9.07	2015573	15.31
04	3607ADLMSD	2710424	7.25	2667351	9.07	1806751	15.31
05	3607ADL	2425218	7.23	2304698	9.06	1523084	15.30
06	3625C	2812324	7.24	2849618	9.06	2067657	15.31
07	36TB6	2883415	7.24	2873856	9.06	2011801	15.32

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PENSACOLA Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: 110728

Lab File ID (Standard): 30748002.D Date Analyzed: 11/05/01

Instrument ID: BUBBA Time Analyzed: 08:24

GC Column: CAP ID: 0.32 (mm) Heated Purge (Y/N): Y

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1170394	22.70				
	UPPER LIMIT	2340788	22.20				
	LOWER LIMIT	585197	23.20				
	EPA SAMPLE NO.						
01	VBLKBA	1045036	22.69				
02	LCS 1	1122792	22.68				
03	3607ADLMS	1135243	22.69				
04	3607ADLMSD	977365	22.68				
05	3607ADL	673662	22.67				
06	3625C	1035048	22.69				
07	36TB6	973311	22.70				

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5
IS4 = i-1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sequence Name: D:\HPCHEM\1\SEQUENCE\103001.S
Comment: 10-30-01
Operator: GRH
Data Path: d:\HPCHEM\1\DATA\103001\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SeedName - Sample 1				
2	Sample	14	30744001	V82625A	TUNE
3	Sample	15	30744002	V82625A	10ppb VOA STD
4	Sample	16	30744003	V82625A	5.0ppb VOA STD
5	Sample	14	30744004	V82625A	2.0ppb VOA STD
6	Sample	15	30744005	V82625A	1.0ppb VOA STD
7	Sample	16	30744006	V82625A	0.3ppb VOA STD
8	Sample	17	30744007	V82625A	0.5ppb VOA STD
9	Sample	14	30744008	V82625A	10ppb VOA STD
10	Sample	15	30744009	V82625A	20ppb VOA STD
11	Sample	16	30744010	V82625A	30ppb VOA STD
12	Sample	1	30744011	V82625A	BLANK
13	Sample	2	30744012	V82625A	2nd SOURCE STD 8-MSW-25-2

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS1 Area	#	RT	#	IS2 Area	#	RT	#	IS3 Area	#	RT	#
12 HOUR STD	2963240		7.24		3033671		9.06		2146927		15.31	
UPPER LIMIT	5926480		7.74		6067342		9.56		4293854		15.81	
LOWER LIMIT	1481620		6.74		1516836		8.56		1073464		14.81	
File ID Sample												
30744003 5.0ppb VO	3051870		7.25		3049690		9.06		2134623		15.30	
30744004 2.0ppb VO	3119967		7.25		3073978		9.06		2091977		15.30	
30744005 1.0ppb VO	3005522		7.22		3036086		9.05		2124797		15.29	
30744006 0.3ppb VO	3096915		7.24		3080281		9.06		2137198		15.31	
30744007 0.5ppb VO	3267539		7.26		3235792		9.08		2231342		15.32	
30744008 10ppb VOA	2956968		7.25		2981780		9.07		2064519		15.31	
30744009 20ppb VOA	2947542		7.25		3065355		9.06		2161993		15.32	
30744010 30ppb VOA	3089598		7.24		3142130		9.07		2243726		15.33	
30744011 BLANK	2932016		7.26		2806995		9.07		1813456		15.31	
30744012 2nd SOURC	2973636		7.24		3023394		9.06		2127272		15.30	

IS1 = i-Pentafluorobenzene
IS2 = i-1,4-Difluorobenzene
IS3 = i-Chlorobenzene-d5

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name :
Project : Site :
Lab File ID (Standard): 30744002.D
Instrument ID : Bubba
GC Column : ID : (mm)

Contract :
Location : Group :
Date Analyzed : 30 Oct 2001
Time Analyzed : 9:23
Heated Purge (Y:N) : Y

	IS4 Area	#	RT	#	IS5 Area	#	RT	#	IS6 Area	#	RT	#
12 HOUR STD	1203723		22.66		0		0.00		0		0.00	
UPPER LIMIT	2407446		23.16		0		0.00		0		0.00	
LOWER LIMIT	601862		22.16		0		0.00		0		0.00	
File ID Sample												
30744003 5.0ppb VO	1168290		22.65		0		0.00		0		0.00	
30744004 2.0ppb VO	1094758		22.65		0		0.00		0		0.00	
30744005 1.0ppb VO	1095106		22.64		0		0.00		0		0.00	
30744006 0.3ppb VO	1046565		22.69		0		0.00		0		0.00	
30744007 0.5ppb VO	1130938		22.70		0		0.00		0		0.00	
30744008 10ppb VOA	1124869		22.68		0		0.00		0		0.00	
30744009 20ppb VOA	1236934		22.68		0		0.00		0		0.00	
30744010 30ppb VOA	1321615		22.70		0		0.00		0		0.00	
30744011 BLANK	784520		22.66		0		0.00		0		0.00	
30744012 2nd SOURC	1187163		22.67		0		0.00		0		0.00	

IS4 = i-1,4-Dichlorobenzene-d4
IS5 =
IS6 =

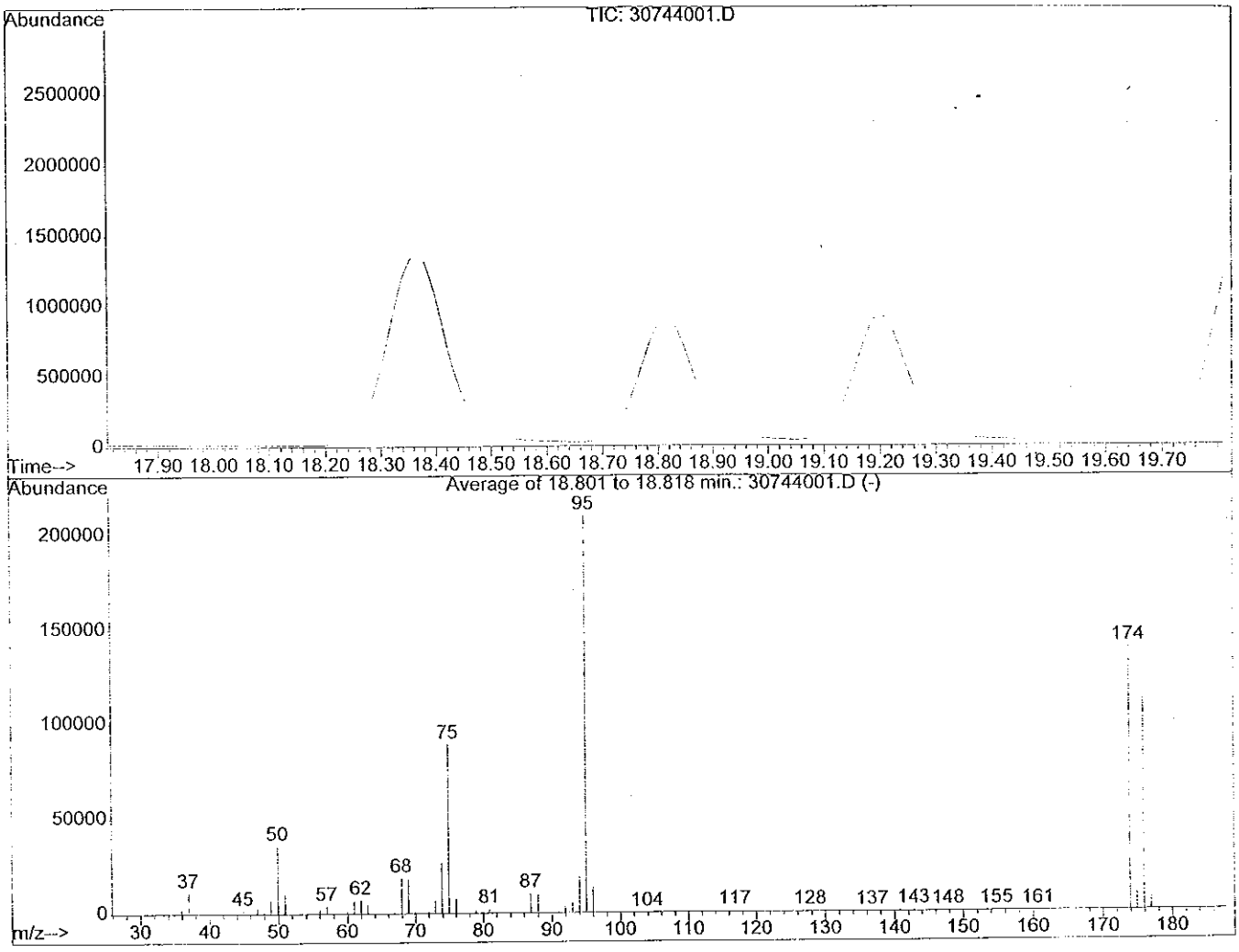
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SW-846 Method 8260 Tune Evaluation

Data File : D:\HPCHEM\1\DATA\103001\30744001.D
Acq On : 30 Oct 2001 8:43
Sample : TUNE
Misc : 50ng BFB
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A

Vial: 14
Operator: GRH
Inst : Bubba
Multiplr: 1.00



Peak Apex is scan: 2115 (18.81 min)
Average of 3 scans: 2114,2115,2116 minus background scan 2095 (18.64 min)

Target Mass	Rel. to Mass	Lower Limit,%	Upper Limit,%	Rel. Abn,%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	36061	PASS
75	95	30	60	42.6	89281	PASS
95	95	100	100	100.0	209664	PASS
96	95	5	9	6.5	13583	PASS
173	174	0	2	0.3	350	PASS
174	95	50	100	66.5	139456	PASS
175	174	5	9	7.0	9802	PASS
176	174	95	101	98.5	137333	PASS
177	176	5	9	6.7	9194	PASS

30744001.D V82625B1.M Tue Oct 30 10:41:16 2001

Average of 18.801 to 18.818 min.: 30744001.D

TUNE

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	2442	57.00	4251	74.95	89281	173.90	139456
36.95	11369	59.95	1490	76.00	7569	174.90	9802
37.95	8985	60.95	7202	78.90	1653	175.90	137333
38.95	2993	61.95	7321	80.90	2461	176.90	9194
44.90	1849	62.95	5147	86.95	10342		
46.95	3593	67.95	18856	87.95	9575		
47.95	1169	68.95	18056	91.95	3977		
48.95	7520	69.95	1119	93.00	6417		
49.95	36061	71.95	1053	94.00	19289		
50.95	10473	72.90	7028	95.00	209664		
56.00	2403	73.90	26844	96.00	13583		

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744001.D (30 Oct 2001 8:43)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2963240	10.00	ug/L	0.00 / 96.77%
25) i-1,4-Difluorobenzene	9.06	114	3033671	10.00	ug/L	0.00 / 99.17%
46) i-Chlorobenzene-d5	15.31	117	2146927	10.00	ug/L	0.00 / 103.79%
57) i-1,4-Dichlorobenzene-d4	22.66	152	1203723	10.00	ug/L	0.00 / 105.56%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1382900	10.78	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 107.80%			
36) s-Toluene-d8	12.33	98	2875116	10.10	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.00%			
56) s-4-Bromofluorobenzene	18.79	95	1658187	10.22	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 102.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	1427031	10.04	ug/L	99
3) Chloromethane	1.50	50	938765	10.42	ug/L	97
4) Vinyl chloride	1.60	62	964680	10.18	ug/L	99
5) Bromomethane	1.89	96	876693	10.99	ug/L	99
6) Chloroethane	1.98	64	577887	10.50	ug/L	94
7) Trichlorofluoromethane	2.23	101	1616422	10.05	ug/L	98
8) 1,1-Dichloroethene	2.78	96	940541	9.96	ug/L	97
9) Acetone	2.87	43	222836m	45.19	ug/L	99
10) Iodomethane	2.93	142	1199034	10.48	ug/L	100
11) Carbon disulfide	3.00	76	2993801	10.21	ug/L	100
12) Methylene chloride	3.41	84	795372	10.69	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	1078714	10.31	ug/L	97
14) Methyl tert-butyl ether	3.83	73	1176732	11.63	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1911233	10.46	ug/L	98
16) Vinyl acetate	4.69	43	2908842m	22.86	ug/L	100
17) Isopropyl ether	4.72	45	3077420	11.47	ug/L	99
18) 2,2-Dichloropropane	5.60	77	1433738	9.96	ug/L	99
19) 2-Butanone	5.80	43	472562m	48.04	ug/L	93
20) cis-1,2-Dichloroethene	5.66	96	1008240	10.39	ug/L	96
21) Bromochloromethane	6.21	128	386412	10.84	ug/L	99
22) Chloroform	6.51	83	1898455	10.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	1619115	10.09	ug/L	99
26)	Carbon tetrachloride	7.30	119	1384121	9.77	ug/L	98
27)	1,1-Dichloropropene	7.33	110	490306	9.70	ug/L	100
28)	Benzene	7.87	78	3218196	10.14	ug/L	100
29)	1,2-Dichloroethane	7.99	62	638769	10.84	ug/L	95
30)	Trichloroethene	9.58	95	1278973	9.96	ug/L	97
31)	1,2-Dichloropropane	10.08	63	1076181	10.47	ug/L	99
32)	Dibromomethane	10.36	93	480680	10.69	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	190470	11.22	ug/L	99
34)	Bromodichloromethane	10.82	83	1504785	10.59	ug/L	95
35)	cis-1,3-Dichloropropene	11.82	75	1179827	10.30	ug/L	99
37)	Toluene	12.46	92	2053124	10.21	ug/L	100
38)	trans-1,3-Dichloropropene	13.05	75	743199	10.75	ug/L	99
39)	1,1,2-Trichloroethane	13.39	83	476525	11.12	ug/L	98
40)	Tetrachloroethene	13.58	166	1472834	9.95	ug/L	99
41)	1,3-Dichloropropane	13.69	76	920287	10.81	ug/L	99
42)	Dibromochloromethane	14.14	129	891665	10.93	ug/L	99
43)	1,2-Dibromoethane	14.28	107	608729	10.96	ug/L	100
44)	4-Methyl-2-pentanone	12.26	43	1315257	47.11	ug/L	99
45)	2-Hexanone	14.01	43	839436	48.30	ug/L	99
47)	Chlorobenzene	15.37	112	2192872	9.92	ug/L	100
48)	1,1,1,2-Tetrachloroethane	15.63	131	983463	10.08	ug/L	98
50)	Ethylbenzene	15.71	106	1169306	9.68	ug/L	100
51)	m,p-Xylene	16.02	106	2886486	19.15	ug/L	99
52)	o-Xylene	17.08	106	1343960	9.80	ug/L	99
53)	Styrene	17.16	104	2162622	9.89	ug/L	100
54)	Bromoform	17.61	173	532882	10.82	ug/L	98
55)	Isopropylbenzene	18.35	105	4303978	9.52	ug/L	99
58)	Bromobenzene	19.19	156	1044596	9.92	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.56	83	732212	10.92	ug/L	99
60)	1,2,3-Trichloropropane	19.57	75	422274	10.84	ug/L	97
61)	n-Propylbenzene	19.83	120	1075696	9.36	ug/L	100
62)	2-Chlorotoluene	19.96	126	967219	9.57	ug/L	100
63)	4-Chlorotoluene	20.36	91	3453142	9.48	ug/L	100
64)	1,3,5-Trimethylbenzene	20.50	105	3195711	9.42	ug/L	100
65)	tert-Butylbenzene	21.53	91	2068376	9.35	ug/L	99
66)	1,2,4-Trimethylbenzene	21.69	105	2945671	9.56	ug/L	98
67)	sec-Butylbenzene	22.26	105	4702766	9.26	ug/L	99
68)	1,3-Dichlorobenzene	22.42	146	1963145	9.94	ug/L	100
69)	p-Isopropyltoluene	22.80	119	3605642	9.23	ug/L	99
70)	1,4-Dichlorobenzene	22.73	146	1803859	9.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744002.D
Acq On : 30 Oct 2001 9:23
Sample : 10ppb VOA STD
Misc : 10ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

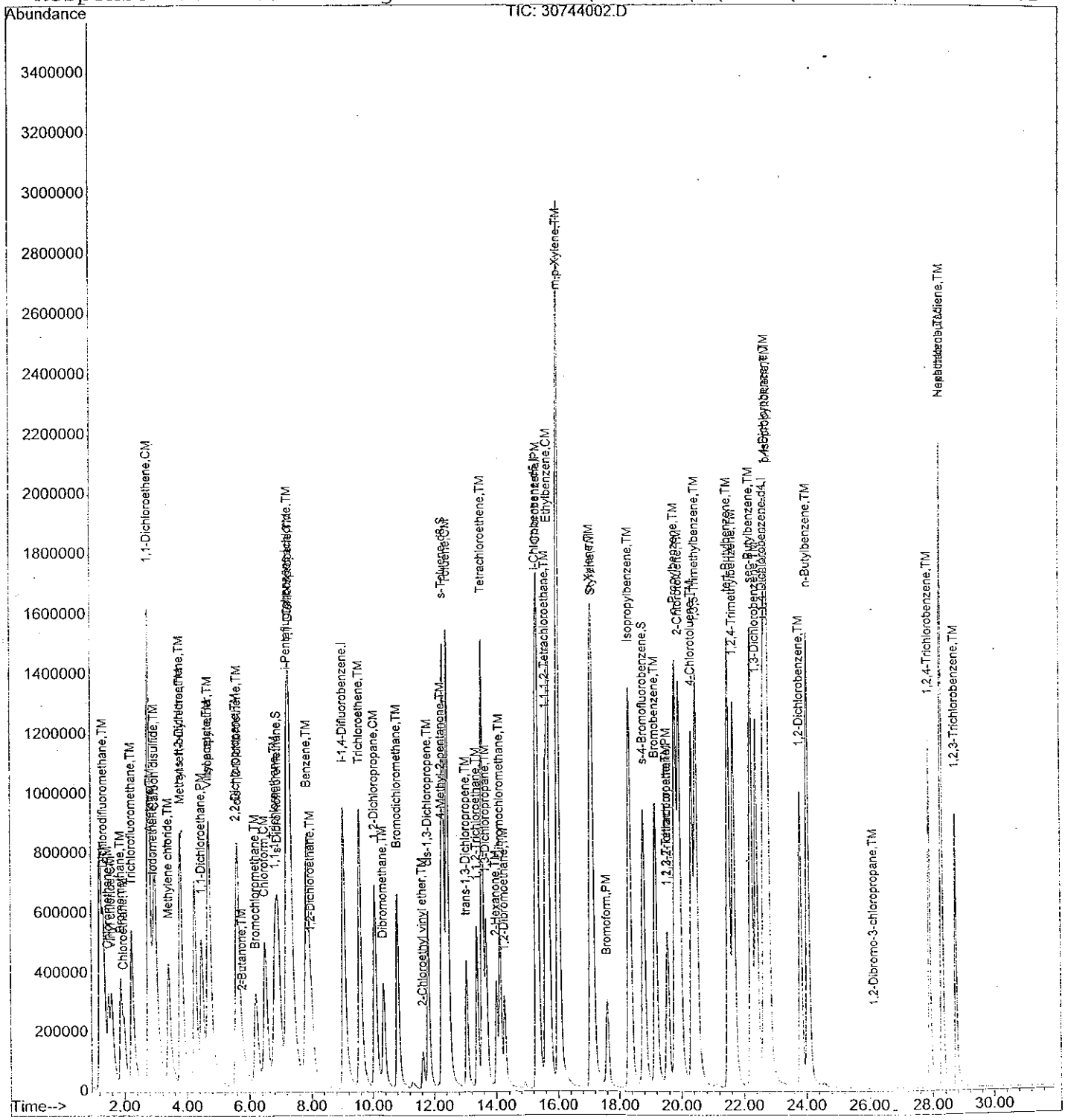
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:42:32 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744001.D 30 Oct 2001 8:43)
DataAcq Meth : V82625A

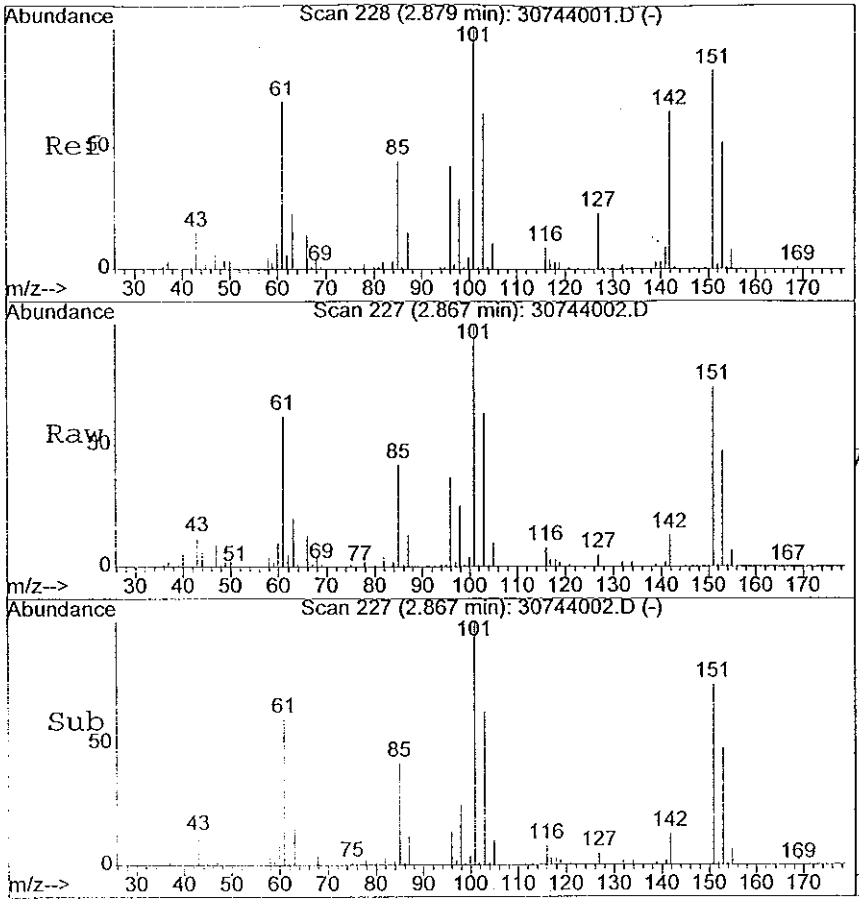
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	1555097	10.14	ug/L	98
72) n-Butylbenzene	24.07	91	3568865	9.41	ug/L	99
73) 1,2-Dibromo-3-chloropropan	26.14	75	100925	11.64	ug/L	97
74) 1,2,4-Trichlorobenzene	27.91	180	949538	10.16	ug/L	100
75) Hexachlorobutadiene	28.30	225	959635	9.30	ug/L	100
76) Naphthalene	28.32	128	709233	10.75	ug/L	100
77) 1,2,3-Trichlorobenzene	28.76	180	704786	10.55	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744002.D Vial: 15
Acq On : 30 Oct 2001 9:23 Operator: GRH
Sample : 10ppb VOA STD Inst : Bubba
Misc : 10ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:43 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744001.D

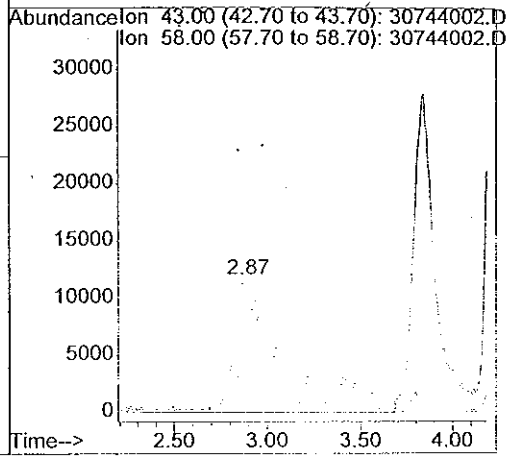




#9
Acetone
Concen: 45.19 ug/L m
RT: 2.87 min Scan# 227
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

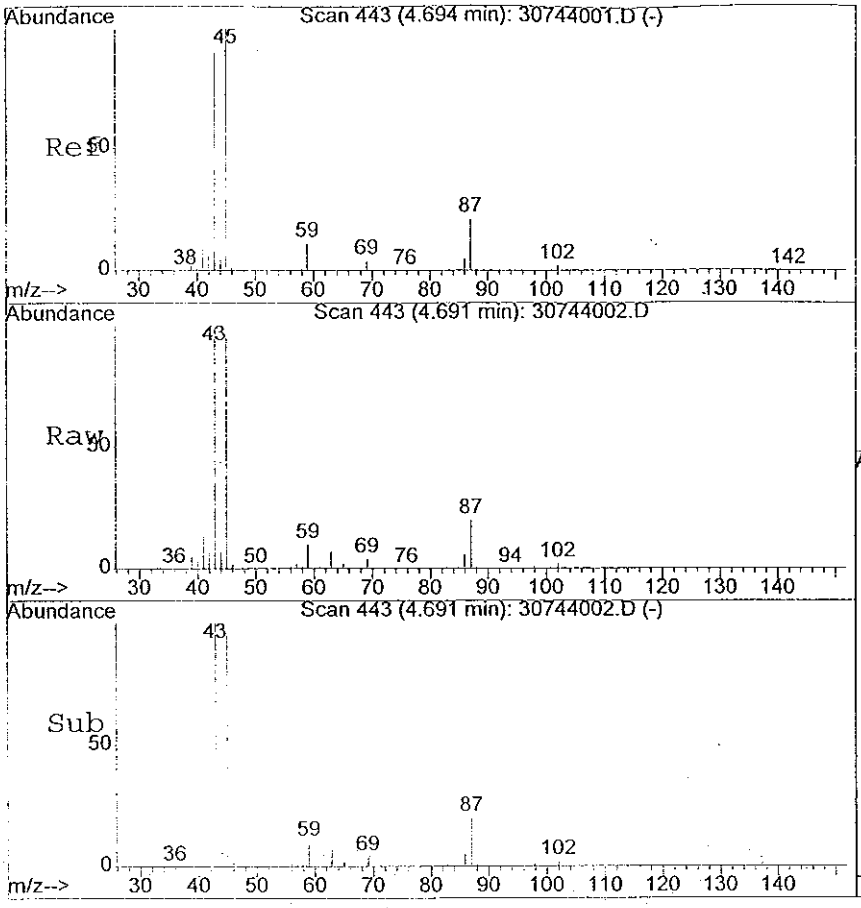
Tgt Ion: 43 Resp: 222836

Ion	Ratio	Lower	Upper
43	100		
58	31.5	0.0	130.7



10-31

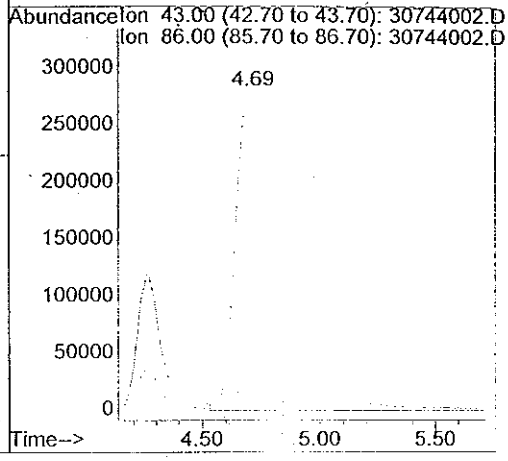
10-31-01



#16
Vinyl acetate
Concen: 22.86 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. 0.00 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

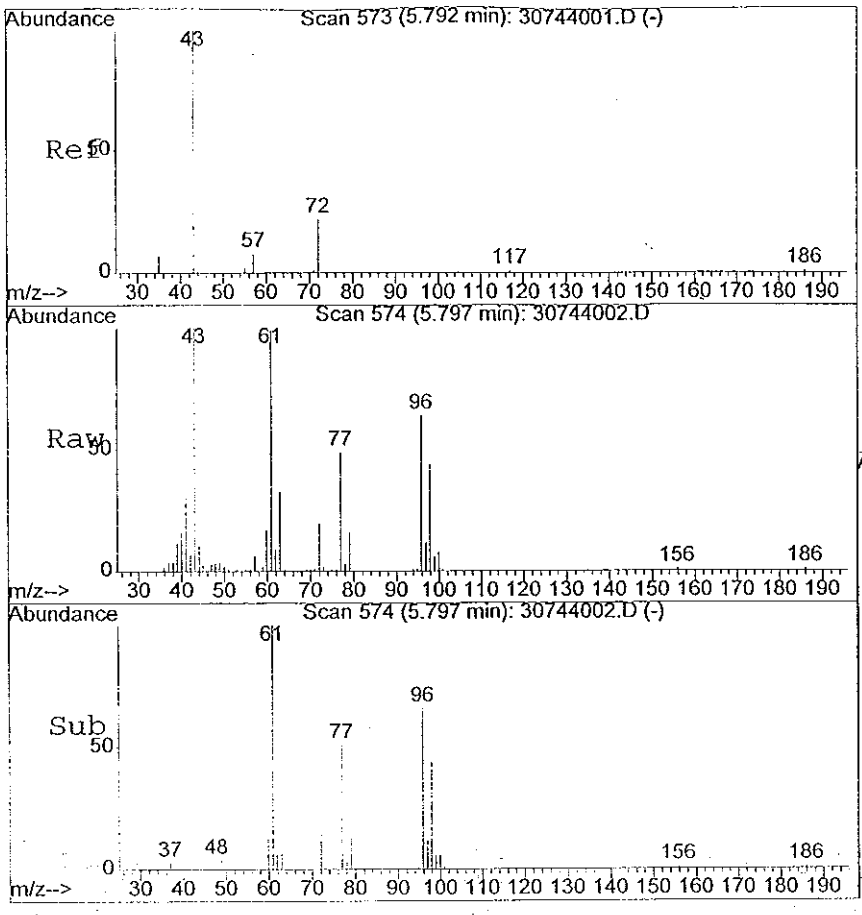
Tgt Ion: 43 Resp: 2908842

Ion	Ratio	Lower	Upper
43	100		
86	5.9	0.0	105.9



10-31

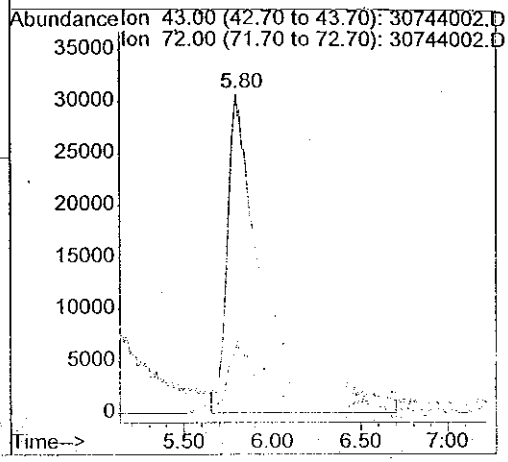
for 12-31-01



#19
2-Butanone
Concen: 48.04 ug/L m
RT: 5.80 min Scan# 574
Delta R.T. 0.01 min
Lab File: 30744002.D
Acq: 30 Oct 2001 9:23

Tgt Ion: 43 Resp: 472562

Ion	Ratio	Lower	Upper
43	100		
72	20.5	0.0	122.6



10-31

fr# 10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3051870	10.00	ug/L	0.00 / 102.99%
25) i-1,4-Difluorobenzene	9.06	114	3049690	10.00	ug/L	0.00 / 100.53%
46) i-Chlorobenzene-d5	15.30	117	2134623	10.00	ug/L	-0.02 / 99.43%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1168290	10.00	ug/L	-0.01 / 97.06%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1446717	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2921334	10.11	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 101.10%			
56) s-4-Bromofluorobenzene	18.78	95	1652470	10.02	ug/L	-0.01
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	749081	5.10	ug/L	100
3) Chloromethane	1.51	50	475859	4.92	ug/L	98
4) Vinyl chloride	1.60	62	496617	5.00	ug/L	100
5) Bromomethane	1.89	96	429477	4.76	ug/L	97
6) Chloroethane	1.99	64	289460	4.86	ug/L	99
7) Trichlorofluoromethane	2.24	101	841696	5.06	ug/L	99
8) 1,1-Dichloroethene	2.79	96	489377	5.05	ug/L	97
9) Acetone	2.88	43	123507m	21.53	ug/L	90
10) Iodomethane	2.95	142	573735	4.65	ug/L	100
11) Carbon disulfide	3.01	76	1534302	4.98	ug/L	100
12) Methylene chloride	3.41	84	412567	5.04	ug/L	96
13) trans-1,2-Dichloroethene	3.80	96	539564	4.86	ug/L	99
14) Methyl tert-butyl ether	3.84	73	612614	5.05	ug/L	96
15) 1,1-Dichloroethane	4.49	63	969655	4.93	ug/L	99
16) Vinyl acetate	4.71	43	1483176m	9.90	ug/L	100
17) Isopropyl ether	4.73	45	1561083	4.93	ug/L	99
18) 2,2-Dichloropropane	5.61	77	703147	4.76	ug/L	99
19) 2-Butanone	5.82	43	252935m	20.79	ug/L	97
20) cis-1,2-Dichloroethene	5.66	96	485228	4.67	ug/L	99
21) Bromochloromethane	6.23	128	202844	5.10	ug/L	92
22) Chloroform	6.52	83	965876	4.94	ug/L	98

(#) = qualifier out of range (m) = manual integration
30744003.D V82625B1.M Wed Oct 31 05:35:00 2001

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.84	97	825215	4.95	ug/L	96
26)	Carbon tetrachloride	7.31	119	701531	5.04	ug/L	94
27)	1,1-Dichloropropene	7.35	110	270934	5.50	ug/L	100
28)	Benzene	7.87	78	1633119	5.05	ug/L	98
29)	1,2-Dichloroethane	8.00	62	322049	5.02	ug/L	94
30)	Trichloroethene	9.59	95	648267	5.04	ug/L	98
31)	1,2-Dichloropropane	10.08	63	548853	5.07	ug/L	100
32)	Dibromomethane	10.36	93	249630	5.17	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	93367	4.88	ug/L	96
34)	Bromodichloromethane	10.81	83	761469	5.03	ug/L	96
35)	cis-1,3-Dichloropropene	11.81	75	601616	5.07	ug/L	98
37)	Toluene	12.45	92	1033568	5.01	ug/L	98
38)	trans-1,3-Dichloropropene	13.05	75	382443	5.12	ug/L	98
39)	1,1,2-Trichloroethane	13.39	83	247475	5.17	ug/L	97
40)	Tetrachloroethene	13.57	166	758770	5.12	ug/L	99
41)	1,3-Dichloropropane	13.68	76	477875	5.17	ug/L	99
42)	Dibromochloromethane	14.13	129	463544	5.17	ug/L	100
43)	1,2-Dibromoethane	14.27	107	320609	5.24	ug/L	99
44)	4-Methyl-2-pentanone	12.25	43	737511	22.31	ug/L	99
45)	2-Hexanone	14.01	43	437726	20.75	ug/L	99
47)	Chlorobenzene	15.36	112	1115675	5.12	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.61	131	504350	5.16	ug/L	99
50)	Ethylbenzene	15.70	106	596171	5.13	ug/L	100
51)	m,p-Xylene	16.01	106	1428172	9.95	ug/L	98
52)	o-Xylene	17.06	106	679324	5.08	ug/L	98
53)	Styrene	17.13	104	1097998	5.11	ug/L	100
54)	Bromoform	17.59	173	270430	5.10	ug/L	97
55)	Isopropylbenzene	18.34	105	2190337	5.12	ug/L	99
58)	Bromobenzene	19.17	156	530064	5.23	ug/L	98
59)	1,1,2,2-Tetrachloroethane	19.54	83	379464	5.34	ug/L	99
60)	1,2,3-Trichloropropane	19.54	75	222902	5.44	ug/L	99
61)	n-Propylbenzene	19.81	120	532052	5.10	ug/L	100
62)	2-Chlorotoluene	19.94	126	490369	5.22	ug/L	100
63)	4-Chlorotoluene	20.34	91	1768651	5.28	ug/L	100
64)	1,3,5-Trimethylbenzene	20.48	105	1595431	5.14	ug/L	98
65)	tert-Butylbenzene	21.50	91	1036352	5.16	ug/L	97
66)	1,2,4-Trimethylbenzene	21.68	105	1403297	4.91	ug/L	99
67)	sec-Butylbenzene	22.23	105	2311387	5.06	ug/L	100
68)	1,3-Dichlorobenzene	22.41	146	977943	5.13	ug/L	99
69)	p-Isopropyltoluene	22.79	119	1751381	5.00	ug/L	98
70)	1,4-Dichlorobenzene	22.73	146	898235	5.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744003.D Vial: 16
Acq On : 30 Oct 2001 10:04 Operator: GRH
Sample : 5.0ppb VOA STD Inst : Bubba
Misc : 5.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 10:43:37 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	782297	5.18	ug/L	100
72)	n-Butylbenzene	24.06	91	1615528	4.66	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.16	75	52414	5.35	ug/L	96
74)	1,2,4-Trichlorobenzene	27.91	180	436215	4.73	ug/L	97
75)	Hexachlorobutadiene	28.31	225	483224	5.19	ug/L	99
76)	Naphthalene	28.32	128	336450	4.89	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	340020	4.97	ug/L	98

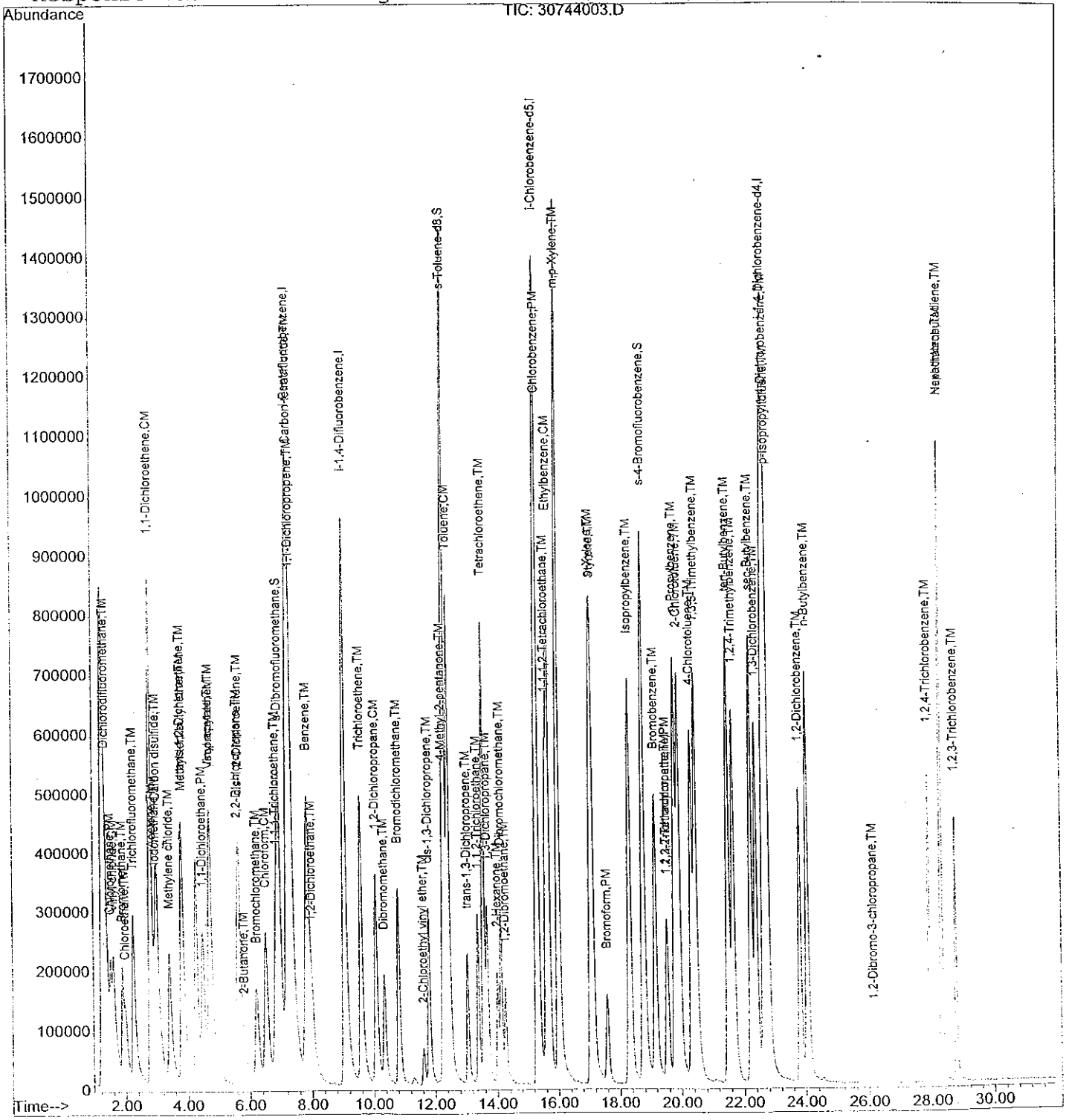
(#) = qualifier out of range (m) = manual integration

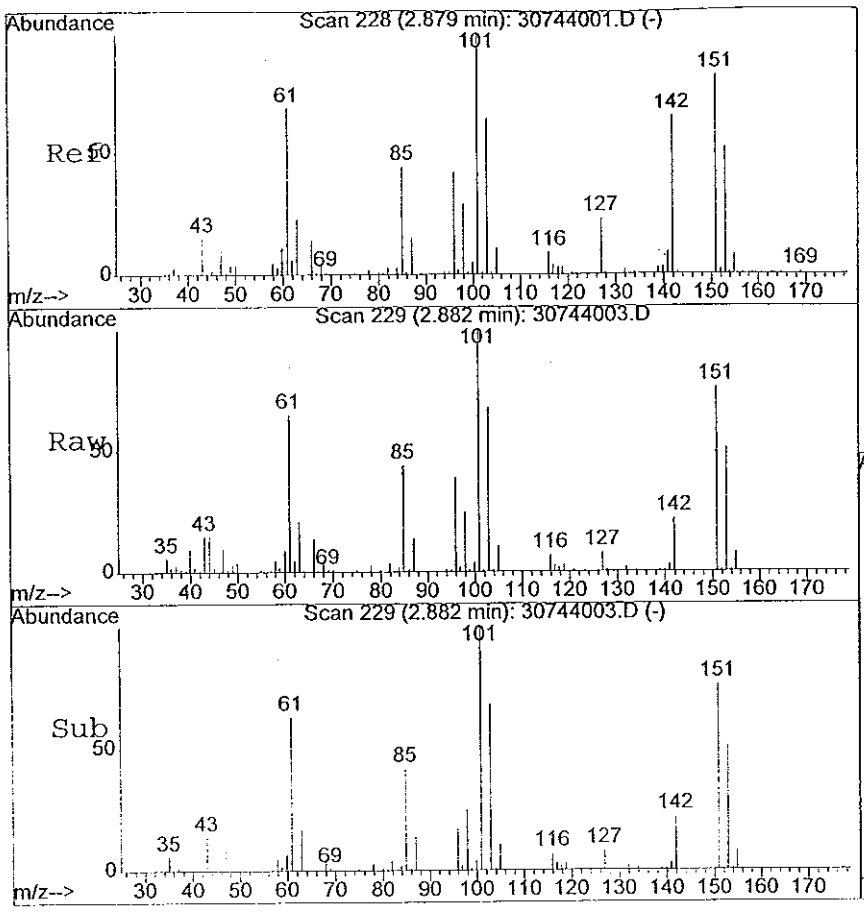
Data File : D:\HPCHEM\1\DATA\103001\30744003.D
Acq On : 30 Oct 2001 10:04
Sample : 5.0ppb VOA STD
Misc : 5.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 10:44 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

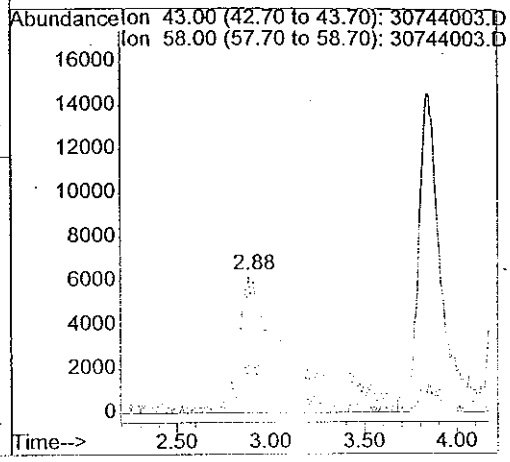




#9
Acetone
Concen: 21.53 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43 Resp: 123507

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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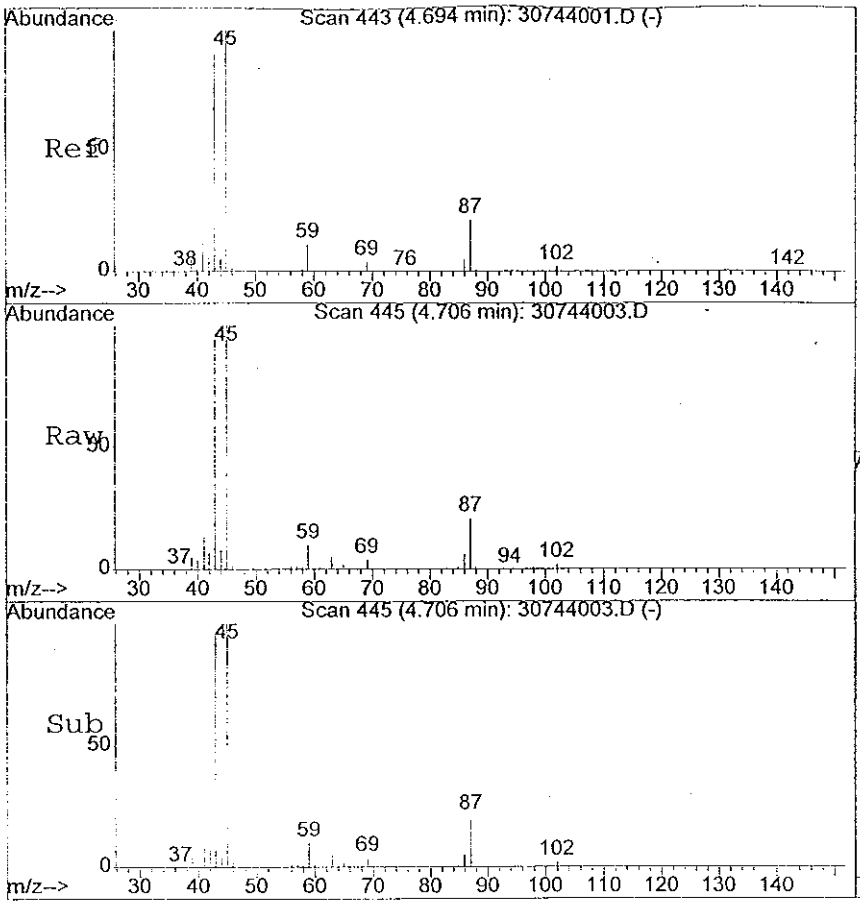
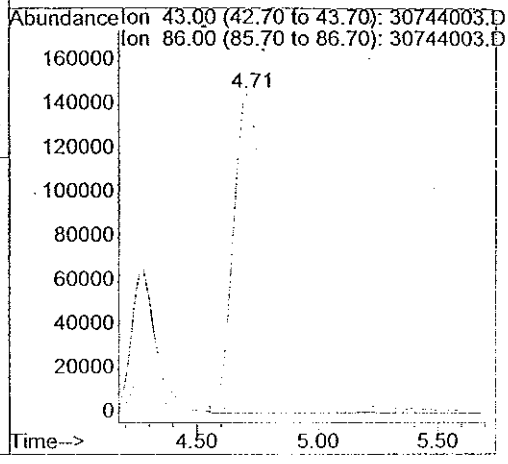
10-31-01



#16
Vinyl acetate
Concen: 9.90 ug/L m
RT: 4.71 min Scan# 445
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

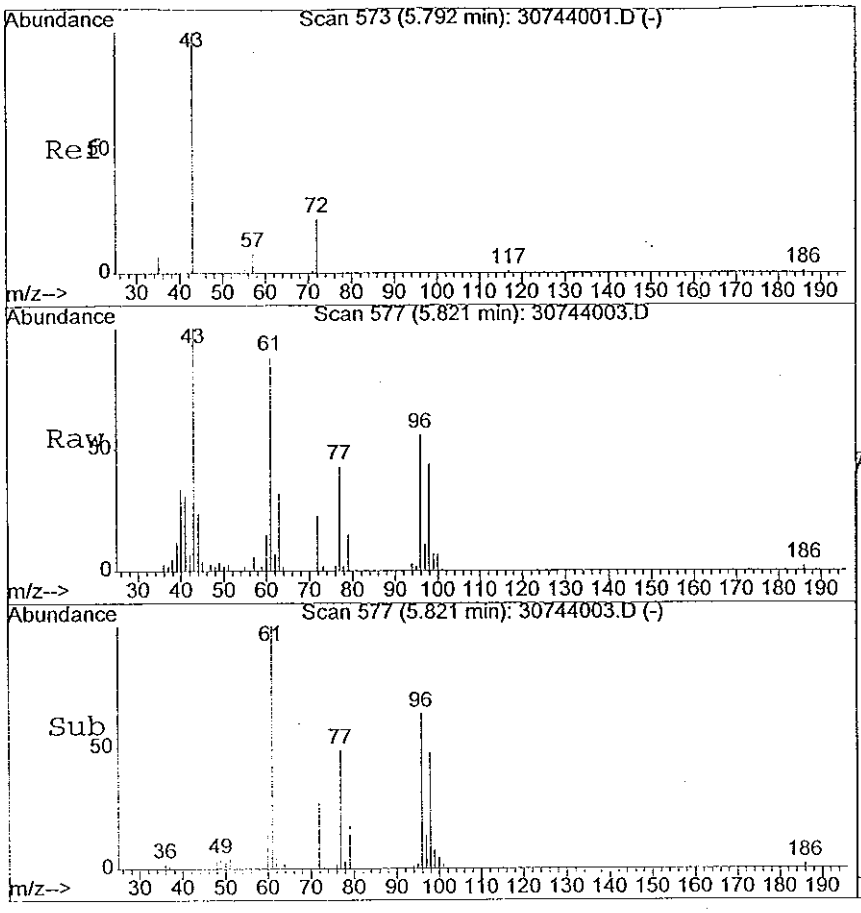
Tgt Ion: 43 Resp: 1483176

Ion	Ratio	Lower	Upper
43	100		
86	6.1	0.0	105.9



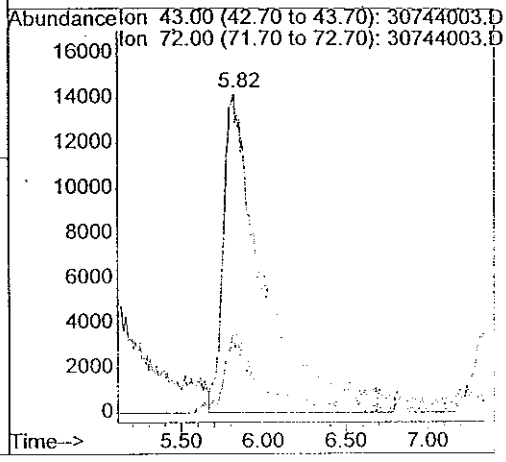
10-31

10-31-01



#19
2-Butanone
Concen: 20.79 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.02 min
Lab File: 30744003.D
Acq: 30 Oct 2001 10:04

Tgt Ion: 43	Resp:	252935	
Ion	Ratio	Lower	Upper
43	100		
72	23.3	0.0	120.5



10-31

10-31-01

30744003.D V82625B1.M Acq :30 Oct 2001 10:04
Sample = 5.0ppb VOA STD Misc = 5.0ppb VOA STD

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	3119967	10.00	ug/L	0.00 105.29%
25) i-1,4-Difluorobenzene	9.06	114	3073978	10.00	ug/L	0.00 101.33%
46) i-Chlorobenzene-d5	15.30	117	2091977	10.00	ug/L	-0.02 97.44%
57) i-1,4-Dichlorobenzene-d4	22.65	152	1094758	10.00	ug/L	0.00 90.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1404493	9.65	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.50%			
36) s-Toluene-d8	12.32	98	2893134	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.78	95	1572834	9.73	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	331121	2.20	ug/L	98
3) Chloromethane	1.51	50	177765	1.80	ug/L	91
4) Vinyl chloride	1.59	62	212694	2.09	ug/L	99
5) Bromomethane	1.89	96	189399	2.05	ug/L	97
6) Chloroethane	1.99	64	125682	2.07	ug/L	99
7) Trichlorofluoromethane	2.24	101	367289	2.16	ug/L	97
8) 1,1-Dichloroethene	2.78	96	206603	2.09	ug/L	94
9) Acetone	2.89	43	49736m	8.48	ug/L	87
10) Iodomethane	2.94	142	243180	1.93	ug/L	100
11) Carbon disulfide	3.00	76	658956	2.09	ug/L	100
12) Methylene chloride	3.41	84	157396	1.88	ug/L	99
13) trans-1,2-Dichloroethene	3.79	96	222931	1.96	ug/L	99
14) Methyl tert-butyl ether	3.84	73	217810	1.76	ug/L	99
15) 1,1-Dichloroethane	4.49	63	384187	1.91	ug/L	98
16) Vinyl acetate	4.72	43	566802m	3.70	ug/L	99
17) Isopropyl ether	4.74	45	572338	1.77	ug/L	97
18) 2,2-Dichloropropane	5.62	77	302955	2.01	ug/L	93
19) 2-Butanone	5.81	43	90514m	7.28	ug/L	97
20) cis-1,2-Dichloroethene	5.65	96	198863	1.87	ug/L	97
21) Bromochloromethane	6.22	128	76731	1.89	ug/L	94
22) Chloroform	6.52	83	385765	1.93	ug/L	96

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	340888	2.00	ug/L	99
26) Carbon tetrachloride	7.31	119	309549	2.21	ug/L	77
27) 1,1-Dichloropropene	7.36	110	128199m	2.58	ug/L	100
28) Benzene	7.87	78	675144	2.07	ug/L	99
29) 1,2-Dichloroethane	7.98	62	120114	1.86	ug/L	97
30) Trichloroethene	9.58	95	265106	2.05	ug/L	97
31) 1,2-Dichloropropane	10.07	63	213547	1.96	ug/L	97
32) Dibromomethane	10.35	93	93729	1.92	ug/L	100
33) 2-Chloroethyl vinyl ether	11.62	63	32430	1.68	ug/L	93
34) Bromodichloromethane	10.81	83	293609	1.93	ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	229933	1.92	ug/L	98
37) Toluene	12.44	92	425380	2.04	ug/L	96
38) trans-1,3-Dichloropropene	13.04	75	137401	1.82	ug/L	98
39) 1,1,2-Trichloroethane	13.38	83	89235	1.85	ug/L	96
40) Tetrachloroethene	13.57	166	314043	2.10	ug/L	98
41) 1,3-Dichloropropane	13.69	76	177742	1.91	ug/L	97
42) Dibromochloromethane	14.13	129	168619	1.87	ug/L	95
43) 1,2-Dibromoethane	14.27	107	114160	1.85	ug/L	99
44) 4-Methyl-2-pentanone	12.25	43	247090	7.42	ug/L	99
45) 2-Hexanone	14.01	43	141858	6.67	ug/L	99
47) Chlorobenzene	15.36	112	438565	2.05	ug/L	97
48) 1,1,1,2-Tetrachloroethane	15.61	131	192863	2.01	ug/L	96
50) Ethylbenzene	15.70	106	243804	2.14	ug/L	100
51) m,p-Xylene	16.01	106	572648	4.07	ug/L	96
52) o-Xylene	17.07	106	269886	2.06	ug/L	97
53) Styrene	17.13	104	412466	1.96	ug/L	99
54) Bromoform	17.59	173	94103	1.81	ug/L	99
55) Isopropylbenzene	18.34	105	879369	2.10	ug/L	99
58) Bromobenzene	19.18	156	205095	2.16	ug/L	94
59) 1,1,2,2-Tetrachloroethane	19.55	83	128425	1.93	ug/L	96
60) 1,2,3-Trichloropropane	19.54	75	77484	2.02	ug/L	85
61) n-Propylbenzene	19.80	120	206057	2.11	ug/L	100
62) 2-Chlorotoluene	19.94	126	193667	2.20	ug/L	100
63) 4-Chlorotoluene	20.35	91	673620	2.14	ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	640742	2.20	ug/L	98
65) tert-Butylbenzene	21.51	91	411180	2.19	ug/L	98
66) 1,2,4-Trimethylbenzene	21.68	105	538784	2.01	ug/L	98
67) sec-Butylbenzene	22.24	105	912622	2.13	ug/L	97
68) 1,3-Dichlorobenzene	22.41	146	376973	2.11	ug/L	97
69) p-Isopropyltoluene	22.79	119	680355	2.07	ug/L	98
70) 1,4-Dichlorobenzene	22.72	146	349756	2.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RES

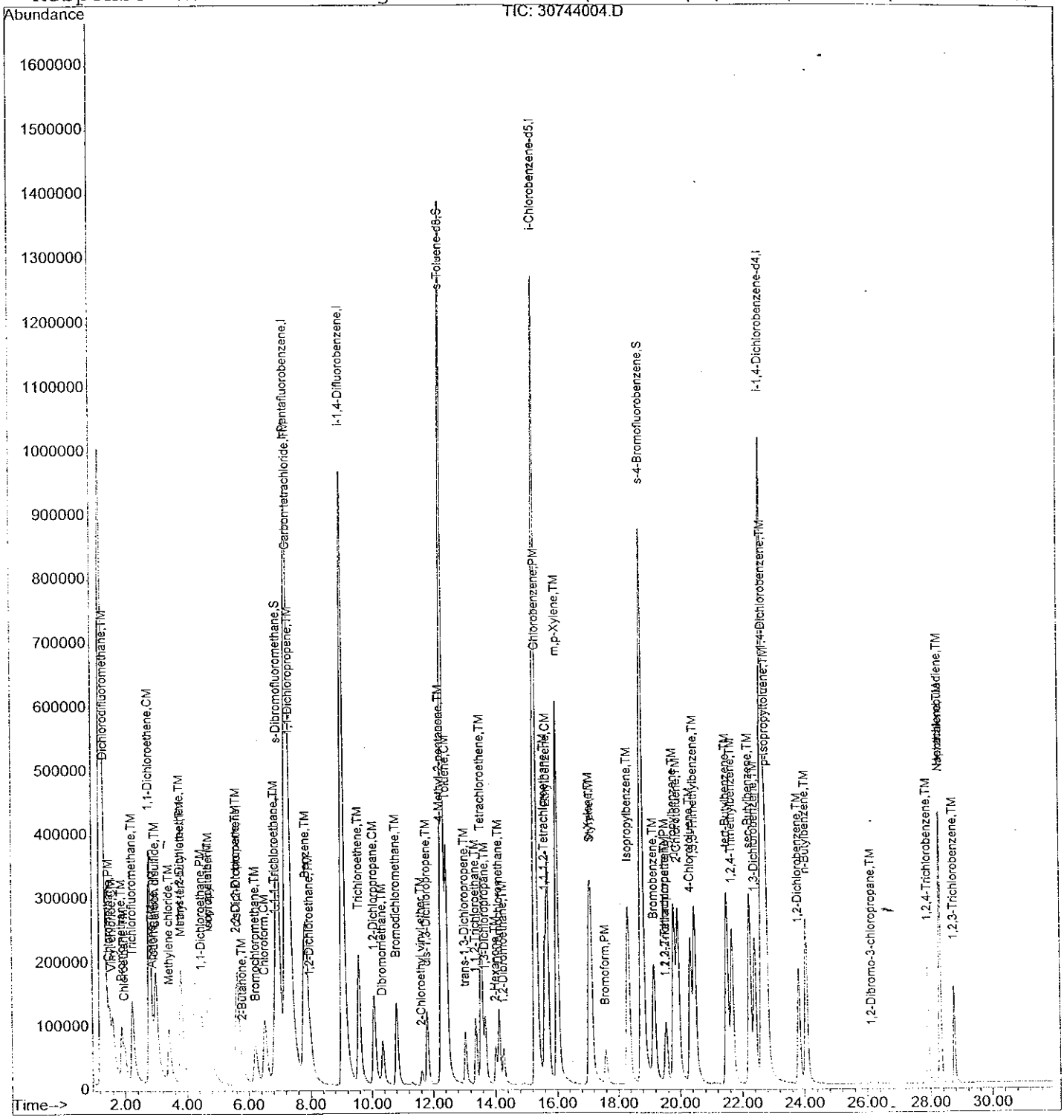
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:02:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

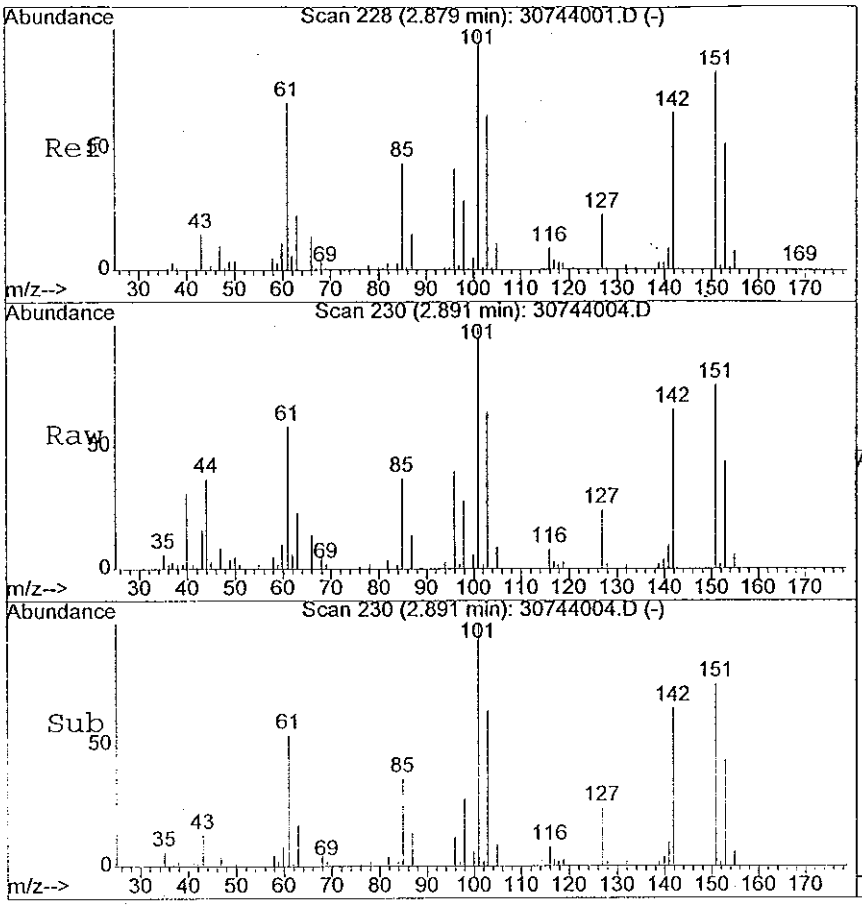
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	1,2-Dichlorobenzene	23.82	146	296392	2.10	ug/L		99
72)	n-Butylbenzene	24.05	91	605989	1.87	ug/L		99
73)	1,2-Dibromo-3-chloropropan	26.14	75	18187	1.98	ug/L	#	82
74)	1,2,4-Trichlorobenzene	27.91	180	152186	1.76	ug/L		98
75)	Hexachlorobutadiene	28.30	225	196405	2.25	ug/L		96
76)	Naphthalene	28.32	128	112451	1.74	ug/L		100
77)	1,2,3-Trichlorobenzene	28.76	180	116457	1.82	ug/L		98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744004.D Vial: 14
Acq On : 30 Oct 2001 10:45 Operator: GRH
Sample : 2.0ppb VOA STD Inst : Bubba
Misc : 2.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 11:15 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

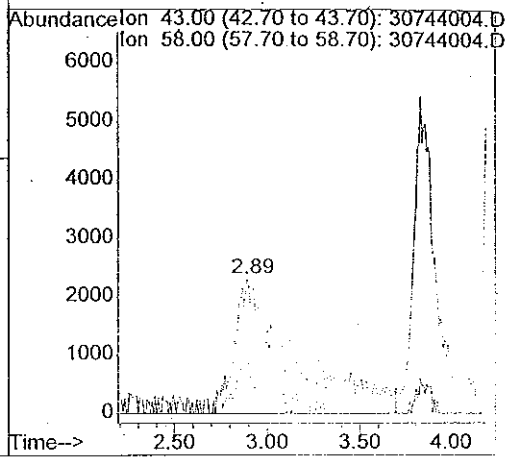




#9
Acetone
Concen: 8.48 ug/L m
RT: 2.89 min Scan# 230
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

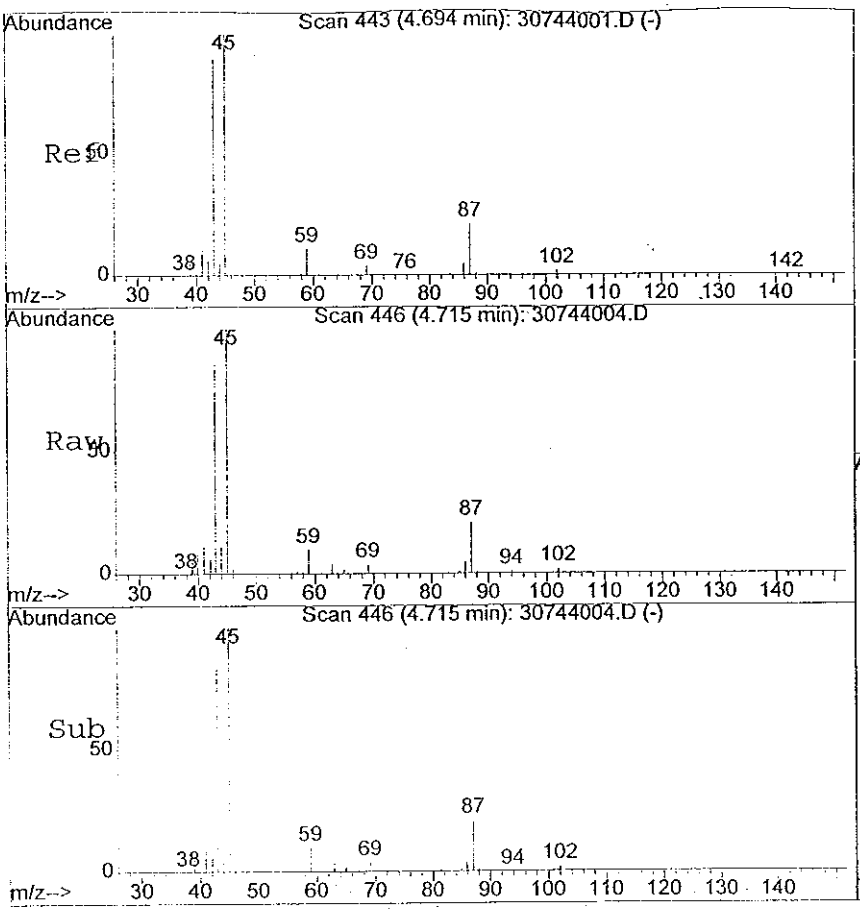
Tgt Ion: 43 Resp: 49736

Ion	Ratio	Lower	Upper
43	100		
58	29.4	0.0	131.5



10-31

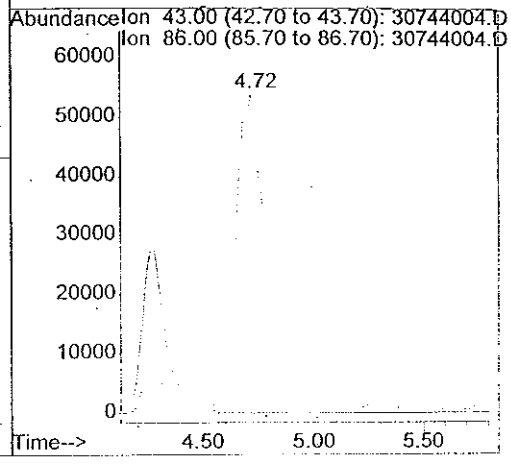
11.31.01



#16
Vinyl acetate
Concen: 3.70 ug/L m
RT: 4.72 min Scan# 446
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 566802

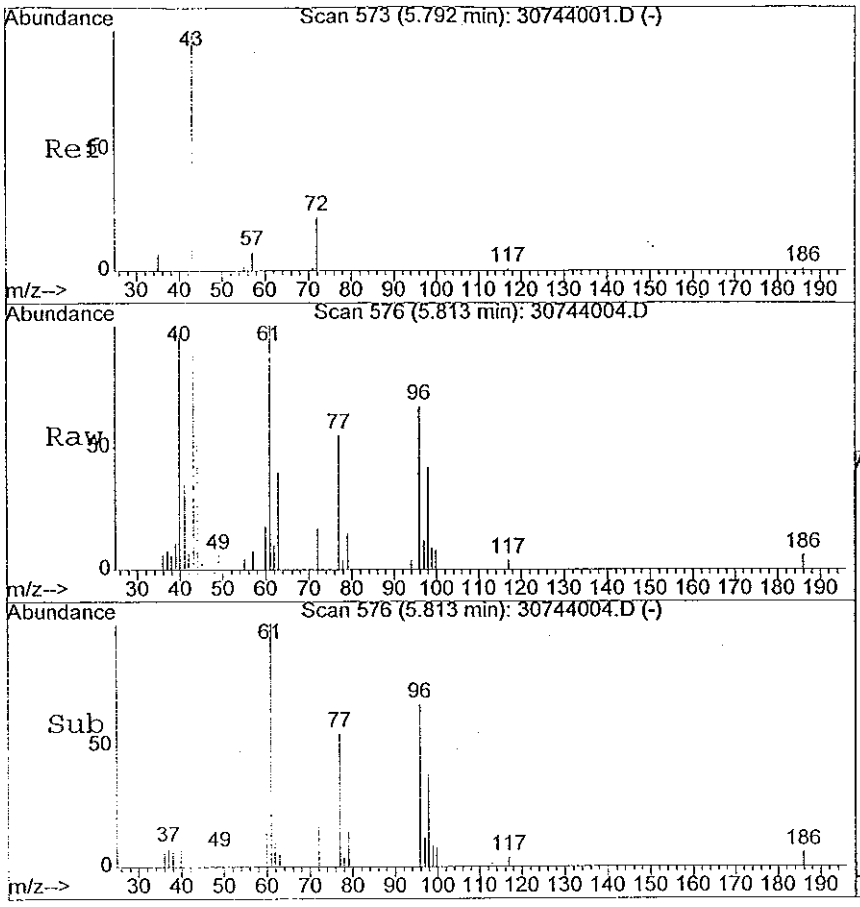
Ion	Ratio	Lower	Upper
43	100		
86	5.3	0.0	105.9



10-31
10-31-01

301

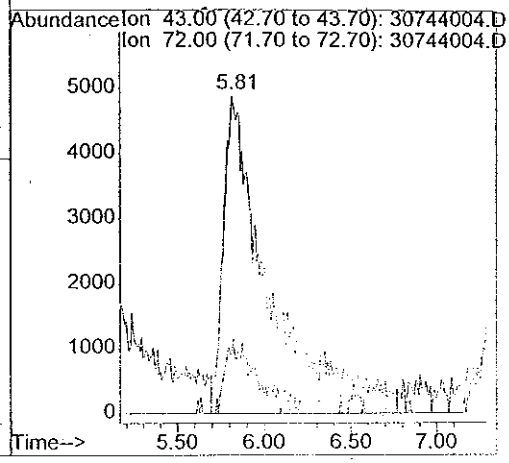
30744004.D V82625B1.M Acq :30 Oct 2001 10:45
Sample = 2.0ppb VOA STD Misc = 2.0ppb VOA STD



#19
2-Butanone
Concen: 7.28 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744004.D
Acq: 30 Oct 2001 10:45

Tgt Ion: 43 Resp: 90514

Ion	Ratio	Lower	Upper
43	100		
72	19.5	0.0	120.5



10-31

10.31

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.22	168	3005522	10.00	ug/L	-0.02 / 101.43%
25) i-1,4-Difluorobenzene	9.05	114	3036086	10.00	ug/L	-0.01 / 100.08%
46) i-Chlorobenzene-d5	15.29	117	2124797	10.00	ug/L	-0.03 / 98.97%
57) i-1,4-Dichlorobenzene-d4	22.64	152	1095106	10.00	ug/L	-0.02 / 90.98%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.93	113	1420182	10.13	ug/L	-0.01
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.30%			
36) s-Toluene-d8	12.31	98	2897523	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.70%			
56) s-4-Bromofluorobenzene	18.78	95	1614725	9.84	ug/L	-0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 98.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.34	85	153329	1.06	ug/L	97
3) Chloromethane	1.51	50	99354	1.04	ug/L	98
4) Vinyl chloride	1.60	62	103167	1.05	ug/L	97
5) Bromomethane	1.89	96	99588	1.12	ug/L	94
6) Chloroethane	1.98	64	63811	1.09	ug/L	99
7) Trichlorofluoromethane	2.23	101	163453	1.00	ug/L	99
8) 1,1-Dichloroethene	2.78	96	101734	1.07	ug/L	96
9) Acetone	2.91	43	34466m	6.10	ug/L	97
10) Iodomethane	2.93	142	115017	0.95	ug/L	100
11) Carbon disulfide	3.00	76	306243	1.01	ug/L	100
12) Methylene chloride	3.40	84	81609	1.01	ug/L	97
13) trans-1,2-Dichloroethene	3.79	96	111907	1.02	ug/L	94
14) Methyl tert-butyl ether	3.83	73	121555	1.02	ug/L	96
15) 1,1-Dichloroethane	4.48	63	200570	1.03	ug/L	97
16) Vinyl acetate	4.69	43	307950m	2.09	ug/L	98
17) Isopropyl ether	4.71	45	312518	1.00	ug/L	98
18) 2,2-Dichloropropane	5.60	77	146863	1.01	ug/L	9
19) 2-Butanone	5.80	43	53339m	4.45	ug/L	8
20) cis-1,2-Dichloroethene	5.64	96	106797	1.04	ug/L	9
21) Bromochloromethane	6.18	128	37936	0.97	ug/L	9
22) Chloroform	6.49	83	197755	1.03	ug/L	9

(#) = qualifier out of range (m) = manual integration
30744005.D V82625B1.M Wed Oct 31 05:35:20 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
23) 1,1,1-Trichloroethane	6.83	97	160704	0.98 ug/L	97
26) Carbon tetrachloride	7.27	119	156850	1.13 ug/L	28
27) 1,1-Dichloropropene	7.32	110	45627	0.93 ug/L	100
28) Benzene	7.86	78	328909	1.02 ug/L	98
29) 1,2-Dichloroethane	7.98	62	67098	1.05 ug/L	94
30) Trichloroethene	9.58	95	137400	1.07 ug/L	91
31) 1,2-Dichloropropane	10.08	63	113727	1.06 ug/L	98
32) Dibromomethane	10.34	93	49811	1.04 ug/L	98
33) 2-Chloroethyl vinyl ether	11.61	63	17709	0.93 ug/L	96
34) Bromodichloromethane	10.81	83	152578	1.01 ug/L	95
35) cis-1,3-Dichloropropene	11.81	75	119952	1.02 ug/L	97
37) Toluene	12.45	92	217555	1.06 ug/L	95
38) trans-1,3-Dichloropropene	13.03	75	73674	0.99 ug/L	100
39) 1,1,2-Trichloroethane	13.38	83	49836	1.04 ug/L	96
40) Tetrachloroethene	13.56	166	155924	1.06 ug/L	96
41) 1,3-Dichloropropane	13.68	76	95524	1.04 ug/L	98
42) Dibromochloromethane	14.12	129	89919	1.01 ug/L	98
43) 1,2-Dibromoethane	14.27	107	61862	1.02 ug/L	100
44) 4-Methyl-2-pentanone	12.26	43	149476	4.54 ug/L	93
45) 2-Hexanone	14.02	43	81218	3.87 ug/L	97
47) Chlorobenzene	15.35	112	226960	1.05 ug/L	99
48) 1,1,1,2-Tetrachloroethane	15.61	131	101555	1.04 ug/L	96
50) Ethylbenzene	15.70	106	123576	1.07 ug/L	100
51) m,p-Xylene	16.01	106	298103	2.09 ug/L	99
52) o-Xylene	17.07	106	137776	1.04 ug/L	89
53) Styrene	17.13	104	207557	0.97 ug/L	100
54) Bromoform	17.58	173	51970	0.99 ug/L	95
55) Isopropylbenzene	18.34	105	434393	1.02 ug/L	100
58) Bromobenzene	19.16	156	106700	1.12 ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.54	83	74819	1.12 ug/L	87
60) 1,2,3-Trichloropropane	19.54	75	38655	1.01 ug/L	88
61) n-Propylbenzene	19.79	120	98095	1.00 ug/L	100
62) 2-Chlorotoluene	19.92	126	96679	1.10 ug/L	100
63) 4-Chlorotoluene	20.33	91	348446	1.11 ug/L	99
64) 1,3,5-Trimethylbenzene	20.48	105	316067	1.09 ug/L	97
65) tert-Butylbenzene	21.50	91	211087	1.12 ug/L	96
66) 1,2,4-Trimethylbenzene	21.68	105	268480	1.00 ug/L	98
67) sec-Butylbenzene	22.24	105	435328	1.02 ug/L	98
68) 1,3-Dichlorobenzene	22.39	146	197666	1.11 ug/L	99
69) p-Isopropyltoluene	22.78	119	328183	1.00 ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	184452	1.12 ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744005.D
Acq On : 30 Oct 2001 11:26
Sample : 1.0ppb VOA STD
Misc : 1.0ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

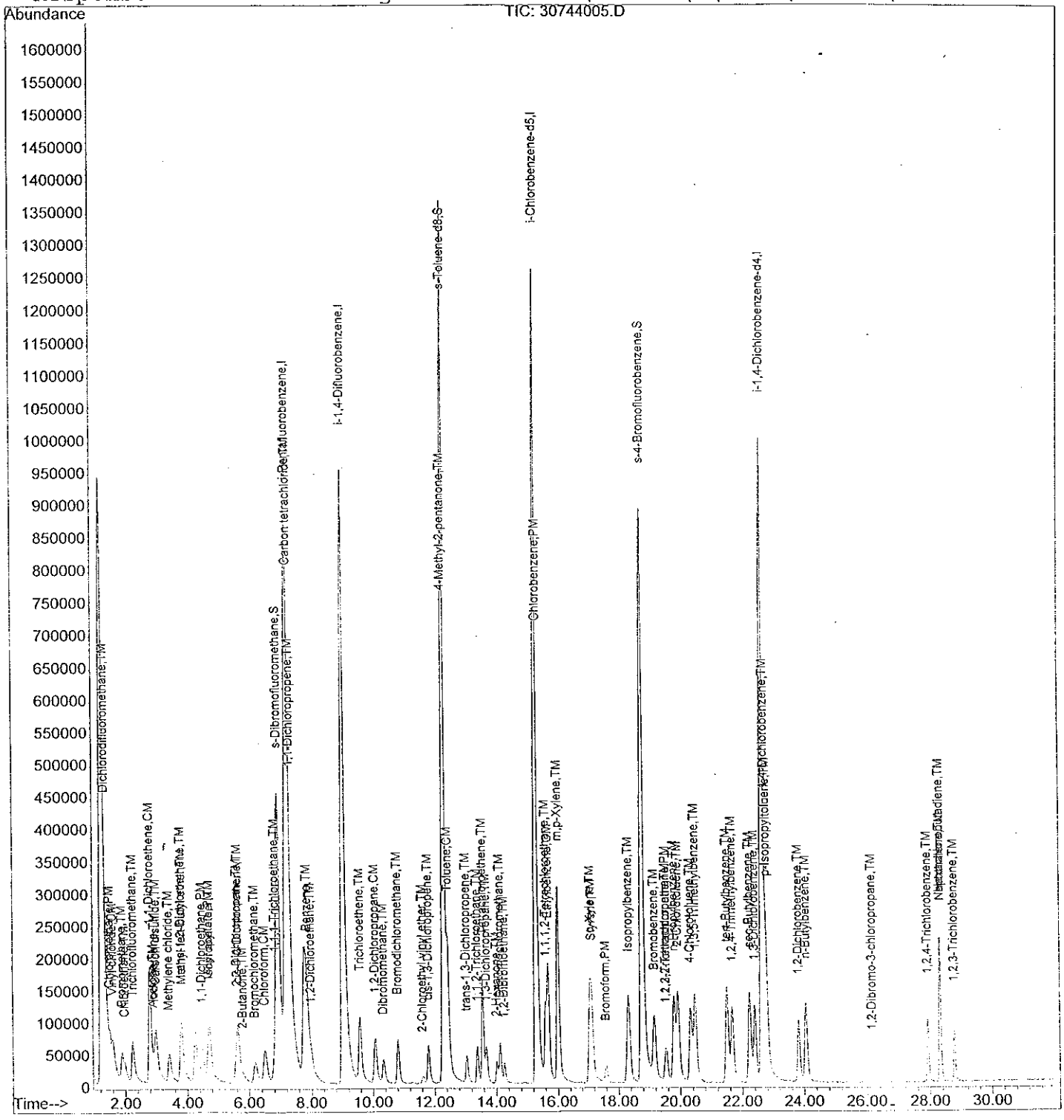
Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 11:15:47 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

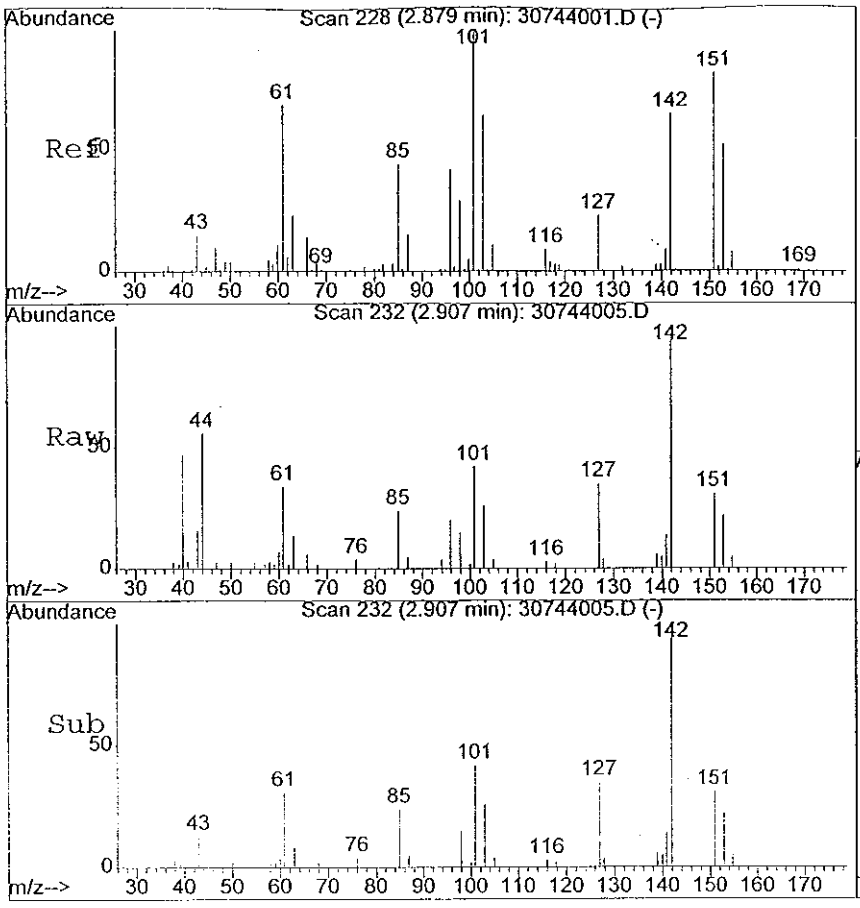
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) 1,2-Dichlorobenzene	23.83	146	156275	1.10	ug/L	98
72) n-Butylbenzene	24.05	91	282548	0.87	ug/L	96
73) 1,2-Dibromo-3-chloropropan	26.15	75	10149	1.11	ug/L	93
74) 1,2,4-Trichlorobenzene	27.92	180	80864	0.94	ug/L	98
75) Hexachlorobutadiene	28.32	225	102839	1.18	ug/L	96
76) Naphthalene	28.34	128	64010	0.99	ug/L	100
77) 1,2,3-Trichlorobenzene	28.77	180	65953	1.03	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744005.D Vial: 15
Acq On : 30 Oct 2001 11:26 Operator: GRH
Sample : 1.0ppb VOA STD Inst : Bubba
Misc : 1.0ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:11 2001 Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

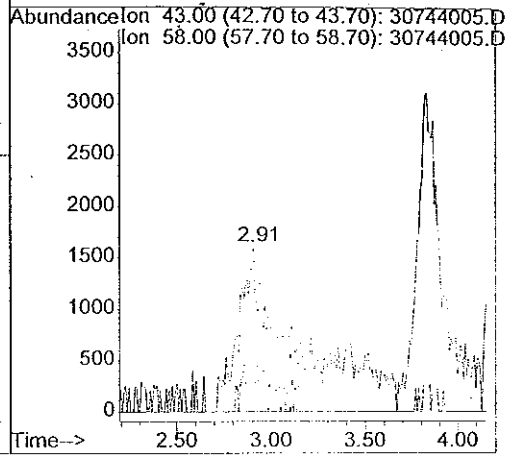




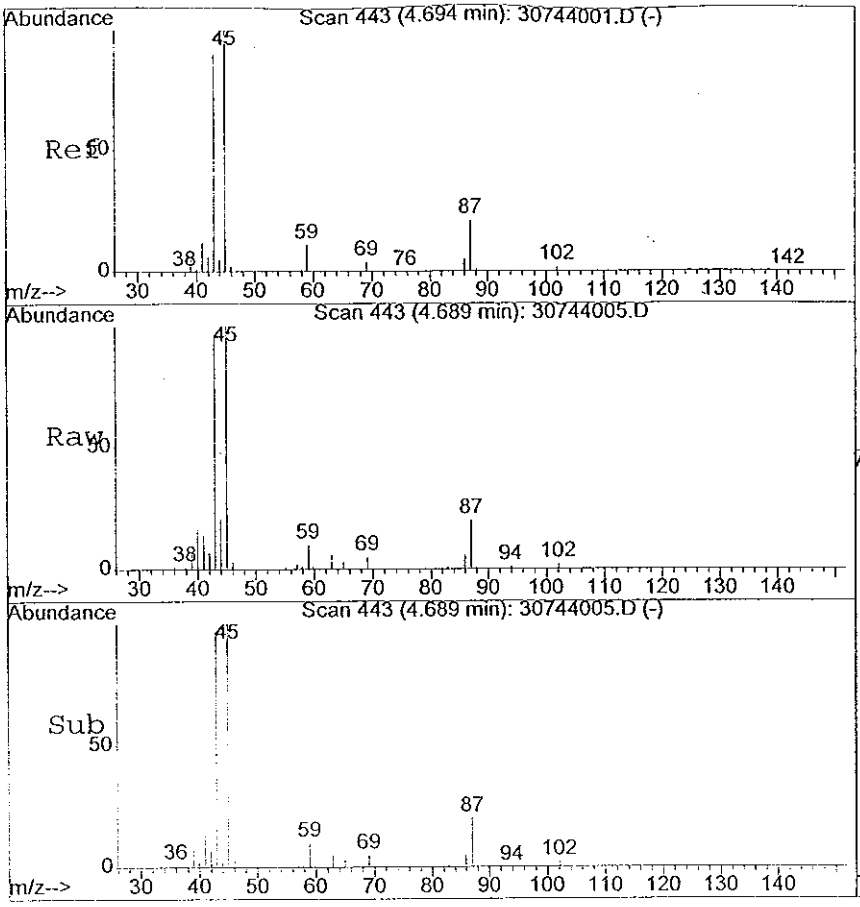
#9
Acetone
Concen: 6.10 ug/L m
RT: 2.91 min Scan# 232
Delta R.T. 0.04 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 34466

Ion	Ratio	Lower	Upper
43	100		
58	18.9	0.0	131.5



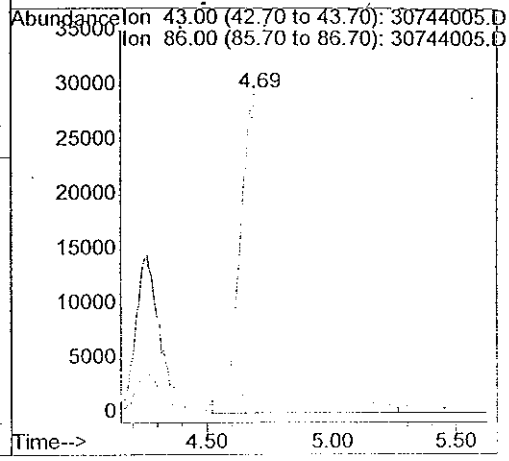
10-31
10-31-01



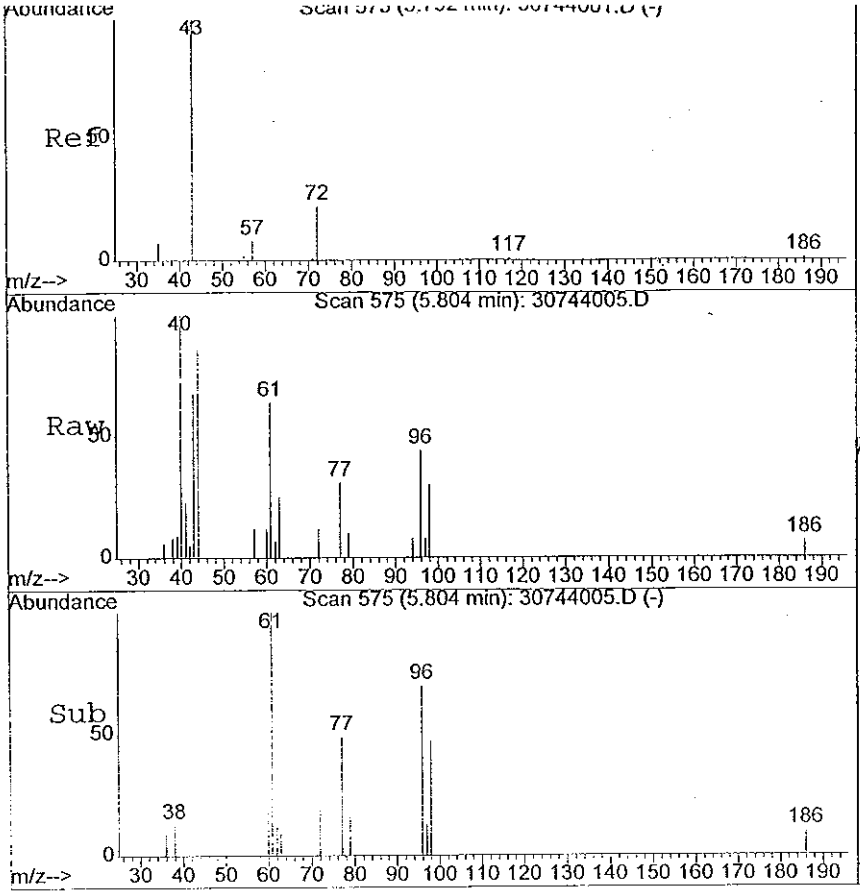
#16
Vinyl acetate
Concen: 2.09 ug/L m
RT: 4.69 min Scan# 443
Delta R.T. -0.00 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 307950

Ion	Ratio	Lower	Upper
43	100		
86	6.3	0.0	105.9



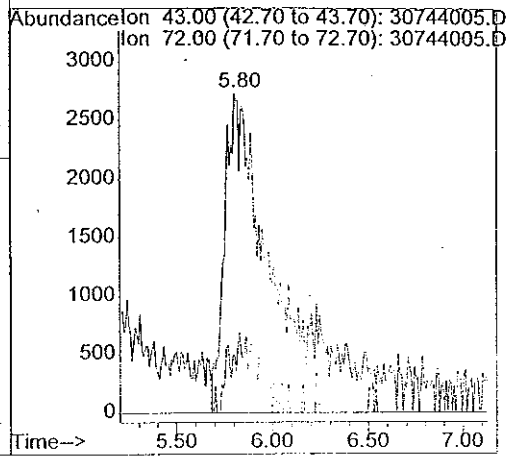
10-31
10-31-01



#19
2-Butanone
Concen: 4.45 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744005.D
Acq: 30 Oct 2001 11:26

Tgt Ion: 43 Resp: 53339

Ion	Ratio	Lower	Upper
43	100		
72	18.2	0.0	120.5



10-31

10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744006.D Vial: 16
Acq On : 30 Oct 2001 12:04 Operator: GRH
Sample : 0.3ppb VOA STD Inst : Bubba
Misc : 0.3ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) / Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3096915	10.00	ug/L	0.00 / 104.51%
25) i-1,4-Difluorobenzene	9.06	114	3080281	10.00	ug/L	0.00 / 101.54%
46) i-Chlorobenzene-d5	15.31	117	2137198	10.00	ug/L	0.00 / 99.55%
57) i-1,4-Dichlorobenzene-d4	22.69	152	1046565	10.00	ug/L	0.02 / 86.94%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1392618	9.64	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 96.40%			
36) s-Toluene-d8	12.33	98	2898917	9.93	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.30%			
56) s-4-Bromofluorobenzene	18.82	95	1586459	9.61	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 96.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	56742	0.38	ug/L	99
3) Chloromethane	1.50	50	36159m	0.37	ug/L	99
4) Vinyl chloride	1.60	62	36552	0.36	ug/L	92
5) Bromomethane	1.89	96	35015	0.38	ug/L	97
6) Chloroethane	2.00	64	20942	0.35	ug/L	84
7) Trichlorofluoromethane	2.23	101	57421	0.34	ug/L	93
8) 1,1-Dichloroethene	2.79	96	34482	0.35	ug/L #	85
10) Iodomethane	2.94	142	40544	0.32	ug/L	100
11) Carbon disulfide	3.00	76	107601	0.34	ug/L	100
12) Methylene chloride	3.41	84	26091	0.31	ug/L	91
13) trans-1,2-Dichloroethene	3.80	96	36709	0.33	ug/L	98
14) Methyl tert-butyl ether	3.82	73	41320m	0.34	ug/L	42
15) 1,1-Dichloroethane	4.47	63	67050	0.34	ug/L	98
16) Vinyl acetate	4.71	43	91218	0.60	ug/L	94
17) Isopropyl ether	4.73	45	101519	0.32	ug/L	99
18) 2,2-Dichloropropane	5.61	77	47783	0.32	ug/L	94
20) cis-1,2-Dichloroethene	5.65	96	17382	0.16	ug/L #	86
21) Bromochloromethane	6.19	128	13540m	0.34	ug/L	92
22) Chloroform	6.51	83	64718	0.33	ug/L	93
23) 1,1,1-Trichloroethane	6.84	97	53066	0.31	ug/L	94
26) Carbon tetrachloride	7.29	119	60143	0.43	ug/L #	1

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
27)	1,1-Dichloropropene	7.33	110	35089m	0.70	ug/L		100
28)	Benzene	7.89	78	114261	0.35	ug/L		93
29)	1,2-Dichloroethane	8.00	62	23568	0.36	ug/L		92
30)	Trichloroethene	9.60	95	46357	0.36	ug/L		92
31)	1,2-Dichloropropane	10.10	63	39985	0.37	ug/L		98
32)	Dibromomethane	10.35	93	17027	0.35	ug/L		94
33)	2-Chloroethyl vinyl ether	11.62	63	5704	0.29	ug/L		94
34)	Bromodichloromethane	10.81	83	52711	0.34	ug/L		90
35)	cis-1,3-Dichloropropene	11.83	75	39813	0.33	ug/L		88
37)	Toluene	12.46	92	74994	0.36	ug/L		99
38)	trans-1,3-Dichloropropene	13.07	75	22608	0.30	ug/L		98
39)	1,1,2-Trichloroethane	13.39	83	17217	0.36	ug/L	#	78
40)	Tetrachloroethene	13.57	166	54802	0.37	ug/L		94
41)	1,3-Dichloropropane	13.70	76	31625	0.34	ug/L		99
42)	Dibromochloromethane	14.15	129	29043	0.32	ug/L		99
43)	1,2-Dibromoethane	14.29	107	20047	0.32	ug/L		95
47)	Chlorobenzene	15.37	112	76094	0.35	ug/L		95
48)	1,1,1,2-Tetrachloroethane	15.63	131	32138	0.33	ug/L		96
50)	Ethylbenzene	15.72	106	41978	0.36	ug/L		100
51)	m,p-Xylene	16.03	106	96766	0.67	ug/L		96
52)	o-Xylene	17.09	106	44284	0.33	ug/L	#	85
53)	Styrene	17.16	104	69328	0.32	ug/L		92
54)	Bromoform	17.63	173	16043	0.30	ug/L		100
55)	Isopropylbenzene	18.36	105	143324	0.33	ug/L		96
58)	Bromobenzene	19.21	156	34447	0.38	ug/L		93
59)	1,1,2,2-Tetrachloroethane	19.57	83	24335	0.38	ug/L		88
60)	1,2,3-Trichloropropane	19.59	75	19472	0.53	ug/L		98
61)	n-Propylbenzene	19.85	120	32615	0.35	ug/L		100
62)	2-Chlorotoluene	19.97	126	32953	0.39	ug/L		100
63)	4-Chlorotoluene	20.39	91	96642	0.32	ug/L		98
64)	1,3,5-Trimethylbenzene	20.51	105	101910	0.37	ug/L		98
65)	tert-Butylbenzene	21.55	91	67600	0.38	ug/L		93
66)	1,2,4-Trimethylbenzene	21.71	105	84737	0.33	ug/L		94
67)	sec-Butylbenzene	22.28	105	142616	0.35	ug/L		95
68)	1,3-Dichlorobenzene	22.45	146	64255	0.38	ug/L		99
69)	p-Isopropyltoluene	22.82	119	101423	0.32	ug/L		97
70)	1,4-Dichlorobenzene	22.76	146	63283	0.40	ug/L		98
71)	1,2-Dichlorobenzene	23.85	146	50172	0.37	ug/L		90
72)	n-Butylbenzene	24.10	91	87558	0.28	ug/L		98
73)	1,2-Dibromo-3-chloropropan	26.19	75	2956	0.34	ug/L	#	88
74)	1,2,4-Trichlorobenzene	27.95	180	26621	0.32	ug/L		94

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:11:54 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75) Hexachlorobutadiene	28.34	225	36274	0.43	ug/L	94
76) Naphthalene	28.35	128	20463	0.33	ug/L	100
77) 1,2,3-Trichlorobenzene	28.78	180	20640	0.34	ug/L	97

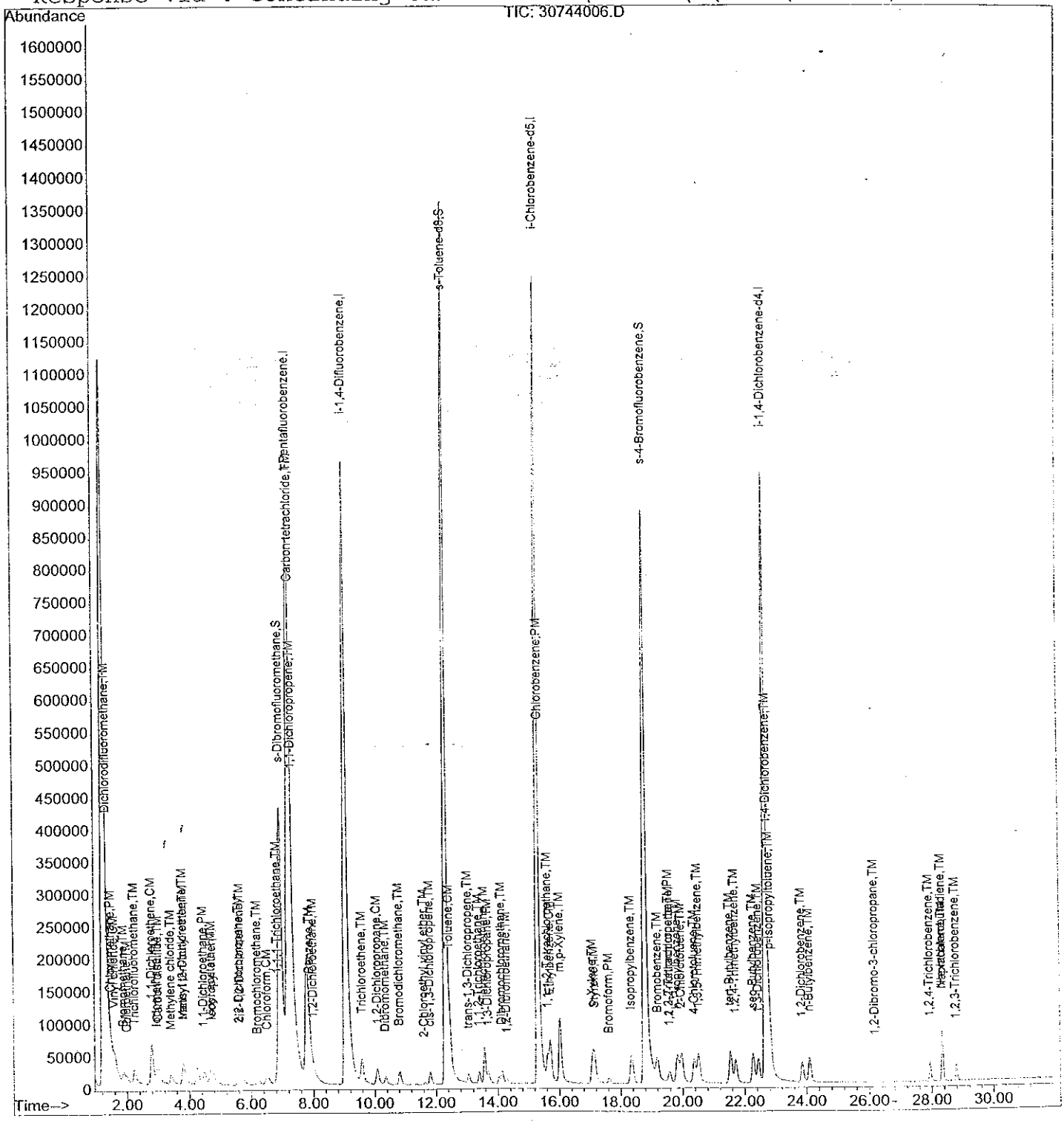
(#) = qualifier out of range (m) = manual integration

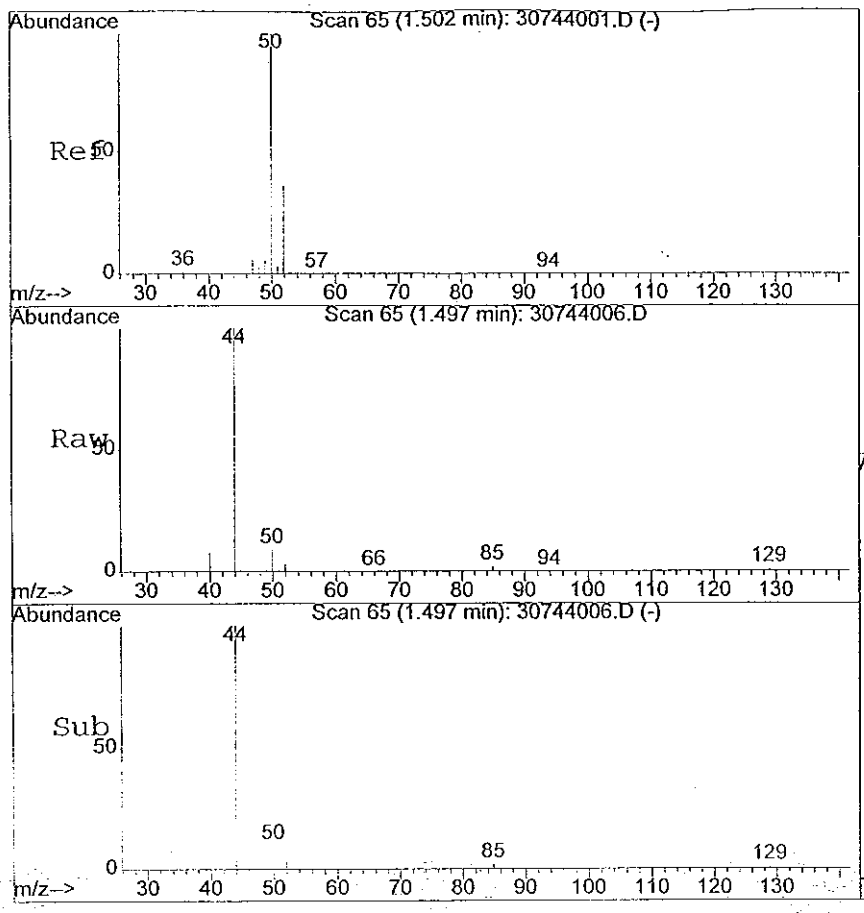
Data File : D:\HPCHEM\1\DATA\103001\30744006.D
Acq On : 30 Oct 2001 12:04
Sample : 0.3ppb VOA STD
Misc : 0.3ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 12:41 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

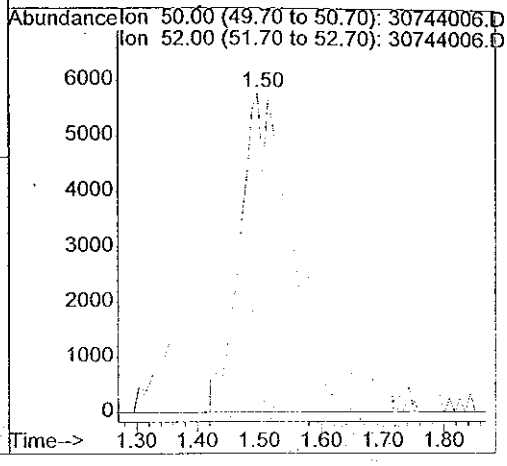




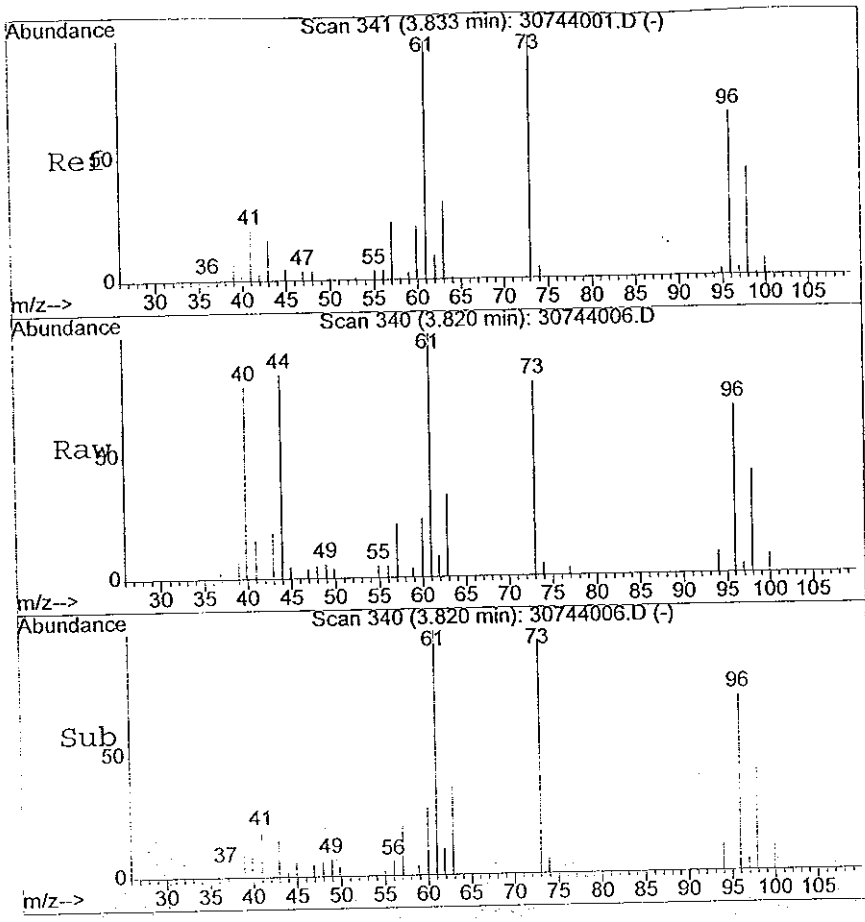
#3
Chloromethane
Concen: 0.37 ug/L m
RT: 1.50 min Scan# 65
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion: 50 Resp: 36159

Ion	Ratio	Lower	Upper
50	100		
52	29.0	13.0	53.0



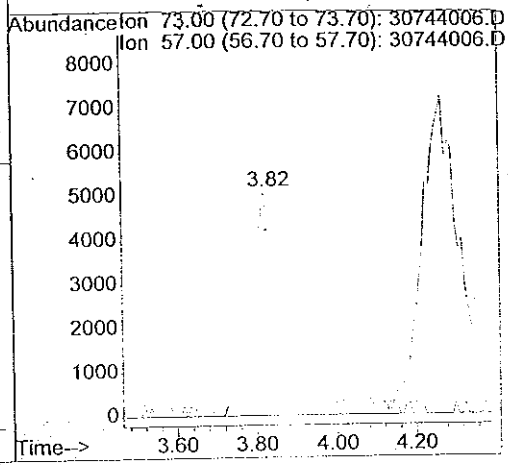
10-31
Ant 12-31-d



#14
Methyl tert-butyl ether
Concen: 0.34 ug/L m
RT: 3.82 min Scan# 340
Delta R.T. -0.01 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

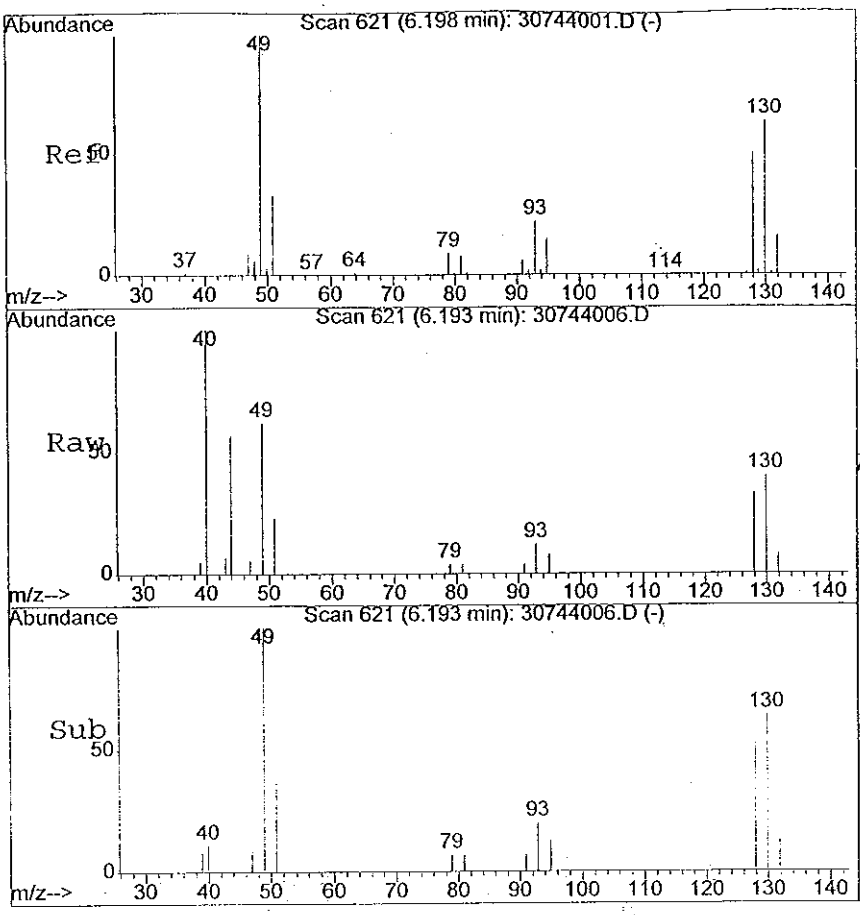
Tgt Ion: 73 Resp: 41320

Ion	Ratio	Lower	Upper
73	100		
57	22.3	0.0	124.6



10-31

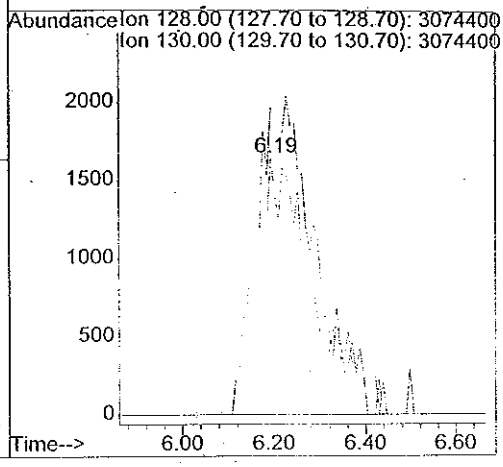
for 10-31-01



#21
Bromochloromethane
Concen: 0.34 ug/L m
RT: 6.19 min Scan# 621
Delta R.T. -0.02 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

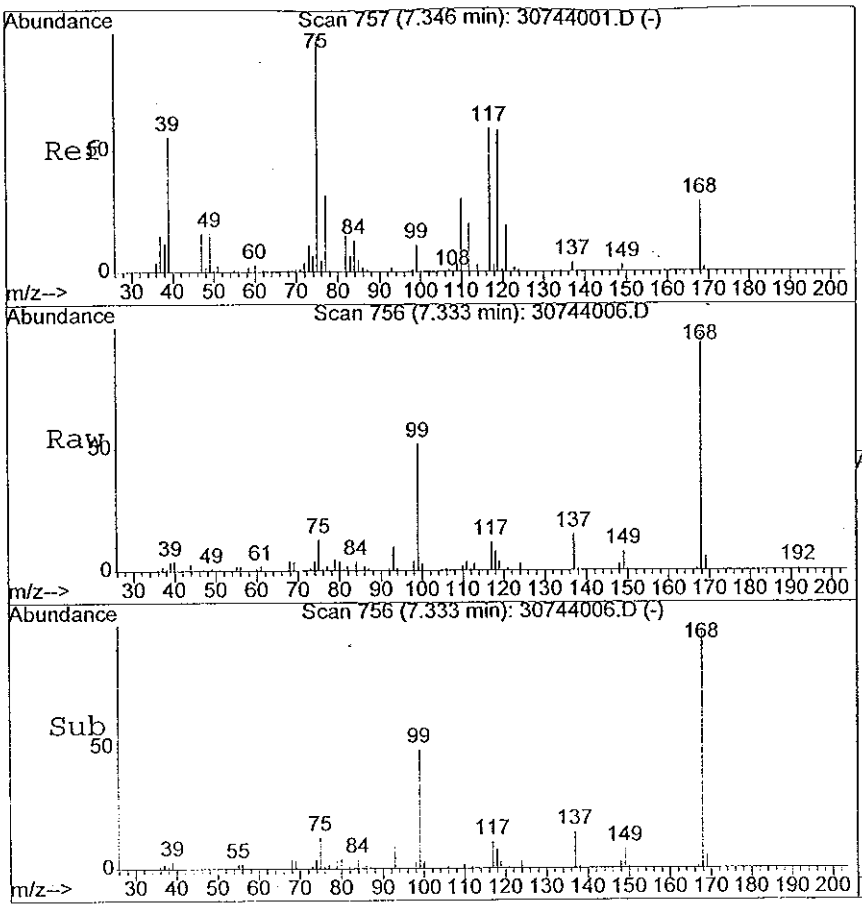
Tgt Ion:128 Resp: 13540

Ion	Ratio	Lower	Upper
128	100		
130	120.3	110.0	150.0



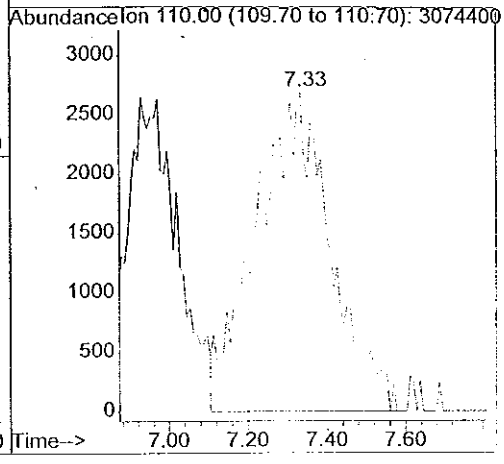
10-31

10-31-01



#27
1,1-Dichloropropene
Concen: 0.70 ug/L m
RT: 7.33 min Scan# 756
Delta R.T. -0.00 min
Lab File: 30744006.D
Acq: 30 Oct 2001 12:04

Tgt Ion:110 Resp: 35089



10-31
10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.26	168	3267539	10.00	ug/L	0.02 110.27%
25) i-1,4-Difluorobenzene	9.08	114	3235792	10.00	ug/L	0.02 106.66%
46) i-Chlorobenzene-d5	15.32	117	2231342	10.00	ug/L	0.00 103.93%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1130938	10.00	ug/L	0.04 93.95%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1490634	9.78	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 97.80%			
36) s-Toluene-d8	12.34	98	3048951	9.94	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.40%			
56) s-4-Bromofluorobenzene	18.84	95	1628503	9.45	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 94.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	85031	0.54	ug/L	95
3) Chloromethane	1.51	50	57047	0.55	ug/L	99
4) Vinyl chloride	1.61	62	59655	0.56	ug/L	95
5) Bromomethane	1.89	96	50840	0.53	ug/L	93
6) Chloroethane	2.00	64	32710	0.51	ug/L	94
7) Trichlorofluoromethane	2.23	101	92467	0.52	ug/L	98
8) 1,1-Dichloroethene	2.79	96	52681	0.51	ug/L	96
10) Iodomethane	2.95	142	61980	0.47	ug/L	100
11) Carbon disulfide	3.00	76	165766	0.50	ug/L	100
12) Methylene chloride	3.42	84	42127	0.48	ug/L	95
13) trans-1,2-Dichloroethene	3.81	96	59504	0.50	ug/L	97
14) Methyl tert-butyl ether	3.85	73	60263	0.46	ug/L	69
15) 1,1-Dichloroethane	4.49	63	104709	0.50	ug/L	96
16) Vinyl acetate	4.73	43	135595	0.85	ug/L	97
17) Isopropyl ether	4.73	45	157201	0.46	ug/L	97
18) 2,2-Dichloropropane	5.61	77	73127	0.46	ug/L	91
20) cis-1,2-Dichloroethene	5.67	96	50927	0.46	ug/L	92
21) Bromochloromethane	6.23	128	19284	0.45	ug/L	99
22) Chloroform	6.55	83	108615m	0.52	ug/L	96
23) 1,1,1-Trichloroethane	6.87	97	84716	0.47	ug/L	96
26) Carbon tetrachloride	7.29	119	84993	0.58	ug/L #	1

(#) = qualifier out of range (m) = manual integration
30744007.D V82625B1.M Wed Oct 31 05:35:40 2001

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27) 1,1-Dichloropropene	7.37	110	45959m	0.88	ug/L	100
28) Benzene	7.89	78	175270	0.51	ug/L	97
29) 1,2-Dichloroethane	8.01	62	36739	0.54	ug/L	94
30) Trichloroethene	9.60	95	72610	0.53	ug/L	92
31) 1,2-Dichloropropane	10.09	63	54961	0.48	ug/L	100
32) Dibromomethane	10.36	93	25641	0.50	ug/L	93
33) 2-Chloroethyl vinyl ether	11.65	63	9558	0.47	ug/L	90
34) Bromodichloromethane	10.82	83	80038	0.50	ug/L	89
35) cis-1,3-Dichloropropene	11.83	75	61200	0.49	ug/L	96
37) Toluene	12.47	92	115598	0.53	ug/L	92
38) trans-1,3-Dichloropropene	13.07	75	37014	0.47	ug/L	95
39) 1,1,2-Trichloroethane	13.40	83	27199	0.54	ug/L	92
40) Tetrachloroethene	13.59	166	83043	0.53	ug/L	98
41) 1,3-Dichloropropane	13.71	76	49118	0.50	ug/L	92
42) Dibromochloromethane	14.16	129	45286	0.48	ug/L	97
43) 1,2-Dibromoethane	14.29	107	30668	0.47	ug/L	89
44) 4-Methyl-2-pentanone	12.29	43	80377	2.29	ug/L	84
45) 2-Hexanone	14.05	43	42639	1.90	ug/L	91
47) Chlorobenzene	15.39	112	116784	0.51	ug/L	95
48) 1,1,1,2-Tetrachloroethane	15.65	131	49805	0.49	ug/L	96
50) Ethylbenzene	15.73	106	63777	0.52	ug/L	100
51) m,p-Xylene	16.04	106	150249	1.00	ug/L	96
52) o-Xylene	17.11	106	69489	0.50	ug/L	96
53) Styrene	17.17	104	108692	0.48	ug/L	98
54) Bromoform	17.64	173	24986	0.45	ug/L	97
55) Isopropylbenzene	18.39	105	225817	0.50	ug/L	99
58) Bromobenzene	19.22	156	55086	0.56	ug/L	96
59) 1,1,2,2-Tetrachloroethane	19.60	83	37029	0.54	ug/L	94
60) 1,2,3-Trichloropropane	19.59	75	22893	0.58	ug/L	99
61) n-Propylbenzene	19.87	120	51067	0.51	ug/L	100
62) 2-Chlorotoluene	19.98	126	49909	0.55	ug/L	100
63) 4-Chlorotoluene	20.39	91	176547	0.54	ug/L	97
64) 1,3,5-Trimethylbenzene	20.53	105	157487	0.52	ug/L	100
65) tert-Butylbenzene	21.55	91	105846	0.54	ug/L	90
66) 1,2,4-Trimethylbenzene	21.73	105	130302	0.47	ug/L	96
67) sec-Butylbenzene	22.29	105	223693	0.51	ug/L	98
68) 1,3-Dichlorobenzene	22.45	146	95809	0.52	ug/L	98
69) p-Isopropyltoluene	22.82	119	161812	0.48	ug/L	95
70) 1,4-Dichlorobenzene	22.76	146	94624	0.56	ug/L	96
71) 1,2-Dichlorobenzene	23.87	146	78043	0.53	ug/L	99
72) n-Butylbenzene	24.10	91	134579	0.40	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744007.D Vial: 17
Acq On : 30 Oct 2001 12:43 Operator: GRH
Sample : 0.5ppb VOA STD Inst : Bubba
Misc : 0.5ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 12:45:11 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73)	1,2-Dibromo-3-chloropropan	26.19	75	4930	0.52	ug/L	#	86
74)	1,2,4-Trichlorobenzene	27.94	180	36654	0.41	ug/L		100
75)	Hexachlorobutadiene	28.33	225	48563	0.54	ug/L		98
76)	Naphthalene	28.34	128	27310	0.41	ug/L		100
77)	1,2,3-Trichlorobenzene	28.79	180	26742	0.40	ug/L		92

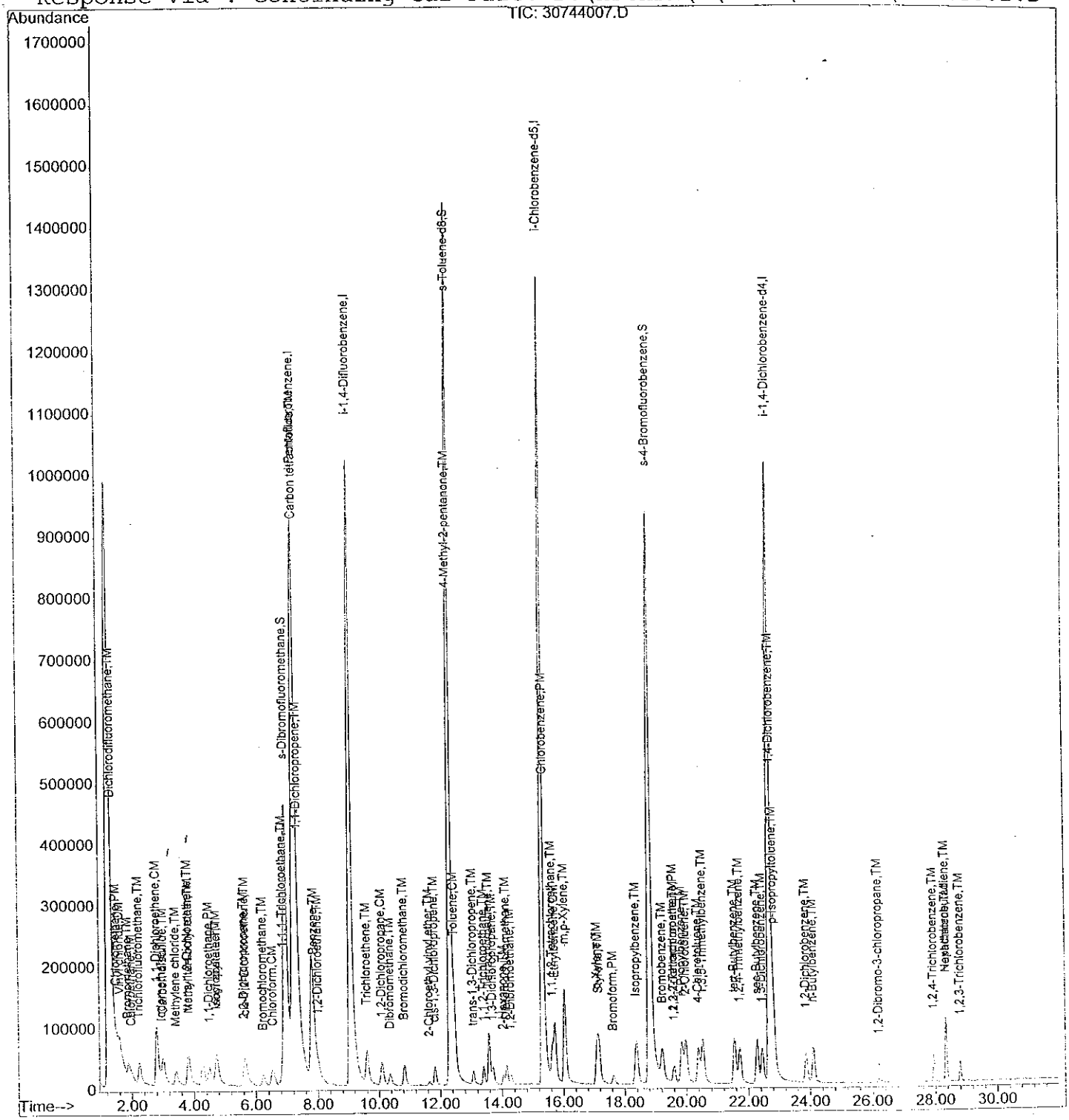
(#) = qualifier out of range (m) = manual integration

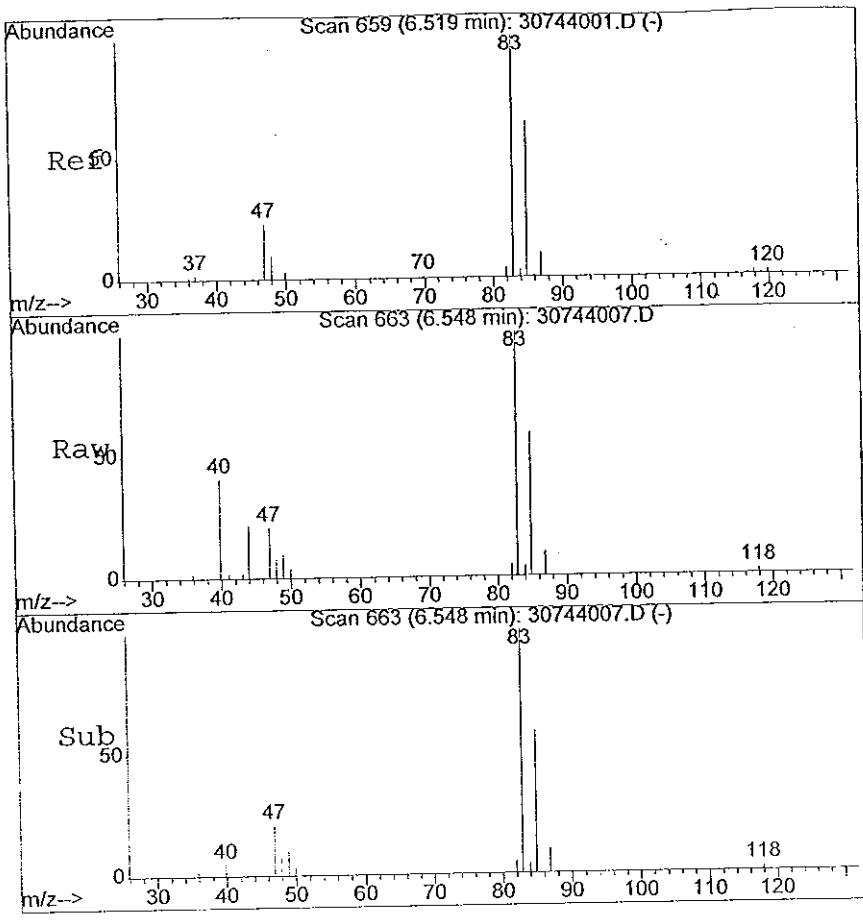
Data File : D:\HPCHEM\1\DATA\103001\30744007.D
Acq On : 30 Oct 2001 12:43
Sample : 0.5ppb VOA STD
Misc : 0.5ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 30 13:30 2001

Vial: 17
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

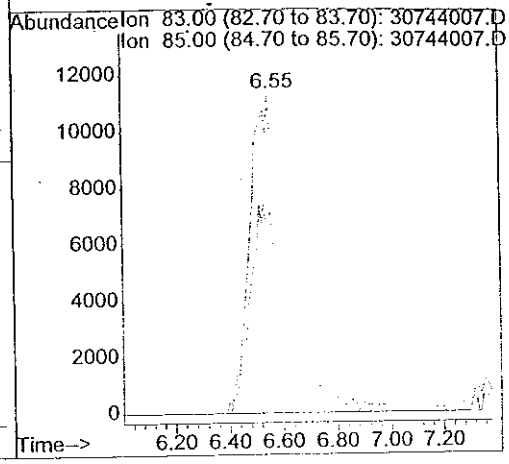




#22
Chloroform
Concen: 0.52 ug/L m
RT: 6.55 min Scan# 663
Delta R.T. 0.04 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion: 83 Resp: 108615

Ion	Ratio	Lower	Upper
83	100		
85	59.5	45.6	85.6



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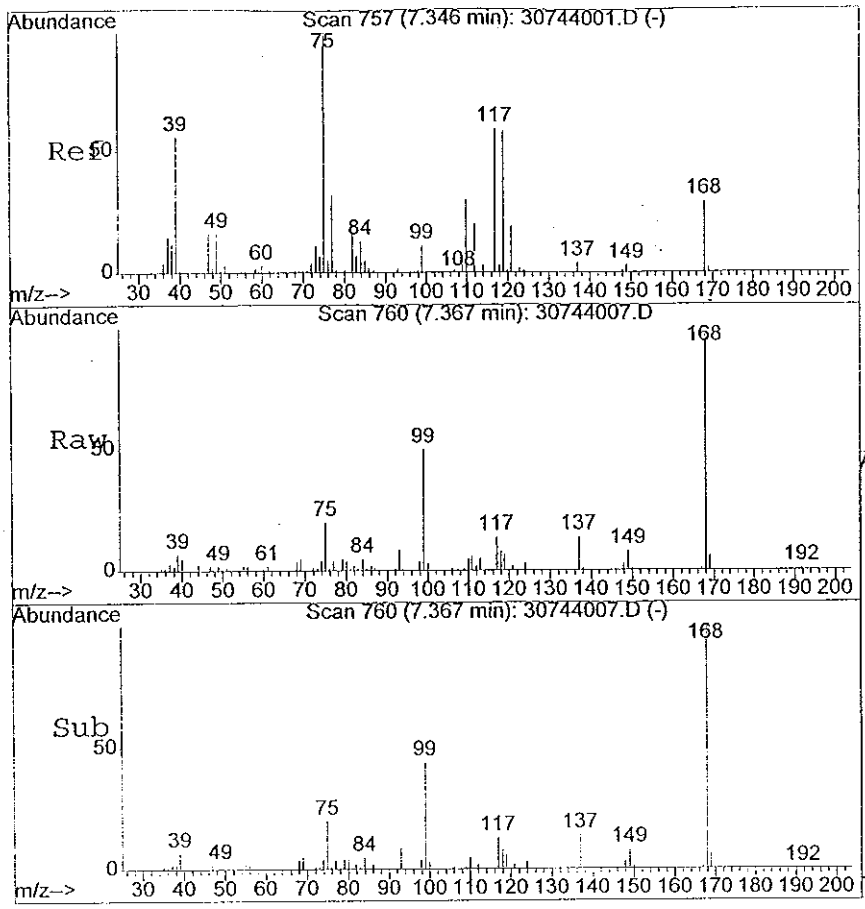
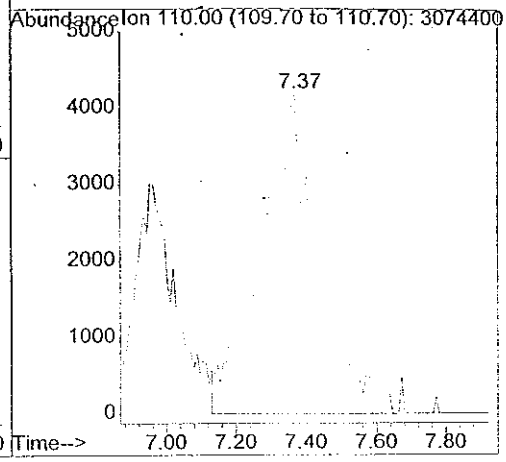
10-31-01



#27
1,1-Dichloropropene
Concen: 0.88 ug/L m
RT: 7.37 min Scan# 760
Delta R.T. 0.03 min
Lab File: 30744007.D
Acq: 30 Oct 2001 12:43

Tgt Ion:110 Resp: 45959



10-31
10-31-01

Quantitation Report

Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.25	168	2947542	10.00	ug/L	0.00 99.47%
25) i-1,4-Difluorobenzene	9.06	114	3065355	10.00	ug/L	0.00 101.04%
46) i-Chlorobenzene-d5	15.32	117	2161993	10.00	ug/L	0.00 100.70%
57) i-1,4-Dichlorobenzene-d4	22.68	152	1236934	10.00	ug/L	0.02 102.76%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.95	113	1394830	10.14	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.40%			
36) s-Toluene-d8	12.32	98	2901276	9.99	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 99.90%			
56) s-4-Bromofluorobenzene	18.81	95	1673415	10.02	ug/L	0.02
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	2672742	18.83	ug/L	97
3) Chloromethane	1.50	50	1787973	19.15	ug/L	100
4) Vinyl chloride	1.60	62	1844890	19.23	ug/L	99
5) Bromomethane	1.89	96	1673051	19.19	ug/L	99
6) Chloroethane	1.99	64	1093005	19.01	ug/L	96
7) Trichlorofluoromethane	2.24	101	3036746	18.89	ug/L	99
8) 1,1-Dichloroethene	2.79	96	1817253	19.42	ug/L	99
9) Acetone	2.88	43	430417m	77.67	ug/L	92
10) Iodomethane	2.94	142	2546050	21.35	ug/L	100
11) Carbon disulfide	3.01	76	5774139	19.39	ug/L	100
12) Methylene chloride	3.41	84	1578147	19.95	ug/L	97
13) trans-1,2-Dichloroethene	3.80	96	2052408	19.13	ug/L	98
14) Methyl tert-butyl ether	3.84	73	2336432	19.96	ug/L	98
15) 1,1-Dichloroethane	4.49	63	3639109	19.14	ug/L	100
16) Vinyl acetate	4.70	43	5618071m	38.83	ug/L	98
17) Isopropyl ether	4.73	45	5915771	19.33	ug/L	100
18) 2,2-Dichloropropane	5.62	77	2746642	19.26	ug/L	98
19) 2-Butanone	5.81	43	912974m	77.69	ug/L	100
20) cis-1,2-Dichloroethene	5.67	96	1923262	19.18	ug/L	97
21) Bromochloromethane	6.22	128	762751	19.84	ug/L	95
22) Chloroform	6.52	83	3695254	19.57	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.86	97	3108423	19.30	ug/L	98
26)	Carbon tetrachloride	7.31	119	2670815	19.10	ug/L	95
27)	1,1-Dichloropropene	7.35	110	960311	19.38	ug/L	100
28)	Benzene	7.87	78	6215127	19.11	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1251309	19.39	ug/L	97
30)	Trichloroethene	9.59	95	2492122	19.28	ug/L	99
31)	1,2-Dichloropropane	10.08	63	2091220	19.23	ug/L	99
32)	Dibromomethane	10.35	93	939957	19.35	ug/L	98
33)	2-Chloroethyl vinyl ether	11.63	63	368716	19.16	ug/L	96
34)	Bromodichloromethane	10.82	83	2911596	19.15	ug/L	96
35)	cis-1,3-Dichloropropene	11.82	75	2265542	19.00	ug/L	99
37)	Toluene	12.47	92	3949672	19.04	ug/L	100
38)	trans-1,3-Dichloropropene	13.06	75	1446377	19.26	ug/L	99
39)	1,1,2-Trichloroethane	13.40	83	921506	19.14	ug/L	99
40)	Tetrachloroethene	13.58	166	2811197	18.89	ug/L	99
41)	1,3-Dichloropropane	13.70	76	1803442	19.39	ug/L	100
42)	Dibromochloromethane	14.14	129	1763135	19.57	ug/L	99
43)	1,2-Dibromoethane	14.28	107	1164744	18.94	ug/L	99
44)	4-Methyl-2-pentanone	12.26	43	2621881	78.91	ug/L	100
45)	2-Hexanone	14.02	43	1647381	77.69	ug/L	100
47)	Chlorobenzene	15.38	112	4231207	19.16	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.63	131	1911772	19.30	ug/L	99
50)	Ethylbenzene	15.73	106	2238648	19.01	ug/L	100
51)	m,p-Xylene	16.04	106	5612655	38.62	ug/L	99
52)	o-Xylene	17.10	106	2595783	19.18	ug/L	98
53)	Styrene	17.16	104	4271963	19.62	ug/L	100
54)	Bromoform	17.63	173	1061009	19.77	ug/L	99
55)	Isopropylbenzene	18.37	105	8282156	19.11	ug/L	99
58)	Bromobenzene	19.21	156	2060481	19.20	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.58	83	1434300	19.06	ug/L	98
60)	1,2,3-Trichloropropane	19.58	75	834103	19.22	ug/L	96
61)	n-Propylbenzene	19.85	120	2096047	18.96	ug/L	100
62)	2-Chlorotoluene	19.98	126	1878987	18.91	ug/L	100
63)	4-Chlorotoluene	20.38	91	6889913	19.42	ug/L	98
64)	1,3,5-Trimethylbenzene	20.52	105	6252075	19.04	ug/L	100
65)	tert-Butylbenzene	21.55	91	4048103	19.05	ug/L	100
66)	1,2,4-Trimethylbenzene	21.71	105	5865982	19.38	ug/L	99
67)	sec-Butylbenzene	22.27	105	9361903	19.37	ug/L	100
68)	1,3-Dichlorobenzene	22.44	146	3809921	18.89	ug/L	99
69)	p-Isopropyltoluene	22.81	119	7336744	19.80	ug/L	99
70)	1,4-Dichlorobenzene	22.75	146	3721900	20.08	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744009.D Vial: 15
Acq On : 30 Oct 2001 14:05 Operator: GRH
Sample : 20ppb VOA STD Inst : Bubba
Misc : 20ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Tue Oct 30 14:02:50 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.85	146	3061141	19.16	ug/L	99
72)	n-Butylbenzene	24.09	91	7499504	20.45	ug/L	99
73)	1,2-Dibromo-3-chloropropan	26.16	75	196739	18.97	ug/L	92
74)	1,2,4-Trichlorobenzene	27.92	180	2006905	20.57	ug/L	99
75)	Hexachlorobutadiene	28.31	225	1891246	19.18	ug/L	99
76)	Naphthalene	28.33	128	1514801	20.78	ug/L	100
77)	1,2,3-Trichlorobenzene	28.77	180	1383619	19.10	ug/L	100

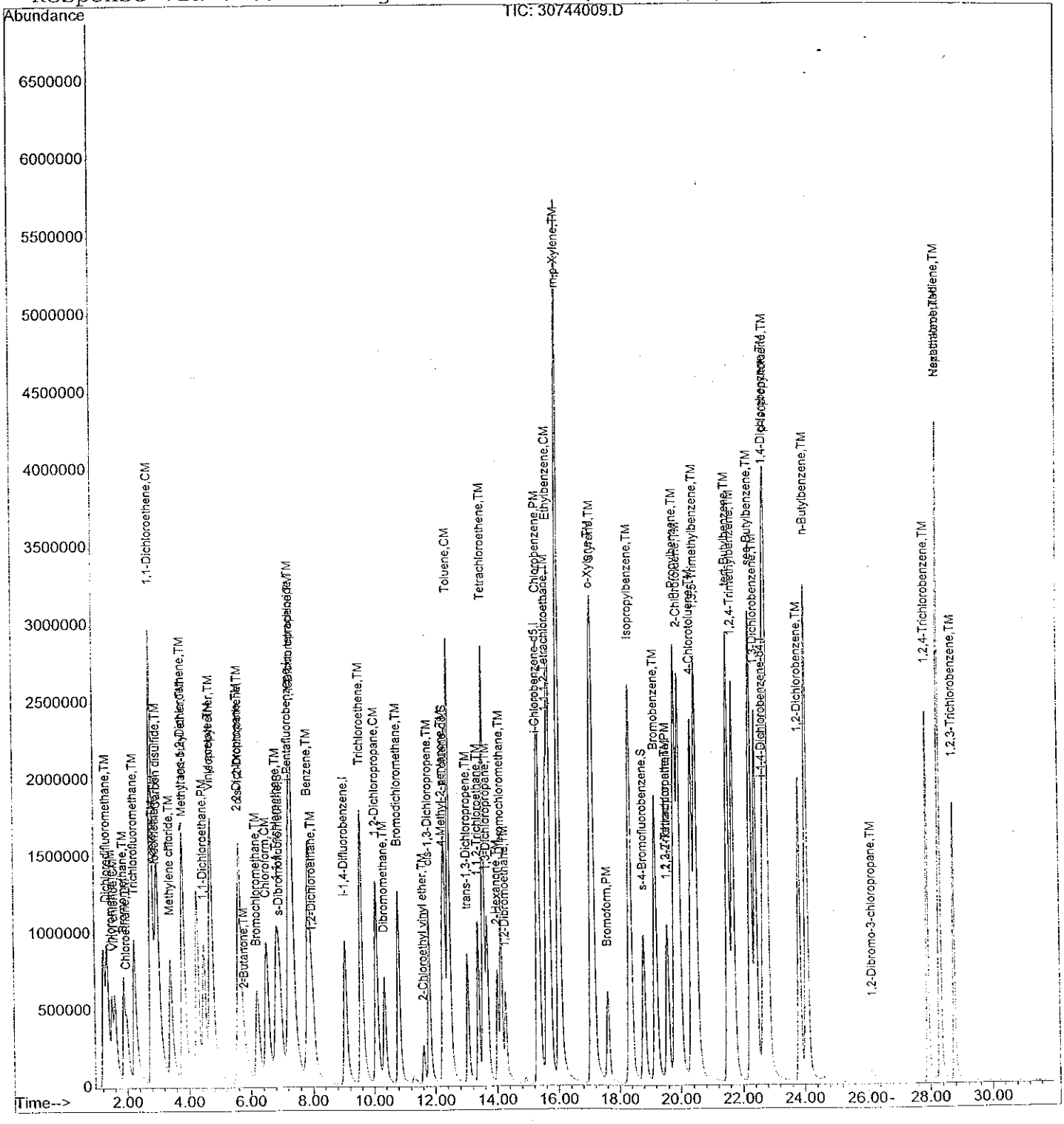
(#) = qualifier out of range (m) = manual integration

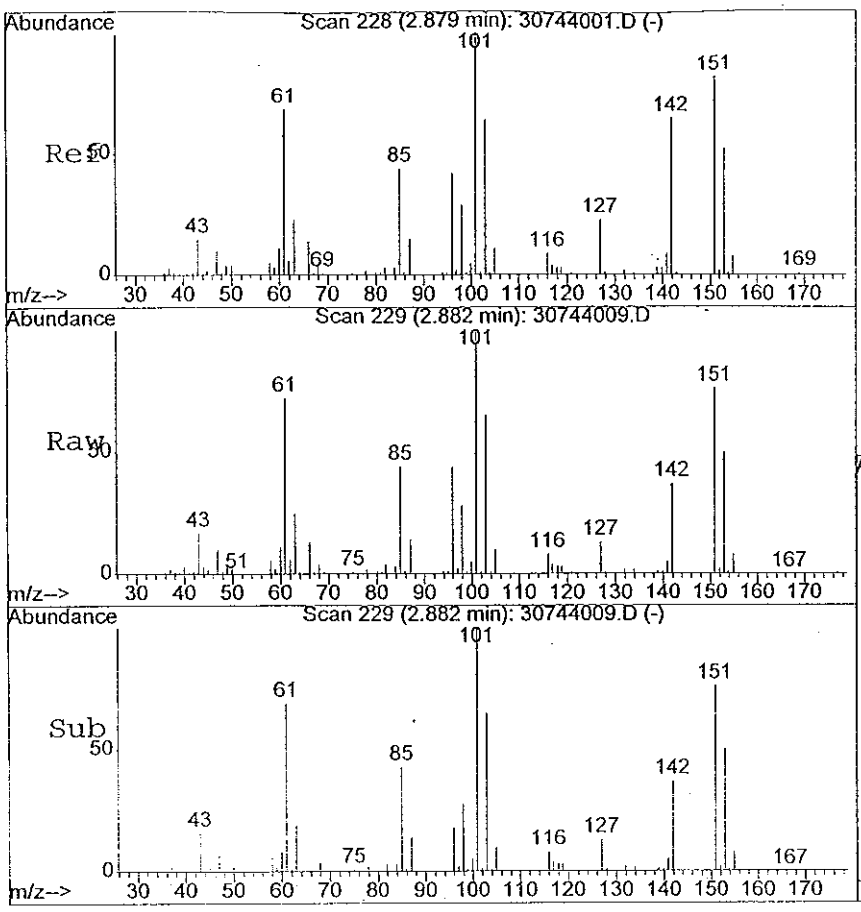
Data File : D:\HPCHEM\1\DATA\103001\30744009.D
Acq On : 30 Oct 2001 14:05
Sample : 20ppb VOA STD
Misc : 20ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:27 2001

Vial: 15
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

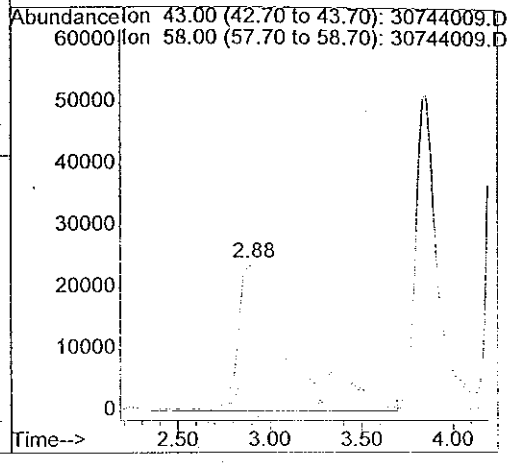




#9
Acetone
Concen: 77.67 ug/L m
RT: 2.88 min Scan# 229
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 430417

Ion	Ratio	Lower	Upper
43	100		
58	35.3	0.0	131.5



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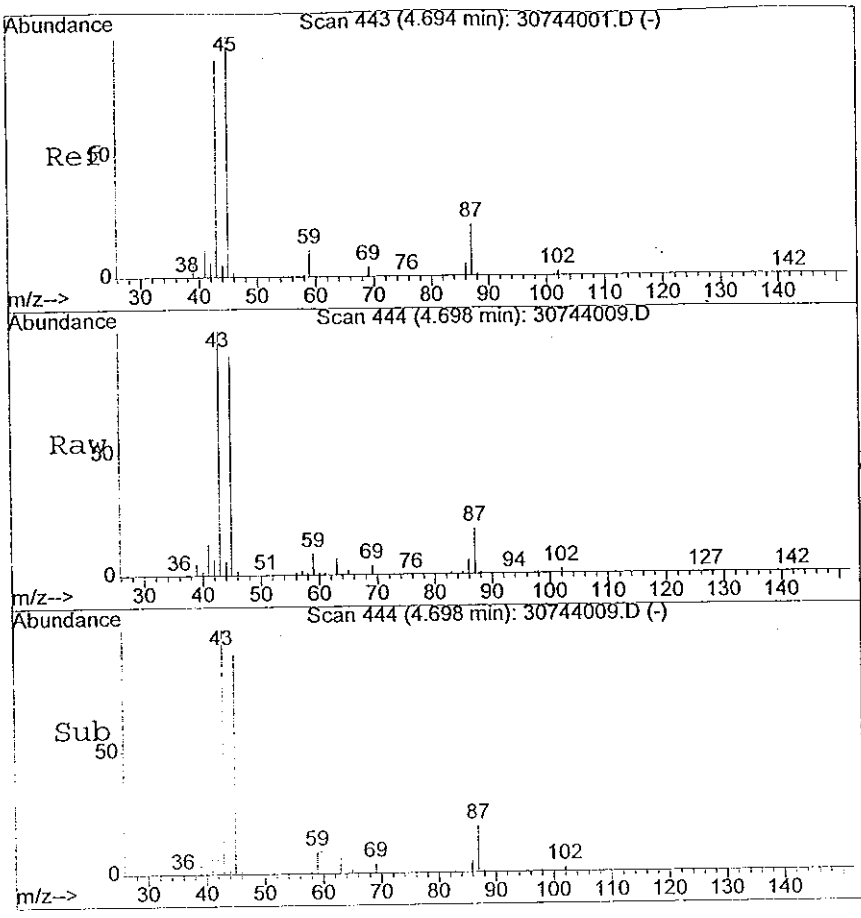
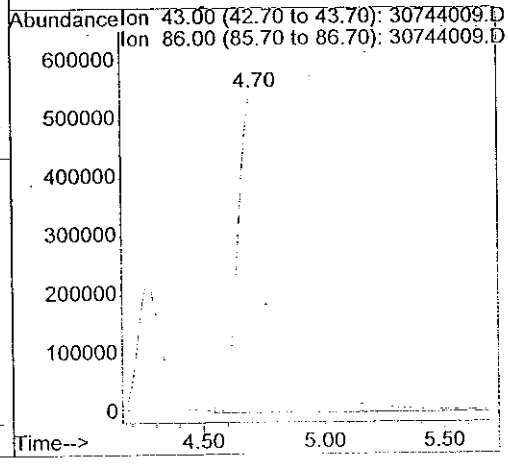
10-31-01



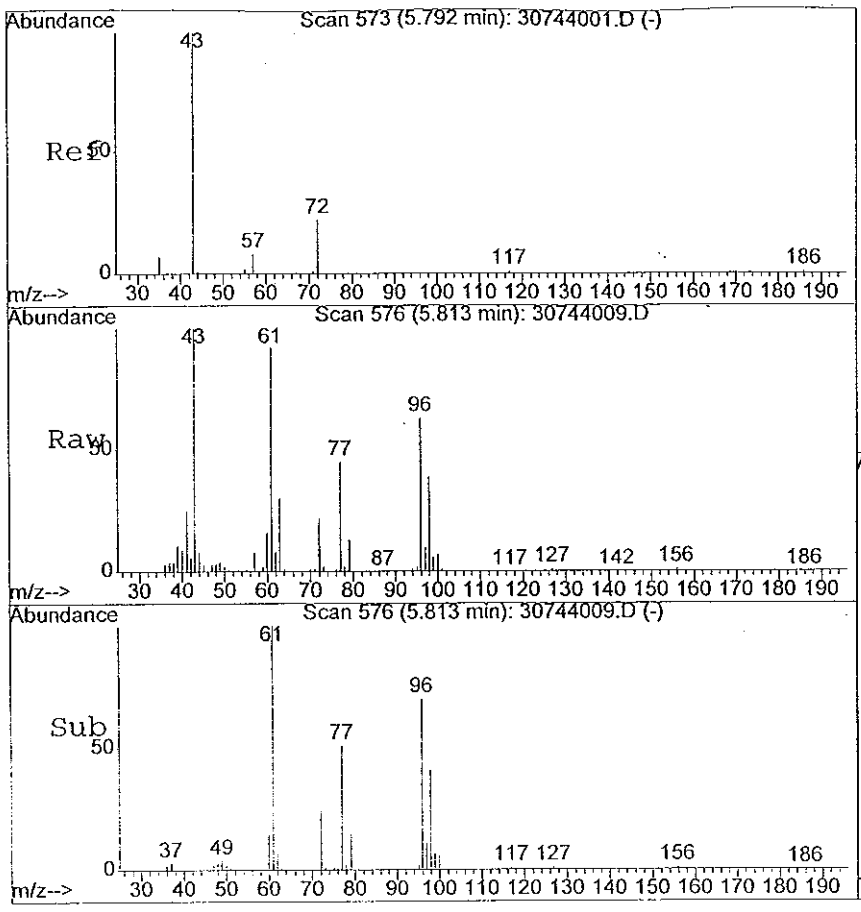
#16
Vinyl acetate
Concen: 38.83 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 5618071

Ion	Ratio	Lower	Upper
43	100		
86	6.4	0.0	105.9



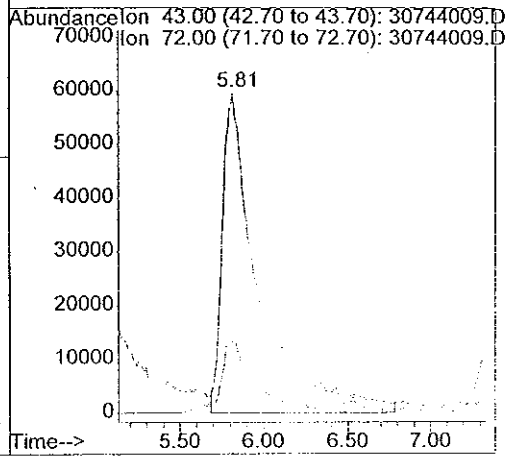
10-31
10-31-01



#19
2-Butanone
Concen: 77.69 ug/L m
RT: 5.81 min Scan# 576
Delta R.T. 0.02 min
Lab File: 30744009.D
Acq: 30 Oct 2001 14:05

Tgt Ion: 43 Resp: 912974

Ion	Ratio	Lower	Upper
43	100		
72	22.1	0.0	120.5



10-31
10-31-01

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	3089598	10.00	ug/L	0.00 104.26%
25) i-1,4-Difluorobenzene	9.07	114	3142130	10.00	ug/L	0.01 103.58%
46) i-Chlorobenzene-d5	15.33	117	2243726	10.00	ug/L	0.02 104.51%
57) i-1,4-Dichlorobenzene-d4	22.70	152	1321615	10.00	ug/L	0.04 109.79%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.96	113	1428876	9.91	ug/L	0.02
Spiked Amount 10.000	Range 77 - 119		Recovery = 99.10%			
36) s-Toluene-d8	12.34	98	2978822	10.00	ug/L	0.02
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.00%			
56) s-4-Bromofluorobenzene	18.83	95	1739690	10.04	ug/L	0.04
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.36	85	4329674	29.10	ug/L	98
3) Chloromethane	1.51	50	2833319	28.95	ug/L	99
4) Vinyl chloride	1.60	62	2914096	28.97	ug/L	99
5) Bromomethane	1.90	96	2546037	27.85	ug/L	100
6) Chloroethane	1.99	64	1716404	28.49	ug/L	96
7) Trichlorofluoromethane	2.24	101	4857019	28.82	ug/L	96
8) 1,1-Dichloroethene	2.78	96	2853176	29.09	ug/L	97
9) Acetone	2.88	43	740291m	127.45	ug/L	96
10) Iodomethane	2.94	142	3899518	31.19	ug/L	100
11) Carbon disulfide	3.00	76	9115603	29.20	ug/L	100
12) Methylene chloride	3.41	84	2488072	30.00	ug/L	99
13) trans-1,2-Dichloroethene	3.80	96	3232670	28.74	ug/L	99
14) Methyl tert-butyl ether	3.84	73	3997299	32.58	ug/L	98
15) 1,1-Dichloroethane	4.49	63	5718476	28.70	ug/L	99
16) Vinyl acetate	4.70	43	9521011m	62.79	ug/L	98
17) Isopropyl ether	4.73	45	9653666	30.09	ug/L	100
18) 2,2-Dichloropropane	5.61	77	4447886	29.75	ug/L	99
19) 2-Butanone	5.82	43	1556821m	126.39	ug/L	96
20) cis-1,2-Dichloroethene	5.66	96	3071437	29.22	ug/L	94
21) Bromochloromethane	6.21	128	1223246	30.36	ug/L	98
22) Chloroform	6.53	83	5797651	29.29	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23)	1,1,1-Trichloroethane	6.85	97	4897430	29.01	ug/L	98
26)	Carbon tetrachloride	7.31	119	4228789	29.50	ug/L	94
27)	1,1-Dichloropropene	7.35	110	1506232	29.66	ug/L	100
28)	Benzene	7.88	78	9780889	29.34	ug/L	100
29)	1,2-Dichloroethane	8.00	62	1993607	30.13	ug/L	98
30)	Trichloroethene	9.60	95	3886519	29.34	ug/L	98
31)	1,2-Dichloropropane	10.09	63	3332444	29.90	ug/L	99
32)	Dibromomethane	10.36	93	1517196	30.47	ug/L	98
33)	2-Chloroethyl vinyl ether	11.64	63	604629	30.65	ug/L	100
34)	Bromodichloromethane	10.83	83	4734150	30.37	ug/L	97
35)	cis-1,3-Dichloropropene	11.83	75	3734830	30.56	ug/L	99
37)	Toluene	12.48	92	6204841	29.18	ug/L	100
38)	trans-1,3-Dichloropropene	13.07	75	2423602	31.48	ug/L	99
39)	1,1,2-Trichloroethane	13.41	83	1525664	30.91	ug/L	99
40)	Tetrachloroethene	13.59	166	4420397	28.98	ug/L	99
41)	1,3-Dichloropropane	13.71	76	2959064	31.04	ug/L	100
42)	Dibromochloromethane	14.16	129	2920761	31.63	ug/L	99
43)	1,2-Dibromoethane	14.29	107	1943150	30.82	ug/L	99
44)	4-Methyl-2-pentanone	12.28	43	4654558	136.67	ug/L	100
45)	2-Hexanone	14.03	43	2979908	137.09	ug/L	99
47)	Chlorobenzene	15.39	112	6774398	29.56	ug/L	99
48)	1,1,1,2-Tetrachloroethane	15.65	131	3086104	30.03	ug/L	99
50)	Ethylbenzene	15.74	106	3536456	28.94	ug/L	100
51)	m,p-Xylene	16.07	106	8854668	58.71	ug/L	99
52)	o-Xylene	17.12	106	4111508	29.27	ug/L	98
53)	Styrene	17.19	104	6844185	30.28	ug/L	100
54)	Bromoform	17.64	173	1805093	32.41	ug/L	100
55)	Isopropylbenzene	18.39	105	13078000	29.07	ug/L	99
58)	Bromobenzene	19.23	156	3315122	28.90	ug/L	99
59)	1,1,2,2-Tetrachloroethane	19.61	83	2441921	30.38	ug/L	100
60)	1,2,3-Trichloropropane	19.61	75	1422352	30.68	ug/L	98
61)	n-Propylbenzene	19.88	120	3321882	28.13	ug/L	100
62)	2-Chlorotoluene	20.01	126	2956547	27.84	ug/L	100
63)	4-Chlorotoluene	20.41	91	11010425	29.04	ug/L	98
64)	1,3,5-Trimethylbenzene	20.54	105	9959671	28.39	ug/L	99
65)	tert-Butylbenzene	21.57	91	6494031	28.60	ug/L	100
66)	1,2,4-Trimethylbenzene	21.74	105	9520708	29.44	ug/L	99
67)	sec-Butylbenzene	22.30	105	15076001	29.20	ug/L	99
68)	1,3-Dichlorobenzene	22.47	146	6171295	28.63	ug/L	99
69)	p-Isopropyltoluene	22.84	119	11830221	29.88	ug/L	100
70)	1,4-Dichlorobenzene	22.77	146	6063287	30.61	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D Vial: 16
Acq On : 30 Oct 2001 14:43 Operator: GRH
Sample : 30ppb VOA STD Inst : Bubba
Misc : 30ppb VOA STD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:27:24 2001
Response via : Single (D:\HPCHEM\1\DATA\103001\30744002.D 30 Oct 2001 9:23)
DataAcq Meth : V82625A

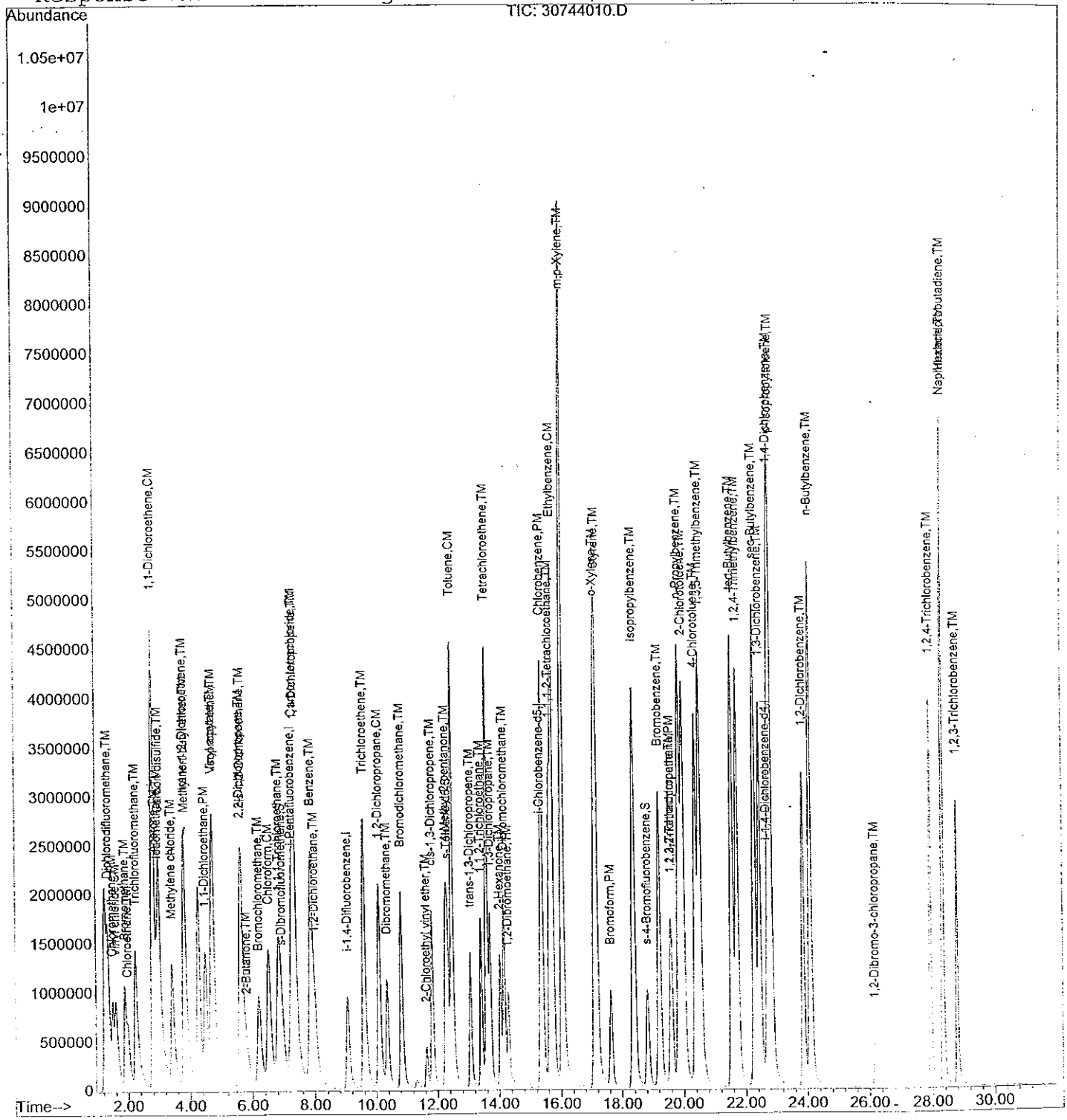
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.87	146	4948428	28.98	ug/L	99
72)	n-Butylbenzene	24.11	91	12290617	31.37	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.17	75	339061	30.60	ug/L	92
74)	1,2,4-Trichlorobenzene	27.94	180	3287112	31.53	ug/L	97
75)	Hexachlorobutadiene	28.33	225	2942625	27.93	ug/L	99
76)	Naphthalene	28.35	128	2562909	32.91	ug/L	100
77)	1,2,3-Trichlorobenzene	28.79	180	2220577	28.70	ug/L	98

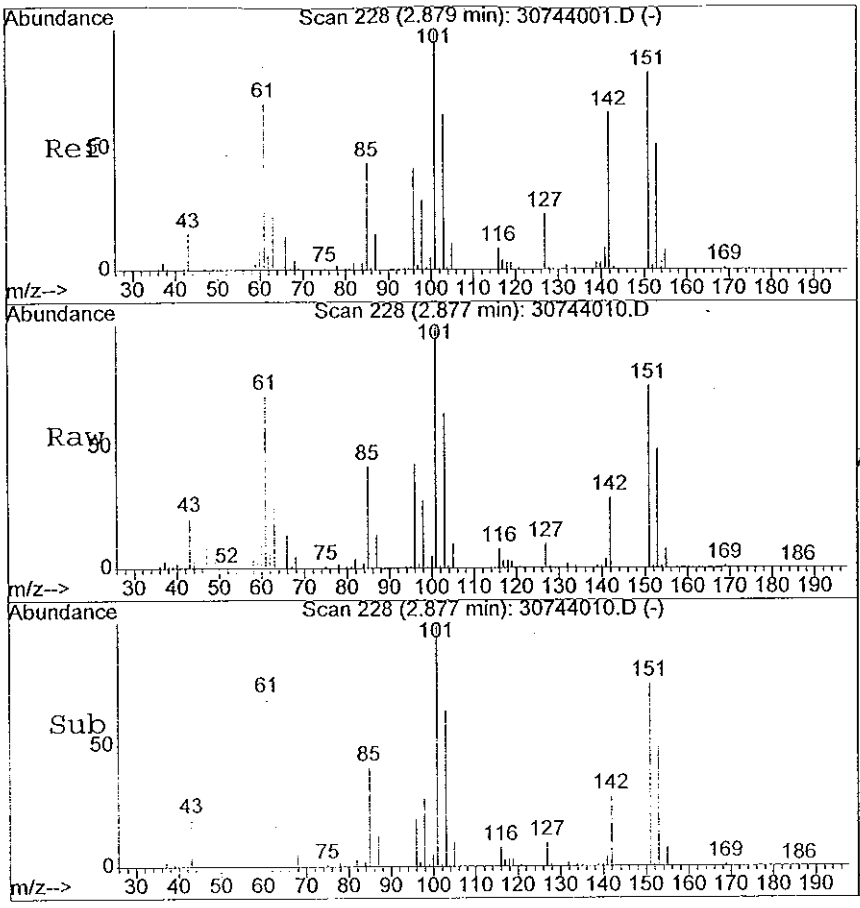
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744010.D
Acq On : 30 Oct 2001 14:43
Sample : 30ppb VOA STD
Misc : 30ppb VOA STD
MS Integration Params: rteint.p
Quant Time: Oct 31 5:28 2001

Vial: 16
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Continuing Cal File: D:\HPCHEM\1\DATA\103001\30744002.D

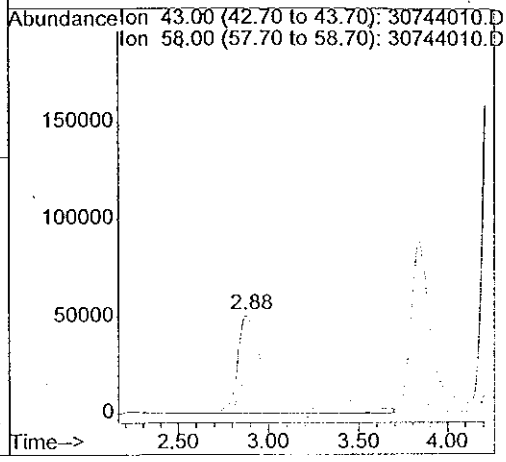




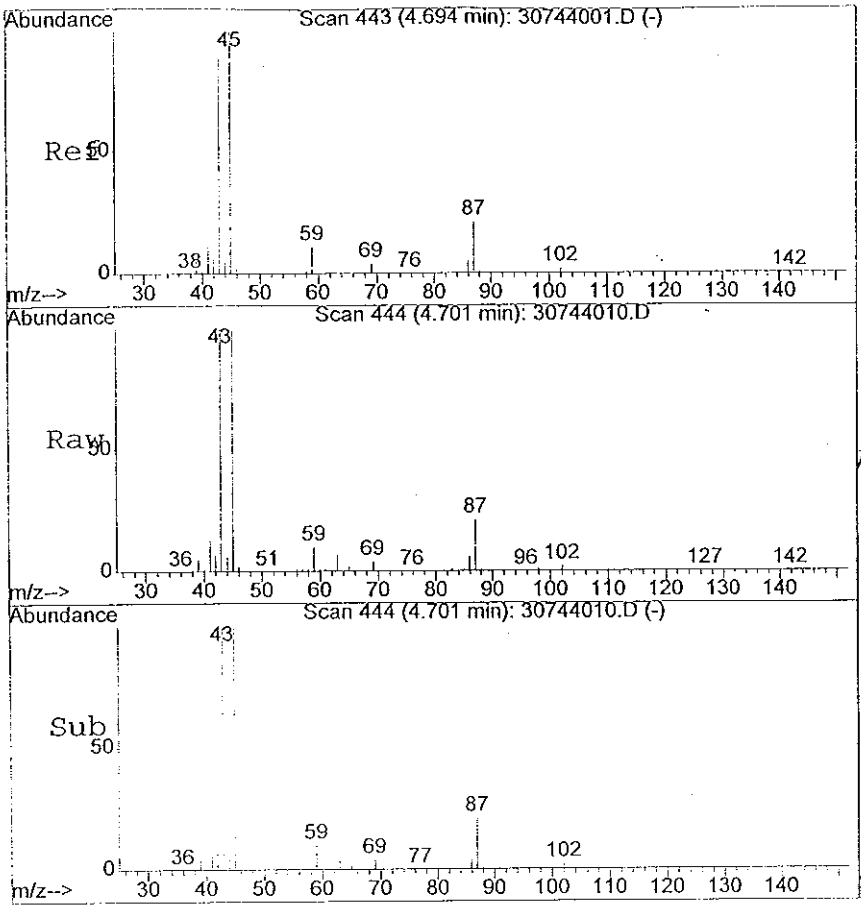
#9
Acetone
Concen: 127.45 ug/L m
RT: 2.88 min Scan# 228
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 740291

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	131.5



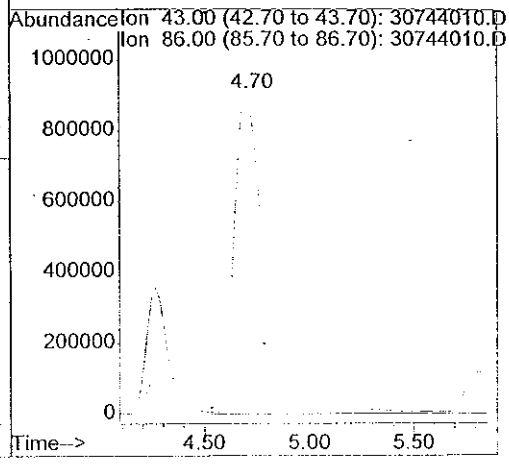
10-31
for 10/31-01



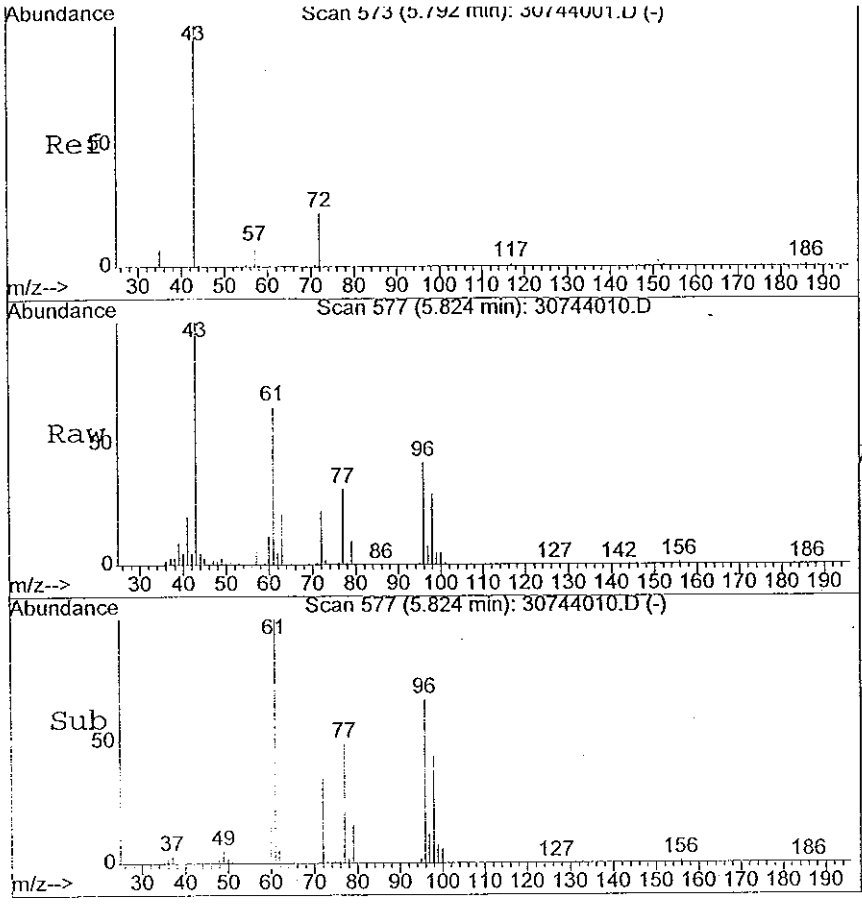
#16
Vinyl acetate
Concen: 62.79 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 9521011

Ion	Ratio	Lower	Upper
43	100		
86	6.5	0.0	105.9



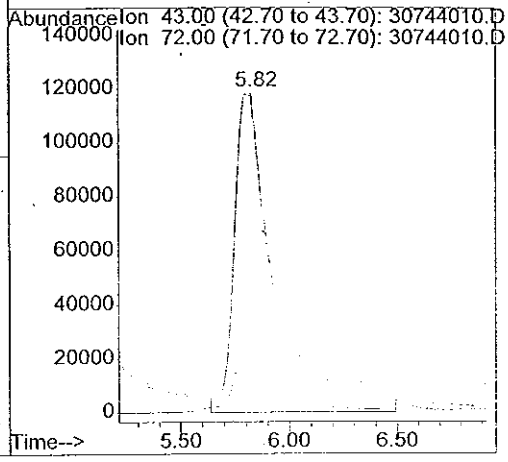
10-31
10-31-01



#19
2-Butanone
Concen: 126.39 ug/L m
RT: 5.82 min Scan# 577
Delta R.T. 0.03 min
Lab File: 30744010.D
Acq: 30 Oct 2001 14:43

Tgt Ion: 43 Resp: 1556821

Ion	Ratio	Lower	Upper
43	100		
72	22.4	0.0	120.5



10-31
10-31-01

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
24)	S	s-Dibromofluorometha	10.16	10.00	101.65	77 to 119%	[ ]
36)	S	s-Toluene-d8	10.02	10.00	100.17	78 to 118%	[ ]
56)	S	s-4-Bromofluorobenze	10.01	10.00	100.07	79 to 116%	[ ]
2)	T	Dichlorodifluorometh	8.95	10.00	89.48	30 to 152%	[ ]
3)	PM	Chloromethane	9.52	10.00	95.23	60 to 118%	[ ]
4)	CM	Vinyl chloride	9.42	10.00	94.23	72 to 116%	[ ]
5)	T	Bromomethane	9.91	10.00	99.15	63 to 140%	[ ]
6)	T	Chloroethane	9.78	10.00	97.85	76 to 116%	[ ]
7)	T	Trichlorofluorometha	10.07	10.00	100.66	84 to 118%	[ ]
8)	CM	1,1-Dichloroethene	9.79	10.00	97.89	84 to 117%	[ ]
9)	T	Acetone	16.09	20.00	80.43	24 to 158%	[ ]
10)	T	Iodomethane	10.20	10.00	101.96	60 to 135%	[ ]
11)	T	Carbon disulfide	10.55	10.00	105.47	79 to 118%	[ ]
12)	T	Methylene chloride	10.35	10.00	103.46	81 to 117%	[ ]
13)	T	trans-1,2-Dichloroet	9.80	10.00	98.01	88 to 112%	[ ]
14)	T	Methyl tert-butyl et	10.31	10.00	103.10	69 to 131%	[ ]
15)	PM	1,1-Dichloroethane	9.62	10.00	96.25	90 to 114%	[ ]
16)	T	Vinyl acetate	16.02	20.00	80.08	75 to 114%	[ ]
17)	T	Isopropyl ether	10.79	10.00	107.90	81 to 118%	[ ]
18)	T	2,2-Dichloropropane	9.71	10.00	97.11	74 to 112%	[ ]
19)	T	2-Butanone	20.84	20.00	104.18	23 to 184%	[ ]
20)	T	cis-1,2-Dichloroethe	10.58	10.00	105.80	90 to 117%	[ ]
21)	T	Bromochloromethane	10.35	10.00	103.45	91 to 129%	[ ]
22)	CM	Chloroform	10.04	10.00	100.44	90 to 115%	[ ]
23)	T	1,1,1-Trichloroethan	10.25	10.00	102.52	88 to 117%	[ ]
26)	T	Carbon tetrachloride	9.18	10.00	91.83	73 to 116%	[ ]
27)	T	1,1-Dichloropropene	10.09	10.00	100.91	84 to 112%	[ ]
28)	T	Benzene	9.73	10.00	97.28	89 to 111%	[ ]
29)	T	1,2-Dichloroethane	9.96	10.00	99.56	88 to 125%	[ ]
30)	T	Trichloroethene	9.77	10.00	97.67	85 to 108%	[ ]
31)	CM	1,2-Dichloropropane	10.21	10.00	102.06	87 to 112%	[ ]
32)	T	Dibromomethane	10.29	10.00	102.86	83 to 125%	[ ]
33)	T	2-Chloroethyl vinyl	0.57	10.00	5.71	0 to 137%	[ ]
34)	T	Bromodichloromethane	10.08	10.00	100.85	87 to 119%	[ ]
35)	T	cis-1,3-Dichloroprop	10.24	10.00	102.41	61 to 133%	[ ]
37)	CM	Toluene	9.72	10.00	97.17	85 to 117%	[ ]
38)	T	trans-1,3-Dichloropr	10.61	10.00	106.14	51 to 141%	[ ]
39)	T	1,1,2-Trichloroethan	10.18	10.00	101.82	86 to 121%	[ ]
40)	T	Tetrachloroethene	9.75	10.00	97.50	88 to 117%	[ ]
41)	T	1,3-Dichloropropane	10.70	10.00	106.98	73 to 124%	[ ]
42)	T	Dibromochloromethane	10.38	10.00	103.84	73 to 125%	[ ]

* = out of control limits
Wed Oct 31 05:36:32 2001

LCS Blank Summary Report

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Multiple Level Calibration

		Compound Name	Conc	Added	Recv(%)	QC Range	Q
43)	T	1,2-Dibromoethane	10.30	10.00	103.00	31 to 152%	[ ]
44)	T	4-Methyl-2-pentanone	19.55	20.00	97.74	70 to 128%	[ ]
45)	T	2-Hexanone	20.32	20.00	101.59	28 to 169%	[ ]
47)	PM	Chlorobenzene	9.77	10.00	97.73	93 to 113%	[ ]
48)	T	1,1,1,2-Tetrachloroe	10.07	10.00	100.74	75 to 125%	[ ]
49)	T	1-Chlorohexane	0.00	10.00	0.00	50 to 150%	[*]
50)	CM	Ethylbenzene	9.61	10.00	96.10	69 to 123%	[ ]
51)	T	m,p-Xylene	19.84	20.00	99.19	70 to 125%	[ ]
52)	T	o-Xylene	10.02	10.00	100.16	73 to 122%	[ ]
53)	T	Styrene	9.94	10.00	99.41	76 to 127%	[ ]
54)	PM	Bromoform	10.58	10.00	105.82	52 to 127%	[ ]
55)	T	Isopropylbenzene	9.86	10.00	98.58	56 to 134%	[ ]
58)	T	Bromobenzene	9.64	10.00	96.38	63 to 153%	[ ]
59)	PM	1,1,2,2-Tetrachloroe	9.89	10.00	98.95	69 to 134%	[ ]
60)	T	1,2,3-Trichloropropa	10.42	10.00	104.17	38 to 159%	[ ]
61)	T	n-Propylbenzene	9.91	10.00	99.10	73 to 116%	[ ]
62)	T	2-Chlorotoluene	9.86	10.00	98.62	84 to 121%	[ ]
63)	T	4-Chlorotoluene	10.15	10.00	101.49	90 to 113%	[ ]
64)	T	1,3,5-Trimethylbenze	9.62	10.00	96.17	84 to 125%	[ ]
65)	T	tert-Butylbenzene	9.55	10.00	95.51	66 to 115%	[ ]
66)	T	1,2,4-Trimethylbenze	10.09	10.00	100.91	63 to 142%	[ ]
67)	T	sec-Butylbenzene	9.85	10.00	98.55	53 to 134%	[ ]
68)	T	1,3-Dichlorobenzene	9.70	10.00	96.99	90 to 113%	[ ]
69)	T	p-Isopropyltoluene	10.17	10.00	101.73	30 to 172%	[ ]
70)	T	1,4-Dichlorobenzene	9.79	10.00	97.95	92 to 113%	[ ]
71)	T	1,2-Dichlorobenzene	9.84	10.00	98.39	87 to 115%	[ ]
72)	T	n-Butylbenzene	10.70	10.00	106.97	0 to 237%	[ ]
73)	T	1,2-Dibromo-3-chloro	10.78	10.00	107.75	56 to 125%	[ ]
74)	T	1,2,4-Trichlorobenze	10.70	10.00	106.99	31 to 211%	[ ]
75)	T	Hexachlorobutadiene	11.15	10.00	111.51	74 to 140%	[ ]
76)	T	Naphthalene	10.96	10.00	109.62	18 to 229%	[ ]
77)	T	1,2,3-Trichlorobenze	10.73	10.00	107.30	43 to 204%	[ ]

* = out of control limits
Wed Oct 31 05:36:32 2001

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A
IS QA File : D:\HPCHEM\1\DATA\103001\30744002.D (30 Oct 2001 9:23)

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) i-Pentafluorobenzene	7.24	168	2973636	10.00	ug/L	0.00 100.35%
25) i-1,4-Difluorobenzene	9.06	114	3023394	10.00	ug/L	0.00 99.66%
46) i-Chlorobenzene-d5	15.30	117	2127272	10.00	ug/L	0.00 99.08%
57) i-1,4-Dichlorobenzene-d4	22.67	152	1187163	10.00	ug/L	0.00 98.62%
System Monitoring Compounds						
24) s-Dibromofluoromethane	6.94	113	1399872	10.16	ug/L	0.00
Spiked Amount 10.000	Range 77 - 119		Recovery = 101.60%			
36) s-Toluene-d8	12.32	98	2869166	10.02	ug/L	0.00
Spiked Amount 10.000	Range 78 - 118		Recovery = 100.20%			
56) s-4-Bromofluorobenzene	18.79	95	1617782	10.01	ug/L	0.00
Spiked Amount 10.000	Range 79 - 116		Recovery = 100.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.35	85	1351971	8.95	ug/L	98
3) Chloromethane	1.50	50	917300	9.52	ug/L	98
4) Vinyl chloride	1.59	62	953052	9.42	ug/L	99
5) Bromomethane	1.89	96	906139	9.91	ug/L	98
6) Chloroethane	1.98	64	579977	9.78	ug/L	95
7) Trichlorofluoromethane	2.23	101	1665969	10.07	ug/L	99
8) 1,1-Dichloroethene	2.78	96	952354	9.79	ug/L	99
9) Acetone	2.86	43	93381m	16.09	ug/L	93
10) Iodomethane	2.94	142	1220925	10.20	ug/L	100
11) Carbon disulfide	3.00	76	3225156	10.55	ug/L	100
12) Methylene chloride	3.41	84	821959	10.35	ug/L	96
13) trans-1,2-Dichloroethene	3.79	96	1057764	9.80	ug/L	99
14) Methyl tert-butyl ether	3.83	73	1223792	10.31	ug/L	100
15) 1,1-Dichloroethane	4.48	63	1846177	9.62	ug/L	99
16) Vinyl acetate	4.70	43	2328403m	16.02	ug/L	96
17) Isopropyl ether	4.72	45	3255994	10.79	ug/L	100
18) 2,2-Dichloropropane	5.60	77	1381229	9.71	ug/L	99
19) 2-Butanone	5.80	43	250575m	20.84	ug/L	91
20) cis-1,2-Dichloroethene	5.65	96	1037225	10.58	ug/L	95
21) Bromochloromethane	6.21	128	399023	10.35	ug/L	97
22) Chloroform	6.51	83	1927682	10.04	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1,1-Trichloroethane	6.85	97	1643776	10.25	ug/L	100
26) Carbon tetrachloride	7.30	119	1387160	9.18	ug/L	100
27) 1,1-Dichloropropene	7.34	110	495624	10.09	ug/L	100
28) Benzene	7.87	78	3192959	9.73	ug/L	99
29) 1,2-Dichloroethane	8.00	62	653157	9.96	ug/L	96
30) Trichloroethene	9.58	95	1291869	9.77	ug/L	98
31) 1,2-Dichloropropane	10.08	63	1119985	10.21	ug/L	99
32) Dibromomethane	10.35	93	503678	10.29	ug/L	99
33) 2-Chloroethyl vinyl ether	11.41	63	10363	0.57	ug/L	50
34) Bromodichloromethane	10.81	83	1531310	10.08	ug/L	98
35) cis-1,3-Dichloropropene	11.82	75	1210396	10.24	ug/L	99
37) Toluene	12.46	92	2053379	9.72	ug/L	100
38) trans-1,3-Dichloropropene	13.05	75	773540	10.61	ug/L	98
39) 1,1,2-Trichloroethane	13.39	83	498440	10.18	ug/L	98
40) Tetrachloroethene	13.57	166	1489148	9.75	ug/L	99
41) 1,3-Dichloropropane	13.69	76	1000373	10.70	ug/L	99
42) Dibromochloromethane	14.13	129	926124	10.38	ug/L	98
43) 1,2-Dibromoethane	14.27	107	623955	10.30	ug/L	97
44) 4-Methyl-2-pentanone	12.26	43	672991	19.55	ug/L	99
45) 2-Hexanone	14.01	43	421508	20.32	ug/L	99
47) Chlorobenzene	15.36	112	2183383	9.77	ug/L	100
48) 1,1,1,2-Tetrachloroethane	15.62	131	995875	10.07	ug/L	98
50) Ethylbenzene	15.71	106	1159413	9.61	ug/L	100
51) m,p-Xylene	16.02	106	2881113	19.84	ug/L	99
52) o-Xylene	17.08	106	1353170	10.02	ug/L	98
53) Styrene	17.15	104	2130325	9.94	ug/L	99
54) Bromoform	17.61	173	551199	10.58	ug/L	100
55) Isopropylbenzene	18.34	105	4278298	9.86	ug/L	100
58) Bromobenzene	19.18	156	1062181	9.64	ug/L	98
59) 1,1,2,2-Tetrachloroethane	19.56	83	756665	9.89	ug/L	99
60) 1,2,3-Trichloropropane	19.56	75	437430	10.42	ug/L	99
61) n-Propylbenzene	19.82	120	1068885	9.91	ug/L	100
62) 2-Chlorotoluene	19.96	126	1002100	9.86	ug/L	100
63) 4-Chlorotoluene	20.35	91	3602027	10.15	ug/L	100
64) 1,3,5-Trimethylbenzene	20.50	105	3177877	9.62	ug/L	100
65) tert-Butylbenzene	21.53	91	2068890	9.55	ug/L	99
66) 1,2,4-Trimethylbenzene	21.69	105	2925646	10.09	ug/L	99
67) sec-Butylbenzene	22.26	105	4693107	9.85	ug/L	99
68) 1,3-Dichlorobenzene	22.42	146	1967378	9.70	ug/L	98
69) p-Isopropyltoluene	22.80	119	3647527	10.17	ug/L	99
70) 1,4-Dichlorobenzene	22.73	146	1895494	9.79	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D Vial: 2
Acq On : 30 Oct 2001 16:03 Operator: GRH
Sample : 2nd SOURCE STD 8-MSW-25-2 Inst : Bubba
Misc : IND CHK STD 8-MSW-25-2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001 Quant Results File: V82625B1.RES

Quant Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration
DataAcq Meth : V82625A

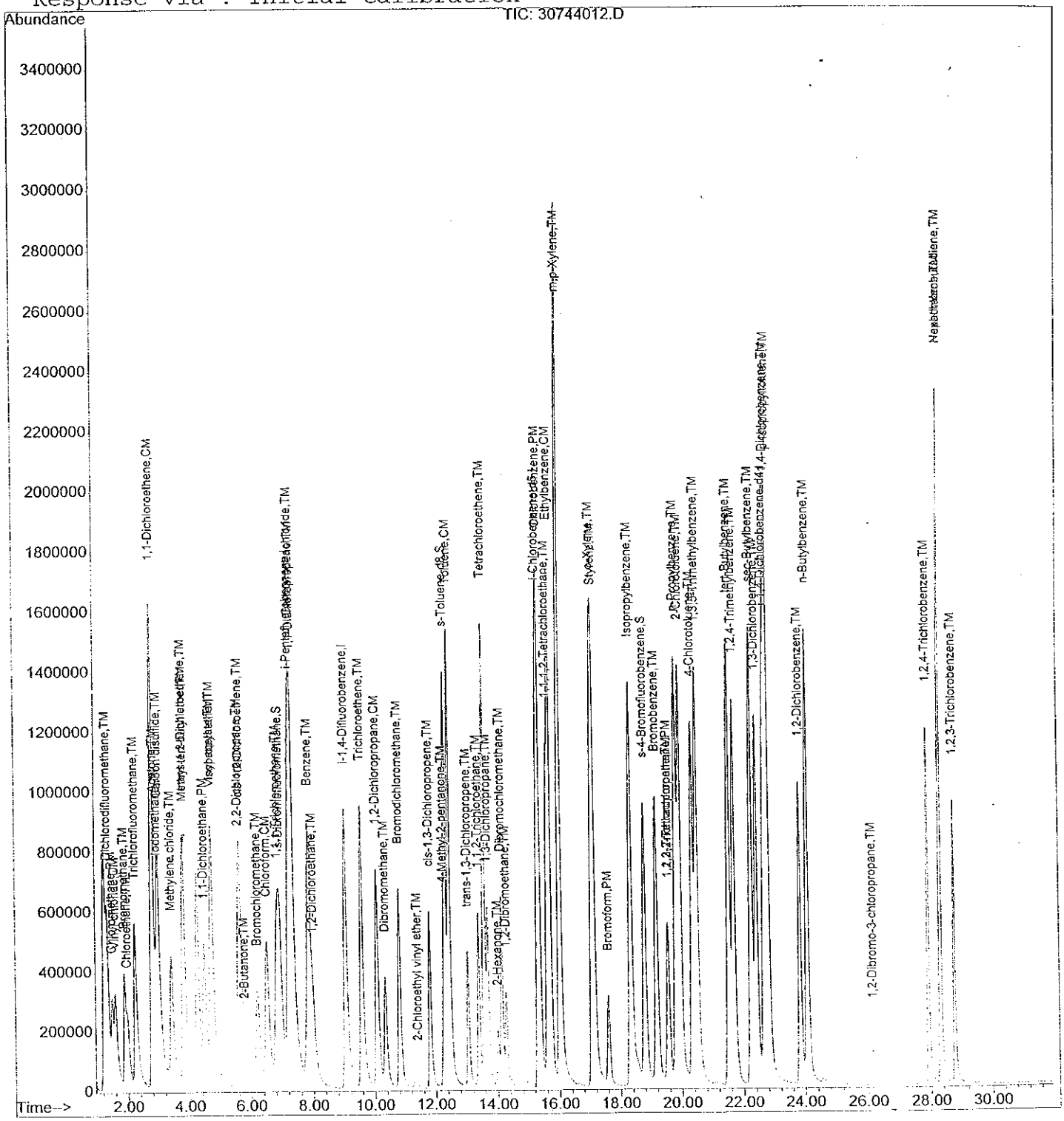
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71)	1,2-Dichlorobenzene	23.83	146	1587860	9.84	ug/L	99
72)	n-Butylbenzene	24.07	91	3552155	10.70	ug/L	100
73)	1,2-Dibromo-3-chloropropan	26.15	75	111239	10.78	ug/L	94
74)	1,2,4-Trichlorobenzene	27.92	180	969328	10.70	ug/L	98
75)	Hexachlorobutadiene	28.31	225	1013555	11.15	ug/L	99
76)	Naphthalene	28.32	128	757496	10.96	ug/L	100
77)	1,2,3-Trichlorobenzene	28.76	180	724717	10.73	ug/L	100

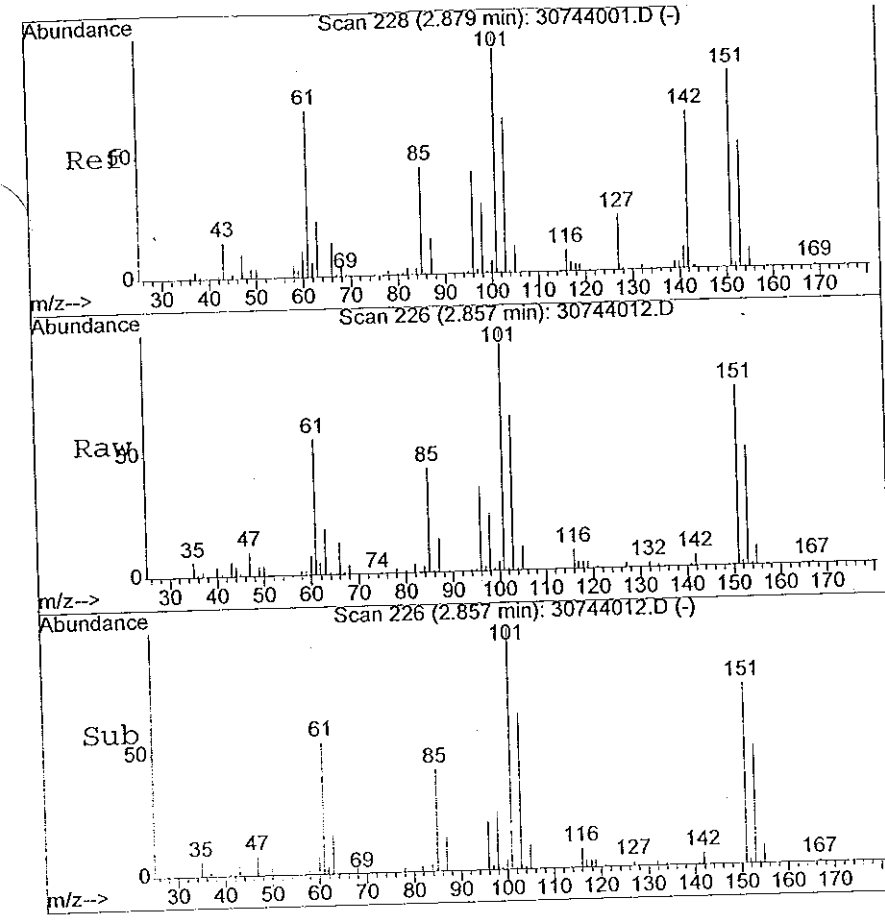
(#) = qualifier out of range (m) = manual integration

Data File : D:\HPCHEM\1\DATA\103001\30744012.D
Acq On : 30 Oct 2001 16:03
Sample : 2nd SOURCE STD 8-MSW-25-2
Misc : IND CHK STD 8-MSW-25-2
MS Integration Params: rteint.p
Quant Time: Oct 31 5:34 2001

Vial: 2
Operator: GRH
Inst : Bubba
Multiplr: 1.00
Quant Results File: V82625B1.RE

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:33:08 2001
Response via : Initial Calibration

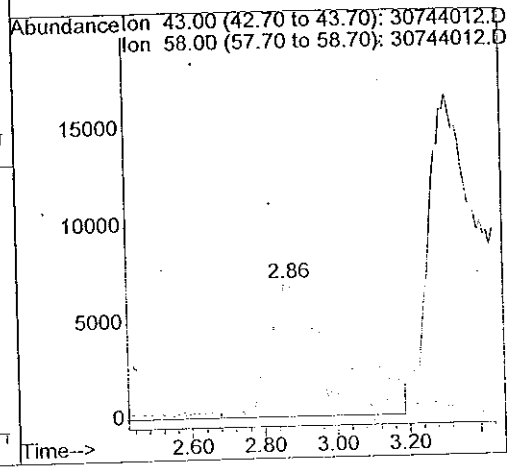




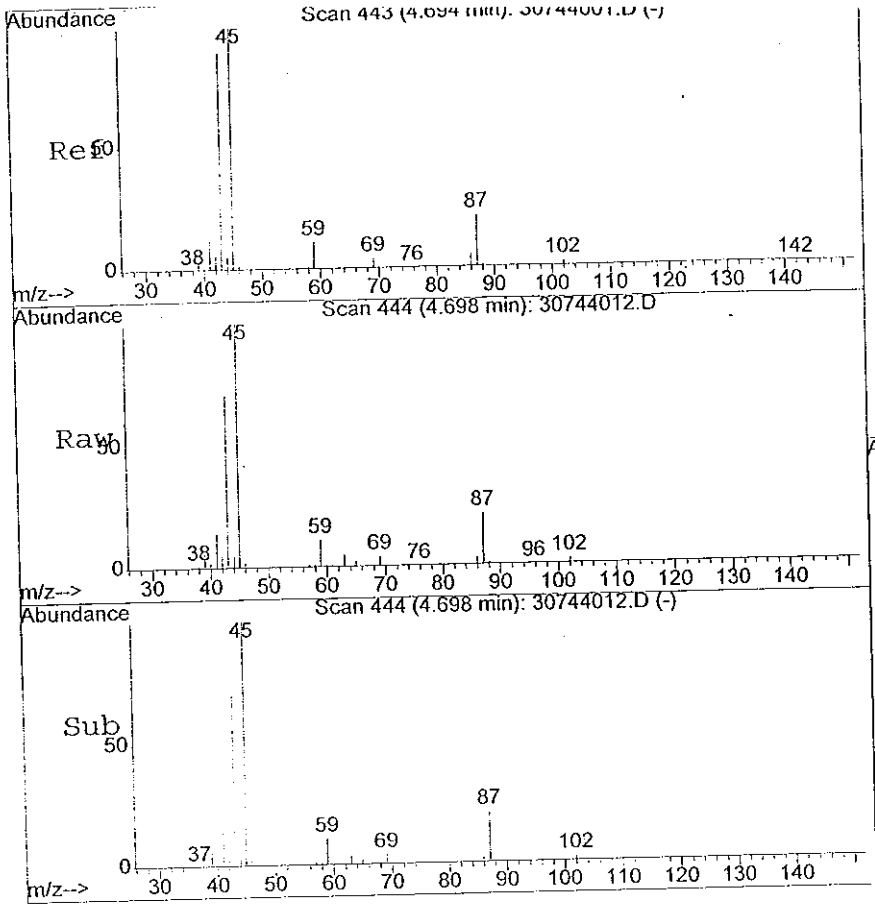
#9
Acetone
Concen: 16.09 ug/L m
RT: 2.86 min Scan# 226
Delta R.T. -0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 93381

Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	131.5



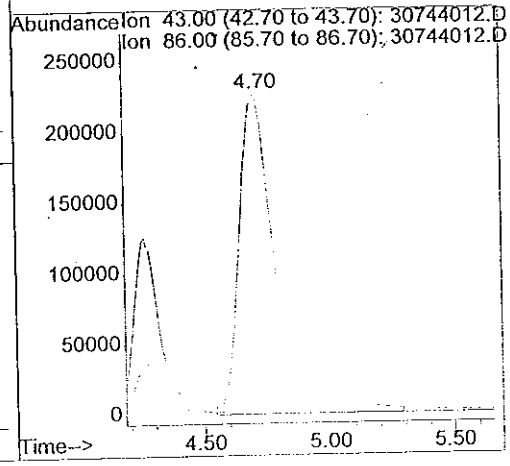
10-31
10-31-01



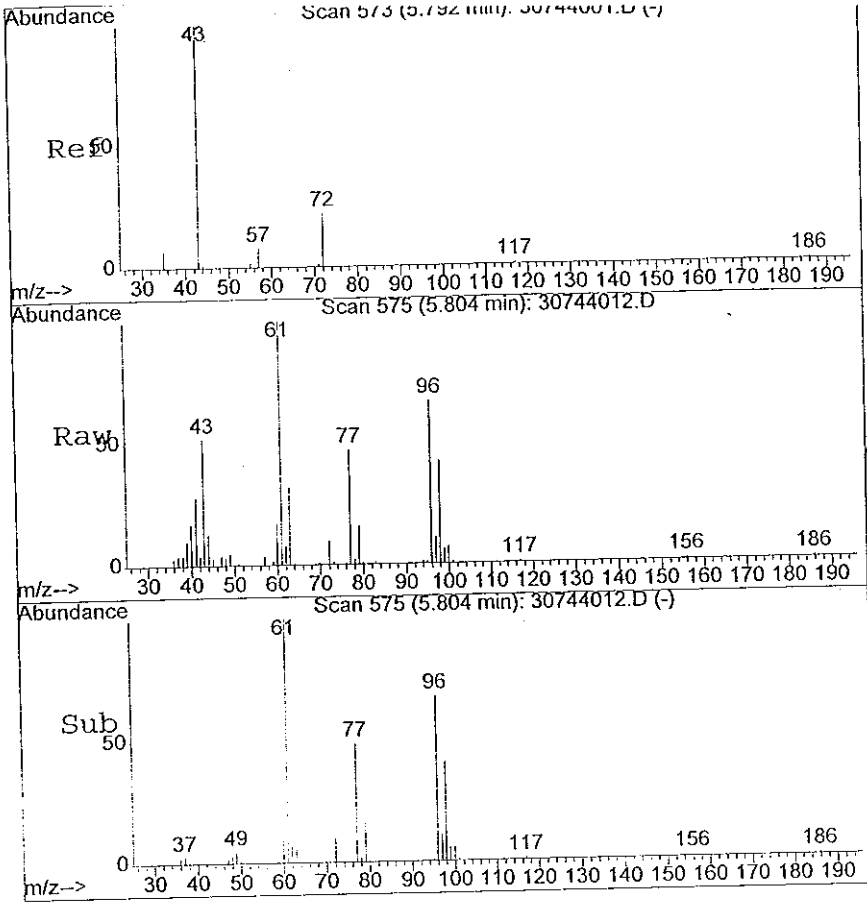
#16
Vinyl acetate
Concen: 16.02 ug/L m
RT: 4.70 min Scan# 444
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43 Resp: 2328403

Ion	Ratio	Lower	Upper
43	100		
86	4.4	0.0	105.9

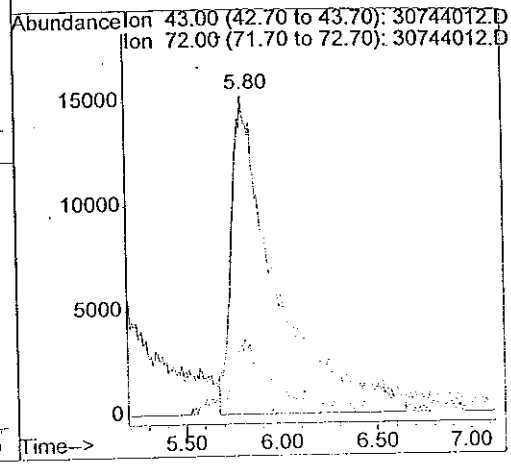


10-31
10-31-01



#19
2-Butanone
Concen: 20.84 ug/L m
RT: 5.80 min Scan# 575
Delta R.T. 0.01 min
Lab File: 30744012.D
Acq: 30 Oct 2001 16:03

Tgt Ion: 43	Resp:	250575	
Ion	Ratio	Lower	Upper
43	100		
72	19.8	0.0	120.5



10-31
10-31-01

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

10-31

Calibrated through 30ppb. WO 10-31-01

Calibration Files

0.3	=30744006.D	0.5	=30744007.D	1.0	=30744005.D
2.0	=30744004.D	5.0	=30744003.D	10	=30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
1)	I	i-Pentafluorobenzene	----------			ISTD	----------			
2)	TM	Dichlorodifluoromet	0.611	0.520	0.510	0.531	0.491	0.482	0.508	9.66
3)	PM	Chloromethane	0.389	0.349	0.331	0.285	0.312	0.317	0.324	10.05
4)	CM	Vinyl chloride	0.393	0.365	0.343	0.341	0.325	0.326	0.340	8.09
5)	TM	Bromomethane	0.377	0.311	0.331	0.304	0.281	0.296	0.307	10.91
6)	TM	Chloroethane	0.225	0.200	0.212	0.201	0.190	0.195	0.199	6.99
7)	TM	Trichlorofluorometh	0.618	0.566	0.544	0.589	0.552	0.545	0.557	6.07
8)	CM	1,1-Dichloroethene	0.371	0.322	0.338	0.331	0.321	0.317	0.327	6.29
9)	TM	Acetone			0.029	0.020	0.020	0.019	----- #	
								L	M= 0.019	R^2=0.996
									B= -0.000	
10)	TM	Iodomethane	0.436	0.379	0.383	0.390	0.376	0.405	0.403	6.04
11)	TM	Carbon disulfide	1.158	1.015	1.019	1.056	1.005	1.010	1.028	5.59
12)	TM	Methylene chloride	0.281	0.258	0.272	0.252	0.270	0.268	0.267	3.25
13)	TM	trans-1,2-Dichloroe	0.395	0.364	0.372	0.357	0.354	0.364	0.363	4.25
14)	TM	Methyl tert-butyl e	0.445	0.369	0.404	0.349	0.401	0.397	0.399	7.68
15)	PM	1,1-Dichloroethane	0.722	0.641	0.667	0.616	0.635	0.645	0.645	5.53
16)	TM	Vinyl acetate			0.512	0.454	0.486	0.491	0.489	4.60
17)	TM	Isopropyl ether	1.093	0.962	1.040	0.917	1.023	1.039	1.015	5.33
18)	TM	2,2-Dichloropropane	0.514	0.448	0.489	0.486	0.461	0.484	0.478	4.25
19)	TM	2-Butanone			0.044	0.036	0.041	0.040	0.040#	6.96
20)	TM	cis-1,2-Dichloroeth	0.187	0.312	0.355	0.319	0.318	0.340	-----	
								L	M= 0.331	R^2=1.000
									B= -0.000	
21)	TM	Bromochloromethane	0.146	0.118	0.126	0.123	0.133	0.130	0.130	6.30
22)	CM	Chloroform	0.697	0.665	0.658	0.618	0.633	0.641	0.645	4.06
23)	TM	1,1,1-Trichloroetha	0.571	0.519	0.535	0.546	0.541	0.546	0.539	3.00
24)	S	s-Dibromofluorometh	0.450	0.456	0.473	0.450	0.474	0.467	0.463	2.19
25)	I	i-1,4-Difluorobenzene	----------			ISTD	----------			
26)	TM	Carbon tetrachlorid	0.651	0.525	0.517	0.503	0.460	0.456	0.500	13.94
27)	TM	1,1-Dichloropropene		0.284	0.150	0.209	0.178	0.162	-----	
								L	M= 0.157	R^2=0.999
									B= 0.006	
28)	TM	Benzene	1.236	1.083	1.083	1.098	1.071	1.061	1.086	6.15
29)	TM	1,2-Dichloroethane	0.255	0.227	0.221	0.195	0.211	0.211	0.217	8.36
30)	TM	Trichloroethene	0.502	0.449	0.453	0.431	0.425	0.422	0.437	6.97
31)	CM	1,2-Dichloropropane	0.433	0.340	0.375	0.347	0.360	0.355	0.363	8.35
32)	TM	Dibromomethane	0.184	0.158	0.164	0.152	0.164	0.158	0.162	6.15
33)	TM	2-Chloroethyl vinyl	0.062	0.059	0.058	0.053	0.061	0.063	0.060	5.83
34)	TM	Bromodichloromethan	0.570	0.495	0.503	0.478	0.499	0.496	0.502	5.88
35)	TM	cis-1,3-Dichloropro	0.431	0.378	0.395	0.374	0.395	0.389	0.391	4.89
36)	S	s-Toluene-d8	0.941	0.942	0.954	0.941	0.958	0.948	0.947	0.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Bubba

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RSD
37)	CM	Toluene	0.812	0.714	0.717	0.692	0.678	0.677	0.699	7.43
38)	TM	trans-1,3-Dichlorop	0.245	0.229	0.243	0.223	0.251	0.245	0.241	4.62
39)	TM	1,1,2-Trichloroetha	0.186	0.168	0.164	0.145	0.162	0.157	0.162	7.67
40)	TM	Tetrachloroethene	0.593	0.513	0.514	0.511	0.498	0.485	0.505	8.13
41)	TM	1,3-Dichloropropane	0.342	0.304	0.315	0.289	0.313	0.303	0.309	5.26
42)	TM	Dibromochloromethan	0.314	0.280	0.296	0.274	0.304	0.294	0.295	4.77
43)	TM	1,2-Dibromoethane	0.217	0.190	0.204	0.186	0.210	0.201	0.200	5.52
44)	TM	4-Methyl-2-pentanon			0.123	0.100	0.121	0.108	0.114	8.64
45)	TM	2-Hexanone			0.067	0.058	0.072	0.069	0.069	10.17
46)	I	i-Chlorobenzene-d5	----------ISTD----------							
47)	PM	Chlorobenzene	1.187	1.047	1.068	1.048	1.045	1.021	1.050	5.90
48)	TM	1,1,1,2-Tetrachloro	0.501	0.446	0.478	0.461	0.473	0.458	0.465	4.08
49)	TM	1-Chlorohexane							0.000#	-1.00
50)	CM	Ethylbenzene	0.655	0.572	0.582	0.583	0.559	0.545	0.567	7.57
51)	TM	m,p-Xylene	0.755	0.673	0.701	0.684	0.669	0.672	0.683	4.85
52)	TM	o-Xylene	0.691	0.623	0.648	0.645	0.636	0.626	0.635	4.37
53)	TM	Styrene	1.081	0.974	0.977	0.986	1.029	1.007	1.007	3.54
54)	PM	Bromoform	0.250	0.224	0.245	0.225	0.253	0.248	0.245#	5.96
55)	TM	Isopropylbenzene	2.235	2.024	2.044	2.102	2.052	2.005	2.040	4.85
56)	S	s-4-Bromofluorobenz	0.742	0.730	0.760	0.752	0.774	0.772	0.760	2.27
57)	I	i-1,4-Dichlorobenzene	----------ISTD----------							
58)	TM	Bromobenzene	1.097	0.974	0.974	0.937	0.907	0.868	0.928	9.50
59)	PM	1,1,2,2-Tetrachloro	0.775	0.655	0.683	0.587	0.650	0.608	0.644	9.88
60)	TM	1,2,3-Trichloroprop	0.620	0.405	0.353	0.354	0.382	0.351	-----	
								L	M= 0.351	R^2=0.999
									B= 0.002	
61)	TM	n-Propylbenzene	1.039	0.903	0.896	0.941	0.911	0.894	0.909	6.86
62)	TM	2-Chlorotoluene	1.050	0.883	0.883	0.885	0.839	0.804	0.856	11.19
63)	TM	4-Chlorotoluene	3.078	3.122	3.182	3.077	3.028	2.869	2.990	5.26
64)	TM	1,3,5-Trimethylbenz	3.246	2.785	2.886	2.926	2.731	2.655	2.784	8.62
65)	TM	tert-Butylbenzene	2.153	1.872	1.928	1.878	1.774	1.718	1.825	9.44
66)	TM	1,2,4-Trimethylbenz	2.699	2.304	2.452	2.461	2.402	2.447	2.442	4.74
67)	TM	sec-Butylbenzene	4.542	3.956	3.975	4.168	3.957	3.907	4.012	6.11
68)	TM	1,3-Dichlorobenzene	2.047	1.694	1.805	1.722	1.674	1.631	1.709	9.45
69)	TM	p-Isopropyltoluene	3.230	2.862	2.997	3.107		2.995	3.020	3.88
70)	TM	1,4-Dichlorobenzene	2.016	1.673	1.684	1.597	1.538	1.499	1.630	10.53
71)	TM	1,2-Dichlorobenzene	1.598	1.380	1.427	1.354	1.339	1.292	1.359	8.53
72)	TM	n-Butylbenzene	2.789	2.380	2.580	2.768	2.766	2.965	2.797	8.52
73)	TM	1,2-Dibromo-3-chlor	0.094	0.087	0.093	0.083	0.090	0.084	0.087	5.74
74)	TM	1,2,4-Trichlorobenz	0.848	0.648	0.738	0.695	0.747	0.789	0.763	9.03
75)	TM	Hexachlorobutadiene	1.155	0.859	0.939	0.897	0.827	0.797	-----	
								L	M= 0.742	R^2=0.999
									B= 0.030	

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : D:\HPCHEM\1\METHODS\V82625B1.M (RTE Integrator)
Title : SW-846 Method 8260A
Last Update : Wed Oct 31 05:28:10 2001
Response via : Continuing Calibration

Calibration Files
0.3 =30744006.D 0.5 =30744007.D 1.0 =30744005.D
2.0 =30744004.D 5.0 =30744003.D 10 =30744002.D

		Compound	0.3	0.5	1.0	2.0	5.0	10	Avg	%RS
76)	TM	Naphthalene	0.652	0.483	0.585	0.514	0.576	0.589	0.582	10.17
77)	TM	1,2,3-Trichlorobenz	0.657	0.473	0.602	0.532	0.582	0.586	0.569	9.43

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

SEVERN TRENT SERVICES

STL Pensacola

CASE NARRATIVE

STL Order Number: C110751
Micro Seeps Number: P0110488
Project: CH2M Hill Constructors
CTO-017, NTC Orlando, FL

The sample logged into the above-referenced order was received in good condition at STL Pensacola on October 30, 2001, and was then subcontracted to Microseeps for Metabolic Acids analyses. Micro Seeps received this sample on October 31, 2001.

Rick Hayes
Senior Project Manager

11/27/01

MICROSEEPS

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive

Pensacola, FL 32514

Order #: P0110488
Report Date: 11/16/01
Client Proj Name: SA-36
Client Proj #: 01171

Sample Identification

Lab Sample #	Client Sample ID
P0110488-01	17-3625C-Q401

Approved By: _____

NOTES:CUST REQ FULL DATA PKG, INCL MS/MSD, STDS, LCS, BLANKS, & CHROMATAGRAMS. RP

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Order #: P0110488
Report Date: 11/16/01
Client Proj Name: SA-36
Client Proj #: 01171

Client Name: Severn Trent Laboratories
Contact: Rick Hayes
Address: 3355 McLemore Drive
Pensacola, FL 32514

Lab Sample #: P0110488-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3625C-Q401	Water	29 Oct. 01 13:00	31 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Water						
Acetic Acid	< 1.0	1.0	mg/L	AM21G	bc	11/9/01
Butyric acid	< 1.0	1.0	mg/L		bc	11/9/01
Ethane	< 5.0	5.0	ng/L	AM18	bc	11/14/01
Ethene	100	5.0	ng/L		bc	11/14/01
Lactic Acid	< 25	25	mg/L	AM21G	bc	11/9/01
Methane	27	0.015	ug/L	AM20GAX	bc	11/14/01
Propionic acid	< 1.0	1.0	mg/L	AM21G	bc	11/9/01
Pyruvic acid	< 10	10	mg/L		bc	11/9/01

Chain of Custody Record

[redacted]

STL Pensacola
5355 Mcclemore Drive
Pensacola, FL 32514

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

PO110428

STL-4124 (1200) REV (1100)

Client: STL	Project Manager: RICK HAYES	Date: 10-30-01	Chain of Custody Number: 066399
Address: 3355 MCLEMORE DR	Telephone Number (Area Code)/Fax Number: 850/474-1001, FAX: 850/478-2671	Lab Number: C110751	Page 1 of 1
City: PENSACOLA / State: FL / Zip Code: 32514	Site Contact	Lab Contact	
Project Name and Location (State): SA-26 (FL)	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.: 0171			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: MEE/AM 304	VFA/AM 21G														Special Instructions/ Conditions of Receipt
17-3625C-0401	10-29-01	1300		✓									✓	✓													5	
																											(5)	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By [redacted]	10/30/01	1700	1. Received By [redacted]	10/31/01	
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

003

DISTRIBUTION: WHITE - Stays with the Sample. CANARY - Returned to Client with Report. PINK - Field Copy

Jan 23 02 04:57p STL/Pensacola 850 478-2671 p.4

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Acetic Acid

* - Replicate Not Used

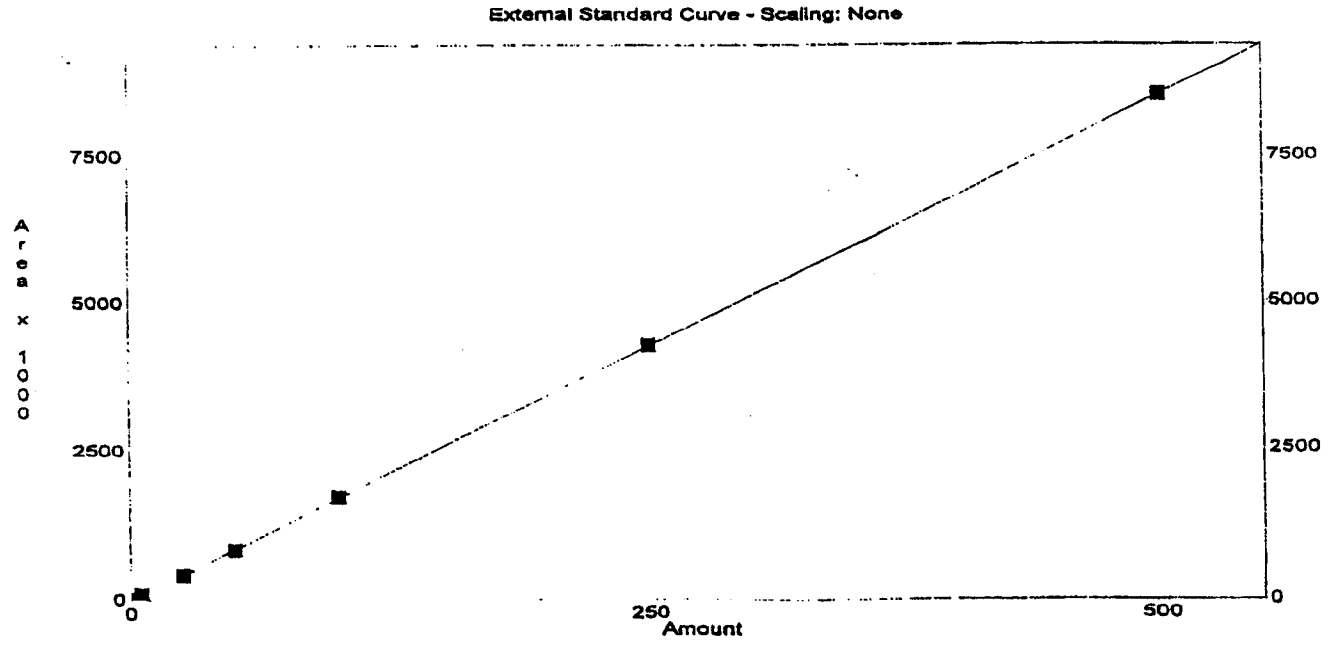
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	107381	5	21476.20	107381							0
2	427451	25	17098.04	427451							0
3	841527	50	16830.54	841527							0
4	1718680	100	17186.80	1718680							0
5	4278821	250	17115.28	4278821							0
6	8521615	500	17043.23	8521615							0

Calib Flag: Replace

Average RF: 17791.7
RF StdDev: 1809.1
RF %RSD: 10.168

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 5.87012e-005 x Area - 0.514027
R^2 = 0.999985



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Propionic Acid

* - Replicate Not Used

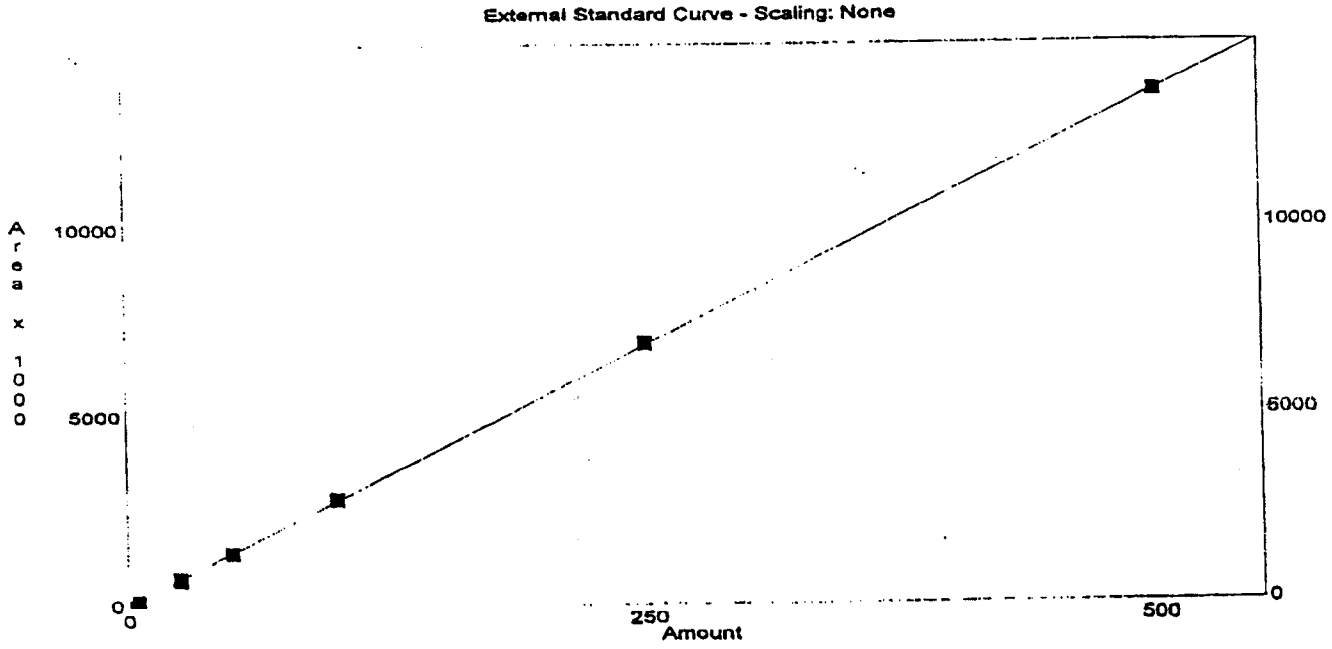
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	134063	5	26812.60	134063							0
2	678625	25	27145.00	678625							0
3	1354374	50	27087.48	1354374							0
4	2762919	100	27629.19	2762919							0
5	6869082	250	27476.33	6869082							0
6	13615526	500	27231.05	13615526							0

Calib Flag: Replace

Average RF: 27230.3
RF StdDev: 290.445
RF %RSD: 1.067

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.66847e-005 x Area - 0.387884
R^2 = 0.999971



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:49
Channel : A
Peak : Pyruvic Acid

* - Replicate Not Used

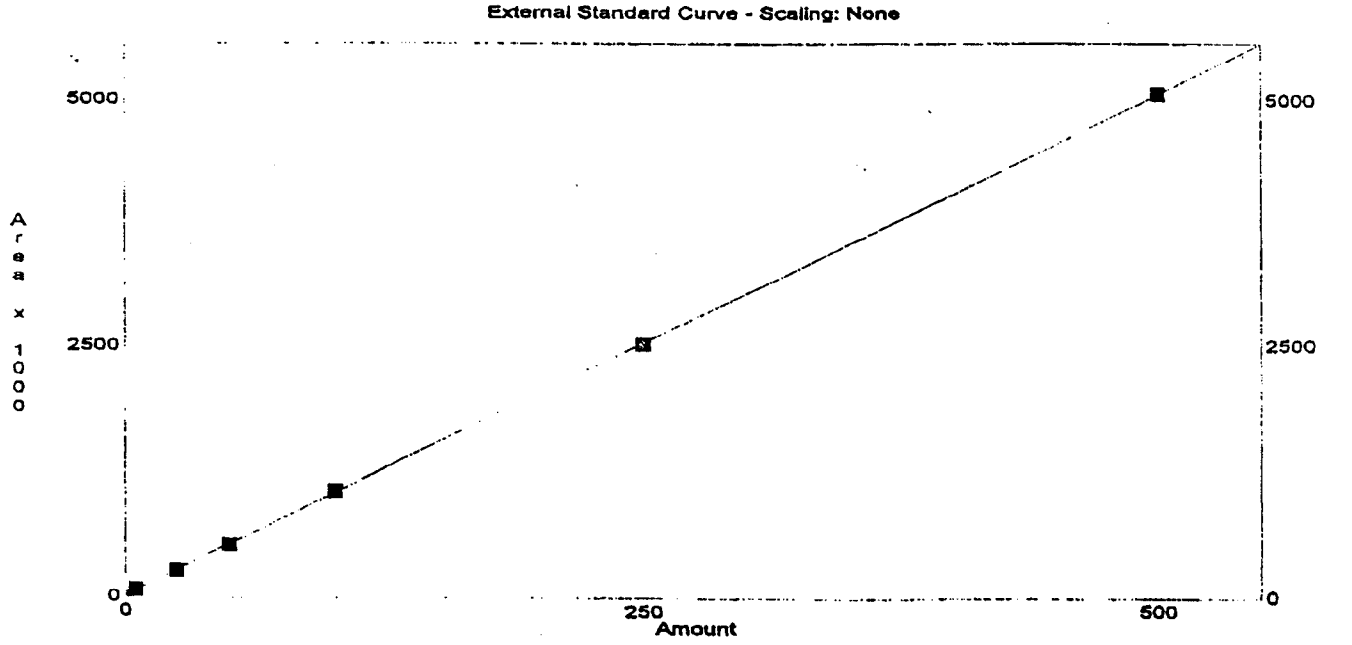
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	72265	5	14453.00	72265							0
2	260157	25	10406.28	260157							0
3	509391	50	10187.82	509391							0
4	1037188	100	10371.88	1037188							0
5	2520360	250	10081.44	2520360							0
6	5067290	500	10134.58	5067290							0

Calib Flag: Replace

Average RF: 10939.2
RF StdDev: 1726.29
RF %RSD: 15.781

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 9.90435e-005 x Area - 1.26843
R^2 = 0.999962



Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Butyric Acid

* - Replicate Not Used

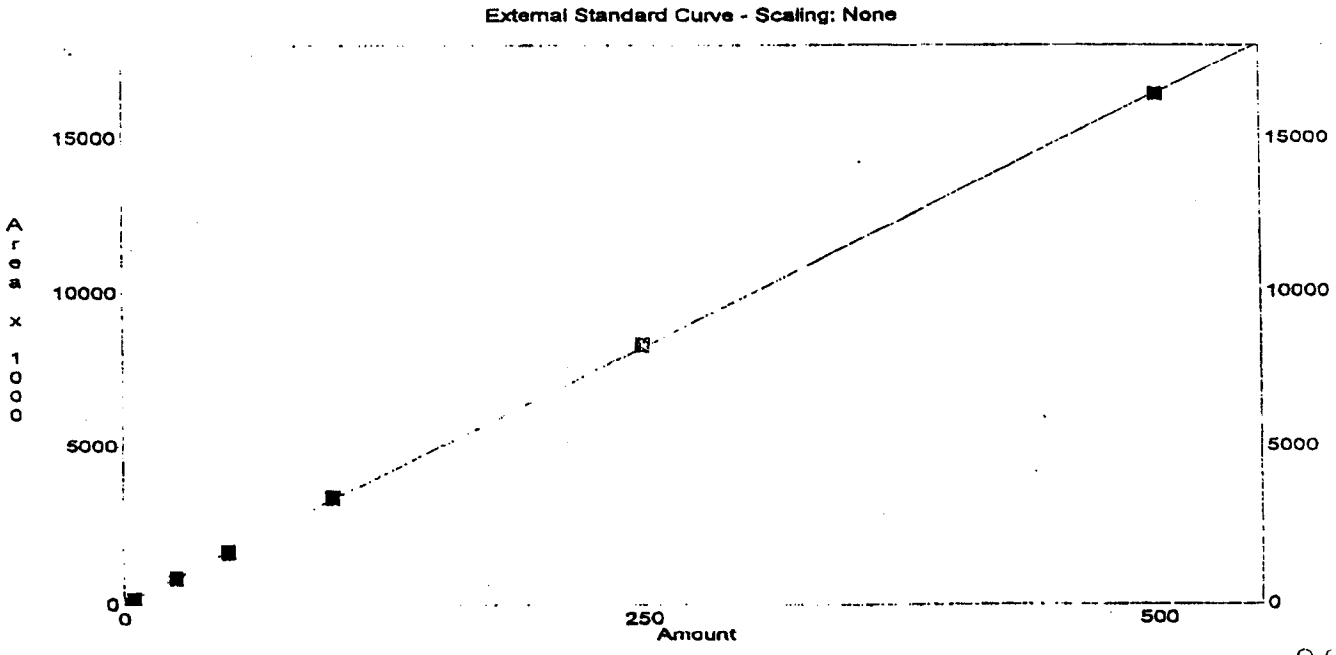
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
1	150913	5	30182.60	150913							0
2	827458	25	33098.32	827458							0
3	1630082	50	32601.64	1630082							0
4	3357055	100	33570.55	3357055							0
5	8312637	250	33250.55	8312637							0
6	16405186	500	32810.37	16405186							0

Calib Flag: Replace

Average RF: 32585.7
RF StdDev: 1224.77
RF %RSD: 3.759

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 3.04332e-005 x Area - 0.631947
R^2 = 0.999933



* - Replicate Not Used

Method : f:\vfa.met
Printed : Oct 16, 2001 14:03:50
Channel : A
Peak : Lactic Acid

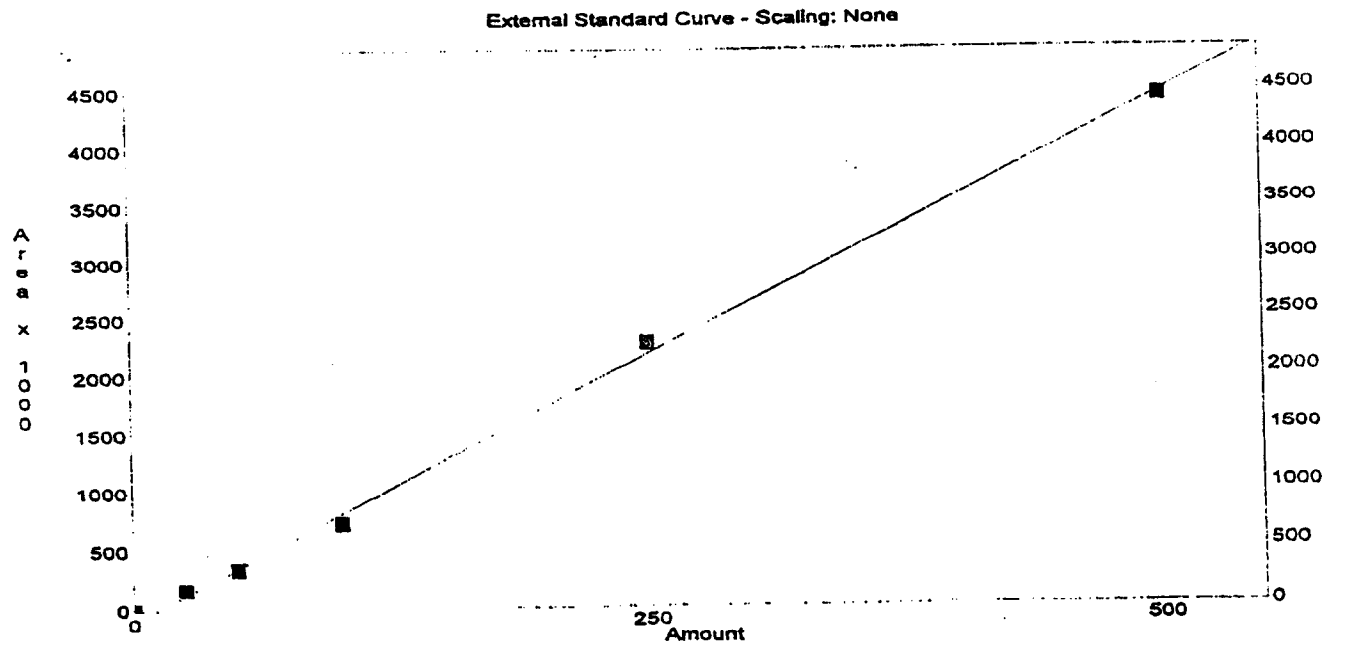
Level	Area	Amount	RF	Rep Area 1	Rep Area 2	Rep Area 3	Rep Area 4	Rep Area 5	Replic STD	Replic %RSD	Old Area
2	174310	25	6972.40	174310							0
3	343942	50	6878.84	343942							0
4	723621	100	7236.21	723621							0
5	2269445	250	9077.78	2269445							0
6	4425103	500	8850.21	4425103							0

Calib Flag: Replace

Average RF: 7803.09
RF StdDev: 1070.86
RF %RSD: 13.723

RF Definition: Area / Amount
Weighting Method: None
Fit Through Zero: No

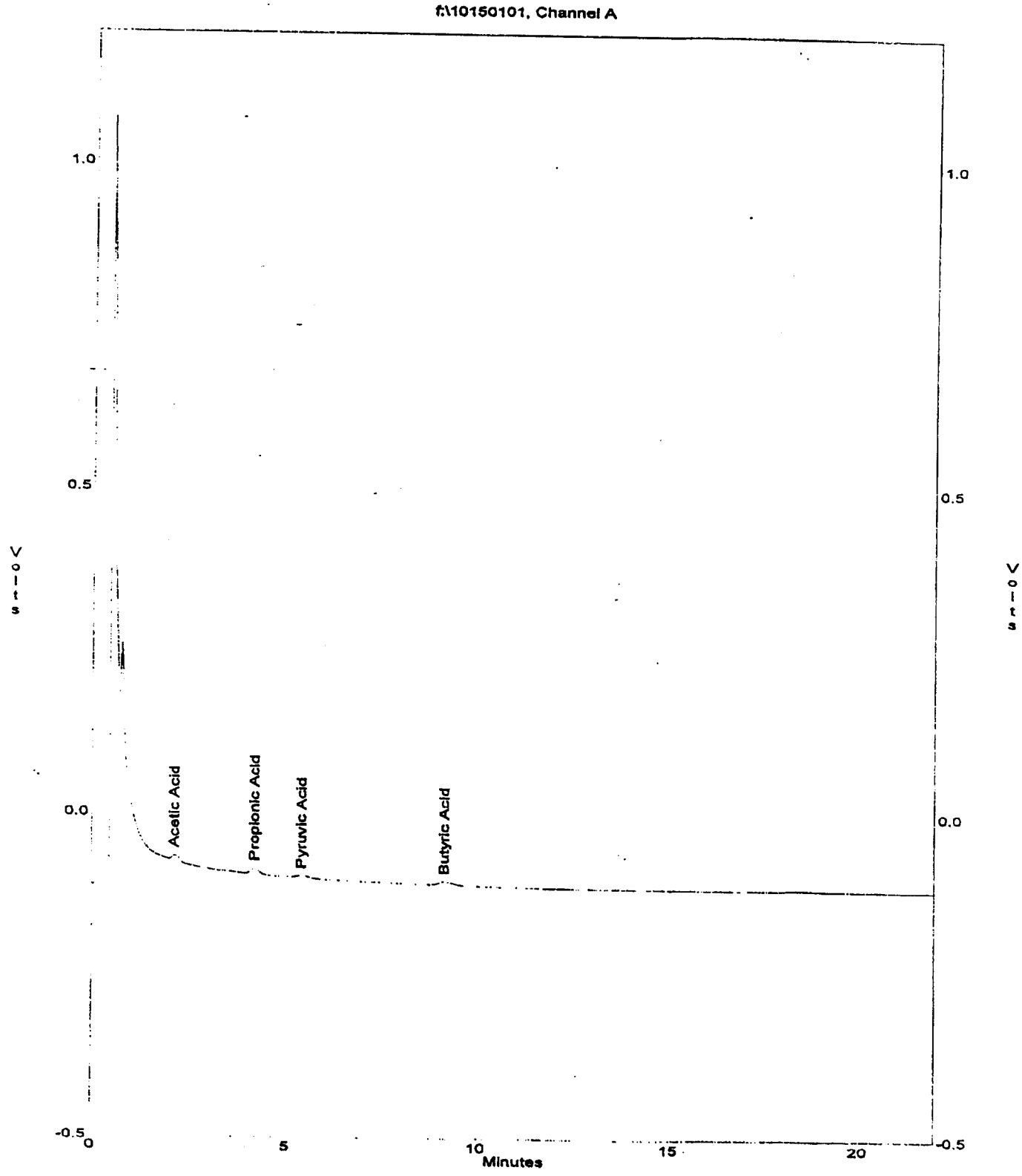
Linear Fit: Amount = 0.000109753 x Area + 10.7909
R^2 = 0.998498



External Standard Report -- Channel A

File : f:\10150101
Method : f:\vfa.met
Sample ID : 5 ppm
Acquired : Oct 16, 2001 10:24:22
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.097	5.789 mg/l	107381	7829
2	Propionic Acid	4.165	4.530 mg/l	134063	9378
3	Pyruvic Acid	5.375	5.889 mg/l	72265	3520
4	Butyric Acid	9.165	3.961 mg/l	150913	5710
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			20.169	464622	26437

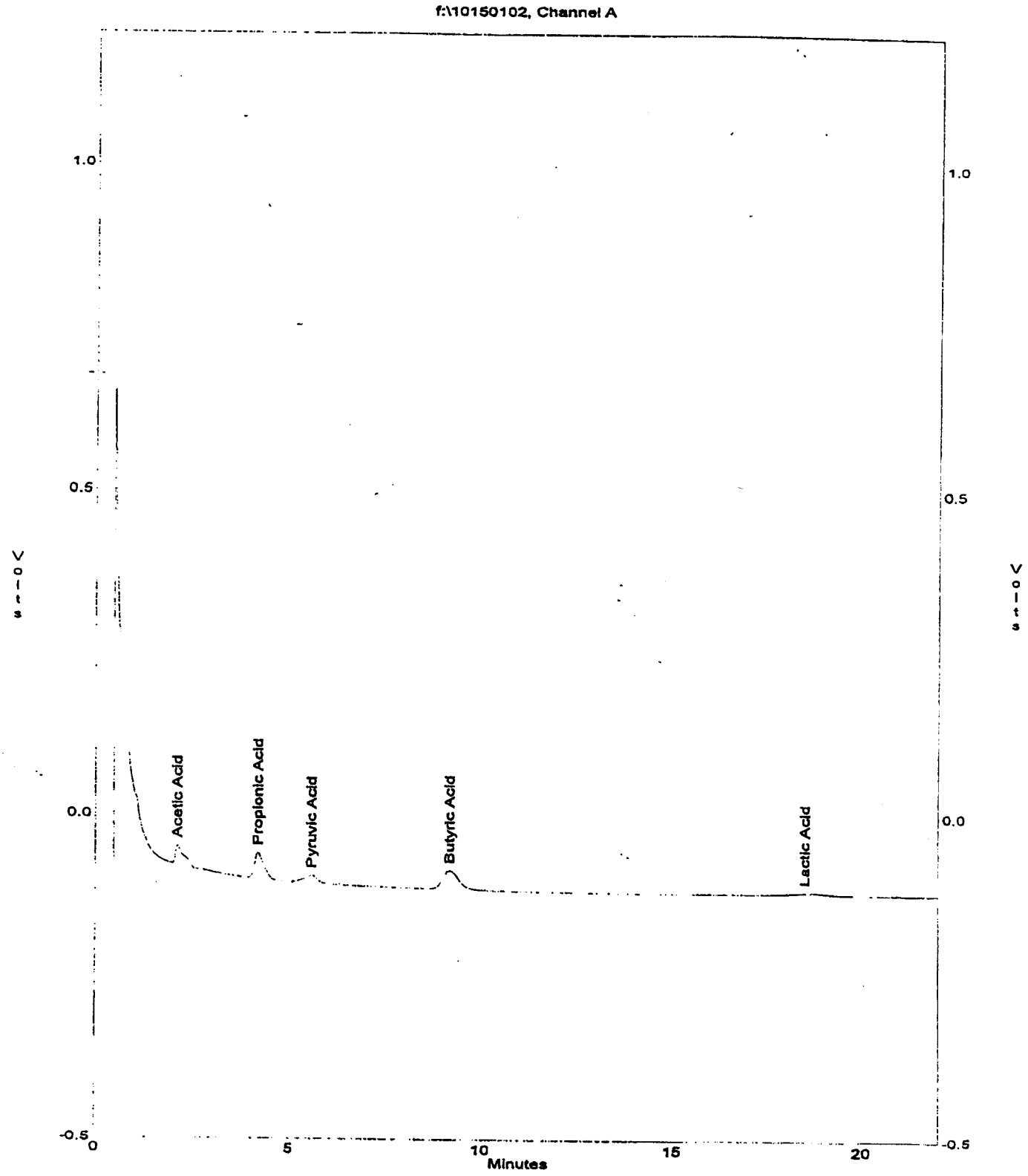

f:\10150101, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A

Page 1

File : f:\10150102
Method : f:\vfa.met
Sample ID : 25 ppm
Acquired : Oct 16, 2001 10:47:06
User : System

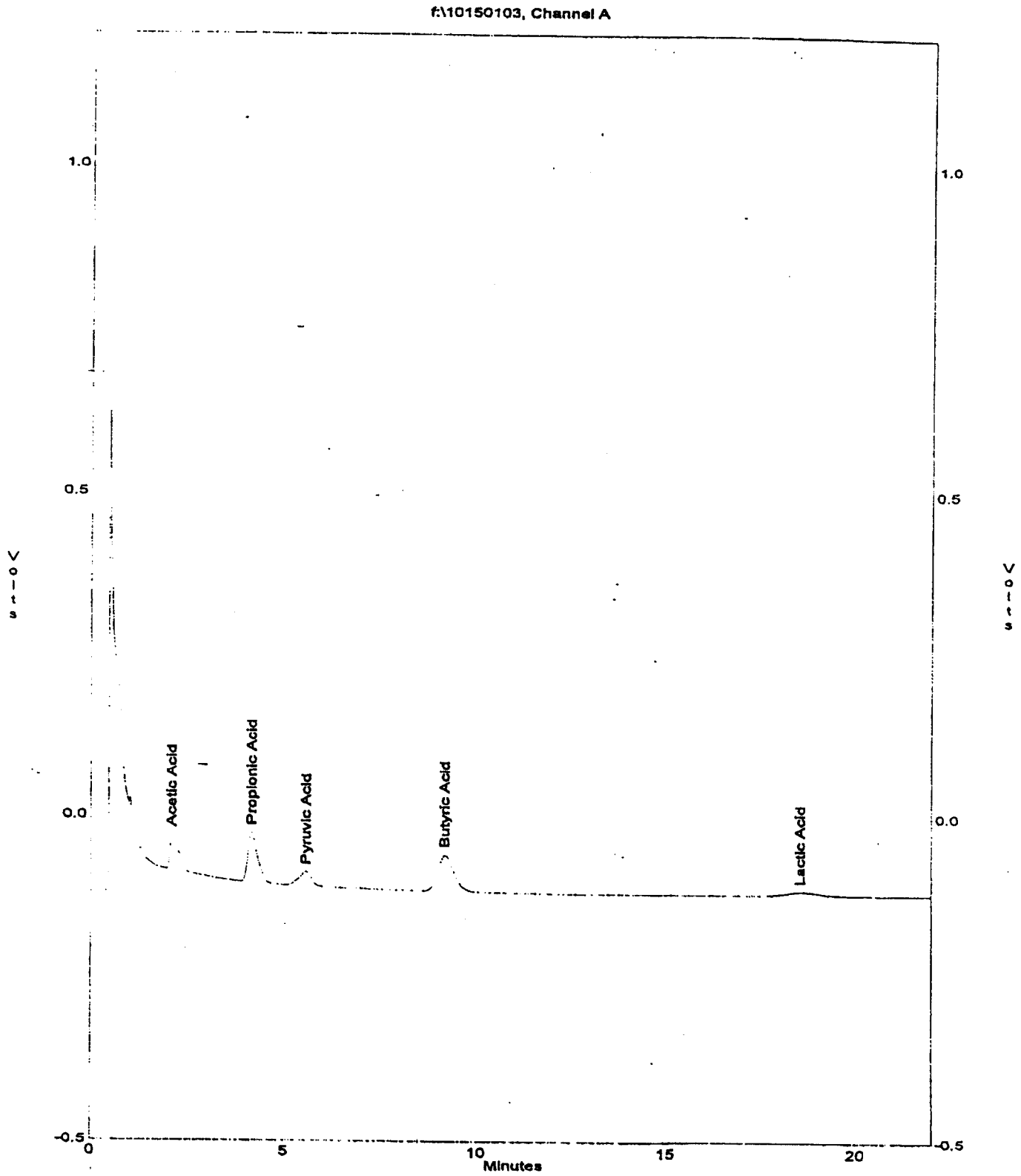
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	24.578 mg/l	427451	28597
2	Propionic Acid	4.155	24.507 mg/l	678625	39804
3	Pyruvic Acid	5.568	24.498 mg/l	260157	11333
4	Butyric Acid	9.197	24.550 mg/l	827458	29073
5	Lactic Acid	18.518	29.922 mg/l	174310	2721
Totals			128.056	2368001	111528


f:\10150102, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A

File : f:\10150103
Method : f:\vfa.met
Sample ID : 50 ppm
Acquired : Oct 16, 2001 11:09:48
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	48.885 mg/l	841527	55208
2	Propionic Acid	4.157	49.297 mg/l	1354374	77921
3	Pyruvic Acid	5.567	49.183 mg/l	509391	22305
4	Butyric Acid	9.197	48.977 mg/l	1630082	56778
5	Lactic Acid	18.577	48.540 mg/l	343942	5632
Totals			244.881	4679316	217844

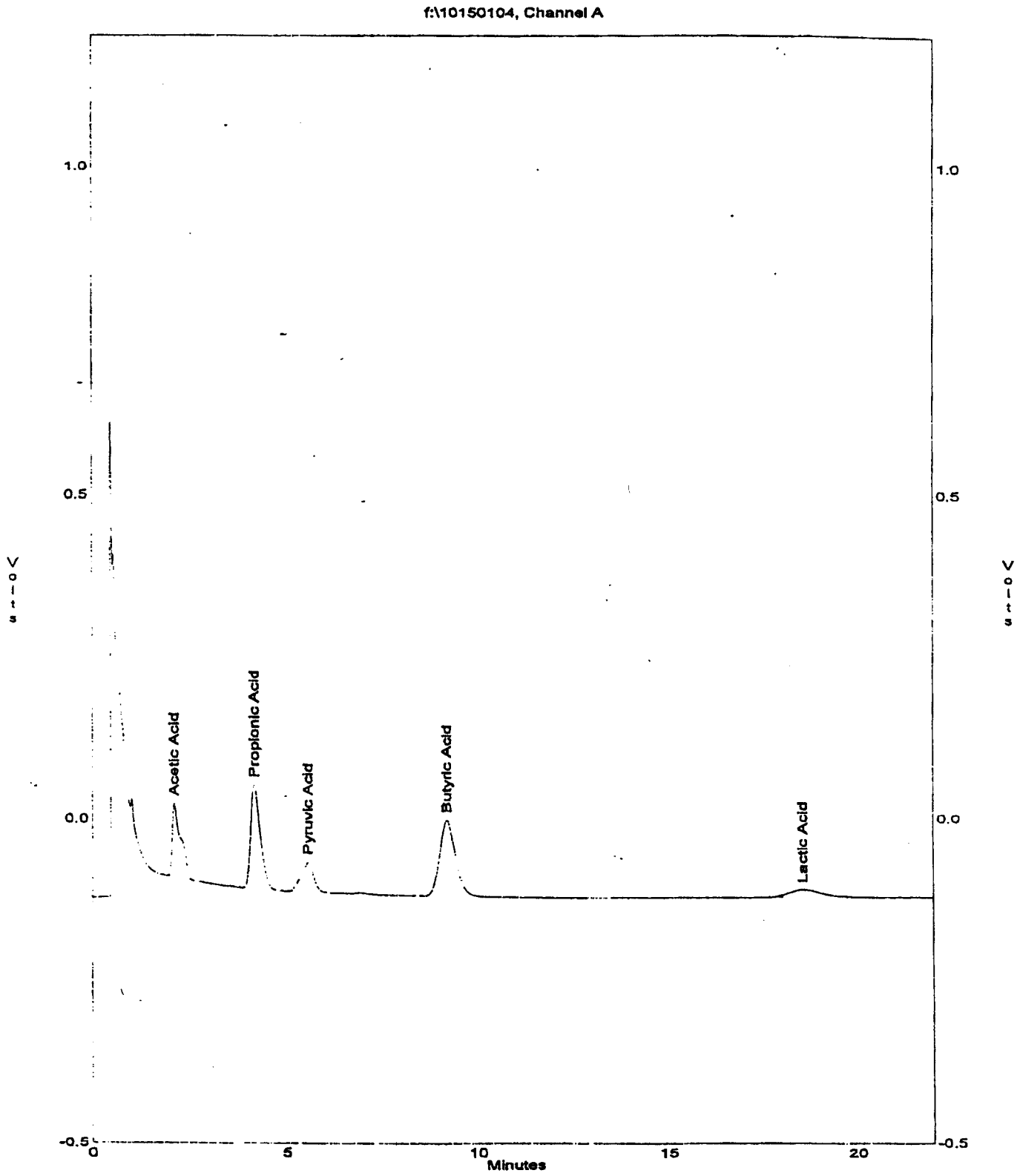

f:\10150103, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

External Standard Report -- Channel A

Page 1

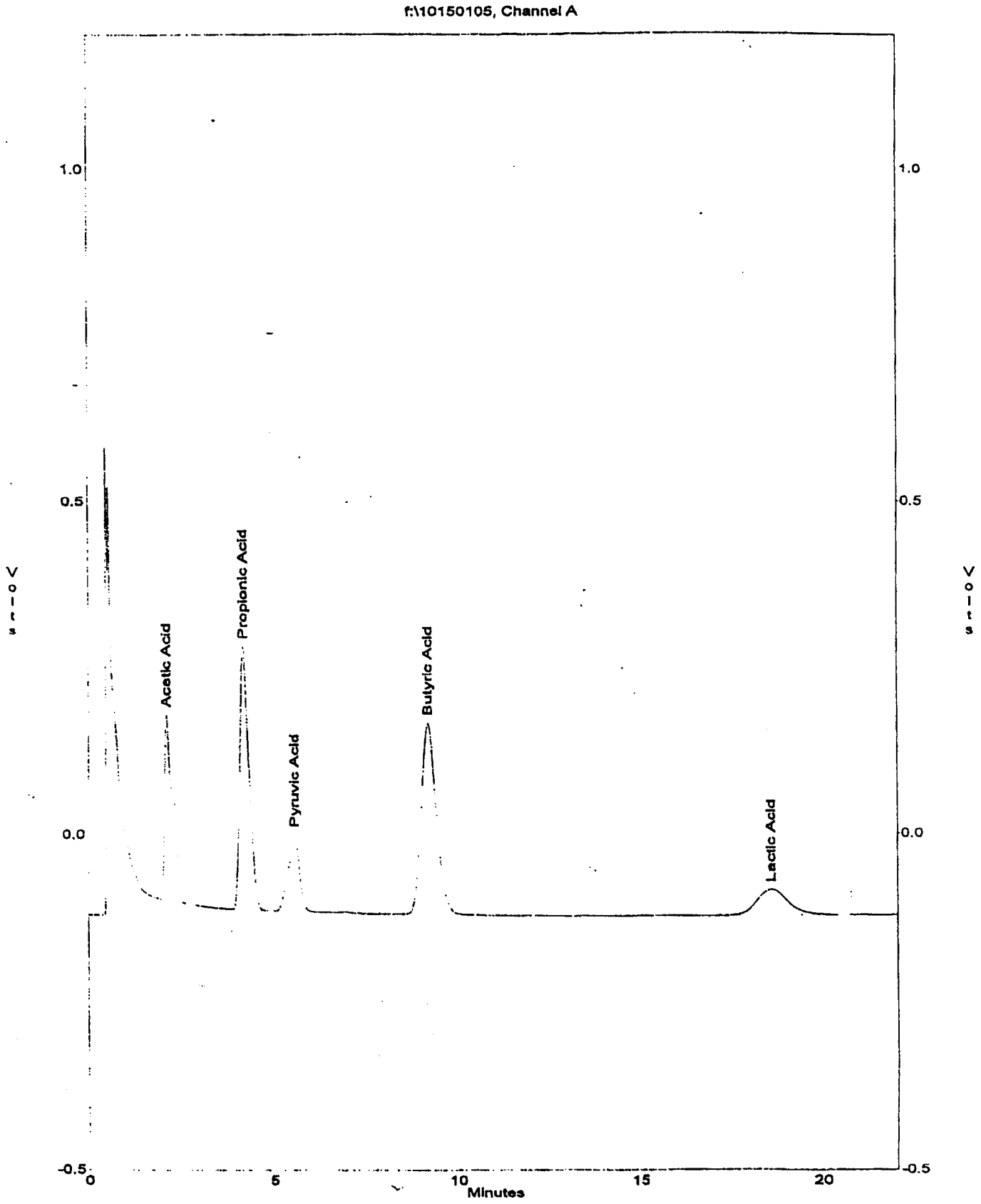
File : f:\10150104
Method : f:\vfa.met
Sample ID : 100 ppm
Acquired : Oct 16, 2001 11:32:33
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	100.375 mg/l	1718680	113591
2	Propionic Acid	4.157	100.969 mg/l	2762919	159997
3	Pyruvic Acid	5.560	101.458 mg/l	1037188	46264
4	Butyric Acid	9.202	101.534 mg/l	3357055	116632
5	Lactic Acid	18.578	90.210 mg/l	723621	11805
Totals			494.546	9599463	448289


f:\10150104, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

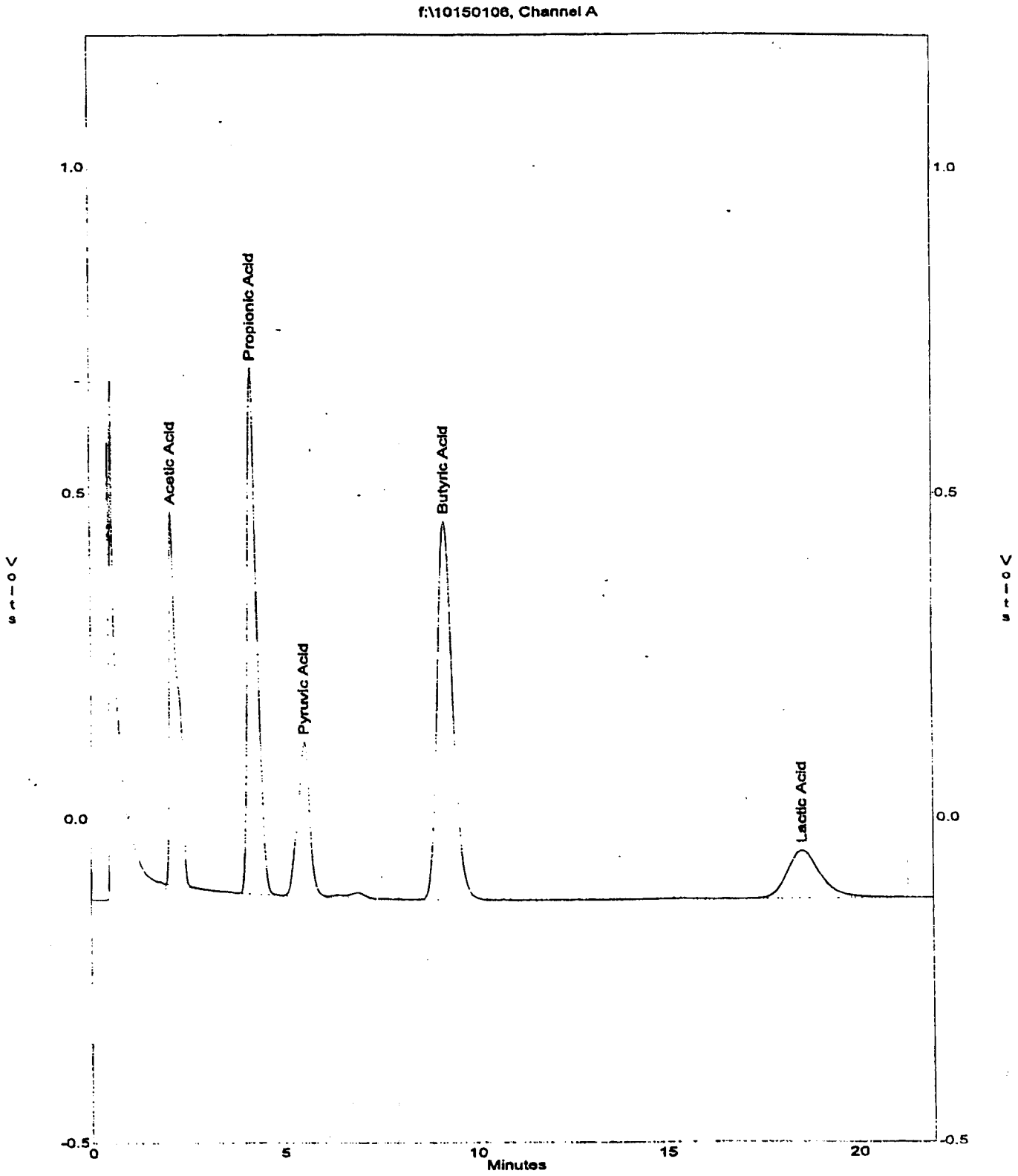
External Standard Report -- Channel A
File : f:\10150105
Method : f:\vfa.met
Sample ID : 250 ppm
Acquired : Oct 16, 2001 12:40:54
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.085	250.658 mg/l	4278821	280125
2	Propionic Acid	4.157	251.603 mg/l	6869082	397088
3	Pyruvic Acid	5.552	248.357 mg/l	2520360	116022
4	Butyric Acid	9.202	252.348 mg/l	8312637	289335
5	Lactic Acid	18.577	259.869 mg/l	2269445	38400
Totals			1262.835	24250344	1120970


f:\10150105, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

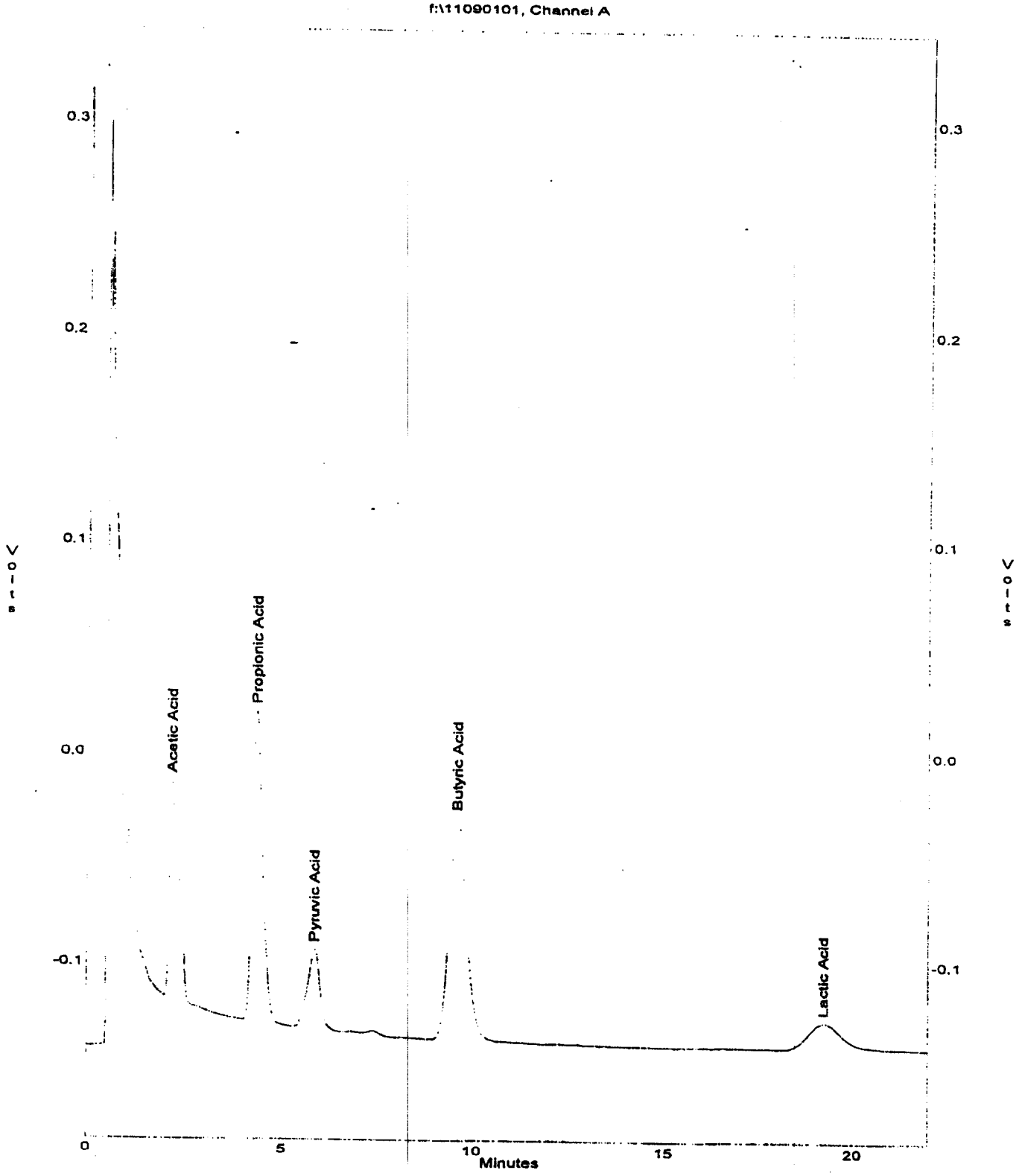
018

019


f:\10150106, Channel A
1.0
0.5
0.0
-0.5
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

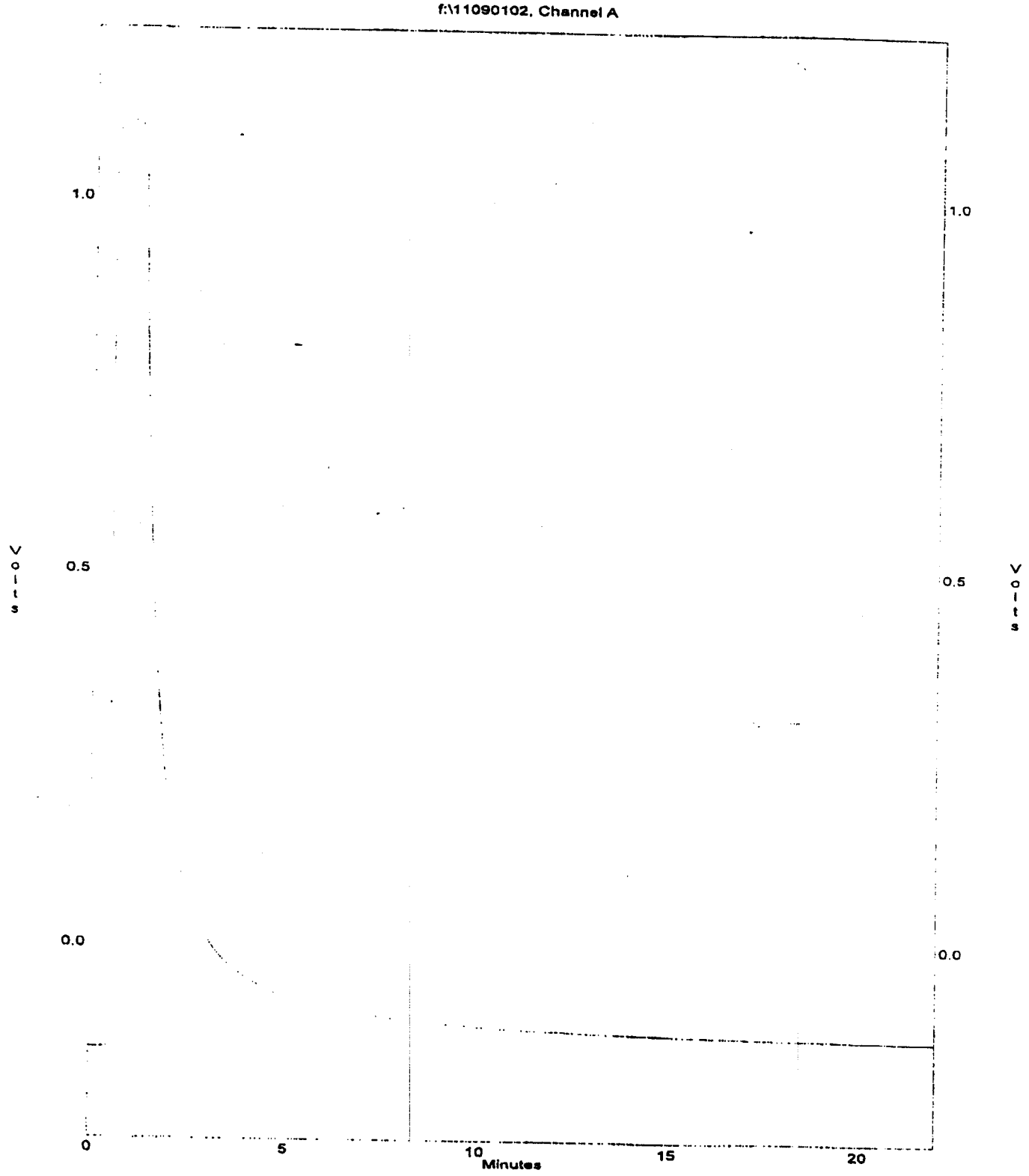
External Standard Report -- Channel A
File : f:\11090101
Method : f:\vfa.met
Sample ID : 100 ppm 110901
Acquired : Nov 09, 2001 14:49:52
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.165	96.513 mg/l	1652896	103603
2	Propionic Acid	4.325	96.817 mg/l	2649741	147758
3	Pyruvic Acid	5.828	84.944 mg/l	870450	38413
4	Butyric Acid	9.615	96.489 mg/l	3191275	106378
5	Lactic Acid	19.217	96.627 mg/l	782086	12638
Totals			471.390	9146448	408790


f:\11090101, Channel A
0.3
0.2
0.1
0.0
-0.1
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid
0
5
10
15
20
Minutes

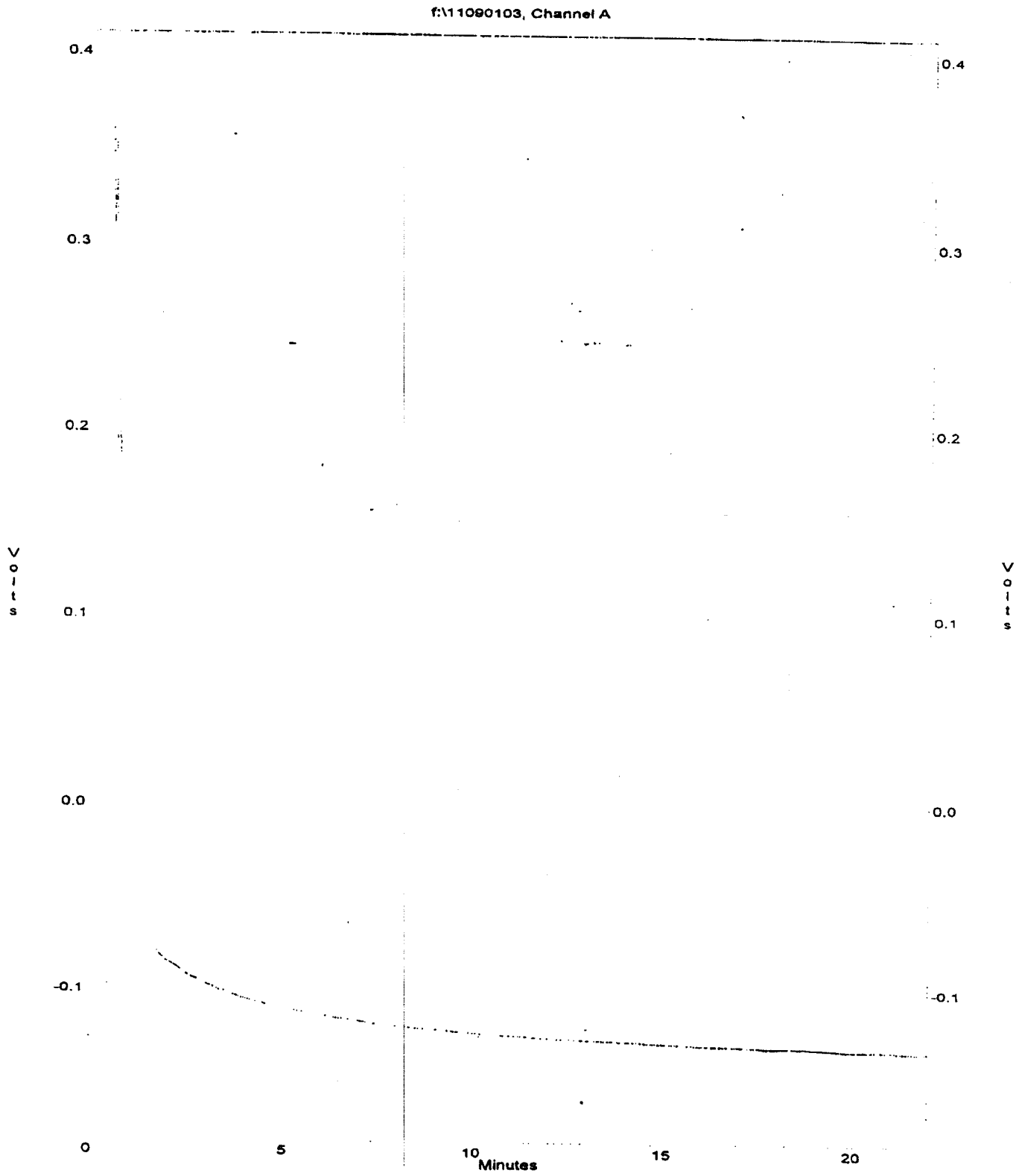
External Standard Report -- Channel A
File : f:\11090102
Method : f:\vfa.met
Sample ID : ib
Acquired : Nov 09, 2001 15:12:37
User : System

--- No Peaks Found.


f:\11090102, Channel A
1.0
0.5
0.0
Volts
0
5
10
15
20
Minutes

External Standard Report -- Channel A
File : f:\11090103
Method : f:\vfa.met
Sample ID : mb
Acquired : Nov 09, 2001 15:35:19
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0

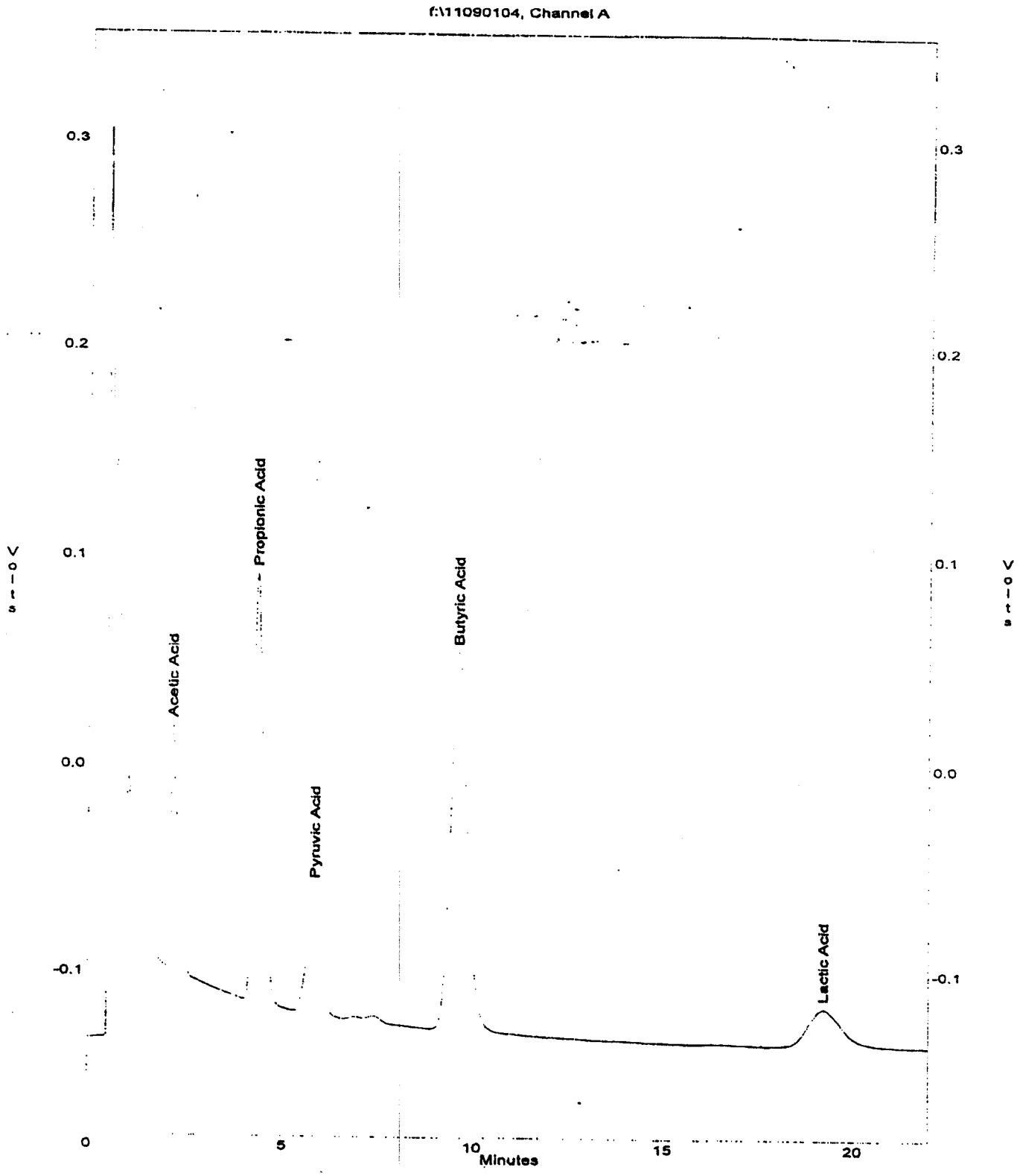

f:\11090103, Channel A
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
0
5
10
15
20
Minutes

External Standard Report -- Channel A

Page 1

File : f:\11090104
Method : f:\vfa.met
Sample ID : lcssupelco5x 110901
Acquired : Nov 09, 2001 15:58:03
User : System

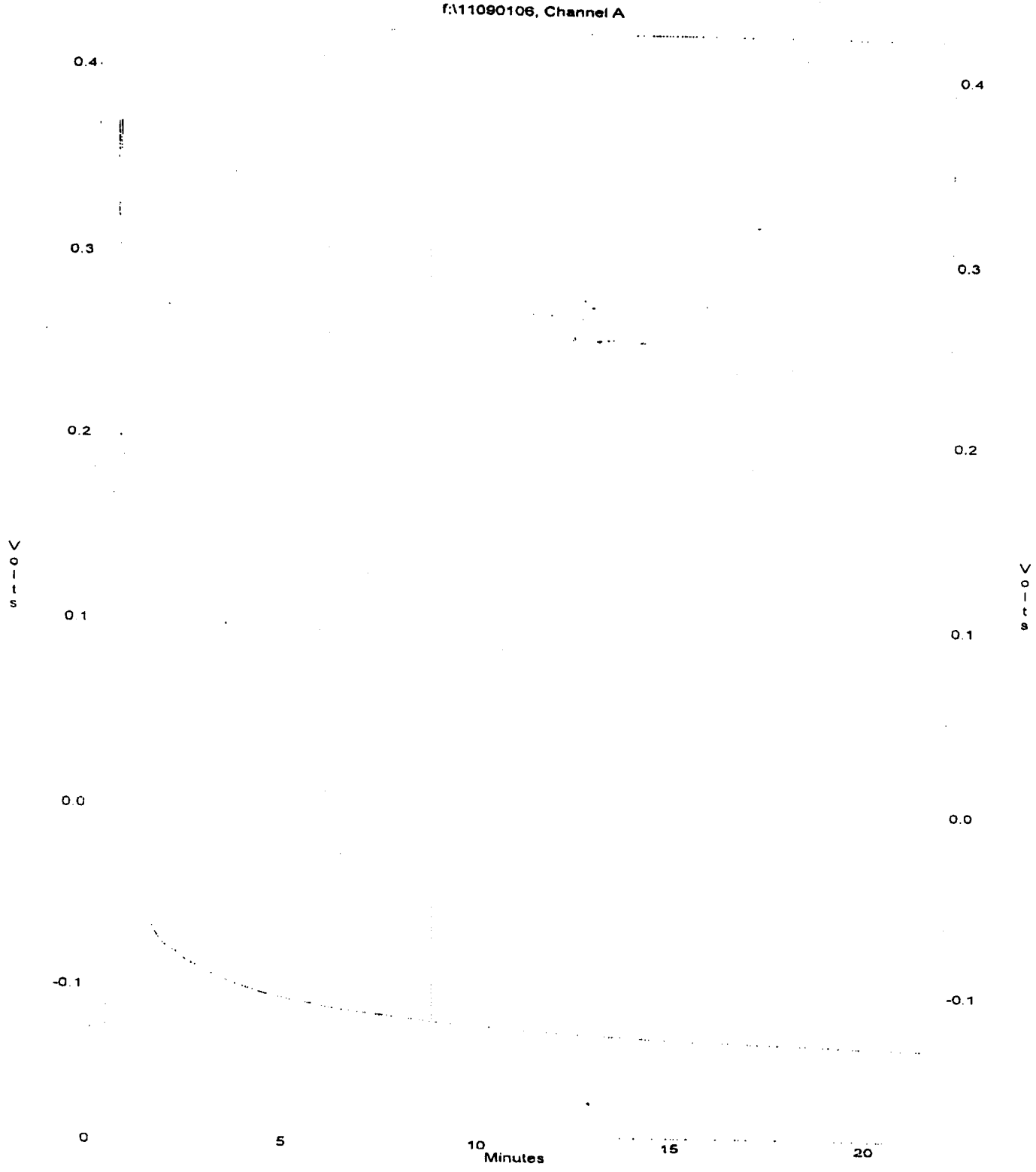
Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	2.165	107.068 mg/l	1832700	117484
2	Propionic Acid	4.327	134.086 mg/l	3665674	205921
3	Pyruvic Acid	5.825	141.744 mg/l	1443935	62579
4	Butyric Acid	9.622	165.853 mg/l	5470512	182401
5	Lactic Acid	19.220	140.089 mg/l	1178080	18506
Totals			688.840	13590901	586891


f:\11090104, Channel A
0.3
0.2
0.1
0.0
-0.1
0
5
10
15
20
Minutes
Volts
Acetic Acid
Propionic Acid
Pyruvic Acid
Butyric Acid
Lactic Acid

External Standard Report -- Channel A

File : f:\11090106
Method : f:\vfa.met
Sample ID : p110488-01a
Acquired : Nov 09, 2001 16:43:30
User : System

Pkno	Name	Ret. Time	Conc	Area	Height
1	Acetic Acid	0.000	0.000 mg/l	0	0
2	Propionic Acid	0.000	0.000 mg/l	0	0
3	Pyruvic Acid	0.000	0.000 mg/l	0	0
4	Butyric Acid	0.000	0.000 mg/l	0	0
5	Lactic Acid	0.000	0.000 mg/l	0	0
Totals			0.000	0	0


f:\11090106, Channel A
0.4
0.3
0.2
0.1
0.0
-0.1
Volts
0
5
10
15
20
Minutes

METHOD DETECTION LIMITS - BIOREM 1

REP. #	Lab ID	Hydrogen (PPMV)	Date Analyzed 01/24/01
1	T42 62	0.1118	
2	T42 63	0.1122	
3	T42 64	0.1247	
4	T42 65	0.1244	
5	T42 66	0.1120	
6	T42 67	0.0943	
7	T42 68	0.1296	
AVERAGE		0.1156	
KNOWN		0.0999	
STD DEV		0.012	
MDL (VAPOR)		0.037	
MDL (BUBBLE)		0.03nM	

REP. #	Lab ID	Carbon Dioxide (%v)	Oxygen (%v)	Nitrogen (%v)	Methane (%v)	Carbon Monoxide (%v)	Date Analyzed 01/18/01
1	T42 458	0.1221	0.0670	0.5744	0.0410	0.0621	
2	T42 459	0.1267	0.0690	0.6020	0.0428	0.0537	
3	T42 460	0.1207	0.0657	0.5838	0.0446	0.0525	
4	T42 461	0.1193	0.0667	0.6036	0.0444	0.0672	
5	T42 462	0.1261	0.0703	0.5860	0.0439	0.0596	
6	T42 463	0.1193	0.0665	0.5861	0.0478	0.0643	
7	T42 464	0.1227	0.0732	0.5748	0.0353	0.0581	
AVERAGE		0.1224	0.0683	0.5872	0.0428	0.0596	
KNOWN		0.1500	0.0700	0.6649	0.0450	0.0701	
STD. DEV.		0.003	0.003	0.012	0.004	0.005	
MDL (VAPOR)		0.009	0.008	0.037	0.012	0.017	
MDL (BUBBLE)		0.14 mg/L	0.003 mg/L	0.007 mg/L	0.003 mg/L	0.005 mg/L	
MDL (H2O)		0.19 mg/L	0.04 mg/L	0.15 mg/L	0.03 mg/L	0.07 mg/L	

REP. #	Lab ID	Methane (PPMV)	Ethane (PPMV)	Ethylene (PPMV)	Propane (PPMV)	Propylene (PPMV)	Iso-Butane (PPMV)	N-Butane (PPMV)	Date Analyzed 01/30/01
1	T43 147	0.2512	0.0525	0.0453	0.0461	0.0581	0.0473	0.0358	
2	T43 148	0.2608	0.0518	0.0468	0.0521	0.0465	0.0439	0.0407	
3	T43 149	0.2812	0.0509	0.0485	0.0529	0.0588	0.0436	0.0405	
4	T43 150	0.2779	0.0549	0.0460	0.0461	0.0536	0.0549	0.0476	
5	T43 151	0.2894	0.0551	0.0497	0.0520	0.0549	0.0417	0.0460	
6	T43 152	0.2970	0.0515	0.0467	0.0458	0.0542	0.0435	0.0514	
7	T43 153	0.3053	0.0532	0.0473	0.0485	0.0584	0.0483	0.0535	
AVERAGE		0.2804	0.0528	0.0472	0.0491	0.0549	0.0462	0.0451	
KNOWN		0.1500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	
STD DEV		0.019	0.002	0.001	0.003	0.004	0.004	0.006	
MDL (VAPOR)		0.060	0.005	0.005	0.010	0.013	0.014	0.020	
MDL (BUBBLE)		0.001 ug/L	0.3 ng/L	0.7ng/L	0.8 ng/L	2.8 ng/L	0.7 ng/L	1.2 ng/L	
MDL (H2O)		0.015 ug/L	2.4 ng/L	2.6 ng/L	6.7 ng/L	10 ng/L	12 ng/L	17 ng/L	

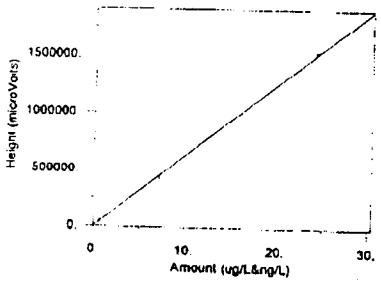
MDL= 3.143*STD DEV OF 7 REPLICATES

Calibration File Name: **C:\CPWIN\T54\T54AW1.CAL** Version = 3
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/L&ng/L
7 components with 3 levels each

1 METHANE

Retention time = 0.500 min., Search window = 0.070 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	0.729	49225.0	67524.01	Manual	8/6/2001 4:17:31
2	7.290	427464.0	58637.04	Manual	8/6/2001 12:28:1
3	24.300	1530778.0	62994.98	Manual	8/6/2001 4:17:31

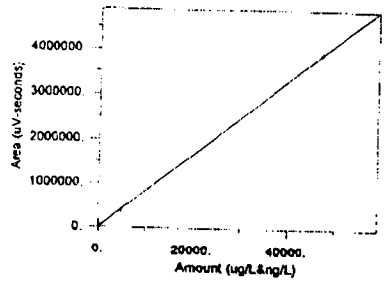


Calibration formula: Y = 62639.19 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9992, Average error = 4.92%
Average CF = 63052.0100 with RSD = 7.05%

2 ETHANE

Retention time = 0.780 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

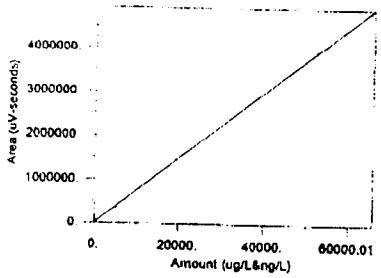
Level	Amount	Area	Area/Amt	Source	Date and time
1	472.000	38214.0	80.96186	Manual	8/6/2001 4:17:31
2	4720.000	351621.0	74.49597	Manual	8/6/2001 12:28:1
3	47200.000	3902223.0	82.67422	Manual	8/6/2001 4:17:31



Calibration formula: Y = 82.593 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9998, Average error = 3.96%
Average CF = 79.3773 with RSD = 5.43%

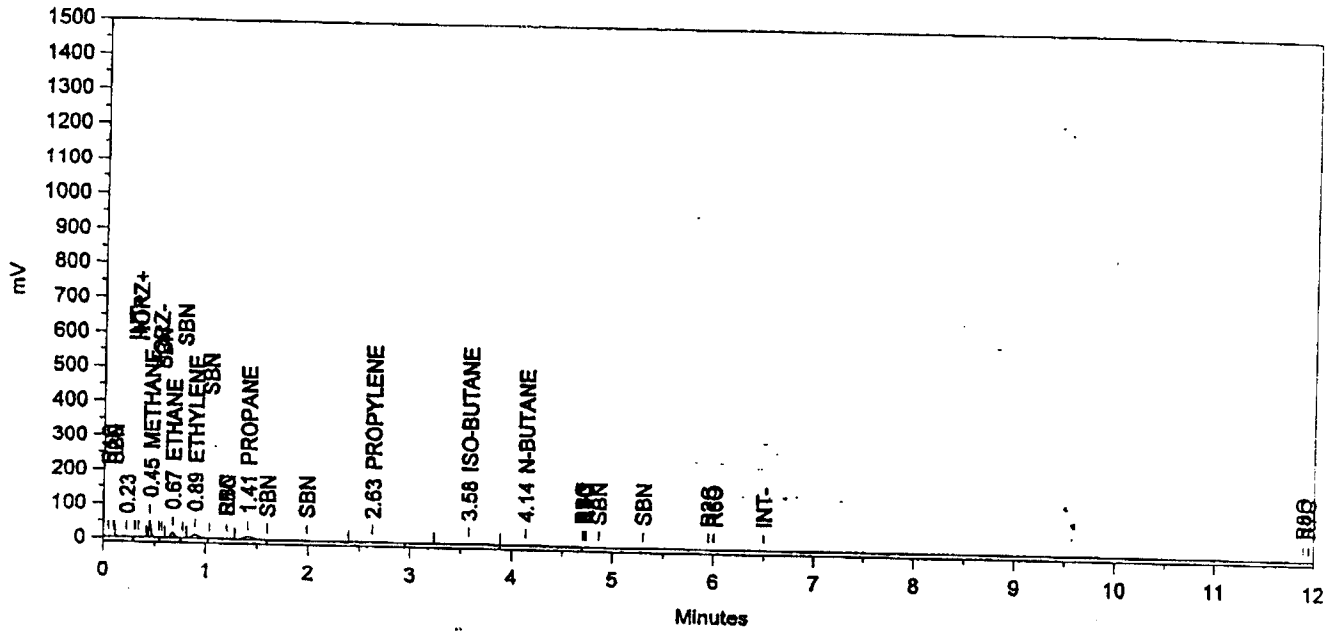
3 ETHYLENE
Retention time = 1.020 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	525.000	37924.0	72.23619	Manual	8/6/2001 4:17:31
2	5250.000	353777.0	67.38609	Manual	8/6/2001 12:28:1
3	52500.000	3937769.0	75.00513	Manual	8/6/2001 4:17:31



Calibration formula: Y = 74.929 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9998, Average error = 4.59%
Average CF = 71.5425 with RSD = 5.39%

STD P 100X



Sample Name: **STD P 100X**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 03:53:39pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.41R**
Date Stamp: 8/6/01 03:53:38pm
Sequence File: T51A.SEQ #241
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

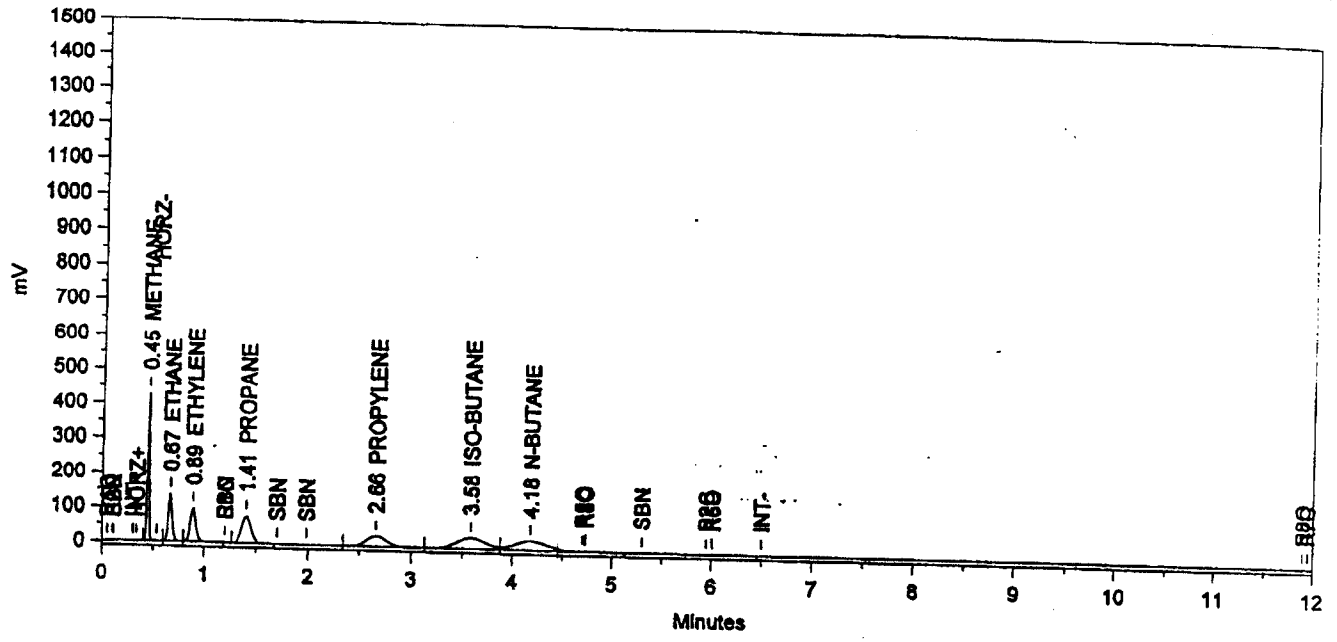
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.226		0.0227	0.250	2363.8	0.639	BB	0.125	315.73	0.341
2	0.455	METHANE	3.5376	38.941	69319.5	18.749	BB	0.023	49255.38	53.136
3	0.674	ETHANE	0.9531	10.491	38214.3	10.336	BB	0.043	14721.26	15.881
4	0.893	ETHYLENE	0.9274	10.209	37924.1	10.257	BB	0.061	10348.74	11.164
5	1.408	PROPANE	0.9188	10.114	52222.3	14.125	BB	0.102	8498.07	9.168
6	2.630	PROPYLENE	0.9168	10.092	41982.0	11.355	BB	0.216	3239.80	3.495
7	3.580	ISO-BUTANE	0.9393	10.340	63149.6	17.080	BV	0.312	3373.04	3.639
8	4.139	N-BUTANE	0.8687	9.562	64551.5	17.459	VB	0.365	2944.19	3.176

Total Area = 369727.0, Total Amount = 9.084, Total Height = 92696.2, Sample Units = PPMV

STD P 10X

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 10:09:05am by BC
header 1 for chan 1
header 2 for chan 1

Data File: C:\CPWIN\T51\T51A2.22R
Date Stamp: 8/6/01 10:09:04am
Sequence File: T51A.SEQ #222
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

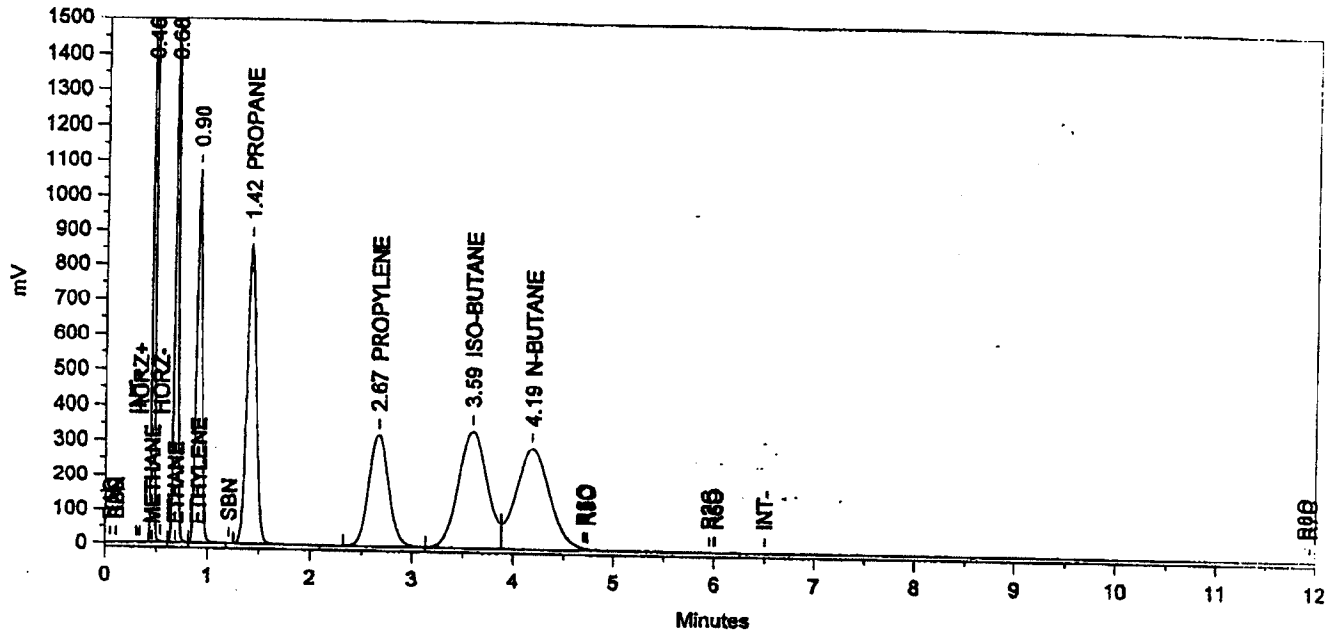
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.451	METHANE	30.7008	37.233	600342.3	17.663	BB	0.023	427463.90	51.993
2	0.671	ETHANE	8.7696	10.636	351620.9	10.345	BV	0.043	135682.90	16.503
3	0.894	ETHYLENE	8.6515	10.492	353777.0	10.409	VB	0.062	95522.24	11.619
4	1.407	PROPANE	8.5871	10.414	488064.4	14.359	BB	0.104	77989.40	9.486
7	2.658	PROPYLENE	8.5892	10.417	393314.8	11.572	BV	0.226	28980.48	3.525
8	3.584	ISO-BUTANE	8.9254	10.825	600063.2	17.655	VV	0.328	30476.71	3.707
9	4.183	N-BUTANE	8.2318	9.983	611713.1	17.997	VB	0.392	26033.44	3.167

Total Area = 3398896.0, Total Amount = 82.455, Total Height = 822149.0, Sample Units = PPMV
* Some peaks have been manually integrated.

STD P

STD P



Sample Name: **STD P**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 10:21:58am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.23R**
Date Stamp: 8/6/01 10:21:58am
Sequence File: T51A.SEQ #223
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

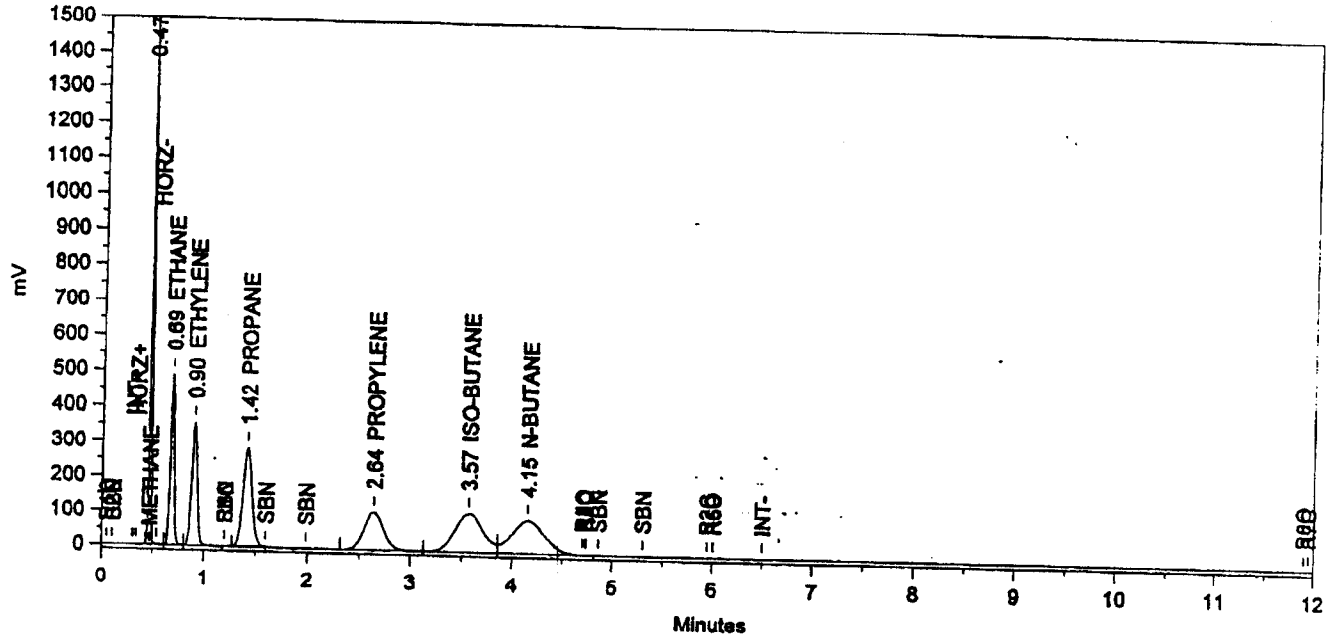
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.458	METHANE	149.4191	20.604	4200095.0	11.883	BB	0.034	2080446.00	32.095
2	0.683	ETHANE	97.3228	13.420	3902223.0	11.041	BV	0.043	1509842.00	23.292
3	0.904	ETHYLENE	96.2963	13.279	3937769.0	11.141	VB	0.061	1072747.00	16.549
4	1.417	PROPANE	95.7543	13.204	5442405.0	15.398	BB	0.105	865299.00	13.349
5	2.665	PROPYLENE	95.4247	13.158	4369668.0	12.363	BV	0.225	323498.70	4.991
6	3.591	ISO-BUTANE	98.9377	13.643	6651701.0	18.820	VV	0.327	339302.90	5.234
7	4.186	N-BUTANE	92.0466	12.693	6840077.0	19.353	VB	0.392	291104.00	4.491

Total Area = 35343940.0, Total Amount = 725.202, Total Height = 6482240.0, Sample Units = PPMV

STD P 3X



Sample Name: **STD P 3X**
Acquired from BIOREM 1--FID via port 1 on 8/6/01 04:06:32pm by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T51\T51A2.42R**
Date Stamp: 8/6/01 04:06:32pm
Sequence File: T51A.SEQ #242
Method File: C:\CPWIN\T51\T51AV1.MET
Version 1. Date Stamp: 7/31/01 07:22:30am
Calibration File: C:\CPWIN\T51\T51AV1.CAL
Version 1. Date Stamp: 7/31/01 07:19:34am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

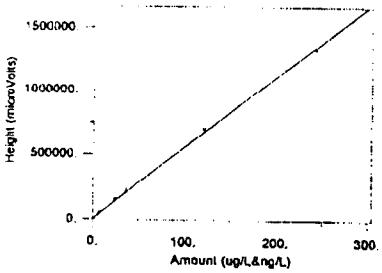
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.467	METHANE	109.9415	37.452	2154399.0	17.871	BB	0.023	1530778.00	51.451
2	0.686	ETHANE	31.4937	10.728	1262759.0	10.475	BV	0.043	491941.90	16.535
3	0.904	ETHYLENE	31.1435	10.609	1273527.0	10.564	VB	0.060	354436.40	11.913
4	1.418	PROPANE	30.4339	10.367	1729777.0	14.348	BB	0.101	284060.10	9.548
5	2.641	PROPYLENE	30.5233	10.398	1397716.0	11.594	BV	0.215	108285.70	3.640
6	3.569	ISO-BUTANE	31.4746	10.722	2116074.0	17.553	VV	0.317	111090.80	3.734
7	4.152	N-BUTANE	28.5460	9.724	2121282.0	17.596	VB	0.374	94615.69	3.180

Total Area = 12055530.0, Total Amount = 293.556, Total Height = 2975208.0, Sample Units = PPMV

Calibration File Name: **C:\CPWIN\T54\T54DW1.CAL** Version = 3
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = ug/L&ng/L
3 components with 5 levels each

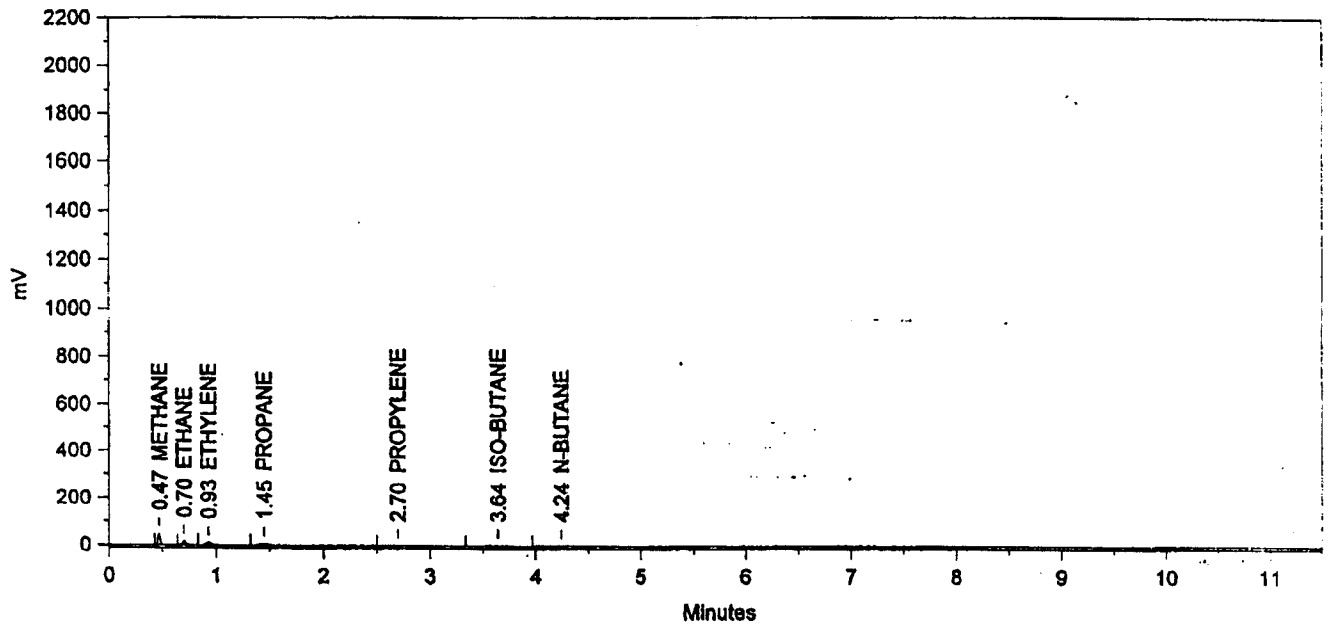
1 METHANE
Retention time = 0.510 min., Search window = 0.050 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	7.290	47087.0	6459.122	Manual	10/18/2001 8:47:
2	24.300	152225.0	6264.403	Manual	10/18/2001 8:47:
3	36.450	223185.0	6123.045	Manual	10/18/2001 8:47:
4	121.500	702954.0	5785.629	Manual	10/18/2001 8:47:
5	243.000	1332961.0	5485.436	Manual	10/18/2001 8:47:



Calibration formula: Y = 5561.843 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9984, Average error = 8.85%
Average CF = 6023.5270 with RSD = 6.45%

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 10:56:27am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.09R**
Date Stamp: 9/18/01 10:56:26am
Sequence File: T52C.SEQ #409
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

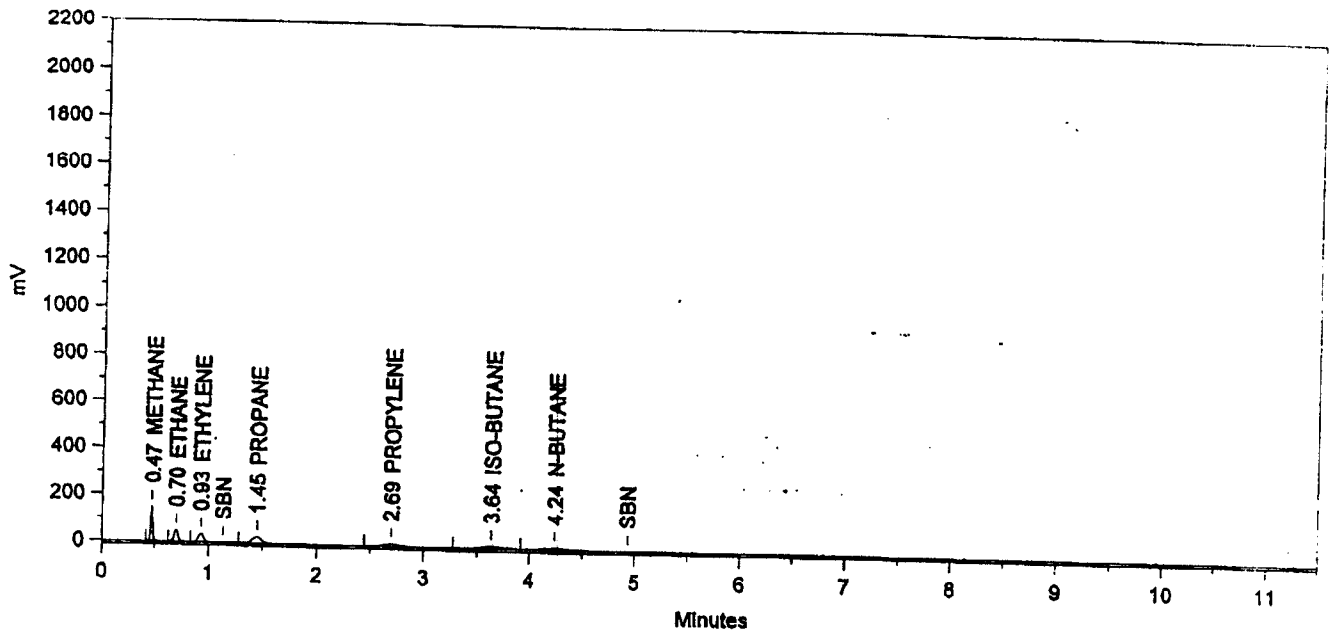
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.472	METHANE	29.3066	33.257	64887.5	18.279	BV	0.023	47087.30	51.941
2	0.700	ETHANE	9.4037	10.671	38029.0	10.713	VV	0.041	15300.05	16.877
3	0.928	ETHYLENE	9.7910	11.111	39703.9	11.185	VB	0.062	10751.49	11.860
4	1.447	PROPANE	9.8374	11.163	49685.1	13.997	BV	0.099	8340.96	9.201
5	2.696	PROPYLENE	9.8461	11.173	38890.6	10.956	VV	0.211	3072.07	3.389
6	3.638	ISO-BUTANE	9.9778	11.323	61687.4	17.378	VV	0.315	3267.29	3.604
7	4.240	N-BUTANE	9.9602	11.303	62092.5	17.492	VB	0.365	2836.76	3.129

Total Area = 354976.0, Total Amount = 88.123, Total Height = 90655.93, Sample Units = PPMV

STD P 3X



Sample Name: **STD P 3X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 11:11:46am by BC
heading 1 for 2B
heading 2 for 2B

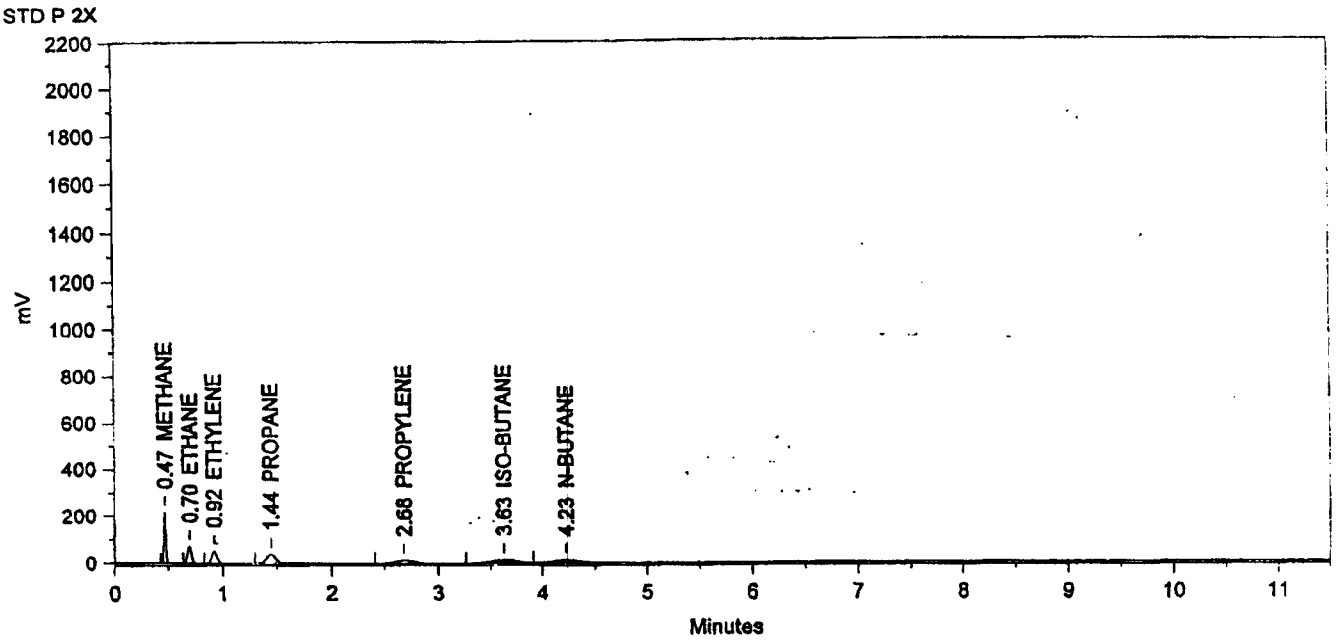
Data File: **C:\CPWIN\T52\T52D4.10R**
Date Stamp: 9/18/01 11:11:46am
Sequence File: T52C.SEQ #410
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.470	METHANE	94.7429	33.869	209696.7	18.712	BV	0.023	152224.80	51.917
2	0.698	ETHANE	30.2864	10.827	122480.1	10.929	VB	0.041	49634.13	16.928
3	0.926	ETHYLENE	30.2525	10.815	122678.6	10.947	BB	0.058	35156.66	11.990
4	1.447	PROPANE	31.5593	11.282	159393.8	14.223	BV	0.098	27208.85	9.280
5	2.692	PROPYLENE	31.1163	11.124	122904.4	10.967	VV	0.210	9749.75	3.325
6	3.636	ISO-BUTANE	30.8207	11.018	190548.2	17.003	VV	0.306	10385.87	3.542
7	4.240	N-BUTANE	30.9546	11.066	192972.4	17.219	VB	0.363	8848.36	3.018

Total Area = 1120674.0, Total Amount = 279.733, Total Height = 293208.4, Sample Units = PPMV



Sample Name: **STD P 2X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 01:32:18pm by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.17R**
Date Stamp: 9/18/01 01:32:18pm
Sequence File: T52C.SEQ #417
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/18/01 12:53:30pm

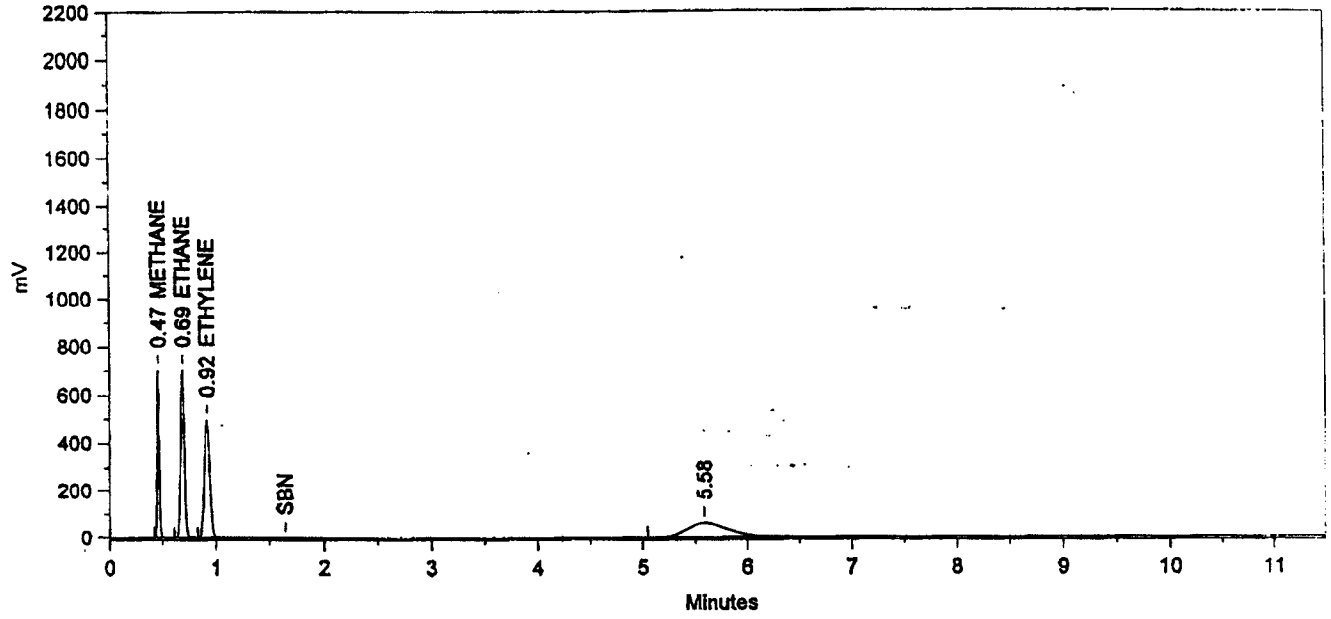
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.468	METHANE	165.4333	34.973	305567.8	18.328	BB	0.023	223185.20	51.909
2	0.696	ETHANE	53.8535	11.385	178195.9	10.688	BB	0.041	72582.58	16.881
3	0.923	ETHYLENE	53.8614	11.386	179014.8	10.737	BB	0.058	51534.22	11.986
4	1.444	PROPANE	48.9005	10.338	234802.3	14.083	BV	0.098	39876.52	9.275
5	2.680	PROPYLENE	50.4281	10.661	186947.8	11.213	VV	0.215	14505.00	3.374
6	3.627	ISO-BUTANE	48.7751	10.311	280900.8	16.848	VV	0.307	15262.37	3.550
7	4.228	N-BUTANE	51.7777	10.946	301823.4	18.103	VB	0.387	13011.64	3.026

Total Area = 1667253.0, Total Amount = 473.029, Total Height = 429957.5, Sample Units = PPMV

STD 216 20X



Sample Name: **STD 216 20X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 11:55:11am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.13R**
Date Stamp: 9/18/01 11:55:10am
Sequence File: T52C.SEQ #413
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

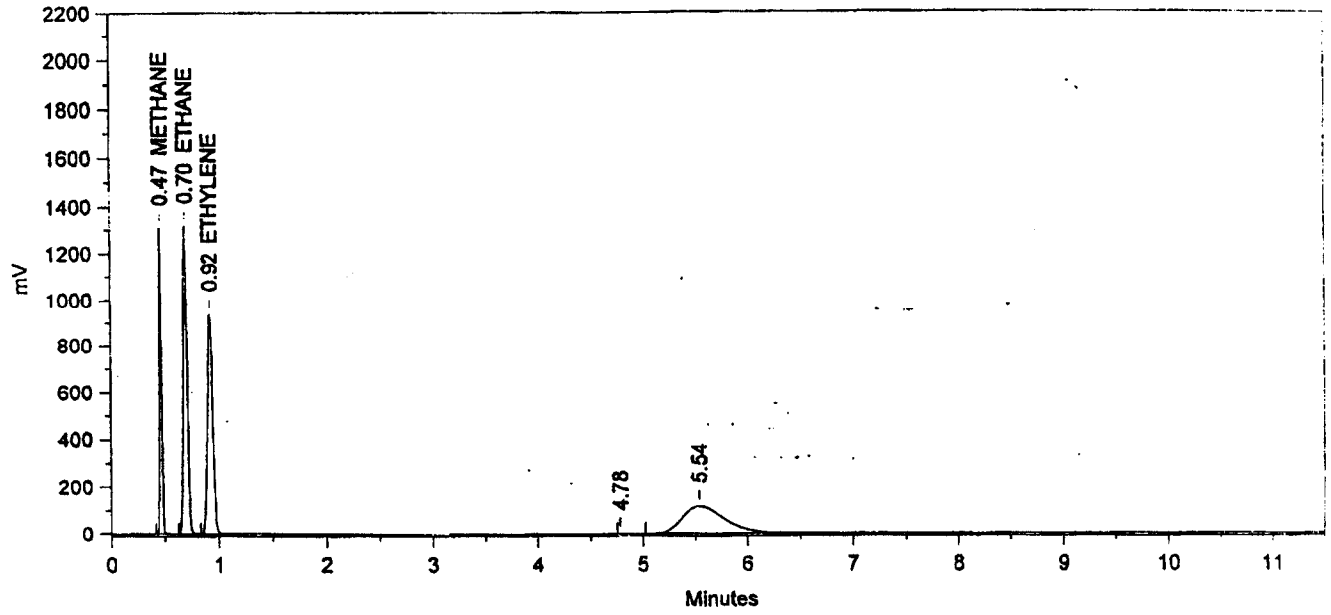
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.466	METHANE	437.5098	32.875	961442.1	15.645	BV	0.023	702953.60	35.776
2	0.693	ETHANE	428.1668	32.173	1731531.0	28.177	VV	0.041	703523.20	35.805
3	0.919	ETHYLENE	427.6451	32.134	1734167.0	28.220	VB	0.058	498147.00	25.353
4	5.584		37.4920	2.817	1718059.0	27.958	BB	0.475	60238.97	3.066

Total Area = 6145199.0, Total Amount = 1330.814, Total Height = 1964863.0, Sample Units = PPMV

STD 216 10X



Sample Name: **STD 216 10X**
Acquired from BIOREM1--FID 10 via port 4 on 9/18/01 12:08:44pm by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T52\T52D4.14R**
Date Stamp: 9/18/01 12:08:44pm
Sequence File: T52C.SEQ #414
Method File: C:\CPWIN\T52\T52DV2.MET
Version 1. Date Stamp: 9/17/01 11:21:04am
Calibration File: C:\CPWIN\T52\T52DV2.CAL
Version 3. Date Stamp: 9/17/01 11:29:54am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

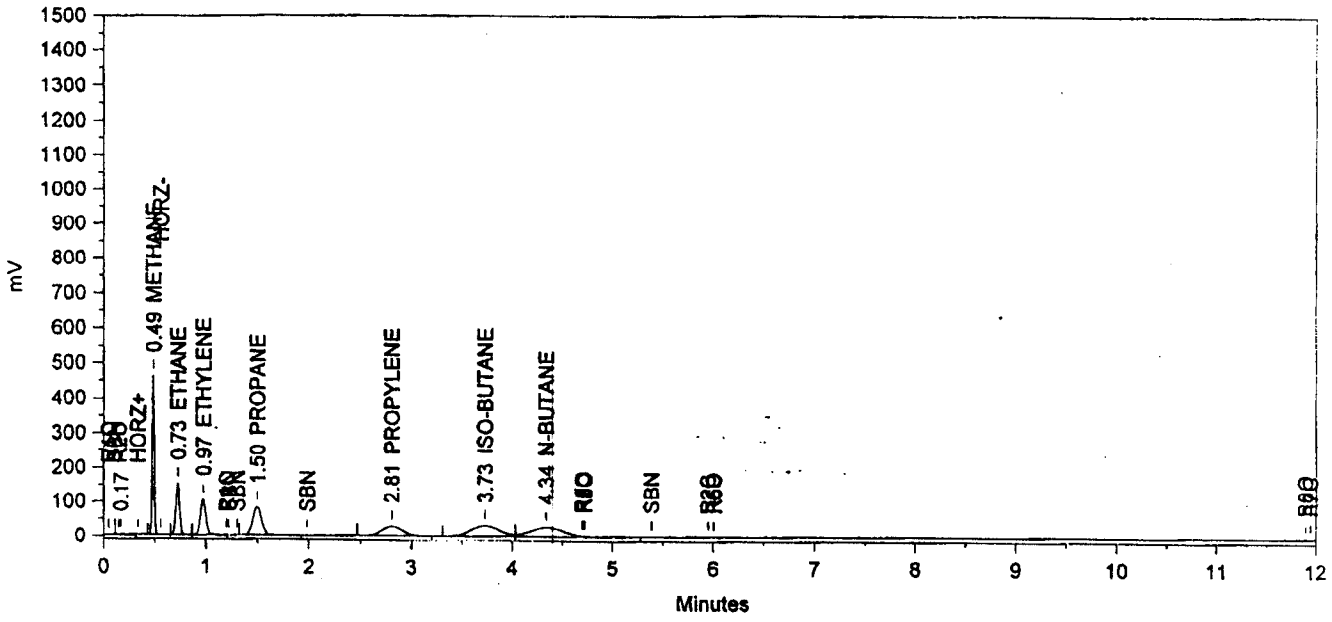
Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.468	METHANE	829.6186	32.909	1832941.0	15.714	BV	0.023	1332961.00	35.897
2	0.696	ETHANE	808.5699	32.074	3269903.0	28.033	VV	0.041	1323596.00	35.645
3	0.922	ETHYLENE	810.5680	32.154	3286979.0	28.180	VB	0.058	940819.00	25.336
4	4.782		0.6058	0.024	1771.8	0.015	BV	0.030	973.28	0.026
5	5.537		71.5570	2.839	3272676.0	28.057	VB	0.474	114971.70	3.096

Total Area = 11664270.0, Total Amount = 2520.919, Total Height = 3713321.0, Sample Units = PPMV

STD P 10X 111301 Page1

STD P 10X 111301



Sample Name: **STD P 10X 111301**
Acquired from BIOREM 1--FID via port 1 on 11/14/01 09:56:45am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.96R**
Date Stamp: 11/14/01 09:56:44am
Sequence File: T54A.SEQ #296
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

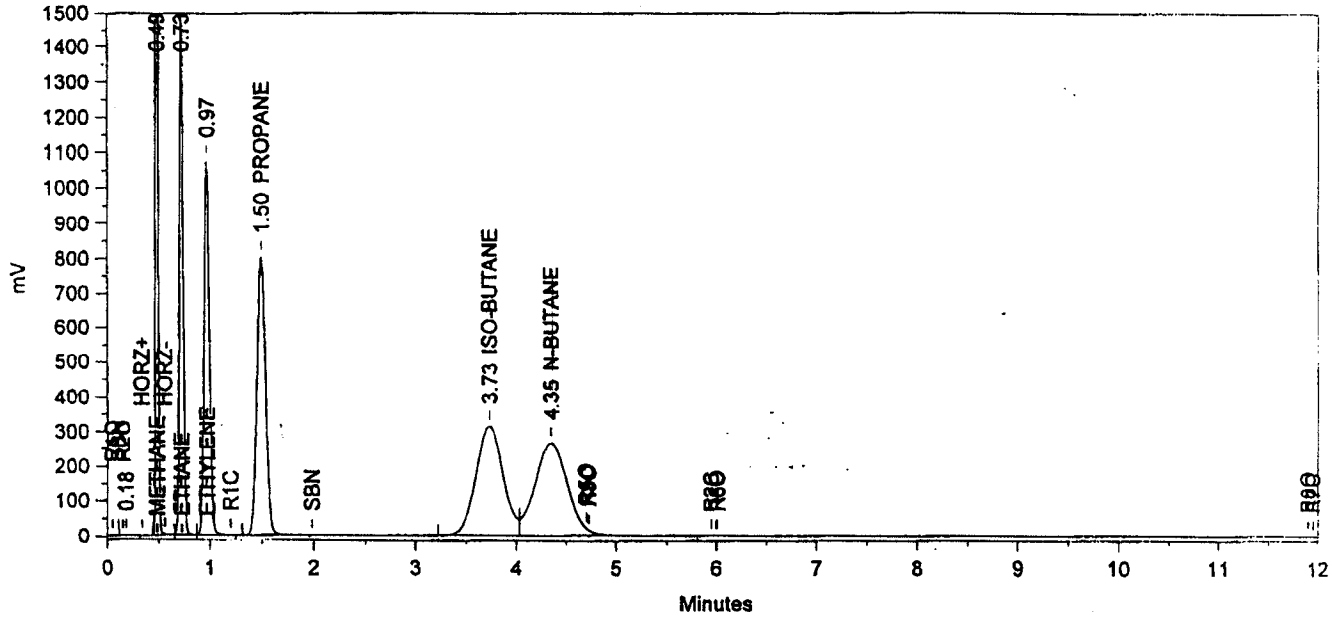
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.168		0.0060	0.000	2096.2	0.062	BB	0.093	374.88	0.043
2	0.488	METHANE	7.3717	0.020	643610.4	19.001	BV	0.023	461755.20	52.397
3	0.727	ETHANE	4564.3370	12.462	376982.7	11.129	VV	0.042	150156.30	17.039
4	0.974	ETHYLENE	5048.7620	13.784	378300.8	11.168	VB	0.061	103502.40	11.745
5	1.498	PROPANE	5867.3650	16.019	474699.6	14.014	BB	0.097	81609.37	9.260
6	2.809	PROPYLENE	6456.4630	17.627	360416.7	10.640	BV	0.218	27531.38	3.124
7	3.734	ISO-BUTANE	7373.1710	20.130	573727.9	16.938	VV	0.315	30379.56	3.447
8	4.341	N-BUTANE	7309.8470	19.957	577425.6	17.047	VB	0.371	25955.83	2.945

Total Area = 3387260.0, Total Amount = 36627.32, Total Height = 881264.9, Sample Units = ug/L&ng/L

STD O



Sample Name: **STD O**
Acquired from BIOREM 1--FID via port 1 on 11/14/01 10:31:44am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.98R**
Date Stamp: 11/14/01 10:31:44am
Sequence File: T54A.SEQ #298
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

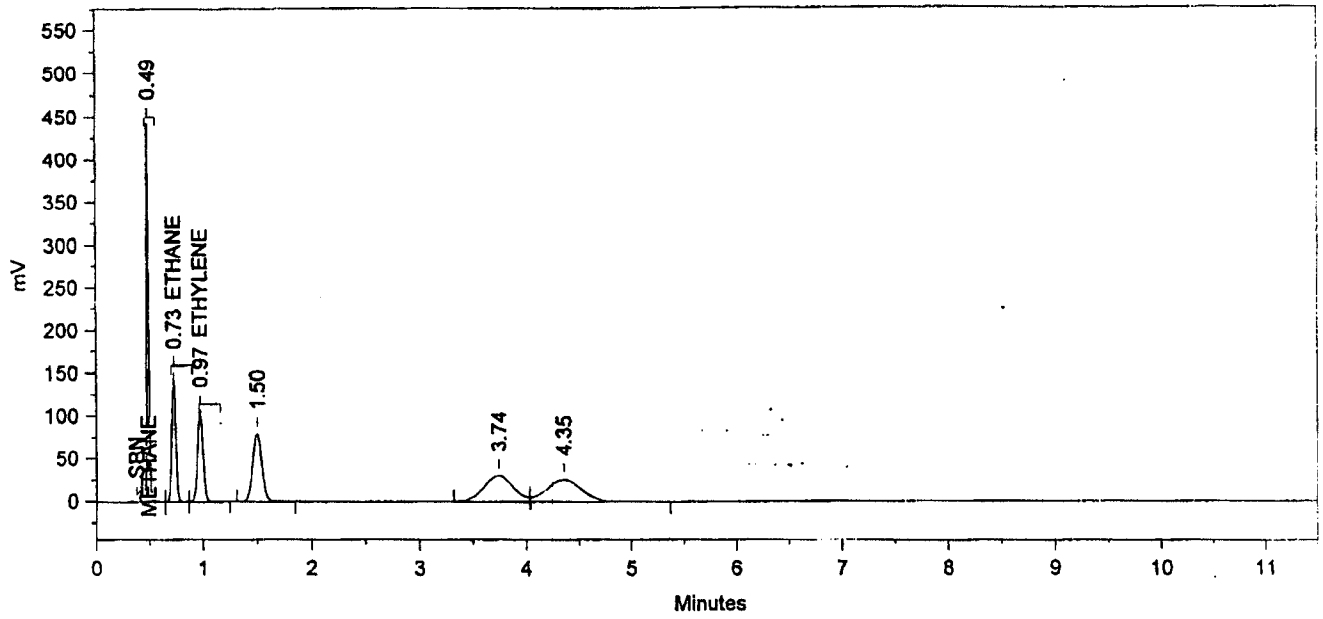
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.182		0.0055	0.000	2040.7	0.007	BB	0.099	344.19	0.006
2	0.486	METHANE	32.3391	0.011	4103363.0	14.480	BV	0.034	2025694.00	33.769
3	0.727	ETHANE	46275.1300	15.067	3822006.0	13.487	VV	0.042	1517931.00	25.304
4	0.973	ETHYLENE	52163.5900	16.984	3908588.0	13.792	VB	0.061	1073556.00	17.896
5	1.499	PROPANE	57393.9500	18.687	4643463.0	16.386	BB	0.096	802192.70	13.373
6	3.734	ISO-BUTANE	75720.9300	24.655	5892066.0	20.792	BV	0.314	313028.60	5.218
7	4.351	N-BUTANE	75540.2800	24.596	5967142.0	21.057	VB	0.374	266006.50	4.434

Total Area = 28338670.0, Total Amount = 307126.2, Total Height = 5998753.0, Sample Units = ug/L&ng/L

STD O



Sample Name: **STD O**
Acquired from BIOREM1--FID 10 via port 4 on 11/14/01 10:31:14am by BC
heading 1 for 2B
heading 2 for 2B

Data File: **C:\CPWIN\T54\T54D2.98R**
Date Stamp: 11/14/01 10:31:14am
Sequence File: T54C.SEQ #298
Method File: C:\CPWIN\T54\T54DW1.MET
Version 3. Date Stamp: 11/8/01 10:51:00am
Calibration File: C:\CPWIN\T54\T54DW1.CAL
Version 3. Date Stamp: 11/8/01 10:48:26am

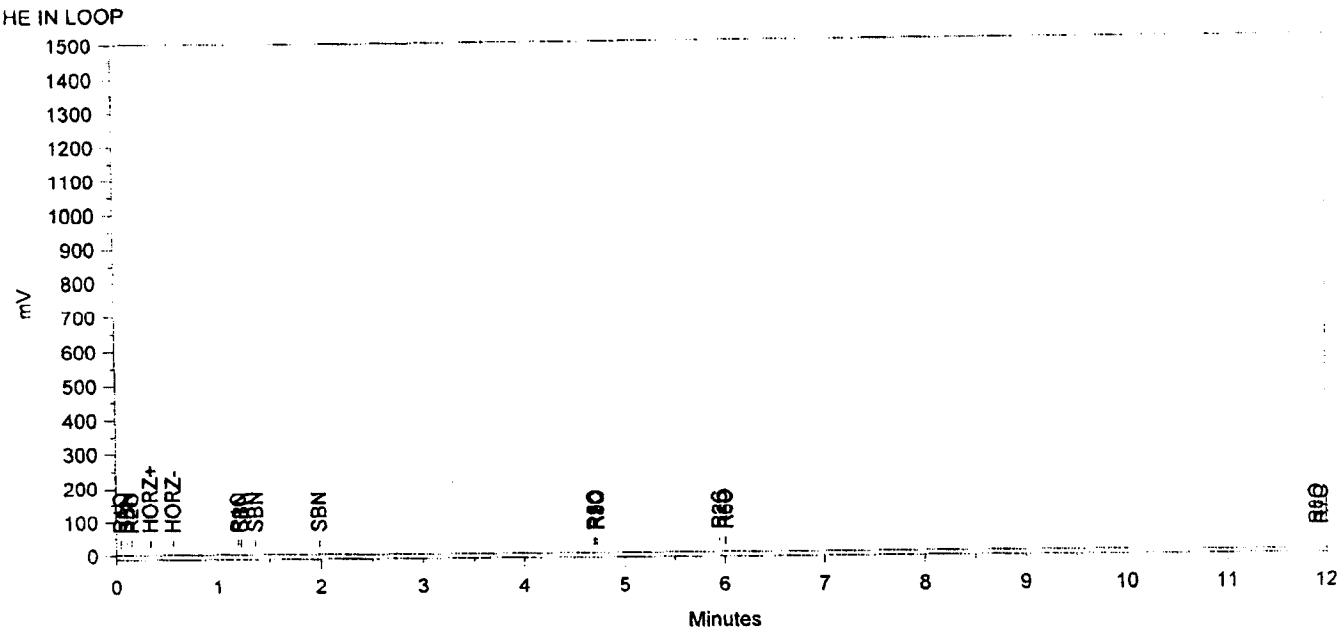
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.488	METHANE	80.0644	0.069	623094.5	20.524	BB	0.023	445305.80	52.958
2	0.727	ETHANE	54217.7600	46.812	380145.5	12.521	BV	0.042	151056.00	17.964
3	0.974	ETHYLENE	61497.7300	53.098	389383.8	12.826	VB	0.061	106830.70	12.705
4	1.499		14.3817	0.012	464033.2	15.285	BB	0.097	79988.77	9.513
5	3.736		5.6022	0.005	585122.6	19.273	BV	0.313	31158.50	3.706
6	4.354		4.7688	0.004	594179.8	19.571	VB	0.373	26523.18	3.154

Total Area = 3035959.0, Total Amount = 115820.3, Total Height = 840862.9, Sample Units = ug/L&ng/L

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM 1--FID via port 1 on 11/14/01 10:46:10am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A2.99R**
Date Stamp: 11/14/01 10:46:10am
Sequence File: T54A.SEQ #299
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

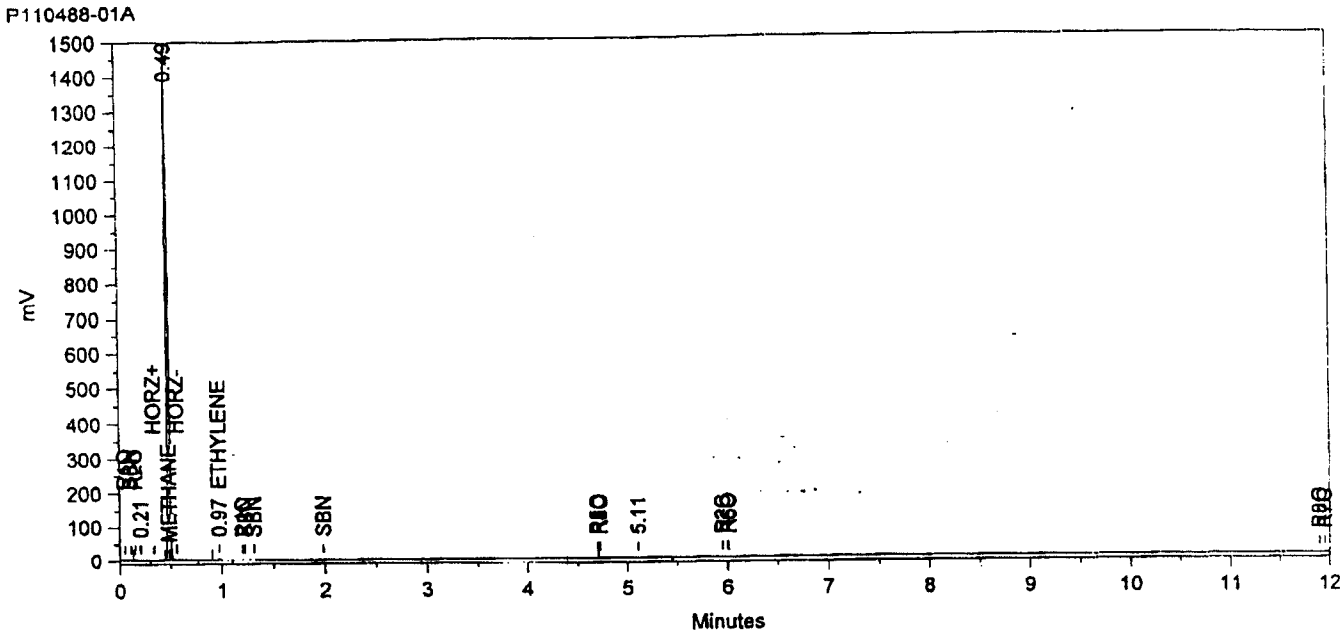
Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = ug/L&ng/L

P110488-01A



Sample Name: **P110488-01A**
Acquired from BIOREM 1--FID via port 1 on 11/14/01 11:07:36am by BC
header 1 for chan 1
header 2 for chan 1

Data File: **C:\CPWIN\T54\T54A3.00R**
Date Stamp: 11/14/01 11:07:36am
Sequence File: T54A.SEQ #300
Method File: C:\CPWIN\T54\T54AW1.MET
Version 4. Date Stamp: 11/8/01 10:50:08am
Calibration File: C:\CPWIN\T54\T54AW1.CAL
Version 3. Date Stamp: 11/8/01 10:28:48am

Run Time = 12.0 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.07 min. Peak Threshold = 3 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.206		0.0039	0.003	1272.8	0.061	BB	0.087	243.11	0.014
2	0.485	METHANE	26.9689	21.099	2057574.0	99.078	BB	0.020	1689307.00	99.851
3	0.972	ETHYLENE	100.8457	78.895	7556.3	0.364	BB	0.064	1969.16	0.116
4	5.107		0.0050	0.004	10326.2	0.497	BB	0.550	312.88	0.018

Total Area = 2076729.0, Total Amount = 127.823, Total Height = 1691832.0, Sample Units = ug/L&ng/L

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C110751 Date Received: 30-Oct-01

1.	Was there a Chain of Custody?	(Yes)	No+		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+	Yes	No+	(N/A)
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No+		9.	Is there sufficient volume for analysis requested?	(Yes)	No+	N/A *(Can)*
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP	(Yes)	No+	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No+	
4.	Were all samples properly labeled and identified?	(Yes)	No+		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes+	No	(N/A)
5.	Did samples require splitting or compositing•? Req By: PM Client Other•	Yes+	(No)						
6.	Were samples received in proper containers for analysis requested?	(Yes)	No+		12.	If sent, were matrix spike bottles returned?	Yes	No+	(N/A)
7.	Were all sample containers received intact?	(Yes)	No+		13.	Was Project Manager notified of problems? (initials:_____)	Yes	No+	(N/A)

Airbill Number(s): 830709367043 Shipped By: FEDEX

Cooler Number(s): Client Shipping Charges: N/A

Cooler Weight(s): N/A Cooler Temp(s) (°C): 2.0°C-CCA7

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS) ☞

Inspected By: RVE Date: 10/30/01 Logged By: RVE Date: 10/30/01

+ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

• *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

CHAIN-OF-CUSTODY RECORD

152044-13

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

C110751

[3] PROJECT NAME: NTC ORLANDO	[5] PROJECT NUMBER: 152044-32.12.01.08	[8] LAB NAME AND CONTACT: STL Pensacola Rick Hayes	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company) STEVE TSANGARIS CCI / CH2M HILL	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.): 4350 W. CYPRESS St. Ste. 600 ~~ATLANTA GA~~ TAMPA FL 33607
[3] PROJECT PHASE/SITE/TASK: SA-36	[6] CTO OR DO NUMBER: CTO-017	[9] LAB PO NUMBER: 2643	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company) Christelle Newsome CCI / ATL	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.): 115 Perimeter CTR. DR. Ste. 700 ATLANTA GA 30346
[4] PROJECT CONTACT: Christelle Newsome	[7] PROJECT TEL NO AND FAX NO: 770-604-9182	[10] LAB TEL NO AND FAX NO: 850-474-1001	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company) Jennifer Ottoson CH2M HILL	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.): 205 INDIAN River DR. COCOA FL 32922

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	[25] ANALYSES REQUIRED (Include Method Numbers) MEE AM19GA	VFA AM21G										[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	17-3625C-Q401	OLD-36-25C	W	10-29-01	1300	III	14	3	2										N		1
2																					
3																				please FORWARD TO Microseeps LAB.	
4																					
5																					
6																					
7																					
8																					
9																					
10																					

[29] SAMPLER(S) AND COMPANY: (please print)
ISAAC LYNCH - Chase Lynch

[30] COURIER AND SHIPPING NUMBER:
FED EX 830709367043

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: ISAAC LYNCH - Chase Lynch	10-29-01	1730	Printed Name and Signature: R. ELSPERMAN, STL	10/30/01	0901
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Form CC1001, Rev 06/00

[ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Jan 23 02 05:10p STL/Pensacola 850 478-2671 p.50

050

1010000 1000101 1100110
PEL Laboratories, Inc.

Customer Name:	CH2MHILL
Date & Time Received:	10-30-01; 10:40 AM
Date Reported:	11-21-01
PEL Submission Number:	2110174
Project:	NTC Orlando

Samples: The submission consisted of 1 sample with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
Dissolved Hydrogen

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualitities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

TABLE OF CONTENTS

PEL Lab Reference No.: 2110174 NTC ORLANDO
Level 3

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Addendum.....19

Outside Lab

Hydrogen

MICROSEEPS

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road

Tampa, FL 33619

Order #: P0110486
Report Date: 11/15/01
Client Proj Name: 2110-174
Client Proj #: 2110-174

Sample Identification

Lab Sample #	Client Sample ID
P0110486-01	17-3625C-Q401

Approved By: Debbie Halls

Order #: P0110486
Report Date: 11/15/01
Client Proj Name: 2110-174
Client Proj #: 2110-174

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110486-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3625C-Q401	Vapor	29 Oct. 01 13:00	31 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	0.86	0.030	nM	AM20GAX	bc	11/13/01

P0110486

Chain of Custody Record
Record/Work Request

Microseeps

PEL Laboratories, Inc.
4420 Pendola Point Road
Tampa, Florida 33615
(813) 247-2805 • Fax: (813) 248-153
E-Mail: login@Pelab.com

Company: PEL
Address:
Phone: Fax:

Project Name/Number: 2110-174
Project Manager: Dary Weisman (MK)
Purchase Order:

Page of

DEP Form #: 62-770.900(2)
Form Title: Chain of Custody Record
Effective Date: September 23, 1997
FDEP Facility No.
Project Name:
Sampling CompQAP No:
Approval Date:

Print Names(s) / Affiliation
Sampler(s) Signature(s)

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Composite	Matrix (see codes)	Number of Containers	Preservatives (see codes)	Analyses Requested: Dissolved Hydrogen	REQUESTED DUE DATE / / Remarks	Lab. No.
01	17-3625C-Q401	10/29/01	13:00		A	1		X	2110-174-01	
Shipment Method						1	← Total Number of Containers			

Out: / /	Via: Fed Ex	Item Nos.	Relinquished by / Affiliations	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via.		Michael A. Kelly / PEL	10/30/01	18:30	Thomas / Microseeps	10/31/01	1603
Additional Comments:								
Level II QC/Reporting								

Cooler No. (s) / Temperature(s) (C)	Sampling Kit No.	Equipment ID No.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATION CODES: H-Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

METHOD DETECTION LIMITS - BIOREM 1

	Lab ID	Hydrogen	Date Analyzed
REP. #		(PPMV)	01/24/01
1	T42 62	0.1116	
2	T42 63	0.1122	
3	T42 64	0.1247	
4	T42 65	0.1244	
5	T42 66	0.1120	
6	T42 67	0.0943	
7	T42 68	0.1296	
AVERAGE		0.1156	
KNOWN		0.0999	
STD DEV		0.012	
MDL (VAPOR)		0.037	
MDL (BUBBLE)		0.03nM	

		Carbon	Oxygen	Nitrogen	Methane	Carbon	Date Analyzed
	Lab ID	Dioxide				Monoxide	01/18/01
REP. #		(%v)	(%v)	(%v)	(%v)	(%v)	
1	T42 458	0.1221	0.0670	0.5744	0.0410	0.0621	
2	T42 459	0.1267	0.0690	0.6020	0.0428	0.0537	
3	T42 460	0.1207	0.0657	0.5838	0.0446	0.0525	
4	T42 461	0.1193	0.0667	0.6036	0.0444	0.0672	
5	T42 462	0.1261	0.0703	0.5860	0.0439	0.0596	
6	T42 463	0.1193	0.0665	0.5861	0.0478	0.0643	
7	T42 464	0.1227	0.0732	0.5748	0.0353	0.0581	
AVERAGE		0.1224	0.0683	0.5872	0.0428	0.0596	
KNOWN		0.1500	0.0700	0.6649	0.0450	0.0701	
STD. DEV.		0.003	0.003	0.012	0.004	0.005	
MDL (VAPOR)		0.009	0.008	0.037	0.012	0.017	
MDL (BUBBLE)		0.14 mg/L	0.003 mg/L	0.007 mg/L	0.003 mg/L	0.005 mg/L	
MDL (H2O)		0.19 mg/L	0.04 mg/L	0.15 mg/L	0.03 mg/L	0.07 mg/L	

	Lab ID	Methane	Ethane	Ethylene	Propane	Propylene	Iso-Butane	N-Butane	Date Analyzed
REP. #		(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	01/30/01
1	T43 147	0.2512	0.0525	0.0453	0.0461	0.0581	0.0473	0.0358	
2	T43 148	0.2608	0.0516	0.0468	0.0521	0.0465	0.0439	0.0407	
3	T43 149	0.2812	0.0509	0.0485	0.0529	0.0588	0.0436	0.0405	
4	T43 150	0.2779	0.0549	0.0460	0.0461	0.0536	0.0549	0.0476	
5	T43 151	0.2894	0.0551	0.0497	0.0520	0.0549	0.0417	0.0460	
6	T43 152	0.2970	0.0515	0.0467	0.0458	0.0542	0.0485	0.0514	
7	T43 153	0.3053	0.0532	0.0473	0.0485	0.0584	0.0483	0.0535	
AVERAGE		0.2804	0.0528	0.0472	0.0491	0.0549	0.0462	0.0451	
KNOWN		0.1500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	
STD DEV		0.019	0.002	0.001	0.003	0.004	0.004	0.006	
MDL (VAPOR)		0.060	0.005	0.005	0.010	0.013	0.014	0.020	
MDL (BUBBLE)		0.001 ug/L	0.3 ng/L	0.7ng/L	0.6 ng/L	2.6 ng/L	0.7 ng/L	1.2 ng/L	
MDL (H2O)		0.015 ug/L	2.4 ng/L	2.6 ng/L	6.7 ng/L	10 ng/L	12 ng/L	17 ng/L	

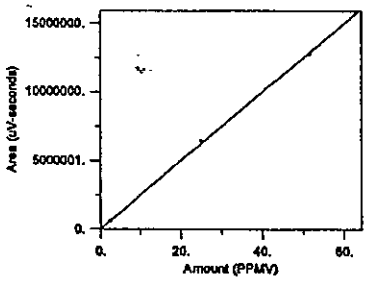
MDL= 3.143*STD DEV OF 7 REPLICATES

Calibration File Name: **C:\CPWIN\T54\T54CH2.CAL** Version = 1
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = PPMV
1 components with 4 levels each

1 HYDROGEN

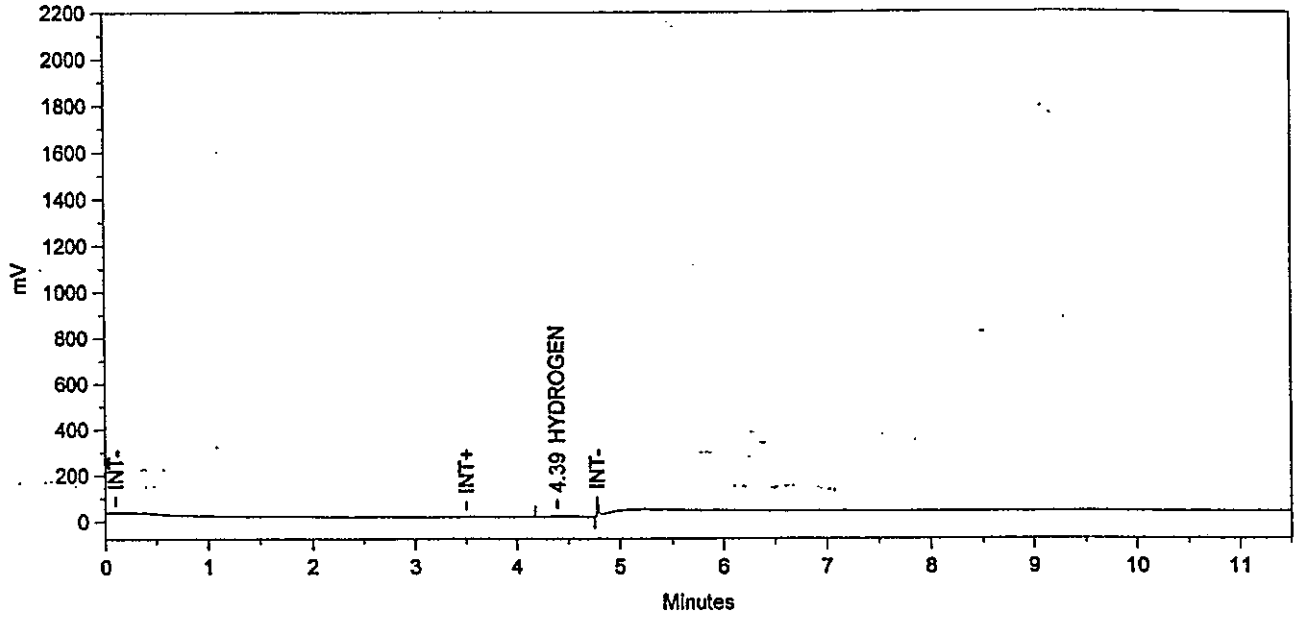
Retention time = 4.300 min., Search window = 0.205 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.250	83512.0	334048	Manual	11/8/2001 10:32:
2	2.500	584005.0	233602	Manual	11/8/2001 10:32:
3	25.000	6432841.0	257313.6	Manual	11/8/2001 10:32:
4	51.450	12741470.0	247647.6	Manual	11/8/2001 10:32:



Calibration formula: Y = 249465.2 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9995, Average error = 11.03%
Average CF = 268152.8000 with RSD = 16.78%

STD P 100X



Sample Name: **STD P 100X**
Acquired from BIOREM1–RGD via port 3 on 11/8/01 09:46:03am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.86R**
Date Stamp: 11/8/01 09:46:02am
Sequence File: T54C.SEQ #186
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

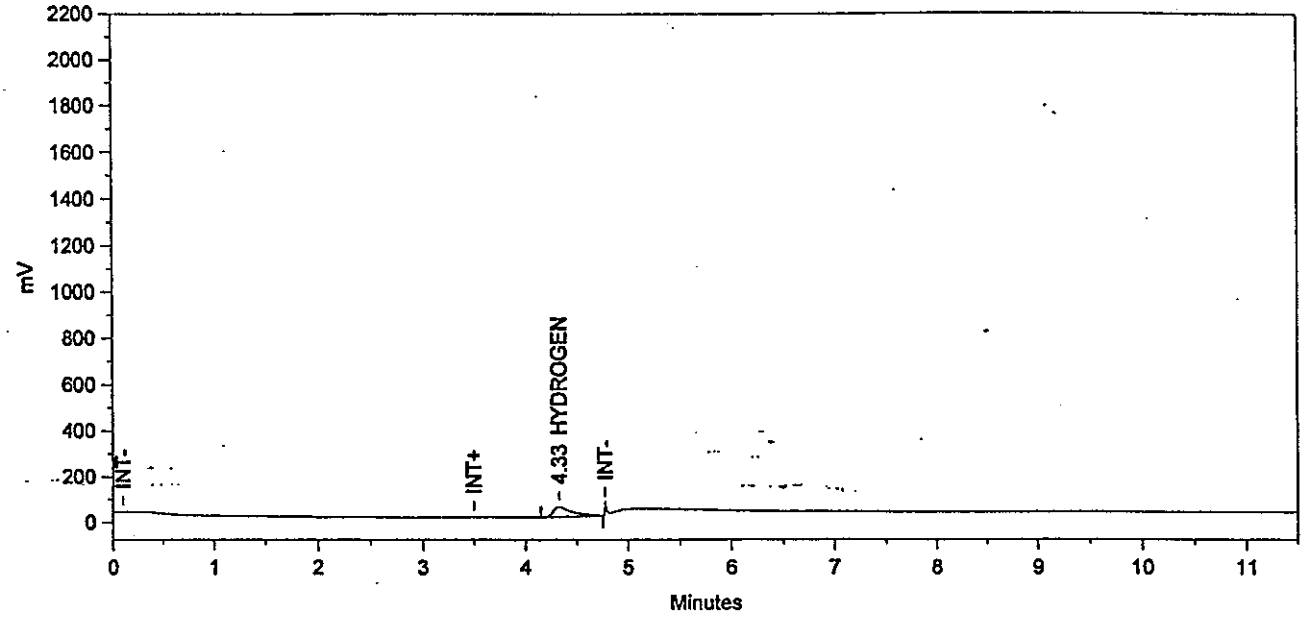
Run Time = 11.5 min. Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.389	HYDROGEN	0.3644	100.000	83511.9	100.000	BB	0.265	5243.12	100.000

Total Area = 83511.9, Total Amount = 0.364, Total Height = 5243.12, Sample Units = PPMV

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 09:59:36am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.87R**
Date Stamp: 11/8/01 09:59:36am
Sequence File: T54C.SEQ #187
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

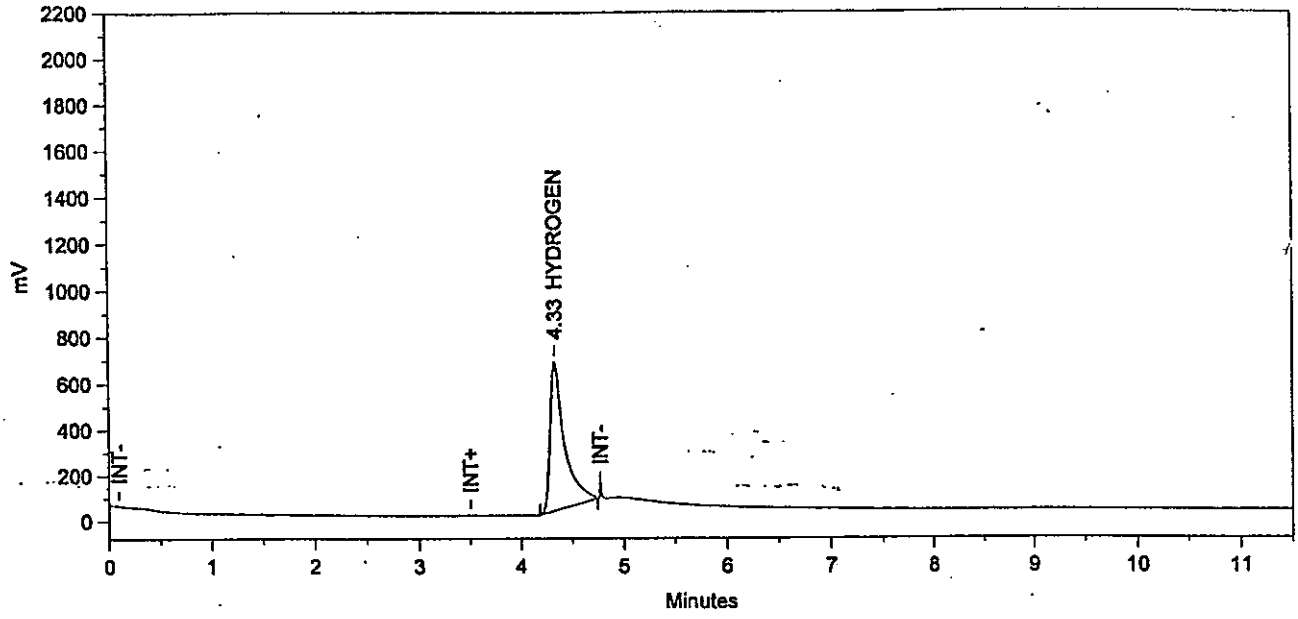
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.326	HYDROGEN	2.5486	100.000	584005.4	100.000	BB	0.222	43806.06	100.000

Total Area = 584005.4, Total Amount = 2.549, Total Height = 43806.06, Sample Units = PPMV

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:12:21am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.88R**
Date Stamp: 11/8/01 10:12:20am
Sequence File: T54C.SEQ #188
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

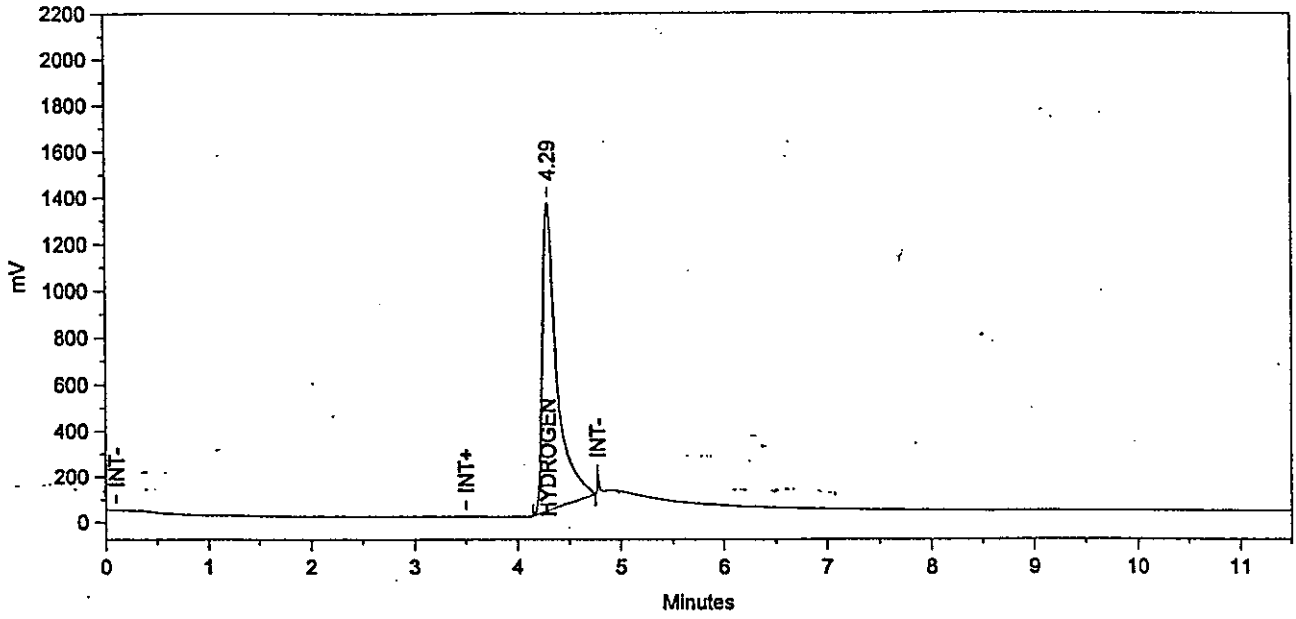
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.332	HYDROGEN	28.0729	100.000	6432841.0	100.000	BB	0.166	646406.70	100.000

Total Area = 6432841.0, Total Amount = 28.073, Total Height = 646406.7, Sample Units = PPMV

STD 210 2X



Sample Name: **STD 210 2X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:26:05am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.89R**
Date Stamp: 11/8/01 10:26:04am
Sequence File: T54C.SEQ #189
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

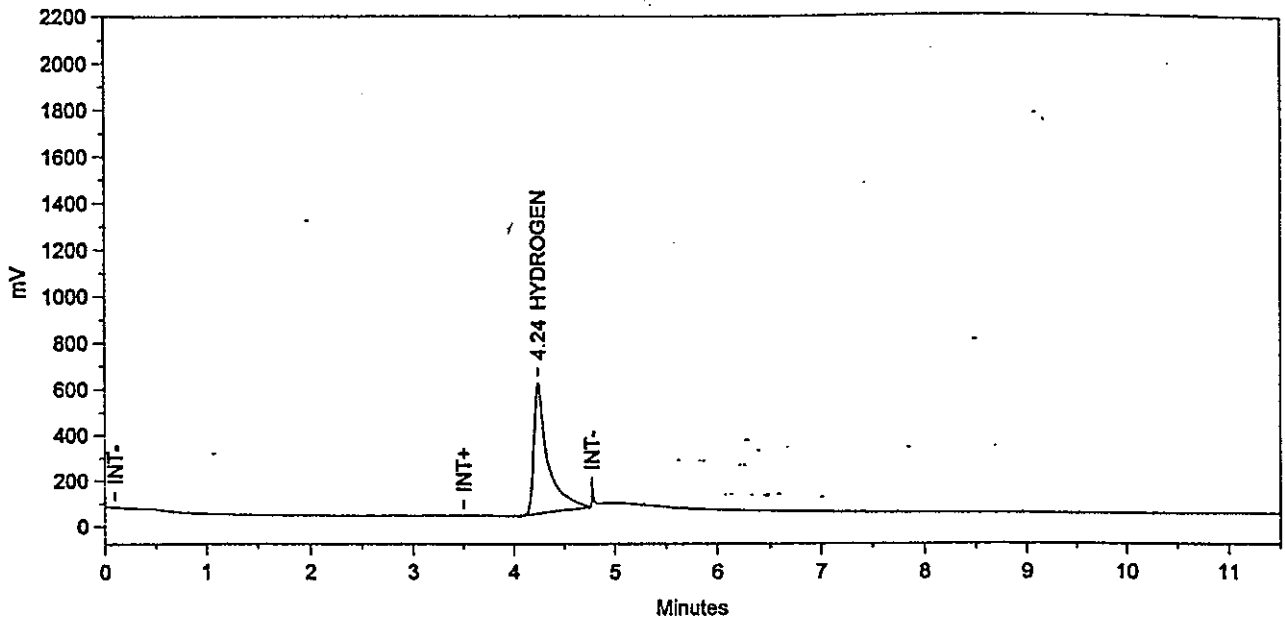
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.293	HYDROGEN	55.6037	100.000	12741470.0	100.000	BB	0.160	1326773.00	100.000

Total Area = 12741470.0, Total Amount = 55.604, Total Height = 1326773.0, Sample Units = PPMV

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/13/01 11:09:22am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.71R**
Date Stamp: 11/13/01 11:09:22am
Sequence File: T54C.SEQ #271
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

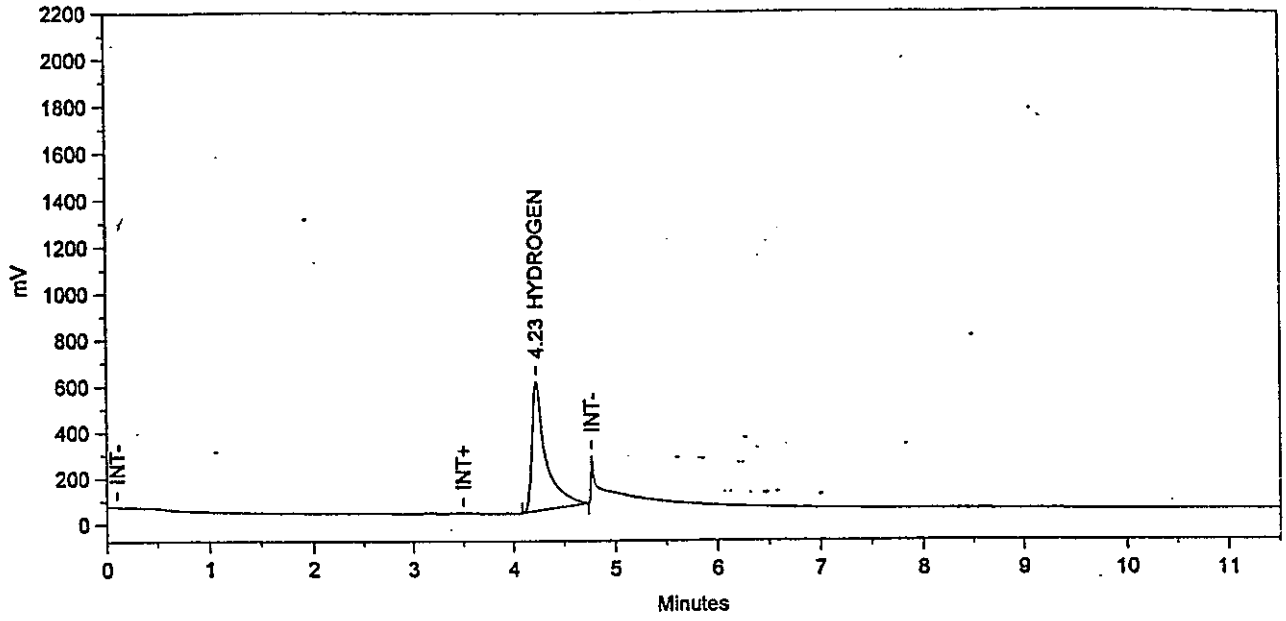
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.241	HYDROGEN	22.3750	100.000	5581772.0	100.000	BB	0.162	572504.40	100.000

Total Area = 5581772.0, Total Amount = 22.375, Total Height = 572504.4, Sample Units = PPMV

STD O



Sample Name: **STD O**
Acquired from BIOREM1--RGD via port 3 on 11/13/01 11:22:50am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.72R**
Date Stamp: 11/13/01 11:22:50am
Sequence File: T54C.SEQ #272
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

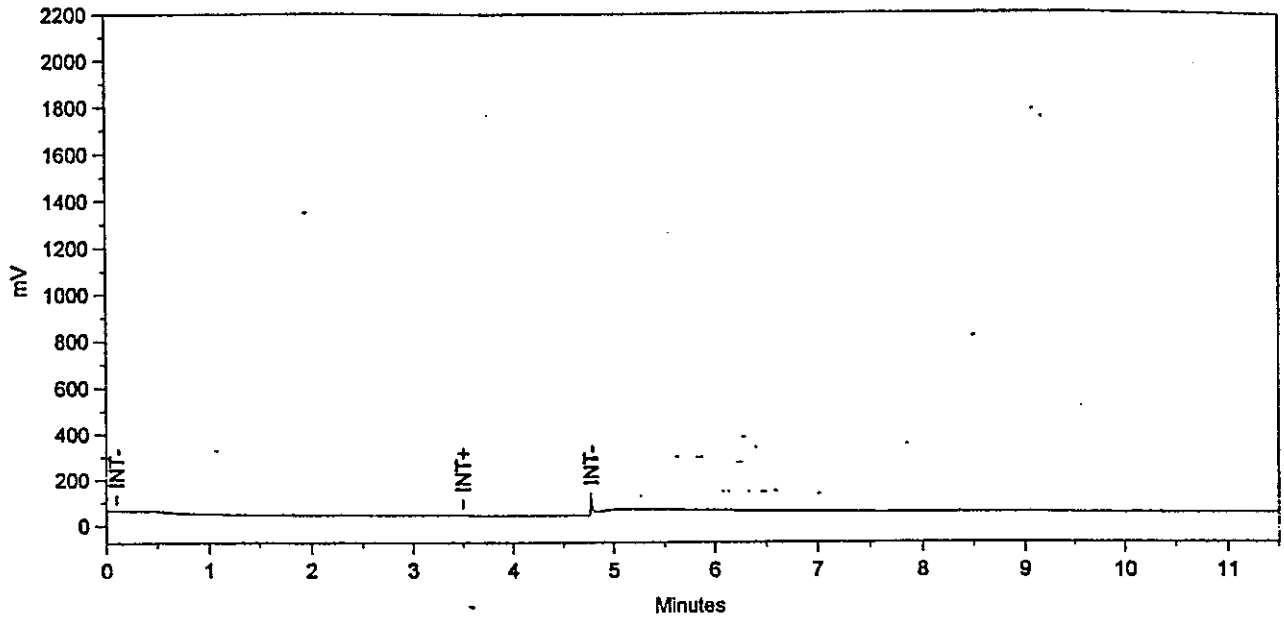
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.228	HYDROGEN	21.9498	100.000	5475704.0	100.000	BB	0.162	561968.10	100.000

Total Area = 5475704.0, Total Amount = 21.95, Total Height = 561968.1, Sample Units = PPMV

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM1--RGD via port 3 on 11/13/01 11:37:41am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.73R**
Date Stamp: 11/13/01 11:37:40am
Sequence File: T54C.SEQ #273
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

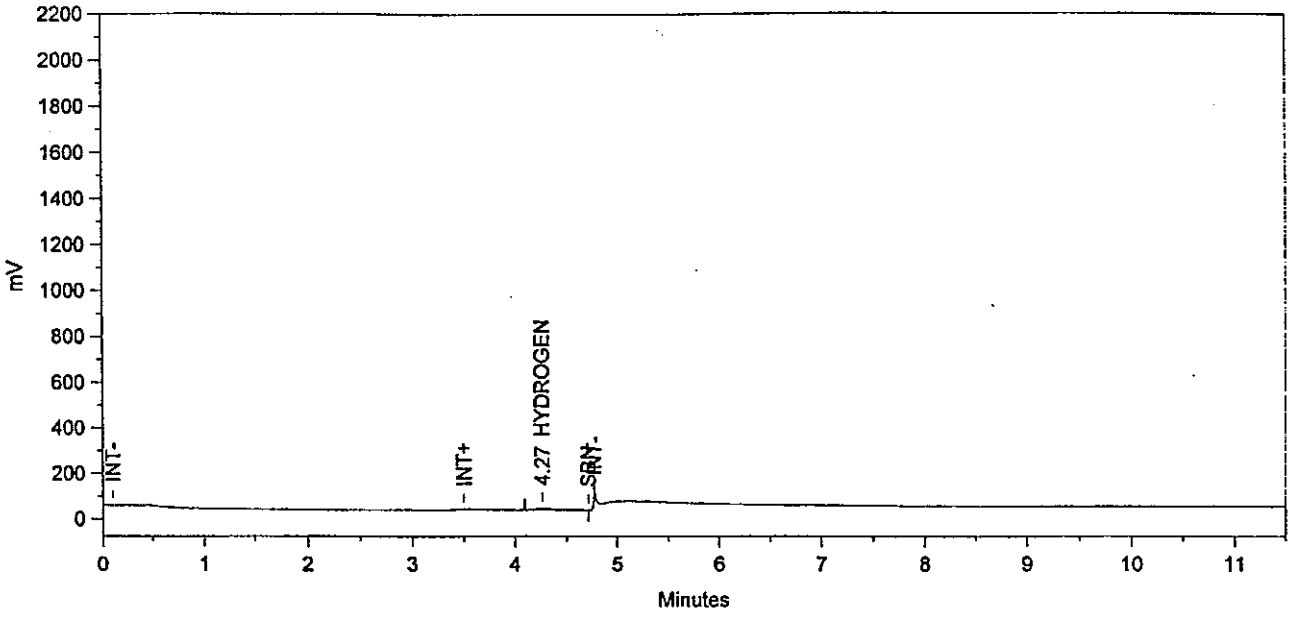
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = PPMV

P110486-01A



Sample Name: **P110486-01A**
Acquired from BIOREM1--RGD via port 3 on 11/13/01 11:52:13am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.74R**
Date Stamp: 11/13/01 11:52:12am
Sequence File: T54C.SEQ #274
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.265	HYDROGEN	0.4485	100.000	111893.1	100.000	BB	0.246	7580.08	100.000

Total Area = 111893.1, Total Amount = 0.449, Total Height = 7580.08, Sample Units = PPMV

Chain of Custody Documentation

PEL LAB SAMPLE LOG IN SHEET

Client Information Project # 2110-174

Client: CHAM Hill	Date Recd: 10/30/01
Project: NTC Orlando SA-36	Due Date:
Log In Tech: ZMK	Recd Via: Client Crosstown (FedEx)
Comments:	Other:

SAMPLE VERIFICATION

	YES	NO		YES	NO
Samples/Cooler Secure	✓		All Smpls. on COC Accounted For	✓	
Samples Received on Ice		✓	All Samples Received Intact	✓	
Temperature WNL	✓		Sample Vol. Sufficient For Analysis	✓	
Temperature of Samples (°C)	R IT		Samples Received W/I Hold Time	✓	
pH verified NA			Are All Samples to be Analyzed	✓	
pH WNL			Correct Sample Containers	✓	
Soil Origin Domestic ↓			Soil Origin Foreign NA		

COC VERIFICATION

	YES	NO		YES	NO
Site Location/Project on COC	✓		Samplers Initials on COC	✓	
Client Project # on COC	✓		Sample Time/Date Indicated	✓	
Project Mgr. Indicated on COC	✓		TAT requested: STND / RUSH		
COC Relinquished/Dated by Client	✓		Client Requests Verbal Results		✓
COC Received/Dated by PEL	✓		Client Requests FAX Results		✓
			* PEL to Conduct All Analysis		✓
			* Specific Subcontract Indicated	✓	

* SUBCONTRACTED ANALYSIS

Subcontractor: Microseeps	Subcontractor:	Subcontractor:
Due Date: 11/09/01	Due Date:	Due Date:
Parameter: Dissolved Hydrogen	Parameter:	Parameter:
Via: Crosstown (FedEx)	Via: Crosstown FedEx	Via: Crosstown FedEx
Tracking #:	Tracking #:	Tracking #:

CH2M Hill / NTC Orlando 2110-17-4

Sample #	Parameter	Rel'd	Rec'd	Date	Time
01	Dissolved Hydrogen Sent to Microseeps	ZMK	Fed Ex	10/30/01	18:30

Addendum

Letter of Acceptance

Customer Name:	CH2MHILL
Date & Time Received:	10-30-01; 10:40 AM
Date to be Reported:	11-13-01
Laboratory Submission Number/SDG:	2110174
Project:	NTC Orlando

Samples: The submission consisted of 1 sample with sample identification shown in the attached data tables.

Tests: The samples will be analyzed for EPA methods:
Dissolved Hydrogen

Sample Custody/COC discrepancies:
None.

Notes: . Dissolved Hydrogen was sent to Microseeps.

Distribution of Report to:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182

Respectfully Submitted,

PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

1010000 1000101 1100110
PEL Laboratories, Inc.

Customer Name:	CH2MHILL
Date & Time Received:	10-26-01; 10:10 AM
Date Reported:	11-20-01
PEL Submission Number:	2110158
Project:	NTC Orlando

Samples: The submission consisted of 10 samples with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
Dissolved Hydrogen

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualitities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

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Level 3

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Outside Lab

Dissolved Hydrogen

MICROSEEPS

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road

Tampa, FL 33619

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Sample Identification

Lab Sample #	Client Sample ID
P0110454-01	17-3610B-Q401
P0110454-02	17-3611C-Q401
P0110454-03	17-3629B-Q401
P0110454-04	17-3632C-Q401
P0110454-05	17-3631C-Q401
P0110454-06	17-3626A-Q401
P0110454-07	17-3630C-Q401
P0110454-08	17-3609C-Q401
P0110454-09	17-3627A-Q401
0110454-10	17-3628B-Q401

Approved By: Debbie Hallo

Chain of Custody Record
Record/Work Request

PO110454

PEL Laboratories, Inc.
4420 Pendola Point Road
Tampa, Florida 33619
(813) 247-2805 • Fax: (813) 248-1537
E-Mail: login@Pelab.com

Microseeps

Company: PEL

Address:

Phone: Fax:

Project Name/Number: 2110-158

Project Manager: Darcy Weisman (MK)

Purchase Order:

Print Names(s) / Affiliation

Sampler(s) Signature(s)

Page 1 of 2

DEP Form #: 62-770.900(2)
Form Title: Chain of Custody Record
Effective Date: September 23, 1997
FDEP Facility No.
Project Name:
Sampling CompQAP No:
Approval Date:
REQUESTED DUE DATE
/ /

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Composite	Matrix (see codes)	Number of Containers	Preservatives (see codes)	Analyses Requested: Dissolved Hydrogen	Remarks	Lab. No.
1	17-3610B-Q4Ø1	10/22/01	12:45		A	1		X	2110-158-01	
2	17-3611C-Q4Ø1	↓	13:00		↓	↓		X	-02	
3	17-3629B-Q4Ø1		16:50					X	-03	
4	17-3632C-Q4Ø1	↓	17:15					X	-04	
5	17-3631C-Q4Ø1	10/23/01	11:15					X	-05	
6	17-3626A-Q4Ø1	↓	15:00					X	-06	
7	17-3630C-Q4Ø1	↓	15:40					X	-07	
8	17-3609C-Q4Ø1	10/24/01	11:00					X	-08	
9	17-3628A-Q4Ø1	↓	15:15		↓	↓		X	-09	
	Shipment Method					9		← Total Number of Containers		

Out: / /	Via: Fed Ex	Item Nos.	Relinquished by / Affiliations	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via.		[signature] PEL	10/26/01	18:30	[signature] Microseeps	10/29/01	
Additional Comments:								
Level II QC / Reporting								

Cooler No. (s) / Temperature(s) (C)	Sampling Kit No.	Equipment ID No.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATION CODES: H-Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

PEL Laboratories, Inc.

Chain of Custody Record
Record/Work Request

PO1104454

4420 Pendola Point Road
Tampa, Florida 33619
(813) 247-2805 • Fax: (813) 248-1537
E-Mail: login@Pelab.com

Microseeps

Company: PEL

Project Name/Number: 2110-158

Page 2 of 2

Address:

Project Manager: Darcy Weisman (MK)

DEP Form #: 62-770.900(2)

Form Title: Chain of Custody Record

Effective Date: September 23, 1997

Phone: Fax:

Purchase Order:

FDEP Facility No.

Project Name:

Print Names(s) / Affiliation

Preservatives (see codes)

Sampling CompQAP No:

Sampler(s) Signature(s)

Analyses Requested

Approval Date:

REQUESTED DUE DATE

/ /

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Composite	Matrix (see codes)	Number of Containers	Dissolved Hydrogen	Remarks	Lab. No.
10	7-3628B-Q401	10/24/01	16:00		A	1	X	2110-158-10	

Shipment Method — 1 ← Total Number of Containers

Out: / /	Via: Fed Ex	Item Nos.	Relinquished by / Affiliations	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via.		[signature] PEL	10/26/01	18:30	[signature] Microseeps	10/29/01	
Additional Comments:								
Level II QC/Reporting								

Cooler No. (s) / Temperature(s) (C)	Sampling Kit No.	Equipment ID No.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATION CODES: H-Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-03

Sample Description	Matrix	Sampled Date/Time	Received
17-3629B-Q401	Vapor	22 Oct. 01 16:50	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	3.4	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-04

Sample Description	Matrix	Sampled Date/Time	Received
17-3632C-Q401	Vapor	22 Oct. 01 17:15	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	1.5	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-05

Sample Description	Matrix	Sampled Date/Time	Received
17-3631C-Q401	Vapor	23 Oct. 01 11:15	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	8.7	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-06

Sample Description	Matrix	Sampled Date/Time	Received
17-3626A-Q401	Vapor	23 Oct. 01 15:00	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	10	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-07

Sample Description	Matrix	Sampled Date/Time	Received
17-3630C-Q401	Vapor	23 Oct. 01 15:40	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	14	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-08

Sample Description	Matrix	Sampled Date/Time	Received
17-3609C-Q401	Vapor	24 Oct. 01 11:00	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	150	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-09

Sample Description	Matrix	Sampled Date/Time	Received
17-3627A-Q401	Vapor	24 Oct. 01 15:15	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	2.2	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

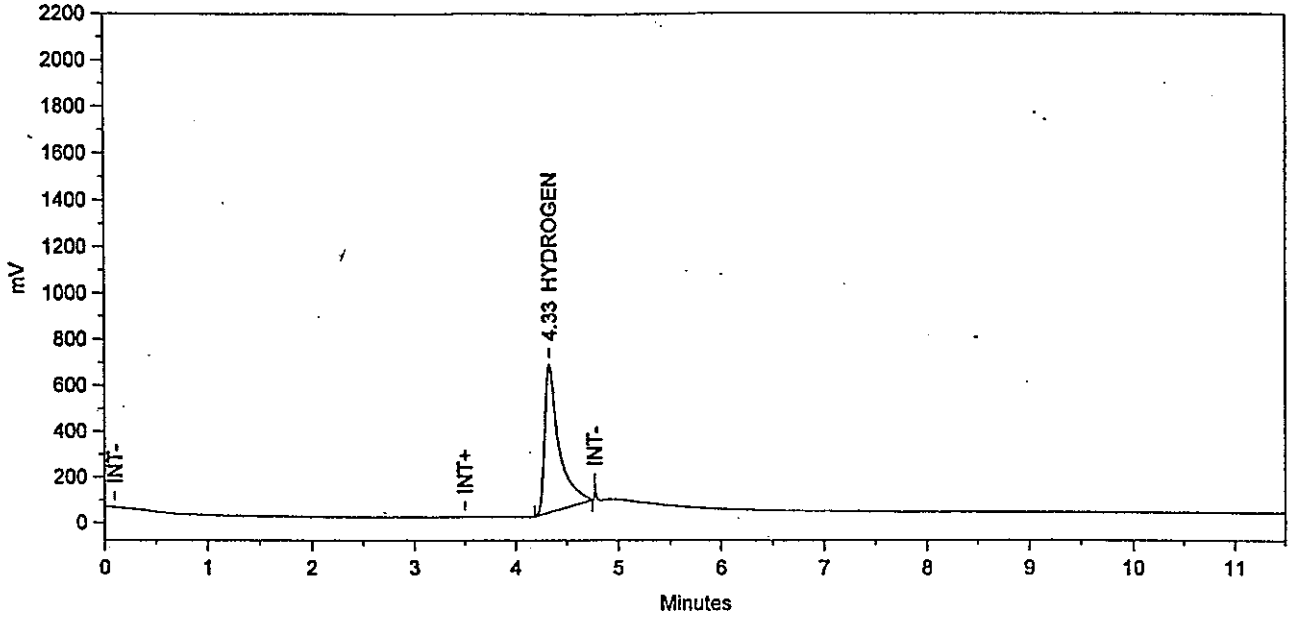
Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-10

Sample Description	Matrix	Sampled Date/Time	Received
17-3628B-Q401	Vapor	24 Oct. 01 16:00	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	14	0.030	nM	AM20GAX	bc	11/8/01

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:12:21am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.88R**
Date Stamp: 11/8/01 10:12:20am
Sequence File: T54C.SEQ #188
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

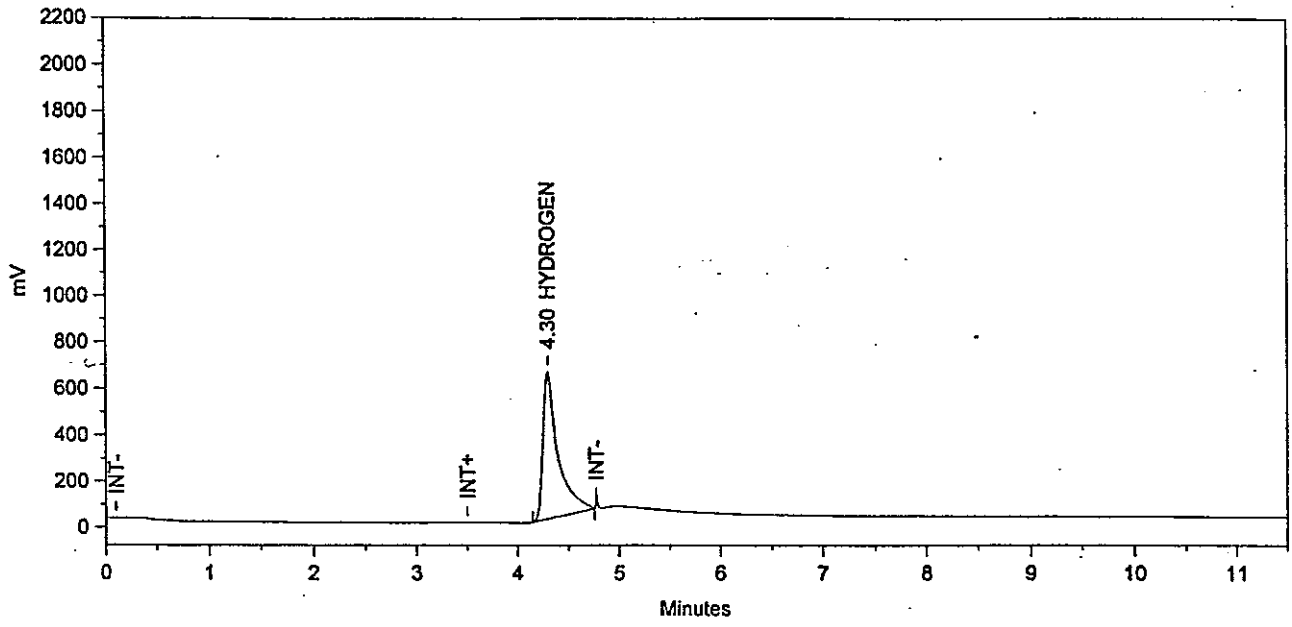
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.332	HYDROGEN	25.7865	100.000	6432841.0	100.000	BB	0.166	646406.70	100.000

Total Area = 6432841.0, Total Amount = 25.787, Total Height = 646406.7, Sample Units = PPMV

STD O



Sample Name: **STD O**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:41:38am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.90R**
Date Stamp: 11/8/01 10:41:38am
Sequence File: T54C.SEQ #190
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

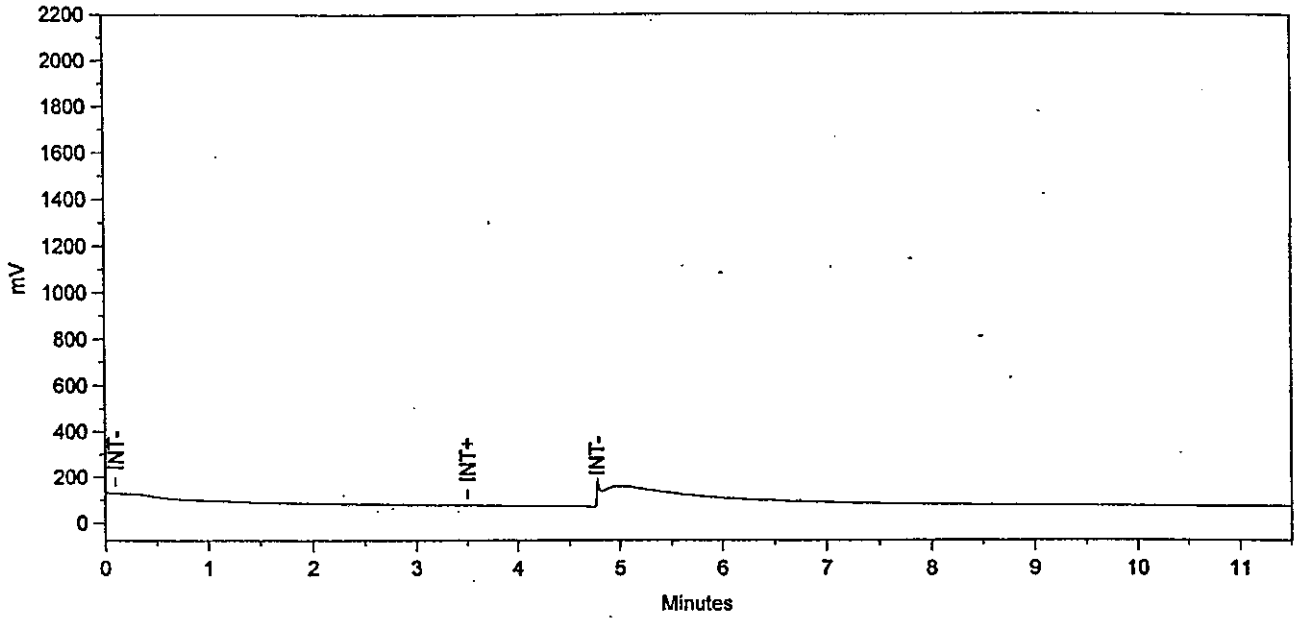
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.298	HYDROGEN	26.1396	100.000	6520915.0	100.000	BB	0.172	632542.50	100.000

Total Area = 6520915.0, Total Amount = 26.14, Total Height = 632542.5, Sample Units = PPMV

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 11:27:48am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.92R**
Date Stamp: 11/8/01 11:27:48am
Sequence File: T54C.SEQ #192
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

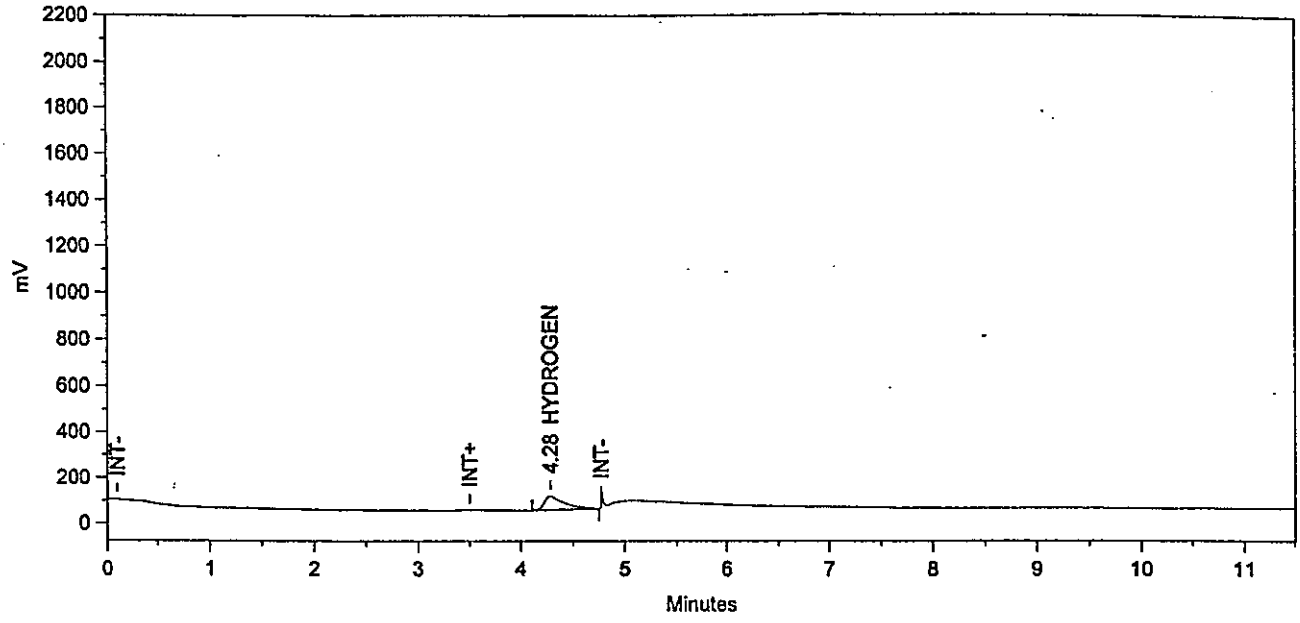
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = PPMV

P110454-01A



Sample Name: **P110454-01A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 11:40:42am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.93R**
Date Stamp: 11/8/01 11:40:42am
Sequence File: T54C.SEQ #193
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

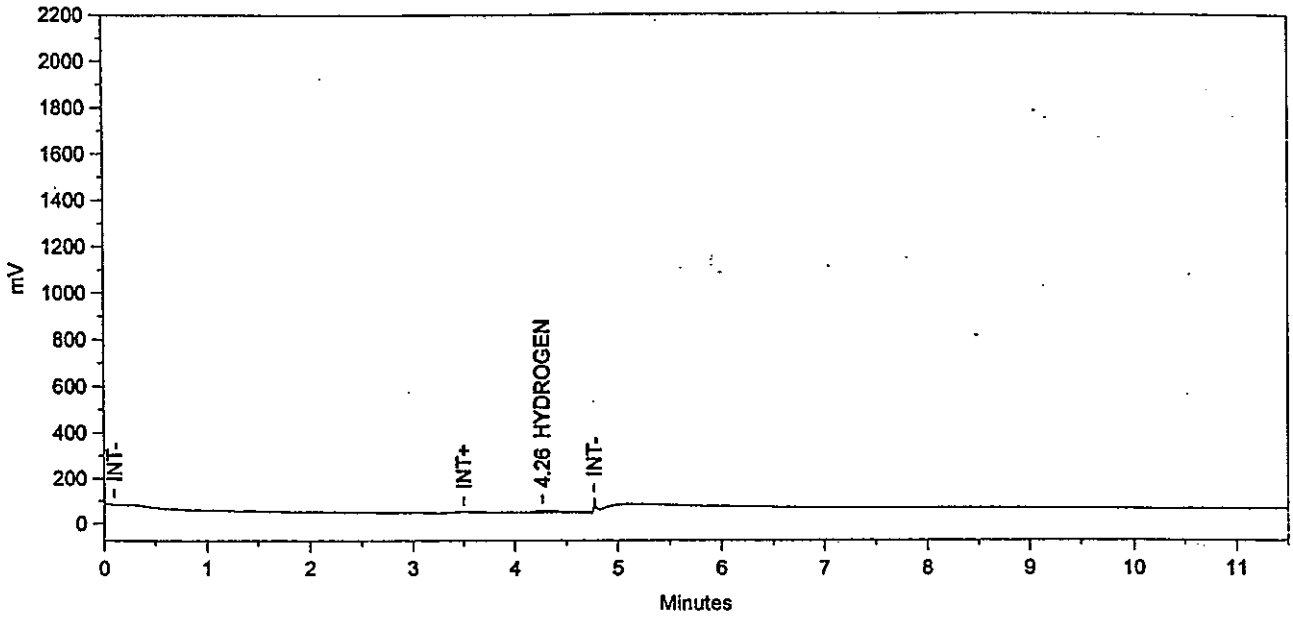
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.281	HYDROGEN	3.4122	100.000	851215.4	100.000	BB	0.231	61309.14	100.000

Total Area = 851215.4, Total Amount = 3.412, Total Height = 61309.14, Sample Units = PPMV

P110454-02A



Sample Name: **P110454-02A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 11:54:09am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.94R**
Date Stamp: 11/8/01 11:54:08am
Sequence File: T54C.SEQ #194
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

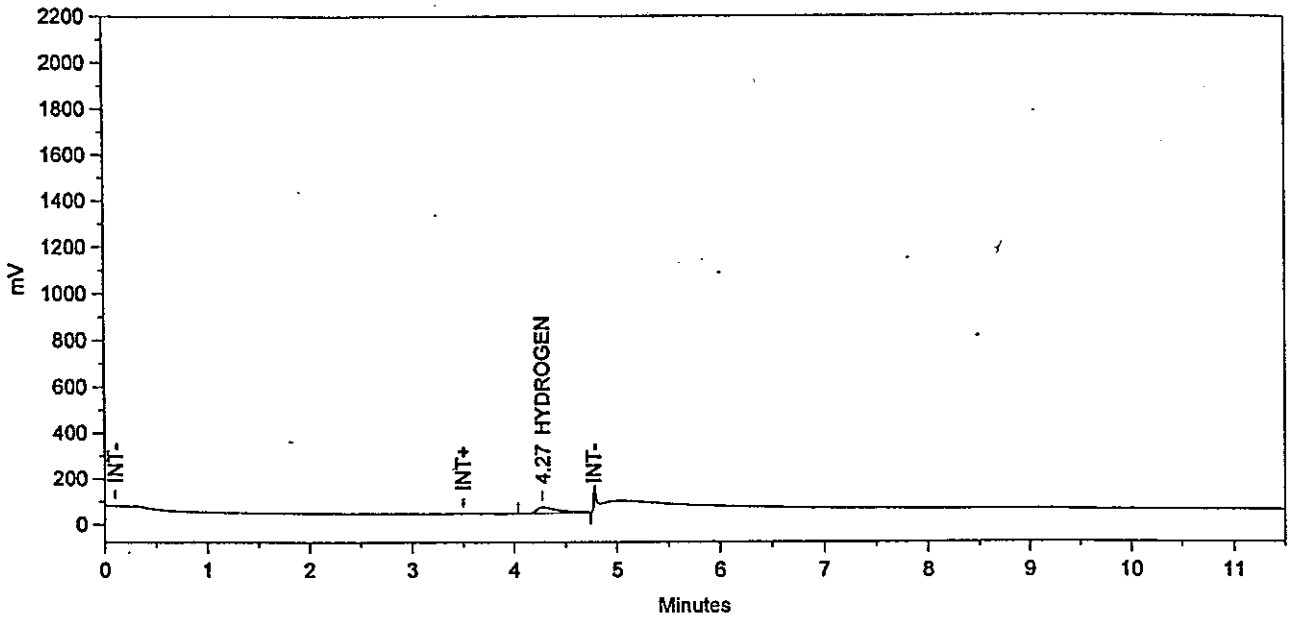
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.264	HYDROGEN	0.6351	100.000	158432.3	100.000	BB	0.302	8754.49	100.000

Total Area = 158432.3, Total Amount = 0.635, Total Height = 8754.49, Sample Units = PPMV

P110454-03A



Sample Name: **P110454-03A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 12:07:34pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.95R**
Date Stamp: 11/8/01 12:07:34pm
Sequence File: T54C.SEQ #195
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

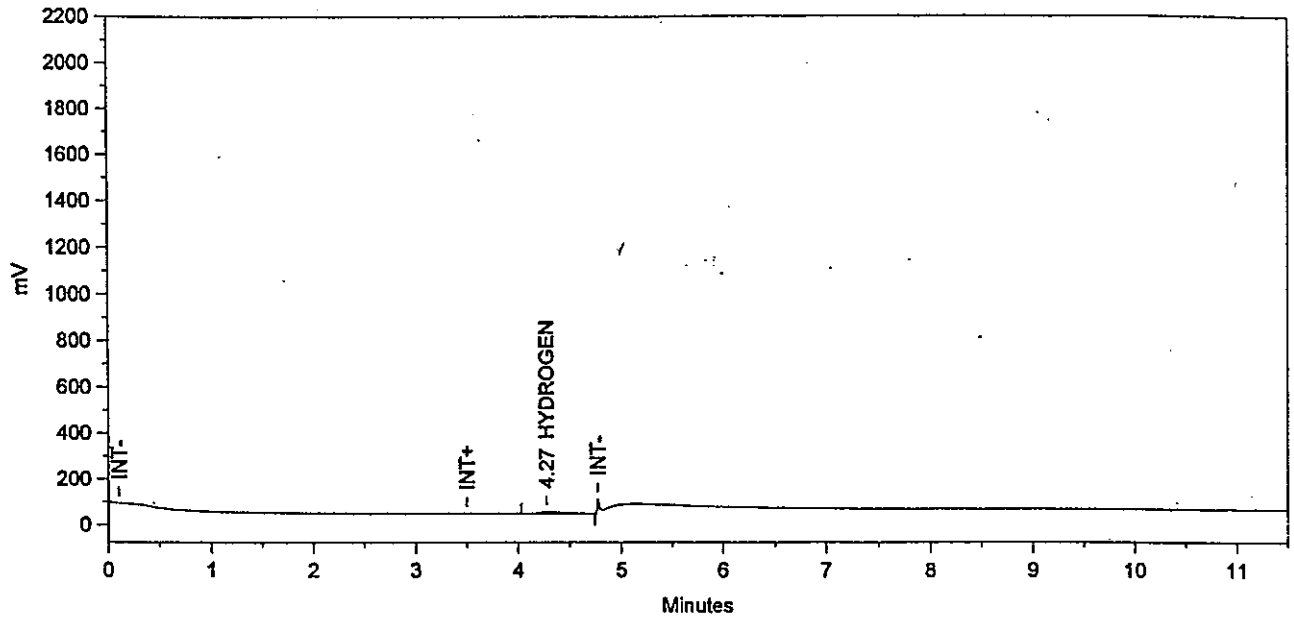
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.272	HYDROGEN	1.6535	100.000	412488.1	100.000	BB	0.253	27130.53	100.000

Total Area = 412488.1, Total Amount = 1.653, Total Height = 27130.53, Sample Units = PPMV

P110454-04A



Sample Name: **P110454-04A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 12:47:54pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.96R**
Date Stamp: 11/8/01 12:47:54pm
Sequence File: T54C.SEQ #196
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

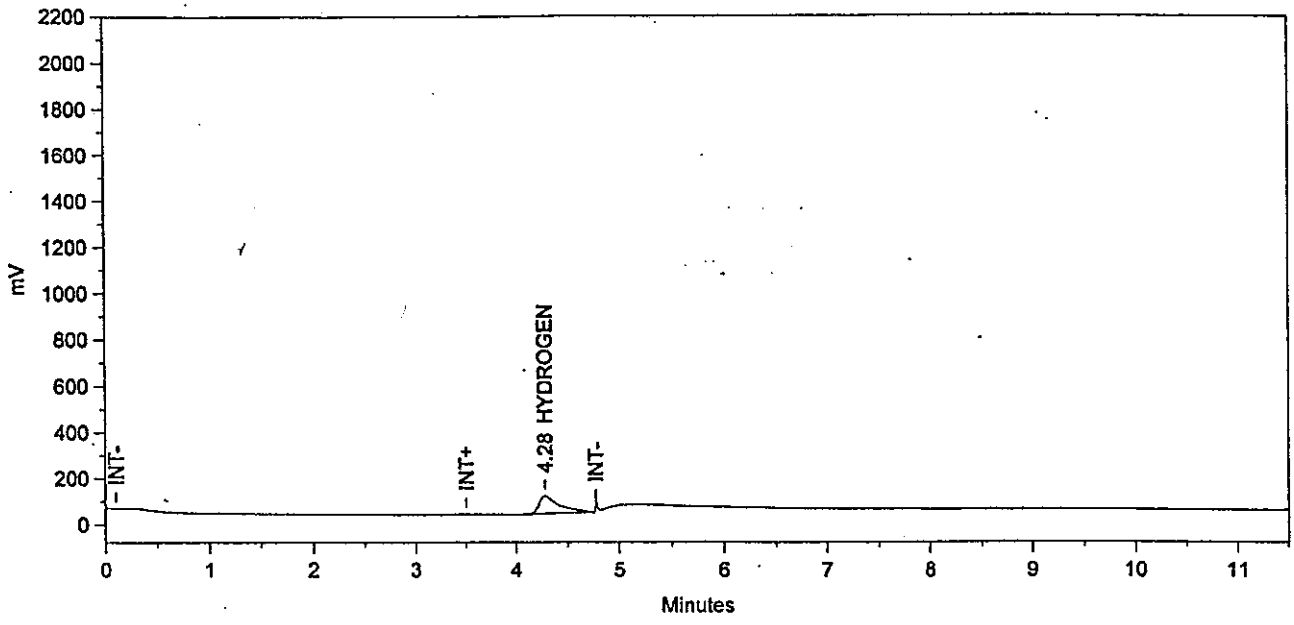
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.271	HYDROGEN	0.7119	100.000	177586.8	100.000	BB	0.284	10437.00	100.000

Total Area = 177586.8, Total Amount = 0.712, Total Height = 10437.0, Sample Units = PPMV

P110454-05A



Sample Name: **P110454-05A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 01:01:51pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.97R**
Date Stamp: 11/8/01 01:01:50pm
Sequence File: T54C.SEQ #197
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

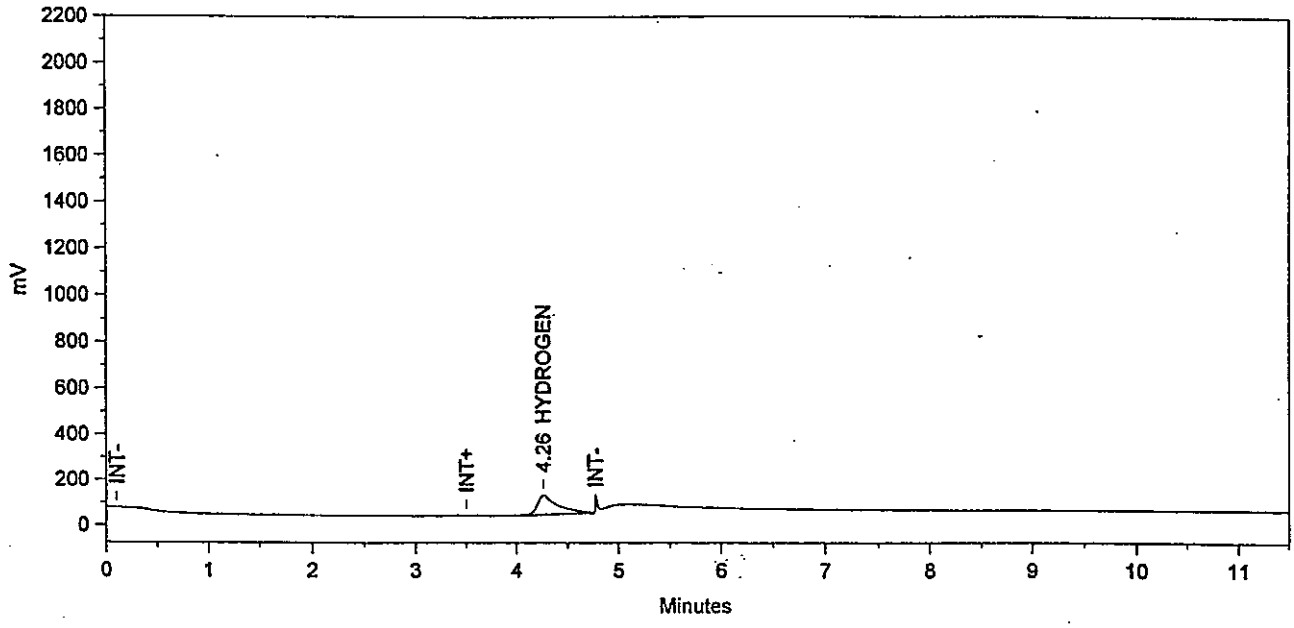
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.277	HYDROGEN	4.2007	100.000	1047927.0	100.000	BB	0.228	76587.70	100.000

Total Area = 1047927.0, Total Amount = 4.201, Total Height = 76587.7, Sample Units = PPMV

P110454-06A



Sample Name: **P110454-06A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 01:15:17pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.98R**
Date Stamp: 11/8/01 01:15:16pm
Sequence File: T54C.SEQ #198
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

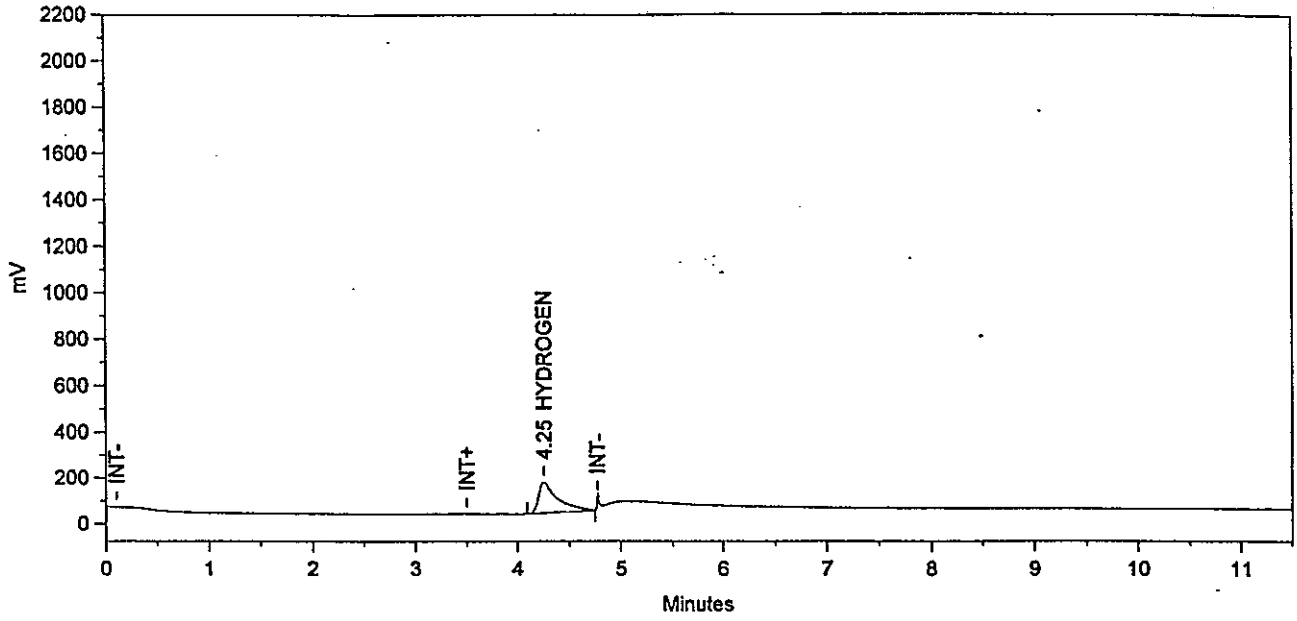
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.261	HYDROGEN	4.9805	100.000	1242463.0	100.000	BB	0.240	86107.81	100.000

Total Area = 1242463.0, Total Amount = 4.981, Total Height = 86107.81, Sample Units = PPMV

P110454-07A



Sample Name: **P110454-07A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 01:28:59pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.99R**
Date Stamp: 11/8/01 01:28:58pm
Sequence File: T54C.SEQ #199
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

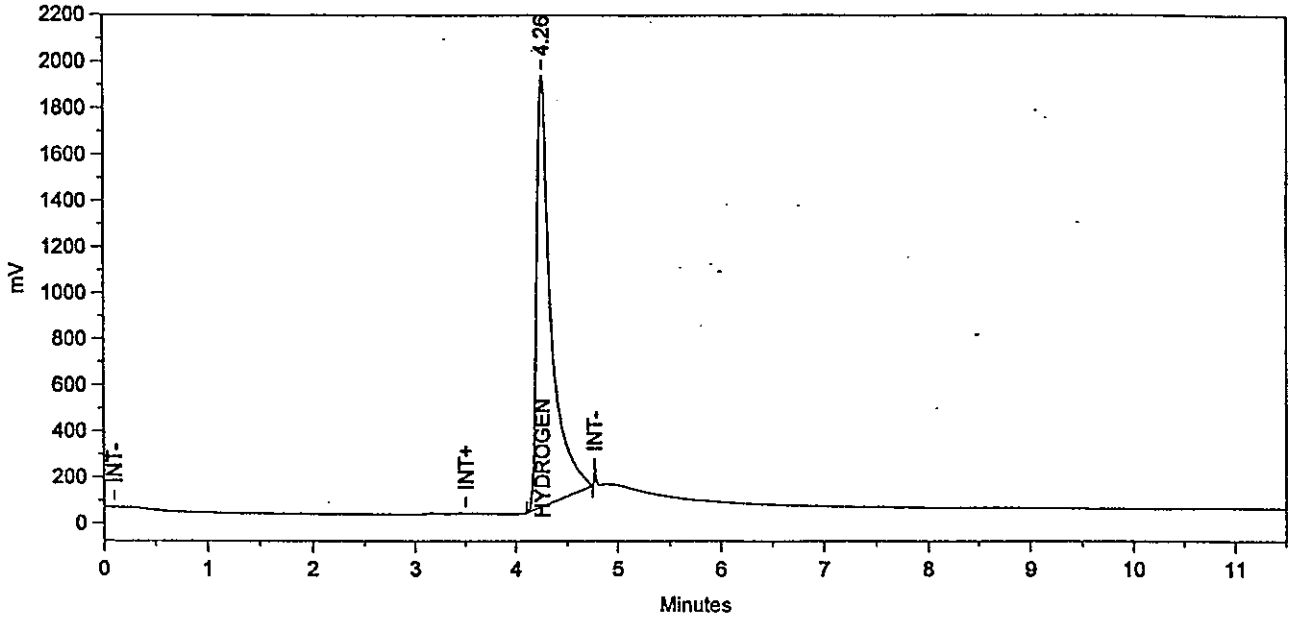
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.253	HYDROGEN	7.0179	100.000	1750717.0	100.000	BB	0.217	134371.50	100.000

Total Area = 1750717.0, Total Amount = 7.018, Total Height = 134371.5, Sample Units = PPMV

P110454-08A



Sample Name: **P110454-08A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 01:42:40pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.00R**
Date Stamp: 11/8/01 01:42:40pm
Sequence File: T54C.SEQ #200
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

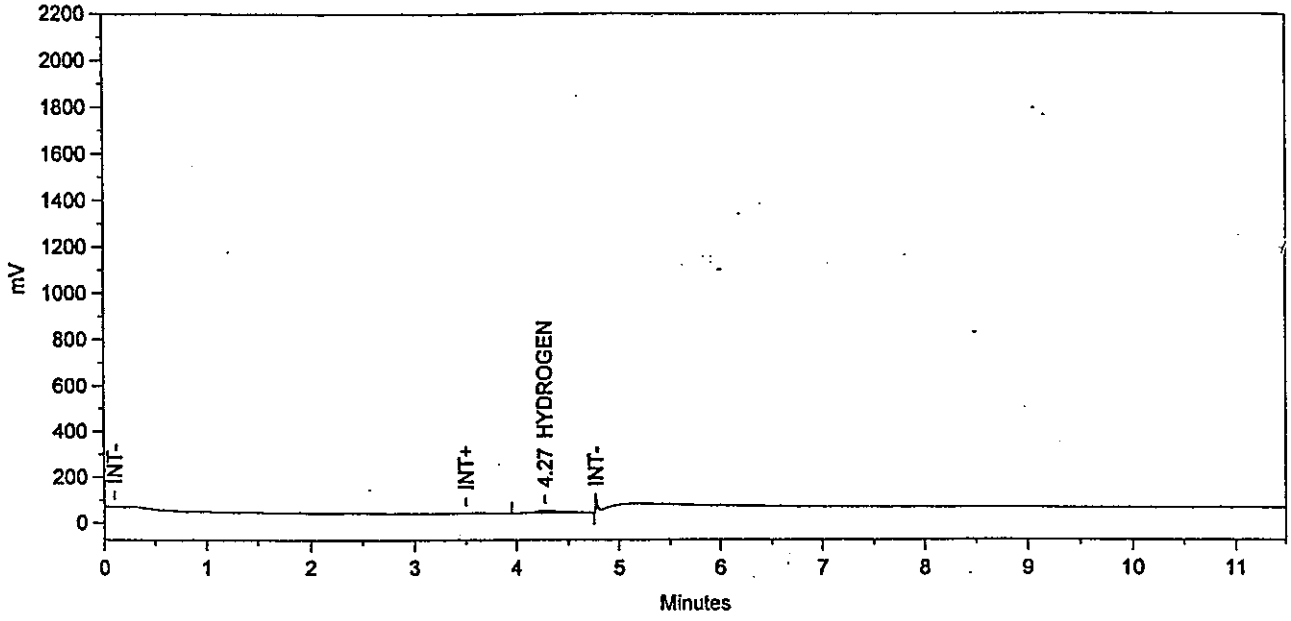
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.258	HYDROGEN	73.1460	100.000	18247380.0	100.000	BB	0.163	1870031.00	100.000

Total Area = 18247380.0, Total Amount = 73.146, Total Height = 1870031.0, Sample Units = PPMV

P110454-09A



Sample Name: **P110454-09A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 01:56:38pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.01R**
Date Stamp: 11/8/01 01:56:38pm
Sequence File: T54C.SEQ #201
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

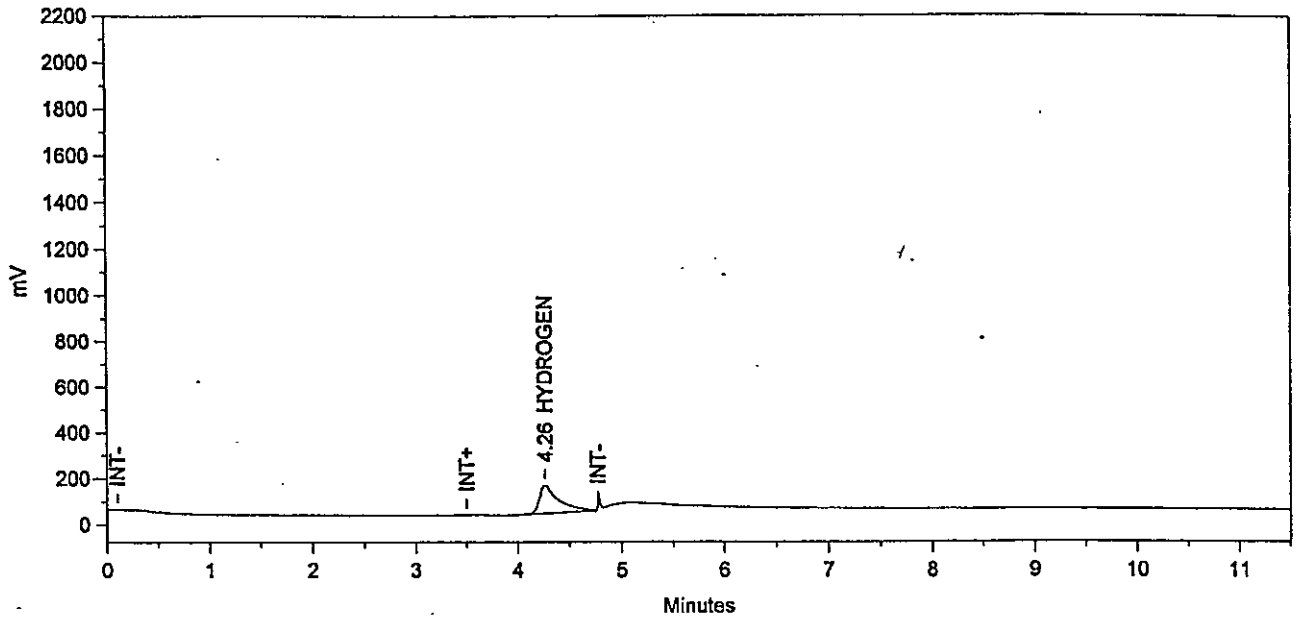
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.274	HYDROGEN	1.0823	100.000	269984.7	100.000	BB	0.348	12943.69	100.000

Total Area = 269984.7, Total Amount = 1.082, Total Height = 12943.69, Sample Units = PPMV

P110454-10A



Sample Name: **P110454-10A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 02:11:12pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.02R**
Date Stamp: 11/8/01 02:11:12pm
Sequence File: T54C.SEQ #202
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.262	HYDROGEN	6.5195	100.000	1626388.0	100.000	BB	0.221	122614.20	100.000

Total Area = 1626388.0, Total Amount = 6.519, Total Height = 122614.2, Sample Units = PPMV

METHOD DETECTION LIMITS - BIOREM 1

	Lab ID	Hydrogen	Date Analyzed
REP. #		(PPMV)	01/24/01
1	T42 62	0.1118	
2	T42 63	0.1122	
3	T42 64	0.1247	
4	T42 65	0.1244	
5	T42 66	0.1120	
6	T42 67	0.0943	
7	T42 68	0.1296	
AVERAGE		0.1156	
KNOWN		0.0999	
STD DEV		0.012	
MDL (VAPOR)		0.037	
MDL (BUBBLE)		0.03nM	

		Carbon	Oxygen	Nitrogen	Methane	Carbon	Date Analyzed
	Lab ID	Dioxide				Monoxide	01/18/01
REP. #		(%v)	(%v)	(%v)	(%v)	(%v)	
1	T42 458	0.1221	0.0670	0.5744	0.0410	0.0621	
2	T42 459	0.1267	0.0690	0.6020	0.0428	0.0537	
3	T42 460	0.1207	0.0657	0.5838	0.0446	0.0525	
4	T42 461	0.1193	0.0667	0.6036	0.0444	0.0672	
5	T42 462	0.1261	0.0703	0.5860	0.0439	0.0596	
6	T42 463	0.1193	0.0665	0.5861	0.0478	0.0643	
7	T42 464	0.1227	0.0732	0.5748	0.0353	0.0581	
AVERAGE		0.1224	0.0683	0.5872	0.0428	0.0596	
KNOWN		0.1500	0.0700	0.6649	0.0450	0.0701	
STD. DEV.		0.003	0.003	0.012	0.004	0.005	
MDL (VAPOR)		0.009	0.008	0.037	0.012	0.017	
MDL (BUBBLE)		0.14 mg/L	0.003 mg/L	0.007 mg/L	0.003 mg/L	0.005 mg/L	
MDL (H2O)		0.19 mg/L	0.04 mg/L	0.15 mg/L	0.03 mg/L	0.07 mg/L	

	Lab ID	Methane	Ethane	Ethylene	Propane	Propylene	Iso-Butane	N-Butane	Date Analyzed
REP. #		(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	01/30/01
1	T43 147	0.2512	0.0525	0.0453	0.0461	0.0581	0.0473	0.0358	
2	T43 148	0.2608	0.0518	0.0468	0.0521	0.0465	0.0439	0.0407	
3	T43 149	0.2612	0.0509	0.0485	0.0529	0.0586	0.0436	0.0405	
4	T43 150	0.2779	0.0549	0.0460	0.0481	0.0536	0.0549	0.0478	
5	T43 151	0.2894	0.0551	0.0497	0.0520	0.0549	0.0417	0.0460	
6	T43 152	0.2970	0.0515	0.0467	0.0458	0.0542	0.0435	0.0514	
7	T43 153	0.3053	0.0532	0.0473	0.0485	0.0584	0.0483	0.0535	
AVERAGE		0.2804	0.0528	0.0472	0.0491	0.0549	0.0462	0.0451	
KNOWN		0.1500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	
STD DEV		0.019	0.002	0.001	0.003	0.004	0.004	0.006	
MDL (VAPOR)		0.060	0.005	0.005	0.010	0.013	0.014	0.020	
MDL (BUBBLE)		0.001 ug/L	0.3 ng/L	0.7ng/L	0.6 ng/L	2.8 ng/L	0.7 ng/L	1.2 ng/L	
MDL (H2O)		0.015 ug/L	2.4 ng/L	2.8 ng/L	6.7 ng/L	10 ng/L	12 ng/L	17 ng/L	

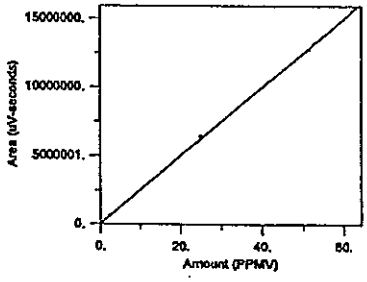
MDL= 3.143*STD DEV OF 7 REPLICATES

Calibration File Name: **C:\CPWIN\T54\T54CH2.CAL** Version = 1
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = PPMV
1 components with 4 levels each

1 HYDROGEN

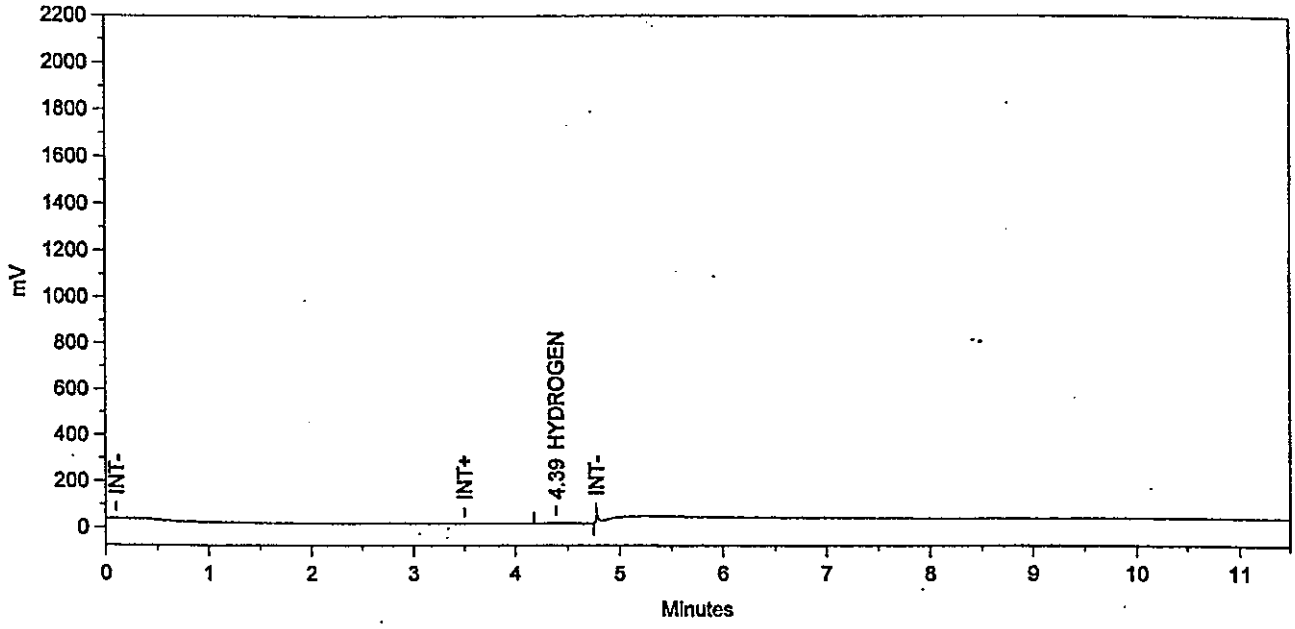
Retention time = 4.300 min., Search window = 0.205 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.250	83512.0	334048	Manual	11/8/2001 10:32:
2	2.500	584005.0	233602	Manual	11/8/2001 10:32:
3	25.000	6432841.0	257313.6	Manual	11/8/2001 10:32:
4	51.450	12741470.0	247647.6	Manual	11/8/2001 10:32:



Calibration formula: Y = 249465.2 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9995, Average error = 11.03%
Average CF = 268152.8000 with RSD = 16.78%

STD P 100X



Sample Name: **STD P 100X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 09:46:03am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.86R**
Date Stamp: 11/8/01 09:46:02am
Sequence File: T54C.SEQ #186
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

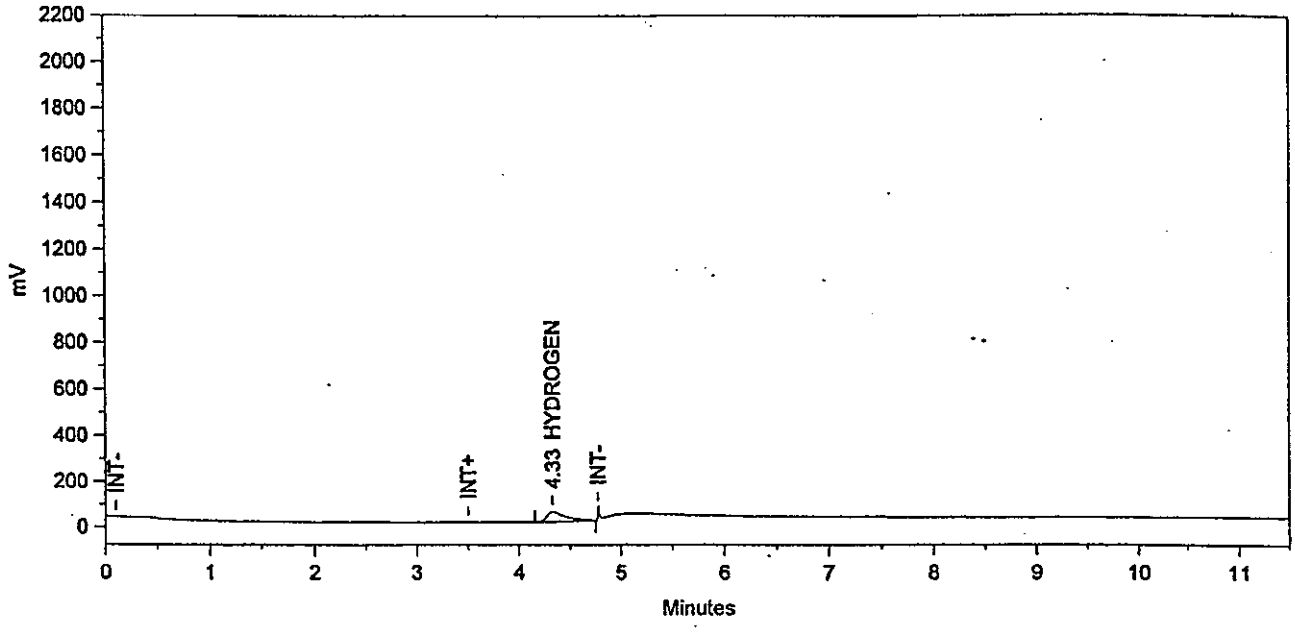
Run Time = 11.5 min. Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.389	HYDROGEN	0.3644	100.000	83511.9	100.000	BB	0.265	5243.12	100.000

Total Area = 83511.9, Total Amount = 0.364, Total Height = 5243.12, Sample Units = PPMV

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 09:59:36am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.87R**
Date Stamp: 11/8/01 09:59:36am
Sequence File: T54C.SEQ #187
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

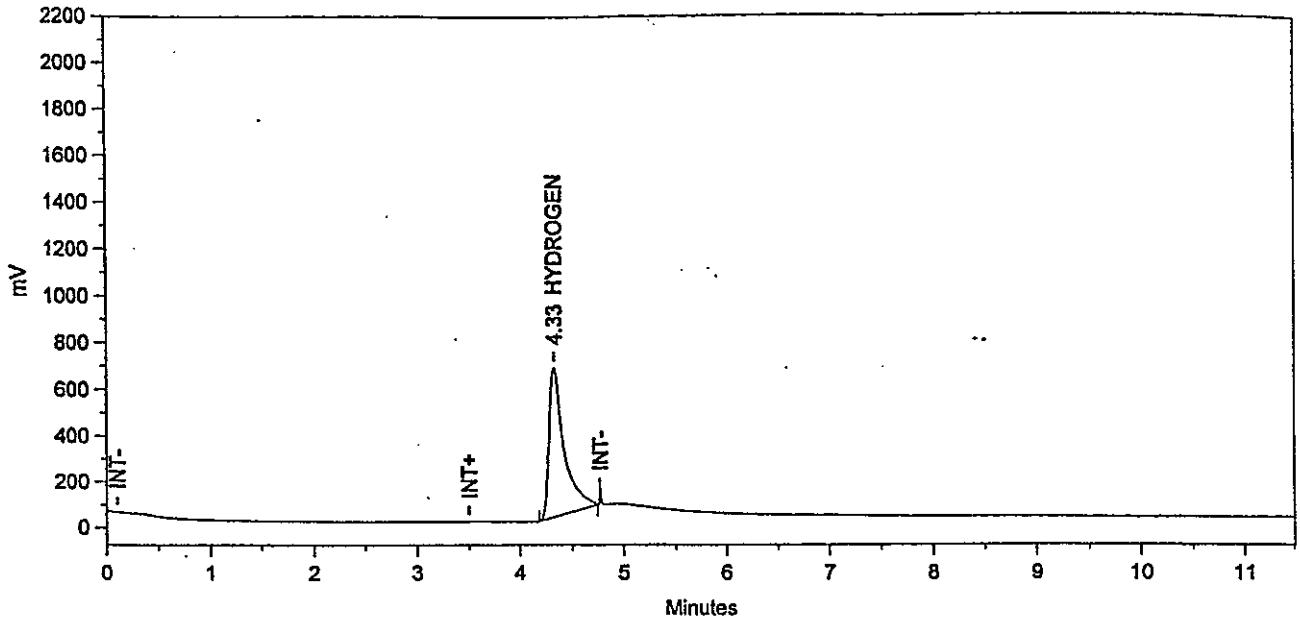
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.326	HYDROGEN	2.5486	100.000	584005.4	100.000	BB	0.222	43806.06	100.000

Total Area = 584005.4, Total Amount = 2.549, Total Height = 43806.06, Sample Units = PPMV

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:12:21am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.88R**
Date Stamp: 11/8/01 10:12:20am
Sequence File: T54C.SEQ #188
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

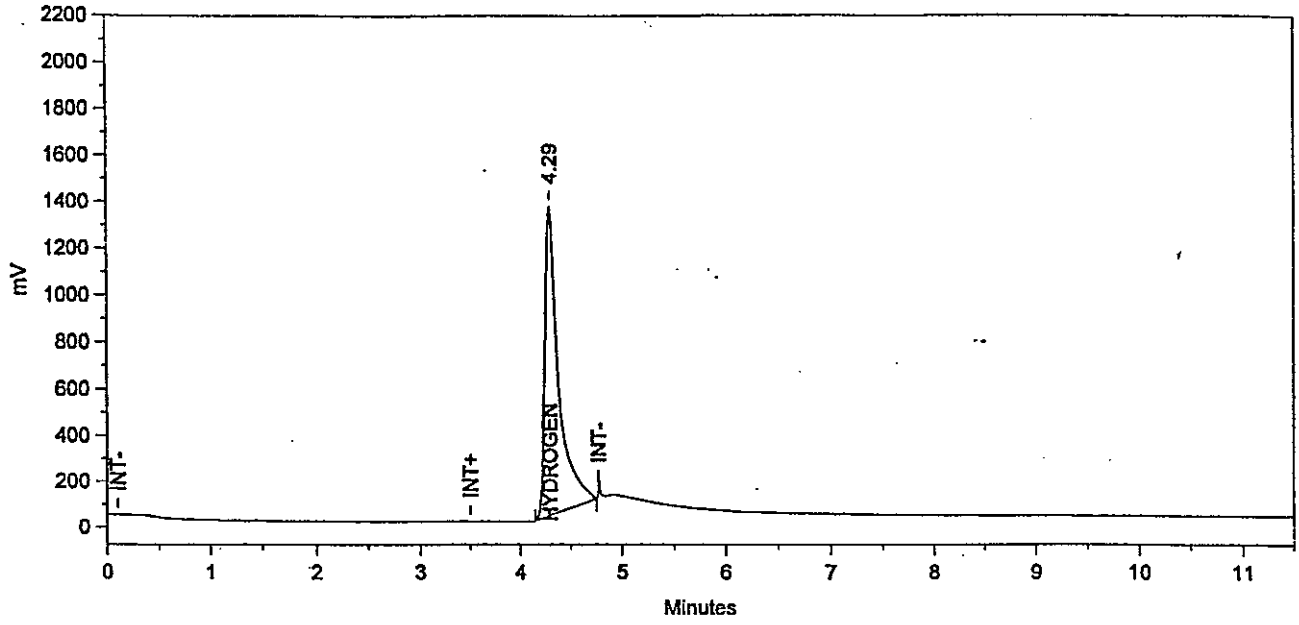
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.332	HYDROGEN	28.0729	100.000	6432841.0	100.000	BB	0.166	646406.70	100.000

Total Area = 6432841.0, Total Amount = 28.073, Total Height = 646406.7, Sample Units = PPMV

STD 210 2X



Sample Name: **STD 210 2X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:26:05am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.89R**
Date Stamp: 11/8/01 10:26:04am
Sequence File: T54C.SEQ #189
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.293	HYDROGEN	55.6037	100.000	12741470.0	100.000	BB	0.160	1326773.00	100.000

Total Area = 12741470.0, Total Amount = 55.604, Total Height = 1326773.0, Sample Units = PPMV

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3610B-Q401	Vapor	22 Oct. 01 12:45	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	6.8	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110454
Report Date: 11/09/01
Client Proj Name: 2110-158
Client Proj #: 2110-158

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110454-02

Sample Description	Matrix	Sampled Date/Time	Received
17-3611C-Q401	Vapor	22 Oct. 01 13:00	29 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	1.3	0.030	nM	AM20GAX	bc	11/8/01

Chain of Custody Documentation

PEL LAB SAMPLE LOG IN SHEET

Client Information Project # 2110 - 158

Client: CH2M Hill	Date Recd: 10/26/01
Project: NTC Orlando	Due Date: 11/05/01
Log In Tech: ZHC	Recd Via: Client Crosstown (FedEx)
Comments:	Other:

SAMPLE VERIFICATION

	YES	NO		YES	NO
Samples/Cooler Secure	✓		All Smpls. on COC Accounted For	✓	
Samples Received on Ice		✓	All Samples Received Intact	✓	
Temperature WNL	✓		Sample Vol. Sufficient For Analysis	✓	
Temperature of Samples (°C)	RT		Samples Received W/I Hold Time	✓	
pH verified	NA		Are All Samples to be Analyzed	✓	
pH WNL	↓		Correct Sample Containers	✓	
Soil Origin Domestic	↓		Soil Origin Foreign	NA	

COC VERIFICATION

	YES	NO		YES	NO
Site Location/Project on COC	✓		Samplers Initials on COC	✓	
Client Project # on COC	✓		Sample Time/Date Indicated	✓	
Project Mgr. Indicated on COC	✓		TAT requested: (STND)/RUSH		
COC Relinquished/Dated by Client	✓		Client Requests Verbal Results		✓
COC Received/Dated by PEL	✓		Client Requests FAX Results		✓
			* PEL to Conduct All Analysis		
			* Specific Subcontract Indicated		

* SUBCONTRACTED ANALYSIS

Subcontractor:	Subcontractor:	Subcontractor:
Due Date:	Due Date:	Due Date:
Parameter:	Parameter:	Parameter:
Via: Crosstown FedEx	Via: Crosstown FedEx	Via: Crosstown FedEx
Tracking #:	Tracking #:	Tracking #:

CH2M Hill / NTC Orlando 2110-158

Sample #	Parameters	Rel'd	Rec'd	Date	Time
1-10	Diss. Hydrogen (A)	Sent to Microseeps Lab ZMK	Fed Ex	10/26/01	15:30
1-10	Diss. Hydrogen (A)				

Addendum

Letter of Acceptance

Customer Name:	CH2MHILL
Date & Time Received:	10-26-01; 10:10 AM
Date to be Reported:	11-9-01
Laboratory Submission Number/SDG:	2110158
Project:	NTC Orlando

Samples: The submission consisted of 10 samples with sample identification shown in the attached data tables.

Tests: The samples will be analyzed for EPA methods:
Dissolved Hydrogen

Sample Custody/COC discrepancies:
None.

Notes: Dissolved Hydrogen was sent to Microseeps. Due to the number of characters in the sample identifier, PEL has truncated the ID's.

Distribution of Report to:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182

Respectfully Submitted,

PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Total of: 10 analyses on 10 samples (including QC) *19-Nov-01*

Report/SDG #: 2110158

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3610B-Q401	211015801	OLD-36-10B	AA	10/22/01 12:45:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3611C-Q401	211015802	OLD-36-11C	AA	10/22/01 1:00:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3629B-Q401	211015803	OLD-36-29B	AA	10/22/01 4:50:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3632C-Q401	211015804	OLD-36-32C	AA	10/22/01 5:15:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3631C-Q401	211015805	OLD-36-31C	AA	10/23/01 11:15:00 AM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3626A-Q401	211015806	OLD-36-26A	AA	10/23/01 3:00:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3630C-Q401	211015807	OLD-36-30C	AA	10/23/01 3:40:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

1

Report/SDG #: 2110158

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3609C-Q401	211015808	OLD-36-09C	AA	10/24/01 11:00:00 AM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3627A-Q401	211015809	OLD-36-27A	AA	10/24/01 3:15:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3628B-Q401	211015810	OLD-36-28B	AA	10/24/01 4:00:00 PM	10/26/01 10:10:00 AM
Method					
GEN	Generic Method -change as needed				

1010000 1000101 1100110
PEL Laboratories, Inc.

Customer Name:	CH2MHILL
Date & Time Received:	10-27-01; 11:35 AM
Date Reported:	11-20-01
PEL Submission Number:	2110169
Project:	NTC Orlando

Samples: The submission consisted of 5 samples with sample identification shown in the attached data tables.

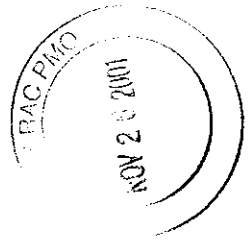
Tests: The samples were analyzed for EPA method:
Dissolved Hydrogen

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182



Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualitities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

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Level 3

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Outside Lab

Dissolved Hydrogen

MICROSEEPS

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road

Tampa, FL 33619

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

Sample Identification

Lab Sample #	Client Sample ID
P0110472-01	17-3608B-Q401
P0110472-02	17-3607A-Q401
P0110472-03	17-3606A-Q401
P0110472-04	17-3619A-Q401
P0110472-05	17-3624B-Q401

Approved By: Debbie Hallo

P110472

Chain of Custody Record
Record/Work Request

PEL Laboratories, Inc.
4420 Pendola Point Road
Tampa, Florida 33619
(813) 247-2805 • Fax: (813) 248-1537
E-Mail: login@Pelab.com

Microseeps

Company: PEL
Address:
Phone: Fax:
Project Name/Number: 2110-169
Project Manager: Darcy Weisman (MK)
Purchase Order:
Page of

DEP Form #: 62-770.900(2)
Form Title: Chain of Custody Record
Effective Date: September 23, 1997
FDEP Facility No.
Project Name:
Sampling CompQAP No:
Approval Date:
REQUESTED DUE DATE / /

Print Names(s) / Affiliation
Sampler(s) Signature(s)

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Composite	Matrix (see codes)	Number of Containers	Preservatives (see codes)	Analyses Requested: Dissolved Hydrogen	Remarks	Lab. No.
01	17-3608B-Q401	10/25/01	11:00		A	1		X	2110-169-01	
02	17-3607A-Q401	↓	15:15		↓	↓		X	-02	
03	17-3606A-Q401	↓	15:45		↓	↓		X	-03	
04	17-3609A-Q401	10/26/01	10:00		↓	↓		X	-04	
05	17-3624B-Q401	↓	13:30		↓	↓		X	-05	
Shipment Method						5	← Total Number of Containers			

Out: / /	Via: Fed Ex	Item Nos.	Relinquished by / Affiliations	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via.		Michael A. Kelly (PEL	10/25/01	18:30	CWashle 8th	10/30	01
Additional Comments:								
Level II QC/Reporting								

Cooler No. (s) / Temperature(s) (C)	Sampling Kit No.	Equipment ID No.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATION CODES: H-Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110472-01

Sample Description	Matrix	Sampled Date/Time	Received
17-3608B-Q401	Vapor	25 Oct. 01 11:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	13	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110472-02

Sample Description	Matrix	Sampled Date/Time	Received
17-3607A-Q401	Vapor	25 Oct. 01 15:15	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	18	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110472-03

Sample Description	Matrix	Sampled Date/Time	Received
17-3606A-Q401	Vapor	25 Oct. 01 15:45	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	2.0	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110472-04

Sample Description	Matrix	Sampled Date/Time	Received
17-3619A-Q401	Vapor	26 Oct. 01 10:00	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	0.60	0.030	nM	AM20GAX	bc	11/8/01

Order #: P0110472
Report Date: 11/09/01
Client Proj Name: 2110-169
Client Proj #: 2110-169

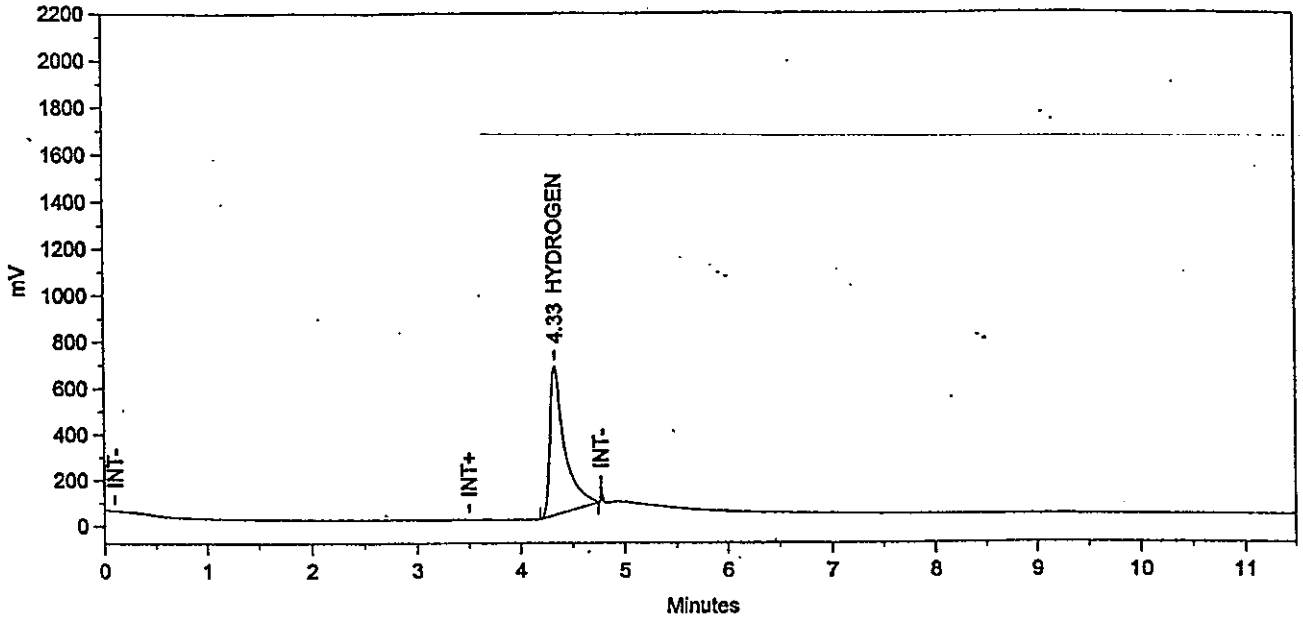
Client Name: PEL Laboratories
Contact: Darcy Weisman
Address: 4420 Pendola Point Road
Tampa, FL 33619

Lab Sample #: P0110472-05

Sample Description	Matrix	Sampled Date/Time	Received
17-3624B-Q401	Vapor	26 Oct. 01 13:30	30 Oct. 01

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
Hydrogen	0.75	0.030	nM	AM20GAX	bc	11/8/01

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:12:21am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.88R**
Date Stamp: 11/8/01 10:12:20am
Sequence File: T54C.SEQ #188
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

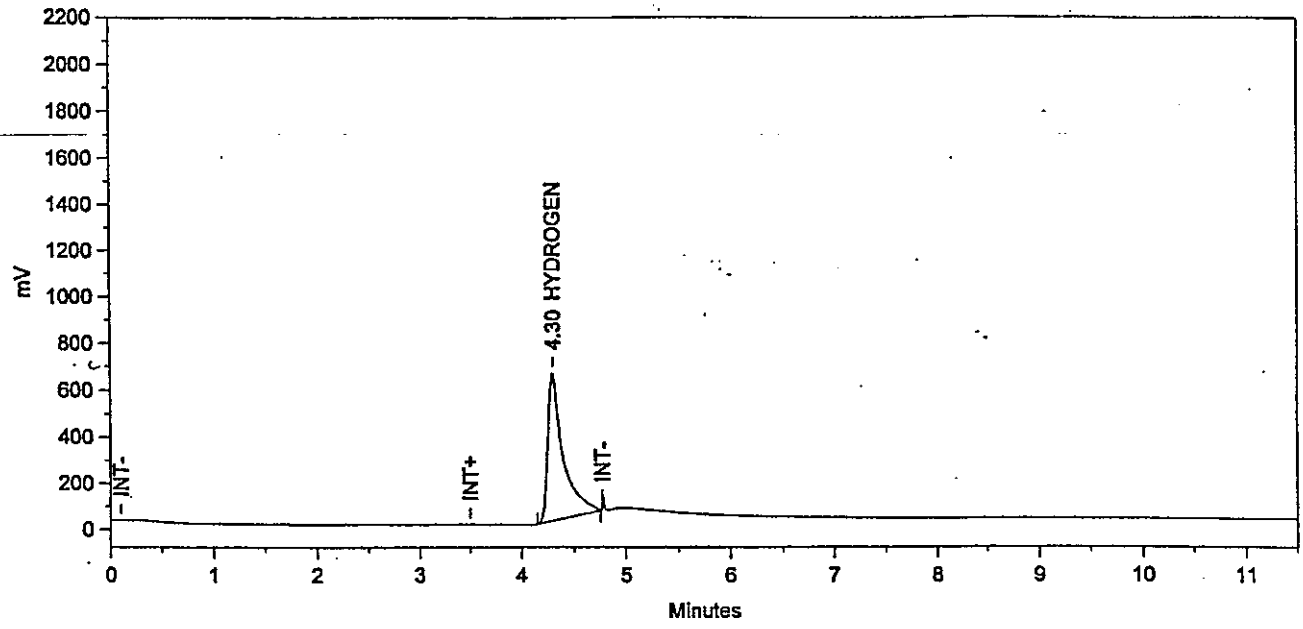
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.332	HYDROGEN	25.7865	100.000	6432841.0	100.000	BB	0.166	646406.70	100.000

Total Area = 6432841.0, Total Amount = 25.787, Total Height = 646406.7, Sample Units = PPMV

STD O



Sample Name: **STD O**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:41:38am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.90R**
Date Stamp: 11/8/01 10:41:38am
Sequence File: T54C.SEQ #190
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

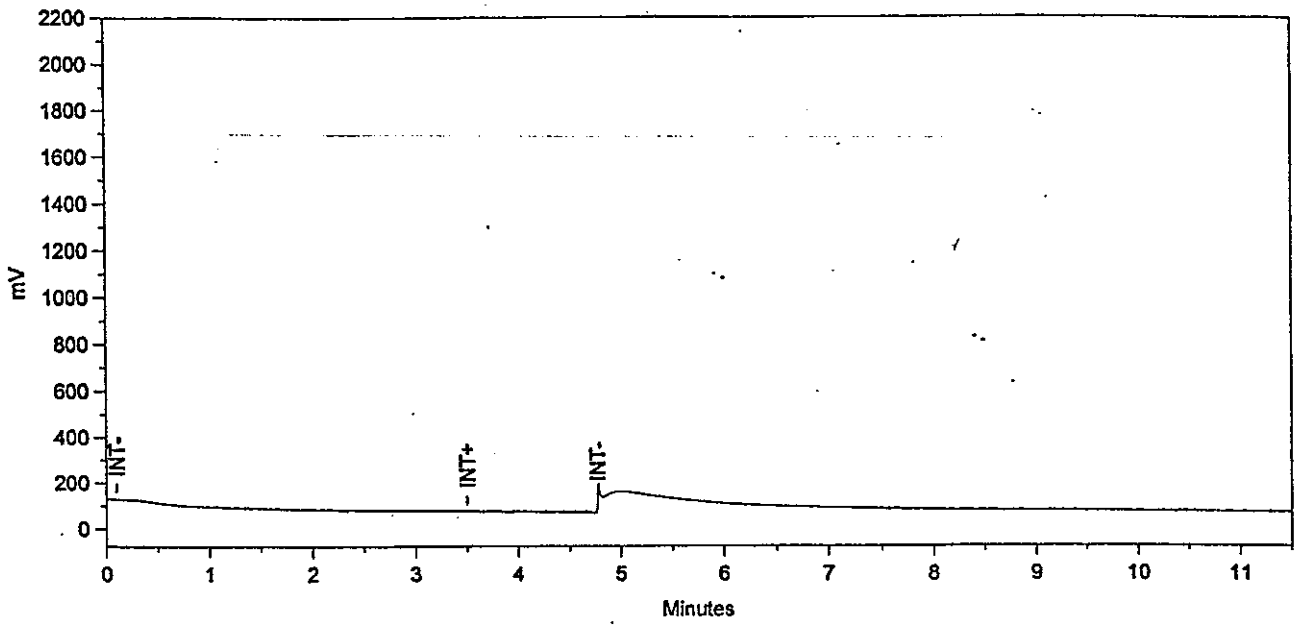
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.298	HYDROGEN	26.1396	100.000	6520915.0	100.000	BB	0.172	632542.50	100.000

Total Area = 6520915.0, Total Amount = 26.14, Total Height = 632542.5, Sample Units = PPMV

HE IN LOOP



Sample Name: **HE IN LOOP**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 11:27:48am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.92R**
Date Stamp: 11/8/01 11:27:48am
Sequence File: T54C.SEQ #192
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

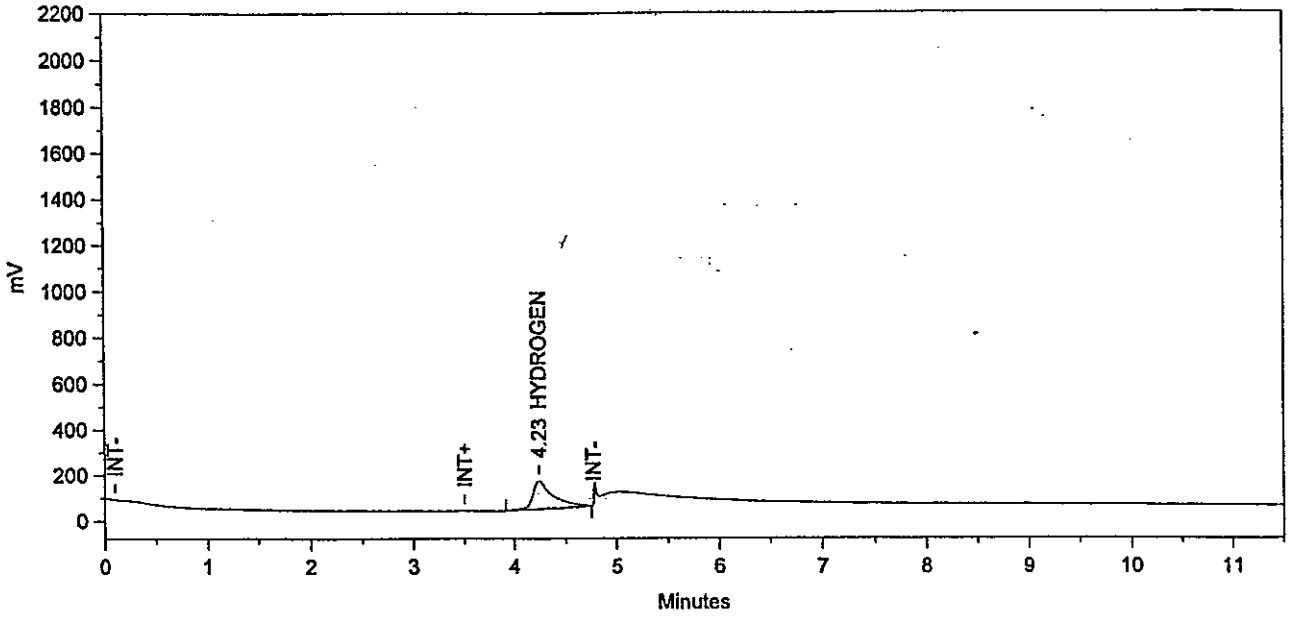
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%

Total Area = 0.0, Total Amount = 0.0, Total Height = 0.0, Sample Units = PPMV

P110472-01A



Sample Name: **P110472-01A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 02:24:07pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.03R**
Date Stamp: 11/8/01 02:24:06pm
Sequence File: T54C.SEQ #203
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

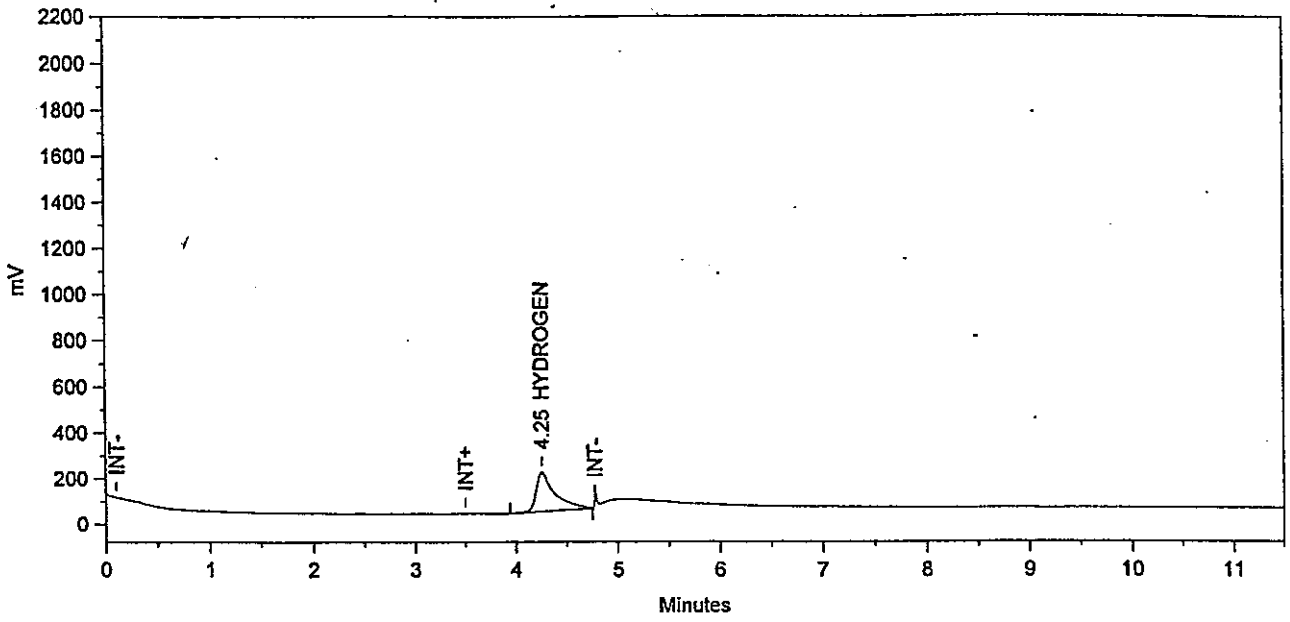
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.234	HYDROGEN	6.9724	100.000	1739365.0	100.000	BB	0.236	122981.70	100.000

Total Area = 1739365.0, Total Amount = 6.972, Total Height = 122981.7, Sample Units = PPMV

P110472-02A



Sample Name: **P110472-02A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 02:39:48pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.04R**
Date Stamp: 11/8/01 02:39:48pm
Sequence File: T54C.SEQ #204
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

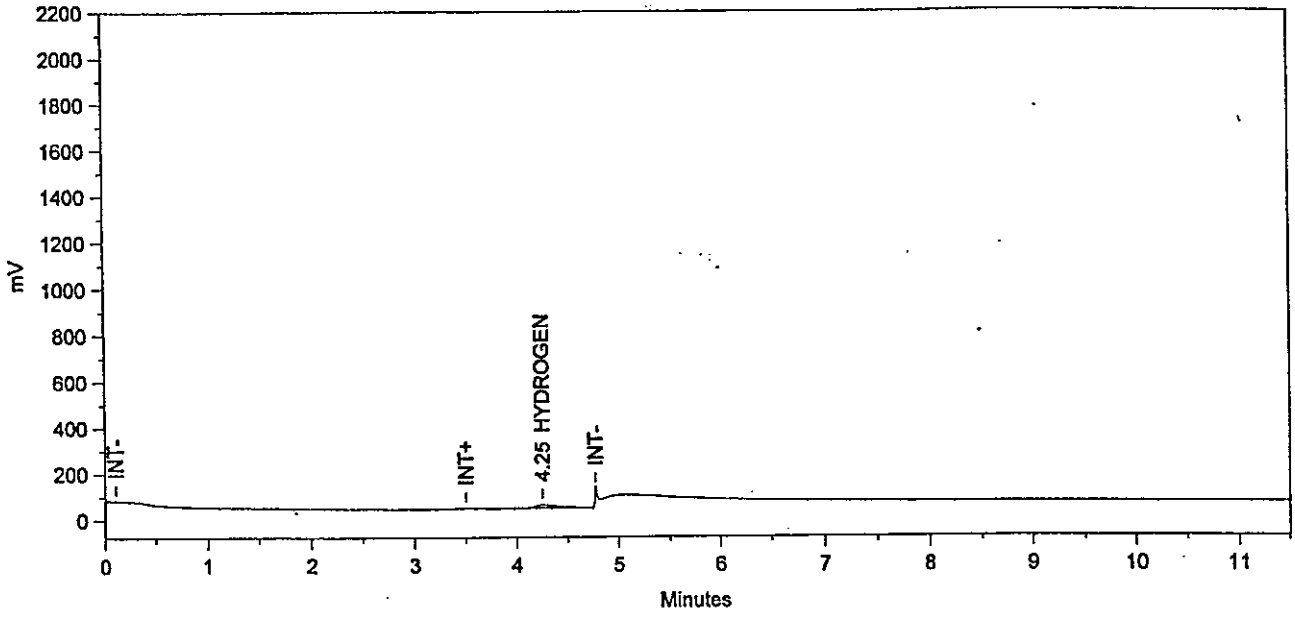
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.251	HYDROGEN	9.1257	100.000	2276556.0	100.000	BB	0.220	172391.50	100.000

Total Area = 2276556.0, Total Amount = 9.126, Total Height = 172391.5, Sample Units = PPMV

P110472-03A



Sample Name: **P110472-03A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 02:53:11pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.05R**
Date Stamp: 11/8/01 02:53:10pm
Sequence File: T54C.SEQ #205
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

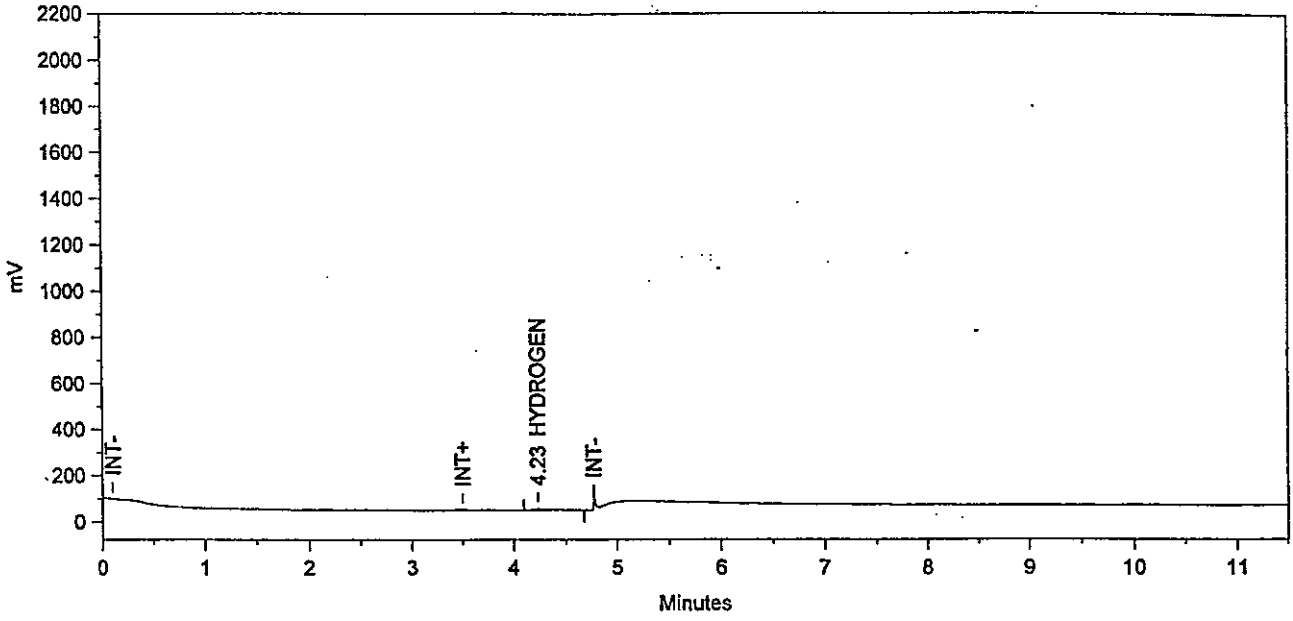
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.248	HYDROGEN	1.0716	100.000	267328.6	100.000	BB	0.285	15658.99	100.000

Total Area = 267328.6, Total Amount = 1.072, Total Height = 15658.99, Sample Units = PPMV

P110472-04A



Sample Name: **P110472-04A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 03:06:03pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.06R**
Date Stamp: 11/8/01 03:06:02pm
Sequence File: T54C.SEQ #206
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

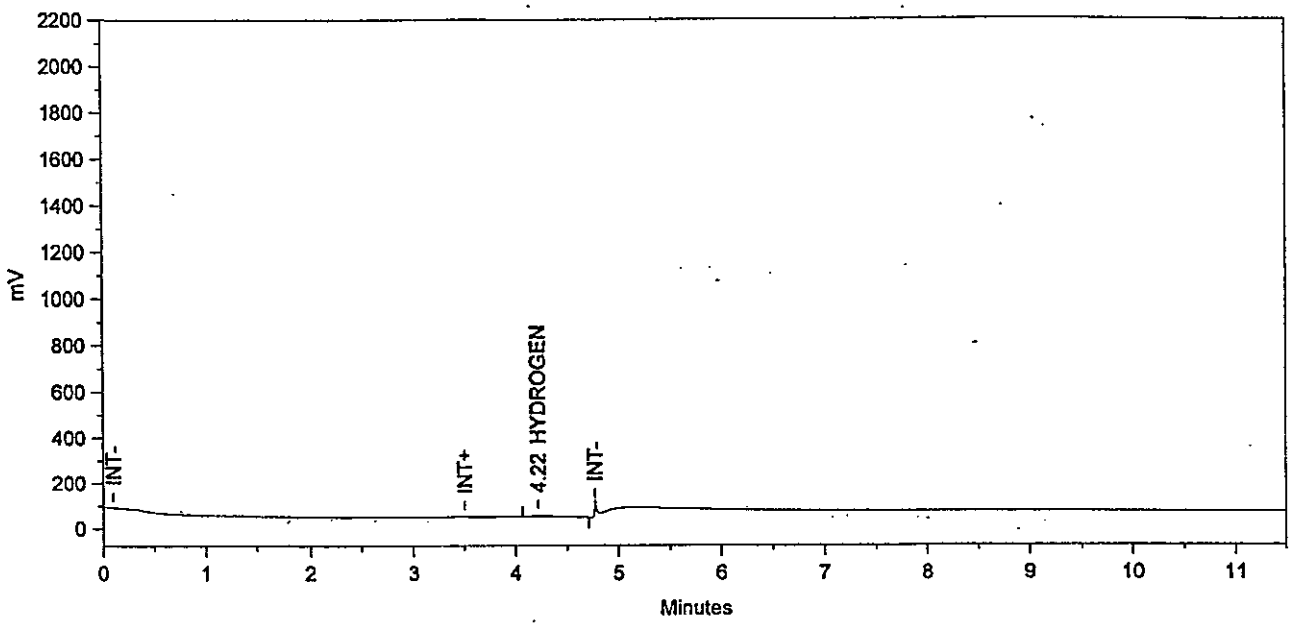
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.234	HYDROGEN	0.3100	100.000	77331.4	100.000	BB	0.218	5902.01	100.000

Total Area = 77331.4, Total Amount = 0.31, Total Height = 5902.01, Sample Units = PPMV
* Some peaks have been manually integrated,

P110472-05A



Sample Name: **P110472-05A**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 03:19:13pm by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C2.07R**
Date Stamp: 11/8/01 03:19:12pm
Sequence File: T54C.SEQ #207
Method File: C:\CPWIN\T54\T54CH2.MET
Version 1. Date Stamp: 11/8/01 10:34:18am
Calibration File: C:\CPWIN\T54\T54CH2.CAL
Version 2. Date Stamp: 11/8/01 10:32:32am

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100
* Some peaks have been manually integrated.

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.221	HYDROGEN	0.3907	100.000	97462.2	100.000	BB	0.238	6815.84	100.000

Total Area = 97462.2, Total Amount = 0.391, Total Height = 6815.84, Sample Units = PPMV
* Some peaks have been manually integrated,

METHOD DETECTION LIMITS - BIOREM 1

	Lab ID	Hydrogen	Date Analyzed
REP. #		(PPMV)	01/24/01
1	T42 62	0.1118	
2	T42 63	0.1122	
3	T42 64	0.1247	
4	T42 65	0.1244	
5	T42 66	0.1120	
6	T42 67	0.0943	
7	T42 68	0.1296	
AVERAGE		0.1156	
KNOWN		0.0999	
STD DEV		0.012	
MDL (VAPOR)		0.037	
MDL (BUBBLE)		0.03nM	

		Carbon	Oxygen	Nitrogen	Methane	Carbon	Date Analyzed
	Lab ID	Dioxide				Monoxide	01/18/01
REP. #		(%v)	(%v)	(%v)	(%v)	(%v)	
1	T42 458	0.1221	0.0670	0.5744	0.0410	0.0621	
2	T42 459	0.1267	0.0690	0.6020	0.0428	0.0537	
3	T42 460	0.1207	0.0657	0.5838	0.0446	0.0525	
4	T42 461	0.1193	0.0667	0.6036	0.0444	0.0672	
5	T42 462	0.1261	0.0703	0.5860	0.0439	0.0596	
6	T42 463	0.1193	0.0665	0.5861	0.0478	0.0643	
7	T42 464	0.1227	0.0732	0.5748	0.0353	0.0581	
AVERAGE		0.1224	0.0683	0.5872	0.0428	0.0596	
KNOWN		0.1500	0.0700	0.6649	0.0450	0.0701	
STD. DEV.		0.003	0.003	0.012	0.004	0.005	
MDL (VAPOR)		0.009	0.008	0.037	0.012	0.017	
MDL (BUBBLE)		0.14 mg/L	0.003 mg/L	0.007 mg/L	0.003 mg/L	0.005 mg/L	
MDL (H2O)		0.19 mg/L	0.04 mg/L	0.15 mg/L	0.03 mg/L	0.07 mg/L	

	Lab ID	Methane	Ethane	Ethylene	Propane	Propylene	Iso-Butane	N-Butane	Date Analyzed
REP. #		(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	(PPMV)	01/30/01
1	T43 147	0.2512	0.0525	0.0453	0.0461	0.0581	0.0473	0.0358	
2	T43 148	0.2608	0.0518	0.0468	0.0521	0.0465	0.0439	0.0407	
3	T43 149	0.2812	0.0509	0.0485	0.0529	0.0588	0.0436	0.0405	
4	T43 150	0.2779	0.0549	0.0460	0.0461	0.0536	0.0549	0.0476	
5	T43 151	0.2884	0.0551	0.0497	0.0520	0.0549	0.0417	0.0460	
6	T43 152	0.2970	0.0515	0.0467	0.0458	0.0542	0.0435	0.0514	
7	T43 153	0.3053	0.0532	0.0473	0.0485	0.0584	0.0483	0.0535	
AVERAGE		0.2804	0.0528	0.0472	0.0491	0.0549	0.0462	0.0451	
KNOWN		0.1500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	
STD DEV		0.019	0.002	0.001	0.003	0.004	0.004	0.006	
MDL (VAPOR)		0.060	0.005	0.005	0.010	0.013	0.014	0.020	
MDL (BUBBLE)		0.001 ug/L	0.3 ng/L	0.7ng/L	0.6 ng/L	2.6 ng/L	0.7 ng/L	1.2 ng/L	
MDL (H2O)		0.015 ug/L	2.4 ng/L	2.6 ng/L	6.7 ng/L	10 ng/L	12 ng/L	17 ng/L	

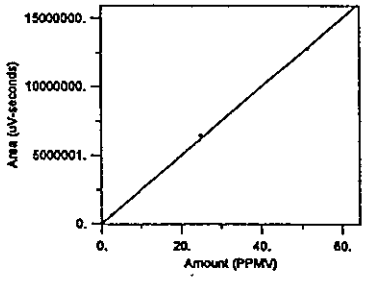
MDL= 3.143*STD DEV OF 7 REPLICATES

Calibration File Name: **C:\CPWIN\T54\T54CH2.CAL** Version = 1
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units = PPMV
1 components with 4 levels each

1 HYDROGEN

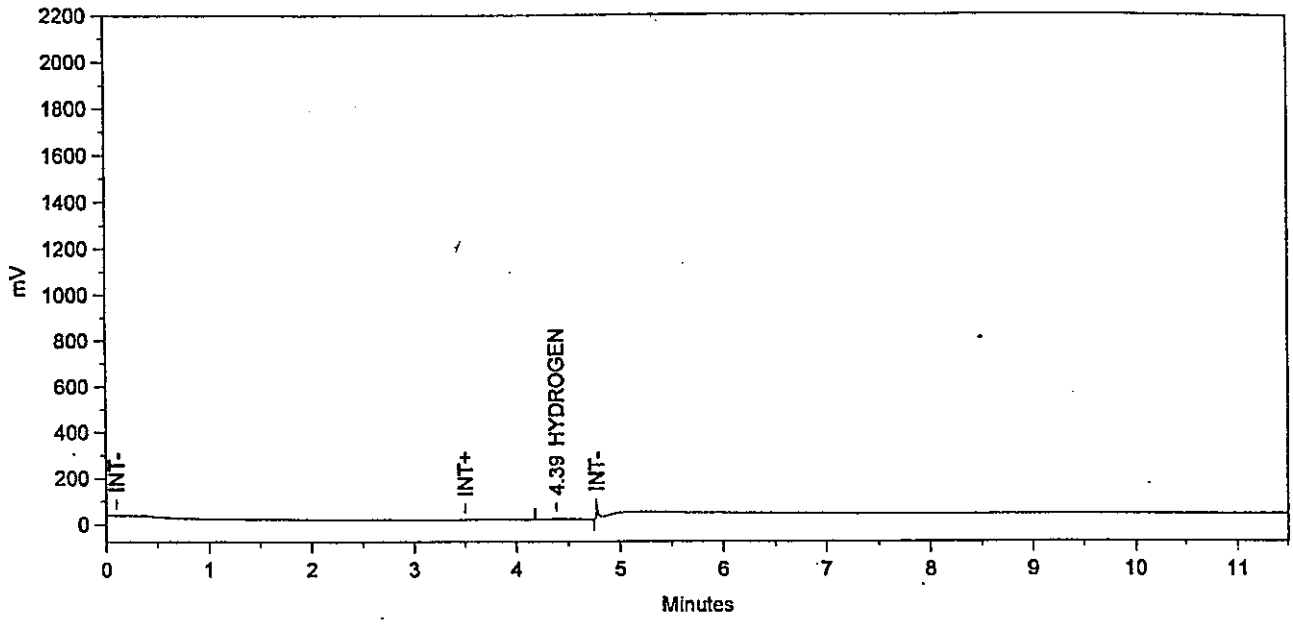
Retention time = 4.300 min., Search window = 0.205 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 1
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	0.250	83512.0	334048	Manual	11/8/2001 10:32:
2	2.500	584005.0	233602	Manual	11/8/2001 10:32:
3	25.000	6432841.0	257313.6	Manual	11/8/2001 10:32:
4	51.450	12741470.0	247647.6	Manual	11/8/2001 10:32:



Calibration formula: Y = 249465.2 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9995, Average error = 11.03%
Average CF = 268152.8000 with RSD = 16.78%

STD P 100X



Sample Name: **STD P 100X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 09:46:03am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.86R**
Date Stamp: 11/8/01 09:46:02am
Sequence File: T54C.SEQ #186
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

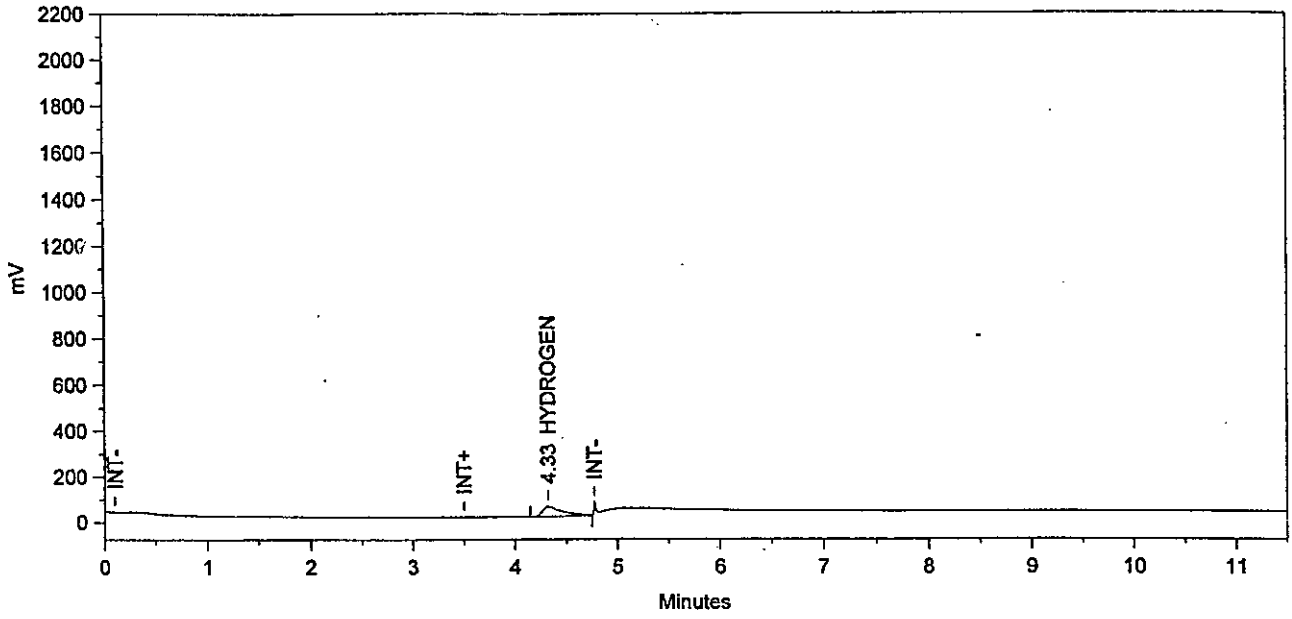
Run Time = 11.5 min. Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.389	HYDROGEN	0.3644	100.000	83511.9	100.000	BB	0.265	5243.12	100.000

Total Area = 83511.9, Total Amount = 0.364, Total Height = 5243.12, Sample Units = PPMV

STD P 10X



Sample Name: **STD P 10X**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 09:59:36am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.87R**
Date Stamp: 11/8/01 09:59:36am
Sequence File: T54C.SEQ #187
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

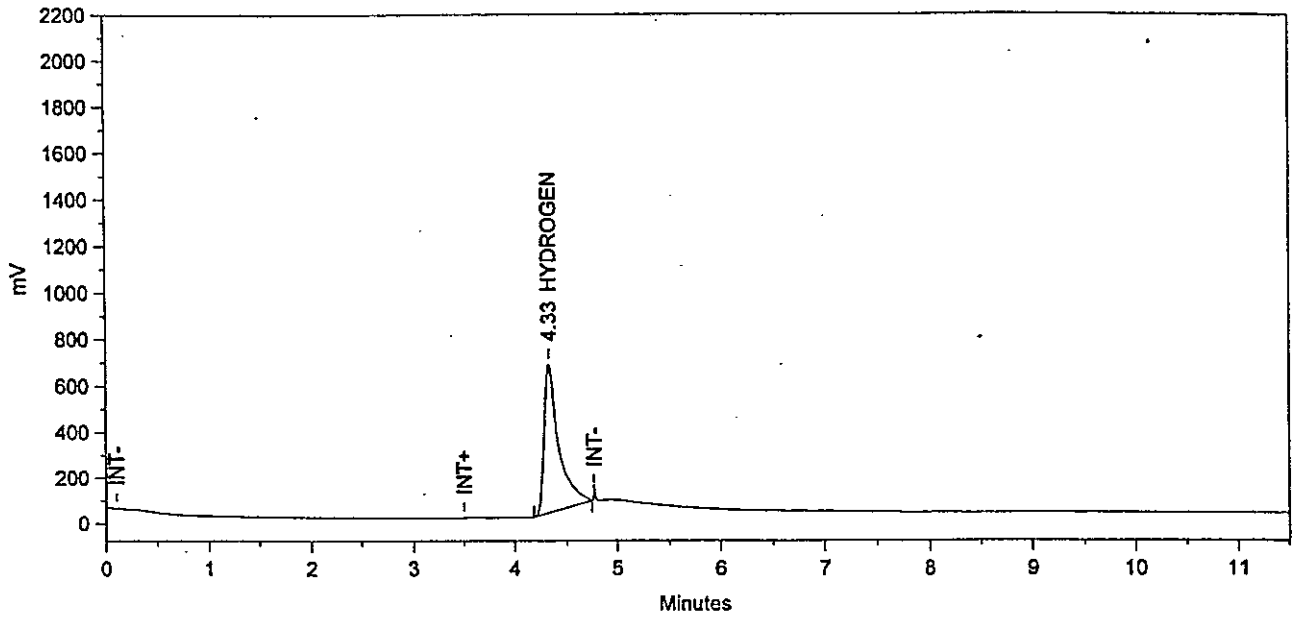
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.326	HYDROGEN	2.5486	100.000	584005.4	100.000	BB	0.222	43806.06	100.000

Total Area = 584005.4, Total Amount = 2.549, Total Height = 43806.06, Sample Units = PPMV

STD P



Sample Name: **STD P**
Acquired from BIOREM1--RGD via port 3 on 11/8/01 10:12:21am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.88R**
Date Stamp: 11/8/01 10:12:20am
Sequence File: T54C.SEQ #188
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

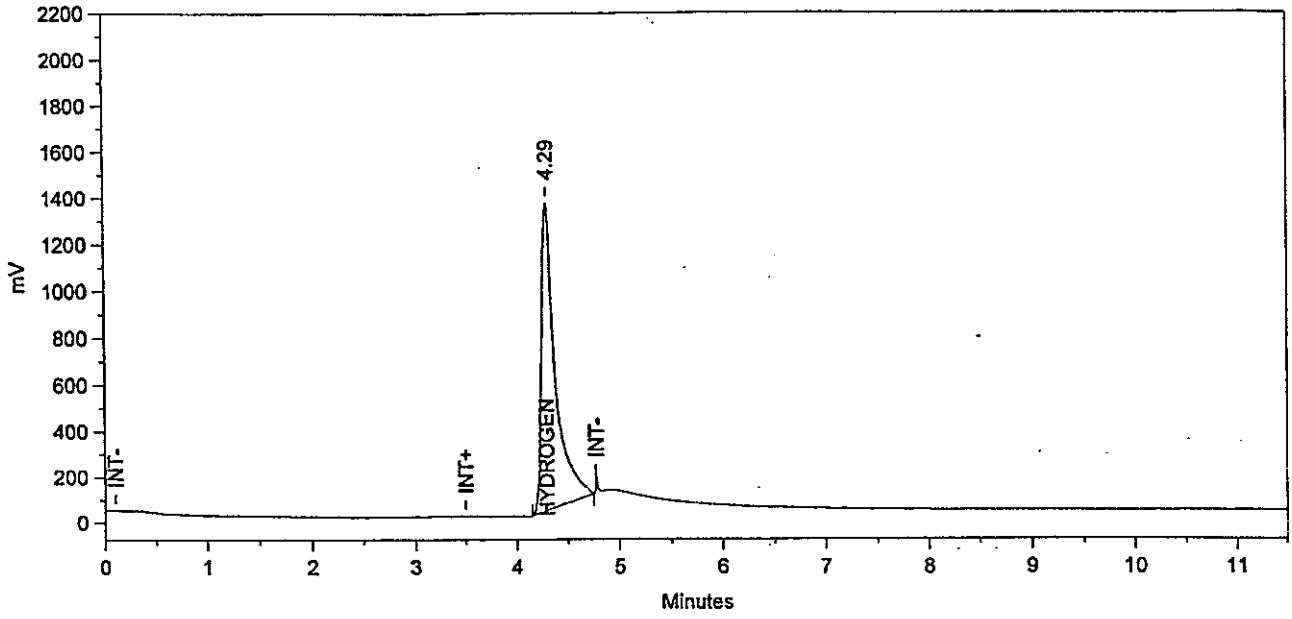
Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.332	HYDROGEN	28.0729	100.000	6432841.0	100.000	BB	0.166	646406.70	100.000

Total Area = 6432841.0, Total Amount = 28.073, Total Height = 646406.7, Sample Units = PPMV

STD 210 2X



Sample Name: **STD 210 2X**
Acquired from BIOREM1–RGD via port 3 on 11/8/01 10:26:05am by BC
heading 1 for 2A
heading 2 for 2A

Data File: **C:\CPWIN\T54\T54C1.89R**
Date Stamp: 11/8/01 10:26:04am
Sequence File: T54C.SEQ #189
Method File: C:\CPWIN\T54\T54CH1.MET
Version 1. Date Stamp: 10/30/01 09:19:20am
Calibration File: C:\CPWIN\T54\T54CH1.CAL
Version 3. Date Stamp: 11/5/01 01:50:28pm

Run Time = 11.5 min Sample Rate = 3.0 per sec.
Amount Inj. = 0.000 Dilution Factor = 0.000
Sample Weight = 0.000 Int Std Amount = 0.000

Starting Peak Width = 0.1 min. Peak Threshold = 8 Area Reject = 100

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	4.293	HYDROGEN	55.6037	100.000	12741470.0	100.000	BB	0.160	1326773.00	100.000

Total Area = 12741470.0, Total Amount = 55.604, Total Height = 1326773.0, Sample Units = PPMV

Chain of Custody Documentation

PEL LAB SAMPLE LOG IN SHEET

Client Information Project # 2110-169

Client: CH2M Hill	Date Recd: 10/27/01
Project: NTC Orlando SA-36	Due Date:
Log In Tech: MK	Recd Via: Client Crosstown (FedEx)
Comments:	Other:

SAMPLE VERIFICATION

	YES	NO		YES	NO
Samples/Cooler Secure	✓		All Smpls. on COC Accounted For	✓	
Samples Received on Ice		✓	All Samples Received Intact	✓	
Temperature WNL	✓		Sample Vol. Sufficient For Analysis	✓	
Temperature of Samples (°C)	RT		Samples Received W/I Hold Time	✓	
pH verified	NA		Are All Samples to be Analyzed	✓	
pH WNL			Correct Sample Containers	✓	
Soil Origin Domestic	✓		Soil Origin Foreign	NA	

COC VERIFICATION

	YES	NO		YES	NO
Site Location/Project on COC	✓		Samplers Initials on COC	✓	
Client Project # on COC	✓		Sample Time/Date Indicated	✓	
Project Mgr. Indicated on COC	✓		TAT requested: (STND) / RUSH		
COC Relinquished/Dated by Client	✓		Client Requests Verbal Results		✓
COC Received/Dated by PEL	✓		Client Requests FAX Results		✓
			* PEL to Conduct All Analysis		✓
			* Specific Subcontract Indicated		

* SUBCONTRACTED ANALYSIS

Subcontractor: Microseeps	Subcontractor:	Subcontractor:
Due Date: 11/06/01	Due Date:	Due Date:
Parameter: Dissolved Hydrogen	Parameter:	Parameter:
Via: Crosstown (FedEx)	Via: Crosstown FedEx	Via: Crosstown FedEx
Tracking #:	Tracking #:	Tracking #:

22

Chem Hill / NTC Orlando 2110-169

Sample #	Parameters	Rel'd	Rec'd	Date	Time
01-05	Dissolved Hydrogen Sent to Microseeps	ZyK	Fed Ex	10/29/01	18:30

Addendum

Letter of Acceptance

Customer Name:	CH2MHILL
Date & Time Received:	10-27-01; 11:35 AM
Date to be Reported:	11-10-01
Laboratory Submission Number/SDG:	2110169
Project:	NTC Orlando

Samples: The submission consisted of 5 samples with sample identification shown in the attached data tables.

Tests: The samples will be analyzed for EPA methods:
Dissolved Hydrogen

Sample Custody/COC discrepancies:
None.

Notes: Dissolved Hydrogen was sent to Microseeps. Due to the number of characters in the sample identifier, PEL has truncated the ID's.

Distribution of Report to:

1-CH2MHILL
Attn: Steve Tsangaris
Phone: 813-874-0777

2-CH2MHILL
Attn: Tatiana Romanova
Phone: 770-604-9182

Respectfully Submitted,

PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Total of: 5 analyses on 5 samples (including QC) *29-Oct-01*

Report/SDG #: 2110169

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3608B-Q401	211016901	OLD-36-08B	AA	10/25/01 11:00:00 AM	10/27/01 11:35:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3607A-Q401	211016902	OLD-36-07A	AA	10/25/01 3:15:00 PM	10/27/01 11:35:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3606A-Q401	211016903	OLD-36-06A	AA	10/25/01 3:45:00 PM	10/27/01 11:35:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3619A-Q401	211016904	OLD-36-19A	AA	10/26/01 10:00:00 AM	10/27/01 11:35:00 AM
Method					
GEN	Generic Method -change as needed				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
17-3624B-Q401	211016905	OLD-36-24B	AA	10/26/01 1:30:00 PM	10/27/01 11:35:00 AM
Method					
GEN	Generic Method -change as needed				

1

Appendix D

Natural Attenuation Technical Memorandum
January 2002

Enhanced Bioremediation Summary for SA-36

PREPARED FOR: Steve Tsangaris

PREPARED BY: CH2M HILL Constructors, Inc.

DATE: January 23, 2002

The purpose of this memorandum is to provide the results of the enhanced bioremediation effort performed at the Naval Training Center Orlando, Florida at Study Area 36.

Site Descriptions

Study Area 36 (SA-36) is located south of Langley Street and west of Grace Hopper Avenue on the Main Base, as shown on Figure 1-1 of the Round 3 Treatment Efficiency Report. The Main Base has been modified by Orlando NTC Partners to develop the land for residential use. The site previously contained Buildings 2121 and 2122, and the western half of the Public Works Yard. The areas to the east and south of Building 2121 were used to store a variety of items including pipes, fire hydrants, bricks, and hazardous materials such as waste oil drums, transformers and batteries. Building 2122 was the Paint Shop. Paints and paint thinner were stored inside the building and a flammable materials storage cabinet was located at the north end of the building. Since the land development activities at the Main Base, the site area has been cleared of any buildings or roadways.

Groundwater Contamination Descriptions

During 1997 through 1998, the groundwater beneath SA-36 was investigated in order to evaluate the perchloroethene (PCE) and trichloroethene (TCE) contamination reported in the groundwater. The results of the study indicated that concentrations of TCE and PCE were detected exceeding the Groundwater Cleanup Target Levels (GCTLs), as shown on Figure 1-2 of the Round 3 Treatment Efficiency Report. The maximum TCE concentration detected in a monitoring well at the site was 300 micrograms per liter (µg/L). The results of the groundwater investigation at the site indicate that TCE and PCE concentrations in groundwater exceed the GCTL in an area of approximately 5,000 square feet in the North Storage Area (HLA, 1999). Chlorinated solvent detections exceeded screening criteria to a depth of 35 feet below land surface (bls).

As a result of the PCE and TCE contamination detected at Study Area 36, the Orlando Partnering Team (OPT) requested that CCI implement an IRA at the site consisting of enhanced bioremediation using vegetable oil.

Enhanced Biodremediation Study

The first task conducted for the enhanced bioremediation study was to install additional monitoring wells and injections points at each of the study areas. In total, 15 injection points

and seven downgradient monitoring wells were installed at SA-36. In order to evaluate the permeability of the three groundwater zones beneath the study area, slug testing was performed to calculate the hydraulic conductivity of the aquifers. Upon completion of the aquifer testing, a round of baseline samples was collected from the monitoring wells. The groundwater was analyzed for the following parameters:

- VOCs by EPA Method 8260B
- Nitrate, Nitrite, Chloride, and Bromide by EPA Methods 352, 354, 325, 320.1, respectively
- Alkalinity by EPA Method 310.1
- Total organic carbon (TOC) by EPA Method 9060 Modified
- Total petroleum hydrocarbons (TPH) by FDEP Florida Petroleum Residual Organic Methods (FL-PRO)
- Volatile fatty acids
- Methane, ethane and ethene (MEE) by AM19GA

Food-grade vegetable oil was injected into the aquifers at both study areas once the baseline sampling was completed during . In total, 60 gallons of vegetable oil was injected into each of the 15 locations at SA-36 during January 2001. Details of the above activities can be found in *Construction Documentation Report Enhanced Biodegradation IRA at Study Area 36* (CCI, 2001).

Natural Attenuation Overview

Monitored Natural Attenuation (MNA) relies upon natural attenuation processes to reduce the contaminant concentrations in groundwater. The EPA defines MNA as:

"The biodegradation, dispersion, dilution, sorption, volatilization, and/or chemical and biochemical stabilization of contaminants to effectively reduce contaminant toxicity, mobility, or volume to levels that are protective of human health and the ecosystem."

The biodegradation component of MNA is usually the dominant factor that dictates the ultimate fate and transport of groundwater contamination because it is most often the component of MNA that has the potential for the reducing the most contamination over a given time period. An understanding of the degree of biological activity present beneath the site, primarily in the contaminant "hot spot", is required in order to predict the rate of contamination reduction and which natural attenuation component is the dominant mechanism for reducing contamination levels in the subsurface. General guidelines established by the EPA require the contamination levels meet the GCTL established for the site within "a reasonable time-frame," which in practice is considered to be 10 to 15 years after initiating MNA as the remediation remedy. A tool that is used to predict the rate of contamination reduction that is widely used is BIOSCREEN. Site specific data about the groundwater aquifer can be entered into BIOSCREEN and the program can predict the length of time required for contamination levels to reach site specific GCTLs.

Monitoring contaminated groundwater to assess the effectiveness of the reductive dechlorination process is necessary evaluate the progress towards meeting the GCTLs established for a site. The biodegradation process for chlorinated solvents is a complicated process and numerous parameters must be analyzed in the site groundwater to evaluate the stages of reductive dechlorination. The reductive dechlorination process for PCE and TCE is shown below:

PCE → TCE → *cis*-1,2-DCE → Vinyl Chloride → Ethene → Ethane → Methane → Carbon Dioxide + H_2O + Cl^-

A series of oxidation reduction reactions are facilitated by microorganisms that allow the above process to take first. A series of electron acceptors will take an electron from two primary electron donors, which are dissolved hydrogen and total organic carbon (TOC) sources. The dissolved hydrogen concentrations in groundwater also provide information on the terminal electron accepting process of the aquifer as listed in Table 1.

TABLE 1
Dissolved Hydrogen Concentrations and the Terminal Electron Accepting Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Terminal Electron Accepting Process	Dissolved Hydrogen Concentration
Denitrification	<0.1 nm/L
Iron III Reduction	0.2 – 0.8 nm/L
Sulfate Reduction	1- 4 nm/L
Methanogenesis	>5 nm/L

nm/L – nanomoles per liter

The electron acceptors present in groundwater are listed below:

- Dissolved Oxygen (DO)
- Nitrogen, Nitrate (as N)
- Manganese (total)
- Ferric Iron (Fe III)
- Sulfate (as SO_4)
- Carbon Dioxide

The above electron acceptors are consumed in the groundwater aquifer in the above order due to the thermodynamic nature of each electron accepting process. Therefore, the dissolved oxygen is utilized first, then the nitrogen, and so on and so forth until the terminal electron accepting condition is either sulfate reducing or methanogenic. Once the above electron acceptors are consumed, the reductive dechlorination process will begin and the PCE and TCE become the electron acceptors. Additional groundwater parameters and some parameters previously discussed and their role in the reductive dechlorination process are listed in Table 2.

TABLE 2
Parameters to Measure for Assessment of Natural Attenuation

Parameter	Comments
Dissolved Oxygen	DO is the electron acceptor most thermodynamically favored by microbes for the biodegradation of organic carbon, whether natural or anthropogenic. Reductive dechlorination will not occur, however, if DO concentrations are above approximately 0.5 mg/L.
Nitrate	After DO depletion, anaerobic microbes will use nitrate-containing compounds as an electron acceptor (denitrification).
Iron (III) (II)	After nitrate-compound depletion, anaerobic microbes will use iron (III)-containing compounds as an electron acceptor (bioavailable form). Iron (III) will be reduced to a more soluble form, iron (II), which is indicative of anaerobic degradation of fuel compounds or other hydrocarbons.
Sulfate	After iron (III)-compound depletion, anaerobic microbes will use sulfate-containing compounds as an electron acceptor (sulfate reduction). This will result in the production of sulfide-containing compounds such as hydrogen sulfide.
Carbon dioxide	After sulfate-compound depletion, anaerobic microbes will use carbon dioxide-containing compounds as an electron acceptor (methanogenesis). This will result in the production of methane. Carbon dioxide also will be produced by the oxidation of organic substrates.
Alkalinity	Total alkalinity is indicative of a water's capacity to neutralize acid. Alkalinity results from the presence of hydroxides, carbonates, and bicarbonates of elements (Ca, Mg, Na, K, or ammonia). Alkalinity helps to buffer the pH of the groundwater system from the acids generated during both aerobic and anaerobic degradation. Alkalinity may increase in areas with significant biological activity.
ORP	Oxidation-reduction potential is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons.
PH	PH has an effect on the presence and activity of microbial populations in the groundwater system (especially for methanogens). Microbes capable of degrading chlorinated aliphatic hydrocarbons and petroleum hydrocarbon compounds generally prefer pH values varying from 6 to 8 standard units.
Conductivity	Conductivity is a measure of the ability of a solution to conduct electricity (the direct correlation to the number of ions in solution). Conductivity measurements are used to ensure that collected groundwater samples representing the water in the saturated zone containing the dissolved contamination. If conductivities are radically different, the sample waters may be from different hydrogeologic zones.
Temperature	Temperature directly affects the solubility of oxygen and other geochemical species and will affect the metabolic activity of bacteria.
Chloride	When compared with background levels, chloride is an effective conservative tracer of groundwater contaminant plume migration, due to the release of chloride during degradation of chlorinated hydrocarbons in groundwater. Chloride ions generally do not enter into ORP reactions, form no important solute complexes with other ions, do not form salts of low solubility, are not significantly adsorbed on mineral surfaces, and play few vital biochemical roles.
Methane	Methane is generated as a result of methanorganic bacteria during anaerobic fermentation processes. Its presence indicates a strongly reducing environment.
Ethene	Vinyl chloride can be reduced to ethene in an anaerobic environment. Its presence indicates that vinyl chloride is being degraded via anaerobic processes.
Ethane	Ethene can be further reduced to ethane. Its presence indicates that reductive anaerobic processes are occurring.
TOC	Total organic carbon provides an indication of the amount of potentially degradable organic carbon available to act as an electron donor and a supply of organic carbon for biomass synthesis.

A system has been developed by AFCEE to evaluate the degree to which natural attenuation is occurring in a groundwater plume. The evaluation consists of "scoring" the previously discussed groundwater parameters by applying a numeric value to each parameter in the contamination source well of each plume on the basis of its role in the reductive dechlorination process. The score of each parameter is then summed up to give a final value or "score" to the plume's contamination source well. This process is described in detail in the *Draft EPA Region 4 Suggested Practices for Evaluation of a Site for Natural Attenuation (Biological Degradation) of Chlorinated Solvents* (EPA, 1997). The parameters that are scored and their respective values are shown in Table 3.

The score for a plume is only one indicator for determining the degree to which natural attenuation is occurring. The amount of contamination reduction over time also needs to be considered when evaluating natural attenuation processes. Contamination concentrations should meet remediation goals for the site within a "reasonable time frame".

TABLE 3
Analytical Parameters and Their Respective Values for Screening the Reductive Dechlorination Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Contaminated Zone Concentration	Description	Points Awarded
Dissolved Oxygen	<0.5 mg/L	Suppresses reductive dechlorination at higher concentrations.	3
	>1 mg/L	Vinyl chloride may be oxidized, but reductive dechlorination will not occur	-3
Nitrate	<1 mg/L	May complete the reductive dechlorination process at higher concentrations	2
Iron II	>1 mg/L	Reductive pathway possible, vinyl chloride may be oxidized under Iron III reducing conditions	3
Sulfate	<20 mg/L	May complete the reductive dechlorination process at higher concentrations	2
Sulfide	>1 mg/L	Reductive pathway possible	3
Methane	<0.5 mg/L	Vinyl chloride oxidizes	0
	>0.5 mg/L	Ultimate reductive daughter product, vinyl chloride accumulates	3
ORP	<50 mV	Reductive pathway possible	1
	<-100 mV	Reductive pathway likely	2
PH	5<pH<9	Optimal Range for reductive pathway	0
	5>pH>9	Outside Optimal range for reductive pathway	-2
TOC	>20 mg/L	Carbon and energy source	2
Temperature	>20 ^{o}C	Biological process is accelerated	1
CO_2	>2 times background	Ultimate oxidative daughter product	1
Alkalinity	> 2 times background	Results from interaction of carbon dioxide with aquifer materials	1
Chloride	>2 times background	Daughter product of organic chlorine	1

TABLE 3
Analytical Parameters and Their Respective Values for Screening the Reductive Dechlorination Process
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Contaminated Zone Concentration	Description	Points Awarded
Dissolved Hydrogen	>1 nm/L	Reductive pathway possible	3
	<1 nm/L	Vinyl chloride oxidized	0
Volatile fatty acids	>0.1 mg/L	Intermediates resulting from biodegradation of aromatic compounds;carbon and energy source	2
BTEX	>0.1 mg/L	Carbon and energy source	2
PCE		Material released	0
TCE		Material released	0
		Daughter product of PCE	2
Cis-1,2-DCE		Material released	0
		Daughter product of TCE and is greater than 80% of the total 1,2-DCE concentration	2
Vinyl Chloride		Material released	0
		Daughter product of DCE	2
Ethene/Ethane	>0.01 mg/L	Daughter product of vinyl chloride/ethene	2
	>0.1 mg/L		3

Notes: The total score for the above parameters are interpreted as follows:

0 to 5	Inadequate evidence for biodegradation of chlorinated organics
6 to 14	Limited evidence for biodegradation of chlorinated organics
15 to 20	Adequate evidence for biodegradation of chlorinated organics
>20	Strong evidence for biodegradation of chlorinated organics

Enhanced Bioremediation Results

The data results of the first, second and third rounds of enhanced bioremediation sampling were evaluated using the process described below:

Step 1 – Tabulate the baseline, first, and second rounds of groundwater sampling results

Step 2 – Evaluate the change in electron acceptor and donator concentrations

Step 3 – Plot the electron acceptor and donator values through the flow path of the plume (i.e. Upgradient → Source → Ingradient → Downgradient)

Step 4 – Evaluate the change in contamination (TCE, PCE) concentrations along with daughter product (*cis*-1,2-DCE, Vinyl Chloride, and MEE) and chloride formation

Step 5 – Score the contamination source well according to the AFCEE protocol outlined in *Draft EPA Region 4 Suggested Practices for Evaluation of a Site for Natural Attenuation (Biological Degradation) of Chlorinated Solvents* (EPA 1997)

Study Area 36 Groundwater Sampling Results

Groundwater samples were collected from each of the three aquifer zones beneath SA-36. The groundwater samples were collected from the wells in each zone as listed in Table 4 and the analytical results for the baseline and subsequent samples collected are listed in Table 2-4 of the Round 3 Treatment Efficiency Report.

TABLE 4
Wells Sampled at Study Area 36
Enhanced Bioremediation Study, Naval Training Center Orlando, Florida

Zone A	Zone B	Zone C
OLD-36-06A	OLD-36-08B	OLD-36-09C
OLD-36-07A	OLD-36-10B	OLD-36-11C
OLD-36-26A	OLD-36-28B	OLD-36-30C
OLD-36-27A	OLD-36-29B	OLD-36-31C
OLD-36-19A	OLD-36-24B	OLD-36-32C
		OLD-36-25C

Study Area 36 Zone A Groundwater Results

The groundwater data for Zone A at SA-36 shows a change in a few parameters between the baseline and December 2001 results. The significant findings indicating that natural attenuation may be occurring are as follows:

- The dissolved oxygen concentration in every well, except the downgradient well (OLD-36-19A), is below 1 mg/L which is an indication that natural attenuation is occurring.
- The dissolved hydrogen concentration in every well, except the downgradient well (OLD-36-19A), is above 1 nm/L, which is an indication that natural attenuation is occurring and the Zone A aquifer terminal electron accepting process is sulfate reduction or methanogenesis.
- The sulfate concentrations are decreasing one or two orders of magnitude in every well, which indicates microbial activity is occurring in Zone A.
- The ORP has decreased in four out of five wells sampled at the site and is negative in OLD-36-27A. This indicates that conditions are becoming reducing in the aquifer, which is favorable for natural attenuation processes.
- The chloride concentrations have increased in every well at the site, except the downgradient well OLD-36-19A, and an order of magnitude in some wells which is an indication that chlorinated solvents are being reduced.
- The methane, ethane, and ethene concentrations increased in all wells by at least four orders of magnitude, which indicates reductive dechlorination process may be occurring.
- The TOC concentrations, in every well except OLD-36-26A, have increased. This is an indication the vegetable oil is migrating within the aquifer.

- The TCE concentrations decreased in every well (most cases and order of magnitude) and the formation of *cis*-1,2-DCE was detected in four wells. This indicates reductive dechlorination is occurring.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-06A was considered the upgradient well location on the basis of the potentiometric map shown in Figure 2-1 of the Round 3 Treatment Efficiency Report. The remaining wells were considered source wells due to the elevated TCE concentrations in OLD-36-27A.

The DO, ORP, SO_4, and NO_3, and Cl concentrations are plotted along the flow path of the groundwater in Zone A in Figure 1. The plot shows a zone of reduction around wells OLD-36-07A, OLD-36-26A, and OLD-36-27A, which is evidenced by a reduction in SO_4, NO_3, ORP, and DO along with an associated spike in chloride level. In addition, this reductive zone shows an elevation in dissolved gas concentrations (Figure 2) and TOC (Figure 3) with an associated decrease in TCE concentration (Figure 3). In addition, *cis*-1,2-DCE was reported in the reductive zone in all three wells (Figure 3).

Additional graphs were developed which shows the change in groundwater parameters over time since the vegetable oil injections were performed. The TCE concentration has decreased in every well at the study area as shown in Figure 4. In addition, the methane, ethane, and ethene concentrations have increased by orders of magnitude, which is shown in Figures 5, 6, and 7, respectively. The source well OLD-36-27A, has shown the highest decrease in TCE; and OLD-36-07A shows the highest increase of methane, ethane, ethene, *cis*-1,2-DCE, and chloride of all the wells at the site. The groundwater TCE reduction and increase in biodegradation by-products (listed above) for OLD-36-27A over the duration of the study are shown in Figure 8.

On the basis of the groundwater parameters measured for Zone A at SA-36, the associated score for the reductive zone is 19 which is indicative of adequate evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 5.

TABLE 5
Values for Screening the Reductive Dechlorination Process in Groundwater Zone A at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-27A	Description	Points Awarded
Dissolved Oxygen	0.06 mg/L	Indicative of reductive dechlorination	3
Nitrate	2.8 mg/L	May complete the reductive dechlorination process	0
Iron II	<0.1 mg/L	Indicative of reductive dechlorination, concentration above 1 mg/L receives points	0
Sulfate	21 mg/L	May complete the reductive dechlorination process	0
Sulfide	4.0 mg/L	Indicative of reductive dechlorination	3
Methane	2.2 mg/L	Ultimate daughter product of TCE reduction	3

TABLE 5
Values for Screening the Reductive Dechlorination Process in Groundwater Zone A at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-27A	Description	Points Awarded
ORP	-65 mV	Reductive pathway likely	1
pH	6.63	Within optimal range for reductive pathway	0
TOC	18 mg/L	Carbon and energy source, concentration above 20 mg/L receives points	0
Temperature	28.5 ^{o}C	Biological process is accelerated	1
CO_2	1.1 times background	Ultimate oxidative daughter product	0
Alkalinity	4.9 times background	Indicative of reductive dechlorination	1
Chloride	0.12 times background	Indicative of reductive dechlorination	0
Dissolved Hydrogen	2.2 nm/L	High concentrations indicative of reductive dechlorination process	3
Volatile fatty acids	10.9 mg/L	Intermediates resulting from biodegradation of aromatic compounds	2
BTEX	Not Detected	Carbon and energy source	0
PCE	0.4 μg/L	Material released	0
TCE	1.5 μg/L	Material released	0
Cis-1,2-DCE	7.1 μg/L	Daughter product of TCE	2
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.00013 / 0.000053 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**19**

Notes: The total score for the above parameters are interpreted as follows:

0 to 5	Inadequate evidence for biodegradation of chlorinated organics
6 to 14	Limited evidence for biodegradation of chlorinated organics
15 to 20	Adequate evidence for biodegradation of chlorinated organics
>20	Strong evidence for biodegradation of chlorinated organics

Study Area 36 Zone B Groundwater Results

The groundwater data for Zone B at SA-36 shows a change in a few parameters between the baseline and December 2001 results. The parameter changes that are indicative of reductive dechlorination are listed below:

- The dissolved oxygen concentrations are below 1 mg/L in all wells in the Zone B aquifer.
- The dissolved gas (MEE) concentrations have increased in each of the monitoring wells from the baseline levels.
- The dissolved hydrogen concentrations are 3.4 nm/L or above except in the upgradient well (OLD-36-24B), which is indicative of reductive dechlorination processes occurring

in Zone B and the final electron accepting process is sulfate reduction or methanogenesis.

- The ORP values are 50 mV or below except in OLD-36-29B and the upgradient well (OLD-36-24B) which is indicative of reducing conditions in Zone B.
- Sulfate concentrations have reduced and hydrogen sulfide concentrations have increased in every well, which is indicative of sulfate reducing conditions in the aquifer.
- The TOC concentrations have either remained relatively constant or decreased in Zone B after the addition of vegetable oil, which indicates it is being consumed in the subsurface.
- TCE concentrations have decreased in every well except OLD-36-10B, and the 1,2-DCE concentration has increased in all of the monitoring wells in Zone B, which is indicative of the reductive dechlorination of TCE.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-24B and OLD-36-10B were considered the upgradient and downgradient well locations, respectively, on the basis of the potentiometric map shown in Figure 2-2 of the Round 3 Treatment Efficiency Report. The remaining two wells were considered source wells due to the elevated TCE concentrations.

The DO, ORP, SO_4 , and Cl concentrations are plotted along the flow path of the groundwater in Zone B on Figure 9. The plot shows a potential zone of reduction around well OLD-36-08B and OLD-36-28B which is evidenced by a reduction in DO, ORP, and SO_4 along with an associated spike in chloride level.

The groundwater conditions in the area of OLD-36-08B shows the dissolved gas concentrations, methane, ethane, ethene, dissolved hydrogen, and CO_2 (Figure 10) are elevated in Zone B and decrease in the downgradient locations. The TOC (Figure 11) in Zone B is below 20 mg/L in the vicinity of OLD-37-28B which indicates it is being consumed by the microbes. The TCE concentrations (Figure 11) also reduce around OLD-36-08 and then spike at OLD-36-29B. In addition, the formation of *cis*-1,2-DCE is apparent in OLD-36-08B and OLD-36-28B, which is indicative of the reductive dechlorination process.

The TCE concentrations have decreased the groundwater in every well in Zone B except OLD-36-29B and cis-1,2-DCE has increased in three wells as indicated on Figures12 and13, respectively. In addition, the methane, ethane, and ethene concentrations in each well have increased orders of magnitude as shown on Figures 14, 15, and 16, respectively. The groundwater in source well OLD-36-08B has shown the one of the highest decreases in TCE (approximately 75 percent), and the largest increase of methane, ethane, ethene of all the wells at the site. The groundwater TCE reduction and increase in biodegradation by-products (listed above) for OLD-36-08B over the duration of the study are shown on Figure 17.

On the basis of the groundwater parameters measured for Zone B at SA-36, the associated score for the reductive zone is 27, which is indicative of strong evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 6.

TABLE 6
Values for Screening the Reductive Dechlorination Process in Groundwater Zone B at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-08B	Description	Points Awarded
Dissolved Oxygen	0.01 mg/L	Indicative of reductive dechlorination	3
Nitrate	Not Detected	Nitrate reduction pathway does not exist	2
Iron II	1 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Sulfate	Not Detected	Indicative of reductive dechlorination	2
Sulfide	5 mg/L	Indicative of reductive dechlorination	3
Methane	9.3 mg/L	Indicative of reductive dechlorination	3
ORP	25.9 mV	Reductive pathway possible	1
pH	5.47 SU	Within optimal range for reductive pathway	0
TOC	83 mg/L	Carbon and energy source	2
Temperature	27.2 ^{o}C	Biological process is accelerated	1
CO_2	2.9 times background	Ultimate oxidative daughter product	1
Alkalinity	67 times background	Indicative of reductive dechlorination	1
Chloride	3.2 times background	Indicative of reductive dechlorination	1
Dissolved Hydrogen	13 nm/L	High concentrations indicative of reductive dechlorination process	3
Volatile fatty acids	65.5 mg/L	Indicative of reductive dechlorination	2
BTEX	Not Detected	Carbon and energy source	0
PCE	Not Detected		0
TCE	25 μg/L	Material released	0
Cis-1,2-DCE	26 μg/L	Daughter product of TCE reduction	2
Vinyl Chloride	Not Detected		0
Ethene/Ethane	0.0032 / 0.00082 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**27**

Notes: The total score for the above parameters are interpreted as follows:

0 to 5	Inadequate evidence for biodegradation of chlorinated organics
6 to 14	Limited evidence for biodegradation of chlorinated organics
15 to 20	Adequate evidence for biodegradation of chlorinated organics
>20	Strong evidence for biodegradation of chlorinated organics

Study Area 36 Zone C Groundwater Results

The groundwater data for Zone C at SA-36 shows a change in a few parameters between the baseline and December 2001 results. The parameter changes that are indicative of reductive dechlorination are listed below:

- The dissolved oxygen concentrations are below 1 mg/L in each monitoring well
- The dissolved gas (MEE) concentrations have increased in each of the monitoring wells from the baseline levels by orders of magnitude.
- The dissolved hydrogen concentrations are above 1 nm/L except in the downgradient well OLD-36-25C which indicated reductive dechlorination is occurring and the terminal electron accepting process in the core of the plume is sulfate reduction or methanogenesis
- The ORP values in the core of the plume are negative which is indicative of reducing conditions in Zone C
- Ferrous iron and hydrogen sulfide are reported in the groundwater which are indicative of a reductive environment.
- Sulfate concentrations have reduced in every well, which is indicative of sulfate reducing conditions.
- The TOC concentrations have increased Zone C, except for well OLD-36-32C, after the addition of vegetable oil, which indicates it is migrating in the subsurface.
- TCE concentrations have decreased or remained relatively constant in Zone C, the *cis*-1,2-DCE is present in four monitoring wells, and vinyl chloride is present in OLD-36-09C.

The groundwater analytical and field parameters also can be evaluated through the flow path of the plume to evaluate the reductive dechlorination process. For the purposes of this evaluation, well OLD-36-11C and OLD-36-25C were considered the upgradient and downgradient well locations, respectively, on the basis of the potentiometric map shown in Figure 2-3 of the Round 3 Treatment Efficiency Report. The remaining two wells were considered source wells due to the elevated TCE concentrations.

The DO, ORP, SO_4 , and Cl concentrations are plotted along the flow path of the groundwater in Zone B on Figure 18. The plot shows a potential zone of reduction around well OLD-36-09C that is evidenced by a reduction in ORP and SO_4 along with an associated spike in chloride level. In addition, the DO concentrations in Zone C are below 1 mg/L, indicating a reducing environment potentially exists. The groundwater conditions in the area of OLD-36-09C shows the dissolved gas concentrations, methane, ethane, ethene, dissolved hydrogen, and CO_2, (Figure 19) spike, except for methane and CO_2. Methane spikes in the next well along the flow path OLD-36-31C.

The TOC (Figure 20) in Zone C is below 20 mg/L, except OLD-36-09C, which indicates it is being consumed by the microbes. The TCE concentration (Figure 20) does spike at OLD-36-09C and then reduces along the flow path. In addition, the formation of

cis-1,2-DCE is apparent in OLD-36-09C, which is indicative of the reductive dechlorination process.

The TCE concentrations have decreased the groundwater in every well in Zone C except OLD-36-11C (Figure 21) and the cis-1,2-DCE concentrations have increased in the core area of the plume as shown in Figure 22. In addition, the methane, ethane, and ethene concentrations in each well have increased orders of magnitude as shown on Figures 23, 24, and 25, respectively. The groundwater in source well OLD-36-09C, has shown the one of the highest decreases in TCE (50 percent), and one of the largest increase of methane, ethane, ethene of all the wells at the site. The groundwater TCE reduction and increase in biodegradation by-products (listed above) for OLD-36-09C over the duration of the study are shown on Figure 26.

On the basis of the groundwater parameters measured for Zone C at SA-36, the associated score for the reductive zone is 25, which is indicative of strong evidence for the reductive dechlorination of chlorinated solvents. The tabulation of this score is shown in Table 7.

TABLE 7
Values for Screening the Reductive Dechlorination Process in Groundwater Zone C at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-09C	Description	Points Awarded
Dissolved Oxygen	0.05 mg/L	Indicative of reductive dechlorination	3
Nitrate	0.23 mg/L	Nitrate reducing pathway does not exist	2
Iron II	0.1 mg/L	Indicative of reductive dechlorination, however, concentration above 1 mg/L receives points	0
Sulfate	Not Detected	May complete the reductive dechlorination process	2
Sulfide	>10 mg/L	Indicative of reductive dechlorination	3
Methane	4.0 mg/L	Indicative of reductive dechlorination	3
ORP	-235 mV	Reductive pathway likely	2
PH	10.95	Not an Optimal Range for reductive pathway	-2
TOC	35 mg/L	Carbon and energy source	2
Temperature	26.8 ^{o}C	Biological process is accelerated	1
CO_2	Not Measured	Ultimate oxidative daughter product	0
Alkalinity	26.9 times background	Indicative of reductive dechlorination	1
Chloride	2 times background	Concentration too low to be indicative of reductive dechlorination	1
Dissolved Hydrogen	150 nm/L	High concentrations indicative of reductive dechlorination process	3
Volatile fatty acids	24.6 mg/L	Indicative of reductive dechlorination	2
BTEX	Not Detected	Carbon and energy source	0
PCE	Not Detected		0

TABLE 7
Values for Screening the Reductive Dechlorination Process in Groundwater Zone C at SA-36
Enhanced Bioremediation Study, Naval Training Center, Orlando, Florida

Parameter	Reductive Zone Concentration OLD-36-09C	Description	Points Awarded
TCE	150 μg/L	Material released	0
Cis-1,2-DCE	57 μg/L	Daughter product of TCE	2
Vinyl Chloride	0.18 μg/L	Daughter product of cis-1,2-DCE	2
Ethene/Ethane	0.0005 / 0.000075 mg/L	Concentration too low to be indicative of reductive dechlorination	0
		Total	**25**

Notes: The total score for the above parameters are interpreted as follows:

0 to 5	Inadequate evidence for biodegradation of chlorinated organics
6 to 14	Limited evidence for biodegradation of chlorinated organics
15 to 20	Adequate evidence for biodegradation of chlorinated organics
>20	Strong evidence for biodegradation of chlorinated organics

Study Area 36 Conclusions

The groundwater sampling results for SA-36 shows the potential for the enhanced biodegradation to be feasible as a remedial alternative for the TCE due to the following observations:

- Dissolved oxygen concentrations have reduced to around 1.5 mg/L or less in almost every well at SA-36.
- ORP values have decreased to negative values in almost every well at SA-36, and the ORP is very negative at OLD-36-09C (-235. mV).
- The dissolved hydrogen concentrations are above 1 nm/L in most wells at SA-36 and the terminal electron accepting process in each aquifer is either sulfate reduction or methanogenesis.
- The nitrate concentrations are below 1 mg/L in the groundwater zones beneath SA-36; therefore, nitrate reduction should not interfere with the reductive dechlorination process.
- The sulfate concentrations in all groundwater zones beneath the SA have reduced to below 20 mg/L in most wells, indicating sulfate is being utilized by the microorganisms and should not interfere with the reductive dechlorination process.
- The overall TCE concentrations in the groundwater in all zones beneath the SA have reduced from the baseline levels. The TCE concentrations in some wells has reduced more than 50 percent of the baseline levels
- The *cis*-1,2-DCE and chloride concentrations have increased in each zone at SA-36 and vinyl chloride is detected in Zone C, which is indicative of the reductive dechlorination process.

- The dissolve gasses (MEE), which are degradation products of TCE, have increased orders of magnitude in all groundwater zones beneath SA-36.
- The TOC concentrations have remained about the same or increased in the wells in all of the wells, which indicates the vegetable oil is migrating in the subsurface.

These items along with the results of the scoring results previously tabulated for each groundwater zone suggest that the vegetable oil injections have created a reducing environment beneath SA-36. As a result, the TCE concentrations have reduced and the concentrations of the byproducts of the reductive dechlorination of TCE, such as MEE, carbon dioxide, dissolved hydrogen, *cis*-1,2-DCE, vinyl chloride and chloride, have increased.

Study Area 36 Recommendations

The following recommendations, if implemented, should provide additional data for evaluating the enhanced biodegradation process and enhance the TCE reduction in the groundwater beneath SA-36.

- Groundwater monitoring should continue to be conducted on a quarterly basis.
- A subsequent round of vegetable oil injections should be performed at SA-36, if not already completed, due to the demand on the initial injections by the sulfate present in the groundwater. The injections should be concentrated only in the areas showing the least amount of TCE reduction. These include OLD-36-10B, OLD-36-29B, OLD-36-11C, and OLD-36-09C.

Figures

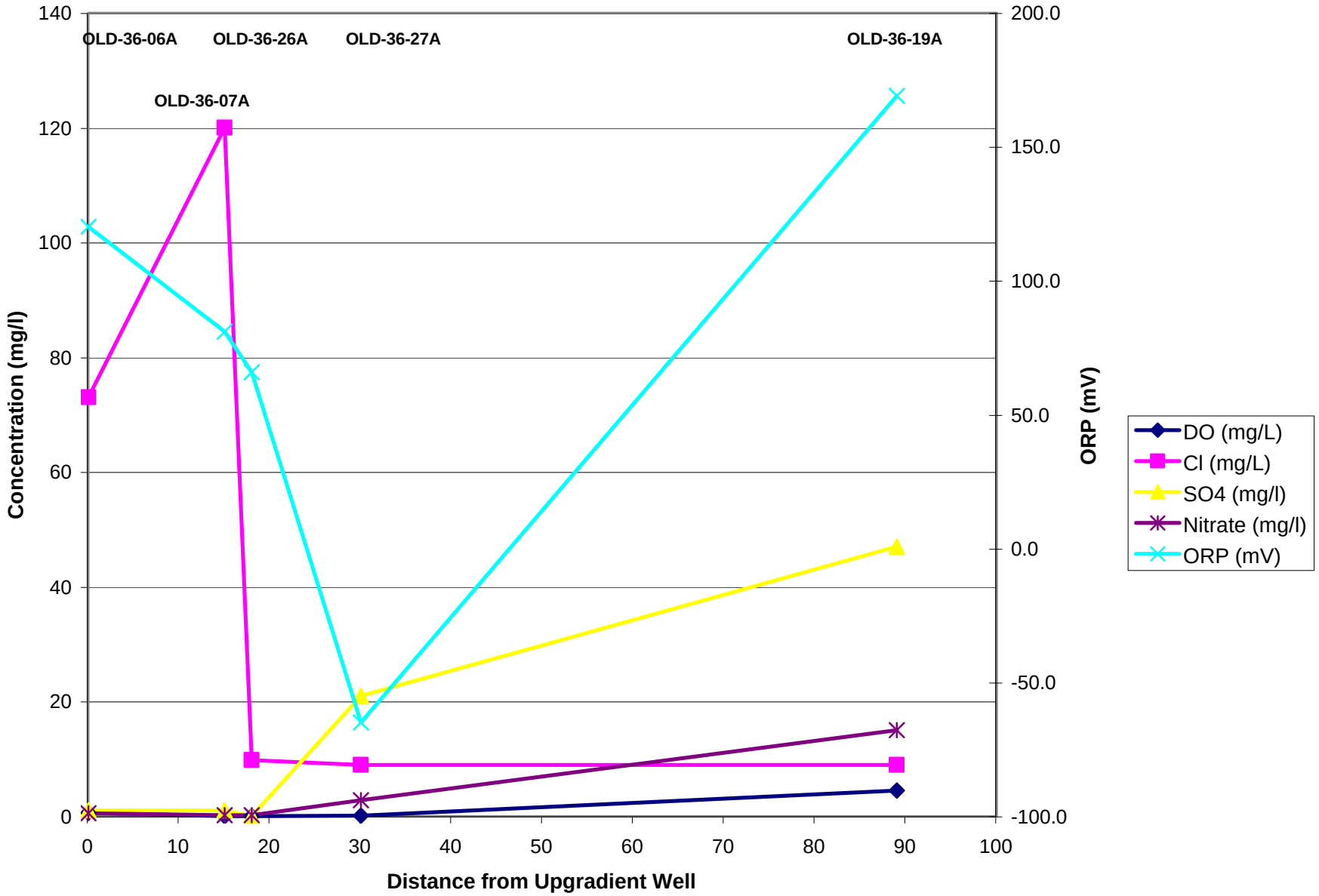


Figure 1
DO, Cl, SO_4, NO_3, and ORP Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study

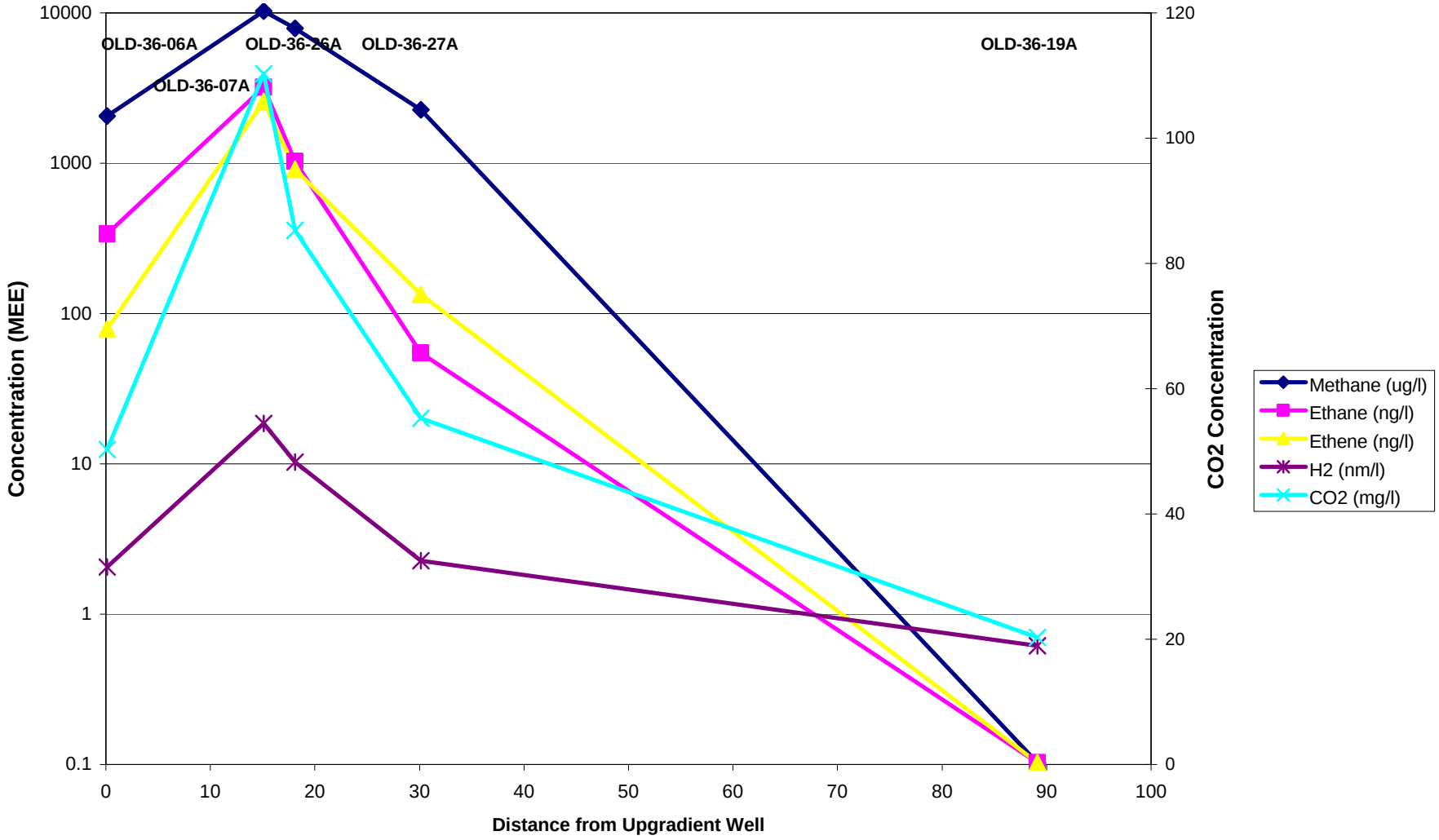


Figure 2
Ethene, Ethane, Methane, H2, and CO_2 Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study

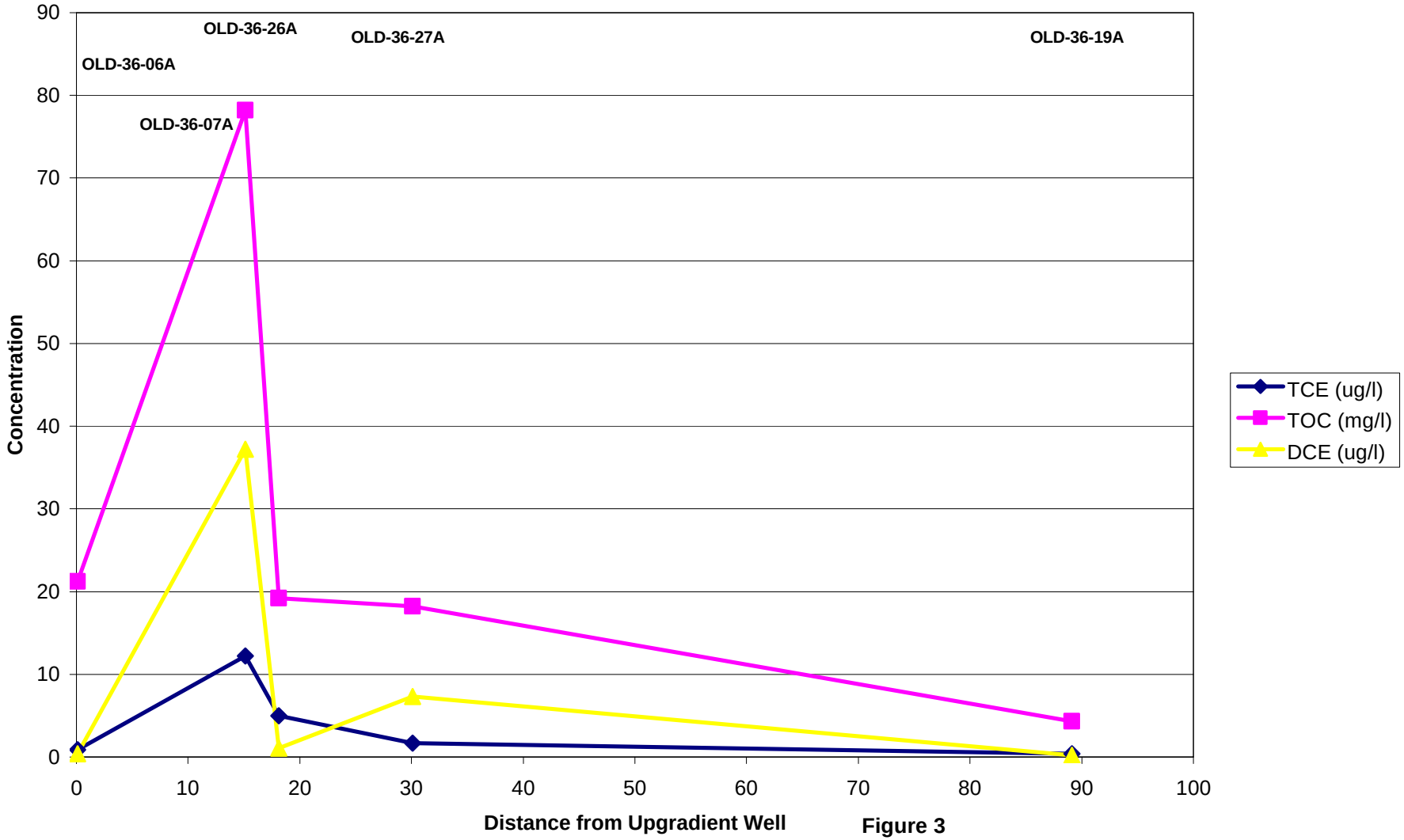


Figure 3
TCEand TOC Concentrations in Zone A
Study Area 36 Enhanced Bioremediation Study

CH2MHILL

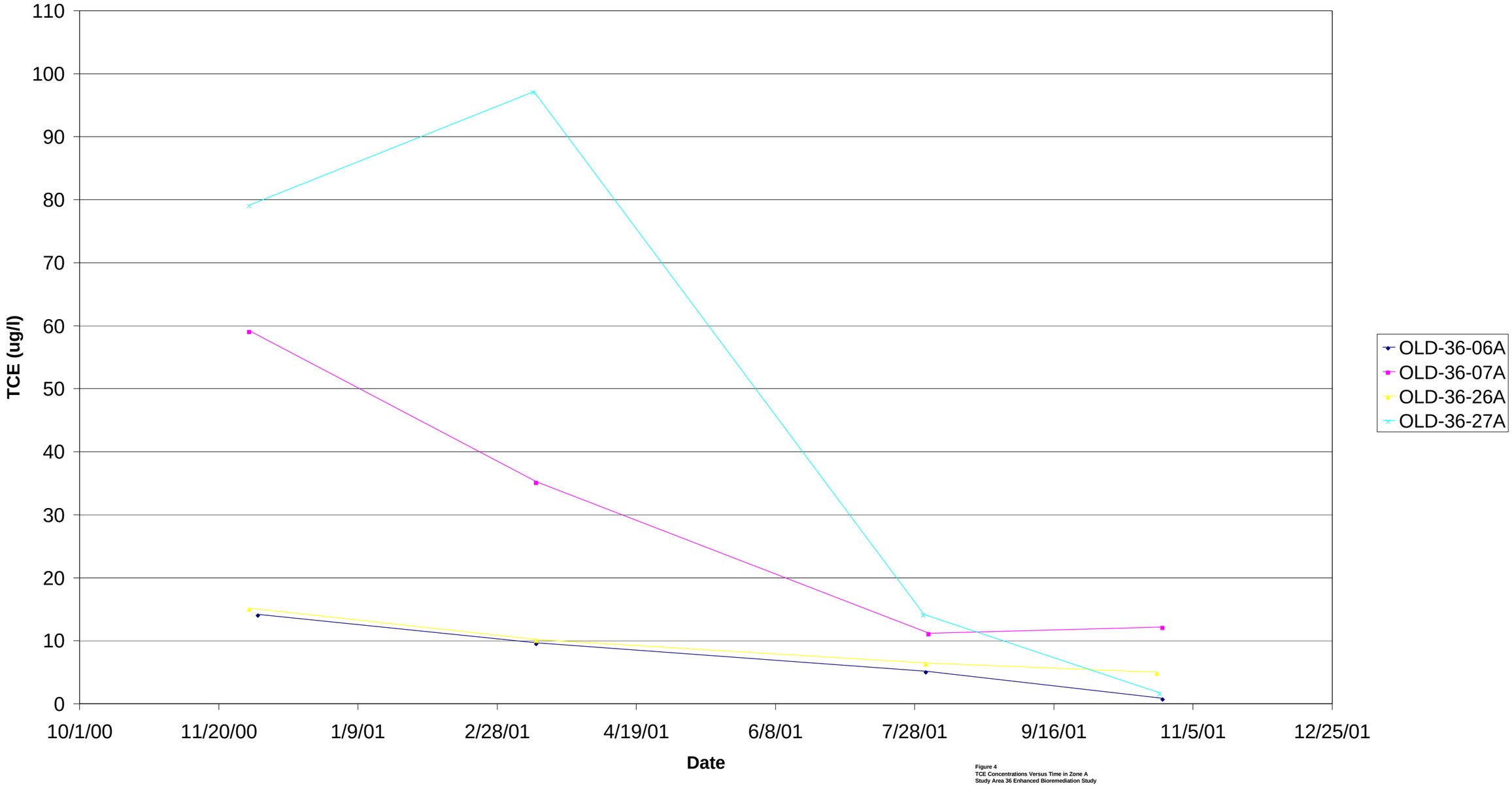


Figure 4
TCE Concentrations Versus Time in Zone A
Study Area 36 Enhanced Bioremediation Study

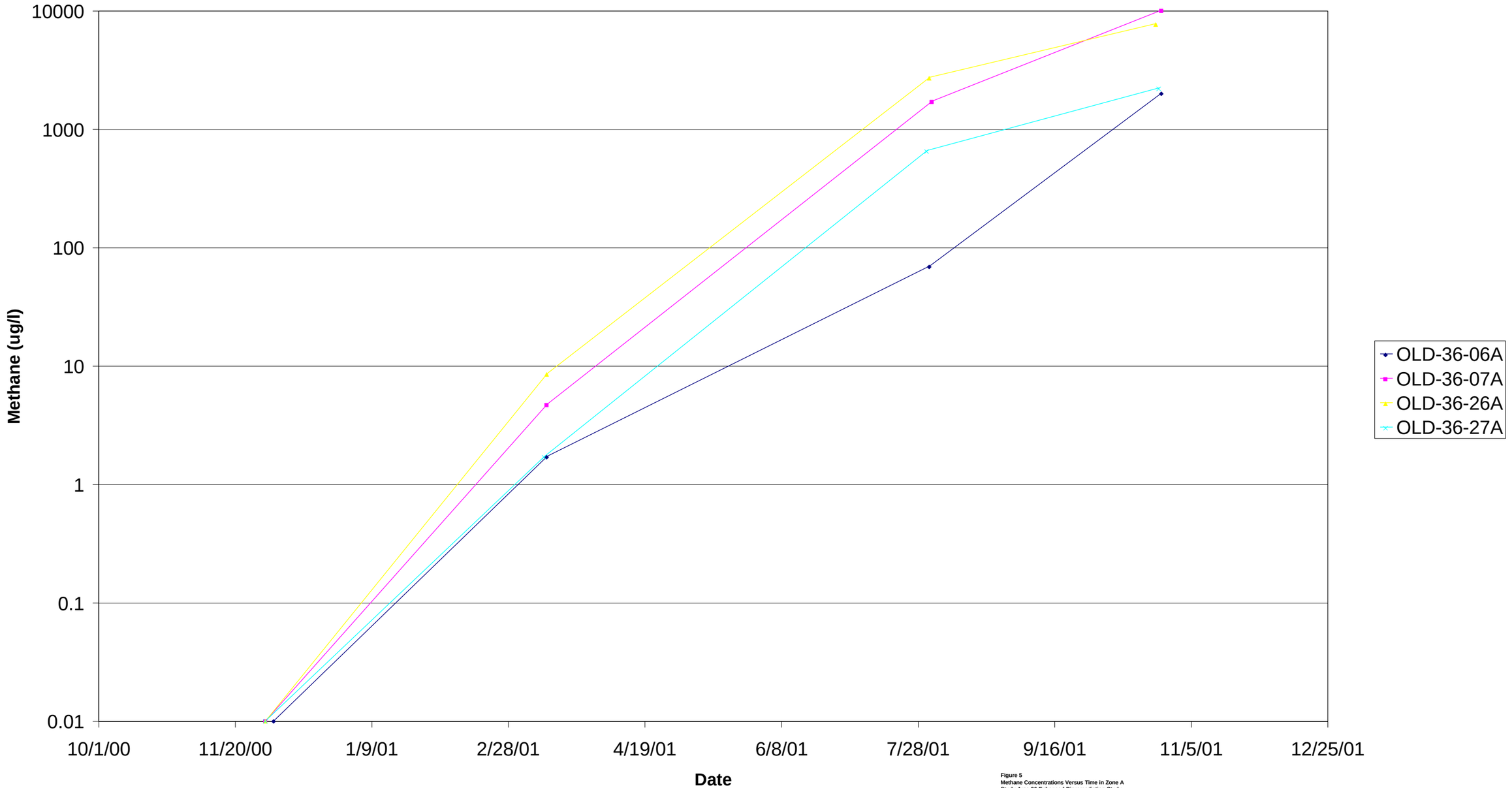


Figure 5
Methane Concentrations Versus Time in Zone A
Study Area 36 Enhanced Bioremediation Study

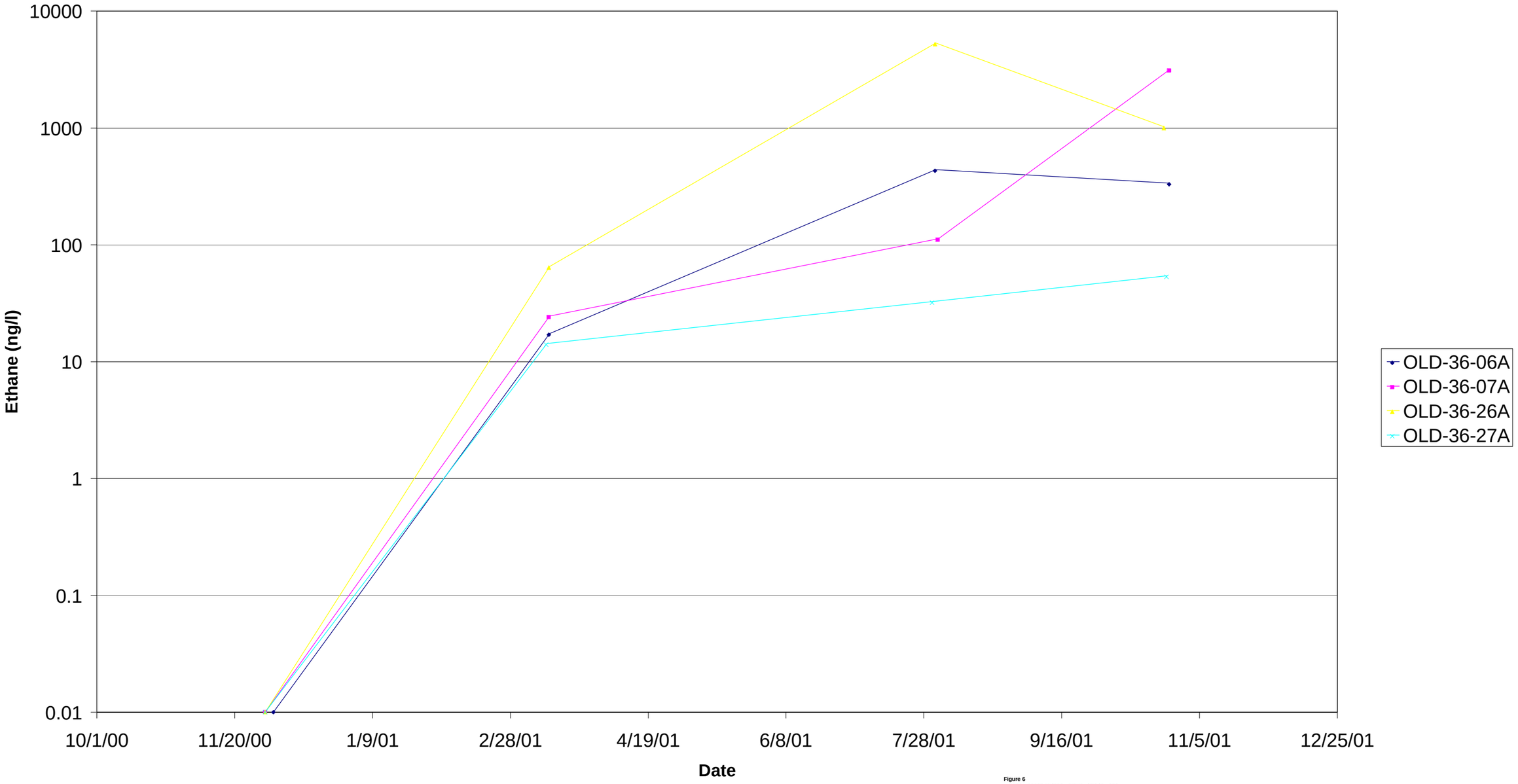


Figure 6
Ethane Concentrations Versus Time in Zone A
Study Area 36 Enhanced Bioremediation Study

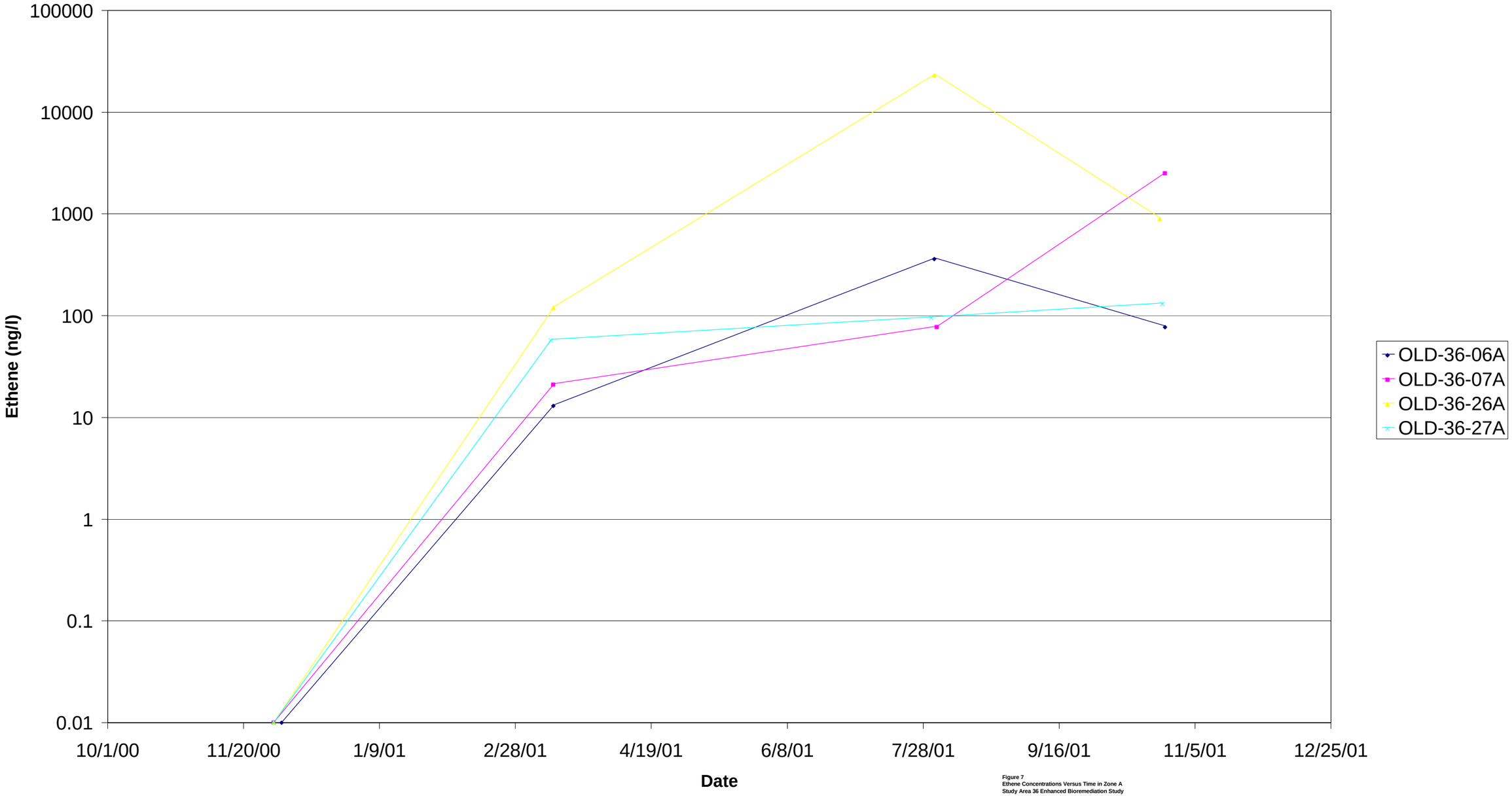


Figure 7
Ethene Concentrations Versus Time in Zone A
Study Area 36 Enhanced Bioremediation Study

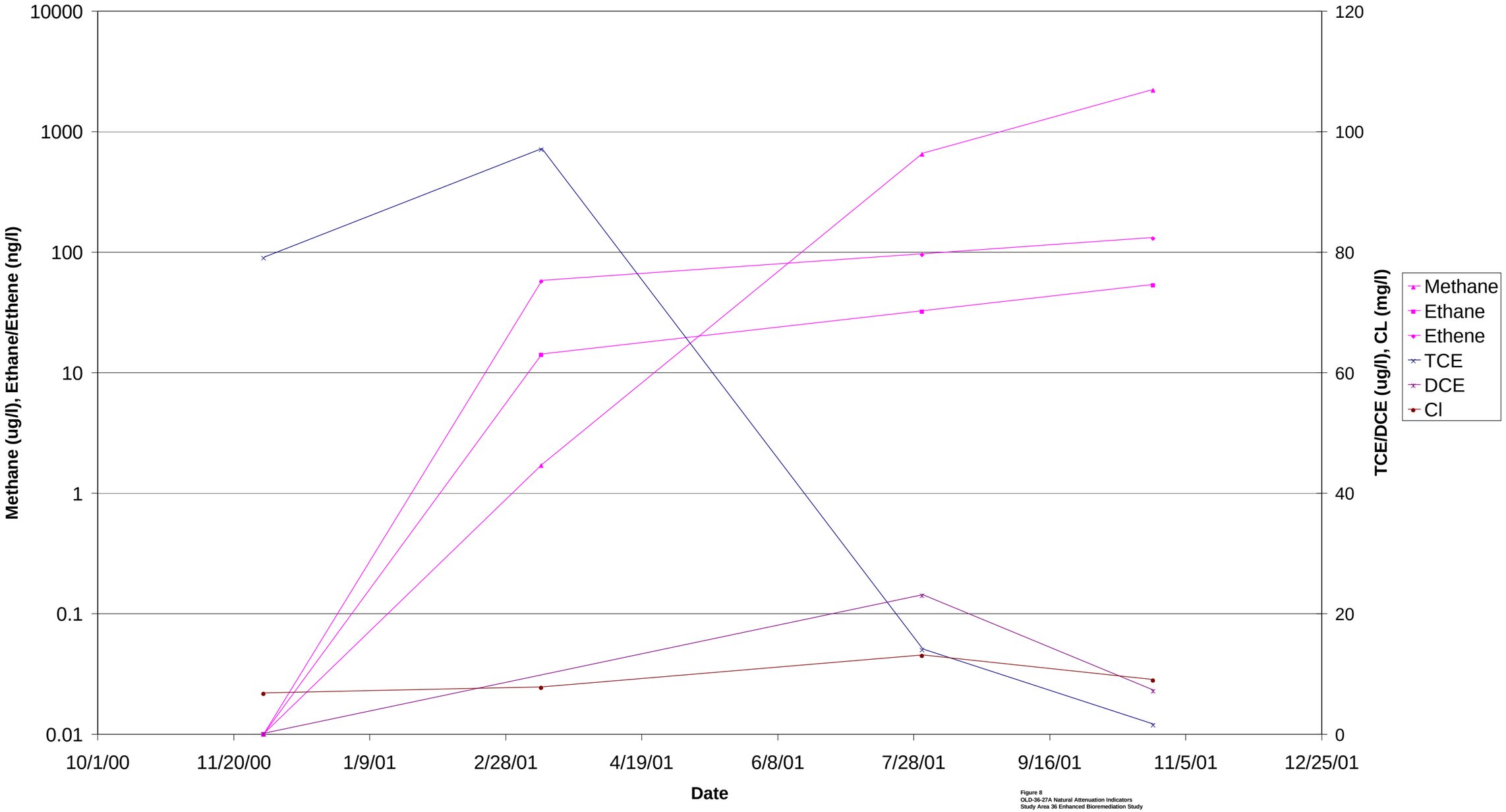


Figure 8
OLD-36-27A Natural Attenuation Indicators
Study Area 36 Enhanced Bioremediation Study

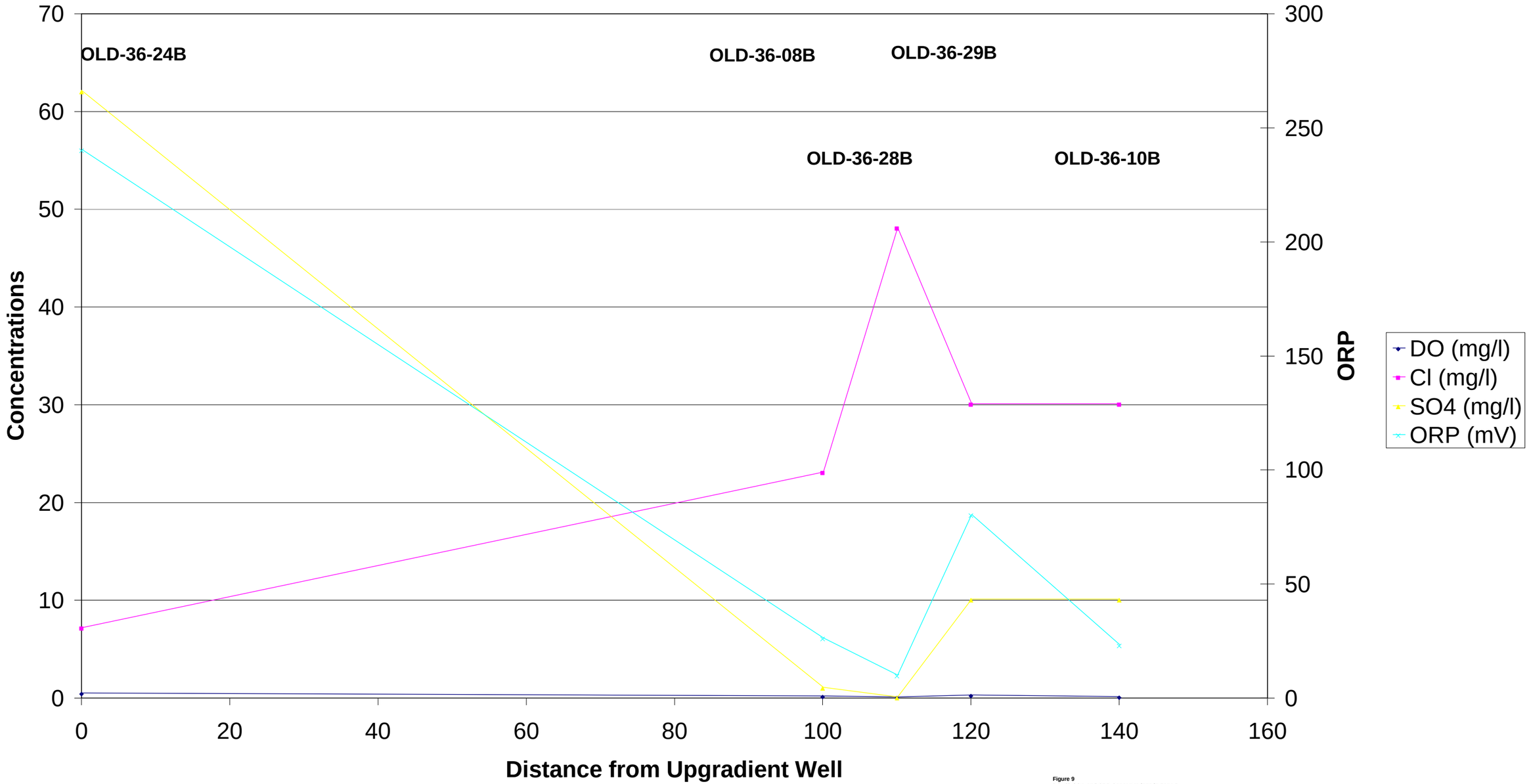


Figure 9
DO, Cl, SO4, and ORP Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

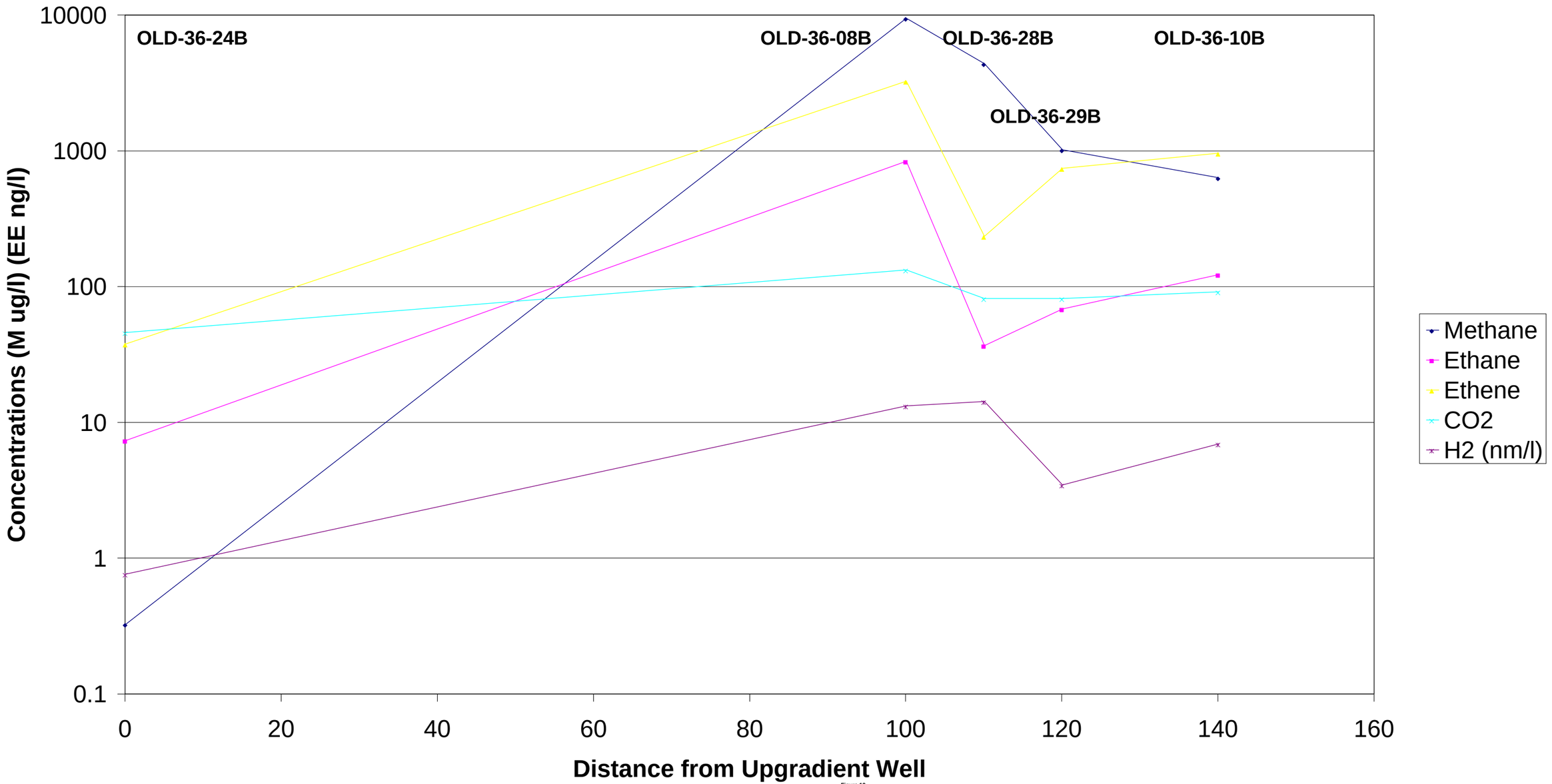


Figure 10
Methane, Ethene, Ethane, H2, and CO2 Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

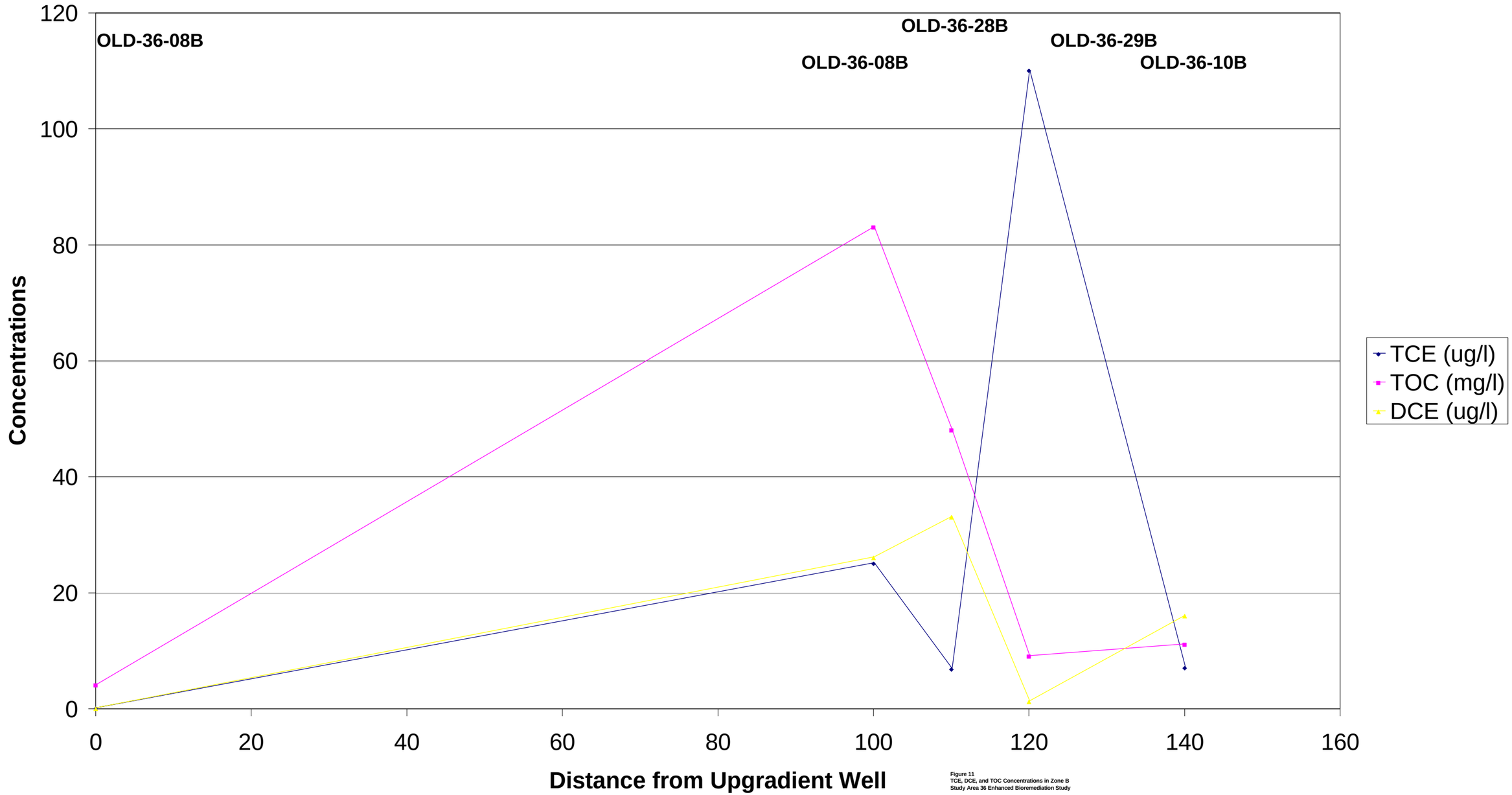


Figure 11
TCE, DCE, and TOC Concentrations in Zone B
Study Area 36 Enhanced Bioremediation Study

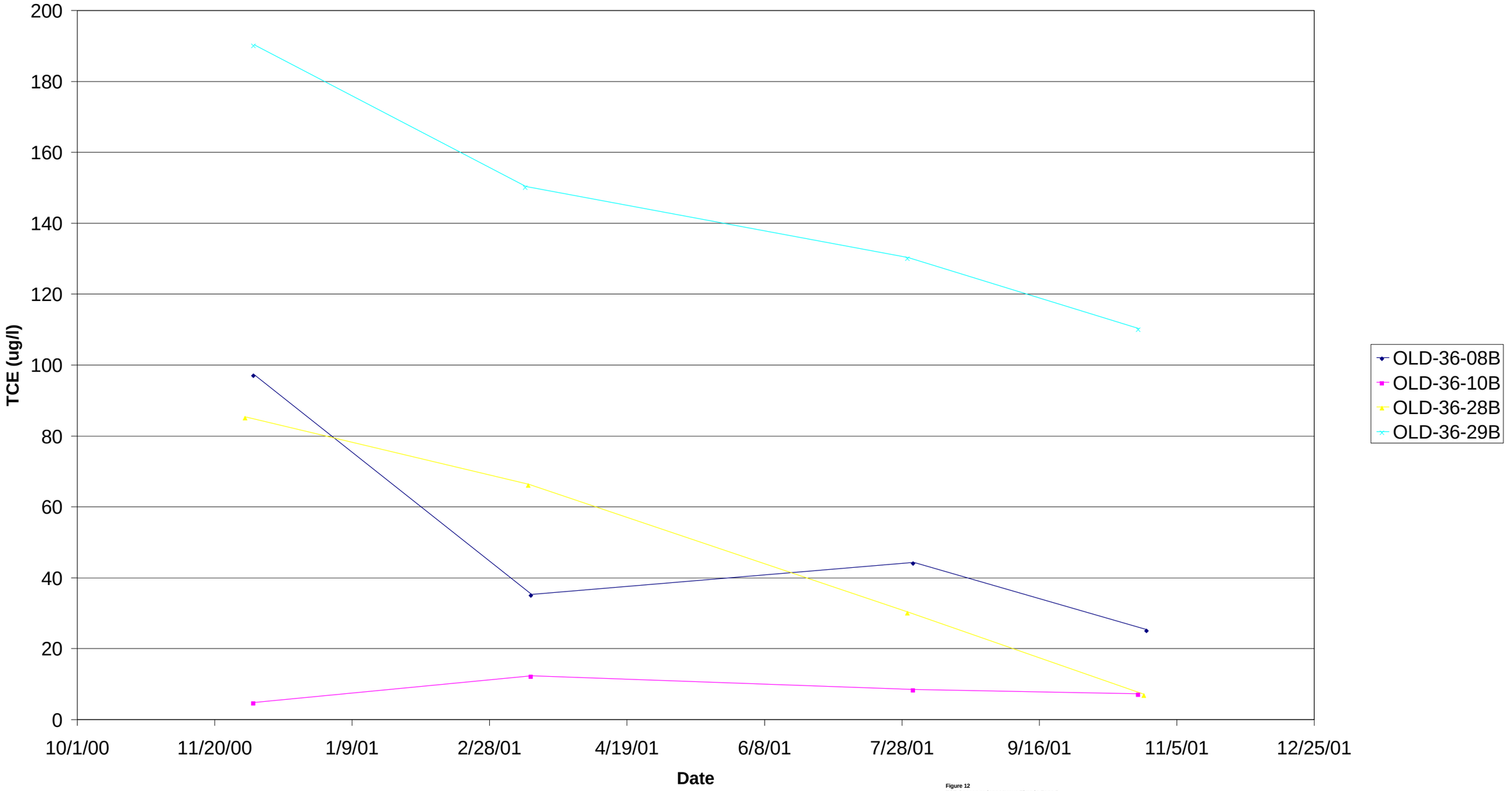


Figure 12
TCE Concentrations Versus Time in Zone B
Study Area 36 Enhanced Bioremediation Study

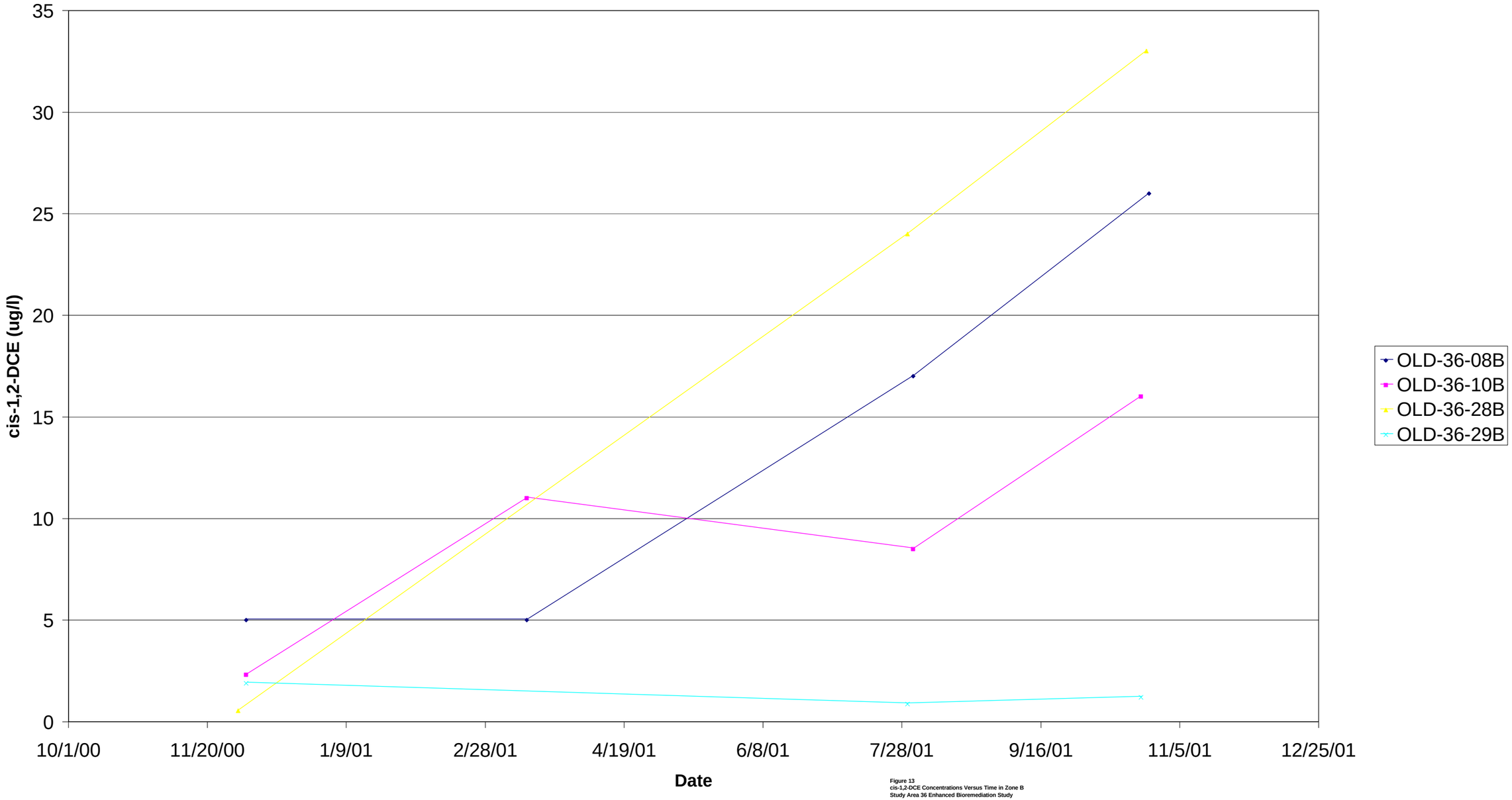


Figure 13
cis-1,2-DCE Concentrations Versus Time in Zone B
Study Area 36 Enhanced Bioremediation Study

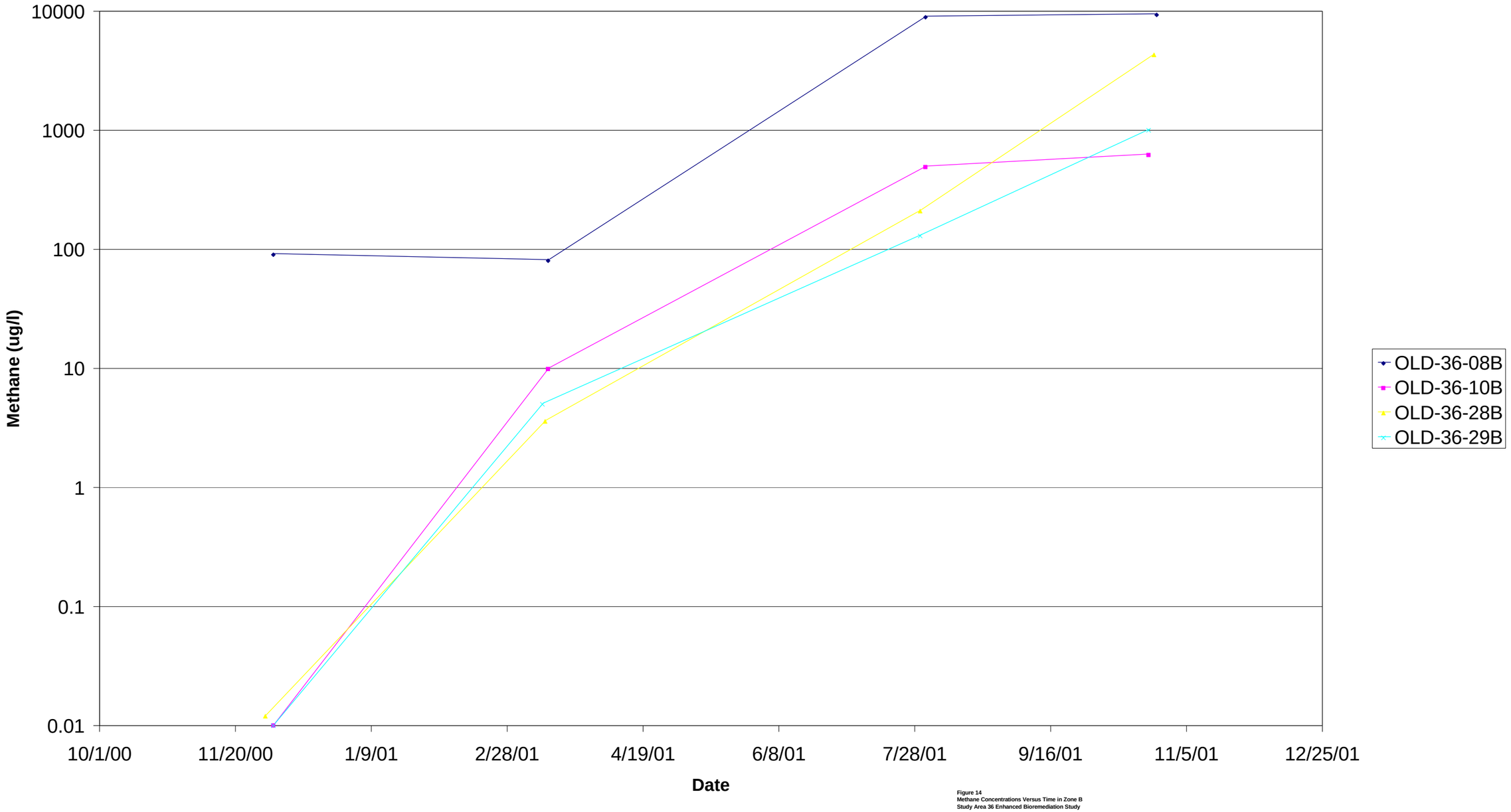


Figure 14
Methane Concentrations Versus Time in Zone B
Study Area 36 Enhanced Bioremediation Study

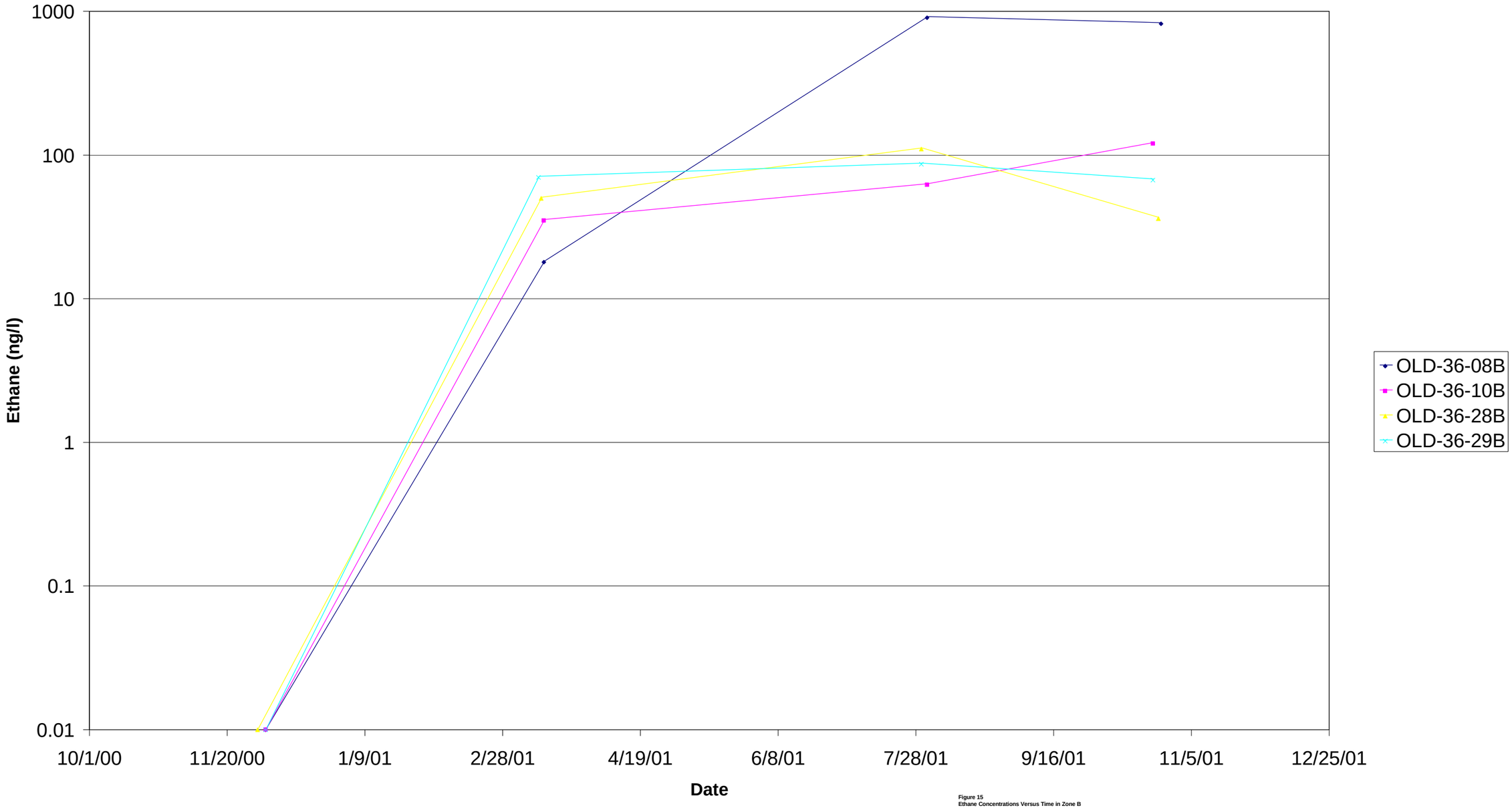


Figure 15
Ethane Concentrations Versus Time in Zone B
Study Area 36 Enhanced Bioremediation Study

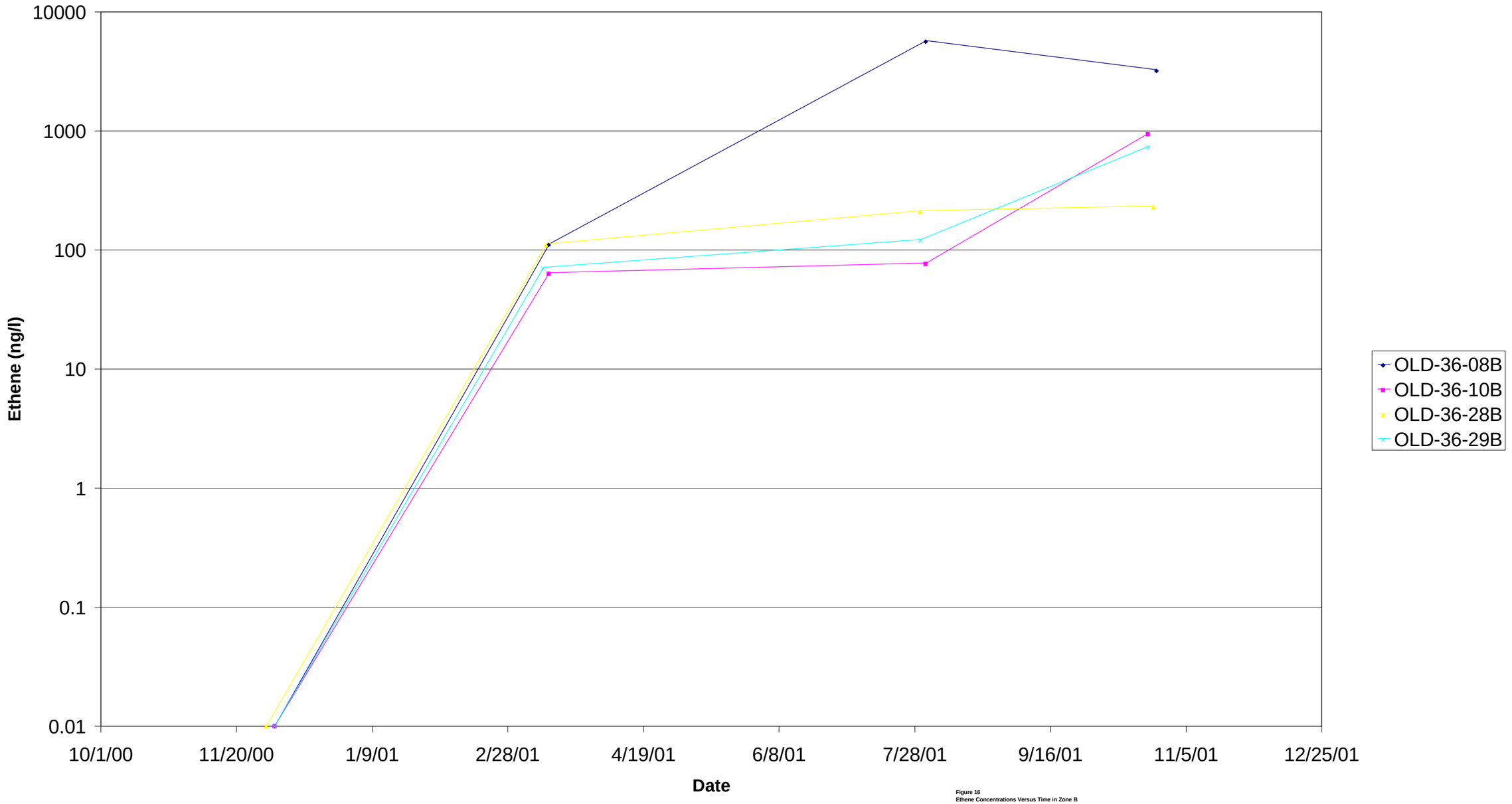


Figure 16
Ethene Concentrations Versus Time in Zone B
Study Area 36 Enhanced Bioremediation Study

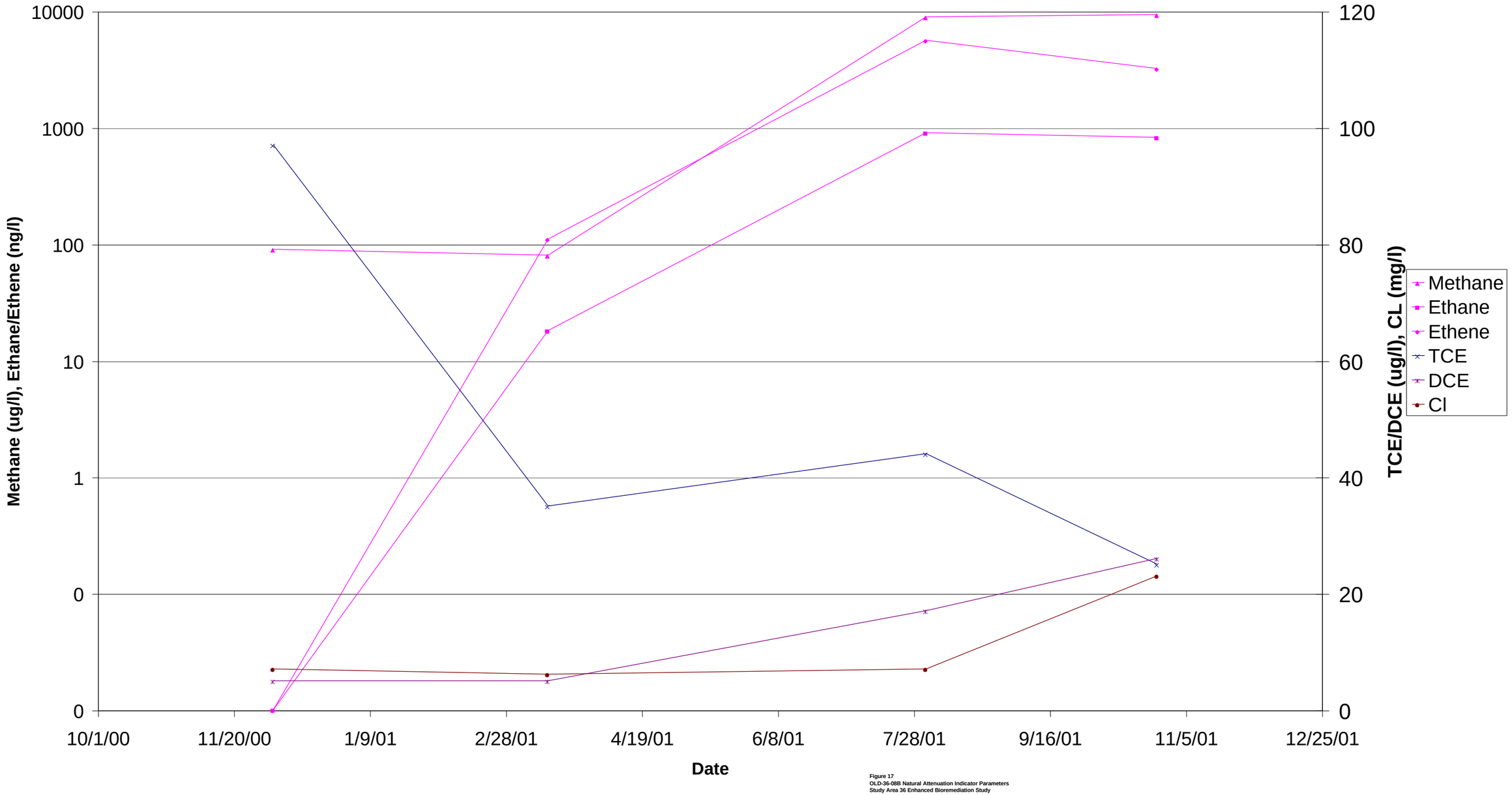


Figure 17
OLD-36-08B Natural Attenuation Indicator Parameters
Study Area 36 Enhanced Bioremediation Study

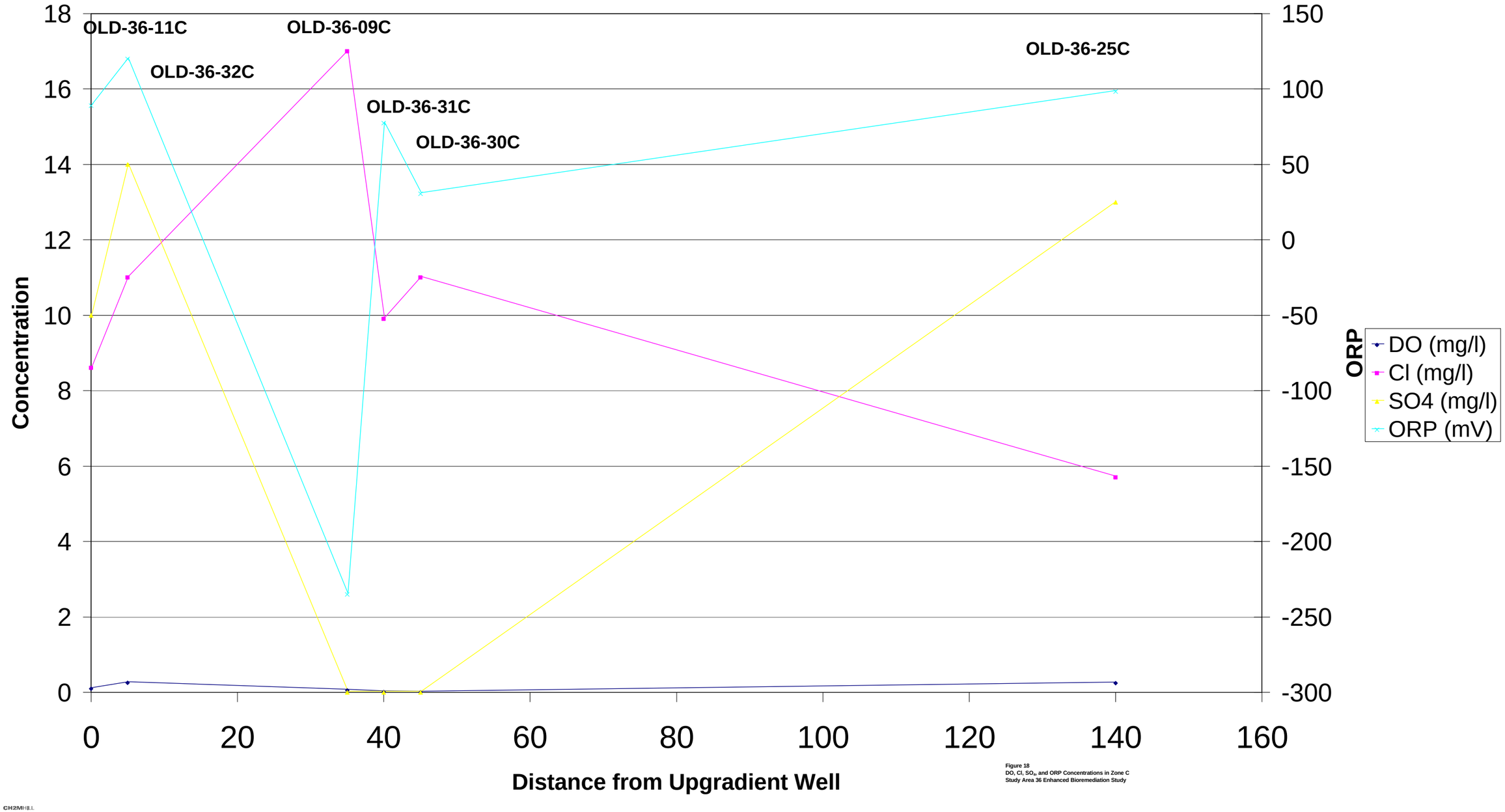


Figure 18
DO, Cl, SO_4, and ORP Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study

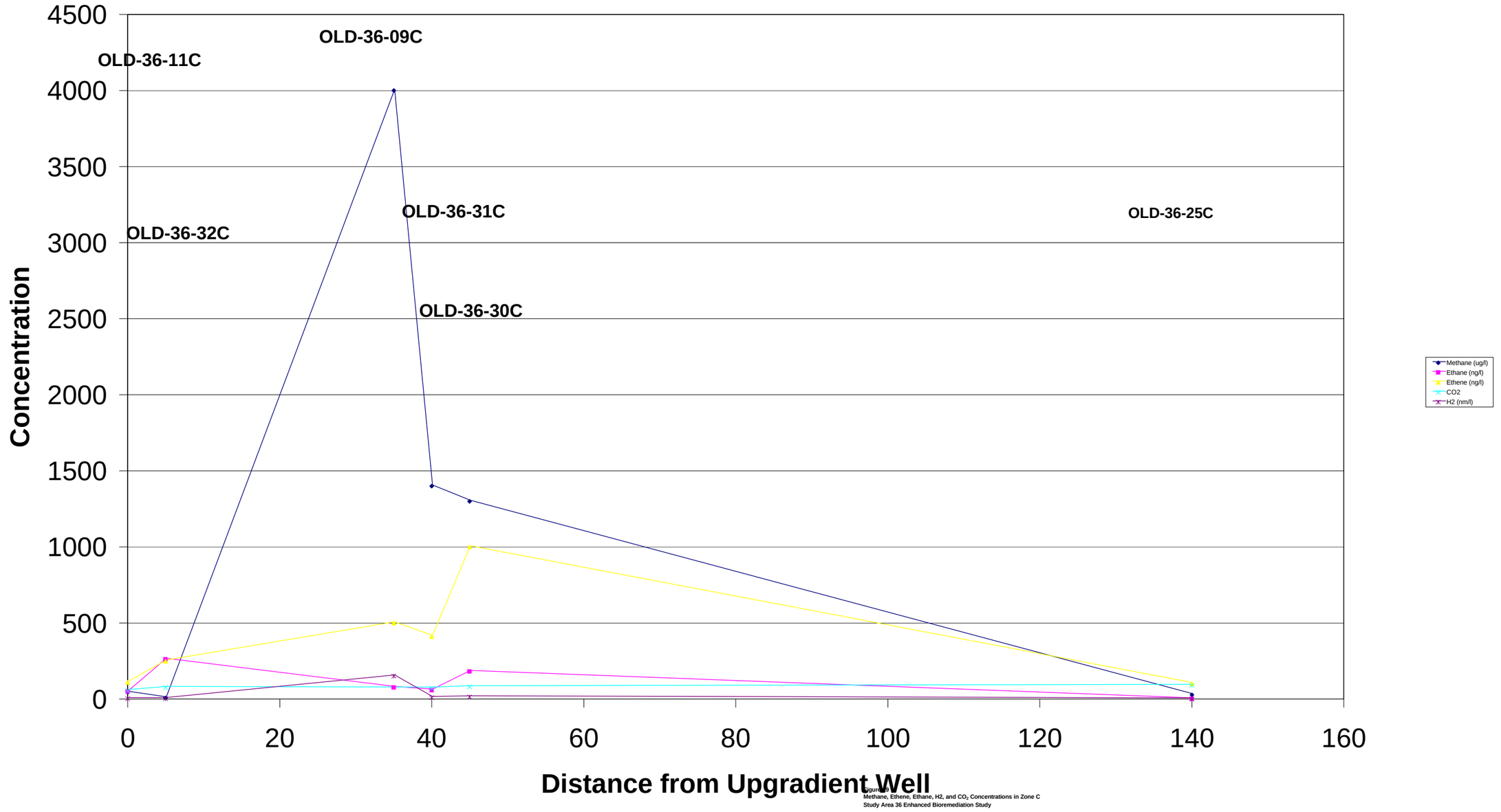


Figure 3-3
Methane, Ethene, Ethane, H2, and CO_2 Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study

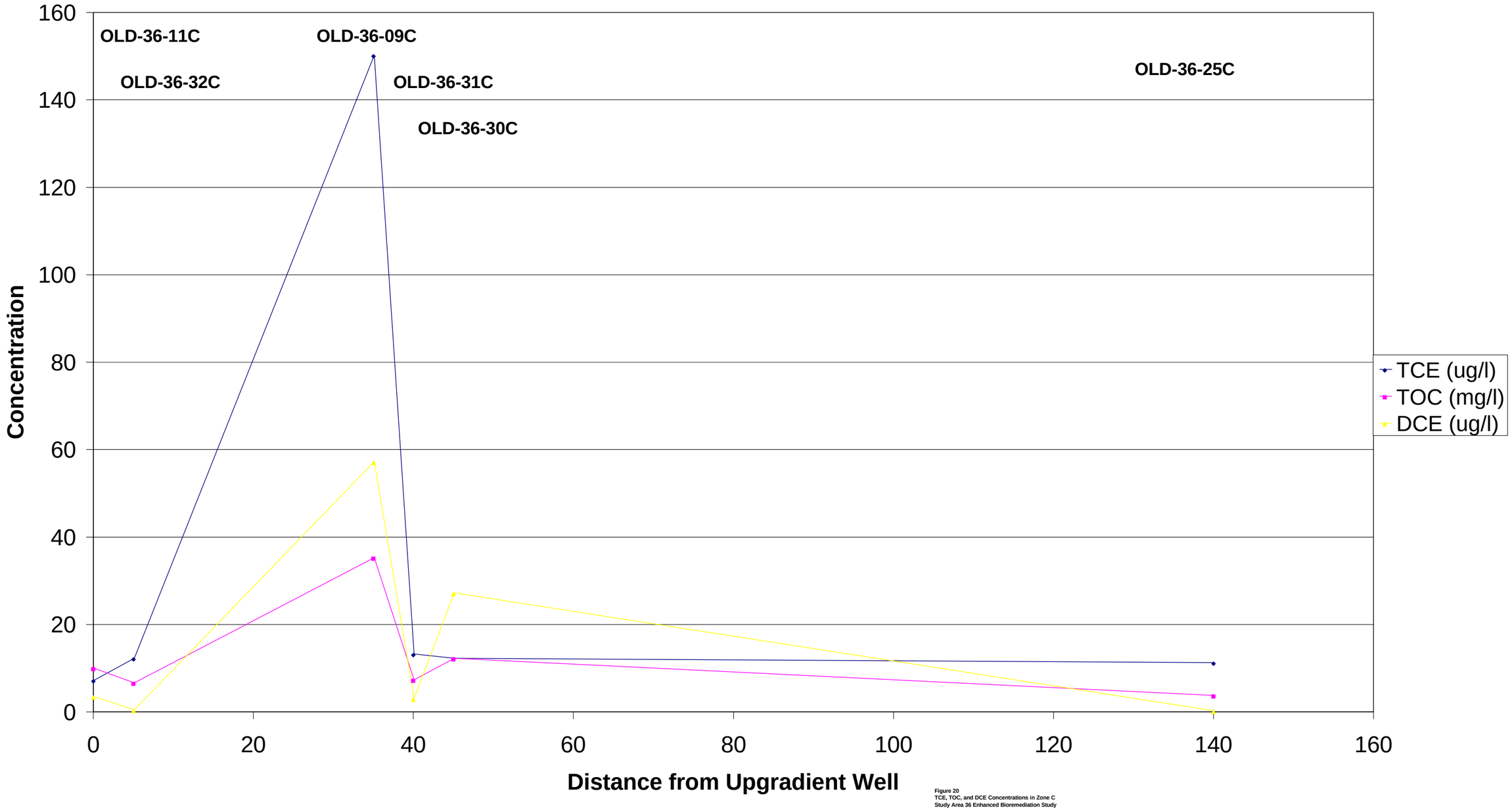


Figure 20
TCE, TOC, and DCE Concentrations in Zone C
Study Area 36 Enhanced Bioremediation Study

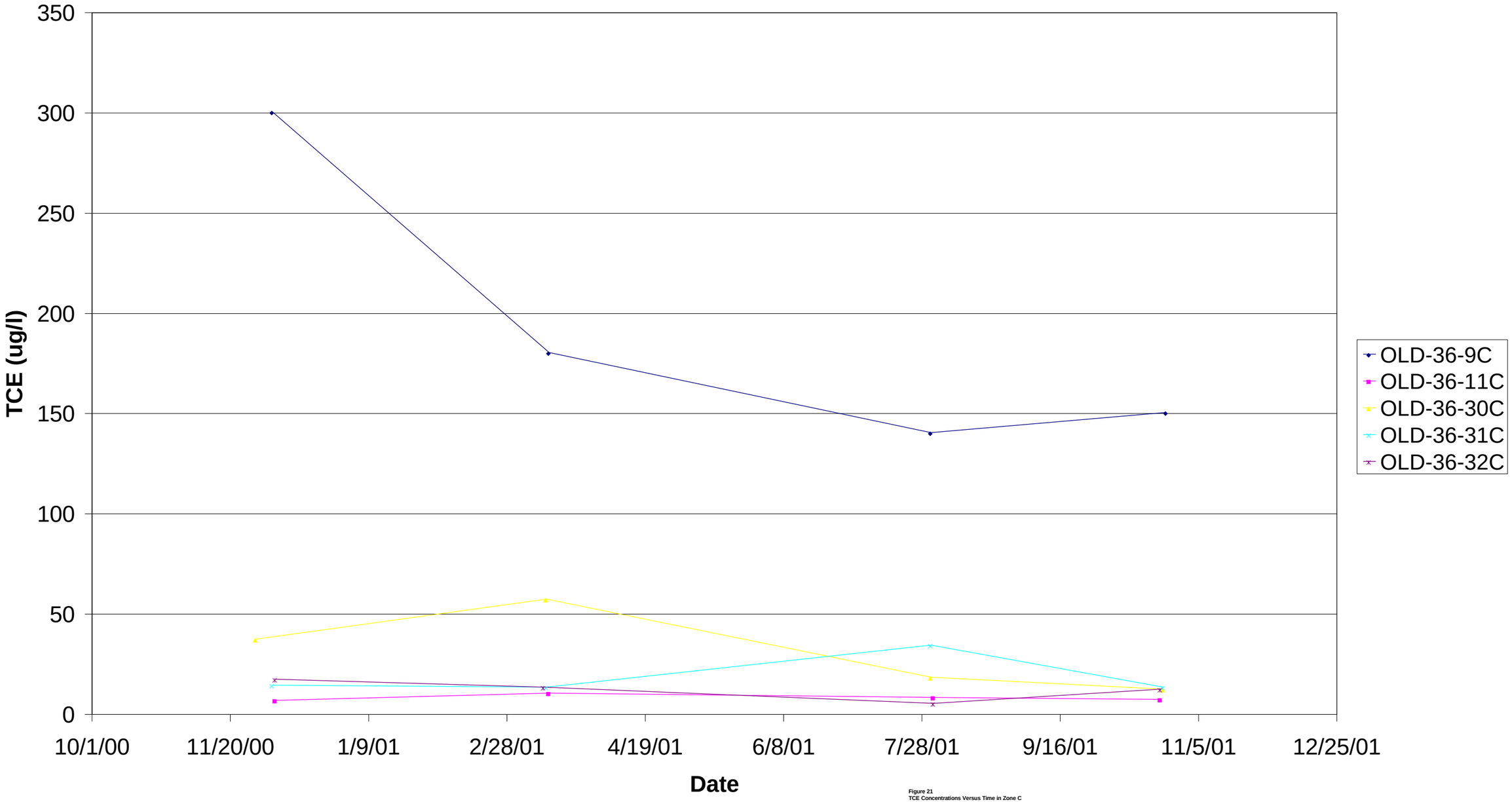


Figure 21
TCE Concentrations Versus Time in Zone C
Study Area 36 Enhanced Bioremediation Study

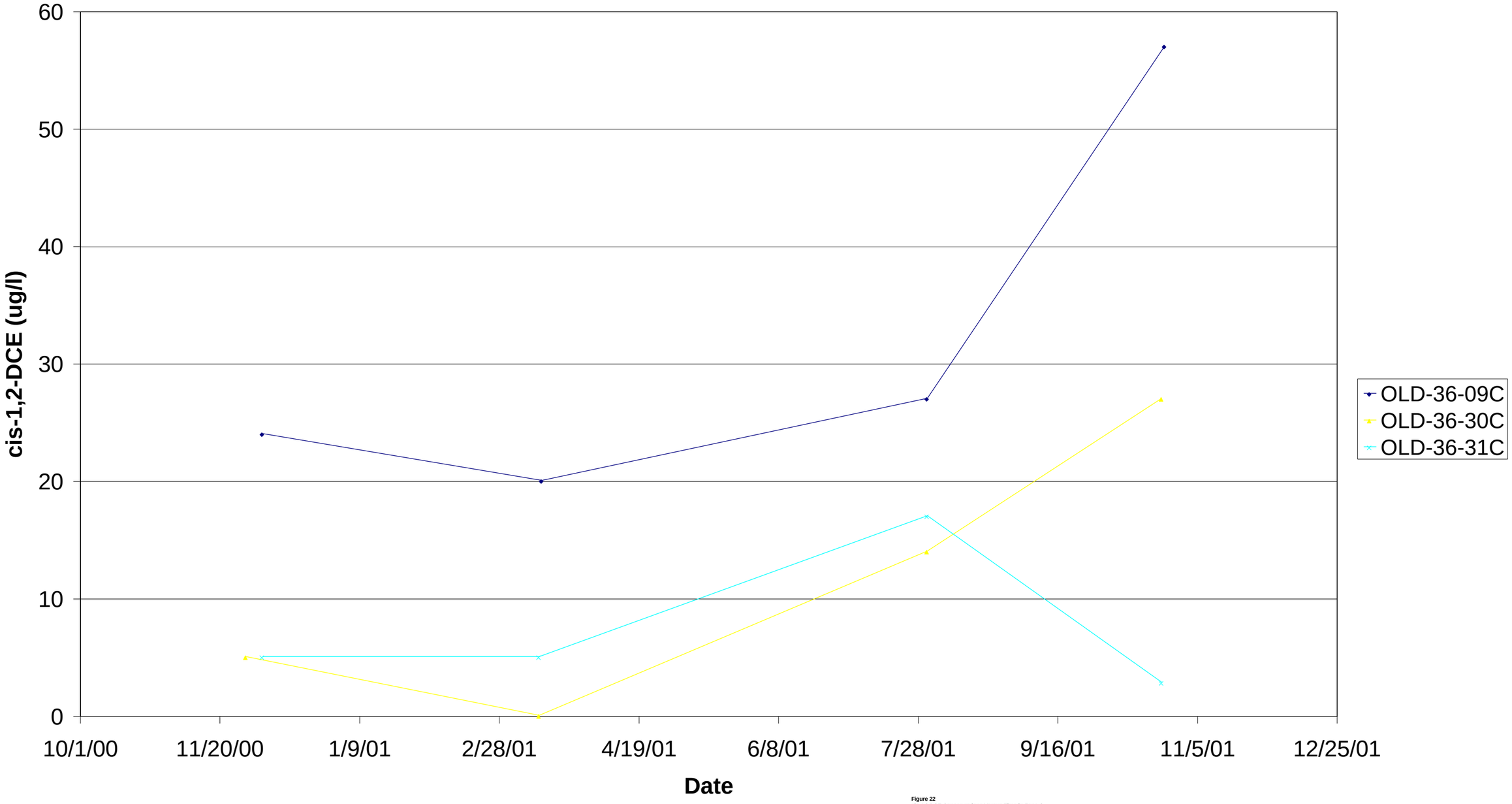


Figure 22
cis-1,2-DCE Concentrations Versus Time in Zone C
Study Area 36 Enhanced Bioremediation Study

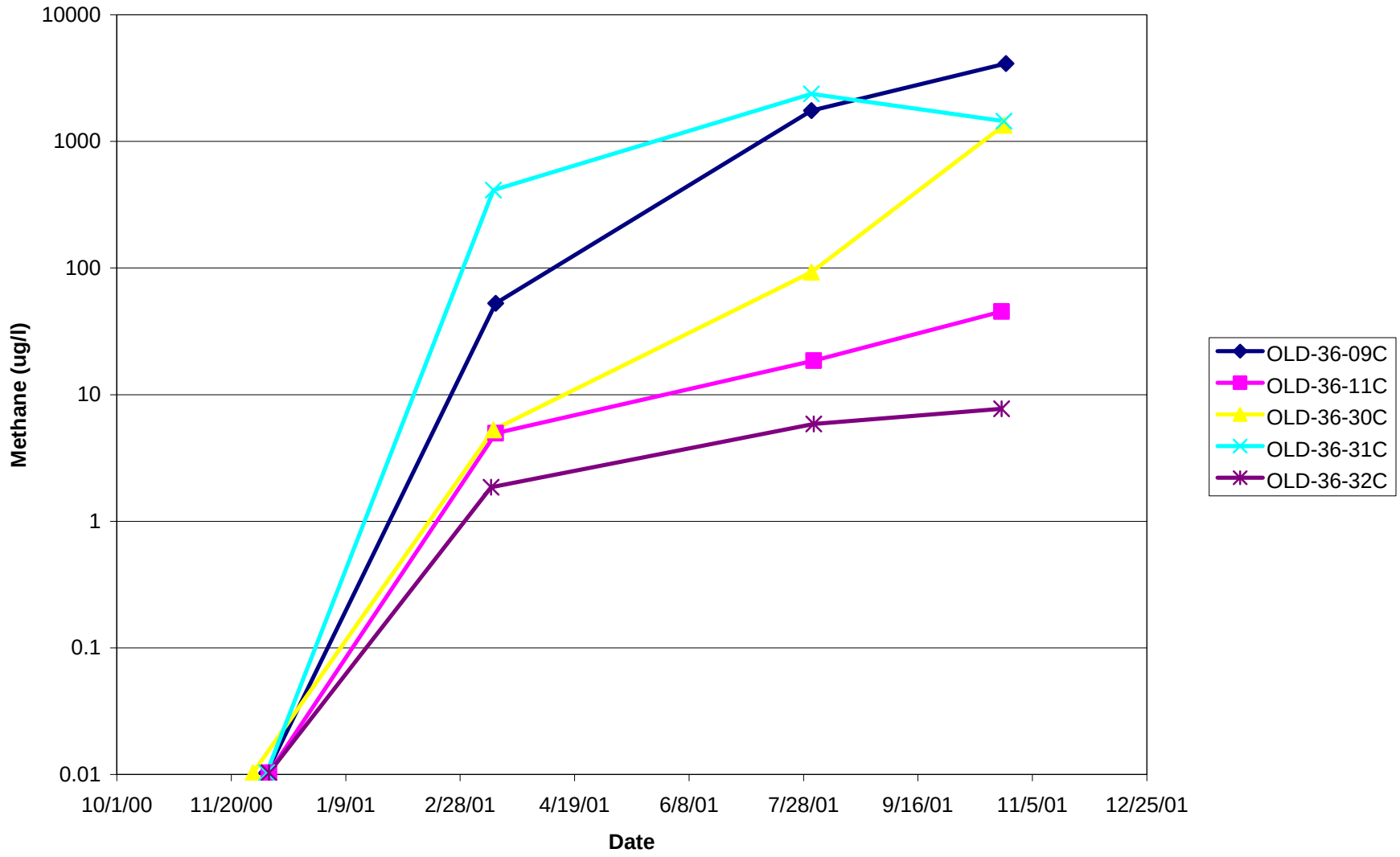


Figure 23
Methane Concentrations Versus Time in Zone C
Study Area 36 Enhanced Bioremediation Study

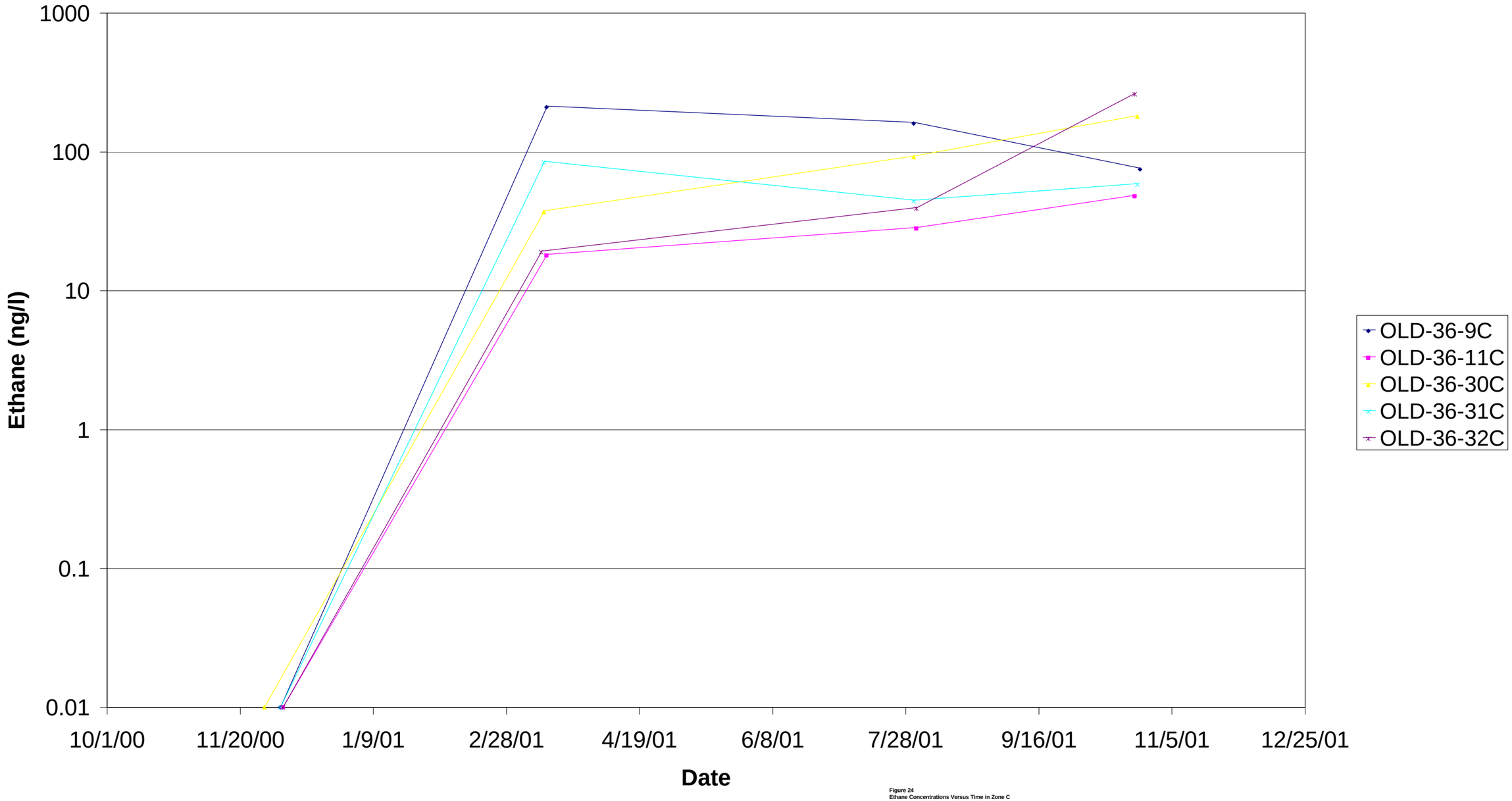


Figure 24
Ethane Concentrations Versus Time in Zone C
Study Area 36 Enhanced Bioremediation Study

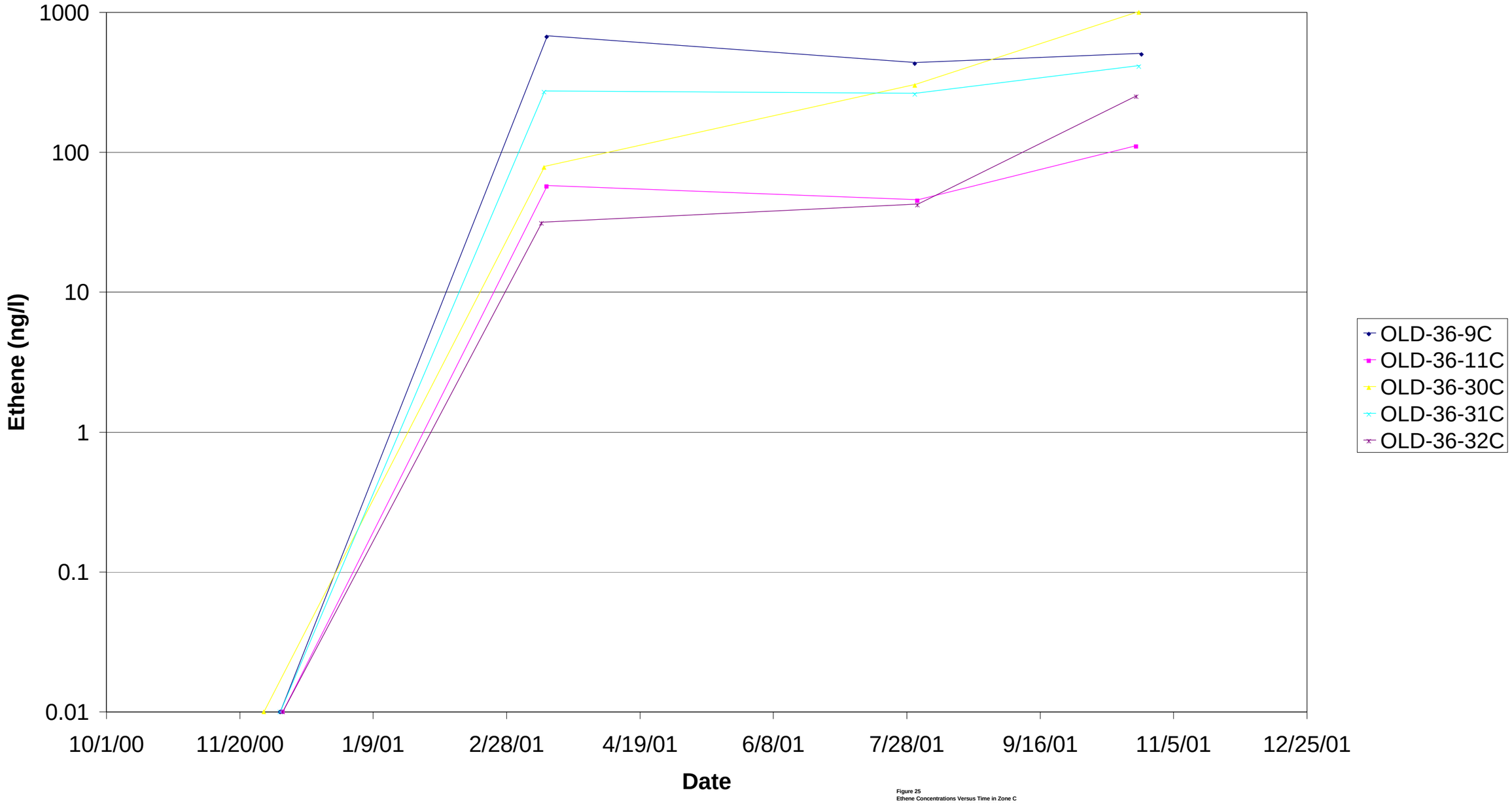


Figure 25
Ethene Concentrations Versus Time in Zone C
Study Area 36 Enhanced Bioremediation Study

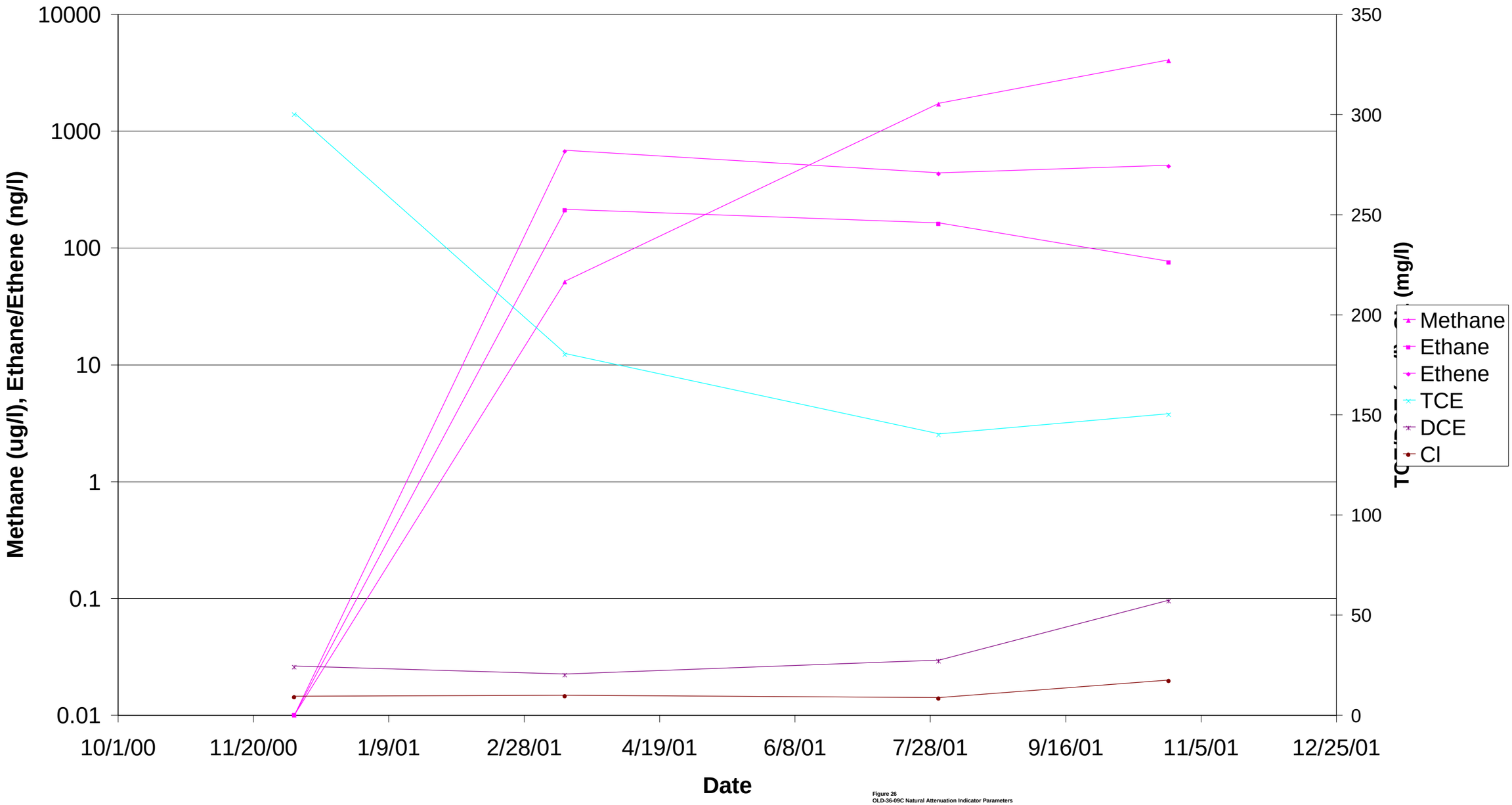


Figure 26
OLD-36-09C Natural Attenuation Indicator Parameters
Study Area 36 Enhanced Bioremediation Study